

Progressive Architecture

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Lightness, Strength, Savings with POZZOLITH CONCRETE



WALTER WURDEMAN · A.I.A. · WELTON BECKET
ARCHITECTS

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June 14, 1948

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WALTER WURDEMAN
WELTON BECKET
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WB:el

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BUILDERS



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August 1948

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Newsletter

→ Architects and engineers will do well to study the forthcoming report of the AIA's Committee on Fees. It will advocate more general adoption of the fee based on architect's costs in some manner. Advantages were outlined in a recent P/A article by Lawyer Bernard Tomson and in the July "A.I.A. Journal".

→ Figures show astounding increase in volume of houses for personal occupancy—a greater ratio of increase than in categories of houses for sale or rent, in the face of costs that make \$10.00 a sq. ft. construction cost a design triumph.

Interesting development in several parts of the country is the cooperative group of houses. Technique varies: design, and even selection of architects in some cases, is not restricted; in others some standardization is adopted to save in purchasing material. Groups range from half a dozen houses to several hundred; controls vary from true cooperative principle to outright sale of plots with some common holdings for community use. In all cases aims are the same—economy in building and planned community living.

→ Steel has been in the news in various ways recently. With unprecedented demand—for ERP, for the armed services (as P/A pointed out last month, the draft law establishes Presidential control over steel allocation), for many phases of the economy (railroads need 12,000 new freight cars a month) as well as for building construction—indications are that prices will go up further, and that supply will be tight for some time for architectural specification.

The new method of steel pricing adopted by U. S. Steel, which apparently is forced by a Supreme Court decision (priced at the mill or at point of delivery with delivered price reflecting full transportation charges) has already resulted in a boost in prices at many points.

As steel's troubles increase, architects are certain to look again toward other materials. Structural aluminum is a possibility which has never been fully explored (see next month's P/A article). Aluminum used nonstructurally is gaining in many ways; FHA's Underwriting Division has issued standards accepting aluminum tubing or standard IPS aluminum pipe for vent pipes in plumbing systems. (FHA Bulletin UM-1)

→ Materials coordinated for modular construction increase in number and availability. Structural clay products—early to convert—are now available in modular sizes from 125 manufacturers producing 40 percent of the brick and tile in the U. S.

→ U. S. Public Health Service announces 304 applications received under the hospital construction program, for a value of over \$40,000,000. As of July 2, only 48 had been O.K.'d, but experience generally indicates that the procedure is working smoothly when applications are in order. A move by some architects to get the profession to condemn the Surgeon General's standards as too rigid has died aborning.

Speaking of hospitals, the 1948 VA program is still being designed by the VA technical staff, despite intelligent and continuous effort on the part of private architects to show that the work done in 1947 by outside firms showed marked advance over the typical VA-designed job.

HOW DO YOU RATE THIS FLOORING? *

* *Where does it fit in the flooring picture?*

Rubber tile is often called the "aristocrat of floors," not only because it is the most expensive of the resilient tile flooring materials but also because it has exceptional beauty, rich sheen, and a luxurious "feel" underfoot. For those reasons it is frequently selected for buildings where an air of elegance is desired, in exclusive shops, executive offices, and fine homes.

On the practical side, rubber tile has unusual durability that offsets its relatively higher initial cost. It is also quiet and comfortable underfoot. Its ability to cushion footsteps and reduce other noises that originate from impacts with the floor makes rubber tile especially suited for hospitals, schools, libraries, and other places where quiet is important.

* *What about color and design?*

Rubber tile is distinguished for the clear brilliance of its colorings and the character of its graining. Design possibilities are exceptionally wide because of the variety of marbled colors and the wide range of sizes in which rubber tile is produced. It is particularly adaptable to the creation of elaborate insets, since the material can be cut readily and works easily.



* *What about sizes and gauges?*

Armstrong's Rubber Tile is available in many sizes: *Squares*—3", 4", 6", 9", 12". (Also half tile cut diagonally from squares.) *Oblongs*—3" x 6", 6" x 12", 9" x 18", 9" x 36", 12" x 36", 18" x 36". *Feature Strips*—supplied in widths from 1/4" to 3". Maximum length is 36". Gauges—1/8" and 3/16".



* *What special characteristics does it have?*

Armstrong's Rubber Tile has exceptionally high resistance to indentation. It will not indent under furniture loads up to 200 lbs. per square inch. This is equal to the indentation resistance of Armstrong's Linotile®. Other types of resilient floors have the following limits of indentation resistance per square inch: asphalt tile, 25 lbs.; cork tile, 40 lbs.; Heavy Gauge (battleship) linoleum, 75 lbs. Armstrong's Rubber Tile also is extremely durable and highly resistant to cracking and crazing. Its high tensile strength prevents excessive contraction and expansion, thus eliminating any tendency for the floor to buckle. As a result of careful control and special formulation the marbleizing in Armstrong's Rubber Tile is unusually clear and distinct. The exceptional smoothness and satiny sheen that is characteristic of rubber tile results from the vulcanizing process used in its manufacture.

* *Is it made from natural rubber?*

The answer is no. Today, Armstrong's Rubber Tile is made of high-grade synthetic rubber which has proved superior to natural rubber for flooring. Natural rubber varies in quality, but synthetic rubber can be controlled to exacting specifications. Because of this, it is now possible to produce rubber tile of uniform quality.

* *What are its limitations?*

Because it deteriorates under alkaline moisture conditions, rubber tile should not be installed on concrete subfloors that are in direct contact with the ground—on grade or below grade. It is not recommended for use where excessive oil or grease comes in contact with the floor. Its relatively high cost in comparison to some of the other resilient tiles is sometimes a limitation on low-budget jobs.

* *What about maintenance?*

Rubber tile requires more care than other resilient floorings. In addition to routine sweeping and an occasional washing and waxing, periodic buffing with No. 1 steel wool is recommended. Buffing not only removes dirt and stains which ordinary washing won't affect but also renews the life and resilience of this floor.

For samples and literature on Armstrong's Rubber Tile or other types of Armstrong's Resilient Floors, write to any Armstrong district office or directly to Armstrong Cork Co., Floor Div., 8908 State St., Lancaster, Pa.



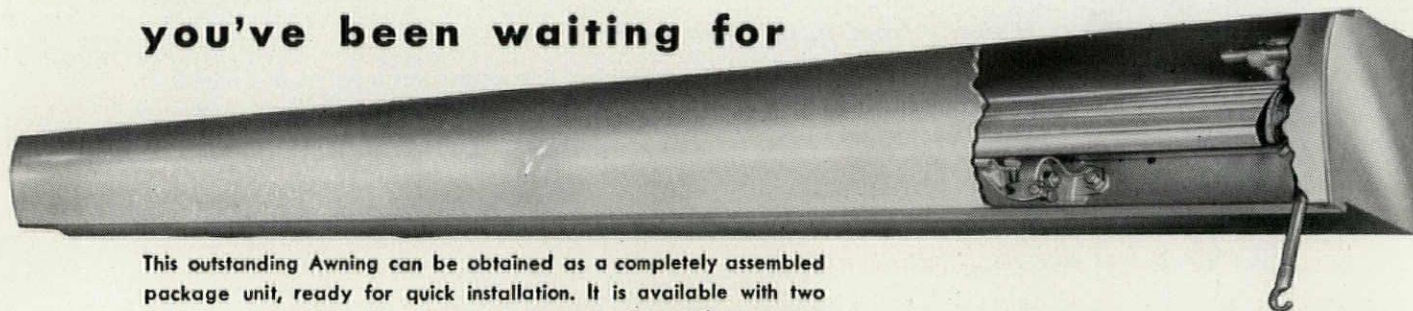
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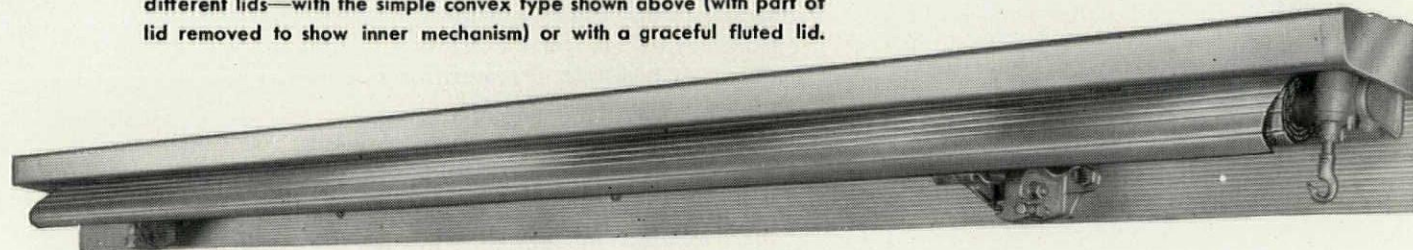
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lation. They can be ordered either with concealed awning boxes or with a hood for surface application.

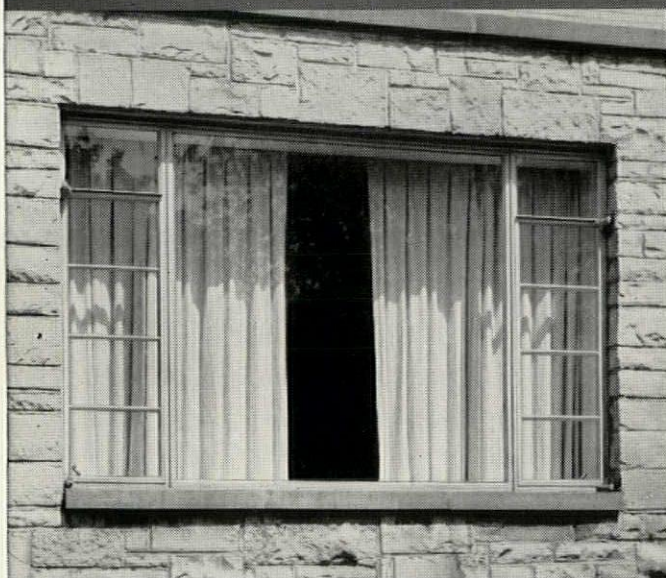
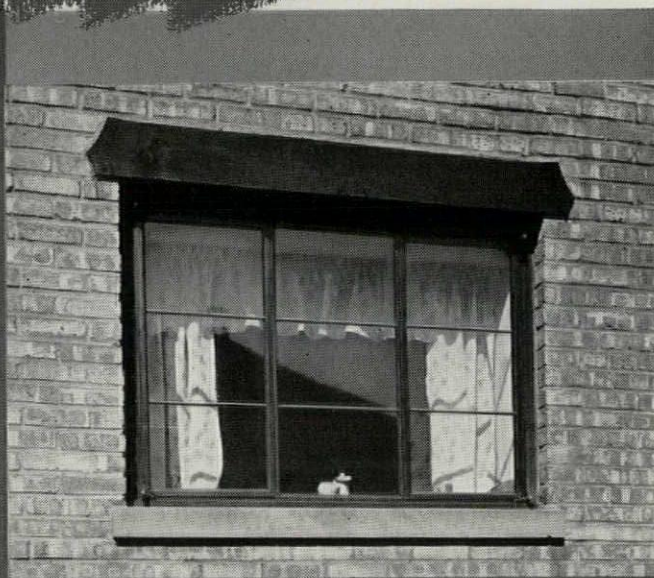
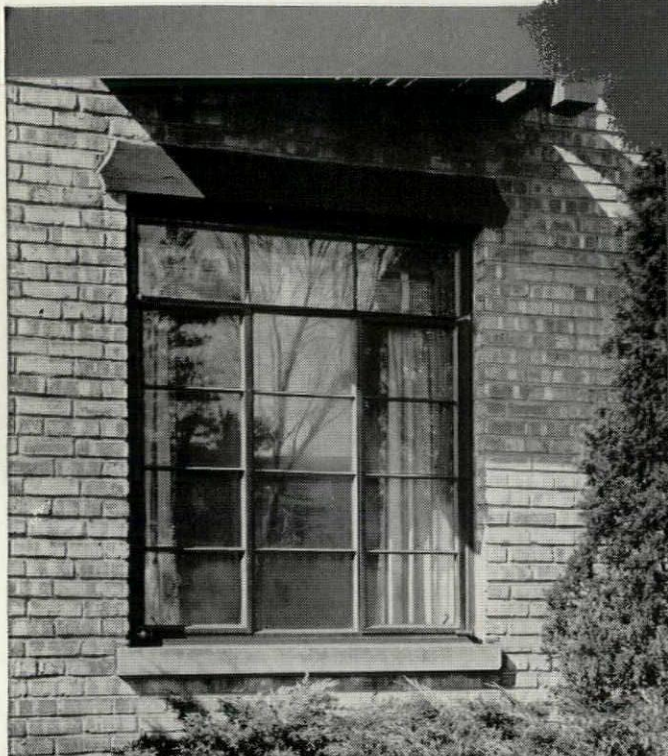
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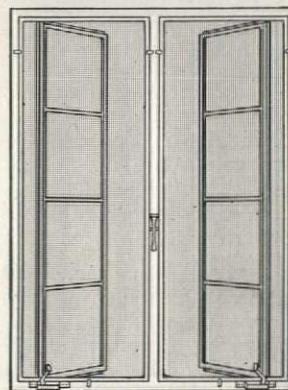
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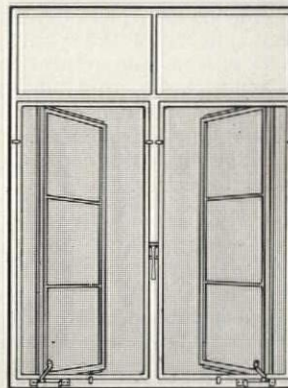
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DISAPPROVES INDIFFERENCE

Dear Editor: In the March issue of *PROGRESSIVE ARCHITECTURE* I came across the letter by a group of architects to the State Department concerning the refusal of that office to grant me a visa so that I might deliver a series of lectures at Yale University, at that institution's invitation. I returned from the United States for the second time last August, and related to my friends here in Rio my impressions of your country and especially of its people. The letter you published recently confirms my opinions concerning the moral independence and the earnest interest in the professions that I encountered in the United States. My case with the State Department is not important in itself, but only unfortunate, as it has established a precedent which contradicts the democratic and traditional interchange that has always existed between our two countries.

Like most of my compatriots, I am interested in the problems of my country and its people. That is why I am interested in politics too, as it is only through political direction that some solution may be found to these problems. Bearing this in mind, I disapprove of the position of utter indifference taken by many people, and prefer to consider my professional work subordinate to other issues that are more important and fundamental. My political activity (if it can be called that at all) has consisted in personal encouragement to those here and in every country of the world who fight against misery and oppression—the very same fight that defeated fascism at such a sacrifice and loss of life for all nations concerned—and to remind people of these things that have been forgotten by many.

I wish to take this opportunity to thank my American colleagues for their generous letter, published in your magazine. And would ask that you please convey to them my hope and confidence for better days, when it will be possible to establish sincere human relationship without fear and misunderstanding, without the need of a ridiculous iron curtain; when voices speaking of means of destruction won't be heard, but only those proclaiming the higher forms of solidarity and confidence.

OSCAR DE NIEMEYER SOARES FILHO
Rio de Janeiro, Brasil

HEALTHY CRITICISM

Dear Editor: The Jury Report of the Annual Progressive Architecture Award (June 1948 P/A) was very stimulating and well said. This is what we have been waiting for some publication to lay before the architectural profession, and, somewhat tritely, may we say it's healthy that you have done so.

Cliques are forming around a few leaders in the field, probably unconsciously. Our Bright Young Men have a tendency to become disciples—instead of learning honestly to plan from site, owners' requirements, and the uses of the building—not in the light of how So-and-So handled the problem. Not only do we seem bent on forming a new traditionalism, as Dean Hudnut has said, but there is an inescapable evidence of settling into stock details—"tricks" which will mark the "new" architecture as stillborn.

Perhaps in order to develop that regional (or indigenous) architecture and at the same time promote a philosophy of our architecture and its time, we should concentrate a great deal more attention on the materials at hand—how they can be handled, what they will do for us, and what architectural forms abiding with natural laws can result.

Like others, I'm talking—better get back to work. Again, let me say the Report was most stimulating.

ARTHUR FEHR
Austin, Tex.

ARCHITECTS AND CRITICS

In preparation of our continuing series of Critiques of various building types, the Editors have been conscientious in checking with the architects of the buildings discussed each of the questions raised by the critics. This has seemed a useful device for more intimate exploration of the architectural problems encountered. It is reassuring that many of the architects whose work have been thus evaluated accept critical comment—and like it! We thought you would like to know how the firms represented in this issue feel about the questions raised:

"We are glad to try to answer the questions brought up . . . we were glad to have these questions raised, as it is very seldom that we receive criticism from a disinterested party." *Parkinson, Powelson, Briney, Bernard & Woodford.*

"I am delighted with your criticism, and, of course, you know we never arrive at a perfect job, but we are always hoping we will. However, I don't think we will reach it on this planet." *Alonso J. Harriman, Inc.*

"Needless to say, we have all been very interested in going over your comments on the Duplan Plant at Winston Salem, and I will endeavor to answer these questions." *Lacy, Atherton, Wilson, & Davis.*

"We were impressed with your careful examination of the project, your comments, and your general reaction." *Skidmore, Owings & Merrill.*

FALL FESTIVAL

Dear Editor: Your piece about birds and architecture (June 1948 P/A) recalls an alteration I made a few years back when the walls of a vestry house were shored and the ground floor extended across the base of the adjoining court and synagogue. The new room was intended to be used as a trustees' room, and the entire ceiling for the area of the court above was power operated, permitting the use of the room open to the sky for that holy day which celebrated the gathering of the harvest. Obviously, it was in the Fall and the job was successfully rushed to completion to meet the deadline. Shortly thereafter, the eminent rabbi phoned me in panic to report that the wire screen which covered the base of the court (required by the building code) was literally covered with pigeons, obviously enjoying the warmth from the room below. The inevitable droppings were distressing to the congregation, he said, but when an egg crashed on a trustee's pate, that was a bit too much—what, he asked, could be done immediately to erase the nuisance.

Was I indiscreet in suggesting that the problem was one for him, rather than me, since it clearly was an act of God?

LOUIS ALLEN ABRAMSON
New York, N. Y.

SUMMER SUGGESTION

Dear Editor: In your June open letter to Mr. Samuel Ogren of Delray Beach, Florida, you discuss the possibility of a college holding critical seminars for architects during the summer in a location where vacation facilities would be available at a college. I would like to suggest that Chautauqua Institution holds great possibilities in this direction for the following reasons: (a) It is now an adult education center. (b) It is neutral ground for experts from all institutions and connections. (c) It has no architectural connections or predisposition, and the program could be cut from whole cloth by whoever can be organized behind it to work with the Institution.

(d) The music, drama, literature, and painting sides of the cultural sphere are in full swing at the Institution, and in the course of a season the best in most lines passes by. The Institution makes an attempt to bring in the current favorites.

(e) Housing and eating facilities for guests are well organized and cost is not unreasonable.

(f) The location of the Institution is

(Continued on page 10)

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Views

(Continued from page 8)

about 70 miles southwest of Buffalo, 120 miles east of Cleveland, and is on Chautauqua Lake, which is 20 miles long and lies about 12 miles back in the hills from Lake Erie. The lake is a busy summer resort, with sail- and powerboat interest. At the opposite end is the city of Jamestown, New York, which affords excellent shopping. The region around is rich in fruit production, and the food

stuff there in summer is the best. There are good swimming opportunities in the lake and an excellent golf course on the hill overlooking the lake. In and around Jamestown are two more golf courses. (g) The climate runs to coolish and mild, with not over two weeks of hot weather in a summer.

(h) There are organized programs for

young people of all ages, and a full sports program. (i) There are ample outlets for interests of architects' wives and husbands who might be bored at a college. (j) The whole Institution is bone dry, and those who need a bar will have to leave the grounds, or keep it under the bed. (k) The Chautauqua Institution opens the Sunday nearest July 1st and runs for eight weeks.

I doubt seriously if any school holds the answer to your suggested seminar. I believe the combination of practitioners and school men gathered from many sources and meeting on neutral ground could solve best the problem of adult education and discussion. I also doubt if year after year a college campus can draw adults with vacation intentions. Chautauqua has been doing this for generations now, and might be willing to entertain a bunch of architects.

FRANCIS R. WALTON
Daytona Beach, Fla.

KINDS OF PROFESSIONALS

Dear Editor: Let me get in on this fight—architects vs. planners . . . The architect says: We are not mere esthetes and physical planners, we take time out (a little) for research; we consider statistics and economics; we are broad humanitarians, technologists, sociologists, and we put it all together adding something no one else has—eye appeal (esthetic satisfaction).

Says the planner: You are trained primarily to design, to produce eye appeal; you are not trained as analyst, statistician, economist, political scientist, and points west. The minute you begin to deal seriously with these other considerations, you are no longer an architect, you are a planner. If you can do both, you are either the unusual person or, more likely, you had training beyond the usual margins of architecture.

There is even a quarrel between planners. They begin to distinguish between physical planners, who can give their work physical form and esthetic content, and just PLANNERS who say that physical planners, capable as they may be in their own field, are generally inadequate as socio-economic-political-administrative analysts.

A good dean in the West tells me (in so many words) that he grows two kinds of ARCHITECTS: (1) Just damn good builders rather than artists. These boys are meant to cover the land with sound, honest, good-to-look-at buildings, but which will never make the annual P/A Award. (2) Arty architects who will win competitions for monuments and the rest of the time will design night clubs, store fronts, and superlatives.

And two kinds of PLANNERS: (1) Just planners who will dig up and determine fundamentals. (2) Physical planners

(Continued on page 12)

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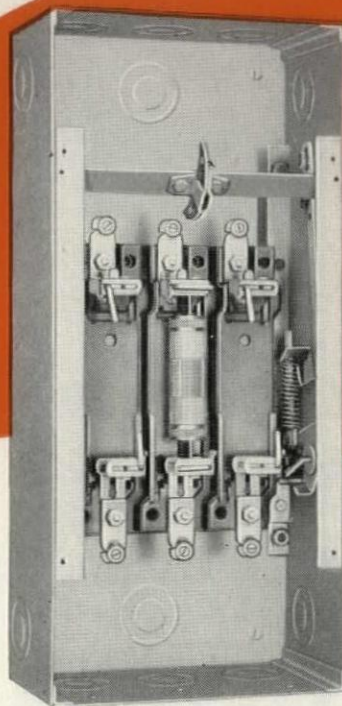
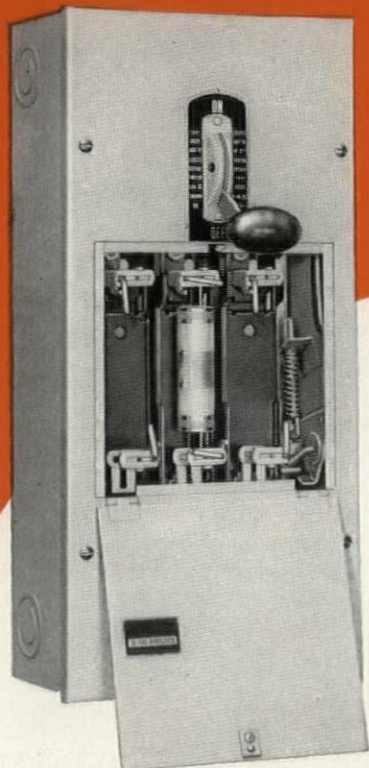
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Views

(Continued from page 10)

who will give form and substance to the findings of the planners.

I think all four kinds are needed and team work between them is a must. If we are ever going to catch up with man's need in a complex society, we will have to specialize and get more people to help. The architect has too much unfinished business before him

to want to do it all—even assuming he could . . . could he?

ISADORE ROSENFELD
New York, N. Y.

CUMULATIVE ROTTING

Dear Editor: Your P.S. in the July issue (page 136) was quite to the point. I enclose an elaboration of my plan for further clarity. The danger you men-

tion, as I see it, lies more in letting the old housing rot and *the people with it*, than in its interim reclamation, with soap and water, and paint and plaster, de-congestion, and community supervision.

What you say has always been the "housers" angle and I just don't get it. It is a species of sustained inhumanity toward these people in the guise of "do-gooding" that accentuates the old saying, "Deliver me from my friends, my enemies I can take care of."

Ever since public housing started, 90 percent of these people have received no attention whatever, behind the cloak of new housing for the few. The results are cumulative. Witness the present delinquency situation and picture it 10 years hence; also the health and other factors.

CHARLES C. PLATT
New York, N. Y.

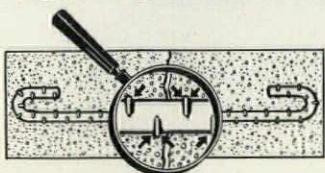
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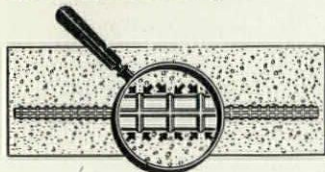


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NOTICES

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DON HATCH, new staff member of IBEC TECHNICAL SERVICES CORP., 30 Rockefeller Plaza, New York 20, N. Y., will serve as representative in Venezuela.

ZAY SMITH, RICHARD BARRY, NORMAN STEENHOF, TAYLOR ROBINSON (ZAY SMITH ASSOCIATES), 431 N. Clark St., Chicago, Ill.

ROY B. BLASS, M. H. BECKMAN, partnership dissolved. Mr. Blass continues practice at 30 N. LaSalle St., Chicago 2, Ill.

MILTON P. ROBELOT, RONALD GREENE (GREENE & ROBELOT), 217 E. Sullivan St., Kingsport, Tenn.

J. ROWLAND SNYDER, 1636 Connecticut Ave., Washington 9, D. C.

E. W. BOLTON, BRITON MARTIN, THEO B. WHITE (BOLTON, MARTIN & WHITE), 266 S. 17th St., Philadelphia 3, Pa.

FRIEDMAN, ALSCHULER & SINCERE, ARCHITECTS AND ENGINEERS, AND ERNEST A. GRUNSFELD, JR., ARCHITECT, 223 W. Jackson Blvd., Chicago 6, Ill.

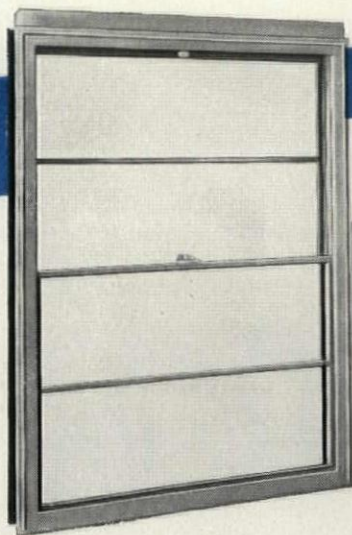
HAROLD E. HALL, associate with HENRY HOHAUSER AND ASSOCIATES, 4011 Chase Ave., Miami Beach 40, Fla.

BENJAMIN FRANKLIN LIPPOLD, Mason Bldg., Fresno, Calif.

JOHN C. COLOMBO, GUSTAVE G. ABRAMS, ERNEST J. PETERSEN, 100 Stevens Ave., Mount Vernon, N. Y.

LYMAN HALL ROBERTSON, 921 Greene St., Augusta, Ga.

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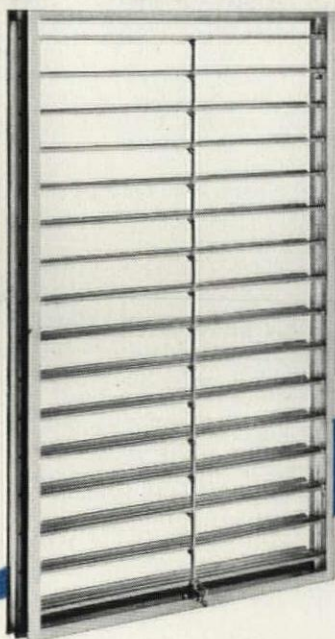
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A.I.A. GROWING UP

The American Institute of Architects held its annual convention late in June this year, at Salt Lake City, and succeeded in making it one of the most stimulating gatherings of architects and planners (in many senses, the most productive) held in a year marked by an unusual number of academic and professional meetings. The Institute has grown in many ways in the last few years. In numbers it is larger than at any time in the past; in the proportion of the practicing architectural profession that it represents it is now or can be shortly a true spokesman for the entire profession. In its attitude on social questions which concern architects and architecture it is more mature and independent than many believed possible a few years ago. In its concern with matters of technical development and the underlying principles of design—the business of making sure that the clients are served better by the profession as a whole—the Institute is growing up rapidly.

The big “news” of the Convention was the adoption, with almost no opposition, of a resolution which referred to the Board of Directors a proposal that next year's Gold Medal of the Institute be awarded to Frank Lloyd Wright, with an amendment which made it the sense of the Convention that this recommendation be carried out. The arguments for the proposal included no blind deference to the master, but rather a feeling that his work and his influence have been so great that it has become almost a scandal that his name has been passed over each year. The introduction of the resolution is in itself an interesting story. Faced by the fact that the vote of the Board must be unanimous and that several Board members have in the past let it be known that they never would agree to the periodic moves to grant Wright the medal, a group of delegates from many Chapters drafted the resolution, and circulated copies of it for signatures. In about a day's time some 150 signatures were appended to the document which went to the Resolutions Committee. Several of the elder statesmen who were apprised of what was going on—men who sincerely wished to see Wright get the medal—advised against submitting the resolution on the grounds that it would be defeated and do harm rather than good. However, the resolution was submitted, and although it was reported out of committee to the convention with the recommendation that it be referred to the Board with no action by the Convention, several moving appeals for a vote resulted in the amendment that it be “the sense of the meeting.” Presi-

dent Orr accepted the amendment, and the vote was overwhelmingly in its favor. It is hard to see how the Board can override this expression from the delegates.

That was the “news.” The real stimulus of the Convention went beyond this, however, and was evident in two principal ways: the delegates and guests included a very large number of the finest architects in the country—men of all ages, from all parts of the nation—men who are the important figures in shaping our contemporary environment. This was not the usual convention gathering (not peculiar to architects, by any means) of the clubhouse boys. It was, rather, a serious professional meeting. One got the strong impression that architects in the United States have finally decided to raise the quality of their own work and to make sure that it contributes to society—the larger client—and, finally, to move through the Institute to accomplish this.

Three seminar discussions ran through the Convention sessions. Spaced so that everyone could attend all meetings, the result was a constantly crowded room which must have been gratifying to the speakers, but which resulted in a loss of intimate questioning discussions after the papers had been read. The technique of such meetings is a difficult one to assay, and the only conclusion that can be reached by an observer at this time is that Walter A. Taylor, Director of Education and Research of the Institute, did an extremely thoughtful job and will undoubtedly improve on the procedure again before next year's meetings.

The three seminar topics were Urban Planning, Dwellings, and Retail Business Buildings. In addition to several sessions devoted exclusively to each of these topics, a number of papers were of a general nature, applicable to all three of the topics. Morgan L. Yost acted as moderator of the discussions on the design of dwellings; Louis Justement, of the urban planning sessions; and Kenneth C. Welch, of the meetings devoted to retail business buildings. The fact that the approaches in the three discussions groups were quite different added interest to the whole series: Welch's program was rather specific, and the speakers under his aegis dealt in facts and figures; the papers on planning were more general in their terms and more broad in their scope; the discussion of the design of dwellings was marked by a most interesting group of papers (Yost, Kamphoeffner, Stubbins, Sargent, Belluschi) on regional influences and regional qualities in residential design, all illustrated by slides.

Business sessions of the Convention

were high-lighted by several important adopted resolutions. What has become a general complaint about FHA procedure—that local officials and local boards are using national standards as an excuse to prevent progress in design and adaptation to regional requirements—was recognized in a resolution which urged FHA to allow local variations from such rigid standards when good design seems to require it, and to establish local appeal boards on which local architects would be represented. The TEW Housing Bill, which died in Congress during the Convention period, was again approved. A resolution calling for the establishment of an Institute Committee to study objectively the entire building industry and the building process, with a view to recommending procedures which might bring them further into line with modern industrial practices and thus reduce the cost of essential buildings, was approved.

In the case of this last resolution and several other moves forward made by the Convention assembled, there can be progress toward fulfillment during the year or everything can stop because of inaction or inefficiency of committees. The Octagon organization seems to have a new spark of life. President Orr indicated during the Convention, as he had previous to it, that he is alert to the new responsibilities which the new membership of the Institute brings with it. The standing and the special committees and the Board of Directors must now move also, or they may be faced in Houston next year with more startling reactions from the floor than a democratic directive on the award of the Gold Medal. Any architect who wants to see the profession move forward is very foolish not to join the A.I.A. at this time. It looks as though it is moving fast, and the meetings at Salt Lake City seemed to indicate that the ride is also going to be good fun in pleasant company.

BETTER CITIZENS

Definite gain in living standards of families who have escaped from crowded antiquated slums and moved into the government-subsidized housing built in New York over the past decade is reported with evident satisfaction by the Housing Committee of the Women's City Club of New York after interviewing housewives in four representative public projects. The lively com-

(Continued on page 16)

AS ADVERTISED IN TIME MAGAZINE

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"Sky-Glo" is such a great forward step in lighting that you'd better be primed with answers to the questions you'll be asked. Here are a few. The rest are in the new free 28-page "Sky-Glo" Bulletin. Use the coupon for your copy.

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"Sky-Glo" fits directly into the national trend toward interior modernization. No other single improvement can do as much for a store, office, schoolroom, bank, lobby or public building. Yet "Sky-Glo" actually costs less than many commonplace false ceilings.

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"Sky-Glo" luminous louver panels will not discolor or become brittle with age. They will not warp or distort under prevailing room temperatures.

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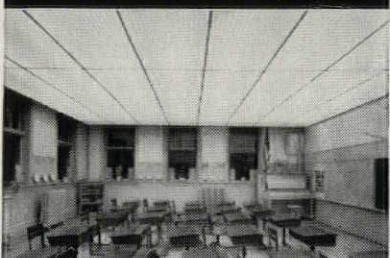
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Progress Report

(Continued from page 14)

ments and opinions are analyzed in a published report.*

Progress toward better housing for everyone must be evaluated in the field, from time to time, it is pointed out in a

* Better Housing for the Family. Beatrice S. Friedman for the Housing Committee of the Woman's City Club of New York, Inc., Hotel New Weston, 50th St. and Madison Ave., New York 22, N. Y. 1948. 64 pp. with pictograms. \$1.00

preface by Florence M. Kelley, president of the club. The report is directed at architects, planners, and housing proponents because the club seeks to be a force for progress in making New York a better living environment. In speaking out for "a section of our population whose opinions are little known" the club is experienced. This report is particularly interesting as a record of advance from the living patterns and prejudices reflected in a

similar survey made by the club in 1936, a year when no new housing had been built for the lowest income group. Housewives living in New York slums were asked then to give their definitions of housing essentials and the results were compiled in a report titled *Housing for the Family*, which was issued for consideration of those then engaged in planning the first government-subsidized projects.

Good Apartment Planning as defined by the 1936 survey would provide: direct cross-ventilation for every apartment; adequate ventilation and daylight for every room; privacy for each room including the living room; kitchen near the entrance and in convenient relation to living room; a closet in every room, a coat closet, a linen closet, a broom closet (not necessarily in the kitchen); full bathrooms convenient to the bedrooms; adequate room sizes for living (175 sq ft), sleeping (150 sq ft) and no single beds "wasteful of space"; kitchens large enough to contain standard equipment and dining space for all occupants of the apartment; incinerator opening on each floor in the public hall; janitor's closets on alternate floors.

In the order of their importance to the housewives interviewed, who hoped to move from the slums to the projects then being promised, were listed: *all rooms to have outside windows, a toilet for each family, hot water, a bath for each family, central heating, and adequate closets.* The committee conducting the survey urged that dead storage lockers or bins be provided for tenants, that places be provided to accommodate baby carriages, scooters, toy wagons, etc., that power laundry facilities be made available to the housewives in each project, that clothes drying be considered by the planners, that adequate recreation space and leisure time space be provided for tenants. Community services were also hoped for as a factor to broaden living outlook and family life.

Comparative comfort of the housing projects now is enjoyed by many of the women interviewed in 1936—including many of the amenities they wanted so earnestly—but thousands are still crowded together in tenements that are dark, unheated, airless, and grimy. The Women's City Club ventures the suggestion that architects and planners might learn from experience of the trial-and-error phase of public housing—and hence the current report.

The survey shows that the 1948 Housewife has become "a more valuable member of society." Refuting cynical critics of public expenditures to replace outworn slums "she has not kept her coal in the bathtub nor has she expressed any longing for Hollywood gadgets. She has changed, however, and that change is apparent not only when she discusses eating and sleeping arrangements, bathroom facilities, housekeep-

(Continued on page 18)

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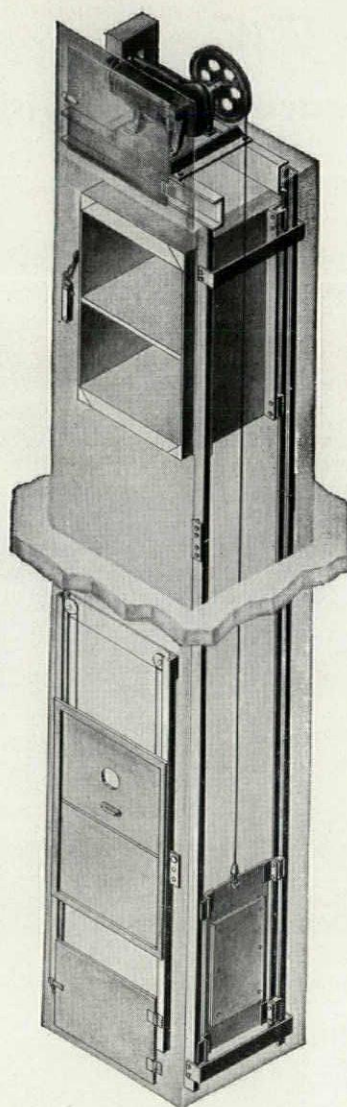
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The book includes a summary of all the principal housing proposals advanced by prominent civic leaders. It reviews the steps being taken by various cities for planned community development, and points the way to more widespread planning of this type on a broader scale. Emphasis is placed upon the necessity for adequate utility service planning in such developments and a clear cut case is made for the inclusion of centralized community heating as one of the essential utility services. Attention is also directed to the factors of fuel availability and fuel costs as being among the most important influences in community development planning.

A study of a community development of 15,900 individual homes is another important feature of

the book. This section includes a detailed engineering analysis, by a nationally prominent consulting engineer, of the recommended central heating system, comparing its construction and operating costs with the corresponding costs of individual heating plants for each separate dwelling unit.

An informative appendix comprises a resume of some twelve major housing developments sponsored by major life insurance companies and saving banks, with particular attention given to the heating systems of each project.

This book is not a piece of advertising, but a practical reference on the status of mass housing to date, for the use of anyone actively interested in housing developments. If you have bona fide use for it, please write us on your business stationery and we shall be glad to forward you a copy without charge or obligation.

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Progress Report

(Continued from page 16)

ing methods; it is strikingly evident when she talks of her community life. "She has learned to value cleaner, healthier surroundings, she appreciates the importance of safe recreation facilities, she is more aware of herself and of her family as participating members of a community. Above all, she wants to rear her children in a healthy environment.

"There is no doubt but that public

housing for the lowest income group has been tremendously influential in raising standards of living all along the line. . . . Sincere appreciation for the vast improvement in their living conditions, made possible only through government assistance, was expressed by a large number of families, who hoped that their experience would be of value in the planning of other projects."

Valuable analyses of planning prefer-

ences and opinions of the improved facilities already enjoyed are prefaced by a frank statement that "opinions of the housewife are limited by her own experience. And while she does not consider all the factors which concern the planner, such as limitations of cost, technological improvements, etc., her needs are essentially the most basic of all planning considerations."

Having secured most of the facilities and advantages desired by the 1936 Housewife, the women interviewed this year have new requirements which reflect higher standards of family living. These are: *adequate drying facilities* for laundry (preferably outdoors), *independent access to all rooms* for greater privacy and cleanliness, *doors on closets*, and *adequate food storage*.

Having realized a broader need for community living, the 1948 Housewife also lists essentials for the community. These are: *leisure time facilities* including child care centers, playgrounds for children of varying age groups, adequate equipment and supervision, activities for teen-age and adult groups; *cheap shopping facilities* conveniently located; *adequate public transportation*; *schools (!)*; *clinics and medical facilities*. Thus the developing environment for family life can lead naturally to broader outlook for the tenants: broader comprehension for the planners and architects as well.

NOTICES

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HOWARD H. MACKEY, 1530 You St., N. W., Washington 9, D. C.

M. F. STERN, 505/506 Diamond House, 29 Parliament St., Cape Town, Union of South Africa.

KENNERLY CONSTRUCTION Co., INC., 130 E. 56th St., New York 22, N. Y.

WARNER-MAC NEISH ARCHITECTURAL AND ENGINEERING SERVICE, Chamber of Commerce Bldg., 134 Chestnut St., Springfield 3, Mass.

JOSEPH A. MCGINNIS, ARCHITECTURAL SPECIFICATIONS, 101 Park Ave., New York 17, N. Y.

GORDON DRAKE, Box 767, Monterey, Calif. (temporary address).

HENRY DREYFUSS, 4 W. 58th St., New York 27, N. Y.; California office: 969 San Pasqual St., Pasadena 5, Calif.

SCHREIER, PATTERSON & WORLAND, Suite 400, 1420 K St., N. W., Washington 5, D. C.

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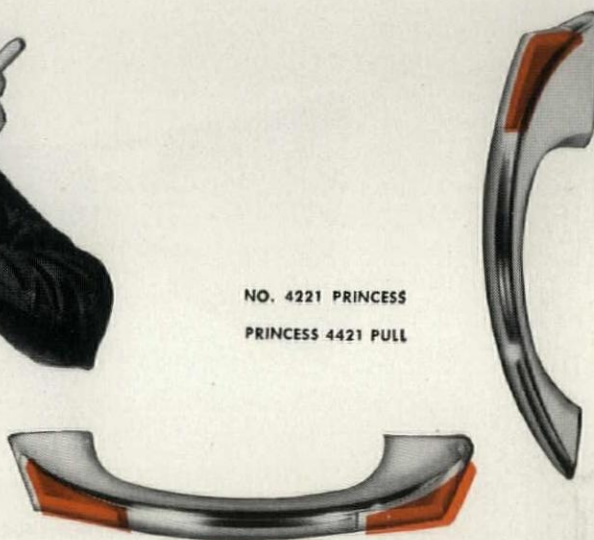
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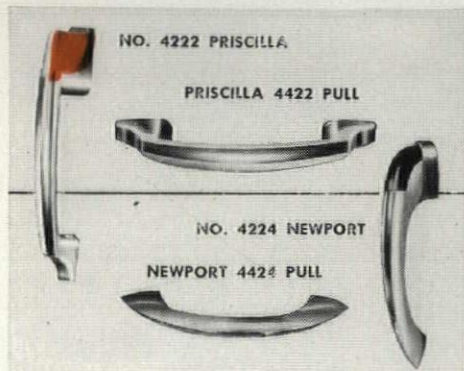
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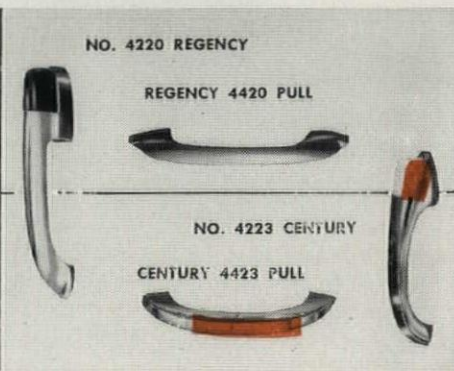


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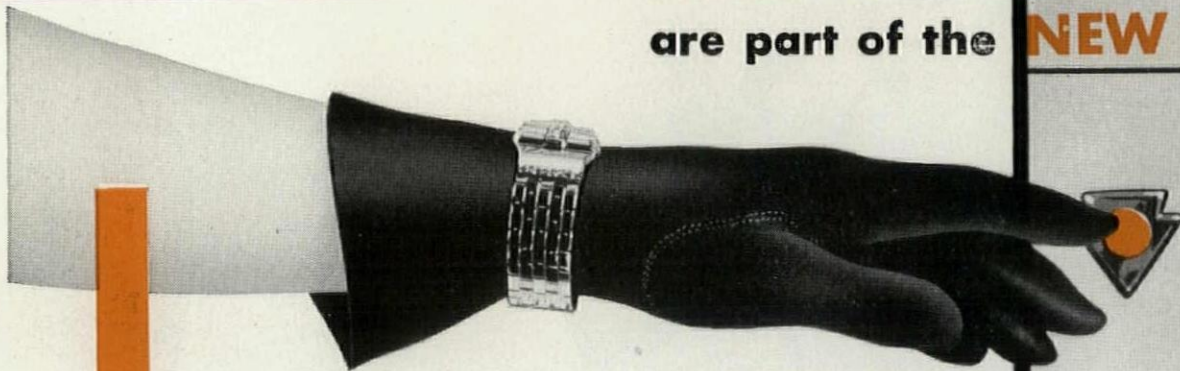
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The instant your finger contacts an OTIS electronic 'touch button' a directional arrow lights up. The light shows that your call has been registered. As the elevator approaches your floor the overhead lantern also lights up. Both lights stay on until your call is answered. It's all controlled electronically.



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of commercial living

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OTIS Electronic 'touch buttons' and overhead lanterns are attractively modern. They blend admirably with modern interiors, as pictured at the right. And their electronic 'touch' operation dramatizes the advanced design of the installation.

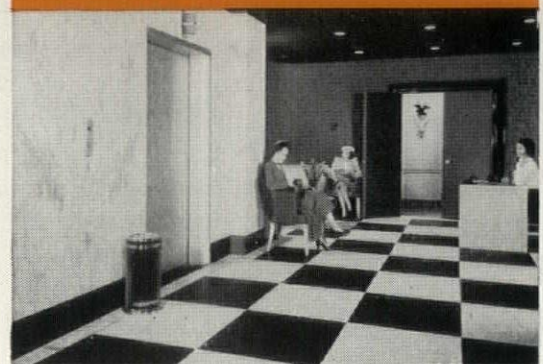
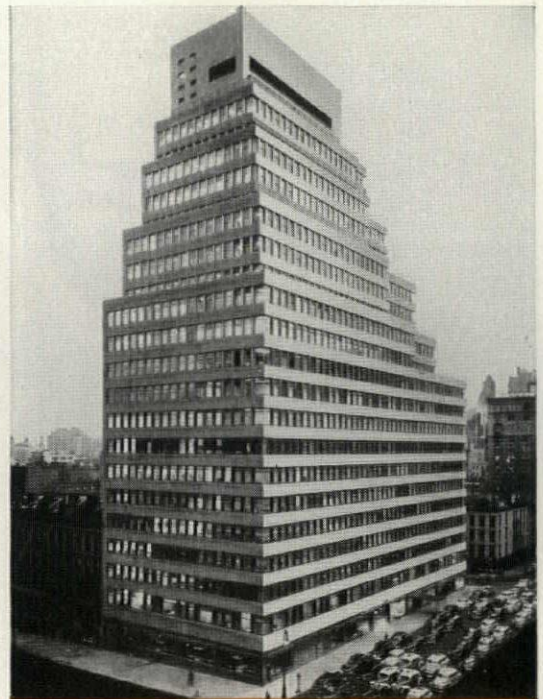
OTIS Electronic Signal Control is applicable to all elevators. But for the immediate present, it will be confined to elevators that travel at speeds of 500 feet per minute or more.

Otis Elevator Company. Offices in all principal cities.



ELECTRONIC SIGNAL CONTROL
ELEVATORS

THE MAGIC OF MODERN ELECTRONICS



stays silent..

That's why Servel is the choice of



**"AFTER 14 YEARS OF
EXCELLENT SERVICE,**

my tenants thank me, and I thank Servel
for the Gas Refrigerator's low-cost opera-
tion and year-after-year dependability."

BASIL GAVIN, Treasurer
Boston Management Corp.
137-143 Park Drive
Boston, Mass.

- ★ **No moving parts in freezing system**
- ★ **Continued low operating cost**
- ★ **Lowest service cost**

Servel's popularity with apartment owners grows greater with each succeeding year. Today, more apartments than ever before are equipped with "no noise, no wear" Gas Refrigerators.

It's easy to see why. Apartment owners and managers, who buy refrigerators by scores and hundreds, know the great value of Servel's lasting dependability and minimum upkeep expense. They know that only Servel has no moving parts in its freezing system. This means there's no machinery to lose efficiency . . . no motor, valves, piston, or pump to ever need repair or replacement. A tiny gas flame does the complete job circulating the refrigerant that produces constant cold.

Owners and managers know that Servel pays off in tenant satisfaction, too. Families and couples living in apartments greatly appreciate Servel's permanent silence and trouble-free service. And they like its up-to-the-minute cabinet, with its spacious frozen food compartment, moist cold, dry cold, big flexible interior, and many other modern features.

Servel is made in three sizes—6- and 8-cu.-ft. models for large apartments . . . and the compact, but roomy, 4-cu.-ft. size for smaller apartments. For complete information, see Sweet's Catalog . . . or write to Servel, Inc., Evansville 20, Indiana.

Servel

lasts longer!

apartment owners year after year

"OUR NEW MODERN GARDEN APARTMENTS

deserved all the features of modern refrigeration. That's why—after considering 6 different makes—I chose the Servel Gas Refrigerator."

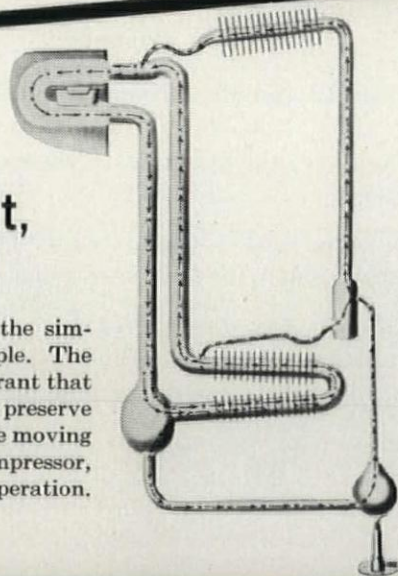
L. Robert Rolde

L. ROBERT ROLDE,
Meadow Brook Apartments
Quincy, Mass.

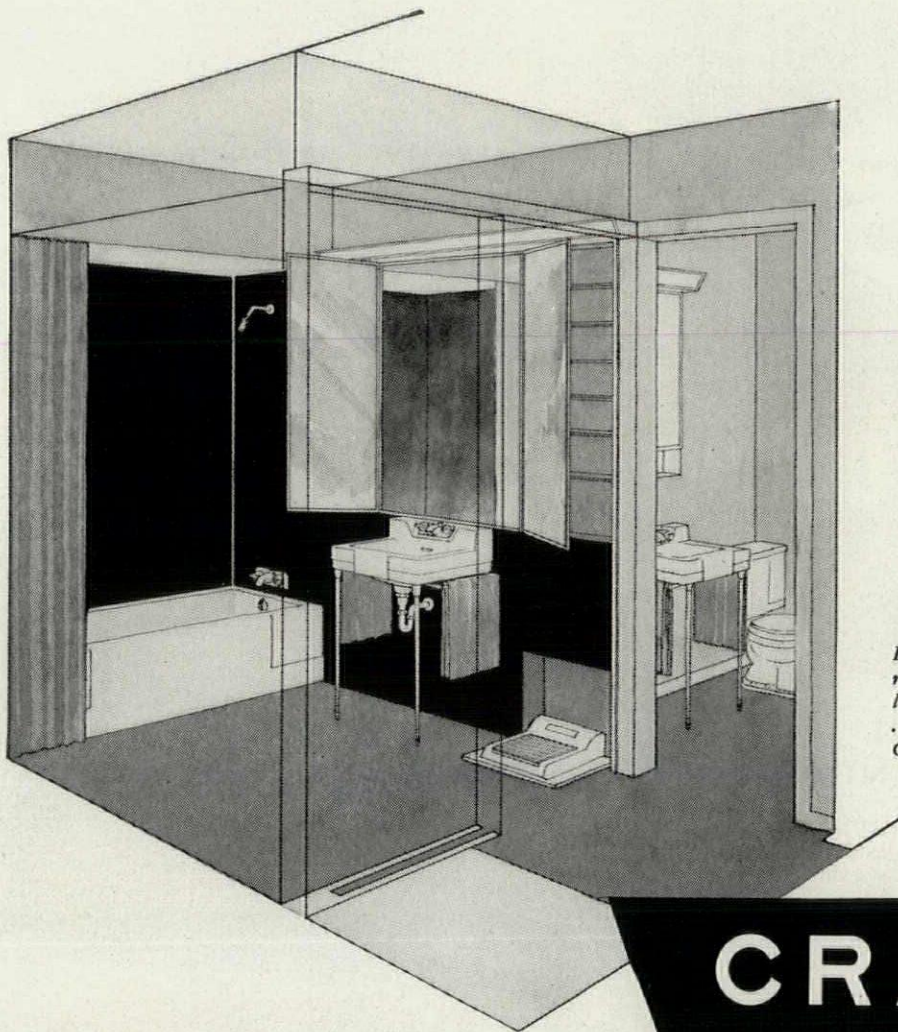


Here's why Servel stays silent, lasts longer

The Gas Refrigerator operates on the simple, continuous absorption principle. The small gas flame circulates the refrigerant that supplies the constant cold needed to preserve food and make ice cubes. Not a single moving part (no motor, no pump, no compressor, etc.) is used in the entire freezing operation.



The GAS Refrigerator



Bathing and toilet facilities are separated in this new Crane bathroom. Twin lavatories make each section complete . . . all fixtures from the Crane Oxford Group.

CRANE

... always "most likely to succeed"

● It's hard to please Mr. and Mrs. Home Owner with everything you suggest. But nothing is so *likely* to succeed as Crane plumbing . . . Crane is the name they themselves have chosen over all other plumbing brands.

Home owners like Crane quality, Crane styling. They like the completeness of line that gives them a style for *their* taste and a price for *their* budget.

Popularity . . . Quality . . . Completeness. All three are characteristic of the Crane line of bathroom, kitchen, and laundry fixtures. You can have Crane quality in heating, too—everything required for any system, any fuel.

In making selections, refer to your copy of "Crane Service for Architects," or ask your Crane branch for one. Not all fixtures are immediately available everywhere—check your wants with your Crane branch or wholesaler.

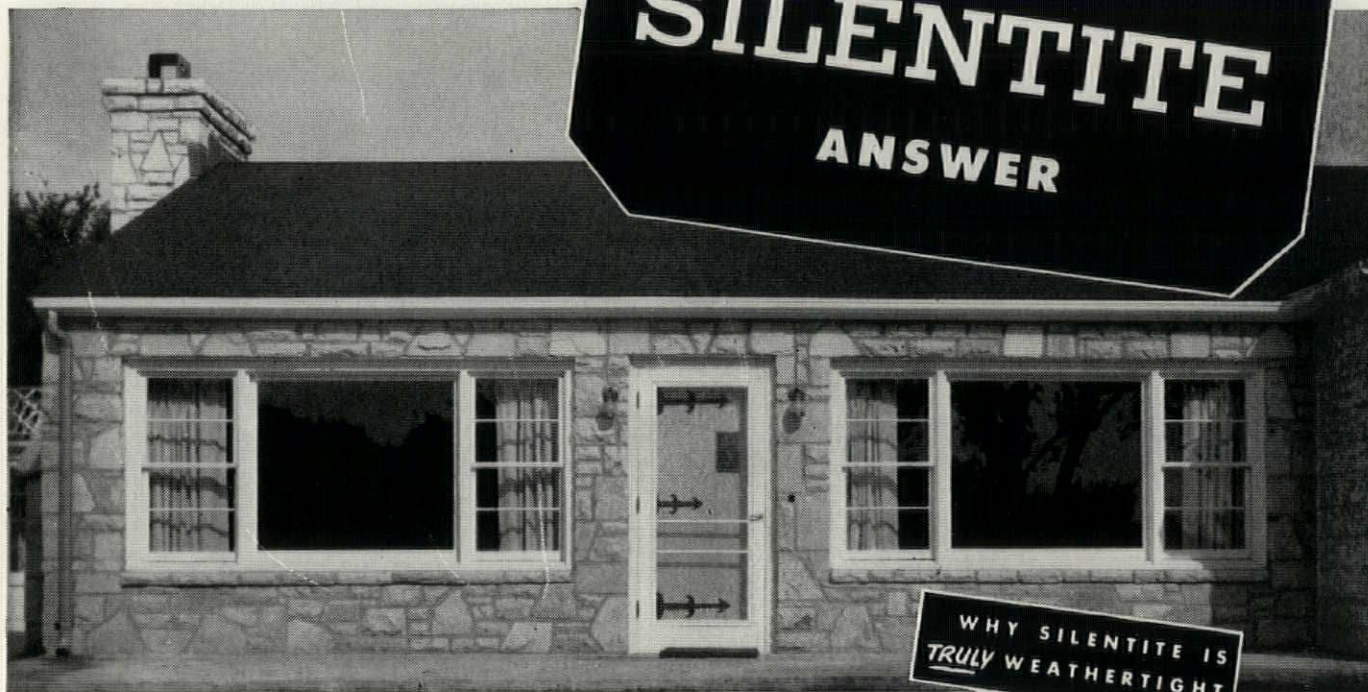
CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5
PLUMBING AND HEATING
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

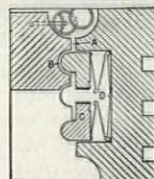
What do we mean
"WEATHERTIGHT"?

HERE'S THE
SILENTITE
ANSWER

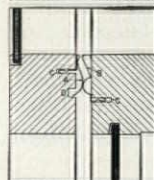


● Words can mean much—or little. But the term "weathertight"—as applied to the new Curtis Silentite window—means exactly what it implies. Here is a window *engineered* for greater weathertightness, with features representing a distinct departure from the conventional. Laboratory tests of wind velocities up to 40 miles per hour show that the new Silentite allows 20% less air infiltration even than the famous original Silentite. And because Silentite is a *wood* window, it has all the natural insulating qualities which wood provides.

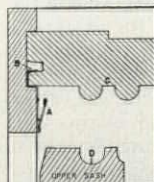
When in New York, visit the Curtis Woodwork Display at Architects' Samples Corporation, 101 Park Avenue.



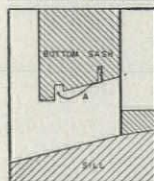
FLOATING SIDE WEATHERSTRIPS—The diagram shows the patented Silentite "floating" weatherstrips. Two beaded pine members, seated on Z-type weatherstrips, exert outward pressure, keeping firm contact with the sash, yet allowing free movement.



NEW MEETING RAIL WEATHERSTRIP—The conventional checkrail has been discarded in favor of a plain meeting rail and the wood parting stop has been eliminated. Specially designed weatherstrip members (a) on the top and (b) on the bottom sash provide positive protection from air infiltration.



NEW HEAD WEATHERSTRIP—Groove at (b) in head jamb takes the flange of the bronze spring leaf weatherstrip (a). This spring leaf is compressed by the top rail when sash is closed. The joint is further sealed by head stop (c), the head of which engages groove (d).



AT THE SILL—a plow in the bottom rail of the sash anchors the bronze spring leaf weatherstrip (a). When the sash is closed, the bronze strip (a) is tightly compressed against the sill giving positive protection against air infiltration.

Curtis Companies Service Bureau
PA-8S Curtis Building, Clinton, Iowa

Please send me book on Silentite Window Line, including casements.

Name _____

Address _____

City _____ State _____

I am

- ☐ Architect
- ☐ Contractor
- ☐ Prospective Home Builder
- ☐ Student

(Please check above)



A Modern Masterpiece

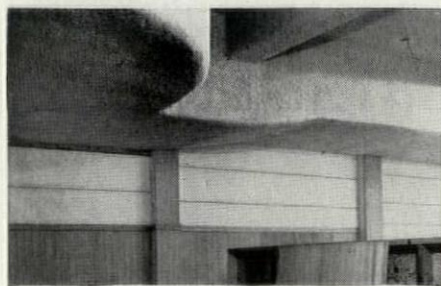
in architectural design and acoustical engineering . . .
achieved with the aid of Truscon Diamond Lath and Cold Rolled Channels



Truscon Metal Lath suspended ceiling partially covered with sprayed asbestos.



Construction details of Truscon Metal Lath ceiling and Cold Rolled Channel furring.



Heating ducts and beam, with Truscon Steel Lath base, covered with sprayed asbestos.

