

The Architectural

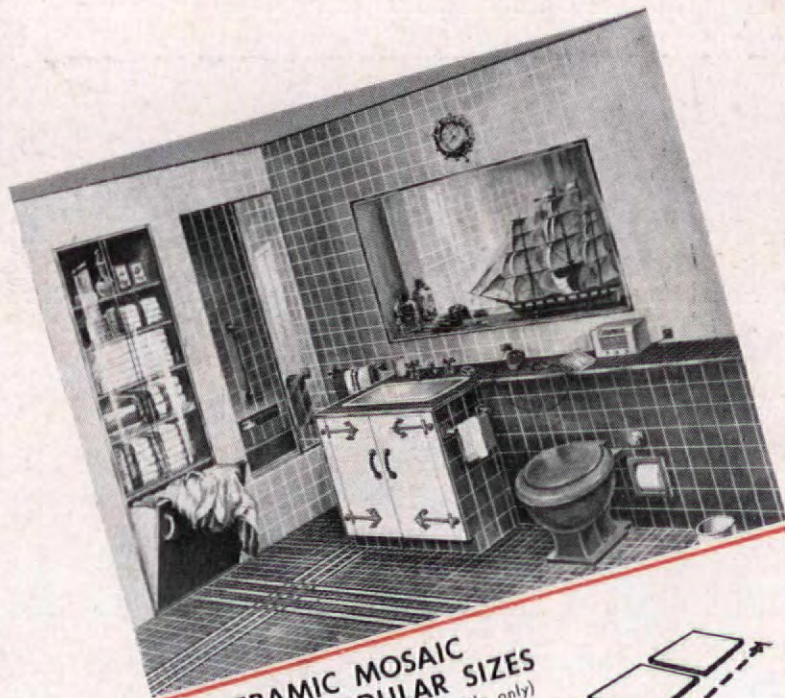
FORUM

Magazine of Building

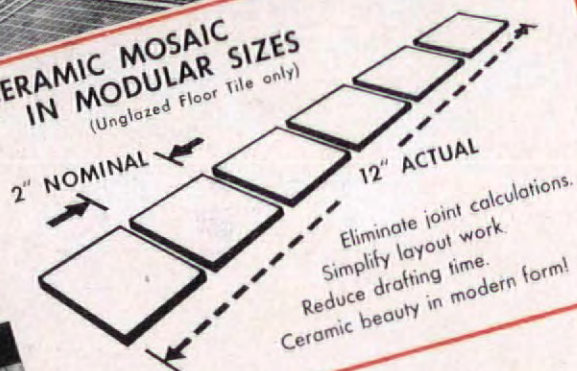


May 1947

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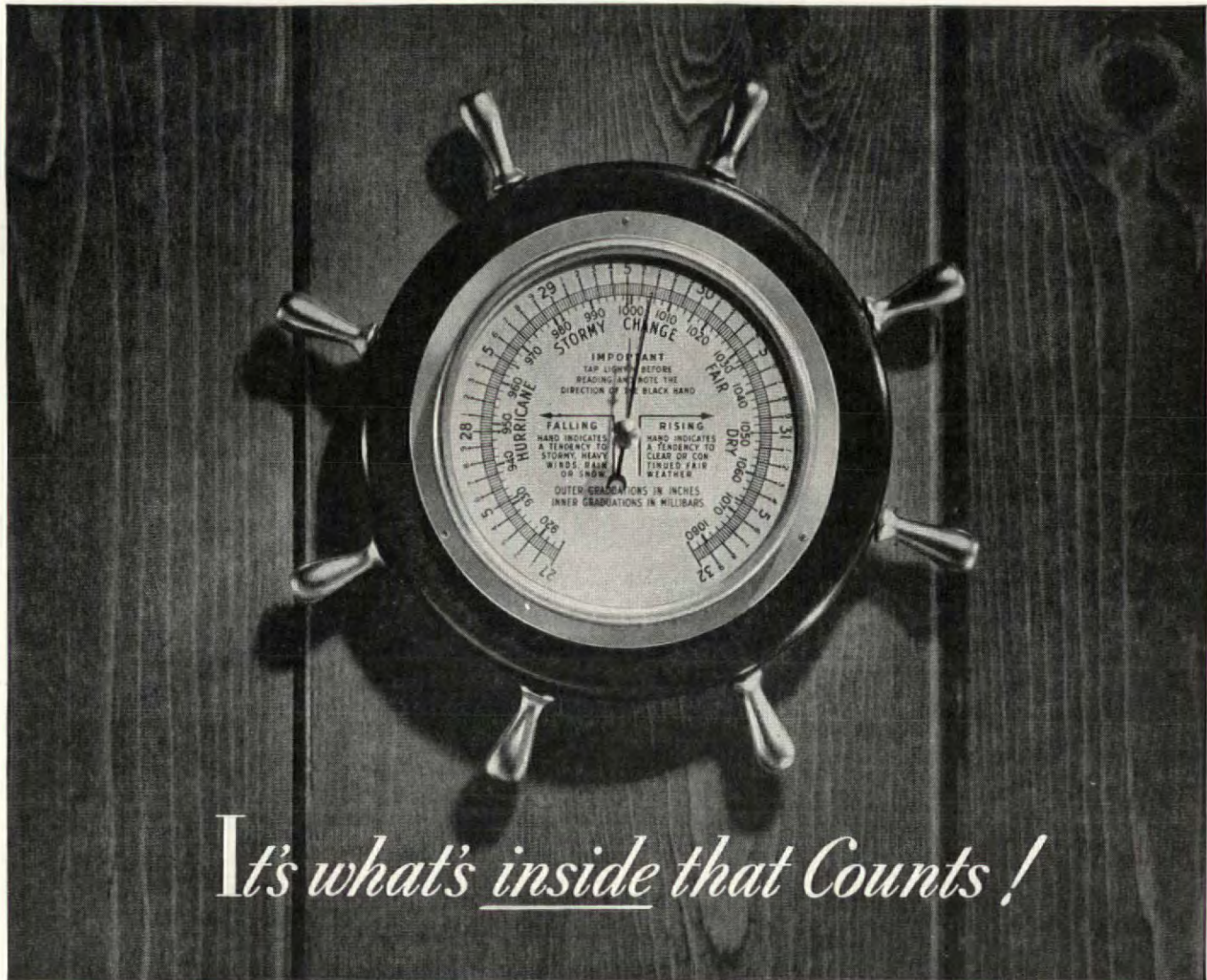
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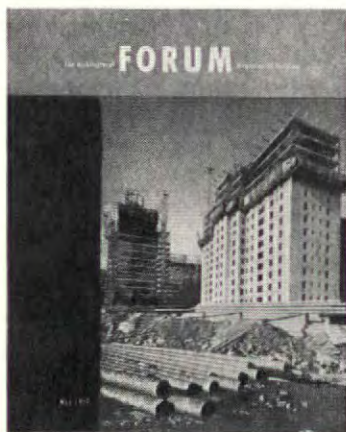
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FORUM

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MAGAZINE OF BUILDING

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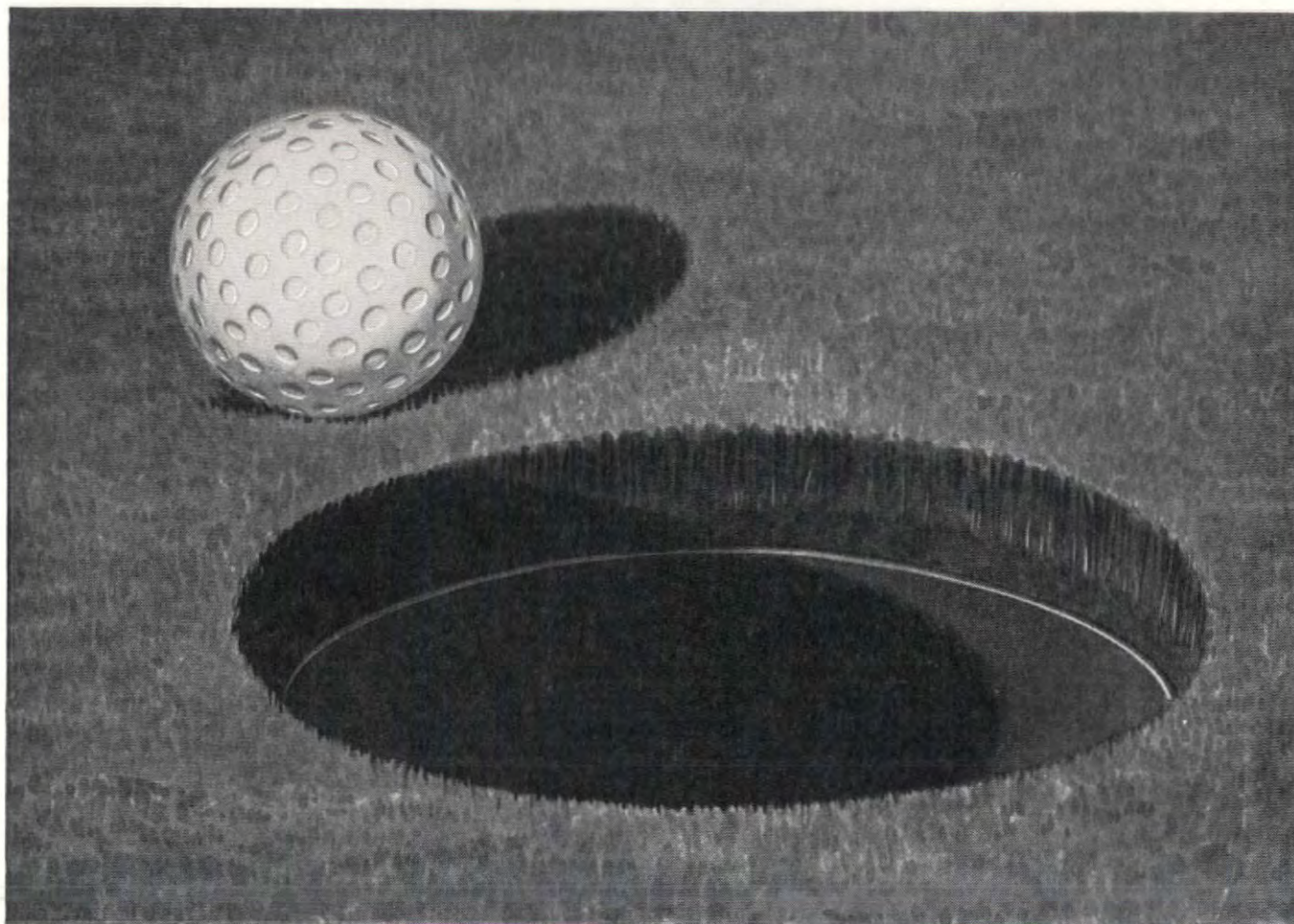
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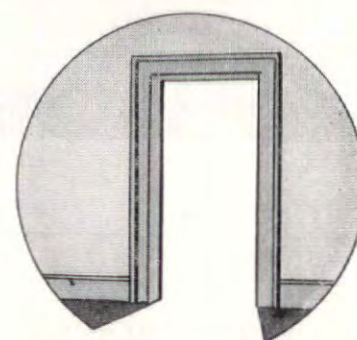


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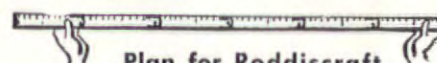


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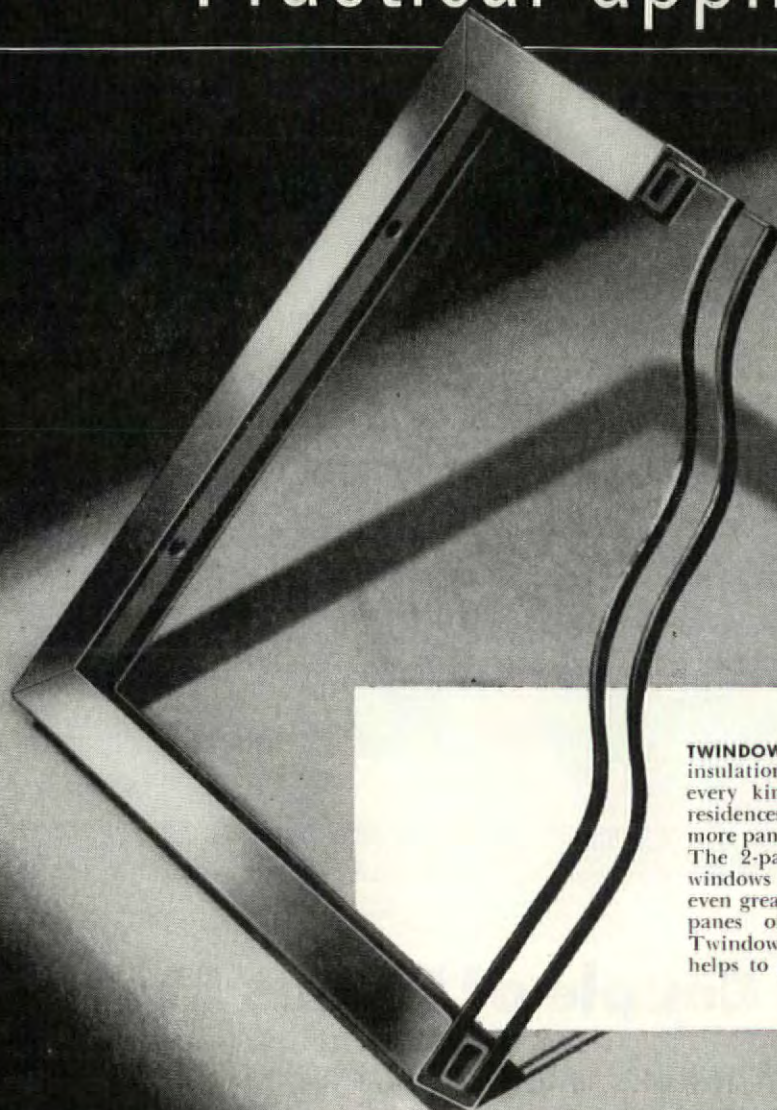


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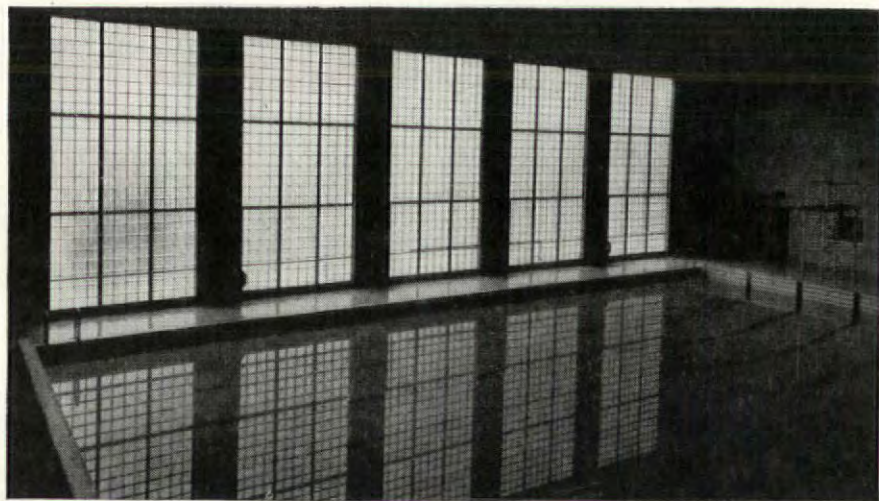
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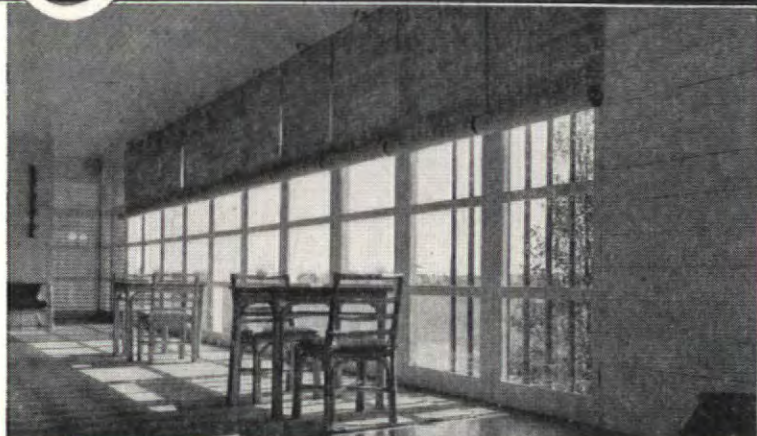
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NEWS

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BUILDING MONTH. Almost everybody said the buyers' strike in housing was here. Consumer resistance to the high price of new building had set in hard, they said, and housebuilding, backbone of construction, was paralyzed. To the mounting evidence of residential building disaster, the *Engineering News-Record* last month added its influential testimony. ENR had surveyed 22 cities, found new houses lagging in the market, builders hesitating to start more construction. Government records on March starts bore this out. In this month, which marks the opening of the building season, only 48,800 houses were started as compared with 60,400 in March last year.

But there were many careful observers who were not so quick to cry disaster. Government statisticians, for example, were waiting for April figures on housebuilding starts before revising their building forecast for the year. March, they said, had been a month of exceptionally bad weather in most sections. Moreover, March a year ago had been an abnormally busy month, with builders everywhere rushing starts to take advantage of a brief interval of freedom from some government controls.

It seemed undeniable that an indefinite number of new houses were sitting on the market, waiting for buyers. But one-fourth of all married veterans were living with relatives, in trailers, in furnished rooms. What was happening? Had house customers simply got used to doubling up, decided to sit out a drop in housebuilding costs?

Some of them had. But there was reason to believe that the buyers' strike against new house prices was both more limited and more specific than was popularly supposed. The houses waiting for buyers were all houses built in 1946. There was little question that they were over-priced. Their prices reflected the fact that last year—if you were lucky—it took eight months to finish a house. They reflected the premiums paid for short materials, the hours labor waited on the job for the missing items to show up.

Shorter Building Time. By last month, average housebuilding time was down to six months; here and there builders were already back at the old three-month clip. By the time the building season was in full swing, government statisticians said, all but the stumblebumps would be finishing houses in four months. This means that whether or not the cost of materials and labor stay up, the price of a finished house is bound to fall.

Are builders, with unsaleable houses on hand, afraid to make new starts under the much better building conditions prevailing this season? There was some hesitancy. Builders, like the rest of the nation, were waiting to see which way the big price winds were blowing. But many builders were going ahead. They knew they could get out from under last year's overhang by cutting selling prices. And they knew they could build cheaper this year than last.

If some of the customers for new houses were holding off, a tremendous number of home owners were making improvements and repairs. Prices on many material and equipment items were being forced up, not only by the pressure of new construction, but by the record level of demand for maintenance and repair—\$6½ billion this year, Commerce Department statisticians figured. FHA was making Title I improve-

ment loans at the rate of 20,000 a week.

Stabilization This Year? What would happen to building costs this year and next was still a billion dollar question. But the question could now be put a little more precisely. Most Building men thought that costs had reached their peak. But would costs stabilize at present levels—or would they drop this year to stabilize in 1948 at a somewhat low level (some forecasters guessed 25 per cent)?

The month had been filled with rumors that the President was about to summon building materials producers to Washington, appeal for price cuts. But the President was still hoping that industry would take the initiative on price cuts. (Last month he acknowledged the crucial position of construction in the nation's economy by appointing veteran construction analyst Robinson Newcomb, FWA construction consultant, to his Economic Council.) The materials producers were meeting and thinking about what could be done. But so far only a few price cuts had been announced in the building field. (These were: Milcor Steel Co. on louver ventilators, HomeOla Corp. on sectional steel stair units, Gillespie Varnish Co. on a number of items. The Trane Co. had dropped escalator clauses, was quoting firm prices.)

Labor's Part. There were few signs that labor was taking any responsibility for building cost stabilization. Last month common laborers walked out in Denver, stopped construction of 4,000 houses. In Milwaukee the carpenters struck for a 30-cent-an-hour increase. The threat of a lumber worker walkout hung over western Washington.

Housebuilding costs were higher than they had ever been—as were all construction costs (see graph, p. 11). But the paradox of housebuilding's price crisis is the plain fact that a house is still the best buy any working man can get for his dollars. Housebuilding costs have risen less than any other cost of living item. Housebuilding costs are up 68 per cent over the 1935-59 period. Meat prices are up 99 per cent, all food prices, 83 per cent, clothing prices, 78 per cent. Yet housebuilders could not take too much comfort from these statistics. The reason: house buying is an expenditure that can be delayed (see below). When meat and clothing prices rise, consumers do not stop eating meat and wearing shoes. But when housebuilding prices rise, they can stay doubled up. And that is what many of them are doing now.



UNITED NATIONS design consultants are almost all here now. At work in planning office are (l. to r.): Sven Markelius, Sweden; Le Corbusier, France; Ssu Ch'eng Liang, China; Vladimir Bodiansky, France; Oscar Niemeyer, Brazil; Wallace Harrison, U. S. planning chief; Gyle Soilleux, Australia; Nikolai Bassov, U. S. S. R.; Ernest Cormier, Canada; Max Abramowitz, U. S.; Matthew Nowicki, Poland; John Antoniadis, Greece. Absent board members: Julio Vilamajo, Uruguay; Gaston Brunfaut, Belgium; Howard Robertson, Great Britain.

WASHINGTON

CONGRESSMEN'S VIEW

Opposition to public housing and continued building controls stiffening.

the regularity of the building cycle. The buyers' strike in housing, although not so big as it looked in the headlines, was big enough to mean that only 800,000 houses—instead of the 1,000,000 which everybody had expected—will be built this year. Commerce Department analysts were waiting for April figures before officially revising their forecast for the year, but said tentatively that present rate of house-building will mean a 200,000 unit drop under the 1,000,000 total earlier expected for 1947.

It seemed clearer than ever that no public housing would make an appearance to add to the total of housing starts before the year's end. The Taft-Ellender-Wagner housing bill (S. 866) had squeaked through the Senate Banking Committee by only one vote. This show of opposition, many said, was enough to discourage Senator Taft from bringing the housing bill on the Senate floor until he could be sure of more support.

In the House, the drop in residential building was adding new pressure to the already strong push for abandoning government control of nonresidential construction. It was probably enough to assure House approval of Representative Jesse Wolcott's bill to kill off this and other building controls. But Senate reaction was much less predictable.

As it went before the House at the

month's end, the Wolcott bill would revoke all the provisions of the Veterans' Emergency Housing Act except FHA Title VI lending authority. But it called for continued rent control with no increase in ceilings through December 31, 1947 (a date which could be extended by Presidential proclamation). As a sop to embattled landlords, it provided for a 15 per cent increase in rents where tenants and landlords voluntarily agree to such a boost in a lease running until December 31, 1948. The bill also carried a provision which drew worried looks from cautious FHA: government insurance of private loans to producers of prefabricated housing.

MARKET

BUST IN 1951?

Some cyclical forecasters think Building disaster is inevitable.

Is Building activity now dropping to hit depression bottom in the early 1950's? More than Building's future hung on this glaring question. Many believed that the answer would also tell the fate of the nation.

Building men, as they always have, looked for the answer in the past, in the price graph, in the cabalistic charts of the business forecasters. They could have got answers as various by looking in the stars. Only the bravest forecaster attempted to look as far as 1950; few could even agree on the shape of 1948.

Like the Birds. Of those who rushed bravely ahead, the cyclists were outstanding. These

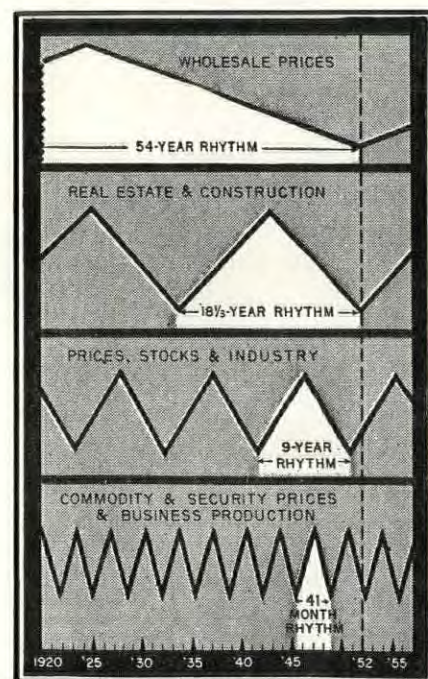
were the fellows with a "science of prediction." What made the science tick, not even the scientists knew. Two of them, who last month published a popular discussion of business' favorite science (*Cycles* by Edward R. Dewey and Edwin F. Dakin), thought there might be a "building instinct. . . aboriginally associated in man's being with the mating instinct," just as it is in birds.

But many an economist who would wince at the mention of a "building instinct" had documented the fact that building cycles do exist as a regular rhythm. The St. Louis real estate oracle, Roy Wenzlick, has made a small fortune out of his demonstration that real estate activity follows a regular rise and fall, with depressions about 18-20 years apart. A scholarly investigation by Clarence D. Long sponsored by Princeton University backs this up.

Since the statistical evidence of the more remote past upon which the theory of building cycles is based has been mostly collected by proponents of the theory, dissident analysts have been unable to challenge it on the basis of factual evidence. But even among the cyclical adherents there is disagreement on whether these regular fluctuations are distorted by war or other widespread economic dislocations.

Lemming's Way. Dewey and Dakin think they are not. Building boom and building bust, they say, follow their course with all the inevitability of a lemming's suicide. Economists Warren & Peason agree and glumly suggest that the "welfare of an individual is often determined by the time he was born. If he is old enough to start business at the low of a building cycle, which is accompanied by a falling value of gold and rising prices, his chances for success are very good. If he is born at such a date that he starts in business at the peak of a building cycle, accompanied by falling prices, his chances of success are small."

