

P A

PROGRESSIVE ARCHITECTURE

newsletter

August 1949

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- 2.2 million more people lived in the U.S. in the first quarter of 1949 than a year ago. Half a million more people were employed, .6 million more unemployed. For that period, national income and income of individuals after taxes were higher than last year, dollar volume of business dropped somewhat, savings increased by \$3.5 billion.
- Sales volume will drop 4% in second half-year below similar period last year, according to Dun & Bradstreet report.
- Guy Panero, N.Y. engineer, reporting on a survey his organization has completed, says that building cost estimates have dropped as much as 25% in some sections. Greatest drop has been in Midwest. Panero noted elimination of "contingency" item from most contractors' bids, as well as more efficient operation and increased builder productivity.
- Other surveys, such as one by "Wall Street Journal," bear out these facts. Figures from various sources indicate an average decline in construction costs for first half of year of 5%. Guesses are that drop will continue, may reach a 6 to 10% lower figure.
- American Institute of Steel Construction, in recent annual conference, appraised steel situation through reports of its district engineers, found shortage ended and structural steel generally available for quick delivery. A.I.S.C. engineers find schools, churches, hospitals going ahead at accelerated rate, commercial and industrial building lagging.
- Producers' Council, in a revised estimate, forecasts dollar volume of 1949 construction at \$18.4 billion, which would mean a slight drop in expenditure but a gain in physical volume of construction over last year. P.C. also sees drop in commercial and industrial work (except utilities) and great gain in school construction.
- Commercial rental space is still 98.3% occupied, despite decline since late 1946, when the tide turned, reports Nat'l. Ass'n. of Building Owners and Managers. Association officers see much work that needs to be done in modernizing old buildings--not face-lifting, but "complete rehabilitation and modernization."
- New grease-resistant rubber floor tile in 9" x 9" size, 1/8 inch thick, is announced by Fremont Rubber Co. of Fremont, Ohio.
- Yugoslavia, anxious to reach American market, will push several building products this year. One is parquet flooring of Slavonian oak (shorter and narrower than U.S. standards); another is Adriatic marble, including black Crni Kricke, brown Finor, pink Carneol, tan San Stefano, yellow-flecked white Veselja.
- Vermiculite plaster has been given a new fire rating by Underwriters' Laboratories. (See April 1949 P/A, p. 85.) Steel columns protected with vermiculite on metal lath are rated for 4 hours with 1½-inch thick vermiculite, 3 hours for 1 inch thickness. Mix was A.S.A. standard for gypsum plaster.

(Continued on page 2)

newsletter

- Large-size steel pipe and fittings are now available lined with saran rubber 187, a Dow product. Saran rubber, 1/8 inch thick for pipe lining, is resistant to abrasion, can be used where petroleum products, acids, and chemical mixtures are problem.
- U.S. Plywood announces a new, medium-priced hardwood plywood, called Weldwood Craftsman Grade. 1/4 inch thick, it will be offered in walnut, oak, korina, birch, and gum.
- Two recent disasters have been studied for indications of behavior of materials. Northwest earthquake, which shook many buildings, resulted in only \$250 damage to Smith Tower Building in Seattle, largest structure to withstand major earthquake. Steel frame was undamaged. Holland Tunnel explosion tore off suspended ceiling in tube, exposed monel hangers which show no sign of corrosion after 22 years in place.
- Several cities are enacting code provisions regulating television aerial installations. Dangers are lightning and fire hazard, falling poles.
- Museum of Modern Art states that several loan associations have said they would grant mortgages up to \$18,000 on Marcel Breuer's house which stands in the Museum garden as a show piece. Museum has stated that the house could be built in the N.Y. area for \$27,475, exclusive of land cost, architect's fee, landscaping, and service connections.
- Producers' Council, A.I.A., and the Association of Collegiate Schools of Architecture are collaborating on a visual-aid project which will supply schools with 2" x 2" slides covering construction and products in use. Prof. Kenneth Sargent of Syracuse U. will do editing.
- In order for local governments to qualify for federal funds under administration housing bill, states must pass enabling legislation permitting local authorities to be set up. All states have such legislation now except Iowa, Wyoming, South Dakota, Utah, Oklahoma, and Kansas.
- Detroit Institute of Arts will have comprehensive show from Sept. 11 to Nov. 20 entitled "For Modern Living." Director of exhibit will be Architect Alexander Girard; many other architects and designers are on advisory committee.
- Competition for small Roman Catholic mission church was won by S.S. Granger of Glendale, Calif. 171 entries were submitted.
- N.Y. Association of Consulting Engineers gave annual award to John P. Riley, Director of Development for the N.Y. City Housing Authority. Award was for effective work in housing and understanding of consulting engineers' problems.
- Olin Grossi, chairman of the Dept. of Architecture at Pratt Institute, has been awarded Brunner scholarship by N.Y. A.I.A. Chapter, to produce and prepare an architectural exhibit for public high schools. 54 schools will use exhibit for a month each.
- N.Y. State Association of Architects, which plans well ahead for its annual conventions and runs worth-while meetings, announces this year's dates as Oct. 20 to 21, in Rochester, N.Y.
- French Historical Monuments Service has not yet completed task of replacing stained glass windows which were removed from French churches and stored during war. Work is expected to be finished soon.

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The advantages of a good rolling steel door are manifold. Their vertical coiling action occupies less space adjacent to the door opening than any other type of door . . . they provide more positive protection against intrusion and fire, and the permanence of all-steel construction assures a lifetime of continuous trouble-free service. In Mahon Rolling Steel Doors, you will find the latest developments in doors of this type—exclusive Mahon features in door construction and operating devices which have proved conclusively their desirability in everyday operation. See Sweet's File for detailed information and complete specifications.

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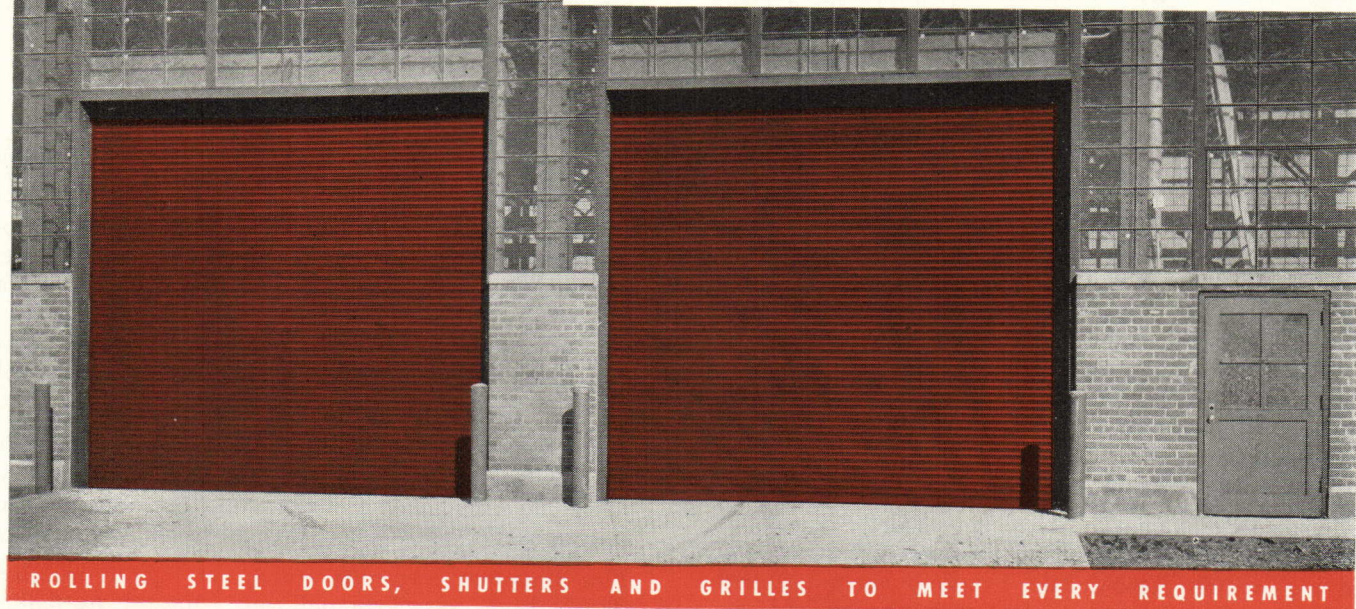
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Armstrong's New

DESIGNER'S PALETTE

Greaseproof Asphalt Tile

The Designer's Palette Series in Armstrong's Greaseproof Asphalt Tile provides unusual beauty and high styling in a low-cost greaseproof and alkali-resistant flooring. The muted colorings in the series are a departure from the contrasting marbleization normally associated with asphalt tile.

Architects and designers will find unusual decorative advantages in the soft, pastel coloring that characterize Armstrong's new Designer's Palette Series. Each pattern in the series is obtained from close value tones of the same color. The richness of these colors is obtained by Armstrong's exclusive nondirectional swirl graining.

Armstrong's Designer's Palette Series provides a desirable monochromatic effect in a floor. However, the subtle variations in tone help to conceal footprints and marks on the floor.

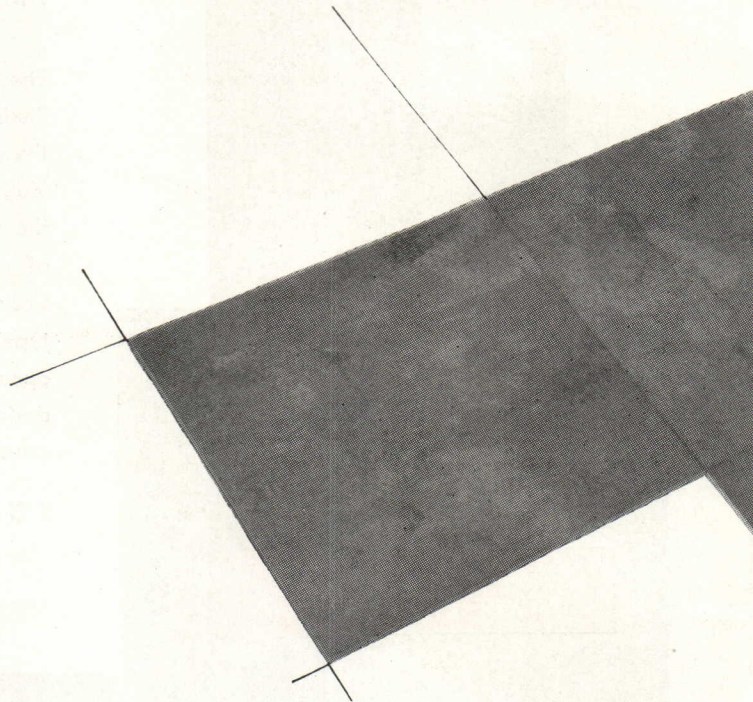
The eleven colors in the Designer's Palette Series have been created by Armstrong's floor stylists for wide decorative possibilities. They are harmonized to allow any of the colors to be combined in a pleasing effect. The broad range of colors from white to dark walnut meets any requirement for light reflectivity.

Physical Characteristics

Composition—Armstrong's Designer's Palette Series, Greaseproof Asphalt Tile, is made of superior grade synthetic resins and plasticizers combined with asbestos fibers and mineral pigments. The toughness and flexibility of the product give it unusual durability. Its tough composition has high resistance to abrasive wear. Its flexibility minimizes cracking. This flooring will readily conform to minor irregularities in the subfloor and it can be installed over wood subfloors when a felt underlayment is used.

Moisture Resistant—The Designer's Palette Series has the same high resistance to moisture found in Armstrong's regular Asphalt Tile. This floor can be installed on concrete in direct contact with the ground, on grade or below grade.

Alkali Resistant—Costly alkali-resistant color pigments are used throughout the entire Designer's Palette Series. The colors are permanent. They will not be affected by alkali rising through concrete subfloors



in contact with the ground, and they will not be washed out by harsh alkaline cleaning solutions.

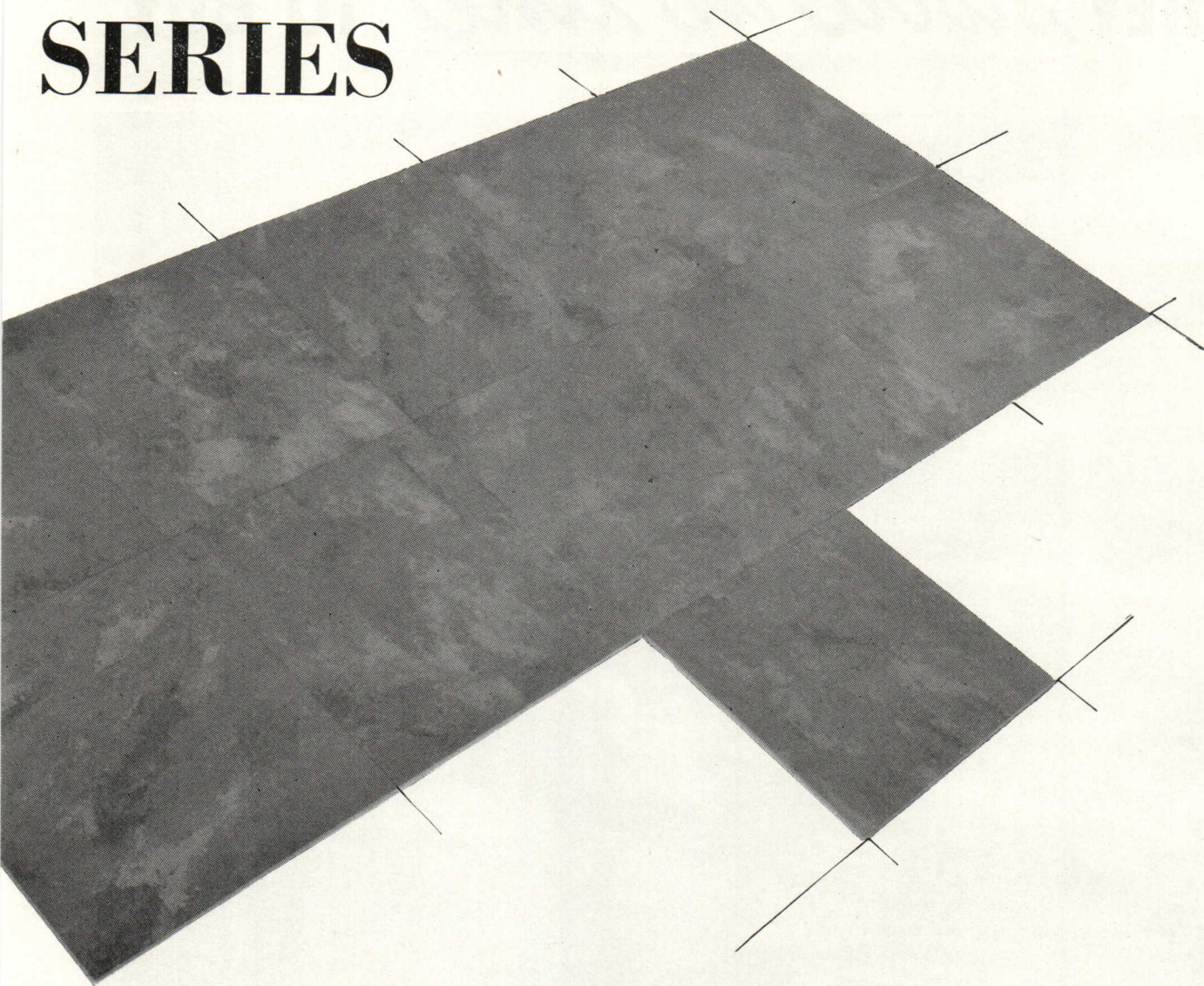
Grease Resistant—Lubricating oils and greases, gasoline, and cooking fats and oils have no harmful effect on Armstrong's Designer's Palette Series, Greaseproof Asphalt Tile. This flooring is ideally suited for use in restaurants, kitchens, butcher shops, filling station offices and waiting rooms, or wherever grease or oil may be spilled or tracked over the floor.

Acid Resistant—Organic acids and dilute inorganic acids will not deteriorate this floor. Even concentrated inorganic acids have no immediate effect. When wiped up promptly they will not leave any disfiguring marks.

Fire Resistant—Cigarette stubs and lighted matches dropped on this floor will not cause it to flame. Cigarette burns can be removed easily by buffing the floor with steel wool.

Smooth Surface—The exceptionally smooth surface which characterizes the Designer's Palette Series will not hold dust and dirt. The sharp corners and true

SERIES



square edges of each tile allow them to be fitted together snugly. This eliminates dirt-catching joints between the tile. Routine sweeping with a hair broom is all the regular attention this floor requires. Occasional washing and waxing keep it looking new.

Sizes and Gauges—Armstrong's Designer's Palette Series is available in 9" x 9" size. Gauges are $\frac{1}{8}$ " and $\frac{3}{16}$ ".

The subtle coloring and rich beauty of Armstrong's Designer's Palette Series make it an excellent flooring choice for fine stores, offices, and public buildings that require dignified styling, and also for homes. The Designer's Palette Series will be particularly favored for high-style commercial and residential buildings constructed without basements. Most other types of re-

silient floors are not recommended for such construction because of the alkaline moisture conditions in concrete subfloors in direct contact with the ground.

Armstrong's Designer's Palette Series, Greaseproof Asphalt Tile, costs no more than the regular line of Armstrong's Greaseproof Asphalt Tile. Thus, it can be used for high-style floors at a modest cost.

Installation specifications for the Designer's Palette Series are exactly the same as for regular Armstrong's Asphalt Tile. For additional information about Armstrong's Designer's Palette Series, Greaseproof Asphalt Tile, architects are invited to get in touch with any Armstrong district office or write Armstrong Cork Company, 8908 State Street, Lancaster, Pennsylvania.

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THEY *stood in line* TO BUY



The sellers' market had switched to a buyers' market. Yet in just three days last March, 3,000 veterans, who had seen only a model, lined up to buy Levitt's new style \$7,990 homes before they were built in Levittown, Long Island. Buyers really "went for" the floor-to-ceiling *Thermopane* window wall in the living room, a window 8 feet high, 16 feet long.



4,000 low-cost houses!

How Builders are beating the 1949 Buyers' Market

Foreseeing a buyers' market for houses in 1949, Levitt & Sons redesigned its 1948 low-cost house to make it more exciting and livable. A leading feature they added was a *Thermopane** window wall like the one that had made a big hit in their higher priced homes.

When Levitt opened the 1949 model house, home hunters stormed the office to buy one. Those people, like most, feel that living in a small-windowed house is as boring as standing in a corner. They like big windows that open up a home, give it "big house" feel.

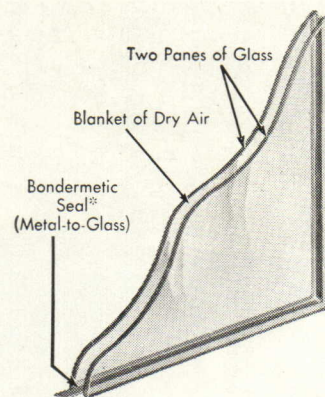
And the practicality of *Thermopane* assures continuing home-owner satisfaction, lasting comfort, economy and livability. The insulating shield of dry, clean air, sealed between *Thermopane*'s two panes of glass, keeps the home warmer in winter, saves fuel. Keeps it cooler in summer. Also, it minimizes condensation. That's why each Levitt home also has a kitchen window of *Thermopane*.

Levittown is dramatic proof that *Thermopane* is an economical way to build new

sales appeal into a low-cost house. Having seen how it attracts buyers, many other builders are now using *Thermopane* in their small homes.

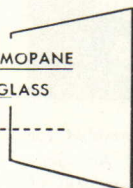
Thermopane units are available in more than 70 standard sizes and in stock sash of all kinds. Write today for our *Thermopane* book and list of sizes. Libbey-Owens-Ford Glass Company, 1289 Nicholas Building, Toledo 3, Ohio.

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Cutaway view of *Thermopane*

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PROGRESSIVES TOGETHER

Dear Editor: Whether or not James Ingraham Clark, of Kansas City, Mo. (letter in May 1949 P/A) manages to get a toe in the A.I.A. "door for youth," or even manages to help swing that door back on its butts, his letter suggests the opportunity to consider again, and seriously, the formation of a national or international association of architects to represent the views and ideals of what is a large and, for the most part, unrepresented younger group.

In my belief there is a growing need and demand for such an organization—not a rival or supplemental organization to the Institute, but rather one with a different intent and scope. Whereas the Institute, in the words of its Executive Director, is concerned with "maintaining the position and prestige of the profession," such a new association (call it the I.P.A. or, perhaps better, the A.P.A.—with P/A's approval and consent) would be wholly concerned with the job of becoming the proving ground for good contemporary architecture, eschewing eclecticism and "period" or style, and at the same time opening its membership to all save

those who show no professional competence or judgment in the field of modern design.

It would seem inappropriate in a letter of this kind to formulate concepts or do more than indicate this need for an organized group. It might be well to point out, however, that there are many means to promote such an architecture as suggested above, most of which P/A has already ably employed:

- 1) To help architects, especially those who demonstrate talent and ability, to become established in their communities.
- 2) To advertise the products of these architects.
- 3) To advertise fully and forcefully the meaning of good contemporary architecture.
- 4) To sponsor competitions.
- 5) To further the exchange of information and ideas.

Although many of the individual members of the A.I.A. would fully endorse such means to promote good architecture, the direction and outlook of the Institute as a whole has not shown any inclination to break with tradi-

tional practices or to break ground in helping to eliminate antiquated or questionable practices. The A.I.A. is concerned with *maintaining* the position and past prestige of the profession. The younger group is concerned with *creating* what would be a greater and, to them at least, more significant prestige of the present day. The Octagon House, with its formal plan and its fusty look, emphasizes past accomplishment and can hold no appeal as the Headquarters and symbol of a stalwart new world architecture. "After the A.I.A. had opened the door for youth no one seemed to want to walk through," says the A.I.A.'s Executive Director. It would be hard to compose a more pungent self-indictment of any group!

Youth, then, and not only youth, has looked at the A.I.A. and its Octagon and has, for the most part, rejected it. With a vision of bookworms poring over ancient manuscripts and cobwebs filming the toothy cornices of dusky vestibules, youth, with its determination and vast ideals, knows it won't find its aspirations there.

With this in mind, I should like to propose to P/A, to Mr. Clark, and others the inception of a new organization—the Association of Progressive Architects.

GEORGE W. CONKLIN
Simsbury, Conn.



Residential work of 35 contemporary architects of Northern California has been assembled for exhibition as "Domestic Architecture of the Bay Region" at San Francisco Museum of Art, September 16 through October 30, then to tour to larger museums of the country under auspices of American Federation of Arts. The house shown above, designed for a Carmel site by Wurster, Bernardi & Emmons, one of the most distinguished firms of the region, was one of the 50 or more examples chosen for the show by an architectural jury composed of Gardner A. Dailey, Bolton White, and Ernest Born. The exhibition, designed by the Architecture Department of University of California, a group of young architects appointed by the Northern California Chapter, A.I.A., and members of the museum staff, seeks to clarify relationship of best contemporary design and the early 20th century work of the area.

Photo: Roger Sturtevant

TRAFFIC IN CANBERRA

Dear Editor: Norman Bartlett has slipped when he says (June 1949 P/A, PROGRESS REPORT, page 18) that Canberra is designed on the "Gridiron System." Your illustrations in themselves contradict that statement.

Furthermore as to traffic, it depends upon one's point of view. If you are a resident and concerned with your own convenience and safety you would probably think him wrong in this matter, too, but a visitor trying to find his way around in a hurry would probably consider him right, being well caught in the spider webs.

Canberra was planned with majestic boulevards that can be expanded for increasing traffic without undue expense or loss of plantings. These lead directly from center to center. The distance from almost any chosen point in the city to any other is less, with fewer right-angle turns than any city planned on a rectangular system can show.

Sir Patrick Abercrombie knows what he is talking about.

ROY A. LIPPINCOTT
Los Angeles, Calif.

(Continued on page 10)

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(Continued from page 8)

THE FAMILY AS CLIENT

Dear Editor: The Baltimore Museum of Art sponsored a symposium, May 6-7 at the museum, on Designing the Modern Home. The talks dealt with the various stages in a family's life, with and without children. The panel comprised Marcel Breuer, Oskar Stonorov, Charles M. Goodman, architects; Eliot Noyes, furniture and industrial designer; Daniel U. Kiley, landscape architect; Ann Hatfield, interior decorator; Michelle Mur-

phy, Industrial Design Research Consultant of Brooklyn Museum; and Dorothy Liebes, textile designer. Frederick Gutheim, critic on the staff of the *New York Herald Tribune* and author of numerous books on architecture, acted as moderator.

Prior to moderated discussion by the panel, each member individually expressed certain views and philosophies on the modern house and the home. From this it was obvious, and happily

so, that the points expressed by every member sprung from sociological and psychological thinking in their approach to analyze the contemporary house problem and the home.

Regardless of what the listeners gained from the question-and-answer procedure, many carried away the key fact that designing the modern house is no longer a matter of choosing some "suburban type" structure in which to attempt a home, but rather that the modern house takes its form from the family's needs.

Mr. Breuer aptly stated that "modern architecture is not just a matter of a flat roof, a lack of ornament, or the use of concrete—it is an approach."

Here, of course, is where the intelligent architect comes in. Mr. Goodman showed the real service of the architect in this role by his statement that "the architect should be an objective researcher into the life of his time and must guide the tastes of society . . ."

Mr. Stonorov added to this thought by comparing the architect's role of "simply building" during the period of the last set-pattern of living, in the Victorian Era, with his present role. Today, he pointed out, ". . . there is no accepted thing; now the architect is charged with the responsibility of being sociologist and technician, physician and artist."

The house to meet the needs of the family before the children arrive should mean, Mr. Goodman advised, starting with a house of one's own, even though it be in plan but one large room and bath—but starting with a *definite* house.

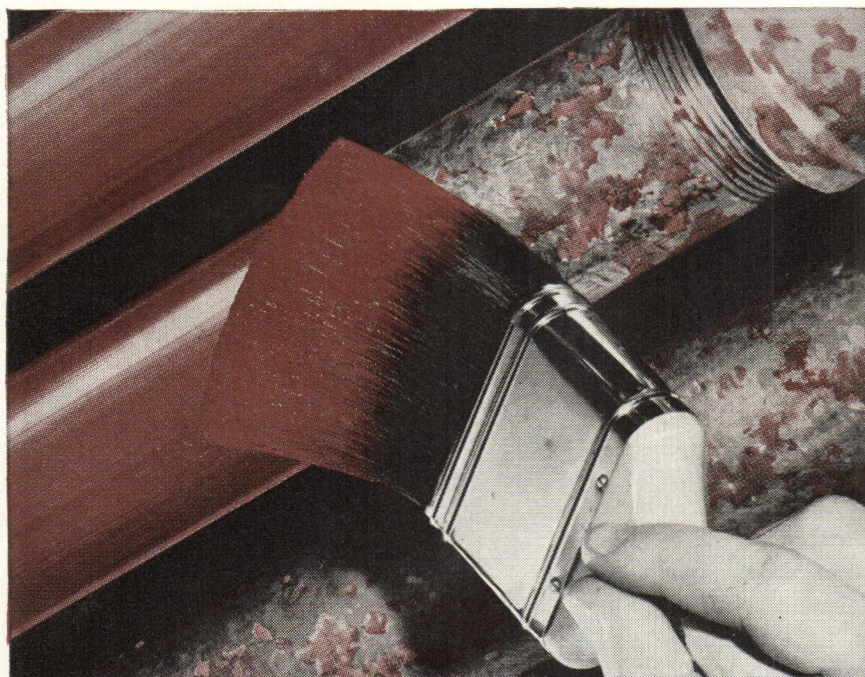
Mr. Breuer felt that childless couples could live almost anywhere—that the definite house program perhaps comes later. Mr. Stonorov held that the beginning of married life could be in a room or a made-over garage, but it should be where the newly wed can observe married life.

After the children arrive, all agreed, the house should be planned to offer an intimacy of family life but to allow a freedom of expression and living for both the child and parent. It was generally accepted that the child's room should serve as playroom or, as Mr. Breuer suggested, possibly a small child's room off a large hall with the hall serving as playroom. The playroom should be so planned as to be easily supervised.

The change-over time in a child's room arrives when there is no longer a need for a nursery and, as Miss Hatfield mentioned, this period varies with each child. She felt, as did Mr. Noyes, that when the child was able *he* should appoint and decorate his own room. Should there have been a specific playroom, it should be planned to serve a new function when no longer needed as such.

All agreed the child's room should be his castle, his retreat, and respected as such.

There was much discussion about the rights and endless freedom to be al-



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(Continued on page 12)

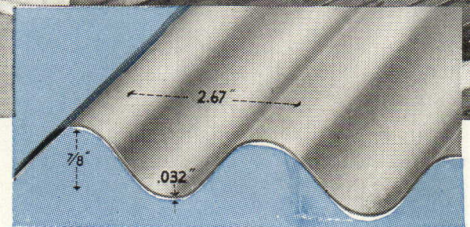
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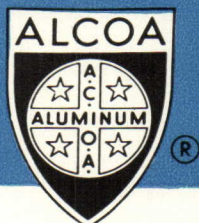
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Views

(Continued from page 10)

lowed the child—and the planning to result therefrom. Singularly, there was no mention whatever of educating the child on compromising or on discipline. Whether it was assumed this was understood or not, there were times when the answer seemed to be discipline and not always how to design the house around this child's problem or that.

Definite problems were brought out concerning the individual home in community life. The need was clearly shown

for developing communities of all ages rather than forcing certain age groups together by the type of housing developed.

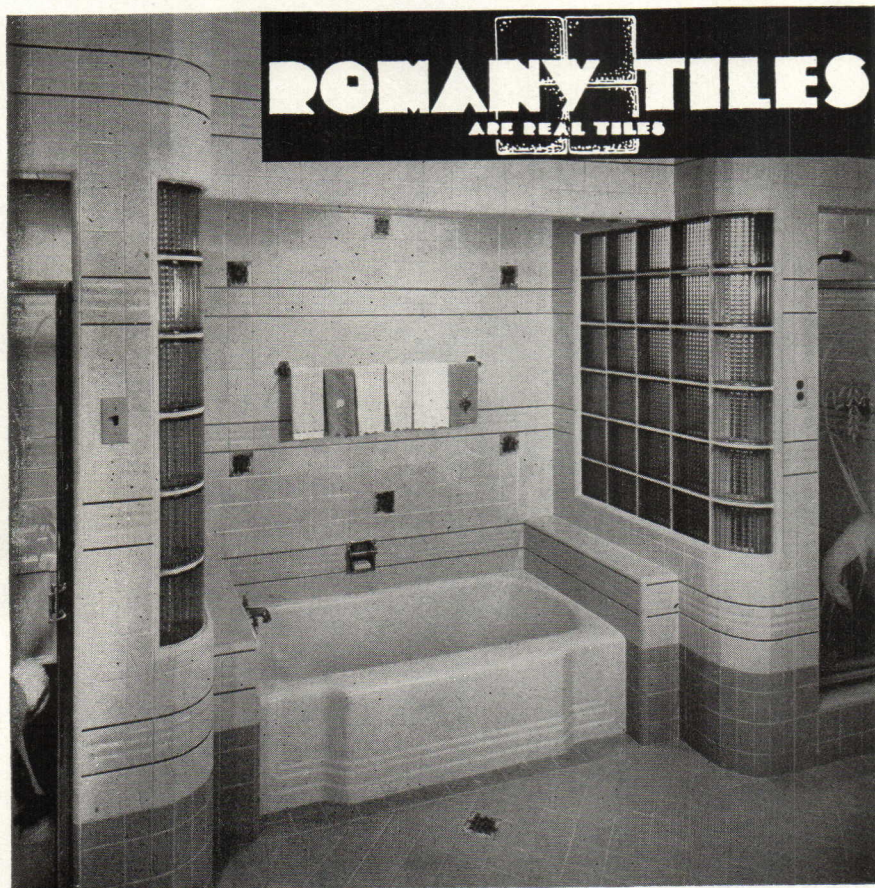
The panel made clear the role of the allied arts in the picture. Mrs. Murphy pointed out that "things in museums are valuable in that they give one a concrete example of fine solutions for their time and place; and our problem today is to apply the same kind of thing for *our* needs."

Mrs. Liebes mentioned utility as the "number one approach" to fabrics. Texture has become prominent, she commented, due to the prevalent use of smooth surfaces by architects.

As a family's pattern of living changes, so should the house. Since television has come to compete with the fireplace for the center of focus in the living room, one more new wrinkle, to mention one of the more obvious ones, has been added. As these new problems arise, designers in each field are available to meet them intelligently. There is no need to be sold an obsolete "bill of goods" in the field of living today, either in the house or the adjoining yard. Mr. Goodman charged that "the average American consumer is most to blame for what he doesn't have."

There is no better way to help arouse these demands by the public and to keep the professions on their toes than by open forums. Such a symposium provokes thought, even in one who might have attended with a prejudice against the subject being discussed. A special salute is due the members of this particular panel for the time and interest which they generously contributed.

PAUL PIPPIN
Baltimore, Md.



For Walls of Many Colors

AND LIFETIME SERVICE

Romany—the real clay tile—offers all the inducement of a wide range of attractive colors. The hard glazed surface assures countless years of wear and a surface surprisingly easy to keep clean. For residences, there's nothing finer for kitchen and bath room walls. And for public buildings, institutions and restaurants, Romany assures the most sanitary of wall surfaces.

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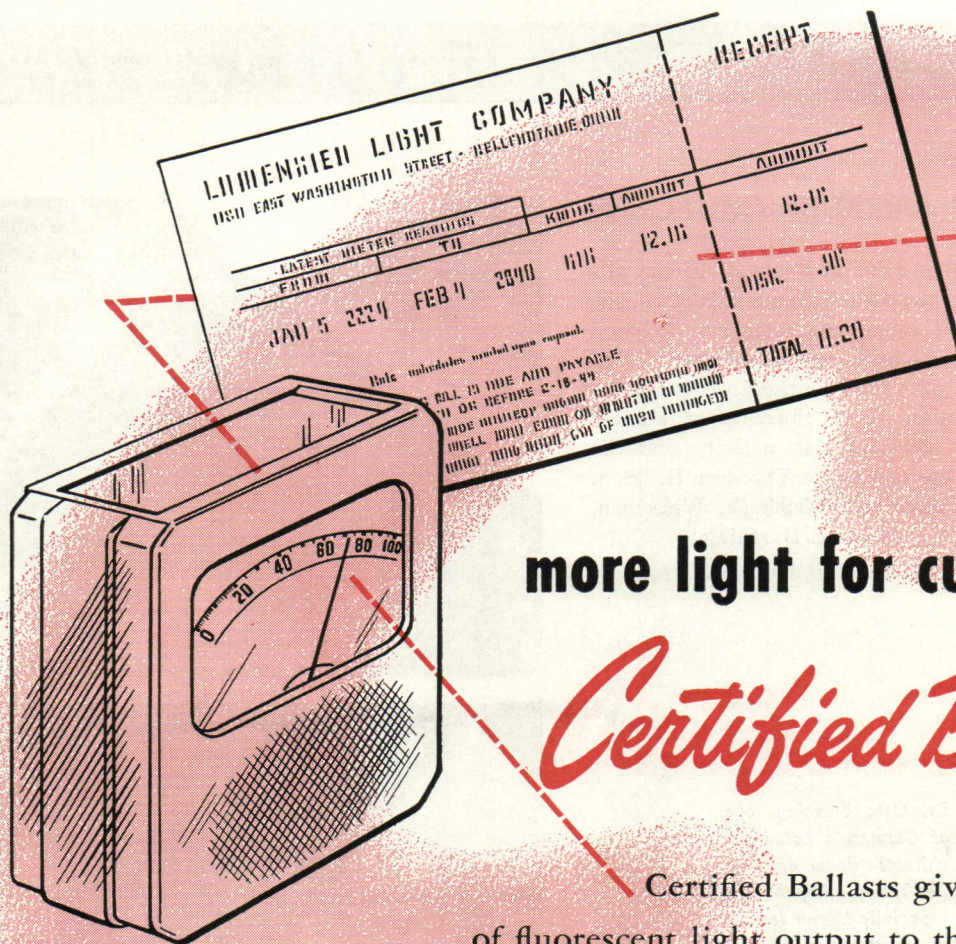
Dear Editor: You may be interested to know that my partner and I run a town planning and architectural office with a staff of 32. I pass your magazine round the drawing office and it is in very brisk demand—the domestic work particularly appeals—and all that timber! How would you like to build a house of 1500-square-foot floor space and not use more than 250 cubic feet of timber?

E. JOHN PREECE
Longlevens
Glos., England

LIKED IN AFRICA

Dear Editor: Having now subscribed to *PROGRESSIVE ARCHITECTURE* for more than a year (though I knew *Pencil Points* well before the war), I am writing to express my sincere appreciation of such an excellent publication, and of its real value in keeping us here in Africa up to date with contemporary thought in your country. It is now quite indispensable to my library! As one who is largely concerned with the design of transportation buildings for land, sea, and air, I look forward to seeing in future numbers some details of American architects' solutions to these problems.

C. J. CROWE, Architect
East Africa Railways and Harbours
Nairobi, Kenya Colony



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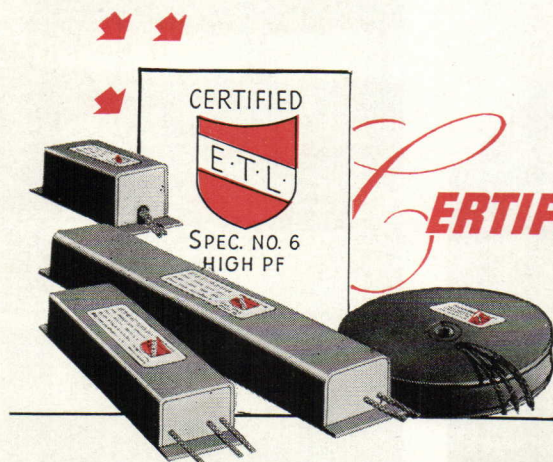
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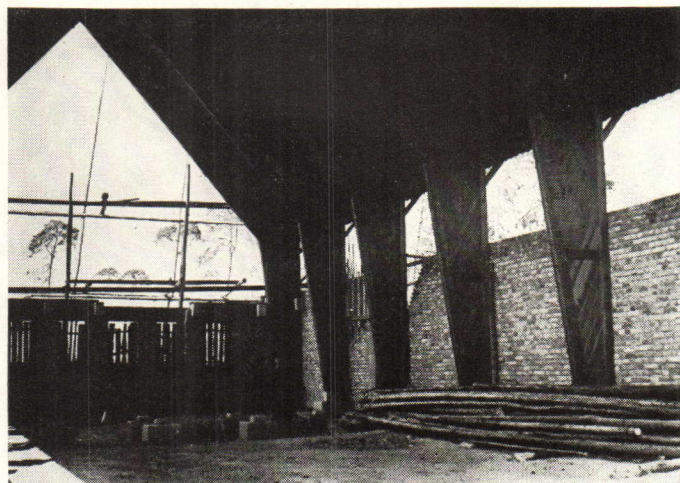
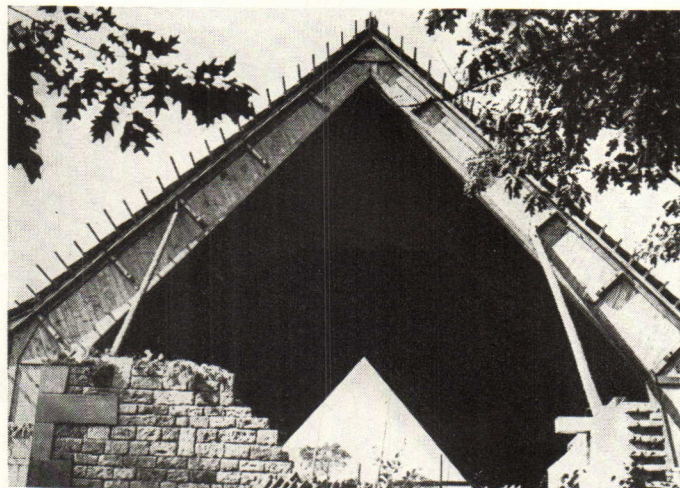
RUBBLE USED FOR GERMAN CHURCHES

New churches are arising from ruins of German cities, walls being built from the virtually inexhaustible mounds of rubble, with prefabricated roofs and supporting members designed by Dr. Otto Bartning, eminent authority on church design and construction. Aided by gifts from Lutherans abroad, he is proceeding with construction of 45 churches of similar design. The report of this reconstruction activity and the photographs shown here are by courtesy of Theodore H. Irion, of Auler, Irion & Wertsch, Architects, Oshkosh, Wisconsin, who has been in correspondence with Dr. Bartning.

Photos: Hilfswerk (Weitmann)



Dr. Otto Bartning, one of Germany's noted architects since days of the Weimar Republic, is especially known for the many churches he has designed in Germany, Italy, France, Belgium, Austria, and the Balkans. He also has done hospitals, schools, and houses.

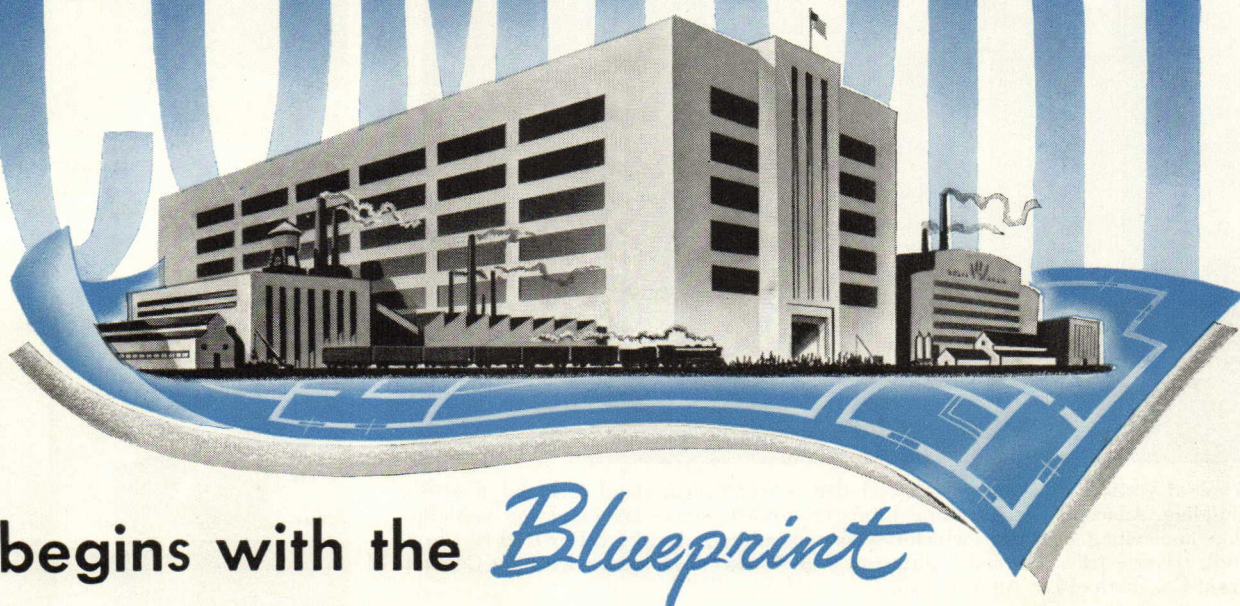


Prefabricated structural members and rubble walls, as used by Dr. Bartning for the Mannheim-Waldhof church (above) and for the Pforzheim church (below). The latter is model for 45 churches to be rebuilt with aid of Lutherans abroad.



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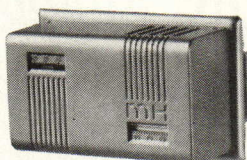
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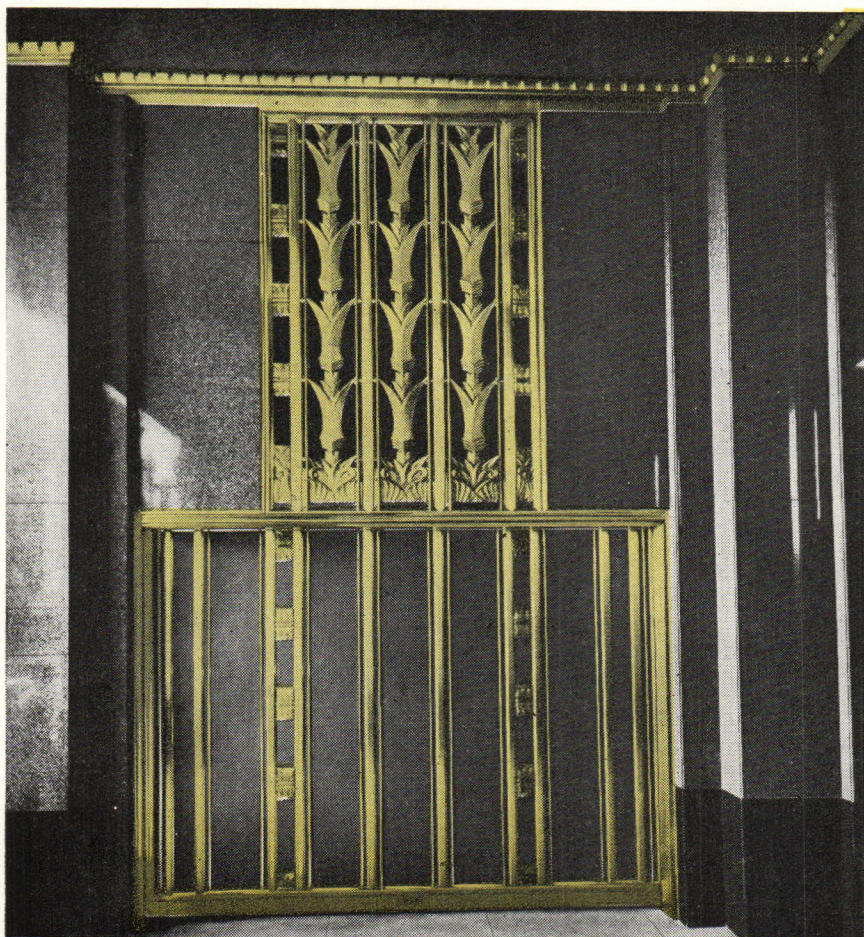
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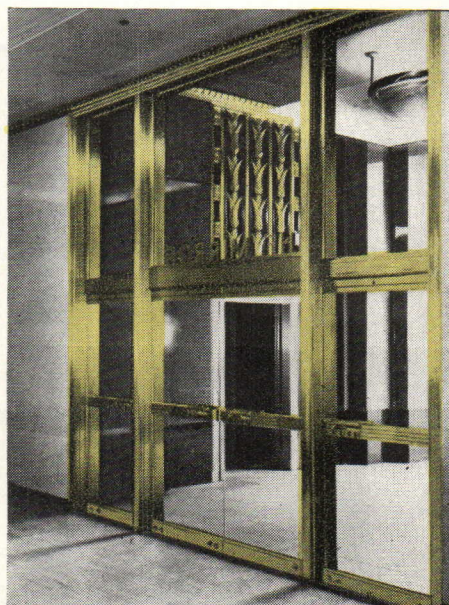
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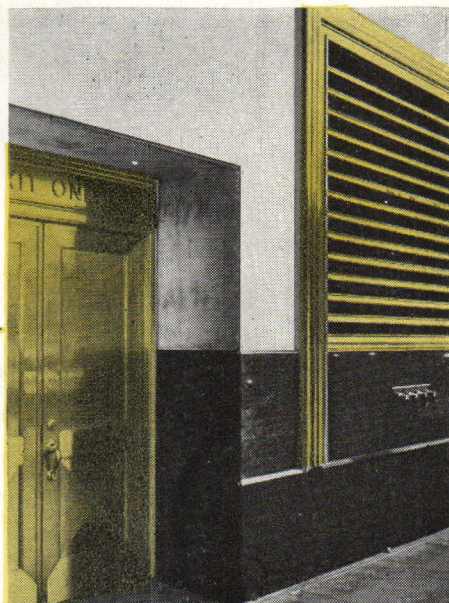
73 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY



View of vertical sliding door (closed) that conceals cigar stand in lobby of Mirror Building. Anaconda Architectural Bronze Extruded Shapes are employed in sliding door and ceiling moulding (which has been machined). Architect, Rowland H. Crawford, Beverly Hills; General Contractor, P. J. Walker Co.; bronze work by Cochran Izant Co.—both of Los Angeles, Cal.



Doors and trim at entrance utilize extruded Anaconda Architectural Bronze Shapes. Glynn-Johnson door holders are also bronze. Bronze shape used for ceiling moulding has been machined.



Exterior view—door consists of extruded bronze shapes with color matching panels of copper base alloy sheet. Extruded bronze shapes are used for trim around window; louvers are of copper alloy strip.

BRONZE BEAUTY *at the* MIRROR BUILDING, *Los Angeles*

At this modern building, the new home of the Los Angeles *Mirror*, the very pulse of a fast-changing world is taken. It evidences again that traditional concepts, methods, materials, *metals*, must be of proved value to find acceptance today.

Architect Rowland H. Crawford of Beverly Hills, has made interesting use of Anaconda Architectural Bronze Extruded Shapes for doors, windows and trim at the Mirror Building. For both the exterior and the impressive lobby, satin smooth bronze conveys a feeling of warmth, assurance and permanence. Bronze was selected for its timelessness . . . its ability to withstand the years gracefully . . . its dignity and uni-

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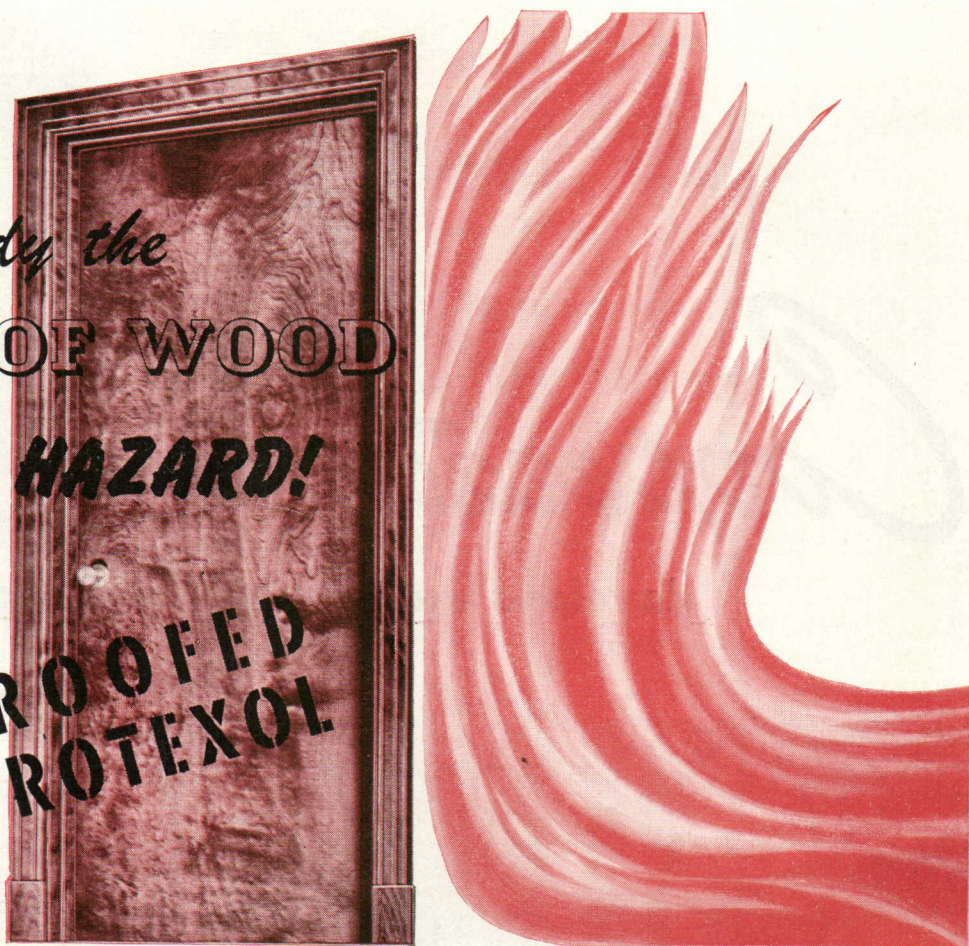
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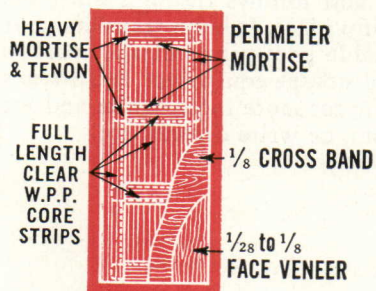
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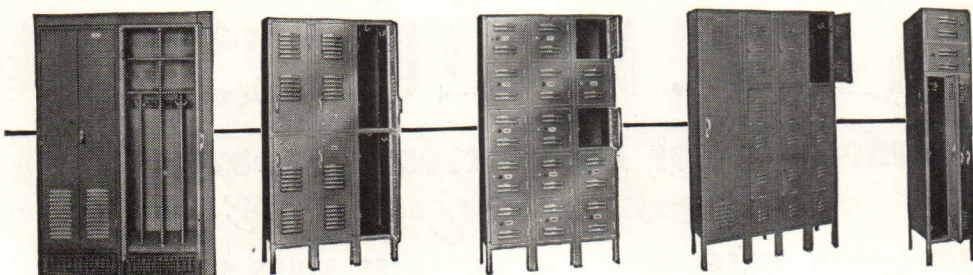
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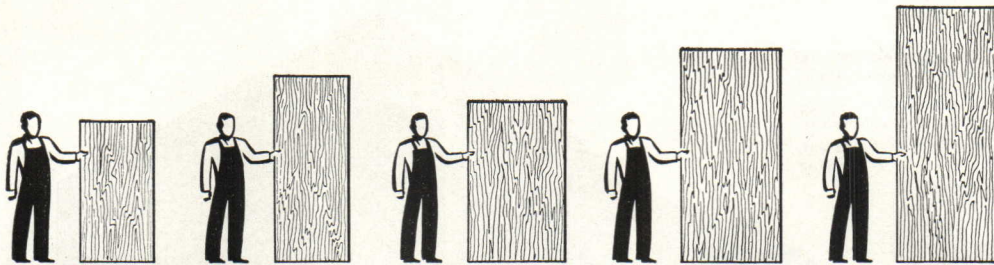
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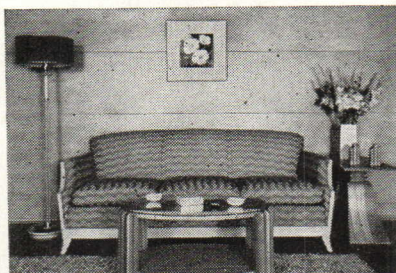
(Some grades limited to fewer sizes)



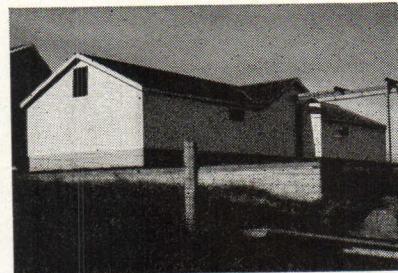
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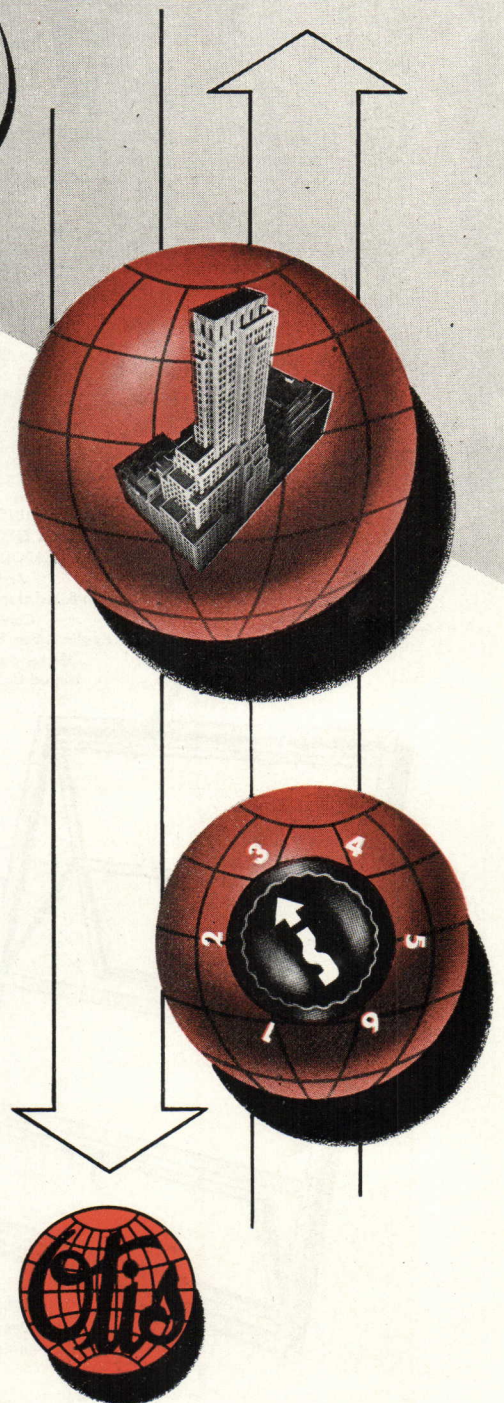
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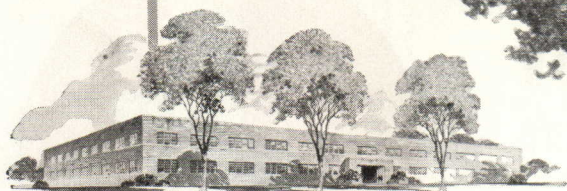