● The Fairview Village Shopping Center, located in suburban Cleveland, is a new business development consisting of 40 stores of varying sizes, bowling center, and theatre.

In the bowling center and theatre, Truscon Diamond Metal Lath and sprayed asbestos were used in ceiling construction to attain a high degree of sound deadening and non-echoing. Truscon Diamond Lath and plaster furred construction were used in the theatre foyer. Truscon Cold Rolled Channels were used extensively to give rigid, fire-resistant construction.

Truscon Diamond Lath is a flat metal lath, uniformly expanded throughout the entire sheet. Its use is almost universal, for it is adaptable for practically all classes of work—as a base for walls, partitions, ceilings, as a reinforcement for stucco, as a protection for steel beams and columns, and for protecting hazardous points in wood frame construction.

Truscon Cold Rolled Channels are strong, straight and true metal members, with square corners that prevent rolling.

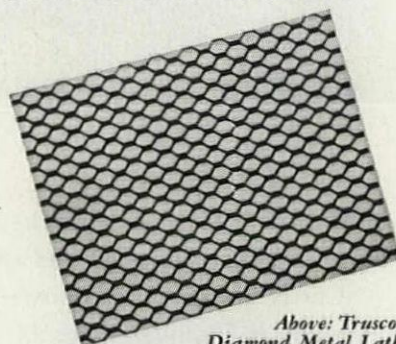
Write for free descriptive catalog showing the entire line of Truscon Metal Lath and Accessory Products, to help you develop modern masterpieces in your plastering art.

TRUSCON

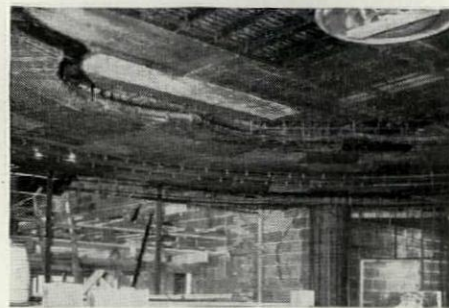
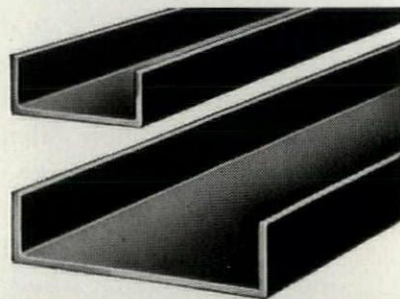
STEEL COMPANY

YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation



*Above: Truscon Diamond Metal Lath.
Below: Truscon Cold Rolled Channels.*



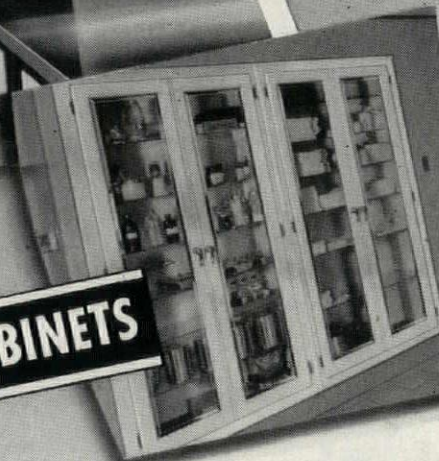
Construction details for Truscon Metal Lath and plaster center recession.



▲ Cabinets in Sterile Dressing Room, Central Service Department.
Stainless steel counter tops.

▲ Cabinets in sterile supply section, Central Service Department.

▲ Cabinets for supplies and instruments in Septic Operating Room.



SCANLAN-MORRIS RECESSED CABINETS

... custom-built to meet hospital requirements

Scanlan-Morris recessed cabinets, built to cover the individual requirements of the hospital, are made of furniture steel, with frames of flat steel, electrically welded. All corners have double-lapped sweated seams, insuring dust-proof construction.

Metal doors, paneled or plain, as specified, are of reinforced hollow construction. Metal shelves are furniture steel with apron 1" deep double-turned for extra strength. Glass doors have plate glass panels, held in place by a metal holding frame. Glass shelves are 1/4" plate glass with ground and polished edges.

All shelves are adjustable at 1/2" increments. Drawers are of sheet steel, with frictionless slides.

Cabinets may be built with any number of compartments, or in combination with different types of units, as desired.

Exposed surfaces are finished in high-grade enamel, hand-rubbed and baked, in any color to harmonize with color of walls or other equipment. Fittings are chromium plated.

Mail the coupon for detailed information or submit your problems with floor plans for layout suggestions, without obligation. Helpful information on Scanlan-Morris hospital sterilizing equipment and surgical lights also will be supplied on request.

THE *Ohio Chemical* & MFG. CO.

1400 East Washington Ave., Madison 3, Wisconsin

Represented in Canada by Oxygen Company of Canada Limited, Toronto and Montreal, and Internationally by Airco Export Corporation, 33 West 42nd Street, New York

BRANCH OFFICES IN PRINCIPAL CITIES



THE OHIO CHEMICAL & MFG. CO.,
1400 East Washington Ave., Madison 3, Wis.

Send information on ☐ Scanlan-Morris Recessed Cabinets.
(Please attach professional card or letterhead)

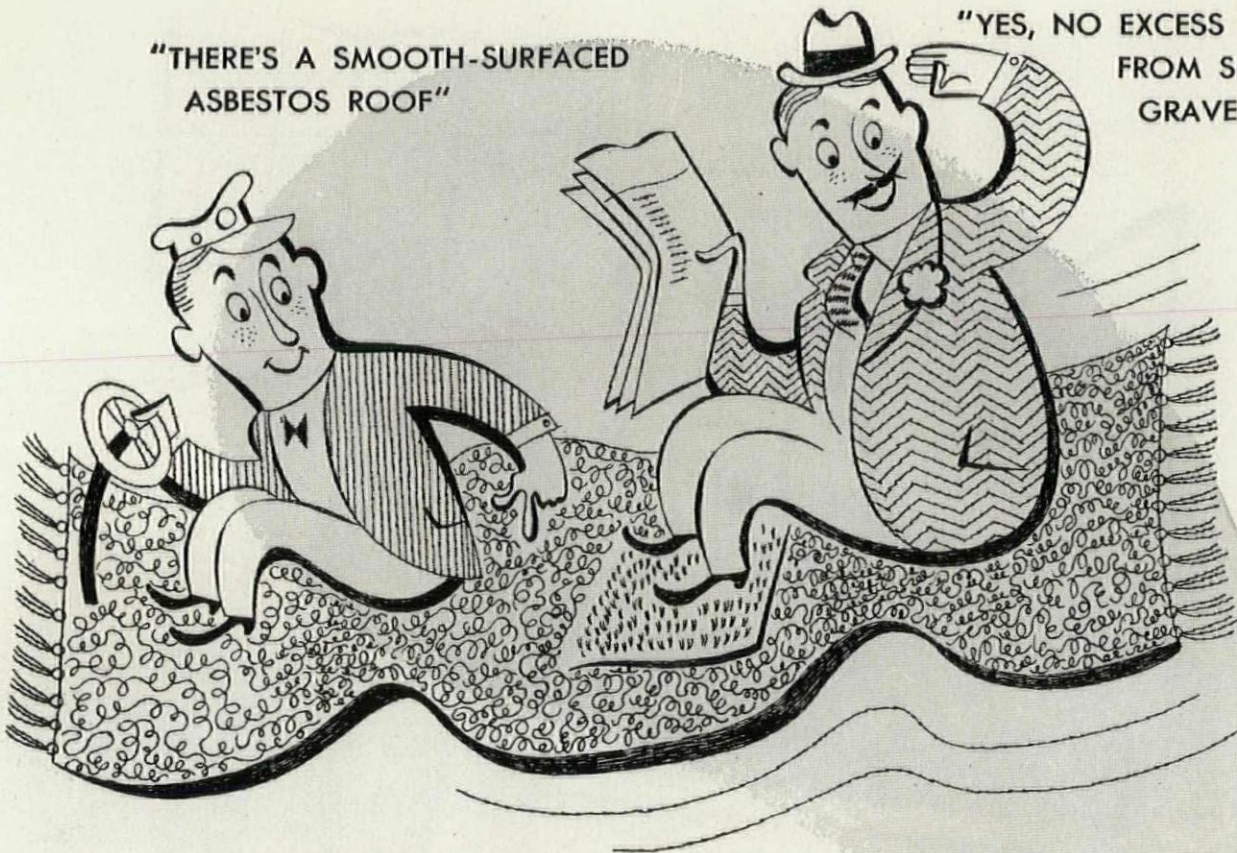
Name _____

Address _____

City _____ State _____ P.A. _____

"THERE'S A SMOOTH-SURFACED
ASBESTOS ROOF"

"YES, NO EXCESS WEIGHT
FROM SLAG OR
GRAVEL"



"AND REMEMBER, THESE FELTS ARE
FIREPROOF, ROTPROOF, WEATHERPROOF"

Yes—it's Flexstone^{*} Each ply is a flexible covering of stone!

● The secret of a Johns-Manville Flexstone Roof is in the *felts*. They're made of fireproof, rotproof, enduring *asbestos*.

Flexstone Built-Up Roofs won't dry out from the sun... need no periodic coating. They're *smooth-surfaced*, too—permit thorough drainage... make any damage easy to locate and repair. They are engineered to each job... applied only by J-M Approved Roofers.

J-M asbestos felts are perforated to make application easier... give you a smoother job and conform better to irregularities in the roof deck.

Send for Flexstone brochure BU-51A. Contains complete specifications. Address: Johns-Manville, Box 290, New York 16, N. Y.

*Reg. U. S. Pat. Off.



Made of ASBESTOS

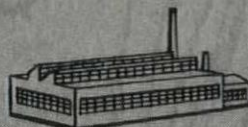
Johns-Manville **FLEXSTONE** Built-Up Roofs



SCHOOLS



GYMNASIUMS



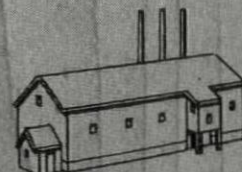
Factories



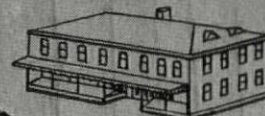
TEXTILE MILLS



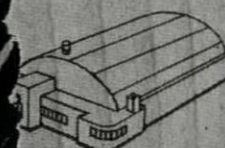
BAKERIES



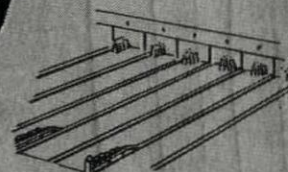
FLOUR MILLS



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ROLLER RINKS



BOWLING ALLEYS



BALL ROOMS



HOMES AND CHURCHES



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50 years
service

to America's Builders

1897-1947

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More and More Maple Now Available

Our 51st year finds modern resilient Northern Hard Maple Flooring becoming more and more available after several years of short supply.

To architects who specify it regularly, Northern Hard Maple means smooth, easy-to-clean hard surfaces. It means flooring that is easily and economically maintained—flooring with the durability to withstand the hard wear of heavy traffic, day in, day out, for years . . . warm, resilient comfort underfoot . . . and lasting beauty.

That's why this remarkable wood is the ideal flooring for schools, gymnasiums, factories,

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For over fifty years the MFMA trademark has been a guarantee as to grade, mill-work, kiln drying and matching. Write our Research Department for assistance when you have floor construction and finish problems. See Sweet's, Section 13f/5 for Catalogue data.

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FLOOR WITH **NORTHERN** HARD MAPLE
BEECH AND BIRCH

Eye Openers!



▲ Sweeping expanse of *Polishea Plate* glass, with fully transparent *Tuf-flex* doors, gives passersby a clear view of the store interior . . . provides a day-and-night selling display. Architect: L. Schoall Miller, Long Beach, Calif.

◀ Cheery light, streaming through huge windows in this restaurant, extends a hearty welcome to passing traffic. Architect: Ray L. Ignelzi, Chicago Heights, Ill.



... PLANNED FOR SELLING!

Whatever your client sells, you can give his store more selling power with a Visual Front.

A Visual Front uses glass to capitalize on the fact that buying usually starts with seeing. Attention is directed through the front to the store interior, its merchandise and its activity. That's why the Visual Front is sound—in principle and in performance.

The Visual Front is practical, too. Its large areas of glass mean lower maintenance—for glass doesn't need refinishing, keeps its smart, new appearance year after year. Write us for our colorful book of Visual Front ideas. Libbey-Owens-Ford Glass Company, 5788 Nicholas Bldg., Toledo 3, Ohio.

GLASS FOR VISUAL FRONTS

See your L-O-F Distributor

FOR TRANSPARENT AREAS—L-O-F Plate Glass, ground and polished for maximum freedom from distortion. To insulate glass areas, specify *Thermopane*®. Its panes are separated by sealed-in, dehydrated air. *Thermopane* is readily available. For doors and other areas that might be subject to impact, specify *Tuf-flex*® tempered plate glass.

FOR TRANSLUCENT AREAS—to bring in light and assure privacy, use Blue Ridge Patterned Glass for walls and partitions.

FOR SOLID AREAS—Colorful *Vitrolite*® glass facing keeps its luster, doesn't need refinishing and is unaffected by weather. Does not warp, swell or craze.

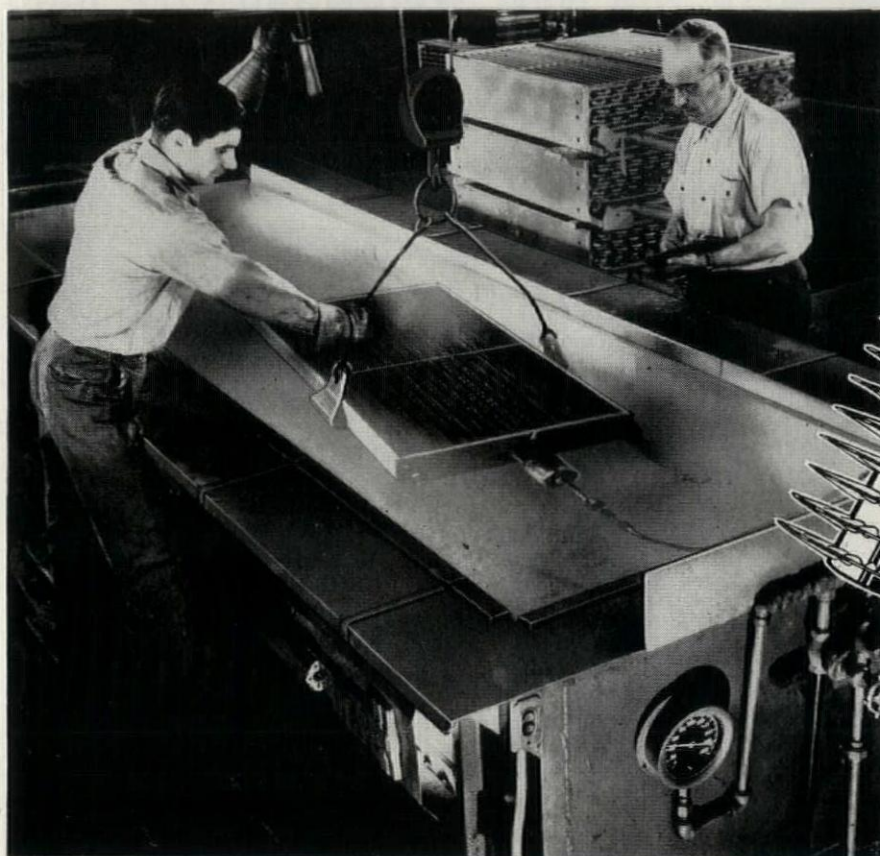
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WHY YOU CAN ***DEPEND*** ON AEROFIN...



- Durability
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**THESE ARE THE
PRODUCTS OF
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These men are looking for air bubbles . . . they are testing AeroFin heat transfer coils with air pressure for structural defects.

If there are no bubbles, it means the immersed AeroFin unit has withstood the terrific strains of steam and hydrostatic pressure tests and is ready to give you long, efficient service.

Your assurance of dependability is AeroFin's rigid testing . . . backed up by selected materials and advance design. Every unit is completely tested.

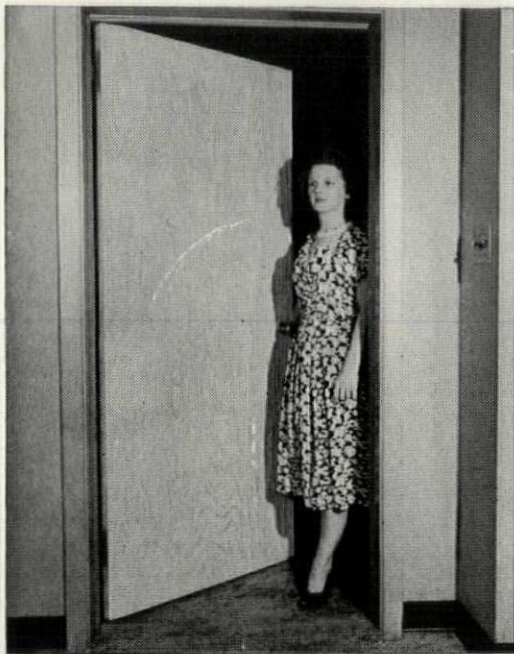
Another part of the same story of leadership is the accuracy of the famous AeroFin ratings . . . good for the life of the unit.

All this effort is to maintain and improve AeroFin's leadership in the manufacture of high efficiency heat transfer coils for all heating and cooling applications.

AEROFIN CORPORATION

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A Wood-Faced Fire Door which offers these advantages

1. Increased Safety

The only wood-faced fire door which bears the Underwriters' label. All Weldwood Fire Doors are approved for class B openings.

2. Beauty

Because of their beautiful wood faces Weldwood Fire Doors harmonize perfectly with any decorative scheme.

3. Durability

The Underwriters' Laboratories tested a Weldwood Fire Door for durability by mechanically opening and closing it 200,000 times. At the end of the test, the door was unaffected and still opened and closed perfectly.

4. Dimensional Stability

Weldwood Fire Doors are so dimensionally stable that we guarantee them against sticking in summer or rattling in winter due to any dimensional changes in the door.

5. Light Weight

At last . . . a really fireproof door that is not heavy or unwieldy. A standard 3 x 7 door weighs approximately 80 lbs.

6. Vermin and Decay Proof

The mineral composition core used in Weldwood Fire Doors is permanently resistant to fungus, decay, and termites.

7. High Insulating Qualities

Another noteworthy characteristic of the core is its high insulating value over a wide range of temperatures. It is efficient against temperatures from freezing up to that of superheated steam.

8. Moderate Cost

Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.

Lasting Fire Protection Plus the Beauty of Real Wood with the New Weldwood Fire Door

Here's the newest Weldwood combination of *beauty* plus utility: a fire-safe door that carries the Underwriters' label . . . faced with fine cabinet hardwood for decorative beauty.

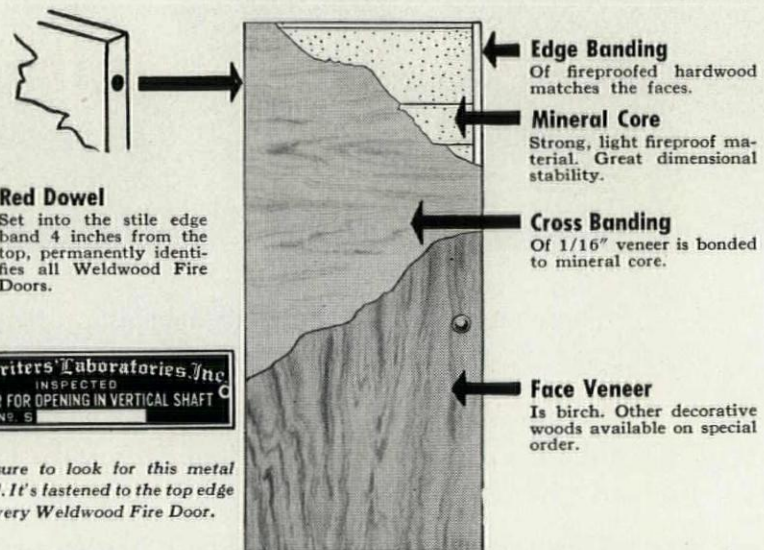
Now your *entire building* can be beautifully finished. It's no longer necessary to break up a decorative motif to gain fire-safe construction.

And we do mean *fire-safe!* In the regular one-hour fire test by the Underwriters' Laboratories,

the Weldwood Fire Door withstood an ultimate temperature of 1700°. *Yet the unexposed surface remained cool to the touch!*

Cost? So moderate it will surprise you. Maintenance expense? Negligible. Combine those two facts with the great dimensional stability that spells long service life, and you soon see what a *beautiful bargain* the Weldwood Fire Door really is.

Write for full particulars.



WELDWOOD COMPANION DOOR for matching installations

When absolute fire protection isn't a necessity . . . yet when you want a really first-class opening . . . choose the new Standard Weldwood Flush Door.

It is made with the same incombustible mineral core but without the fireproofed edge banding and, therefore, does not carry the Underwriters' label. Otherwise it offers the same advantages

. . . *amazingly high dimensional stability, beauty, durability, lightweight, high insulating qualities . . . and it sells for less than the fire door.*

Weldwood Flush Doors can be matched perfectly with the Fire Doors, to carry the same decorative theme throughout the building.

Write for full information.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N.Y.

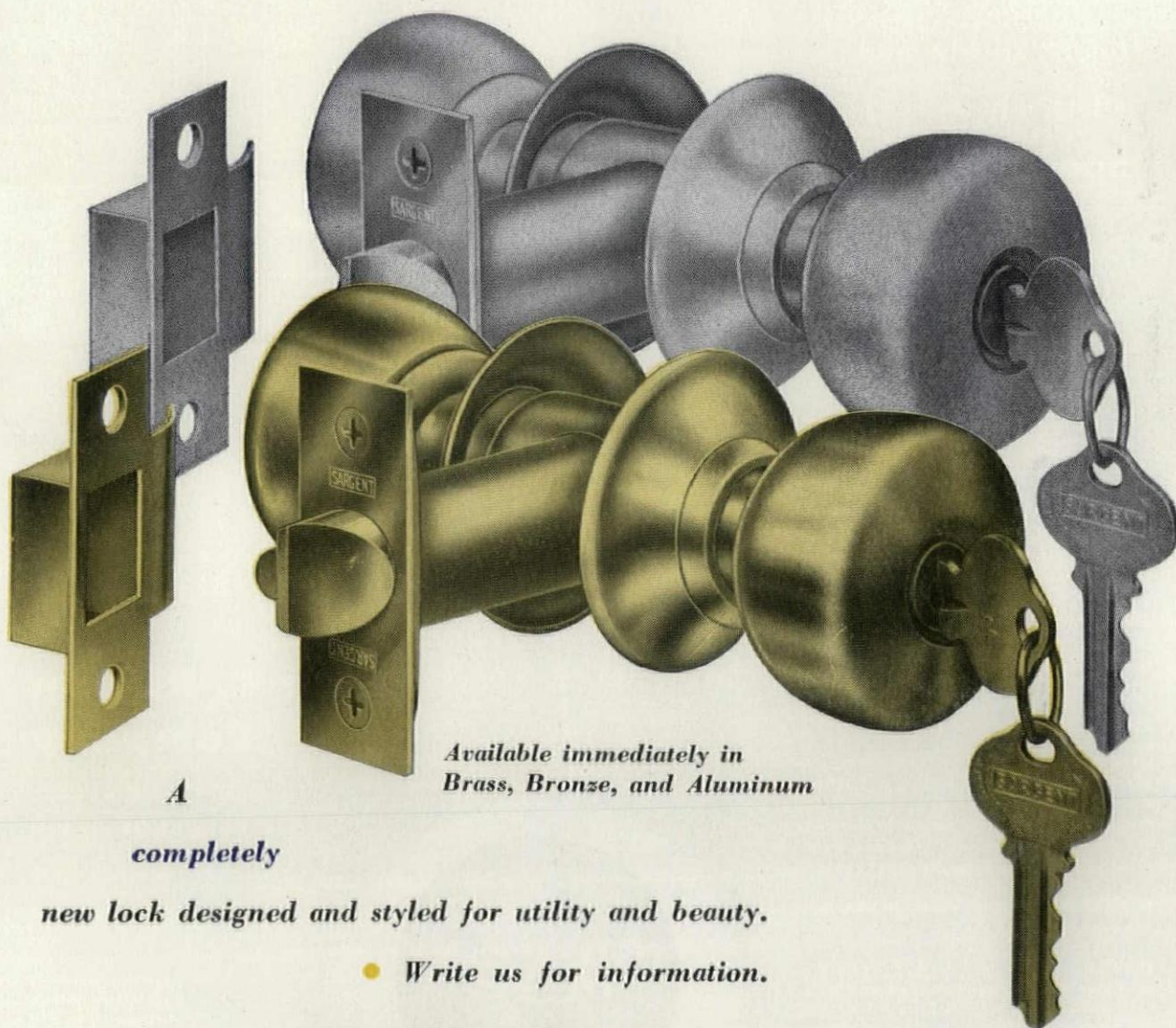
Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, Fresno, High Point, Los Angeles, Milwaukee, Newark, New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore., Rochester, San Francisco, Seattle. Also U. S.-Mengel Plywoods, Inc., distributing units in Atlanta, Dallas, Houston, Jacksonville, Louisville, New Orleans, St. Louis, Tampa. In Canada: United States Plywood of Canada, Limited, Toronto.

Presenting . . .



DUALOCK
PRECISION BUILT

- Easy to apply
- Self-aligning
- Reversible without changing parts
- No knob or rose screws.



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Available immediately in
Brass, Bronze, and Aluminum

completely
new lock designed and styled for utility and beauty.

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SARGENT & COMPANY

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hushed

as the whisper of falling snow

To close a door
unobtrusively and
effectively —
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FLOOR CHECKS—OVERHEAD DOOR
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**The
Oscar C. Rixson
Company**

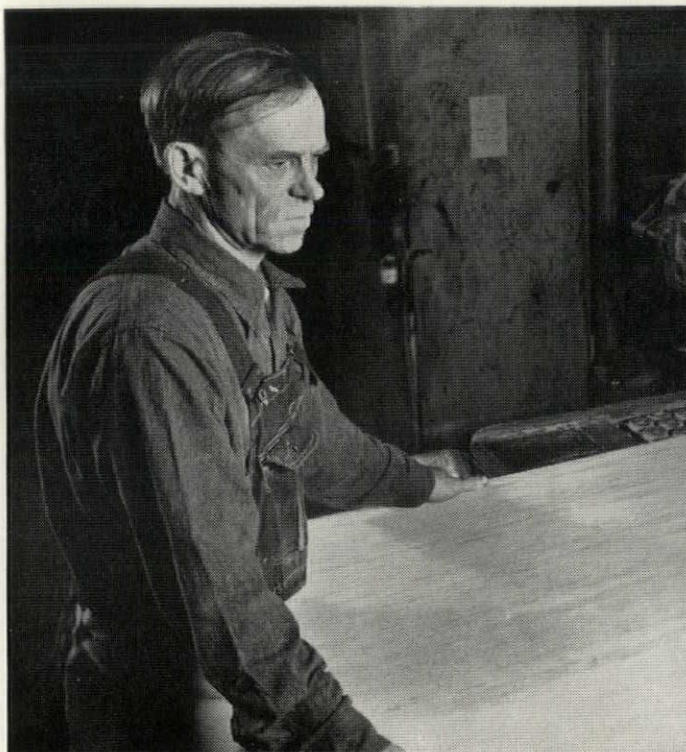
4450 Carroll Avenue
Chicago 24, Illinois

Telephone Mansfield 5050

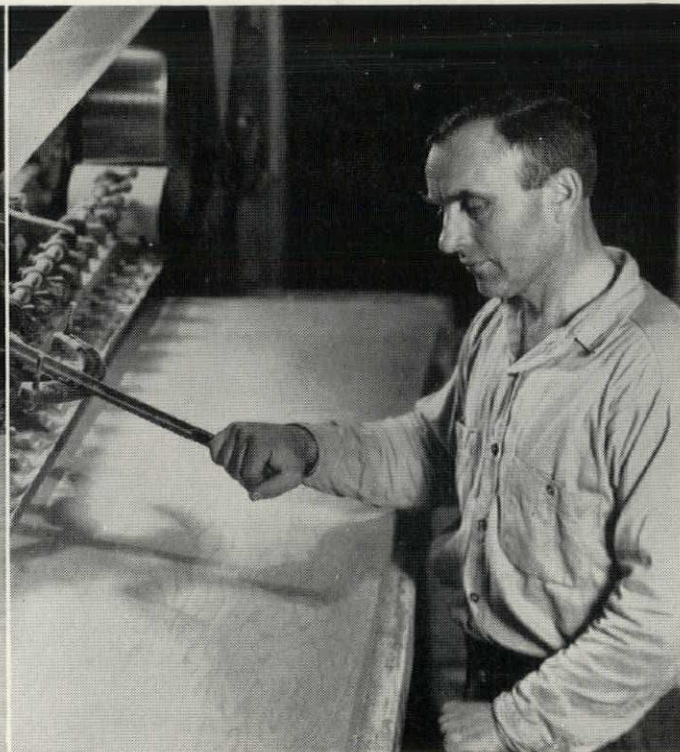
ESTABLISHED 1900



Special problems
will receive prompt
attention from the
Rixson engineering
and designing de-
partments.



John Werner—Roddiscraft No. 1 drum sander operator. Demands perfection from his machine and knows how to get it. Taught the art to sons Albert and Walter.



Joe Werner — when you admire the extra fine finish on a Roddiscraft door, chances are you are paying a tribute to his skill with the belt sander.

Roddiscraft Quality

A Family Affair



A Roddiscraft family affair—the Werner family representing 152 years of experience—brothers John, Rudy and Joe — John's sons Albert and Walter — Rudy's daughter Frances watch Rudy, Jr., the most recent member to join Roddis, perform the first step in starting a Roddis hardwood log on the way to final production as a Roddis panel or door.

Families of craftsmen — generations of craftsmen — are the rule at Roddis where pride in the product is a half-century tradition. This seven-member Roddiscraft family is typical of many in which the skill and know-how of one generation is passed on to another.

You can see the hand of the fine craftsman in every Roddiscraft product. Compare Roddiscraft hardwood flush doors and hardwood plywood and see for yourself. Note the over-all effect of a finished product — run your hand over faces and edges — note the satin smoothness — the absence of rough or unfinished edges.

The same care and craft is applied in assembly — in laying up cores, in applying veneers, in bonding. Quality is an inside as well as an outside job. With Roddiscraftsmen you are assured that Roddiscraft products are quality products inside and out.

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San Antonio, Texas . . 727 N. Cherry St.
San Francisco 24, Cal. 345 Williams Ave.

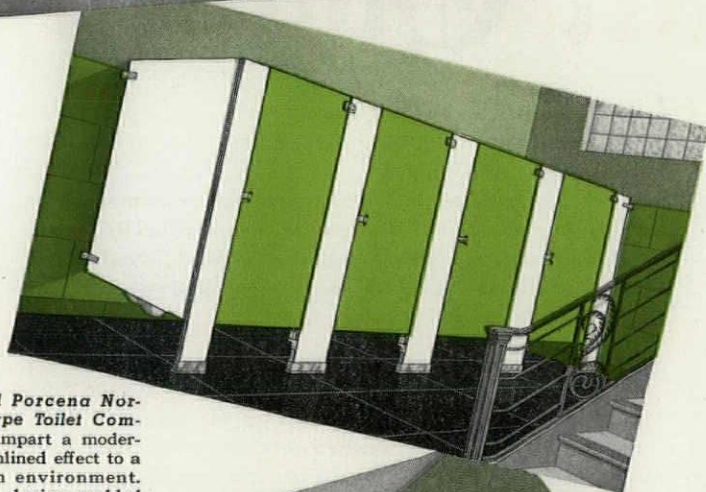
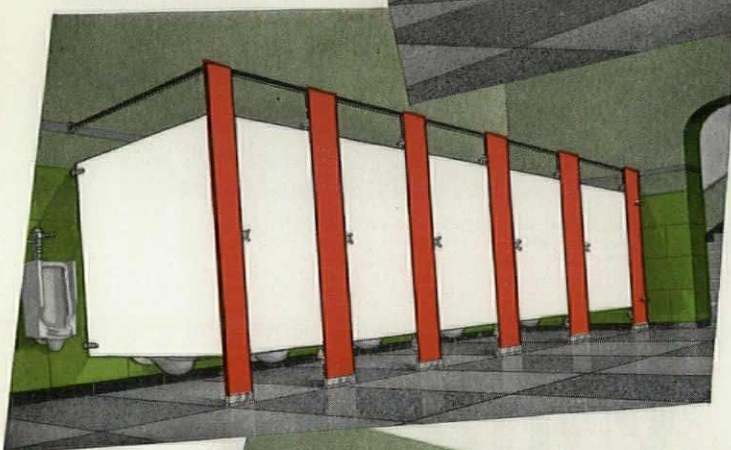
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Roddiscraft
Roddis Lumber and Veneer Co.
MARSHFIELD, WISCONSIN

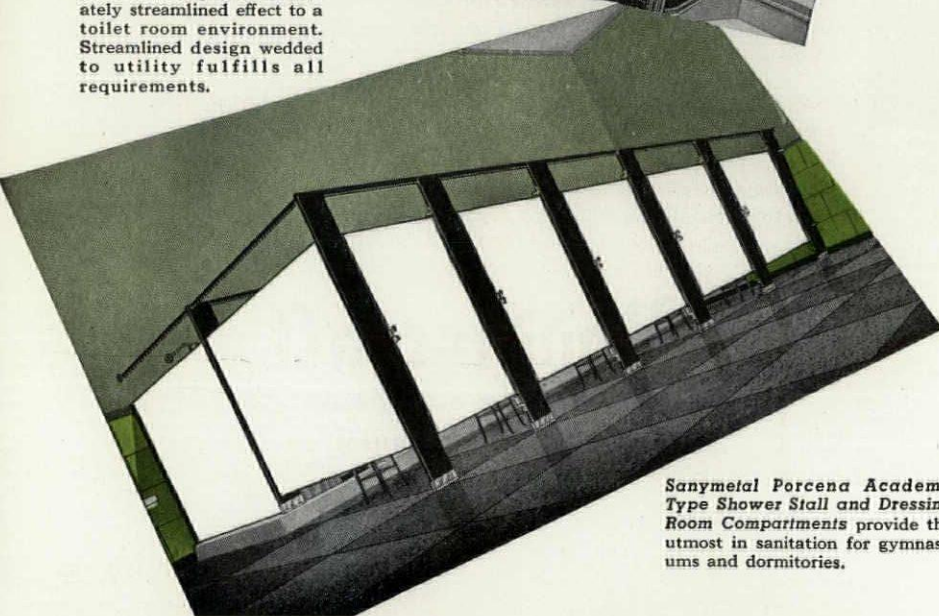
Expediency May Invite Premature Obsolescence in a Toilet Room Environment

Sanymetal Century Type Ceiling Hung Toilet Compartments are particularly appropriate for schools. They impart dignity, refinement, and cheerfulness to the toilet room environment.

Sanymetal Porcena Academy Type Toilet Compartments satisfy architects who desire a conservative but modern toilet room environmental treatment.



Sanymetal Porcena Normandie Type Toilet Compartments impart a moderately streamlined effect to a toilet room environment. Streamlined design wedded to utility fulfills all requirements.



Sanymetal Porcena Academy Type Shower Stall and Dressing Room Compartments provide the utmost in sanitation for gymnasiums and dormitories.

*Sanymetal**

"PORCENA"

(Porcelain on Steel) TOILET COMPARTMENTS

possess the natural structural strength of steel, not one sheet, but two 16-gauge sheets securely bonded on opposite sides of dense insulating core, strengthened by porcelain enamel (four layers on each sheet) which provides a non-porous, flint-hard, glass-smooth surface that is positively impervious to odors, acids and moisture.

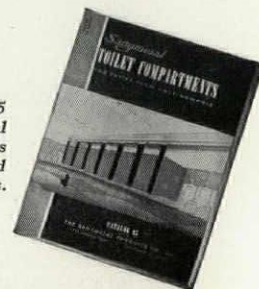
● Toilet compartments usually dominate the toilet room, influencing the environment of the one room that is important to everyone occupying the building. Toilet compartments sometimes become outmoded quickly by changes in design and materials. Sanymetal "PORCENA" (Porcelain on Steel) Toilet Compartments provide a generous measure of protection against premature obsolescence because of their modernity and beauty, fadeless color combinations, utmost sanitation, and a correct combination of the hardness of glass with the structural strength of steel, which assures years more of unvarying service.

Fabricated of the ageless, fadeless material—"PORCENA" (Porcelain on Steel)—Sanymetal "PORCENA" Toilet Compartments are available in a wide range of beautiful, never-fade colors imbedded deep into a glass-smooth, flint-hard, non-porous surface that is moisture and rust-proof, does not absorb odors, and is impervious to ordinary acids, oils and grease. The glistening porcelain finish discourages defacement; is easily cleaned, and the brilliance of the surface renewed by wiping with a damp cloth.

Ask the Sanymetal Representative in your vicinity (see "Partitions" in phone book) for helpful suggestions on planning modern toilet room environments. Refer to Sanymetal Catalog 19-B6 in Sweet's Architectural File for 1948 or write for file copy of Catalog 85.

THE SANYMETAL PRODUCTS COMPANY, INC.
1683 URBANA ROAD • CLEVELAND 12, OHIO

Sanymetal Catalog 85 illustrates several typical toilet room environments as well as shower stall and dressing room suggestions.



*Sanymetal**

*Trade Mark Reg. U. S. Pat. Off.

**TOILET COMPARTMENTS,
SHOWER STALLS AND
DRESSING ROOMS**

Nellie's nylons
never suffer ... because the water
pipes are big enough



Thanks to a farsighted contractor
who installed "oversize" steel pipe

HERE'S a happy couple who never have to give a thought to who wants to use the water next. Tom can hose the car or water the lawn to his heart's content without starving the outlets indoors.

The reason why there's always plenty of water for everybody is because the entire water system is properly sized--meaning "oversize" lead-in steel pipe from the street, large meter, and big-enough pipes from meter to all outlets.

Whether America has as much water as it wants tomorrow, depends on YOU who are providing the water systems for the thousands of new homes to be built and the thousands of old homes to be remodeled. So think of the extra outlets your clients will want later on, as well as the much greater demand for water right now. The pipe sizes of a generation ago are too small for today's houses. You will provide adequately for the future by installing larger diameter steel water pipes.

FOR HAPPIER HOMES

....INSTALL STEEL PIPING
ADEQUATE FOR TOMORROW'S NEEDS



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Classroom lighting installations

bring better results with

the **HARMON TECHNIQUE**



The term "Harmon Technique" was introduced by Luminall Paints to popularize certain aspects of complex scientific studies made by Dr. Darell Boyd Harmon, consulting educationist.

The Harmon Technique is a method of coordinating the major physical classroom factors to free the child from certain physiological stresses. These stresses have been demonstrated to cause or precipitate visual difficulties, muscle and bone distortions, energy dissipation and other strains which ultimately result in retarded growth, development and performance of most school children.

Out of Dr. Harmon's research he evolved the concept of the "Coordinated Classroom" which is distinguishable by the following:

1) Optical control of daylight to reduce window brightness, redirecting natural light to proper reflecting sur-

faces for uniform distribution. 2) Painting to provide proper color, diffusion and reflectance for brightness and contrast control. 3) Seating and other working equipment engineered to conform to body mechanics involved in visually centered school tasks. 4) Artificial lighting to supplement and maintain quality and distribution when daylight becomes inadequate, and 5) Design and treatment of chalk-boards and other aids to conform with the coordinated plan.

By following the Harmon Technique in schoolroom interiors, great gains are to be had in the educational and physical development of children.

For a complete set of specifications and color card for painting the coordinated classroom, write for a free copy of "How to Decorate Classrooms in the Harmon Technique," now available. Address: School Division, Luminall Paints, Chicago 9, Ill.



**This Rosedale (Austin, Tex.) photo
is actually a demonstration**

Here a photographic plate has been exposed rapidly enough to keep 21 youngsters from showing movement—indoors. Note the clear detail of book covers in rear . . . note clarity of detail under desks . . . note the remarkable evenness of light distribution . . . and notice also the erect easy posture and absence of tension in the children themselves. In such an environment, children can accomplish 10 months' educational progress in 6 months' time. Rosedale school, designed by Dr. Harmon, is painted with Luminall.

LUMINALL

the light-reflective
paint for interiors





**For beautiful,
durable floors
over concrete**

...It's Bruce Block HARDWOOD FLOORS

Prefinished and Unfinished



REG. U. S. PAT. OFF.

■ Bruce Blocks are designed for modern construction. Installation over concrete slab is simple and economical. The blocks are laid in mastic, without nails or splines, directly over concrete. No clips, screeds or wood subfloor are used.

A Bruce Block Floor will last the lifetime of the building in which it is installed. Thus it's far more economical than other floors that wear out or are easily damaged and must be replaced every few years. With its cushion of mastic, this modern hardwood floor is quiet, resilient, warm and comfortable underfoot. It's easy to keep clean and beautiful, too. The patterned design is distinctive and decorative.

Specify Bruce Block Floors on jobs being planned now for future construction. See our Catalog in Sweet's for further information.

E. L. BRUCE CO., MEMPHIS, TENN.
World's Largest Maker of Hardwood Floors



TILT-UP, the fast, economical method of concrete construction was used in building the new warehouse of the Merchants Transfer & Storage Company in Des Moines, Iowa—a 3-story structure 95x188 ft. in size.

TILT-UP construction is adaptable to single or multi-story structures of standard or individual design. It reduces form building and handling. It saves time, money and material.

In **TILT-UP** construction wall panels are cast flat in simple edge forms—usually right on the concrete floor—and then tilted up into position. Wall panels can be sized to meet a wide variety of requirements—with or without door or window openings. Cast-in-place piers and beams tie the panels together into one integrated unit.

TILT-UP structures have all the desirable qualities of any concrete building. They are firesafe, decay-proof, vermin-proof, termite-proof; clean, trim and neat in appearance. Their first cost is moderate, they give a life-time of service, they cost little to maintain. That's **low-annual-cost** construction.

Learn more about this modern, time-saving, economical construction method. Write for free illustrated technical bulletins containing construction and design details. Distributed only in the United States and Canada.

TILT-UP
....for fast,
economical
CONCRETE
construction



Upper photo: View looking west on 3rd floor, with wall panel on platform ready for tilting. First floor panels were 15 ft. high, second and third floor panels 11 ft. high. All were 17 ft. 6 in. long and 6 in. thick. Lower photo: Architect's rendering of completed building at 9th and Vine Streets. Designed by Brooks-Borg, architects and engineers; built by The Weitz Company, Inc., contractors — both of Des Moines.

PORTLAND CEMENT ASSOCIATION

DEPT. 8-25 • 33 W. GRAND AVENUE • CHICAGO 10, ILLINOIS

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

American Seating Company presents "the desk of the future"

New 10°-20° American Universal Desk

Coordination of the "10°-20°" with
proper lighting advances pupils'
educational progress and
visual-physical welfare

THE "Ten-Twenty" American Universal Desk, now being introduced, marks a new era in classroom seating. Developed in accordance with the thoroughly accepted principles of coordinated classroom environment, this "desk of the future" is backed by years of research in the science of classroom seating, and its related fields of lighting, fenestration, and painting.

The new "Ten-Twenty" Universal is designed to promote sight conservation and induce healthy, balanced posture. Desk top is quickly, easily adjustable to three positions—20° slope, 10° slope, and level, to provide proper angles for all tasks—visual and manipulative.

The natural, light finish of the "Ten-Twenty"—with a reflectance of 30 to 50%—relieves eyestrain by reducing the brightness ratio between the desk top and white papers or book pages. Automatic fore-and-aft seat adjustment provides correct focal accommodation for all work on the top in each use position. Both desk and seat are adjustable to varying heights to assure proper positioning of the child. The desk-seat unit is movable so it can be placed to take fullest advantage of natural and artificial light.

Other important features of the new "Ten-Twenty" American Universal Desk are . . . improved cradle-form seat that swivels 45° each way for easy ingress and egress . . . self-adjusting lower rail to fit all occupants . . . and a roomy, sanitary bookbox. Write for details.



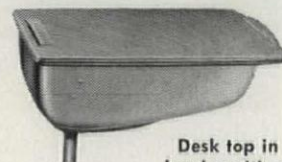
FREE— Informative booklet, "Progress Toward Improved Classroom Environment." Outlines factors contributing to the visual and physical comfort of pupils, and gives bibliography on fundamentals of light and seeing, classroom lighting and child development, natural and artificial lighting for classrooms, color and brightness. Write for your copy today.



New 10°-20° American Universal Desk,
with desk top at 20° slope.



Desk top at
10° slope.



Desk top in
level position.

American Seating Company

GRAND RAPIDS 2, MICHIGAN
WORLD'S LEADER IN PUBLIC SEATING
Manufacturers of School, Auditorium, Theatre, Church, Transportation
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Branch Offices and Distributors in Principal Cities

Everything in fine school furniture

American Universal Desks; Envoy Chairs, Desks, and Tablet-Arm Chairs; Universal Tables; Steel Folding Chairs; and Bodiform Auditorium Chairs.

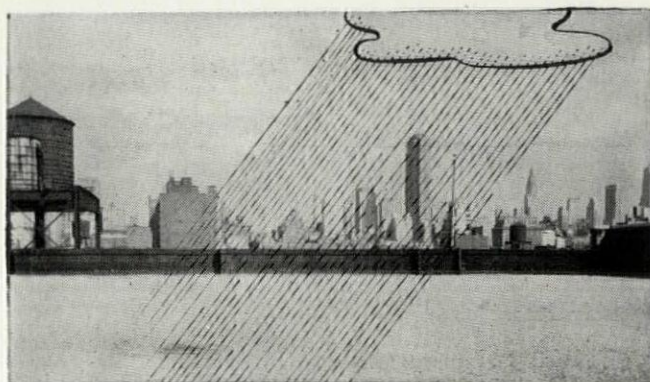
Why the Barrett* SPECIFICATION* Roof

is the toughest,
longest-lasting, best
value built-up roof
that can be made

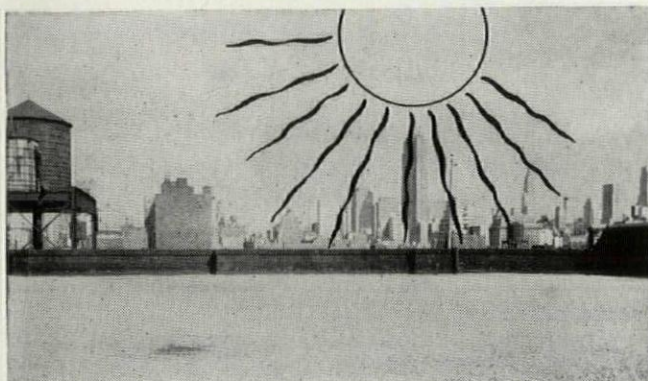
1. Barrett Specification* Pitch and Felt
2. The Barrett Methods of Application
- ✓ 3. THE GRAVEL OR SLAG ARMORED SURFACE
4. The Barrett Approved Roofer



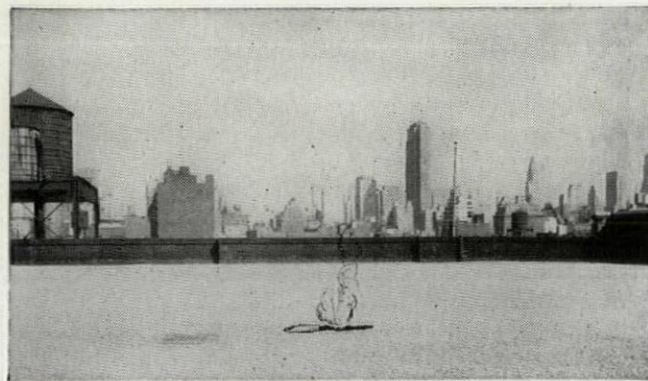
SPECIAL FEATURE of the Barrett Specification* Roof is the gravel or slag surface. The built-up layers of pitch and felt are topped by a thick pouring of pitch to anchor the gravel or slag thus providing armored protection for the waterproofing membrane below.



THE GRAVEL or slag surface permits the use of an extra-heavy top pouring of Barrett Specification* pitch—the life-blood of the roof—providing a doubly thick waterproof covering.



MOST DAMAGING of all the weather's attacks upon a roof are the sun's actinic rays, which dry out the valuable oils in roofing bitumen. However, the gravel or slag surface of the Barrett Specification* Roof provides positive protection of the roofing membrane against the sun.



THE GRAVEL or slag on a Barrett Specification* Roof not only provides protection against mechanical damage to the roofing membrane but also interposes a surface of fireproof stone between the building and flying brands—one reason why these famous roofs carry Fire Underwriters' Class A rating.

● The superiority of the Barrett Specification* Roof is due to the combination of highest-quality roofing materials, the protective surface of gravel or slag, and scientifically standardized application techniques used by Barrett Approved Roofers. The result is a roof so good that it can be bonded against repair and maintenance expense for periods up to 20 years—a roof so good that it regularly outlasts the bonded period by many years.

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Alabama

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T-SLOTS • DOUBLE SIDE CONTACTS PLASTER EARS

This advanced design provides for either *back* wiring or *side* wiring with equal facility. Back-wiring feature makes easier, more secure installation. Built-in stripping guide assures correct stripping; eliminates exposed wire. Individual terminal clamps hold wires with a no-slip grip. Other structural features are:

Large recessed binding screws,
ample for No. 10 wire;

Strong plastic base;

Double T-slots;

Double side contacts;

Washer type plaster ears.

Listed as standard by Underwriters Laboratories, Inc. and meets all high-grade specifications. Specify No. 9260 for brown plastic base; No. 9260-I for white Ivorylite.

10 AMPS. — 250 VOLTS 15 AMPS. — 125 VOLTS



CONVENIENCE OUTLET

- Large Recessed Binding Screws
- Ample for No. 10 Wire
- Strong Plastic Base
- Double T-Slots
- Double Side Contacts
- Washer Type Plaster Ears

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To Arrow-Hart & Hegeman Electric Company, Hartford 6, Conn.

Send us your catalog data-sheet on the new 9260
Back-Wired Duplex Convenience Outlet.

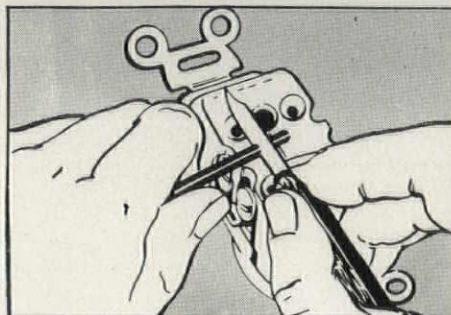
(Name) _____

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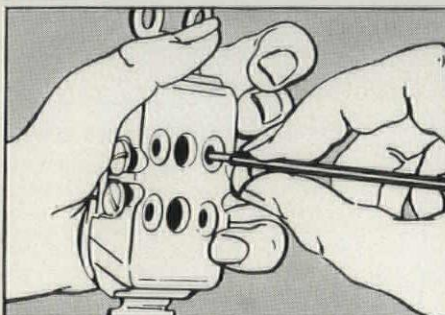
(Address) _____

(City & State) _____

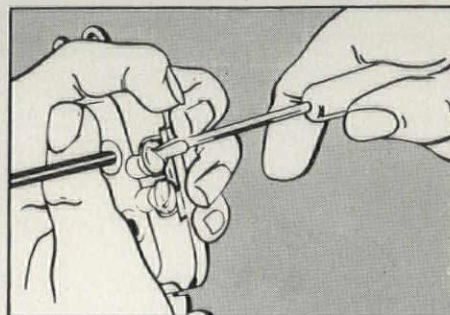
THE ARROW-HART & HEGEMAN ELECTRIC COMPANY, HARTFORD 6, CONN., U.S.A.



1. Strip off insulation to exact length, quickly and easily, using built-in stripping guide.



2. Loosen terminal screw — Wire stripped to correct length is inserted from back.



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**Will owners of your
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Not if you plan for hard coal heat!

**APPROVED DOMESTIC
AUTOMATIC ANTHRACITE
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**Experts predict shortages of
some fuels for 3 to 5 Years!**

• The "unbeatable heating combination"—a hard coal stoker and plentiful anthracite—will give your clients the heat they *want* when they *want it*. The experts' predictions of shortages of some fuels for 3 to 5 more years does not apply to anthracite.

The "unbeatable heating combination" works these *three* ways to keep your clients warm and comfortable:

Plentiful Heat A full year's supply of plentiful, stoker size anthracite can be stored easily.

Occupants need never turn their thermostats to chilly levels to conserve fuel.

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Please send me more information on anthracite and anthracite equipment including stokers and the new anthratube.

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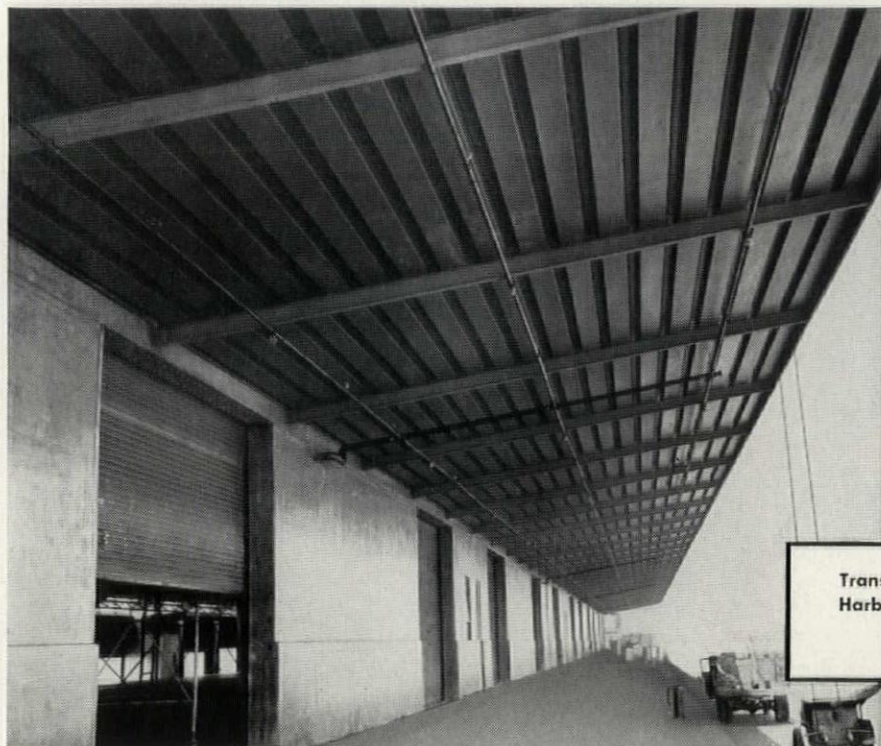
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Address _____

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PLEASE PRINT

HOW TO MAKE DESIGN ECONOMIES PAY OFF



...Specify
*Fenestra**
Steel Panels

Transit sheds 3, 4 and 5 on Pier A, Long Beach, Cal.
Harbor Engineers, Long Beach, Designers. Peter Kiewit
& Sons Co., Arcadia, California, Contractor.

DESIGN PROBLEM: How to construct *economically* and with maximum speed and efficiency 26,500 square feet of canopies to shield three large transit sheds.

SOLUTION: Selection of Fenestra Type D Building Panels . . . strong and noncombustible . . . engineered for fast construction.

Economies are the natural result of installation speed and simplicity. First, job time is greatly reduced. Second, special skills are not required to put in these precision panels . . . they lock together simply and firmly—ready for a final coat of paint. Fenestra Panels make ideal canopies for stores, piers, factory loading platforms, all similar structures.

These versatile panels also make sturdy floors for every kind of building. Type D panels can be placed channel side up and flat surface down or vice versa. Or cover plates can be used to provide two flat surfaces. The panels are prime coated, ready for application of concrete, mastic and wood or linoleum, or other surface material of your choice.

Already famous as a producer of steel windows, Fenestra has applied its steel-fabrication skill to the production of these rugged, noncombustible steel panels . . . and has made them ideal not only for floors and ceilings, but for walls, partitions and roofs. See Sweet's Architectural File for 1948 (section 3c-1) or mail the coupon for full information.

*(Trademark)



TYPE D FOR FLOORS. Box beam formed by welding together two steel sections. Side laps interlock to form continuous flat surface. Standardized in 16" width. Depth 1½" to 9". Gages 18 to 12. Type AD available with two flat surfaces.



TYPE C FOR WALLS. Two metal members pressed together, with felt at each side to prevent metal-to-metal contact. Filled with insulation and closed at the ends, at the factory. Standardized in 3" depth and 16" width, in 18 gage painted steel or 16 B & S gage aluminum.



HOLORIB ROOF DECK. Steel sheets reinforced by three integral triangular ribs on 6" centers. Flat surface for mopped application of insulation and roofing. 18" wide. Lengths to 24' to fit. Gages 18 and 20 are standard.

Fenestra
BUILDING PANELS FOR

ROOFS

FLOORS

WALLS

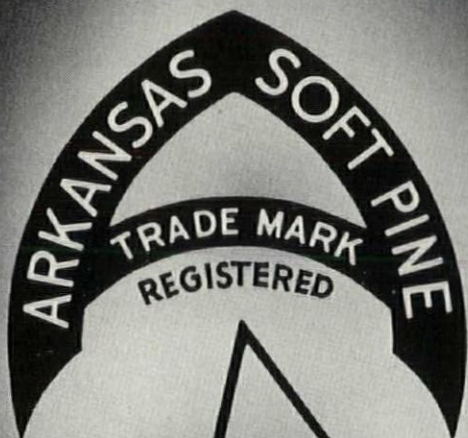
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Building Panels Division
Dept. PA-8, 2253 E. Grand Boulevard
Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Building Panels.

Name

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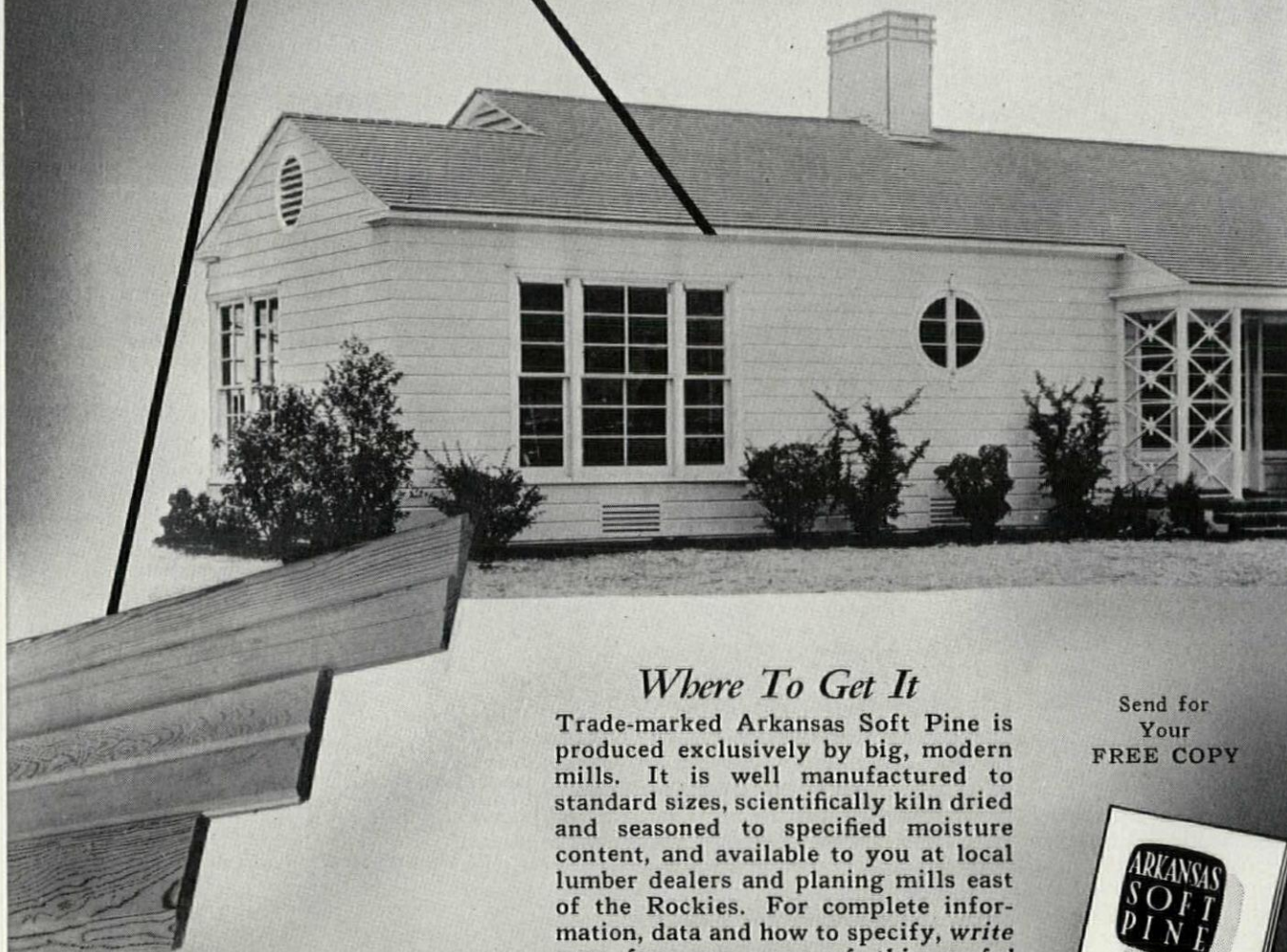


DROP SIDING

of Arkansas Soft Pine

HOLDS PAINT

There's no pitch in Arkansas Soft Pine drop siding to bleed through! Its uniform, soft texture absorbs primers evenly. Finish coats then penetrate the surface to become integral with the wood fiber. This affinity for pigment means that paint protection is built up on the wood itself and not merely superimposed on the surface. Result . . . no bleeding, no checking, minimum fading, maximum resistance to weather.