According to this "inevitable" school, the



Time Chart adapted from *Cycles*

next building bust is due smack on the nose in May, 1951 (see cut, p. 10), a timetable which should enable any Building man to figure out his exact relation to the lemming.

Roy Wenzlick, however, believes that World War II split the residential building boom due about 1942 as a camel-back one, with the second hump making its appearance after the war. This deferral may also defer the building trough.

Department of Commerce analysts agree and argue that prewar construction shortages which were about to precipitate a boom have been carried over into the present period. And they are being reinforced by war-caused stimuli: the high marriage rate, bumper baby crop, war building curtailment, big population shifts, war-born technological advances calling for new productive facilities.

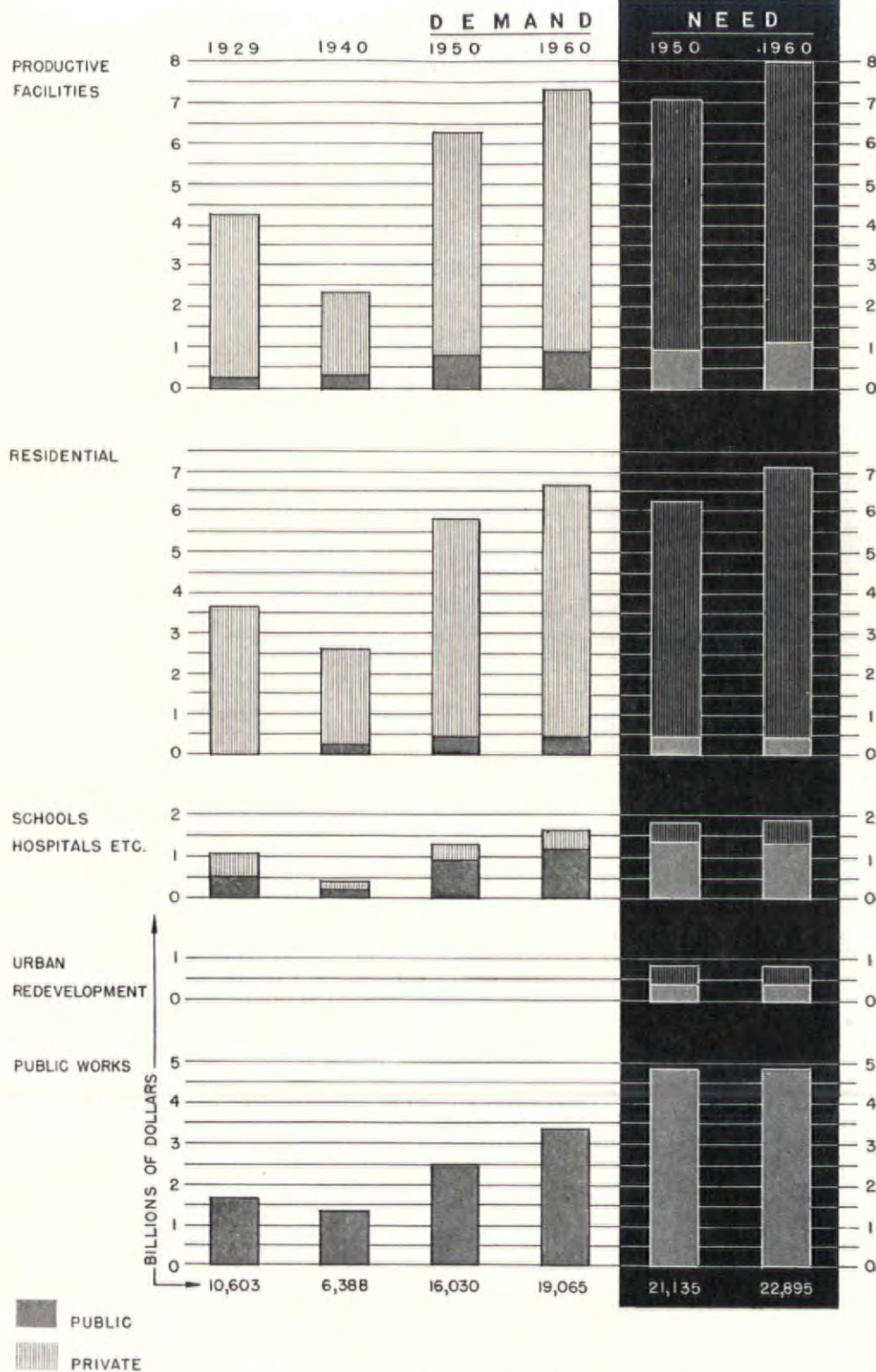
Prices are not Decisive. Are present high buildings costs precipitating a downturn in the building curve? Most people think so. But a surprising number of economists say that building prices, while they may cause a brief recession, have little to do with starting the long swings of building fluctuation. Government studies show that building costs rise as building activity increases, and fall off very slowly or even advance slightly when building activity slackens. If, however, building costs rise high enough to be out of line with general prices, they are more likely to cause a building recession. Residential construction is, of course, more sensitive to rising building costs than industrial and commercial construction—a fact which the industry is now witnessing.

Building is the biggest part of the nation's annual outlay for capital goods, and building shut-down can shake the nation. The reason why building expenditure fluctuates more sharply than any other type of outlay is very simple: A building is about the most durable product we know how to produce. It seldom actually wears out, but is merely made obsolete by technical advances. When necessary, new purchases for replacement can be postponed almost indefinitely.

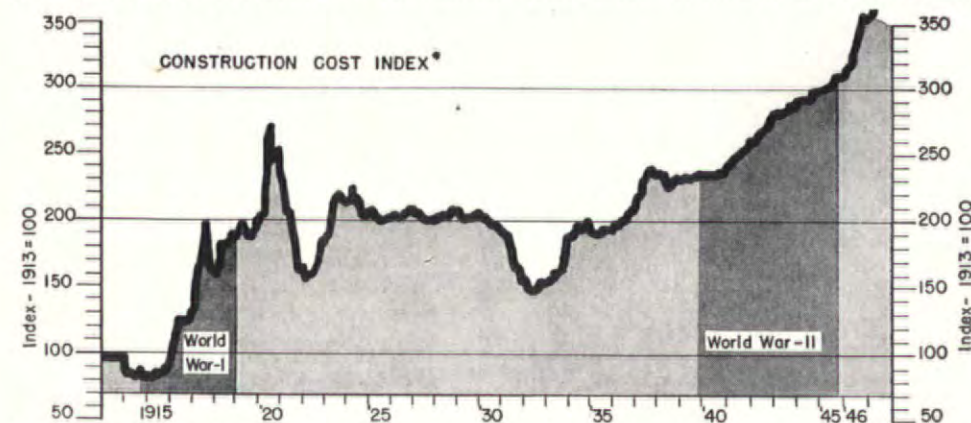
The whole enterprise of cyclical forecasting is simply a business of trying to figure out exactly when building customers will decide to postpone new purchases and when they will decide to undertake them. Some of the factors which seem to carry more weight than the Dewey & Dakin "building instinct" are: national income, employment outlook, market outlook for manufactured goods, appearance of new products, government tax policies.

Horizon Unlimited. In sharp contrast to the cyclical theorists who believe that a building bust is inevitable are some possibilities presented by a giant statistical analysis to be published this month by the Twentieth Century Fund. (*America's Needs and Resources* by J. Frederic Dewhurst and Associates.) This study, which required four

(Continued on page 12)



BUILDING UNLIMITED. Twentieth Century fund economists suggest that a high continuous level of building activity may be ahead, and count heavily on high and stable investment in industrial and commercial facilities to help maintain this level. Charts show how much construction activity of various types could be expected in 1960 (demand), assuming a population of 155 million, a working labor force of 60 million, a national income of \$161 billion. Charts are based on 1944 prices.



BUILDING LIMITED. Rising prices cause fear that Building may price itself out of market. Many analysts now think prices have reached peak, will level off in plateau for a while. Building costs are still no higher than the general price level. But the fact that Building, unlike other expenditures, can be deferred makes the rise more dangerous than other price rises.

years and the work of some twenty specialists, is no forecast. It is a painstaking study of how the U. S. has spent its money over the past and how it might spend it in the future—if almost everybody who wants one has a job and if there is a high level of national income.

This piece of research charts the sharp fluctuations in capital goods expenditure which mean depression. Sample: residential building, the most volatile of all expenditures, showed a 90 per cent drop from the peak year of the twenties to the lowest depression year. It also measures the enormous production capacity the U. S. will have in 1950 and in 1960—figured on the basis of only 5 per cent unemployment and a 37.7 hour work week. This would mean about \$16 billion worth of construction in 1950 and \$19 billion in 1960 (see chart). But even these record levels of construction activity, the Fund researchers say, would fall short of meeting the nation's need for construction. Their estimate of need: replacement of all substandard buildings and provision of minimum standards of health and decency in family living.

Building could take its pick of economic analysts. Clearly, its market was immense, its productive capacity enormous. It had only to find the way to match the two.

BUILDING MONEY

HOUSES FOR RENT

Trousdale starts 8,000 units in new Los Angeles suburb.

Sprawling Los Angeles, city of mammoth land deals, got word of a new one big enough to notice. Housebuilder Paul Trousdale laid down \$3½ million for one of the choicest tracts in southern California: 600 Baldwin Hills acres, only 15 minutes from downtown Los Angeles. The purchase assured a June construction start on a colossal rental housebuilding job of 8,000 units and marked Trousdale's appearance in the foreground of the West Coast's enormous building picture.

Like the Kaiser-Burns housebuilding enterprise, newcomer Trousdale stepped forward holding the hand of a financial giant. The bank of California's astute old A. P. Giannini is putting up \$50 million on the Baldwin Hills job. But the Giannini millions are a construction loan. Trousdale has always put up stockholders' money for land purchase. Stockholders are, for the most part, his own employees. This, Trousdale thinks, is one reason why he has been able to create a building organization efficient enough to net a \$900,000 profit on a \$900,000 investment in 3,500 houses for war workers. A one-time builder of luxury houses for movie stars, Trousdale switched to low-cost housing during the war, has decided to stay in the mass market.

Trousdale's Baldwin Hills acreage adjoins a fast-growing business district, where the new May Co. store is located and where the Broadway department store and other

commercial structures are now being built. His rental development will, however, have its own shopping center. The site will be laid out to allow for schools and 20 acres will be earmarked for a recreation area including tennis courts, swimming pool, playgrounds.

Architect Allen Siple's plans call for 800 structures, ranging in size from two to twenty units, of wood frame construction in what is known locally as California Colonial style. Each will be built around a central patio with exterior stairways and rambling balconies. Garages will be detached, grouped and adjoining service yards. Lots will be 68 to 110 ft. wide and up to 250 ft. deep. Trousdale expects rents to range from \$45 to \$80 per month.

CHICAGO MILE

Realtors plan \$200 million more glamor for glittering Michigan Avenue.

Against the slum-pocked miles that sprawl westward from Lake Michigan, Chicago's near North Side sparkles like a diamond set in an old tin can. The near North Side begins where the city's proudest skyscrapers (Tribune Tower, Wrigley building, London Guaranty Trust) overlook Lake Michigan. Most Chicagoans would say it ends where the ugly old McCormick mansion squats across from the city's most popular public beach. Some time ago two of the smartest real estate operators in the business decided to take a walk up and down this glittering 11-block area, where store fronts and swank hotels elbow each other. It was a profitable walk. By the time New York's William Zeckendorf and Chicago's Arthur Rubloff had finished their stroll they had agreed on a fabulous plan to pour \$200 million worth of improvements into this already fabulous area and boost its volume of retail business from the present annual volume of \$30 million to something like \$600 million.

Last month Rubloff and Zeckendorf, to the clatter of banner headlines in Chicago's enthusiastic press, unwrapped an elaborate table model of the proposed Magnificent Mile. (Said Rubloff: "We're willing to put our own money into it—why, I paid for the model myself!") The model, made from plans by architect John Root, showed the realtors' visualization of a bevy of new store buildings fronting on Michigan Boulevard, backed by landscaped shopping promenades and surrounded by taller apartment buildings.

Decentralization Check. Chicago's applause was a little less than expected. Many whose property was outside the glamorous precincts of the Magnificent Mile wished that \$200 million worth of improvements could be attracted to some of the blighted areas edging the Loop instead of pouring into the city's handsomest neighborhood. But Rubloff argued that the luxury development would stop decentralization. North shore suburbanites would move back to the proposed apartments, he said. The city would reap hundreds of thousands of new tax dol-

lars. Moreover, the present plan, which covers only Michigan Avenue frontage and the adjoining eastward lakeside strip, would eventually be extended to take in some of the run-down blocks west of the Avenue.

Of the \$200 million worth of proposed new building, only \$23 million was immediately in sight. As agent for Gimbel Bros., owner of Saks women's apparel store, Zeckendorf had bought a block site for a new Saks \$7 million building. One block away Walter Hoving's Bonwit Teller store (see FORUM, March '47) will locate in a \$2 million structure. Webb & Knapp (Zeckendorf is executive vice-president) own a 60,000 ft. frontage between the two stores, plan a \$10 million 16-story building catering to radio and advertising tenants and including street level shops. Acting for a syndicate in which he has a financial interest, Rubloff had acquired 42,000 sq. ft. and said construction of a \$4,200,000 department store for an unannounced tenant would begin

Myron Davis



RUBLOFF

the minute he could get a federal permit to build. Other owners in the area plan expansion and remodeling of existing buildings. But Rubloff was sure plenty of other building dollars would roll in. "We'll precipitate the biggest boom you ever saw. Up to now, people lacked the vision and foresight to expand this area. We couldn't lose money on this if we stood on our heads. The Loop must expand, and it can only do so northward; on the south side, there's no nucleus. I'm letting the other real estate people in on it. I'm not being selfish, there's room for everybody."

City's Share. Rubloff expects some of the building dollars to come from the city, and will soon focus his spectacular sales ability on Chicago's new mayor, Martin H. Kennelly. (The State Street merchants could be counted on to bend the mayor's other ear.) Rubloff wants the city to move the ancient pumping station at Chicago avenue to a "less important site" (the equally old water tower would, however, be retained in the center of a landscaped plaza). He wants a civic auditorium. He wants the city to install a recreation center with a skating rink "like Rockefeller Plaza." He wants two municipal below-ground parking levels to accommodate 1,500 cars at a time (there are only four garages in the area now). He wants some streets widened, and the below-level "double-decking" of Michigan Boulevard extended.

All this would cost the city about \$50 million. But Rubloff figures that this outlay could be amortized in a few years by the revenue from parking facilities and by leasing the municipally owned recreation facilities. Then the rest of the \$200 million

would come flowing in from private investors.

The Million-Dollar Question. The promoters of the spectacular Chicago plan were already the most spectacular names in real estate. Rubloff started his firm at the bottom of the depression on \$1,500 worth of credit from a sign painting company, made \$57,000 the first year out of managing distressed properties. By the time he got interested in the near North Side, he had negotiated some of the biggest deals in Chicago real estate for buyers like Prudential Life, Equitable Life, Greyhound bus. Rubloff's big deals inevitably led him to New York's Zeckendorf, who found Rubloff a useful ally in Chicago transactions. (Says Rubloff modestly: "Zeckendorf is the great genius in real estate—he's an operator and I'm just a broker.")

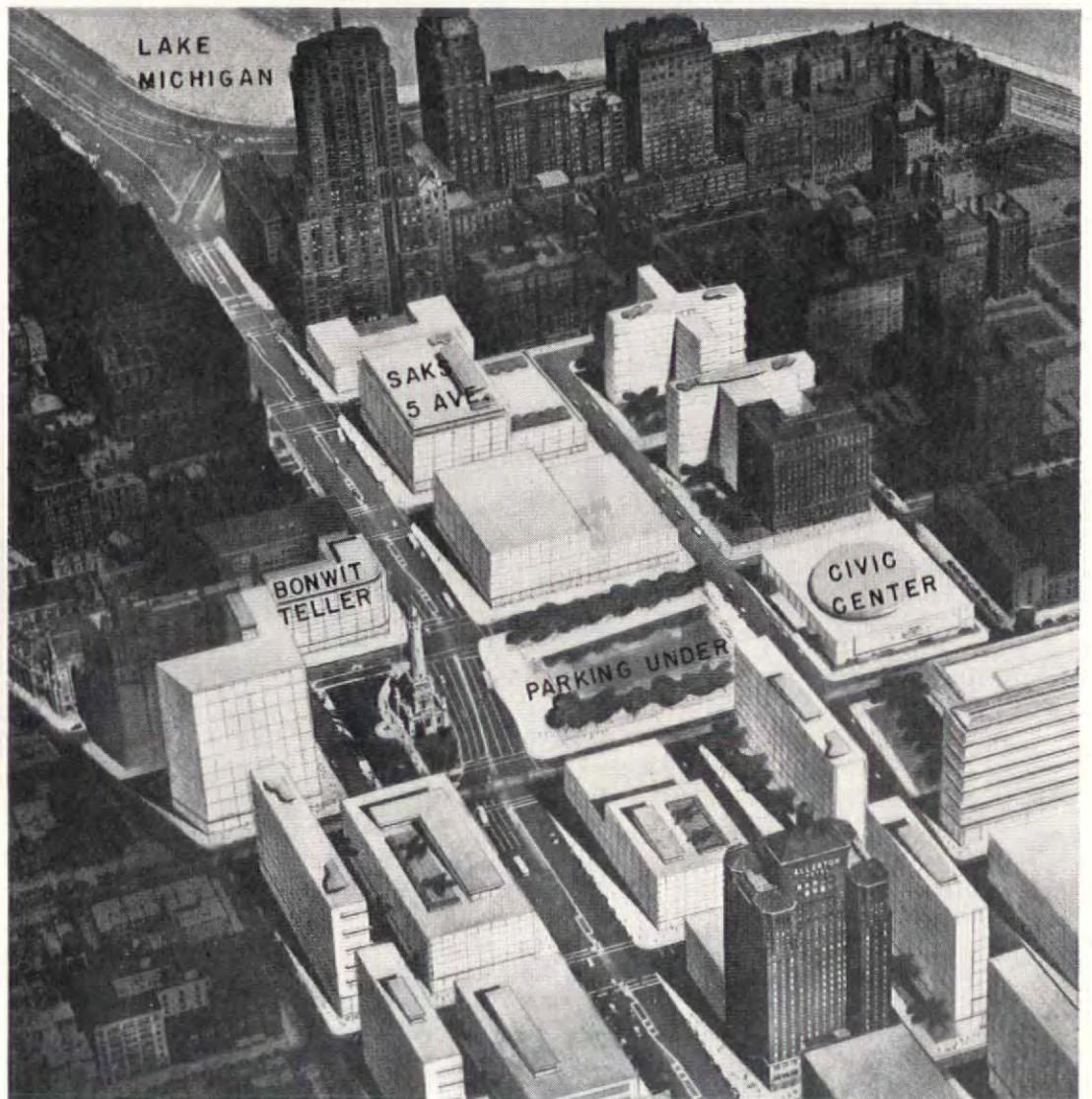
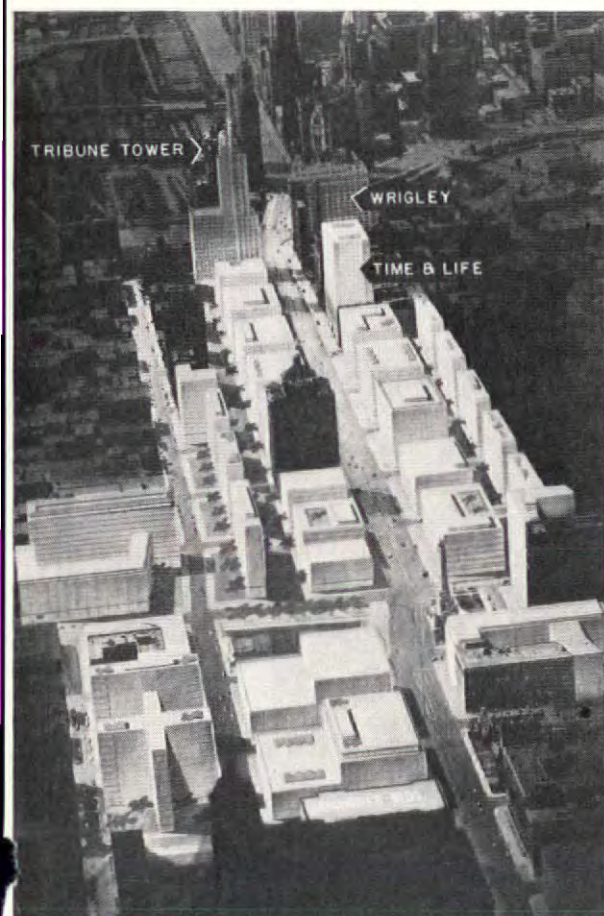
For Zeckendorf, who had already dazzled New York by plans for a rooftop airport covering 144 Manhattan blocks and a \$50 million shopping center in Flushing, who had assembled the United Nations site and driven a commercial wedge into a hitherto impregnable residential section of Park Avenue, the Chicago development was something less than hair-raising. But some of the less spectacular members of the real estate brotherhood noted that Zeckendorf told the mortgage bankers' meeting last month in New York that the Flushing project seemed to be withering from lack of financial backing. They hoped the Magnificent Mile would not be rechristened the Missing Millions.



MAGNIFICENT MILE AS IT IS NOW, LOOKING NORTHWARD TOWARD LAKE SHORE DRIVE
SAME ELEVEN MICHIGAN AVENUE BLOCKS WITH \$200 MILLION IN NEW BUILDING ADDED

REALTORS' CHICAGO PLAN

The Rubloff-Zeckendorf proposal calls for a half-dozen new store buildings, to be surrounded by taller apartment blocks. Below is view of area looking south, toward the loop.



PREFABRICATION

SCANDINAVIAN BID

Finns and Swedes are trying to break into house-hungry U. S. market.

Finnish and Swedish prefab producers have for the last year been hungrily eyeing the Great U. S. Housing Shortage. The Scandinavians, whose prefab industry is based on their immense timber stands, know that their efficiently designed, low-cost prefabs are a fat blue chip in the international export pool. But hoped-for U. S. purchases have until now been blocked by buyers' wariness of the building trades unions. Last month the first Swedish prefab to brave a possible union blockade sailed into Baltimore harbor. Its destination: Greenville, S. Carolina, where department store owner Henry B. Simpson was thinking about retailing the Swedish houses through stores in twenty southern cities. The first Finnish



Finnish prefab

prefab was on its way, consigned to a U. S. buyer still veiled in mystery.

This trading opportunity was opened to Sweden and Finland when the Housing Expediter asked the President (under Patman Act authority) to waive import duty on lumber and lumber products. The Housing Expediter was aiming at lumber imports from Canada and Mexico to supplement short U. S. supply, but the Scandinavians were delighted to discover that their prefab houses could be classed as lumber products. Without the exemption, foreign prefabs would pay duty amounting to one-third their cost. With it, they can quote a competitive price. Timber Houses, Ltd., the Finnish combine representing 75 per cent of the nation's prefab capacity, quotes a price that would figure less than \$3.50 per sq. ft., f.o.b. Finland, with reductions for quantity orders. This would compare with an average U. S. prefab cost of \$6.50 per sq. ft. for a house erected and including land.

Both countries tried unsuccessfully to get government guaranteed market contracts like those offered to U. S. prefabers. The Finns also got more than a spark of interest from New York's bargain-conscious Gimbel Bros., but negotiations fell through. The State of New York thought the Finnish prefabs would be fine for its emergency housing program, but winced at the thought of a labor walk-out.

Although the U. S. needs the Scandinavian houses less than any country in Europe, the Finns and the Swedes desperately want U. S. credits to buy capital goods here for rebuilding their industries. They are a good deal less anxious to sell to Britain, an interested customer but already six months behind in her own export deliveries. The Finns have found Poland a good customer: 4,000 prefab houses plus some raw materials went to Poland's mining areas, brought back 500,000 metric tons of coal. For Finland, Russia looms as an imperative prefab customer: on Russian order are more than one million sq. meters of prefab housing and eleven completely equipped prefab factories, to be charged against \$300 million war reparations.

HOUSES

NO. 1 LANDLORD

Will government sell permanent war houses at bargain prices?

Last month the nation's Number One landlord faced a job few owners would care to tackle: he had to get rid of 940,921 dwelling units—a whacking \$1.372 billion worth of government-built war housing.

Federal Public Housing Commissioner Dillon Myer was in the limelight and on the spot. His giant brokerage job was hemmed in by a formidable legislative fence of preferred customers. It was hamstrung by the housing pinch: Myer could not sell the government-built units in a way that would mean tenant dislocation. It was nervously susceptible to the charge of unfair competition from private enterprise: whatever Myer did about this big wad of real estate would impinge directly on the business of all those who buy and sell property or build houses for many years to come.

A lot depended on landlord Myer's ability to steer clear of the many kinds of explosives with which the war housing disposal job was mined. If Congress decides to put up \$4.7 billion for more public low-rent housing, FPHA would boss the job. But how well FPHA managed to avoid public complaints in unloading war housing would have a lot to do with Con-

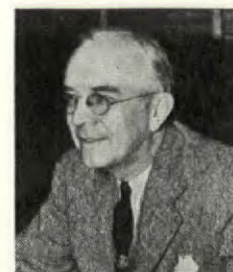
Eisenstaedt



LORD & TAYLOR DESIGNS AWARDS went this year to (l. to r.) Louis de Rochemont, for developing a new type of documentary motion picture and for his past work as producer of "March of Time"; Bernard Herrmann, for his work as composer and as CBS symphonic conductor; Agnes de Mille, for revitalizing the ballet as a popular art; Alfred H. Barr, for bringing modern art to the American public as director of the Museum of Modern Art.

gress' decision on whether there will be any more of a government housing job to boss.