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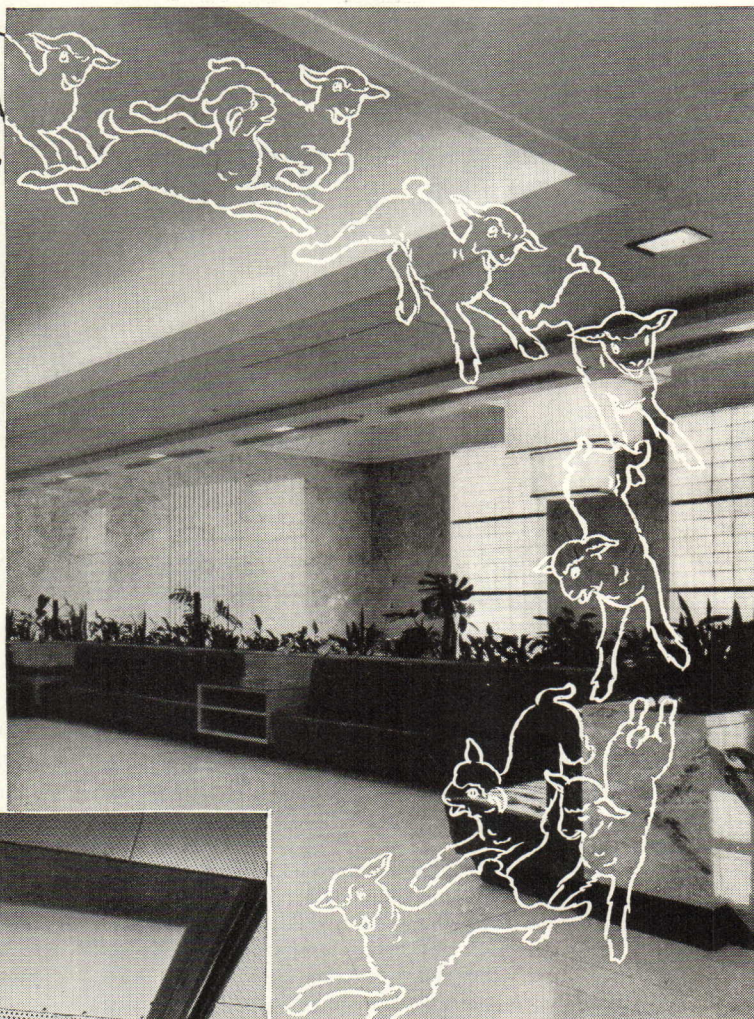
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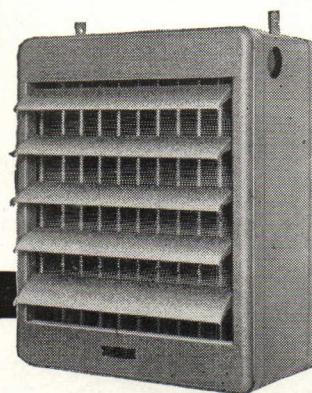
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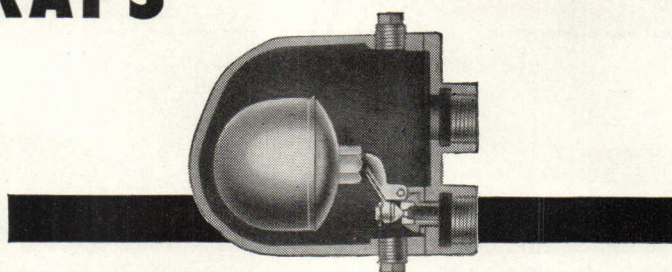
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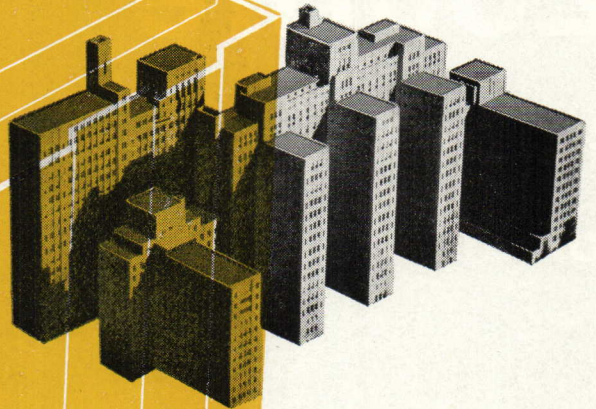
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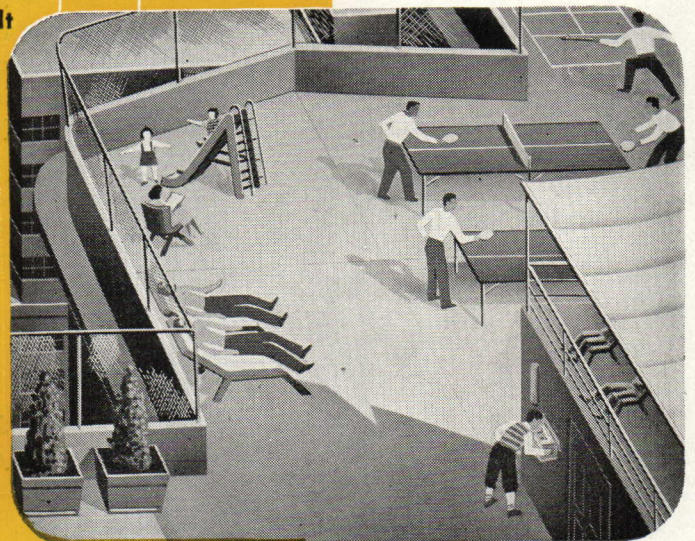


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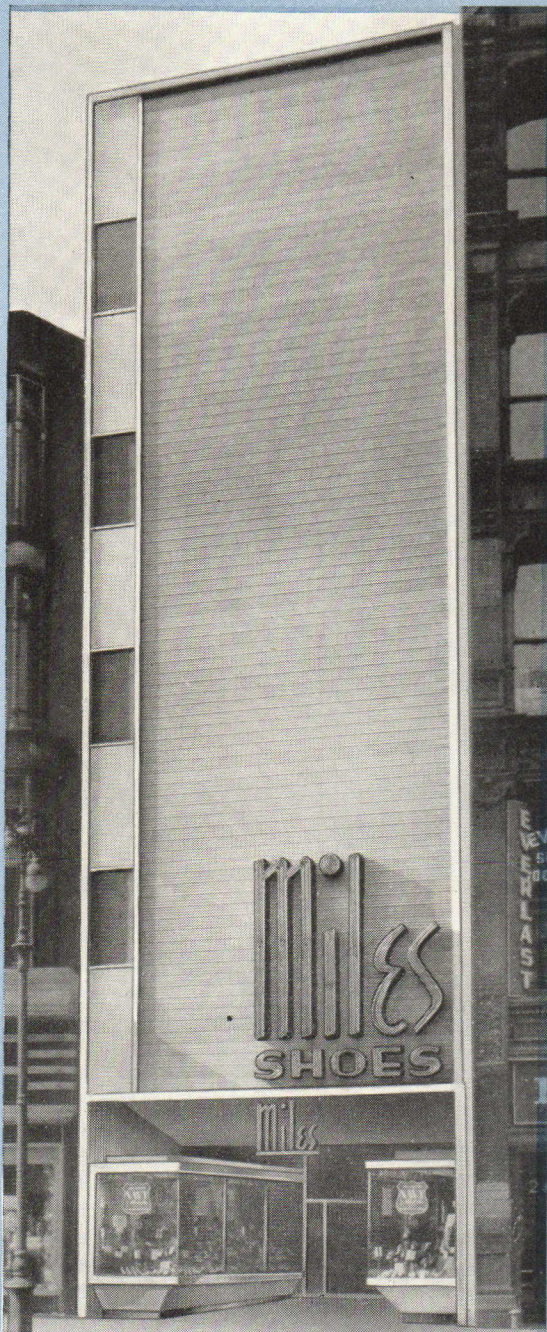
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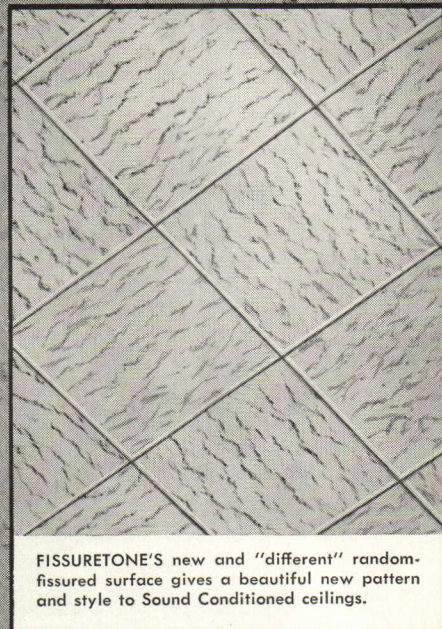
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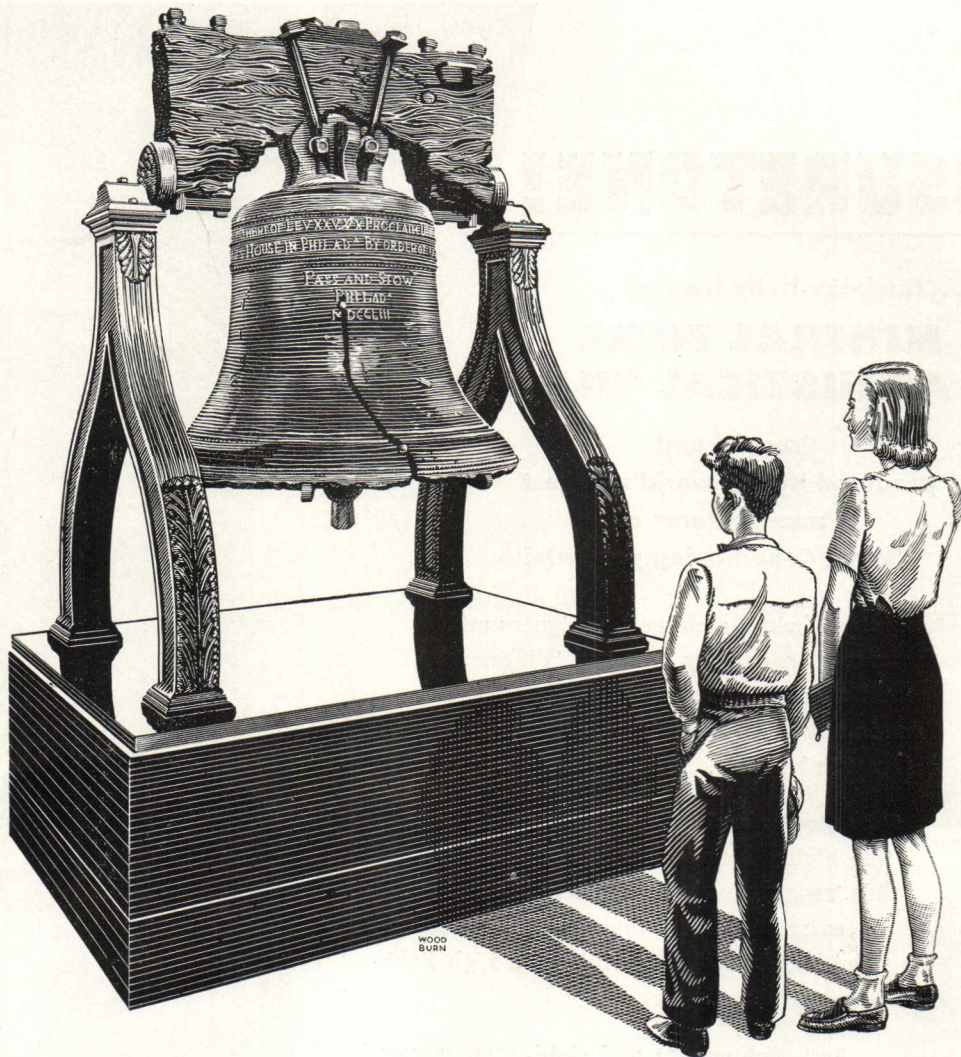


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PRODUCTS FOR
EVERY SOUND CONDITIONING PROBLEM

Sales Distributors Throughout the World
In Canada: Dominion Sound Equipments, Ltd.

THE CELOTEX CORPORATION
120 South La Salle Street
Chicago 3, Illinois



What price liberty?

IT was Daniel Webster who said, "God grants liberty only to those who love it and are always ready to guard and defend it."

Today in our yearning for "security", we are inclined to forget about that "liberty" for which this old bell rang out. The two are not synonymous. When we permit a benevolent government to assume more and more responsibility for housing, feeding, hospitalizing, and even entertaining our citi-

zens, we must in return expect to surrender more and more of our personal rights and liberties.

Actually, the only security any man can enjoy with liberty is the security he earns through his own initiative, resourcefulness and productivity. As community leaders, it is our responsibility to help our fellow citizens realize that for the delusion of government-guaranteed security they are sacrificing liberty.

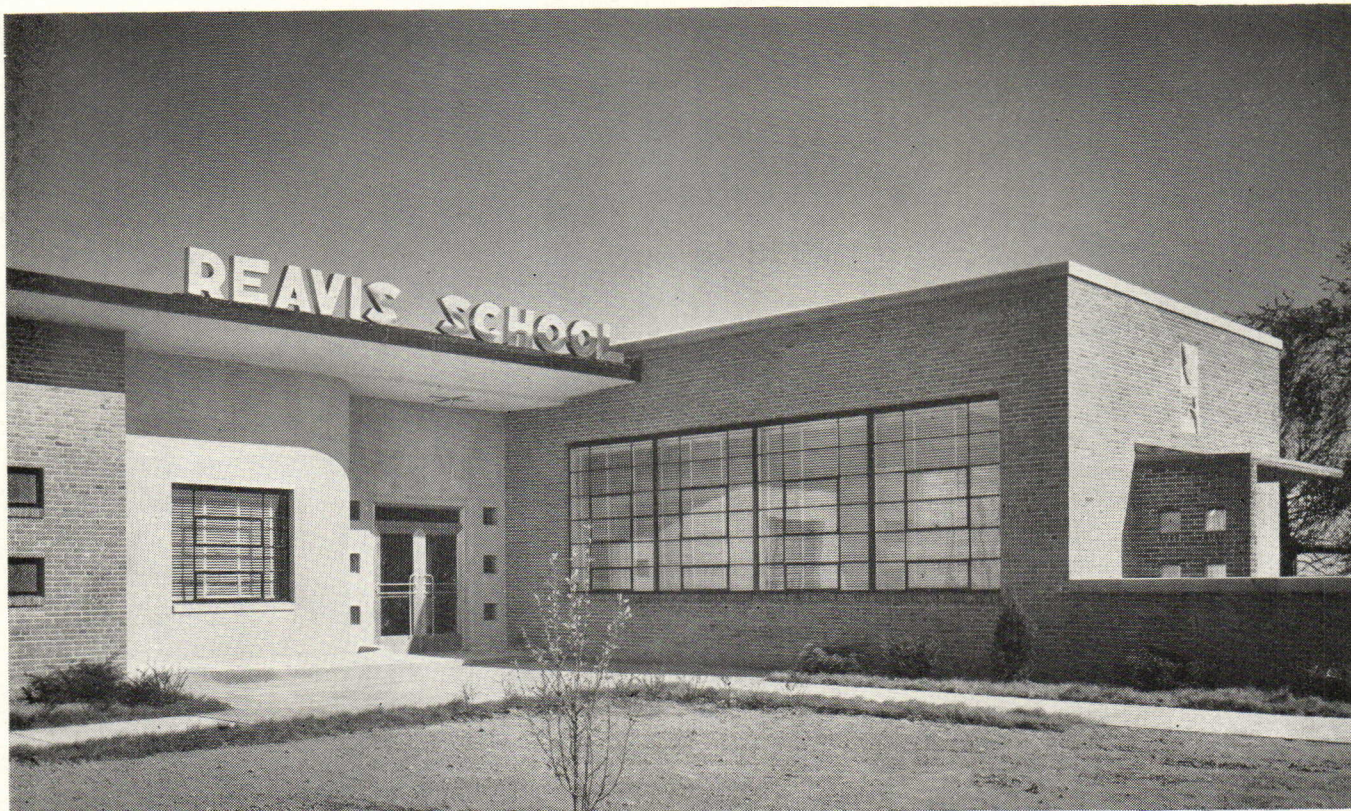
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ELECTROLYTIC TIN PLATE - COKE TIN PLATE - WIRE - COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - CONDUIT - RODS - SHEETS - PLATES - BARS - RAILROAD TRACK SPIKES.



Schmidt and Paolinelli, Architect

Photo Piaget Studio

WHAT ARE WINDOWS' MOST IMPORTANT FUNCTION IN SCHOOLS?

1. To admit natural daylight...2. To control ventilation...3. To provide distant vision...4. To protect against the elements.

WHAT WINDOWS DO ALL FOUR BEST?

Ceco* Steel Windows...Here's how:

1. Less obstruction due to slender frames and muntins means up to 60% more light area. Then, too, they employ clear glass which lets in the greatest amount of light.
2. Ventilation is controlled up to 100%—drafts are avoided.
3. Bulky and intruding interruptions to view are minimized because of slender frames and muntins. The result—more distant vision.
4. Tight weatherseal means heat and cold from the outside are always under control.

No other window opening can match Steel Windows in those four important functions. The cost? Only $\frac{1}{4}$ to $\frac{1}{2}$ as much . . . Lowest of all installed.

**CECO
STEEL**

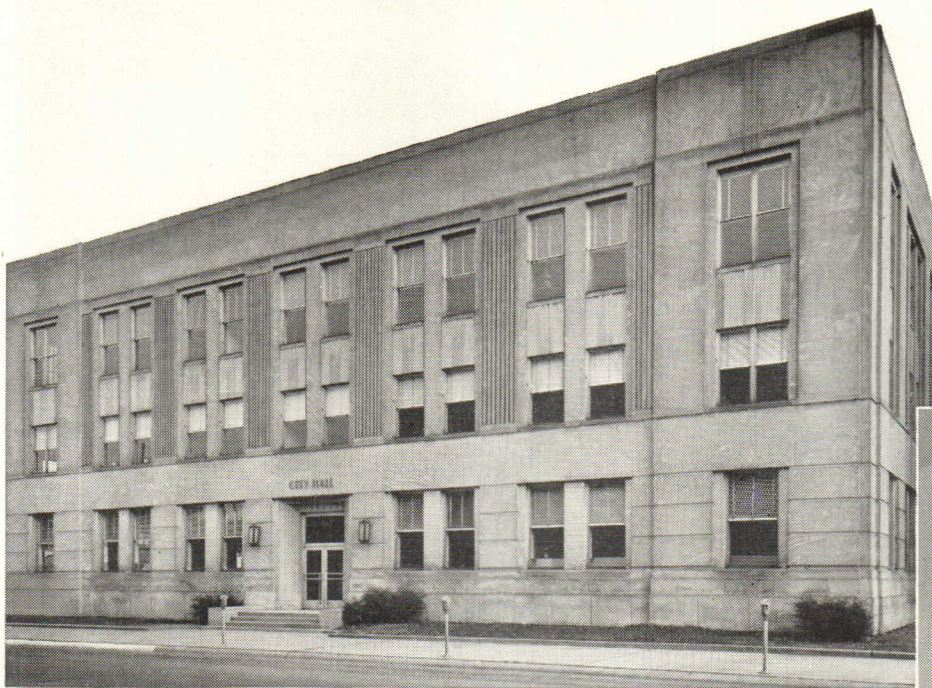
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Offices, warehouses and fabricating plants in principal cities

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DESCRIPTIVE
BOOKLET**

In construction products **CECO ENGINEERING** *makes the big difference*



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for more than 9 years...

ONLY THE WINDOW WASHER HAS HAD TO TOUCH THESE WINDOWS!

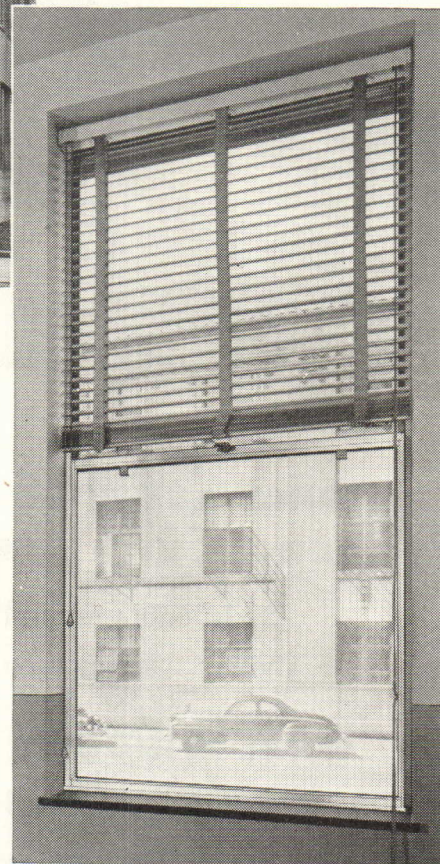


THE ONLY MAINTENANCE these Adlake Aluminum Windows have required since they were installed—over 9 years ago—is routine washing! Ultimately, by eliminating all maintenance costs, they will pay for themselves. *And they will last as long as the building!*

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 retain their good looks and easy operation for the life of the building.

FOR THE WHOLE STORY on how Adlake Aluminum Windows wipe out maintenance costs during a lifetime of worry-free operation, drop us a post card today. Address The Adams & Westlake Company, 1103 North Michigan Avenue, Elkhart, Indiana. No obligation, of course.



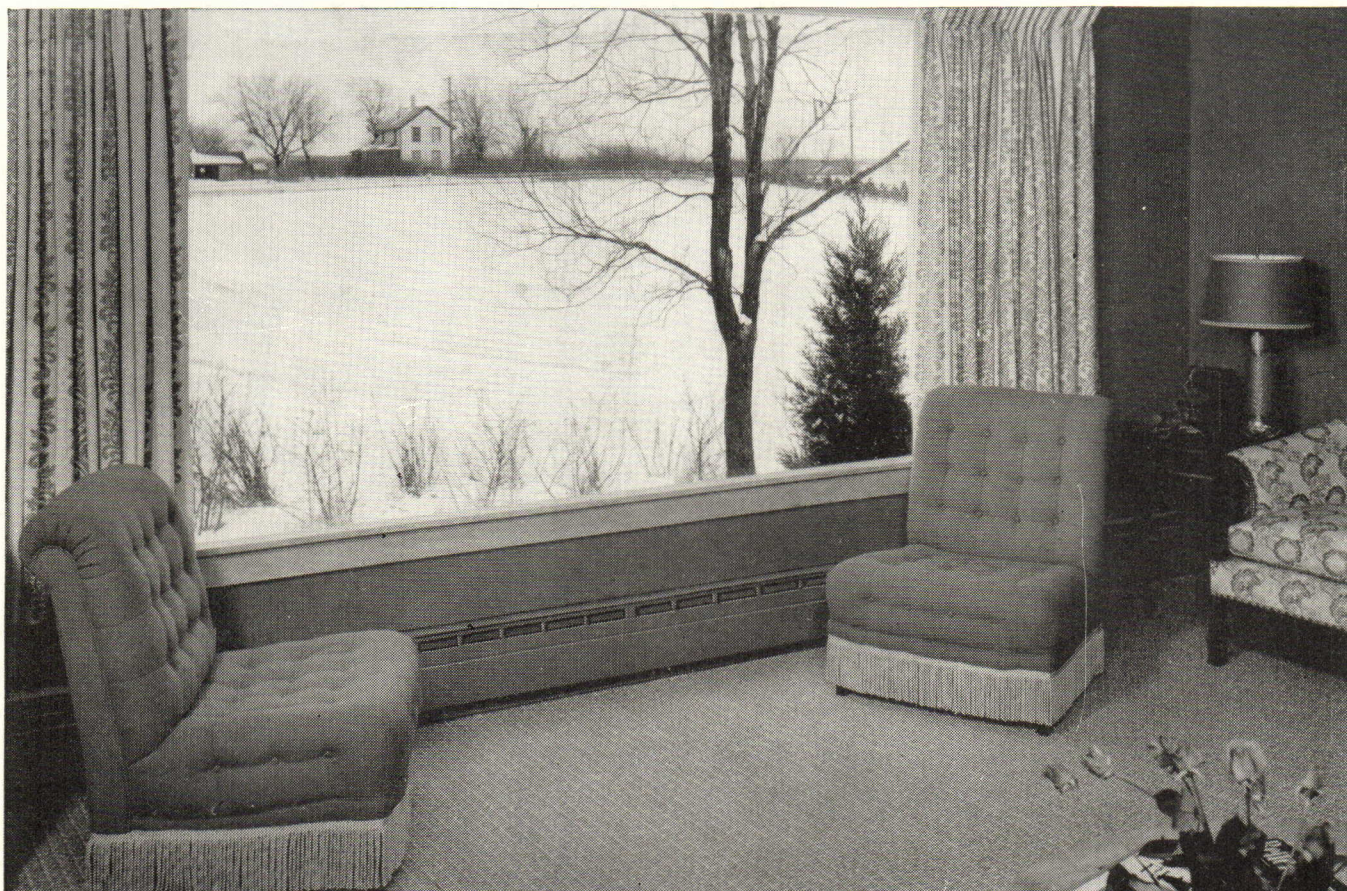
**ADLAKE
ALUMINUM WINDOWS**
have these “plus” features:

- 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





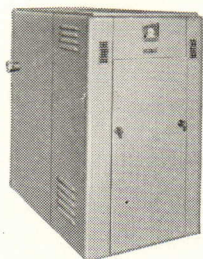
GIVE YOUR CLIENTS
more home comfort...
more planning freedom

**WITH CRANE
 BASEBOARD HEATING!**

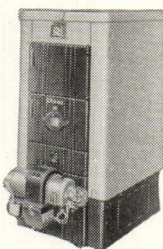
Crane Radiant Baseboard Panels are as inconspicuous as they are efficient... especially when painted to match the walls. They heat rooms evenly throughout, from the floor up. Best of all, these modern panels permit complete freedom in furniture arrangement—they claim no valuable floor or wall space.

Crane Radiant Baseboard Panel Heating is economical and utilizes the maximum amount of heat developed by the heating system. Available in two types (Type R, Radiant—Type RC, Radiant-Convection), baseboard panels may be used with 2-pipe steam or hot water systems—they're completely practical for remodeling as well as for new homes.

See your Crane Branch or Crane Wholesaler for full information on Crane Radiant Baseboard Panels.



CRANE BOILERS cover every heating need. Among them are, left, the CRANE SIXTEEN Boiler, a completely packaged boiler-burner unit; and, right, the CRANE TWENTY Boiler, which may be installed to burn coal, later converted to stoker, oil, or gas.



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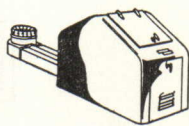
**EVERYTHING FOR
 HOME HEATING**



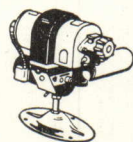
Gas Boilers



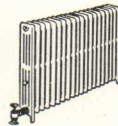
Furnaces



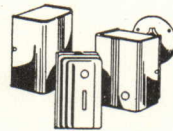
Stokers



Oil Burners



Radiators and
 Convectors



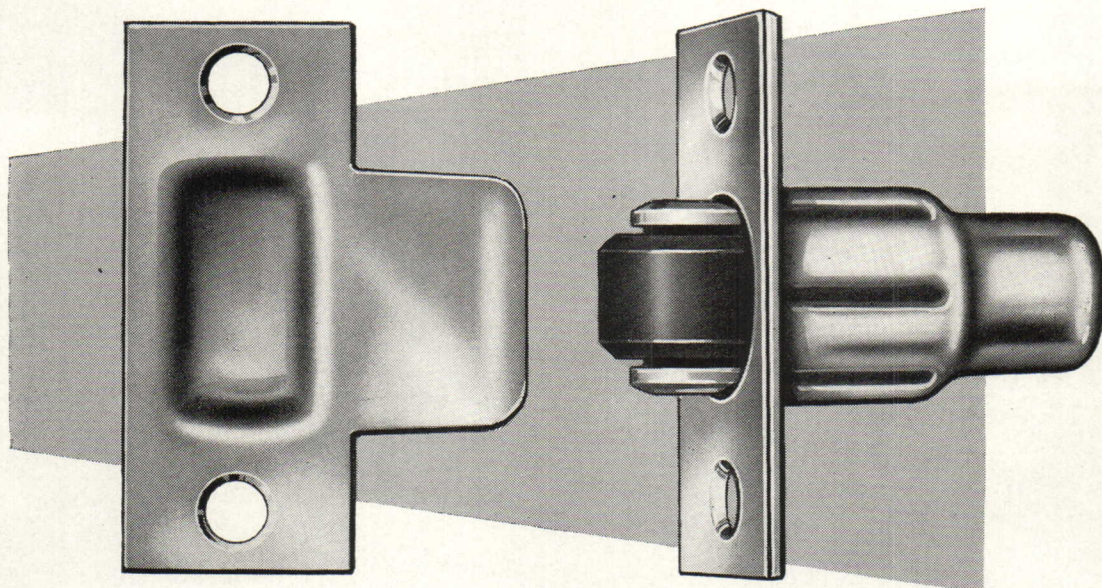
Controls



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

How to catch a client's interest . . . and build greater satisfaction into homes

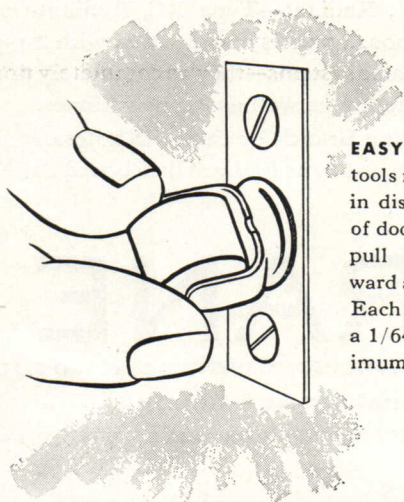


New Stanley ROLLER CATCH for Interior Doors

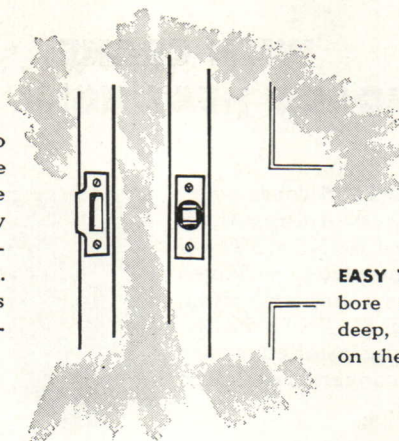
For years home buyers have wanted just such a convenience. Watch your clients' interest mount when you point out the advantages of the Stanley No. 23 Roller Catch—its smooth, silent operation . . . how it holds doors securely in closed position, and eliminates rattling.

It's the ideal catch for any interior house

door (closet, wardrobe, communicating) that does not require a lock. Case is of steel with rust-resistant finish. The strike and face-plate are furnished in standard finishes. Recommend and install the No. 23 Roller Catch, made by Stanley, a name your clients *know and trust*. The Stanley Works, New Britain, Connecticut.



EASY TO ADJUST—No tools needed. For variance in distance between edge of door and casing, simply pull roller-plunger forward and turn with fingers. Each half-turn provides a $1/64$ " adjustment. Maximum adjustment $3/8$ ".



EASY TO APPLY—Simply bore a $7/8$ " hole, $2\frac{3}{8}$ " deep, at desired location on the door.

STANLEY

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HARDWARE • HAND TOOLS • ELECTRIC TOOLS • STEEL STRAPPING

FOR *Easy* MAINTENANCE — *Sparkling* GOOD LOOKS

WALLS AND FLOORS ARE . . .



The maintenance superintendent of this modern school says: "I can wash down all the corridors in this building in a single day. Without tile, it would be a two to three week job!"

Yes, floors and walls of sparkling clay tile are easy to clean . . . keep their gleaming spic-and-span freshness for a lifetime. Even the pranks of mischievous youngsters leave clay tile's finish unimpaired. And the rich colors won't fade because *they are fired in.*

Water? It leaves no tell-tale streaks or fade-marks on a clay tile

surface. Soaps, acids and greases are handled with equal ease.

And wherever you use it, clay tile means maintenance-cost savings that clients appreciate. It's in to stay—it stays good looking!

Today, genuine clay tile is available—there is no need to accept substitutes. For specific information, see Sweets Architectural or A-E-C File, THE TILE COUNCIL OF AMERICA, Room 3401: 10 East 40th Street, New York 16, New York. Room 433: 727 West Seventh Street, Los Angeles, Cal.

The Tile Council of America was formed in January, 1945, to provide a central source of information about clay floor and wall tile, and to sponsor research and development projects designed to increase the usefulness of clay tile in all types of private and public building.

PARTICIPATING COMPANIES: American Encaustic Tiling Company Inc. • Architectural Tiling Company, Inc. • Atlantic Tile Manufacturing Company • B. Mifflin Hood Company • Cambridge Tile Manufacturing Company • Carlyle Tile Company • General Tile Corp. • Gladding, McBean & Company • Mosaic Tile Co. • Murray Tile Company, Inc. • National Tile & Manufacturing Company • Olean Tile Company • Pacific Clay Products • Pacific Tile and Porcelain Co. • Pomona Tile Manufacturing Company • Robertson Manufacturing Company • The Sparta Ceramic Company • Summitville Face Brick Company • United States Quarry Tile Company

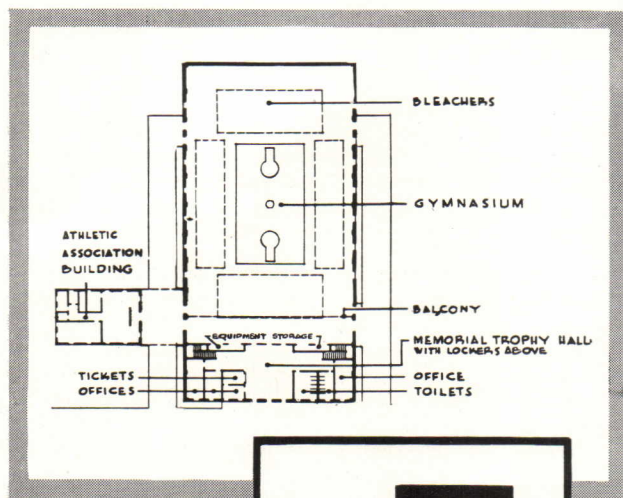
THE MODERN STYLE IS CLAY TILE

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for much less than you think!



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Plan includes two buildings—one 100 feet wide and 200 feet long with 20-foot eave height, the other 40 feet wide and 60 feet long with an eave height of 12 feet.

Luria buildings are available now—with clear spans of 40 to 100 feet, eave heights of 12 to 20 feet and any desired length in increments of 20 feet.

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BY

LURIA

At first glance the imposing field house and athletic association building above may appear to be far beyond the average school or college budget. But, actually, they are low-cost Standard Buildings by Luria—*permanent* structures which more and more architects are using to trim today's high building costs.

These architects are finding that by using heavy steel-frame Luria buildings, they can design virtually any one-story unit for less money and at the same time meet the most exacting building codes. Moreover, Luria structures are easy to erect, economical to maintain and available now.

Far from limiting the imagination of the architect, Luria buildings create new opportunities for design, and widen the circle of his prospective clients. For here is a new and flexible medium to work with, offering the architect a wide choice of collateral materials, optional features and multiple arrangements.

And Luria buildings are by no means limited to schools. Shopping centers, bus terminals, churches, industrial buildings—these are just a few of hundreds of applications where the Luria line offers all the cost-saving advantages of standardization, along with the widest possible architectural freedom. Send the coupon below for our new 20-page catalog.

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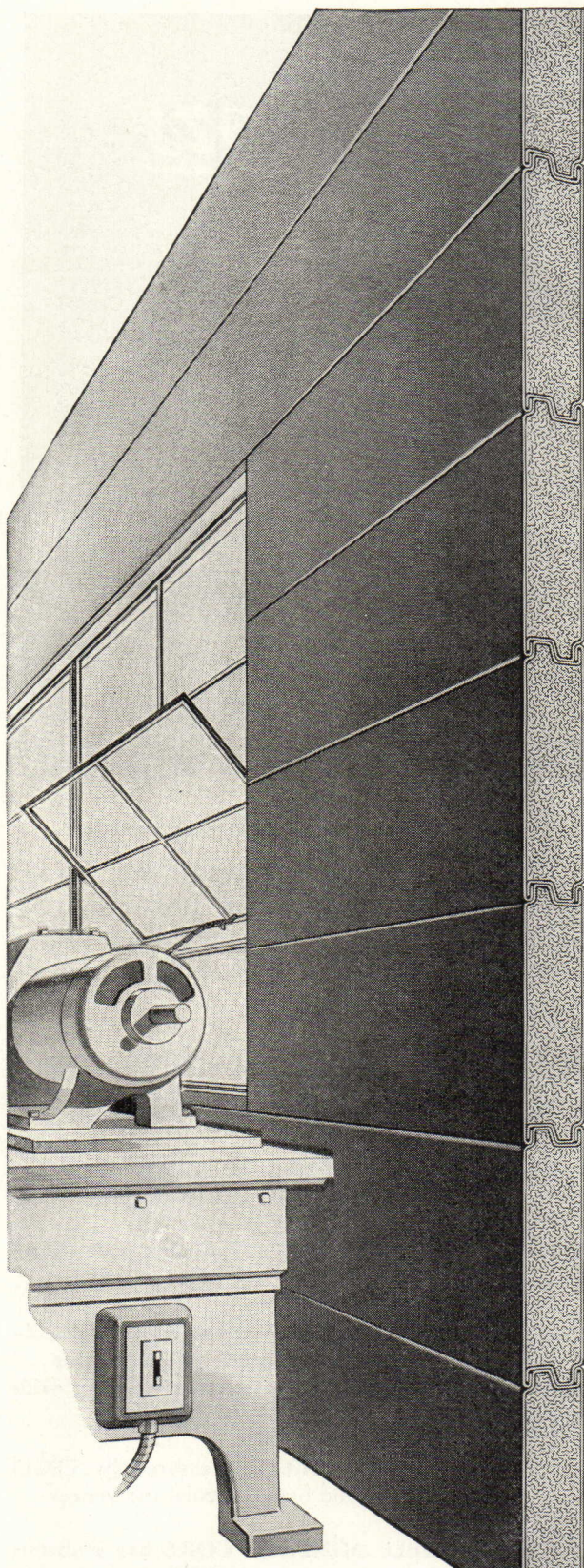
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How to get INSULATED WALLS *as low as \$1²⁵ per square foot*

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That means Fenestra* Metal Building Panels . . . used in many types of buildings because they combine faster (hence, less costly) construction with remarkable durability. These points explain the basic structure of this good-looking wall:

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- 2** Panels are welded or bolted to structural members.
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Fenestra Panels also give you economy, durability and faster construction for floors, ceilings and roofs. Use Type D or AD for floors and ceilings. For roofs, either Type D, AD or famous Holorib Roof Deck, according to your requirements. See Sweet's Architectural File (Section 3c/3). Or mail the coupon for full information. Engineering help available on request.

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- ☐ Please have an engineering representative call.
☐ Please send me, without obligation, information on Fenestra Building Panels.

Name

Company

Address

When considering Doors remember this:

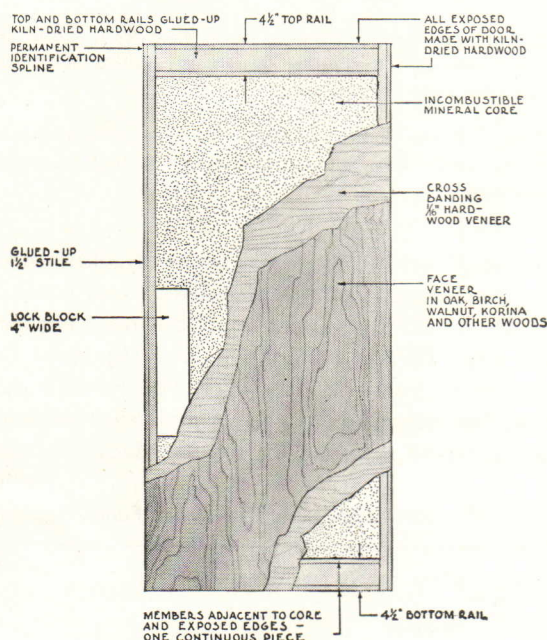
Weldwood Doors Are Guaranteed
against warpage or binding
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sional changes in the door.

IT'S a fact! These beautiful new Weldwood flush veneer doors are *guaranteed* against swelling and sticking in the summer . . . or shrinking and rattling in the winter.

Combine that feature with light weight and the rich beauty of real wood . . . and you have a truly

superior door that you'll want for your next job.

Write or contact our nearest branch for full information on this new Weldwood Flush Veneer Door. Also ask about the amazing new *Weldwood Fire Door* which carries the Underwriters' label for Class B openings.



ONLY WELDWOOD DOORS GIVE YOU THESE 5 UNIQUE ADVANTAGES

1. **PERMANENT HOT PLATE BONDING** of veneers to core and banding with TEGO Film Waterproof Glue.
2. **VERMIN AND DECAY PROOF** mineral core resists fungus, decay and termites for life of structure.
3. **INSULATING PROPERTIES** are superior to double glazing, such as opening protected by storm door . . . when door is installed in an exterior opening with weather stripping.
4. **EXCELLENT VAPOR BARRIER** assured by TEGO Film Phenolic Glue bond between core and veneer.
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George Heidenreich

HERMAN NELSON PRODUCT APPLICATION ENGINEER

George Heidenreich, Herman Nelson Product Application Engineer in Indianapolis, is a graduate in Mechanical Engineering of Purdue University. Mr. Heidenreich has 30 years' experience as a heating and ventilating sales engineer in the Indianapolis area. He has represented Herman Nelson since 1935, except for a tour of duty during World War II when he served as a Major in the U. S. Corps of Engineers. Mr. Heidenreich is well known by Indiana Architects, Contractors and School Authorities because of his ability and willingness to cooperate in the solution of heating and ventilating problems.

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More than 75 of these key men, located in principal cities throughout the country, are thoroughly acquainted with modern heating and ventilating problems. Their years of experience, plus their ability to furnish you with concise, up-to-date engineering data and specifications, assure practical, economical solutions to heating and ventilating problems in industrial, commercial and institutional buildings of all types. That's why so many Architects, Contractors and School Authorities consult with Herman Nelson Product Application Engineers on building projects requiring unit heaters, unit ventilators, propeller fans and centrifugal fans.

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New, enlarged ninth edition

THE ENLARGED, revised ninth edition of "Design and Control of Concrete Mixtures" is now available. Write for your free copy today. It is distributed only in the United States and Canada.

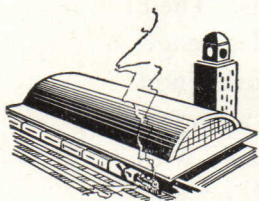
This handbook has been a valuable aid to engineers, architects and contractors for more than 20 years. Packed with graphs, tables and illustrations, it helps you obtain quality concrete for any job.

In designing concrete mixtures strength frequently is overemphasized. **Strength** is important but it should not overshadow the other two essentials of quality concrete: **durability** and **workability**.

Quality concrete design achieves a balance between all these important requirements:

1. A workable mix that can be placed easily and quickly.
2. Durability to resist the wear of time and weather.
3. Finished concrete strong enough for the intended use.
4. Economical use of available materials.

Because of concrete's superior qualities and unusual versatility, it is used for more architectural and structural purposes than any other building material.



Concrete is firesafe, decay-proof, storm-proof and verminproof. It lasts so long and costs so little to maintain that it is truly **low-annual-cost** construction. With all its rugged structural properties, concrete also can be molded economically into distinctive edifices of lasting beauty.

To obtain the full measure of concrete's advantages requires the right design, proper selection of materials, careful on-the-job control of mixtures, correct placement and curing. "Design and Control of Concrete Mixtures" is a handy reference manual that helps you attain this result.



PARTIAL TABLE OF CONTENTS

Field Control Tests

Materials for Concrete

Fundamental Facts About Concrete

Mixing Concrete

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Handling and Transporting Concrete

Measuring Materials

Placing Concrete

Removal of Forms

Finishing Concrete

Curing and Protection

Joints, Construction, Expansion and Contraction

Special Types of Concrete

ASTM Specifications for Plain and Reinforced Concrete

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... a Moulding Kit

in Pittco Premier Store Front Metal

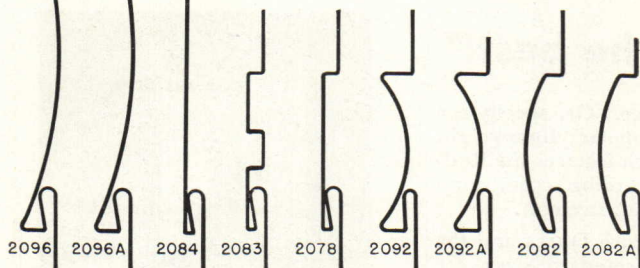
● The new basic mouldings in the Premier line of Pittco Store Front Metal may be truly called a Moulding Kit. They may be combined in a wide variety of attractive patterns, giving the architect fresh style and beauty, and great variety in design to help in the creation of distinctive, sales-winning store fronts.

Shown here with the same head and drip members are three of the many designs which may be formed with these new shapes. Cross sections of some of the new mouldings are shown at left.

Most of the shapes in the Premier Moulding Kit are interchangeable and may be used both horizontally and vertically. They make it easy to design several adjacent store fronts, giving each a distinctively different appearance through the proper selection and arrangement of mouldings.

This convenient Moulding Kit of Pittco Premier Store Front Metal, is another result of "Pittsburgh's" constant research, aimed at helping you solve architectural and building problems encountered in the field.

BASIC SHAPES OF MOULDING KIT (1/2 SIZE)

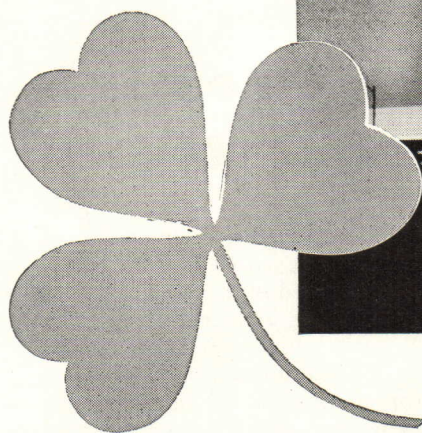


PITTCO STORE FRONT METAL



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY



Roddiscraft FLUSH DOORS

Where you want "Nothing but the best!"

You will find Roddiscraft Flush Doors in installation after installation where specifications call for "Nothing but the best." Houston's fabulous Shamrock Hotel is a recent example.

Here, where top quality is the first requirement, all room doors are Roddiscraft Solid Core Flush Veneered Doors.

When you specify Roddiscraft, you have your choice of two quality doors—the Roddiscraft Solid Core Flush Veneered Door, rugged, water-proof, and highly resistant to fire and the passage of sound—

craftsman's masterpiece. Or, specify the new Roddiscraft popular lightweight Housemart Door which features the Roddiscraft exclusive accordion core, combining light weight with strength.

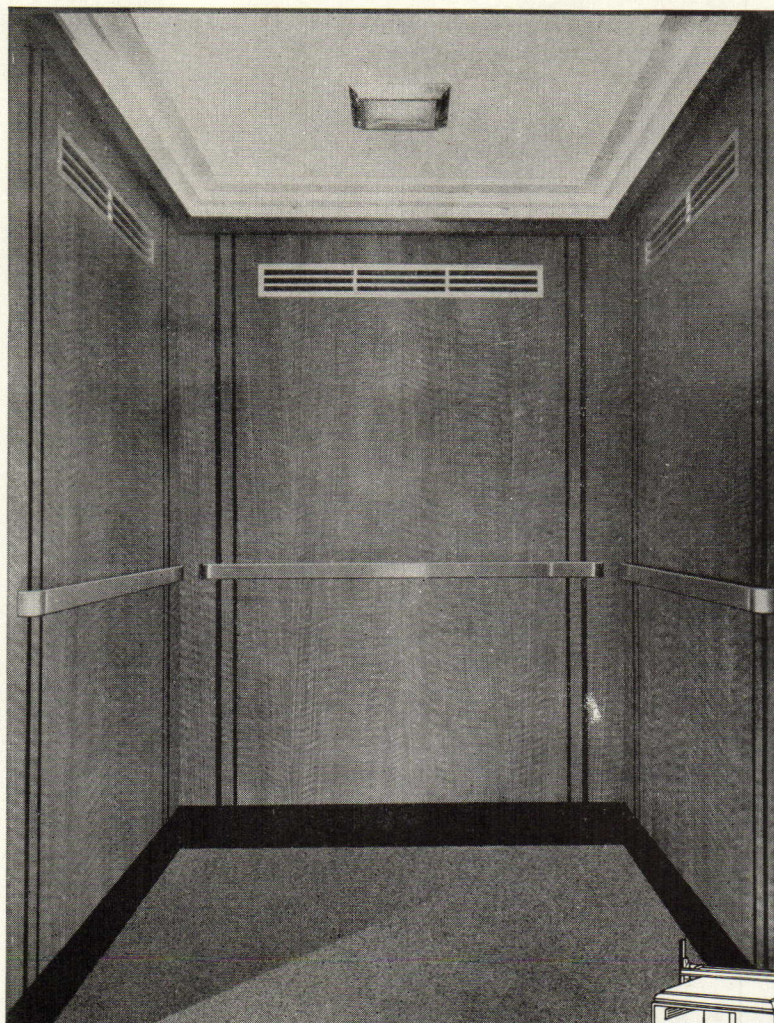
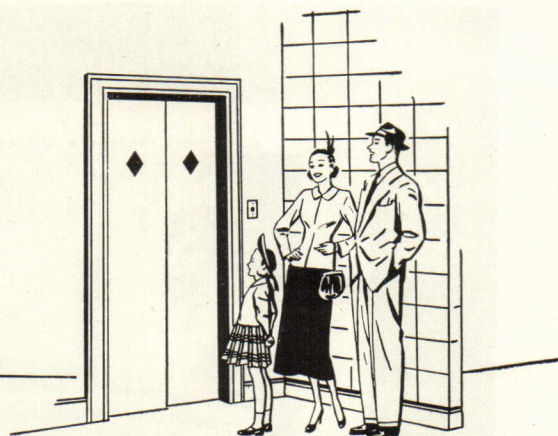
Roddiscraft Solid Core Doors and the Housemart Door, in standard sizes, are immediately available from your nearest Roddiscraft warehouse. See Sweet's Architectural File 15C-8 and Sweet's Builders File 36-3A for specifications and construction details.



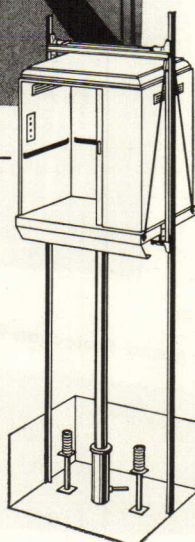
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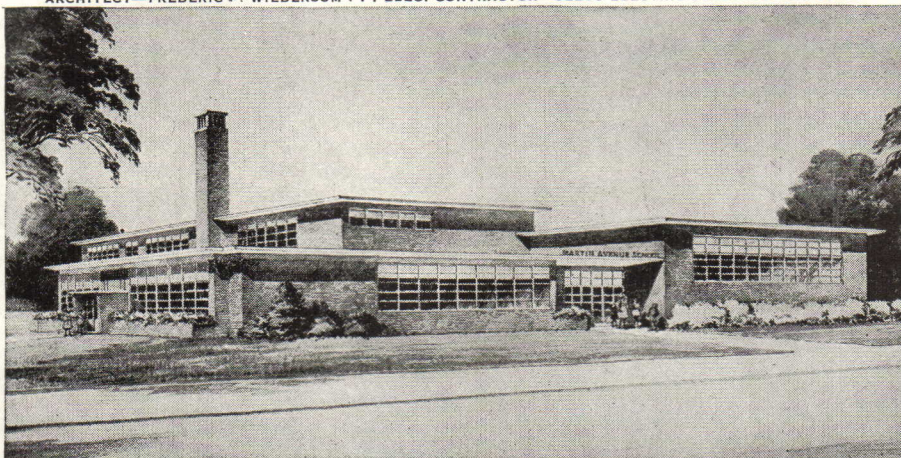


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City and State.....

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You're specifying signal and protection systems for a new school... you're conscious of how much depends on your recommendations...

The principal must be freed from the nuisance of clock-setting and bell-ringing. The maintenance staff must not be saddled with time-wasting regulations and adjustments.

Above all... parents must be secure in the knowledge their children are in a *safe, efficient* school.

In effect, then—you must specify

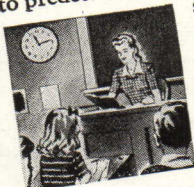
experience . . . Experience in design, manufacture... performance.

The new Martin Avenue School, at No. Bellmore, N. Y. is a case in point. Here, as in all school installations, Edwards' 77 years of experience fulfills the architect's responsibility by delivering the most efficient, trouble-free service possible.

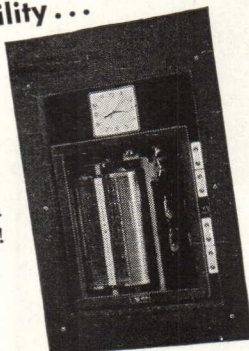
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For maximum program flexibility...

This 4-circuit program instrument controls signals automatically—according to predetermined schedules. If desired, signals can be operated at one-minute intervals 24 hours a day, 7 days a week!



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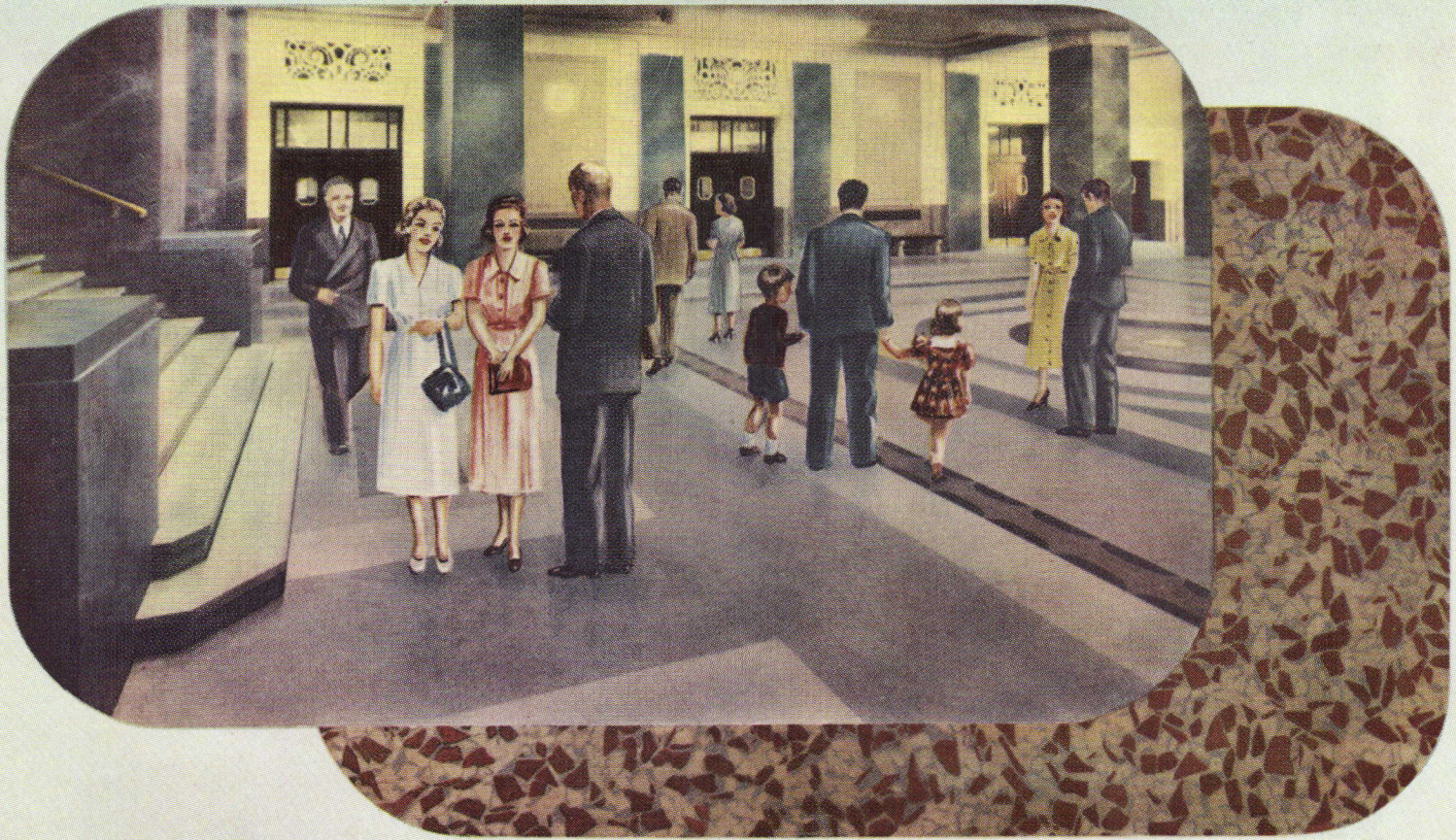
JOHN P. BETHUNE
ARCHITECT
721 N. MADISON ST.
CHICAGO, ILL.

PRG. No.

A-3

SCALE

1/4" = 1'-0"



**NON-SLIP • WEAR-RESISTANT • ATTRACTIVE . . . Three Plus Features
Given This Lobby of Distinction by NORTON *non-slip* FLOORS**

GOOD taste plus common sense dictated the use of Alundum terrazzo aggregate in the attractive terrazzo floor of this auditorium lobby. For Alundum terrazzo aggregate combines two important advantages: positive, permanent non-slip protection even when wet—and extreme resistance to heavy foot traffic without showing measurable wear. It is non-resonant and comfortable

under foot. Available in a wide variety of colors, interesting effects can be produced with the marble or granite selected.

For lobbies, foyers and entrances, for ramps and precast stair treads, combine common sense with good taste and add safety to attractiveness by using Alundum terrazzo aggregate.

Write for Catalog No. 1935



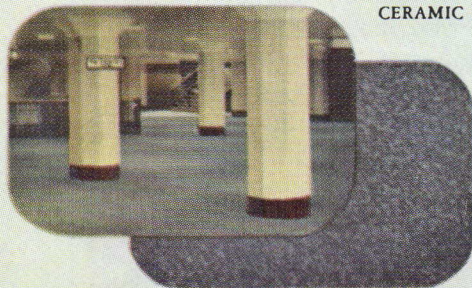
CERAMIC MOSAIC TILE

CERAMIC MOSAIC TILE

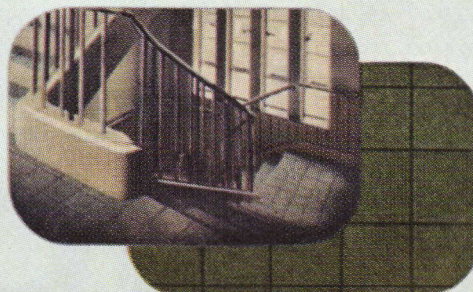
Permanent non-slip protection is added to the attractive patterns of mosaic floors by Alundum ceramic mosaic tile. Because it is non-slip, even when wet, it is most commonly used in entry ways, in soda fountains and restaurants, for swimming pool runways and edges and in shower and washrooms.