Arkansas Soft Pine Drop Siding is produced in all standard patterns and grades. See them at your lumber dealer.

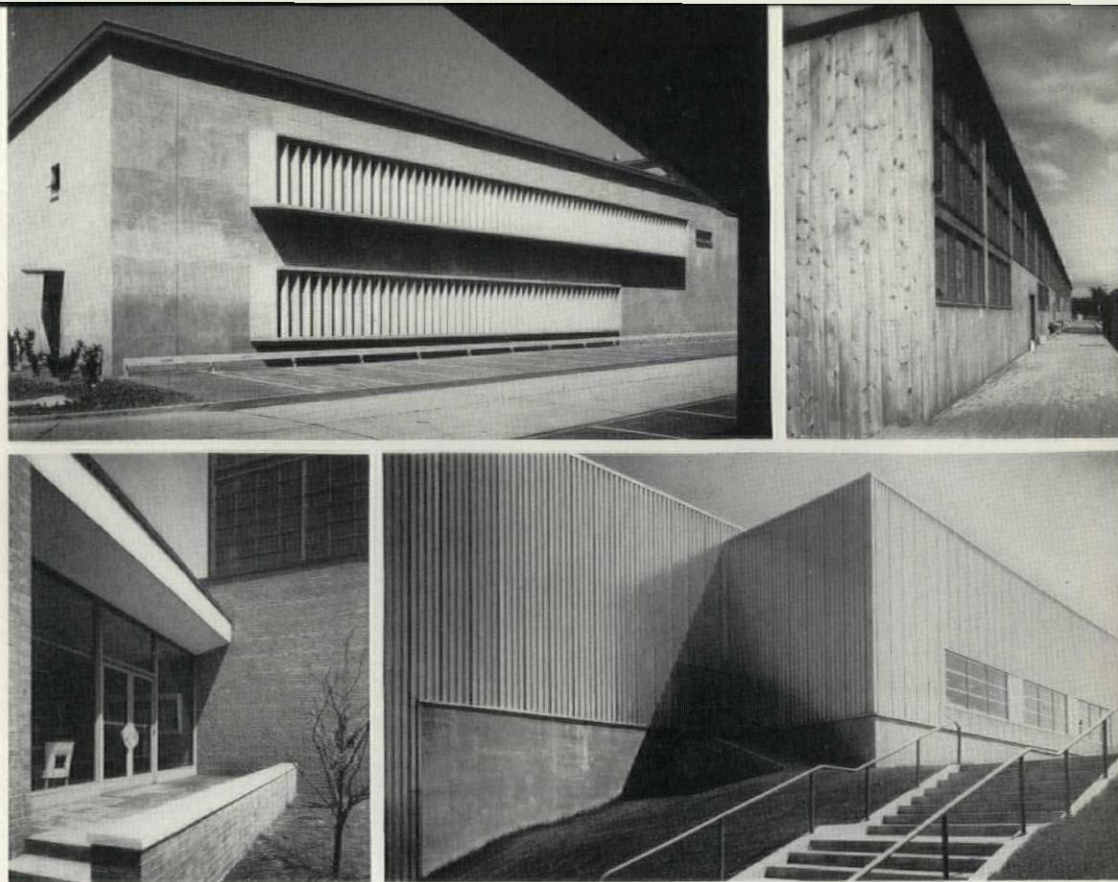
Where To Get It

Trade-marked Arkansas Soft Pine is produced exclusively by big, modern mills. It is well manufactured to standard sizes, scientifically kiln dried and seasoned to specified moisture content, and available to you at local lumber dealers and planing mills east of the Rockies. For complete information, data and how to specify, write now for your copy of this useful handbook.

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ARKANSAS SOFT PINE BUREAU . . . 748 Boyle Building
Little Rock, Arkansas



INDUSTRIAL BUILDINGS



Critique

In a time when manufacturing and selling are such a sizable and highly organized part of our culture, the industrial building assumes vast importance, both spatially and architecturally. In the latter sense, it might even lay claim to representing the most truly organic architecture of the period. The function may be stated with almost mathematical exactness. Since efficiency is the watchword, the plan may be developed as logically as the designer's ability permits. Because of the need for good working conditions, the architect may call on the latest technical developments to produce the ideal environment for the work at hand. Since gluey architectural sentiment is usually lacking, he is free to work out genuine harmony between form and function.

We think the four buildings shown in this month's critique are excellent instances. They range in type from a simple, all-wood box factory to a nylon-throwing plant in which the required precise atmospheric conditions dictated a remarkable structure encased in insulation and covered outside with a sparkling surface of aluminum.

In studying this group of industrial structures, we were immeasurably assisted by the comments and questions of Roland Wank, distinguished New York architect, industrial plant specialist, and former Chief Architect for the Tennessee Valley Authority. We combed through the plans; the structural schemes; the measures introduced for controlling air conditions, light, and sound; and we attempted to weigh the final results as architecture. Then the several architects were called upon to elaborate on our tentative conclusions. The following presentations are a synthesis of this author-meets-critic endeavor.



ADMINISTRATION BUILDING (left) and ASSEMBLY BUILDING. The slight disharmony between louvered bands and open window areas is, according to the architects, "more logical, viewed from the interior," since most of the latter occur in the factory area.

1. ASSEMBLY PLANT, VAN NUYS, CALIFORNIA

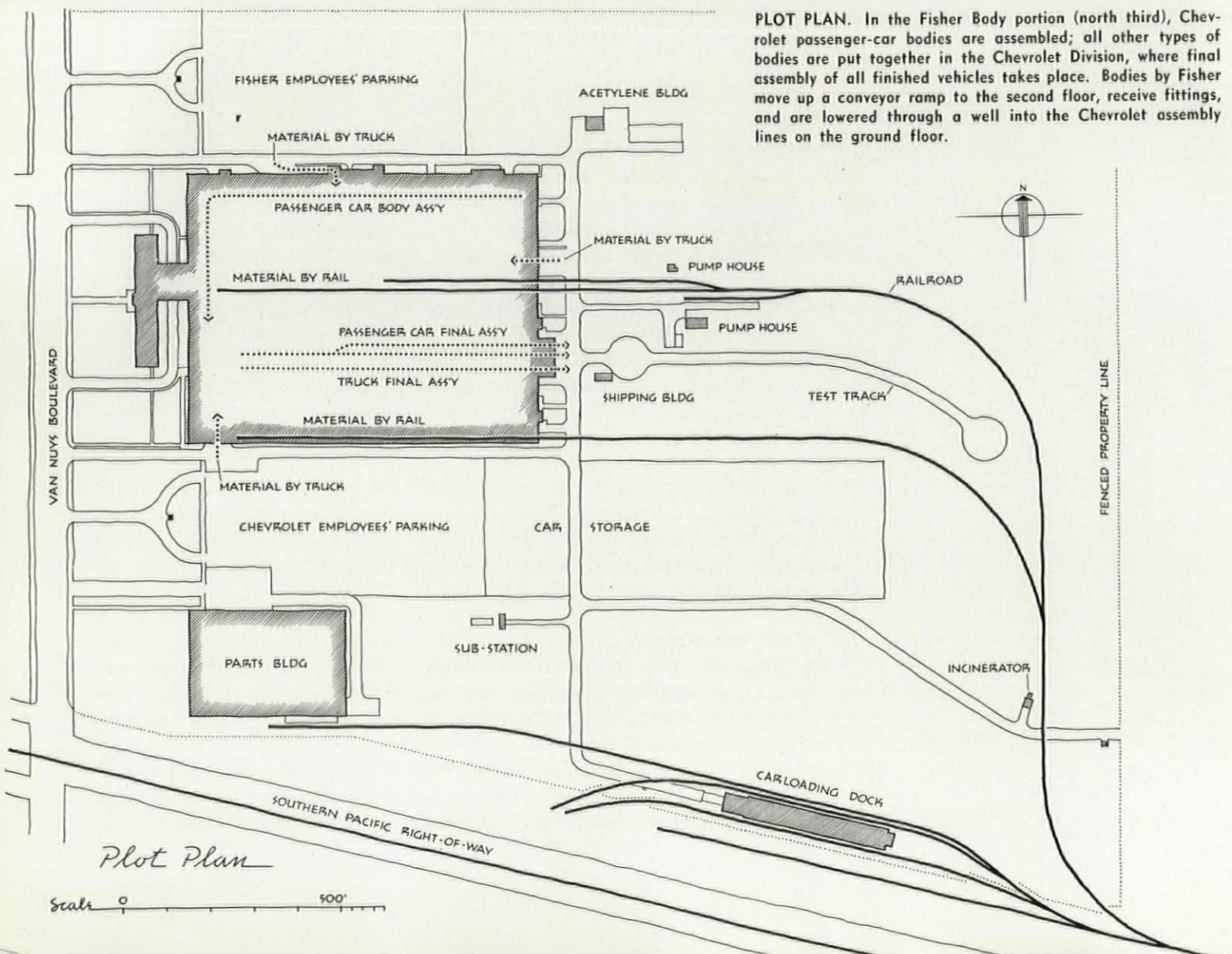
PARKINSON, POWELSON, BRINEY,
BERNARD & WOODFORD
Architects

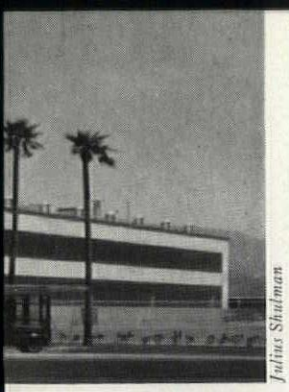
ALBERT KAHN
ASSOCIATED ARCHITECTS
AND ENGINEERS, INC.
Consultants

PROGRAM: A two-part automobile assembly plant, with Fisher Body occupying the north third of the huge, two-story assembly building, the Chevrolet Division-General Motors utilizing the remaining two-thirds; an administration building, shared by the two divisions; a parts building; and several lesser structures.

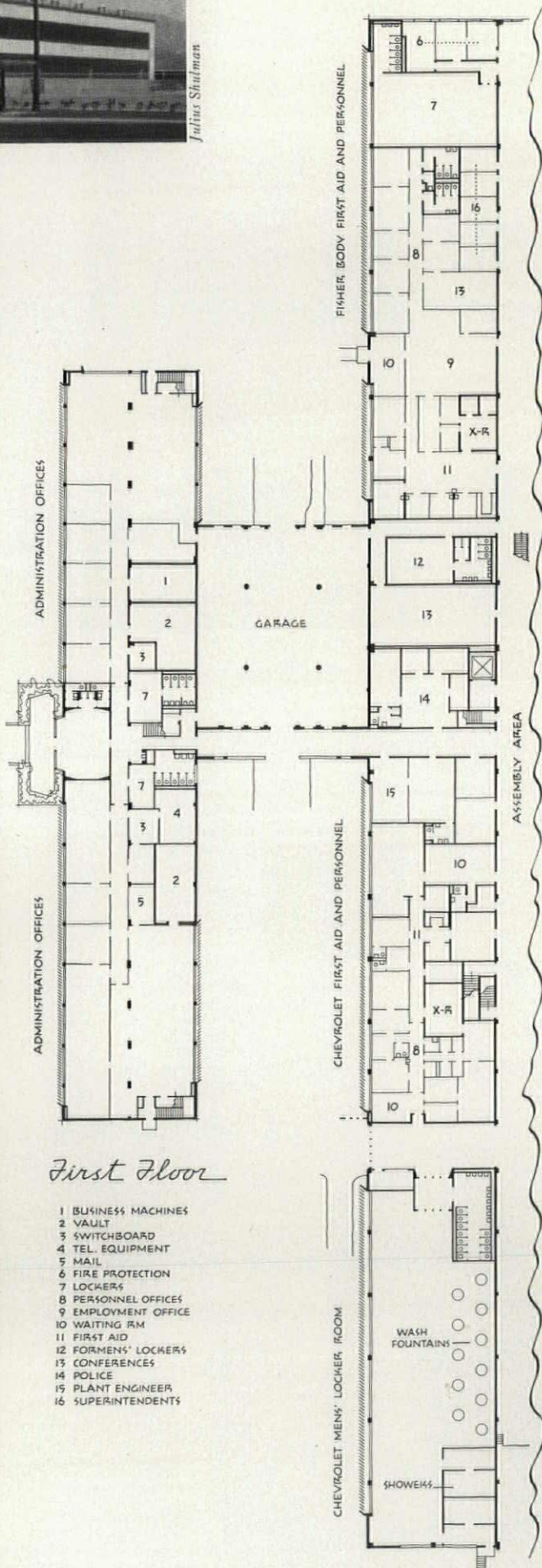
SITE: A flat, 100-acre tract.

MAIN POINTS ADMIRERD: Site organization; direct, flow-line layout from delivery of parts or subassemblies through to finished cars; the structural sun-control devices; and the pleasing architectural quality.



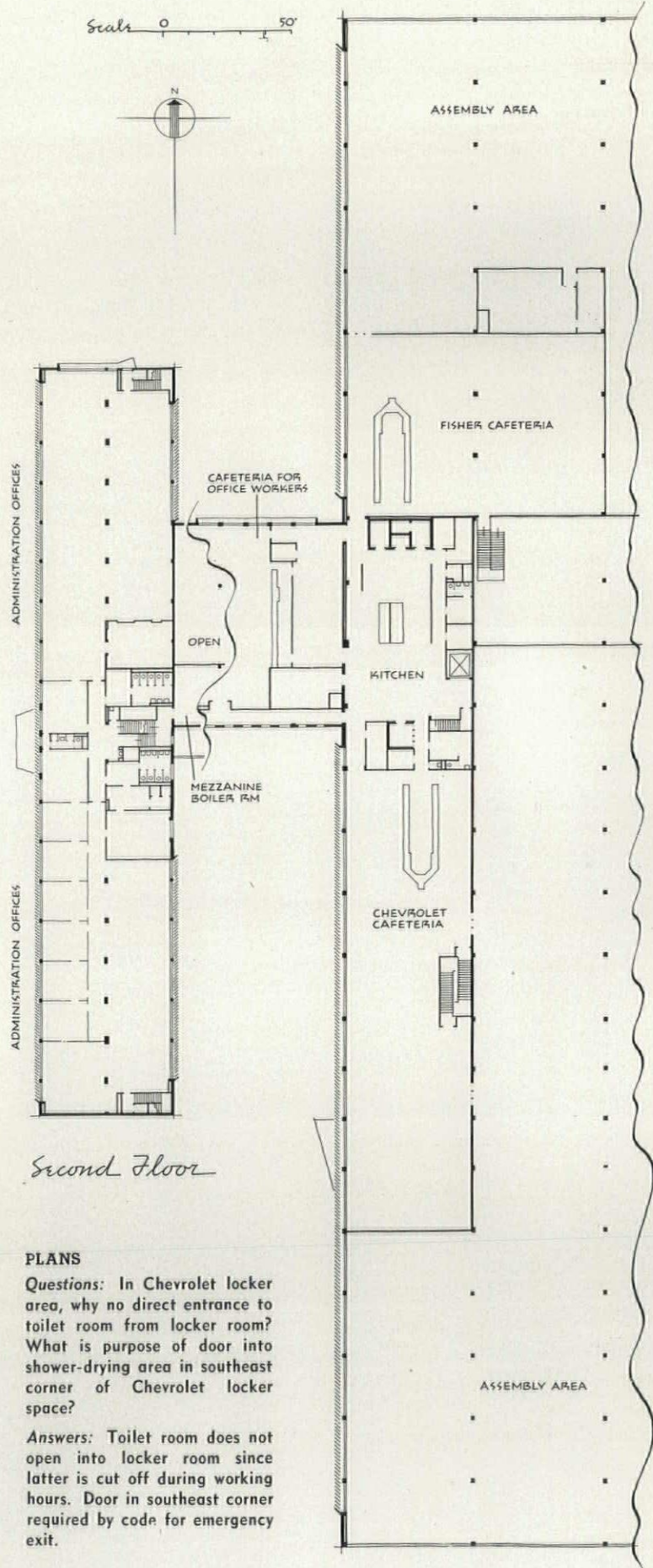


Julius Shulman



First Floor

- 1 BUSINESS MACHINES
- 2 VAULT
- 3 SWITCHBOARD
- 4 TEL. EQUIPMENT
- 5 MAIL
- 6 FIRE PROTECTION
- 7 LOCKERS
- 8 PERSONNEL OFFICES
- 9 EMPLOYMENT OFFICE
- 10 WAITING RM
- 11 FIRST AID
- 12 FORMEN'S LOCKERS
- 13 CONFERENCES
- 14 POLICE
- 15 PLANT ENGINEER
- 16 SUPERINTENDENTS



Second Floor

PLANS

Questions: In Chevrolet locker area, why no direct entrance to toilet room from locker room? What is purpose of door into shower-drying area in southeast corner of Chevrolet locker space?

Answers: Toilet room does not open into locker room since latter is cut off during working hours. Door in southeast corner required by code for emergency exit.

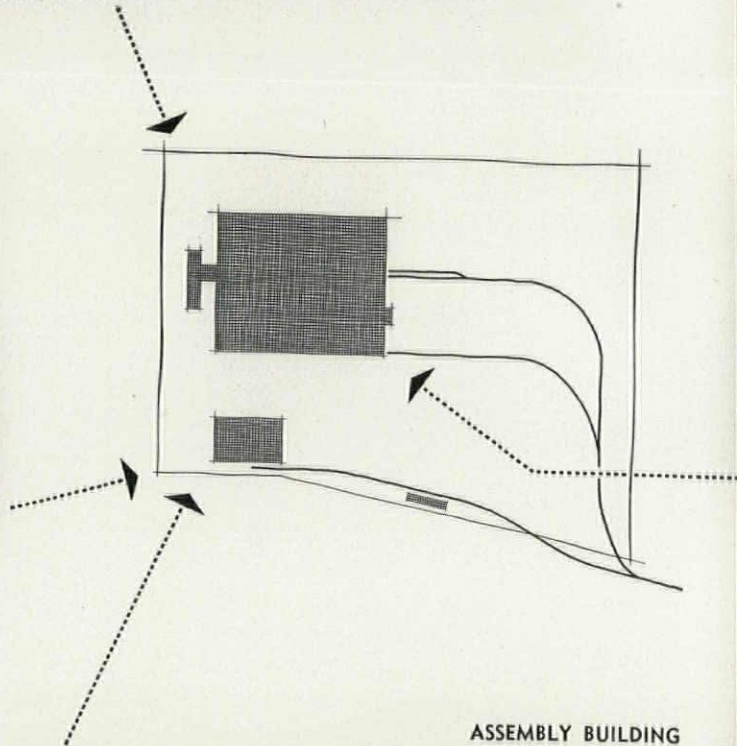


Julius Schulman photos (except as noted)

ASSEMBLY BUILDING (left) and ADMINISTRATION BUILDING. All landscaping by Tommy Tomson.

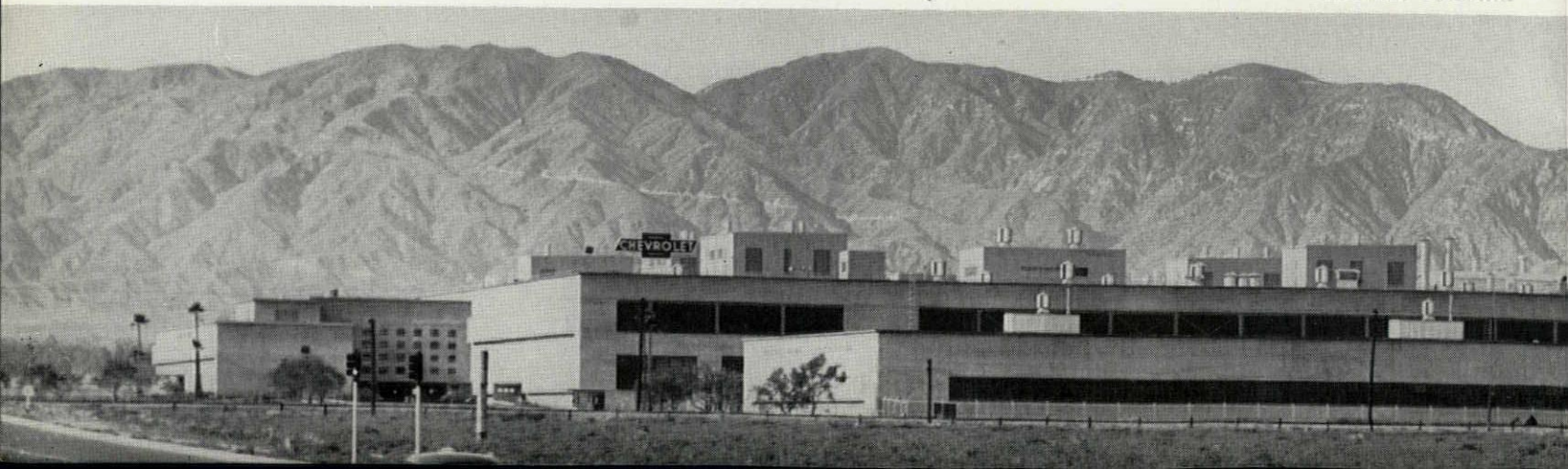


PARTS BUILDING warehouses parts for filling orders from local dealers.



ADMINISTRATION BUILDING

ASSEMBLY BUILDING



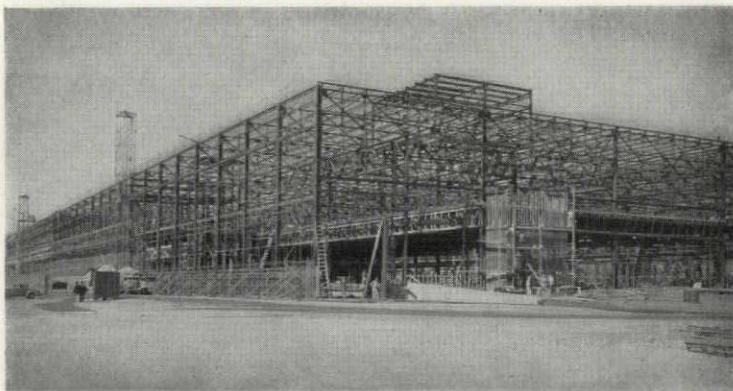
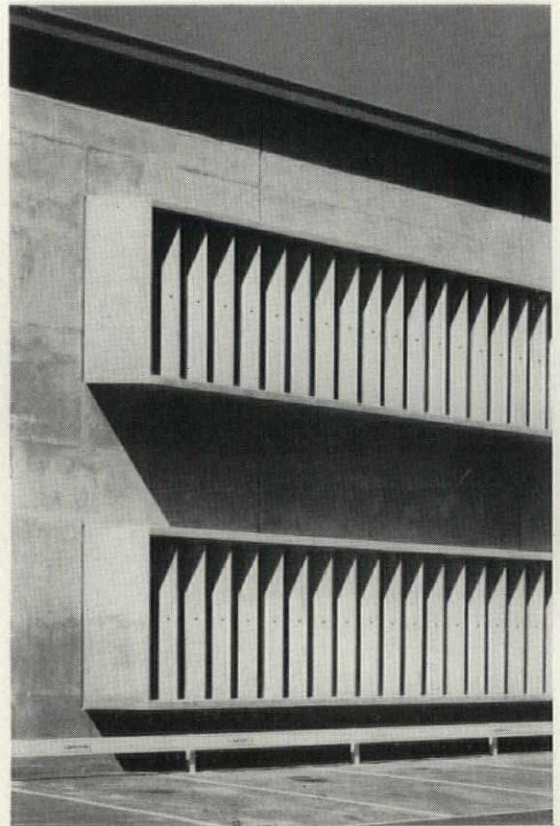
1. ASSEMBLY PLANT, VAN NUYS, CALIFORNIA

PARKINSON, POWELSON, BRINEY, BERNARD & WOODFORD
Architects

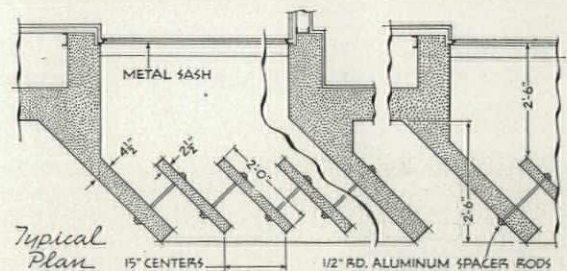
ALBERT KAHN ASSOCIATED ARCHITECTS AND ENGINEERS, INC.
Consultants

CHIEF QUESTIONS—in addition to those in the captions on preceding pages: How did the louvers actually work out? Would you use these again, in preference to some other form of sun control?

For some as yet unaccountable reason, there was a tendency toward buckling in the precast pumice-concrete louver panels. To correct this, aluminum spacer rods were installed, connecting the adjoining panels and holding them rigid. However, as a functional device, the architects report: "The sunshades do a good job . . . There is no feeling of being shut in. The one-way angular view is always open, and there is no glare of light from the windows, while ventilation is never obstructed. True, a certain amount of view is blocked out, but the view from the west windows is not inspiring, as the mountains lie to the north of the site."

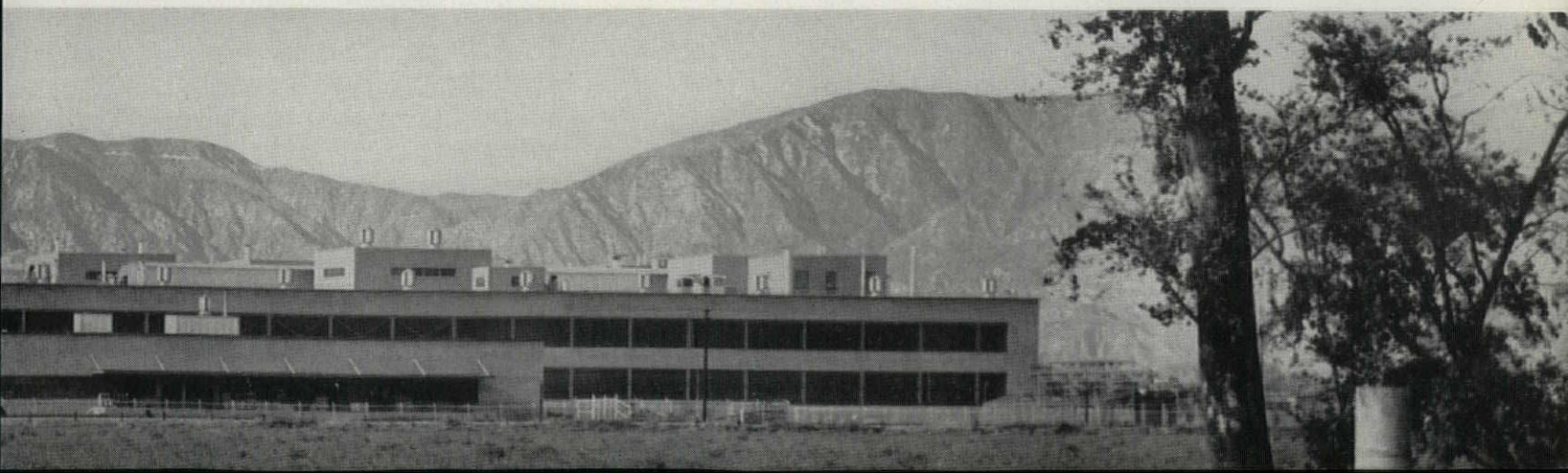


The Assembly Building is framed in steel, laid out in 50-foot bays.



SUN LOUVERS. The temperature ranges from 20 degrees F to well over 100 degrees. The need was to reduce the temperature inside the building, reduce the sun's glare, yet not interfere with ventilation. The precast slabs exclude the sun until after working hours on the longest day of the year. In the administration building, the fins are about 6 inches from the glass surface; in the assembly building, they are approximately 2'-6". The architects recommend the greater depth.

WITH PARTS BUILDING in foreground.





Edgar Osborne

SOUTH WALL, assembly building, incoming rail spur at right. Heat-absorbing glass. Toilets are on the mezzanine.

1. ASSEMBLY PLANT VAN NUYS, CALIFORNIA

PARKINSON, POWELSON,
BRINEY, BERNARD
& WOODFORD, Architects

ALBERT KAHN
ASSOCIATED ARCHITECTS
AND ENGINEERS, INC.
Consultants

ENGINEERING OUTLINE

CONSTRUCTION **ADMINISTRATION BUILDING:** reinforced concrete throughout. **ASSEMBLY BUILDING:** **Framing:** structural steel, riveted columns and beams; 50-foot bays. **Walls:** reinforced concrete curtains (exterior: clear waterproofing; interior: plaster or terra-cotta tile), except east end, which is protected metal, for future expansion. **Floors:** reinforced concrete surfaced with wood block or asphalt tile. **Roof:** steel deck with vermiculite concrete insulating slab; built-up surfacing. **Partitioning:** movable steel, plaster (administration building); concrete (assembly building). **Doors:** hollow metal generally; railroad doors: wood. **Fenestration:** steel sash; heat-absorbing glass in south and east walls; clear, elsewhere. Exterior sun louvers of pumice-concrete on east and west.

EQUIPMENT **Heating:** ventilation and heated air filtered, supplied by duct system from central, natural-gas-fired heating plant which is located at garage mezzanine level; blowers at diffusing outlets; thermostatic controls; stand-by propane plant. **Lighting and Electrical:** fluorescent lighting throughout, with circuit breaker-controls. **Plumbing:** complete storm water sewer system for entire property; separate washrooms for each division of plant. Special deluge sprinkler system in paint rooms. **Special Equipment:** kitchen: gas-fired ranges; stainless steel surfaces (also in cafeteria counters). Intercommunication system throughout the factory.



Julius Shulman

LOBBY of Administration Building



Julius Shulman

GENERAL OFFICES, showing clear view through louvers.



Critique

THIS PLANT received a Mention in this year's Progressive Architecture Awards program.

"The owner did not wish to have a canopy, as all material is taken on a truck by motor hauler directly into freight cars, and weather protection did not seem necessary."

P. A. Dearborn Photos



2.

FACTORY, WEST BATH, MAINE

ALONZO J. HARRIMAN, INC., Architects-Engineers



TERMITES? "Have not yet arrived this far north."

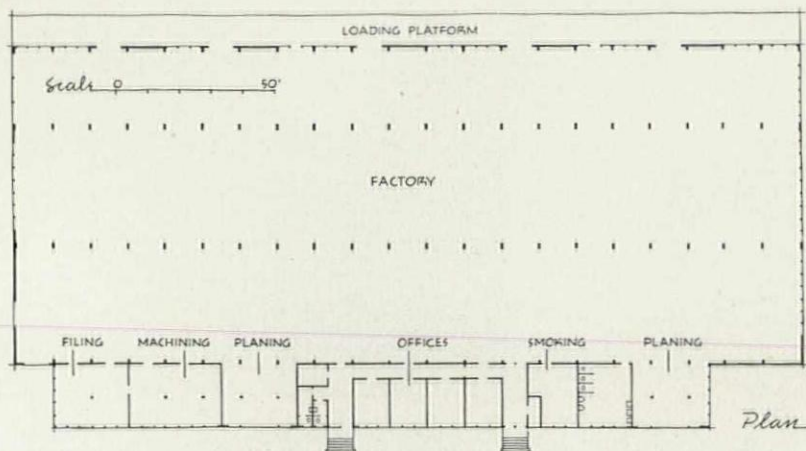
PROGRAM: A factory for making wood boxes.

SITE: Flat field adjacent to rail siding.

SOLUTION: An open rectangle, with material-delivery and offices on one side, a shipping dock along the railroad side. All wood, simple design so that the factory workers themselves could build the building, which replaced one destroyed by fire.

MAIN POINTS ADMIRER: Direct and knowing handling of the local building material.

CHIEF QUESTIONS: OK not to have any canopy or other weather protection above shipping dock? No need for termite shields? What about space for visitors?



Employees' entrance, right; office entrance, left. Special provision for visitors unnecessary: "This is just a plant; main office is elsewhere."

2. FACTORY, WEST BATH, MAINE

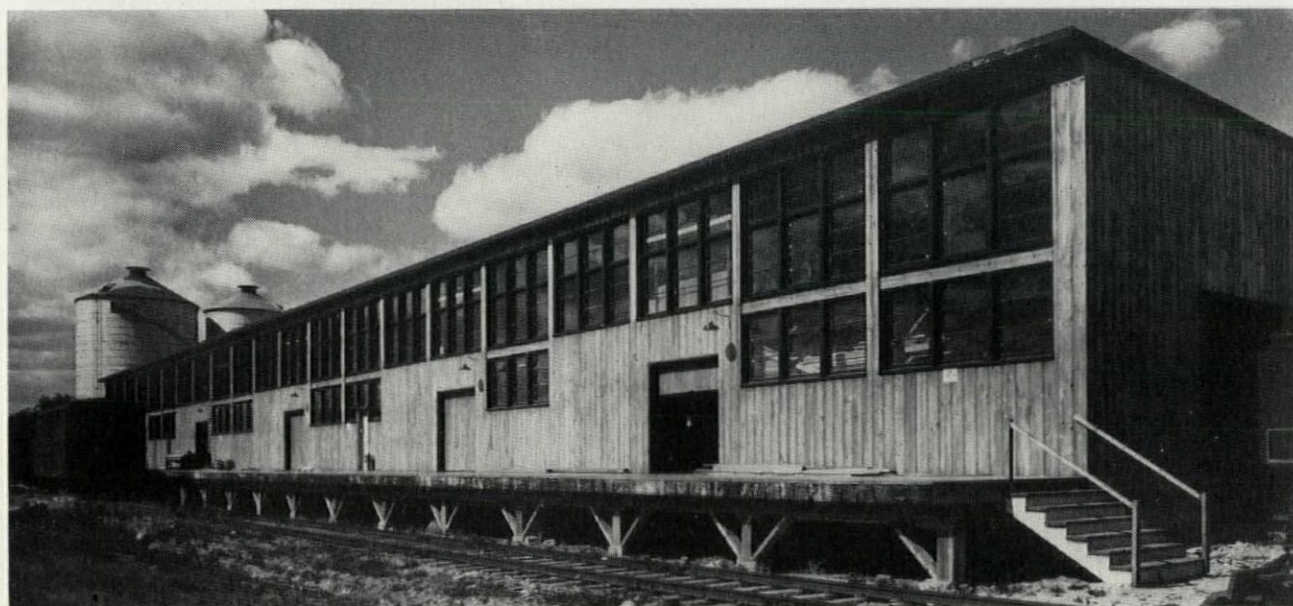
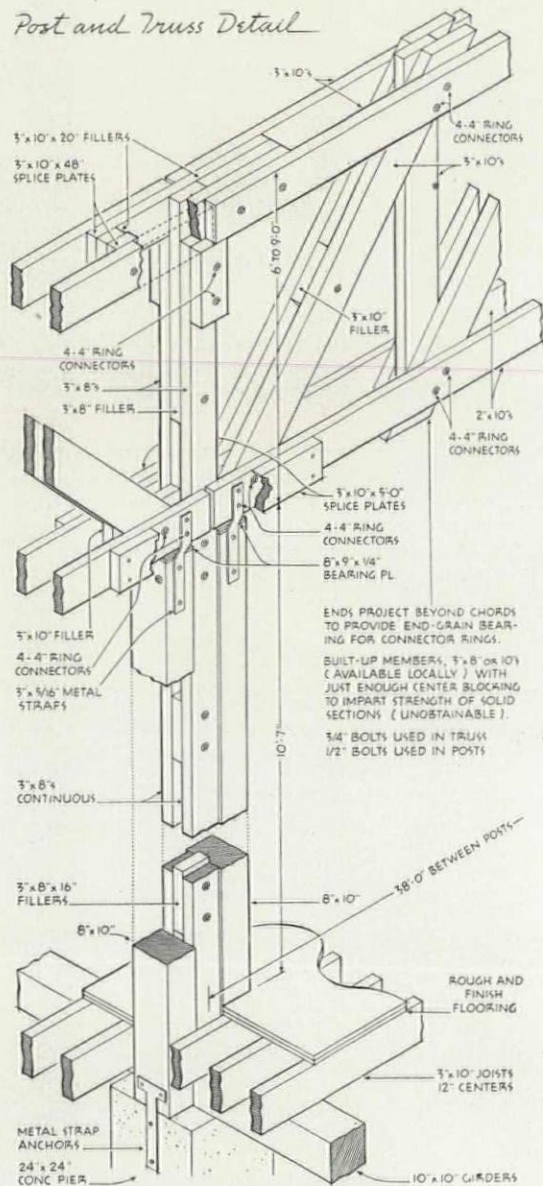
ALONZO J. HARRIMAN, INC., Architects-Engineers

ENGINEERING OUTLINE

CONSTRUCTION Frame: exterior walls: 8" x 10" timbers, 12' on centers; interior truss columns: paired 8" x 10"s separated by two 3" x 8" members. Walls: wood planking applied to girts. Floors: double flooring (hardwood surface over 3" x 10" joists supported on 10" x 10" beams. Loading platform: oak plank. Roof: 7'-6" wood truss; wood planking, surfaced with roll roofing. Partitioning: wood stud. Doors: standard wood. Fenestration: wood sash with double-thick glass. Insulation: acoustical: in office areas; thermal: board type in roof of office area.

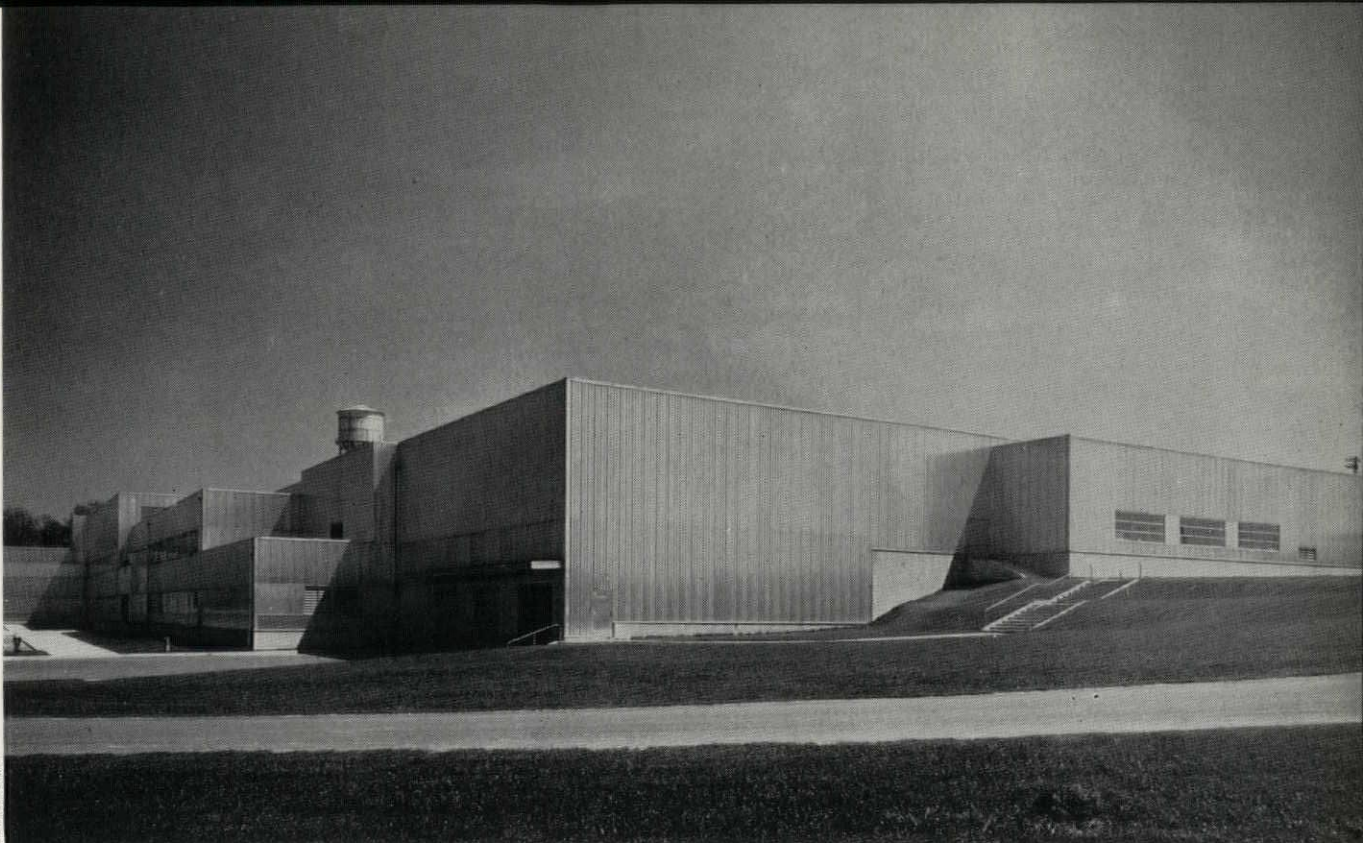
EQUIPMENT Heating: steam from hand-fired (fuel: shavings) boiler; both unit heaters and direct radiation; thermostatic controls. Lighting: incandescent. Fire safety: sprinkler system.

Post and Truss Detail



CONSENSUS: "Really something! Great architectural quality . . . sparkle, and color."

Ben Schnall



OFFICES

SHIPPING DOCK

WINDOWLESS FACTORY (upstairs) LABORATORY

3. THROWING MILL, WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS, Architects and Engineers

P. L. DAVIDSON, Consulting Engineer for Air Conditioning



Critique

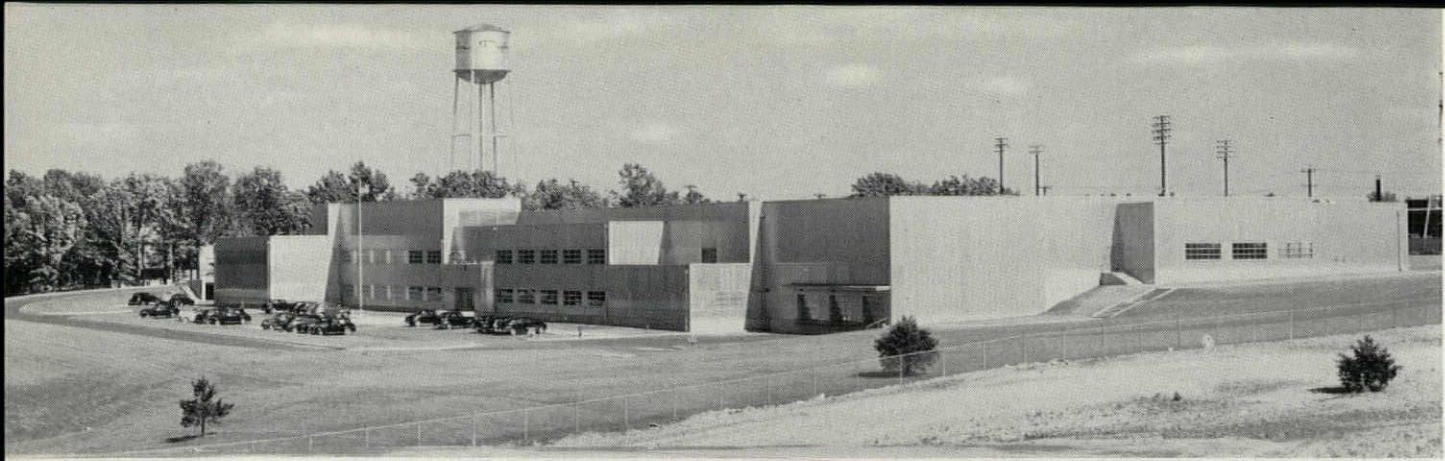
PROGRAM: A plant for The Duplan Corporation for the processing of nylon synthetic fiber, involving planning for production-flow handling of materials in rigidly controlled, high humidity atmosphere with constant uniformity of vision at the machines.

SITE: A 16-acre slope at the intersection of two main thoroughfares in an outlying section of the city.

SOLUTION: A completely air-conditioned two-story scheme, utilizing the site slope; manufacturing area all on upper floor, the lower level (comprising about one-third of the building area) being planned for offices, locker rooms, lunchroom, boiler room, air-conditioning rooms, etc.; also for shipping room, the finished product dropping by conveyor at the end of the upper-floor mill production line. To provide the high humidity required for nylon processing and eliminate condensation, a windowless insulation-sheathed scheme was adopted for the factory area.

MAIN POINTS ADMIRERD: The direct handling of materials from delivery at one end to shipment of finished product at the other. The ingenious insulation and aluminum-surfaced structural scheme that, along with the air-conditioning, achieves the precise environment needed; sensible accommodation to the sloping site.

CHIEF QUESTIONS: How many persons work at the plant and in how many shifts? Is a single, semicircular wash fountain in each locker room sufficient? Rest room space? The laboratory seems a little apart from the center of things. Is there a plan reason for this? In the structural scheme, were expansion joints deemed unnecessary?

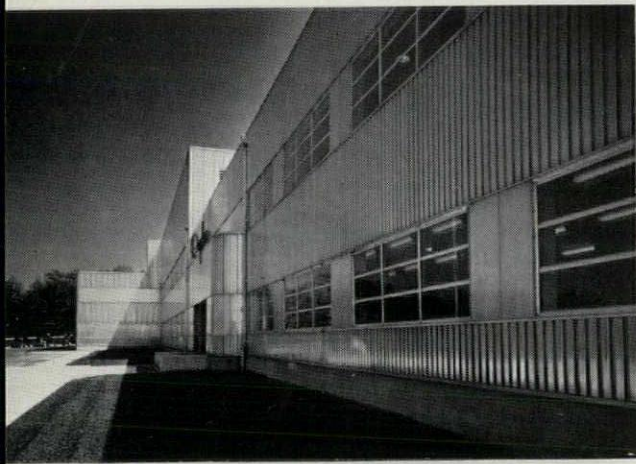


Ed T. Simons

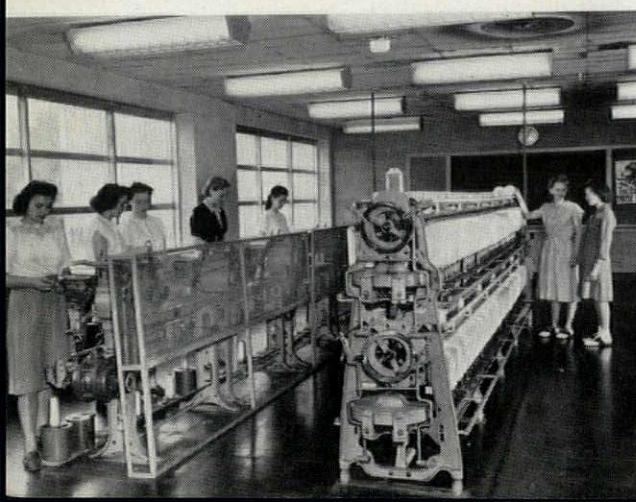
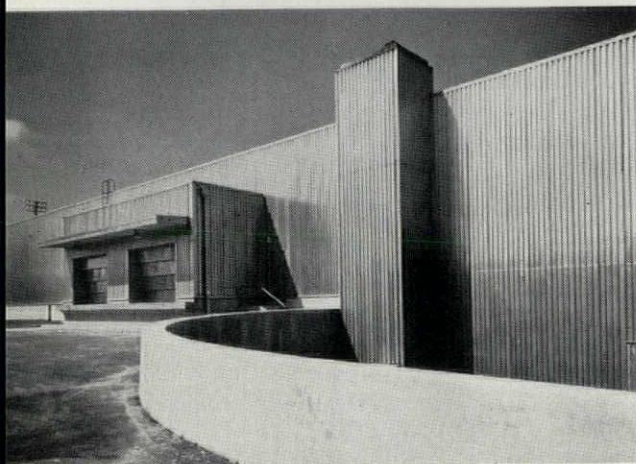
THE IMMEDIATE AREA around the plant has been developed with roads, parking, walkways, and landscaping.

3. THROWING MILL, WINSTON-SALEM, NORTH CAROLINA

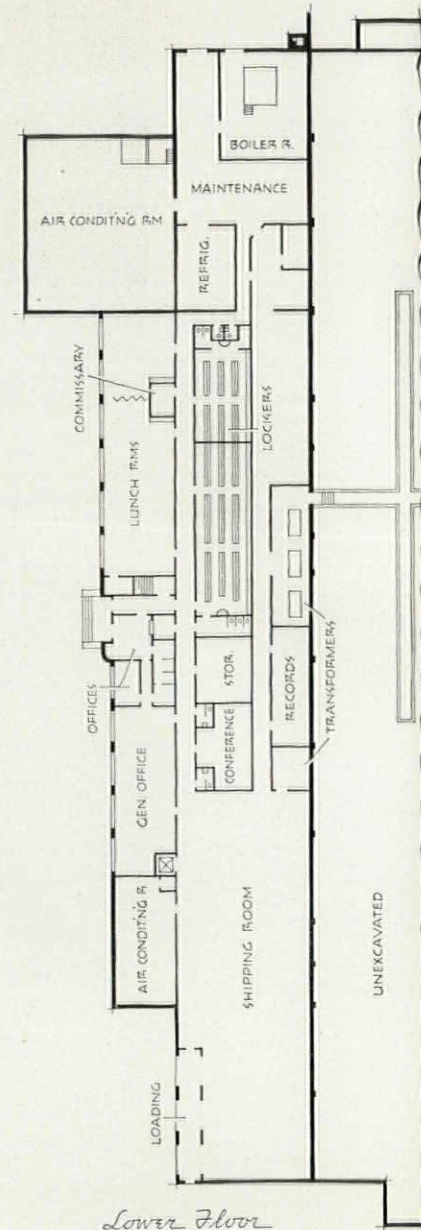
LACY, ATHERTON, WILSON & DAVIS, Architects and Engineers



Ben Schnall photos (except as noted)

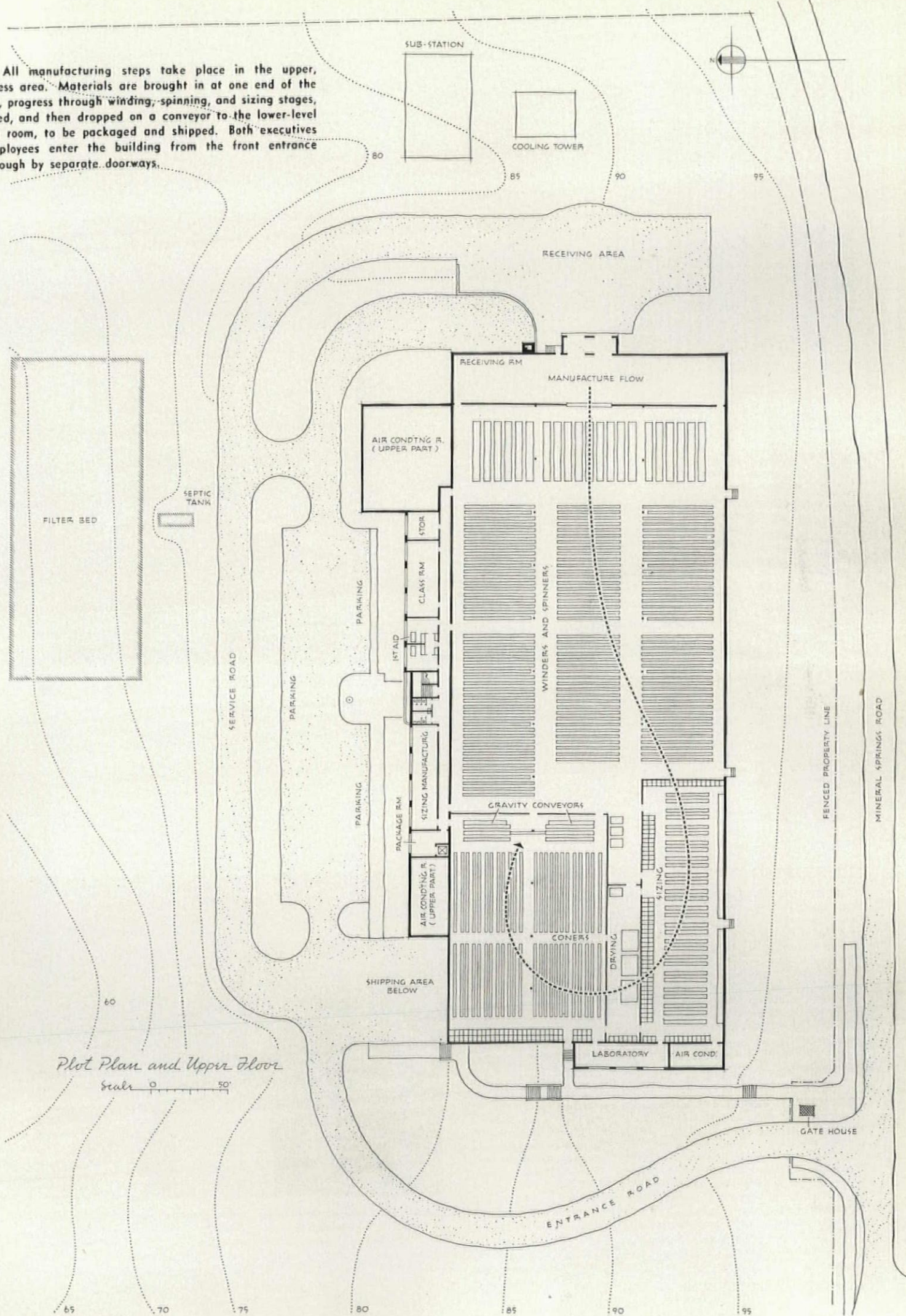


Our questions regarding adequacy of circulation, provision for wash-up, and locker room accommodations turned out to be factors of both the number of workers and specific problems connected with the processing of nylon thread. The plant operates on three shifts, with from 150 to 200 persons on one shift, of which approximately 50 work on the lower floor. The handling of nylon during its processing entails constant washing of hands, and hence along the entire conveyor lines and in all departments, there are wash sinks installed at frequent intervals. Therefore, there is no need for full wash-up equipment in the locker rooms proper, and, according to the architects, the corridor and stair circulation has "proved ample," in addition to giving the management excellent control over movement to and from the plant. The cafeteria is always available, and its use is encouraged for rest purposes, as well as for refreshment. Location of the laboratory at one end is explained by the fact that it deals almost exclusively with the Sizing Department which it adjoins.



TOP: Entrance Front. CENTER: Receiving Dock. BOTTOM: Classroom. As to expansion joints: "There were slip joints provided in the steel for protection during erection. However, we feel that after the insulation has been applied, there is no further need for expansion joints in the frame. It was not felt that expansion joints were necessary in the block work as they are a panel construction contained within the webs of approximately 18 ft. between columns, and there was not much chance of expansion at this point. As to the aluminum sheets, they are free to contract or expand at will."

PLAN. All manufacturing steps take place in the upper, windowless area. Materials are brought in at one end of the building, progress through winding, spinning, and sizing stages, are coned, and then dropped on a conveyor to the lower-level shipping room, to be packaged and shipped. Both executives and employees enter the building from the front entrance area, though by separate doorways.





Ben Schnall

REAR OF PLANT. The exits are for emergency use only.

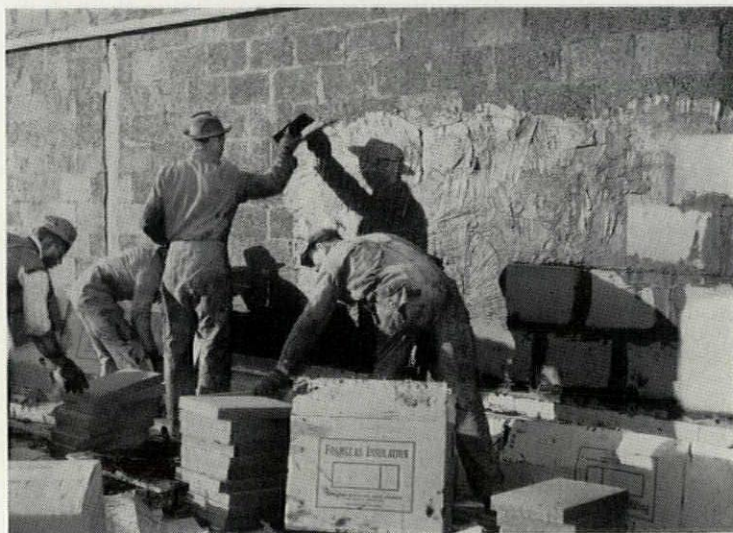
3. THROWING MILL, WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS,

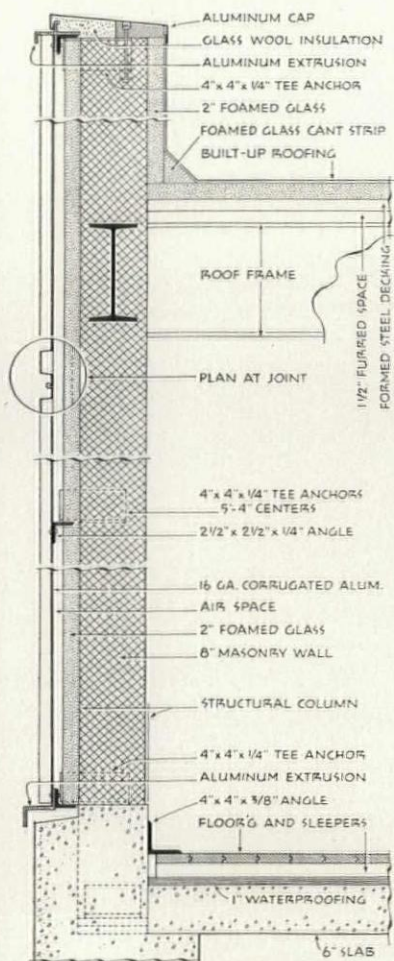
ENGINEERING OUTLINE

CONSTRUCTION **Framing:** steel, on concrete foundations. **Walls:** 8-in. cinder concrete block, covered with 2-in. foamed-glass insulation and surfaced with plain or fluted 16-gage aluminum panels, attached to horizontal angle girts anchored through into the masonry wall (1 1/4" air space between the insulating block and aluminum surface). **Floors:** concrete, surfaced with either asphalt tile or maple. In floors occurring over earth, hardwood flooring is on 2-in. wood planking, embedded in 1-in. dampproof course on 4-in. bituminous concrete foundation. **Roof:** metal decking covered with insulation block, a vapor-seal of 15-lb. asphalt felt mopped with asphalt, and 20-year bonded built-up roofing. **Partitioning:** metal. **Doors:** standard metal or (in special cases) aluminum. **Fenestration:** aluminum sash fitted with insulating double glazing. **Insulation:** acoustical: in steel pan construction; thermal: in the foamed-glass block.

EQUIPMENT **Heating and air-conditioning:** refrigeration system, maintaining an effective temperature of 80 degrees, or a dry bulb of 86 degrees at 60 percent humidity; 400,000 cfm. of air is circulated through the various departments, and about 800 tons of refrigeration are employed; temperature and humidity controls. **Lighting and Electrical:** underground source from local power-company transformer to five substation units, general lighting: fluorescent, carried on trolley ducts, supplying about 45 foot-candles at the machines. **Plumbing:** wash sinks installed all along conveyor lines, in addition to locker and toilet room facilities; sprinkler system.