Myer had already polished off one small part of his job. Cities had bought 5,398 demountable houses for sale or rent to veterans—but this was only a drop in the big bucket of 78,000 demountables. Of the 320,000 temporary houses built during the war, 77,500 had been moved to new locations for housing veterans at an average cost of \$2,978 per unit.



MYER

But it was around the \$733 million worth of permanent projects that the real dynamite was laid. For these, Congress had already named preferred customers: 1) federal agencies; 2) municipalities; 3) veterans; 4) present occupants. Back of this preference line-up lay some fair buys for the private investor. Last month Congress threatened to bypass this line-up, and back of the move some saw the shadow of the real estate brotherhood, who had found a way to turn the fair buys into juicy bargains.

The by-pass: a House subcommittee had told Commissioner Myer to sell no permanent housing project to any customer who could not put up the cash. This threatened to force property sales at distressed prices to investors able to mobilize quick cash. It automatically barred two customers on the preferred list—cities (who would use the projects for low-rent housing) and mutual ownership corporations (which were being formed by many present tenants who hope to buy).

Commissioner Myer pointed this out to the subcommittee and asked them to think things over once more. But the whole question of how many war-built projects will be converted to low-rent housing and how many will go to private investors remains unsettled. Congress must approve each case of conversion to low-rent housing. Dillon Myer said a list showing need for low-rent housing as indicated by applications from cities would not be ready for Congress before next January. How Congress looks at this will determine how much of an inning the private investor will get.

Wide World

DESIGN

FIVE DOLLAR PLANS

New firm opens mass market for architecture with model houses.

Because architects skim off only the cream of the design market and do not even try to serve the family of average means, an alert newcomer has moved into the building industry to lap up the milk. Home Planners Inc. figured that the milk would amount to at least \$1 million this year.

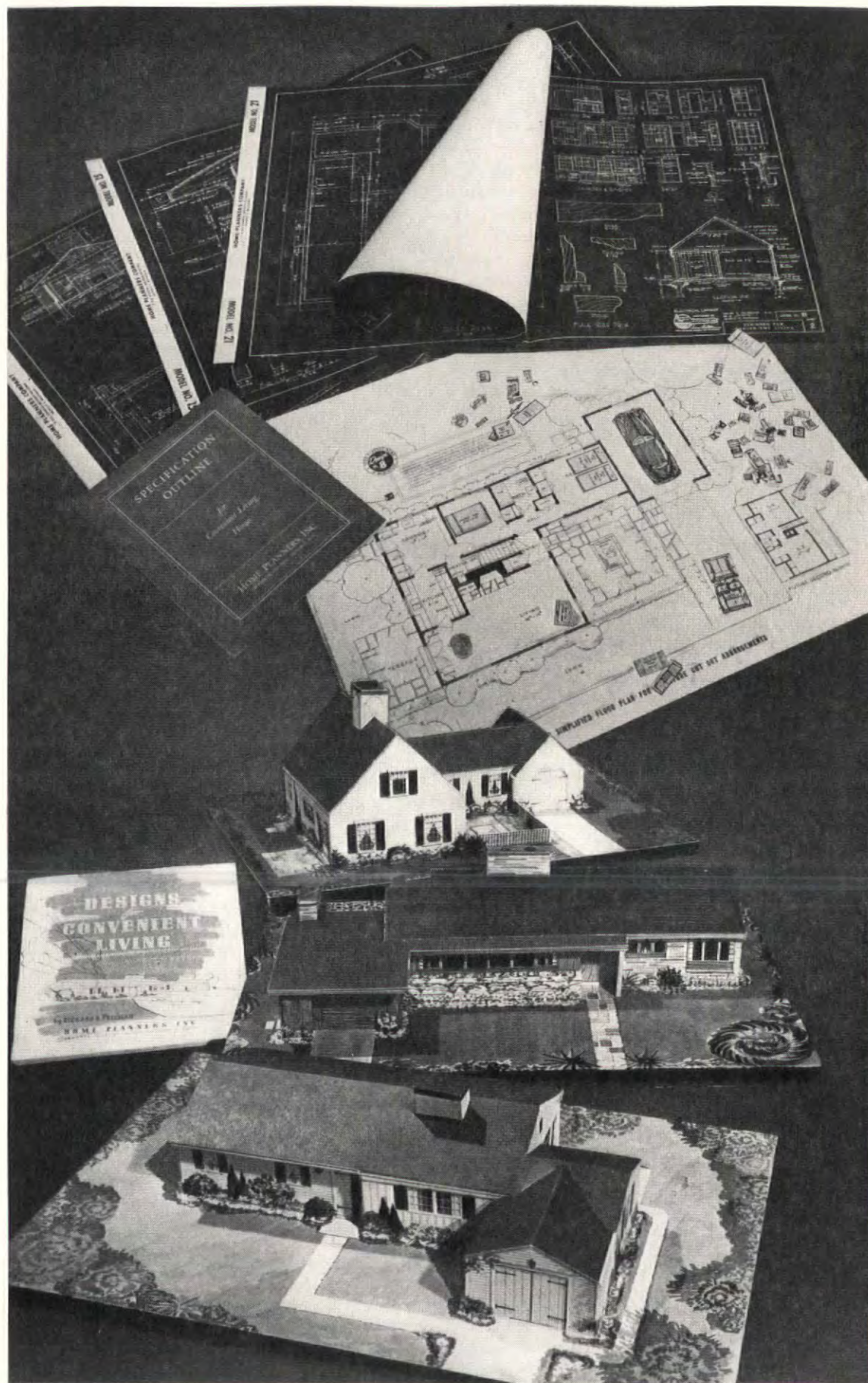
Home Planners Inc. is a custom-trade architectural service what Bond Clothiers are to Cornelius Vanderbilt's tailor. Magazines, operative builders, and a bevy of small-time promoters have already tried to apply mass production methods to architecture with nothing like million dollar results. The new Detroit firm's spectacular success turns on a dramatically simple notion: that there is no house customer without an urge to set up a doll-house model and see just what his house will be like.

By last month approximately 100,000 house customers were down on their hands and knees happily fitting together $\frac{1}{4}$ in. scale Home Planners' models of houses they could expect to build for from \$8,000-\$18,000. For the cardboard model, the eager customer had paid \$1.50. He had selected it from an 80-page book offering 25 "Designs for Convenient Living" and many a helpful hint on planning, building, and financing a house—also supplied by Home Planners at \$1.50. Beside the model lay a complete set of working drawings (including radiant heating installation) and outline specifications. Cost: \$5.00.

This million-dollar business was born, quite accidentally, of an advertising promotion stunt. Timken's oil burner division had asked bright young (33) designer Richard Pollman to plan a set of houses which it featured in advertisements. Pollman had an impressive record of market appeal, demonstrated by the 1,000 houses he designed for Detroit's shrewd operative builder Harry J. Durbin and by the low-lying ranch houses which he had designed and built for the contract market with architect Irving Palmquist. But neither Pollman nor Timken was prepared for the register of market interest which the ad series rang up. When Timken got 500,000 letters asking for Pollman's plans, ad-manager Dean H. Robinson figured that he had got hold of something that might even be bigger than oil burners.

It was ad-manager Robinson who proposed that Pollman's plans be dramatized by cardboard models. Commercial artists were called in to help engineer them. Philip G. Filmer, director of General Motors' photographic division, became president of the firm. Pollman is executive vice-president. Architect Palmquist also joined the firm as vice-president.

Two months after Home Planners, Inc. started making its pretty paper houses,
(Continued on page 16)



HOME PLANNERS' MODELS are attractively finished and expertly engineered.

The paper houses reach the customer as two sheets of heavy die-cut cardboard. It takes about 30-50 minutes to fold and glue them together. Vice-president Pollman says the models are not toys, require at least the intelligence of a 12-year-old for assembly. Scale furniture is printed on the cardboard scraps, to be cut out and used to furnish the $\frac{1}{4}$ in. floor plan appearing on the model's enclosing envelope. More customers buy models than blueprints.

Sears-Roebuck ordered \$250,000 worth and earmarked space in the spring catalog, where the model houses are used to boost sale of building materials, equipment and home furnishings. Since then, material dealers, manufacturers, banks, realtors and builders have been steadily falling in line. Home Planners sold 1,600 books, 300 models and 200 blueprints at the Chicago builders convention and Cleveland's Home and Garden Show. Borg-Warner's Norge Division is building its current sales program around Home Planners' models, as is Timken. The U. S. Savings and Loan League and several building trade journals have agreed to feature Home Planners houses and act as the company's dealers. A big advertising puff will be carried in a

Chicago Architectural Photo Co., Culver Service, Perkins & Will



AUDITORIUM THEATER, which holds 5,000, will be left intact by remodeling. College library will be installed under heavy trussed arches (top cut) of hotel dining hall, which runs length of Michigan Boulevard frontage. Stacks will be in old kitchen.

half-dozen consumer magazines. What's more, Home Planner houses are actually getting built (the firm has no part in any building operations).

There are only the tiniest clouds on this limitless cardboard sky. Some states require that registered architects prepare all house plans—but a small fee will usually get a local registrant's signature on the firm's plans. Architects have publicly deplored the scheme (Ex-president Clair W. Ditchey of the A.I.A. Detroit chapter: "I question whether this program will produce good houses") without noticeably depressing the Home Planner sales curve. Biggest problem so far: many dealers handling the cardboard houses are too lazy to erect models as a sales come-on. Pollman is now cagily preparing assembly lines in Detroit and Chicago from which the models can be shipped erect.

Since the Pollman cardboard houses promise to have an ever-widening effect on the consumer market, architects might take what comfort they could from the generally fair quality of the designs. Few stoop to Cape-Coddling; most reflect Pollman's bent in a contemporary direction.

AUDITORIUM NOW SAFE

New college starts careful remodeling of Adler & Sullivan masterpiece.

"You can't get a building for an interracial student body", a Chicago real estate agent told Edward Sparling in 1945. Sparling was a college president with a new idea about colleges—admit anybody who could learn, ask no questions about race or religion. Last month his Roosevelt College, already famous for its liberal crusade, was starting to remodel the building it had got: the Chicago Auditorium Theater building, one of the richest parts of the U. S. architectural heritage.

Chicagoans and all others aware that the Auditorium stands as the key transitional building in modern architecture could be grateful that the Adler & Sullivan masterpiece was safe at last from the periodic threats of razing which have overhung its bankrupt latter days. Architects could be grateful that remodeling was in the hands of Perkins & Will, top-rank modernists with an appropriate reverence for the building in which Louis Sullivan had turned his back on Romanesque and found his own way. Said Lawrence Perkins: "We're very sentimental about the job."

The great theater, where Dankmar Adler worked out acoustics as yet unsurpassed and invented mechanical principles for raising equipment from below the stage which changed theater design throughout the world, will be left almost intact. (Said Frank Lloyd Wright, who worked on the Auditorium as a draftsman: "Stage craft has not advanced much since that day".) Topmost seats in the superfluous upper gallery will be closed by shutting a monumental trap door, already provided for that

purpose. Exposed electric light bulbs on the ceiling arches (see cut) will be removed, and concealed lighting substituted. This is all, except for a general washing of the hall's great golden face.

Major remodeling problem is to knock out partitions in the hotel and office building part of the 10-story structure and re-assort space as classrooms, faculty offices, conference rooms, student lounges, book store, etc. Biggest remodeling headache is making the building conform with legal fire requirements, a consideration foremost in every architect's mind since the LaSalle hotel fire. "We are going to have to punch new stairways and enclose towers and put smoke stops all over the place and consume much of our budget that way," Perkins said.

When the city widens Congress street, bringing it to the face of the building, an arcaded sidewalk will be added inside the south wall to preserve this exterior. Such an arcade is fortunately already provided for by the massive solid granite arches used at the base of the building.

President Sparling said he hoped to make Roosevelt College's new home a cultural center for the whole Chicago community. This would have been pleasing to the group of Chicagoans who, 17 years after the Chicago fire, gave Adler & Sullivan the biggest commission any U. S. architect had ever had and then opened their great hall for "workingman's concerts" where 10 cents would buy a seat.

Sparling bought this famous building for \$400,000 and the assumption of \$1,300,000 in back taxes. (He later had to pay another \$400,000 to a hold-out owner for a tax-free north strip of the building.) Cost of building the Auditorium in 1880 was \$3,200,000.

MATERIAL

ROOFERS' FUTURE

High building costs are good news.

The old-time fairweather roofer is busy evolving into a year-round home improvement service and expects to harvest \$100 million worth of home improvement service this year in the northeastern U. S. The roofers met last month in New York's Grand Central Palace and took a new grip on the future. They explain it very simply: "From now on, when it rains you're not out of business."

New housebuilding has already meant a drop in roofers' business which they estimate as between 20 and 50 per cent. Unlike most of their competitors for the Building Dollar, the roofers eye the rising cost of new construction with undisguised enthusiasm. Said one member cheerily: "Soaring costs of new houses mean that we are being handed on a silver platter the greatest opportunity in our history." On their part, the roofers predicted that prices on most types of home improvement services would be down in six months.

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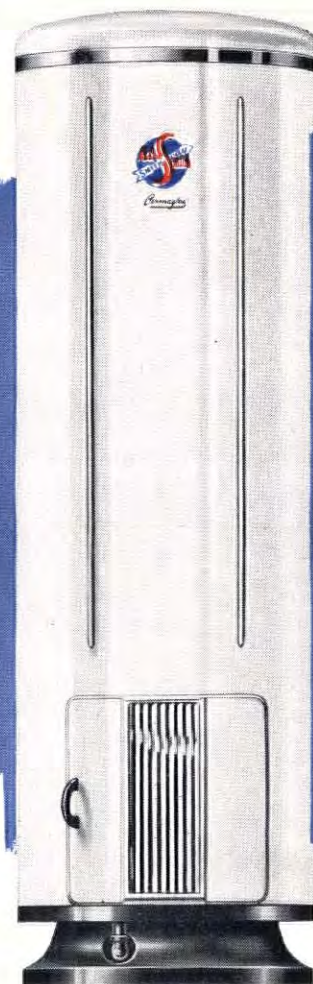


A. O. Smith Research and Engineering Building, Milwaukee

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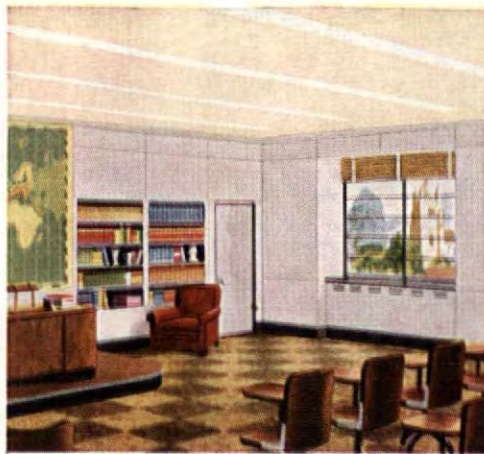
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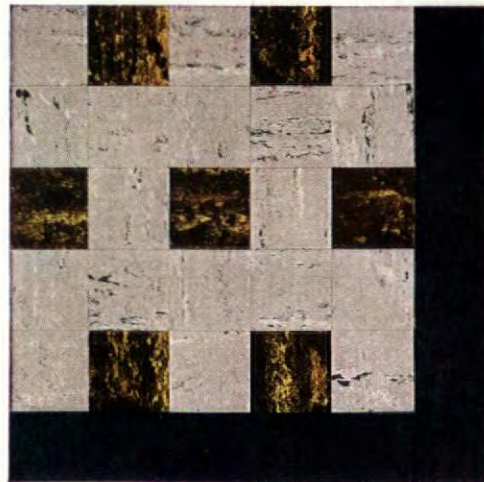
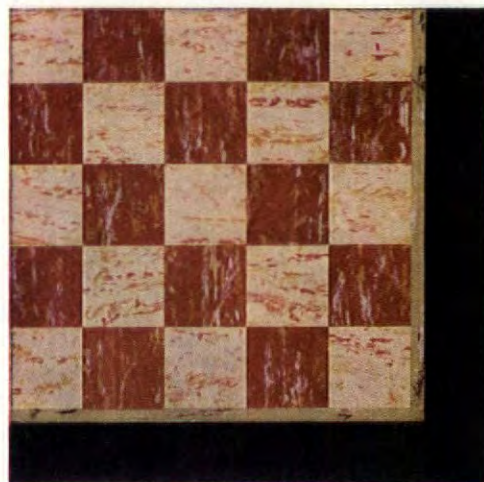
For Offices

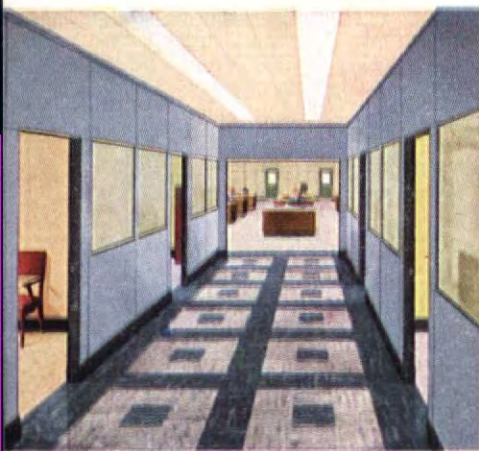


... for University Lecture Rooms

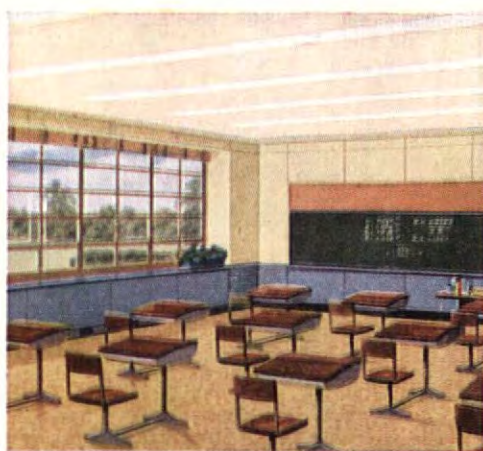


... for Laboratories

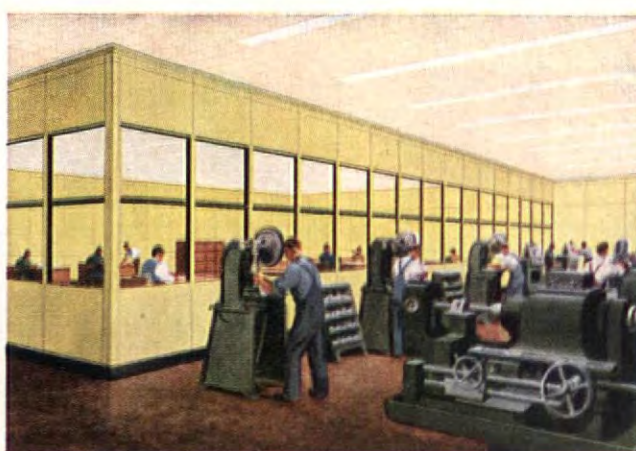




... for Institutions and Hospitals



... for Schools



... for Factory Areas

Longer-wearing, low in cost!

Picture what a marvelous difference Johns-Manville Asphalt Tile can make on your floor. Here's a resilient, attractively modern flooring with an iron constitution.

• Nowadays, it costs you no more to have *quality* floors like these—with cheerful colors, attractiveness, extra-long life.

That's the kind of flooring you get with Johns-Manville Asphalt Tile. It's easy on the eyes, easy on the feet, and easy on the budget, too.

Yes, you'll like *everything* that this flooring means in looks, in cost, in upkeep. And you'll like the unlimited range of color combinations—from striking patterns with strong contrasts to solid fields of marbleized colors.

Also, you'll find advantages in the easy way units can be arranged in functional designs—such as traffic directing lines, or islands of color to set off activities

in special areas. What's more, the individual units permit easy alterations or extension of patterns. Reinforced with fibers of indestructible asbestos, J-M Asphalt Tile resists scuffing under the *heaviest* foot traffic. Does not originate dust. Stays fresh and unmarred with practically no maintenance. Even a carelessly dropped cigarette won't harm its built-in beauty.

For areas exposed to oil or grease, use J-M *Grease-proof* Asphalt Tile. Send for our full-color brochure, "Ideas for Decorative Floors." Johns-Manville, Box 290, New York 16, N. Y.

Because of unprecedented demands, supply continues to be short despite greatly increased output. So please anticipate your requirements as far in advance as possible.



Johns-Manville Asphalt Tile Flooring



Johns-Manville Asphalt Tile Floors can be combined with J-M Walls and Ceilings for UNIT CONSTRUCTION



**J-M Movable
Transite Walls**

Using these Johns-Manville products together in a system of Unit Construction, you can provide your interiors with such important advantages as *structural flexibility* to meet changing needs . . . greater architectural beauty . . . increased comfort.

J-M Unit Construction combines resilient Asphalt Tile Floors, demountable Acoustical Ceilings, and movable Transite Walls—in other words, the *complete interior*, under *one* specification, *one* manufacturer's responsibility.

Get the full details on this development. Write for colorful brochure, "J-M Unit Construction."



**J-M Acoustical
Materials**

Color Dynamics

... Pittsburgh's painting system which uses the energy in color to promote health, comfort and safety—stimulates energy—increases efficiency—at the same time that it enhances appearance.



It's Easy to Apply... once you know these simple principles!

SCIENCE has established the fact that color is a source of power. Authoritative tests have shown that some colors are stimulating, others restful, still others depressing—even causing irritation and discomfort.

Pittsburgh uses the principles of this energy in color as the basis of COLOR DYNAMICS—a new method of painting which utilizes color for functional as well as decorative purposes.

With COLOR DYNAMICS you can specify attractive color arrangements that will retard eye fatigue, help office workers to relax and feel more cheerful, increase their efficiency, add to their safety, improve their morale.

Rooms can be made to seem more

inviting and spacious, longer or wider, higher or lower. Halls and stairways can be made brighter and safer. Even the exterior appearance can be made more pleasing to the eye by the emphasis given to architectural features.

You can apply these principles of the energy in color with scientific accuracy. What you can do with COLOR DYNAMICS—and why—is told in our revised and profusely illustrated book on "Color Dynamics".

Write for your free copy. Pittsburgh Plate Glass Company, Paint Division, Dept. AF-5, Pittsburgh 22, Pennsylvania.



Paint RIGHT With Color Dynamics Paint BEST With Pittsburgh Paints!

The benefits of COLOR DYNAMICS are made more enduring when you use Pittsburgh's long-lasting quality paints. There's a PITTSBURGH PAINT for every need!

WALLHIDE—in three types: **PBX**—extra durable finish which can be washed repeatedly without streaking or spotting. **SEMI-GLOSS**—for higher sheen. **FLAT**—velvet-like finish for offices, libraries, dining rooms. These paints are enriched with "Vitolized Oils" for live-paint protection.

WATERSPAR ENAMEL—for furniture, woodwork, metal trim—its rich gloss resists marring and abrasion.

FLORHIDE—for floor surfaces. Quick drying, tough, can be scrubbed frequently with soap solutions.



PITTSBURGH PAINTS

PITTSBURGH PLATE GLASS COMPANY, PITTSBURGH, PA.

PITTSBURGH STANDS FOR QUALITY PAINT AND GLASS

NUTONE "JEWEL" FITS BOTH ENDS OF YOUR DOOR CHIME NEEDS!



\$9.95 (list) for
Chime and Button

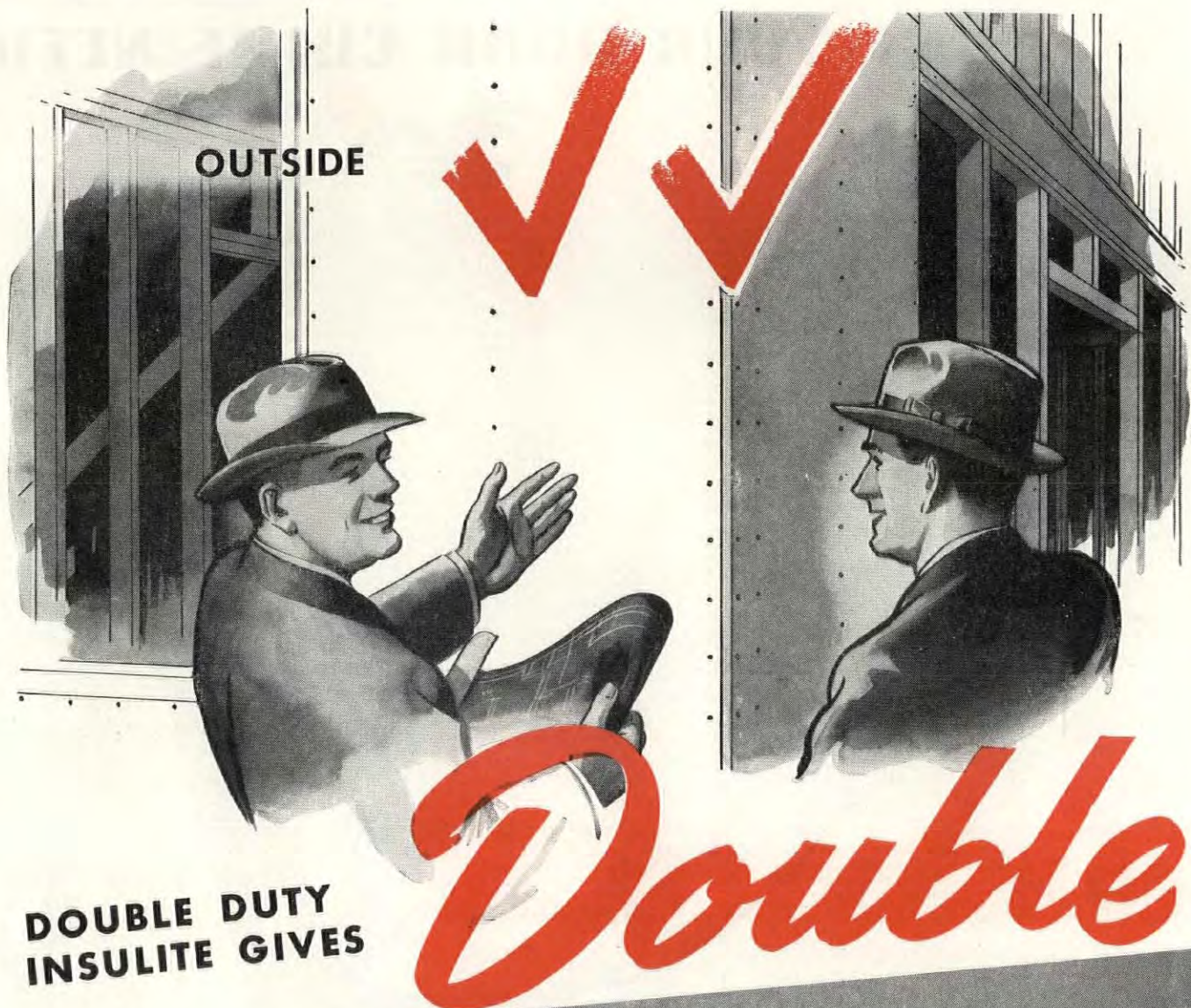
Here's unity of design . . . "inside and out." For the indoors, a melodious, NUTONE two-door chime. For the outside, a matching push-button plate of solid brass with lustrous button that glows at night. Styling fits colonial or modern homes.