CEMENT FLOOR AGGREGATE

Incorporated in a cement or asphalt floor in proper proportion and manner, Alundum (c. f.) aggregate provides a permanently non-slip surface. It reinforces the cement and increases its durability several times. The surface is unimpaired by water, oil or similar conditions.



CEMENT FLOOR AGGREGATE

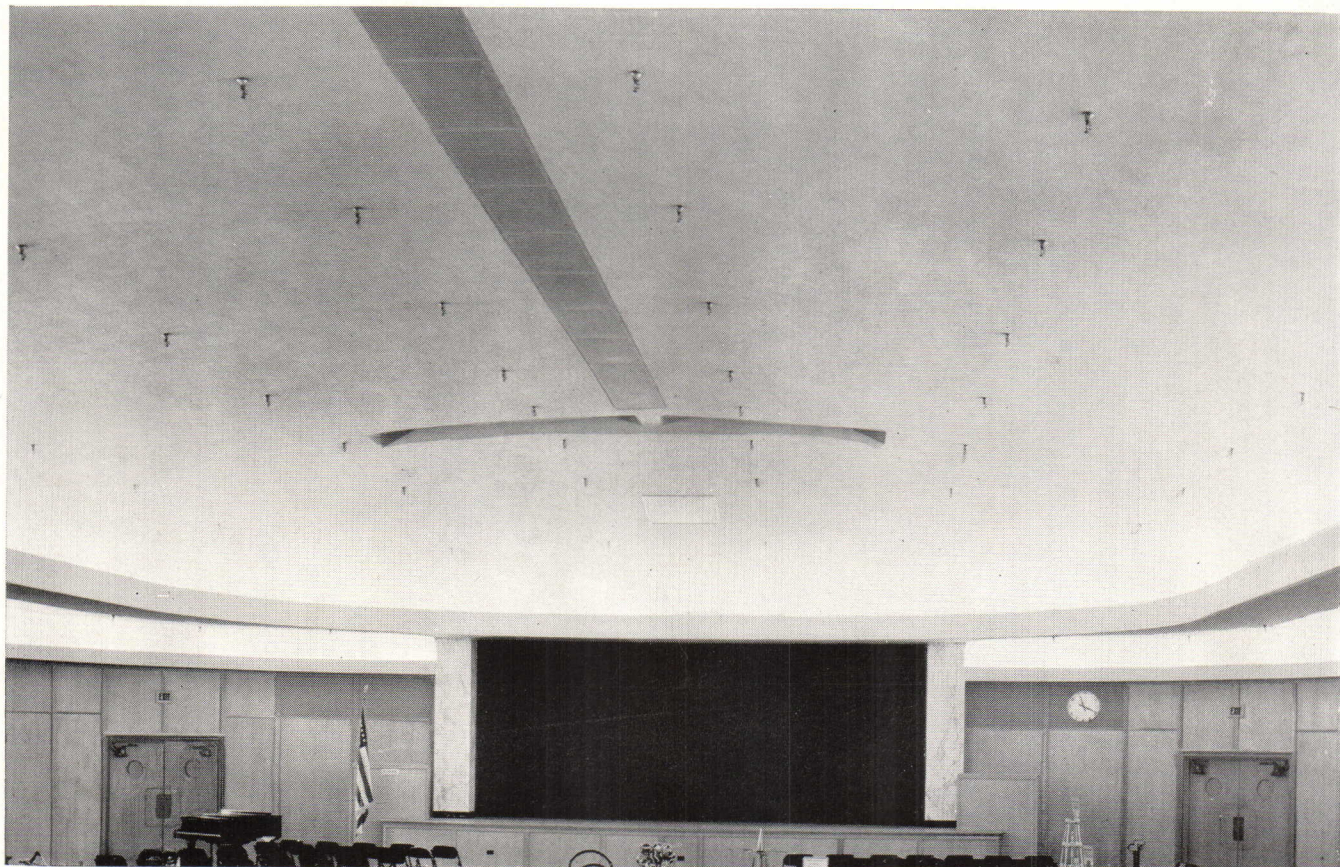


STAIR AND FLOOR TILE

STAIR AND FLOOR TILE

Alundum stair and floor tile—in nine colors and eight sizes—makes stair nosings and vital walkway and ramp areas permanently non-slip and wear-resistant. The stair type is recommended as a step nosing for marble, tile, terrazzo, concrete or all-steel stairways.

See our Catalog in Sweets (SA and SE)



Hibbard Spencer & Bartlett & Co. Bldg., Wm. Balhatchet—Plastering Contractor, Engineering Systems—Architect

HIGH SOUND-REDUCTION, LOWEST COST WITH **FIRE** SAFE KILNOISE

With KILNOISE ACOUSTICAL PLASTER you get all the acoustic properties of tile, *without* the limitations. Curved surfaces, coves, mouldings, recesses may be included at will. All the advantages of monolithic construction are available (without sacrificing high sound absorption) when you specify KILNOISE ACOUSTICAL PLASTER.

The unusual sound-reduction ability of KILNOISE results from its extreme porosity, which is due to (1) a "just right" balance of materials to give a coat which remains very porous, and (2) the use of our special

Stippler. By adding 576 random perforations per square foot, this Stippler gets noise into the plaster *faster*.

A most important KILNOISE property is its fire-safety factor. Not only incombustible, it actually acts as a positive fire-retardant.

To make your own direct comparison of KILNOISE with any other acoustical plaster or tile . . . for light reflectivity, for sound absorption, for light weight . . . please write us for a sample panel. The Kelley Island Lime & Transport Co., Department R, 1122 Leader Building, Cleveland 14, Ohio.



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Planning A New College Campus

A REPORT BY ARTHUR McVOY, PLANNING CONSULTANT

In considering design for institutions of higher learning, the viewpoint can be either general or particular. On the one hand, there is the pattern of the campus as a whole that may be assayed; on the other, design of the individual buildings to serve specialized purposes can be weighed. In this month's Critique, this dual aspect crops up with differing emphasis among the four projects considered.

In Jacksonville Junior College, the project is nothing less than the development of an entirely new campus. At the other end of the scale, the science building for Mills College, while successful in itself, is not (at present) a unit of a predetermined master plan. The other two projects—a women's dormitory for Antioch College and the new campus area for the Long Island Agricultural and Technical Institute—fall between these two extremes.

While the initial presentation (right) is concerned with a new campus plan for a specific location, the analysis that accompanies it, written by Arthur McVoy, the project's planning consultant, contains much theory that has the broadest implications in the field of campus design.

Arthur McVoy: B.S. Arch., M.A. Arch., U. of Fla. Langley Scholarship; study at Cranbrook Academy; year of city-planning study in Europe. Much teaching and city-planning experience. At present, director, City Planning Commission, Baltimore, Md.



After much valuable criticism and many constructive suggestions from the president, the Board of Directors, and the architects, a campus plan and growth pattern have been evolved for the Jacksonville Junior College, Jacksonville, Florida.

The site selected for the college is a beautiful, 135-acre tract of land about four miles northeast of downtown Jacksonville on the St. Johns River. The college now is in a cramped, old frame building near the center of Jacksonville. The present enrollment is about 500 students. The Board estimates a growth in enrollment to about 3000 students in the next 20 to 30 years. However, it was determined that the plans should provide for eventual growth considerably beyond this figure.

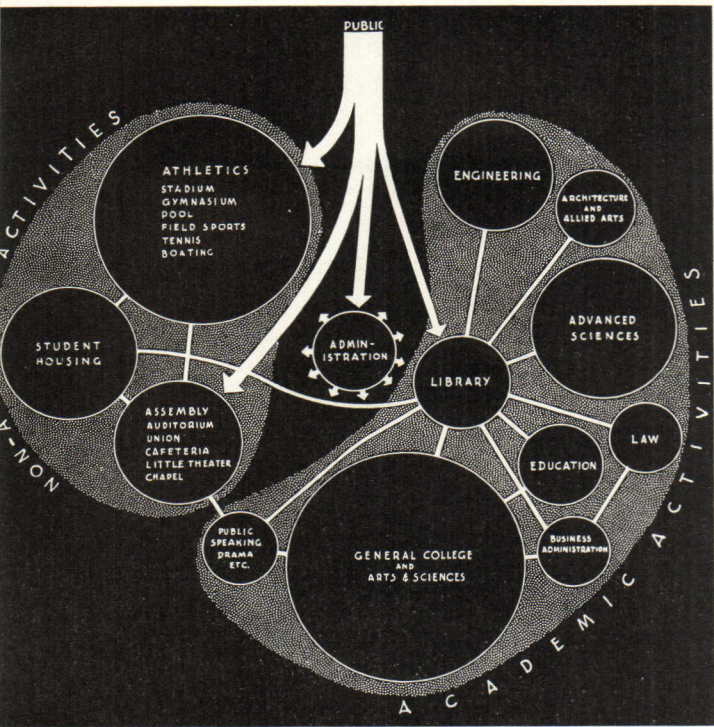
functions

The activities contemplated for such a college fall into two groups, academic and nonacademic. (See diagram next page.) For efficiency, the administration building should be located between the academic and the nonacademic groups.

The nucleus of the academic group is the library. Those classroom activities demanding its greatest use, such as the General College, Arts and Sciences, Education, Business Administration, and Law School, should be most closely related to the library. Predominantly laboratory and technical departments, such as the physical sciences and various types of engineering, are less closely related to it. As the college grows and department libraries are established, the central library could function only for Arts and Sciences, the General College, Education, and as an administration distribution and storage center for the library system.

The nonacademic group falls into three divisions, assembly (auditorium, union, cafeteria, and little theater), student housing, and athletic facilities.

The assembly group should function as a cultural center for the city of Jacksonville. It would serve as a center for concerts, lectures, music festivals, conventions, short courses, and other similar functions. Classroom facilities for use by these activities as well as for speech, dramatics, and possibly music should be in this group near the auditorium. Assembly would act as a focal point between student housing, athletics, and the academic area. The diagram indicates desirable student movement from classrooms and library to dining facilities, auditorium, and union building. This relationship with the academic group should also exist for the gymnasium. Student housing is closely related to the



At left: schematic diagram indicating "desirable functional relationships" toward which McVoy worked. The accompanying report includes detailed argument supporting the theory.

Across page: left—the developed campus plan adapting the "desirable relationships" to the specific site. Buildings indicated in gray represent the first proposed stage of development; right—detail of the first actual area for which buildings are being designed. Floor plans and a rendering of the initial unit, for which funds are now being raised, appear on page 48.

- 1 Administration Building
- 2 Library
- 3 Academic Buildings
- 4 Student Union
- 5 Cafeteria
- 6 Speech and Dramatics
- 7 Auditorium
- 8 Little Theater
- 9 Chapel
- 10 Amphitheater
- 11 Gymnasium
- 12 Stadium—24,000 Capacity
- 13 Yacht Club
- 14 Men's Dormitory Group
- 15 Women's Dormitory Group
- 16 President's Home
- 17 Central Heating Plant
- 18 Sewage Disposal Plant
- 19 Maintenance
- 20 Parking
- 21 Tennis
- 22 Softball
- 23 Playing Fields
- 24 Baseball
- 25 St. Johns River

JACKSONVILLE JUNIOR COLLEGE, JACKSONVILLE, FLORIDA

Arthur McVoy, Planning Consultant, in association with Kemp, Bunch & Jackson, Architects

assembly group and the athletic group, particularly the cafeteria, union, and gymnasium, with fairly easy access to the library and the academic group. Easy public access, as indicated on the diagram, should be provided to administration and the assembly group, especially the auditorium, the library, gymnasium, and the stadium.

How well the functional diagram was followed in developing the plan can readily be seen by comparing it with the adjacent plan showing comparable functions.

the growth pattern

The plan of the academic group is so arranged that each department can expand almost independently. Natural growth of the campus from the curved, covered walk bordering the central ravine will allow free outward expansion with constantly increasing space for each department. Thus, as in nature a grapevine extends in length as it expands its foliage along the stem, the campus will grow naturally outward from the covered walk as it extends around the ravine.

Growth of union and cafeteria can be handled by expansion southward or, in the case of the union, over the covered walk to the west. The stadium simply expands up the banks of the ravine on both sides.

The only place where considerable expansion becomes difficult is in extending girls' dormitory facilities beyond 350 to 400 students, the capacity becomes difficult is in extending girls' dormitory unlikely that a city college such as this will ever need

more facilities than shown, there are two possibilities for expansion:

- 1) Taking over the men's dormitories for the women and moving the men further southward.
- 2) Construction of further dormitories eastward across Chaseville Road (along east border).

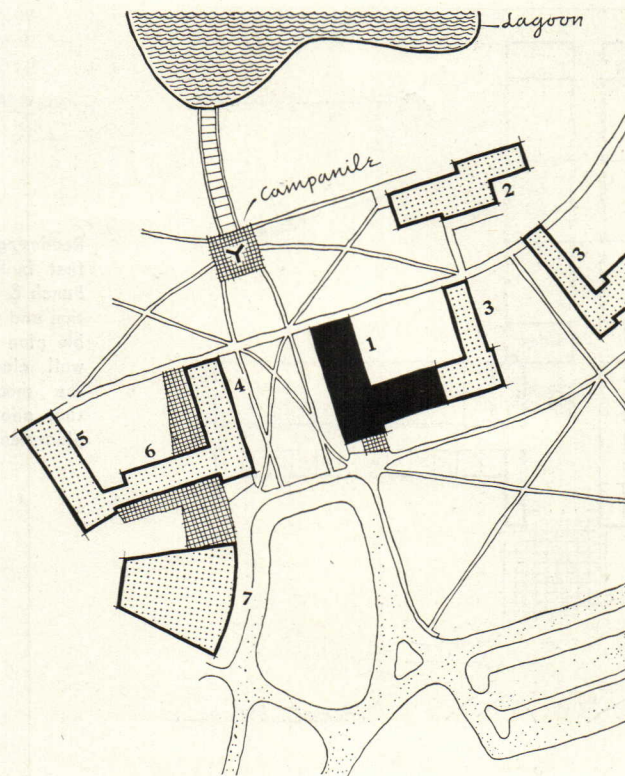
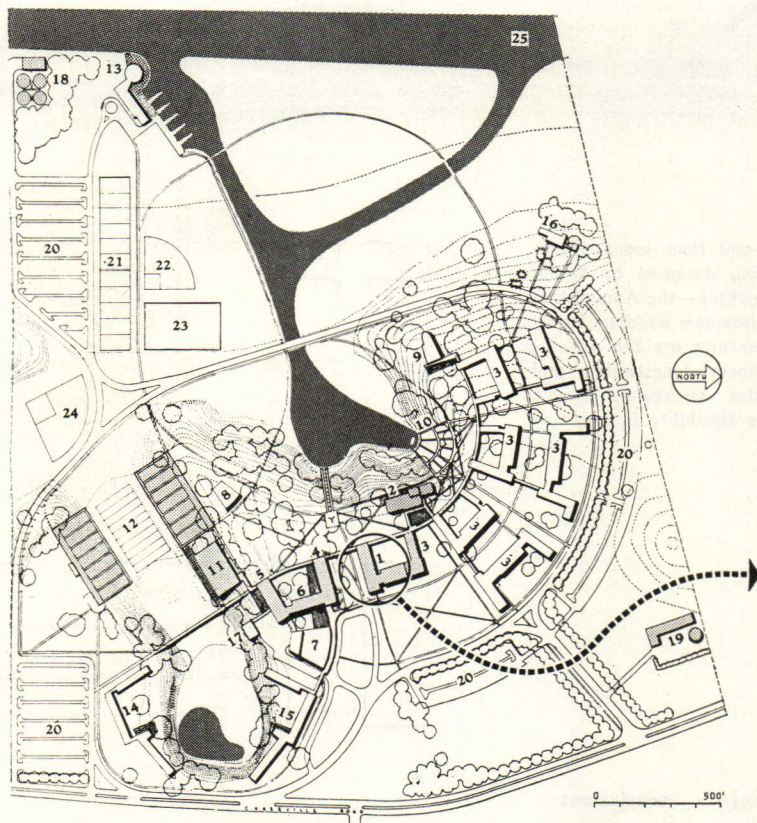
influences of topography orientation and natural features

Three major natural conditions strongly influenced the development of the plan.

- 1) The low land is all "filled" land and will not support heavy buildings without considerable added expense.
- 2) The best views and the most beautiful trees (first-growth oaks, magnolias, hickories, maples, wild cherry, and pines) are around the rim of the central ravine in a broad band where the terrain is flat.
- 3) The narrow neck of the long ravine is ideal in its width and the slope of its bank for a natural stadium.

These conditions strongly suggested the location of nonacademic activities in and around the long, narrow ravine because the stadium can best be located there. The beautiful building area around the central ravine suggested the growth of the academic group northward around its rim. Thus the central ravine becomes the heart of the campus.

A fine natural feature which was taken advantage of was the amphitheater carved by nature in the north end of the central ravine. This area could be planned to seat as many as 4000 spectators and could be effectively used for outdoor student assem-



bly, graduation exercises, concerts, plays, pageants, and religious services. It can be developed as a very beautiful thing retaining the fine trees, even within the seating area, and building benches between them. It would be pleasant and cool on warm spring and summer days. A floating stage in the proposed lake would add dramatic interest and beauty to it.

Conditions of orientation which influenced the plan were as follows:

- 1) Direct north-south exposure was generally avoided because southern exposure would result in too much hot sun in the summer; northern exposure would afford practically no sunlight in the winter.

- 2) Direct east-west exposure was also avoided because of the hot western sun in the late spring, summer, and early fall.

For these reasons most buildings are oriented diagonally across the campus. The dormitories, for example, will all get some sunlight but none will get all-day sunlight. View and the shape of the ravine affected the arrangement. The symmetry of these groups was not conscious but the result of an effort to make the best utilization of space, view, and orientation.

At least as important as proper orientation will be the use of overhangs, blinds, arbors, and trellises to control the effects of the hot summer sun and take advantage of the winter sun.

movement of students

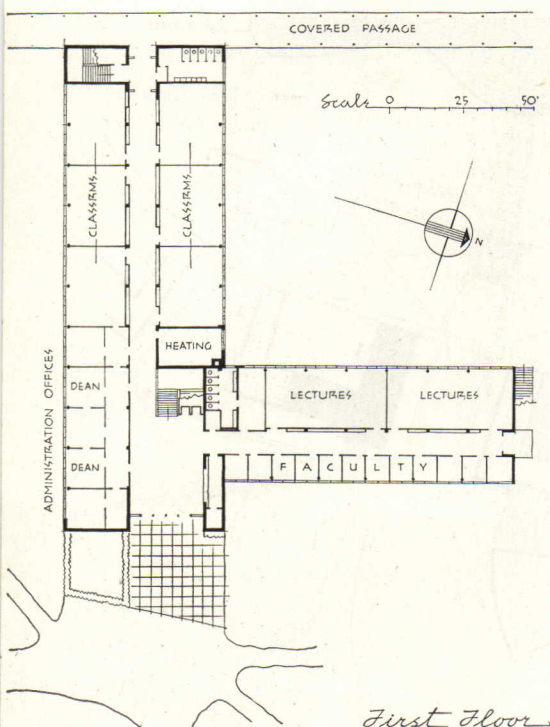
Climate determined some of the major proposals of the plan. Florida has a warm climate, with a hot sun in the spring, summer, and early fall. Rainfall

is very heavy and comes down in sudden torrents. These conditions suggested undercover connections between buildings. The covered walk mentioned as the "stem" of the growth pattern of the academic group becomes also the "stem" for the nonacademic group. All but one of the important buildings or groups of buildings on the campus is connected to this central covered walk. The exception is the men's dormitory group. Undercover connection for the entire campus can be effected if the foot bridge across the ravine is covered.

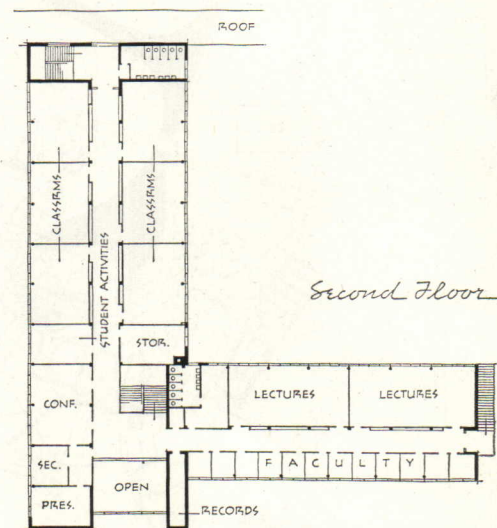
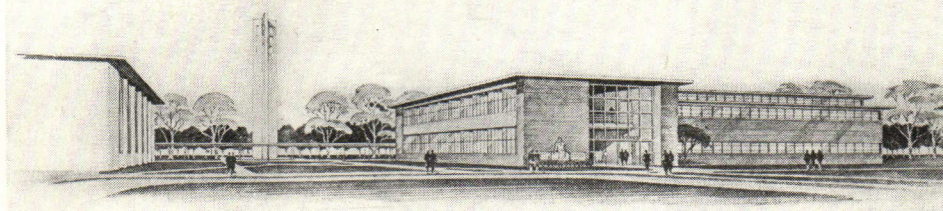
movement of cars

The campus has been kept a "pedestrian" campus. Automobile access has been provided only around the campus and where public access is necessary. The auditorium, the union, and the administration buildings have direct automobile access. A bus stop should be also located in this area. The loop which provides access to parking areas close to the academic group extends down into the lower "front yard" of the campus, forming a beautiful pleasure drive and access to the athletic areas, the yacht club, and parking facilities on the lower level. The bridge across the little inlet from the river forms a dam for the little central lake. The president's home is in a beautiful grove off the loop. Temporary parking areas can be provided directly adjacent to the academic buildings for convenience in the early stages of growth of the campus.

Service by truck or car to the buildings not on the road system or service drives is by means of wide walks.



Rendering and floor plans of the first building designed by Kemp, Bunch & Jackson—the Administration and Classroom Building. Notable plan features are the wall-to-wall classroom fenestration and the modular structural scheme that allows flexibility in partition placement.



Off-street parking is planned to care for all needs except those of the stadium. A stadium seating 24,000 would require space for 7000 to 10,000 cars. On-campus parking as proposed would provide for about 2000 cars. An additional 40 to 50 acres of land would be needed. A complete solution of this problem on the present site was considered impossible. The solution will be in purchase or use of land across Chaseville Road to the east, and on the Jacksonville Boys' Home property to the south. The Boys' Home property would add 600 to 800 spaces. Part of the area across the road is being subdivided. If the stadium parking is to be solved, action should be taken soon.

utilities

A separate utility map suggesting diagrammatically a utility system was prepared. The central heating plant is located so it would be central to all buildings, but closer to buildings demanding heaviest heat load (i.e., union, cafeteria, dormitories, gymnasium). It is in a secluded location, and accessible for service. It can be built at a lower level to provide gravity feed for return lines.

The sewage disposal plant is naturally located on the river. The southern location was chosen because of the location of the president's home and the academic buildings to the north.

conclusions

Greater emphasis was placed upon a strong, simple arrangement of functional relationships and a practical pattern of growth than upon the sizes and shapes of specific buildings. The arrangement of academic buildings around the ravine was not given detailed study due to the impossibility of predicting specific requirements. The rather rigid symmetry shown for this group is actually diagrammatic, and will undoubtedly give way to freer forms as actual requirements are met.

In like manner, neither the exact sizes nor a growth pattern for auditorium, union, cafeteria, or little theater are suggested or intended. Ample space and proper interrelationships are stressed. How, for example, a gymnasium can be constructed which will meet the needs of a college for 1000 students at one time, and serve 3000 students several years later is an architectural problem beyond the scope of this report. A maximum of freedom for architectural arrangement and expression is possible without having to conform to rigid plazas, axes, or courts whose effectiveness would depend upon the completion of several buildings.

There is general agreement between the Board of Directors, the president, and the architects that the college now has a simple, workable plan and pattern for future growth.

McVoy asks that special credit be given to the foresight of Dr. Garth H. Akridge, president of Jacksonville Junior College; Carl S. Swisher, chairman of the Board of Directors; and Guy W. Botts, the Board's secretary. To the architects, Kemp, Bunch & Jackson, who are designing the actual buildings, he also pays special tribute "for insisting upon a complete, well-worked-out campus plan before any construction was started."



Antioch College: Yellow Springs, Ohio

SAARINEN, SAARINEN & ASSOCIATES, ARCHITECTS

MAX G. MERGER, ASSOCIATE ARCHITECT

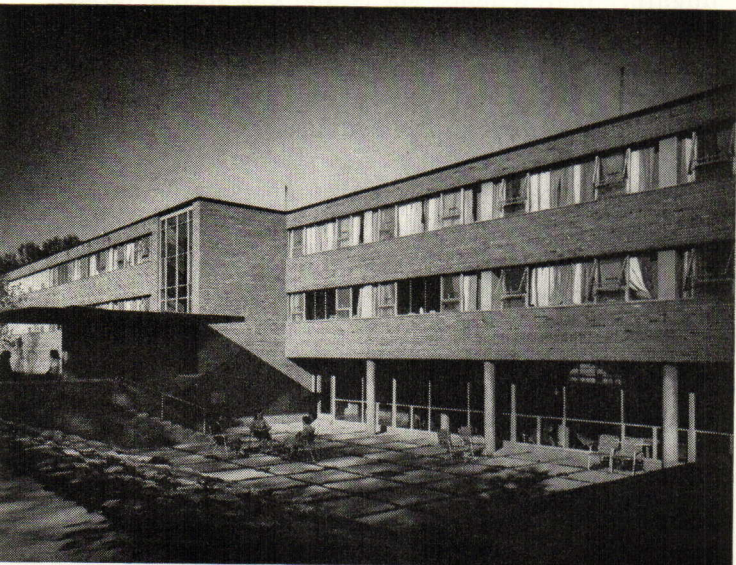
DAN KILEY, LANDSCAPE ARCHITECT

The first unit of a sizable, projected development of an existing campus (see rendering below), this is the new dormitory for women, shown at far right of drawing.

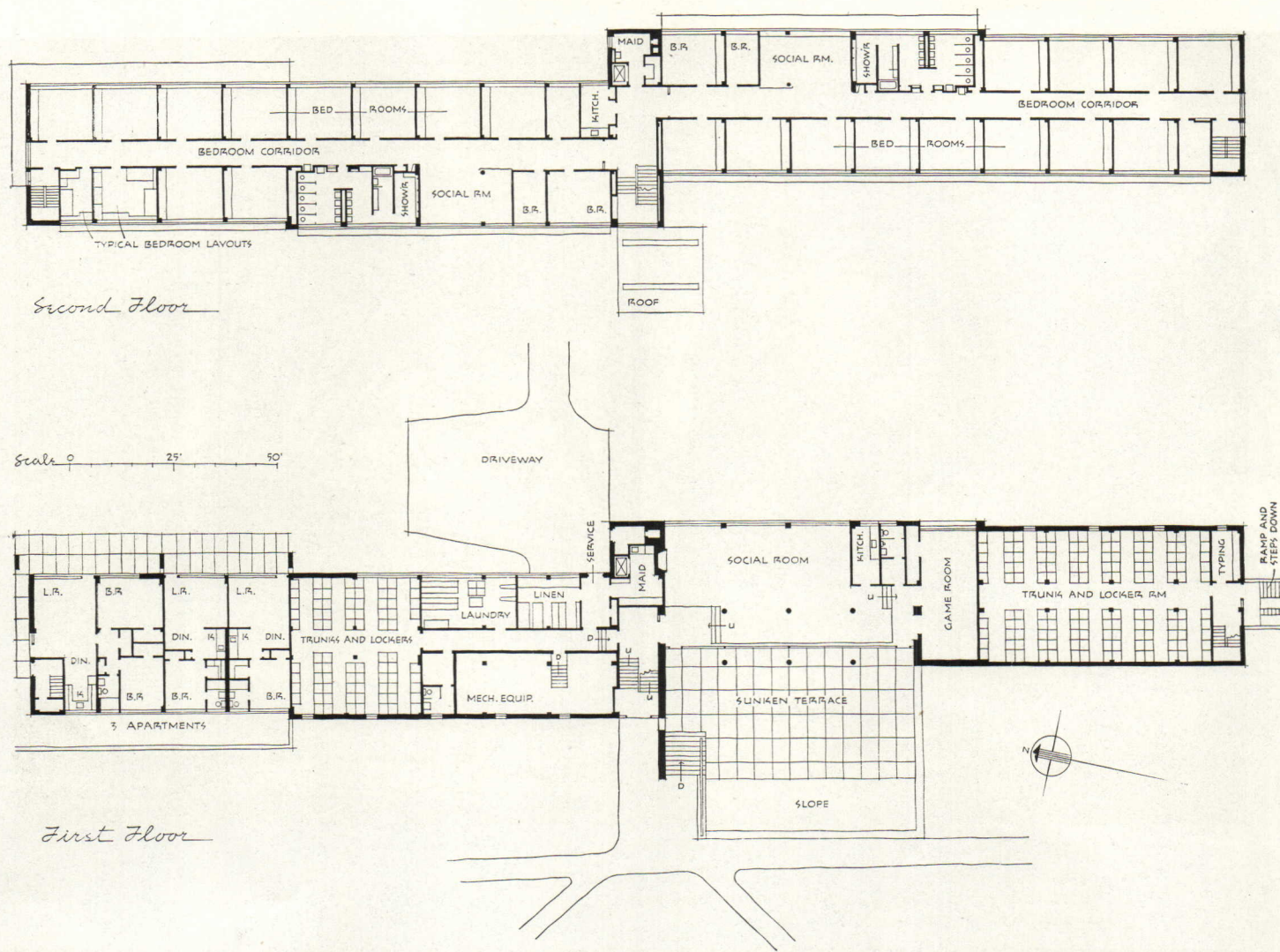
Above: general view from northeast.

Below (left): detail of sunken court that adjoins the main lounge on the west side of the building.

Photos: Dearborn-Massar



Gymnasium	Research Laboratory Building	Future Dining Hall
Future Library	Future Theater Arts Building	New Dormitories
Science Building	Old Buildings (Towered Antioch Hall, center)	



program: A women's dormitory to accommodate 110, arranged in units (each with its social room) of not more than 30 students each. Location to be in accord with master plan for future development of campus. Other requirements: a main lounge; apartments for three faculty members; locker and trunk-storage space.

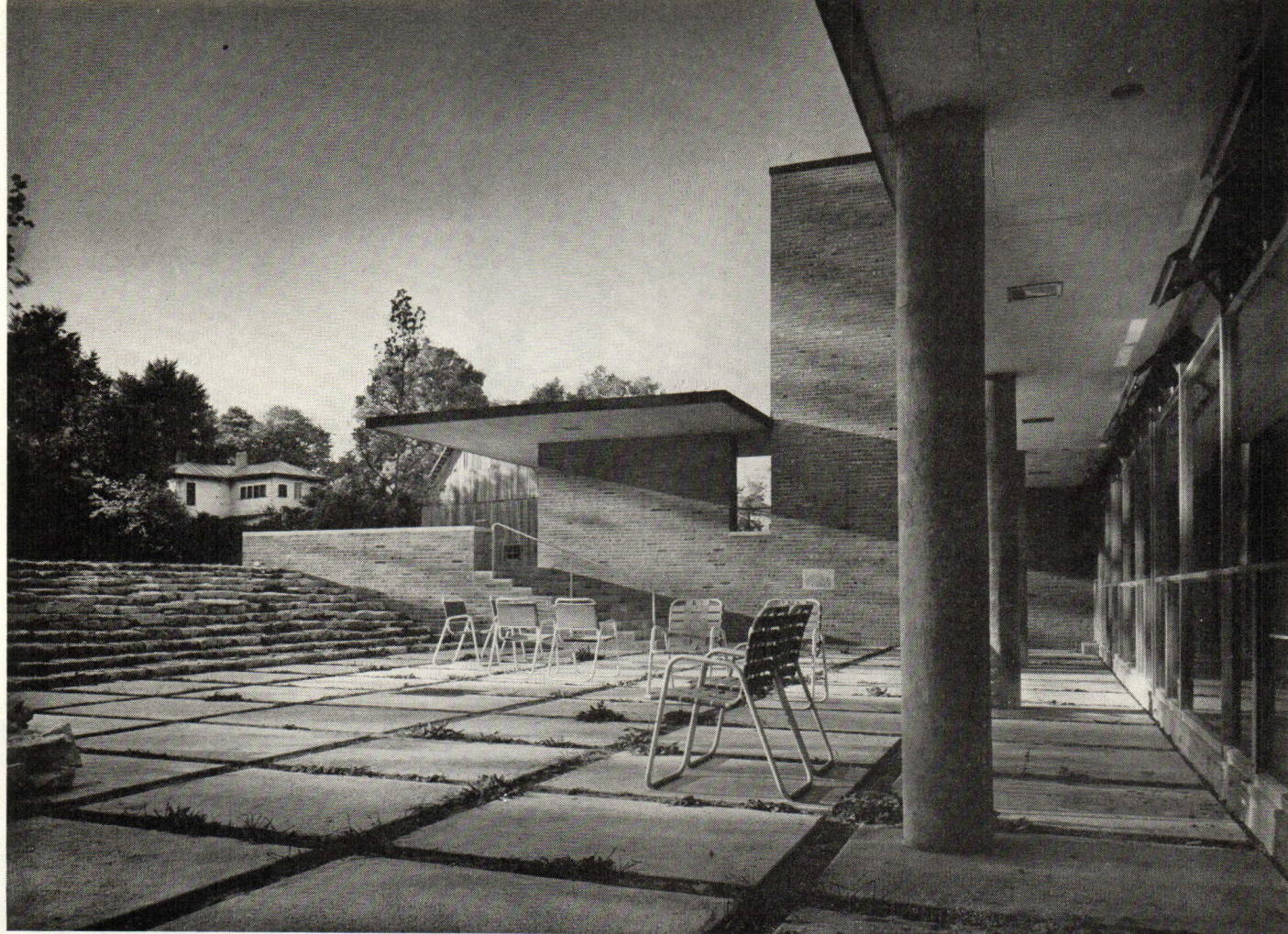
site: Northeastern portion of campus (replacing several ungainly maintenance sheds and closing off miscellaneous access roads) which, when future dormitories are built, will form a residential quadrangle terminating the north end of the main campus.

solution: Long, three-story unit organized in two, slightly offset wings. First floor has storage and maintenance facilities, three faculty apartments, and a game room, in addition to the main lounge. Each upper floor made up of a pair of dormitory units: accommodations for 28 (13 double rooms; 2 single) on each floor of south wing, and 27 (12 double rooms; 3 single) on each floor of north wing, or a total provision of 110. Room arrangement with greater dimension parallel to outside wall provides excellent light but proved costly. Structural sunshades (extensions of floor slabs), originally designed above western window bands, were eliminated to save money. This resulted in excessive sun heat which is temporarily alleviated with awnings; eventual solution awaits growth of trees. Landscaping by Dan Kiley.

MATERIALS AND METHODS

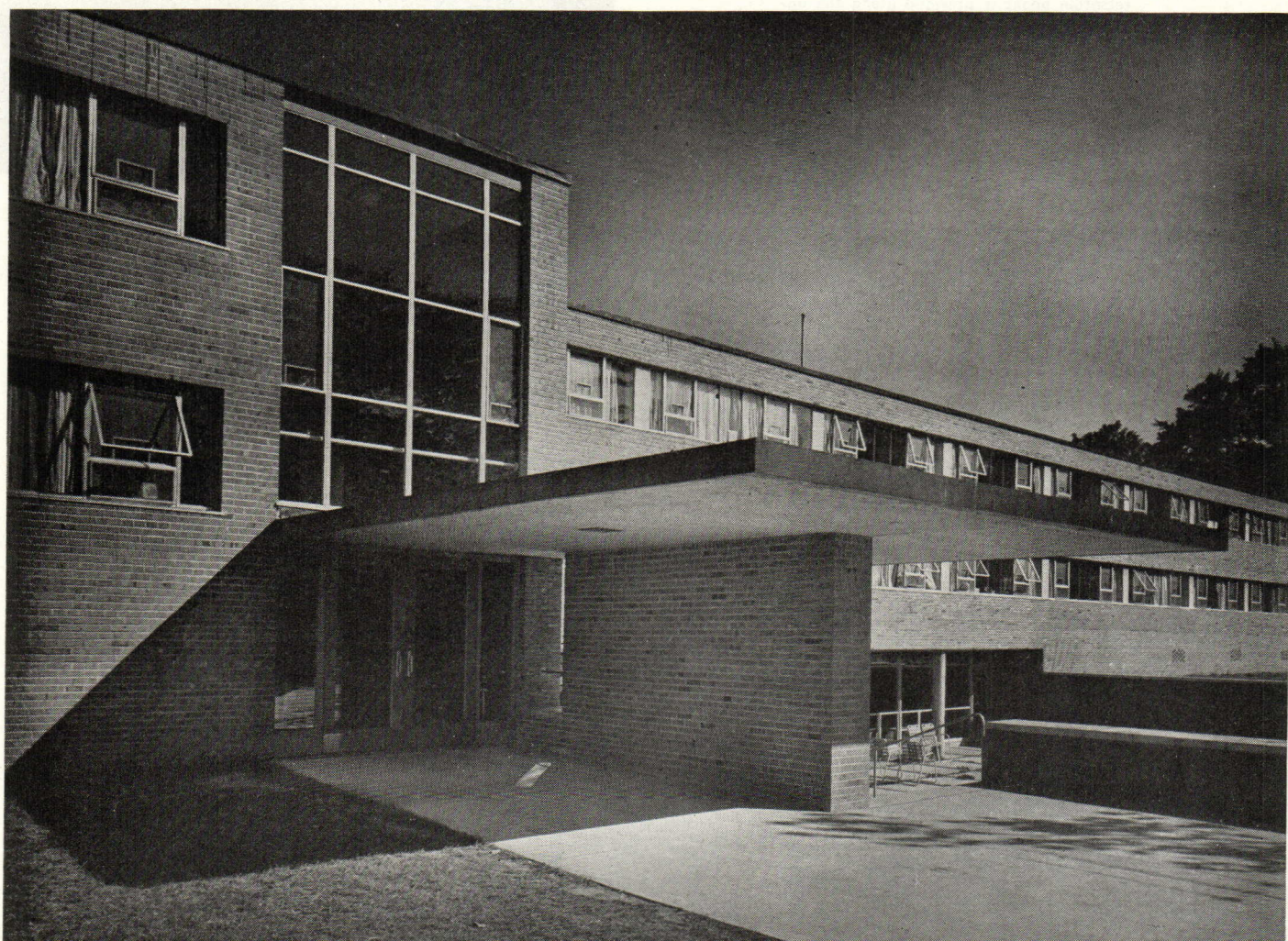
CONSTRUCTION: **Frame:** reinforced concrete. **Walls:** brick; interior surfaces: brick, painted plaster, natural birch. **Floors:** reinforced concrete surfaced with asphalt tile. **Roof:** built-up tar and gravel over concrete. **Fenestration:** aluminum architectural projected; double-strength crystal sheet and plate glass. **Insulation:** (acoustical): fiber tile; (thermal): fiber glass. **Partitions:** gypsum tile, plastered. **Doors:** solid core birch; hollow metal.

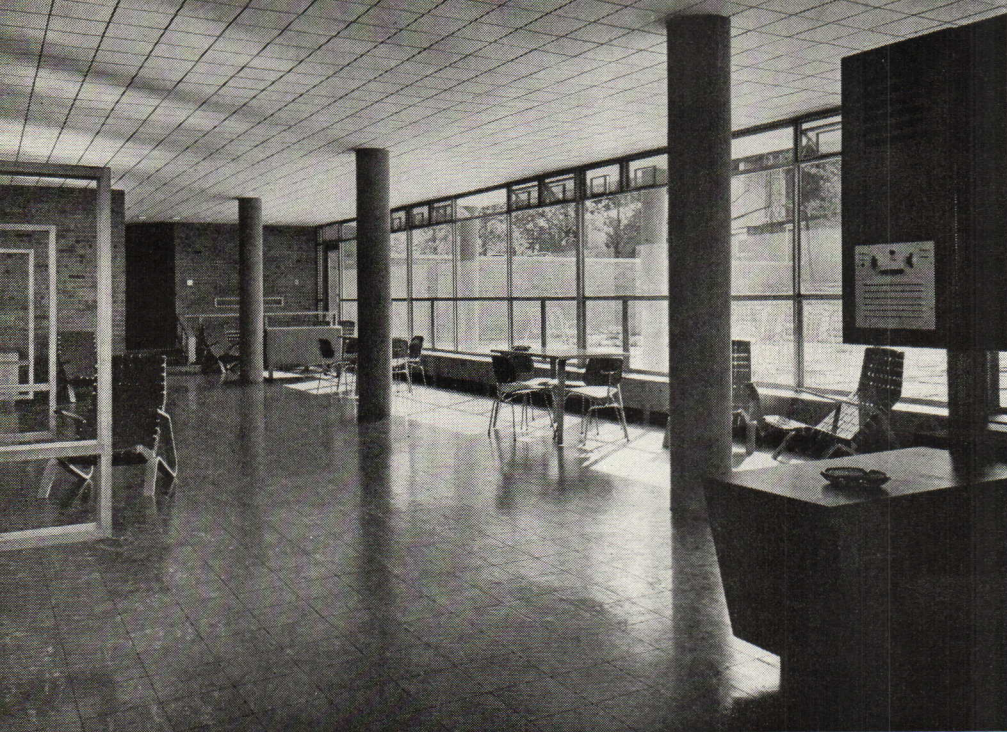
EQUIPMENT: **Heating, etc.:** pumped hot water system, supplied from central power plants; convectors; automatic control. **Electrical:** several types of fixtures; all incandescent.



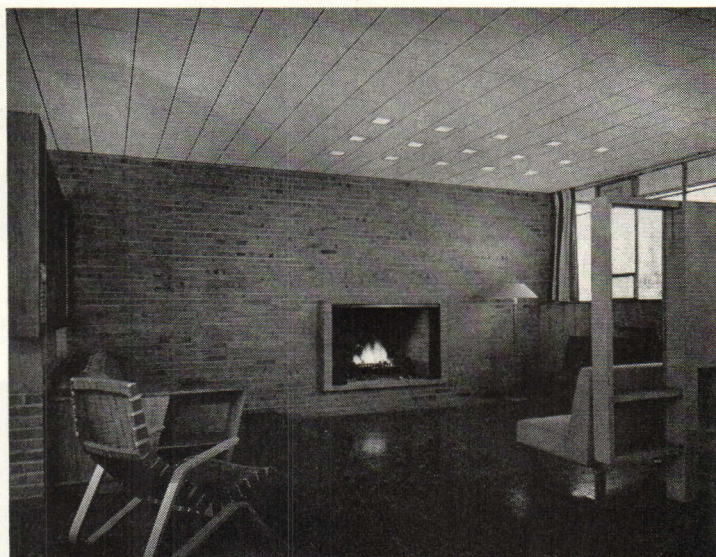
Above: sunken terrace adjoining main lounge.

Below: canopied western entrance (approach from the in-campus side), with glimpse of sunken court in background. Selected Detail of canopy, page 89.





All three photographs on this page are of the main lounge; added ceiling height is gained by placing this room three steps below the normal floor level. Top—view looking southwest out to sunken court; right—fireplace alcove in northeast corner; below—view along west wall looking toward main entrance; a series of conversation nooks is provided along the opposite wall.



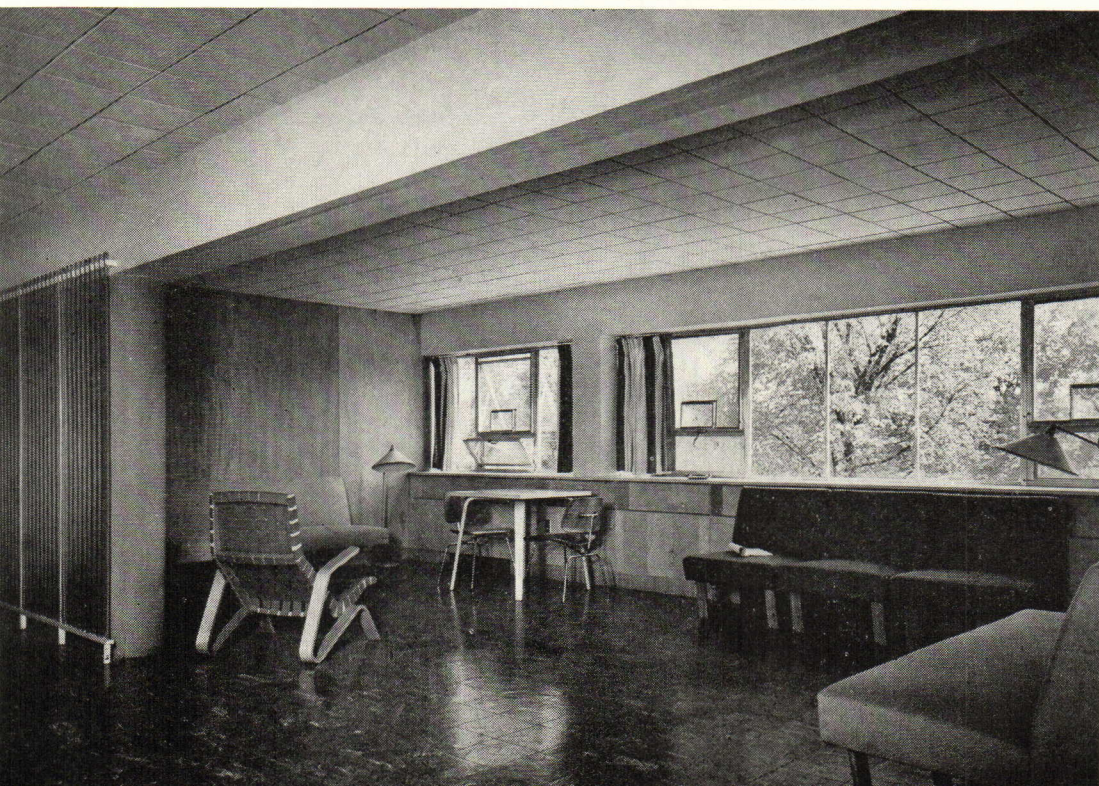
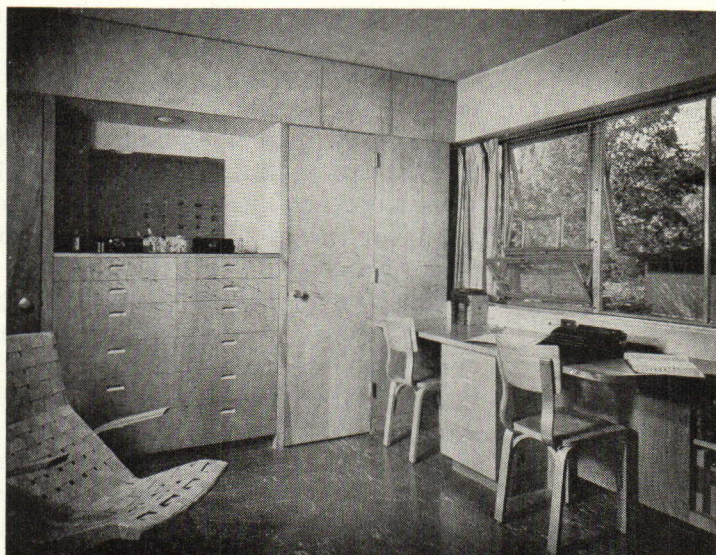
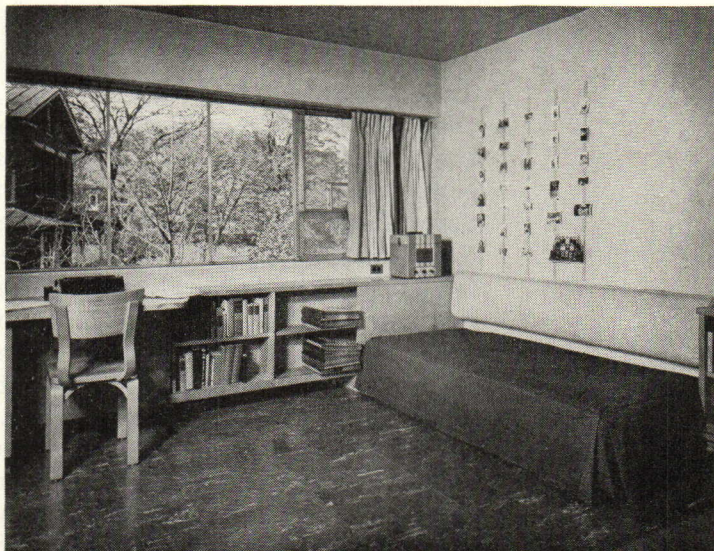


Eliel Saarinen (top); Eero Saarinen (center). In the design of the Antioch dormitory, the Saarinens were associated with Max G. Mercer (bottom), Yellow Springs, Ohio, architect. Predecessor of the present Saarinen firm was the office of Saarinen, Swanson & Saarinen, which was active at the time the dormitory was designed.



Two views of typical double dormitory room; much of the glass is fixed in its aluminum frame; in operable units, top panel swings out; bottom light, in.

Below: one of the small lounges provided for each dormitory unit.



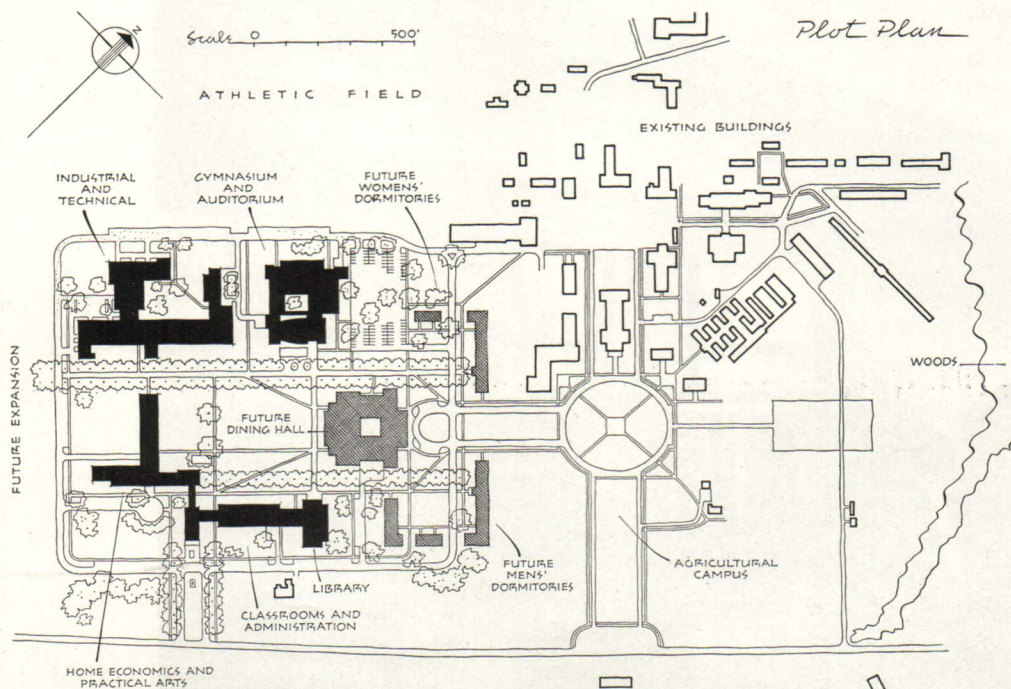
Long Island Agricultural and Technical Institute: Farmingdale, New York

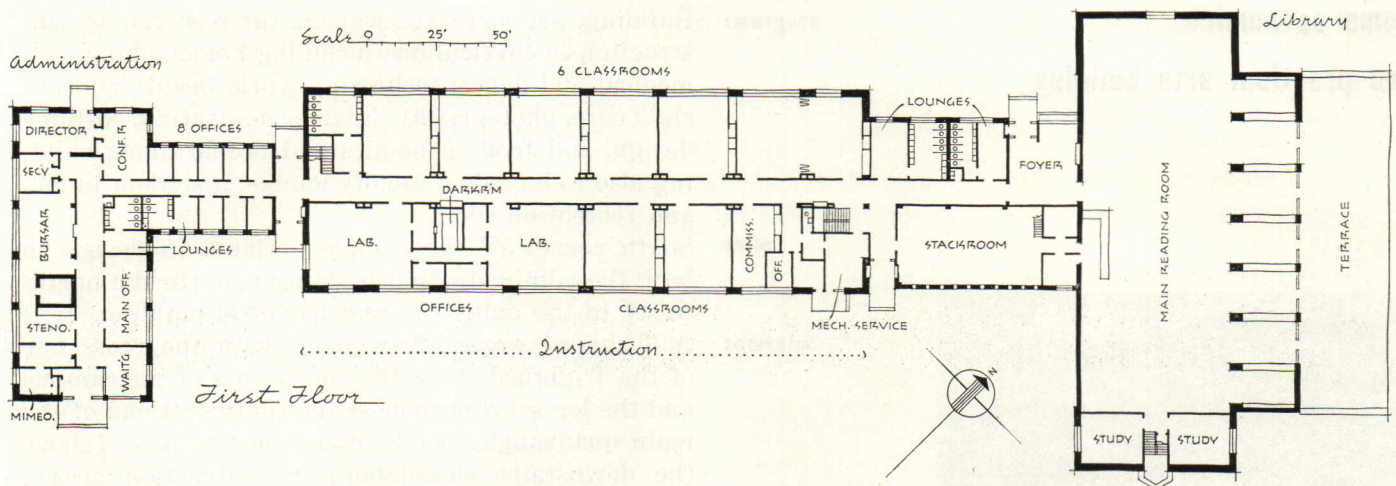
REISNER AND URBACH, ARCHITECTS

As indicated on the plot plan below, the addition to an existing campus presented on these pages is an instance where the buildings that constitute the addition are greater in area than those of the campus to which it is being joined. The institute is one of six administered by the New York State Education Department which prepare high-school graduates for technical employment in agriculture, home economics, rural trades, and industries serving rural areas. The graduates of the school have been referred to as the "staff sergeants" of industry, as opposed to the potential "captains of industry" trained in the traditional professions as engineers, chemists, physicists, and doctors—whom, incidentally, these outnumber by about five to one. At the present time, the Farmingdale campus offers courses in agriculture and ornamental horticulture. With the construction of the new campus area, the numerous technical and industrial departments at present set up in temporary rented space will be joined with the agricultural divisions. The new departments to move to the campus will include building and highway construction, electrical equipment, radio and communications, industrial chemistry, industrial instrumentation, mechanical design, aircraft operation, advertising art and design, dental hygiene, refrigerating and air conditioning, and automotive and Diesel technology.

The four major buildings documented in this study are the administration-classroom-library building and the gymnasium auditorium (these two placed as centrally as possible to make them equally accessible to all departments of the institute); the Industrial and Technical Building and the Home Economics and Practical Arts Building, placed at either side of the southwestern terminus of the campus. Since more than a third of the students' time is given to applying, testing, developing, and perfecting methods and procedures, curriculums (hence floor plans) emphasize laboratory-type activities. All buildings are modular in scheming (based on a three-foot module) and design treatment is consistent throughout—brick and stone, with hipped copper roofs. Landscaping and sculptural embellishment in the form of inset plaques, or freestanding elements such as fountains, have been developed along with the design of the buildings.

The old campus echoes the traditional approach of a preconceived design pattern; the new area suggests, rather, the asymmetrical order that derives from independent, master planning for use.



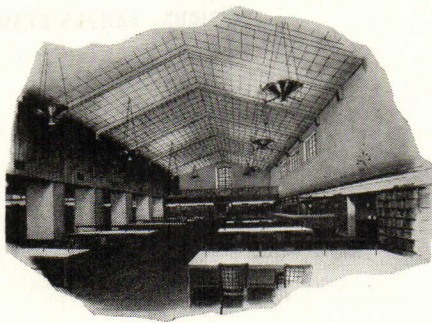


administration and classroom building

program: Administrative offices, classrooms, laboratories, and the institute library, combined in a single structure.

site: Along the southeastern border of the campus, so that the administrative offices may be directly approached from the highway which runs along this side. Placed in a position as near as possible to the old campus inasmuch as the library will be used by the agricultural students as well as by those in the industrial and technical divisions.

solution: Building organized in three zones, which can be operated independently of each other. Administrative offices occupy a one-story wing at the southwest end; the library occurs at the opposite end of the structure, nearest the center of the institute campus; and between is a two-story block of classrooms and laboratories. The second floor of the classroom area includes study and instruction rooms similar to those of the floor shown. Main entrance to library faces into the campus, forming a focal point in the campus plan. Beyond the reading room, toward the northeast, is a walled, flagged terrace that will be used as a reading-room extension in mild weather. An open-shelf system of book storage is used along walls of the reading room and in metal shelving placed in the low reading-room extension toward the terrace; a stack room provides additional book storage.



Sketch above shows main reading room of library, with low extension of room at left.