Outside the inner wythe of 8-in. cinder concrete block are 2-in.-thick blocks of foamed-glass insulation.



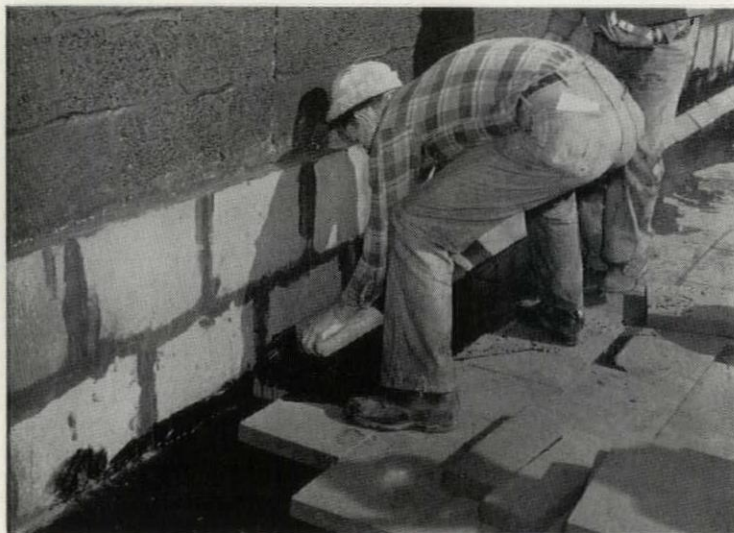
Typical Wall Section 1/2\"/>



Ed T. Simon

The aluminum sheets are carried on angle girts fastened by anchors back about halfway through the concrete block. Thus there is no through steel at any point that would carry atmospheric conditions from the outside to the inside of the building—the chief cause of condensation in manufacturing buildings of this type.

Architects and Engineers

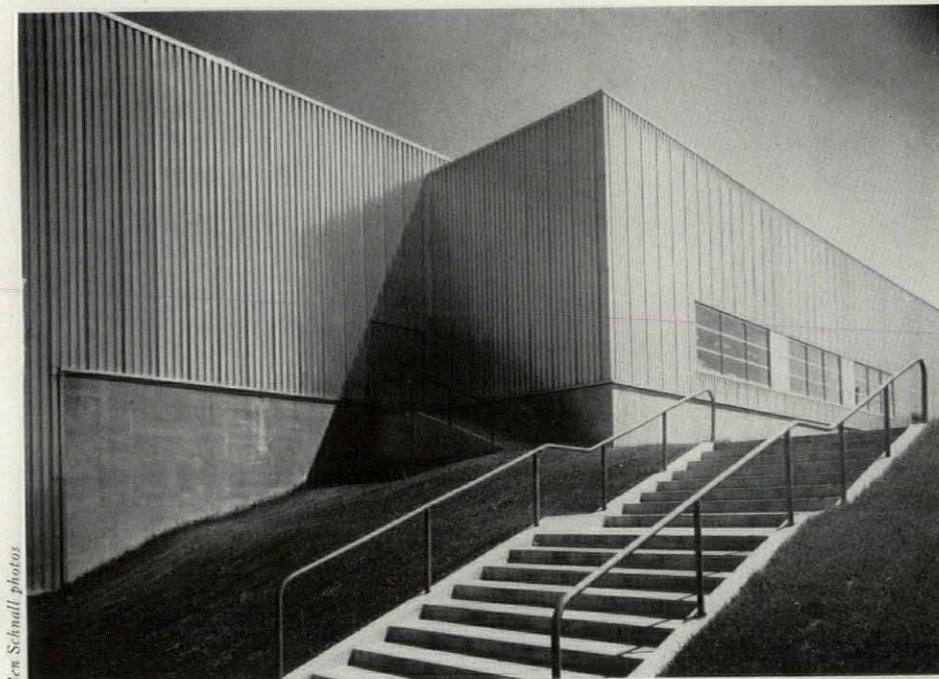


The insulation also covers the entire roof area (steel decking carried on trusses) and parapet walls.



LACY ATHERTON WILSON DAVIS

L. Verne Lacy is a Cornell graduate with a background of industrial work, particularly in the textile field. Thomas H. Atherton, a graduate of Princeton University and M.I.T. in Architecture, is designer of the firm. Richard J. Wilson is the firm's structural engineer. John W. Davis is a graduate of the University of Notre Dame in Architecture. After approval of preliminaries, the Throwing Mill project was carried through by the firm's Harrisburg office (they maintain another in Wilkes-Barre) which is under his particular supervision.

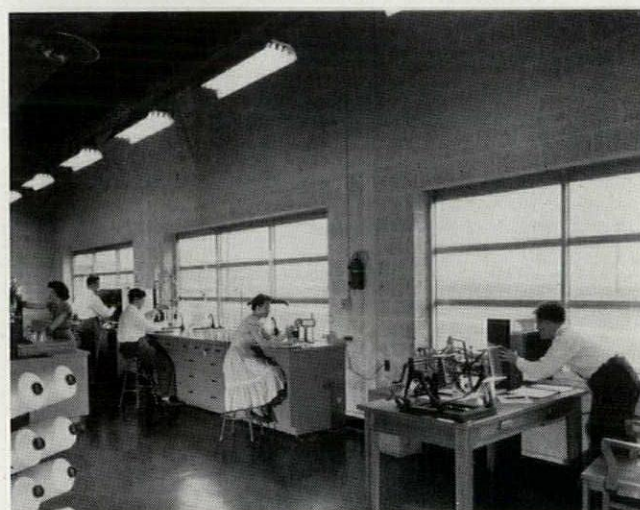


Ben Schnall photos

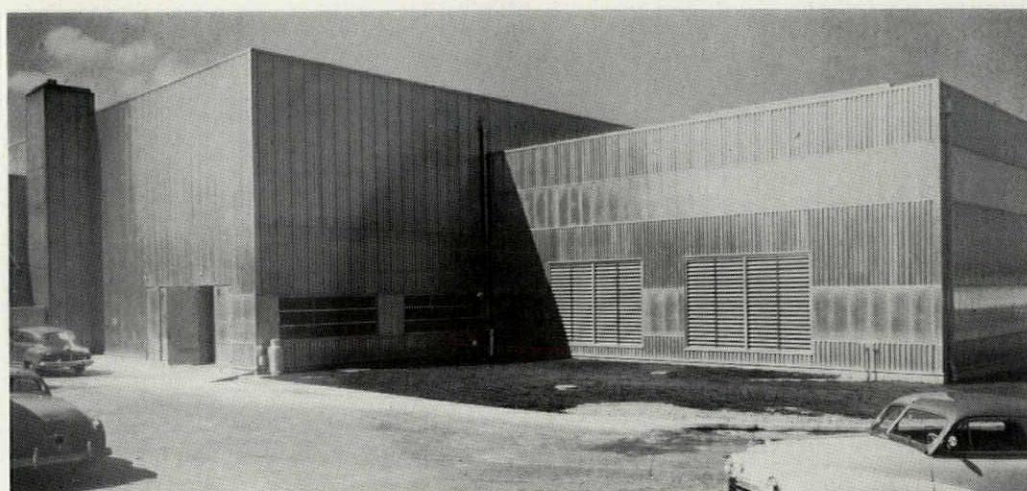
PROJECTING MASS at the side contains the laboratory.

3. THROWING MILL WINSTON-SALEM, NORTH CAROLINA

LACY, ATHERTON, WILSON & DAVIS
Architects and Engineers



LABORATORY. Cinder block painted is the wall finish.



NORTHEAST CORNER: air-conditioning room, right; entrances to boiler room and maintenance rooms, left, underneath the receiving room on the upper level (delivery dock just out of photograph at left).



ENTRANCE LOBBY serves as a functional separator between warehouse (left) and office building (right).

4. WAREHOUSE AND BRANCH OFFICE,

CICERO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, Architects



Critique

PROGRAM: A combined warehouse and branch business-office building for a manufacturer of cable, wire, and wire products. Warehouse operation to include storage of wire rope and electrical wire received from the mill; cutting; splicing; rigging; and distribution.

SITE: A 300' x 600' flat lot in an industrial district; a railroad spur at one end; streets at front and along one side.

SOLUTION: Warehouse and office structure, joined by an entrance lobby, placed along the northern long side of property (allowing room for expansion to the south); rail spur, entering warehouse at east end; truck docks opening to street to the north.

MAIN POINTS ADMIRERD: Efficient use of site; direct planning for use in both warehouse and office portions; the lobby element, forming an effective design transition between two main use areas. Clean structural concept; airy, well lighted work spaces; accomplished architecture.

CHIEF QUESTIONS: Why so small a room between entrance lobby and warehouse? How many people use this? How many are employed in the warehouse? Does placement of superintendent's office in warehouse (rather distant from unloading track spur) offer sufficient control? In the office-building plan, is space between office partitioning and the first row of columns useful?

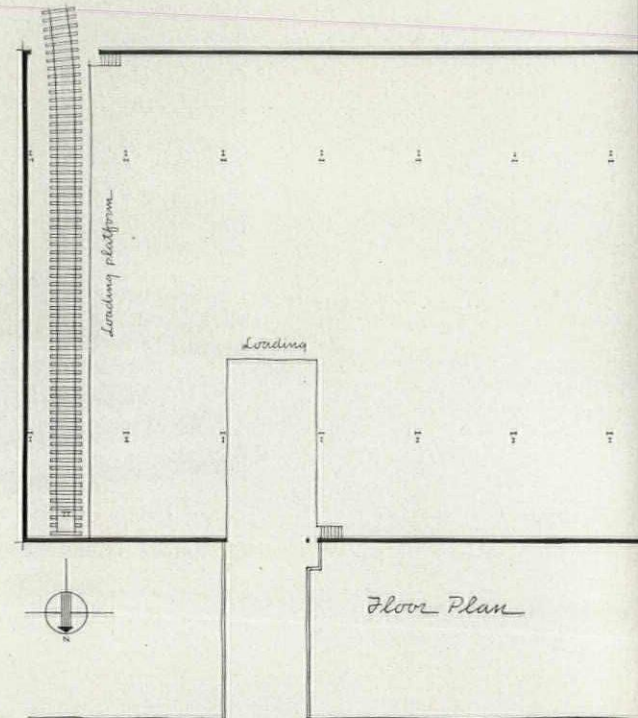
4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, Architects

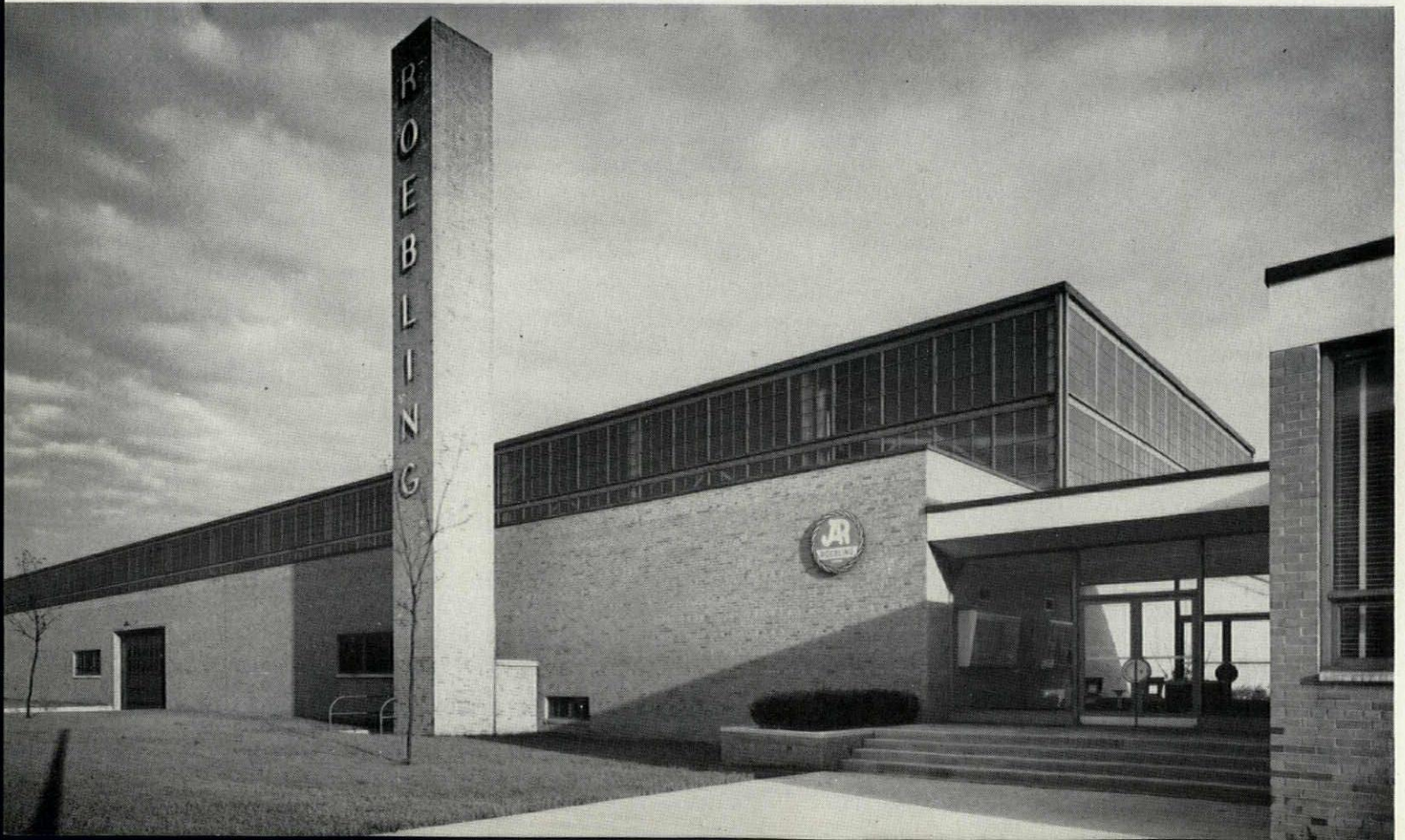
The small room between entrance lobby and warehouse, we find, is "more than ample." For the traffic through it is negligible: "There are only 20 persons working in the warehouse; 25 in the office."

The superintendent's office is closer to the smaller truck loading dock than to the larger, heavier-materials dock, because there are 25 trucks loaded at the former to one at the latter. Also, when pickups occur, transactions are checked at the office, so it was desirable to have it as near this end as feasible.

The space between the row of columns and the private offices was purposely planned as a passageway: "The room has an open, untight atmosphere which the owner and we intended to achieve."



WAREHOUSE. The boiler room, in the near corner, is reached by stairs from either outdoors or the interior entry to the warehouse.





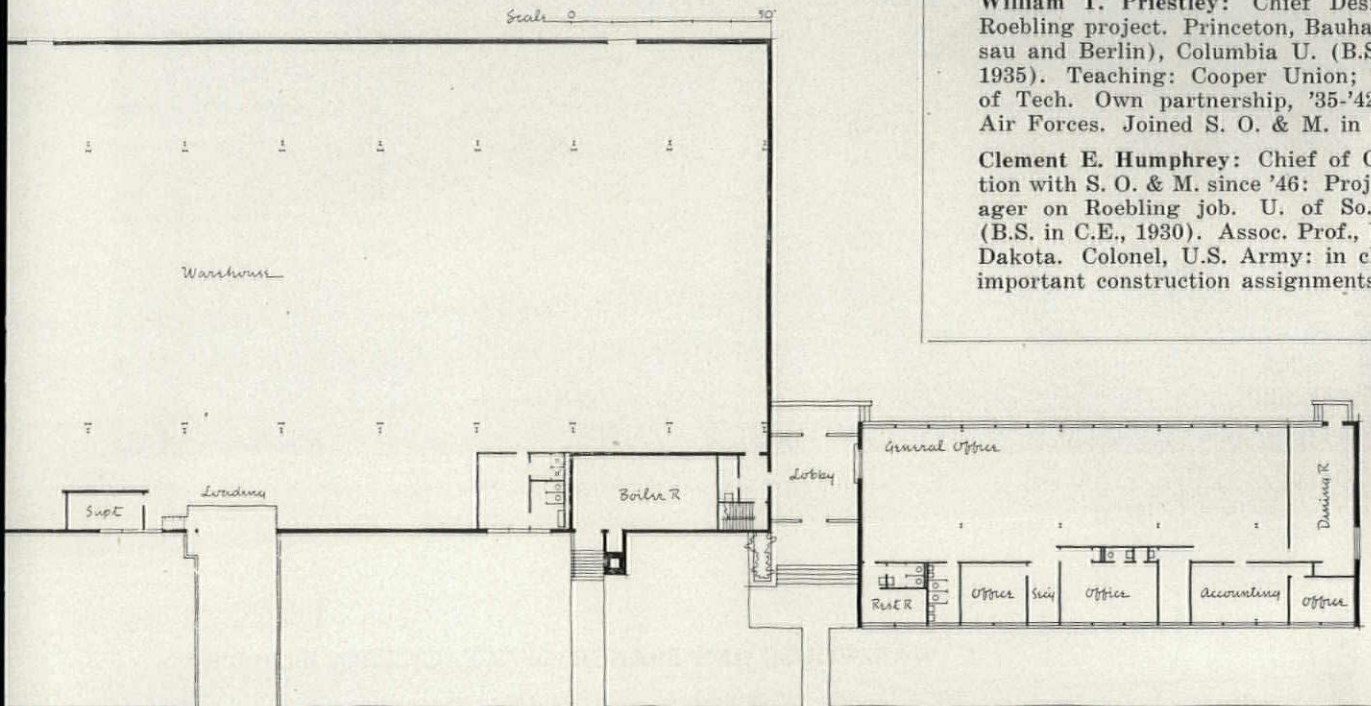
PRIESTLEY



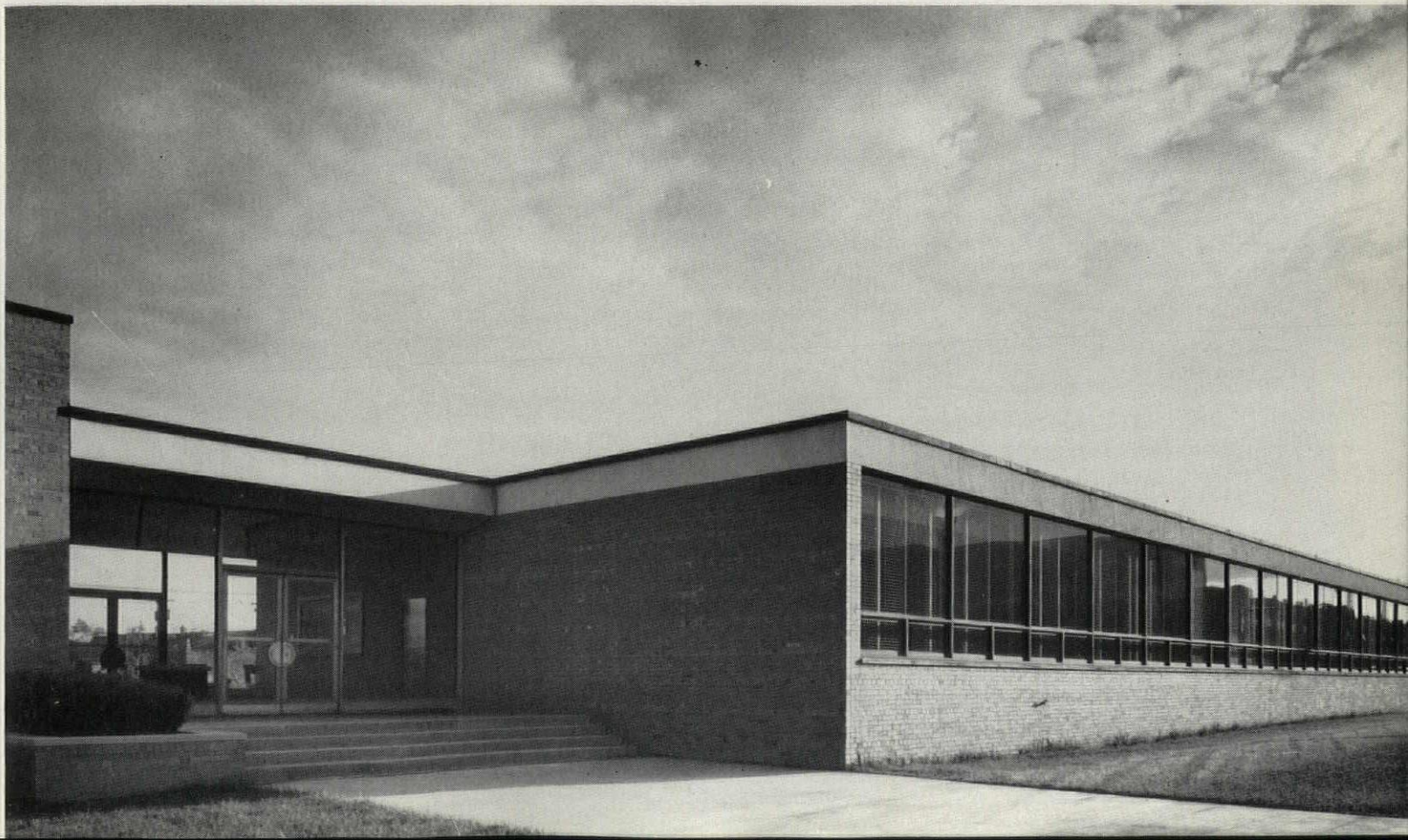
HUMPHREY

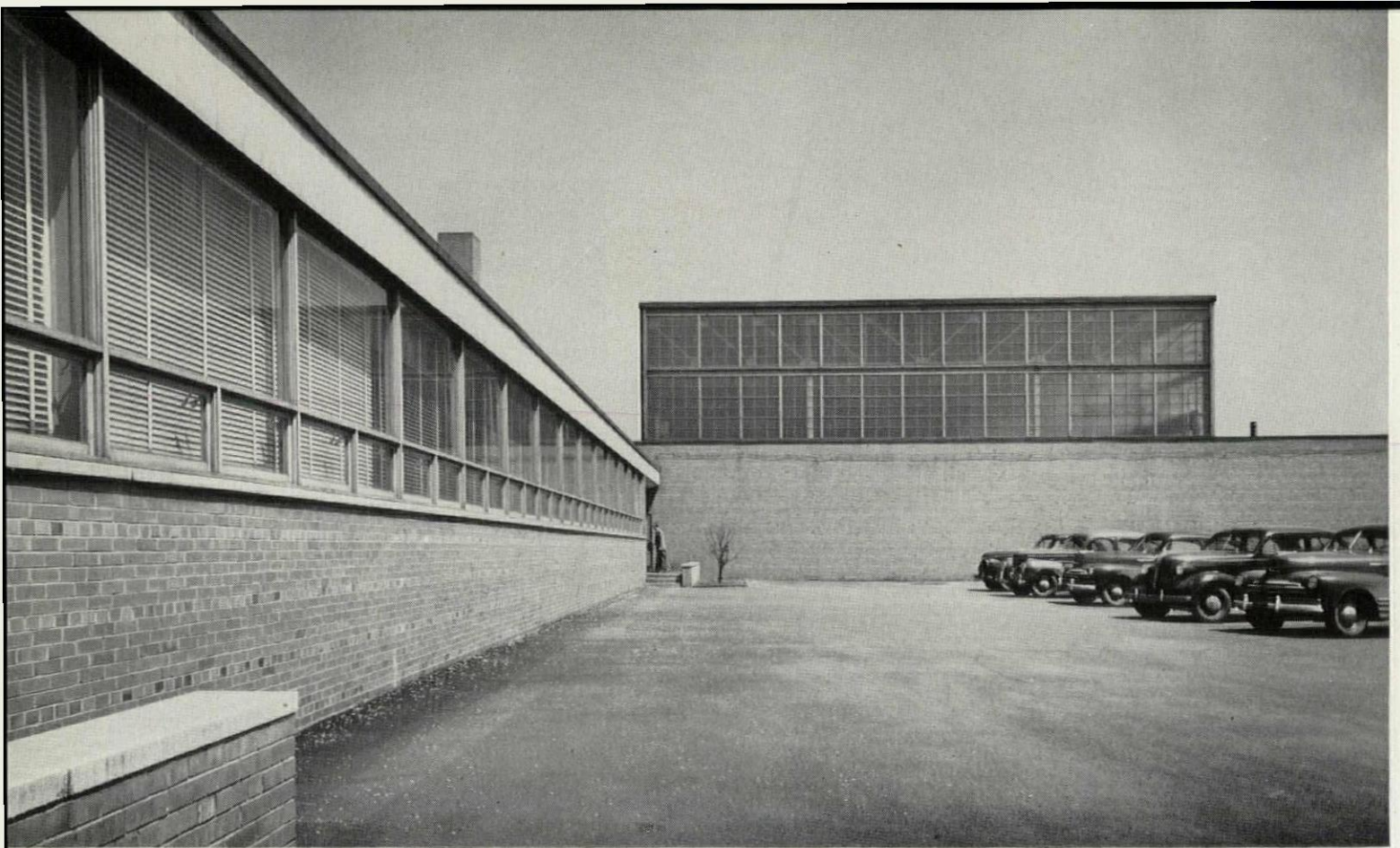
William T. Priestley: Chief Designer on Roebling project. Princeton, Bauhaus (Dessau and Berlin), Columbia U. (B.S., Arch., 1935). Teaching: Cooper Union; Ill. Inst. of Tech. Own partnership, '35-'42. Army Air Forces. Joined S. O. & M. in '45.

Clement E. Humphrey: Chief of Construction with S. O. & M. since '46: Project Manager on Roebling job. U. of So. Dakota (B.S. in C.E., 1930). Assoc. Prof., U. of So. Dakota. Colonel, U.S. Army: in charge of important construction assignments.



OFFICE BUILDING, lobby element at left. Private offices line this north wall; general offices are at the rear of the building.





OFFICE BUILDING, left; warehouse, in background. The door just out of picture at left enters the kitchen-equipped dining room, used (on a staggered basis) by all personnel. Also doubles as a conference room.

4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, Architects

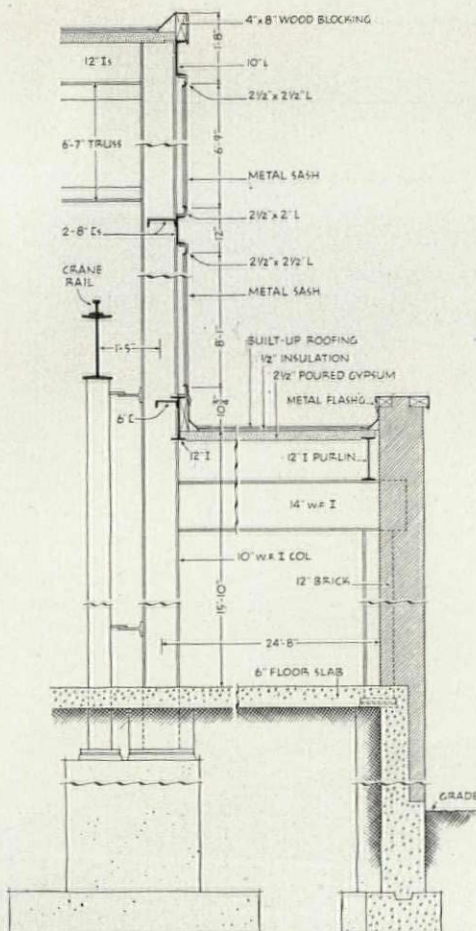
HEATING—AIR CONDITIONING

While the warehouse is provided only with heating, the office building has year-round air conditioning. The system includes winter filtering, warming, and humidifying of air; summer filtering, cooling, and dehumidifying. The heating source is an oil-fired steam boiler, steam being circulated with the assistance of an electric motor-driven vacuum pump. Cooling is by a direct expansion Freon compression system with an evaporative condenser provided for conservation of condenser water. The central air supply apparatus and the boilers with pumps and refrigerating equipment are located in a section of the warehouse. Heating and air conditioning are fully automatic, including boiler firing.

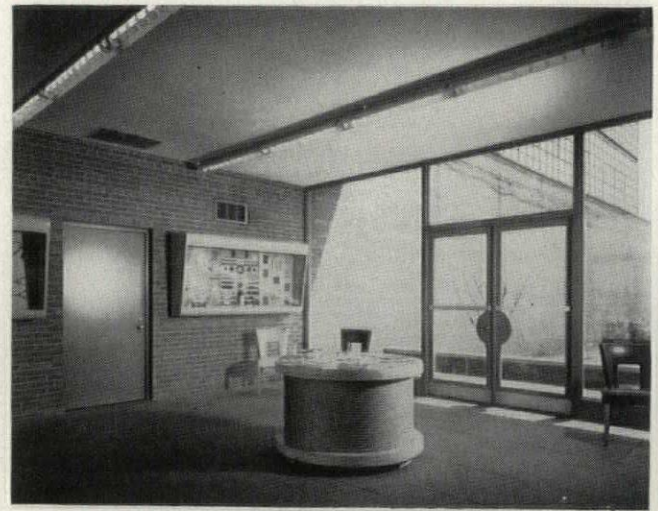
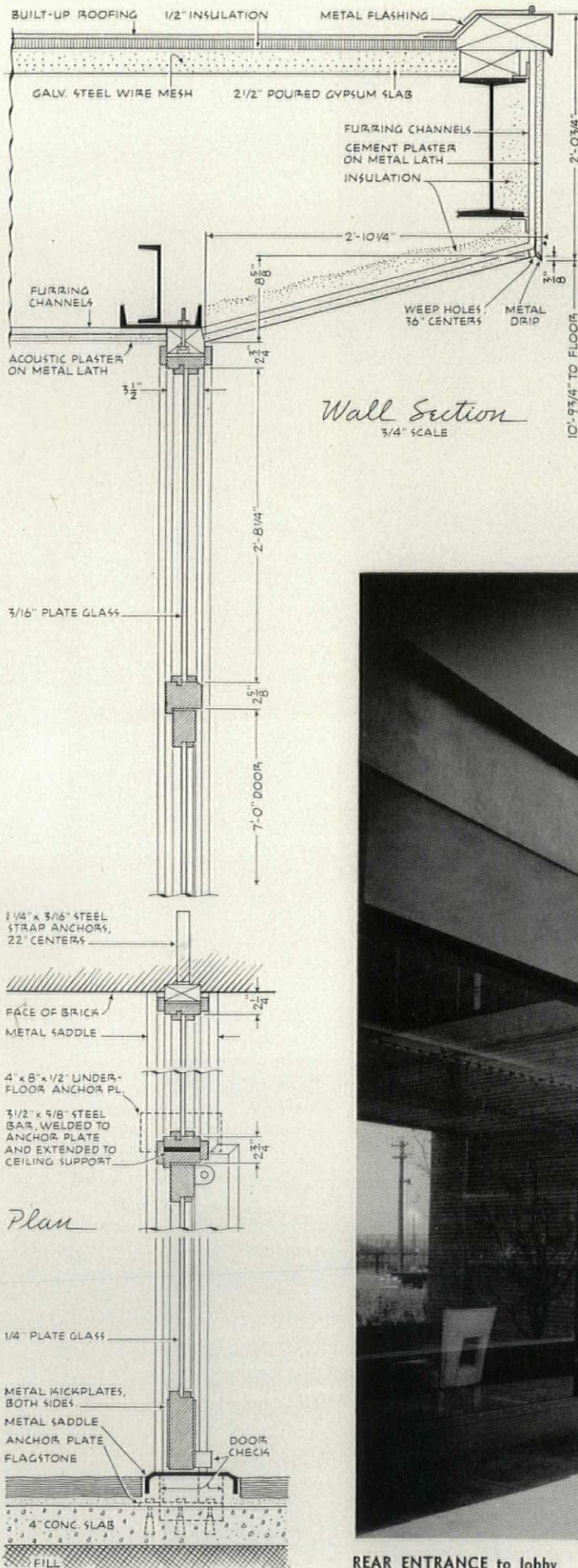
ENGINEERING OUTLINE

CONSTRUCTION Framing: structural steel columns, beams, and trusses. Walls: common brick bearing, plastered on the interior in the office portion. Floors: concrete slab, surfaced with asphalt tile in the office area, stone in entrance lobby. Roof: built-up roofing over poured gypsum slab on steel purlins. Doors: flush wood, generally; at truck dock: overhead rolling steel shutter and overhead wood doors. Fenestration: in warehouse: steel; in office building: wood with double-strength glass; in lobby: plate glass. Insulation: acoustical: plaster ceiling in office building; thermal: wool-type in roof.

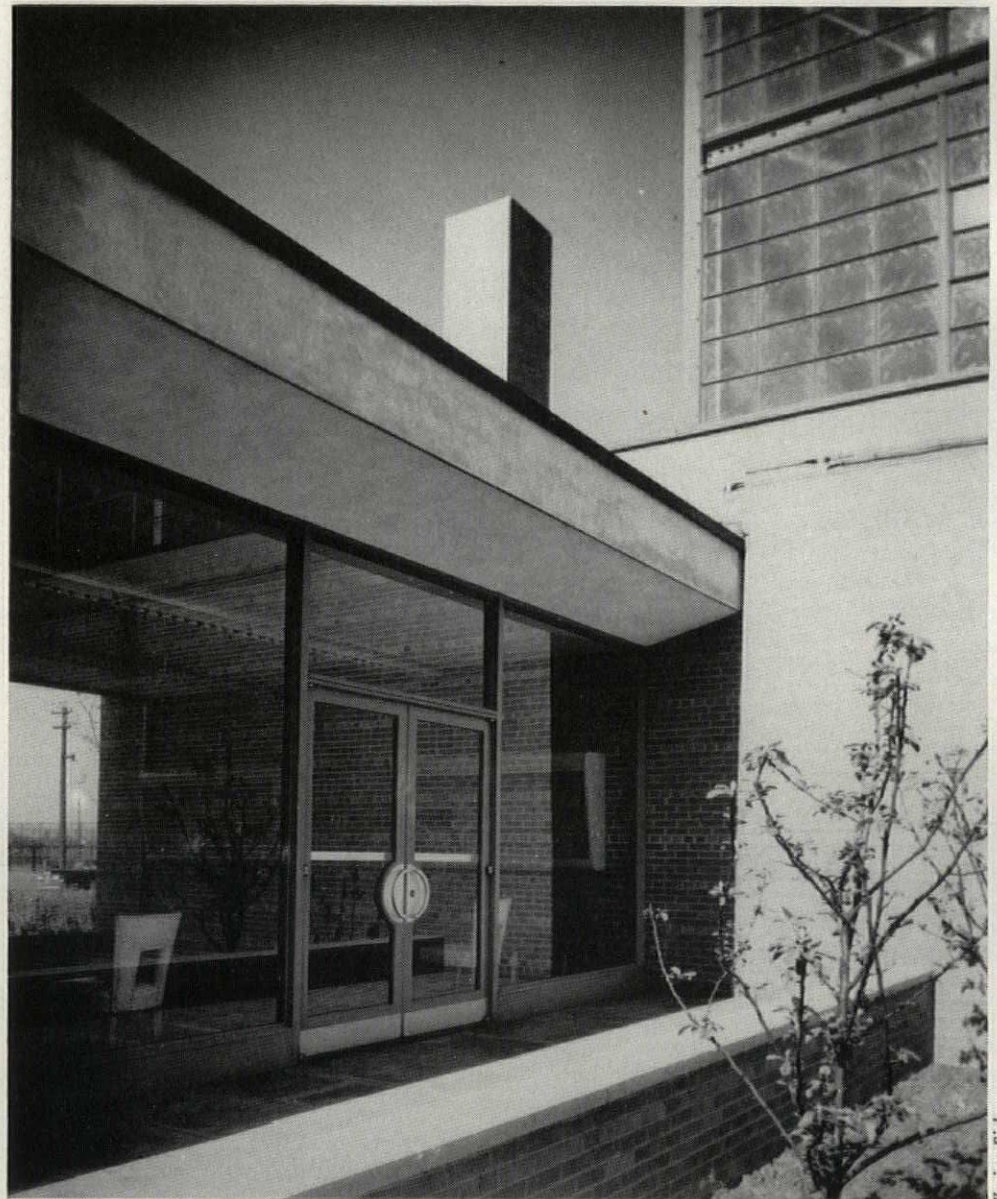
EQUIPMENT Heating and Air Conditioning: (see above and on page 66). Lighting and Electrical: fluorescent from recessed troffers with egg-crate louvers in office and lobby; in warehouse, incandescent unit hung level with bottom chord of truss, supplemented by industrial-type fluorescent units where high intensity is required.



Warehouse Wall Section 1/4" SCALE



LOBBY. Door in wall leads to entry to warehouse, or (by stairs) down to the boiler room.



REAR ENTRANCE to lobby.

Forster Fisher



A CRANEWAY has subsequently been installed along this 72-foot-wide, 29-foot high bay.

4. WAREHOUSE AND BRANCH OFFICE, CICERO, ILLINOIS

SKIDMORE, OWINGS
& MERRILL,
Architects

IN THE OFFICE BUILDING'S all-blast air-conditioning system, air supply, introduced through viscous-type air filters, is either humidified (in winter) or dehumidified (in summer) and brought at below-comfort level to the office area where it is reheated by convectors (in supply ducts to each office) to the temperature set by the room's individual thermostat. An exhaust fan returns the air from the office areas. All or any part of the air may be recirculated.





Office
Practice

You'd better check LICENSING REQUIREMENTS

By BERNARD TOMSON

Mr. Tomson is an attorney who contributed an article on architect-client relationships which appeared in our February issue, and launched P/A on a series of Office Practice articles, of which this is the third. In this statement, Mr. Tomson points out that licensing requirements are two-edged swords, which hold potential dangers for those architects who are not fully familiar with legal decisions and who may slip up in some way in their compliance with statutes.

In almost every state an architect, after qualifying for a license, is required in the words of a typical statute (New York) to "display it in a conspicuous place in his principal office, place of business or employment." The requirement to display the license for all to see is based on the legislative realization found in most statutes that licensing of qualified persons is required "in order to safeguard life, health and property."

Practice of architecture by unlicensed persons is not only recognized as reprehensible by legislatures, but by the courts as well. Unfortunately the lay public has not been made sufficiently aware of the significance attached to the licensing of a qualified architect. Many contractors seem similarly unaware that if they perform acts constituting the practice of architecture without a license they endanger life, health and property, perform an illegal act and *jeopardize their right to compensation for services and materials otherwise legally supplied*. Contractors and corporations continue to draw and enter into agreements which violate the principle of illegality carefully delineated by the courts. The obvious implication is that the general public is ignorant of the importance of the architect and that contractors knowingly or unwittingly capitalize on this ignorance.

In a recent case, a contractor, a corporation, entered into a contract with the owner of a restaurant to remodel it and to prepare plans, drawings, and specifications therefor. The contractor corporation was not licensed but employed a licensed architect who prepared the

plans, drawings, and specifications. The agreement between the contractor and owner provided that the owner's vice-president, who was also a registered architect, approve the plans, which he actually did. No more than 10 percent of the work involved architectural services and about 90 percent of the work related to materials supplied and installed, such as a bar and other usual restaurant fixtures and furniture. The restaurant owner arbitrarily refused to pay for any of the services rendered or any of the materials supplied. It undoubtedly would come as a complete surprise to most contractors to discover that not only was the contractor denied recovery for its fee for the preparation of plans, drawings, and specifications, but it was also not permitted to recover for any of the work done. The court decided that the illegal nature of that portion of the agreement of the unlicensed corporation to furnish architectural services so permeated the whole contract as to render the entire relationship illegal. The court therefore said it would not enforce payment even for the services rendered which the contractor could otherwise legally perform since they had been contaminated by the illegal agreement to perform architectural services.

The foregoing decision was by Mr. Justice Rosenman in the case of *American Store Equipment Co. v. Jack Dempsey's Punch Bowl Inc.* and was affirmed by the New York Appellate Division and then by the Court of Appeals, the highest court in New York State. Although some would consider the result a harsh one, it seems justified by the purpose of the licensing statutes as expressed by Judge Rosenman's further discussion of the reasoning behind his decision:

"To sustain the legality of the balance of the agreement would lead to widespread disregard of the licensing statutes. It would be easy for any construction contractor to thwart the purposes for which the licensing of architects was enacted, by merely providing in his contract that architectural services would be given gratis, so long as the contractor were awarded the contract itself."

It should be a matter of concern to the architectural profession that the purpose served by the decision in the case quoted above would be obviated by a simple expedient. *When a contracting company employs a licensed architect, the licensing statutes can be satisfied by drawing two agreements—one for the contracting services rendered in which the contractor is the principal, and another for the architectural service rendered in which the licensed architect is the principal.*

Two cases determined within the last year in New York State illustrate the prevalence of the misconception of the law. In one of these cases, although the contractor's president was a licensed engineer, it was summarily refused a judgment sought in the sum of \$6,000 (6 percent of a \$100,000 project) where the corporation had agreed to perform engineering services. In the second case the court recognized the principle stated above but decided that in that particular

situation the contract was "severable" and permitted recovery. That the contractor was attempting to recover a sum in excess of \$32,000 for work actually performed and materials actually furnished, and that the architectural services had been paid for by earlier payments, undoubtedly played a large part in inducing the court to seek a solution on the particular facts which would avoid what it felt was an unconscionable result.

In view of the cases discussed, one a decision of the highest court in New York State, it can safely be said that *an unlicensed person or corporation may not legally perform any architectural or engineering services without jeopardizing its right to reimbursement for the cost of the whole project.* It is immaterial whether the constituent members of the company or corporation are licensed and actually perform the services. The controlling question is, "Is the principal entering into the contract licensed?" It is also immaterial whether the architectural or engineering services performed form a small or major part of the agreement. In Appendix A on page 122 there will be found listed cases throughout the country that discuss the essential principle involved.

It must be remembered that the licensing statutes are double-edged swords. They perform the salutary function of striking down the unqualified and the licensed corporation that attempts to deprive the licensed architect or engineer of his practice. They should also serve as a warning beacon to the architect who is careless about the letter of the law.

*For example, the architect licensed to practice in one state who does not properly qualify when performing services in another state is in no better position than any other unlicensed person and could easily be denied compensation for his labors. There should be available to every architect whose practice embraces projects in more than one state a digest of the relevant provisions of the law applicable to architectural practice in each state.**

* For an excellent collection of the applicable state laws and of circulars of the National Council of Architectural Registration Boards see *Architectural Practice* by Clinton H. Cowgill and Ben John Small, Reinhold Publishing Corp., 1947. Pertinent amendments to the laws since 1947 can be obtained by writing to the state agencies listed on pages 288 and 289 of that book. Appendix B to this article (see page 122) lists, for the benefit of the reader's lawyer, the applicable state codes and statutes.

In summary, the matters for an architect or engineer to watch carefully in order to be sure that he is technically complying with the law are these:

1. Make certain that your license in your state has not lapsed. If it has, drop everything and have it reinstated immediately.
2. Before engaging in a project in a state other than the one in which you are licensed, check the licensing requirements and comply with them.
3. Do not perform your services incidental to a contracting firm's or engineering firm's agreement where the company acts as principal. Insist on making your own agreement with the client unless the company itself is legally permitted to practice architecture.
4. Discuss in your professional association meetings methods for combating illegal practice of architecture and for education locally and nationally of contractors and the lay public.

Generally speaking it will be found that states fall into one of three categories in this respect:

A. No registration or licensing requirements:—

Kansas, Nevada, New Hampshire, Vermont, Wyoming.

B. Restricts use of the title "architect":—

Connecticut, Iowa, Maine, Massachusetts, Tennessee, Texas, Virginia, Washington, West Virginia.

C. Restricts practice of architecture to those licensed:—

Alabama, Arizona, Arkansas, California, Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Utah, Wisconsin, Alaska, Puerto Rico.

The foregoing is meant merely as a guide; there is no substitute for a complete analysis of the applicable statutes.

It should also be noted that architects often slip up on technical compliance with the licensing laws in their own states. *Steps to renew licenses should be taken before they expire so that no hiatus exists. The architect who is resuming his practice after a lapse (a war veteran, for instance) would do well to make certain that his license is still effective.* This is no imaginary danger; it is necessary so that unscrupulous clients with knowledge of the principles of law discussed above may not seize an excuse for avoiding payment of fees for services rendered.

For the qualified, compliance with the necessary statutes may seem an unnecessary nuisance. This attitude is particularly unfortunate when *unqualified* persons and corporations, in the face of the cases discussed and existing statutes, contract with impunity to perform architectural services. It is obvious that the matter is one that must concern the architect and arouse him to action singly and in groups. Contractors must be educated to understand that when they agree to render architectural services they commit a crime; the public must be educated to know that to participate in such an agreement is equally reprehensible.



SOUTH FRONT. Court entrance comes at the western end of property; garages, left; minimum unit with sun deck above; balcony unit beyond.

Julius Shulman Photos

APARTMENT HOUSE, LOS ANGELES, CALIFORNIA

CARL LOUIS MASTON
Architect

A Mention in this year's Progressive Architecture Awards, this four-unit modified garden-type apartment house, built on a private-residence-size lot, meets competition of speculatively built units at the same time that its standards are considerably above average.

PROGRAM: To develop an income-producing apartment property with the units having as much of the amenity of private homes as possible.

SITE: A 50' x 110' rectangular site, with its western narrow end on the street front; considerable slope down from front to rear.

SOLUTION: House arranged in a long L, with advantage taken of the site slope to provide a duplex unit at the rear; garage placed near street entrance. Each of the four units provided with some outdoor living space—a terrace, garden, balcony, or sun deck.

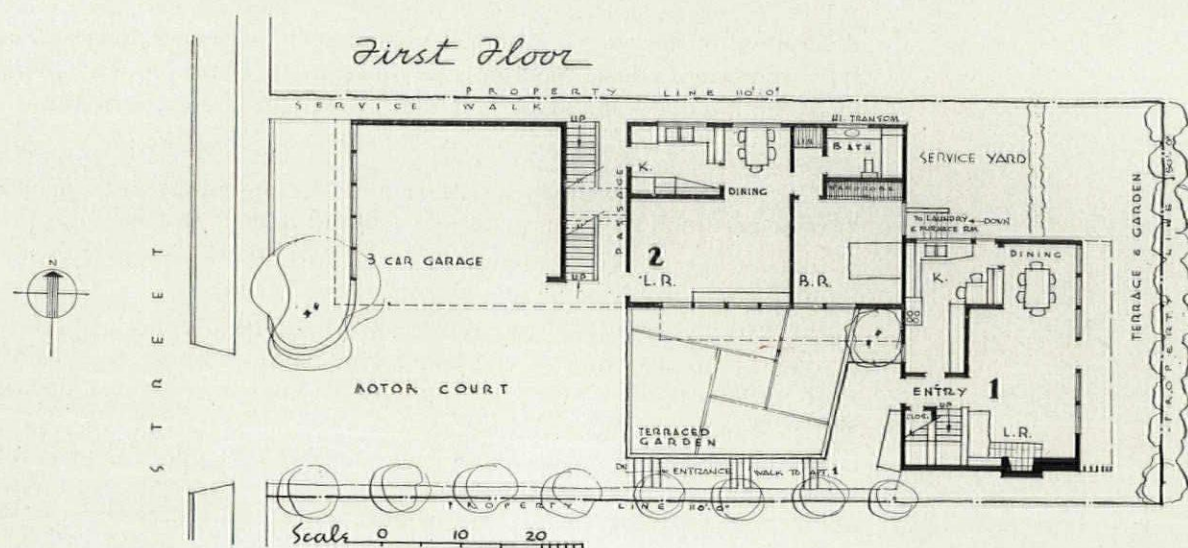
COMMENT: The Awards Jury commended this job "for attempting a solution of a rather difficult and complicated problem . . . The effort to develop a better type of apartment building in the face of standards and restrictions is praiseworthy."



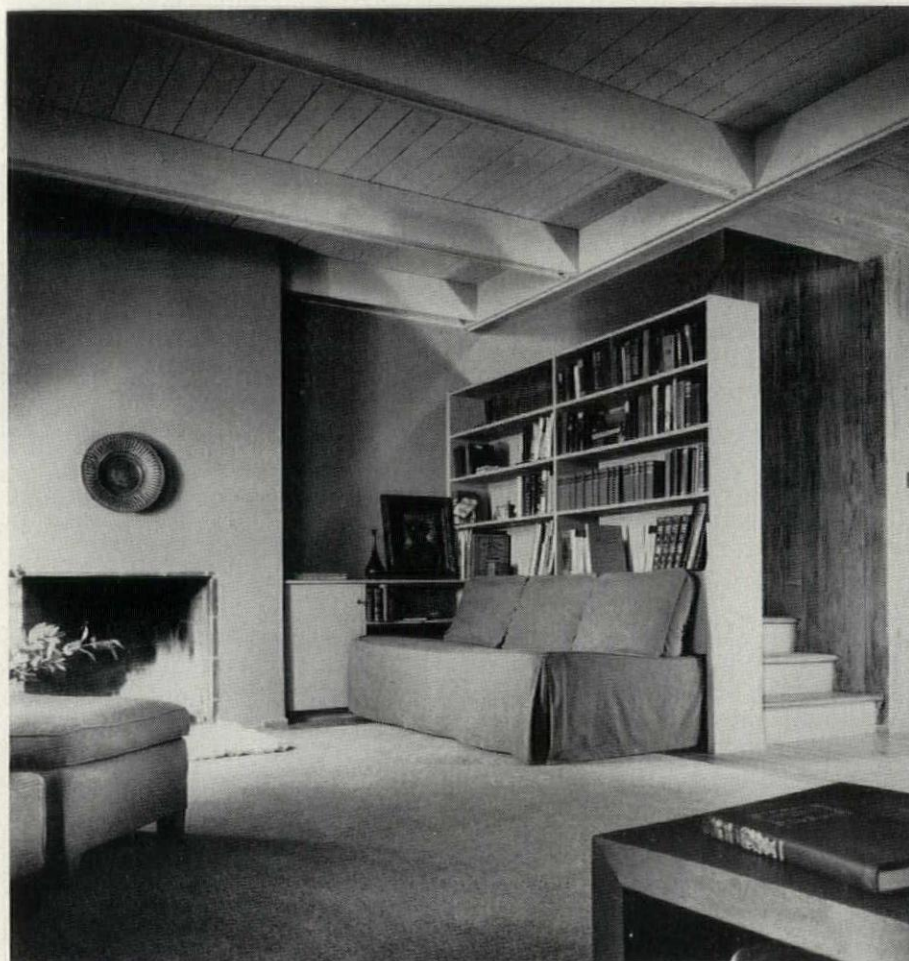
TERRACED GARDEN COURT; door to duplex unit on lower level (at rear).

APARTMENT HOUSE, LOS ANGELES, CALIFORNIA

CARL LOUIS MASTON, Architect



The architect tells us that "there was no view worth mentioning," so window orientation was based primarily on sun exposure. The three units in the long leg of the L all have generous southern fenestration, coupled with structural projections for sun control. The building is placed so that only a service-entrance walk separates it from the property line to the north. An open passage serves both service and main entrances on the ground floor; paired staircases serve the upstairs apartments. To reach the duplex unit at the lower level on the east end, a walk with steps leads down along the landscaped terrace garden of Apartment No. 2.

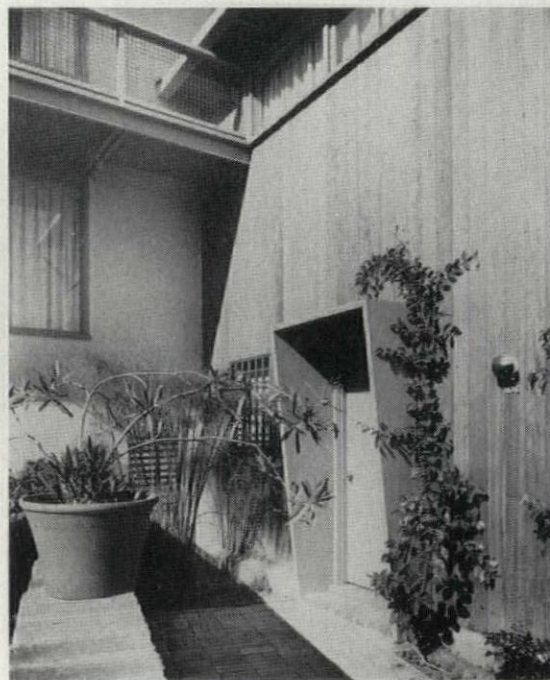
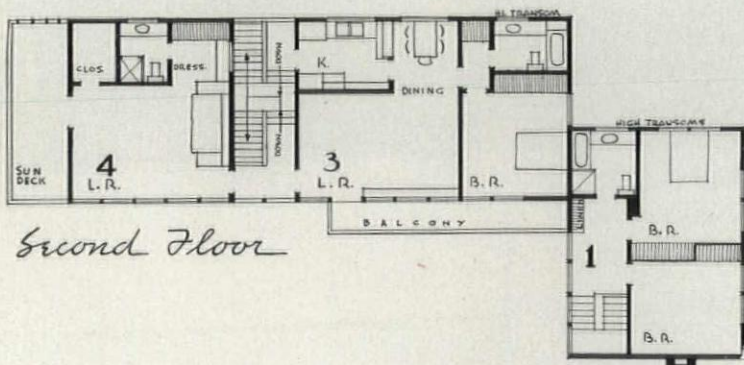


LIVING ROOM of duplex apartment.

ENGINEERING OUTLINE

CONSTRUCTION Framing: standard wood, worked out on a 4-ft. module; 8" x 10" floor joists. Walls: cement plaster, redwood or brick on the exterior; plaster or plywood, interior. Floors: oak and linoleum on the ground floor; carpet and linoleum upstairs. Roof: 2" x 8" wood rafters covered with $\frac{3}{4}$ " solid sheeting and tar and white gravel composition roofing. Fenestration: steel sash. Insulation: 4" mineral wool in roof construction. Doors: flush, hollow core wood.

EQUIPMENT Heating: gas-fired, forced air units, located in heater room, under south-east corner of Apartment No. 2. Lighting: recessed incandescent fixtures of fluorescent strips, concealed in light coves; exposed fluorescent strips in kitchens.



ENTRANCE to duplex.

HOUSE, DEDHAM, MASSACHUSETTS

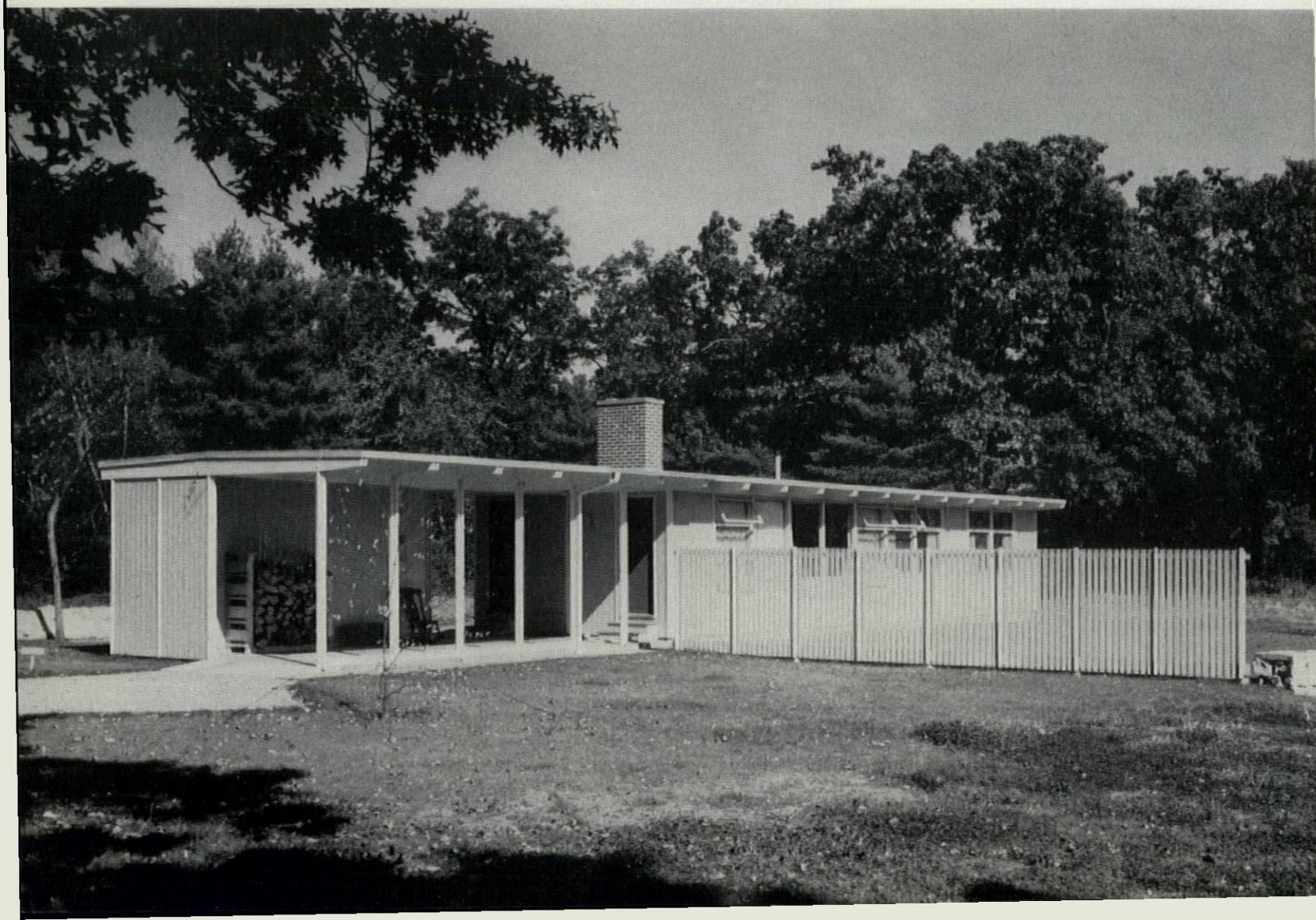
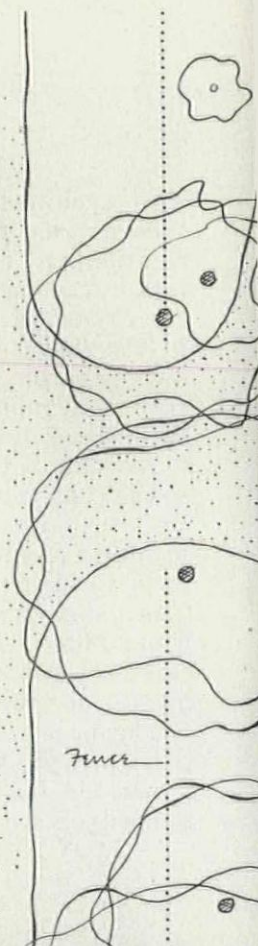
JOHNSON & WHITCOMB, Architects

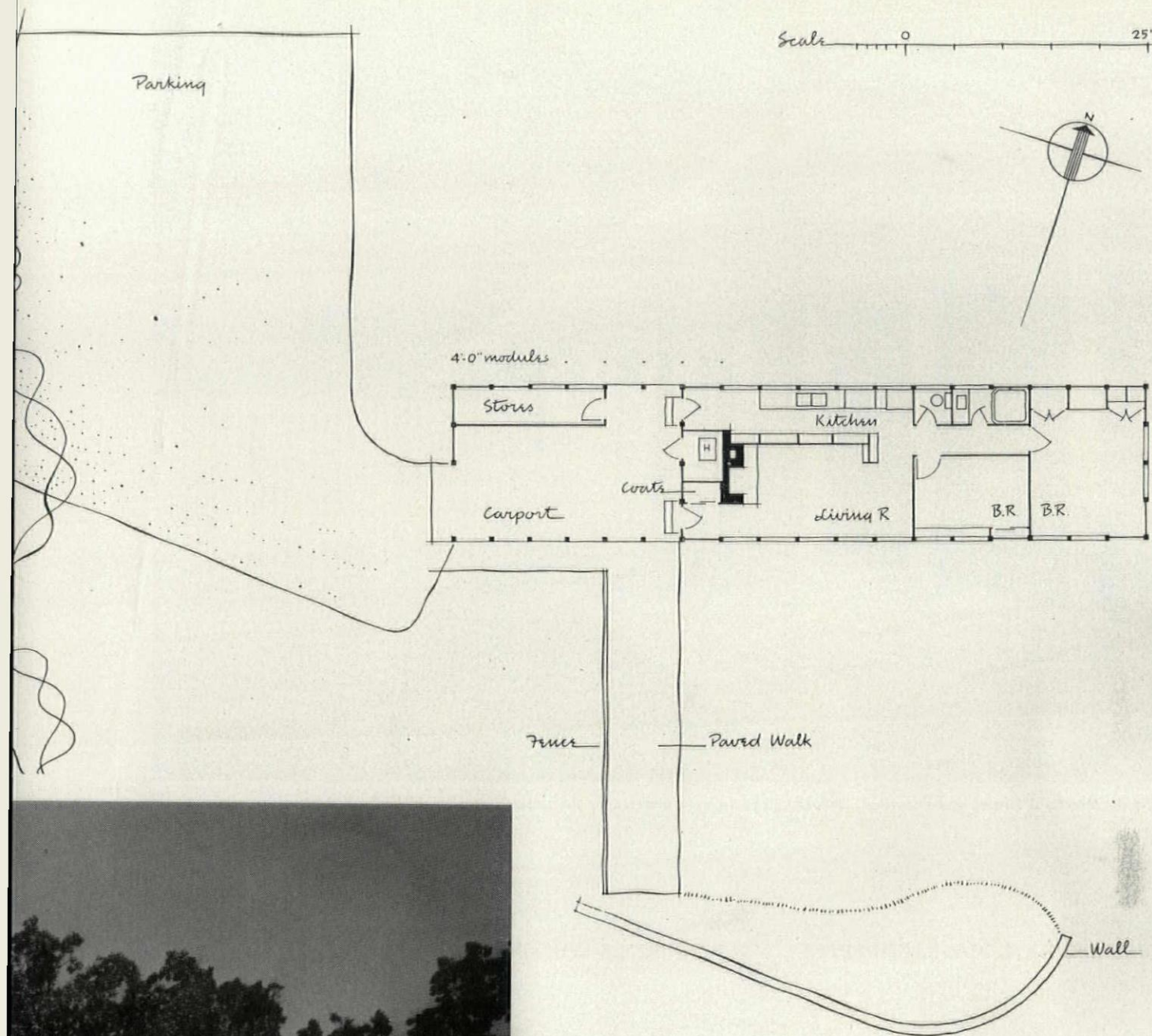
A small house (the home of the family of Mr. Whitcomb, one of the architects) utilizing methods of construction adaptable to mass production—a Mention in this year's Progressive Architecture awards.