The NUTONE "Jewel" and button are just one of fourteen NUTONE chime designs for every type of home, every personal preference, every pocketbook. A new folder gives complete details on all fourteen NUTONE Door Chimes. For your copy, address your nearest NUTONE office.

NUTONE
TRADE MARK
DOOR CHIMES

NUTONE INCORPORATED,
Merchandise Mart, Chicago 54;
200 Fifth Ave., New York 10;
919 East 31st St., Los Angeles 11;
Terminal Sales Bldg., Seattle 1.

*...better living means
better listening, too!*



Double-duty INSULITE SHEATHING (for outside walls) does two things for the price of one:

(1st) It *Sheathes*

(2nd) It *Insulates*

One material — DOUBLE usage. One application — TWO important services to help your client get double for his money.

This is smart, modern progressive construction procedure — functional and economical. It offers practical advantages over wood sheathing horizontally applied. Greater bracing strength, less labor cost, improved rigidity . . . PLUS *insulation!* Specify double-duty Insulite Sheathing — the genuine.



INSULATES AS IT BUILDS



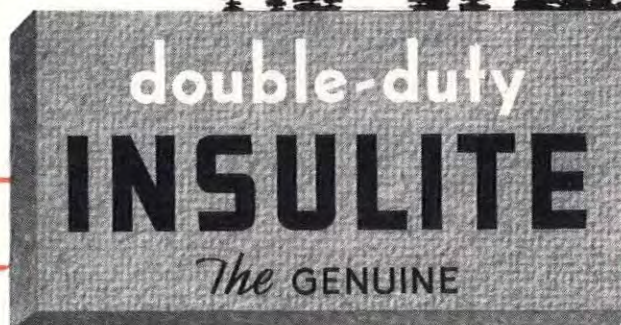
FOR THE MONEY

Double-duty INSULITE LOK-JOINT LATH (for inside walls)
does two things for the price of one:

(1st) *Plaster Base*

(2nd) *Insulates*

One material — DOUBLE usage. Your client gets a *plus* value with his purchase; — plastered walls — PLUS insulation and vapor control! Two things for the price of one! Specify double-duty Insulite Lok-Joint Lath.



Refer to Sweet's File,
Architectural Section 10a/9

BUILDS AS IT

INSULATES

"Insulite" is a registered
trade mark, U.S. Pat. Off.

INSULITE DIV. MINNESOTA & ONTARIO
PAPER COMPANY
MINNEAPOLIS 2 MINNESOTA





No home owner should be left “holding the bag”!

• Architects and builders know there's no other home-heating fuel as dependable and economical as Bituminous Coal.

So even when a client of yours *insists* on some other fuel for his new home, it's wise to give him a chance to change his mind later on—and turn to coal.

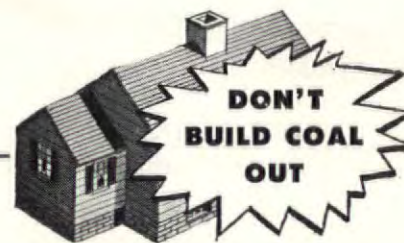
Otherwise, he'll be left “holding the bag” when stoker developments, cost differentials, improved local services or other factors convince him he should heat with coal.

Just make sure his house plans include: (1) *A chimney with sufficient flue capacity to burn coal efficiently;* (2) *Sufficient space adjacent to the heating unit for eventual coal storage and stoker installation.*

These sensible precautions involve but trifling cost—and they may add greatly to the future value of a house.

Coal supplies uniform, *steady* warmth throughout every portion of each room. For there's always a fire in the furnace—no “pop on and pop off” periods that permit accumulated heat to rise to the ceilings and leave floor areas dangerously cold. That, plus its low cost, is why more than 4 out of every 7 homes in the United States now heat with coal!

BETTER AND BETTER THINGS ARE COMING FROM COAL!



As you undoubtedly know, the modern research facilities of the Bituminous Coal industry are hard at work not only to make coal a still better fuel, but also to devise new, low-cost *automatic* equipment that will make coal-heating even cleaner, more comfortable, more convenient and more economical. This makes it all the more important that every new home built today be planned to permit the eventual burning of coal — no matter what fuel may initially be selected.

BITUMINOUS  COAL

BITUMINOUS COAL INSTITUTE
Washington, D. C.

Affiliate of NATIONAL COAL ASSOCIATION



PENBERTHY INJECTOR COMPANY

Manufacturers of Quality Products Since 1886 DETROIT 2, MICH. Canadian Plant, Windsor, Ont.

Plotting Microclimates . . . Requests for Small Homes . . . The Status Quo vs. Insulux Dressing . . . Continuing Tempest over Frank Lloyd Wright . . . Australian Stage Design . . . Don Quixote Rides Again . . . Veterans' Housing.

MICROCLIMATOLOGY

Forum:

I have been most interested to read Helmut Landsberg's article on microclimatology (FORUM, Mar. '47). It is, I think, the best thing of its kind I have ever seen.

Being an enthusiastic amateur geographer, I would like to follow the subject of microclimatology further. Can you refer me to any writings or publications in the field? Has anybody done an exhaustive study of any city or community from a microclimatic point of view?

Your work has inspired me to try a micro-study of Louisville's climate.

GRADY E. CLAY, JR.

Louisville, Ky.

Further information on microclimatology may be found in Helmut Landsberg's book, "Physical Climatology", and in "The Climate of the Layer of the Air Near the Ground", a classic German treatise by Rudolf Geiger. The latter book was translated by Dr. John Leighly for the Soil Conservation Service of the U.S., but was not put on public sale. Copies may be obtained from the Climatic and Physiographic Division of the Soil Conservation Service in Washington—Ed.

Forum:

The article on microclimatology (FORUM, Mar. '47) is a corking piece of research masterfully presented and, for a person fascinated by the behavior of the elements, a most diverting discourse.

I was particularly intrigued by the remarks on people's lack of microclimatic discrimination in residential site selection. It is amazing. Last spring my wife and I acquired six acres of land in New Canaan which we think are nearly ideal. The property is a long rectangle running north and south. At the lower end is a sizable pond framed with willows, tupelos and witch hazels. From the north edge of the pond the land rises gradually through an apple orchard and a garden area for about 600 ft., where the inclination becomes marked and an oak and birch wood begins. Roads are such that the house may be situated on the slope in the edge of the oaks, looking south over the orchard to the pond.

This land sold for the same price per acre as other pieces in the neighborhood situated so that a house would necessarily face north with the land a northwest slope. Occasionally it pays to be an architect.

During the completion of one of my jobs in Puerto Rico there was an interesting episode caused by localized climate. It concerned a bank building where the president complained that the air conditioning system functioned unsatisfactorily in his

office, although accurate readings indicated almost ideal conditions. His office was on the east side of the building and he complained of discomfort in the afternoon.

About that time it was necessary for me to take a plane trip to the States. We rode quite close to banks of tall cumulus clouds and there was perceptible radiation from them as the plane sped by. That furnished an idea. On returning to San Juan it was established that the white building across the street from the president's office was the trouble-maker. Reflected radiant heat was pouring through a window onto the back of the complaining Don. Lowering the venetian blinds was the cure.

Being saturated in theories of air movement at the moment, I recently had the temerity to argue with our structural designer on the size of supporting members for a large glass opening in the lower floor of a tall building. The opening is 60 ft. long by 18 ft. high.

Through application of wind stresses of a hundred-and-fifty-mile hurricane, we had come up with something resembling the steel pylons of the George Washington Bridge. My feeling was that winds could not strike this part of the building head on. They would be diverted by the tunnel action of the street and surrounding buildings. The engineer acquiesced and we have lace-like, glass supports and an opening which can be looked through. I hope the architect was right.

CHAUNCEY W. RILEY, Architect

Long Island City, N. Y.

Forum:

In the last issue of your magazine you referred to an "off-shore wind" as one which comes from the water toward the land.

According to Webster's dictionary, this is an error, the off-shore wind going from the land out toward the water. There has been a good deal of controversy about this question since reading your article, so I would greatly appreciate your giving me the authority for your use of the term.

WARREN TREMAINE

Santa Barbara, Calif.

FORUM editors admit an off-shore error. According to meteorologists, a wind is named for the place or direction it comes from (east, valley, etc.). Contrary exception is the off-shore wind, named for where it's going—Ed.

BELL TELEPHONE HOUSE

Forum:

As the housing problem now dominates the building scene, I believe a broader

coverage of the conventional small home would be of interest to your readers. By conventional I do not mean the uninteresting crackerbox style of architecture.

A broad coverage, including plans, elevations and details, of small homes by outstanding architects, such as the home by Granville Keith, Architect, pictured in the Bell Telephone System advertisement (FORUM, Mar. '47), would be of great use.



Current and Choice

To me this picture was the most interesting thing in that issue, and my curiosity was aroused as to the floor plan and details of this house.

M. G. LOSEE

Artesia, N. M.

For non-crackerbox houses worthy of Reader Losee's attention, see FORUM, Apr. '47, pp. 79-81; 92-3; 115; 120-23; 126-28—Ed.

NO PTERODACTYL

Forum:

In your March news story on Hoving and Pahlman's new Boston department store, correction please!

P. 16, Col. 1, L. 40: "Common" not "Commons," which is generally a place to eat. "Boston Common" has no "S." Anyway, the site is even closer to the "Public Garden" than to the "Common."

P. 16, Col. 2, L. 4: No pterodactyl skeleton. It was a bowhead whale skeleton!

C. L. MORGAN

Arlington, Mass.

Congratulations to alert natural historian Morgan, right on both counts—Ed.

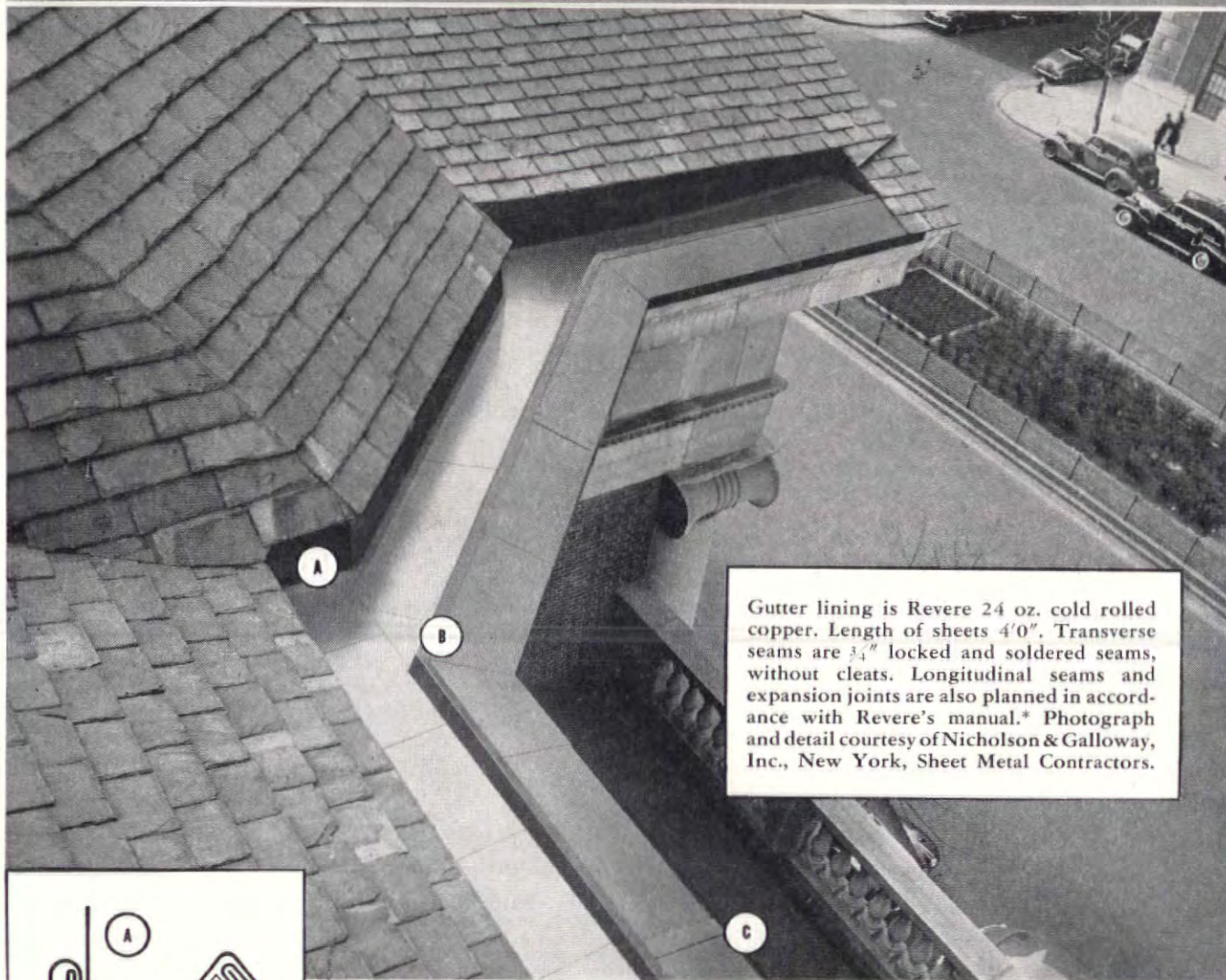
SKEWERED, BROILED AND EATEN

Forum:

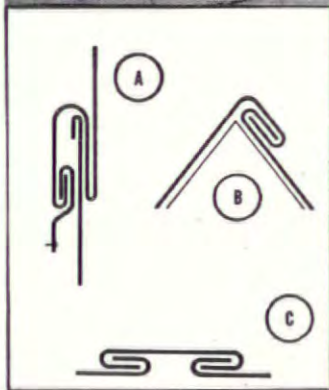
As a designer and builder of functional homes—low cost, for workmen, American—I am often at variance with the local keepers of the *status quo*. These are the citizens who emit anguished cries whenever a change is proposed. Not necessarily a bad change; just any change.

(Continued on page 26)

Now Gutter Linings Can Give EXTRA YEARS OF SERVICE



Gutter lining is Revere 24 oz. cold rolled copper. Length of sheets 4'0". Transverse seams are $\frac{3}{4}$ " locked and soldered seams, without cleats. Longitudinal seams and expansion joints are also planned in accordance with Revere's manual.* Photograph and detail courtesy of Nicholson & Galloway, Inc., New York, Sheet Metal Contractors.



● Of all the commonly used sheet metals, copper is the most enduring when exposed to the elements. And now, as a result of Revere's research, important new facts are available which enable you to design or install copper gutter linings, flashings and roofs that give extra years of service.

This research has clearly proved that control of three fundamental factors will insure long-service copper installations. They are (1) weight and temper of the copper, (2) design and distribution of expansion joints and (3) strength of transverse joints. Observance of only one or two of these factors may lead to premature stress failures. When all three are controlled maximum length of service is assured.

The findings of this study have been compiled into a 96-page booklet.* It is complete with charts and

detailed information so arranged that you can read and apply final figures that insure the finest sheet copper construction.

This book has been widely distributed to architects and sheet metal contractors, and in all probability is in your office files. Be sure to refer to it. If you do not have a copy, write for one now on your office letterhead. If you wish further information, the Revere Technical Advisory Service, Architectural will be glad to help you.

*"Research Solves Problems of Stress Failures in Sheet Copper Construction."

REVERE

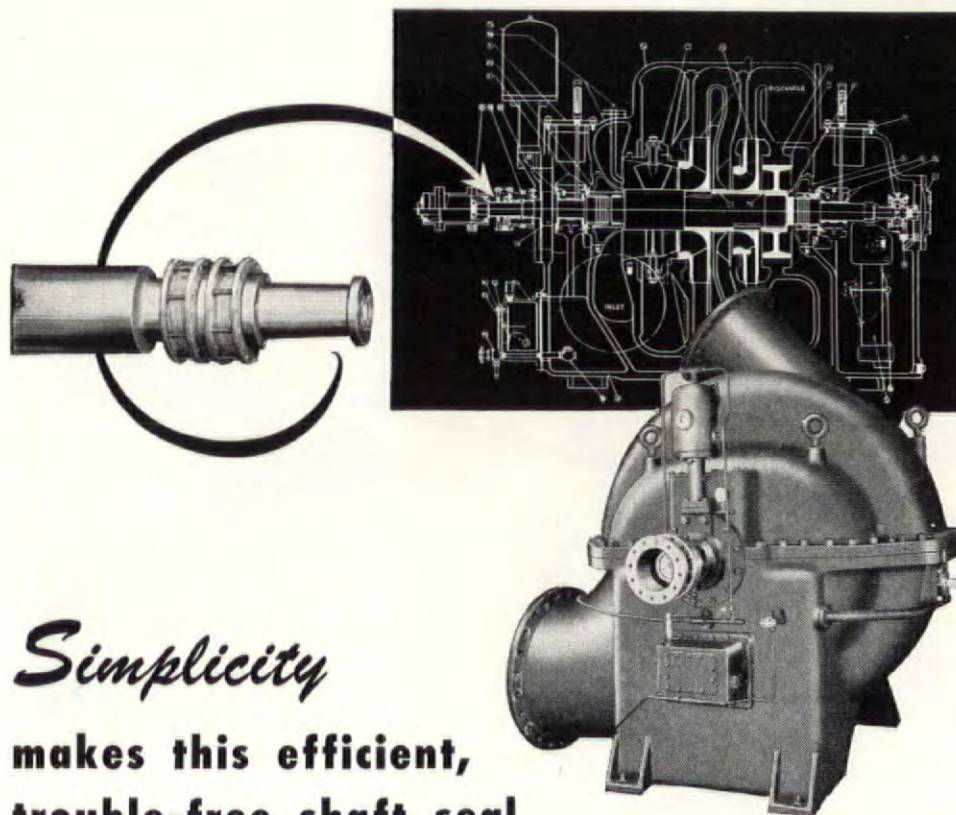
COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

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

For competent, authoritative assistance... *Quick*



Simplicity
**makes this efficient,
 trouble-free shaft seal**
DIFFERENT

In the York Allis-Chalmers Turbo Compressor, leak-proof sealing is secured through impingement of stationary carbon rings on either side of a "Meehanite" seal ring which rotates with the shaft. The carbon rings are enclosed in nonferrous bellows secured to the compressor housing, and contact with the seal ring is maintained by spring pressure. Oil circulated by the main oil pump lubricates the rotating faces of the shaft seal and carries off

the heat of friction. A gravity tank maintains an oil head on the seal when the compressor is idle. Since this high efficiency seal has few parts to get out of order, maintenance is negligible.

This unusual shaft seal is but one of the many exclusive design features of the York Turbo Compressor and is representative of the thoroughness of York engineering throughout its complete line of refrigeration and air conditioning equipment. York Corporation, York, Pa.

York-trained refrigeration and air conditioning engineers complement York mechanical advancements and the completeness of the York range of equipment, provide architects, consultants and contractors with assistance in planning, purchasing, installing and operating mechanical cooling systems.

In the Cleveland Area, for example, District Manager Yoder, and fourteen sales engineers devote their full time to the problems of York customers in this district.



H. S. Yoder,
District Manager

C. J. Schurman
Sales Manager

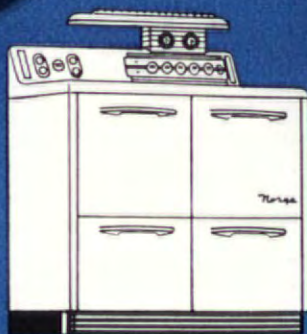
Assisted by:
 L. W. Cordrey
 L. R. Craig
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 W. P. Kohn
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YORK *Refrigeration and
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HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

Products of
BORG-WARNER



ELECTRIC RANGES



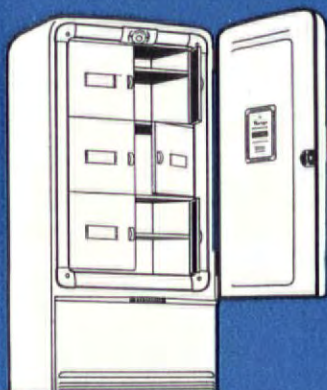
"ROLLATOR" REFRIGERATORS



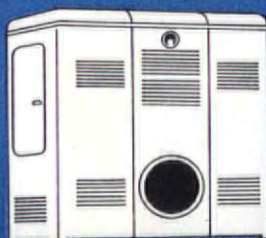
GAS RANGES



"RO-TA-TOR" WASHERS



HOME AND FARM FREEZERS



HOME HEATERS

CLEAN DESIGN

You, like the designers and engineers at Norge, know that "clean design" entails functional efficiency as well as symmetry of line and surface. Clean design characterizes all Norge products.

SEE
NORGE
BEFORE YOU BUY

Norge is the trade-mark of Norge Division, Borg-Warner Corporation, Detroit 26, Michigan. In Canada: Addison Industries, Ltd., Toronto, Ont.



Pure sparkling water for drinking and cooking has moved from the "luxury" to the near necessity class for the modern kitchen. Sparkler home type filters provide continuous-flow filtered water at low cost, and are easily installed in either new or old construction.

Sparkler filters completely remove all chlorine and other off-tastes and odors, all sediment, color, pipe rust, algae, etc., and deliver clear, sparkling, pure water for drinking and cooking.



Simple construction; easy to change filter pad.

The Sparkler W-8 and W-5 units, should be installed by tapping the supply pipe at the kitchen or utility sink or laundry and delivering the filtered water through a separate faucet. In this way filtered water is available with the greatest convenience and, by restricting filtration to drinking and cooking, a longer period of continuous flow is possible between filter pad changes. For the average family, a filter pad will last from four to six weeks and replacement can easily be made by any home owner.

The five models listed below are the filters usually selected for home installation; larger sizes up to 10,000 gal. per hr. are available for institutions, hospitals, or commercial requirements.

Model	Filter Area in Sq. in.	Capacity GPH	Height	Diam.	Shpg. Wt.
W-8	100	120	6"	9"	20 lbs.
W-5	19 1/2	60	4"	6"	11 lbs.
SPA	7	30	3"	4"	3 1/2 lbs.

Construction: Solid bronze; SPA is chromium-plated. Filter Media: Low cost preformed pads.

SPARKLER HORIZONTAL PLATE TYPE WATER FILTERS

Model	Area Sq. Ft.	CAPACITY GPH	OVERALL DIMENSIONS			SHIPPING WT. (approx.)
			Height	Width	Length	
14-W-4	3.2	200	38"	21"	21"	250 lbs.
14-W-8	6.4	400	42"	21"	21"	350 lbs.

Construction: Galvanized steel or unpolished stainless steel tank; hard rubber or stainless steel plates.

Write for special file bulletin on home water filtration. Gives complete information.

SPARKLER MANUFACTURING CO.
MUNDELEIN, ILLINOIS

Because of these experiences, I am especially sympathetic toward a recent discovery of the Antipodian Archaeological Association. The evidence indicated the fate of the first functionalist. He tried to sell his associates the idea that a little dry cave with a small fire in front of it would be an improvement over the open forest as an abode. He was voted a menace to society and eaten by those he sought to help.

When, before a local august body of public-spirited citizens, I was taken to task for declaring that I built the only modern homes in our bailiwick, sez I: "Gentlemen, would you consider an automobile modern if it were designed to look like an ox-cart, even if you didn't have to yoke up the beasts to go places?" "No," sez they. "Then, gentlemen," I goes on, "how does putting an electric range into an imitation Cape Cod cottage make a modern home, if you do not live on Cape Cod?"

That is where I was skewered, broiled and eaten. But they didn't enjoy me. Tasted too much like cinder block on plywood, with Insulux dressing.

HARRY W. MILLER

Kenmore, N. Y.

Forum:

As the operator of a retail lumber yard for a quarter of a century, I have always been receptive to new ideas in the building industry.

The FORUM has supplied me with many of these ideas, and each issue is read from cover to cover in search of them. But your recent issues have been giving too much space to a minority group in the job of furnishing homes for our fellow citizens.

Customer acceptance is the yardstick by which all merchandise must be measured, and in various national as well as local checking polls, it has been found that a very, very small minority, are even interested in anything but conventionally built homes.