Below, left—end of library wing seen from the campus side; right—detail of entrance to administrative offices. Sculpture on Administration wing by Robert Cronbach (as with sculptures throughout) is schemed as an integral part of the design. All renderings by Renares Mendez

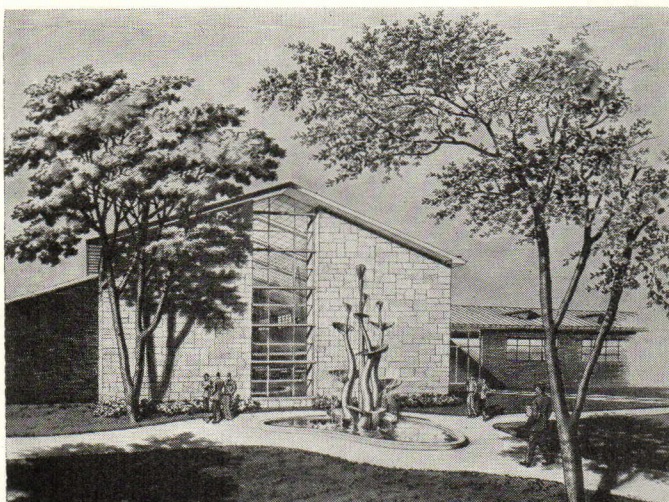
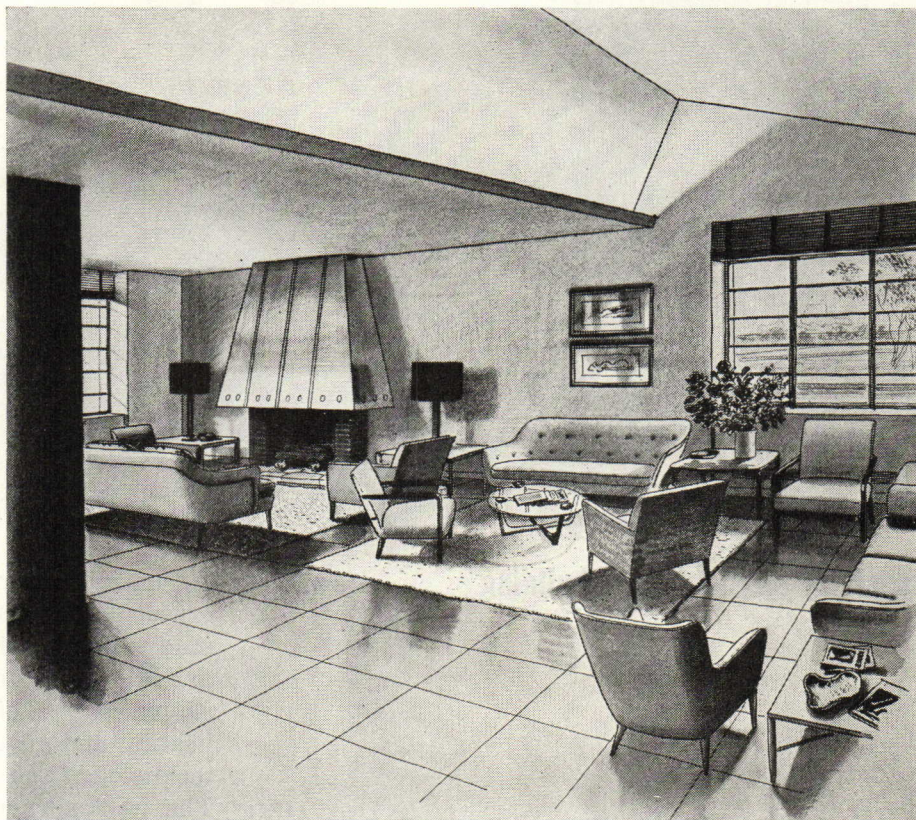
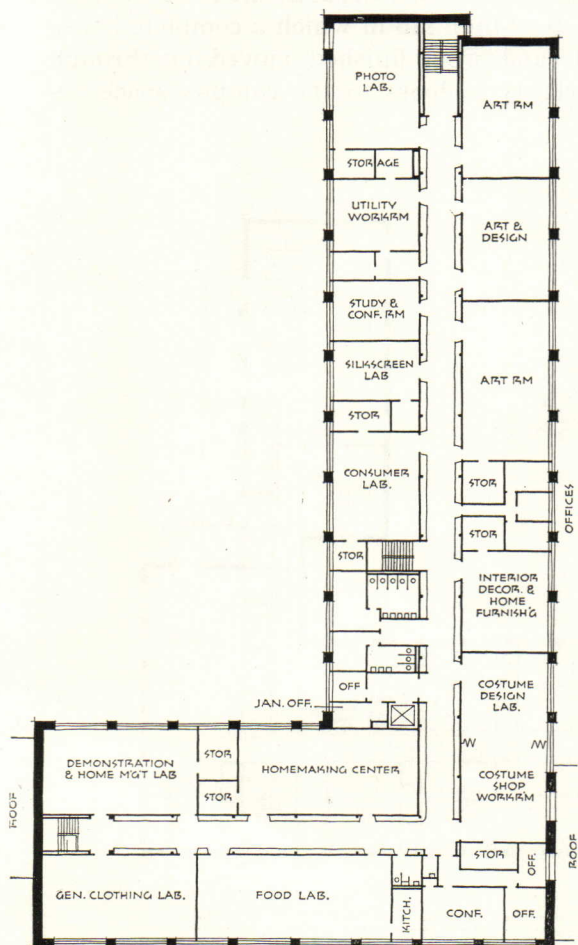


Photo across page is a rendering of the end of the building wing that projects back into the campus. At right, sketch of fireplace area of the recreation room-student union, at the end of the one-story northeast wing of the building.



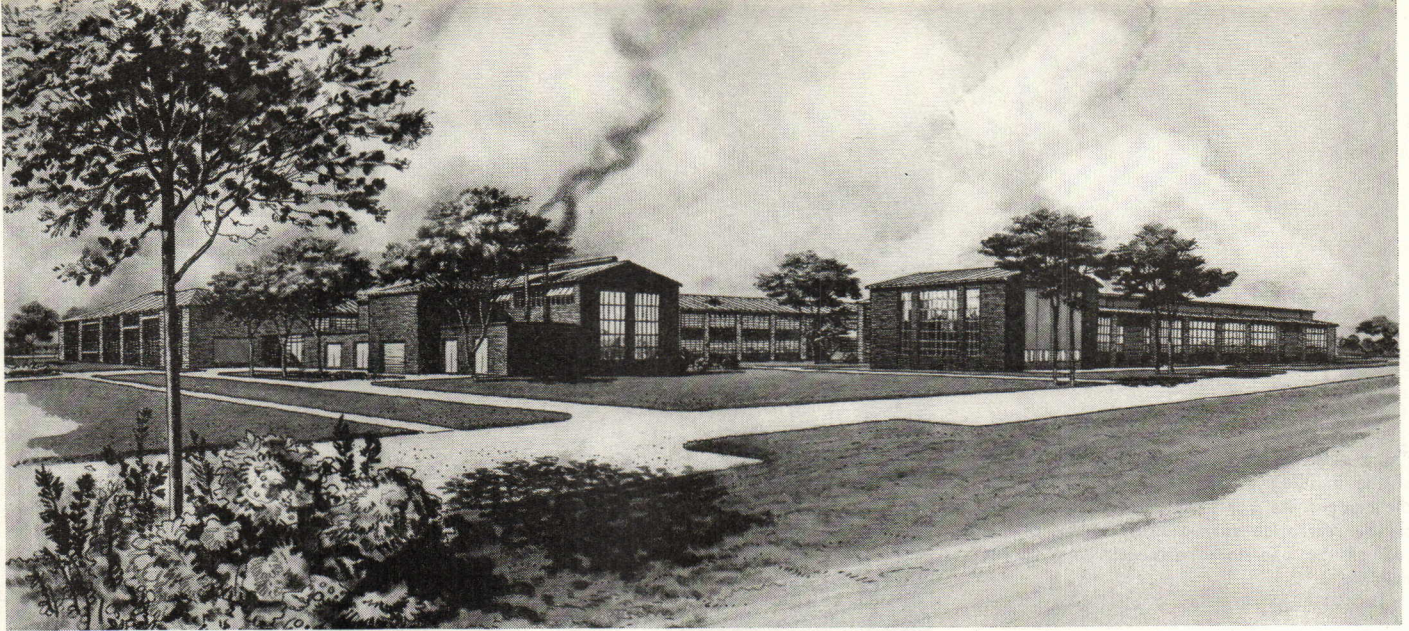
L. I. AGRICULTURAL AND TECHNICAL INSTITUTE



Second Floor

Jedd Stow Reisner (top right): U. of Ill.; Plym Fellowship in Architecture, with year of study and travel in Europe. Work in N.Y. offices and independent practice before establishing partnership, in 1945, with Max Otto Urbahn (below right): U. of Ill., B.S. Arch.; graduate student, Yale U.: B.F.A.; M.F.A. Holder of Garland Professional Fellowship. During war, as captain in Corps of Engineers, in charge of road, camp and hospital construction in Iran.



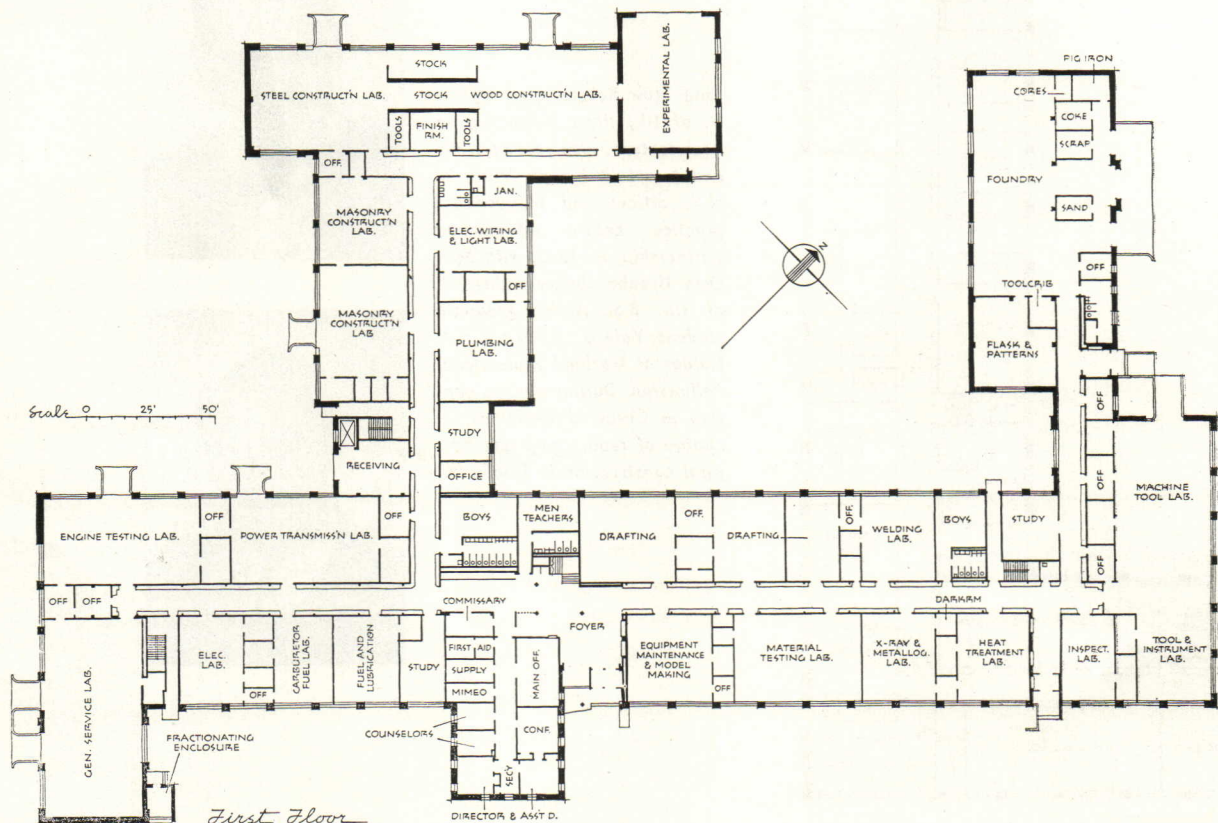


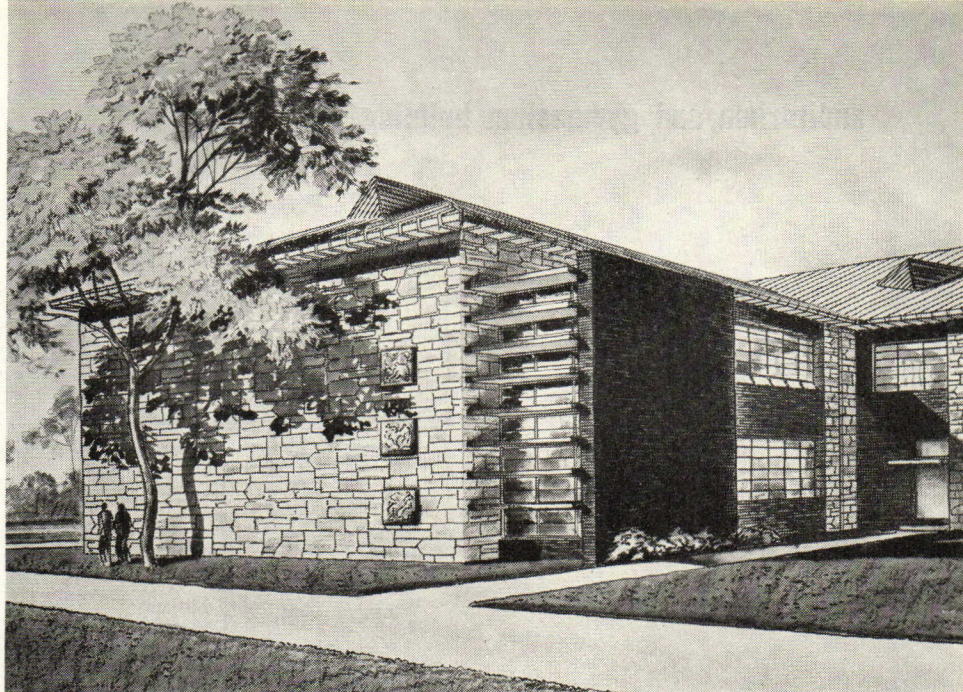
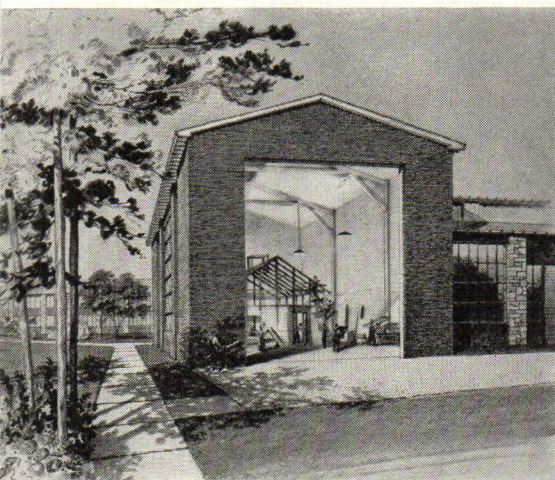
industrial and technical building

program: An extraordinarily complex program involving laboratories, workshops, and drafting rooms for the study of chemistry, paper making, electro-plating, and distilling; metallurgy, foundry, and machine-shop work; building construction; refrigeration; heating and air conditioning; automotive and Diesel technology; and electronics.

site: The west corner of the campus, near the campus perimeter road (for easy delivery).

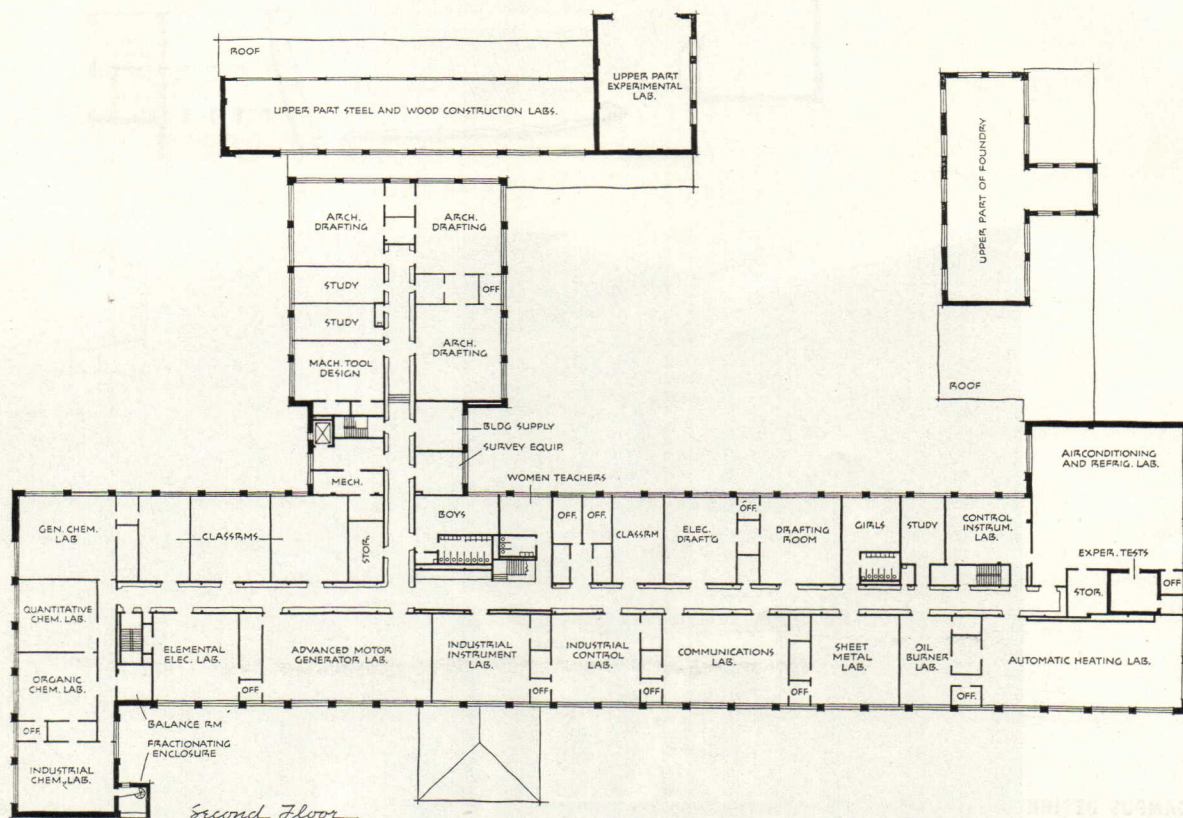
solution: A two-story building (nearly 500 feet on the south-east face) arranged in an irregular U-shape plan. The building-construction department is at the rear with a two-story-high lab in which a complete house can be built (and, when finished, moved out through tall, industrial-type doors to the campus space be-



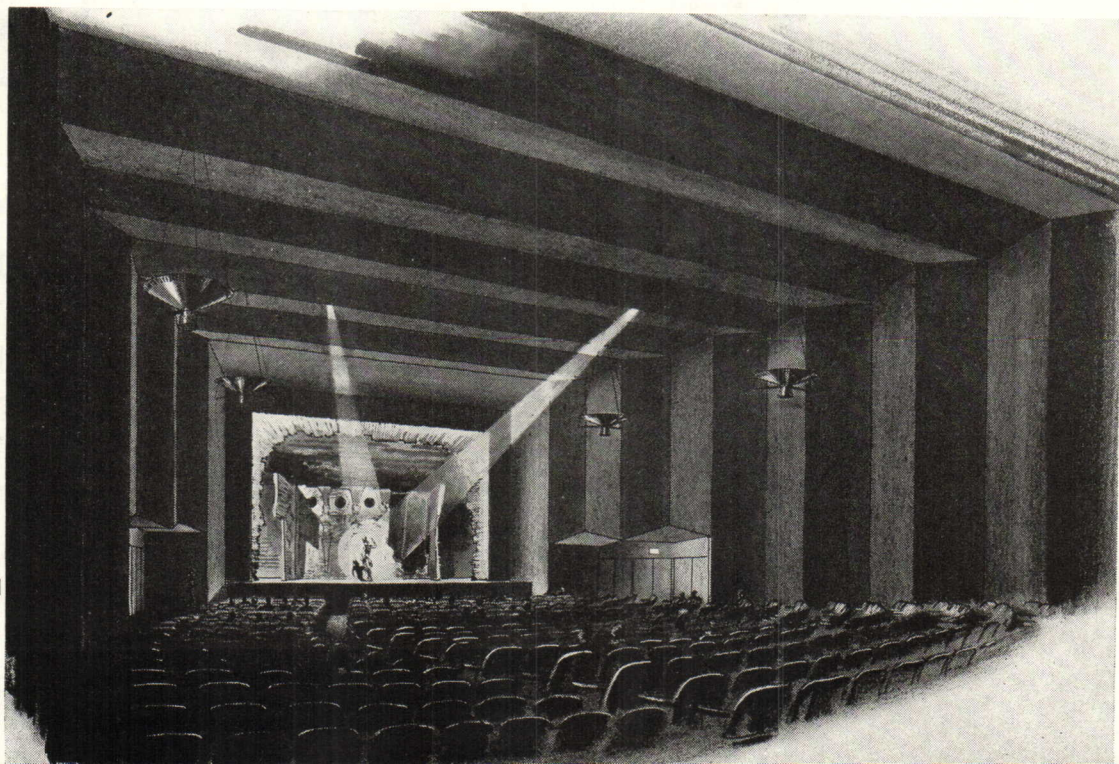
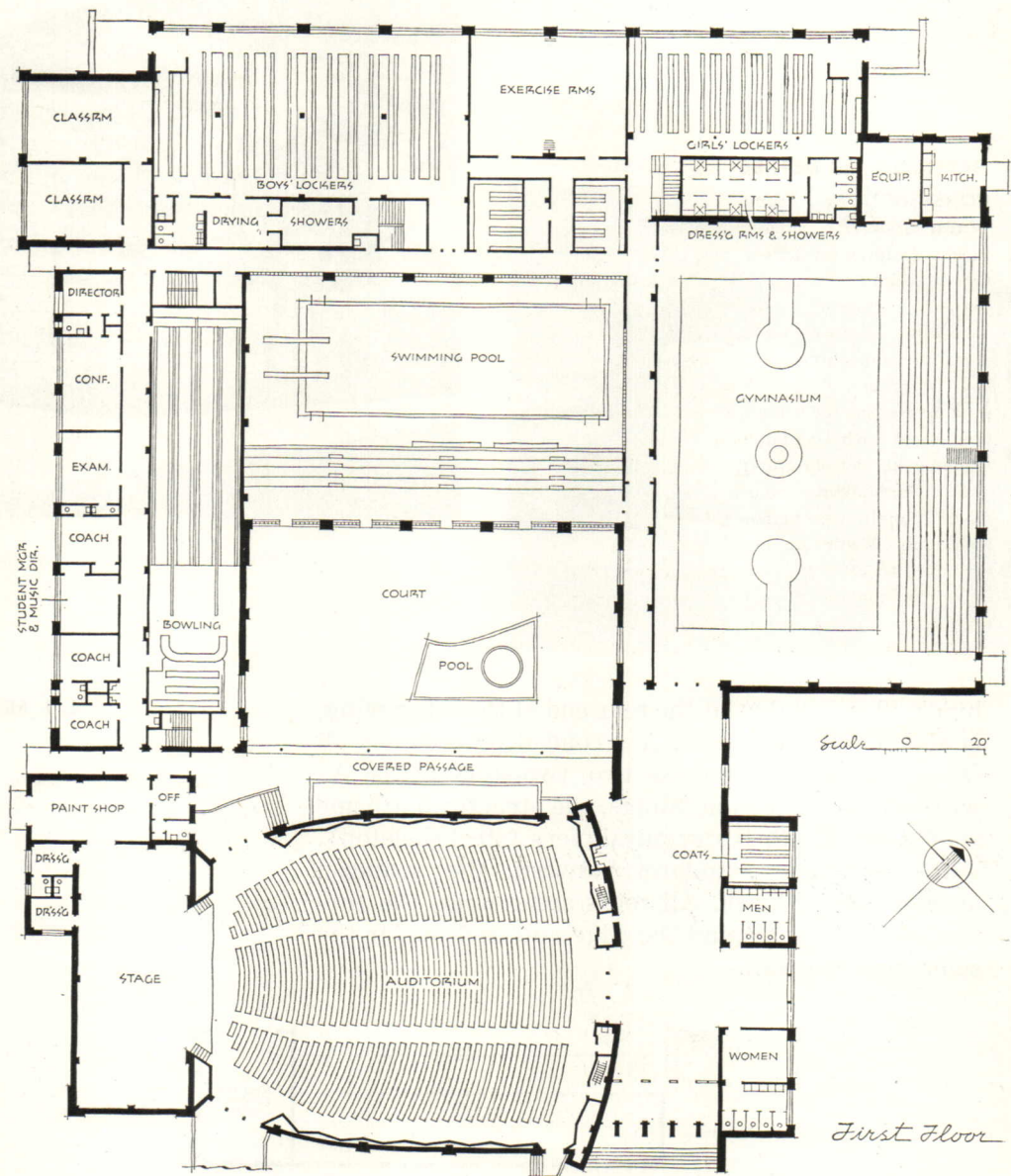
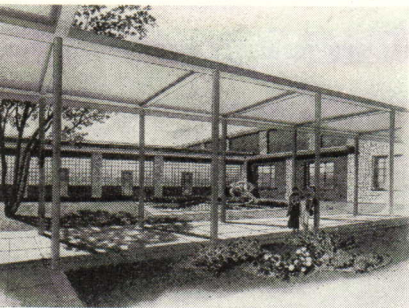


hind). The foundry, at the rear end of the other wing, is also a two-story unit. A second floor occupies all the space except for these two, two-story areas. As with all the campus buildings, the structural scheme is of stone-sheathed structural piers (steel skeleton), with continuous windows between, the spandrel areas being of brick. All roofs are copper, the surface continuing around the edge and back under the soffit into the wall.

L. I. AGRICULTURAL AND TECHNICAL INSTITUTE



auditorium and gymnasium building



MATERIALS AND METHODS (all buildings)

CONSTRUCTION: **Frame:** skeleton steel. **Walls:** brick and stone furred with glazed blocks (exterior surfaces: face brick, seam-faced granite; interior: clear glazed tile, plaster, perforated metal panels). **Floors:** reinforced concrete slabs, surfaced with cement topping, terrazzo, linoleum, or rubber tile. **Roof:** precast concrete slab, with copper built-up roofing, with batten seams. **Fenestration:** steel sash (intermediate projected and continuous); double-strength clear and plate glass. **Insulation:** acoustical — perforated metal panels; thermal — 1" and 2" rigid insulation. **Partitions:** clear glazed tile; removable flush metal. **Doors:** flush wood veneer; hollow metal; baked enamel; freight-type doors.

EQUIPMENT (mostly yet to be decided):

Heating: mechanical supply and gravity exhaust, using existing power plant as source.

Intercommunication: clock and program system.

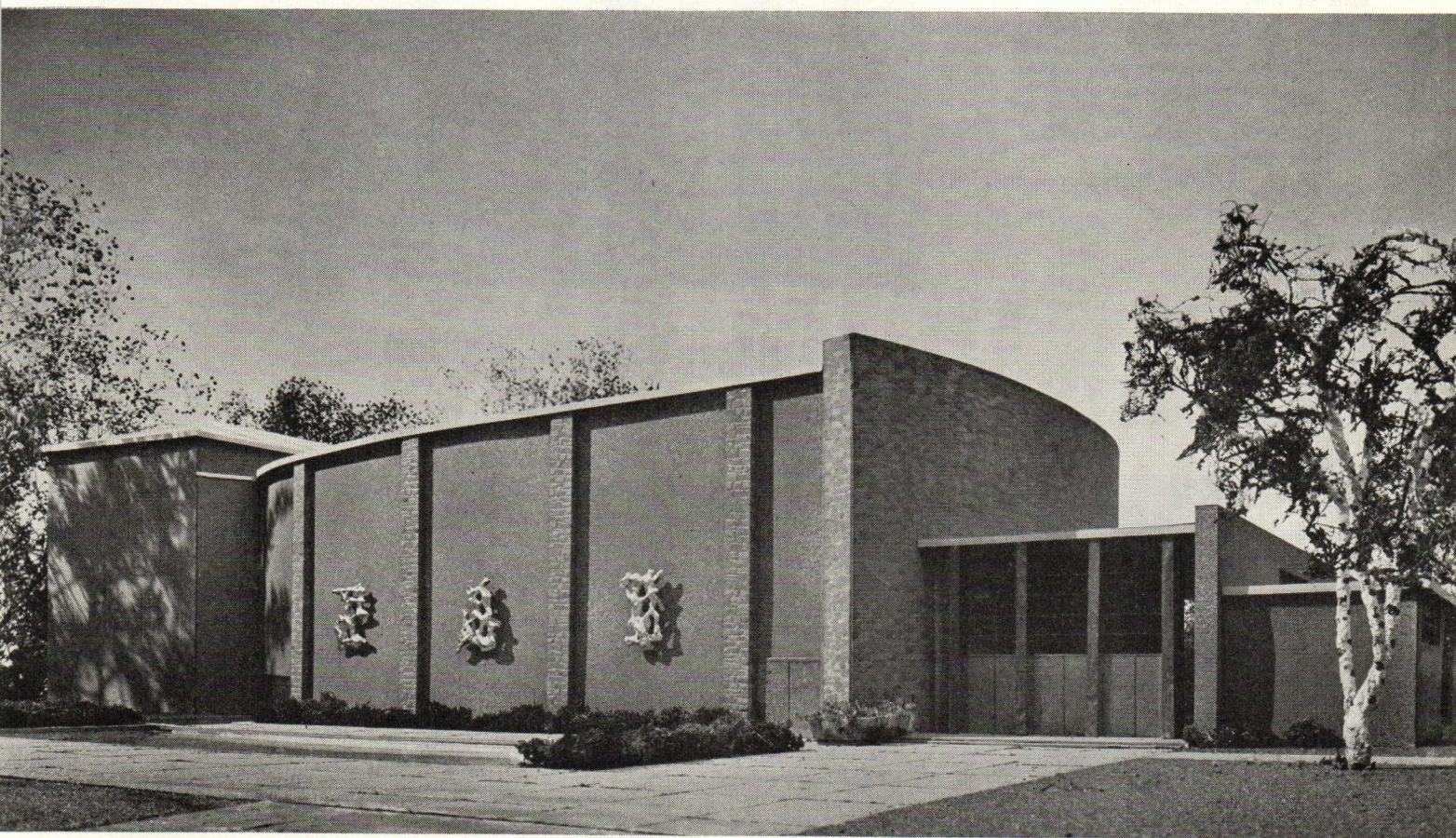
program: Auditorium to seat 1200, with stage for dramatics and musical performances. A gymnasium, including locker and shower rooms, offices, wrestling room, bowling alleys, corrective rooms, and swimming pool; removable seating to accommodate an audience of 1000. Organized in a single structure, with one public entrance (a memorial foyer) to serve all portions of the building, but so organized that the parts may operate independently.

site: Located near the dining hall and adjacent to playing fields; as close as possible to old campus (near the center of the entire developed campus) for easy access by students from all divisions of the institute. Aligned in plan with the industrial and technical building along the northwest side of the campus.

solution: Developed around a central open court, with the memorial foyer at one side providing ready access to all major areas. Pool itself is at a lower level, reached from locker rooms by stairways; pool seating, therefore, is entered from the main floor level. The only second-story portion is the projection room at the rear of the auditorium. Broken wall and ceiling shapes of the latter are designed for acoustical control. Passageways provide access to all portions of the building, avoiding the necessity of traversing any major area.

Photos across page: center—inner court, looking toward wall of swimming pool; bottom—a sketch of the acoustically designed auditorium.

Photo below: model of building. Gilbert Switzer is the sculptor of the wall plaques as well as the maker of the model.



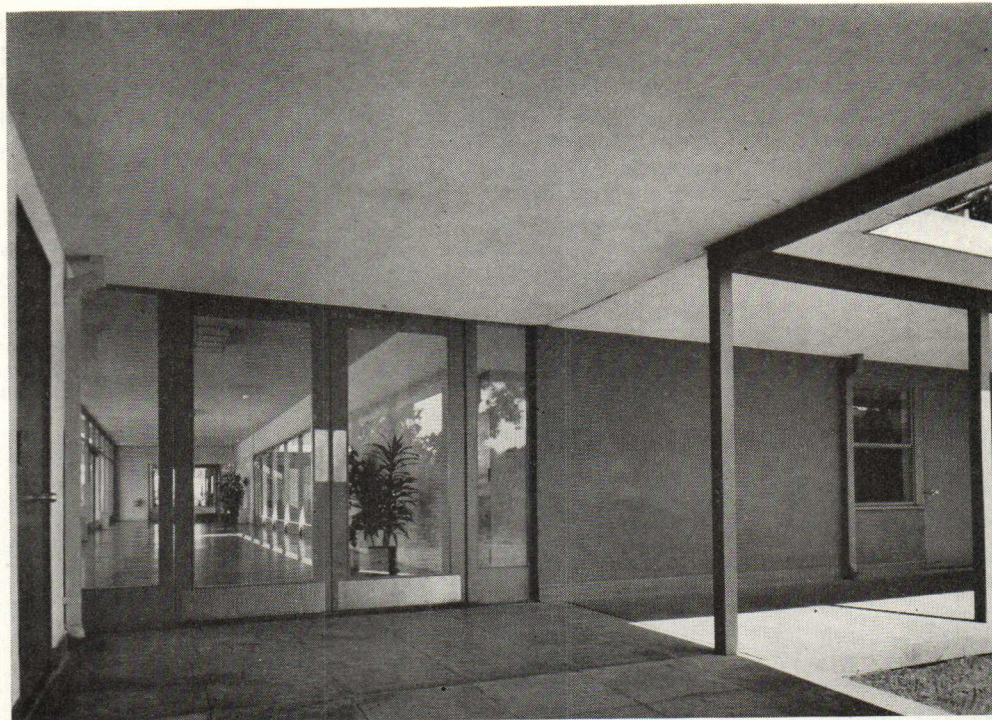
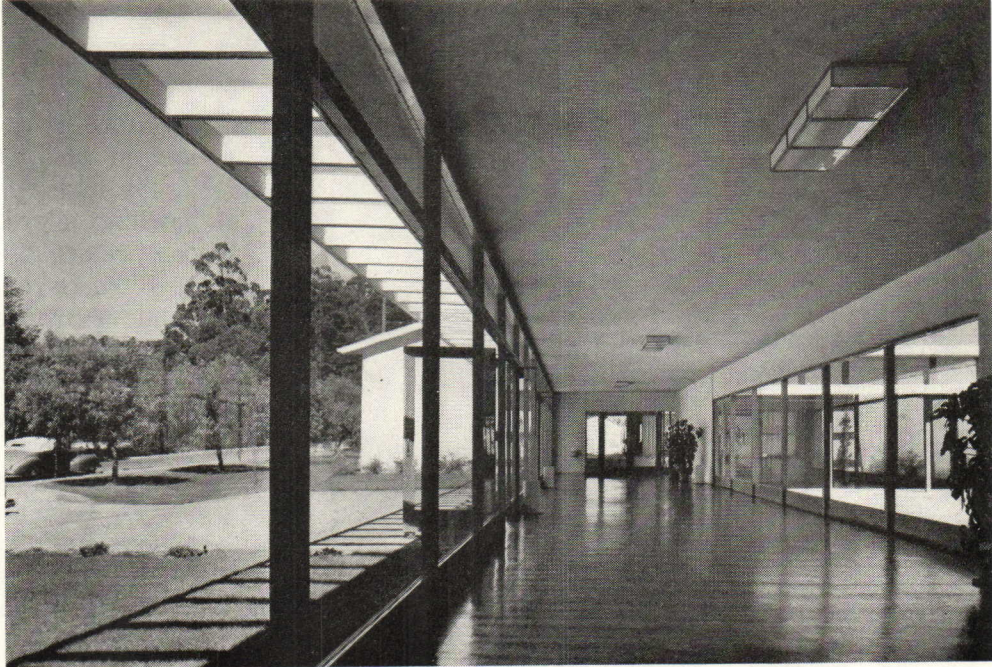
CRITIQUE: CAMPUS DESIGN



Above: entrance view, from southwest; glazed corridor joins the two lecture-hall units at front of buildings.

Photos at right: top—the glazed entrance lobby, with view of one "testing court" through windows at right; right—view in outside corridor just south of entrance lobby; above the corridor roofs, clerestory windows provide bilateral lighting for all laboratories.

Photos: Roger Sturtevant

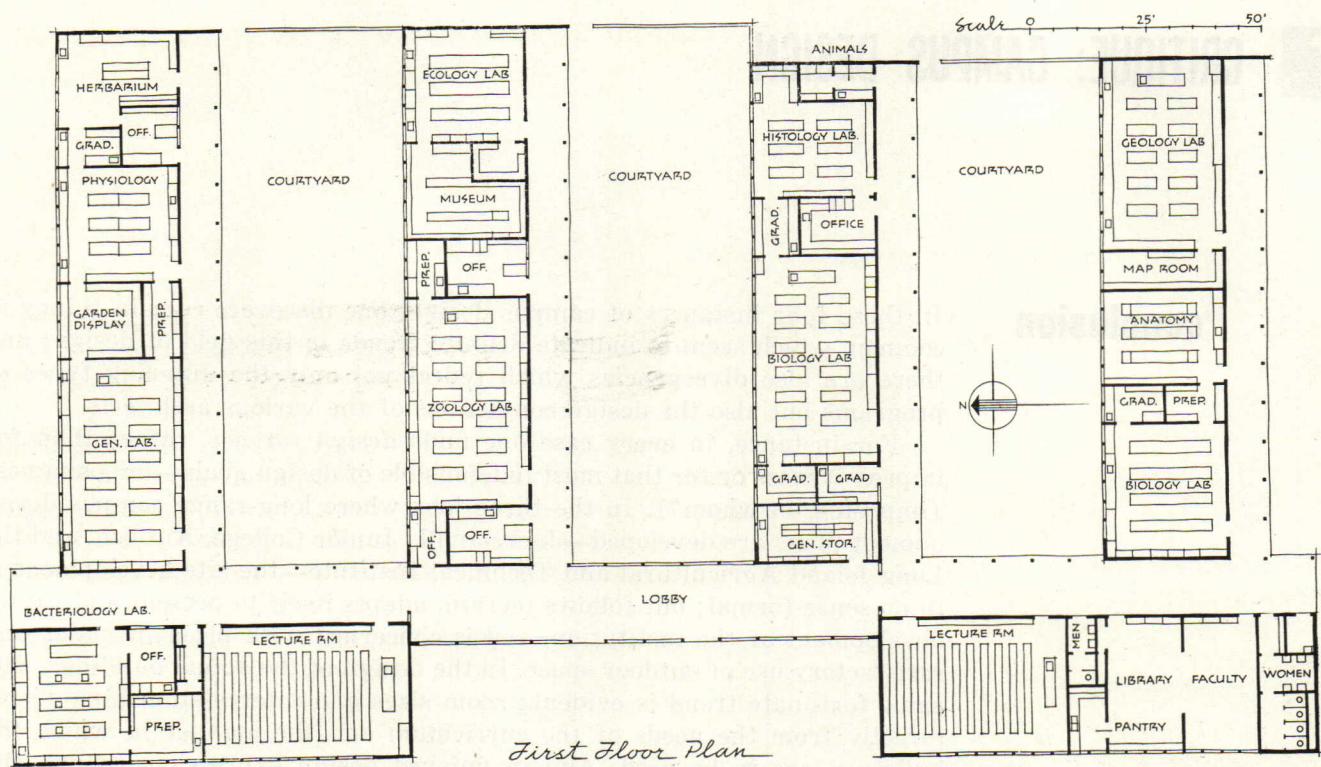


Mills College: Oakland, California

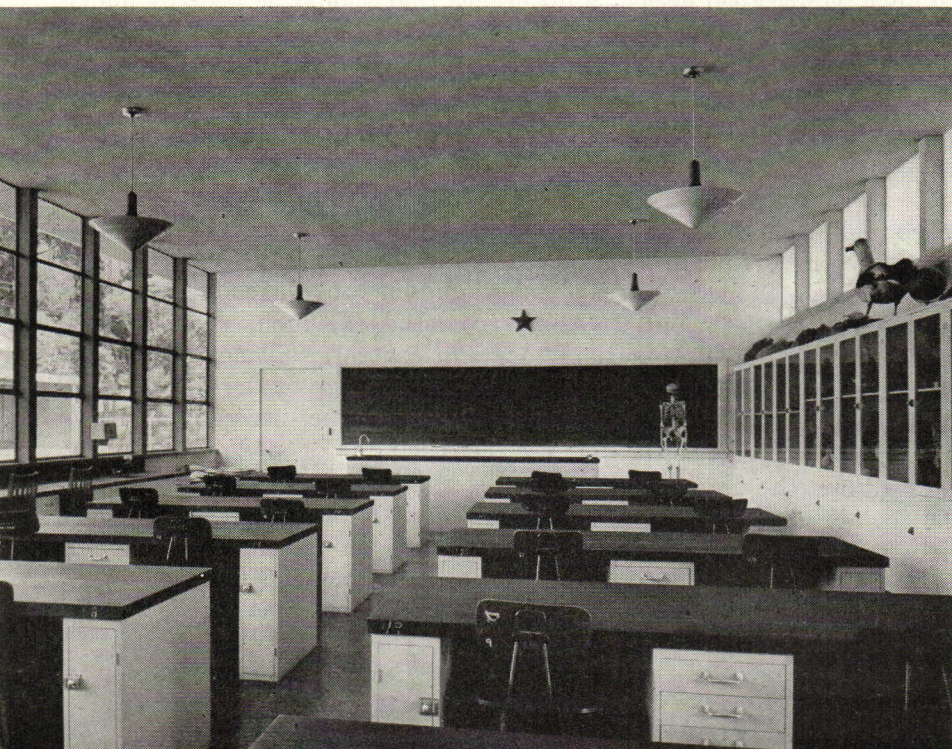
CLARENCE W. W. MAYHEW, ARCHITECT



Clarence W. W. Mayhew: U. of Colo.; U. of Ill.; U. of Calif. Independent practice started 1932, interrupted by work in shipyard during war. Office reopened, 1946. Mayhew has designed several other buildings for the Mills College campus, including the library and an alumnae memorial building.



Below: typical laboratory, with acoustic plaster wall surfaces, continuous windows on north overlooking a plant-testing courtyard. The architect designed all cabinets and work tables. Partitions are movable to provide for future changes in curriculum.



program: A building to house teaching, experimentation, and research in the life sciences—bacteriology, zoology, and botany (chemistry and physics are housed in an older, existing building). Outside testing grounds for seeds and plants, a requirement.

site: Ample, gently sloping land on the beautifully wooded grounds of the college campus.

solution: Four laboratory wings extend east from the north-south line of the front portion of the building; outside corridors with clerestory bands above to provide cross light border these wings on the south; continuous window areas line the northern walls; courtyards formed by the wings provide the required outdoor planting-testing areas. Lecture halls, a special lab, a library, and a faculty-and-students room occupy the two end units at the front of the building. Entrance lobby is glazed on both long walls.

MATERIALS AND METHODS

CONSTRUCTION: **Frame:** steel. **Walls:** steel frame surfaced both inside and out with plaster finish. **Floors:** concrete slab; asphalt tile. **Roof:** flat tile over 3-ply asphalt roofing. **Glass:** both crystal sheet and 1/4-in. plate. **Insulation:** (thermal): wood type. **Doors:** flush, hollow core.

EQUIPMENT: **Heating:** radiant panel system in the floor slab. **Special equipment:** all laboratory and office furniture, tables, and storage units specially designed by the architect.



conclusion

In these four instances of campus design, one discovers certain things in common which seem to indicate definite trends in this field of design; and there are also divergencies which reflect not only the differing types of programs but also the design convictions of the various architects.

For instance, in every case one finds *design for use*, rather than for impressiveness or for that most indefensible of design goals—imposingness (imposing on whom?). In the three jobs where long-range campus development plans are developed—Jacksonville Junior College, Antioch, and the Long Island Agricultural and Technical Institute—the site development is in no sense formal; but follows terrain, adapts itself to present and future development of the institution, and is concerned with pleasant vistas and satisfactory use of outdoor space. In the design of the actual buildings, this same fortunate trend is evident; room sizes and interrelationships derive directly from the needs of the curriculum and the manner in which the buildings are to be used. And in finished design expression, though the instances are various in character, there is a welcome realization that these educational buildings are of this age—and proudly so.

The three projects for which long-range campus plans have been worked out present strikingly different patterns. In Arthur McVoy's scheme for Jacksonville Junior College, the irregular terrain and special problem of making the most of the Florida climate have resulted in a sinuous, natural pattern, with curved lines and interrelationships echoing the lay of the land beneath. In the case of Antioch, the Saarinen had an existing campus to incorporate with the new. The women's dormitory is carefully designed in line with the scale and order of the eventual campus development, which will involve alteration and enlargement of several of the older buildings. The basic problem Reisner & Urbahn faced in the design of the Agricultural and Technical Institute campus was somewhat parallel to that at Antioch but, in this case, the new additions constitute an entirely new "wing" on the campus. Hence, the pattern of the total campus plan indicates a sharp but necessary divergence in scale between the older portion—small, axial, tight—and the bold scale of the new, larger buildings plotted around open, landscaped areas—a difference that should be visually alleviated by use of similar materials.

It is difficult to be critical of the finished design of the individual buildings. The editors feel that all of the projects chosen for publication in this issue are well disciplined, expertly handled in detail, and expressive of their purpose in an attractive way without leaning on modern or traditional romantic associations. Perhaps the buildings of Kemp, Bunch & Jackson at Jacksonville seem a bit uncompromising; yet they are certainly clean, simple, nicely proportioned. The dormitory for Antioch may appear to have some of the same Spartan effect (though the entrance arrangement provides a pleasant relief), but we know from the Saarinen that eventual appearance (not to mention satisfactory sun control) will not be realized until the trees have had a chance to grow. In the design of the Agricultural and Technical Institute there may be too much stone, used primarily to relate the new buildings to the old; yet the discipline of modular planning, carried well into the final design, keeps the buildings from appearing overdressed. In his unpretentious Science Building for Mills College, Mayhew has employed small scale and fine detail to achieve an almost domestic character, with a grace and delicacy appropriate for a women's college.



Workshop: Seattle, Washington

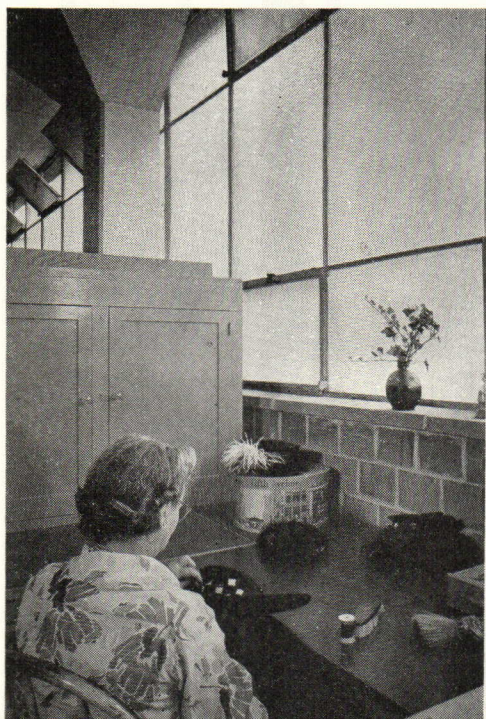
J. LISTER HOLMES, ARCHITECT

program: A building to house the varied activities of the Seattle branch of Goodwill Industries—an enterprise employing physically handicapped people who salvage and recondition old articles and maintain shops for display and sale of fabricated and remade items. In addition to the work- and salesrooms, office space, a lunchroom, and a chapel were required. (Note: The success of this particular branch is notable; it operates in the black and has disassociated itself from the community fund).

site: Flat, along the north side of a street.

solution: Long, rectangular plan, with entrance and shop areas arranged at the west end; stock- and workroom (with adjoining receiving and shipping dock) on the east. Small basement under east end allows use of gravity drop for paper baling and shredding; return to truck dock for shipment by means of an elevator. A small second floor toward the west end of the building (also served by an elevator) is made up of office space, lunchroom, and chapel. The large general workroom occupying the northeast portion of the main floor is lighted both by continuous industrial-type sash at the wall line and (for the inner area) by a clerestory band in the roof.

Photos: Dearborn-Massar

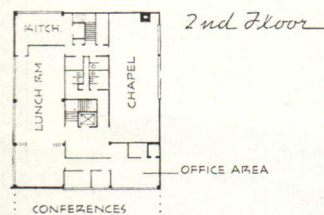




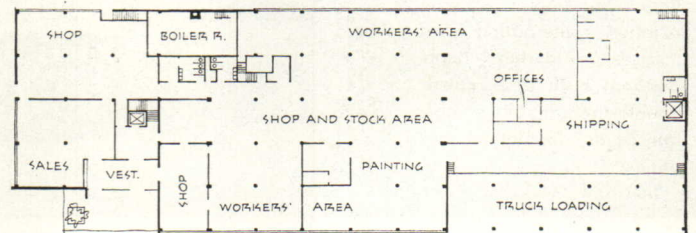
Structure is concrete frame and roof, with insulating material set in forms at time of pouring. Above: public entrance, with windows of office area above; exterior wall is of 5" tile laid in alternate courses with roman brick.

Below: view toward vestibule (and doors to sales-room) from inner lobby.

Across page: top—the second-floor lunchroom; near end may be closed off by folding partition for use as conference room; bottom—chapel; obscure glass on east wall.



Scale 0 50 100'



First Floor





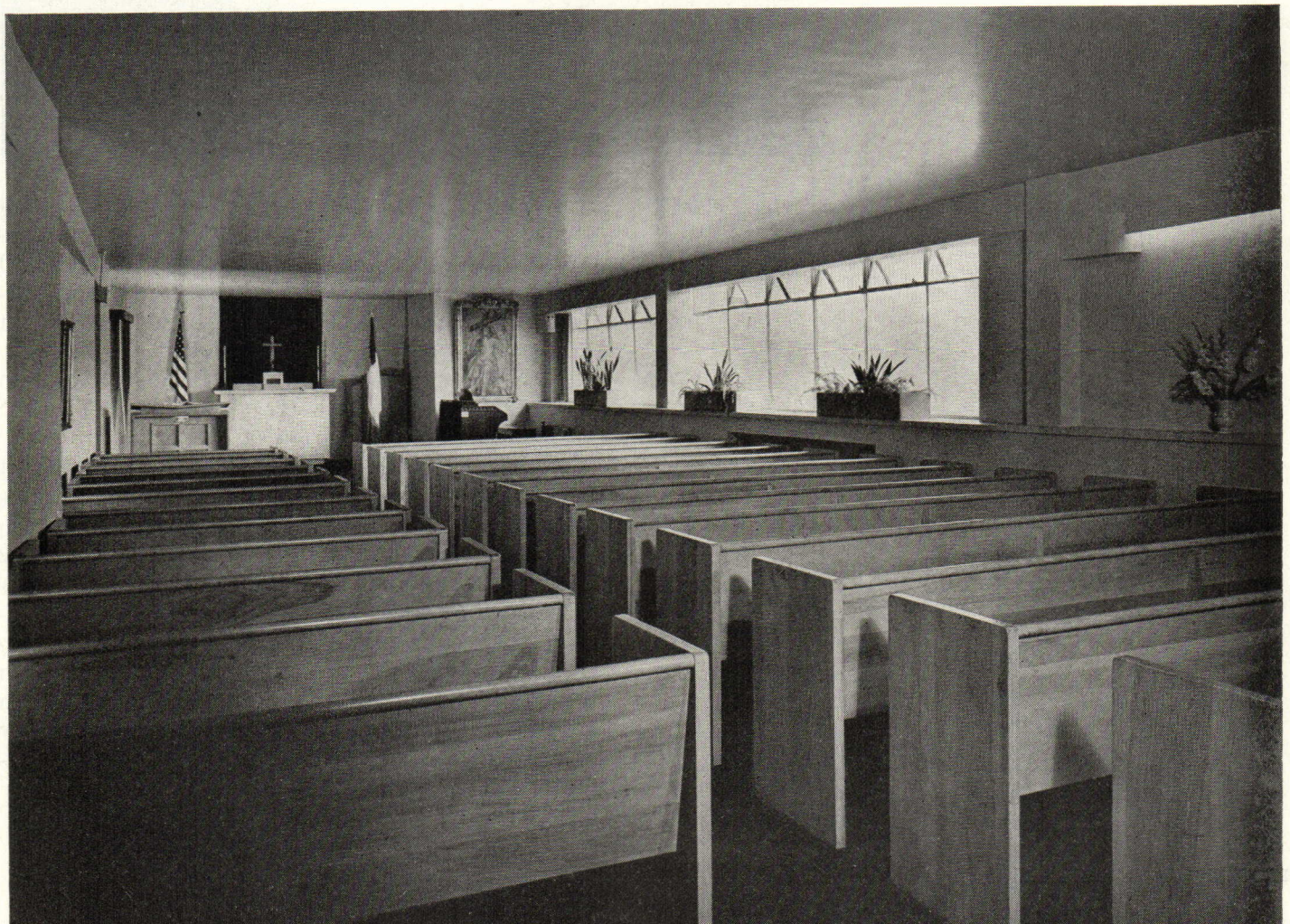
J. Lister Holmes: U. of Wash. (engineering); U. of Pa. (architecture). Work in offices in New York, Philadelphia, and Seattle; own practice established 1922. Past president, Washington State Chapter, A.I.A.



MATERIALS AND METHODS

CONSTRUCTION: **Frame:** concrete columns, floors, and roof. **Walls:** terra cotta tile (on exterior, alternating with roman brick courses). **Flooring:** asphalt tile; cement. **Roofing:** built up. **Fenestration:** steel sash; double-strength glass; obscure glass in certain areas. **Insulation:** wood-fiber type. **Partitions:** terra cotta tile.

EQUIPMENT: **Heating:** forced, hot-water system, with unit heaters in the shops; convectors in other portions of the building.



Factory: Ripon, Wisconsin

AULER, IRION & WERTSCH, INC., ARCHITECTS



Above: the product. At right: public and office entrance.

Across page: top—view from southwest; road at left leads up and around to delivery dock at rear; dock in center is for shipment of finished product; office and administration block, right; center—detail of latter, with latticed sunshade above windows of office area.

Photos: Hedrich-Blessing



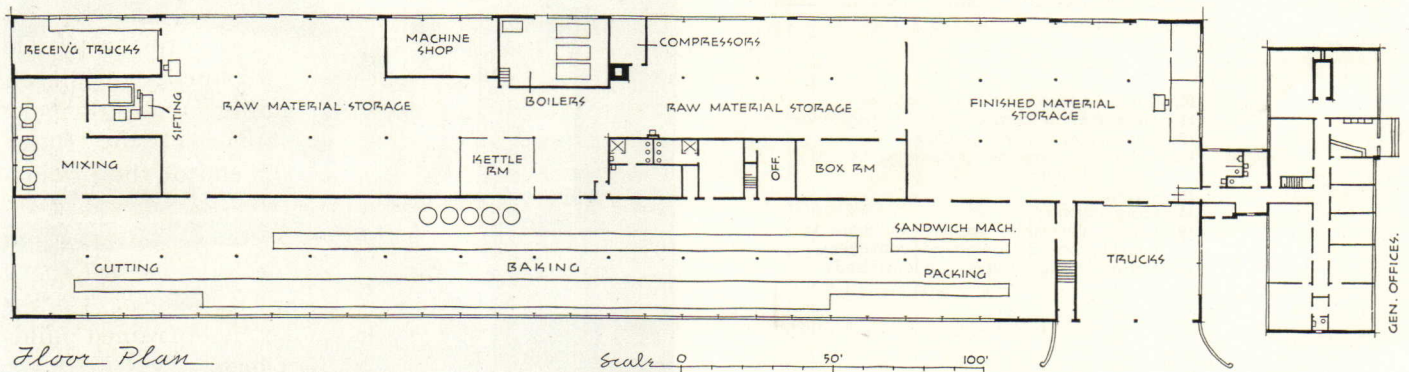
program: A factory for the manufacture of "rippin' good cookies," both plain and sandwich type (marshmallow topped; with icing, etc.); capacity to be 2000 pounds of cookies an hour, involving use of a 300-foot-long band oven. Cleanliness and an efficient process flow were prime design factors.

site: Long, narrow, flat site, with one narrow end on north side of main highway at the edge of town; rail siding along east border of property.

solution: Administration-office unit and public entrance at front of property; plant organized within a simple rectangle at rear; raw material storage rooms on east of building beside rail siding; truck delivery dock at northeast corner; shipping dock (by truck) at southwest corner of plant (at end of the production process). Two-story-high oven-packing room occupies west side of building. Steps of process from raw material to packaged product (indicated in both diagram and pictures on following spread) follow logical path with no cross traffic. Steel-framed building is laid out in 20- x 25-foot bays.



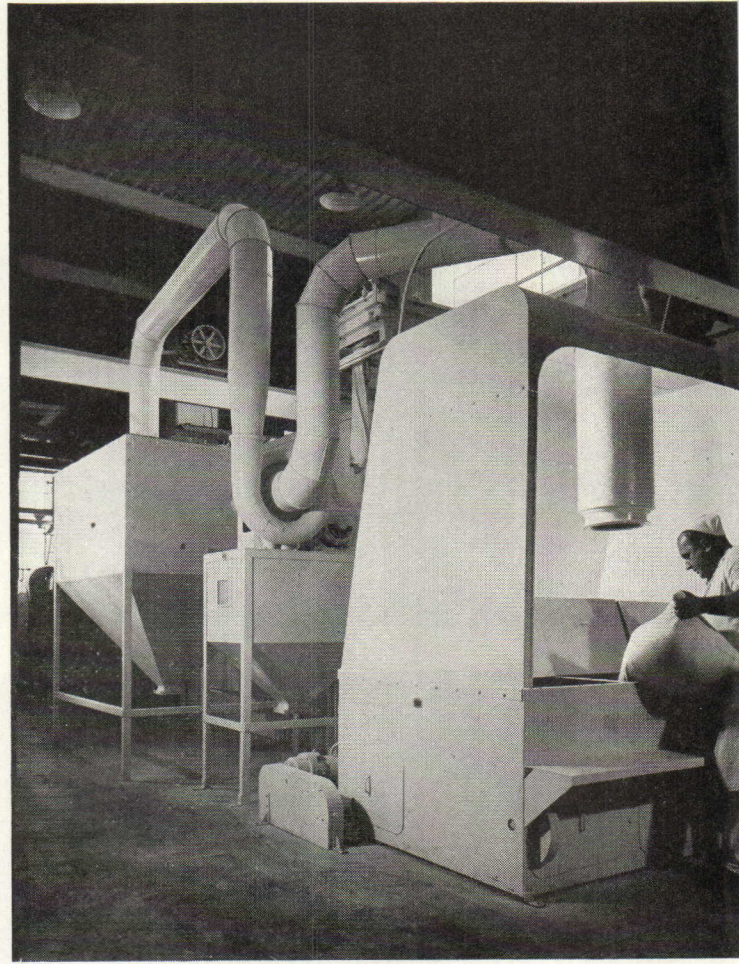
Henry Auler (top): Past president and director, State Association of Wisconsin Architects; 45 years' experience. Theodore H. Irion (center): B. S. Arch., Ill. Inst. of Tech. Associated with present firm for last 15 years. Robert S. Wertsch (bottom): B.S., Civil Eng., U. of Wisc. In charge of firm's engineering department for past 18 years.



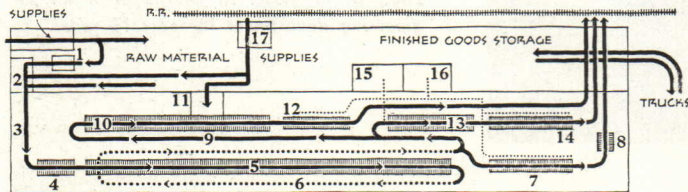


Above: flour arrives at receiving dock at northeast corner of building; weighing platform at left.