PROGRAM: To develop a system of mill-fabricated posts, floor and roof beams, wall panels and sash units, largely of identical sizes and shapes within the limits of carpenter construction.

SITE: Large, level lot with fine trees.

SOLUTION: Organic, modular use of common framing lumber to assure strong, weathertight construction. As the architects comment: "We have attempted to devise a system of prefabrication with . . . a maximum of interchangeable parts, no patented tricky connectors, all-wood construction that could conceivably be fabricated either on the site or in a mill . . . We have combed out all the standing finish and the little pieces that take time to install . . . We should like to stress, however, that there has been no sacrifice in quality. The materials and workmanship were the best obtainable."





P. A. Dearborn Photos

FEATURES

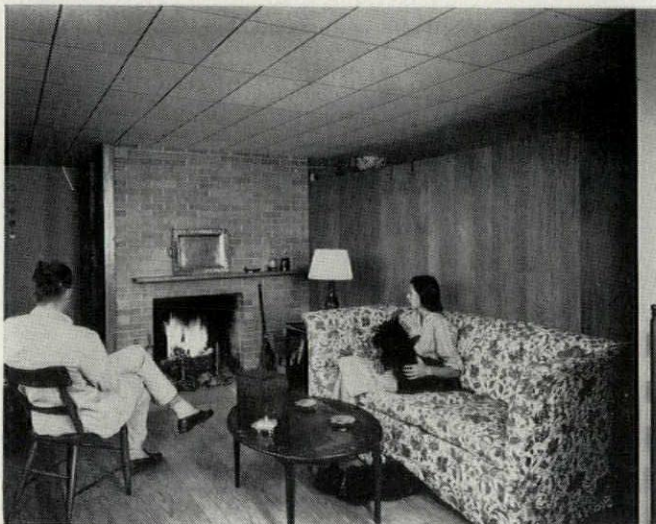
Exterior: gray painted V-joint tongue-and-groove siding applied vertically. White trim, turquoise door. Bulk storage room, reached from outdoor shelter. Wall partition between living and kitchen areas is oak casework. Heating is simply a continuous hot-water coil hung from the bottom of floor joists ("very satisfactory"). Removable, sliding window-screens; special windows, wood framed; projecting sash. Plans for expansion: Later the Whitcombs may move the storage partition in the living room, making the kitchen space part of the living room, and move the kitchen, with an additional bedroom and bath, out in an ell. "If we were doing it again," the architects tell us, "we could eliminate still more details . . . The crawl space beneath the floor contains all utilities, heating, plumbing, and electrical work."



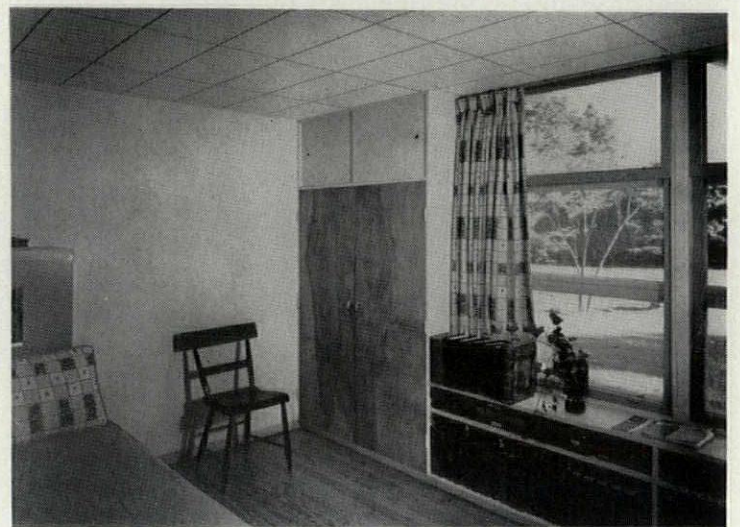
THE HOUSE is the structural scheme and vice versa. Shapes and spans were dictated by the system's economical limits.

HOUSE, DEDHAM, MASSACHUSETTS

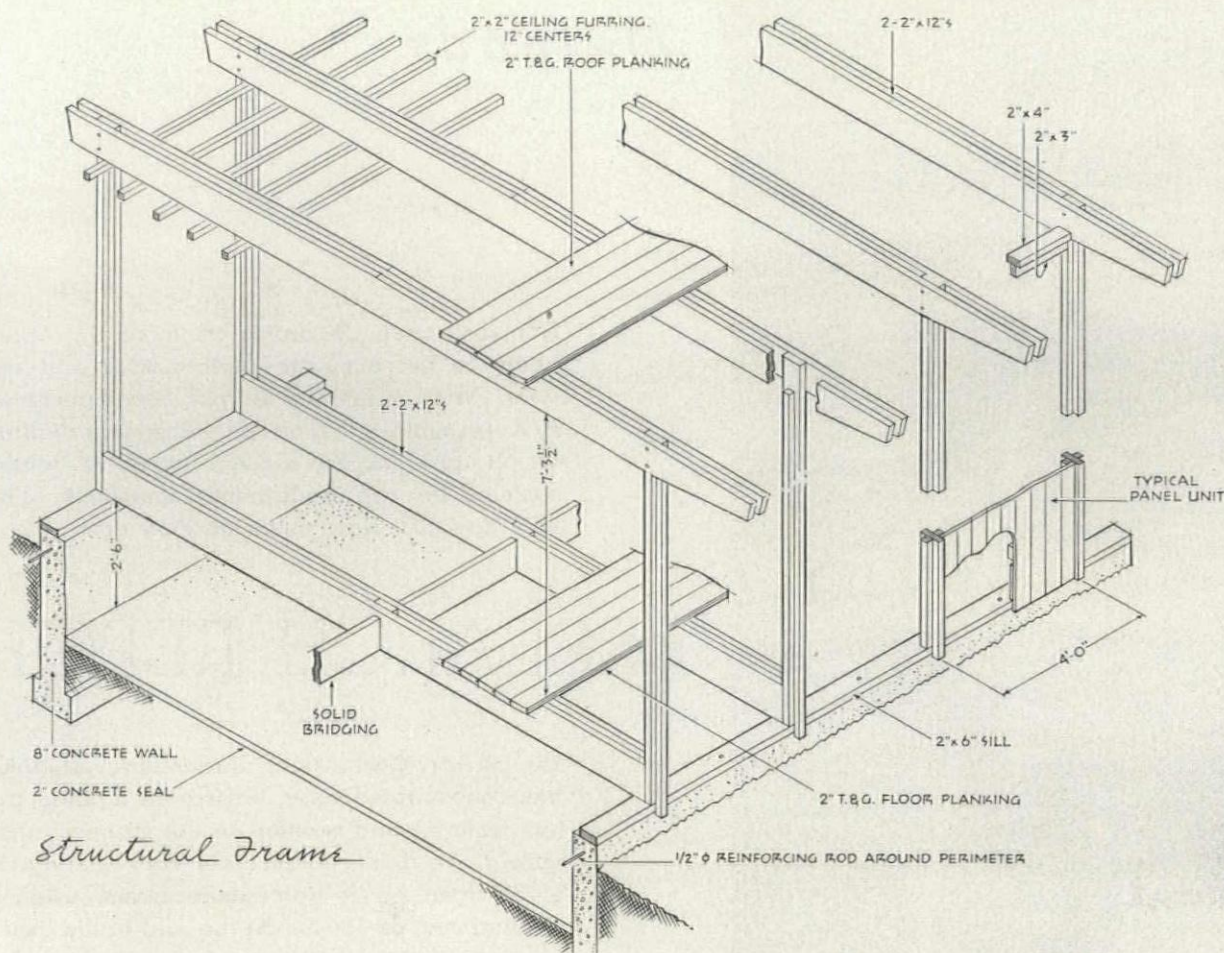
JOHNSON & WHITCOMB, Architects



LIVING ROOM. Storage wall at right is of oak plywood.



BEDROOM. Closet doors are of blond birch.

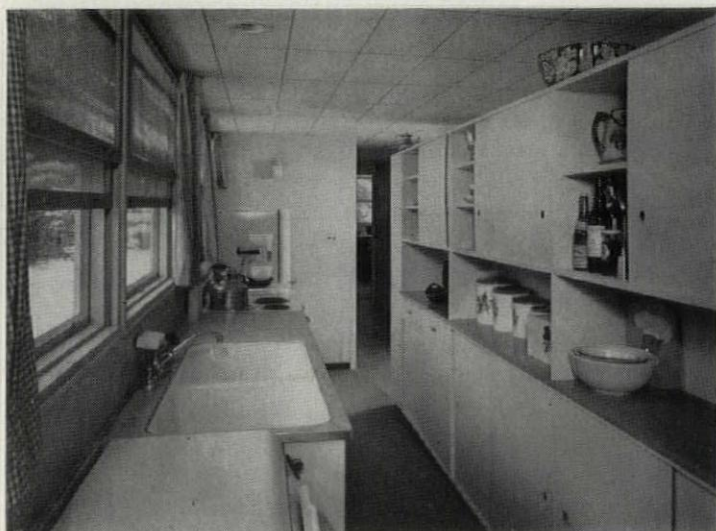


ENGINEERING OUTLINE

CONSTRUCTION Foundations: Concrete: 2'-6" crawl space with 2" concrete earth seal. **Framing:** 1200# fir; built-up columns 4' o.c.; paired 2" x 12" joists at each bay; 2" x 10" solid bridging. **Walls:** pre-built panels (2" x 3" framing; vertical T & G pine, exterior), 1/2" gypsum board (interior); 1" wood fiber blanket insulation. **Floors:** 2" hard pine plank, asphalt tile; concrete in heater room. **Roof:** paired 2" x 12" joists 4' o.c.; 2" plank, 5-ply built-up roofing, 2" wood fiber blanket insulation. **Ceiling:** 12" square processed wood tile. **Fenestration:** pine sash, transom type, to

detail. **Partitions:** built-up panels faced with 1/2" gypsum board both sides. **Doors:** wood, flush.

EQUIPMENT **Heating:** radiant, hot water floor panels using wrought iron grid of coils suspended under floor joists; oil-fired, cast iron sectional boiler; thermostatic controls. **Lighting:** wall fixtures and recessed ceiling fixtures in addition to regulation service outlets. **Special equipment:** electric kitchen stove; automatic washing machine; instantaneous, tankless water heater.



KITCHEN. Cupboards have sliding panel doors.



BATH. Large counter; ample storage.



Materials and Methods

Not very often do architects have the opportunity to get accurate performance and cost data. With a feeling of real accomplishment P/A presents a report on classroom lighting which answers, for sixteen types of lighting systems, the two fundamental questions: What will they do? How much do they cost?

RESEARCH REPORT:

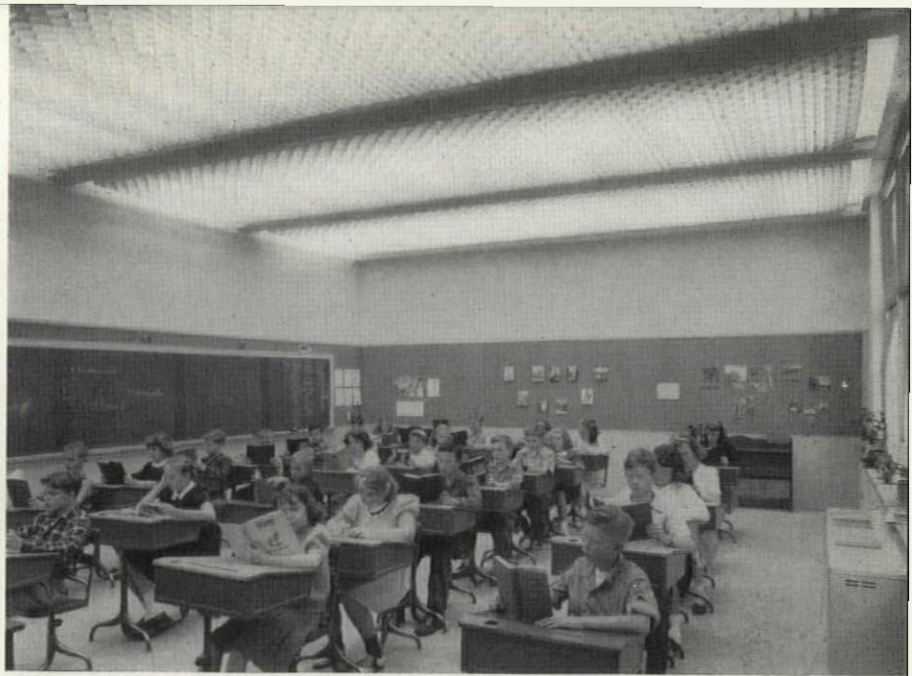
The author, Carl Allen, illuminating engineer, has concentrated upon classroom lighting and has lectured and written on the subject. Very wisely, we think, since costs vary greatly, he gives them on a percentage basis, using a median cost as 100%. At the end of the article you will find a simple method for translating the percentages into dollars and cents for your locality. The research behind this article was undertaken by General Electric, which has no ax to grind; the company manufactures no fixtures and is one of three major lamp manufacturers, any of whose products may be used. G-E's interest is proper lighting, taking into account the budget and practical job conditions as well as the imponderables.

The article is possible only because classrooms have, in general, a standardized shape and size. Designers are exploring other shapes and sizes; knowing how well a lighting system functions, at what cost, in the standard, the designer can approximately evaluate it for the non-standard. For preliminary decisions this should be entirely satisfactory, although so many factors affect lighting that an illuminating engineer should be consulted before finally selecting a system.

On aspects of lighting other than those discussed in this article, notably daylight control, research is not complete enough for a practical report. As fast as such subjects become reportable you will find them in P/A. For instance, we are scheduling for this fall a report on luminous ceilings, the research for which is only now nearing completion.



Louverall classroom lighting represents an advanced technique for obtaining high quality illumination, architecturally integrated. This school is located in Park Ridge, Illinois, where 22 classrooms are lighted in this manner. Architects: Perkins and Will.



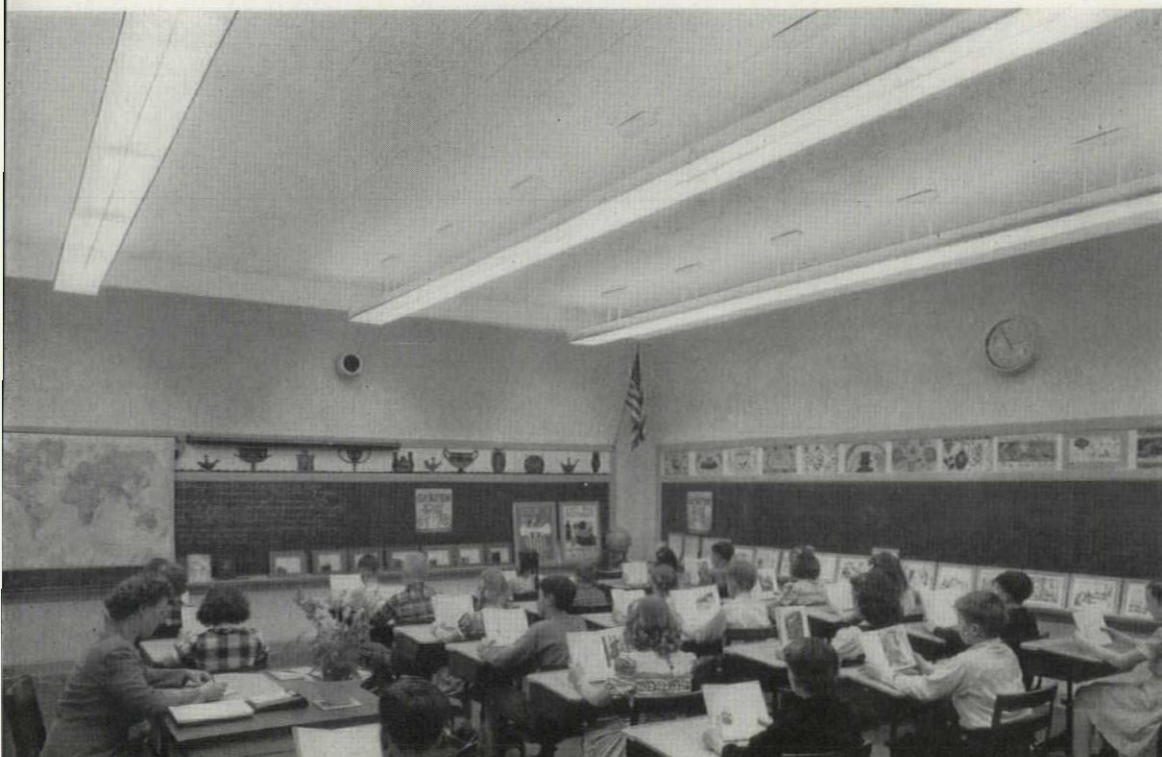
CLASSROOM LIGHTING TECHNIQUES

By **CARL J. ALLEN**, School Lighting Specialist, Lamp Department, General Electric Co., Nela Park, Cleveland, Ohio

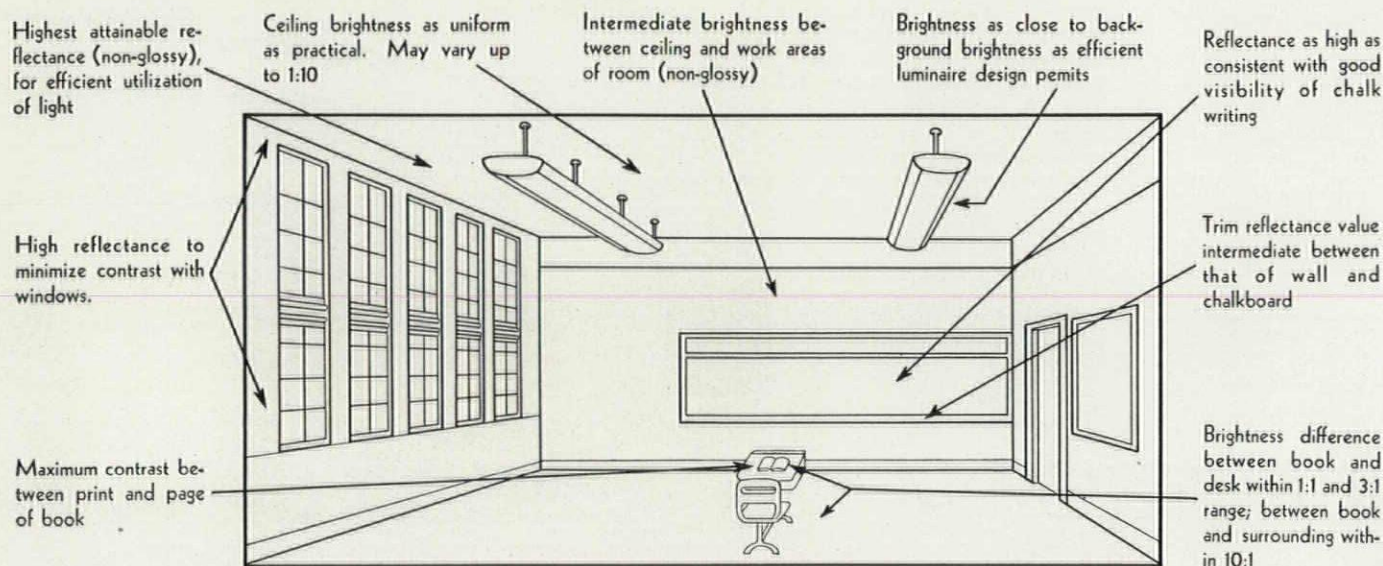
An estimated seven billion dollars of new school construction is required during the next ten years. It is needed to replace obsolete buildings and to provide facilities for an increase in the school-age population of five million children, born during and since the war. College and university population has vastly increased over the same period, too. School administrators put good lighting for classrooms high on their check list of requirements for a modern school plant. Having in mind all the pertinent factors in the local

situation, the architect must arrive at a solution compatible with the circumstances.

What are the objectives to be met in the artificial lighting system to realize good seeing conditions? Quality, of course, is essential in classroom lighting. But what determines quality? We shall see that it involves a consideration of the characteristics of the entire room, as well as the lighting equipment. The various lighting schemes illustrated present several means of achieving desirable results.



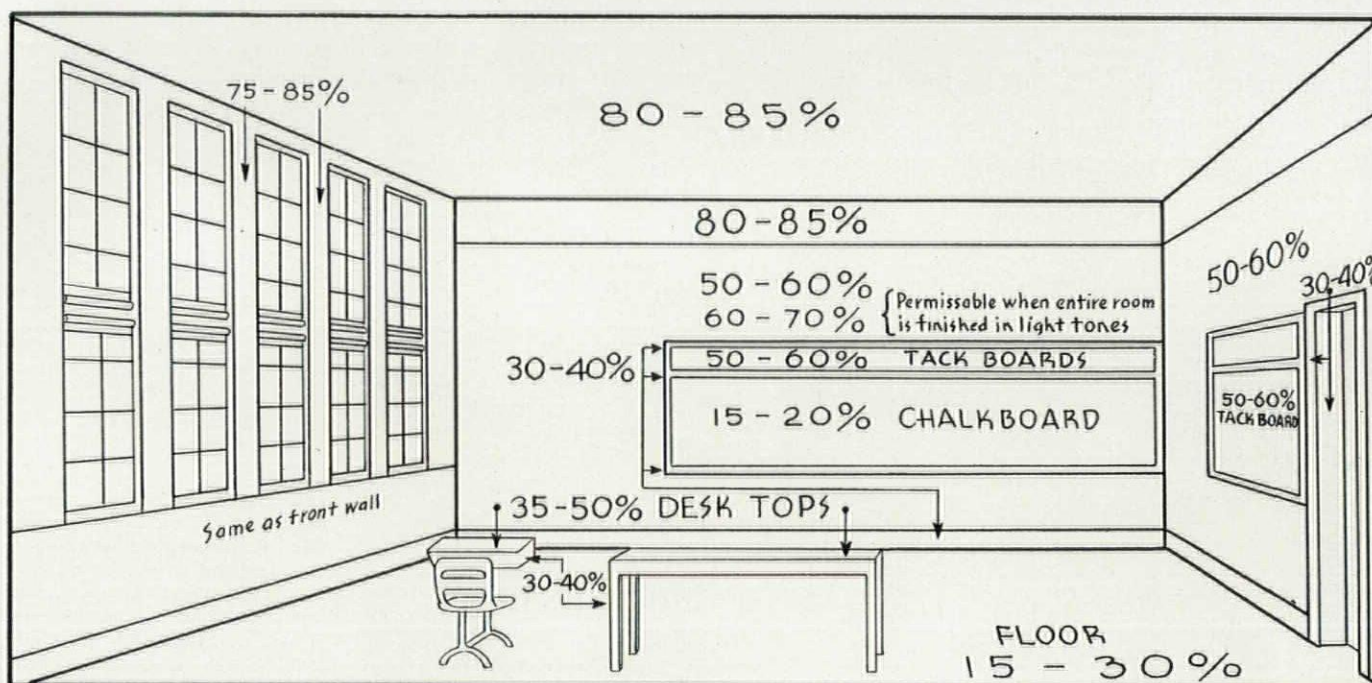
This classroom lighting system, located in Cleveland Heights, Ohio, is an outstanding example of a practical modernization policy. Students are now provided with the benefits of lighting planned for seeing. It combines efficient delivery of light to the desks with a comfortable visual environment.



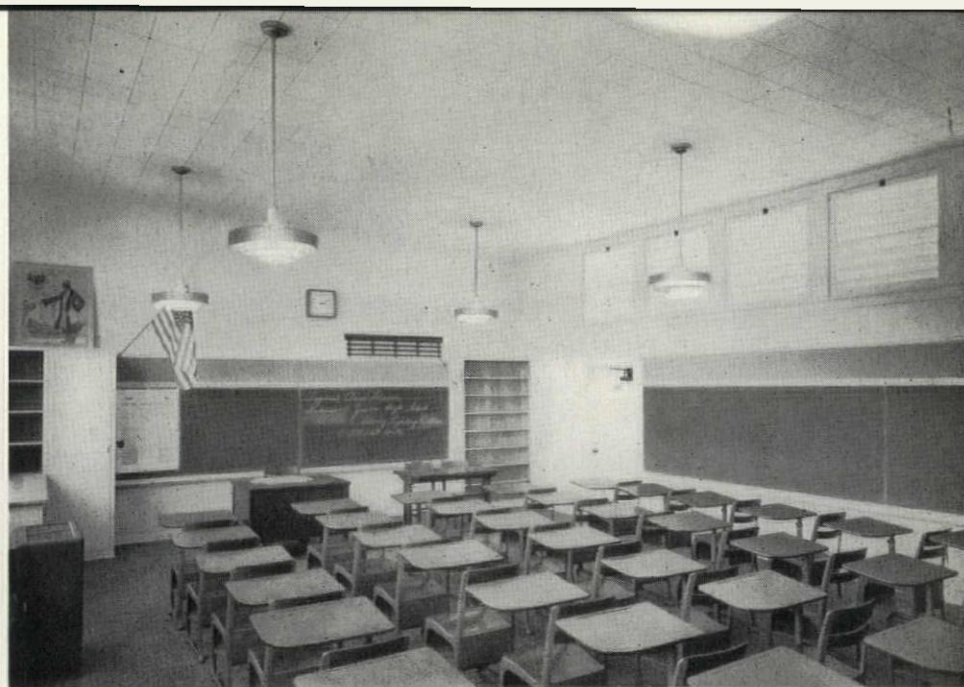
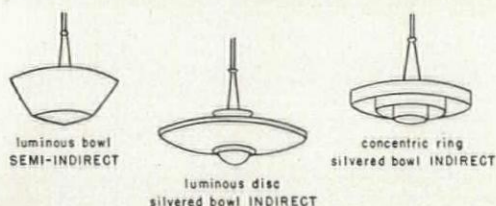
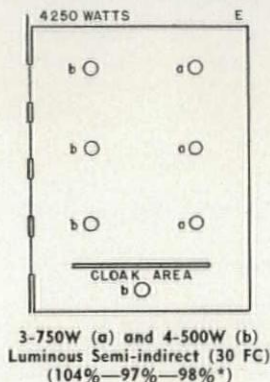
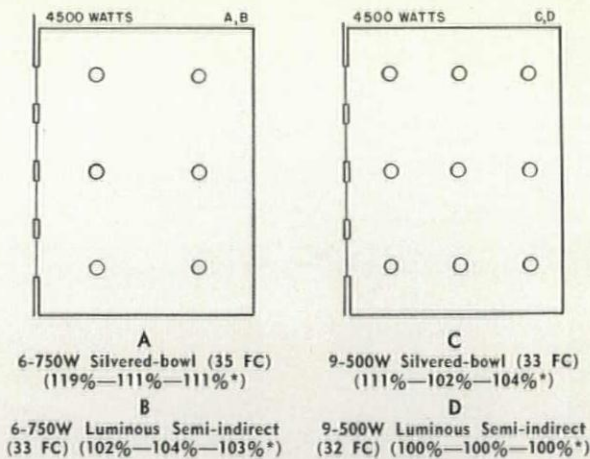
GOALS OF A BALANCED-BRIGHTNESS VISUAL ENVIRONMENT

Modern school lighting techniques are characterized by their comprehensive nature. The purpose is to have the room present a brightness pattern of such related values as will provide easy, comfortable seeing conditions for every type of classroom activity. The brightness pattern is a result of the amount of light from the lighting units, the manner of its distribution, and the reflecting characteristics of room surfaces and appointments.

Fluorescent luminaires should be compared as to how well they shield or reduce the lamp brightness, especially in the field of normal view, horizontal to 45 degrees up, and how efficiently they deliver light where needed, as well as to appearance and initial and over-all cost.



RECOMMENDED CLASSROOM REFLECTANCES



INCANDESCENT LIGHTING

One sees equally well under the same illumination value from incandescent or fluorescent lighting of comparable diffusion and directional quality. The two systems differ in such matters as initial cost, operating economy, heat, wiring requirements, and general appearance.

For example, incandescent lighting has the advantage of lower initial cost but is inherently higher in operating cost than a comparable fluorescent system. The wattage required is approximately three to four times that of a typical fluorescent system and, hence, in old constructions, a rewiring program is generally required to bring illumination values up to today's standards. The quality of lighting and general appearance of the room with good semi- or totally indirect incandescent equipment, which is the type recommended, can be very satisfactory. As illumination values substantially exceed about 40 foot-candles the associated radiant heat may lead to discomfort.

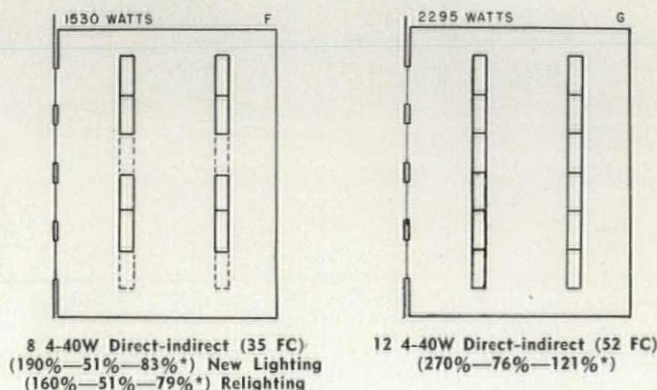
The nine-outlet system has a desirable feature of easy conversion to higher levels at a future date by replacing the filament equipment with continuous rows of fluorescent luminaires on the existing outlets.

FLUORESCENT FOUR-LAMP 40-WATT FIXTURES

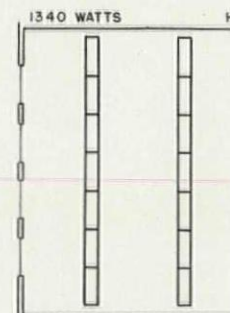
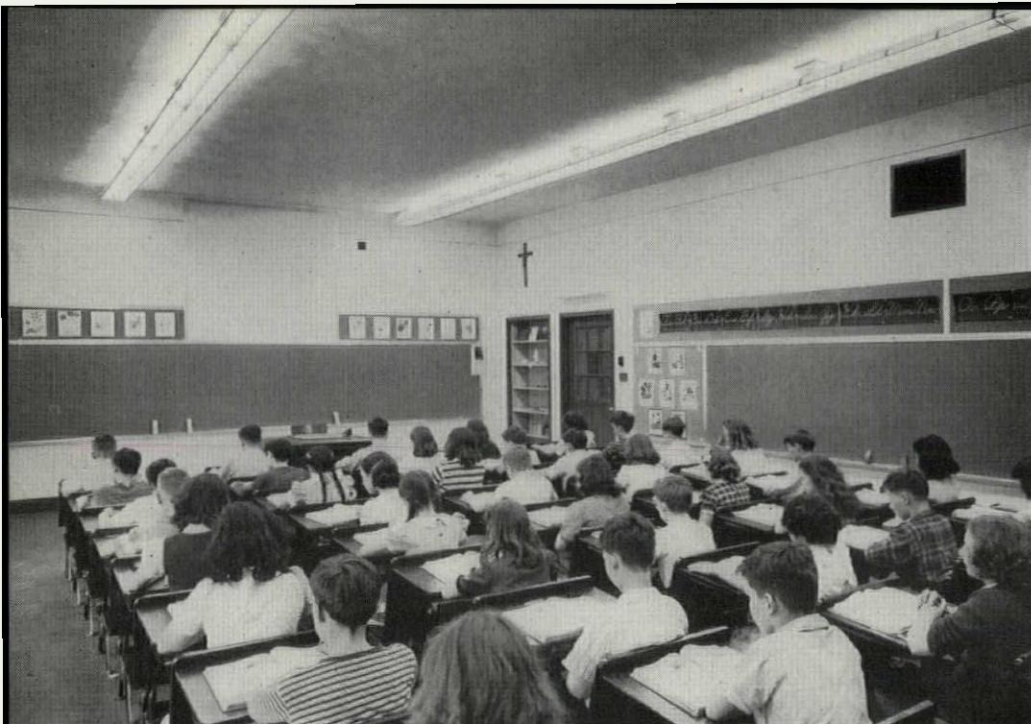
Due to the greater amount of light produced in each luminaire, four-lamp units may offer a lower initial cost and lower owning and operating cost than typical two-lamp unit fluorescent installations. For the same reason, the luminaires generally are slightly brighter and less comfortable and may tend to produce slightly less uniform lighting than continuous two-lamp systems. In old rooms

with four outlets, the wattage requirements of an eight-unit arrangement permit easy conversion, usually without extensive rewiring.

If the row of units nearest the windows is moved in one to two feet from the usual equally spaced position the lighting will be more uniform in the inner part of the room which receives less natural light.



*Initial Cost — Annual Operating Cost — Annual Over-all Cost.
System D, 9-500W Semi-Indirect = 100% — 100% — 100%. Note
pages 8 and 9 for premises.



14 2-40W Semi-direct (32 FC)
(237%—46%—91%*) New Lighting
(198%—46%—85%*) Relighting

TWO-LAMP EQUIPMENT

Luminaires of the two-lamp semi-direct design in general deliver a higher percentage of the generated light to the plane of the desks than do four-lamp equipments. The units should be mounted as high as possible, consistent with delivering a reasonably uniform lighting on the ceiling between units.

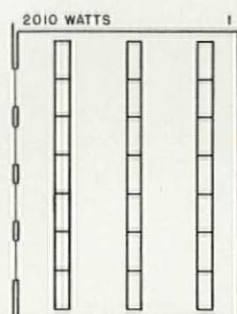
Shielded fluorescent luminaires should provide at least 25° shielding lengthwise and 35° shielding crosswise, and

brightness of the shielding elements should be kept below 450 footlamberts.

An installation of two continuous rows of two-lamp equipment, producing 30 foot-candles, in a median-size room, is considered an acceptable minimum recommendation for classroom lighting. Because of its low total wattage this arrangement is of special value when relighting a classroom with relatively limited wiring capacity.

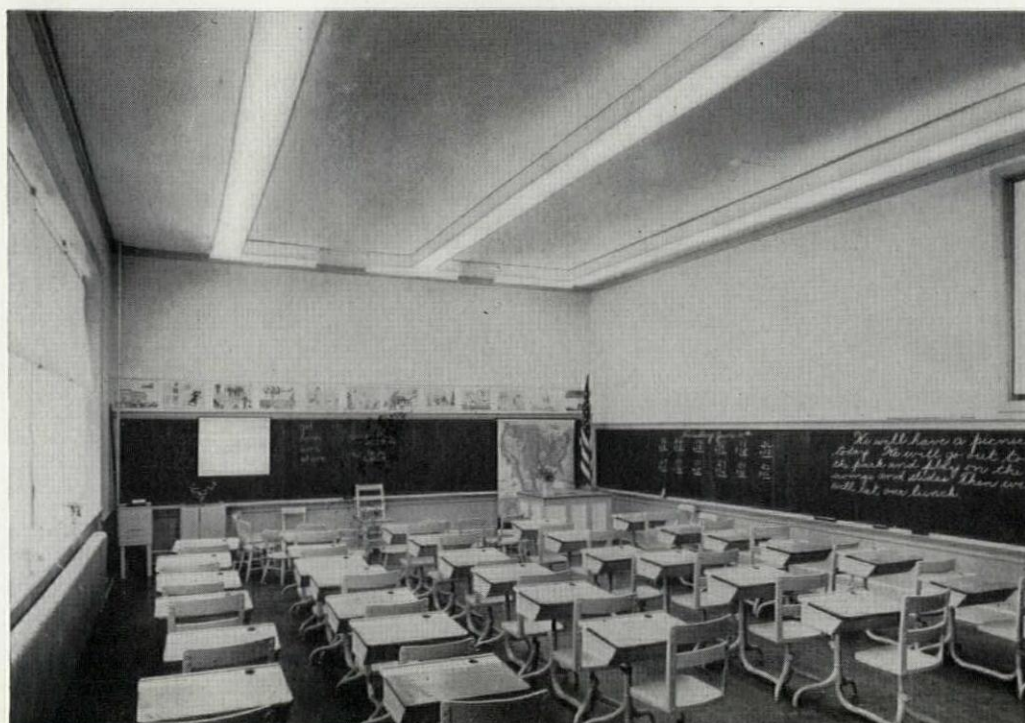
THREE-ROW INSTALLATIONS

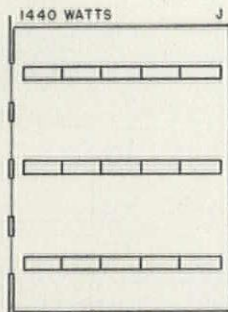
While 30 foot-candles represent a minimum value of good current practice, many schools will be able and will wish to provide more adequately for their students. Such a system is well typified by the installations consisting of three continuous rows of two-lamp fixtures. It may be noted that while the initial investment is three to four times that for the typical nine 500-watt incandescent system, the operating cost is only about two-thirds and the level of illumination is fifty percent higher. In the opinion of many this represents the more desirable present day practice. Fifty foot-candles is recommended for classrooms for students with partial vision, for drafting rooms, sewing rooms, and any other areas where the benefits of higher-level lighting are especially desired.



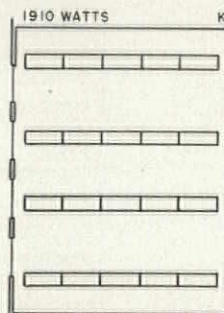
21 2-40W Semi-direct (48 FC)
(355%—69%—137%*)

*Initial Cost — Annual Operating Cost — Annual Over-all Cost. System D, 9-500W Semi-Indirect = 100% — 100% — 100%. Note pages 8 and 9 for premises.

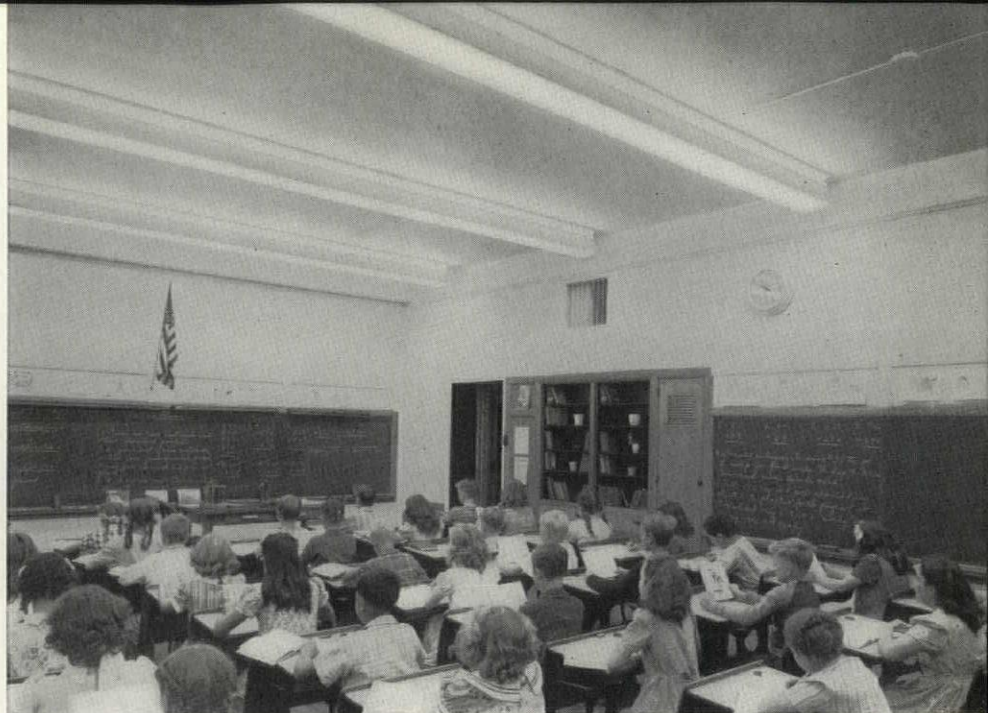




15 2-40W Semi-direct (34 FC)
(255%—49%—98%*) New Lighting
(213%—49%—91%*) Relighting



20 2-40W Semi-direct (45 FC)
(340%—66%—131%*)

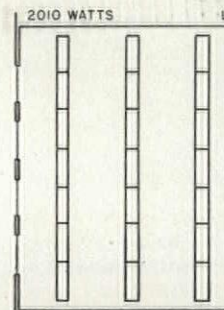


CROSSWISE INSTALLATION

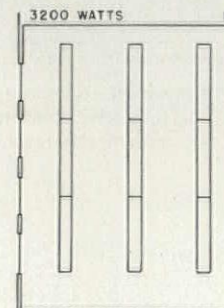
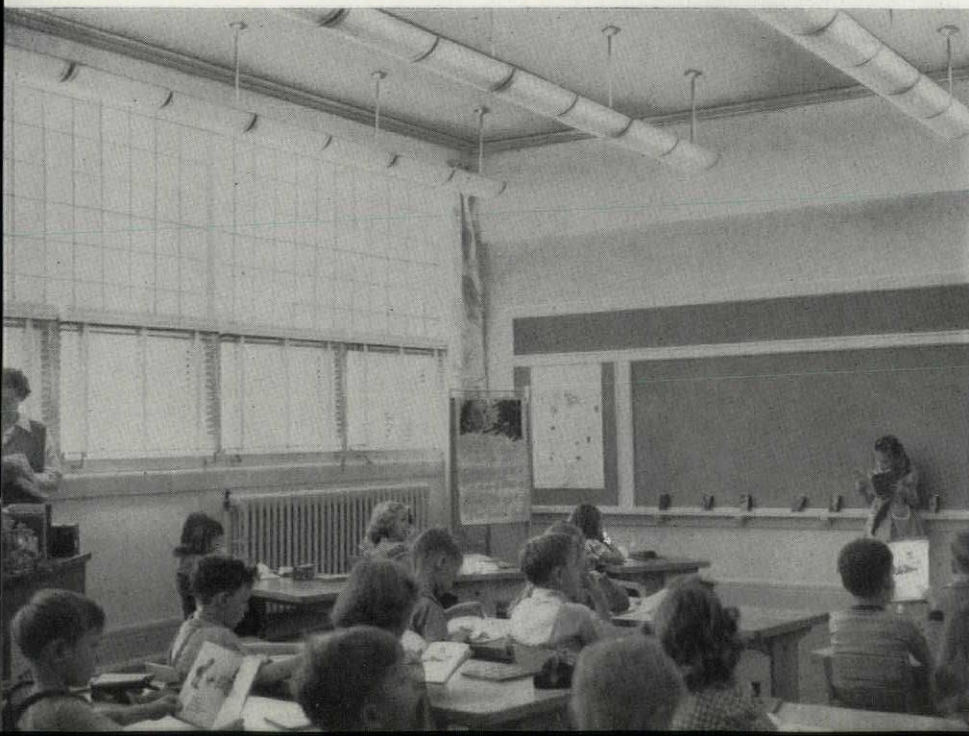
Certain commercial fluorescent luminaires present a lower brightness crosswise than they do lengthwise. This type of fixture can be installed crosswise of the room. The front units will illuminate the front chalkboard better than will fixtures which are mounted perpendicular to the front wall. Arrangements for wiring and switching should be so arranged that the fixtures near the window can be turned off when this part of the room is satisfactorily lighted by natural daylight.

LUMINOUS-SEMI-INDIRECT FLUORESCENT

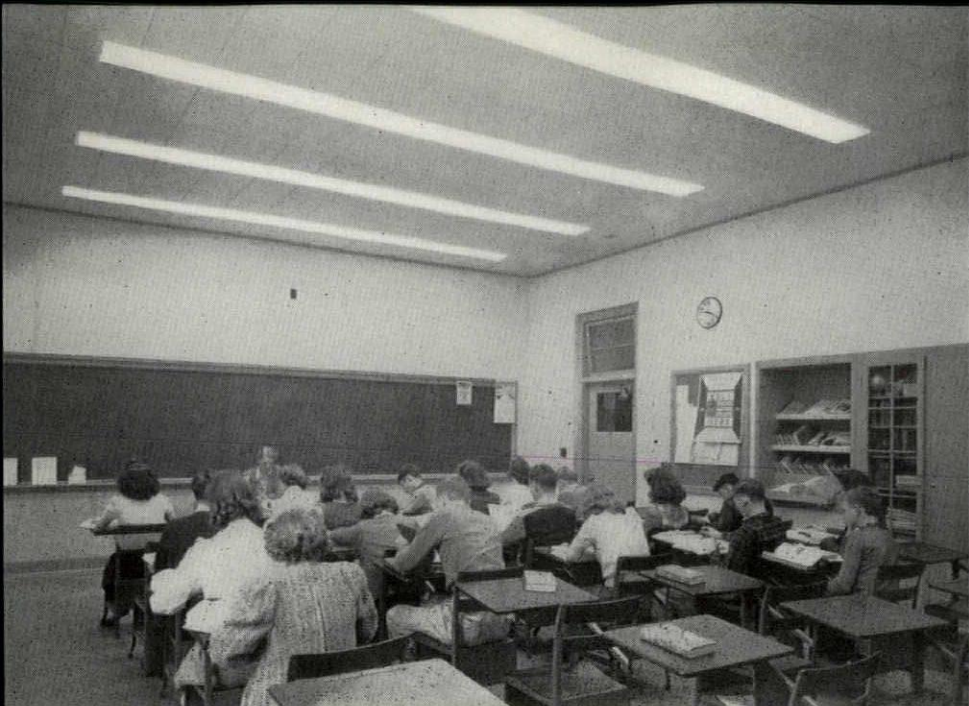
Where lighting of the highest quality is desired—lighting in which the shadows are the softest, reflected glare is at a minimum, and the brightness of the fixture closely approximates the brightness of the ceiling—the luminous indirect type of fixtures is to be recommended. Due to the lower utilization and lower maintenance factor generally considered with this type of lighting, approximately 50 percent more equipment is required for a given level of illumination than with semi-indirect fluorescent equipment. Many of those who appreciate the finer points of lighting believe that the gain in quality is well worth the higher cost.



21 2-40W Semi-indirect (32 FC)
(440%—69%—159%*)

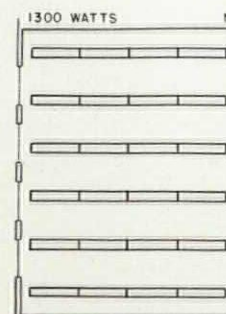


9 4-96T8 (300 MA) Semi-indirect
(49 FC) (430%—100%—175%*)

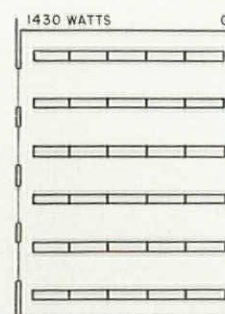


TROFFERS

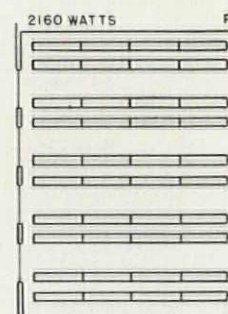
Troffer lighting is best considered in new construction, particularly where the light is combined with an acoustical ceiling. It is especially suited for illumination levels above 30 foot-candles. It combines lighting of good quality and low operating cost with sound conditioning and neat functional appearance. The etched aluminum type of troffer offers a very low comfortable brightness when viewed crosswise of the unit. One approaches closely the ideal condition where the visual task on the desk becomes the brightest object in the room, with all other areas of concern in satisfying brightness balance.



24 1-40WT17 Etched Aluminum
Troffers—No Louvers (32 FC)
(385%—51%—138%*)



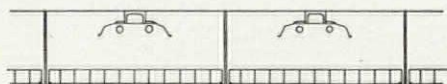
30 1-40WT12 Etched Aluminum
Troffers with Louvers (37 FC)
(490%—56%—162%*)



40 1-40WT17 Etched Aluminum
Troffers—No Louvers (51 FC)
(625%—82%—210%*)



Six-foot (1') fluorescent lamps on approximately 24" centers, bridging between two ballast channels fastened in the corners of the beams, provided the source of light in the case of the louverall ceiling shown on the first page.

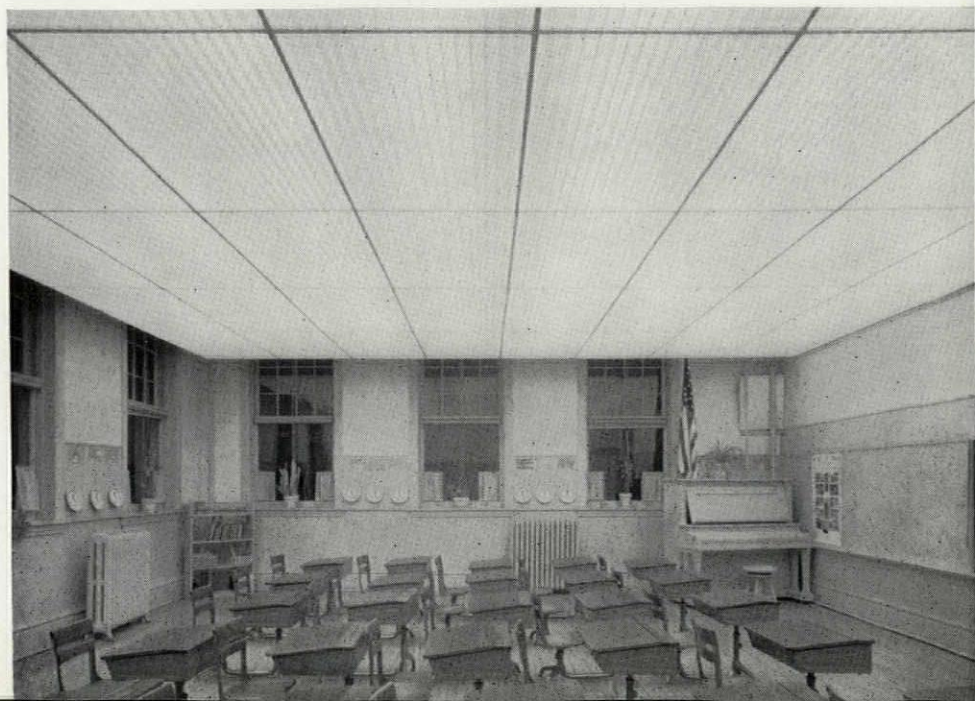


Industrial-type fluorescent reflectors above each plastic louverall section were used to provide the illumination in this modern classroom.

*Initial Cost — Annual Operating Cost — Annual Over-all Cost. System D, 9-500W Semi-Indirect = 100% — 100% — 100%. Note pages 8 and 9 for premises.

LOUVERALL

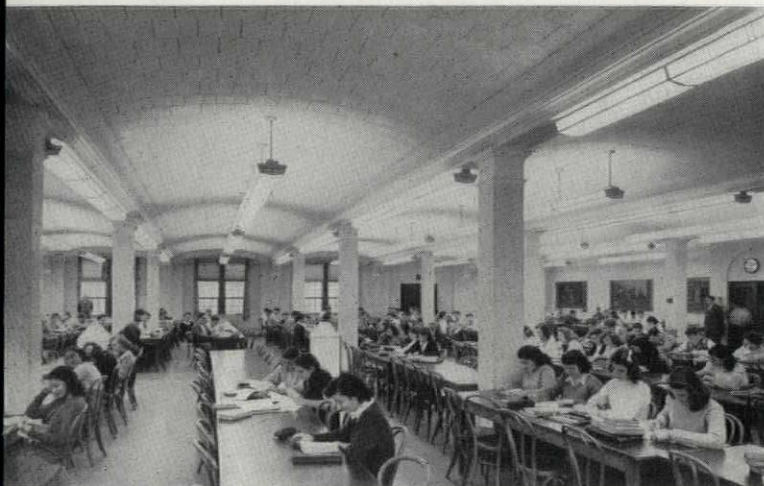
This technique is the newest of the methods of providing high-level flexible lighting with comfort and neat appearance. Much development work is being done in its use. Some louvers are plastic, others metal, others wood, and some are considering glass cloth as the shielding media. As it is new, it is suggested that details of any installation be worked out in conjunction with manufacturers' representatives.



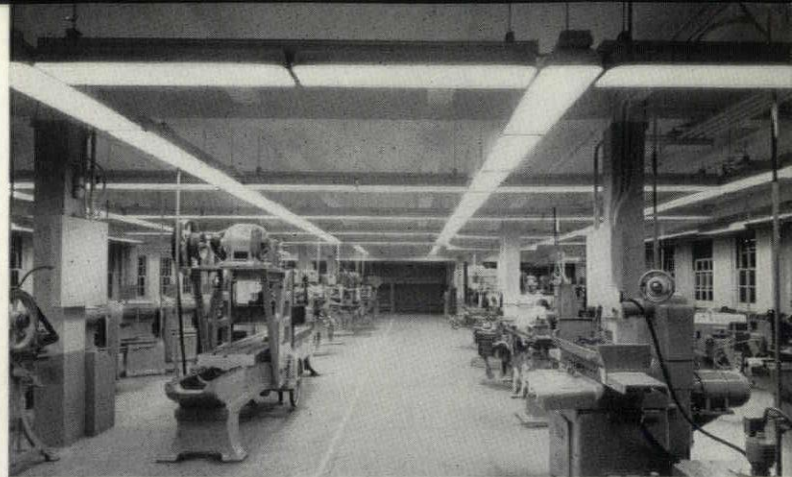
Etched aluminum troffers were used in lighting this laboratory. Comfortable lighting at low operating cost, with favorable maintenance characteristics, and a simple means of access to service pipes and equipment concealed by the acoustical tile, are features of this means of illumination.



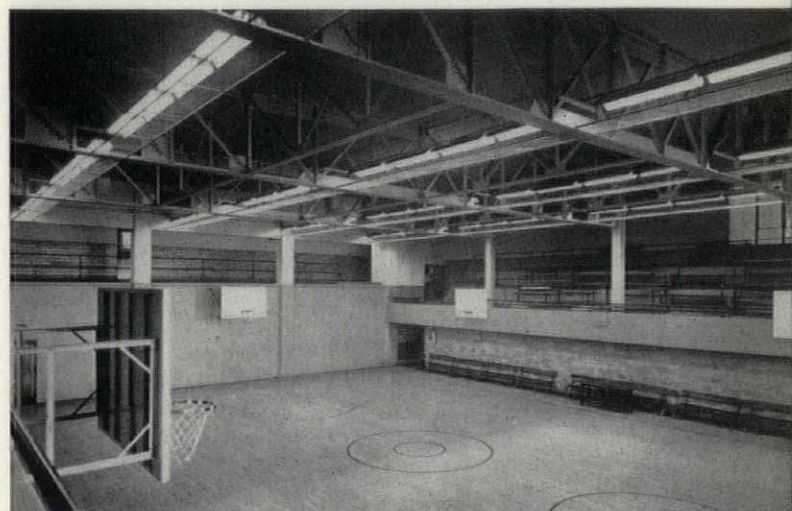
This cafeteria area was relighted so that it could serve the dual purpose of dining hall and large-group study area. By increasing the illumination level from 5 to 40 foot-candles, this school virtually increased its physical capacity.



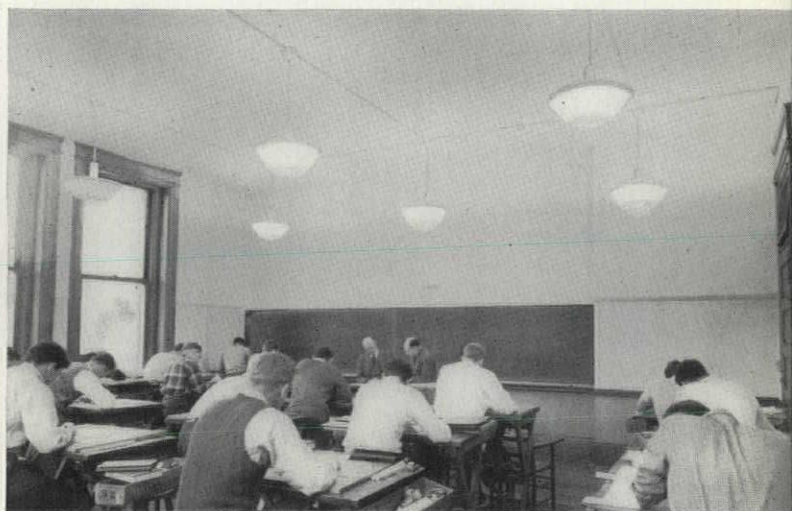
Libraries have long been characterized by an atmosphere of somber gloom, better equipped for drowsy meditation than for continued reading. Here abundant light on the study tables from the continuous overhead fixtures makes seeing easy; light on the open book shelves makes it possible to find title and author quickly. Individual reading table lamps are inherently unsatisfactory and are being superseded by overhead general lighting equipment.



Lighting which illuminates the moving parts, dials, and controls of the tools from all directions is well accomplished by this grid system of industrial fluorescent fixtures. Plenty of good light promotes safety and good housekeeping in the shop, as well as good workmanship and a minimum of spoilage.



Traditionally, gymnasiums have been lighted by high-wattage incandescent lamps in reflectors of the high-bay type. The lower brightness of fluorescent equipment will minimize the temporary blinding that players encounter in looking up into the lights. Long burning hours in many gymnasiums also favor fluorescent from the cost standpoint.



Fifty foot-candles of incandescent lighting are used with comfort in this drafting room. The room is located on a top floor and has excellent cross-ventilation which makes the relatively high wattage tolerable.