It sounds impressive when we read of some company with ten or more million dollars, that promises to produce 2,500 or 5,000 homes per year through mass production, but when the total of these homes is placed beside the total to be built, it is apparent that the vast majority will still be of conventional construction.

The small-town lumberyard in itself does not make an impressive figure, but when one realizes that this small yard is part of a giant organization already set up and in operation; that it is one of thousands of lumber and material plants producing at a speed never before attained; that it represents millions upon millions of invested capital and manpower, one realizes its importance.

Most of us remember when "Made in Germany" and "Made in Japan" were considered marks of merit. That was a wonderful example of propaganda selling and the same seems to be true of these remarkable homes, produced overnight at a turn of the crank. The manufacturers have done such a wonderful selling job on these homes that the FORUM and other national magazines have given them thousands of columns of free advertising, mostly based on their own claims.

But the vast majority of homes to be built within the next generation (and that is the job we are all looking at now) will be of the conventional type . . .

The dream cities, automobiles, highways of the future make entertaining reading and so do these dream homes. But please let us get our feet on the ground, grab hold of the job at hand, and when THAT job is done, go back to our dreaming again . . .

WM. A. COCHRAN, Mgr.
Millstadt Lumber Co.

Millstadt, Illinois

Forum:

Perusing the March '47 issue of the FORUM, I am confronted with the impassioned plea of one Charles E. Krahmer for the perpetuation of the traditional system of house building and with a condemnation of the fundamental ideas of prefabrication for fear that the American family life may be stifled via standardization, and that we face the horrid prospect of being cast in a "common mold."

May I state that I am most interested in this theory that there is something uniquely individual in the American family enclosure and manner of living.

Excuse me if I contemplate the millions of us who are apartment-bound, or the greater numbers who dwell in jerry-built suburbia, or worse yet, the many whose family lives are contained in the deteriorating dwellings of the Victorian Era. What a tiny fraction of us can afford or experience a "custom-built" home life in the traditional manner. Better a sound, "common mold" reaching all via prefabrication.

ROBERT C. GAEDE

Shaker Heights, Ohio

WRIGHT WRANGLE

Forum:

Recent months have been devoted to an interchange of vitriolic thought over the quivering body of Frank Lloyd Wright. But in all the shouts, both pro and con, none has mentioned Wright's happy disregard of the primary fact of a house: i.e., that it is a shelter. According to reports, his roofs leak, his windows are drafty, his floors buckle. The famous Falling Water, built

(Continued on page 30)

Best

for Radiant Baseboards

... AS WELL AS FOR RADIATORS, CONVECTORS AND RADIANT PANELS



Radiant baseboards mark a new advance in the art of creating comfort with radiant heat. And—just as for radiators, convectors and panels—B & G *Hydro-Flo* Heat brings full realization of the many benefits made possible by radiant baseboards.

B & G *Hydro-Flo* Heat takes full advantage of the basic superiority of forced hot water as a heating medium. It establishes ideal comfort conditions because of its ability to measure out heat in the exact quantities required by the weather. When the outdoor temperature becomes colder, the average temperature of the water in the system is automatically increased to compensate for the greater heat loss. If the weather turns mild, the temperature of the circulating water is lowered accordingly.

The net result of this variable water temperature is a uniform room temperature, regardless of weather changes. It obviously means greatest operating economy, as only just enough fuel is burned to satisfy the heat demand.

B & G *Hydro-Flo* Heating Systems have universal application

Hundreds of thousands of B & G *Hydro-Flo* installations are in successful operation today . . . in homes . . . in apartments . . . and in low cost housing developments where economy of operation is an essential to owners with modest incomes!



PLUS THIS EXTRA FEATURE!

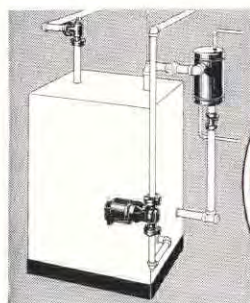
Year 'round hot water from the same boiler that heats the house

Here's the feature that makes women enthusiastic about B & G *Hydro-Flo* Heat! The automatic controls of the system permit operation of the B & G Water Heater not only during the heating season but every month of the year. Virtually limitless quantities of low cost hot water are available at all hours of the day and night.

Hence every household task from dish washing to house cleaning is shortened, made easier. Every gratifying little luxury of personal care and cleanliness can be enjoyed to the utmost . . . and there's always plenty of hot water for such modern labor-saving devices as dish and clothes washers.



The B & G Sales Kit will help you profit from this preferred heating method—send for your copy.



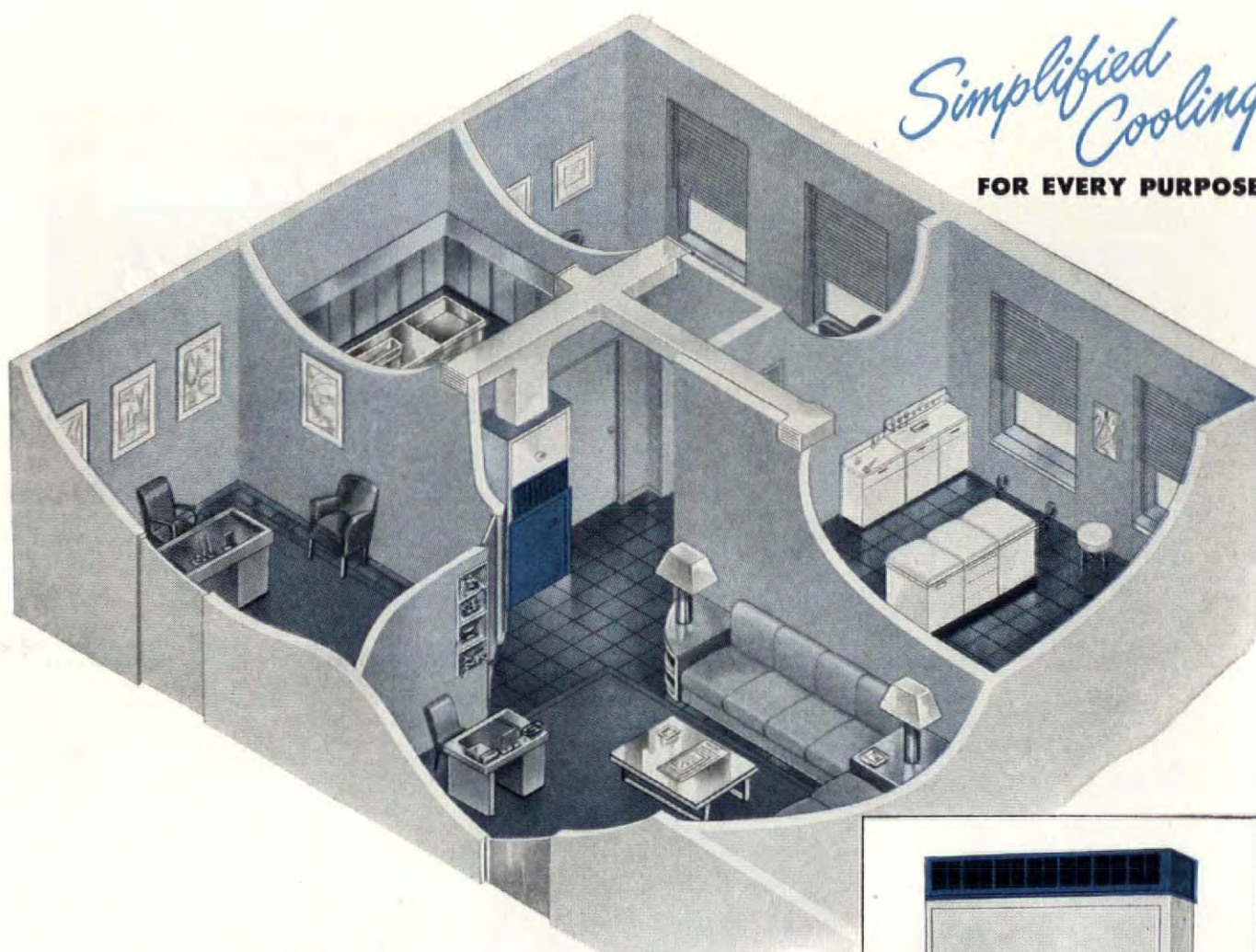
B & G *Hydro-Flo* Heat equipment can be installed on any hot water heating boiler. It is simple and dependable, with an established record for long, carefree service.

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BELL & GOSSETT COMPANY

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*Simplified
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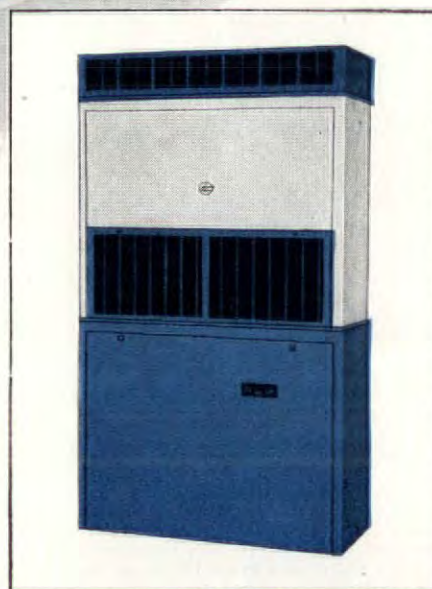
FOR EVERY PURPOSE

Economical, Easy-to-Install Air Conditioning For Doctors

DOCTORS benefit in many ways from air conditioning. A survey reveals that, in addition to making doctors and patients comfortable, air conditioning greatly improves staff efficiency, shuts out disturbing outside noise and contributes to the composure of patients under treatment. Because of compactness and flexibility of design, Chrysler Airtemp Packaged Air Conditioners fit exceptionally well into plans for such offices. They occupy very little floor space, and require only one electrical and two water connections. Completely self-contained and automatic in operation, these packages are engineered for long life at low operating and upkeep costs. For details, architects are invited to write

AIRTEMP DIVISION OF CHRYSLER CORPORATION, DAYTON 1, OHIO

In Canada: Therm-O-Rite Products, Ltd., Toronto



Packaged Air Conditioners are products of Chrysler Corporation engineering skill, famous around the world.

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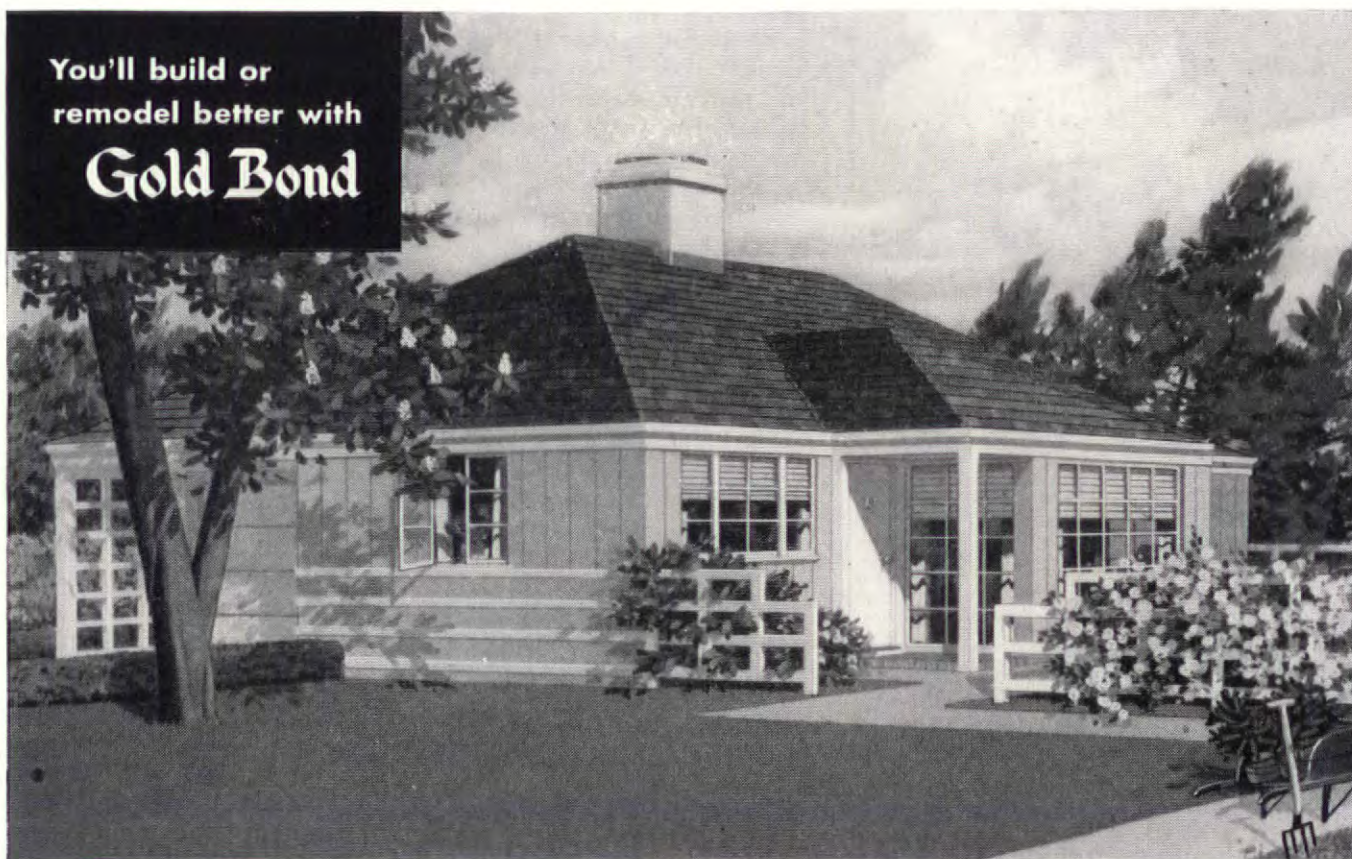


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Gold Bond



*A house is no better
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AND NO SHEATHING IS BETTER THAN THIS!



ONE important contribution to better construction is Fireproof Gold Bond Gypsum Sheathing with the new asphalt treated core. The big rock-like panels are now supplied with surfaces, edges, and even the gypsum rock center thoroughly processed with a water-repellent treatment. Insures full protection against moisture and all kinds of weather. In these times of hurried production,

one consideration of utmost importance to architects and builders is *uniform quality*. With Gold Bond Gypsum Sheathing there is no such thing as unseasoned or "green" material—no danger of expansion or contraction. Every panel is absolutely uniform as to size, thickness and quality.

Gypsum Sheathing insures great structural strength and provides

permanent fire protection for the wood framing. The big panels—2' x 8'—can be applied in a lot less time than narrow strips of old style sheathing. Fewer joints, too, and these are wind-tight because of snug-fitting T and G edges.

You'll find Gold Bond Gypsum Sheathing described in detail in our section in Sweet's. The cost? Less than old style inflammable sheathing.

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EAGLE Ready-To-Use WHITE LEAD PAINT

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Now you can specify a new, convenient form of pure white lead. It's more useful to your clients, easier to use for painters. We give you Eagle Ready-To-Use White Lead Paint, in gallon form, ready to open, stir and apply:

White lead protection that's extra smooth!

This marvelous new Eagle-Picher paint brings you a new plus—greater brushability, greater smoothness—and until you try Eagle RTU yourself you can't possibly know what we mean. It covers evenly, leaves practically no brush marks. Its flexible film clings fast despite wear and weather. It dries to a brilliant white gloss that doesn't crack or scale, but chalks gradually, actually preparing the surface for eventual repainting.

Eagle Ready-To-Use White Lead Paint comes in two forms: Primer Sealer Coat and Outside White Finish Coat. One, two and five gallon pails. Made by a company with 103 years of experience. Eagle RTU is being made available as rapidly as possible.

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Cincinnati (1), Ohio

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EAGLE PURE WHITE LEAD

A favorite since 1843



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of Eagle White Lead in Oil
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around a burbling brook, is alleged to be so damp that at times it is almost uninhabitable. There is even an apocryphal tale that the master himself was once caught sitting in the fireplace at Taliesin West to escape a rainstorm in the rest of the house. Wright's designs are unquestionably beautiful examples of form and texture. But are they livable?

JAN SHOLTA

Chicago, Ill.

Forum:

May I endorse Bronze Wood's views on Frank Lloyd Wright's "critics" (FORUM, Dec. '46).

The best comment on this class of person that I have ever read is the following from the "Memoirs of Thomas Berwick," the famous English engraver of the early 19th century.

"There is no species of hatred greater than that which a man of mediocrity bears to a man of genius. His reach of thought, his successful combinations, and his sudden felicities are never forgiven by those whom nature has fashioned in a less perfect mould."

T. H. d.W. COLEMAN, Architect

Birmingham, England

THREE-DIMENSIONAL STAGE

Forum:

Your most interesting presentation of Architect Hermann Herrey's Community Theater (FORUM, June '46) brought back to my mind plans for a "Reform Theater" designed by me in collaboration with Dr. Wilhelm Treichlinger some years ago. It was commended by the assembly of the "Convegna Volta" in 1934 but the subsequent political complications prevented us from putting the plans into practice.

The aim of both Mr. Herrey and ourselves is identical in one respect: namely, to abandon the orthodox "peephole" stage, to create a greater interest on the part of the audience and to permit a "three dimensional" play by uniting actors and audience in one room. Both schemes also provide similar seating capacity.

However, whilst Architect Herrey's stage surrounds the seating area, our plan provides for the seating area to surround the stage which is thus open on three sides with an adjustable back to provide resonance, entrances to the stage and to take settings symbolising the scenes.

The "room creating" effect of movable spotlights in the light gallery and other points near the stage contributes largely in defining the area of the scene.

(Continued on page 34)

Penton Profit \$2,515
on \$3,351 investment



THE PENTON BUILDING, Cleveland, Ohio

Home of The Penton Publishing Company. Built in 1922. Webster Heating Modernization Program completed in 1940. Heating Contractor, The Smith & Oby Company.

Perhaps you can do in 1947 what Penton did in '40. When the 9-story Penton Building in Cleveland, Ohio, was built in 1922-23 it was equipped with a modern Webster Vacuum System of Steam Heating which operated efficiently for many years.

In 1939, the Webster Moderator System set new standards, obtained for the Penton Building through a unique Heating Modernization Contract. Three years later, on May 5, 1943, E. L. Shaner, President of Penton, released Webster from its guarantee of performance, reported savings of \$2,515.82 and added "We are completely satisfied with the manner in which our building now is being heated and commend Warren Webster & Company for the satisfactory way in which it has fulfilled its contract."

Your case may be parallel to that of Penton in 1939. Why not check on the possibility of a Webster Heating Modernization program for your own building?

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Representatives in principal U. S. Cities : : Est. 1888
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HEATING SYSTEMS

What do you demand in a building material for Rental Housing?



WALTER R. McCORMACK, Architect

Are these the things you're asking about?

Availability? That's mighty important today. You'll find modular brick and tile available in real quantity for rental housing.

Economy? From both an immediate and long term point of view modular brick and tile are economical. At today's cost levels they are reasonably priced. In modular sizes they simplify planning and estimating—reduce costly cutting and chipping on the site.

Wherever used, brick and tile practically free you from costly repair and maintenance charges. The constant demand these charges make on property income is greatly reduced. Investment returns and resale value are protected for years to come.

Durability? Clay masonry always has been known for its ability to take it. Whether you have brick for exteriors or tile for interiors, you'll note that rental housing made of these materials stands up under all kinds of punishment.

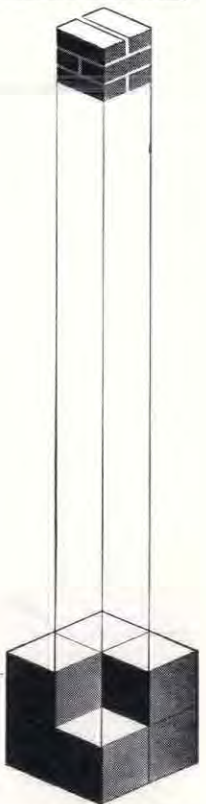
Beauty? A wide range of textures and colors makes it easy to add good looks to your housing at no extra cost.

Adaptability? Whether the design be traditional or modern, any design can be achieved with modular brick and tile. They adjust easily to architectural thinking.

Fire-safety? Both the owner and the tenant get definite protection from fire when brick and tile are used in rental housing.

If you have any other questions about modular brick and tile, we'll be glad to receive your inquiry.

Architects are invited to write for two FREE booklets: "The ABC of Modular Masonry," for those interested in the development of coordinated dimensions; and "Modular Sizes of Brick and Tile," an aid to current design. Address the Structural Clay Products Institute, Dept. AF-5, 1756 K Street, N. W., Washington 6, D. C.



NOW IT WILL BE BUILT WITH MODULAR-DESIGNED
BRICK AND TILE



Ingersoll UTILITY UNIT

TRADE MARK

Pictured here are a few of the 182 comfortable homes built during the past year by John R. Worthman, Inc., in Ft. Wayne, Indiana. These and similar homes are an ideal answer to the current housing shortage. Each of 35 Worthman homes now under construction is being speeded to completion, thanks to the Ingersoll Utility Unit.

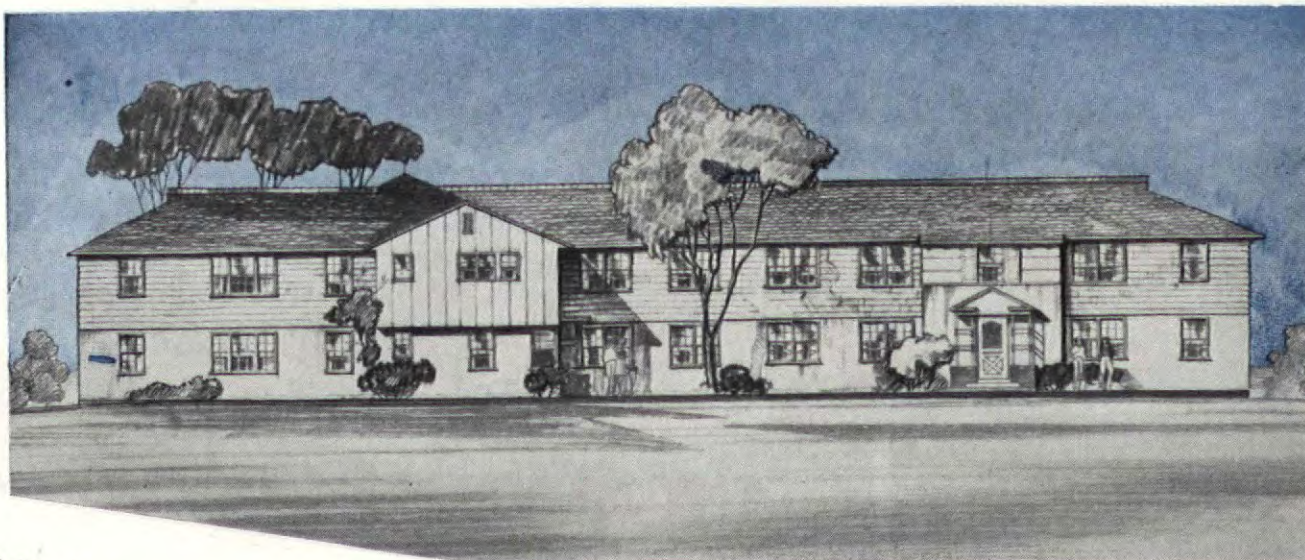
INGERSOLL UTILITY UNIT SAVES TIME AND SPACE IN MAJOR HOUSING DEVELOPMENTS

Hundreds of Leading Builders Everywhere Are Including Utility Units in 1947 Projects!

All over the country forward-looking builders, convinced of the efficiency, convenience and adaptability of the Ingersoll Utility Unit, are ordering thousands of these single-engineered assemblies for immediate installation. In modern housing developments in New York, Dayton, Detroit, Indianapolis, Boston, San Francisco, in

towns and cities everywhere, more and more of these easy-to-install units are daily proving the means to economy of space and lower all-around cost. With each part engineered to fit snugly in its place, this practical, compact and sturdy unit, complete from one source, contains everything needed for comfort and homemaking efficiency.

One of the buildings that will house 544 attractive, modern apartments being built by Nettleton & Baldwin, Inc., Seattle, Washington. Each will include easy-to-install, time and space-saving Ingersoll Utility Units. Adaptability of the unit to individual plans enables them to incorporate more living space for less money in these multiple-unit dwellings.





Kitchen, Bath, Heating Plant, plus all plumbing and electrical lines, are included in the Standard Model Utility Unit. Equipped with all fixtures and appliances.

PRODUCT OF
**BORG-
WARNER**



J. A. Jones Construction Company, one of the country's largest builders, is installing Ingersoll Units in the 59 houses in this project, Country Club Hills, Charlotte, North Carolina. One of several veterans' housing developments in that section, this modern community offers comfortable homes with attractive, space-saving kitchens and bathrooms, plus efficient heating plants.

Ingersoll
UTILITY UNIT

TRADE MARK

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Borg-Warner Corp., Dept. F5
310 S. Michigan Ave., Chicago 4, Ill.

Please send me complete descriptive literature on the Ingersoll Utility Unit.

Name

Firm

Address

City State



The number of new homes planned for construction during the present three year building period has been estimated at more than one and a half million. A \$12,000,000,000 investment in better living.

As yet, most of these "dream houses" are still only blueprints, but before long they'll be real homes—with real people living in them. The kind of life those people will enjoy tomorrow is the responsibility of every member of the building industry today.

That's why, all over America, conscientious architects, contractors and building supply dealers are unanimous in their recommendation of Lo-"K" flameproofed Cotton Insulation. With the complete facts at their disposal on every insulating material, they've found conclusive proof that dollar for dollar, inch for inch, Lo-"K" is America's best insulation buy.

... Because Cotton Out-Insulates All Others!