Right: top—sifting machine from which the flour is then pumped to mixing units (photo below) which are directly north of the sifter. Above the mixers, scales weigh the mix automatically.

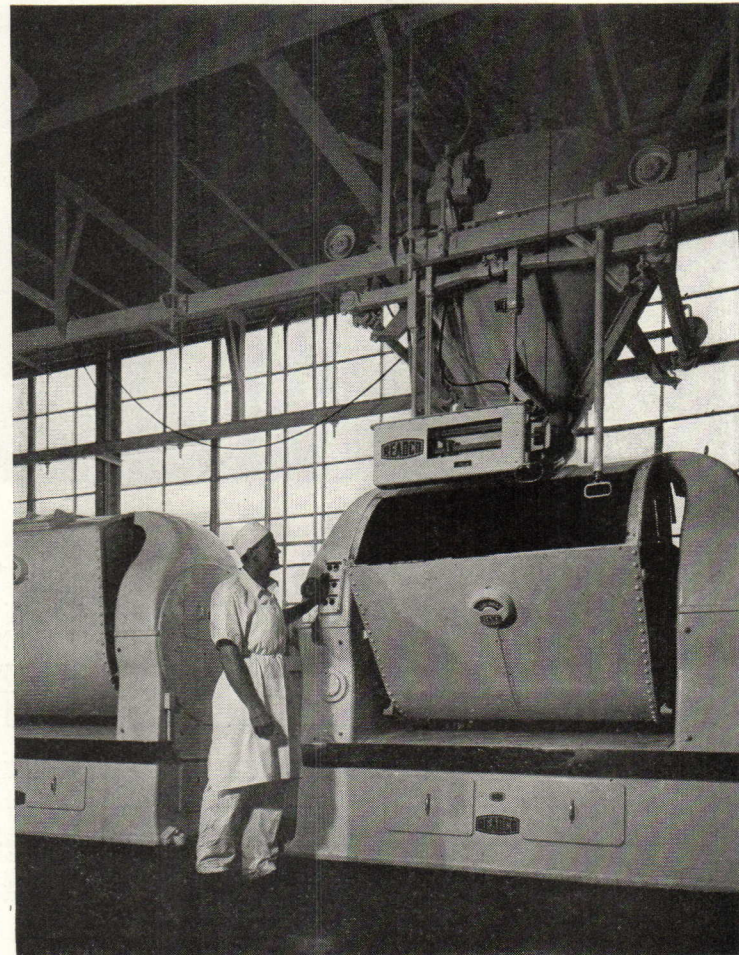


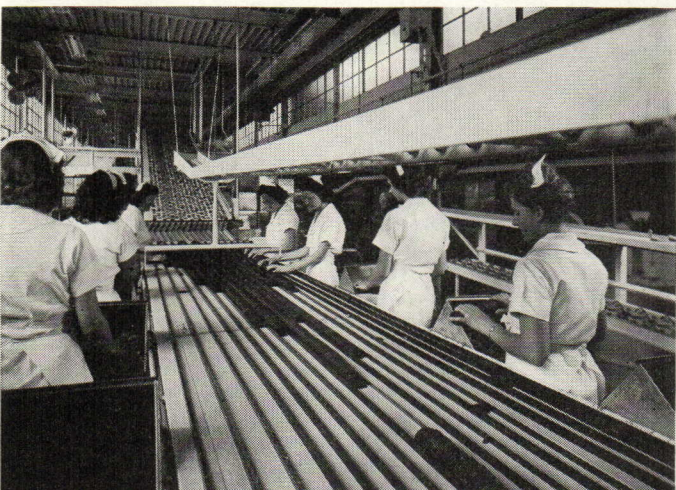
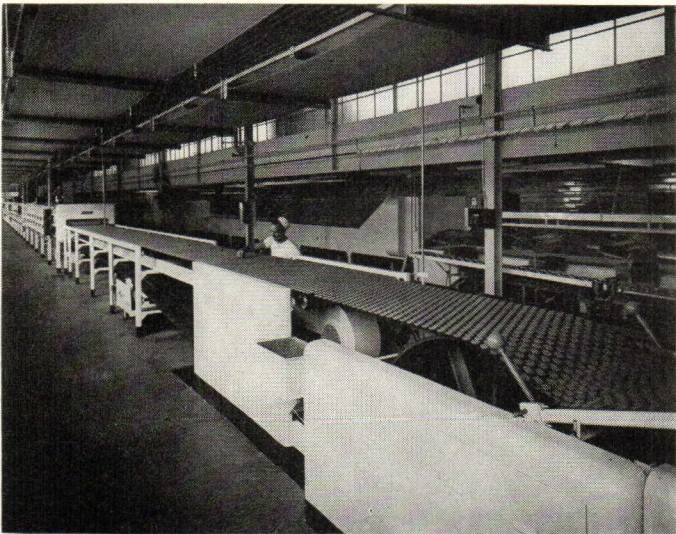
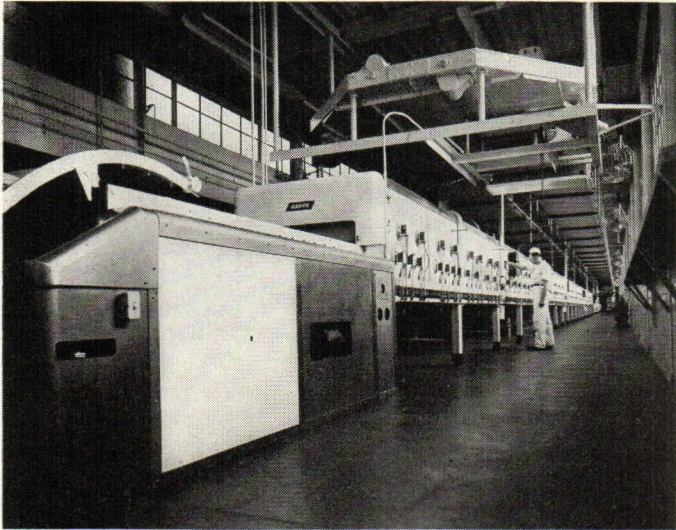
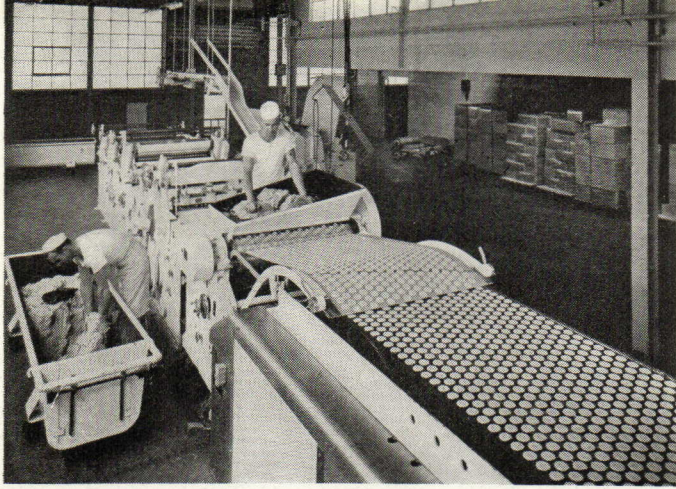
1. Sifting and Conveying
2. Mixing
3. Dough troughs (overhead track)
4. Cutting
5. 300-ft.-long band oven
6. Belt cooling conveyor (overhead)
7. Packing
8. Weighing
9. Cookies to be topped, handled in metal containers on dollies



Flow Diagram

10. Topping (marshmallow, icing, etc.)
11. Marshmallow beater room (in mezzanine)
12. Packing of topped cookies
13. Sandwich machine (cookies with filling of icing)
14. Packing
15. Icing mixing
16. Carton assembly; cartons delivered to packing line by overhead conveyors
17. Syrup storage tanks (underground)





MATERIALS AND METHODS

CONSTRUCTION: **Frame:** steel columns and beams. **Walls:** cavity brick; glazed tile; cement block; cement-surfaced fiber board. **Floors:** cement over concrete slab; in office area: rubber tile; asphalt tile. **Roof:** steel decking; built-up roofing; two half-inch layers of insulation board. **Fenestration:** steel sash; double-insulating glazing in office area. **Doors:** flush, hollow core in offices; overhead doors in truck docks.

EQUIPMENT: **Heating and air conditioning:** low-pressure steam system, with automatic, oil-burning source; convectors and unit heaters; subatmospheric controls and individual office controls. High-pressure steam from 25 H.P. boiler; cooling units of the evaporative type. **Electrical:** both fluorescent and incandescent units. **Special equipment:** marshmallow beaters; flour-handing equipment; mixers; oven and conveying equipment; sandwich machine; package machine; marshmallow depositor; kettles; chocolate machine.

Pictures at left should be read in relation to diagram on facing page. They show top to bottom:

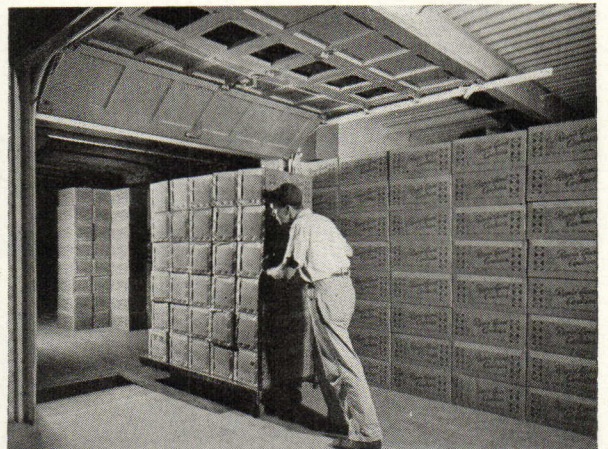
Mixed dough cut into cooky forms (4) travels on conveyor band toward . . . the 300-foot-long band oven (5). Overhead conveyor (6) takes cookies on round trip for cooling after baking.

Baked cookies emerge from oven (right-hand end of 5).

Cookies travel down from cooling conveyor to packing tables (7). Roller conveyor overhead feeds boxes to tables.

Sandwich-type and topped cookies go from this main production line to a parallel line (on east side of room) where marshmallow drops by gravity from a mezzanine "beater room" at the appropriate place in the process.

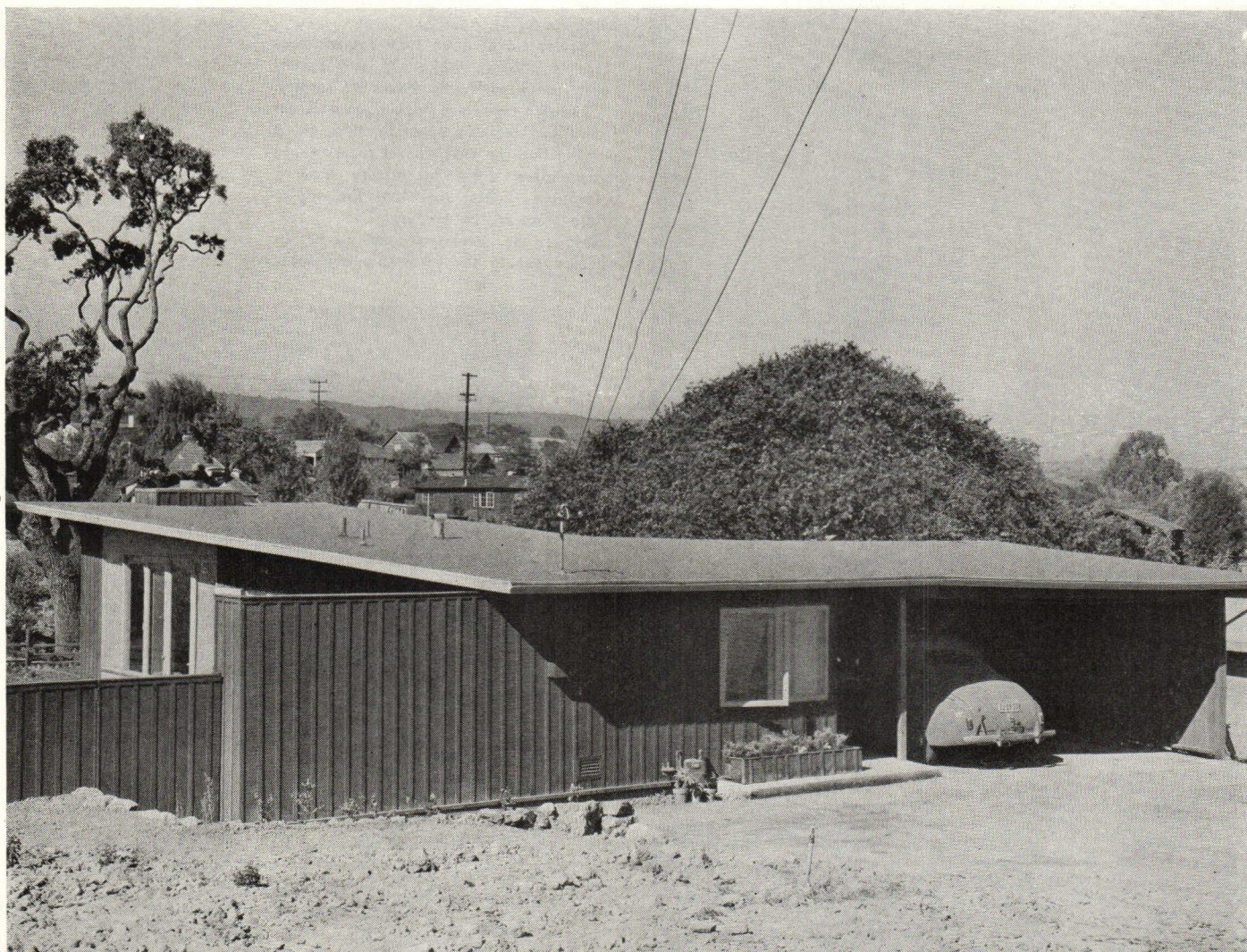
Below: the packaged cookies being wheeled out to the truck-shipping dock.

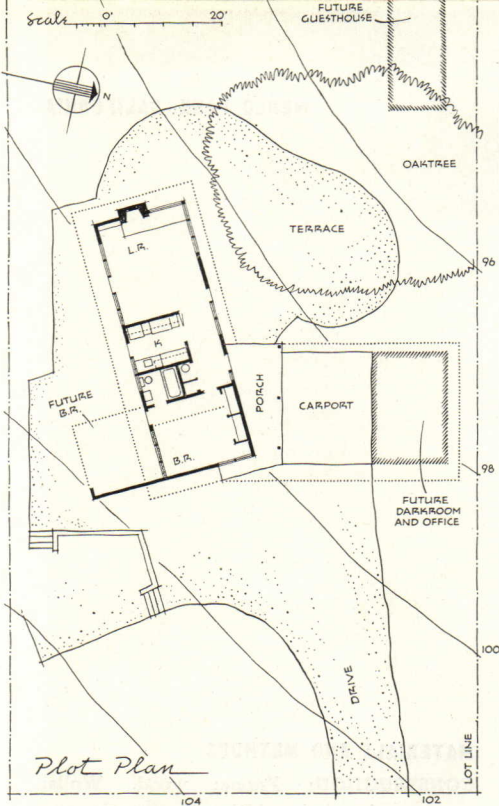




House: Menlo Park, California

JOHN CARDEN CAMPBELL, DESIGNER & WORLEY K. WONG, ARCHITECT

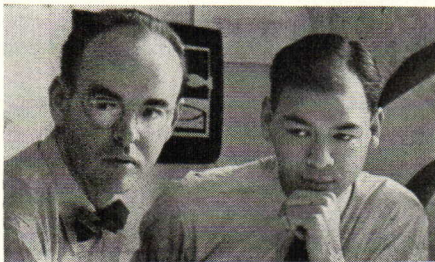




program: A minimum house for a professional couple (she is a landscape planner; he is a photographer). Provision required for addition of two studios and another bedroom.

site: Slightly sloping site, with a 50-foot frontage and a depth of 200 feet; lot faces east toward the street; a magnificent live oak tree, about half-way back toward the north side of the site.

solution: Initial unit organized within economical 16' x 46' rectangle. Building placed toward the south side of the lot and angled in such a way that future addition of studios will form a wide-armed enclosure for the oak tree. To minimize the boxiness of a rectangular building, the roof is sloped from a height of 7'-6" at the bathroom to 10'-6" at the west end of the living room. The tall windows in the northwest corner of the living room are fixed.

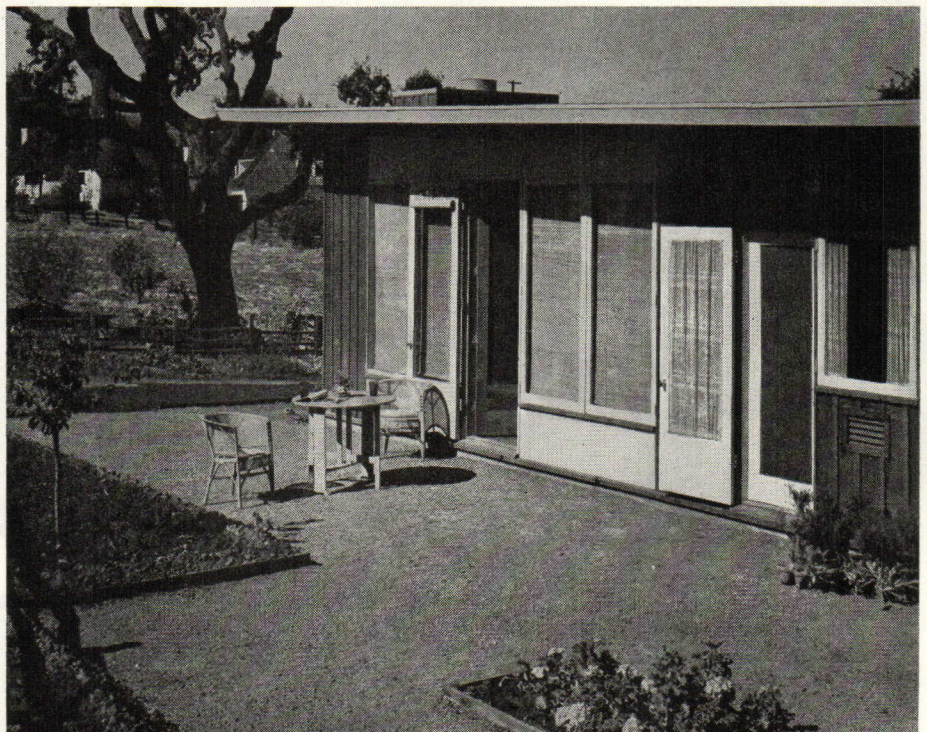


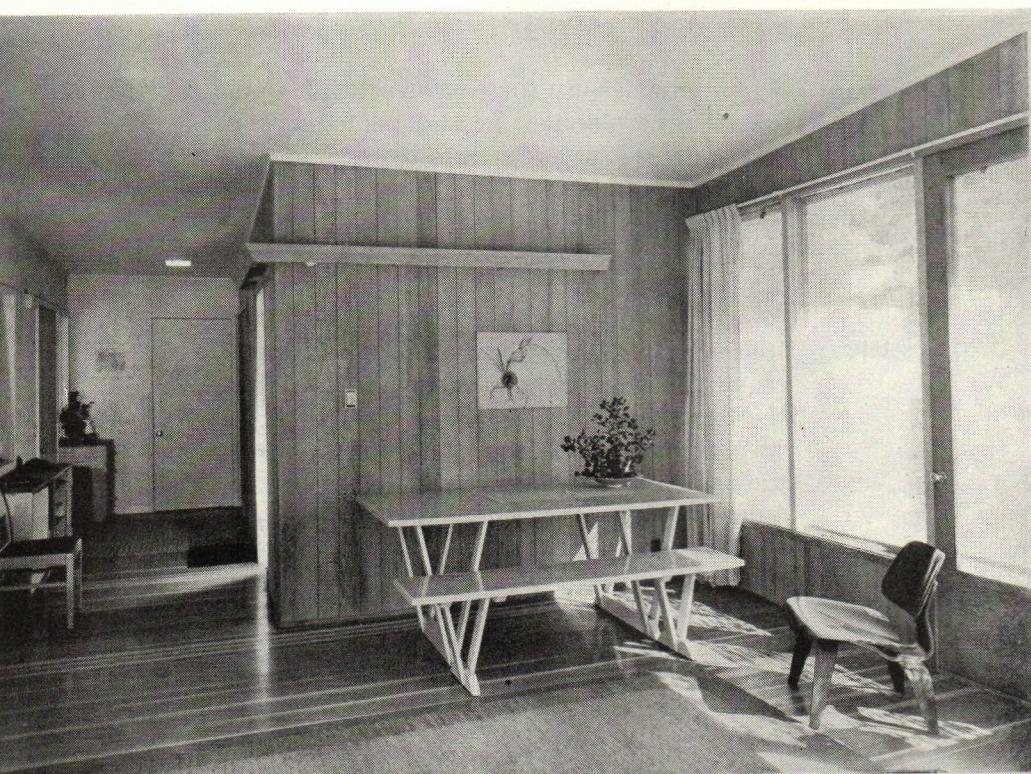
John Carden Campbell (left): trained chiefly at Rudolph Shaeffer School of Design. Worley K. Wong (right): graduate of the School of Architecture of the U. of California.

Across page: general views of front and garden sides of house. Ventilation at fixed corner windows is managed by screened, louvered unit above window in the west end, controlled by an in-opening panel on the inside.

Below: detail of the south terrace.

Photos: Andrew Christensen, Jr.





MATERIALS AND METHODS

CONSTRUCTION: **Frame:** wood. **Walls:** frame surfaced (outside) with boards and battens and (inside) with wallboard or red-wood boards. **Roof:** tar and crushed brick over wood frame. **Fenestration:** wood casements; crystal glass. **Partitions:** 2 x 4 stud frame.

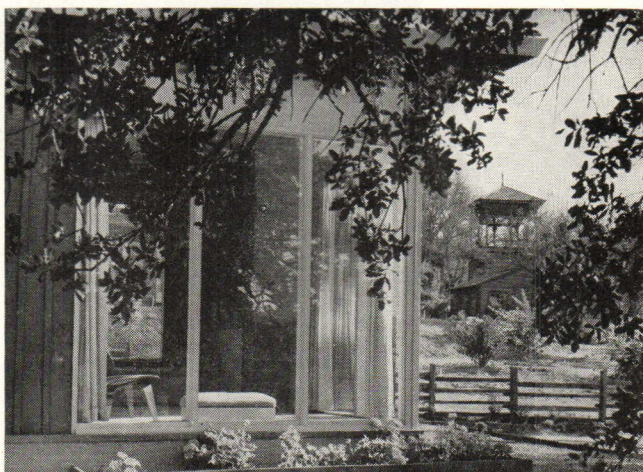
EQUIPMENT: **Heating:** gas floor furnace; manual control. **Kitchen:** electric stove and refrigerator.



Top: dining corner of main living room; entrance and bedroom hall at left.

Center: west end of living room with fixed windows in northwest corner; hearth tile extends out to the window wall.

Right: detail of the north windows in the living-room corner.





The Case for the Staff Engineer

BY HARRY W. TERRY

The continuation of the tremendous building program which the United States has experienced since 1945 is forcing the already busy architects of the country to make ever more effective use of the abilities of their staffs. The architect who has not already done so must now organize his office for efficient production. One way of doing this, when the size of the office warrants it, is to employ a staff engineer. This article will outline the responsibilities and the qualifications of such a member of the organization.

The increasing importance of such methods of controlling environment as air conditioning has placed on many architects a responsibility much greater than before the war. It has increased the employment of specialists, but it has not relieved the architectural organization of its responsibility. Only the architect has the knowledge of all subjects needed to advise his clients properly. The staff mechanical and electrical engineer provides, in the architect's own office, the knowledge, experience, and judgment in engineering matters that are needed in formulating this advice.

This engineer is not to be confused with the engineering draftsmen and designers who are customarily employed in many architectural offices where the architect is his own engineer. The staff engineer is of policy-level stature and is fully competent to coordinate the activities of any mechanical and electrical experts employed to prepare plans and specifications, or to undertake the design of any mechanical and electrical work the architect wishes to plan and delineate with his own personnel. In general, his duties would be to determine office standards with regard to engineering problems, to see that these standards are met in the design of buildings which emanate from the office, and to make sure that drawings and specifications as well as selection of materials and equipment comply with these standards and will result in good design.

duties

In detail, the duties of a staff engineer might be listed as follows:

Preliminary Studies and Reports. This work would include examination of the site, preliminary investigations and collection of such data as may be necessary in connection with client or design conferences, economic studies, preliminary layouts, estimates, and reports.

Contract Drawings and Specifications. This may require the preparation of contract drawings, specifications, and estimates of contract costs, or the coordination of architectural and engineering drawings and specifications during their preparation by others.

In this connection it might be pointed out that much confusion and duplication can be avoided when the staff engineer prepares the special General Conditions of the mechanical and electrical contracts and includes them in the architect's own Supplementary Conditions. Consulting engineers usually include in their specifications General Conditions applying only to their own contracts. These quite often duplicate the A.I.A. General Conditions which the architect uses; and sometimes they conflict with them and cause confusion and difficulty. The writer believes General Conditions prepared in the architect's office will be better-drawn legal documents than if the responsibility is divided between the architect and the consulting engineer. Some firms prefer to *edit* the consulting engineer's General Conditions, deleting any redundancy. This again would be the responsibility of the staff engineer.

Services During Construction. Contractors' plans and shop drawings, and materials and equipment submitted for approval should be checked by the consulting engineer responsible for the design of that branch of the work and then reviewed by the architect's staff engineer. The staff engineer should make the necessary visits to the work during its

progress to prevent conflicts between trades, and to check progress reports and assure that installations are being made as expected. If required, the staff engineer should be able to act as field supervisor, prepare progress reports, make monthly and final estimates, and render the final report.

office standards

A good administrative engineer should organize his work and codify it so that whatever he undertakes will be according to approved office policies. This means that the staff engineer should prepare policy manuals which, after they have been approved, will become his authority for any decisions he has to make.

Every office should have a mechanical and electrical design manual setting forth the architect's standards and principles of design. Such a manual should include a section on material standards and on approved makes of equipment and materials; it should be supplemented by a specification manual indicating in detail what must be covered in specifications and what shall go on drawings; for the benefit of whoever writes specifications and whoever transcribes them, the manual should give the format for specifications.

The staff engineer should prepare a comprehensive manual for field superintendents. The manual should be written to assure that the finished work of contractors will conform to the architect's standards in all particulars whether exhaustively covered in specifications or not. An adjunct or supplement to the superintendents' manual is the clients' maintenance manual. This manual should include all maintenance instructions which apply generally to the proper upkeep of mechanical and electrical work and should also include suitable instructions to guide contractors in the preparation of operating instructions and maintenance rules required for each craft before final payment is issued.

professional qualifications

The educational and professional background of a competent staff engineer should be evidenced by his license as a professional engineer or by a degree from a recognized engineering college. He should have had practical experience in construction and maintenance with contracting firms and at least 15 years' professional engineering work with recognized architects or in engineers' offices.

An engineer, to be satisfactory in a staff position, must not only be intelligent to the extent measured by his professional qualifications but he should not as the result of his experience have become "one-line" minded. "One-line" men have spent so much time at their specialty that their ability to think quickly on new and different problems has to a certain extent been lost. This may be reflected in stereotyped solutions to design problems, when far more brilliant answers are desired.

The staff engineer should have particularly good administrative ability so that work schedules are prepared and carried through on time and so that no one will have to wait for him to furnish whatever is necessary for the smooth progress of the work.

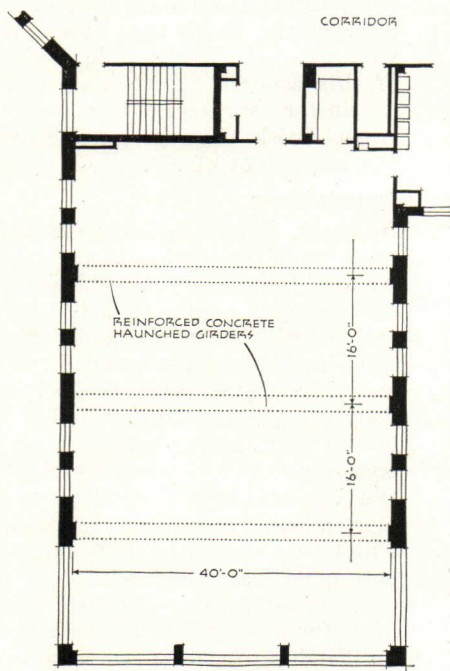
The architect considering the employment of a staff engineer can expect to pay from \$6000 to \$12,000 a year for full-time service, depending upon the availability of local talent and the importance of the projects he handles. Whether this extra salary expense is warranted depends largely on how effectively the architect is organized to capitalize fully on these engineering services.

A staff engineer should function to effect a reduction in the cost of the preparation of architectural and mechanical plans and specifications. He should be able to accomplish better coordination of these same plans to the end that fewer time-consuming adjustments need be made in the field, that fewer extras will be required, and, most important of all, that clients will be better satisfied with the services that have been rendered.

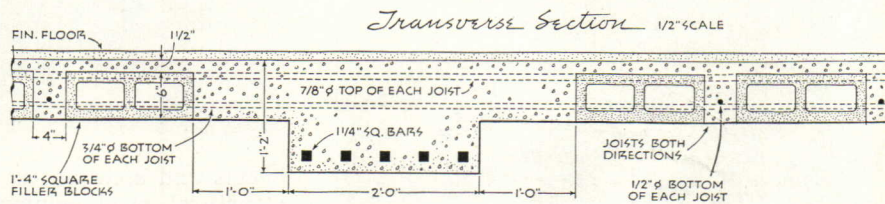
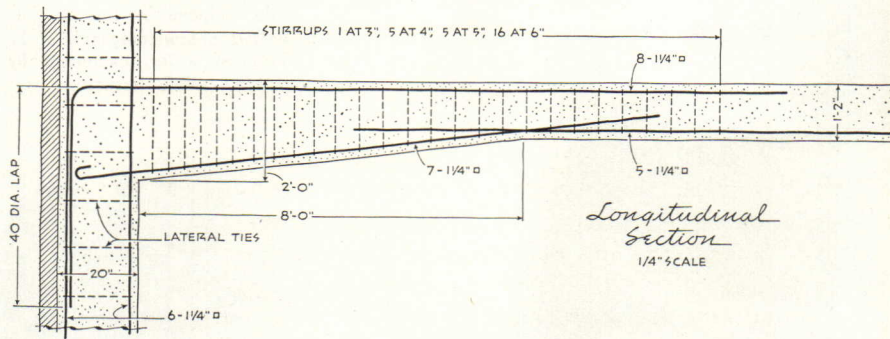


MATERIALS AND METHODS

In the continuing search for ways to reduce building costs, an architect will exploit all structural methods that enable him to design more economical structures. Here is one method used to good advantage at Kings Park, Long Island, New York.



Typical Dayroom Plan



Left: fragmentary floor plan shows typical dayroom with 40' x 16' bays.

Upper right: longitudinal section through haunch of reinforced concrete girder spanning dayroom.

Lower right: transverse section through girder at center span.

reinforced concrete haunched girders reduce waste cubage

By the use of reinforced concrete haunched girders in two buildings of the Kings Park State Hospital, Hart, Jerman & Associates, New York architects, have made a substantial reduction in waste cubage. Plans that combine large unobstructed rooms with small rooms and closets will frequently require excessive floor-to-floor heights and result in wasted space. In order to accommodate the prescribed clearance under girders and the depth needed for floor construction, closets become like chimneys, and small rooms require suspended ceilings.

At Kings Park, dayrooms with 40-foot widths have been economically combined with rooms of 100 square feet or less in area.

The desired clearance under girders was 9'-3". Treated as a simple beam, the most economical steel section was a 27 WF. This construction would produce the following floor-to-floor height:

- 9'-3" clearance under girders
- 2" fireproofing
- 2'-3" girder depth
- 2" fireproofing
- 1" floor finish

11'-11" floor to floor

Using a reinforced concrete haunched girder this height becomes:

- 9'-3" clearance under girders
- 1'-2" haunched girder
- 1" floor finish

10'-6" floor to floor

It is evident that 1'-5" may be saved by employing this method of spanning the dayroom. As each building is three stories high and each floor contains 45,000 square feet, 384,000 cubic feet will be saved in these two structures.

As no change is made in the mechanical work, except in length of vertical piping and reduction of volume to be heated and ventilated, this economy is not at the same rate as in over-all cubage. Nevertheless, a significant savings was accomplished.

The engineering was performed by Seelye, Stevenson & Value, also of New York. The haunched girder is 24" deep at face of column and tapers to 14" at the fifth point of the span. Beam widths are 48" for the positive moment and 24" for the negative moment. In designing these girders,

the structural designer assumed 20" x 24" columns and used the following loading:

Live load (60 x .85)	51
Flooring	12
6" Filler block plus	
2" slab	73
Plaster	6
	142 lbs. per sq. ft.

Beam load	
142 x 16	
(panel width)	2270
Average beam weight	200
	2470 lbs. per lin. ft.

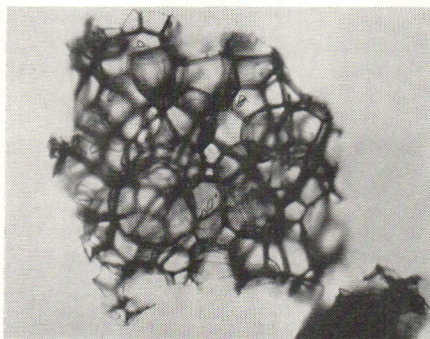
Beam factors and moment coefficients for this member of variable section were obtained from *Handbook of Frame Constants*, published by the Portland Cement Association. A simple moment of 480 foot kips at center span was reduced to 116 foot kips by "throwing" the difference (the end moment of 364 foot kips) into the columns by means of the haunch. The ultimate strength of the concrete for this design was 3000 p.s.i.

B.H.H.

permalite, plaster aggregate, weighs only 8½ pounds per cubic foot



Left: perlite ore blasted from side of mountain contains from two to five percent of trapped water. Ore is crushed and screened at mine-side, shipped by rail to the expanding kiln. Below: photomicrograph of Permalite particle. Trapped water, expanded by heat, forms a sturdy, cellular structure.



Perlite, in its natural state a useless volcanic rock, has been successfully exploited by the Great Lakes Carbon Corporation and developed into a unique building material now marketed as Permalite. Perlite is first granulated, then expanded by heat. The end product, remarkable for its strength and light weight, is exceptionally suitable as a plaster and concrete aggregate, and has been employed successfully in many major installations in western United States.

plaster aggregate

Permalite, a plaster aggregate one-tenth as heavy as sand, weighs only 8½ pounds per cubic foot. When fire-tested by the Underwriters' Laboratory at Chicago, plaster made with this aggregate received the following ratings: on structural steel

beams and steel floors, 4 hours; on structural steel columns, 3 hours; and on 2" x 4" wood stud partitions, 1 hour. The manufacturer states that this plaster possesses insulation qualities that are three times better than those of sanded plaster. Its 58 percent savings in on-the-wall weight will greatly reduce a building's dead load; structural designers will use this saving to adopt lighter structural members. Reduction of excess dead load will result in reduced building costs.

Permalite plaster is being employed in all brown and scratch coats in the 3010 rental units of the Park Forest project near Chicago. In this development, designed by Architects Loeb, Schlossman & Bennett, the total amount of plaster aggregate will run to 2600 tons, as against 26,000 tons of sand that would have otherwise been used. Talks with employees of McNulty Bros., plastering contractors for this project, have revealed other advantages, from the laborer's point of view, in building with this product. The aggregate, packaged in bags containing 4 cubic feet each and weighing only 34 pounds, can be easily moved and without waste from one location to another. Because of its lightness, the plaster is easy to trowel, rod, and darby, and will not slump on the wall. When workman fatigue is decreased, workmanship is improved. A large quantity can be stored within a building without exceeding a floor's allowable live load. As Permalite cannot freeze, winter plastering is greatly simplified. Sand pits that shut down after the first freeze will not constitute a threat to continued plastering operations.

In addition to the brown coat ag-

gregate, Great Lakes Carbon Corporation has developed an acoustic plaster aggregate which weighs from 10 to 12 pounds per cubic foot. It is used in the finish coat and applied with a trowel. The particle gradation of this acoustic aggregate produces a plaster surface which, with a trowel finish, develops a noise reduction coefficient of .60.

concrete blocks

Recently, Permalite concrete blocks were made for testing at the Underwriters' Laboratory. The blocks were conventionally dimensioned in height and length, but were made only 4" thick instead of the usual 8". They were fire-tested and received a 4-hour rating. It is believed that this is the only 4-hour rating that has been given to a 4" concrete block by the Underwriters' Laboratory. The most advantageous use of this block will be as curtain wall backing for both steel frame and reinforced concrete construction. Steel reinforcement for this block has been designed by Fred Severud, New York engineer. As a result of a load test conducted by Theodore Crane, Professor of Architectural Engineering, Yale University, it has been established that this curtain wall backing will resist 150 pounds per square foot in horizontal stress. This figure exceeds the requirements for nonbearing curtain walls in New York City.

Permalite blocks weigh only 21 pounds per square foot. This figure represents a dead load saving of 59 pounds per square foot which would otherwise be imposed by a conventional 8" brick wall backing. These blocks have the same insulation value as one inch of cork and provide greater insulation than other 8" curtain wall backing units now in use. Employment of a 4" block furnishes the building owner with more usable floor area which provides increased revenue.

concrete aggregate

Extensive research has also been made in the use of Permalite in concrete. The concrete aggregate is somewhat coarser than the plaster aggregate and weighs about 14 pounds per cubic foot. The research has developed an excellent insulating and fireproofing concrete that weighs only 35-45 pounds per cubic foot, depending upon the mixture used. Permalite concrete will possess 10-13 times more insulating value than ordinary concrete.

All Permalite products are made according to A.S.T.M. specifications.

B. H. H.



Typical brown coat application of Permalite - gypsum plaster. Compared with sand plaster, hawk load weight is reduced about two-thirds.

In a discussion of illumination levels, quality of light, glare, contrast, color of light, and overhead brightness ratios, the author sets down the general principles of design for sight saving. He has included only as much of the complex background as seems necessary for understanding.

Design for Sight Saving

By LESSING WHITFORD WILLIAMS*

There is no question of the architect's desire to design in accordance with human needs; how to do so, however, is another matter. Plenty of thought has been expended on interiors wherein the eyes are put to steady use, yet a great proportion of even the newest designs are deficient in regard to eye health; in some respects, they are seriously inferior to the conventional designs. Until now, there has been excuse for such mistakes; today, there is not. In the past, the welter of conflicting viewpoints that discouraged anyone who tried to penetrate the scientific background of controlled lighting was a fair excuse. Now, practicable areas of agreement are discernible between the different experts, and laboratory tests have been supplemented by controlled experiments involving large groups of school children over long periods of time. These studies have confirmed the validity of present thinking about light, and have done far more. They have demonstrated clearly that environment for seeing has not only an even greater effect on eye health than was generally supposed, but it has also a parallel effect on general health, resistance to disease, and even on the mental activity of children. It very probably has an effect on the adult's mental activity as well.

Of particular significance to the designer is the fact that harmful conditions are not always evident. The trend of research is toward subtler, usually unnoticed factors which are perhaps more capable of harm than obvious ones. Criteria necessary for guidance in design have been developed, and though there are differences in emphasis between research groups, architects can know what to watch for. An attempt is made here to set down the general principles with only as much of the still-complex background as seems necessary for understanding.

It must be borne in mind that conditions for maximum ease of seeing are sometimes the very opposite of those for lighting to create a mood. They are established primarily to facilitate the more severe and long continued visual tasks, as in schoolrooms, drafting rooms, and general business office areas where the effect on the emotions is secondary. Since

most of our problems fall between the extremes, it is our professional responsibility to know when and how far we can deviate from best seeing conditions, and when such deviation is legitimate.

illumination levels

Disputes over quantity of artificial illumination are not yet ended, but an architect who follows the recent recommended footcandle levels of the Illuminating Engineering Society will not find himself too severely criticized by extremists on either side. As for daylight, the popularity of large glass areas insures adequate quantity, though the question of distribution is another matter.

quality more important than quantity

Of far greater importance to the designer is the increased emphasis upon quality of light, and the vastly more complete and integrated analysis of what constitutes quality. It is generally recognized, at last, that deficiencies in quality may nullify increased intensity. Significant in this reappraisal of lighting is the shift of attention from glass areas, or lighting fixtures, to the room as a whole. A lighting manual of 1930 mentions brightness contrast and glare, but there is a vast difference now in our understanding of these and other factors which make for quality. We have today a relatively simple list of factors by which the lighting of any space may be analyzed for ease of seeing. They apply equally well to natural or to artificial lighting; in fact, considerable of the recent development was accomplished in the former field.

glare

The harmful effect of direct glare, of course, has long been recognized, but remarkably little was done about it in actual practice. Now we know that even small differences in brightness of areas within the field of view have really serious effects, and that when a visual task is long continued, more extensive use of control methods is required. In artificial lighting, the old diffusing glass globe and the bare fluorescent tube, actually of still greater surface brightness, are replaced by fixtures whose unit brightness at various angles can be obtained from the manufacturer. In the case of natural light, the controls also are familiar: exterior awnings and

*Partner, Geo. B. Post & Sons, Architects, New York City. Member, The Joint Committee of A.I.A. and Producers' Council

overhangs, solid or louvered to cut off direct sunlight; interior diffusing shades; venetian blinds; inclined diffusers and reflectors; vertical vanes; and directional glass blocks, to cut off the glare from the sky. Some of these devices project light further into the interior. In some cases, they have required study to avoid excessive surface brightness. In the case of glass block, this has been done by the manufacturer. In the case of louvers, careful design is required, lest the baffle itself be disturbing. As a palliative, the placement of occupants may be arranged so that the light source is not seen. In classrooms or lecture rooms, however, this arrangement may lead to very difficult conditions for the teacher or the speaker who faces the light, and it is not applicable to classrooms for the lower grades or to other rooms in which the occupants move about at their work.

Reflected glare is also a factor to which lip service is freely rendered, but which is too frequently slighted in actual design. Obviously, specular glare may be controlled either by eliminating the reflecting surfaces or by screening the source. The former method is not fully under control of the architect, while the latter is. There comes to mind a "model" domestic science room which was newly lighted to high intensity with eggcrate-bottomed fixtures. The uncontrolled reflections of the bare tubes on the polished metal and glossy enamel of the kitchen equipment should have been a lesson to anyone. Recently, one well-known manufacturer of over-all eggcrate louvers reprinted in his advertising a warning by one of our foremost authorities, pointing out the unsuitability of any eggcrate louvers for classrooms, because they afford no control of reflected glare, although shielding the light source from direct view. Nevertheless, they are dramatic, they photograph well, and because they are fine in the right places we shall continue to see them in wrong places. How many office installations control glare reflected from typewriters? Until shiny pens, rulers, finger rings, and glossy paper are gotten rid of, the safe course is elimination at the source.

Subtler in quality, and therefore still more subject to neglect, is diffused glare. Yet authorities today are emphasizing its great importance. Veiling glare may result not only from reflection of a concentrated source by a reasonably matte surface, but also from a fairly large bright area reflected by a semi-matte or glossy surface. In either case, the visibility of the "task" is enormously reduced. A familiar example in schools is the veiling glare on the left end of a front

chalkboard from a window close to the front of the room. The veiling glare may make the writing on the board completely illegible to pupils in the right front corner. This was the basis for the old standard forbidding windows within a certain distance of the front wall. When flexibility demands continuous strip windows in modern design, the chalkboard is best not extended to the corner.

Glare is the extreme form of brightness contrast. Lesser, apparently innocuous contrasts have become subject to control. With increase of illumination intensity or of task duration, contrast control must become increasingly strict. Contrasts between desk top and floor, walls and trim, seem innocuous and perhaps are, at low lighting levels, but their capacity to disturb rises very quickly as intensity is increased. At the high levels regarded by many as minima today, contrasts must be carefully limited.

contrast

Contrast within the task itself, as of black type with white paper, is obviously necessary for seeing. Sensitivity to this desirable contrast increases rapidly with light intensity from one-half to 50 footlamberts, but very little above 100. On the other hand, contrast of the task with its immediate surrounds becomes increasingly disturbing at high light levels, and intensely so with appreciable periods of exposure, thus nullifying the value of the increased light. When the brightness of the area surrounding the task is low, the graph of visual acuity actually shows a downward trend above some 38-40 footlamberts (say 50 footcandles at 75 to 80 percent reflection factor). When the surround is totally dark, it will do so above 7 to 15 footlamberts.

There is fairly general agreement that the adverse effect of contrasts within the background bears some direct relationship to the area of contrast, and an inverse relationship to their distance from the center of the visual field. Authorities differ somewhat as to the importance of these factors. Some hold that small enough areas of fairly sharp contrasts can be neglected; others hold that even these are harmful, particularly over a period of time, and that they retain a considerable portion of their power to hinder vision even at the edges of the field of view. Some, too, would go so far as to limit contrast ratios within the background, rather than merely establish limits of contrast with the visual task, perhaps less for optical reasons than for the psychological one that the eye is distracted and that combating distraction induces fatigue.

When seeing is of real importance, it is only sensi-

ble to keep brightness contrasts well within established limits, particularly when in such a case, unlike questions of quantity, no one will claim that this is harmful. In any case, we must be sure that the surrounding areas, within an angle of 30 degrees each side of the axis of sight, are nowhere less than one-third as bright as the task; within the peripheral field, not less than one-tenth. Also, brightness of the surrounding areas should not be greater than that of the task.

In the peripheral field, higher brightnesses are not always avoidable, since a properly diffused light source is apt to require too much area to be kept out of sight entirely. However, since the eyes are particularly sensitive to brightness in the lower portion of the peripheral region, values in that area should not exceed the brightness of the task. Ceiling light fixtures and windows are held to not over 10 times, and the contrast between light source and immediately adjoining surfaces held to a ratio of 1 to 20. These figures are merely limits not to be exceeded; far better has been accomplished. The commonest gross offense is the contrast between an uncontrolled window area and a masonry pier between windows, which involves contrast ratios running into the hundreds. Until practical dark chalks are available, the blackboard in schools is also a difficulty. However, chalkboards are now available in green or yellow, rather than black or gray. Thus they may be kept to no less than one-third as bright as the adjoining surfaces.

color

This brings up the question of color. Color is generally considered to be strictly the province as well as the delight of the architect. When ease of seeing is the concern (particularly in the case of eyes that are immature or impaired), color of the light, of the background, and when possible, of the task, must be chosen with careful consideration of physiological effect. Here again there can be surprises. The lens of the eye is not color corrected, like the camera lens, and so different colors focus at different points. This is quickly seen if equal patches of intense blue, yellow, and red are placed on black cards and viewed at about 20 feet. The red patch will appear to be raised, the blue sunken, and the yellow flush. This being the case, the pleasant blue chalkboard may cause constant strain as the eye tries to focus at apparently different distances between the chalk and the background. Best results are had with the yellow-tan or yellow-green chalkboards. Bluish light, although fatiguing, facilitates discrimination of fine

detail work; for this purpose "daylight" lamps, intended to match the blue sky of a clear day when seen through a north window, are recommended, but only for short half-hour periods. For other conditions, and particularly where children's eyes are concerned, light should be yellower, more like diffused sunlight. It was this that led to the development of the new, yellow tones of fluorescent light that resemble incandescent color. It seems probable that improvements to make the spectrum of fluorescent more closely approximate that of natural light as seen by the eye will further benefit vision. The tendency now is to emphasize certain wave lengths.

Another result of chromatic aberration, to touch only the highlights of a subject that grows more interesting every day, is that the color of the immediate surround should be close to that of the task; if the task be white, the surround, if not neutral, should be in the buff-yellow-green range. Perhaps more contrast might be permitted by some authorities near the border of the peripheral zone, in those few cases where we can be sure that the line of sight is not going to shift toward them. However, any really sharp color contrast, even in the background, is a distraction and therefore a handicap.

overhead brightness ratios

There is a school of thought, with widespread backing, which goes much further in the control of overhead brightness ratios. Limiting the brightness ratio between fixtures and ceiling to 20 to 1, in any case militates against recessed downlights and, for serious reading, flush troffers, even if control of reflected glare could be achieved with them. The ideal of the newer school is that the entire overhead area should be one of uniform light, like an overcast sky, unbroken by darker or brighter areas. This has been achieved in artificial lighting of ordinary rooms by luminous indirect fixtures such as glass or plastic bowls or troughs of low-light transmission, or the concentric ring silvered bulb fixture. Where the shape of the room permits, various forms of cove lighting or other indirect lighting from concealed sources have produced conditions of unquestioned quality. Obviously, by this theory, the uppermost part of the walls must be equal in brightness to the ceiling. If footcandles exceed 50 and the ceiling is low, this means a difficult transition to the limited brightness of the lower walls. Also, if the room is long, as in a large office, the bright distant ceiling will extend into the field of view, or cause veiling glare, necessitating vertical fins to shield it. Beams are not suitable for this purpose, as their

soffits form dark bands where they are least wanted. As it happens, most, if not all, of the advocates of the "overhead sky" are quite happy with fewer footcandles. An outstanding example of vaulted interior lighting is the famous Fairchild tennis court at Lloyd Neck, Long Island; its shadowless, evenly distributed light of about 40 footcandles was found ideal for difficult map work during the war. The Metropolitan Museum of Art in New York has two fine examples of such lighting, one of vaulted coffers using narrow light troughs V-shaped so as to catch light, the other a translucent ceiling using polarizing panels. Europe has gone much further than we have in the development of translucent ceilings using both daylight and artificial light, but we have many private offices so lighted. Here, it is interesting to note that additional directional light is advocated by many. Of course, during interviews, this is particularly valuable and the diffused light may be reduced or eliminated, an example of the fact that we are talking of principles to be understood, not rules to be followed blindly. Perhaps it will not be too long before luminous wallpaper will be available for ceilings, providing a non-stroboscopic, fully color-balanced light as easily as the sheet materials now produce infrared "light" for radiant heating.

design for ease of seeing

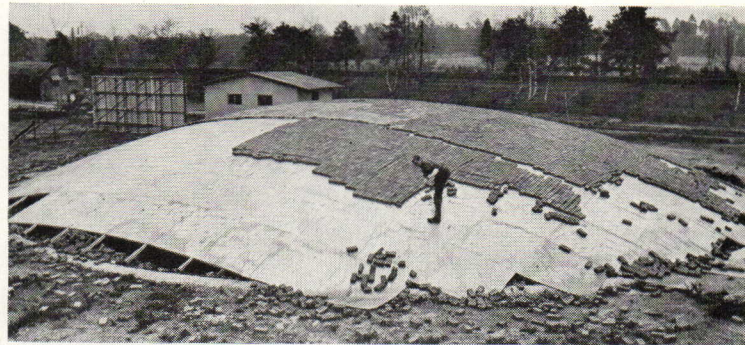
So, the design of lighting for ease of seeing is started not by computing intensities, but by considering the decoration of the room and its entire contents, to the end that any light introduced may be reflected uniformly. Dark areas and shadow producers are avoided, even to the extent of designing cylindrical or lozenge-shape columns at the window wall. In one way or another, window glare is reduced and daylight brought to the far corners. Matte surfaces and furniture placement are planned to reduce the re-

flected glare, but control at the source is still necessary. After all of these factors have been accounted for, one must then decide on the intensity of artificial light. The relatively high reflectances adopted will contribute to efficiency.

It may be argued that there is no fun for the designer in following so many rules for sight saving. It is true that dramatic chiaroscuro and strong color should be reserved for other spaces where the task of seeing is neither severe nor long continued. But it is also true that we are dealing with broad principles which allow a vast amount of leeway in design, and that the means of applying these principles offer a challenge to the designer. It is certainly a fact that rooms designed pre-eminently for seeing are very pleasant work places; they also afford a desirable contrast to spaces in which more dramatic effects are legitimate and desirable. These facts furnish the best answers to those who complain that functionalism makes all rooms look alike. Furthermore, we know of the staggering percentage of bad eyes today, and it is becoming increasingly clear that at least among the young, general health and physical growth are also affected by eye strain.

As such is the case, it is hard to find excuse for the type of designer who insists upon using dark woodwork and vivid color in an elementary classroom, because he can't overcome the urge to use them—or perhaps because there aren't enough other jobs in the office where they would be legitimate—and then justifies his callousness by saying it is done to stimulate the children. There is no question whatever that children work better and are better off when the room is designed for sight saving. If children need further stimulation, it is better to call the doctor or improve the teaching. This is one case where no one can object to functionalism. Human eyes have endured too much for too long, and we have only one pair to last a lifetime.

Two Roof Construction Methods



British Develop New Aluminum Roof Construction

Combining extruded aluminum tubes with aluminum sheet, British engineers have developed a new roof construction which is claimed to have the same strength as a steel structure of similar design. The extruded aluminum tubes, $2\frac{1}{2}$ " x $2\frac{1}{2}$ " outside diameter and $2\frac{1}{8}$ " x $2\frac{1}{8}$ " inside diameter, are curved to a specified radius and form transverse ribs at 5 ft. intervals. The rib ends are joined to an outer ring by ball-and-socket shoes. These shoes may be riveted or welded to the ring. Alumi-

num sheet is normally riveted to the structure; however, joints may be welded if it is necessary to make an airtight construction. Six men can erect the framework and weld all shoes to the outer ring in one day. As these roofs support themselves, under symmetrical loading, by tensile and compressive stresses, they are said to be capable of spanning distances of 500 to 600 ft.

An experimental model, with an 83 ft. diameter and a 9 ft. rise, was built at ground level. By means of bricks,

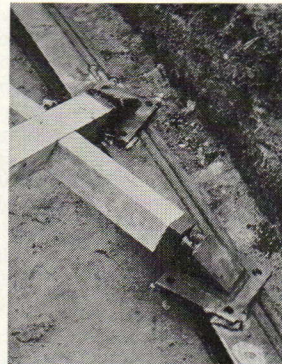
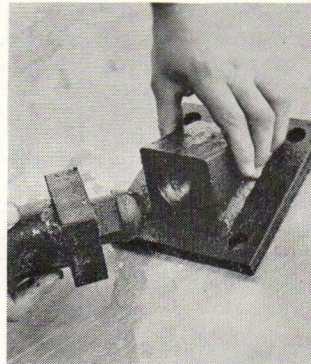
it was subjected to a superimposed load of 27 pounds per square foot. Vertical deflection readings, taken at nine points, were found to be so small they were not distinguishable from temperature effects. Designed by W. Hamilton, this construction is intended primarily to serve as a roof for oil or chemical storage tanks.

The aluminum roof, now patented, is being manufactured by the British firm Aluminum Construction Company, Norfolk House, Strand, London.

Photos above: left, rib structure of experimental roof at ground level; right, test load being superimposed.

Photos at right: left, detail of ball-and-socket shoes for rib ends; center, typical cross joint where ribs meet outer support ring; right, riveting of 16-gage aluminum sheets to top of ribs.

Photos: courtesy British Information Services



Laminated Wood Girders Held Together Entirely By Glue

Six glued, laminated wood girders, fabricated by the American Roof Truss Company, are employed to span the 53 ft. wide auditorium of the St. Joseph's School in Chicago. Each of the functionally designed girders has an over-all depth of 3 ft. at center span, and a camber of 2 ft. The lamination totals 24 plies of 2 in. stock. These structural members, held together entirely with glue, contain no nails, bolts, or rings.

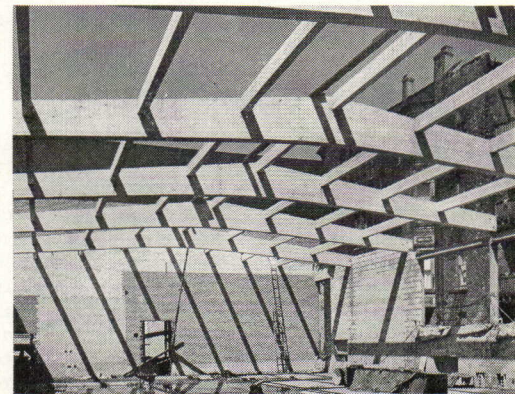
Only kiln-dried lumber with very low moisture content was selected. Extra strength was obtained by gluing under uniform pressure and unvarying temperature throughout the drying period. The girders were planed down $\frac{1}{4}$ in. and sanded twice; a smooth finish with accentuated

wood grain was provided. The girders were then treated with a liquid preservative to prevent the attack of dry rot, fungus, and termites. This sealing treatment also prevents absorption of additional moisture from the atmosphere. Warping, distortion, and checking are thereby eliminated. All of the roof purlins are also laminated glued wood.

Because of the handsome form resulting from this construction method, there will be no need for a hung ceiling in the completed building. Edo J. Belli and John A. Stromberg were the architect and structural engineer respectively. Fabricators of glued trusses, beams, and arches, the American Roof Truss Company is located in Chicago. B.H.H.

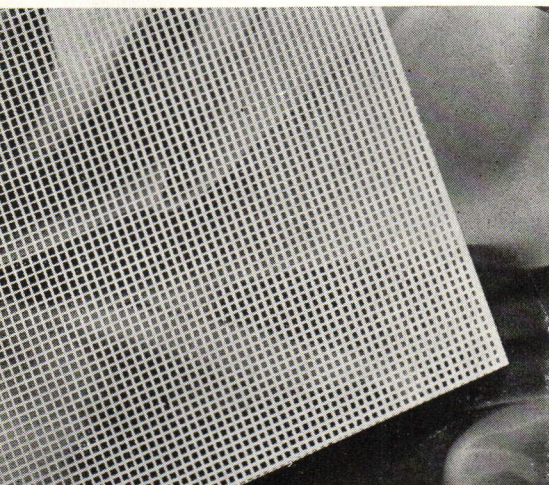
Below: girders in school auditorium span 53 ft. Over-all depth at center is 3 ft. Each girder has a camber of 2 ft.

Photo: courtesy American Roof Truss Company

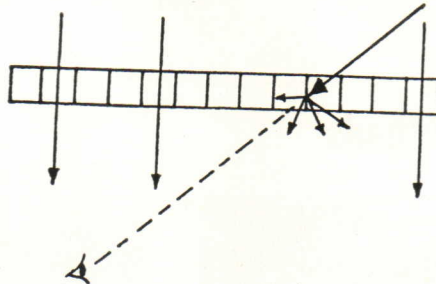




PRODUCTS



Opal vanes, approximately 10 per inch, comprise 23 percent of the total surface area.