The Cost of Classroom Lighting

ANNUAL OVER-ALL COST
OF OWNING AND OPERATING
A
LIGHTING SYSTEM

=

ANNUAL OWNING COST
(INITIAL COST
LESS LAMPS
TIMES AMORTIZATION RATE)

+

ANNUAL OPERATING COST
(COST OF ENERGY,
LAMP REPLACEMENTS,
AND CLEANING)

Premises used in comparative cost figures shown with each lighting system:

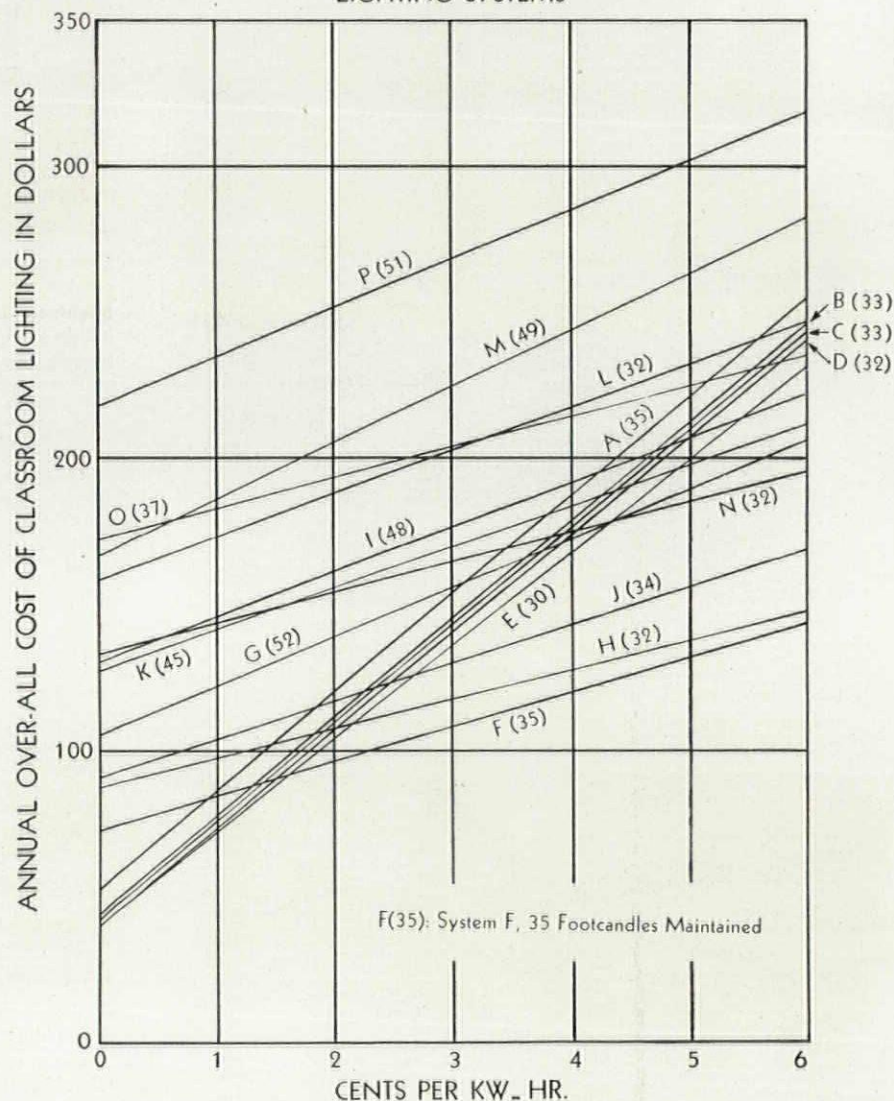
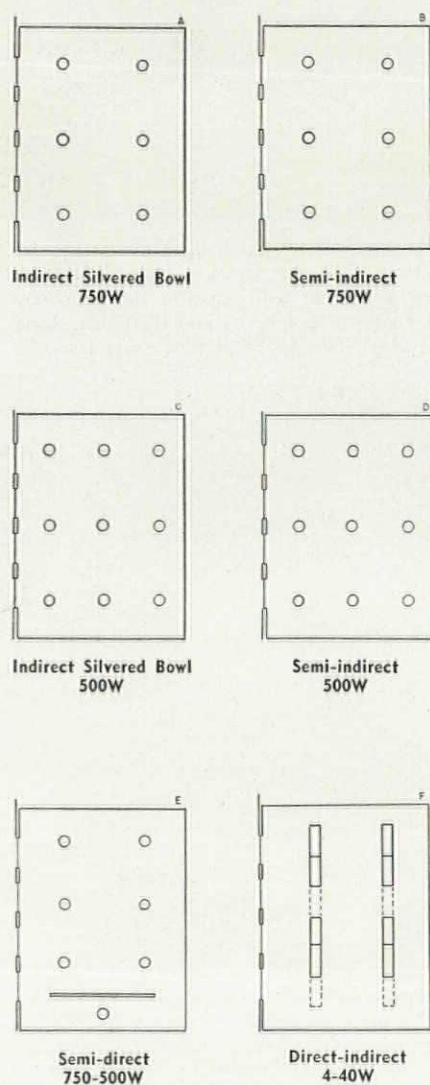
1. **Initial Cost** was based on estimated average cost to schools of median price fixtures, plus hanging, and of required ceiling outlets and switching control plus branch-circuit wiring to sub-panel board. Amortization rate of $12\frac{1}{2}\%$ assumes a 10-year write-off plus a $2\frac{1}{2}\%$ annual contingency to provide for interest, insurance, etc.
2. **Annual Operating Cost** was based on a median energy rate of $2\frac{1}{2}\text{¢/kwhr}$, an effective average operating time of 750 hours per year, lamps purchased at 30% discount, a replacing charge of 10¢ per lamp, and a complete

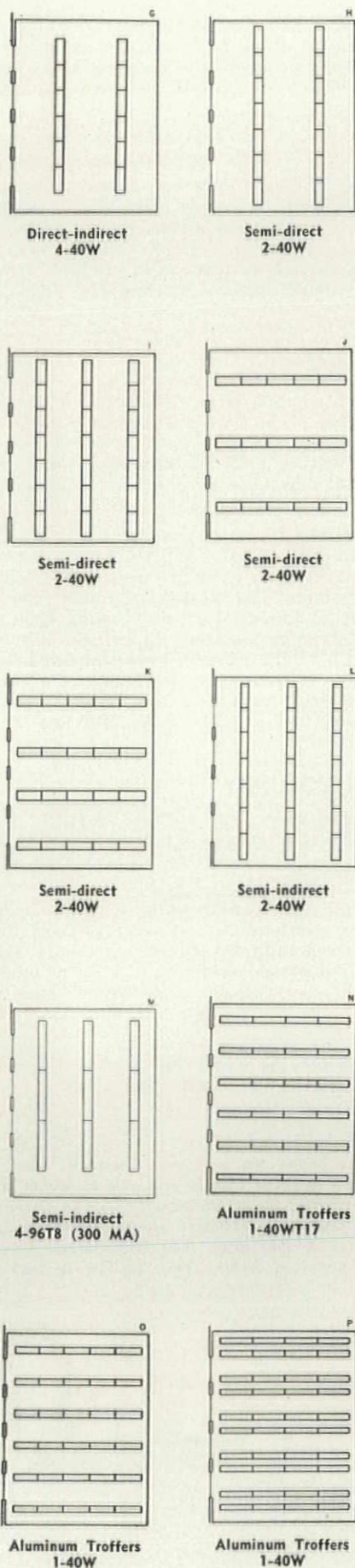
twice-a-year fixture-cleaning program. Estimated cleaning cost per fixture varied between \$0.30 and \$1.00 depending upon type of luminaire.

3. All examples and maintained foot-candle levels are for a classroom 22' x 30'—12' ceiling, finished as recommended and equipped with luminaires of an assumed average lighting performance.

Note: Because of wide variation in the cost of some of the components mentioned above, it is suggested that the figures given in this article be used as a general guide. For a specific installation the cost calculation should reflect the conditions that pertain locally.

ANNUAL OWNING AND OPERATING
COST OF VARIOUS CLASSROOM
LIGHTING SYSTEMS

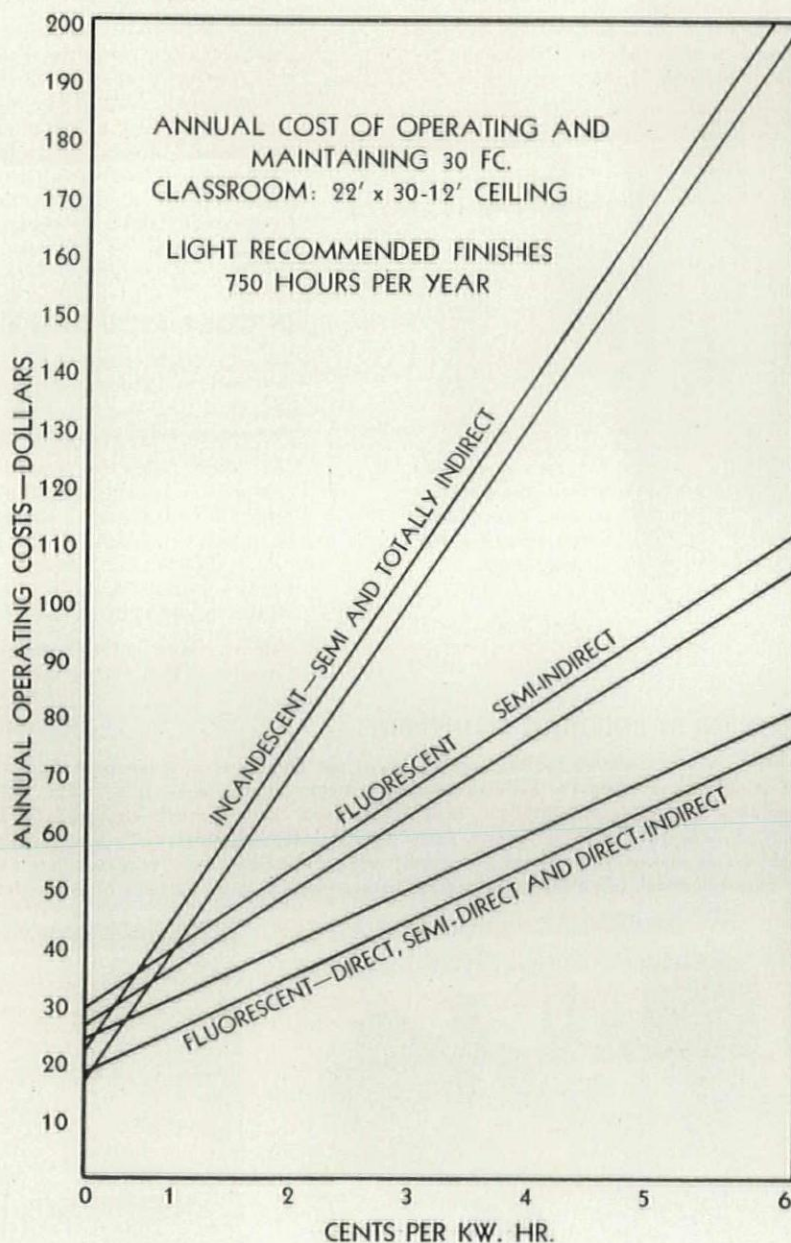


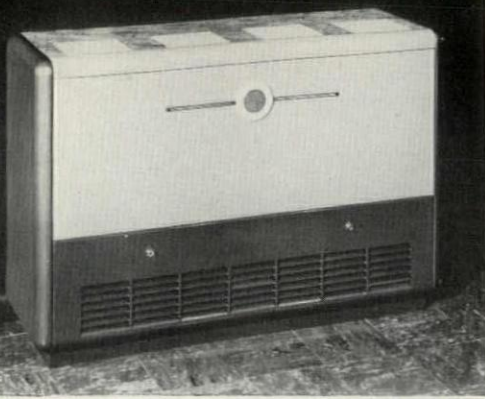


OVER-ALL COST COMPARISONS AT OTHER THAN 2½¢ KWHR RATE

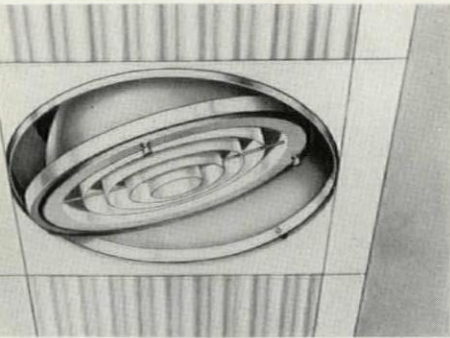
The chart shows the effect of typical energy rates on the annual over-all cost of lighting a classroom. The strong effect of energy rate upon the incandescent systems (A, B, C, D, and E) is clearly indicated. The fluorescent systems, on the other hand, are more strongly influenced by the amortization charges against the equipment than they are by the cost of current, as indicated by the points where they intercept the 0¢ energy line. It should be noted that in general the higher cost lines apply to higher foot-candle levels. The significant divergence between the operating costs of incandescent and fluorescent systems, as the energy rate increases, is shown on graph below.

Current estimates of the cost of modern education indicate that the annual cost of services and supplies for each student is about \$250 per year and that each student requires about \$500 worth of capital equipment. Amortizing this equipment over 30 years, the owning and operating cost of a classroom of 30 children would be about \$8,000 per year. It is noted from the chart that for energy rates from 2 to 4¢ per kwhr, the over-all costs of the more typical lighting systems are grouped in the \$100 to \$200 per year range.

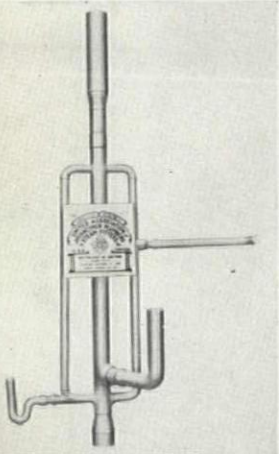




New unit ventilator for school classrooms: Herman Nelson Corp., Moline, Ill.



Recessed downlight (incandescent) for building into recessed troffer fixtures. Pittsburgh Reflector Co., Pittsburgh 22, Pa.



Preassembled all-welded vent stack assembly, Tube Turns, Inc., Louisville 1, Ky., is union-made.

PRODUCTION RECORDS

Several types of building products are being produced in unheard-of quantities; yet so great is the demand that the market is still far from satisfied. Electrical building wire, for instance, is now being manufactured at the rate of six billion feet per year, nearly three times the prewar rate, according to U.S. Rubber, which also expects an increase in the use of aluminum as an electrical conductor due to difficulties in obtaining copper. In the prefabrication field, some 80 companies produced over 37,000 houses in 1947; this year's production is expected to exceed 50,000, of wood construction alone. And we have barely begun to answer the cry.

HIGH COST OF BUILDING

According to *Engineering News-Record*, it now costs about three and one-third times as much to build as it did in 1913; or if that time's too distant for you, nearly twice what it did just prior to World War II. In many areas costs are far above this country-wide average. When such a condition arises, sooner or later a way out must be found. So far in 1948 costs have "leveled off" (except for heavy engineering construction), but with no real sign of a break. Yet in other ways there are signs of acute discomfort; for example, we are hunting for ways to reduce inherently costly building practices.

As evidence, we cite the following: The National Bureau of Standards is carefully scrutinizing the strength of common house constructions—not because houses need be stronger, but to judge how much material is superfluous—according to recognized engineering methods. (For a complete report, write the Supt. of Documents, Government Printing Office, Washington 25, D. C., for a copy of BMS 109, "Strength of Houses," enclosing \$1.50 per copy.) Another bureau, Housing and Home Finance Agency, has recently published the Uniform Plumbing Code for installation.

The American Institute of Steel Construction has formally announced to a meeting of the Vermiculite Association that "vermiculite plaster can be used to obtain a three- or four-hour fire rating with constructions . . . which should effect an economy over any of the older types of fireproofing." The West Coast Lumbermen's Association has made a piece-by-piece study of lumber used in framing typical five-room houses. It finds that, of the total, approximately 29 percent should have come to the job in random lengths, which would not only have simplified the milling problem, but would also actually have minimized waste during construction, since there is that proportion of odd-sized lumber in the average small house. If you're interested, write the Association at 1410 S.W. Morrison St., Portland 5, Oregon.

IS COST REDUCING CONSTRUCTION VOLUME?

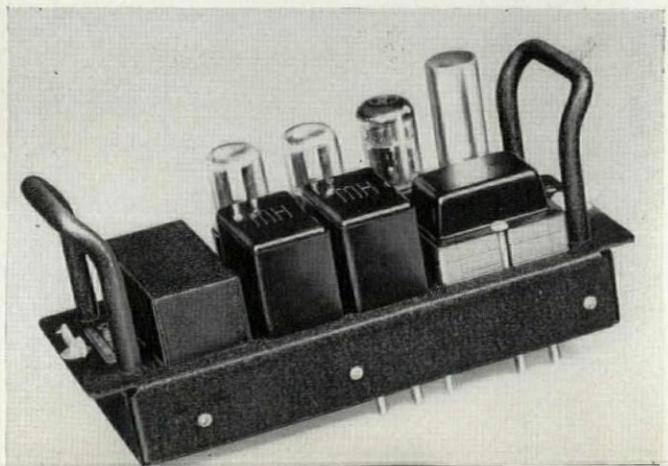
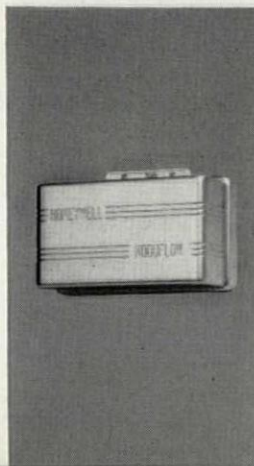
Yes, to quote again the American Institute of Steel Construction. A.I.S.C. has just released construction surveys from its 15 district offices. True, steel is hard to get, but this doesn't seem to have affected the reports; also, A.I.S.C. bases its release on total building permits. To quote directly:

"In some fields of building construction high costs are beginning to act as a brake . . . investment builders are becoming cautious . . . in other sections the slight leveling-off in prices (is giving the green light to) churches, schools, and hospitals . . . a slackening has been noted of industrial building . . ." On the other hand there's considerable department store construction, and several regions report increasing new construction, notably the Middle Atlantic and Southern states, and California.

Query: How many people noticed that, under the draft bill rushed through Congress' last days, steel is again allocated at the President's discretion?

ELECTRONICS IN BUILDING EQUIPMENT

The push-button world predicted for the postwar era is not only here; now the push buttons themselves seem to be on the way out. Electronics, that little understood science, is invading the building equipment field. At left below is a rather "normal" example, a radio amplifier chassis with plug-in remote control box, for building into residential interiors; it is a high-grade unit, specially designed for high fidelity. Manufacturer: Brook Electronics, Inc., 34 DeHart Pl., Elizabeth, N. J. The two photos in center below show Minneapolis-Honeywell's new Electronic Air Conditioning Controls (thermostat left, electronic relay panel right) which has no moving parts in the thermostat and is 100 times more sensitive than existing controls. Photos at right below show Otis Elevator Co.'s new Electronic Signal Control for elevators (landing fixture—not a push button—at left, electronic control mechanism at right). The "landing fixture" looks





THIS MONTH'S PRODUCTS

AIR AND TEMPERATURE CONTROL

Electronic Air Conditioning Control System: claimed to be 100 times more sensitive than existing controls. Basic units include room thermostat, duct and immersion thermostats, electronic modulating motor, and electronic relay. No moving parts in thermostats, thus maintenance of system reduced to minimum. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. So., Minneapolis 8, Minn.

Ventilating Fans: two new nine-blade home models, featuring adjustable heavy-gage steel wall sleeve for simple installation. Fully enclosed, induction type motors. National Appliance Co., 4814 W. Vernor, Detroit 9, Mich.

Unit Ventilator: newly designed for heating and ventilating school classrooms. Contains floating heating element with steam distributing tubes, pressure equalizing unit with checking device, and condensate cooling surface. Herman Nelson Corp., Moline, Ill.

CONSTRUCTION

Stainless Steel Roof Drainage Products: line of items include "K" gutter, plain round, corrugated round, and corrugated square conductor pipe, eaves trough, and all necessary fittings. Easily soldered, may be painted. Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

Acrylic Plastic Sheets: standardization of extra large sheets, 100" x 120", makes possible applications hitherto restricted to other materials or segmented construction, such as wall facings, partitions, facades, curved glazing. 1/4" to 1/2" thicknesses available in limited quantities. Rohm & Haas Co., 222 W. Washington Sq., Philadelphia, Pa.

DOORS AND WINDOWS

"Over-The-Top" Door Equipment: utilizes one-piece garage door which rises to full overhead position by means of strong channel-iron "arms," ceiling track to guide and carry door, and over-size counterbalancing springs. Silent, roller-bearing hangers; steel weatherstripping. Door units available in 19 sizes, all wood or aluminum. Frantz Mfg. Co., Sterling, Ill.

Picture Window Frame: made of extruded

aluminum alloy, for all standard sizes of double insulating glass panes. Shipped unassembled in lightweight knocked-down kit. Hunter Products, Inc., Bristol, Pa.

ELECTRICAL EQUIPMENT AND LIGHTING

Allouver: new modular ceiling sections of aluminum, 18" x 48", made up of 3" or 1 1/2" cubes. Modules suspended by hinged-catch mechanism on telescoping rods, so that single section can be unhinged or removed without disturbing remaining sections. When in place, Allouver ceiling presents unbroken front without grid pattern, giving illusion of natural daylight lighting. General Lighting Co., 32 Union Sq., New York, N. Y.

Lighting Fixtures: designed by new firm for kitchens, game rooms, dinettes, bedrooms, also for commercial establishments. Complete line of portable electric lamps. Lightcraft Corp., Subsid. of J. H. Millstein Co., Jeanette, Pa.

Recessed Troffer Downlight: for use in stores, offices, or wherever concentrated light is desirable. Designed for individual, end, corner, cross-over, and in-line mounting with standard width fluorescent troffers. Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa.

FINISHERS AND PROTECTORS

Velvet Flow: interior flat paint claimed to have unusual high covering properties, spreading over 1,000 sq ft per gal. Currently available in white only, but tints can be made with addition of manufacturer's other line of oil colors. M. J. Merkin Paint Co., Inc., 1441 Broadway, New York 18, N. Y.

INSULATION (THERMAL, ACOUSTIC)

U.S. Flofoam: very lightweight insulating material with low thermal conductivity; non-corrosive, nontoxic, self-extinguishing. Applied in shipping containers for fresh and frozen food, also commercial and home refrigeration units. Available in shredded or block form, in various sizes to fill cavities. U.S. Rubber Co., 1230 Sixth Ave., New York, N. Y.

MATERIALS OF INSTALLATION

Armstrong's F-1402: new adhesive for metal

and plastic wall tile installation over plaster, plywood, and other bases. Will not bleed through joints or permit tile to loosen after installation. Armstrong Cork Co., Lancaster, Pa.

Hose Mounting Clip: spring tension clip, with four grippers, holds tubing firmly and clear of aperture through which it passes. Mounting and demounting of clip made simple by compression of open ends of clip. Pepka Spring Co., 810 S. Waugh St., Kokomo, Ind.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE

All-Welded Vent Stack: new type of hot-dip galvanized plumbing assembly consisting of all-welded steel pipe and welding fittings; unit saves up to 2" in wall thickness without sacrificing I.D. of pipe. Tube Turns, Inc., Louisville 1, Ky.

Durlite Toilet Seats: made of Tenite plastic in six variegated colors, with stainless steel and aluminum hardware. Durlite Sales Div., Beacon Plastic & Metal Products, Inc., 1150 Broadway, New York 1, N. Y.

SPECIALIZED EQUIPMENT

Brook High Quality Amplifier: designed especially for custom-built radio phonographs. Low mutriodes throughout unit; frequency response is flat within 0.2 DB from 20 to 20,000 cycles. Intermodulation and harmony distortion said to be reduced to vanishing point. Brook Electronics, Inc., 34 De Hart Pl., Elizabeth 2, N. J.

NB-10 Refrigerator: 10 cu ft, occupies same floor space as 8 cu ft model; for use wherever large refrigerated storage space is required. Shelf area totals 17.8 sq ft. Stainless steel compartment equipped with four ice trays, holds 32 lbs of frozen food. General Electric Co., 1285 Boston Ave., Bridgeport 2, Conn.

Modular Design Scales: timesaver based on 4" module adopted by American Standards Assn. to coordinate dimensions of all building materials. Drawings made by using tracing paper over scales, without use of architect's or engineer's scales. Palmer Mfg. Co., 3207 11th St., Arlington, Va.

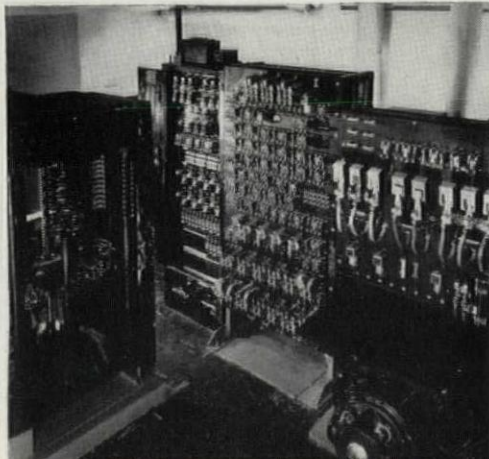
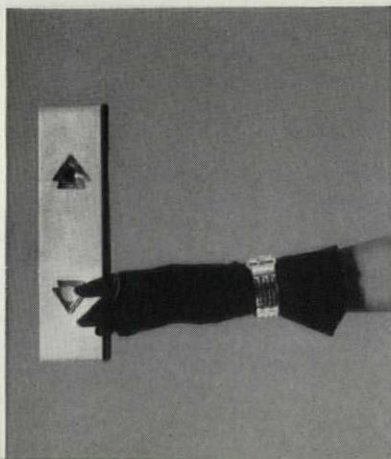
SURFACING MATERIALS

Floor Coverings: new styles, colors, patterns, of inlaid linoleum, resilient enamel coverings, rugs, asphalt tile, Koroseal tile, and cove base. Sloan-Blabon Corp., 295 Fifth Ave., New York, N. Y.

TRAFFIC EQUIPMENT

Electronic Signal Control: application of electronic principles in elevator control eliminates push buttons and considerable amount of wiring and relays formerly used for operation. Features tiny electronic tube in landing fixture; mere touch of recessed, tamperproof disc in fixture causes automatic stopping of car and opening of door at floor where passenger is waiting. Otis Elevator Co., 260 11th Ave., New York, N. Y.

like a push button but you can't push it; a mere touch activates the controls which make the car respond to your demand. Furthermore, the landing fixture lights up to show you that your demand is registering on the electronic brain, and more lights over the hoistway door tell you when the car's coming. Hail the post-push-button age!





Manufacturers' Literature

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

AIR AND TEMPERATURE CONTROL

1-187. **Control for Hot Water Heating** (F-3157), 4-p. folder on an automatic electric temperature control system that varies water temperature in proportion to outside temperatures. Installation diagrams, advantages. Barber-Colman Co.

1-188. **Merrill Wind Tunnel Tests**, 8-p. report on a series of tests conducted on a 12" x 12" Airjet ventilator to determine performance in terms of volume for various wind speeds and with ventilator in different attitudes relative to the wind. Performance charts in fps and fpm. Installation photos. C. R. Gelert Co.

★ 1-189. **Rempe Engineering Data Book** (Form 547-3MO), 34-p. illus. catalog prepared for engineer and draftsman as guide in the design of pipe and fin coils, with specific data on dimensional limitations, heat transfer factors, and coil development formula. Specifications, diagrams, charts. Rempe Co. (\$1.50 per copy. Make check or money order payable to Rempe Co.)

CONSTRUCTION

★ 3-8. **Tomorrow's Silhouettes Today** (Form DD-136), 15-p. illus. bulletin describing two types of masonry similar to brick in size and proportion; made of combination of minerals, bonded by Portland cement, and formed into shape without heat. Typical installations, advantages. W. E. Dunn Mfg. Co.

★ 3-9. **Zourite** (SF-7105), 16-p. booklet on new aluminum facing material for all types of buildings; shipped complete with furring strips, fastening clips, and trim moldings. Illustrations, typical installations, application diagrams. The Kawneer Co.

3-10. **An Introduction to Pluswood**, 3-p. bulletin on new high density plywood with characteristics comparable to aluminum, but half as heavy in weight. Description, physical properties, industrial possibilities. Pluswood, Inc.

Four booklets on precast gypsum roof decks, metal lath, corner beads, channels, partition systems, and plaster bases. Data, fire ratings, specifications, construction details. U. S. Gypsum Co.:

3-11. **Precast Gypsum Roof Decks**, AIA 4-E-6.

3-12. **Metal Lath**, AIA 20-B.

3-13. **Roof Decks**, AIA 4-L.

3-14. **Rocklath Plaster Bases & Attachment Systems**, AIA 20-B-2.

DOORS AND WINDOWS

4-138. **Aetna Steel Door Frames** (Form 5-50M-1-48), folder on one-piece steel door frames standardized for residential installations. Specifications, opening sizes, installation details. Aetna Steel Products Corp.

ELECTRICAL EQUIPMENT AND LIGHTING

★ 5-129. **Some Ideas**, 4-p. folder on detailed plans showing construction of all-louvered ceilings and equipment for mounting. Engineering data. General Lighting Co.

5-130. **Commercial Lighting Units** (Cat. G-34), 4-p. illus. booklet on moderately priced cold cathode units for commercial and institutional lighting. Advantages, application data. General Luminescent Corp.

5-131. **Guthlite**, 4-p. folder on new fluorescent lighting fixture featuring "jackknife" hinge and maintenance rod, which makes possible all work of replacing, cleaning, from the floor. Advantages. Edwin F. Guth Co.

5-132. **Design for Electrical Living** (B-3979), 12-p. bulletin on wiring diagrams and kitchen layouts for two Industry Engineered Feature Houses developed by the Producers' Council and sponsored by the National Association of Retail Lumber Dealers. Specifications and dimensions for all kitchen equipment. Westinghouse Electric Corp.

★ 5-133. **"Sky-Glo" Luminous Louver System**, AIA 31-f-14 (AD 5491), 28-p. illus. bulletin on new luminous louverall ceiling, designed for schools, offices, stores, and other commercial locations. Features, illumination and maintenance data, installation directions and layouts, general specifications. Benjamin Electric Mfg. Co.

FINISHERS AND PROTECTORS

6-127. **Hy-Toner**, color chart showing deep color flat finishes; 15 basic colors and white, which, when intermixed, will produce over 1000 hues. Hy-Toner Div., Roberts Paint Corp.

6-128. **Heavy Duty Finishes for Maple Flooring**, 8-p. folder on application, care, and requirements, of maple flooring. List of heavy duty finishes approved by M.F.M.A. Maple Flooring Manufacturers Ass'n.

6-129. **Floor Facts**, 8-p. bulletin containing architect's and engineer's specifications for treatment and maintenance of floors with manufacturer's finishing and sealing products. Vestal, Inc.

(To obtain literature coupon must be used by 10/1/48)

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8/48



REVERE COPPER FASCIA PROVIDES LASTING BEAUTY—LOW MAINTENANCE

Another Example of "Copper and Common Sense"

THE new Richmond-Chase office building in San Jose, California, offers striking proof of the versatility of Revere sheet copper. The architects for the building were Wurster, Bernardi and Emmons of San Francisco, the builder was Carl N. Swenson Co., Inc. and the sheet metal contractor was the O. C. McDonald Co. Richmond-Chase Company is one of the largest canning companies in the area; and it was desired that the headquarters office building should be in keeping with the company's position of progressive leadership.

The distinctive architectural treatment includes a copper facing of the roof overhang. It is constructed of 16 oz. Revere sheet copper, $\frac{3}{4}$ " standing seam—2'0" c.c. In addition to this use of copper for its color and beauty, copper was also used for flashing and window sills.

Whenever you design or install sheet copper construction, it will pay you to take full advantage of the new technical data developed by the Revere Research Laboratories. You'll

find these data in Revere's booklet, "Copper and Common Sense." This authoritative manual of sheet copper construction has been widely distributed to architects and sheet metal contractors, and there is probably a copy in your files. Be sure to refer to it as your guide to fine and durable sheet copper construction.

Revere materials are available from leading distributors throughout the United States. A Revere Technical Advisor will always be glad to consult with you without obligation.

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230 Park Avenue, New York 17, N. Y.

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.



Manufacturers' Literature

INSULATION (THERMAL, ACOUSTIC)

★ 9-97. Kaylo Roof Tile (KBI-485-5M), 8-p. booklet describing lightweight, insulating roof tile, composed of noncombustible minerals; combines fire resistance, structural strength, and insulation in single roof deck material. Specifications, properties, design data, construction details, technical data. American Structural Products Co.

9-98. Armstrong's Insulating Wool (T D-11-546), 4-p. brochure on glass-fibered wool; comes in roll blankets, batt blankets, pouring and blowing wool, for all standard requirements. Properties, data. Armstrong Cork Co.

MATERIALS OF INSTALLATION

13-72. Brune's Gutter Hanger, Holder and Fastner, 4-p. illus. booklet on a gutter bracket with removable latch element for holding gutter upright and at same time permitting gutter to be removed and replaced. Specifications, directions, claims. Louis J. Brune, Sr.

PLASTICS

16-117. Resins and Plastics (J-547a), 38-p. booklet describing forms, properties, and uses of resins and plastics. Contents table, photos. Bakelite Corp.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE

19-235. Modern Design for Shower Time, 3 loose sheets on a one-piece stainless steel shower receptor. Advantages, sizes and weights chart. The Perfix Co.

19-236. FA-3 Disposall (30-95), roughing-in sheet, providing plumbing directions for garbage disposer installation. General Electric Co.

★ 19-237. Forced Hot Water Circulation (Form FCE 648), 20-p. illus. booklet devoted to information on a forced circulating system of hot water heat. Engineering and installation data, wiring diagrams, typical details, sizes and capacities. H. A. Thrush & Co.

19-238. Pumps, 12-p. booklet on pumps for water supply and circulation drainage, sewage, and heating systems. Typical specifications, installation diagrams, bilge pump and capacity selection tables, dimensions, advantages. Yeomans Bros. Co.

SPECIALIZED EQUIPMENT

19-242. Decorative Uses of Copper and Brass (Feb. 1948), 16-p. illus. bulletin describing various decorative uses of copper, brass, and bronze, for residences, commercial, and industrial buildings. Features, typical installations. Copper & Brass Research Assn.

19-243. Parsons Pureaire Kitchen, AIA 23a-15 (Form SA-1027), 4-p. illus. folder on all-metal, packaged kitchen units, for small houses, apartments, motels, recreation rooms, etc. Specifications, features. The Parsons Co.

★ 19-244. Architect's Manual of Engineered Sound Systems, AIA 31-1-7 (Form 1R2134), 288-p. illus. manual. A guide to the installation

of sound systems into such structures as hospitals, schools, auditoriums, etc. Typical layouts, specifications, functions and application of system parts (amplifiers, microphones, etc.), listing of American Standard graphic symbols, definitions, contents table, index. Engineering Products Dept., Radio Corp. of America. (\$5.00 per copy. Make check or money order payable to Radio Corp. of America.)

REVIEWED JULY '48

AIR AND TEMPERATURE CONTROL

1-183. Capture the Sun with B & G Hydro-Flo Heating (AX-1247), Bell & Gossett Co.

1-184. Overfire Jets in Action, Bituminous Coal Research, Inc.

1-185. Airjet, C. R. Gelert Co.

1-186. The New International Warm Air Oil Furnace (Form 121-8-47J-25M), International Oil Burner Co.

CONSTRUCTION

3-4. Fabricated Structural Steel, American Institute of Steel Construction.

3-5. Daylight in Industrial Buildings (1B-73), American Structural Products Co.

3-6. Aluminum Sheet and Plate, Reynolds Metals Co.

3-7. Manual of Recommended Practice, J. H. Williams & Co.

DOORS AND WINDOWS

4-134. Tinted Screening, Firestone Industrial Products Co.

4-135. The Window of the Future—Today!, Gate City Sash and Door Co.

4-136. Entrances, The Kawneer Co.

4-137. Apartment Casements, Truscon Steel Co.

ELECTRICAL EQUIPMENT AND LIGHTING

5-124. Excessive Heating of Fuses in Enclosed Switches, Panelboards, and Cabinets, Frank Adam Electric Co.

5-125. Why Circuit Breakers Trip Out and Fuse Links Melt Out, Frank Adam Electric Co.

5-126. Surgical Lighting Technique (7L-949-1), American Sterilizer Co.

5-127. Prescolite, Pressteel Co.

5-128. Central Spang Conduit (351-1-48), Spang-Chalfont, Div. of National Supply Co.

FINISHERS AND PROTECTORS

6-126. Corrosite, Corrosite Corp.

MATERIALS OF INSTALLATION

13-71. The Right Roof for any Job from One Source!, Ruberoid Co.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE

19-229. A Positive Low Cost Answer to Corrosion (844112-2-100M-2-48), Calgon, Inc.

19-230. Norge "Triple-Action" Model W-818-P Washer (W-448-8A), Norge Div., Borg-Warner Corp.

19-231. Norge "Triple-Action" Model W-814-P Washer (W-448-8C), Norge Div., Borg-Warner Corp.

19-232. Norge "Triple-Action" Model W-817-P Washer (W-448-8BO), Norge Div., Borg-Warner Corp.

19-233. Norge "Triple-Action" Washer (W-248-8), Norge Div., Borg-Warner Corp.

19-234. Wall Closet Fittings, AIA 29C (Supplement No. 46-3), J. A. Zurn Mfg. Co.

SPECIALIZED EQUIPMENT

19-235. Ornamental Metalwork (Booklet 148), Julius Blum & Co., Inc.

19-236. Hospital Signal Systems (Bul. HP-1), Cannon Electric Development Co.

19-237. Hammond Organs, AIA 35-G-1 (Cat. HO-10), Hammond Instrument Co.

19-238. Hydroplex Pump (Bul. 47-8020), Pump Div., Byron Jackson Co.

SURFACING MATERIALS

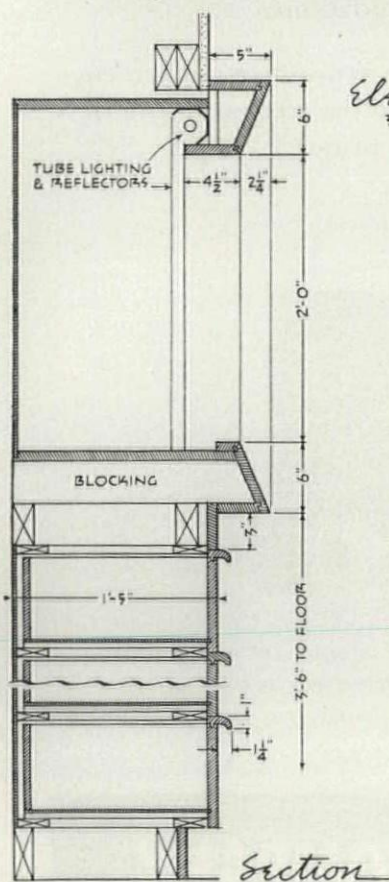
19-239. Matico Asphalt Tile Flooring, Mastic Tile Corp. of America.

19-240. Castle Square, Newcastle Industries, Inc.

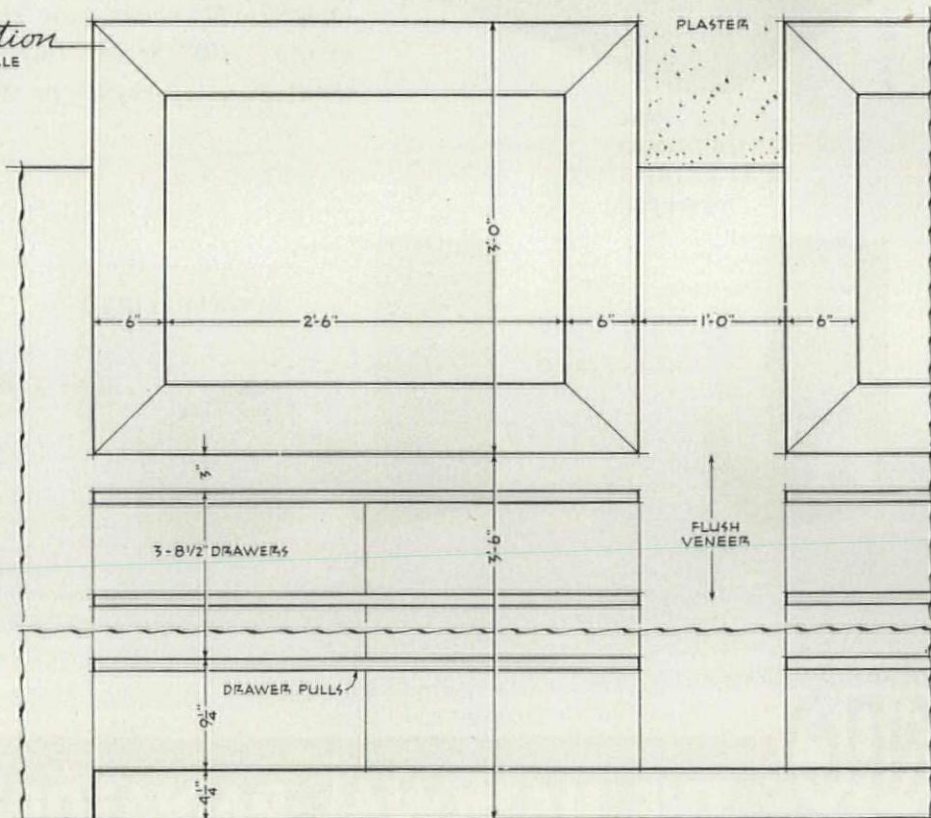
19-241. Norton Abrasive Floors (Form 1935-6P-10-47), Norton Co.



Floyd Roy



Elevation
3/4" SCALE



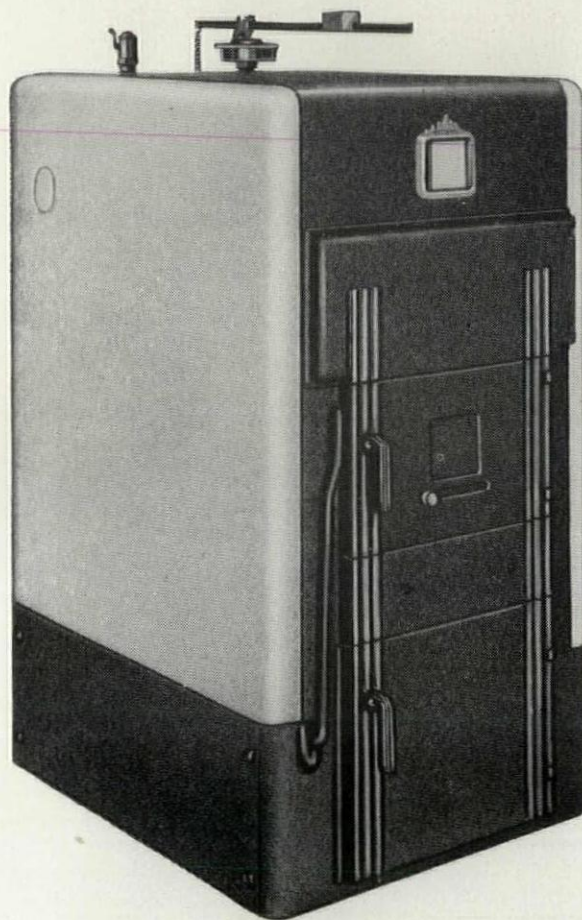
I. MILLER STORE

Long Beach, California

KENNETH S. WING

Architect

ADAPTABLE TO ANY FUEL



"200" SERIES
NATIONAL
HEAT-EXTRACTOR
HAND-FIRED

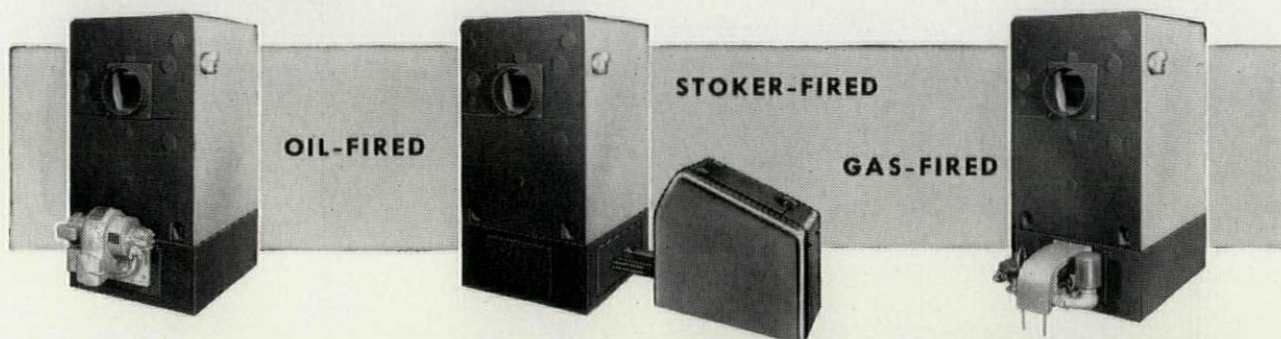
CONVERTIBLE

TO ANY FIRING METHOD

Here is one boiler, for steam or hot water, that assures continuous heating comfort through any type of prolonged fuel crisis. Designed for average size homes, or for small commercial buildings, the "200" Series National Heat Extractor is a truly versatile and modern cast iron heating boiler.

Easily converted from hand to automatic firing after installation, it is readily adaptable to any desired fuel or method of firing. Important, too, is its unique economy of operation—the planned result of its Extended Heating Surface, Multiple-Flue Sections, Extra-thick Insulation, Special Baffles (for oil and gas firing) —and unusually generous proportions.

Domestic hot water, year 'round, is another convenience of the "200" Series, offered by the easy addition of a tankless or storage type water heater.



For complete information on the "200" Series Heat Extractor—or the equally versatile "100", "300", "400" and "500" Series for smaller or larger installations—phone our nearest office or write to us at Johnstown.

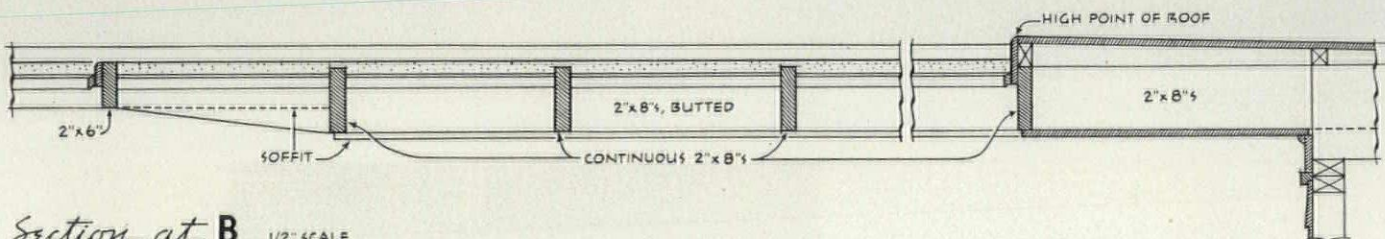
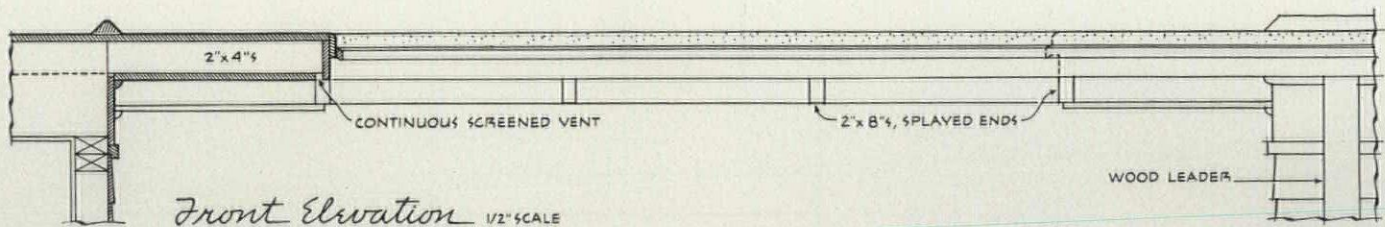
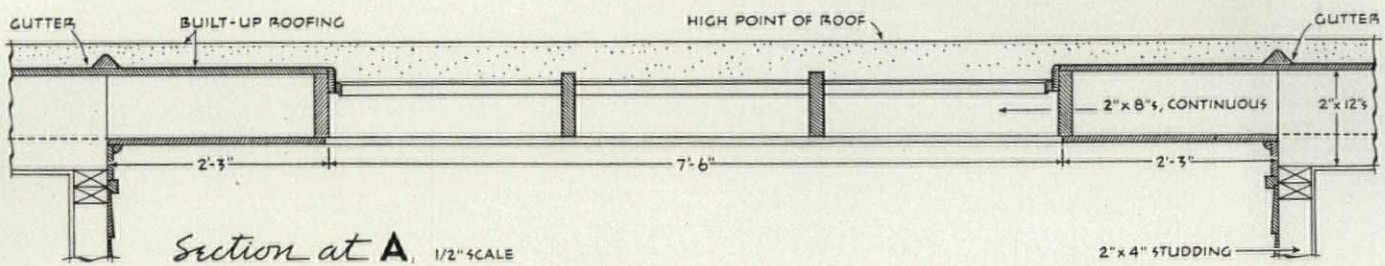
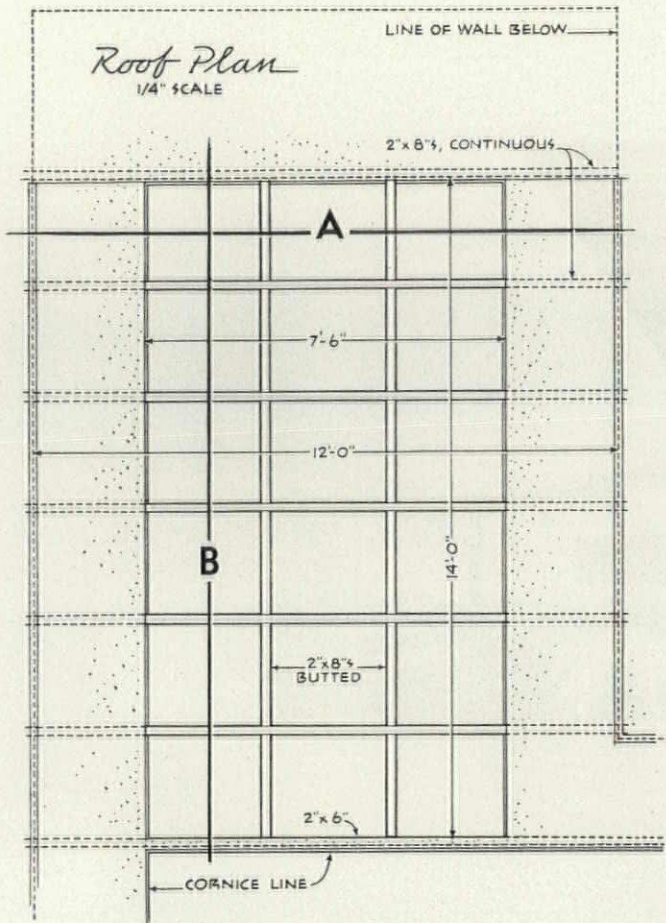


THE NATIONAL RADIATOR COMPANY

JOHNSTOWN, PENNSYLVANIA



P. A. Dearborn



RAINIER VISTA SCHOOL

Seattle, Washington

J. LISTER HOLMES

Architect

**Good light...plus ceiling
patterns as desired—
CEILINGS UNLIMITED***

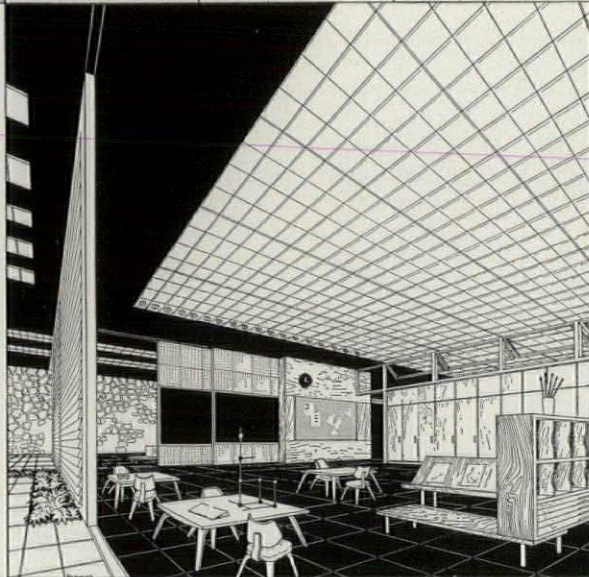
Miller Fluorescent Troffer Lighting Systems have boundless versatility of application. You can install them to form ceiling patterns as desired. Modernize old interiors. Tops for new construction. They give you not only good light, but the plus benefit of CEILINGS UNLIMITED.

Miller Lighting Service is all-inclusive. It covers the needs of Planned Commercial and Industrial Lighting.

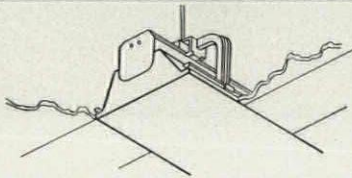
Miller 50 and 100 Foot Candles (Continuous Wireway Fluorescent Lighting Systems) are standard for general factory lighting. Miller incandescent and mercury vapor reflector equipment has broad factory and commercial application.

Miller field engineers and distributors conveniently located, are at your call

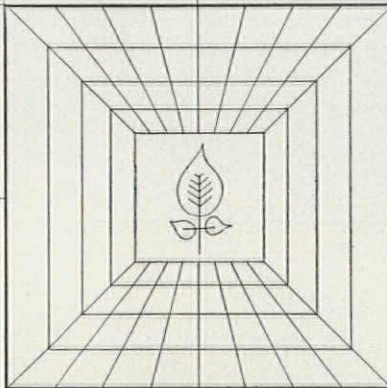
* Reg. Trademark U. S. Pat. Off.



Classroom—Architects: Allen and Edwin Kramer, N.Y.



Miller Ceiling Furring Hanger (patented) simplifies installation. Continuous wireway cuts wiring, fitting costs. Bonderized units resist rust. Accessible parts ... easy service.



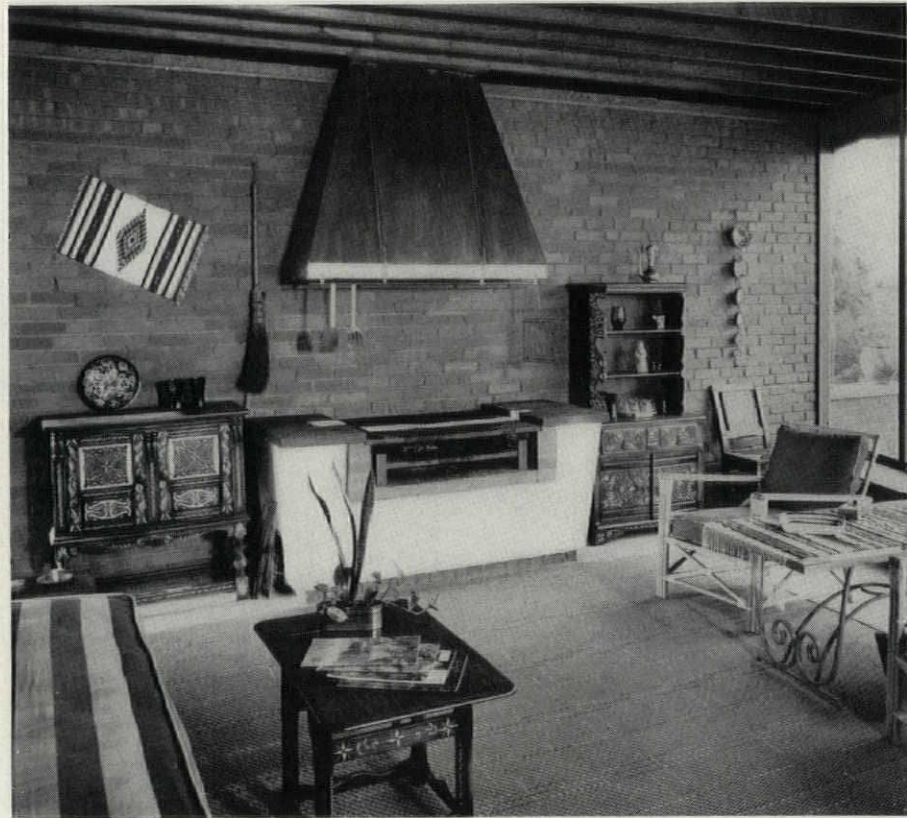
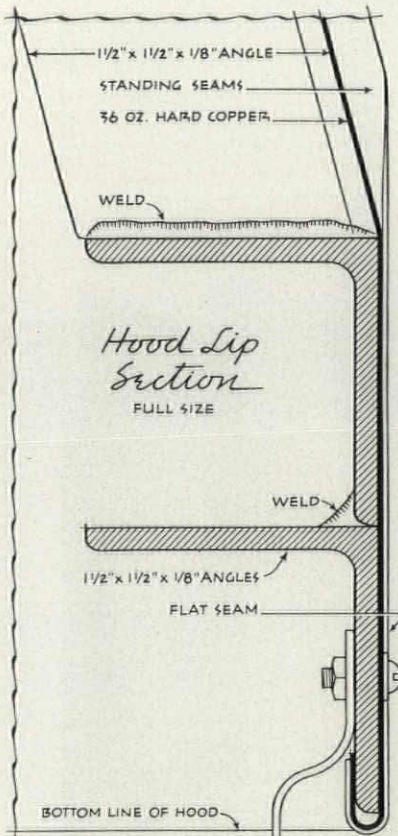
Chernysheff

THE MILLER COMPANY
SINCE 1844

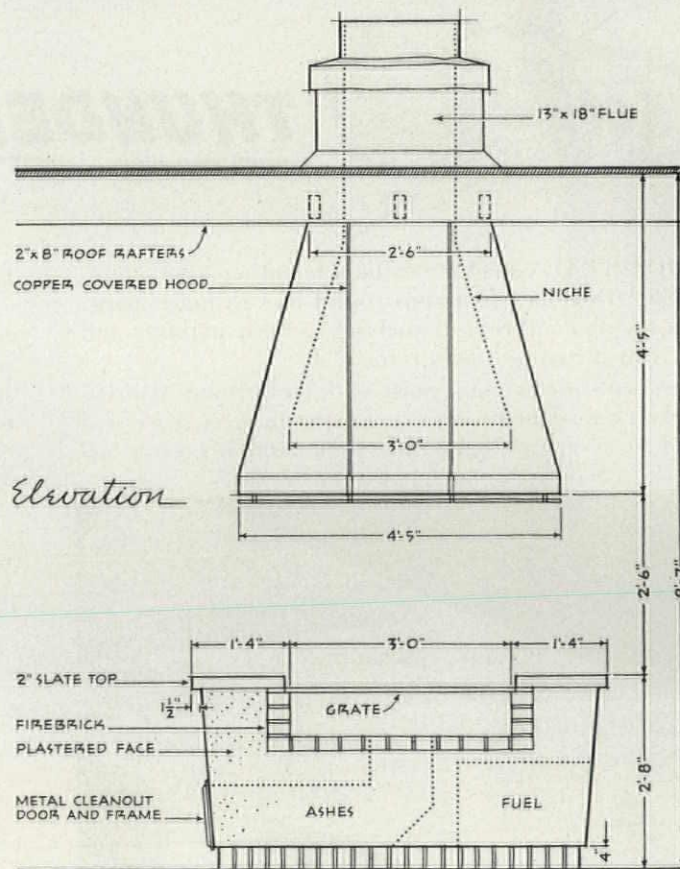
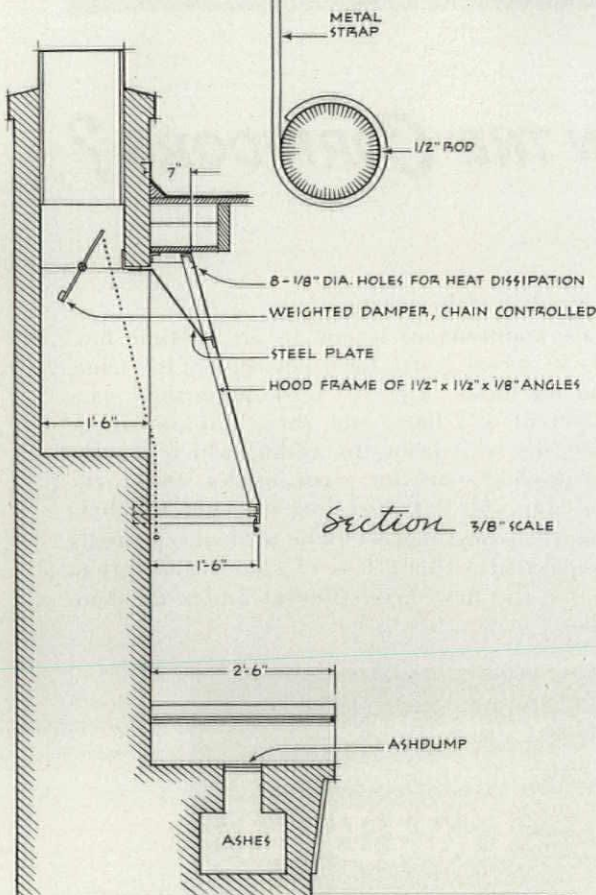
ILLUMINATING DIVISION, MERIDEN, CONNECTICUT

ILLUMINATING DIVISION: Fluorescent, Incandescent, Mercury Lighting Equipment; HEATING PRODUCTS DIVISION: Domestic Oil Burners and Liquid Fuel Devices; ROLLING MILL DIVISION: Phosphor Bronze and Brass in Sheets, Strips and Rolls

4



Rodney McKay Morgan—PHOTOLOG

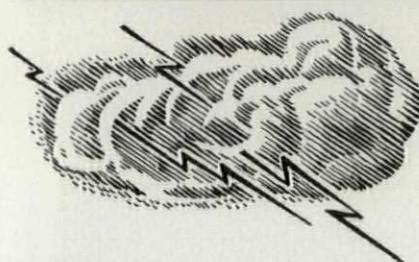


McCONNELL RESIDENCE

Solon, Ohio

ERNST PAYER

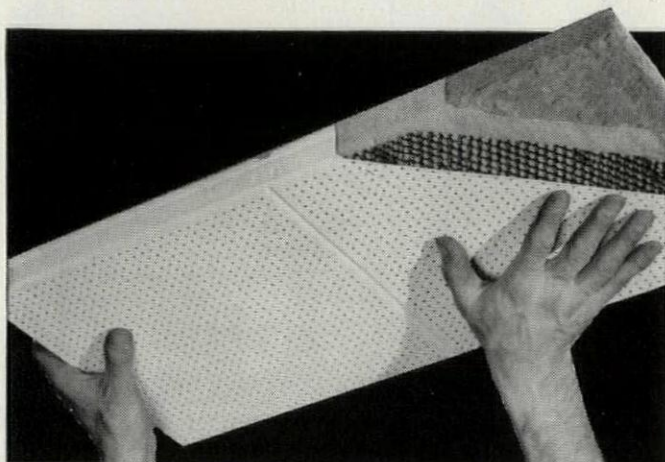
Architect



THUNDER IN THE CORRIDORS?