Lo-"K" gives greater insulating efficiency—thermal conductivity rate, only 0.24.

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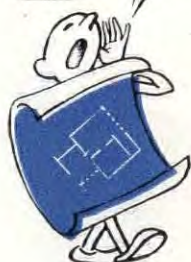
Lo-"K" is easy to handle. Blanket roll cuts installation time and costs, fits snugly.

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As the average play on that stage is of a "moving" character numerous approaches to the stage platform are essential and these are provided not only through the back screen but also through two doorways below the balustrade running parallel to the back walls and bordering the seating area, and also by means of ramps which replace the outer section of the stage floor when lowered to the first floor level.

Change of stage settings is achieved by lowering the whole or parts of the stage to the basement, removing the setting to one of the flank storerooms, and replacing it by another stage setting pre-assembled in the opposite flank room on a movable platform.

I thought this scheme might be of interest to you as an alternative way of tackling the set-up of the contemporary theater.

FREDERIC ROSENBAUM, Architect
Melbourne, Australia

WACKY-SHACKY

Forum:

Probably few, if any, of the FORUM's editorial staff would admit ever having read a book as dated as *Don Quixote*. But it is long past time for someone to write something of the kind in reverse. The naive, wide-eyed laudation of everything in modern wacky-shacky architecture as evidence of progress sometimes appears as ridiculous as does an all-out attack on a tumbledown windmill. Absurd, you say. Well, let's take a gander at the first three feature articles in the March FORUM:

Why kid yourselves and your technically trained readers by giving tacit approval to the really unjustified structural complications of a "roof built like an airplane wing" of the David-Dailey house? Or inform us that one tier of skewed windows makes Mr. Dailey's apartment design "angled to the view," and that, in the same design, "all waste space has been eliminated" in a plan actually unique in its wastefully complex solution of a simple planning problem? Also, why quote the owners' statement that the service arrangement of the Jackson-Noyes house "allows the least possible waste of steps or effort" while the plan indicates a walking distance of some 20 ft. from the far end of the kitchen to the dining room service door? And, further, why insist that this same house is a "modern counterpart of colonial neighbors" when the entrance side illustration shows the second story expectantly poised as if all set for someone to yell "contact" before soaring over the hills and far away?

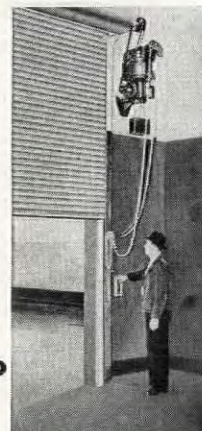
Yes, I and a number of my colleagues (who don't take time to write letters to the editor) feel that editorial comments should

(Continued on page 38)

40 PAGES OF
REFERENCE ON
**DOORS FOR
EVERY NEED**



Concise,
handy data to
have on tap



... Get yours today!

This helpful new book will give you latest comprehensive details on a complete range of upward-acting doors for every type of building, old or new—famous Kinnear Steel Rolling Doors with motor or manual operation, Rolling Fire Doors, sectional-type doors, and protective rolling grilles. Send for your free copy of this new Kinnear Catalog today!

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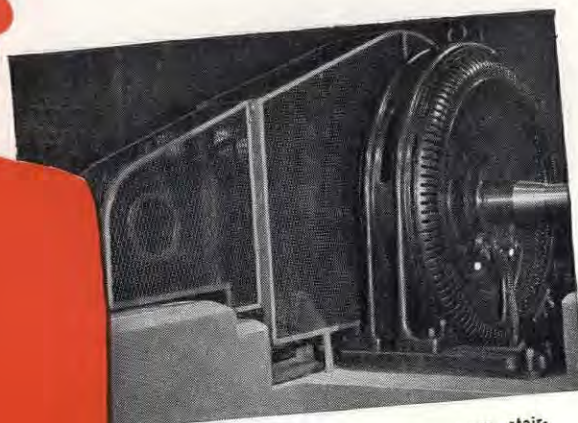
Saving Ways in Doorways
KINNEAR
ROLLING DOORS

ON GUARD ... FOR INDUSTRY!

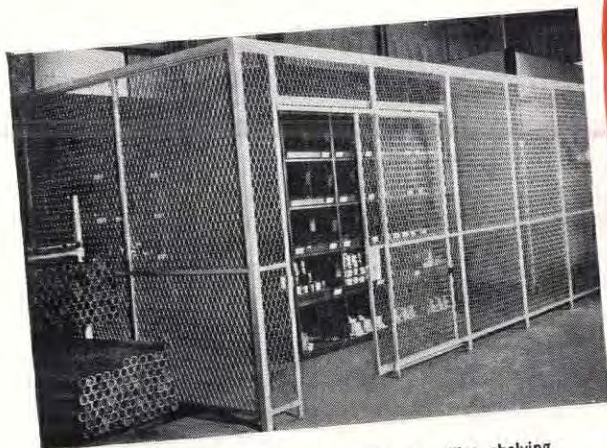
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PROTECTS. Wheeling Expanded Metal is ideal for window guards, ventilating partitions, grilles.



GUARDS dangerous machinery, conveyors, stairways, elevators. Easily formed to fit special installations,



VENTILATES lockers, partitions, grilles, shelving. Admits light and air. Sanitary, easy to clean, protective.



FENCES. Good to look at and great for protection. Stands guard for years and years.

WHEELING EXPANDED METAL stands as a never-failing watchman for industry . . . preventing accidents . . . safeguarding property day and night.

This rugged construction metal guards danger spots as safety enclosures for machines, belts, exposed power lines. As a

strong, good-looking fence it keeps undesirables outside. As walls for lockers, it provides both ventilation and protection.

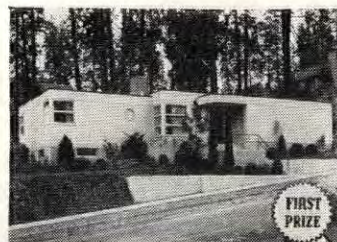
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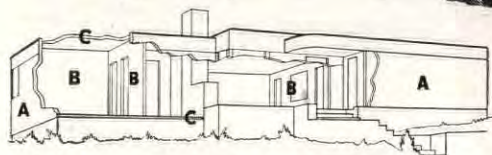
A Prize House in '40 ... but what about today?



The prize home in Spokane, Washington, as it looked in 1940, shortly after taking first award in a competition sponsored by the Spokane Chamber of Commerce.



The same home today — attractive, livable, sound. Plywood's rugged strength and rigidity helped make it a better home.



[A] The smooth, attractive exterior surface is of $\frac{3}{8}$ " Exterior-type Douglas fir plywood, applied in vertical panels with joints carefully butted. Exterior-type plywood is made with completely waterproof phenolic resin binder, especially for permanent application.

[B] Interior-type plywood was used on interior walls and ceilings. Joint-free finishes were attained in kitchen and bath by covering panels with muslin and painting over. One bedroom was papered. The second bedroom and living room panels were painted.

[C] Plyscord (the sheathing grade of interior type Douglas fir plywood) was specified for rigid, durable roof sheathing. Plywood was also used under the linoleum in kitchen and bath, for a smooth, cupless, ridgeless base.

PLYWOOD'S MANY ADVANTAGES KEEP DEMANDS GREATER THAN PRESENT SUPPLIES

Douglas fir plywood production is greater now than in prewar years. Today's demand, however, is unprecedented—and raw material availability is the controlling factor in attaining higher output. This uneven demand-supply ratio naturally means that plywood may not always be readily obtainable at any given time and place. Keep in touch with your regular source of supply as to price and delivery information. For technical data, write the Douglas Fir Plywood Association, Tacoma 2, Washington.

"one of my most successful houses"
says Architect Edwin J. Peterson,

"AFTER SEVEN YEARS, IN PERFECT CONDITION—INSIDE AND OUT"

BUILT in 1940, this attractive home demonstrates the many advantages to be gained through Douglas fir plywood Dri-bilt construction. Architect Edwin J. Peterson of Spokane used plywood for both interior and exterior surfaces because it lent itself so admirably to his clean-cut, modern design and provided permanent wall surfaces that would withstand extremes in temperature. The plan was laid out on 4-foot modules, taking advantage of the erection-economy offered by standard 4'x8' panels. Mr. Peterson says: "After seven years, this house is in perfect condition. The interior panels proved to be excellent for a variety of finishes, such as the plain painted living room, the papered bedroom and the canvas-covered bath."

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PLYWOOD**
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Panels



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new wire*

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Screens, storm sash and weatherproofing—all in one permanently installed unit—with **NOTHING TO CHANGE, NOTHING TO STORE**; Rainproof, draft-free, filtered-screen ventilation by finger-tip control from inside—in any season, in any weather;

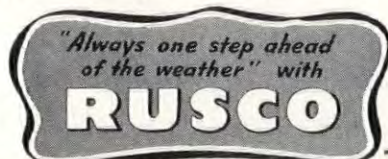
Patented **THERMOLOK*** Frame—weatherproofs entire window opening and assures permanent fit;

Greater economy on $\frac{1}{8}$ less fuel.

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Details of **Rusco Window Insulation** are in *Sweets 18a-14*, or you can obtain literature for your files by sending coupon.

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City

be confined to the informative discussion of elements which are not made self-evident through the illustrations, rather than to merely reflect the expression of shallow opinions or flamboyant cliches which may seem very chi-chi to the tyro, but exasperate an intelligent reader to the point of allergy to any real architectural or structural merit which an overpraised subject might have. Let's leave the editorial superlatives to the writers for the amateur homebuilders who read *Good Housekeeping* and the *LHJ*.

JIM T. POMEROY, Architect

Orland Park, Ill.

- 1) Reader Pomeroy refers to the "structural complications" of a "roof built like an airplane wing." Internal bracing, a construction principle borrowed from the airplane wing, actually simplifies the structure of the roof by eliminating cross-ties.
- 2) Unless Reader Pomeroy resents the inclusion of an interior court, FORUM fails to find waste space in Dailey's well-articulated apartment plan.
- 3) A large kitchen like that in the Noyes house naturally requires more walking than a minimum work space. The one in question is conveniently located to serve both dining room, front and service entrances.
- 4) When better superlatives are written FORUM will write them—Ed.

MISPLACED CAPITOL

Forum:

. . . I deeply and sincerely admire the firm stand that FORUM has taken on modern architecture. My greatest personal interest in your publication is in the timber homes of California which you so frequently feature. To us in South Australia who have similar conditions to plan for, these particular homes are full of interest and excitement. My own house, on the drawing board at the moment, has been profoundly influenced by much of the thought expounded between FORUM's covers—a case of backing convictions with coin.

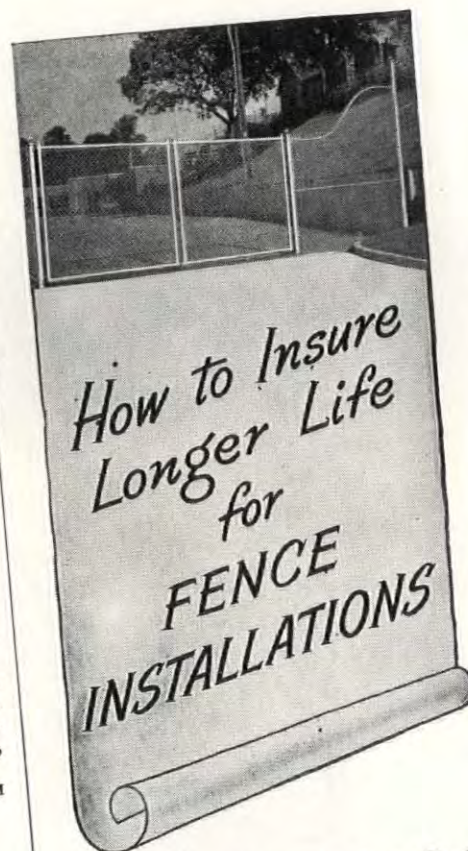
Incidentally—quite incidentally—I note in your Dec. '46 issue that you write of the Royal Melbourne Hospital well and accurately except for this statement: "The Royal Melbourne Hospital in Australia's capitol city . . ." Melbourne is not Australia's capitol city, although the Victorian readers of FORUM will no doubt swell with pride at the suggestion. However, you can expect violent reactions from New South Wales and wholesale cancellations from Canberra subscribers. Here in S. A., though, we're reading the article, enjoying it and thanking FORUM for the laugh. Aside from that error, congratulations on a work of outstanding merit. You will never lack support from "Down Under."

RAYMOND G. WHITE

Colonel Light Gardens, S. A.

FORUM blushes with embarrassment at such a slight to loyal Aussie supporters—Ed.

(Continued on page 42.)



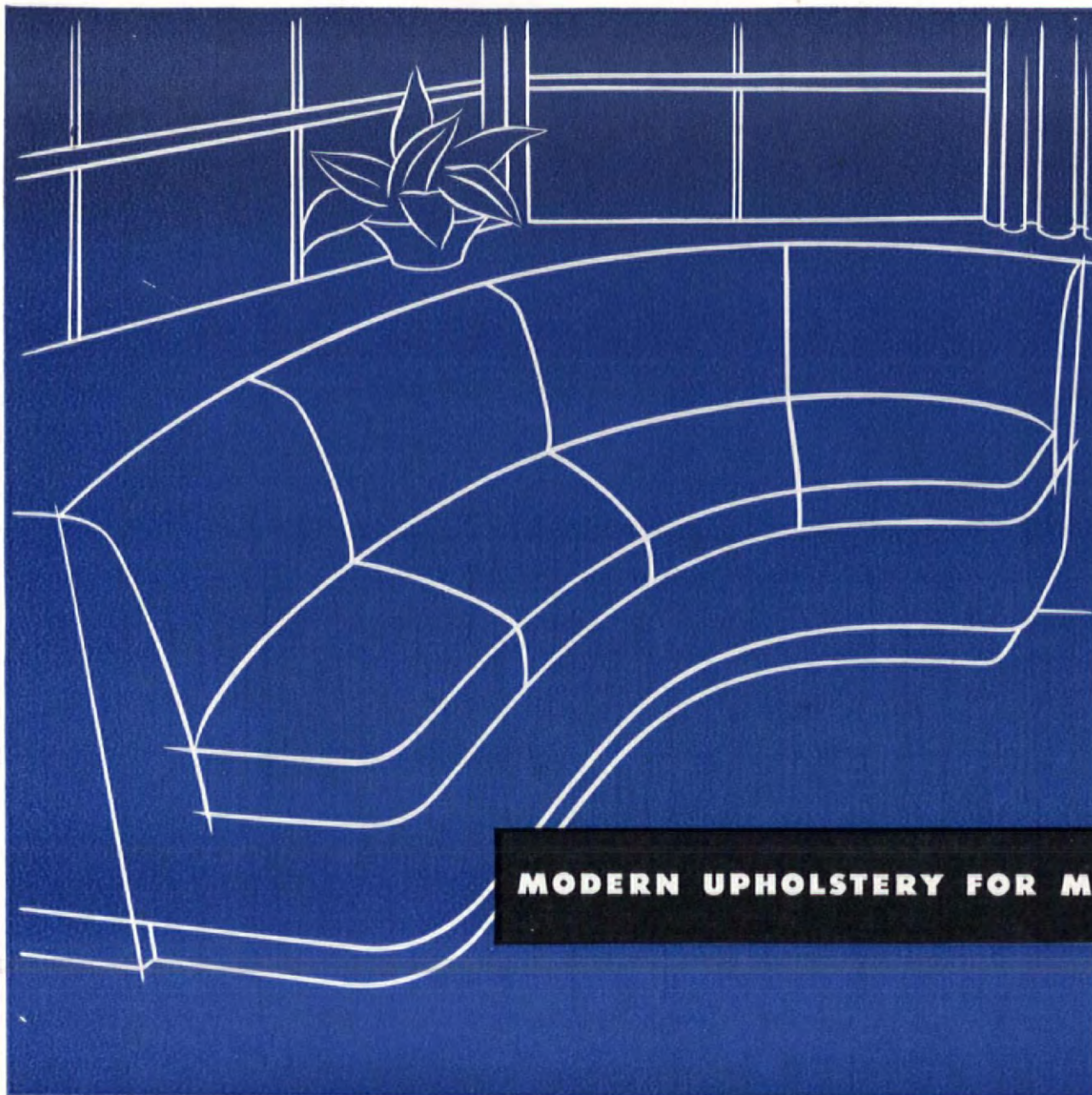
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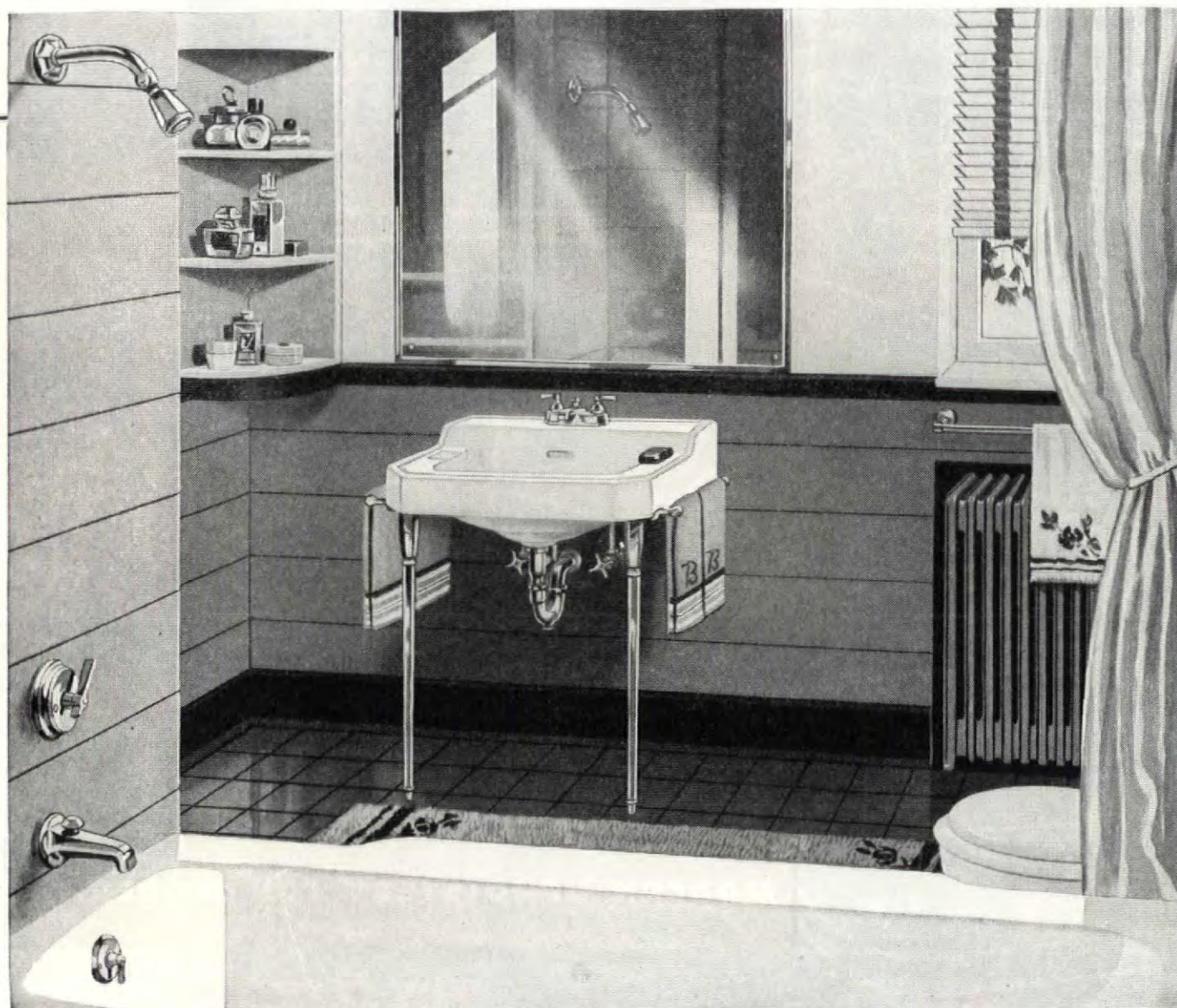
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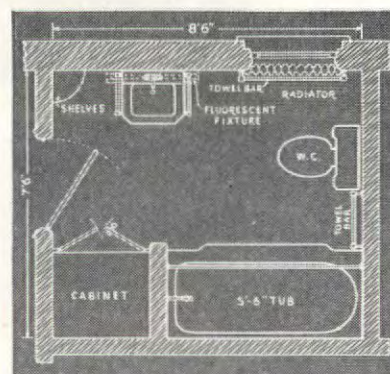
A KOHLER bathroom means first quality plus practical convenience

THIS bathroom shows how Kohler plumbing fixtures may be combined in a convenient, inviting arrangement for the home of average size. All the visual and practical advantages of Kohler quality are here—well-matched designs; clean cut lines; good proportions; lustrous, easily cleaned surfaces; and working parts that function smoothly and reliably. Home-owners know that Kohler quality means first quality—an investment that assures efficient health protection and adds permanent value to the home.

The Kohler fixtures illustrated are the

Chesapeake vitreous china lavatory, with roomy basin, handy ledge and Centra fitting; and the Cosmopolitan Bench Bath, made with durable, gleaming enamel on time-tested, non-flexing cast iron, and equipped with the Triton shower mixer. The quiet, smooth-acting Wellworth closet completes this matched set.

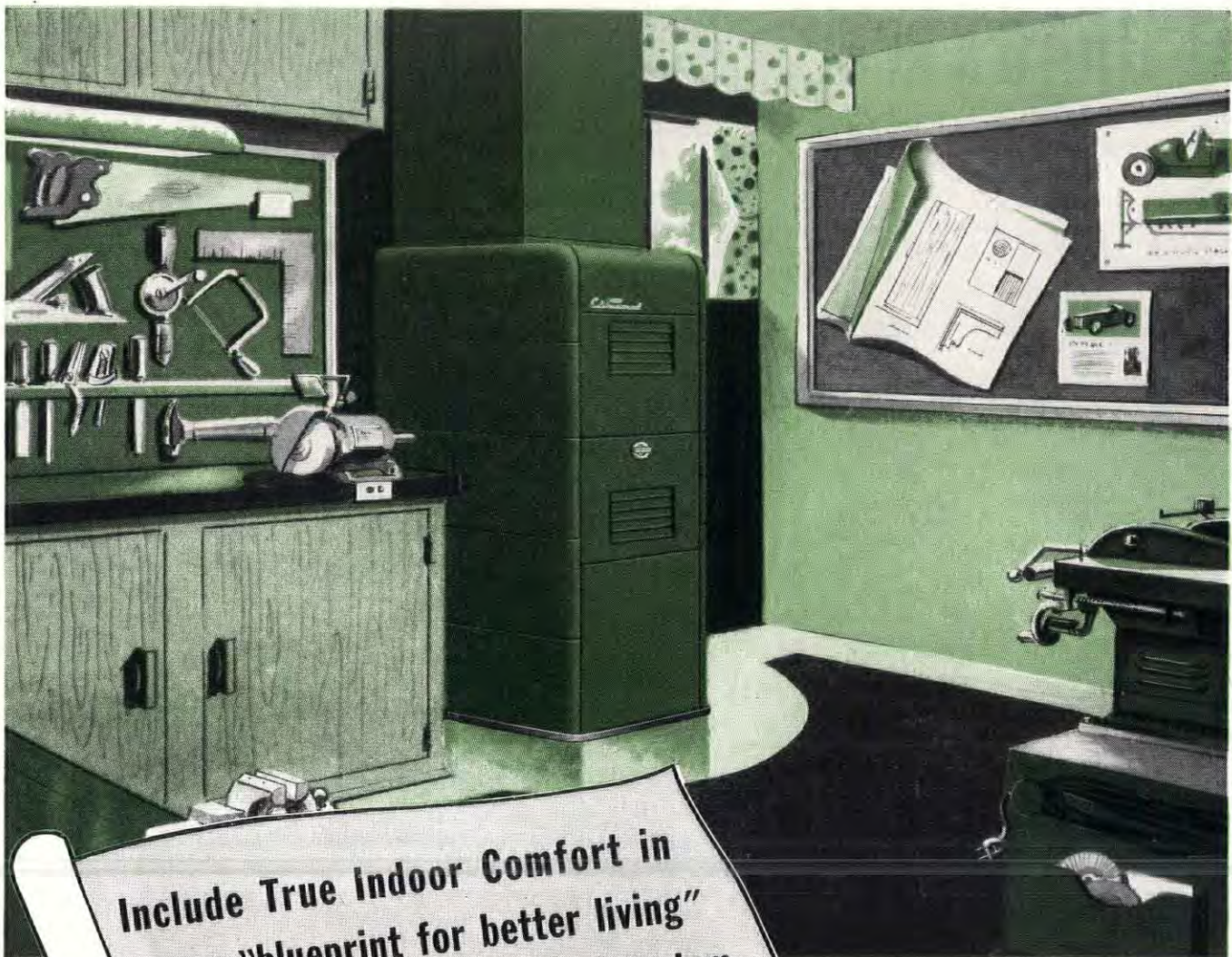
Kohler quality is now a 74-year-old tradition, maintained through every step of production, which takes place in one great plant, under one supervision. Write for whatever additional information you need. Kohler Co., Dept. E, Kohler, Wisconsin.



This Kohler bathroom occupies space of moderate size, 7' 6" x 8' 6", with Kohler fixtures and compact, conveniently located cabinet, shelves and other facilities.

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS



— and meet one of the main “mental specifications” of today’s clients

Indoor comfort is one of the most important single factors in the owner’s appreciation of a home. When you specify Mueller Climatrol, you’re providing comfort that measures up to his high expectations — and assuring his lasting satisfaction.