Areas transmitting direct light are clear glass. Opalescent louvers establish a 45 degree cut-off angle and diffuse light which would normally be in the direction of the eyes.

Stock Size Sheet For Glass With Sealed-In Louvers To Be 24" x 49"

Fota-lite, the glass with sealed-in louvers, will be available about August 1. This newest product of the Corning Glass Works is suitable for use with fluorescent or incandescent lighting, provided that the heat of an incandescent installation is not sufficient to cause glass breakage. It is made from clear glass containing a photosensitive chemical, much like a photographic negative. By masking during exposure, a louvered pattern is produced. In the masking material itself, the width of the transparent square is .086" and the width of the line is .012". With these pattern dimensions, the clear area amounts to 77 percent of the total area, and the remainder is taken up by the opal vanes. There are about 10 louvers per inch. A configuration on one surface of the glass serves to obscure the area above the glass, and to provide some

diffusion of the light when viewing the sheet normal to its surface. In this manner, the direct transmitted light is diffused with a resulting softening of the specular glare. By tipping the glass during exposure, angular louvers may be produced. Such a pattern would be suitable for asymmetrical lighting, as in a gallery.

Its chief advantage over plain translucent media is that vertical light is allowed to pass unrestricted through the glass into the useful zone. Fota-lite provides opalescence only in the glare zone where brightness control is necessary.

Fota-lite will be available in sizes up to 24" x 49", the stock sheet size. The thickness is nominally 1/8". It may be cut to any size or shape and is subject to none of the aging or decomposition of enameled metals or plastics.



Awning Type Window Ready For Any Climate

Scandinavian countries were the testing grounds for a new awning type window that proves to be as effective in frigid climates as in temperate. According to its manufacturers, the Ludman Corporation, of Miami, Florida, over ten years of research and engineering finally produced the Auto-lok Aluminum Awning Type window, which is adaptable to any form of architecture. An especially designed, patented locking device automatically closes the

window vents tight against the frame without any stress on pivotal points or excessive pressure on an operating bar—there is nothing to wear out. Horizontal weather-stripping, made of elastic meric vinyl material, seals the perimeter of the window against air and water; this "cross-over" weathering is claimed to mean considerable fuel savings to home owners in cold climates and greater protection in warmer zones against heavy rains and hurricanes.

Carbo-flex Used To Protect Industrial Concrete Floors

Carbo-flex, a thermosetting resin designed to protect concrete floors and to line wood tanks, has been announced by the Carbolite Company of St. Louis. When set, the material is hard, waterproof, and impervious to most corrosives and solvents; exceptions are nitric acid and sulphuric acid of over 45 percent concentration. When melted, it has a mortar-like consistency and can be ap-

plied with a trowel. One coat of 1/32" to 1/8" is sufficient for the average job. As it has perfect adhesion to itself, any desired thickness may be built up. While hard and resistant to wear, it possesses enough flexibility to prevent cracking. For large areas, Fiberglas reinforcing is recommended to prevent cracking.

Carbo-flex was troweled on the concrete floor of a glycerine hardening

plant in November 1948. To date, it has withstood corrosive conditions, foot traffic, and the rolling of heavy drums over its surface, without evident effect.

A wood tank used for storing vinegar in a pickle plant leaked continually. As leakage was confined to the section at and near the bottom, the floor of the tank and 18" of the sides at the bottom were lined with this material. The tank has now been in service for six months without leakage.

Recent Product Bulletins

- The life expectancy of many popular fluorescent lamps, manufactured by the Westinghouse Electric Corporation, has been lengthened to 7500 hours—a period equal to four years' use in an average office or factory operating on a 40-hour-week schedule. Announced simultaneously was an increase in the rated quantity of light produced by the lamps. The 40-watt lamp, the size in greatest demand, was boosted 160 lumens to a

total of 2480. This compares with 2600 lumens by a 150-watt incandescent lamp bulb.

- Relamp-a-lite, employing a new principle in lighting fixture installation, takes 30 seconds to fasten trim and insert glass. Self-adjusting springs simplify installation of trim. A swingway hinge makes it possible to remove the lens for cleaning or to relamp disturb-

ing the trim. This fixture is manufactured by the Pressteel Company of Berkeley, California.

- USG Color-rite metal lath, color-sprayed to indicate readily weight and type, is now being produced by the U. S. Gypsum Company. This product greatly simplifies proper selection of lath by the contractor and on-job inspection by the architect.

this month's products

air and temperature control

"Bantam" Boiler Burner: designed and priced for small 4- to 5-room house. Stands only 45" high, occupies 20" x 33" floor space; may be used for steam, hot water, or radiant heating systems. Models also available for hot water supply only. Aldrich Co., Wyoming, Ill.

Radiant Heat Gas Unit: gas conversion burner, for domestic heating using radiant heat principle. Equipment is power operated and supplies burners with premixed gas-air mixture requiring minimum of secondary air. Four standard models available in capacities of 120,000, 160,000, 200,000, and 280,000 B.t.u. Burdett Mfg. Co., 343 W. Madison St., Chicago, Ill.

Oil-Fired Flash Boiler: for radiant heating with hot water. Over 50 percent of heating surface exposed to flame; instant hot water; heat lag eliminated, stack temperature losses reduced. Boiler top readily removed for service work and cleaning. Three sizes available for domestic installation. Seidelhuber Iron & Bronze Works, Inc., 1421 Dearborn St., Seattle, Wash.

Kitchen Ventilating Fan: polished aluminum unit requiring only 6" hole near range; operating unit installed on exterior of house, fully protected by metal hood from all weather elements; powered by 1/25 h.p., 110v., 60 cycle a-c motor. Stewart Mfg. Co., 3205 E. Washington St., Indianapolis, Ind.

Radiant Fan Wall Heater: low-priced, built-in unit. All heat generated by radiant coils is driven out by fan-blown air, none being wasted by absorption into surrounding wall; toggle switch guard prevents inadvertent flicking on of switch. Dimensions: 10" x 14" front panel, 3" x 9" x 12-7/8" back, or wall-box. Titan Mfg. Co., Inc., Prudential Bldg., Buffalo, N.Y.

construction

Kork-Pak: new improved, resilient, nonextruding, premolded joint filler, for use between concrete floor slab and footings of basement-less houses; provides insulation against heat loss, is highly moisture resistant. Supplied in 1/4", 3/8", 1/2", 3/4", and 1" thicknesses in widths up to 36" in any length desired. Serviced Products Corp., 6051 W. 65th St., Chicago, Ill.

Roto-Lock Fasteners: for rapid assembly or disassembly of all panel construction work (shelters, shipping boxes, refrigerating units, partitions, furniture, etc.). Male and female components enable it to be used for attachment of vertical to horizontal panels at sufficient pressure to establish air- and watertight seal; tapered cam operated with any hand tool; no through parts to permit transmittal of heat or cold from exterior to interior surface. Simmons Fastener Corp., N. Broadway, Albany, N. Y.

Spring Steel Clamp: for use with Unistrut slotted steel channel to accommodate tubing in sizes from 3/16" to 1" O.D., providing flexibility of installation. Clamp permits fastening of individual tubes, its respacing, relocation, or removal, with allowance for expansion. Unistrut Products Co., 1013 W. Washington St., Chicago, Ill.

doors and windows

Glass Block Window: with sliding strip sash to give vision and ventilation with single pane or double glazing; can be installed in conventional openings, singly or in multiples; when installed in groups jambs act as mullions, eliminating need for additional intermediate structural members. American Structural Products Co., Ohio Bank Bldg., Toledo 1, Ohio.

Pressure-Seal Window: double-hung unit with removable sash. New weatherstripping principle eliminates conventional metal weatherstripping at sides; no weights, springs, or balances; sash-holding and crack-sealing mechanism hidden in sash stiles. Modular sizes and layouts running from 2' to 3'4" in width, heights from 3'2" to 5'2". Andersen Corp., Bayport, Minn.

Wedge Tight Overhead Sectional Garage Doors: in wood or aluminum, made to order to any size. Calder Mfg. Co., 630 N. Prince St., Lancaster, Pa.

Stainless Steel Storm Window: complete resistance to rusting, corrosion, and discoloration; particularly suitable for areas near sea coasts. Rustless screen inserts interchangeable with glass inserts. Corry-Jamestown Mfg. Corp., Corry, Pa.

SR-20 Slant Roof Louver: larger ventilator model, designed for inconspicuous appearance; flanged, baffled, and screened to provide

weathertight, insect-proof unit. Made of heavy gage aluminum or galvanized steel, available for immediate shipment. Leslie Welding Co., 2943 W. Carroll Ave., Chicago 12, Ill.

Twin Casement Kitchen Window Unit: assembled, glazed, fully weatherstripped, ready for installation. Positive locking handle, watertight sill joints and supports. Available in wide variety of light-sizes, for any wall thickness of masonry, frame, block, or veneer construction. Malta Mfg. Co., Malta, Ohio.

Steel Door Frame: all-welded unit requiring no additional trim, for residential and commercial buildings. Extra reinforcement on all four mitred joints, adjustable brass strike plate, hinges. Steelcraft Mfg. Co., Rossmyrne, Ohio.

electrical equipment, lighting

Pushmatic: single pole circuit protector. Simple push of finger makes or breaks circuit or restores power flow when circuit is broken by short or overload. Available in four types: Thermal Magnetic, Thermal, and both of these with ambient compensation. Bull Dog Electric Products Co., Box 177, Roosevelt Park Annex, Detroit 32, Mich.

Seelux: modern designed indirect luminaire for use with silver bowl lamps; spun aluminum louvers permanently protected by special process. Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo.

Spotline: combined fluorescent lighting fixture and adjustable spotlights for emphasis wherever display effect is desired. Leader Electric Co., 3500 N. Kedzie Ave., Chicago 18, Ill.

Type D850H Dimmer: noninterlocking type, mounted on black, wrinkle-finished steel panel. Gives stepless dimming, brightening, or blending of lights; any number of lamps may be operated without affecting brilliancy of individual lamps or entire load. Superior Electric Co., Hannon Ave., Bristol, Conn.

Economy Model EF-240 Fluorescent Fixture: low-priced, 2-lamp, 1-piece, 20-gage chassis; completely wired, ready for industrial installation. **CL-296:** slimline fluorescent lighting fixture; shielded 8-ft. units for 75w T-12 lamps, particularly suitable for long row installations, surface or pendant mounted. Sylvania Electric Products, Inc., 500 Fifth Ave., New York, N. Y.

finishers and protectors

Portable Paint Spray Unit: claimed to do work 10 times faster than with a brush; will handle enamels, lacquers, paint, shellacs, varnishes, other coatings. Unit weighs 47 lbs., delivers 40 lbs. pressure, operates on 110-120v, a-c; motor provided with safety cut-out overload switch, oversize cooling fins on compressor. Binks Mfg. Co., 3122 Carroll Ave., Chicago 12, Ill.

Quon-Kote: paint, with linseed oil base, for new galvanized metal surfaces which heretofore required weathering or chemical treatment for successful bonding. Available in white, cream, red, green, gray. Stram-Steel Div., Great Lakes Steel Corp., 3750 Penobscot Bldg., Detroit 18, Mich.

Rustrem "Super" Aluminum: heavy duty anti-rust paint, guaranteed to "leaf" on all surfaces, will not turn brown under adverse weather conditions; can be applied over rust without scraping, will seal surface and prevent further rust action. Speco, Inc., 7308 Associate Ave., Cleveland 9, Ohio.

Alkali Resistant Floor Enamels: rubber base products for use on interior cement floors where dampness, alkali are severe. **Solvent Reducer:** for removal of wax and grease prior to painting with above enamels; may be used as thinner for rubber base enamels and for cleaning brushes or spray equipment. Pittsburgh Plate Glass Co., 632 Duquesne Way, Pittsburgh 22, Pa.

insulation (thermal, acoustic)

Infra Accordion Insulation: improved multiple sheet aluminum insulation with fiber separating partition. Construction strengthened by means of stapling layers of aluminum and fiber partition, to supplement adhesive. Infra Insulation, Inc., 10 Murray St., New York 7, N.Y.

sanitary equipment water supply, drainage

Vivian: corner lavatory of vitreous china, for use in rooms of limited space. Over-all size 18" x 18"; chromium-plated handles operate with Dial-ese controls. Crane Co., 836 S. Michigan Ave., Chicago 5, Ill.

Richledge Vitreous China Lavatory: wall-hung, with antislash rim, integral front overflow, two recessed soap dishes, shelf back. In two sizes: 18" x 15", 19" x 17". Richmond Radiator Co., 19 E. 47th St., New York 17, N.Y.

Portable Centrifugal Pump: self-priming unit, for use where electric power or belting facilities are unavailable. Pump has cast-iron casing, bronze impeller mounted directly on engine shaft, mechanical type shaft seal, 1 1/2 h.p., 4 cycle, air-cooled gas engine having high tension magneto. Performance ratings: 10 g.p.m. with 80 ft. head to 90 g.p.m. with 15 ft. head. Deming Co., Salem, Ohio.

specialized equipment

Revolving Shelves: made of aluminum, for cabinets and coolers; ball-bearing, easily turned at touch of finger; circular construction allows air circulation between shelves. Units include from two to three shelves, are available in 12 to 20 in. widths. W. R. Ames Co., 150 Hooper St., San Francisco 7, Calif.

Hospital Patient's Microphone Speaker No. 222: supplement to standard, silent calling systems provides two-way voice communication, also serves as a "pickup" for room noises. Made of metal finished in white enamel—brown or black also available; over-all size 5" x 4 1/4" x 4 1/4". Auth Electric Co., Inc., 34-20 45th St., Long Island City 1, N.Y.

Economat: low-priced, agitator type, automatic clothes washer. Employs plastic agitator; does not spin so requires no floor fastening. Capacity: 8 lbs. dry clothes. Bendix Home Appliances, Inc., 3300 W. Sample St., South Bend, Ind.

Streamlined Home Freezer: one-piece all-steel cabinet finished in white Dulux enamel; interior lined with galvanized steel coated with aluminum lacquer. Unit permits freezing of fresh foods and maintenance of frozen foods at zero temperature; ringing safety alarm automatically operates if temperature rises above safety mark. Specifications: length 54 3/4", width 27", height 32 3/8". Frigidaire Div., General Motors Corp., 300 Taylor, Dayton, Ohio.

Magic Dial Control System: for any cooling, heating, and ventilating system; controlled by rotary master switch that turns to four positions: "Off," "Fan Only," "Cooling," "Heating," without use of relays or additional manual switches. Midwest Automatic Control Co., 510 Third St., Des Moines, Iowa.

Television Multicoupler: low-cost antenna system makes operation possible of as many as 24 television receivers on apartment-house roof, at approximate cost of \$12 per apartment. Eliminates need for unsightly antenna arrays; said to have very flexible installation requirements. Television Equipment Corp., 238 William St., New York 7, N. Y.

Plastic Chair: functional, modern in design; plastic seat and back attached to leg units and back supports of laminated wood in natural or enamel finish. Also stool with plastic seat and laminated wood legs. Thonet Bros., Inc., 1 Park Ave., New York 16, N.Y.

surfacing materials

Vitalast: resilient molded material, bonded to steel, for application on kitchen table-top work surfaces. Resists wear and tear; heat-resistant surface claimed to withstand burning cigarette, boiling water, etc. Available on Frigidaire's line of kitchen cabinets and table model electric water heaters. Frigidaire Div., General Motors Corp., 300 Taylor, Dayton, Ohio.

Flexboard: integrally colored asbestos-cement sheet for interior use; available with either smooth or tile scored surface, in four different colors. Highly resistant to fire, immune to moisture; can be worked with ordinary carpenter's tools, is applied by nailing or cementing. Johns-Manville, 22 E. 40th St., New York, N. Y.

Resilient Enamel Rugs: production resumed on standard weight rugs and floor coverings, also on light-gage marbled linoleum. Sloane-Blabon Corp., 295 Fifth Ave., New York 16, N. Y.

Interlock Plastic Wall Tile: new iridescent color, "Mist Grey," added to line of tile, which includes 15 colors in solid or marbled effects. Jones & Brown, Inc., 439 Sixth Ave., Pittsburgh, Pa.



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

Two 14-p. illus. booklets on direct expansion condensers and evaporators. General construction, product features, method of selection, dimensions, details, tables, typical refrigeration systems; also brief data on centrifugal pumps. Bell & Gossett Co.:

1-279. Refrigeration Equipment—Condensers

1-280. Refrigeration Equipment—Evaporators

Booklet and folder on residential, commercial, industrial fans, penthouse units, blowers and exhausters. Applications, descriptions, specifications, dimensions. Chelsea Fan & Blower Co., Inc.:

1-281. Chelsea Residential Fans (Cat. 863)

1-282. Chelsea Industrial and Commercial Fans (Cat. 864)

1-283. The New Dole Thermostatic Air Control, AIA 30-J (1214), 4-p. folder on automatic, individual room temperature control for forced warm-air systems. Description, physical properties, specifications, design data for new and existing installations. Dole Valve Co.

★ **1-284. Heil Automatic Heat (AH49523), 12-p. illus. brochure** describing line of oil- and gas-fired winter air conditioners, oil-fired boiler-burner units, and combination unit with gas conversion kit to enable changeover of unit from oil to gas. Operations, advantages. Heil Co.

1-285. Tri-Trol (S-745), 12-p. bulletin giving detailed information on heating regulator providing automatic thermostatic control for all multiple occupancy buildings; control based entirely on outside temperatures. Wiring diagram, 24-hour operation chart. Marsh Heating Equipment Co.

1-286. Another First (H-58459), 6-p. illus. folder on copper headers for grid-type panel heating. Advantages, dimensions, typical drawing. Mueller Brass Co.

1-287. Kaiser Aluminum, 22-p. brochure on aluminum ducts for heating and air-conditioning systems. Advantages, typical installation photos, specifications, FHA requirements, comparative gage numbers and weights. Permanente Products Co.

1-288. Homes Planned for Coal or Coke (G3.61), 12-p. illus. circular on methods of simplifying handling of coal or coke, removal of ashes, correct placement of fuel bins, heater rooms, ash-removal routes, etc. Demonstration plans for one-story basementless house, two-story

house, and other types. Drawings. Small Homes Council, University of Illinois. (10 cents per copy; make check or money order payable to Small Homes Council, University of Illinois)

CONSTRUCTION

3-75. Modern Aluminum Interior Trim, 4-p. folder showing application of aluminum alloy trim, such as door frames, baseboards, etc. in building construction. Features, detail and section drawings, installation photos. Alloy Trim, Inc.

Three catalogs on steel roof trusses and standardized sectional steel buildings. Construction features, typical designs, specifications, photos. Geo. L. Mesker Steel Corp.:

3-76. Freespan Steel Roof Trusses (Cat. D)

3-77. Steel Bowstring Roof Trusses

3-78. Standardized Prefabricated Sectional Steel Buildings (Cat. C)

3-79. Mills Metal Partitions (Cat. 49-C), 56-p. illus. catalog on movable metal partitions for office, commercial, industrial, and institutional buildings. Also accessories, including access doors, blackboards, bookcases, drinking fountain alcoves, hardware, louvers and miscellaneous openings, etc. General data, construction features, details, specifications, sections, photos, table of contents. Mills Co.

3-80. Fundamental Characteristics of Revere Metals, 53-p. booklet describing basic technology of copper and its alloys; cold working and hardness, corrosion, annealing, specifications. Table of contents. Revere Copper & Brass, Inc.

Catalog and bulletin on line of folding partitions, manually or automatically operated; also wood or steel classroom wardrobes, including wood wardrobes multiple-operated. Detailed descriptions, specifications, detail drawings, suggested plans, sections, photos, table of contents. Richards-Wilcox Mfg. Co.:

3-81. FoldeR-Way Partitions, AIA 19-E-61

3-82. No. 883 Wood Wardrobes, AIA 28b33

★ **3-83. Solving Roof Problems (U 614a), 32-p. illus. brochure** on roof maintenance. Chapters include analysis of problems, various roof bases, types, diagnosis of roof conditions, repairs, treatment, etc. Photos, drawings. Tremco Mfg. Co.

DOORS AND WINDOWS

4-196. Aero-Vent, 4-p. folder, including 4 data sheets, on vented aluminum windows; vents lowered or raised simultaneously; said to give controlled ventilation regardless of what position vents are in. Advantages, drawings. Aero-Vent Aluminum Window Corp.

4-197. Fenestra Stock Products (GEN-4), 28-p. illus. catalog describing steel windows, doors, and hardware. Installation details, typical applications, stock types and sizes. Detroit Steel Products Co.

4-198. Extruded Aluminum Store Front Construction, 4-p. folder, with three loose sheets, illustrating construction of store front sills, jambs, transoms, corner bars, division awning hood and awning box members. Full- and half-scale details. Martin Katz Co.

Catalog describing full line of steel windows and industrial doors. Construction features, specifications, types and sizes, dimensions, details, table of contents, thumb index. Also 8-p. booklet and 4-p. folder on industrial steel doors and formed steel lintels. Dimensions, sections, details, specifications, load limits. Truscon Steel Co.:

4-199. Steel Windows and Industrial Doors (1949 Edition)

4-200. Industrial Steel Doors (C-50)

4-201. Formed Steel Lintels (A-633)

4-202. Wilson Doors, 24-p. illus. catalog on rolling steel doors, shutters, grilles, rolling wood doors, overhead doors, and rolling partitions. Construction features, selector charts, space requirements, dimensions, specifications, diagrams. J. G. Wilson Corp.

4-203. Shutters and Penthouses (SH-1), 4-p. bulletin on self-closing, manually operated and motor-operated metal shutters and penthouses. Descriptions, dimension charts, photos, drawings. L. J. Wing Mfg. Co.

ELECTRICAL EQUIPMENT AND LIGHTING

5-203. Tur-A-Top Industrial Units (30-B), 8-p. illus. booklet on steel-housed fluorescent fixtures for 40w and 85w lamps. Descriptions of four models, footcandle intensities, accessories. Day-Brite Lighting, Inc.

5-204. Miller Slimline Luminaires, 4-p. bulletin on 2- and 4-lamp, 96-in., louvered slimline luminaires, and 4- and 8- 40w lamp, general line luminaires; also accessories and fittings. General data, dimensional details, coefficients, conversion tables, average footcandles in service. Miller Co.

5-205. Gyro-Lite, AIA 31-F-23 (Bul. 126), 4-p. illus. bulletin on aluminum recessed lighting unit for ceiling, wall, or floor installations; adjusts to any position by means of patented socket within housing. Description, advantages, illumination data, suggested installations. Swivelier Co., Inc.

5-206. Fluorescent Fixtures (478), 42-p. illus. catalog on wide variety of residential, commercial, and industrial fixtures and accessories. Mounting methods, construction, coefficients, lighting estimator charts, specifications, brightness data, typical applications, instal-

lation suggestions. Sylvania Electric Products, Inc.

5-207. Planning Book for Electrical Living Homes, AIA 31 (B-4326), 24-p. booklet on proper planning of electrical equipment and wiring throughout house. Floor plans, wiring diagrams, installation photos, recommended minimum wiring requirements, descriptions, photos, and dimensions of electrical equipment. Westinghouse Electric Corp.

FINISHERS AND PROTECTORS

6-167. Notation on a Color System, 21-p. booklet on a formulated system of 4800 colors, based on three primary pigments. Notes on color planning, color identification, mixing and matching, and printing with color. Color charts. Color Research Institute of America. (50 cents per copy; make check or money order payable to Color Research Institute of America)

★ **6-168. The Enemies of Timber**, 48-p. booklet on elements and insects destructive to wood, methods of dealing with dry rot, extermination of timber-destroying insects, and wood preservation. Cuprinol Div., Darnworth, Inc.

6-169. Hytemp, 4-p. folder describing calking compound composed of long-fibered asbestos plastic. General information, suggested uses. Other products, including protective coatings and transparent waterproofing for use on masonry. Geo. R. Mowat Co.

6-170. Totrust (94-1-CFP-ES), circular on rust preventive oil paint for application on new or old galvanized metals and damp surfaces; also Totalume, rust preventive aluminum paint for use on same types of surfaces. Advantages, applications. Wilbur & Williams Co.

INSULATION (THERMAL, ACOUSTIC)

9-135. Square Footage Chart (972), for users of manufacturer's insulation board products. Data on coverage provided by insulation board panels, tiles, planks, sheathing, lath, and Handi-board. National Gypsum Co.

9-136. Fiberglas Aerocor, 8-p. booklet on various thermal and acoustical uses of glass-fibered material in blanket form. Physical properties, uses, product specifications. Owens-Corning Fiberglas Corp.

SANITARY EQUIPMENT, WATER SUPPLY, DRAINAGE

19-429. Self-Priming Centrifugal Pumps (Bul. 3300-A), 4-p. bulletin with brief descriptions, performance tables, photos. Deming Co.

Two folders on interceptor (said to recover more than 90 percent of grease in waste water), sewer and terminal valves. Advantages, details, sizing tables, construction of various types, specification. Also floor drains with backwater valves. Josam Mfg. Co.:

19-430. Cascade Grease Interceptors, AIA 29C4 (SG1)

19-431. Stop Backwater (BWV)

19-432. Pitless Pump Adapters (Bul. 41), 4-p. circular, including installation instruction sheet and price list, on adapter for installation of jet and shallow-well pumps; pit construction eliminated; no forms, concrete, or drainage required. Description, advantages, economy features. Williams Products Co.

SPECIALIZED EQUIPMENT

19-433. Altec Speech and Music Reinforcement (P.A.) Systems (AL-1129), 8-p. illus. brochure on public address systems, problems in selection of proper equipment for sound reinforcement installations, illustrations and brief descriptions of component parts, such as amplifiers, speakers, power supplies, etc. Altec Lansing Corp.

19-434. There's a Wonderful New Frigidaire Kitchen (KA-1912), 6-p. illus. folder on line of kitchen cabinets and cabinet sinks; also on new, tough composition material, bonded to steel, applied to cabinet tabletop surfaces. Advantages, general data. Frigidaire Div., General Motors Corp.

19-435. Joyce Materialift (Cat. 601), 12-p. illus. bulletin on hydraulic lifting units, such as loading platforms, ramp eliminators, mortuary lifts, machine feed tables, industrial elevators, etc., powered by electricity, compressed air, or water pressure. Descriptions of types, operation, pumping unit and jacking unit details, typical installations, drawings, photos. Joyce-Cridland Co.

19-436. Konwiser Fabrics, Inc., 12-p. brochure, together with price list, illustrating drapery and upholstery materials of modern abstract design. Photos. Konwiser, Inc.

19-437. Linton Pencil Co. (132 DC), 32-p. illus. catalog showing full line of pencils, crayons, erasers, and rubber bands. Brief descriptions, colors, alphabetical index. Linton Pencil Co.

(To obtain literature coupon must be used by 11/1/49)

PROGRESSIVE ARCHITECTURE, 330 West 42nd Street, New York 18, N. Y.

I should like a copy of each piece of Manufacturers' Literature circled below.

We request students to send their inquiries directly to the manufacturers.

1-279	1-280	1-281	1-282	1-283	1-284	1-285	1-286
1-287	1-288	3-75	3-76	3-77	3-78	3-79	3-80
3-81	3-82	3-83	4-196	4-197	4-198	4-199	4-200
4-201	4-202	4-203	5-203	5-204	5-205	5-206	5-207
6-167	6-168	6-169	6-170	9-135	9-136	19-429	19-430
19-431	19-432	19-433	19-434	19-435	19-436	19-437	19-438
19-439	19-440	19-441	19-442	19-443	19-444	20-245	

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PLEASE PRINT

8/49

SURFACING MATERIALS

Three booklets on hardwood flooring, its finishing and maintenance. Description, installation and technical data, specifications, finishing methods, advantages. E. L. Bruce Co.:

19-438. Bruce Floor Products (Key 47)

19-439. A Life Saver for Builders (Key 80)

19-440. How to Finish and Maintain Wood Floors (Key 8)

Two booklets, one describing types, grades, properties, and uses of Douglas fir plywood; the other, on hardwood plywood paneling. Advantages, physical properties, finishing data, specifications. M and M Wood Working Co.:

★ **19-441. Malarkey Plywoods** (49-101)

19-442. Malarkey Hardwood Panels (Spec. Sheet 3000)

19-443. Laminated Sheetrock Wallboard, 12-p. booklet on method of erecting double-wall system with two layers of Sheetrock job-laminated with special adhesive. Application directions, finishing details, layout patterns for ceiling applications, specifications, photos. U. S. Gypsum Co.

19-444. Nine New Colors (873-4810), 4-p. illus. folder on addition of new decorator colors to standard line of laminated plastic material used for work surfaces and panel installations. Color chart. U. S. Plywood Corp.

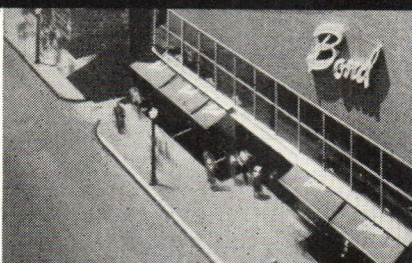
TRAFFIC EQUIPMENT

20-245. Escalators, AIA, 33G11 (B-742 9410), 30-p. illus. booklet describing two escalators: Type "32R" for limited rise, standardized applications, and Type "O" for larger installations wherever handling of great numbers of passengers is required. General information, basic data, safety features and other advantages, typical installation photos, drawings. Otis Elevator Co.



EFFICIENT SERVICE COMES FIRST in Cincinnati's Terrace Plaza Hotel

135,000 pounds of Revere Copper Water Tube insure efficient service from the Terrace Plaza's hot and cold water lines and air conditioning system.



Cincinnati's new Terrace Plaza Hotel was "conceived and constructed for the sole purpose of rendering guests the most modern conveniences known to science and the ingenuity of man." Every detail of construction was selected for its ability to provide the finest service.

Consequently, Revere is particularly proud that 135,000 pounds of Revere Copper Water Tube were used in the hot and cold water lines and air conditioning system of this carefully-planned hotel.

Revere hard temper tube is furnished in straight lengths of 12 feet and 20 feet. Revere easy-bending soft temper tube is available in straight lengths or long coils. All Revere Copper Water Tube is stamped at regular intervals with the Revere name and the type. These marks are more than identification—they are your assurance of full wall thickness and the close dimensional tolerances so essential for tight soldered joints.

It will also pay you to install such other long-lived Revere materials as Red-Brass Pipe; Sheet Copper and Herculoy for tanks, ducts, pans and trays; Dryseal Copper Refrigeration Tube (dehydrated and sealed); Copper oil burner, heat control and capillary tubes.

Revere materials are handled by Revere Distributors in all parts of the country. The Revere Technical Advisory Service is always ready to serve you. Call your Revere Distributor.

REVERE

COPPER AND BRASS INCORPORATED

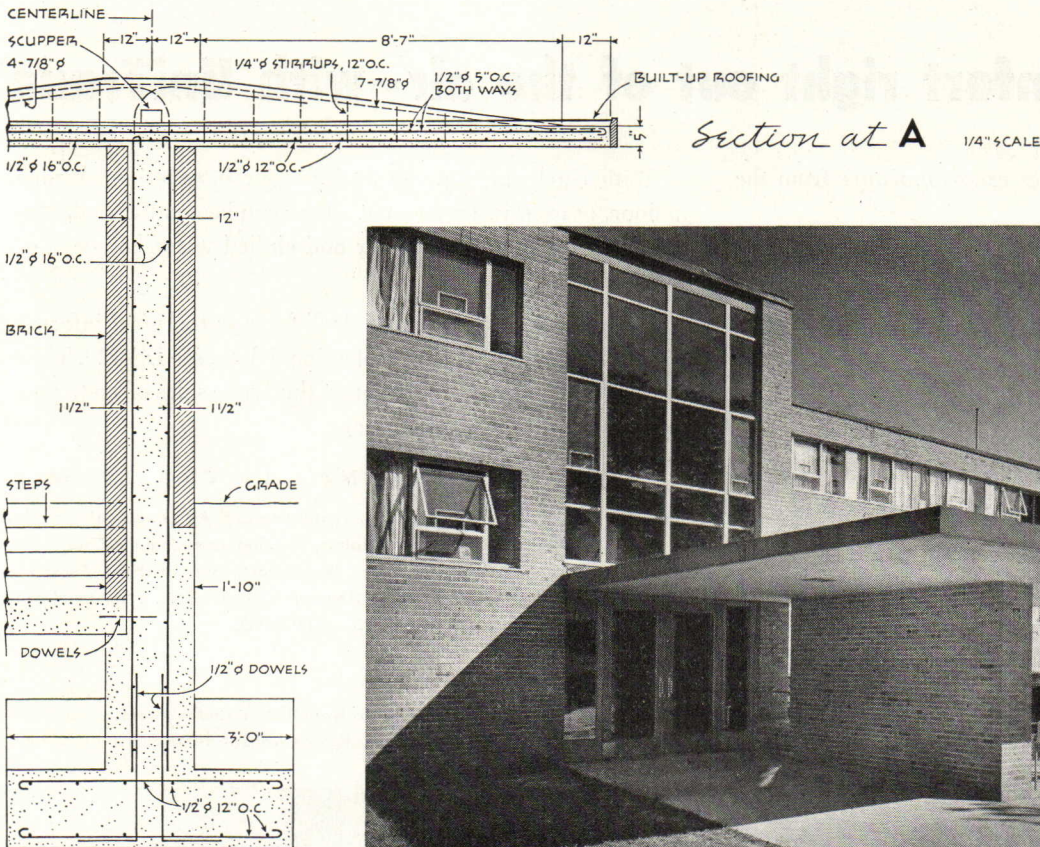
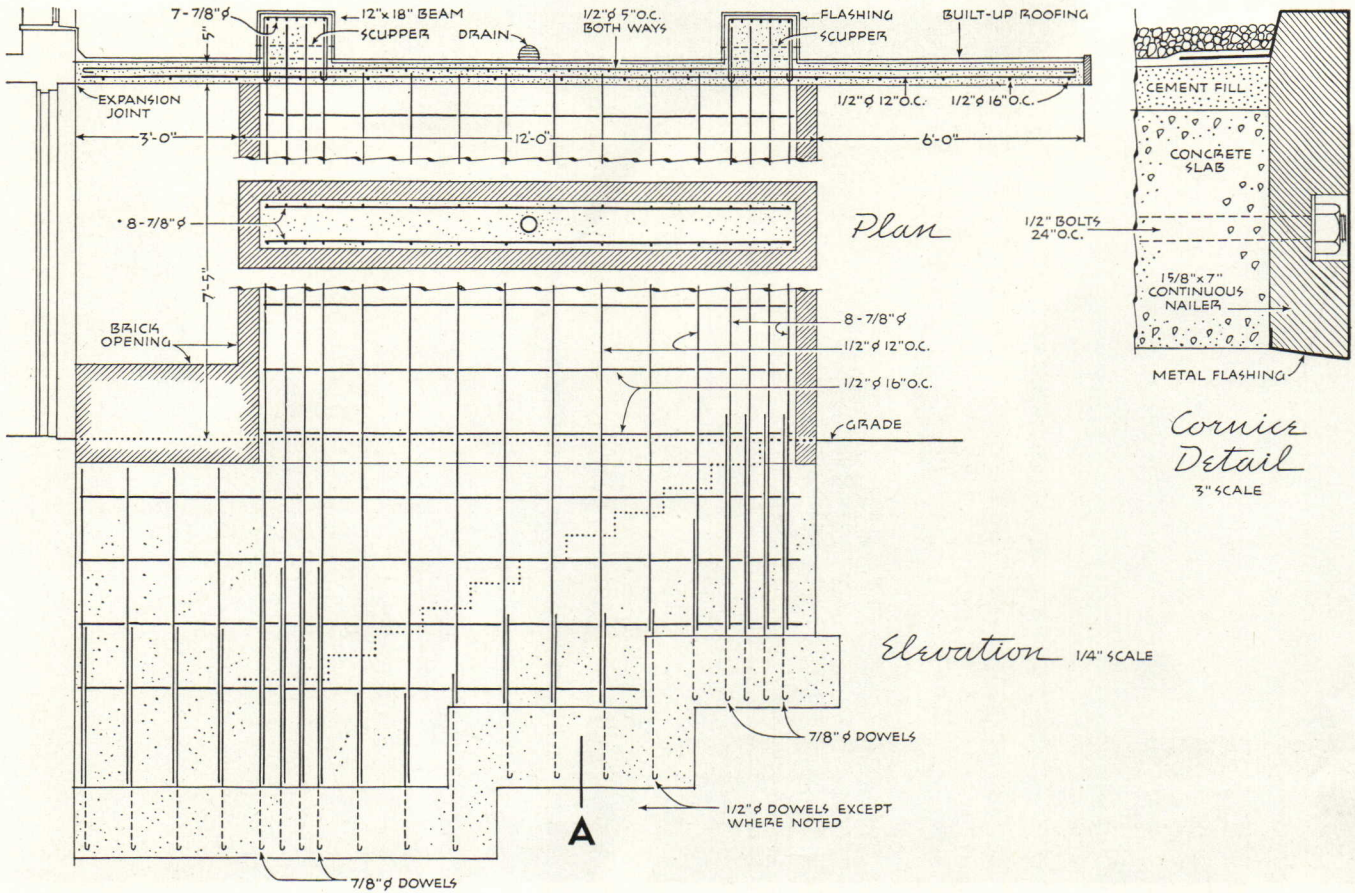
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230 Park Avenue, New York 17, New York

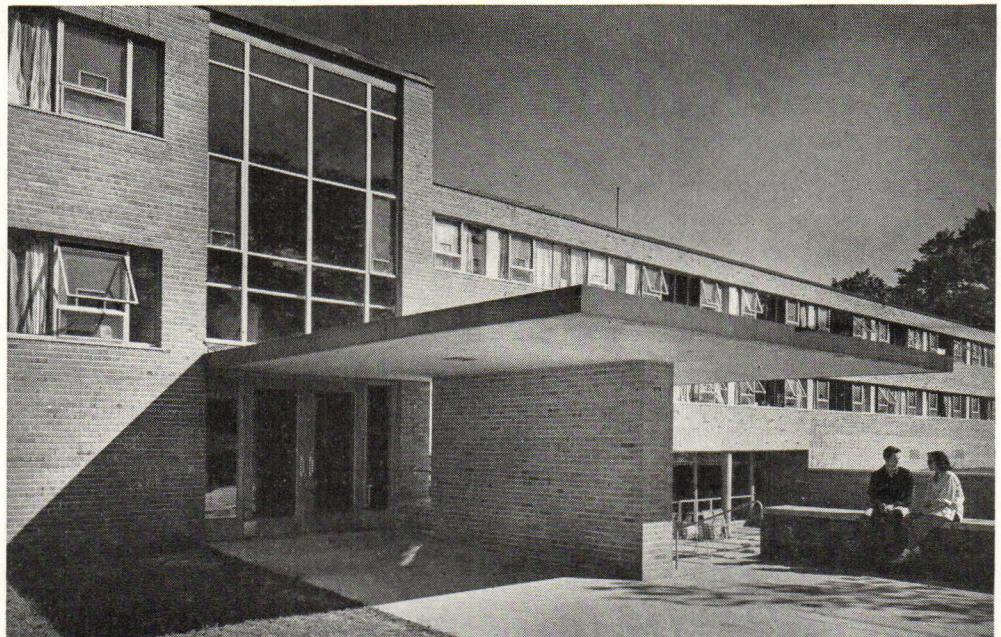
Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y. — Sales Offices in Principal Cities, Distributors Everywhere.

TERRACE PLAZA HOTEL
Cincinnati, Ohio

Skidmore, Owings & Merrill—Architects; Jaros, Baum & Bolles—Engineers; Frank Messer & Sons, Inc.—General Contractor; E. J. Nolan Corp.—Plumbing and Heating Contractors; Carrier Corporation—Air Conditioning and Refrigeration; Mutual Manufacturing & Supply Co.—Revere Distributor.



DEARBORN-MASSAR



ANTIOCH COLLEGE
Yellow Springs, Ohio

SAARINEN, SAARINEN & ASSOCIATES
Architects

TRANE



Squeeze discomfort right out of the air—with UniTrane

UniTrane air conditioning removes excess *moisture* from the air as well as excess *heat*.

On a hot, rainy day, UniTrane clears the air of extra moisture in a hurry. The Type MC UniTrane unit illustrated below will remove as much as *ten gallons* of water from the room air during a 24-hour period.

UniTrane is not just a new system. It is a new kind of air conditioning. Each room has its own compact, under-the-window unit. Units are designed for temperature control, moisture control, ventilation control. All air is filtered.

No ducts are needed. Just simple piping, like a hot water system. You circulate hot water in winter, chilled water in summer. It's as simple as that.

With UniTrane you can *budget* your installation. A zone, a floor, or even just a room at a time can be conditioned, after the basic source of hot water and chilled water has been established.

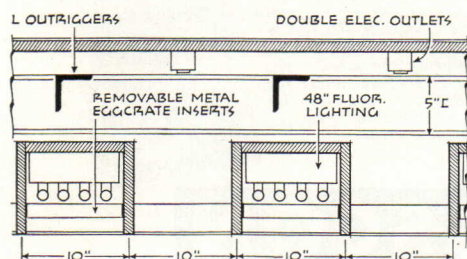
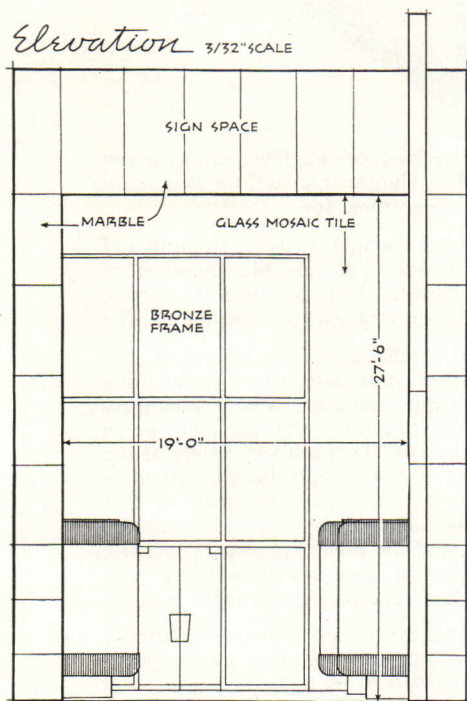
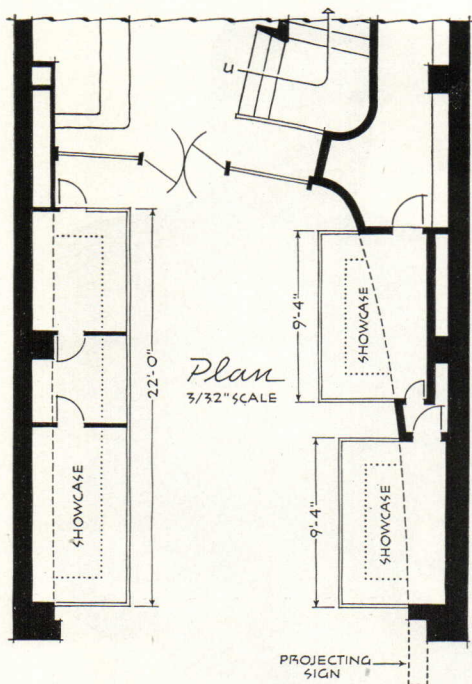
Read "Merely a Matter of Air" for *non-technical* information about UniTrane. For professional data, see DS-420. These bulletins may be secured through the Trane sales office in your area, or direct from the factory.

THE TRANE COMPANY...LA CROSSE, WIS.

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

The revolutionary Type MC UniTrane unit shown here has two circuits in one compact cabinet. One circuit controls ventilation and moisture. The other controls room temperature. Now you can have perfect year-around air conditioning in multiroom buildings without using ducts.





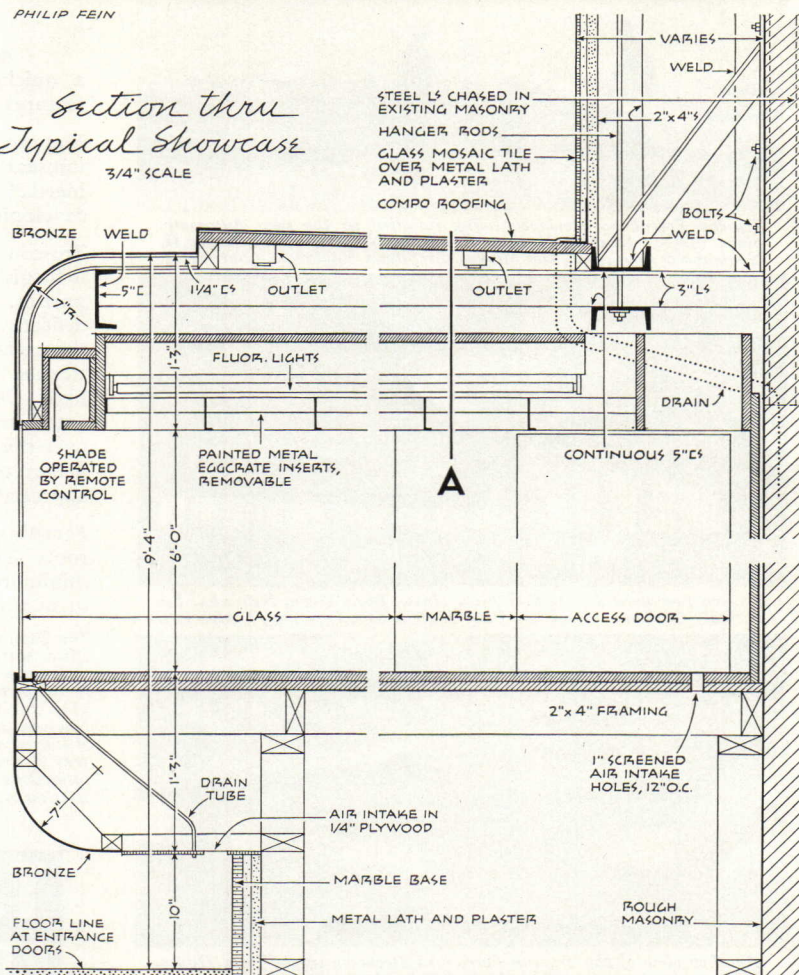
Section A 3/4" SCALE

G. H. BAKER SHOE STORE
Oakland, California



PHILIP FEIN

Section thru
Typical Showcase
3/4" SCALE



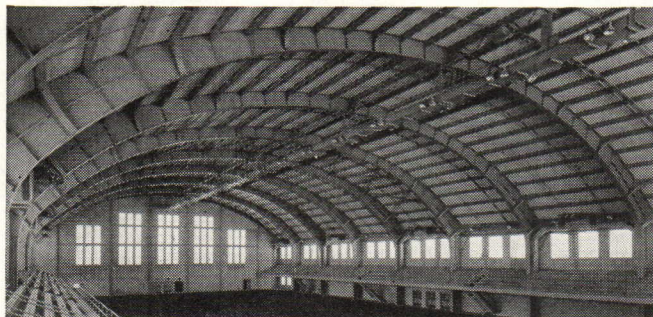
GRUEN & KRUMMECK.
Architects

Lend us 2 Sq. Ft. *for 20 minutes*

and we'll prove to you
the many advantages of
**Truscon Ferrobord
Steeldeck...**



Truscon Ferrobord Steeldeck being installed in the new Automatic plant, Maytag Washing Machine Company, Newton, Iowa. Arthur H. Neumann & Bros., Inc., Des Moines, Architects, Engineers, Contractors.



Truscon Ferrobord Steeldeck in Field House, Boy's Town, Nebraska. Leo A. Daly Company, Architects. Peter Kiewit Sons Company, Contractors.



Another view of the Truscon Ferrobord Steeldeck in the Field House, Boy's Town, Nebraska.

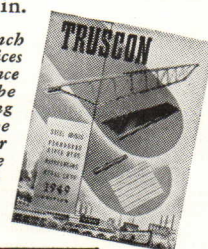
● A Truscon Steeldeck engineer can give you a quick, convincing demonstration of Ferrobord features right on your desk top.

You can "heft" its light weight, extreme strength and unusual rigidity. Discuss the valuable "moment of inertia" factor in Ferrobord—it's highly important in developing your building plans. Here are the details:

Truscon Ferrobord is fabricated from strip steel, and is furnished in lengths continuous over three or more purlins. This provides continuity which minimizes deflection. Equally important is the fact that due to the extra amount of steel in the lower flange of the ribs the "moment of inertia" in Ferrobord is extremely high. Deflection is inversely proportioned to this "moment of inertia." The combination of continuity over the supports, and the high "moment of inertia," makes the deflection of Truscon Ferrobord very appreciably less than that of simple span decking.

Ferrobord is adaptable to flat, pitched, or curved roofs. The 1½-in. deck may be shop curved to a minimum radius of 60 ft. 0 in. and the 1¾-in. deck to a minimum radius of 75 ft. 0 in.

The Truscon Steel Company maintains branch offices in many of the large cities, and the services of Truscon engineers are available for assistance in the laying out of the steeldeck. We will be glad to cooperate with the local roofing company in the selection of the proper type of insulation and built-up roofing. Write for free descriptive literature, or ask for the interesting 2 square foot Ferrobord demonstration right in your own office.

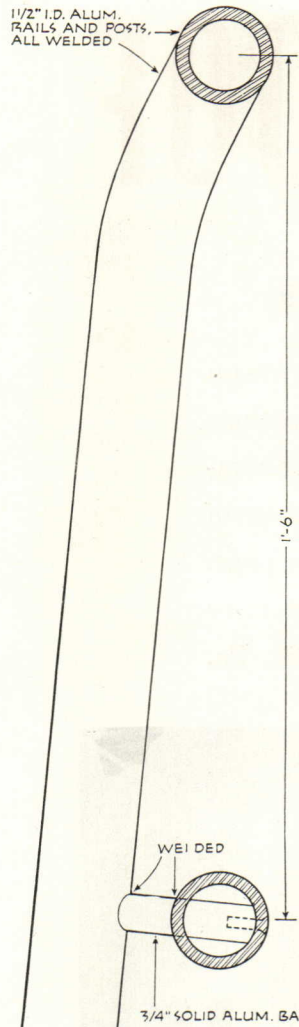


TRUSCON STEEL COMPANY

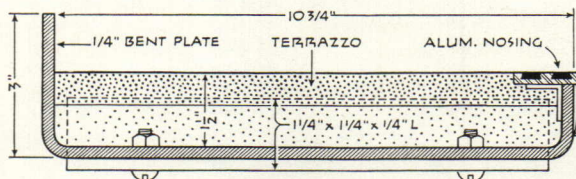
YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation
Warehouses and sales offices in principal cities

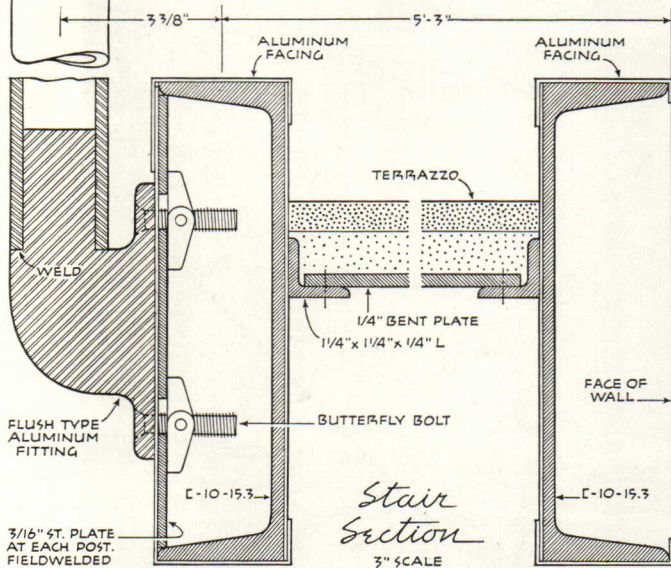
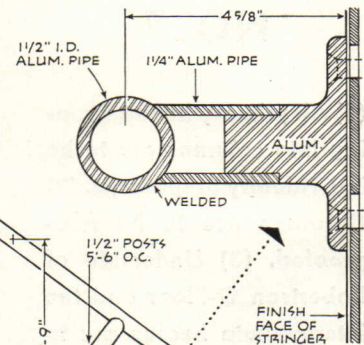
Manufacturers of a Complete Line of Steel Windows and
Mechanical Operators • Steel Joists • Metal Lath • Steeldeck
Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors.



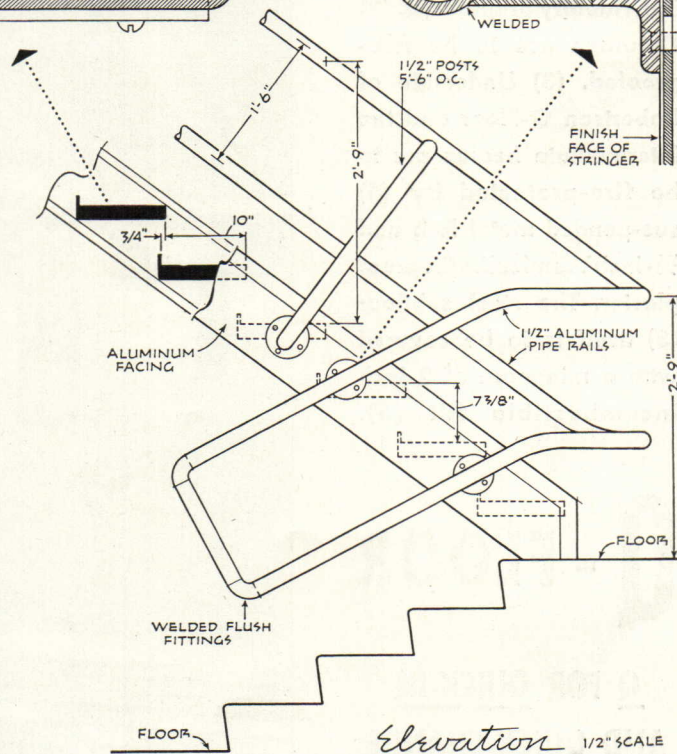
CORTLANDT V. D. HUBBARD



Tread 3" SCALE



Stair Section 3" SCALE



Elevation 1/2" SCALE

HAJOCA CORPORATION
Philadelphia, Pennsylvania

CARROLL, GRIDALE & VAN ALEN
Architects

HOW TO FIREPROOF

(steel subfloor by the Robertson Co., Pittsburgh)

The steel subfloor, known as Q-Floor, requires simple fireproofing as shown on this page. Save this page in your files. The picture below illustrates specifications for a four-hour fire-resistive floor, tested and classified by the Underwriters' Laboratories, Inc. and the Bureau of Standards. This method has been employed in some of the most notable buildings of recent years. A few are pictured on the opposite page.

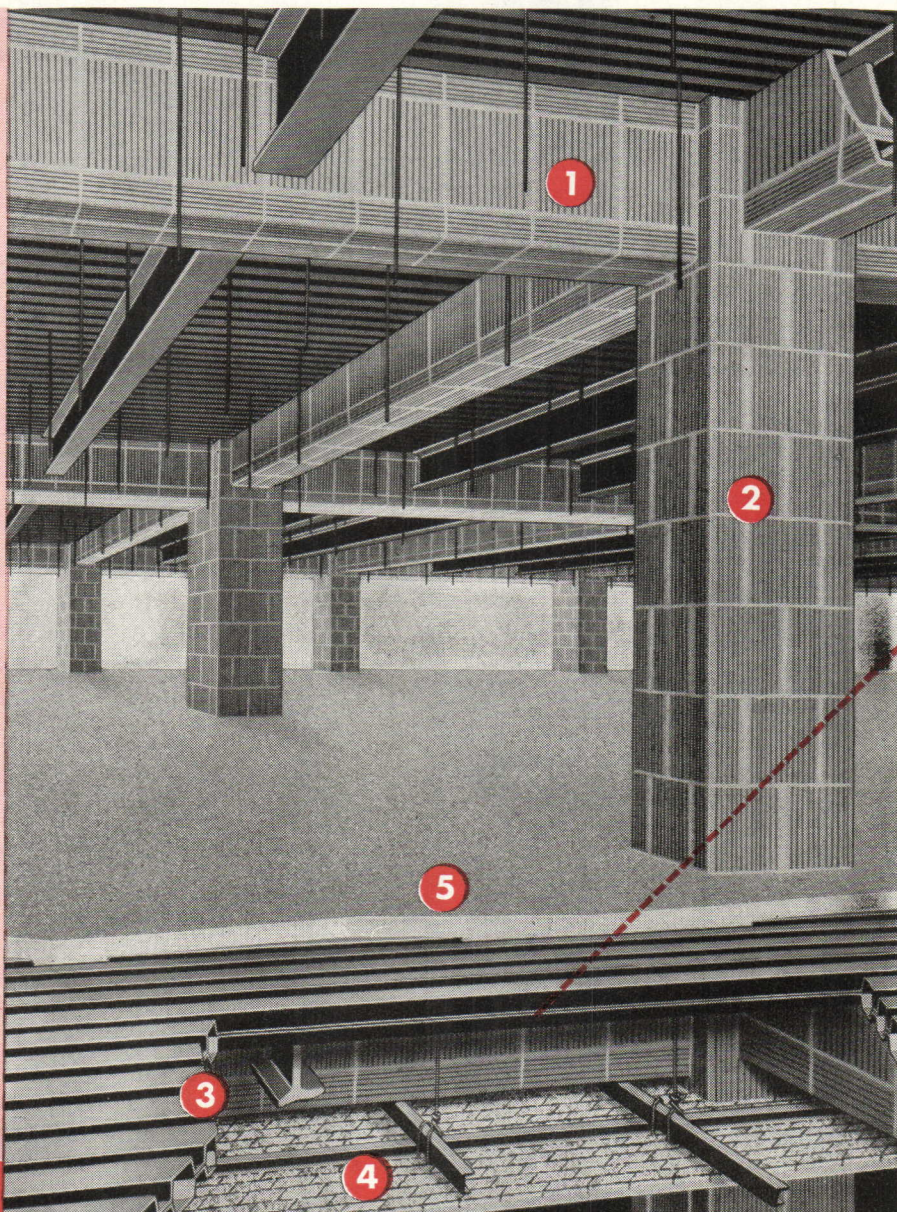
For additional details or if you have special problems pertaining to prospective jobs, write H. H. Robertson Co., 2405 Farmers Bank Bldg., Pittsburgh 22, Pa.