A HOSPITAL corridor can be a booming echo chamber! Ordinary footsteps sound like thunder-claps. It's a trying condition disturbing to both patients and staff. But it can be easily remedied:

You can stifle corridor noise with Gold Bond Acoustimetal. It's designed to insure maximum noise reduction—and to give high light reflection. And it's *Fireproof*



Gold Bond Acoustimetal—The Fireproof, washable acoustical tile for exacting sound control.

to fit new building code specifications.

Best of all, maintenance is cut to an all time low! Each tile is an access panel, for quick repairs to wiring, piping, and air ducts. The 12" x 24" perforated pans snap into patented T-bars, and these T-bars can be mounted any distance from the ceiling which may be required to provide space for pipes, cables, and ducts. They are as adaptable to remodeling as to new building.

What's more, Acoustimetal can be washed repeatedly and even repainted without loss of sound absorption. Write now for the new Acoustimetal folder for complete details.

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

NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y.

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

HOW TO SET A STANDARD

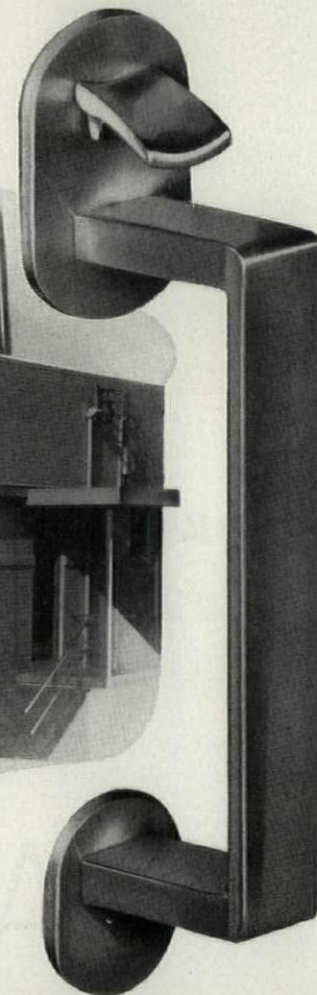
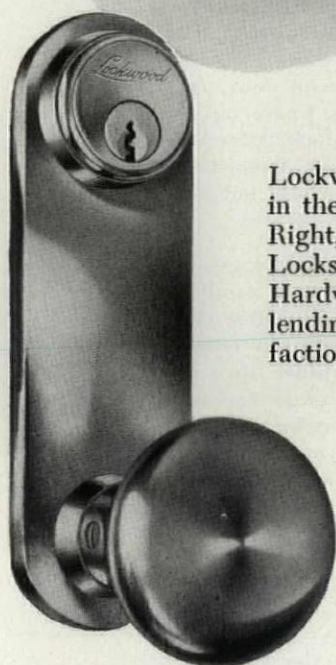
Good hardware complements good architecture. Your choice of Lockwood Hardware for every building you design can help to set a pattern by which all your work may be known.

More and more, architects are specifying Lockwood because it is good hardware. You'll find ample evidence of this in the way its lines meet your eye . . . in its feel . . . in the very fact that it is designed and produced by Lockwood — a name that means more of the best in Finishing Hardware.



Designed by Joseph J. Sawyer, Architect, for Greensboro News Co.

Lockwood Ambassador Hardware, selected for all doors in the new WIMY building, Greensboro, South Carolina. Right, Ambassador Entrance Set; left, Ambassador Interior Lockset for vestibule and office doors. All Ambassador Hardware applies directly to doors with concealed screws, lending charm to the design and furnishing complete satisfaction in use.



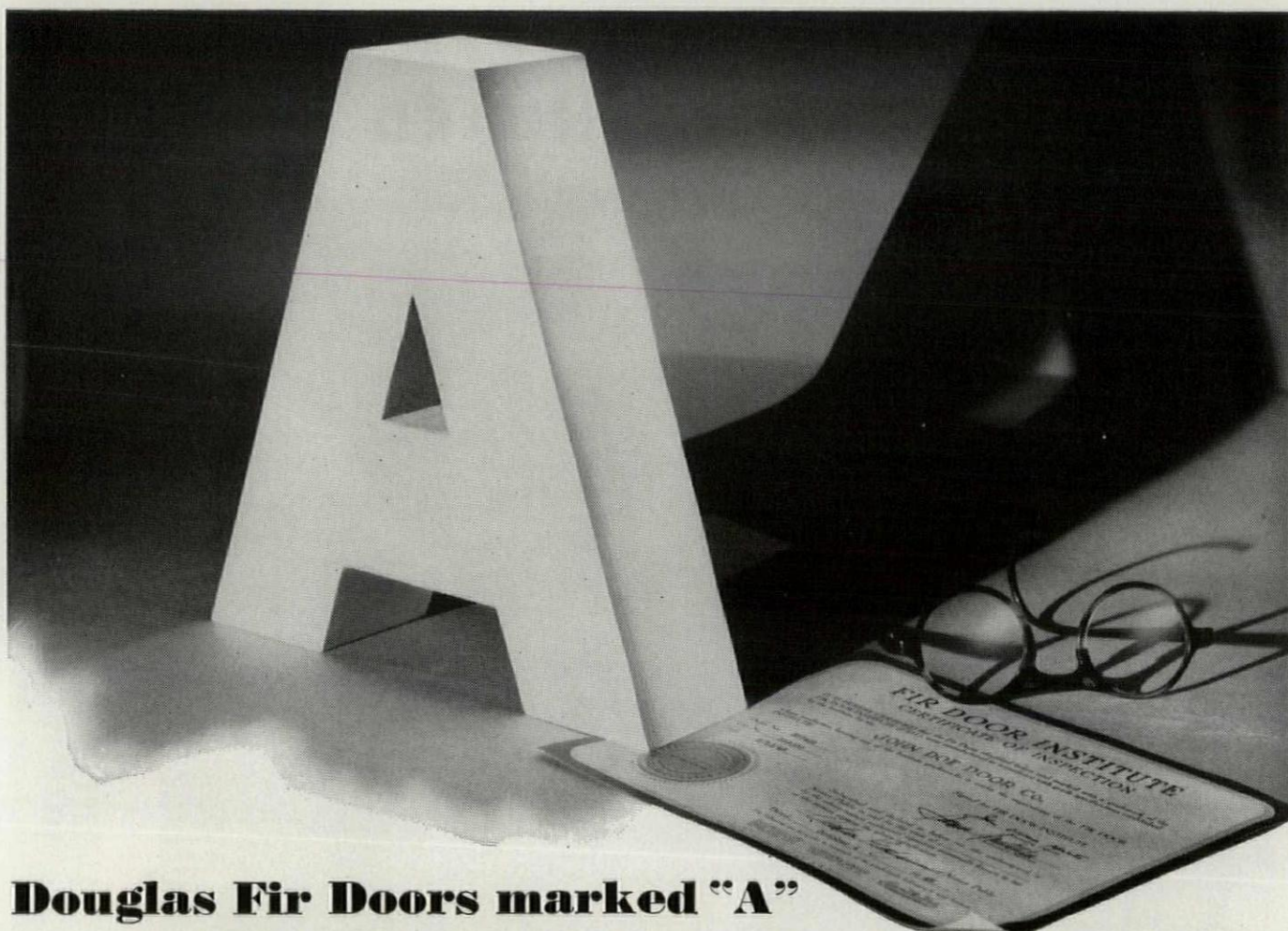
Lockwood

HARDWARE MANUFACTURING CO.

Division of Independent Lock Company • Fitchburg, Massachusetts

Lockwood makes it easiest for you to specify hardware for every type of building . . . for every decorating or architectural plan . . . from its catalog of "Simplified Specifications." You'll find this in Sweet's for 1948; or write for your own free copy.

L-87A



Douglas Fir Doors marked "A"

Meet these Industry-Approved Standards:

GRADE A—Recommended for Paint or Enamel Finish To be Factory Resin-Sealed



When the letters FDI appear as part of the grade trade-mark they certify that the doors so marked not only meet industry standards but have also been officially inspected by the Fir Door Institute and, at the buyer's request, will be covered by the official, notarized Certificate of Inspection.

[Douglas Fir Doors are also made in Grades B, C and MR. Subsequent advertisements will detail the standards for each grade.]

STILES, RAILS, AND MULLIONS.—This stock shall be heartwood, all vertical grain old growth Douglas fir, Sitka spruce, or Western hemlock, the faces of which must be clear, with the exception that small, inconspicuous, and neatly repaired pitch seams are permissible. Characteristic sound dark streaks are permitted in hemlock. Glued-up rails are permissible in widths over 4½ inches. A moisture-resistant glue shall be used. Mixing of woods is not permitted.

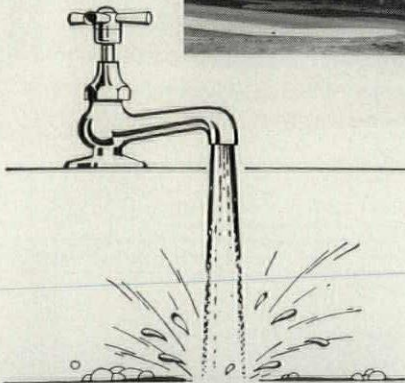
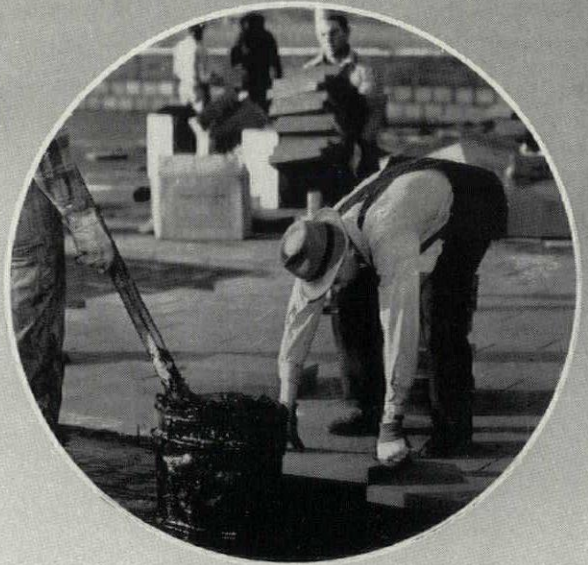
PANELS—FLAT VENEERED.—The standard thickness of 3-ply flat veneered panels shall be ¼ inch after sanding. Each face shall be of a yellowish or pinkish color or a blend of the two, and shall be from smoothly cut veneer, free from knots, splits, pitch pockets, and other open defects. Small streaks and spots of other colors are permissible, provided that they in no manner make the panel unusable for the purpose intended. Shims that occur only at the end of panels and inconspicuous well-matched patches shall be admitted.

PANELS—SOLID RAISED.—The standard thickness of solid raised panels shall be not more than 9/16 inch before sanding and not less than 7/16 inch after sanding. They shall be either all vertical or all slash grain in any one door, and shall conform to the grade of the stiles and rails.

FIR DOOR INSTITUTE

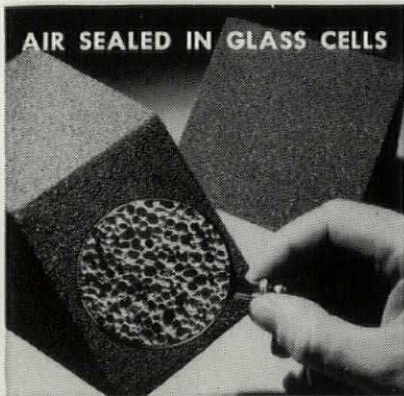
Tacoma 2, Washington

IN THE DUPLAN CORPORATION Nylon Throwing Mill at Winston Salem, North Carolina, where temperature and humidity must be kept at predetermined levels, the company installed PC Foamglas insulation on the steel deck roof. They also installed PC Foamglas on the entire wall area, as shown below, as core wall insulation between concrete block backing and corrugated aluminum outside finish. General Contractor, Fowler Jones, Winston Salem; Architect, Lacey, Atherton, Wilson and Davis, Harrisburg, Pa.



It's Waterproof!

That is one of the main reasons why PC Foamglas is the permanent insulation.



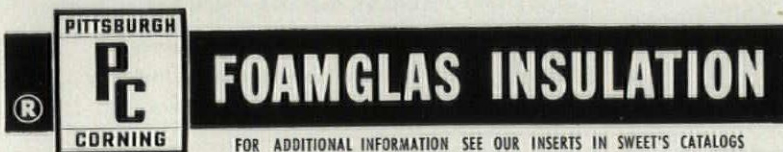
THE MAGNIFIED CROSS SECTION of PC Foamglas shows its cellular structure . . . glass bubbles solidified into big, strong, rigid blocks. In the millions of cells of glass-enclosed air lies the secret of its insulating value.

Water cannot get into or through PC Foamglas. Exhaustive immersion tests in the laboratory and long practical use in marine floats, rafts and buoys, have proved that.

Foamglas is made of true glass, in the form of millions of minute air-filled closed glass cells, solidified into strong, rigid blocks. Therein lies the secret of its insulating efficiency.

PC Foamglas is also fireproof, verminproof, fumeproof, and acidproof. It withstands humidity and is an effective vapor seal. When installed according to our specifications, for recommended applications, PC Foamglas retains its original insulating efficiency permanently.

Our current booklets describe and illustrate many applications in which PC Foamglas, on roofs, in walls and floors, is helping to maintain desired temperatures, to minimize condensation. Why not send in the convenient coupon today? We shall be glad to forward free copies of the booklets you select. Pittsburgh Corning Corporation also makes PC Glass Blocks.



When you insulate with FOAMGLAS... you insulate for good!

Pittsburgh Corning Corporation
Room 491-8, 632 Duquesne Way
Pittsburgh 22, Pa.

Please send me without obligation, your FREE booklets on the use of PC Foamglas Insulation for:

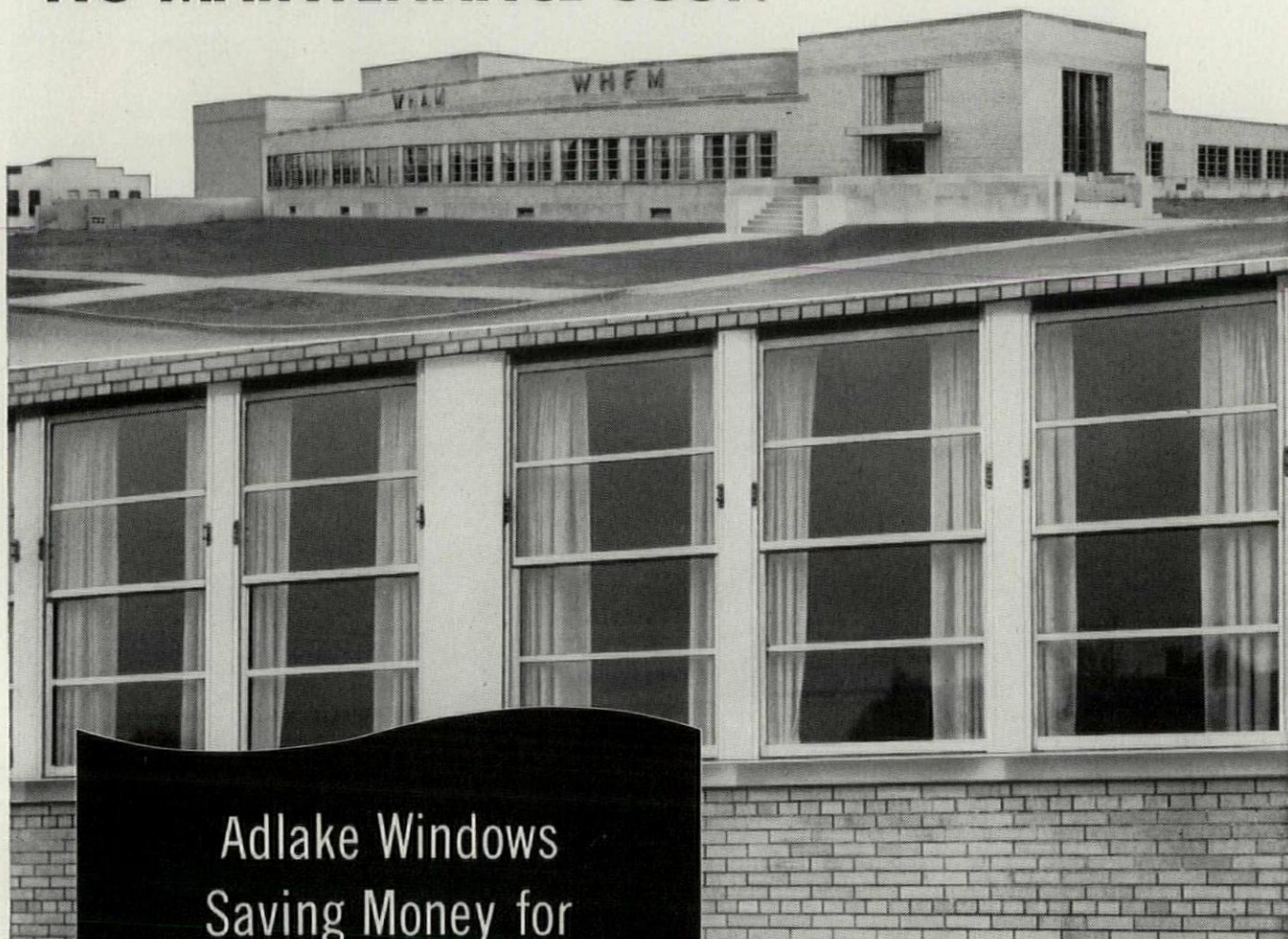
Roofs..... Walls..... Floors.....

Name

Address

City..... State.....

NO MAINTENANCE COST!



Adlake Windows Saving Money for Radio Station WHAM

The 103 double-hung ADLAKE ALUMINUM WINDOWS (Series 600) in Rochester, New York's station WHAM-WHFM will save the station a considerable sum, over a period of years, through *eliminating* maintenance costs. The windows will ultimately *pay for themselves* through this economy. Adlake Windows require no painting, no maintenance other than routine washing! And they *last as long as the building*.

ONLY ADLAKE WINDOWS have the combination of woven-pile weather stripping and patented serrated guides that assures minimum air infiltration and absolute finger-tip control.

Adlake Windows never warp, rot, rattle, stick or swell. They look lovely and operate smoothly for the life of the building.

INFORM YOUR CLIENTS about the wiping out of maintenance costs and the long, worry-free service they can expect from Adlake Aluminum Windows. For complete data, drop us a post card today at 1103 North Michigan Avenue, Elkhart, Indiana. No obligation, of course.

Architects: Kaelber & Waasdorp;
Contractor: John Pike & Sons.

Adlake Aluminum Windows offer these "plus" features:

- Minimum Air Infiltration • Finger-tip Control
- No Warp, Rot, Rattle, Stick • No Painting or Maintenance • Ease of Installation

THE Adams & Westlake COMPANY

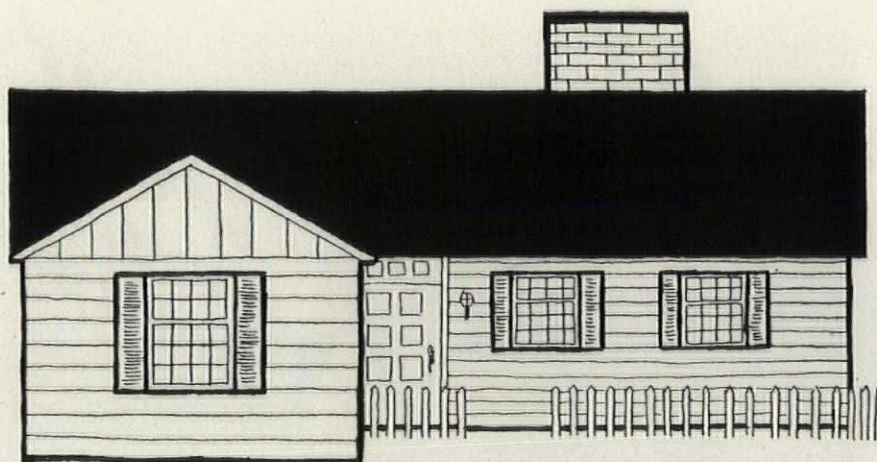
Established 1857 • ELKHART, INDIANA • New York • Chicago



Furnishers of Windows
to the Transportation Industry
for over 30 years

All Adlake double-hung windows carry this seal





**No Application Charge for
Vapor Barrier or Insulation . . .**

use INSULATING ROCKLATH*

There's no application charge for insulation and vapor barrier when you insulate with Insulating ROCKLATH Plaster Base . . . because the aluminum foil has been laminated to the ROCKLATH at the mill. Your lath, insulation and vapor barrier are all applied in one operation.

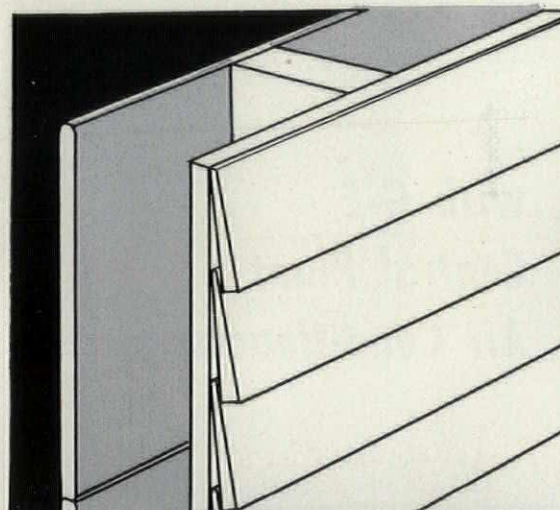
A sheet of aluminum foil on the reverse side of Insulating ROCKLATH provides you with a summer heat barrier that reflects radiant heat and reduces interior temperatures as much as 15° . . . and effective winter insulation, because the aluminum foil retards the transmission of heat into the air space between the studs.

Because of the positive vapor barrier there is virtually no passage of moisture through the walls of a building. With Insulating ROCKLATH, there's less chance of mould or water damage to walls.

Insulate, provide an effective vapor barrier and install your plaster base in one operation. Use Insulating ROCKLATH.

In most states FHA requires certain minimum insulating and vapor barrier values. Insulating ROCKLATH and plaster in residential wall construction will in most cases provide the FHA values, as well as an ideal plaster base.

*T. M. Reg. U. S. Pat. Off. for a USG plaster base.



INSULATING ROCKLATH

1 Ideal 2 Superior 3 Efficient
Plaster Base Vapor Barrier Insulation

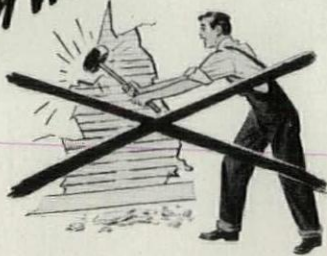


United States Gypsum

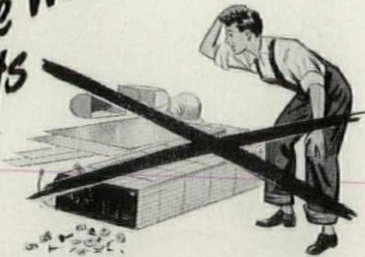
For Building • For Industry

Gypsum • Lime • Steel • Insulation • Roofing • Paint

DON'T
knock down walls

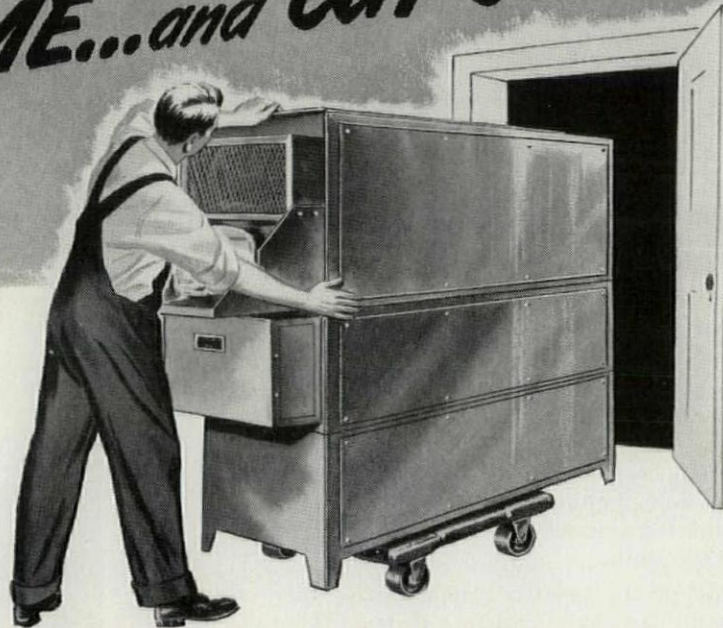


DON'T
waste time with
small parts



DO SAVE INSTALLATION
TIME...and CUT COSTS

...with G-E
Central Plant
Air Conditioners



ALL sections of the new General Electric Central Plant Air Conditioners can pass easily through a standard 30" door... the two smallest models completely assembled. This compactness allows a wide choice of location for the unit. It means time and money saved in installation, too.

28 different arrangements

Both vertical and horizontal models are designed on the building block principle—12 different vertical arrangements—16 horizontal arrangements. They cover a cooling range from .8 to 58

tons... and a heating range from 28,100 to 1,310,000 Btu's per hour.

All units are pre-fabricated, pre-engineered and pre-matched to assure fast assembly if shipped in sections. The welded sheet-steel construction is rigid, light in weight, making it easy to handle, inexpensive to ship.

For a smoother, quicker, less expensive air conditioning job, get full information from your local G-E air conditioning representative today. Or fill in coupon below.

GENERAL  ELECTRIC
Better Air Conditioning

General Electric Co.
Air Conditioning Dept., Sect. A8508
Bloomfield, N. J.

Gentlemen: Please send me your new booklet on the new G-E Central Plant Air Conditioners.

Name.....

Address.....

City.....State.....

Designed and Built for Economy . . . — that's PETRO!

What determines oil heating economy? Certainly not equipment cost alone! What counts most are the savings in fuel oil consumption obtained as well as the savings in upkeep and maintenance secured *year after year*.

On a comparative cost-per-year basis, a Petro Oil Burning System scores as today's most economical choice. According to the experience of more and more architects, engineers and building owners, Petro basic design provides more heat from every drop of fuel oil . . . makes every heating dollar work harder. Add to this the time-tested engineering and skilled workmanship built into Petro equipment and you have the long-lasting, minimum-maintenance performance that for over forty years has characterized Petro.

With Petro, you play *safe* with your clients' oil heating investment. As Mr. Nemeny sums it up, "I am satisfied, and I know owners are, too."

INDUSTRIAL MODELS: No. 5 or No. 6 fuel oil; manual, semi-automatic or automatic operation; 8 sizes to 450 bhp. Thermal Viscosity preheating.

DOMESTIC MODELS: No. 3 or lighter oils; "conversion" and combination-unit types, 7 sizes. Patented "Tubular Atomization."

FULL DATA on Petro Industrial Burners are in catalog files of Sweet's and Domestic Engineering. Details on Petro Domestic Burners available in separate catalog. Copy of either sent gladly on request.



KALLIR Photo

Of the architectural firm of Nemeny & Geller, Mr. George Nemeny has been identified with many types of buildings, including homes, row houses, stores, apartments, institutional and industrial construction. His more recent projects include Garden Apartment Housing Project, Syracuse, N. Y.; Co-operative Clinic, Newark, N. J.; and Andrew J. Geller Shoe Store, Fifth Avenue, New York. Based on his wide experience Mr. Nemeny has the following comments to make on Petro Oil Heating Systems:

"I have found that Petro equipment is designed primarily to deliver the fuel economy which causes architects, engineers and owners to install oil firing. Petro Systems possess a mechanical simplicity and basic strength which result in easy, inexpensive upkeep.

"I am satisfied, and I know owners are, too, with the Petro characteristics of long operation and of economy in fuel, labor and maintenance."

PETRO

REG. U. S. PAT. OFF.

cuts steam costs

NOW — lower priced than ever before!



ALCOA ECONOMY CASTINGS FOR SPANDRELS

CALL TODAY
get price and design data

Alcoa Economy Castings can be produced promptly. For complete information on prices and design specifications, ask for the booklet, Alcoa Economy Castings. Call your nearby Alcoa Sales Office or write ALUMINUM COMPANY OF AMERICA, 1868 Gulf Building, Pittsburgh 19, Pennsylvania.

Now you can improve appearance and *reduce construction costs* by using high-quality Alcoa cast spandrels and wall panels. By co-ordinating design specifications and production facilities to permit maximum economy, Alcoa now can offer cast aluminum spandrels and wall panels at lower prices than ever before. Add to the advantage of low price, the economies of aluminum's light weight, corrosion resistance and easier handling and you'll see how Alcoa Economy Castings can help you solve the problems of construction time and costs.

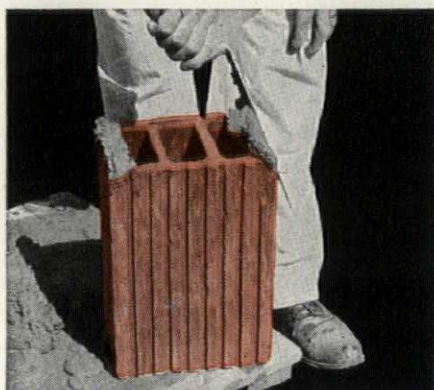
ALCOA **FIRST IN**
ALUMINUM



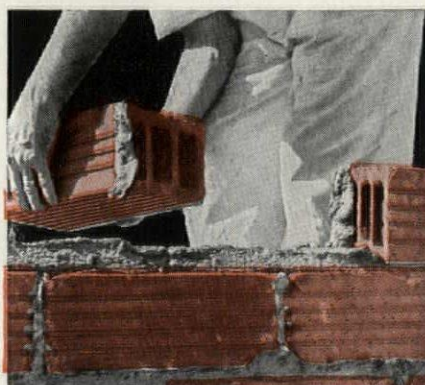
GET BETTER TILE AND BLOCK-WORK with **BRIXMENT!**

Tile or block-work offers very little protection against the penetration of water, unless both inside and outside head joints are completely filled with mortar.

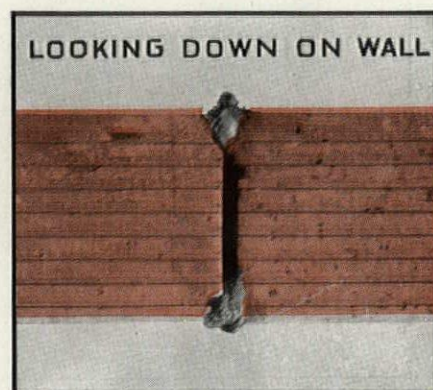
In laying clay tile, or concrete or cinder block, even when they are used only for back-up work, especial care should be taken to secure full head joints on both the inside and the outside edges of the unit. Either of the following two methods may be used:



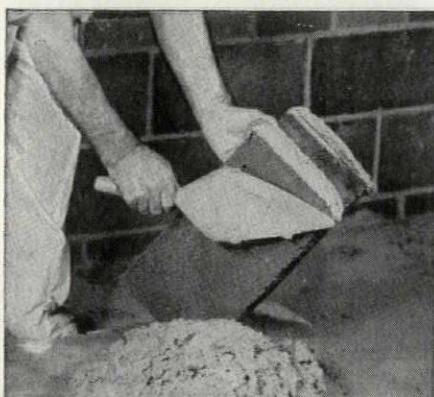
Method 1. Full head joints should be thrown onto both edges of the tile to be placed, or—



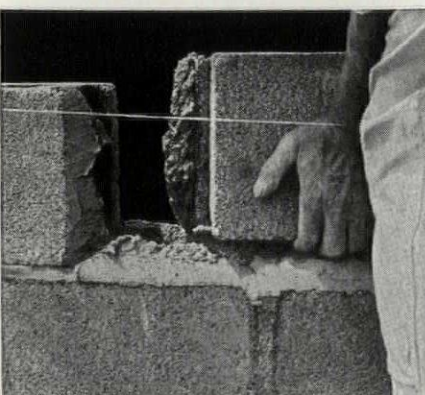
Method 2. A full head joint should be thrown onto one edge of the tile in place and also onto the opposite edge of the tile to be placed.



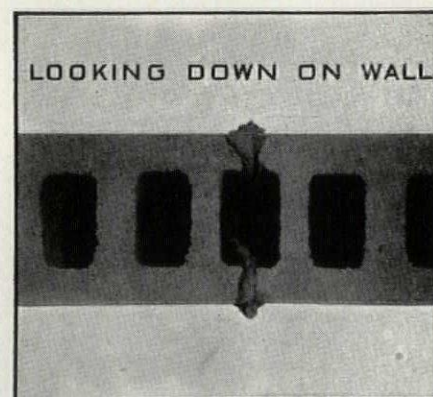
Enough mortar should be used to cause excess mortar to ooze out of the joints on both sides of the tile.



Method 1. Full head joints should be thrown onto both edges of the block to be placed, or—



Method 2. A full head joint should be thrown onto one edge of the block already in place and also onto the opposite edge of the block to be placed.



Enough mortar should be used to cause excess mortar to ooze out of the joints on both sides of the block.

One of the reasons bricklayers prefer Brixment mortar is the way it *sticks* to the tile or block, as shown above. It "stays put." The bricklayer does not have to stoop to the board for more mortar. *You* get a stronger, more water-resistant wall. ● Brixment mortar is

easier to work, saves time, effort, and money. In addition, it has higher water-retaining capacity, greater bonding quality, is more durable. It is this *combination* of advantages that has made Brixment the largest-selling masonry cement on the market.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

FROM THE TECHNICAL PRESS

By JOHN RANNELLS

FROM OTHER PUBLICATIONS

The Use of Cold Cathode Fluorescent Lighting in Cove and Cornice. A. E. Reynolds. Illuminating Engineering, May 1948. Illuminating Engineering

Society, 51 Madison Ave., New York 10, N. Y.

The adaptability of cold cathode lamps to unusual installations is illustrated

by many examples. Tables give color recommendations, lumen output, etc.

The Measurement of Illumination and Brightness in a Classroom. W. E. Folsom and R. L. Bieseke, Jr. Illuminating Engineering, April 1948.

Four rooms of the Rosedale School in Austin, Texas, were remodeled and re-equipped recently under the direction of Dr. D. B. Harmon. Daylight control is secured by means of light-directing glass block above the six-foot level and venetian blinds over the clear glass of the window below. All features of the rooms, decoration, seating, and artificial illumination were coordinated to secure best possible visual conditions and as nearly as possible an ideal environment.

The authors have been making an extended study of the visual environment in these rooms. The present article is a preliminary report, concerned especially with the difficulties of making accurate measurements under daylight conditions.

The American Scene. Howard Robertson. Journal of the Royal Institute of British Architects, 66 Portland Pl., London W. 1, England, April 1948.

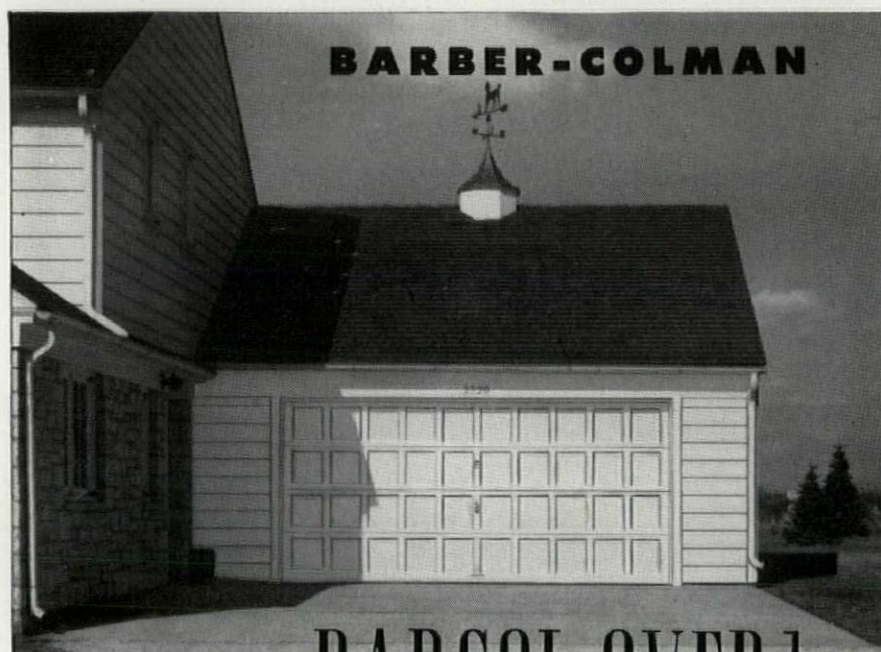
Mr. Robertson found time, while working as one of the Board of Design of the United Nations headquarters, to look us over rather thoroughly and his account of us to the R.I.B.A. gives us a fresh view, as in a mirror, an agreeable view, not at all critical.

He was impressed with our general freedom from design conservatism in the current commercial work. The "restrained and often classic" character of our public buildings and monuments is something else again: "... symbols of permanence in a world where so much is ephemeral... calm and dignified, their severe brand of neoclassic is timeless in that it is already dated." The American public likes 'em that way, he thinks. We do, at that!

The amount of work under construction and the experimental nature of much of it impressed him too (also the greater productiveness of our mechanics and our higher standards of finish, compared to present British conditions). While he found much to criticize he feels "that American architecture is well on the upgrade."

Building Research in Canada. Robert F. Legget. Journal of the Royal Architectural Institute of Canada, 57 Queen St. W., Toronto 1, Canada. April 1948.

The National Research Council of Canada has recently set up a Division of Building Research of which Mr. Legget is director. The new division will be particularly concerned with



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WEATHERTIGHT. Special roller crank closing action moves the entire door smoothly and evenly against the stop strips in the last few inches of its downward travel, effectively sealing the opening against dust, dirt, litter, snow, rain, sleet, and wind.

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(Continued on page 108)

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Reviews

(Continued from page 106)

keeping the National Building Code up to date. At present they are assembling all available printed information regarding materials, techniques, and methods in the building industry so that their active research work can take advantage of the work done elsewhere. Continued cooperation with other research organizations (especially those in this country) is basic to their program. The director has emphasized the

impossibility of drawing a clear line between architecture and engineering in building work. The professional staff of the new division will not be referred to as architects or engineers but as "Research Officers."

REPORTS

Forest Products Research Society. Proceedings of the First National Meeting,

Oct.-Nov. 1947. *Forest Products Research Society, Box 2010, University Station, Madison 5, Wis. 344 pp., 7½" x 10½"*

The technical experts concerned with wood and wood products have formed their own society, of which this is the first report. The papers (about half of the book) cover a wide range: chemical research, engineering, preservation, manufacturing, etc. This and following reports will be the chief fund of up-to-date information on developments in the wood industry supplementing the indispensable reports of the Forest Products laboratory, members of whose staff have also contributed to this volume.

Report on "Panel" or "Radiant" Heated Test Buildings. C. D. Niven and A. D. Kent. *National Research Council of Canada, Ottawa, Canada. 25 cents*

Two methods of floor heating were investigated: pipes in an air space under a sheet-steel floor covered with linoleum, and pipes embedded in concrete slab on ground. Heat loss from floor slab to ground was closely investigated and the conclusion reached that the slab should be insulated on the underside for about four feet back from the edge. Ventilating rates of 1½, 3, and 4½ air changes per hour were studied. No particular difference in comfort was noted, except that with the higher air changes the room felt cooler with the same temperature reading.

The study includes an unusually comprehensive analysis of heat losses.

BOOKS

MASONRY SIMPLIFIED

J. Ralph Dalzell and Gilbert Townsend. *American Technical Society, 850 E. 58th St., Chicago 37, Ill. Vol. I, Tools, Material, Practice, 367 pp.; Vol. II, Practical Construction, 405 pp. Illus., index.*

Designed as texts for student apprentices and handbooks for mechanics, these volumes are packed with everything the mason needs to know about masonry materials and related work such as forms, lintels, floors, waterproofing, framing, etc. Wonderfully rich in clear illustrations, the subject is simplified by complete explanations in plain English. The authors are evidently very fine teachers.

HEATING AND VENTILATING ENGINEERING DATA BOOK

Clifford Strock. *The Industrial Press, 148 Lafayette St., New York, N. Y. 515 pp., 8½" x 11". Tables, diagrams, index. \$7.50*

An enormous book, loaded with information useful to heating and ventilating engineers and contractors. The most used diagrams and tables are conve-

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(Continued on page 110)

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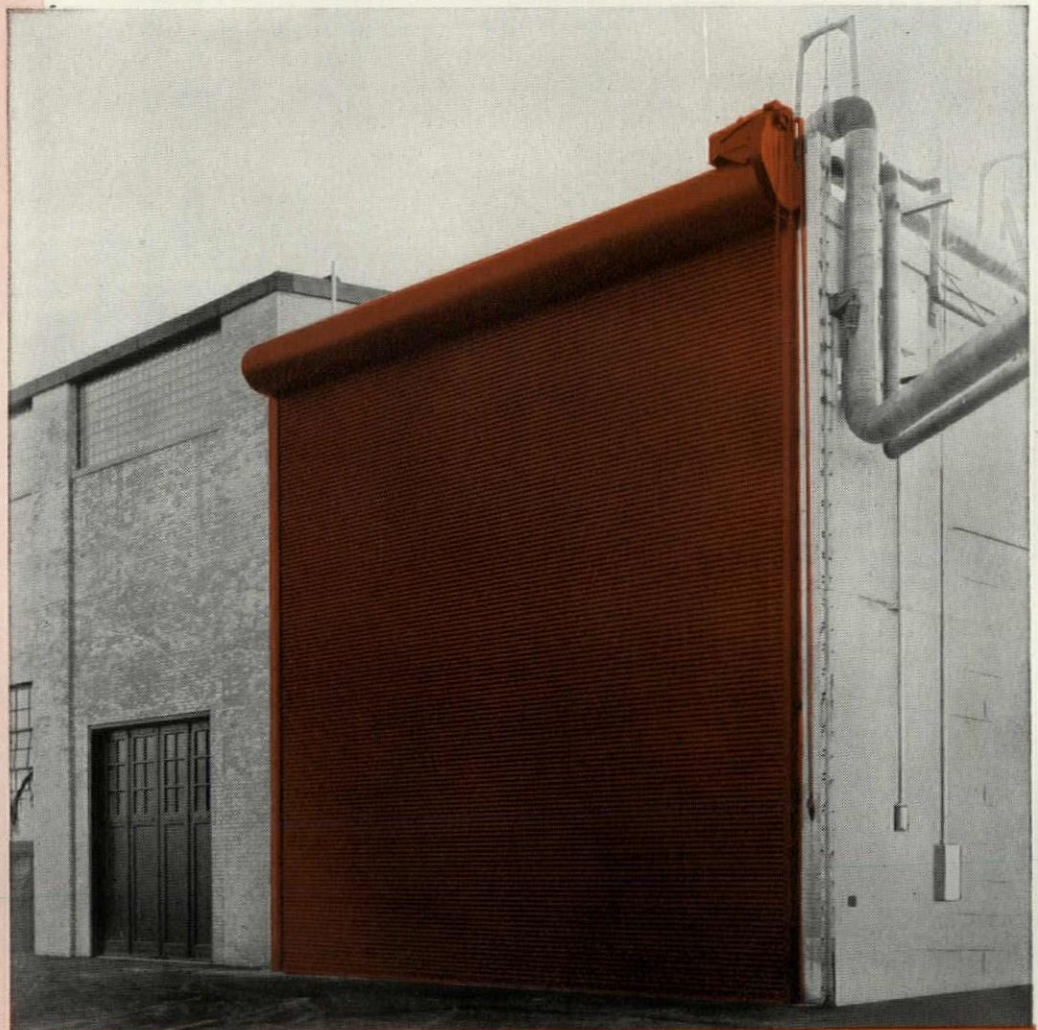
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ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

MAHON

(Continued from page 108)

niently printed large, for easy use on the drafting board. Unusually complete data are given for many cities in the United States: weather, water supply, temperatures, etc.

SWEDISH STANDARDS ASSOCIATION'S REPORT ON MODULAR COORDINATION

Lennart Bergvall and Erik Dahlberg, architects. Federation of Swedish Industries, Stockholm, Sweden. 1946. 8 1/4" x 11 1/2", illus., diagrams (in Swedish), plus mimeographed translation into English.

Equivalent to our Project A62, this report covers the recommendations of the building section of the Swedish Standards Association (Byggstandardiseringen). Attention is focused very positively on rationalizing housing construction with a view to bringing down costs. It is taken for granted that the building industry generally will benefit and the Federation of Swedish Industries has, in fact, generously supported the project.

The modular system is worked out with fine logic, arriving at a 10 cm grid. The customary Swedish brick and cement block sizes don't fit in to the system at all but the authors propose modifications which the brick and block industries are investigating. The usual Swedish brick is 'way oversize by our standards (3" x 10" face) and the proposed standard is bigger yet (3 3/8" x 10 1/4" x 4 3/8"). With the addition of a 3/4 brick the bonding works out surprisingly well and the large brick has proved economical to lay. However, for face brick a half-module course height is proposed (1-9/16" x 10 1/4" face). Neither of these proposed shapes give the flexibility which we are accustomed to in this country, which we get with our standard brick sizes, either three courses to eight inches or the "Jumbo" three-inch courses. The joint thickness proposed (5/8") also seems excessive.

A slight modification in the usual sizes of lightweight concrete masonry units (now 10" x 20") would make them modular. However, a change to 12" x 16", nominal (center of joints), gives better coordination with windows, etc. Hollow concrete block, now 8" x 12", could be made either 8" x 12" nominal or 8" x 16" nominal. Surprisingly, the joint proposed is about 1/2" for lightweight and about 5/16" for hollow block. The A62 practice seems superior, in that it lets the brick and block manufacturers allow for the joints in terms of their own tolerances.

The chapters on stairs and elevators show full realization of functional needs

(Continued on page 112)

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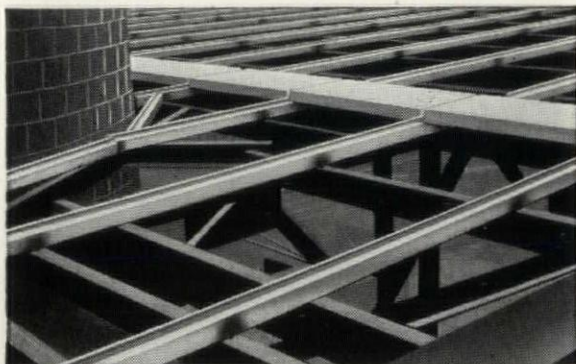
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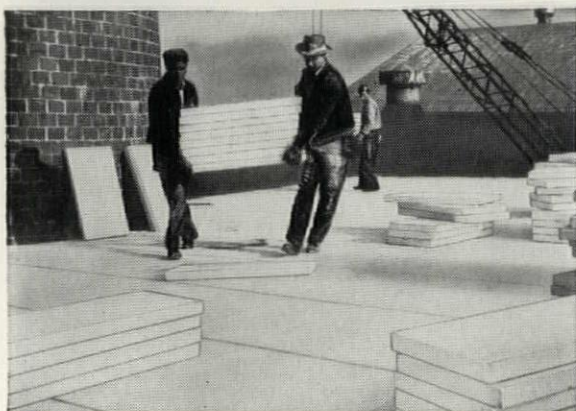
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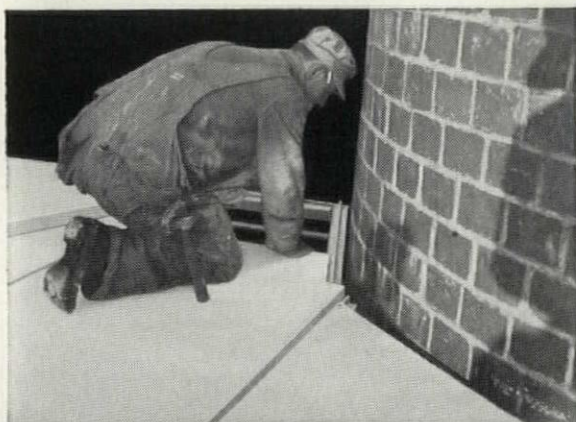
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KAYLO INSULATING ROOF TILE is strong—runway shown above supports wheelbarrow traffic during construction.



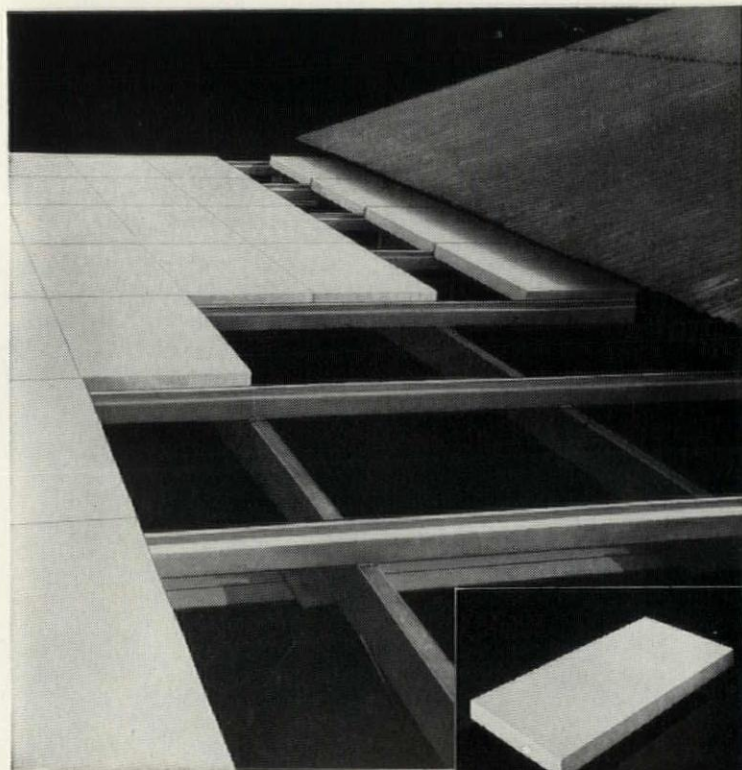
KAYLO INSULATING TILE is lightweight. Each tile is $2\frac{3}{8} \times 18 \times 36$ inches in size, weighs approximately 21 pounds.



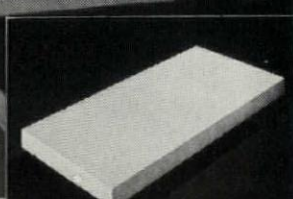
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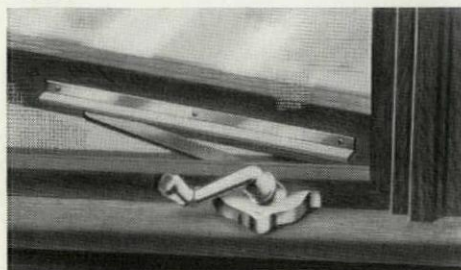
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Reviews

(Continued from page 110)

in terms of housing. Spiral stairs are allowed. Legal minimum story height (9'7") presents a dilemma if even runs are to be obtained: either 16 risers at 7-3/16" or 18 at 6 3/8". (Legal minimum stair widths in multistory dwellings are about like ours, at 7'11".)

Standard bathroom layouts are given, with modular drainage piping and fittings—almost too good to be true, but it seems to work.

All in all this is an extremely sound study, rather confined in its examples but completely suited to its goal: low-cost housing. If low-cost housing is to be achieved, then variety of details will have to be restricted. This book shows how. It's a beautiful job of bookmaking, too.

J. R.

AN INTRODUCTION TO COLOR

Ralph M. Evans. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 1948. 340 pp., illus. and 15 color plates. \$6.00

The increasing attention to color effects in contemporary architecture as well as freer use of color photography to interpret the architect's work, suggest uses for this new study of light, color, and vision by a recognized authority in the color field. Added to the (specialized) reference shelf in the architect's office, the book can be a valuable guide to more exact and skillful design in color.

C. M.

RUSSIAN ARCHITECTURE

Trends in Nationalism and Modernism. Arthur Joyce, Hoover Institute Fellow in Slavic Studies. Philosophical Library, Inc., 15 East 40th St., New York 16, N. Y. 1948. 300 pp., illus. \$5.75

The native and foreign architectural currents reflected in the design and ornamentation of notable Russian buildings past and present are traced in this timely study.

C. M.

CHURCHES NEEDED

Nederlands Nieuwe Kerken. G. van Saan, Amsterdam, C., Prinsengracht 676, Netherlands. 1948. 112 pp., illus. \$4.00 plus 15¢ postage

On the occasion of a recent exhibition in Amsterdam of designs for new churches for Catholics and Protestants,

(Continued on page 114)

Never an Uncomfortable Moment in Our House



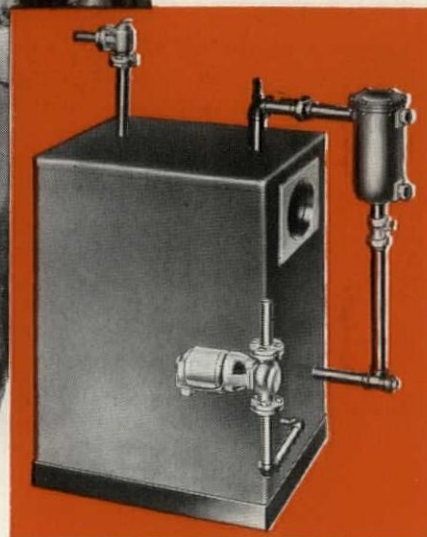
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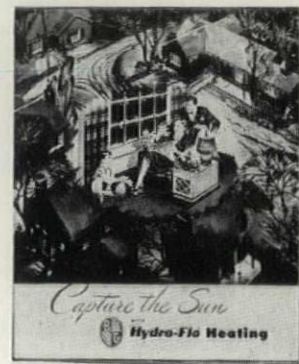
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Reviews

(Continued from page 112)

this book was published. It opens with a symposium of 12 articles on church design by prominent architects and church authorities. After a discussion of existing churches, there are presented designs for a number of new, conservatively-designed structures to replace the hundreds destroyed or heavily damaged in the war.

C. M.

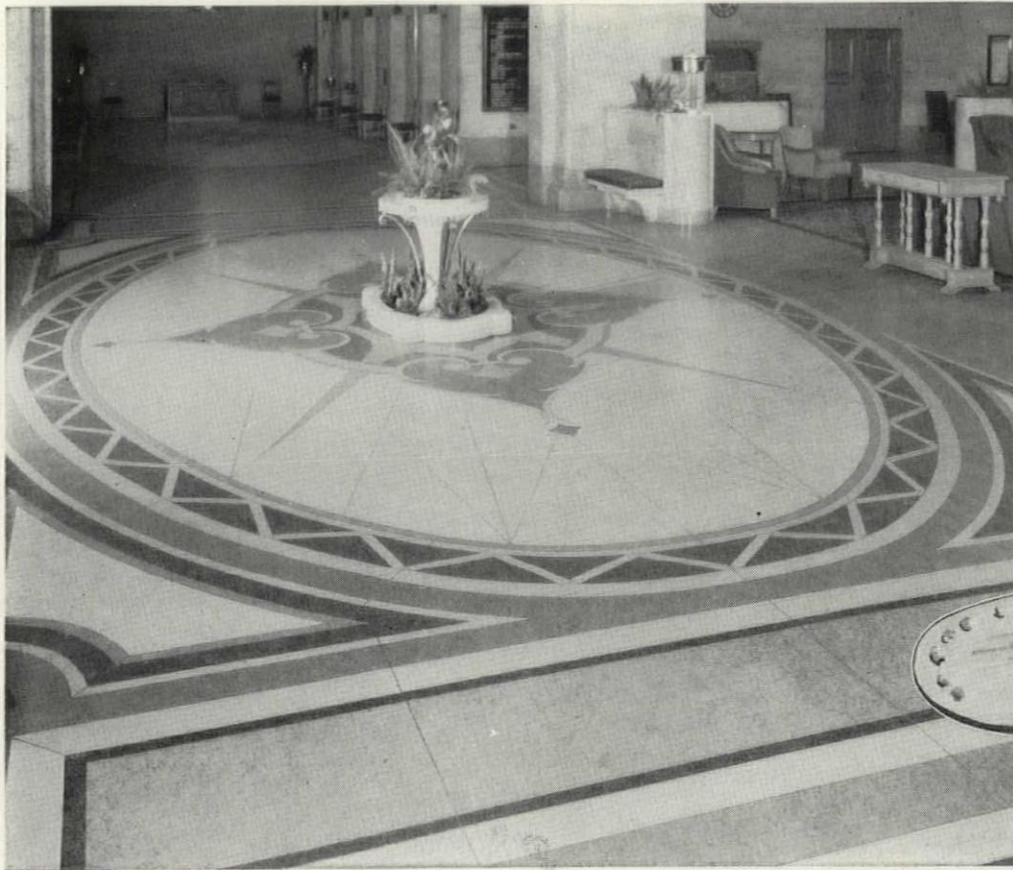
SOME IMPRESSIONS OF AMERICAN HOUSING 1947

Condensation of a report by Clive Pascal, A.R.I.B.A., published in the Official Architect and Planning Review, London, England; December 1947.

This has been a flying visit. I flew the Atlantic to New York and thence via Boston flew to Washington where the grand manner seems to have run riot. Everything there seems so huge that it simply does not register on the brain. The buildings grouped around the main axis are so far apart, and behind so many boulevards and trees, that the grand avenue cannot be apprehended on any normal scale. The Supreme Court is a vast, frightening building, approached by white marble stairs leading to a kind of Greek portico. The National Gallery, from the point of workmanship, is a most amazing building, but so dwarfs the human scale as to be unable to awaken a sense of awe. The Pentagon is interesting from the point of sheer planning. It is built on stilts, and beneath it is an immense parking place. Everywhere there are dark mezzanine floors. The building is worth studying because, for example, the circulation system is in many ways nearer to our requirements than many others in America.

In Chicago, everything one has ever read or heard about the Middle West is to be found. An elevated railway running around the commercial heart of the city is known as The Loop, and to be successful in business, one has to have an office within the Loop. I can think of nothing more frightful than to have to work all day, with the constant noise of trains rushing past the first floor office window. Chicago is obviously going to be worth-while visiting in a short space of time. Every 25 years or so, a quarter of the city is pulled down and rebuilt. Intended changes have been delayed by the war, but now everything seems ready for a flying start. The scheme is an interesting one. The whole of the main street leading up to the lake shore drives is to be remade, with three levels of road traffic, and building on either side.