True Indoor Comfort depends on the condition of the air in the home. Climatrol meets today’s higher comfort standards because it is basically designed to condition and handle air, and it is easily

adapted to future air-conditioning developments.

There is a size and type Climatrol that’s right for every home, each specifically designed for efficient and economical operation with one of the three popular fuels — gas, oil, or coal. Your recommendation of Climatrol is backed by Mueller’s 90-year performance record as a specialist in supplying indoor comfort equipment for the home.

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B-35

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asks

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Grand Rapids Invisible Sash Balances are sold monthly to the readers of these magazines . . . the bulk of the home-building market.



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Grand Rapids Sash Pulleys

No. 103 face plate, cone bearing type and Nos. 175, 109, 110 sawtooth drive type sash pulleys cover 95% of all sash pulley requirements.



POLITICAL DOUBLE CROSS

Forum:

The questions asked in a letter by veteran Edward Wm. De Laet (FORUM, Feb. '47) have aroused me to seek greater attention at Washington for the veterans' housing plight. Manifestly it is an error of public policy to promise the vets much in the line of housing and then suffer conditions such as he described in Dayton. ("There is no place to rent . . . To get a decent home . . . it would cost me \$15,000 . . . Why have big buildings made such great strides while homes sit uncompleted?")

If this veteran is correct, innumerable others must feel that they are getting a political double cross and that is not good for anybody.

I do not keep close tabs on construction but my impression is that the 1946 record was about \$10 billion compared with the 1947 target of, say, \$12 billion; the 1946 fire loss aggregate was much more than \$1½ billion. I fancy that at least one-third of 1946 building was residential and I understand that at least \$4 billion of the 1947 target will be residential—say 20 per cent multi-family rental units, involving perhaps one million units. This in spite of the fact that the 1946 record was less than half a million units.

With such large figures in the national construction equation and so many unknown variables, it is hard for the lay person to judge the merits of the questions raised by Mr. De Laet. However, it does seem that his questions should obtain serious consideration and I plan to send his letter to the President with a request for study.

The railroads need three million new freight cars, but only 7,000 are built monthly. CPA allows commercial construction which might wisely be suspended pending the nation's attempt to transport its products and house its veterans properly.

FRED BROWN WHITNEY

St. Petersburg, Fla.

BATHROOM BLUES

Forum:

I appreciate your publication of my two houses in the February issue, but must reject as superficial and hasty your advice on the placing of the bathroom. The main entrance is not the door off the nursery, but the one you have marked with an arrow on your published plan. The students have their separate entrance, as has the nursery. The nursery also has a double buffer—wall and wardrobes—between it and the hallway used by students, and also the dining room. With these precautions taken, and having in mind that the day students are occupied in the studio and dining room most of the

(Continued on page 46)

FACE the facts!—



WOMEN WANT

ELECTRIC WATER HEATERS!*

Electric Water Heaters are in demand because they are: (1) SAFE (fumeless, flameless); (2) CLEAN (smokeless, sootless); (3) ADAPTABLE (short hot water lines; no flue or vent); (4) TROUBLE-FREE (as electric light); (5) ECONOMICAL (plenty of hot water all the time at low cost).

That's why it really is "good business" to install a modern Electric Water Heater in every house you build!

*1944 NEMA survey revealed 3 times as many women preferring Electric Water Heaters as owned them at that time!

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A HOUSE WIRED FOR AN ELECTRIC RANGE IS...

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**CAN YOU
AFFORD TO**

**PLAY
OSTRICH?**



Let's face the facts. The houses you build today can haunt you in the future—or they can stand as monuments to your foresight and good judgment.

One way to be sure of a future reputation as good as you enjoy today is to *wire your houses for Electric Ranges!* Surveys among American women can help you look ahead—because survey after survey shows that women want, and intend to have, Electric Ranges in their homes today and tomorrow.

To do the job right requires only: 3-wire service from point of cut-in to the distribution panel; a minimum of two No. 6 wires and one No. 8 wire; a 60-amp. switch with overload protection and a 3-wire circuit from the distribution panel to the range outlet in the kitchen. Make this your minimum wiring specification.

Electric Range Section **NATIONAL ELECTRICAL MANUFACTURERS ASS'N.**, 155 E. 44th St., New York 17, N. Y.
A-B STOVES • ADMIRAL • CROSLEY • ESTATE HEATROLA • FRIGIDAIRE • GENERAL
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TO KEEP THEM MODERN...

wire your houses
FOR ELECTRIC RANGES



Free-standing furring walls installed at lower cost

...with this quickly-erected Milcor system

The Milcor Furring System improves the mechanical efficiency of erecting furring over masonry walls.

Only *two* separate units—the same ones used to build Milcor Solid Partitions—provide the steel to hold the metal lath: (1) a standard runner which is used at both floor and ceiling; (2) a standard channel stud. Confusion in handling materials is eliminated; time is saved.

The lath wall is a structure complete in itself, from floor to ceiling—plastered one side only. It can be placed at any distance from the masonry wall and in no contact with it; clips and ties to the outside wall are unnecessary for ordinary height. This permits using any type of insulation.

Compared with ordinary furring methods, the Milcor Furring System provides lower first cost and greater flexibility, for such purposes as: (a) concealing service piping and ducts; (b) concealing irregularities in masonry walls and other supporting construction; (c) providing a base for a plastered interior finish of different line and contour than that represented by rough or finished masonry; (d) providing fire protection to structural supporting members, ventilating ducts, etc.

F-278A

Consult the Milcor Manual in Sweet's Architectural File, for helpful information on the new Milcor Furring System, and the complete Milcor line of steel building products. Write for bulletin on the new Milcor Solid Partition and Furring System.

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Los Angeles 23, Calif.

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Rochester 9, N. Y.

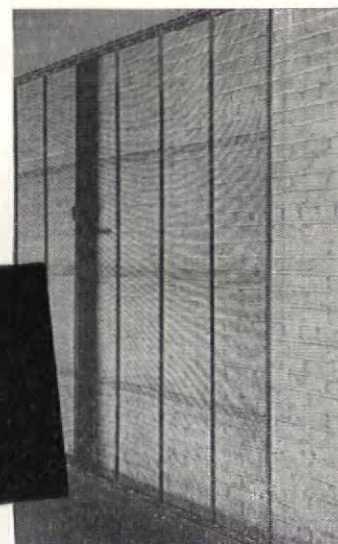
Stub nails, anchor bolts or Rawl Drives secure runners to floor and ceiling.



Special slotted construction permits channel studs to slip quickly into runners.



Metal lath is wired to channels in one operation with ordinary tie wire.



MILCOR

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MODUFLOW

Homes of Distinction
in Beautiful
CLAYTON GARDENS
JOHN C. GROSS - COMFORT UNLIMITED - SALES AGENT
RESIDENTIAL ARCHITECT
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INDUSTRIES

BUILDER:
John C. Gross Construction Company
St. Louis, Missouri

ARCHITECT:
Bernard McMahon
St. Louis, Missouri

HEATING EQUIPMENT:
American Furnace Company
St. Louis, Missouri

ONE of the largest housing undertakings in the St. Louis area since the war is the Clayton Gardens project—125 dwellings, designed by Bernard McMahon to meet the latest standards of living comfort and built by the John C. Gross Construction Company.

Called "Homes of Distinction," these houses, ranging in design from ranch type to Colonial, include such progressive features as interior gardens, built-in radios, accordion-acting leather doors, weatherstripped aluminum windows and *Moduflow*.

It's to be expected that Moduflow would be found in these homes because this heating control system is one of the new features that distinguishes any truly up-to-date home built today. In large homes and small, in community developments and single unit projects, Moduflow has literally "taken hold." And there's good reason for this acceptance. Moduflow puts an end to the drafts and chilly periods caused by intermittent heat supply and instead furnishes heat continuously with the supply always in balance with heat loss. When you specify Moduflow control for the homes of your clients, you're assuring them of the ultimate in heating comfort—a must in every home of distinction.

Minneapolis-Honeywell Regulator Company, 2601 Fourth Avenue South,
Minneapolis 8, Minnesota In Canada: Toronto 12, Ontario.



EXTRA CAPACITY SHE'LL SURELY WELCOME

Wherever you ask, you'll find housewives like Roper's fine selection of cooking tops . . . with a choice of four, six or eight top burners. Other fine features, too. Specify "ROPER GAS RANGE" and you're sure of a splendid reaction. For ROPER is designed to fit into the modern kitchen . . . designed to make your job easier and more effective.

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WITH

*Jewels of Cooking
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- ☀ "STAGGERED" COOKING TOP
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- ☀ "INSTA-MATIC" CLOCK CONTROL



HER FOODS COOK WHILE SHE'S AWAY
... It's Automatic!

GEO. D. ROPER CORPORATION • ROCKFORD, ILLINOIS

time they are in the house, the bathroom was placed where it would be convenient for the day students without disturbance to the nursery . . .

R. M. SCHINDLER, Architect
Los Angeles, Calif.

Apologies to contributor Schindler for a mild criticism which shouldn't have been made at all—Ed.

TECHNICAL REQUEST

Forum:

Mr. Bogdan Teodorovich, an engineer connected with the Ministry of Public Health in Croatia, has appeared at our office to request, in behalf of the technical students in Yugoslav universities, periodicals useful to architects, engineers, chemists and other students.

As you know, Yugoslavia has been the victim of great destruction and faces not only the problem of rebuilding homes, schools and other structures, but also the problem of training those who will build the necessary structures.

NAT. EINHORN
Executive Director
American Committee for
Yugoslav Relief

New York, N. Y.

Readers who wish to contribute may address Mr. Einhorn at 235 E. 11th St., New York—Ed.

EXPANDING CREDIT

Forum:

As much as I appreciate your kind opinion expressed in the February article on the General Panel Corporation, certain rectifications are necessary. Our present stage of development is based on my close cooperation with Mr. Walter Gropius with whom I have worked for many years on this design. Realizing how important Mr. Gropius' contribution has always been to our system, your emphasis on my own work makes me blush.

In connection with the design of the machines of our production line, it is correct that I have designed the layout of the factory, but I have not designed the actual machines.

These machines, jig tables and high frequency roller presses which you mention are designed by Allan Frodsham, our production research man. Having started as a carpenter in his youth, through his remarkable knowledge and talent for mechanical operations, he succeeded in designing all of our equipment. This is perhaps one of the most important contributions in enabling us to reach our present stage of development.

KONRAD WACHSMANN

New York, N. Y.

To prefab-maker Wachsmann FORUM's admiration for becoming modesty—Ed.

(Publisher's Letter on page 50)

SANITATION + ECONOMY + DURABILITY



THESE ADD UP TO— BRADLEY MULTI-STALL SHOWERS

Employee wash facilities, to be complete, require some form of shower convenience, for workers like to leave the dirt and grime of their jobs behind them when the day's work is over. Modern progressive industries, recognizing this need, have selected Bradley Multi-Stall Showers for maximum sanitation, economy of operation and long-life durability. Employers also report that such installations keep necessary wash-up time to a minimum.

One Bradley 5-Stall Shower unit requires only 3 plumbing connections in comparison to 15 needed for 5 "single-stall" units. This simplified installation plus complete absence of corners and dirt-collecting pockets cuts cost of upkeep and janitor detail. Savings are also realized through lower hot water costs made possible by reduced water consumption.

Whether you are building a new plant, modernizing an existing structure or expanding present facilities, Bradley 5- or 3-Stall Shower units can be installed quickly and easily on any kind of floor including wood. . . . BRADLEY WASHFOUNTAIN CO., 2235 W. Michigan St., Milwaukee 1, Wis.

Distributed Through Plumbing Wholesalers
Send today for new illustrated Catalog 4701.

BRADLEY
multi-stall showers

new specs
for far-sighted
planning!



Carey has added cold process built-up roofing for bonded roofs

*i*f you are concerned with new flat roof construction, or with replacement, repair or maintenance of existing roofs, here's important news: A completely developed line of Cold Process Built-Up Roofings is now available from **CAREY**.

IN SHORT, you can get Cold Process Bonded Roofs from a manufacturer who already has more than 50 years experience in Hot Process Roofing. You can count on fast, economical, practical roof construction in areas where Hot Process equipment is unavailable... Cold Process Roofs can be applied on

any type deck (bonded when applied by Carey Approved Roofers) ... no heating equipment necessary, no fire hazard to contend with. These Cold Process Asphalts are suitable for either mopping or spraying application, can be used with either rag or asbestos felts.

CAREY'S vast store of practical knowledge is available to help you solve *any* roofing problem. But even if you have none at the moment you'll want to ...

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... of this information-packed booklet. It contains 35 detailed speci-

fications for **CAREY** built-up, bonded roofs. Eight of its 24 pages deal with the new Carey Cold Process Bonded Roofs. You'll find it handy to have ... a helpful reference book. A free copy is yours for the asking. Address your request to Dept. AF-5.



Carey

THE PHILIP CAREY MANUFACTURING CO., CINCINNATI 15, OHIO

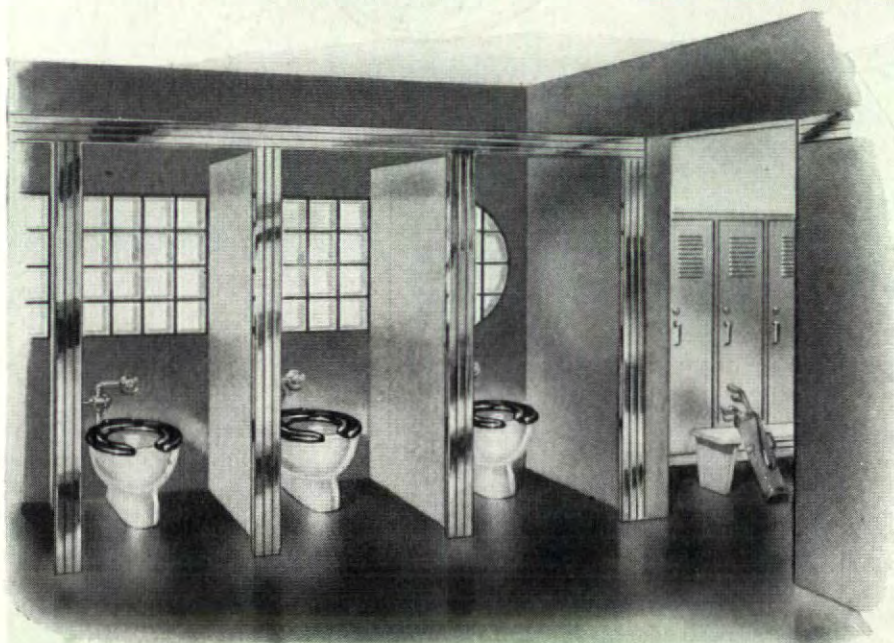
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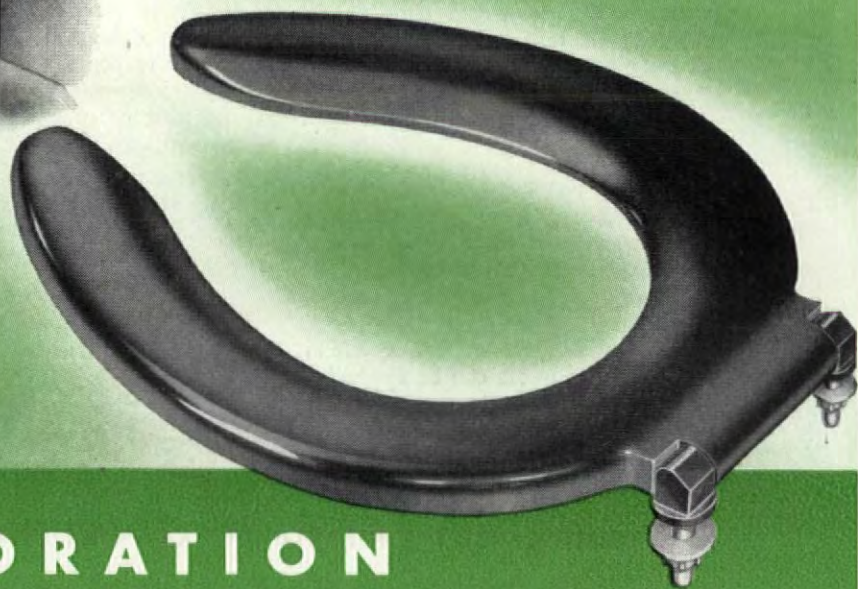


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**Service for Years
Without Replacement
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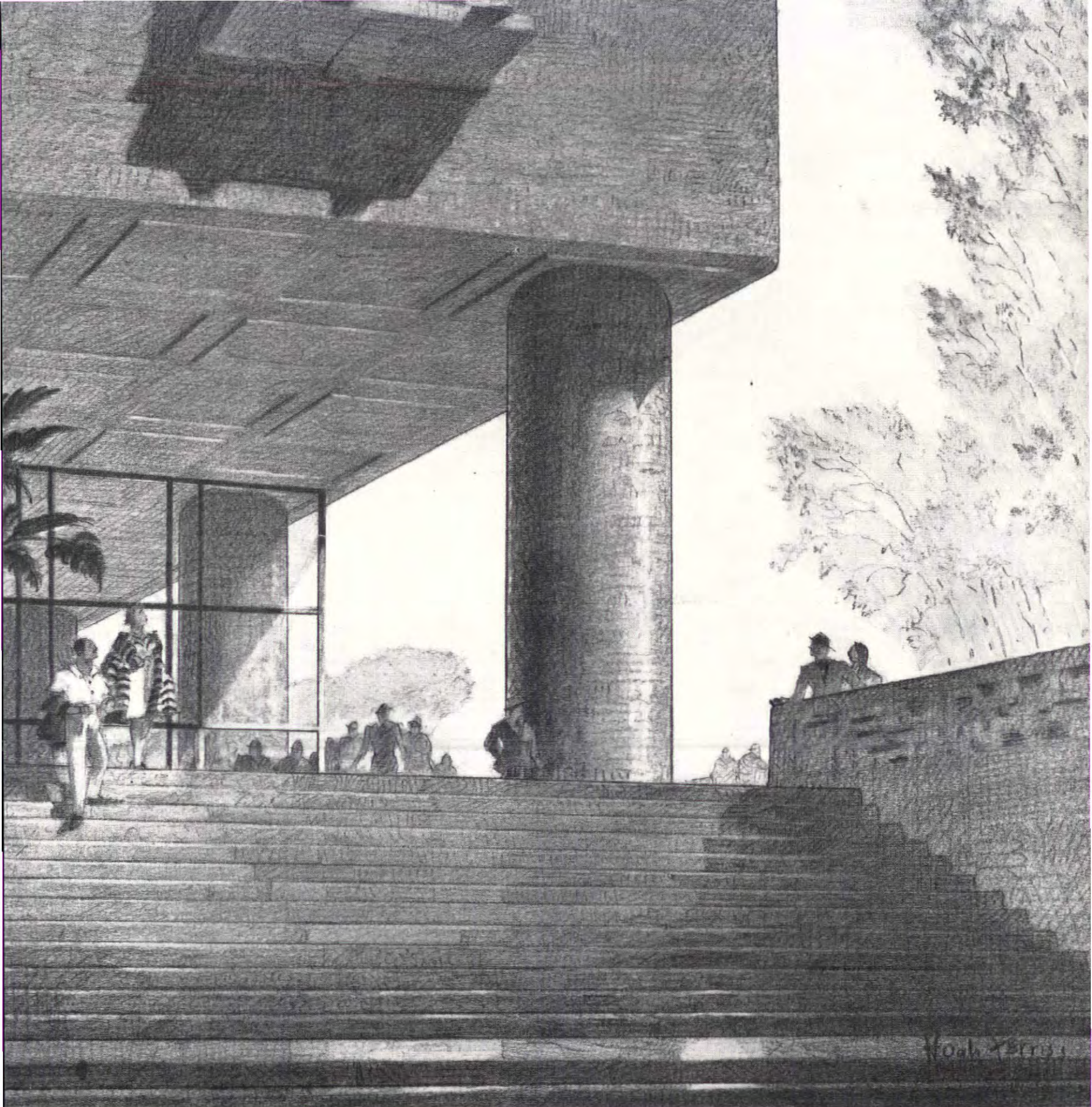


Illustrated at right
Style 523-B Beneke Plastix Seat



BENEKE CORPORATION

Columbus, Mississippi, U. S. A. • Offices in Principal Cities



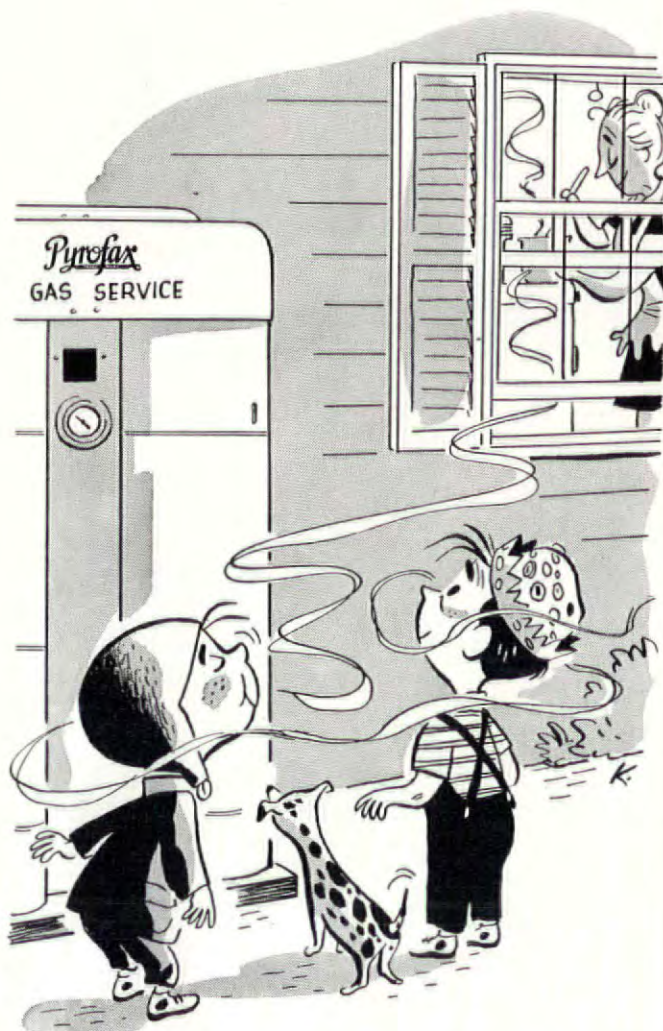
ARCHITECTURAL CONCRETE

How striking design effects may be integrated with the dynamic structural strength of Architectural Concrete is shown in this detail of a building corner and plaza approach drawn by Hugh Ferriss. Any design effect an architect may conceive for apartment houses, schools, hospitals, industrial or office buildings may be produced economically in firesafe, rugged, enduring concrete.

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



Mom is cooking with gas now— **IT'S "PYROFAX" GAS!**

Yes—you can provide gas service in homes you build beyond the gas mains. "Pyrofax" gas service is a dependable, economical, and clean servant to thousands of families. This gas makes it possible to equip any home with modern gas appliances for cooking, water heating, and refrigeration.

Whether you are building or remodeling, your clients will be well satisfied with "Pyrofax" gas service. The easily installed above-ground unit provides continuous service. For complete details see our catalog in Sweet's or write to "Pyrofax" Gas Division, Dept. A-1, Carbide and Carbon Chemicals Corporation, 30 East 42nd Street, New York 17, N.Y.

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TRADE MARK

SUPERIOR BOTTLED GAS SERVICE

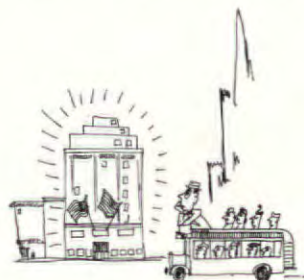


Product of a Unit of Union Carbide and Carbon Corporation.

A LETTER FROM THE PUBLISHER

Dear Reader:

The other day an ex-New York architect came back to see how Manhattan was doing for itself. Versed in the ways of our City, he climbed on top of a Fifth Avenue bus and headed north.



Nearing midtown traffic slowed the bus and our friend had ample opportunity to inspect both sides of the street. Suddenly, he blinked. That unfamiliar building opposite familiar St. Patrick's Cathedral—could it really be new? The sparkling freshness suggested it was, but how, with that good old Triglyph, Metope and Torus. Still looking as the bus drew abreast of the building, he blinked again, shook himself several times and was heard to mutter, "Best damn job of sand blasting I've ever seen!"

This leads rather nicely to the rumor that the Fifth Avenue Association is considering setting up a Board of Experts to pass on architecture before it is mortared into place. Motivation for this committee, as for all of its predecessors throughout the world, is that important thoroughfares or even whole cities must be protected from the inexperienced or the incompetent who might commit aesthetic mayhem.

Such control has long watched over Paris, and certain altogether pleasant sections of London, we understand, are "protected." We have no wish to alter such arrangements. Equally, we have no wish to see our present freedom of design reduced. The U. S.—and if not the whole U. S., certainly New York City—is a melting pot. Its architecture lacks continuity and orderliness, to be sure. But it does not lack virility, for which we maintain Vignola is no substitute.

Granted certain recent additions to Fifth Avenue are, taken alone, deplorable. But "the greatest shopping thoroughfare on earth" rises above occasional vulgarity, a fate to be preferred to the inevitable banality that comes with censorship.

What is true of Fifth Avenue is no less true of our public buildings, whether in New York or, for that matter, the Nation's Capital. Where censorship

rules, the commonplace is never far behind. It is not a matter of good appointments or bad appointments to such a Board. Distinguished men serve with devotion and without compensation but never to the public's long-run gain. Sooner or later every art commission comes to believe that pretension is the symbol of civic virtue.