NOTE

(1) All primary beams framing into columns are to be individually fireproofed. (2) Columns are to be fireproofed. (3) Underside of Robertson Q-Floor and the intermediate beams are to be fire-protected by (4) suspended metal lath and $\frac{7}{8}$ -inch Vermiculite fireproof plaster. The steel subfloor (3) itself is to be covered with a minimum of 2-inch incombustible fill (5).

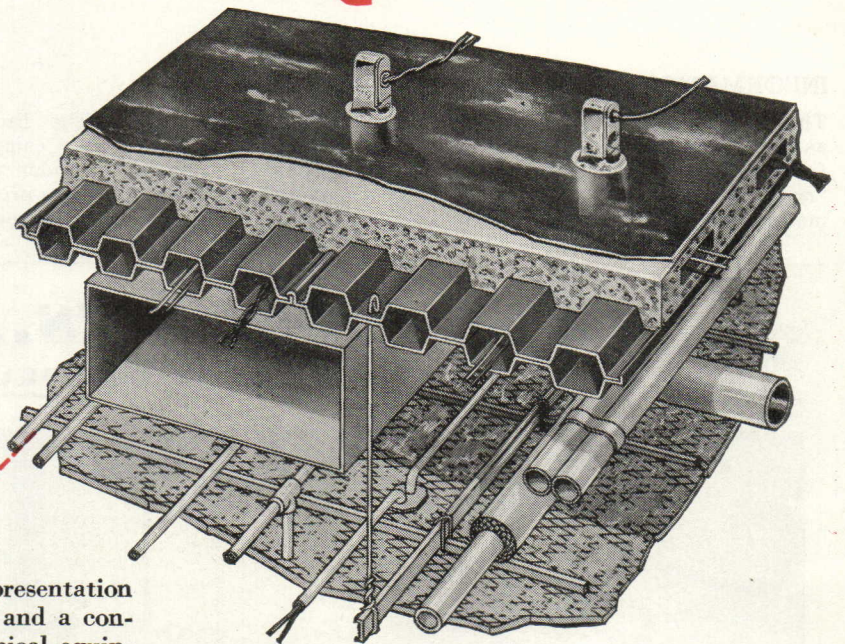
Q - FLOOR

Q FOR QUICK-IN
AND QUICK-CHANGE



ROBERTSON Q-FLOOR

Here's a Typical Slice-Through

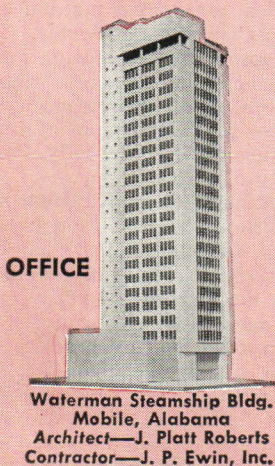


The cross-section is a condensed presentation of Q-Floor with suspended ceiling and a condensed visualization of the mechanical equipment required for a modern building. The drawing shows only equipment commonly installed between subfloor and ceiling. A modern building, also, must be a machine capable of accommodating any amount of electrical equipment above the floor.

All the buildings shown can have an electrical outlet on any six-inch area of their floors. This is probably the main reason for the extensive use of Robertson Steel Q-Floor in today's buildings. The cells are crossed by a raceway as shown in the drawing. An electrician drills a

small hole, anywhere, any time, to establish an outlet. Because no trenches need be dug, the whole job is completed in minutes. A tremendous amount of drafting room work is avoided because outlets, and partitions, too, can be located *after* tenants move in. See Q-Floor fittings at any construction material distributor for the General Electric Co. Write for the latest Q-Floor catalog for your file. Would you like photos of these or other Q-Floor buildings? Write H. H. Robertson Company, Pittsburgh.

RECENT BUILDINGS WITH Q-FLOOR



H · H · ROBERTSON CO.

2405 Farmers Bank Building
Pittsburgh 22, Pennsylvania



Offices in 50 Principal Cities
World-Wide Building Service

FROM THE TECHNICAL PRESS

By JOHN RANNELLS

INFORMATION vs. PROMOTION

There are styles of technical discourse as there are styles historic or styles fashionable ("cottage," "international," "new-empirical," or what not). The materials men are out to sell their

materials, of course. The Bureau of Standards, in reporting comparative testing of products, is under pressure (or vacuum, same thing) to present the facts so confusedly that the reader has

to dig hard to find which product stood up best—the Bureau won't be caught playing favorites. The clear-eyed scrutiny of the scientist in fundamental research on heating, lighting, or structure, gives us background while in the same fields the work of active practitioners and interested manufacturers gives us usable results. None of it can be taken entirely on faith. We must keep in mind which axe is being ground and to what purpose.

Trade publications and the professional journals speak to their own initiates in clear terms, rich with information; for instance *Wood* for the wood industries, *Materials and Methods* for products-engineering, *Heating and Ventilating, Illuminating Engineering*, etc. These are prime sources for the architect seeking to broaden his knowledge in one field or another. And familiarity with these sources gives us a healthy resistance to the promotional stuff that fills our mailboxes and, frequently, our wastebaskets. Much of it is mighty good stuff—look at Sweet's. It would average a lot better if the promoters realized that we are very allergic to high-pressure selling and to repetitious padding.

Sylvania Products puts out a neat combination by including data sheets in easily filable form with their newsy throw-away material. Except for information-packed catalogs and pamphlets for filing, this is easily the most palatable form of manufacturers' literature.

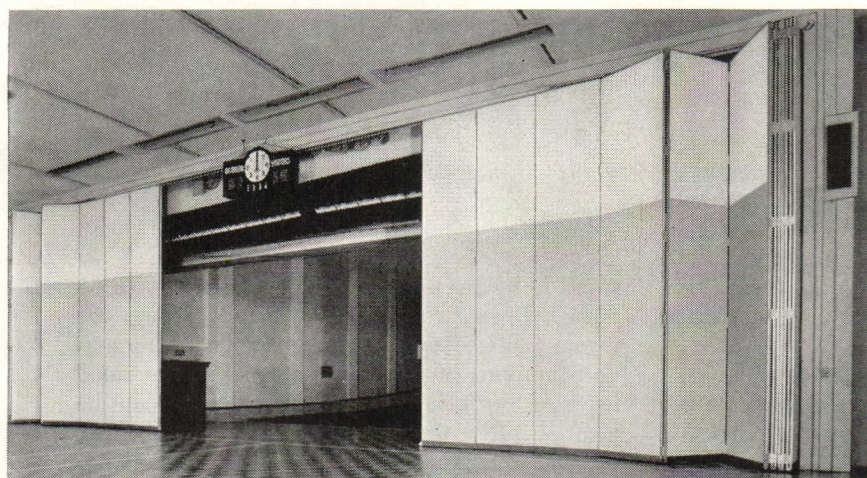
The Marble Institute of America (108 Forster Ave., Mount Vernon, N.Y.) has published a honey of a manual on *The Care and Cleaning of Marble*. Here is a fine example of information and promotion combined—concise, thorough information, well illustrated, without sales talk—for the benefit of building maintenance and, incidentally, the Marble Institute.

The National Warm Air Heating and Air Conditioning Association (145 Public Square, Cleveland, Ohio) has turned out an ambitious series of manuals for practical heating men—wordy, repetitive, but packed with information which should improve heating practice in the multitude of structures built or remodeled without the services of professional engineers. With the use of these manuals architects could design the heating for their buildings, or check the heating contractors. Both convection and panel systems are covered. There's a lot of pressure behind the "warm air" literature, but thanks are due for the complete way they cover their field for our benefit.

(Continued on page 98)



Space Savers... FOR SCHOOLS LARGE OR SMALL



R-W Deluxe Folder-Way Partition Automatic—Electric

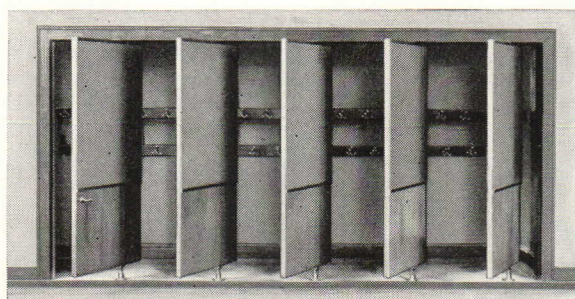
Specifically designed for school gymnasiums, auditoriums, stages, and other high or wide openings which must be closed against both light and sound, DeLuxe Folder-Way partitions by Richards-Wilcox

are completely automatic and cost less than many manually operated partitions. To economize in space and expenditures, consider R-W DeLuxe Folder-Way partitions in your building or remodeling plans.

R-W No. 883

Multiple Action School Wardrobe

An outstanding feature of Richards-Wilcox Classroom Wardrobes is that the entire unit is designed to avoid overcrowding. The hat and coat racks accommodate eight or ten pupils for each door. Note slate blackboards mounted on wood doors.



For complete information about R-W DeLuxe Folder-Way Partitions and Multiple Action School Wardrobes, contact our nearest office.

Richards-Wilcox Mfg. Co.

"A HANGER FOR ANY DOOR THAT SLIDES"
AURORA, ILLINOIS, U.S.A.

Branches: New York Chicago Boston Philadelphia Cleveland Cincinnati Washington, D. C.
Indianapolis St. Louis New Orleans Des Moines Minneapolis Kansas City
Los Angeles San Francisco Denver Seattle Detroit Atlanta Pittsburgh

1880 1949

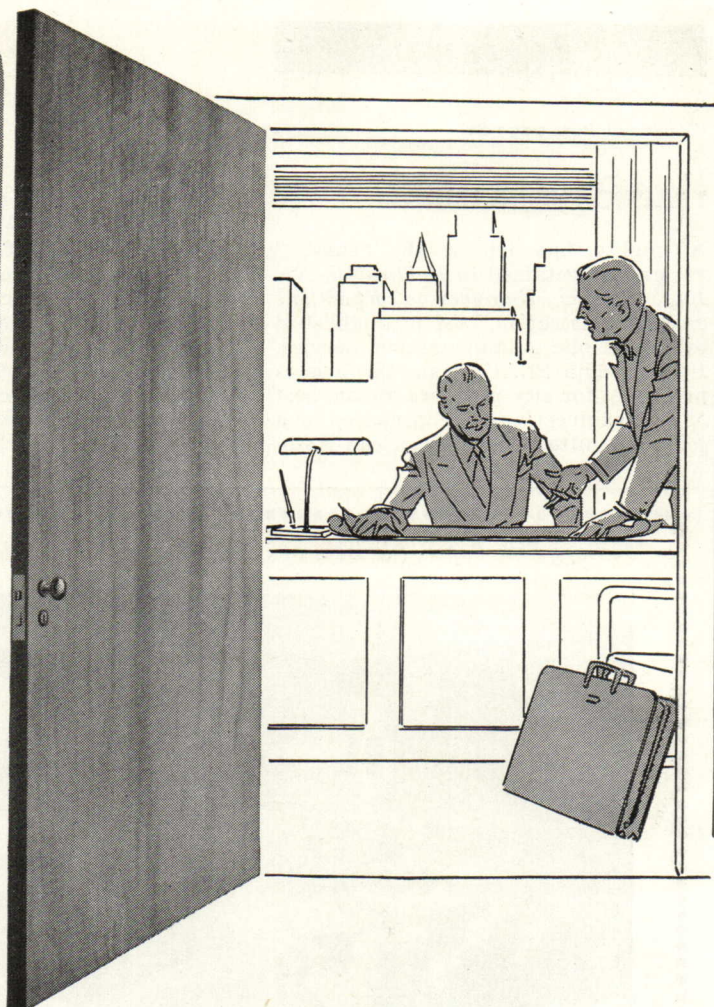


OVER 69 YEARS

**Open the
MENGEL DOOR to
GREATER BEAUTY!
LESS SERVICING!**



The Original Mengel Flush Door
with the Patented "INSULOK" GRID CORE →
... offers your clients 8 Big Advantages



MORE BEAUTY...less upkeep...that's what you open up to your clients through the Mengel Flush Door! Here's an engineered door that means durability *plus*...a door that provides both utility and smartness...that harmonizes with any setting, modern or traditional.

**You offer more
through the Mengel Flush Door**

1. **40% Lighter in Weight**... than standard panel hardwood doors.
2. **Patented "Insulok" Core***... gives stronger bond between core and faces; keeps faces flat; provides flame resistance.
3. **Solid Hardwood Stiles and Rails***... provide maximum screw-holding power.
4. **Key-lock Dovetails***... keep stiles and rails permanently tight.
5. **Slam-tested***... 25,000 times... proves long life.
6. **Extra Guard Against Warpage***... provided by special mill-curing process.
7. **Broad Selection of Hardwood Faces**... individually belt-sanded to satin smoothness... permits wide range of finishes... reduces finishing costs.
8. **Engineered Construction**... assures maximum dimensional stability.

*Mengel exclusive

Built Like Fine Furniture

Mengel Flush Doors are built by skilled craftsmen. Their patented "Insulok" core is made of sturdy insulation board strips halved together. No more shrinking and swelling... no more sticking doors. And it means an extra-strong, extra-light, easy swinging door.

Framing is hard, even-textured poplar. Faces are securely bonded to frame and core with moisture-resistant glue.

Easy cleaning is another important reason for the popularity of Mengel Flush Doors. Their smooth, unbroken surfaces offer no place for dust to cling. And they *stay* beautiful...no panels to shrink...no moldings to come apart.

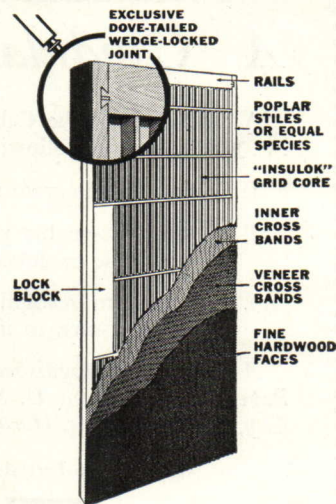
Mengel Flush Doors are now available faced with veneers of *Birch, Mahogany, Oak, Walnut, Gumwood*...other hardwoods to order.

For *easy painting*, the Mengel Flush Door faced with Gumwood offers a satin-smooth surface that never shows a grain raise.

So, for new construction or remodeling, specify Mengel Flush Doors...*the Famous Flush Door with the Patented Core!* For complete information, mail the coupon *today!*

Copyright 1949, The Mengel Company

Mengel Hollow Core Flush Doors are subject to the standard guarantee established by the National Door Manufacturers Association.



... Mail Coupon Today! ...

THE MENGEL COMPANY

Plywood Division, Dept. PA-2, Louisville 1, Ky.
Please send me complete information about the Mengel Flush Door.

Name
Company Name
Street
City Zone State



MENGEL Flush DOORS
THE FAMOUS FLUSH DOOR WITH THE PATENTED CORE

Reviews

(Continued from page 96)

TRAFFIC ENGINEERING

A mighty fine job of the "survey" variety is contained in *Publication No. 100, "Traffic Engineering Functions and Administration,"* 137 pp., published by the Public Administration Service, 1313 E. 60th St., Chicago, Ill. This is primarily for city planners, in the best of civil engineering style, prepared by a joint committee of the American Asso-

ciation of State Highway Officials, the American Public Works Association, and the Institute of Traffic Engineers. It is focused on one of our most vital problems: the traffic congestion that is choking the life from the centers of our cities. It is broad and deep enough to be a guide to effective engineering and administrative practices. The detailed information is remarkably complete and the report as a whole expresses the

joint policy of the sponsoring organizations. The Public Administration Service, besides acting as clearing house for publishing such material as this, provides advisory and consulting services, on a cost basis, exclusively to government agencies.

OIL HEAT CONVENTION

A batch of papers read before the National Oil Heat Convention at Boston on May 20, 1949, is a sample of the frankly biased, constructive views of a trade group talking shop, plus a paper on "Recent Progress in Heating and Building Design," by Henry Wright. Wright presents the architect's standpoint beautifully: the work of all the specialists, each in his own field, requires "integration" into the final building—it adds up to more than the sum of each specialty and the architect is the one to pull it all together. The paper proceeds to pull together the relationships of the various heating systems to each other and to the design of the building, clarifying much of the mystery attached to panel warming. It is the best brief essay on this subject that has come my way. Look for its publication in one of the heating journals.

Kellogg Fine Papers (division of U. S. Envelope Co.) Radio City, N. Y.



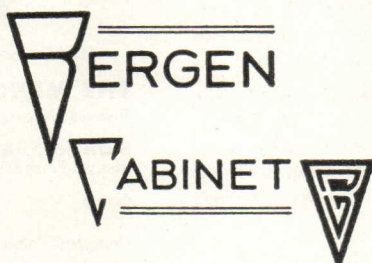
A Candidate for the Cabinet

A candidate for the Cabinet . . . Bergen Cabinet, we hasten to add . . . always has the following qualifications:

1. Vision, to integrate modern design with modern merchandising.
2. Desire, to see his plans translated into tangible form without compromise or deviation.
3. Acumen, to recognize the absolute necessity of engaging the right craftsmen to implement the first two qualifications.

Among the distinguished members of our "Cabinet" is Kellogg Fine Papers, a division of U. S. Envelope Co., with Showrooms at Radio City, New York. Mr. Harold Guy is the designer.

Write for our Portfolio of "Jobs Well Done". It's worth seeing.



Bergen—sure the success of your modernization program with

Architectural woodwork that makes the designer's plan an enduring reality

1552-56 BERGEN STREET, BROOKLYN, N. Y. • Phone: PResident 2-3121

WOOD

Forest Products Research Guide. *National Lumber Manufacturers' Assn., Washington 6, D. C. Third Edition 1948. 261 pp., \$5.00*

Published to aid correlation of research and to help prevent needless duplication of effort, this guide lists an enormous number of research problems, cross-referenced to a couple of thousand organizations that have done work on each. Extended "Suggestions for Additional Research" in each chapter point the way for filling the gaps.

Modern Timber Engineering. *W. Fleming and W. H. O'Brien. Southern Pine Assn., New Orleans, La., 1949. 147 pp., \$1.50*

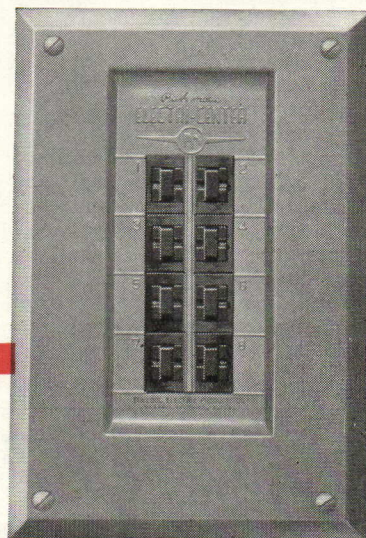
This is a new, enlarged edition of *A Course in Modern Timber Engineering*, in which fundamental information on timber design was made available by the Southern Pine Association in 1942.

(Continued on page 100)

Here it is!

NEW BULLDOG Service Electri-Center

Available in 2-, 4-, or 8-circuit cabinets,
the handsome Service Electri-Center is
ideal for homes, offices, and small plants.



featuring

Pushmatic



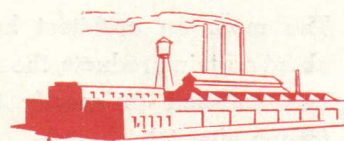
FOR HOMES



COMMERCIAL BUILDINGS



GARAGES



PLANTS

THE BULLDOG Service Electri-Center, featuring *Pushmatic*, offers ease of installation, versatility and adaptability *never before obtainable in any panelboard*. Here's why—

More compact than old-fashioned load centers, the Service Electri-Center actually contains more wiring space! Revolutionary *Pushmatic* units are responsible for this bit of magic. Two-thirds the size of a pack of cigarettes, *Pushmatic* makes the Service Electri-Center a wireman's dream.

And complicated group mountings are eliminated. Each *Pushmatic* is an individual single-pole unit,

making changes and additions a simple matter.

BullDog Service Electri-Centers don't have to be hidden away in the basement or other inconspicuous and inconvenient places. Beautifully styled, this modern panelboard is at home almost anywhere.

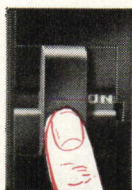
Available in 2-, 4-, and 8-circuit cabinets, the Service Electri-Center is the last word in efficiency and protection for homes, offices, and small plants. Send the coupon today for *Pushmatic* Bulletin No. 494. It contains complete information and prices on Service ELECTRI-CENTERS and the new *Pushmatics*.

Pushmatic... a new kind of control and protection

PUSH—It's ON!

PUSH—It's OFF!

PUSH—It's ON again!



THE revolutionary *Pushmatic* provides finger-tip control and automatic protection against short or overload. A simple push of the finger makes or breaks the circuit.

And if power is broken by short or overload, just push and service is restored. No more bothersome resetting by hand... no fuses to worry about. There's only one operation for this unique circuit breaker and that's **PUSH!**

There are four types of *Pushmatics*: THERMAL ONLY, THERMAL-MAGNETIC, or either of these types with AMBIENT COMPENSATING FEATURES. All *Pushmatics*, regardless of type or rating, are identical in size and contour and are interchangeable.

Approved by Underwriters' Laboratories, *Pushmatics* are available in ratings of 15, 20, 30, 40, and 50 amperes, 120 V., 1 pole, or 120-240 V., 2 poles, AC.

Send the coupon now for more information on why the

sensational *Pushmatic* makes the BullDog Service Electri-Center the most modern panelboard available today.

BULLDOG ELECTRIC PRODUCTS COMPANY

DETROIT 32, MICHIGAN—FIELD OFFICES IN ALL PRINCIPAL CITIES
IN CANADA: BULLDOG ELECTRIC PRODUCTS OF CANADA, LTD., TORONTO



BULLDOG

HEADQUARTERS FOR ELECTRICAL DISTRIBUTION

BULLDOG ELECTRIC PRODUCTS CO.

Detroit 32, Michigan

Please send me your Bulletin No. 494 giving full information and prices on your *Pushmatic* Service ELECTRI-CENTERS.

Name _____

Company _____

Street Address _____ Zone _____

City and State _____ C

(Continued from page 98)

It is very thorough in its handling of connections made with lag screws, bolts, or timber connectors, with clear, illustrated examples of design and detailing. An unusual feature is a full treatment of composite decks of timber and concrete for heavy loadings (highways, garage floors, etc.). The lower half of such decks is made up of alternate 2 by 4's and 2 by 6's on edge, over which is poured a reinforced concrete surfacing. Sort of a super-slow-burning mill construction.

Technical Data on Plywood. Douglas Fir Plywood Assn., Tacoma 2, Wash., Nov. 1948

A loose-leaf technical manual on plywood with special regard for its structural use. Sections cover heat transmission of various wall and roof assemblies using plywood, design of built-up members, prevention of condensation, deflection tables, etc. Available to architects and engineers on request.

BOOKS

THEATERS FOR WHAT?

Theatres and Auditoriums. Harold Burris-Meyer and Edward C. Cole. Reinhold Publishing Corp., 330 W. 42nd St., New York 18, N.Y., 1949. 238 pp., illus. \$8.00

The Burris-Meyer and Cole volume could be described as both monumental and definitive. There seems little left to be said on the planning and construction of an American theater until such time as there may be a revolutionary change in our accepted forms of entertainment. If there were any spot in the country where architects were unlicensed, any bright high-school student could walk in with this book in hand and build the ideal playhouse for the requirements of his or her community. Not a bolt or wire or decibel has been left out. The only factor that has been omitted, as far as I could discern, was the proper temperature for popcorn machines in the movie palace lobbies: a not unimportant item in the present state of motion pictures. The book certainly will be required on every university and college—as well as architect's—reference shelf.

During the past two decades architects have been called upon so seldom for theaters that it would not be strange if few of them knew anything about this peculiar problem. Take New York, which you have to do whether you like it or not; the theaters housing legitimate attractions have fallen off from 76 to 38 within this writer's memory. Some of the 76 have given way to business edifices; some have succumbed to the newer forms of amusement—movies, radio, and television. And in the period when theaters were being built (again in New York) the client, as a rule, was of little help to the architect. He wanted something that could be run up at the least cost, yet comply with the multiple building laws, and that was to occupy a set plot of ground. Usually the client was a real estate man, not a showman. He was content, as a rule, to buy duplicate plans of the theater most recently erected. The Little Theatre, for Winthrop Ames, and the Ziegfeld Theatre, planned by Urban for William Randolph Hearst and Arthur Brisbane, were notable exceptions.

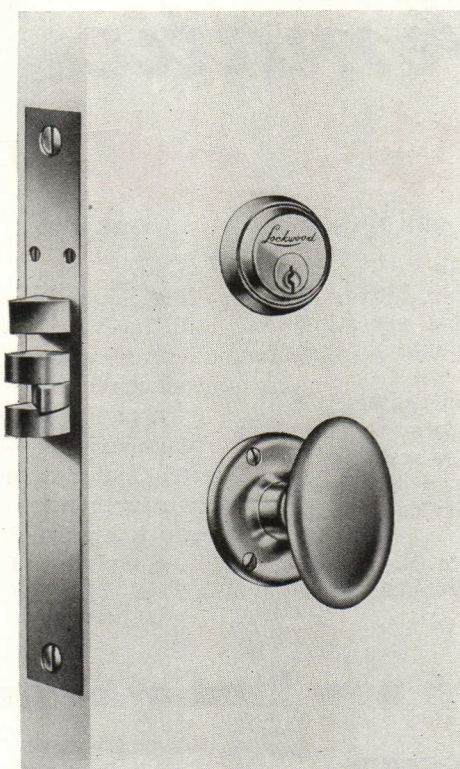
The authors complain that the comfort or esthetic requirements of the customers were seldom considered in building legitimate theaters. The answer to this is that the successful showman has always been a pragmatist: he has seen no occasion to make expensive changes unless competition forced him to do so. He knew that the principle of the better-mouse-trap worked in the theater better than in any other business. He, along with this writer, has sat in bare rooms on hard benches in Greenwich Village to see the work

FAMILIARITY BREEDS CONTENT...

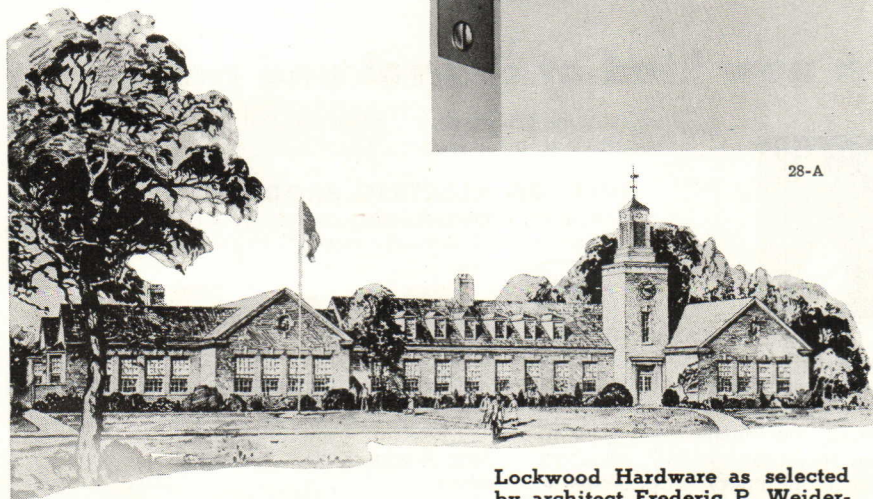
The more an architect knows about certain products, the more he's satisfied to specify them for job after job...

Lockwood Hardware is that kind of product... proved in service in an ever-growing number of buildings of all classes.

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(Continued on page 102)

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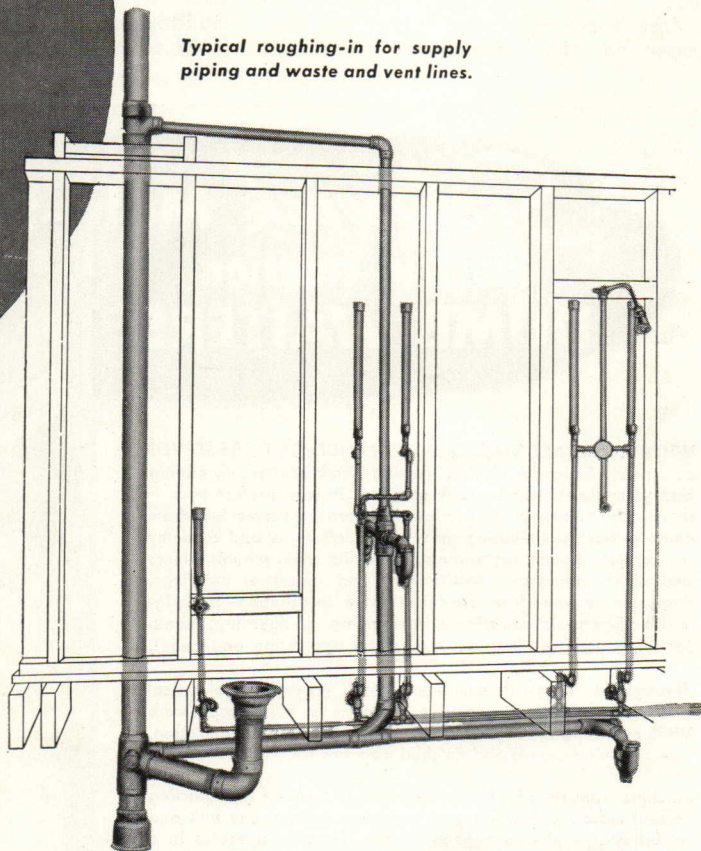
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Reviews

(Continued from page 100)

of some budding genius or has taken a train or plane to some far-off barn to view a commodity that might have a potential for gain if placed within his own theater. He knew, too, that the most beautiful and the most comfortable theater in town would not draw a nickel if the show was not one that the theater-going public wished to see.

One concession was forced on the lessee of the present-day outmoded

theater, that of air conditioning, of a sort. In the past, the legitimate theater season ended at the beginning of summer and resumed in the autumn. To extend this season, and the profit, something had to be done to make the theaters livable in the hot months. A few installed true air conditioning. Most of them resorted to cakes of ice, over which air was blown into the auditorium (this device at a cost of \$300 to \$400 a week).

A third of a century ago the intellectuals of the theater, who had traveled abroad, wrote enthusiastic books about the beautiful and functional theaters of European stages. These writers, even then, were aware that most of these plants were state-owned or subsidized and that land value was not a consideration. The Century, above Columbus Circle in New York, was constructed along these continental lines (the old Hippodrome, by the way, had one of the most modern stages in the world), but the attractions put into the Century could not make it a going concern and it eventually fell to the wreckers. This is mentioned as, I believe, the authors do not stress enough the relation of the factors that are basically vital to the American theater.

Realizing that this volume is designed for architects and is undoubtedly the most comprehensive so far written, I cannot refrain from expressing a wish that it had included a foreword or supplement. This, to my way of thinking, could have contained some philosophical notes about the mysteries and incalculables of show business that cannot be measured by slide rule. To justify its inclusion in a technical book, the authors could have devised their own formulae, translating esthetic and comfort values into units preceded by the inescapable point. It could also rightly contain an analysis of audience potential, the history and evaluation of entertainment forms, their relation to each other and possible trends. At what point does comfort reach the peak of satiety and intellectual hunger set in? How far will television go in reducing the off-premises entertainment? What effect on the theater may be expected from the increasing emphasis on the dramatic arts in the colleges and schools? What is the probable outcome of the trend toward decentralization? Will the projected plan of the commercial theater to obtain government aid and/or sanction as well as self-help, arrive in time to re-establish itself in relation to the population, at the point it reached before the incursion of the movies? Will operational labor costs finally price the theater out of existence?

The above, to me, does not seem capacious. The mention above of popcorn was not made in jest. There is a record of popcorn sales keeping movie houses solvent during their recent doldrums. The architect will do well to consider the gin mills of Third Avenue compared to the chromium and glass emporiums further west. Is it not the product consumed that furnishes the emotional satisfaction, sense of comfort, and esthetic flights of speech and fancy, rather than the shell of the edifice?

"The battle between function and historic style" in architecture, the authors write, "seems to have been won by function in these localities where architectural design has been allowed to develop most freely." Is it not with-

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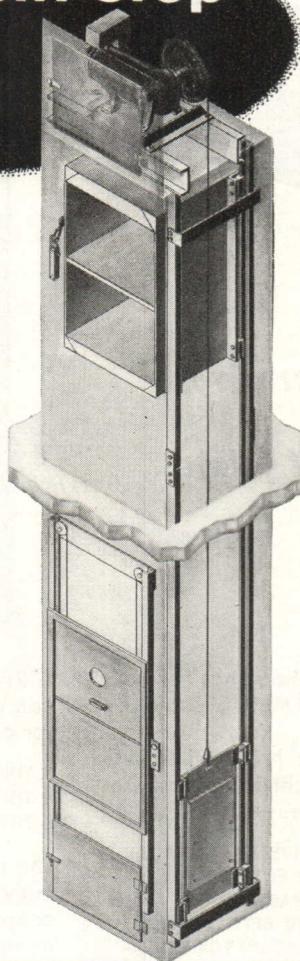
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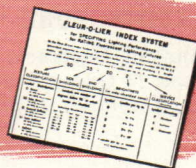
(Continued on page 104)

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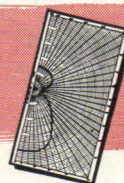
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N	31	30	29	28	26	25	24	23
O	35	34	33	32	30	29	28	27
E	38	37	36	35	33	32	31	30
D	42	41	40	39	37	36	35	34
B	45	44	43	42	40	39	38	37
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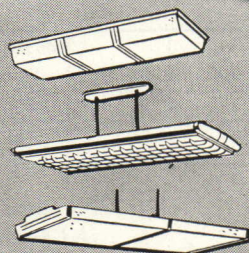
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Reviews

(Continued from page 102)

in the theater architect's function to ponder, before he sets pencil to paper, whether his edifice is to house popcorn machines or ghosts of a declining culture? MURDOCK PEMBERTON

DANISH ARCHITECTURE

The Architecture of Denmark. The Architectural Press, 13 Queen Anne's Gate, London S.W.1, England, 1949. 60 pp., illus. 12s. 6d.

The November 1948 issue of London's *The Architectural Review*, which was devoted entirely to the architecture of Denmark, forms the basis of this volume, with further examples of important buildings added. The work surveys the history and development of architecture in Denmark, and includes a study of modern gardens, furniture, and wallpapers. Included also are chapters on architectural training and practice, Copenhagen's regional plan, and the Danish land and landscape. M.W.K.

FAMILY HOUSING

Deane A. Carter and Keith H. Hinchcliff. John Wiley & Sons, Inc., 440 Fourth Ave., New York, N. Y. 1949. 265 pp. \$4.00

There has been a raft of HOUSE books—all seeking to educate the public one way or another (mostly with "style" in mind), but it takes the Farm Extension boys with their solid basis in adult education to give us a complete text. Maybe it's too complete. Surely no layman could absorb all the fine points of this book. There is even danger (to stuffy architects) that the client will learn so much about the business that the architect will be eliminated altogether.

The book is concerned with houses as they relate to family living and it has just about everything in it that has to do with planning, detailing, materials, constructing, financing the small house. It is very richly illustrated with vigorous, clear drawings by Hinchcliff (and well-chosen photographs) of everything from piping and shingles to site planning. The text by Carter is equally clear and complete.

The book is designed as a text for college students and as a reference for home economists, teachers, etc. everything is covered so sensibly and completely that no mysteries remain. Considerable space is given to the special problems of farm houses, and the authors seem to assume an all-round competence on the reader's part that is usual in the country and generally lacking in city people. This is a book for the competent, not for the general reader. Architects just getting into small-house work could learn a great deal from it. Even old-timers might well take a lesson or two. J.R.

THE MODERN SCHOOL

C. G. Stillman and R. Castle Cleary. *The Architectural Press, 13 Queen Anne's Gate, London S.W. 1, England, 1949. 151 pp., illus. 21s.*

This book deals with the problem of designing public schools in England and the approach to the subject matter is that of the architect and educator. Stillman, one of the authors, is the county architect to the Middlesex County Council and the chairman of the R.I.B.A. School Design and Construction Committee. Cleary, Stillman's colleague, is both an architect in the Ministry of Education and an educationalist. Stillman is an accomplished architect with many excellent English schools to his credit, which entitles him to speak with authority on this subject.

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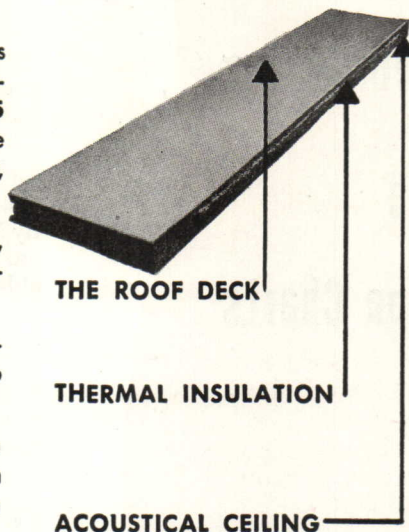
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For complete information, write for folder (A.I.A. File Number 4-K). Also see catalog 3c/13a, Sweet's File Architectural, 1949.

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(Continued on page 106)

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Reviews

(Continued from page 104)

planning problems. With our interest in schoolhouse design sharpened by such problems, it is only natural that this book should expect a receptive audience in this country. To learn that English school architects are coping with problems of equal or greater difficulty than our own, and to see how they are solving them, will offer useful and broadening comparisons.

The authors give us the historical background of English school design and then follow up with discussion of the important Education Act of 1944, with comment on previous legislation affecting education and school design. Under the Act, the local education authorities (presumably with architectural assistance) are to submit to the Minister of Education a comprehensive

plan for new school construction and for the utilization and alteration, if necessary, of existing schools; it is important to note that the Minister of Education is required to approve school plans. Interestingly enough, the Minister is empowered to waive local regulations in the interest of encouraging new building techniques. This is a real opportunity for architects and their clients and one realized too seldom, if ever, in this country.

After an excellent chapter on the general problem of school design and its objectives, the authors analyze the various teaching units or spaces: the classrooms, special instruction rooms, commercial rooms, and physical education facilities. The Act recommends or requires room areas considerably less than generally thought desirable in America. There are some observations which strike a strange note, particularly to the architects of the west coast of the United States: one is the expressed desire to have sunlight enter the classroom and, for this purpose, a south orientation receives favor. They believe a north orientation the least desirable. The authors also take a rather dim view of a bilateral window arrangement even though many American architects consider this an essential to good daylighting. Climatic differences no doubt account for this viewpoint, but the authors admit that scientific experimentation in daylighting is only beginning in England. Out of respect to the English, it is only fair to say that we feel the same dissatisfaction in our own accomplishments to date.

A chapter is given over to structural design with some comments on the problems of standardization and prefabrication. This is one of the most interesting chapters of the book, and there is much in the thinking of the authors that may apply to our own situation. Prefabrication and standardization are discussed as possible answers to a great building need in the face of curtailed supplies of building materials, reduced ability to meet the costs, and a need for speed. The authors point out the difficulties of method and offer a warning against the tendency to reduce space and quality at the expense of the students; they say that educators must redefine their needs in terms of a realistic appraisal of building problems.

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Don Graf. Reinhold Publishing Corp.,
330 W. 42nd St., New York 18, N. Y.,
1949. 809 pp., illus. \$8.00

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B.H.H.

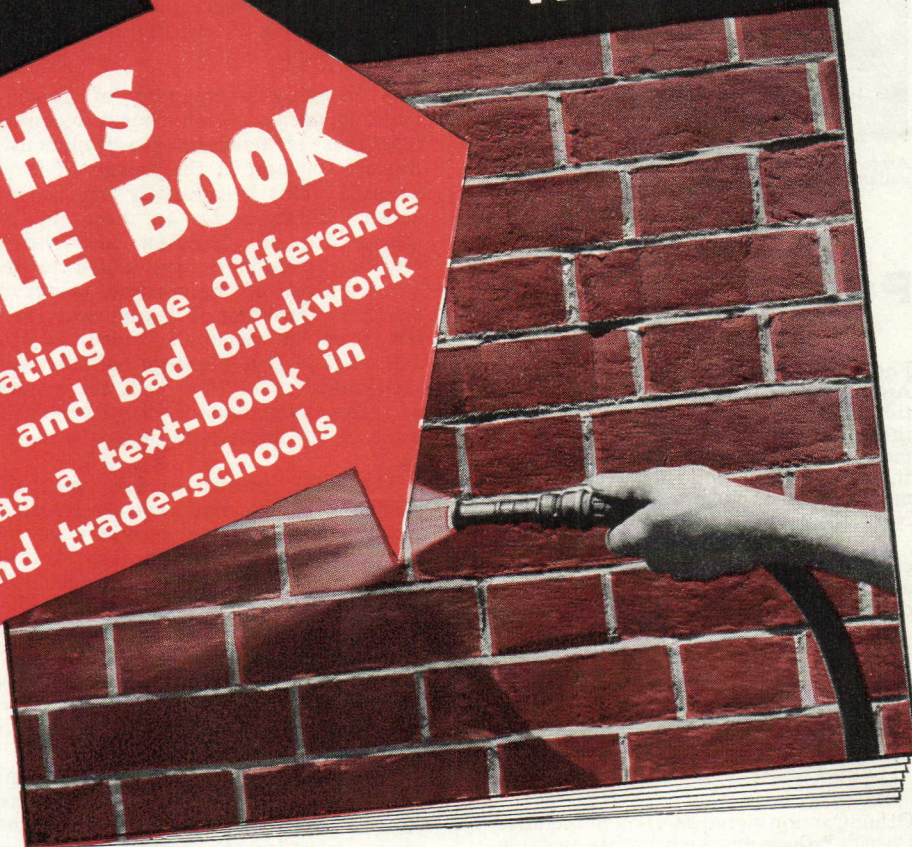
(Continued on page 108)

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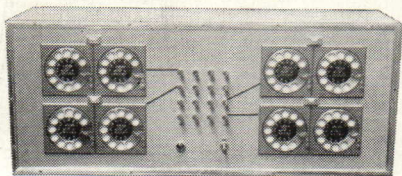


Arrows point to vertical three-face annunciator, and in background, a Nurses' Supervisory Station in a modern hospital.

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Reviews

(Continued from page 106)

LIBRARY COMPLEXITIES

Planning the University Library Building; a Summary of Discussions by Librarians, Architects, and Engineers. Edited by John E. Burchard, Charles W. David, and Julian Boyd with the assistance of Leroy C. Merritt. Princeton University Press, Princeton, N. J., 1949. 145 pp., \$2.50

The growing complexity of modern building needs and of modern technical resources is nowhere more obviously illustrated than in the design of large libraries. This is especially true in university libraries, for in these the requirements of changing and varied teaching techniques are added to the complications of the storage, preservation, and servicing of library materials. No problem demands more careful thinking. It is a pleasure to find gathered together in this book the results of frank discussions by a gathering of some of the most noted experts in the field.

The final impression left with the reader is of no pat over-all solution. Again and again ignorance of what the future will bring in education, in the development of building techniques, and especially in the broadening of audiovisual educational facilities produces a general sense of uncertainty, of wavering, of hesitation between more or less mechanized types of solution. As a result, flexibility seems the only single quality which all agree is desirable.

Architecturally, flexibility means standard column centering, floor heights, window design, and so on; it often means also, where artificial light is used, buildings of a generally cubic nature. If, in addition, the strictest economy is also enjoined on the architect, these standard dimensions will all tend to be minima. The result on architecture as an expressive art can well be imagined: expression of purpose or of architectural space itself will tend completely to disappear. This total group of tendencies is not limited to libraries; it applies to other building types as well. If it is to govern our future architecture we may confidently look forward to towns of undifferentiated cubes, all completely flexible, and only signs or address numbers will tell us which are office buildings and which libraries or hotels. For an actual example, Felheimer & Wagner's building originally designed for the New York Housing Authority is to become the Library of the United Nations. . . . The architect's aesthetic function will become merely that of creating adequate envelopes and choosing adequate mate-

(Continued on page 110)

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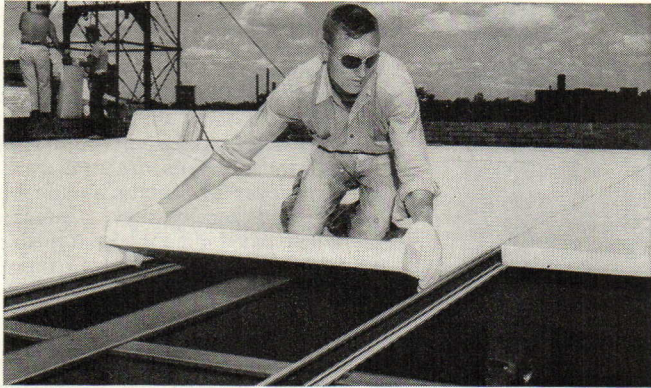
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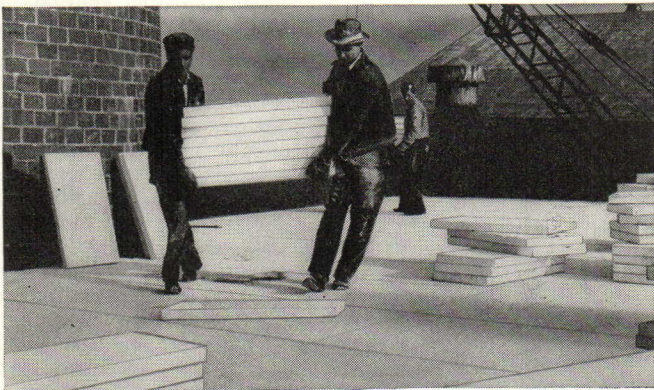
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Two men here carry 8 Kaylo Roof Tiles while walking on roof deck already laid.



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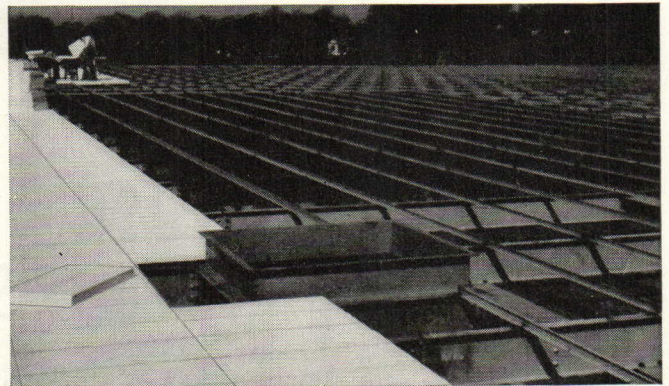


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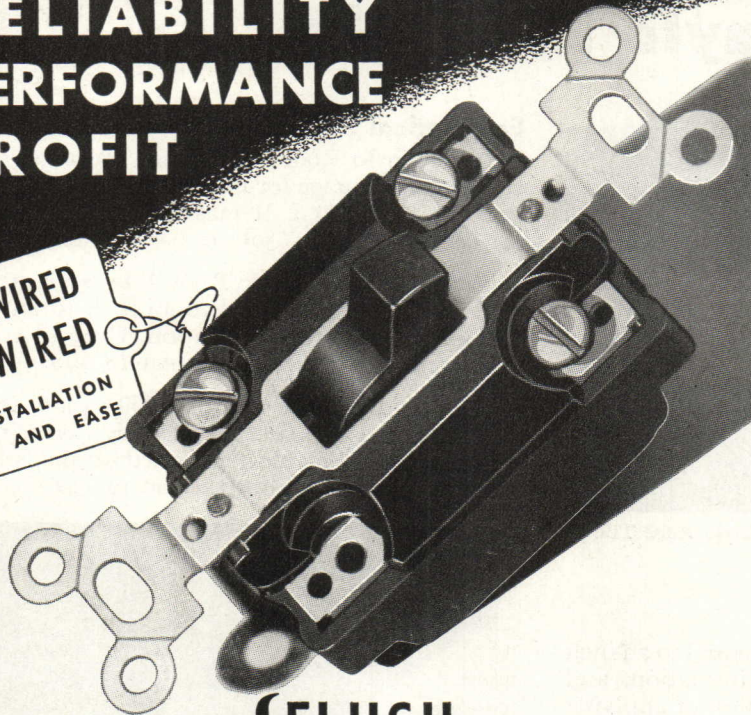
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Reviews

(Continued from page 108)

rials. In the fascinating book *Cybernetics*, Norbert Wiener says, in an illuminating aside, that a culture built on economic values alone is bound eventually to dehumanize and at last to destroy itself. Perhaps the same is true of architecture.

The discussion panel in the present case seemed to be somewhat diffidently aware of this. And they pinned down the basic reason for their somewhat discouraging conclusions—ignorance of what human beings *are* and *want* and *need* in order to remain human beings. Again and again they confess that technical developments in lighting and ventilation—to cite but two examples—are far in advance of either psychological or physiological knowledge of optimal human conditions. The "perfectly" lighted room, with brightness contrasts minimized, is also the most soporific room. Who knows where the need for variety and interest should intersect the search for mechanical perfection? What about windows and views? What about the sense of space in interiors? In the conflict between the need for minimum cubage and the apparently real demand for height in rooms of a certain area, where shall the designer stand? There seems still in some librarians a certain definite anti-aesthetic feeling, almost as if it were really more difficult to read or work in a good-looking interior than an ugly one; there are traces of this feeling here, though the basically integrated attitude of the good modern architect seems to be gradually overcoming it.

This book thus offers profound subjects for thought in addition to a mine of information; puzzlement as well as enlightenment. Yet it is a *must* for architects interested in libraries and, because of its implications, for all architects devoted to the future of their art. Particularly valuable is Chapter IX, "Library Planning: A Bibliographical Essay." It is superb, and its careful evaluations of the works cited make it much more than the usual routine book list.

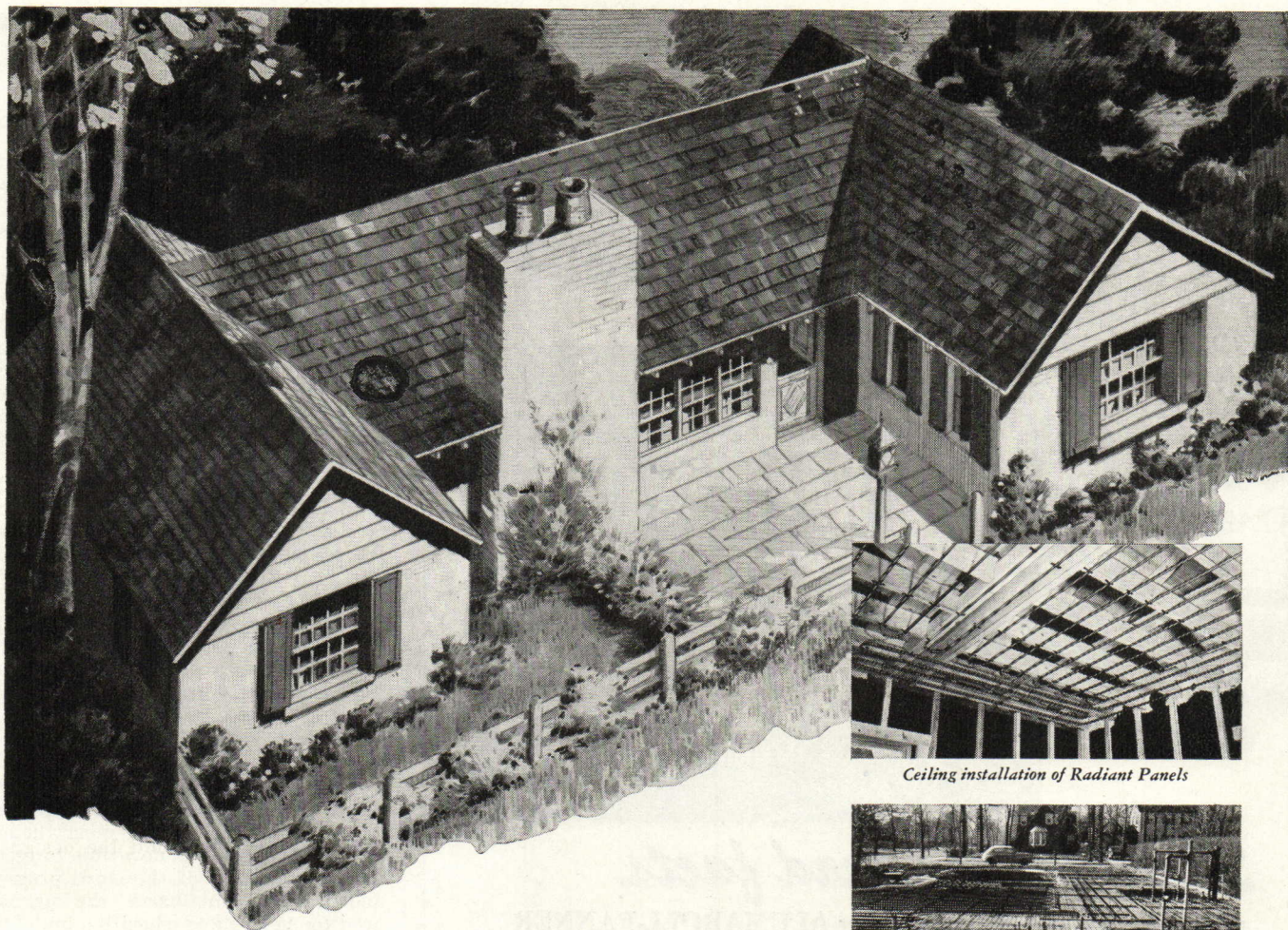
TALBOT HAMLIN

SR. DR.: ARQUITECTO NEUTRA

Architecture of Social Concern. (Arquitectura Social.) Richard Neutra. Gerth Todtmann, Caixa Postal 3620, Sao Paulo, Brasil, 1948. 218 pp., illus. \$12.95

This bilingual volume, Portuguese and English, will be of more interest for its philosophy than for its models for imitation or inspiration, "prototypes

(Continued on page 112)



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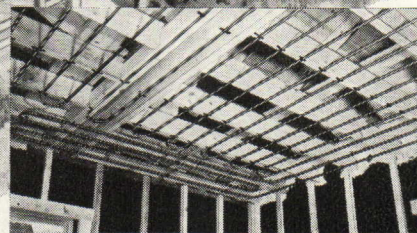
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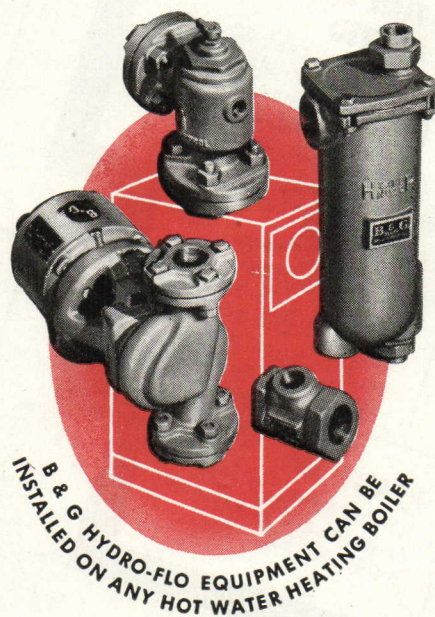
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Reviews

(Continued from page 110)

for serial production." Projects for schools, health centers, housing, and rural hospitals, designed for Porto Rico are chiefly of interest to architects working in semitropical climates and for undeveloped areas; for them there are many suggestive plans and construction details.

As an addition to the Neutra literature this book will be welcomed since it includes a 16-page photographic survey of his work as a whole, although the cuts are too small to serve as more than notes and are not identified. Alone of his executed projects Channel Heights is included in some detail, but this has already been extensively published. Plans and diagrams are well reproduced but the perspectives less well. The English text has the emphatic quality of some translations in which familiar ideas take on new shades of meaning through the use of unexpected words.

The general direction of the ideas expressed can be judged by these: There is a "mental colonialism" about our tendency to think of modern architecture in terms of cold Europe and America. The architectural problems to which we have given most thought are urban ones; it is now time to recognize the vastness of the rural program and its different basis, the primary need for health and education buildings. It may be, as this book states, that the most fertile aspect of our civilization is in its supra-individual aspects. In a concluding essay Neutra indicates that the intuitive understanding of the architect is necessary to achieve at once results that scientific research with its prolonged methods of analysis cannot now, if ever, arrive at.

"The still imponderable intuition of individuals gifted with still-puzzling nervous coordination and inner balances must be respected if it comes to the art of planning and design." The architect's function is thus defined in opposition to pseudo-science, "rock-rigid data dug out of the deep-freeze."

The buildings illustrated reaffirm Neutra's mastery of design, his ability to achieve agreeable forms from the simplest elements such as strong horizontals, and a plastic variety apparently effortless yet really due to his extraordinarily sensitive and refined mind.

C. V. L. MEEKS

U.N. ON PLANNING

Housing and Town and Country Planning. *United Nations Publications Sales No. 1948-IV-7. Columbia University Press, Morningside Heights, New York, N. Y., 1948. 74 pp., illus. \$1.50*

(Continued on page 114)



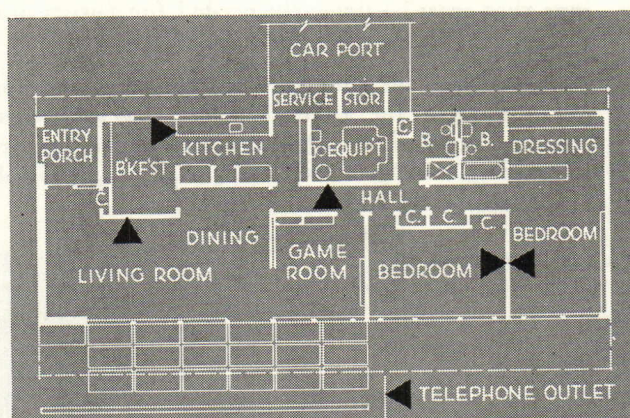
Samuel G. Wiener and William B. Wiener, Architects

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Reviews

(Continued from page 112)

Bulletin 1 of the United Nations appears to be the noble beginning of a worthwhile publishing program. Included in this first issue are general articles on Great Britain, the Far East, Europe, India, Poland, and Sweden. Contained also are other interesting articles on such topics as: "The Current Change in Civic Hopes and Attitudes," by Catherine Bauer; "Mass Production to Relieve Housing Shortages," by Maciej Nowicki; "A New Building Material: Paper Honeycomb-Core 'Sandwich' Panels," extracted from HHFA bulletin. The booklet also contains an excellent bibliography.