(Continued on page 116)

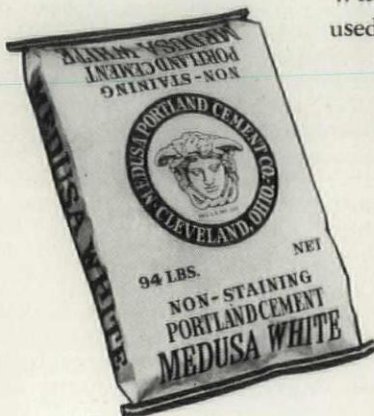


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Reviews

(Continued from page 114)

In Chicago I saw one of the most frightening things in the way of building. The Willow Run Ford plant was well known, but it is outstripped by the Dodge plant. One unit alone covers 89 acres under one roof, and employs 90,000 persons per shift. It took 20 minutes to go round it in a small car followed by policemen on tricycles. This reinforced concrete shell construction was an Albert Kahn job. One feels completely overshadowed by this frightening building. Within it one rarely saw natural lighting, and was surrounded continually by machinery, darkness, and noise. The manner of handling it is impressive. Workers are organized to travel by buses of certain numbers and colors and they eventually come up beneath the building within 50 feet of the machine where they are to work.

The Technical Institute building in Chicago is being erected at the moment. The construction is traditional, intended to be functional, simple, and, because sponsored by grants, economical. Yet the result is so complicated in its simplicity that it does not make sense.

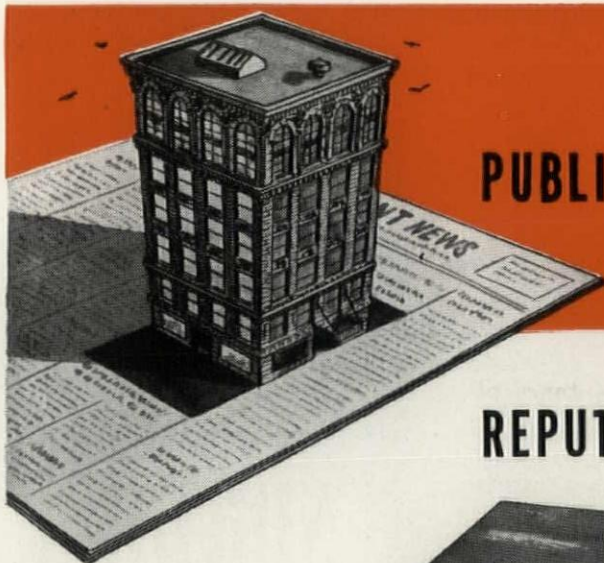
In Cleveland I saw the Research Institute for the General Electric Company of America. They deal with everything from the Roosevelt battleship to oven stoves. Seen from the point of view of this country (England), one feels one has taken a trip of about ten years into the future.

Boston, I found disappointing, but I saw much small housing in and around it, especially around Cambridge.

The trip was a superficial one, and in consequence my impressions about housing are also only superficial. From coast to coast and from north to south, I observed a remarkable lack of it. Statistics collected by Catherine Bauer show that there is an even greater housing shortage in the United States than in this country (England). After VJ day, GI housing was specially boosted, but very little has happened, principally owing to cost. Houses of 1,500 square feet limit were allowed, but no limit was set on specification or cost. A certain house which was built within the 1,500 square feet limit, though an additional license had been obtained for the cellar and garage, but exclusive of landscaping, was costing over £20,000. It was equipped with every possible luxury device, including marble plunge bath, special electrical fittings, push-button radio in every room, built-in electric barbecues.

The 850-foot GI housing is of fairly high standard—certainly as regards fittings and kitchen equipment higher than ours—and it includes central heating. A house of this type costs £3,000;

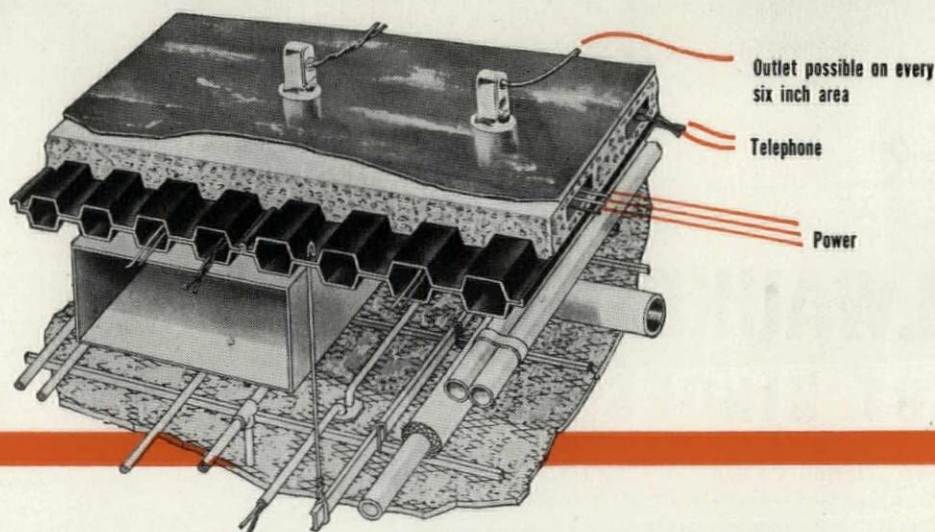
(Continued on page 118)



PUBLICITY FLARES FROM FACADES

REPUTATION LIVES ON FACILITIES

Steel Q-Floor is shown with suspended ceiling and condensed visualization of mechanical equipment (no preset inserts) needed in a modern building.



The flare of a facade is short-lived. The success, or failure, of a building's adaptability lives as long as the building. The all-over electrical availability of Q-Floors provides almost unlimited adaptability to mechanical change. This enables the building to remain continuously modern.

The entire exposed area of a Q-Floor can be tapped for electrical outlets. The cells of Q-Floor, a steel subfloor, are crossed over by headers. These carry wires for any type of electrical service. An electrician drills only a small hole wherever needed, installs the fitting on any six-inch area in a matter of minutes.

Outlets and partitions can be located after the building is tenanted. This permanent flexibility of floor layout protects the building against electrical obsolescence. Incidentally, it protects you against drafting room headaches.

Here are answers to the most usual questions: *Price*—it's right in line; costs less than the carpet. After all, floors are a small fraction of the total cost and yet, floors are what a building is for.

Availability of steel—you have to allow time for demolition and excavation. By then, based on our experience, the steel will be ready. That Q-Floor is being specified for the biggest buildings of the postwar is additional proof.

Your client will also be interested in the time saved during construction—20 to 30%. Q-Floors come pre-cut. Two men can lay 32 sq. ft. in 30 seconds. The dry, noncombustible construction, free from falsework, makes the Q-Floor a working platform for other trades as soon as laid. This quicker construction earns revenue sooner.

You can see Q-Floor fittings at any General Electric construction materials distributor's. For details about Q-Floor's light weight (less than forty pounds per sq. ft. including suspended ceiling) and its four-hour fire rating, see a Robertson Representative or write—

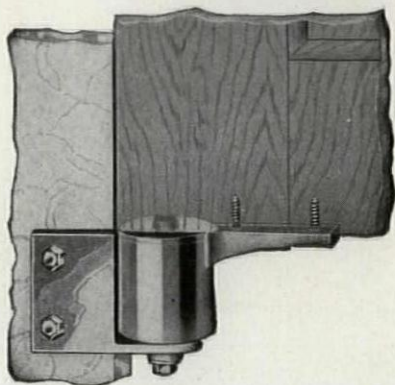
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OUR 54th YEAR OF QUALITY PRODUCTION

Reviews

(Continued from page 116)

apparently the average economic limit which a GI can afford is something like \$7,000. He can only get a house for \$12,000. Result: No GI housing.

In Baltimore I saw some speculative housing. Row housing is handled in an interesting way, and is obviously economic. All houses are built with cellars for heating plant, laundries, etc. One of the great influences in American housing is the universal acceptance of central heating on open planning. It has a definite bearing on the economic aspect. For instance, where there are children in the house, they do not simply have a chilly bedroom to which they retire at bedtime. The children's rooms can be used as sitting rooms and play-rooms, because the whole house is warm.

The apparent finish of all American houses is impressive. The use of timber frame has distinct advantages. Americans laugh at our plumbing systems, with pipes festooned on the outside of the houses. One sees nothing of this over there. All they have to do is to bore holes and rip through frames to conceal their pipes. One never sees anything exposed.

American housing is very informal. Many pre-war and new houses have this open character, which appears very attractive, though as a place to live in I am not sure that I altogether care for it.

The extreme limit of what I saw was the Carl Koch house at Cambridge, Mass. They are so shoddily built as to be almost fantastic. There is a high superficial finish, but a lack of quality. This peculiar lack of quality runs through everything American. The design and detail of their motor cars are probably very thorough, and they are comparatively well made. But the materials are rubbish. It is a typical result of the overproduction for overconsumption policy. One sees the results of scrapping the old for the new, in the enormous dumps on the fringes of towns everywhere.

Parkchester, the Metropolitan Life Insurance Housing scheme, near New York, was intended as low-cost housing for the black-coated worker. One gets amazing finish and equipment, with hot water, electricity, and gas thrown in. The ground floor is occupied by branches of the downtown departmental stores, where the housewife can get the same article as in the main store in New York. This decentralization of stores is also being done in Washington and Baltimore, and has the useful result of saving a certain amount of traveling, and easing traffic congestion.

After a lot of trouble, I found the minimum-cost housing in New York. Elliott Housing, right down on 10th Avenue,

(Continued on page 120)

mullions and spandrels by

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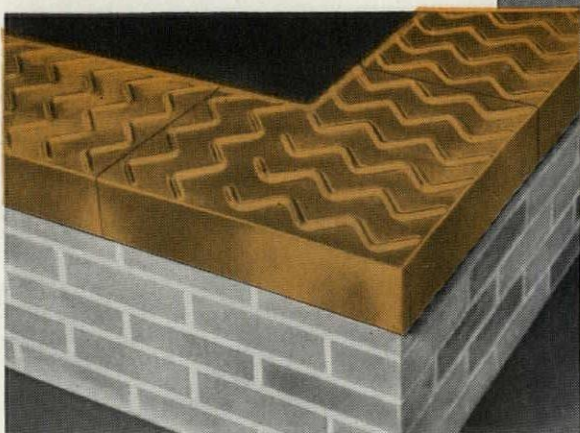
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Sheet metal men like the die-stamped dam and corrugations that make this flashing easier and faster to lay. End joints are made simply by overlapping and nesting one corrugation. The flat selvage permits neat, sharp bends for counter flashing, without danger of distortion



that might inhibit drainage. Die-stamped corner pieces (for both inside and outside corners) are nested in place as easily as the straight lengths.

Since it "drains itself dry on a level bed," Anaconda Through-Wall Flashing provides positive, controlled drainage. For detailed information, see our file in Sweet's.

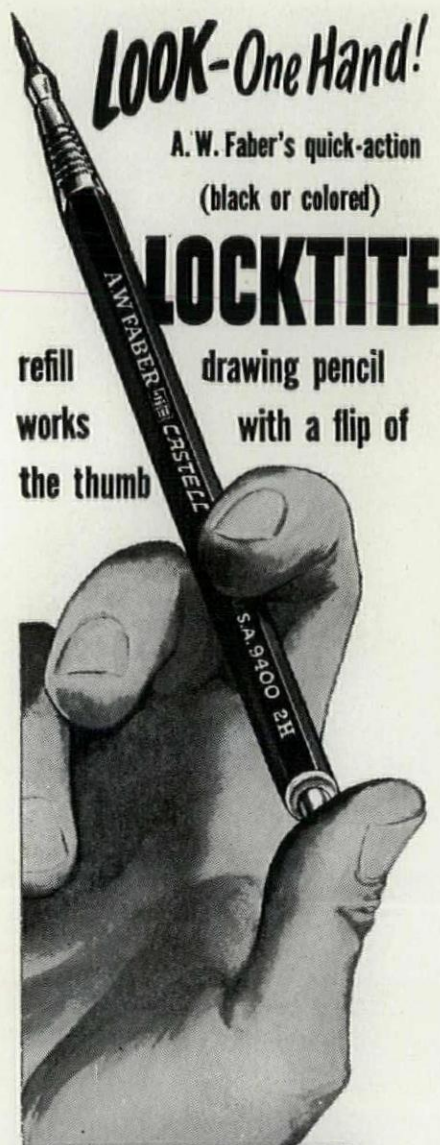
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Reviews

(Continued from page 118)

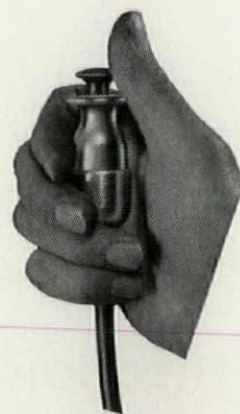
has every known grant and subsidy that the State could produce, and rentals are based on an elaborate system which really amounts to a sort of means test. The flats are simply incredible. It is as if someone had taken the average British working class scheme, and stripped it of everything. The closet is nothing more than an open cupboard, in front of which the housewife is encouraged to hang a curtain. The kitchen fittings are little more than ammunition boxes. The finish everywhere is awful. Nothing is plumb or level. The metal windows must have been rejects from the cheapest mass-produced articles. Hinges, catches, fastenings are of the thinnest gauge stamping, and obviously will not last long. The maintenance on these flats is going to be terrific.

The American building industry is in a state of chaos, even in comparison with ours. The extravagance is beyond belief. I wanted to study American building organization, but came to the conclusion that it simply does not exist. Two skyscrapers were going up while I was there. Drawings for a Park Avenue skyscraper scheme were being prepared by a firm of well-known architects within six weeks, and during this time they must have had their 200 draftsmen employed on nothing else. They had done it to beat the new building regulations. Waste everywhere is incredible. I saw on the floors of Rockefeller Center enough cement to build several houses. It was being sucked up with an enormous vacuum cleaner and blown to waste. While I was there, an enormous truck with a trailer on it came in with about 100 window radiator panels. These were whisked off the truck by mechanical means, in the course of which about 20 were broken. These were chucked back again, and driven away to be thrown out on a dump on the way back to the plant. No wonder one sees these graveyards of broken cars and equipment round all American cities.

The building industry is principally engaged on work other than housing, such as shop fronts, because of their commercial income tax. For a job over £1,500 or £2,000, application has to be made to the union, which decides how many men may be used, and for how long. They even fix the size of brush a man may use. We know nothing of restrictive practices as they know them over there.

I returned from the trip exhilarated, and determined to demand a higher and ever higher standard of finish. Our standards sunk low through the war, on first-aid repairs, but are now beginning to improve. I feel also that, despite the weakness of our present building restrictions, some form of rationing makes sense.

E. T.



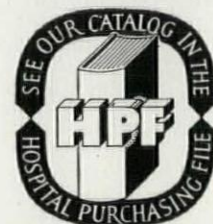
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When you need a practical working surface that must combine beauty with durability and convenience, be sure to specify Decorative Micarta. Only then will you get *all 10* of these important advantages:

- 1 *Won't scratch or mar* under ordinary service conditions. Finished surface is hard and durable.
- 2 *Strong, dense material.* Guaranteed not to warp, chip or crack under ordinary service conditions.
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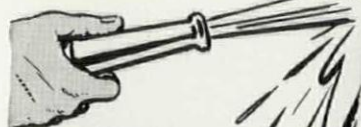
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They actually penetrate
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still moisture proof after
twenty years of rough
weather!*



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for brick and dark colored
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Cabot, Inc., 2107 Oliver
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Cabot's
Clear Waterproofings

LICENSING REQUIREMENTS

(Continued from page 68)

APPENDIX A

CALIFORNIA: Baer v. Tippet, 34 Cal. App. (2d) 33, 92 P. (2d) 1025; McDowell v. Long Beach, 12 Cal. App. (2d) 634, 55 P. (2d) 934; Meyer & Holler v. Bowman, 121 Cal. App. 112, 8 P. (2d) 936; Force v. Hart, 209 Cal. 600, 289 P. 828; Jones v. Wickstrom, 92 Cal. App. 292, 288 P. 449; Payne v. De Vaughn, 77 Cal. App. 399, 246 P. 1069; Fitzhugh v. Mason, 2 Cal. App. 220, 83 Pac. 282.

GEORGIA: Brown v. Glass, 46 Ga. App. 323, 167 S.E. 722.

ILLINOIS: Keenas v. Tuma, 240 Ill. App. 448; Haynes v. East St. Louis Council, 258 Ill. App. 38.

KENTUCKY: Board of Education v. Elliott, 276 Ky. 790, 125 S.W. (2d) 733.

LOUISIANA: Rabinowitz v. Hurwitz-Mintz Furni-
ture Co., 19 La. App. 811, 133 So. 498.

MICHIGAN: Bollin v. Fahl, 206 N.W. 495; Wedge-
wood v. Jorgens, 190 Mich. 620, 157 N.W. 360.

NEW JERSEY: Gionti v. Crown Motor Freight
Co., 128 N.J.L. 407, 26 A (2d) 282; Dane v.
Brown, 70 F. (2d) 164.

NEW YORK: American Store Equipment & Con-
struction Corp. v. Jack Dempsey's Punch Bowl,
174 Misc. 436, 21 N.Y.S. (2d) 117 aff'd, 258 A.D.
794, 16 N.Y.S. (2d) 702, 283 N.Y. 601, 28 N.E.
(2d) 23; Bowen v. Schenectady, 136 Misc. 307,
240 N.Y.S. 784 aff'd, 231 A.D. 779, 246 N.Y.S. 913;
Bintz v. Mid-City Park Corp., 223 A.D. 533, 229
N.Y.S. 390; Industrial Installations Corp. v.
Sparer, 74 N.Y.S. (2d) 198; Industrial Installa-
tions Corp. v. Rosenblatt, 74 N.Y.S. (2d) 197;
Roth v. Hoster Realty Co. Inc., 119 Misc. 686,
197 N.Y.S. 220.

OHIO: Wolpa v. Hambly, 20 Ohio App. 236, 153
N.E. 135.

PENNSYLVANIA: F. F. Bollinger Co. v. Widmann
Brewing Corporation, 14 A. (2d) 81.

TENNESSEE: Cantrell v. Perkins, 177 Tenn. 47,
146 S.W. (2d) 134; State Board v. Rodgers, 167
Tenn. 374, 69 S.W. 1093.

TEXAS: Clark v. Eads, 165 S.W. (2d) 1019.

UTAH: Smith v. American Packing & Provision
Co., 102 Utah 351, 130 P. (2d) 951.

WASHINGTON: Sherwood v. Wise, 132 Wash.
295, 232 P. 309.

WISCONSIN: Lytle v. Godfirnon, 241 Wisc. 533,
6 N.W. (2d) 652; Wahlstrom v. Hill, 213 Wisc.
533, 252 N.W. 339; Adams v. Feiges, 206 Wisc.
183, 239 N.W. 446; Fischer v. Landisch, 203 Wisc.
254, 234 N.W. 498; Hickey v. Sutton, 191 Wisc.
313, 210 N.W. 704.

APPENDIX B

ALABAMA: Code, 1940, Title 46, Sec. 8-20, 1945
Cum. Supp.

ALASKA: Alaska—Sess. Laws, 1939, Ch. 68,
Secs. 1-18, Sess. Laws, 1943, Ch. 14.

ARIZONA: Code, Annotated 1939, Secs. 67-1802-
67-1822; Cum. Supp. 1945, War Emergency Meas-
ure 3 (E).

ARKANSAS: Stats. Supp. 1944, Part II, Archi-
tecture, Sec. 1-15, pp. 560-568, Acts 1941, #270.

CALIFORNIA: Deering's Code 1943, Business &
Professional Code, Secs. 5510-26; 5535-40; 5550-56;
5560-87; 5600-04. 1945 Supp. New Sec. 5602 and
Amendments to Sec. in 1943 Code.

COLORADO: Stats. Anno. 1935, Vol. 2, Ch. 10,
secs. 1-17.

CONNECTICUT: Supp. to Gen. Stats. 1931-1935.
Ch. 167a, Secs. 1216c-1221c.

DELAWARE: Rev. Code, 1935. Ch. 26, Secs.
891-912.

FLORIDA: Stats. Annotated, 1946 Supp. Vol. 15,
Secs. 467.01 to 467.17; 485.01 to 485.03.

GEORGIA: Code Annotated, Title 84-301 to 84-
321. 1945 Supp. Title 84-316.

IDAHO: Code Annotated, 1932, Col. 3, Secs.
53-401 to 53-410; 65-2801 to 65-2823.

ILLINOIS: Smith-Hurd Ann. Stats. Ch. 10½,
Secs. 1-17, 1946 Cum. Supp.

INDIANA: Stats. Anno. 1933, Vol. 11 (1943 Re-
placement vol.), Secs. 63-191; 63-104; 63-106;
63-128. 1945 Cum. Supp. Secs. 63-102; 63-103;
63-105.

IOWA: Code, 1946. Vol. 1, Secs. 118.1-118.14.

KENTUCKY: Rev. Stats. 1946. Secs. 323.010-
323.240; 323.990.

LOUISIANA: Gen. Stats. Dart. Vol. 6, Secs.
9352-9366; War Emergency Measure #8, 1947
Supp. to Vol. 6.

MAINE: Laws 1945, Ch. 356, Sec. 1-19. Amend-
ment to R.S. Ch. 15, Sec. 27.

MARYLAND: Code. Anno. 1939, Art. 43, Secs.
457-470.

MASSACHUSETTS: Annotated Laws, Vol. 1, Ch.
13, Secs. 44A-44D. Vol. 4, Ch. 112, Secs. 60A-
60M. Supp. 1946, Vol. 4.

MICHIGAN: Stats. Anno. 1946 Cum. Supp. Secs.
18.84 (1)-18.84 (22).

MINNESOTA: Mason's Stats. 1927, Vol. 1, Secs.
5697-3, -4, -5, -6, -7, -8; Supp. 1940, Vol. 3, Sec.
5697-13; Supp. 1946, Vol. 4, Sec. 5697-1, -2, -9,
-10, -11, -12, -14, -15, -16, -17.

MISSISSIPPI: Code, 1942, Ann. Vol. 6, Secs.
8632-8646, 1946 Supp. Sec. 8923-51.

MISSOURI: Rev. Stats. Anno. Vol. 21, Secs.
10139.1-1-10139, 28. 1946 Supp., Sec. 10139.16.

MONTANA: Revised Codes, Annotated 1935, Ch.
277, Secs. 3229-3240.

NEBRASKA: Rev. Stats. 1943, Vol. 4, Ch. 81,
Secs. 839-856. 1945 Supp. Sec. 81-849.

NEW JERSEY: Stats. Annotated, Title 45, Ch. 3,
Secs. 1-5, 7, 11-16. 1946 Supp. Ch. 3, Secs.
6, 8, 9, 10.

NEW MEXICO: Stats. Annotated, 1941, Vol. 4,
Ch. 51, Secs. 1401-1409; 1945 Supp. Ch. 51,
Sec. 1.

NEW YORK: New York Education Law, Secs.
1449-1462; 1475-1484.

NORTH CAROLINA: Gen. Stats. 1943, Vol. 2,
Ch. 83, Secs. 83-1 to 83-15.

NORTH DAKOTA: Rev. Code 1943, Vol. 4, Ch.
43-03, Secs. 01-21.

OHIO: General Code, Annotated, 1946, Vol. 1-A,
Secs. 1334 to 1334-19.

OKLAHOMA: Stats. Annotated, 1947, Title 59,
Ch. 2, Secs. 45. 1 to 45. 23. H.B. #149, 1947.

OREGON: Comp. Laws Annotated, Vol. 4, Title
46, Ch. 3, Sec. 46-101, 201-205, 301-308, 401-402.
1943 Supp. Sec. 46-304, Note.

PENNSYLVANIA: Purdon's Stats. Ann. Title 63,
Ch. 2, Secs. 21-32, Title 71, Cy. 3, Secs. 1181-
1185.

PUERTO RICO: Acts 1927, #31; 1943, #125.

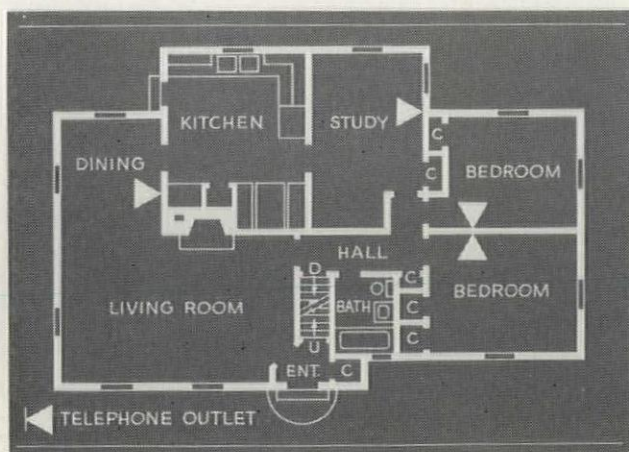
RHODE ISLAND: General Laws, 1938, Ch. 401,
Secs. 1-28.

(Continued on page 124)



George R. Paul, Architect

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LICENSING REQUIREMENTS

(Continued from page 122)

SO. CAROLINA: Code of Laws 1942, Vol. 4, Ch. 148, Art. 1, Secs. 7055, 7062.

SO. DAKOTA: Code 1939, Vol. 1, Title 18, Ch. 18.01, Secs. 18.0103-18.0107, 18.0110-18.0116; Ch. 18.02, Secs. 18.0204, 18.0205, Ch. 18.99, Sec. 18.9901. Sess. Laws, 1941, Ch. 91, Secs. 18.0101-18.0102, 18.0108.

TENNESSEE: Code, Annotated 1934, Vol. 1, Title 3, Ch. 2, Art. V, Secs. 311, 315-18, 320, Vol. 4, Title 15, Ch. 12, Secs. 7098-7112.

TEXAS: Rev. Civil Stats. 1946, Supp. Vol. 1, Title 10A, Art. Secs. 1-16, Art. 249b.

UTAH: Code Annotated 1943, Title 79, Ch. 1, Secs. 79-1-1 to 79-1-39; Ch. 3, Secs. 79-3-1 to 79-3-7. Laws 1943, Ch. 61.

VIRGINIA: Code, 1942, Annotated, Title 26A, Ch. 125A, Secs. 3145b-3145r. 1946 Supp. Sec. 3145a.

WASHINGTON: Rev. Stats. Annotated, Title 54, Ch. 2, Secs. 8270-76. Title 75, Ch. 1, Secs. 10853-10864, Sec. 10893.

WEST VIRGINIA: Code, 1943, Ann. Ch. 30, Art. 12, Secs. 2956-2965.

WISCONSIN: Stats. 1945, Sec. 20.565, 101.31, sub. 1-11.

NOTICES

APPOINTMENTS

GARRETT ECKBO, of the firm of Eckbo, Royston & Williams, Los Angeles and San Francisco, Calif., has been appointed to direct the newly established curriculum in landscape design at the College of Architecture, University of Southern California. The curriculum, which will lead to the degree of B. S. in Landscape Design, emphasizes analyses and re-evaluations of the theory and practice of landscape design in relation to present-day environment. The courses will be integrated with those in architecture.

TURPIN C. BANNISTER, dean of the School of Architecture and Arts, Alabama Polytechnic Institute, has been named head of the department of architecture, University of Illinois. He will assume his new position on September 1st, succeeding Professor Loring H. Provine, who is retiring.

COMPETITION

Six design-research teams will conduct technological research on methods and materials in connection with the **INTERNATIONAL LOW-COST FURNITURE COMPETITION**. The teams are as follows: Marcel Breuer, U. S. Forest Products Laboratory; Charles Eames, University of California at Los Angeles; Carl Koch, Massachusetts Institute of Technology; Robert E. Lewis and James Prestini, Armour Research Foundation, Illinois Institute of Technology; Donald A. Wallace, Midwest Research Institute and Yale University School of Forestry; and Harry Weese, Armour Research Foundation, Illinois Institute of Technology. Each team will publish an account of its work, the best account to be awarded a \$2,500 prize. In addition to the prizes totaling \$55,000, previously announced, a further award of \$5,000 has been contributed by the Simmons Company for the best design for a dual-use upholstered unit, for use as sofa by day and bed by night. The competition, sponsored by the Museum of Modern Art, 11 W. 53rd St., New York 19, N. Y., closes on October 31, 1948.

CHANGES OF FIRM NAMES

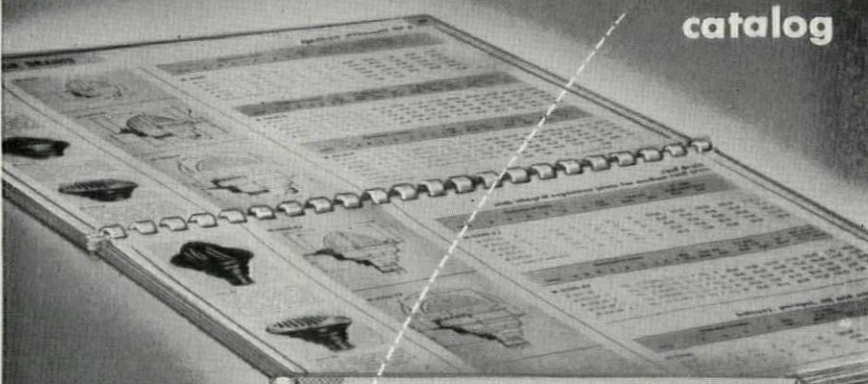
MAURAN, RUSSELL, CROWELL & MULLGARDT, changing firm name to **RUSSELL, CROWELL, MULLGARDT & SCHWARZ**, 1620 Chemical Bldg., St. Louis 1, Mo.

ALLEN, KOEHLER, STEFFES, NAROVEC, ARCHITECTS, firm dissolved. **MAUREY LEE ALLEN, ARCHITECT**, will complete all commissions and will continue to practice at Zuelke Bldg., Appleton, Wisc.

WITT & REINHEIMER, firm dissolved. Succeeded by **REINHEIMER & COX** (ROBERT REINHEIMER, JR., J. VERNON COX), 411 Texarkana National Bank Bldg., Texarkana, Tex.

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


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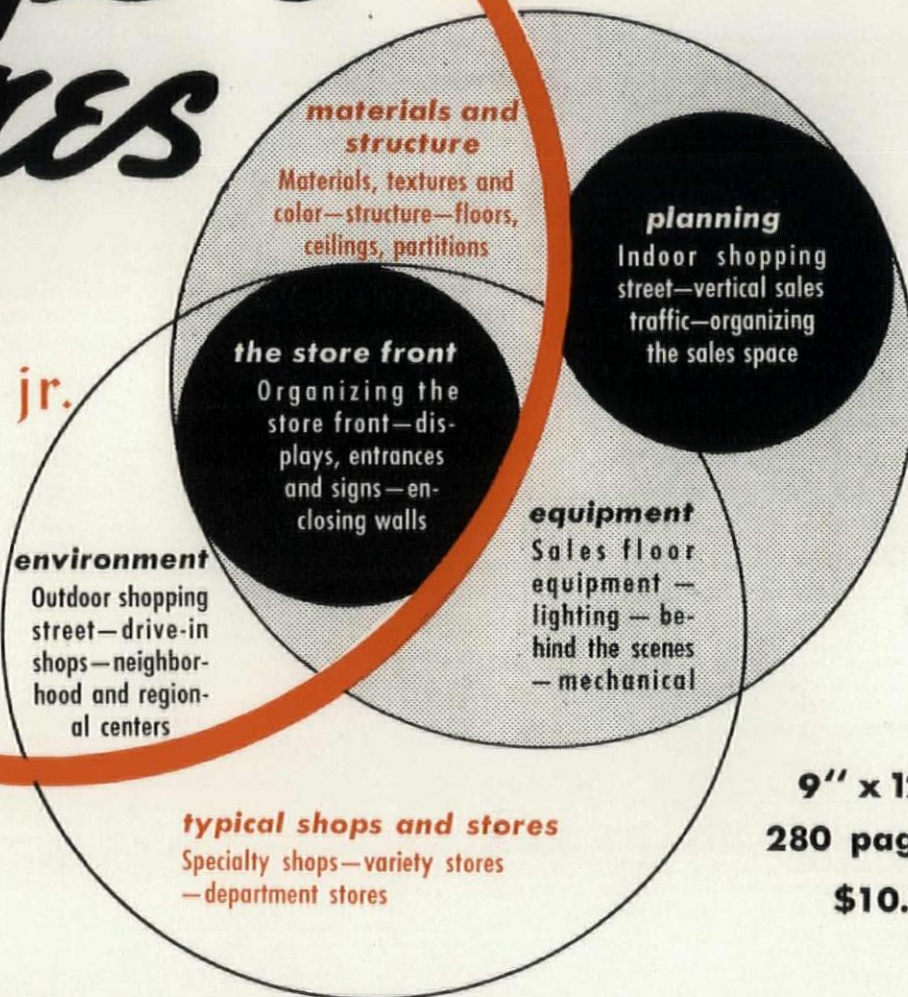
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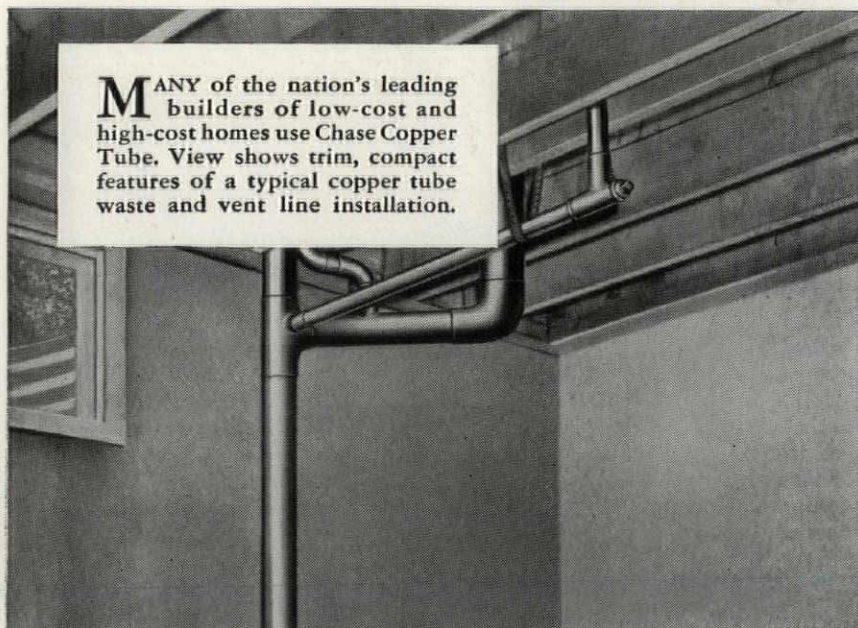
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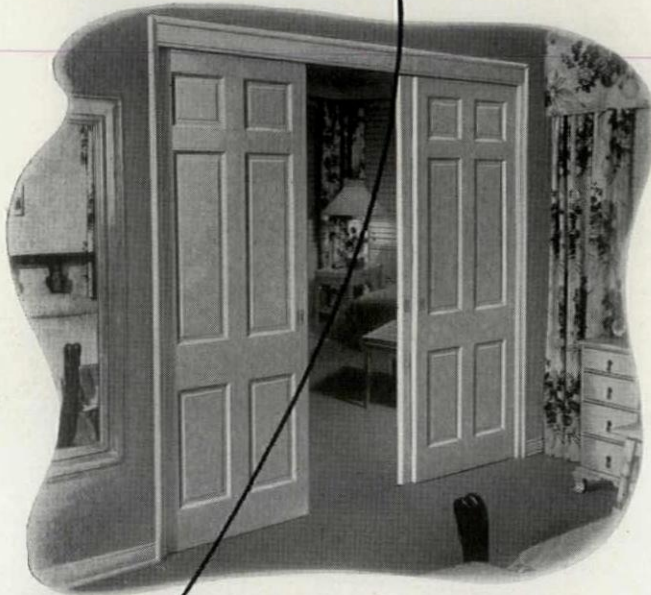
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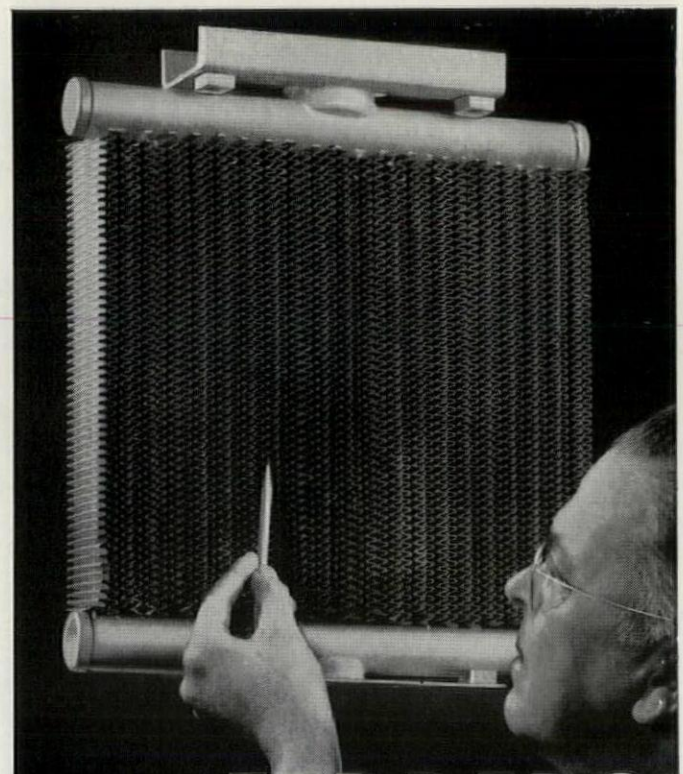
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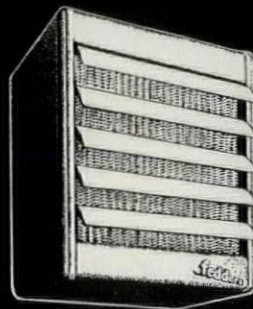
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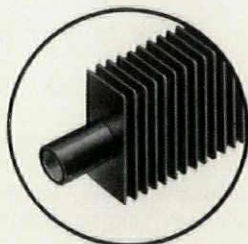
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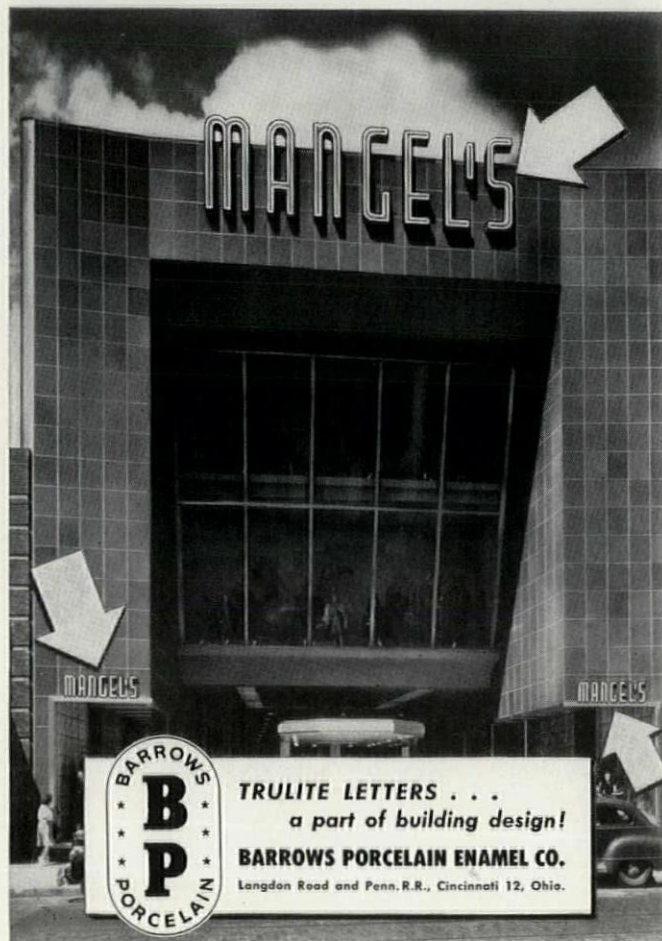
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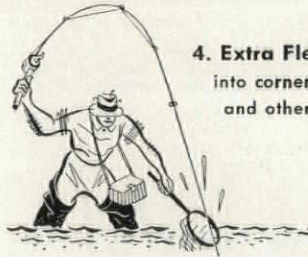
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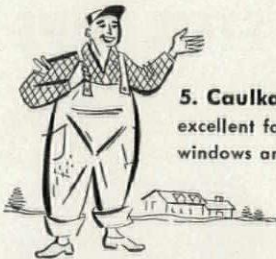
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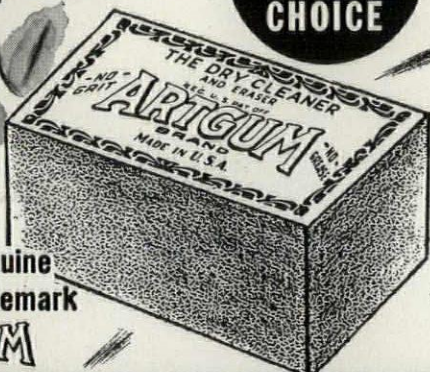
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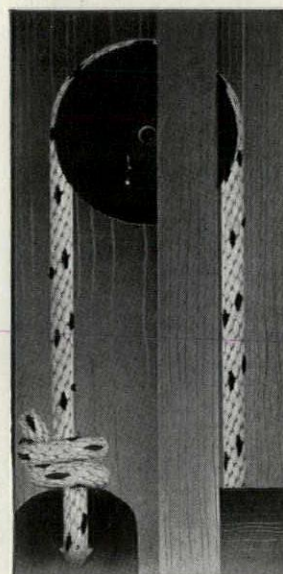


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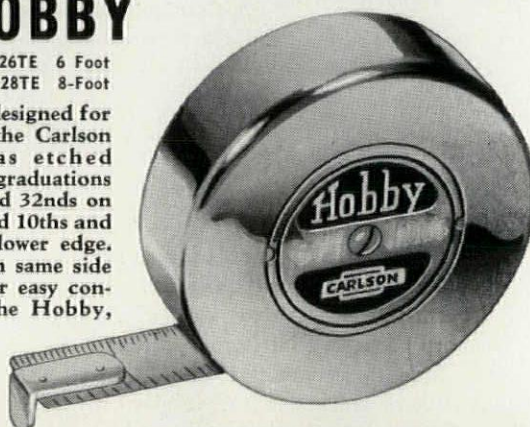
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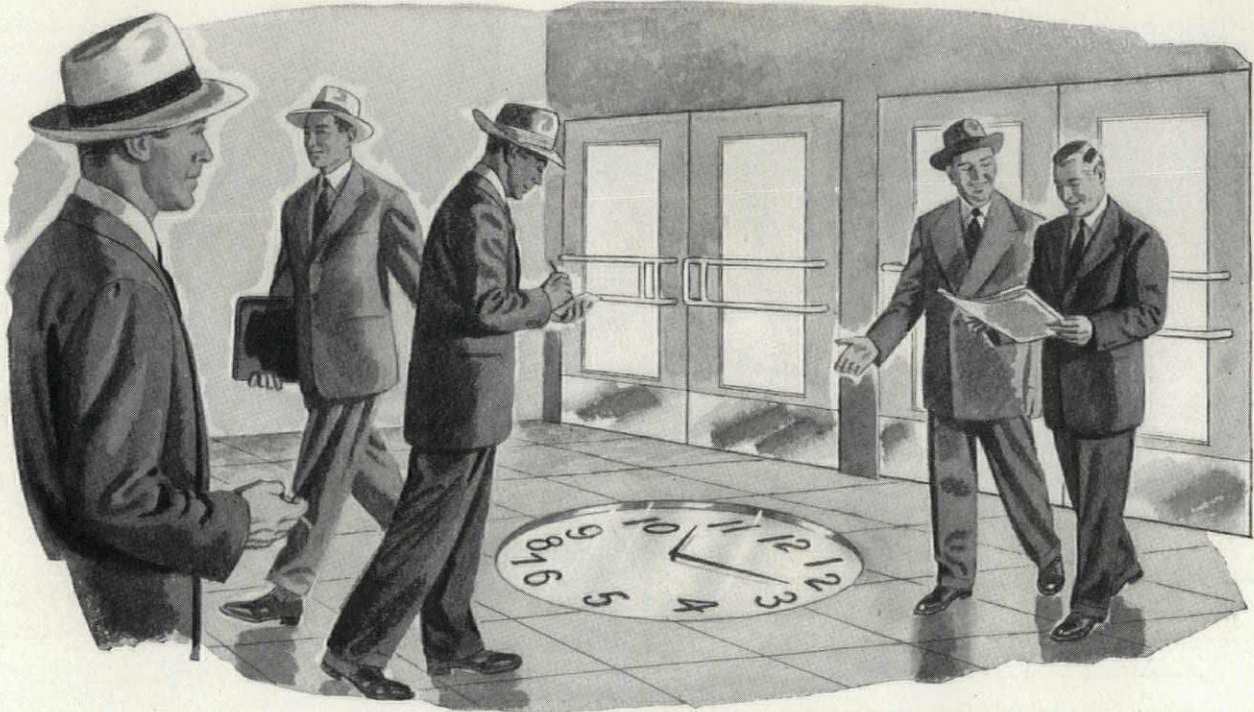


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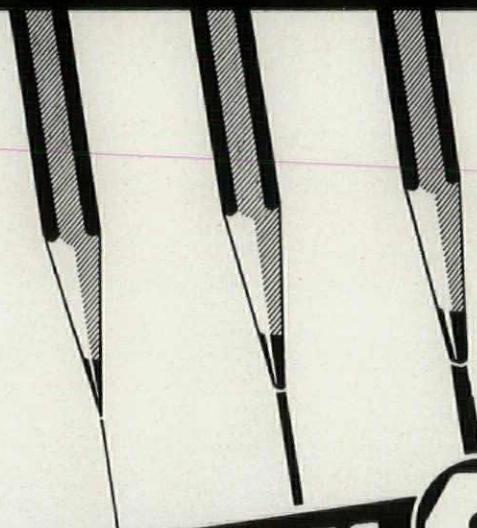
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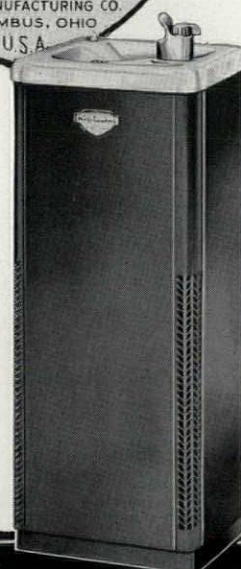


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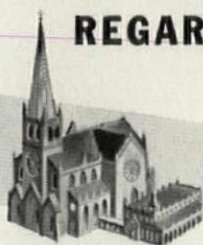
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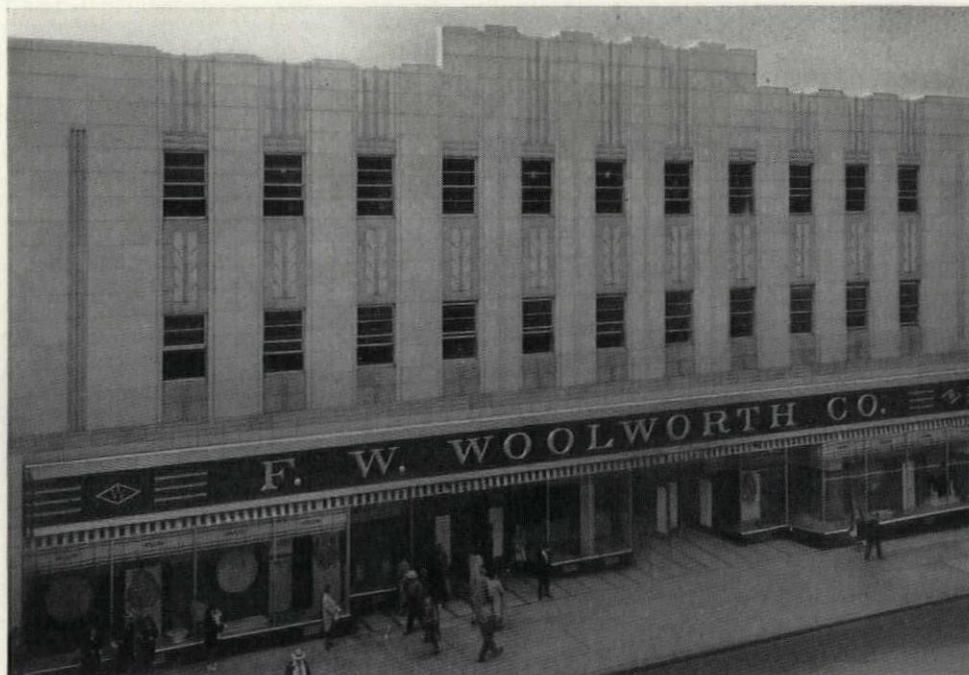
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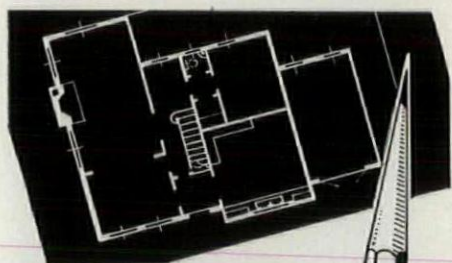


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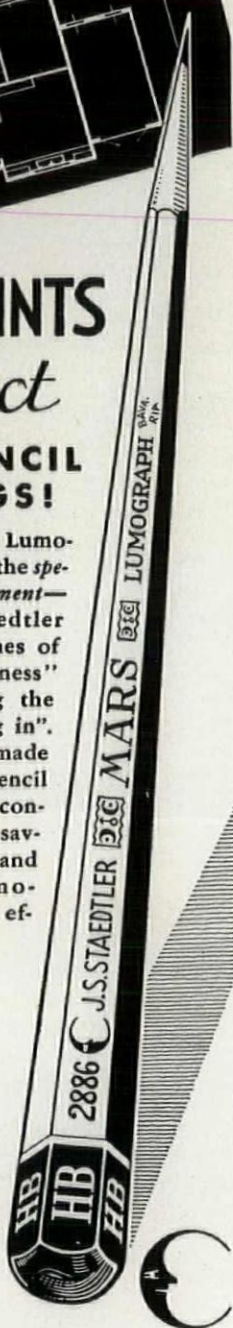
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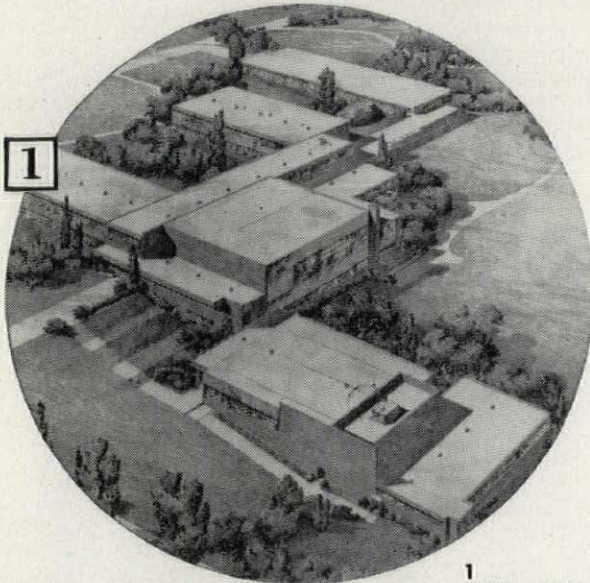
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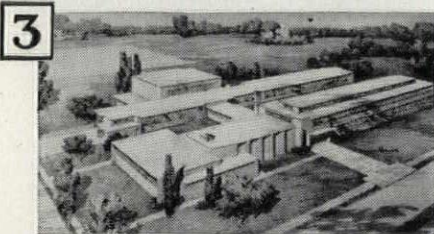
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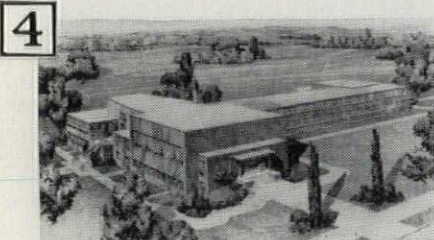


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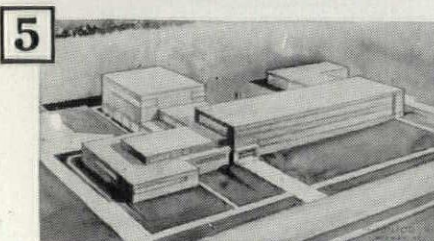
2 BROADMOOR JUNIOR HIGH SCHOOL, Shreveport, La. McClenaghan & Barr, Architects, Southern Builders, Inc., Contractors, Shreveport, La. Approximate floor area 90,000 square feet.

3 CEDAR GROVE JUNIOR HIGH SCHOOL, Shreveport, La. Floor area, 85,000 square feet. Wm. B. Wiener, Architect, Shreveport, La. Nathan Wohlfield, Contractor, Dallas, Texas.



4 JUNIOR HIGH SCHOOL BUILDING, Lakeshore Drive, Shreveport, La. J. Cheshire Peyton, Architect, Harry Bosworth, Associate, Seth E. Giem & Associates, General Contractors, Jackson, Miss. Approximate floor area 90,000 square feet.

5 JUNIOR HIGH SCHOOL BUILDING, for Caddo Parish School Board, Shreveport, La. Walker & Walker and Associates, Shreveport, La. Roof area, 65,000 square feet.

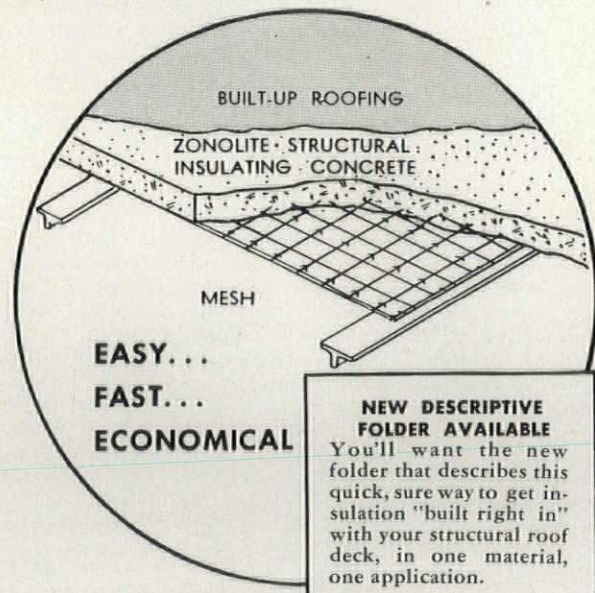


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SAN FRANCISCO, CALIFORNIA. The presentation dinner of the Annual Progressive Architecture Awards was held in this center of architectural progress on June 1st. The Award was presented to Ernest Kump and his engineer partner, Mark Falk; a certificate went to United Airlines, the client; and a number of the architects who won Mentions from this year's jury were present to be recognized. It was a good party; I wish you all could have been there.

For a week afterward Ted Hunter of New Hampshire, Dick Aeck of Georgia, and I wandered around the Bay Region under the direction of the local architects and gaped at the wonders. Among the things that impressed us were the cable cars at rush hour, Gardiner Dailey's Red Cross Building, cracked crab on Fisherman's Wharf, Kump's Naval Ordnance Building, the view from the Top of the Mark, two recent houses by Albert Henry Hill, and, to be brief, serious progress in many architectural directions by many architects.

MONTEREY, CALIFORNIA. A great deal of activity is evident in this and the adjoining town, Carmel, which between them occupy what must be the most beautiful stretch of sea coast along either ocean. One of the interesting developments is the appearance of the young enthusiast, Gordon Drake, who has moved to the region from Los Angeles with ambitious schemes for planning, building, and teaching, which, knowing Gordon, I am sure will come to useful fruition. More about this in time.

LOS ANGELES, CALIFORNIA. Perhaps a week wasn't time enough to allow for the climate and the general atmosphere to take its effect. I left L.A. with a feeling of rather complete confusion. Never has there been such a rapidly growing, sprawling, complex urban development. Most of the local people love it; some recognize it as a city which is strangling itself much more rapidly than any city planner believed possible. To me the distressing thing is that the city, having filled the plain, is creeping up into the hills and depositing itself in the same small plots that one sees

in any subdivision. It is a trite remark, but true that Hollywood (the industry, not the city, which no longer exists as an entity) has succeeded in giving a theatrical air to the town and its people, so that even some very good architects can't seem to resist artificial design. There is too much work that looks good but is poorly detailed and poorly built. I don't mean to imply at all that everything is bad in the town and its surroundings; that would be far from true. Alongside the house that required 27 sheets of structural details to accomplish the "effect" that the architect wanted, sits the simple straightforward conception that won Raphael Soriano a mention in the awards this year. It's a great town: perhaps it's best epitomized by the picture *Life* ran showing Nature Boy riding a bicycle past an excellent housing group designed by Gregory Ain.

PORTLAND, OREGON. Whatever pictures you saw of the floods didn't begin to show the real devastation or imply the many personal tragedies in loss of homes, belongings, income, or investment. To me the heart-rending sight was not Vanport—perhaps I had been prepared for that tragedy which had been almost inevitable from the day the town was planned there—it was rather the isolated farm with the roof of the house, and the ridge of the barn, and the top of a few trees sticking up above the muddy waters which were slowly but surely carrying away the top soil. The lessons in the need for flood control and the need for a long range housing program were too dramatically illustrated for my taste.

Architectural news in Portland centers in Pietro Belluschi's two new office buildings—the aluminum and blue glass Equitable Building, and the limestone-faced Oregonian Building. The glittering Equitable is a mighty handsome structure, but perhaps I'm just an old conservative—I liked the scale and the texture of the Oregonian better. Belluschi's work (in quantity as well as quality it is tremendous!) dominates the local scene, which is perhaps unfair to the rest of the many excellent architects in town. I admired the spirit of the local A.I.A. Chapter, and I certainly enjoyed the way Frank Roehr and Jim Barnes, president and secretary, respectively, of the Chapter, guided me around town to see the work of *all* the designers, even to the extent of arranging a speedboat ride on Lake Oswego to see some otherwise inaccessible houses.

SEATTLE, WASHINGTON. I think that very few places in the country could compete with this city in the *general* level of architectural progress. In most places you have to hunt for the samples of good contemporary work—in Seattle you see good work, if not excellent, on all sides as you tour the town and its environs. There are the established people like Chiarelli & Kirk, Paul Thiry, and Donald Williams; there is the war-born combination of Naramore, Bain, Brady, & Johanson; there are the newer firms like Bassetti & Morse, and Tucker, Shields, & Terry, and I've left out many names—but the point is that the work of these people is evident in the residential areas, the college area, and, to a lesser extent, in the commercial section. The COPA group which I wrote about in the March 1948 P.S. column is a live, active organization, ably supplementing the work of the local A.I.A. Chapter.

Fortunately for me, Phyl Dearborn, the photographer (now Mrs. Bob Massar, having plucked one of the partners out of the firm of Bliss Moore & Associates) moves her center of operations from New York to Seattle in the summer, and I couldn't have asked for a more thorough or objective guide.

SALT LAKE CITY, UTAH. I'm terribly sorry, but I'm afraid that I can't report on the architecture of this city. The A.I.A. Convention (see *PROGRESS REPORT* on page 14) was such a notable gathering of interesting people that I found it impossible to move beyond the interior of the Hotel Utah. I wasn't the only one who felt this way—I asked Hugh Stubbins one afternoon if he and Mrs. S. were going on a scheduled sight-seeing trip, and he said, "Gosh, I don't know—do you think I'll miss any fun here in the hotel?"

The Utah liquor laws make it necessary to refresh oneself in a private room, with the result that all free moments were spent drifting from 927 to 643 and then to 418 etc. Many weighty questions were settled in such convivial gatherings. One of the pleasant aspects of the convention was a student delegation, and I recall one night that ended up with a group of well-known architects and their charming wives visiting the room six of the students were sharing as a dormitory, telling wonderful stories far into the night. That is a part of architectural education that most students miss.

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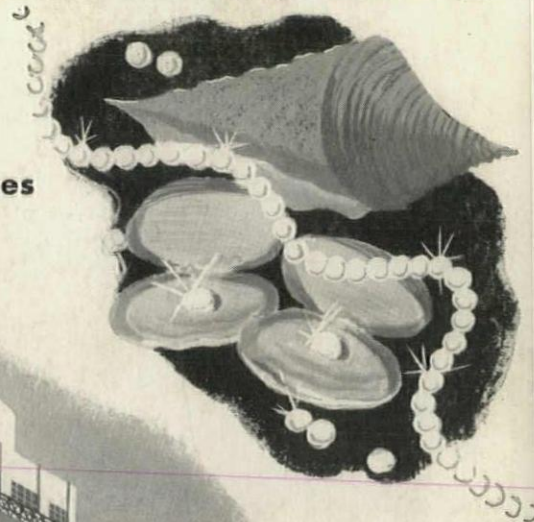
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