J. H. LIVINGSTONE

HOUSING ALL PEOPLES

Housing and Town and Country Planning. Bulletin 2, Department of Social Affairs, United Nations, Lake Success, N. Y., April, 1949. International Documents Service, Columbia University, Press, 2960 Broadway, New York 27, N. Y. 60 pp., illus. \$1.00

This second issue of what is essentially an international magazine of housing and planning contains articles by Walter Gropius, J.J.P. Oud, and others. It includes in its contents statements on housing in India, Poland, Canada, Brazil, Australia, and the United Kingdom; also a description of the formation of the United Nations Working Group on Housing and Town and Country Planning. This Group will act as a link between the U.N. itself and its various specialized agencies such as I.L.O., U.N.E.S.C.O., W.H.O., etc. The publication reflects somewhat the fact that the coordinating group is barely organized and is not yet sure just how or where it should direct its activities. Nonetheless, it is most encouraging to see such a publication appear, and the present issue indicates that it will serve a useful function.

T.H.C.

URBAN REDEVELOPMENT

Rethinking Urban Redevelopment. Coleman Woodbury and Frederick A. Gutheim. Public Administration Service, 1313 E. 60th St., Chicago 37, Ill., 1949. 26 pp., \$1.00

Number 1 in the Urban Redevelopment Series, this pamphlet presents an analysis of the present situation and outlook for U.S. urban redevelopment in the postwar period. Much of the material was drawn from notes taken by Gutheim

(Continued on page 116)

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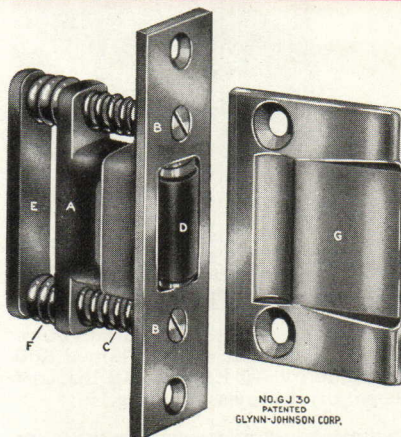
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Page 42

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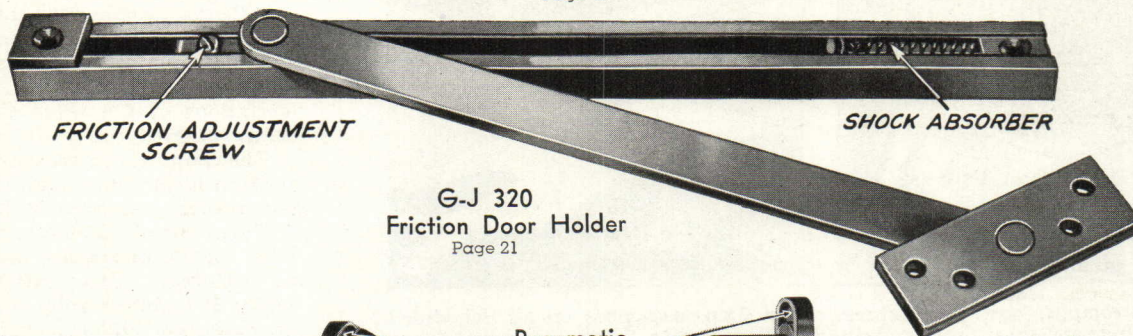
Refer to page 44

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Refer to page 45

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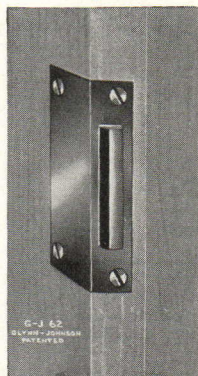
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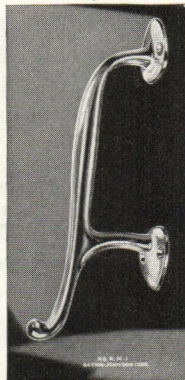
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Refer to page 14

G-J 62
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K. H. I
Arm Pull
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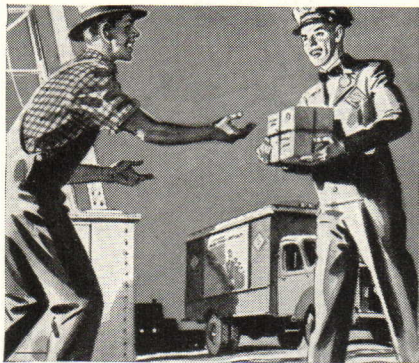
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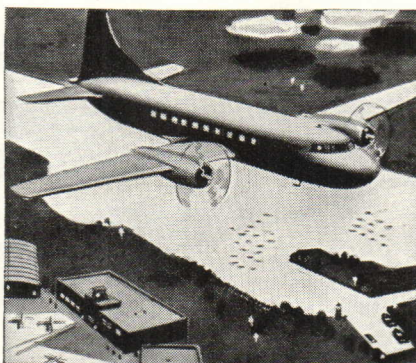
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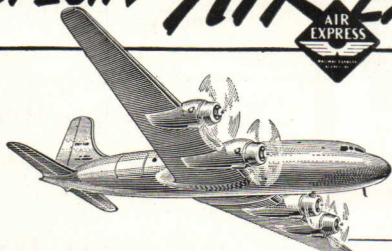
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Reviews

(Continued from page 114)

at a conference held last year by the American Society of Planning Officials, National Association of Housing Officials, and Public Administration Clearing House. Assuming that some form of redevelopment is needed in most American cities, the booklet, like the conference, points up the many difficulties involved, rather than merely reviewing the case for redevelopment. A selected bibliography of recent literature that is readily available is included. M.W.K.

LAW ON ENGINEERING

Engineering Contracts and Specifications. Robert W. Abbott. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y. 2nd Edition, 1948. 317 pp., \$3.75

This second edition is about 50 percent larger than the first and easily twice as useful.

Abbott's teaching experience helps illuminate a path of clearer understanding of engineering contracts such as Lump-Sum, Unit-Price, Negotiated, variations of Cost-Plus Contracts and many others.

The chapter on legal considerations is written lucidly and again demonstrates the author's teaching skill.

Three out of 12 chapters are devoted to elements, principles, and assembling of engineering specifications. The book offers 21 excellent rules for the writing of good specifications. These rules point unerringly towards the major advantages found commonly in streamlining. However, the author's conservative attitude toward a straightforward recommendation of streamlining in engineering specifications will not win friends among its advocates, including this reviewer. Nevertheless, everyone interested in contracts and specifications from an engineering viewpoint will want to add this valuable reference book to his library. B.J.S.

The Specifications and Law on Engineering Works. Walter C. Sadler. John Wiley & Sons, Inc., 440 Fourth Ave., New York, N. Y. 487 pp. \$5.00

This book is designed primarily for the engineer with little or no legal training. Its 26 chapters dissect the concept, promotion, organization, and financing of engineering works. Legal aspects encompass such subjects as the nature of the contract, contractual parties and their capacities, illegal subject matter, offer and acceptance, consideration, the discharge of a contract,

(Continued on page 118)

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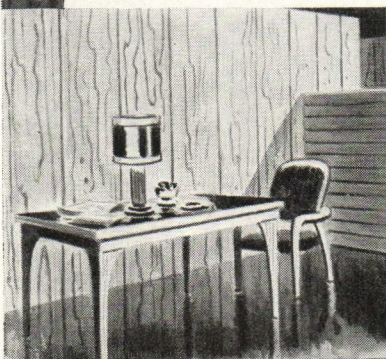
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Reviews

(Continued from page 116)

the formalities of seals and witnesses, the statute of frauds, agencies, partnerships, corporations, sales, patents, patent ability, patent procedures and rights of parties, workmen's compensation, the engineer and the law, the civil or Roman law, the English legal system, and the legal system in the United States.

This reviewer will admit readily that he is far from qualified to quarrel with the author concerning the law. Nevertheless, one cannot escape the impression that the legal aspects of the book are too general. Where efforts are made to be specific, as in the case of corporate organization fees, the author runs afoul of individual state requirements.

Specifications and Law on Engineering Works contains much material of seeming unimportance to engineers. An engineer referring to this work would generally be interested in solving specific problems relating to those questions of law where, in the words of the author, "It is not practicable to have a lawyer available to give the nod for every decision." Judged by this standard it is difficult to understand why so much of the book is concerned with matters of only academic interest to the engineer. Certainly any member of the profession relying on the extensive treatment found in these pages might fail to heed the warning hidden away in one of the paragraphs that the engineer should not be his own lawyer.

The introduction of questions is an excellent teaching device, particularly when answers are discernible from the text, which is not always so in the book.
B.J.S.

NOTICES

AWARDS

Two students at the University of Illinois have been awarded the 1949 PROGRESSIVE ARCHITECTURE Prizes presented in a competition conducted by the Beaux-Arts Institute of Design. Winner of the first prize of \$50 and a First Medal for the best solution of this year's problem, the design of a concert hall to seat 1500, was C. E. ASBURY. Second prize of \$25 and a First Medal were presented to R. E. BOLES. In addition, four Second Medals and 49 Mentions were awarded.

The College of Architecture and Design, University of Michigan, has announced the award of the *George G. Booth Traveling Fellowship* for 1949 to CHARLES W. MOORE, San Francisco, Calif.

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- help the nurse
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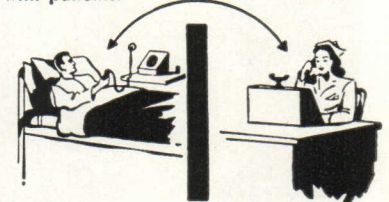


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By BERNARD TOMSON



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"Can you swing this job to us for a percentage of the fee?"

"Our firm of architects is engaging you to solicit commissions for us. Even though you are not an architect, you must conform to the Standards of Pro-

fessional Practice in urging our special abilities. Your compensation will be an appropriate percentage of our fee. Are you agreeable to this arrangement?"

If any of these questions are answered in the affirmative, will the resulting agreement be illegal or unethical?

Unquestionably psychoanalysts would say that the problem exemplified by these questions has been gnawing at the subconscious of many an architect (not necessarily in the form in which they have been put above). However, whether the language is more or less genteel or the situation any one of the other variants which human ingenuity can devise, it is unquestionably a situation which should be faced squarely by the profession. The individual architect is troubled whether to engage a layman to solicit commissions. He also is faced by the corollary of the problem, when other members of the profession decide to use laymen for that purpose.

It would be presumptuous of the writer to attempt to determine this question of ethics in this column. This the profession must do. But here it can be stated that every architect is entitled to a definitive guide which can determine his own answer to this question and which will serve to police those who are inclined to stray from principles clearly and definitely set forth by the profession. No such set of ethical principles determining this question is available.

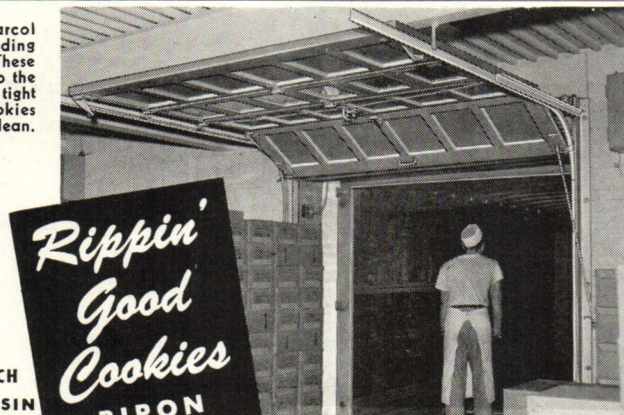
A start towards answering the legal question is appropriate here. In each case the state statute and the court decisions interpreting the state statute would control. Unfortunately there is a paucity of the latter.

In the interest of getting a fairly comprehensive guide, the writer addressed a communication presenting this problem to the Executive Secretary of Professional Conduct of the New York State Education Department, since the New York Law has served as a model for those of many other states. In the absence of a specific prohibition against solicitation, or specific approval of the practice, the question resolves itself into whether solicitation constitutes the practice of architecture. If it does, the practice is illegal; if it does not, there is no violation of law. Accordingly my letter read in part as follows:

"The Education Law (McKinney's Cons. Laws of N. Y., Book 16, Sec. 7309) provides that it shall be a misdemeanor for any person to practice or offer to practice or hold himself out as entitled to practice architecture unless duly licensed. In relation to this and other companion provisions, I would like to know, (1) Whether there is any restriction upon the solicitation of a commission by an architect (2) If there is no such restriction, is it illegal for a

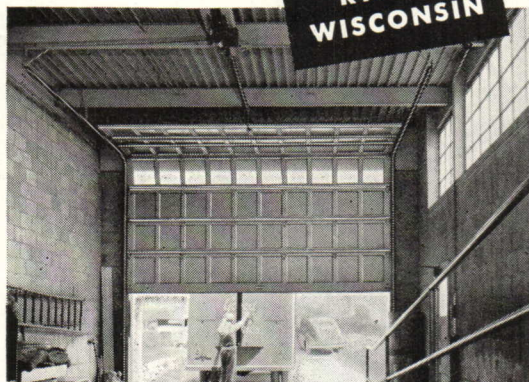
(Continued on page 122)

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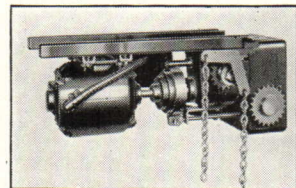
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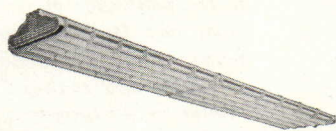


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It's the Law

(Continued from page 120)

layman to solicit such commissions for an architect (3) If such activity is permissible, may a solicitor be paid by the architect a fee based upon the business which is solicited, or must the compensation of the solicitor be unrelated to the business he acquires for the architect.

"I believe a definitive answer to these questions would greatly aid the profession."

In reply the Executive Secretary stated:

"In response to your letter of May 23, 1949, I can now inform you that none of the situations which you posed in your letter can be considered a violation of the laws pertaining to the practice of Architecture in this state. I do not see any prohibition against an architect employing a solicitor, nor do I see any violation if the solicitor is paid a fee based upon the business which was solicited."

Thus it would appear that the solicitation of business and the acceptance of fees for such solicitation probably does not constitute the practice of architecture and is therefore lawful.

If such conduct is lawful, the next question presented is whether such conduct is ethical. The Standards of Professional Practice established by the A.I.A. and set forth in Document No. 330 do not refer to the problem of solicitation or of splitting of fees. Paragraph 7 refers to publicity and advertising but not to direct solicitation of business, as follows:

"An architect shall avoid exaggerated, misleading or paid publicity. He shall not take part, nor give assistance, in obtaining advertisements or other support toward meeting the expense of any publication illustrating his words, nor shall he permit others to solicit such advertising or other support in his name."

In interpreting this section, the Executive Committee of the Board of Directors of the A.I.A. determined that the use of paid advertising was unethical but that it was not improper to hire public relations counsel. Although related, this standard and its interpretation does not resolve the problem as to the propriety of solicitation of business and the making of payments to solicitors by the architect, based upon the amount of business obtained.

The architect, of course, is permitted by the Standards of Professional Practice to offer his services to anyone provided "that he rigidly maintains his professional integrity, disinterestedness and freedom to act". The architect is further required to be absolutely disinterested in his advice to his client and if he acts in a judicial capacity as between client and contractor, he must act with entire impartiality. "His honesty of purpose must be above suspicion."

It is possible that solicitation of business by a contractor for an architect would result in a divided allegiance of the architect between the client and contractor. If this were the case, the acceptance of such solicitation would undoubtedly be considered an unethical practice. On the other hand, solicitation of business by a third party may not have any relationship to the fidelity of service of the architect to his client and therefore the ethical principles which have been referred to heretofore would have no application. Such solicitation may as a matter of fact be desirable from the viewpoint of free competition by architects and the advantages to the public and profession that result from such competition.

The conflict and confusion at present in the profession is aptly illustrated by the Code of Ethics adopted by the Georgia Chapter of the A.I.A. One provision of this code provides that "An architect may introduce to a possible client the service which he is able to perform." This provision would seem to approve solicitation. However, in the same code, the following quotation from Marcus Vitruvius, architect in the reign of Augustus Caesar, is included:

"An architect should be high-minded, not arrogant but faithful, just and easy to deal with; without avarice. Let him not be mercenary nor let his mind be preoccupied with his remunerations. Let him preserve his good name with dignity. At the request of others, not at his own, should he undertake a task."

Thus ethical judgment of this Roman architect would seem to disapprove of solicitation. In any event, nothing in the Georgia Code refers to solicitation by a third party on behalf of the architect.

Nothing here discussed should be construed as any indication of this writer's opinion as to solicitation of commissions by laymen. The problem is one that has been faced by every profession with startlingly different results. Among physicians, "fee-splitting" even among members of the profession, is held anathema. Among lawyers, fee-splitting is a respectable procedure, if "splitter" and "splittee" are each duly licensed to practice. In other professions, there is no restriction on the division of fees.

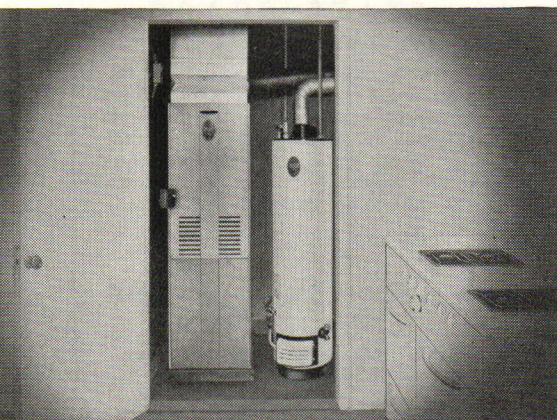
What should be the rule for architects is something that the profession itself should determine; but it is unquestionably important that rules for the guidance of the individual architect with relation to the specific problem be set up.

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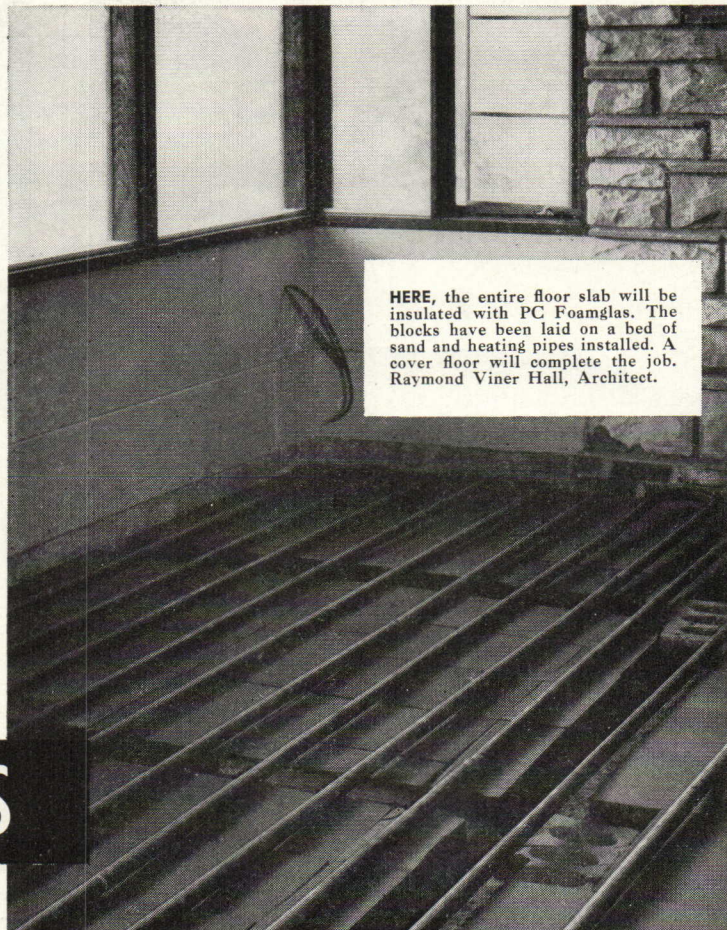
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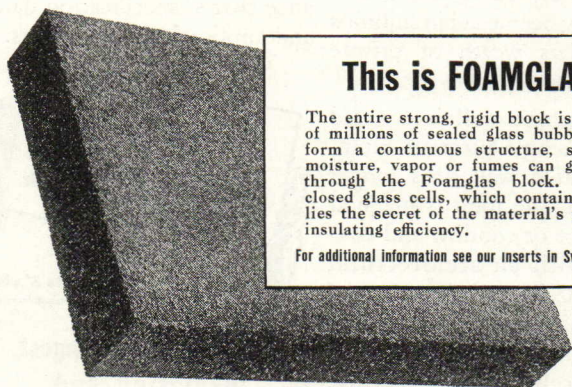


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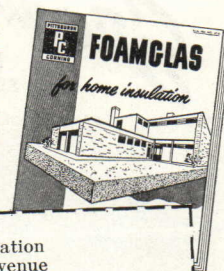


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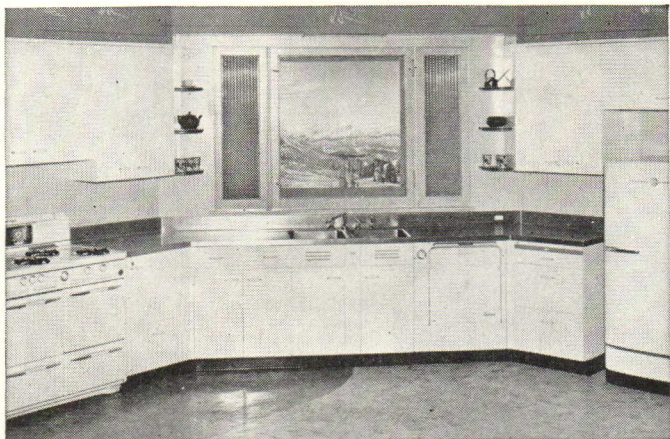
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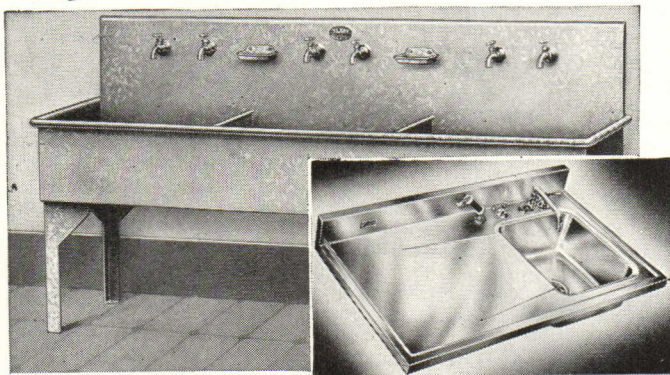
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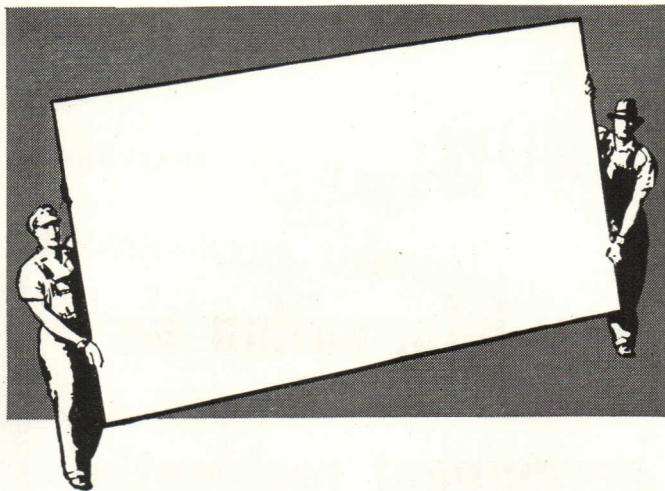
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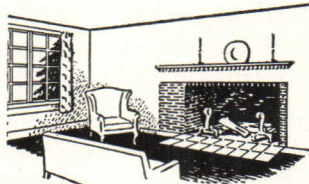
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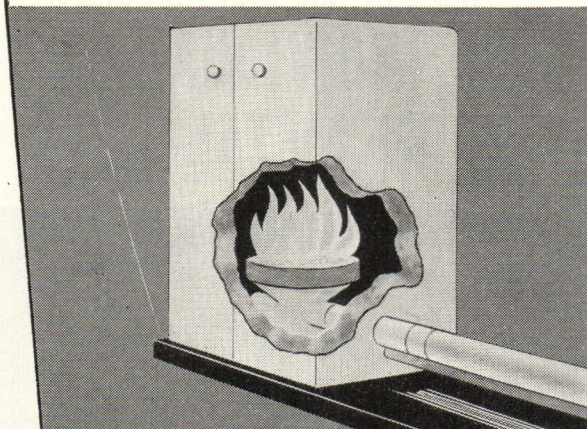
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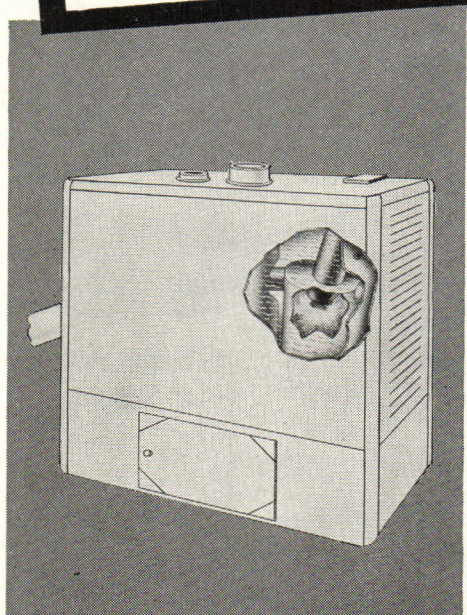
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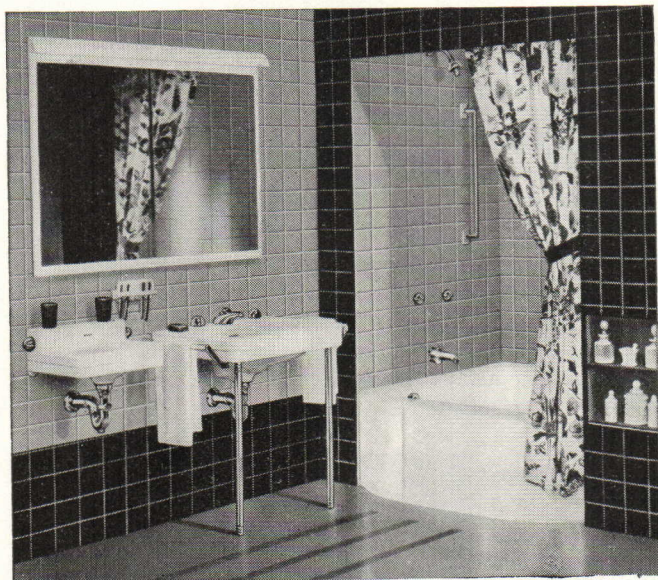
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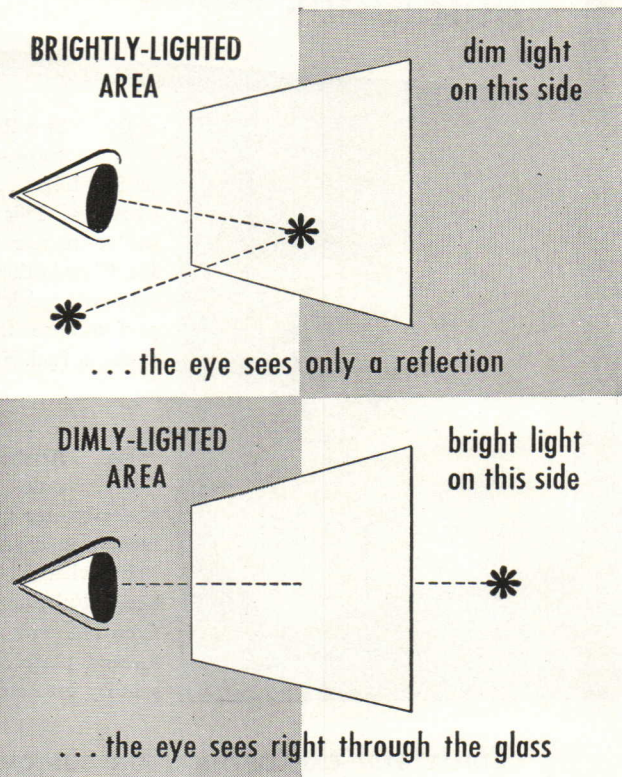
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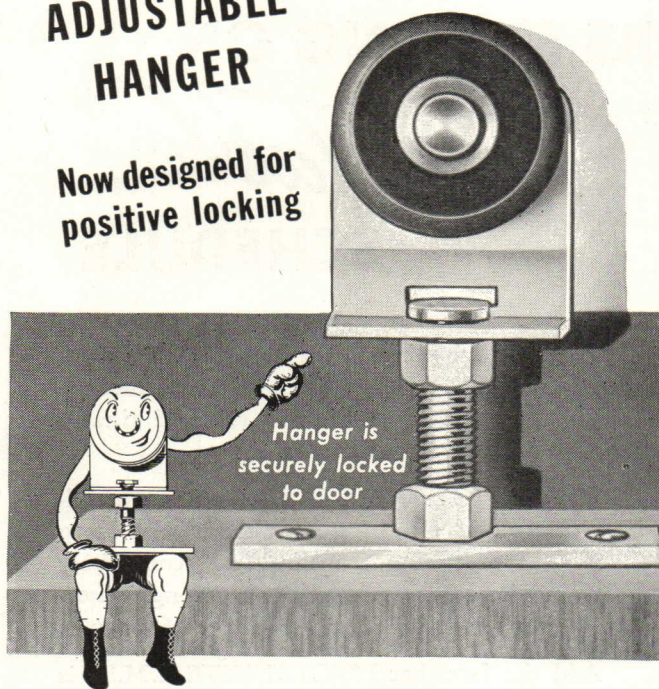
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Hanger is
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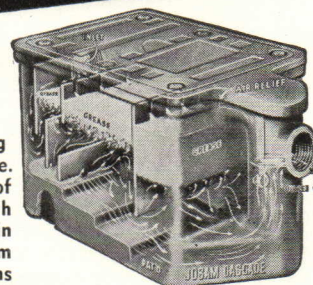
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are **DANGER**
SIGNS



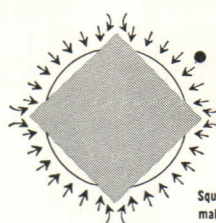
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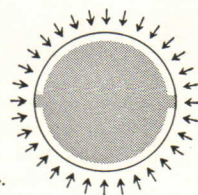
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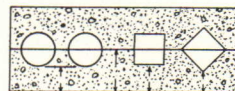


Square reinforcing bar corners break the normal annular gripping of steel by the concrete.

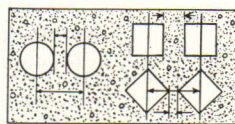


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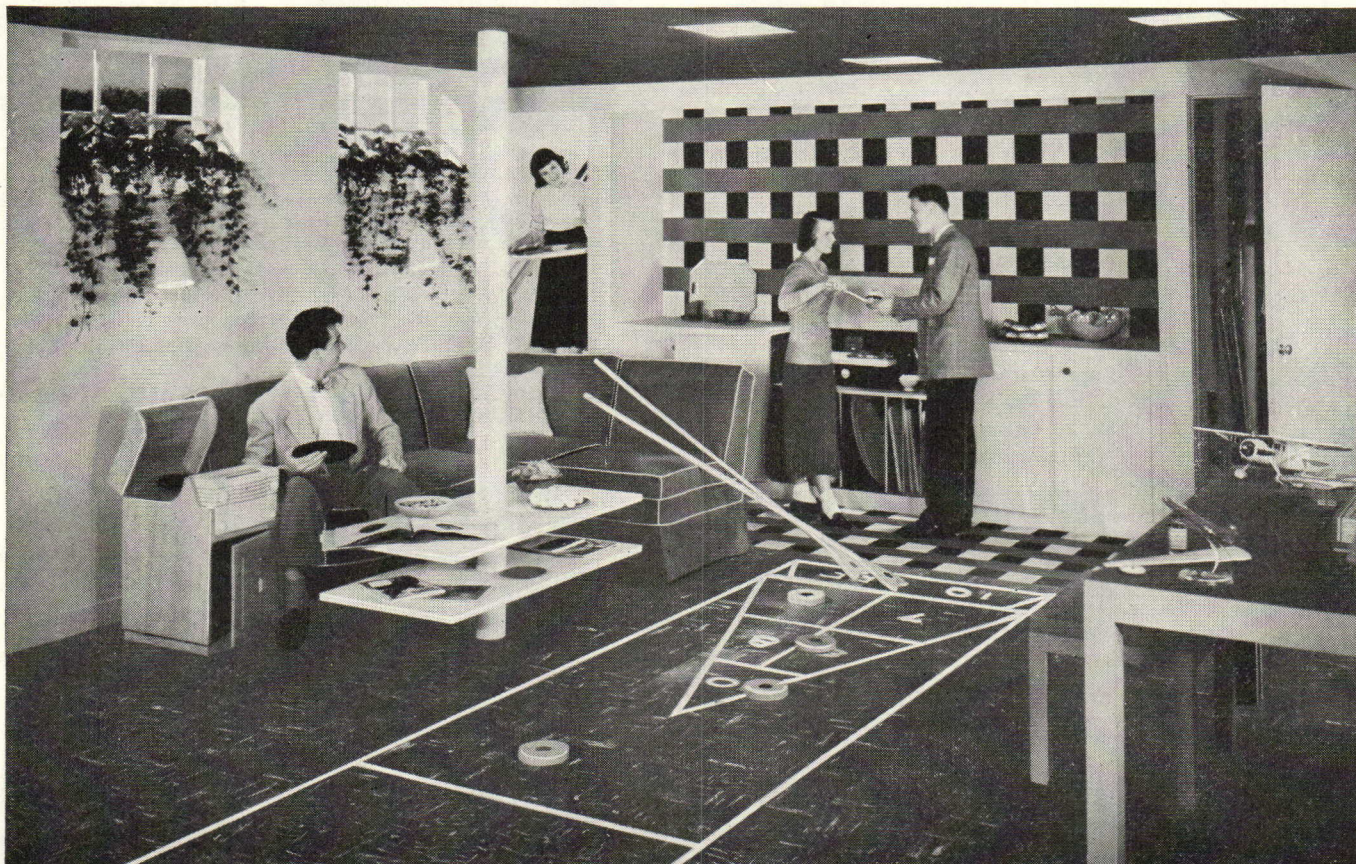
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a whim, yours or your clients'. We'll cut them to your order.

And your clients will sing your praises long after your job is done.

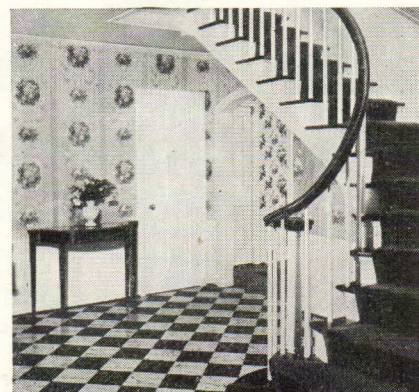
These plastic-asbestos tiles are so tough and durable the most active family imaginable isn't likely ever to wear them out. Yet they stay clean and sparkling with a minimum of maintenance . . . a real boon for today's "help-less" housewives.

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Tile-Text
PLASTIC-ASBESTOS

FLOORS AND WALLS

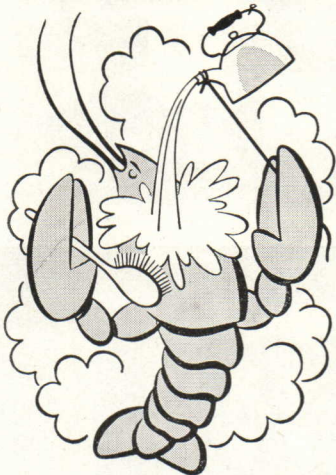
Flexachrome makes a dramatic entrance



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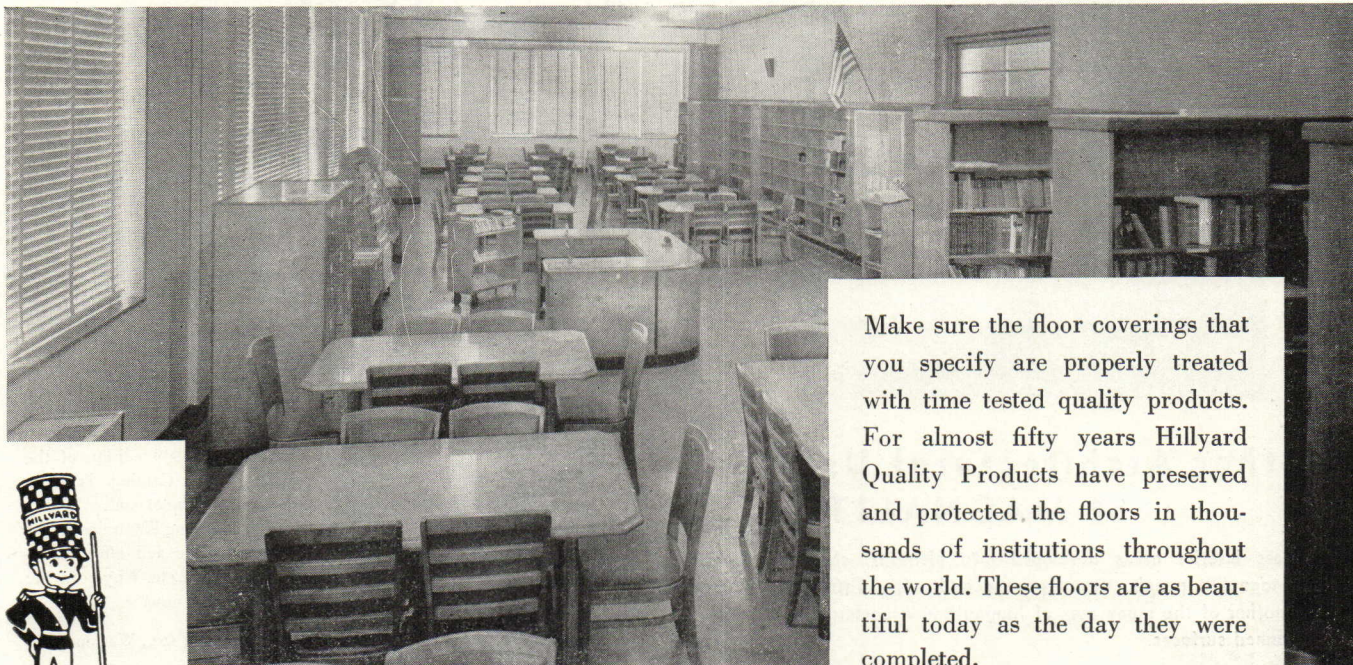
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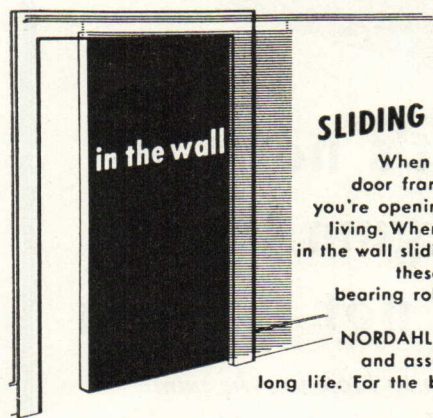
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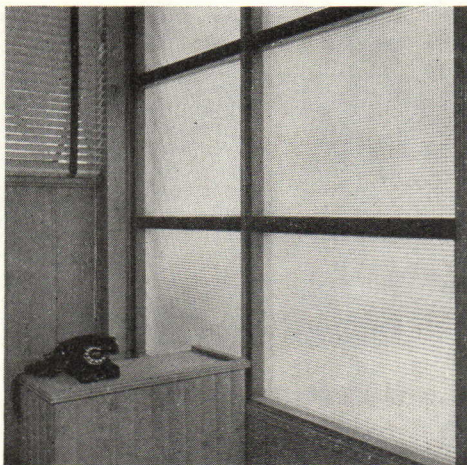
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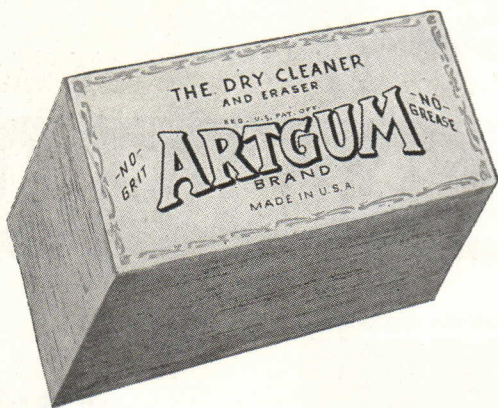
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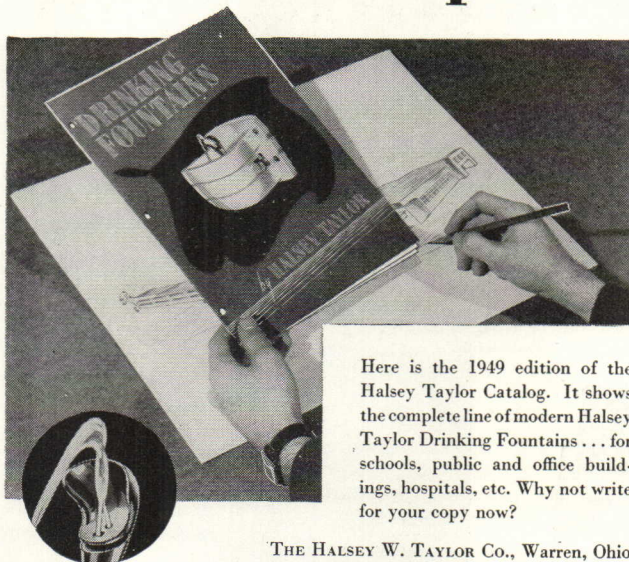


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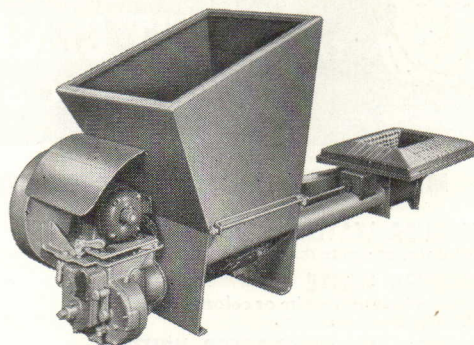
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A-3 DRINKING FOUNTAINS

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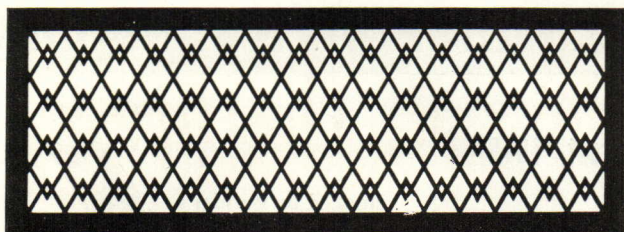


These new Type "F" Brownell Screw-Feed Stokers are built in seven sizes. They have coal-burning rates of 75 to 312 lbs. per hour, giving a range of 13 to 93 boiler h.p.

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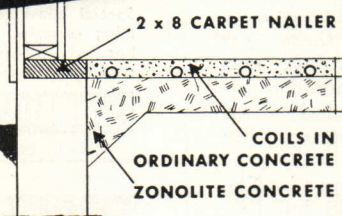
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Architectural TERRA COTTA

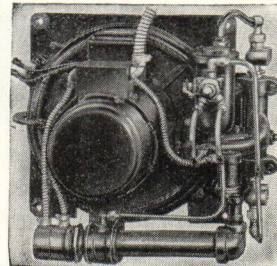
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PA-8-49

Price Report August, 1949

Now, more than ever before, those who contemplate new construction are trying to gaze into the crystal ball in the hopes that they can foretell the trend in building construction costs for the next 12 months. Such prognostication is almost impossible, but if attempted, it should only be done by experts. Such an expert is *The Dow Service, Inc.*

The Dow Service is an organization which goes out into the country and interviews contractors, building supply dealers, architects, real estate men, financial organizations, and all other factors who are closely connected with the building industry. Through these personal contacts, The Dow Service is able to build up a statistical story of the trend in prices, the construction activity, and the "feelings" of men in the building industry as they contemplate the future. All of this information is then assembled, analyzed, and presented to manufacturers of building products, so that they may be informed of current market trends, current thinking among members of the building industry, etc. This enables the manufacturers to gear their product and sales to the economy.

Every so often (about every six months) The Dow Service conducts a nationwide pole to establish the current prices of a few (so-called "key") building products, in an attempt to determine the trend in prices of these materials. By experience they have learned that such a procedure produces results that are very close to the actual figures as they eventually develop during coming months. The most recent of these Dow Service Market Studies has just been completed, and the results should prove interesting to architects, and those clients who have been contemplating new building construction.

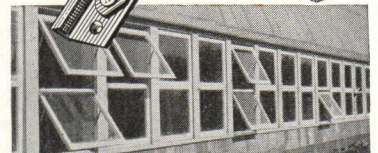
According to figures developed by The Dow Service, Inc., the 1948 building dollar has increased in value to \$1.065 during the past six months. That's not a bad interest rate—just double the legal rate. It represents the average decrease in building costs all over the country. Naturally, every section of the country has not experienced the same drop in construction costs—decreases varied from zero in some areas to as much as 12% in other areas. Lumber accounted for the greatest decrease in costs, and therefore it is logical to state that non-fireproof construction has experienced a greater decrease than fireproof. In fact, figures point out that the full 6½% cut applies to almost all non-fireproof construction, while only about 3% applies to fireproof types of buildings.

There is still a considerable difference between pre-war building costs and cur-

(Continued on next page)

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SASH HARDWARE



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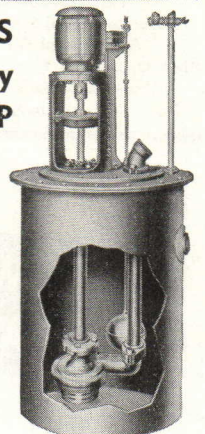
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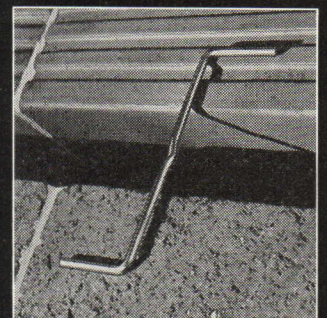
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(Continued from previous page)

rent costs. To be precise, it now costs 103.5% more (average) to build than it did in 1939. Six months ago the figure stood at 110% above pre-war prices. The Dow Service estimates (they call it a "guestimate") that by the end of 1949 prices will have dropped another 6%. They point out, however, that there is almost no possibility of prices ever dropping lower than approximately 50-60% above pre-war prices. It just can't be done.

It is interesting to hear of the way in which labor productivity is taken into account by The Dow Service in its compilation of nationwide cost figures. We quote from their most recent report:

"The productivity of labor is one of the most important factors in construction cost to watch today, and in the near future. In all Dow Service cost studies a charge is made for below-normal production of the building mechanic at the site of construction. We make no attempt to separate the estimated degree of labor slow-down as between the willful part by the worker and the part representing the production yardstick by which he works. The charge for this which we use in our figures, though somewhat arbitrarily determined, is generally regarded as realistic by employers and so far has not been seriously disputed by union labor. Using the years 1924 through 1929 as average or parity years (100%), we gradually lowered the rate of production, in accordance with measurement of field conditions reported to us, until prior to the beginning of World War II, we had established our rate of productivity at 85%.

"A productivity rate of 85 means that for every dollar of wage the cost to the builder is \$1.18. By the time the

(Continued on next page)

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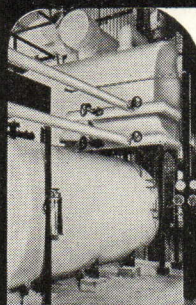
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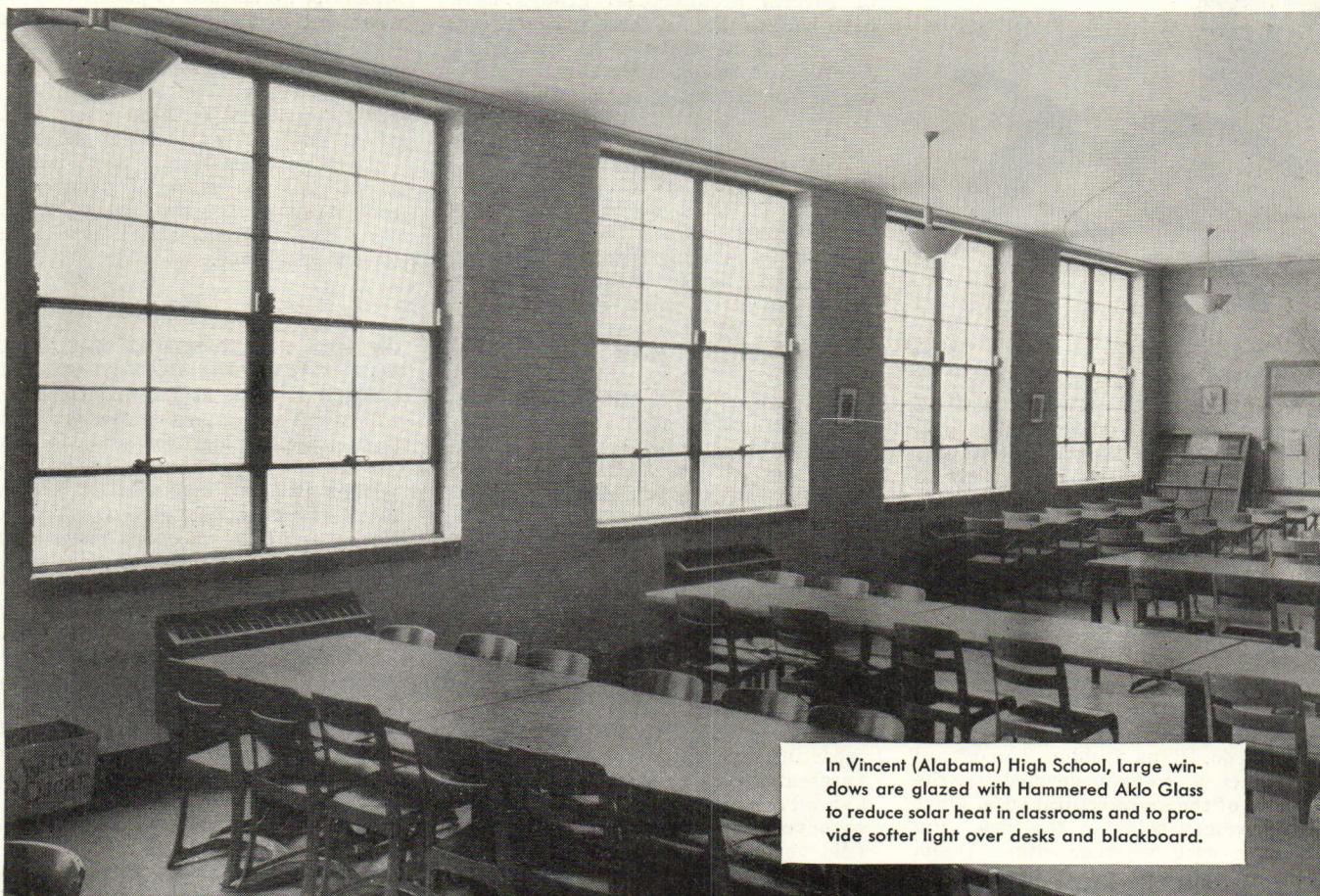
(Continued from preceding page)

building industry got back into full swing after the end of the war, which we date as September 1947, field samplings then indicated that the rate of productivity should be marked down to 70%. This brought the cost of a dollar of wage up to \$1.43. If this seems startling we can only say that while we

reduced the rate of productivity to 70, others of some reputation reduced their rates to as low as 60%."

The report went on to point out that during recent months there has been a noticeable increase in labor productivity, and the most recent survey indicated that labor productivity should be pegged

at 81%. This lowers the cost of a dollar of wage to \$1.33, which is still higher than pre-Pearl Harbor, but which is moving in the right direction. The Dow Service estimates that if labor productivity could be raised to 100%, the cost of building construction could be 7% to 9% lower than it is now.



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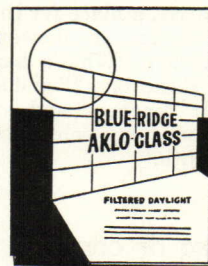
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Aklo Glass is manufactured by the Blue Ridge Glass Corporation of Kingsport, Tennessee, and sold through Libbey-Owens-Ford glass distributors. To see for yourself how Frosted Aklo Glass reduces glare and sun heat, ask your distributor for a Radiometer demonstration.

* ®

Free Book on Reduction of Sun Glare and Heat.

Write to Blue Ridge Sales Division, Libbey-Owens-Ford Glass Co., 9189 Nicholas Building, Toledo 3, Ohio.



BLUE RIDGE AKLO GLASS

Heat Absorbing • Glare Reducing • Figured and Wire Glass





P.S.

IT SEEMS TO ME THAT I'VE MET A GREAT MANY ARCHITECTS' WIVES RECENTLY, and very charming they usually are. I think that some time in the future I might write a piece attempting to show the influence of some of these women on their husbands' work. I'd never be able to do it so long as I wanted to stay friends with the architects themselves.

I HAVE ALSO DISCOVERED THAT MANY OF THE WIVES READ THE ARCHITECTURAL MAGAZINES more carefully than their husbands do. Diana Stubbins has offered to conduct a column devoted to the problems of the architectural wife. What do you women think of the idea? I'm not quite sure whether either Diana or I feel entirely serious about it. If some of you—Helen, Jo, Jeannie, Gertie, Pipsan, Lily, Orlean, Molly, Agnes, Ruth, Gladys, Sylvia, Dorothy, Elsie, Kelly, Isabel, Catherine, and the rest—have anything you want to say about your troubles, your pride, your aspirations, the help or the hindrance a wife may be to an architect-husband, I'd be glad to hear from you. I think that at least one article could be developed around the subject.

SPEAKING OF COLUMNS—AND MORE DEFINITELY THIS TIME—I want to announce the fact that Carl Feiss, director of the School of Architecture at the University of Denver, will shortly be conducting a column for us on the subject of architectural education. Carl hopes, with us, that it will develop into an interesting and useful medium for discussion of various educational problems as they arise, a place for the architects to turn to for an answer to the perennial question, "What's happening in the schools these days?" and a sounding board for teachers and students. The first introductory column will appear next month.

STILL SPEAKING OF COLUMNS, Bernard Tomson tells me that he has something really hot that he's saving for the October issue. Tomson's *IT'S THE LAW* column has already raised so many controversial questions—including the one on the adequacy of the available contract documents—that special meetings

of several architectural groups have been held to discuss these matters, and last month he traveled to Lexington, Kentucky, to speak at the summer meeting of the Kentucky A.I.A. Chapter.

NOW THAT I'M STARTED, I'M GOING TO BRAG A LITTLE. I doubt whether any architectural journal has begun—and continued—as many features which are of practical use to the practicing profession, in a few years, as *PROGRESSIVE ARCHITECTURE* has instituted recently. For instance: the various case studies in the *ARCHITECT AND HIS COMMUNITY* and *FIELDS OF PRACTICE* series; the *CRITIQUES* (incidentally, we're trying a new technique in the November issue); the *NEWSLETTER*, which gives you the important news of the field in capsule form; the *OFFICE PRACTICE* series; *IT'S THE LAW*; John Rannell's *TECHNICAL PRESS* column; the various examples of streamlined specifications; the *PROGRESS REPORT* page, pulling out particularly newsworthy items for fuller consideration; this P. S. page (which of course is written entirely for my own entertainment), etc., etc.

When you add to that the regular reporting on outstanding new buildings (presented in our own staccato, easy-to-read technique) and the full coverage we have given to technical developments (did you notice the index of technical articles for the last three years in the July issue?), we aren't at all ashamed of the journalistic job we've been doing. I just want to be sure we get full credit, that's all. Incidentally, we now have the largest professional circulation any architectural magazine has ever had. End of plug!

I DOUBT WHETHER ANY COMPETITION JURY EVER DID A MORE SERIOUS JOB OF WORK and then had more fun relaxing after it was over than the group who went to Colorado Springs for the Junior Chamber of Commerce Headquarters Building judgment. There were mountains to see and to climb, after the large number of entries had been carefully considered in four full workdays; the Jan Ruhtenbergs and the Gordon Ingrahams (she's Frank Lloyd Wright's granddaughter and an architect) entertained the group royally at the Springs; then for two days the entire delegation went up to Denver and was given a whirl by the local architects and the school at D.U. The jurors and Jedd Reisner and I had to pay for that part of the trip by participating in an informal panel discussion which was supposed to be on the subject of regionalism. The argument got completely out of hand, however, ranged over the whole subject of design and delved as well into educational matters.

On the final night, before the group

broke up, we decided to penalize anyone who mentioned the nasty word *architecture*. That same evening (earlier) someone made the excellent suggestion that the jury should have a reunion, in Tulsa, when the building itself is finished. The idea would be to judge how well the competition had actually *worked*, in the sense of producing a good structure for the Jaycees. I think it's a fine thought, and I hope it can somehow be done.

ON MAY 3 LAST ROBERT MOSES, NEW YORK CITY'S PARK COMMISSIONER, DELIVERED A TALK at Dartmouth College which was a pretty nasty attack on town and city planning. He said, in part:

The veteran who wants a house or an apartment of his own wants it now, not when the academic planners have designed and built an entire new city for him . . . parents who complain of distant, overcrowded schools see no desks and seats in Frank Lloyd Wright's Usonia and in the troubled dreams of Le Corbusier, Gropius, and the regional planners . . . the merchants and property owners who pay most of the bills—what is to become of them and of the City's credit while irresponsible green-belters are declaring half the City's real estate worthless for complete rezoning on new bulk and angle-of-light theories . . ."

Moses was actually complaining, not about any theories of the men he mentioned, but about the work being done right in New York by the City Planning Commission, with the technical assistance of Harrison, Ballard & Allen as consultants, and the advice of an Architects' Advisory Committee set up by the N.Y. Chapter, A.I.A. This study is intended to lead to revision of the New York Zoning Ordinance, is considering suggestions from every source, and should result in a much-needed modernization of that Ordinance.

ALL CREDIT TO ARTHUR HOLDEN, who spoke out sharply to Moses, called his remarks "grossly misleading and vituperative," and went on to say:

Here is a case of a man who is recognized as one of the ablest administrators in public life, a man who is a courageous and intelligent public official so far as actual "getting things done" is concerned. When it comes to the technical side of planning Bob Moses disguises his own lack of knowledge by letting his emotions run away with him.

Holden warned the New York architects, and I think the warning might well be passed on to other parts of the country, that this attack will succeed unless the professional body of architects gives the necessary aid and support to colleagues.

Thomas H. Wright