The above is offered without criticism of the individual—any individual. It is only when such individuals cease to act as individuals but lean into the wind as an official group to pass upon or reject the works of their neighbors that violence is done. Then anonymity and mediocrity rule.



* * *

Infallible are the signs that building is returning, not to normalcy—but returning. The sign we consider most infallible boasts the name of Levitt and Sons. For the benefit of the uninitiated, William Levitt, Brother Alfred and Pere are pace-setting home builders who have, for some years past, operated in and around Manhasset, Long Island. The Levitt story has been told many times in many places, but one facet has been neglected—Levitt's advertising. Without superlatives and, in fact, without tear-jerking sentiments, Mr. Levitt has long practiced the gift of making home ownership sound irresistible—but only if the roof has been nailed down by Mr. Levitt. Above left is a recent example.



To be among the first to explore the newest trick up the Levitt sleeve, a sleeve which incidentally until recently was made of khaki, turn to Page 70.

H.M.

Q. What is the effective technique for insulating the narrow spaces around windows and air ducts?

A. See Balsam-Wool Application Data Sheet Section C No. 1.

Q. What are the thermal resistance values of various building materials?

A. See Balsam-Wool Data Sheet Section A No. 4.



Q. What methods can be used to ventilate flat-roofed construction effectively?

A. See Balsam-Wool Data Sheet Section B No. 5.

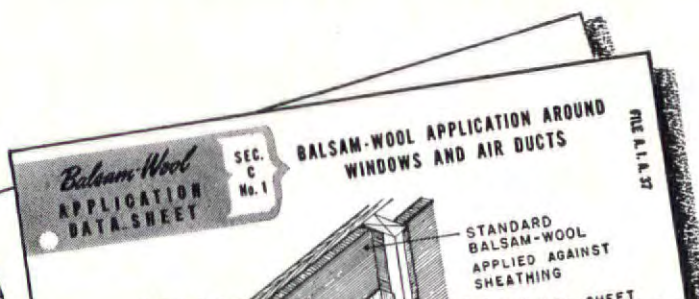
Quick Facts for Busy Architects ... Balsam-Wool Data Sheets

Through its twenty-five years of experience, Wood Conversion Company has collected a wealth of valuable information on applying insulation. This information is embodied in a series of Balsam-Wool Application Data Sheets. These sheets are offered to you without cost or obligation. Mail the coupon for your set!

Balsam-Wool

SEALED INSULATION

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD



VAPOR BARRIER
OVER 5/8\"

FIBER
GLASS

Wood Conversion Company
Dept. 147-57 First National Bank Building
St. Paul 1, Minnesota

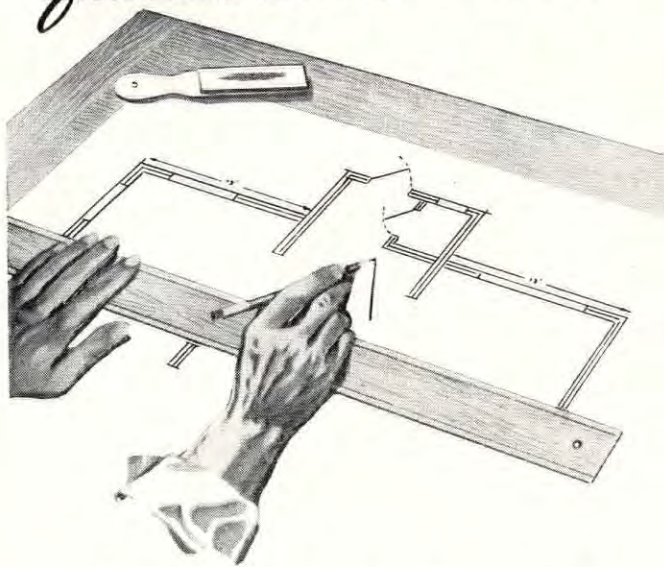
Please send me set of Balsam-Wool Application Data Sheets.

Name

Address

City State

quarter-scale PLANS



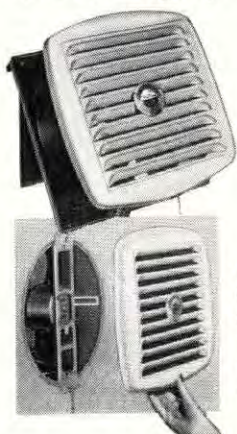
drawn for FULL-SCALE COMFORT

Kitchen fumes and cooking odors don't show up on the blueprints . . . but they do when the house is built and lived in. Architects who recognize that the natural rate of air change is not enough to prevent stagnation, plan for *controlled air circulation* . . . by specifying



VENTILATING Fans

The average size kitchen is freed of cooking odors in a matter of minutes—and stale air drawn from adjoining rooms. Steam-fog and dampness are quickly eliminated from bathrooms . . . soapy vapors from laundries—easily and positively *controlled* without house-chilling, open window drafts.



ATTRACTIVE, UNOBTRUSIVE . . . and quietly efficient!
Model V 1106: cleanly streamlined for smart appearance; powered by the precision-made Victor motor to move 700 cfm; fan and outside weather-tight shutter operate automatically by pulling beaded chain.

WOMEN LIKE THIS FEATURE . . .
Grille is quickly removed for easy cleaning; snaps on and off without tools or tugging.

Write for specifications, or refer to Sweets Architectural 1947 file 29B.

14

VICTOR
PRODUCTS



ELECTRIC
INCORPORATED

2930 Robertson Avenue, Cincinnati 9, Ohio



Believers in "a radical architecture: essential, fundamental, thorough, and underived" are Navy veterans **PAUL SCHWEIKHER** and **WINSTON ELTING**, who bring to the design bench varied backgrounds in painting, architecture and engineering. Their Chicago offices turn out a surprising diversity of commercial and industrial buildings, houses (p. 57), schools and churches.



RAYMOND LOEWY'S most lavish postwar fantasy, outdistancing the front-back Studebaker by a perfumed lily pad, is his own vacation house at Palm Springs (p. 62). This lush structure falls into the category of "specialized building design"—an addition to the already famous services of the huge industrial design office with which Loewy is challenging architects on the home ground.



Born in suburban Philadelphia, **JOHN I. MATTHIAS** has wandered far to acquire his design philosophy that "home is a place for the development of the human being, both physically and spiritually." High points of his exotic itinerary include China, Japan, and a 3½ year wartime swing around the Pacific Theater. Invaluable in solving California's shelter problems (p. 65) is his study of Oriental architecture.



LEVITT & SONS are the Manhasset, L. I. developers (p. 70) who promise that when the public wants modern, Levitt will build it. At present their eyes are firmly fixed on cute but lucrative colonial cottages. The company, strictly a family affair, was founded by father Abraham in 1929, is now headed by sons William (left) and Alfred (right), respectively president and vice president.



HARRISON GILL and partner **MARIO BIANCULLI** each boast dual training as architect and engineer. Bianculli has been widely recognized for his contribution as principal architect for famed TVA, while Gill has attained prominence for his house and metal craft designs. Their prototype design was the basis for the Burlington Library in Tennessee (p. 78).



MORRIS LAPIDUS is one of an increasing number of New York architects who are solving the space problem with old-fashioned brownstones. Lapidus' new offices (p. 89) have replaced a Victorian facade with a "shadow-box" front, represent the flowering of his independent practice since its start in 1943. He was formerly associated with Ross Frankel, specializing in store design.



G. MCSTAY JACKSON, who redesigned his own spacious offices on Chicago's Michigan Boulevard (p. 92), combines architecture and product development, is an exponent of modern organic art as it applies to all fields of industrial design. Study in the U. S., Canada and England preceded the last fifteen years spent as head of his own Chicago firm.



Architect and Industrial Designer **ALEXANDER GIRARD** was born in New York, has lived in Italy and England, and studied architecture in all three habitats. Among his design souvenirs are the International Detrola Corporation Radio Plant (complete remodeling), offices for the Ford Motor Company and his own attractive headquarters (p. 94).



The collaboration of **WILLIAM LESCAZE** and **ROBERT L. DAVISON** to develop a new lightweight wall system (p. 97) brings together the diverse backgrounds of Zurich, Switzerland and Waterloo, Iowa. Lescaze, famed Swiss-born American architect, studied under the great Karl Moser in Zurich. Davison, former Research Director of the Pierce Foundation, has specialized in prefabrication.

The PLANNING BOARD



The Truscon Planning Board says: "Right now, April 15, our shipping schedules read like this: Series 46 Double-Hung Windows, 12 to 14 weeks; Reinforcing Bars, 4 to 6 weeks;

Light Tube Doors, manually operated, 10 to 12 weeks; Structural Doors, manually operated, 12 to 14 weeks; shipments of doors with motor operators are contingent upon our ability to secure electrical equipment. Keep in touch with the Truscon sales representative in your district for latest information."

Big, Big Steel Windows

Recent expansion operations at the State Capitol Building, Tallahassee, Florida, included the exclusive use of Series 46 Truscon Double-Hung Steel Windows in large sizes. These windows permitted the generous introduction of Florida sunshine and fresh air into the structure, while helping enhance the architectural design of the building.

The Series 46 Double-Hung Steel Window is designed especially for use in important office and public buildings or for openings where Underwriters' label of approval is

State Capitol Building, Tallahassee, Florida



Write for new catalog giving complete mechanical and installation details of the Series 46 Truscon Heavy Double-Hung Steel Windows, together with the data on the entire line of Truscon

Steel Windows and Industrial Steel Doors.

For Better Reinforcing

Truscon Steel Bars for reinforcing are applicable to a wide range of concrete work, such as concrete slabs, beams and girders, columns, walls and footings; in the construction of buildings, bridges, tanks, and all other concrete structures subject to tension and compression stresses.

These concrete reinforcing bars are special rolled sections of high grade steel, with a series of longitudinal and diagonal ribs so designed as to provide the maximum bond with the surrounding concrete.



Truscon Reinforcing Bar

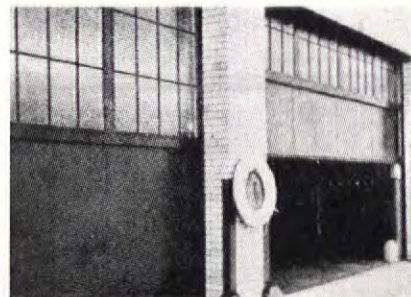
Truscon concrete bar fabricating plants are strategically located throughout the country in order to economically serve our customers. Bars are fabricated in these plants to meet the engineering requirements of individual jobs. They are delivered to the job cut to length, bent, bundled and properly tagged. If desired, our engineering department furnishes completely detailed placing drawings for the convenience of the steel erectors. Write for details.

Truscon Steel Company Announces Purchase of Knapp Brothers Plastering Accessories

Truscon Steel Company announces the purchase of that portion of Knapp Brothers Manufacturing Company's facilities developed for the manufacture of Bull Nose and Scalloped Edge Corner Beads, Special Base Grounds and Screeds, Picture Mold, Casings, Fittings and other plastering accessory items. The equipment and dies are being moved from Joliet, Illinois to Youngstown, Ohio and it is expected that production on these products will begin within the next six to eight weeks. Knapp Brothers have been manufacturing Plastering Accessories and Trim for approximately forty years and have an excellent reputation for quality products both in the architectural and building fields. This standard of quality will be continued. The acquisition of these products from Knapp Brothers Manufacturing Company will give Truscon Steel Company a more complete line of plastering accessories to supplement their present line of metal lath items.

Steel Doors for Every Industrial Purpose

Give serious consideration to the in-and-out and interior traffic problems of the structures you are designing, for you can do much to



speed the efficiency of traffic movement with the proper doors.

There's a range of Truscon Steel Doors to meet every type or size needed in any type of structure, from 2' 7 3/8" swing type for residences, schools, stores, etc., to great mechanically operated doors for airplane hangars with openings of hundreds of feet in width. The types include swing and slide industrial doors, two-section vertical lift doors, two-section turnover doors, accordion doors, crane and canopy doors, pier doors and hangar doors. Write for details.



New Literature

A new catalog describing Truscon Steel Joists, Steeldeck Roof, Metal Lath, Concrete Bars and Reinforcing now is ready. Write for your free copy today.

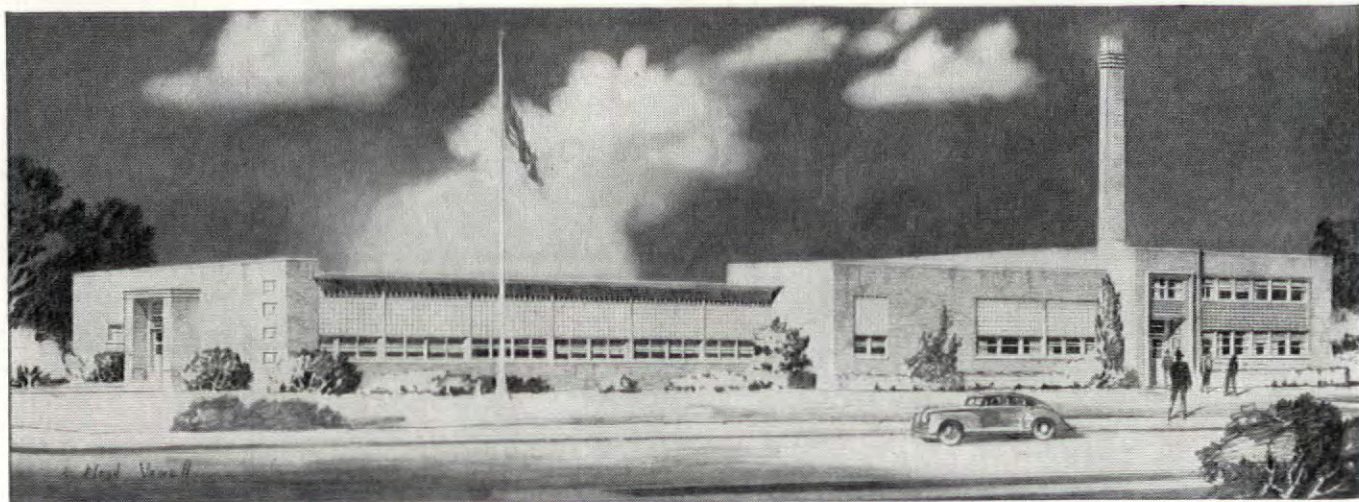


TRUSCON STEEL COMPANY

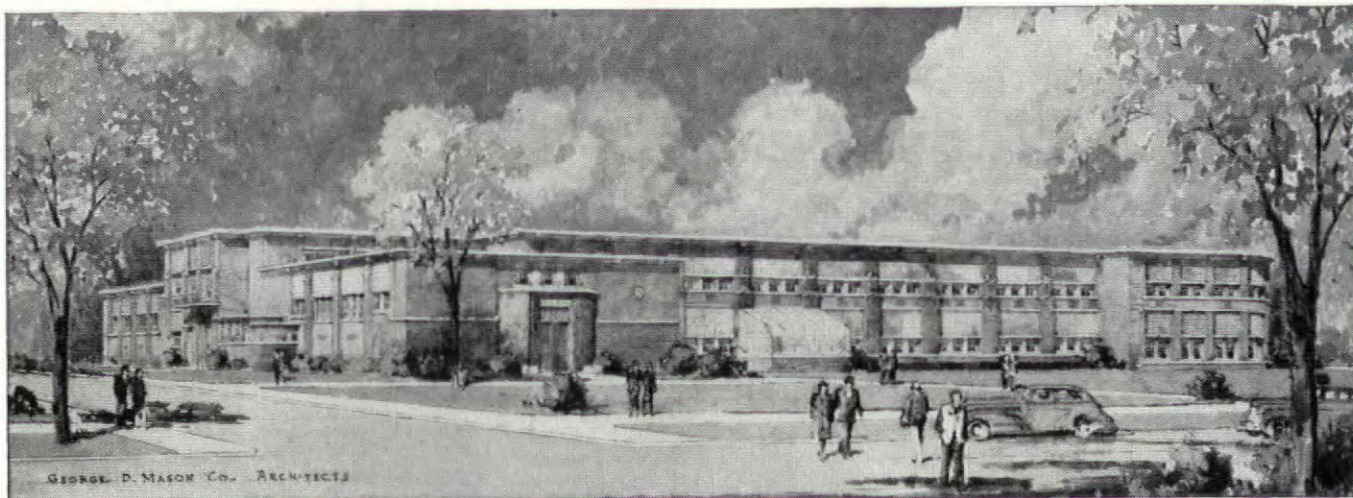
YOUNGSTOWN 1, OHIO

Subsidiary of Republic Steel Corporation

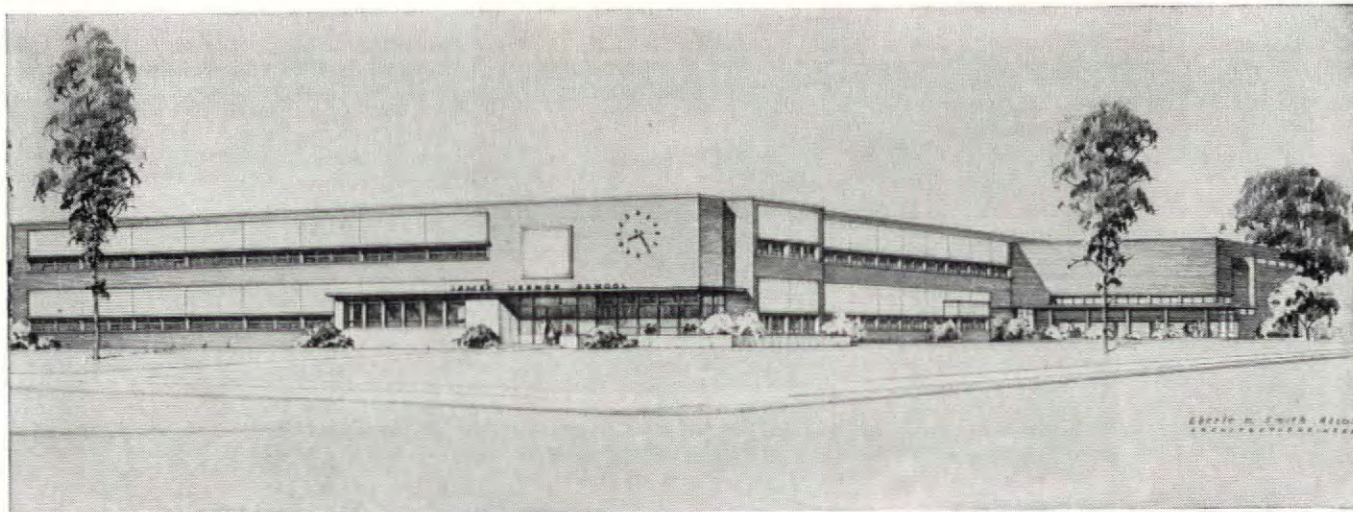
New Detroit schools use advanced



*Ann Arbor Trail Elementary School
N. Chester Sorensen Company
Joseph Peter Jogerst, Architects and Engineers*



*Dr. Zina Pitcher Elementary School
Geo. D. Mason & Co., Architects*



*James Vernor Elementary School
Eberle M. Smith Associates, Architects-Engineers*

methods to insure quality lighting

More Uniform Task Brightnesses Throughout Classrooms —Lower Brightness Contrasts in Child's Field of Vision Made Certain by Scientific Use of Daylight

New and improved methods of using daylight for classroom lighting are being built into a group of new schools in the City of Detroit. Designs are by some of the leading architectural firms in Detroit under the supervision of G. L. Schulz, Director of Building, Detroit Board of Education.

Low Brightness Contrasts. In the schools pictured here and in others still in various stages of design, the brightness of the light-transmitting source has been reduced and the effectiveness of the light source has been retained through scientific direction of daylight.

The result is less interfering brightness to be tolerated and higher brightnesses above eye line to be utilized—a higher ratio of useful brightness to tolerated brightness. This means lower contrasts than are typically found in schools—the lowest contrasts that have yet been obtained through daylight utilization—approximating those recommended by lighting authorities.

Predictable Task Brightnesses. Through the medium of prismatic glass block, daylight is transmitted into the classroom and redirected upward toward the ceiling and upper half of the room. Task brightnesses near the window are reduced. Task brightnesses farthest from the windows are increased. Diversity in task brightness from desk to desk across the room is reduced.

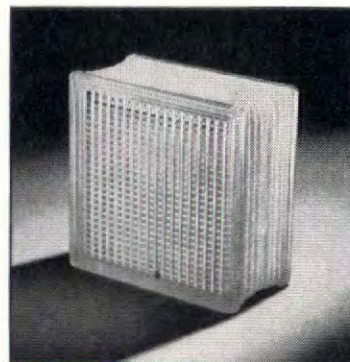
And the actual results are now predictable. It is possible to design a school classroom with prismatic glass block and forecast task brightnesses, wall and ceiling brightnesses and brightnesses of the fenestration itself for any condition of outside lighting.

Visible areas of bright sky are greatly reduced and dependence on manual regulation of light-transmitting areas is minimized.

To make the job complete these new schools are employing up-to-date techniques in artificial lighting and interior decoration and treatment. Scientific use of daylight does not minimize the need for good artificial lighting or good interior treatment. Furthermore, the new principles of lighting employed in these schools have been adapted to well recognized and well established standards of classroom design.

The result is good functional architecture—planned to give the child the best seeing environment possible, and to secure all that good lighting can contribute to his health and educational growth.

Insulux prismatic block No. 351 has been developed for accurate daylight control. The pattern, utilizing the four faces of the block, turns light upward. The ceiling acts as a huge reflector to re-direct light downward.



Now Available for the First Time...

New Comprehensive Data on Daylight Applied to Classroom Design

Anyone familiar with the problems of daylight use will recognize the accompanying predictions of daylight utilization in these schools as little short of revolutionary.

These are not just pleasing generalities. All of these factors of quality lighting have been measured and evaluated by recognized lighting authorities. The background information has been correlated and adapted to standard classroom design by the Owens-Illinois Glass Company.

Almost all of this information is original unpublished work, now available for the first time. It will give the architect the design data he needs, and will answer a multitude of questions on interior brightnesses and brightness contrasts. This information will be sent in reply to your letter, or, for convenience, use the coupon.

**OWENS-ILLINOIS GLASS COMPANY,
Insulux Products Division, Dept. D-17
Toledo 1, Ohio**

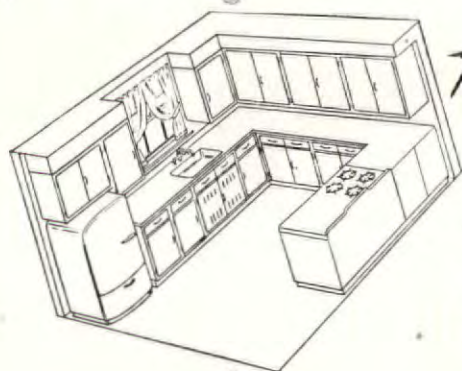
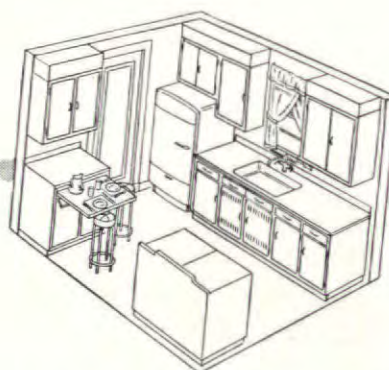
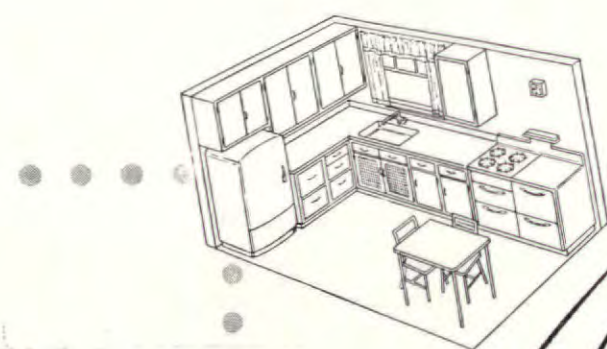
Gentlemen:
Please send me information on school lighting.

Name _____

Address _____

City _____ Zone _____ State _____

OWENS - ILLINOIS
INSULUX
GLASS BLOCK



Any

size or shape of kitchen
can be a Curtis Kitchen!

Unlimited flexibility in planning kitchens of any size or shape—that's why Curtis sectional kitchen cabinet units help you provide kitchens which fit the owner's needs *exactly*.

There are 21 basic unit types of Curtis wall and counter units—and a total of 75 sizes, not including special cabinet accessories. Yet all dimensions of units are standardized to fit in with other standard kitchen equipment—and all Curtis units fit together to present a modern, streamlined and handsome appearance.

Naturally, Curtis kitchen cabinet units are made of *wood*—for Curtis' experience with thousands of individual kitchens has shown that wood cabinets provide *lasting* satisfaction. All units are furnished prime coated—ready to finish in any color to suit the owner's taste and preference. Let us send you our new 24-page color book "It's Fun to Plan Your Own Kitchen"! Or see your Curtis dealer soon for your copy. Modern, beautifully styled hardware is furnished for each cabinet, to be applied on the job.

Curtis kitchen units are designed and constructed to permit installation with the minimum of labor. Expert machining and workmanship produce units which, when bolted together, are firm, square, and perfectly aligned. These cabinets are made like fine furniture—with a combination of quality features found in no other type of cabinets, but true of all Curtis Woodwork for over 80 years. The kitchen here shows a typical installation of Curtis stock wood cabinets.



CURTIS COMPANIES SERVICE BUREAU
AF-5K Curtis Building, Clinton, Iowa

Gentlemen: Please send me your new color book on Curtis Wood Kitchen Cabinets.

Name.....

Address.....

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

I am ☐ Architect, ☐ Contractor, ☐ Prospective Home Builder, ☐ Student.
(Please check above)

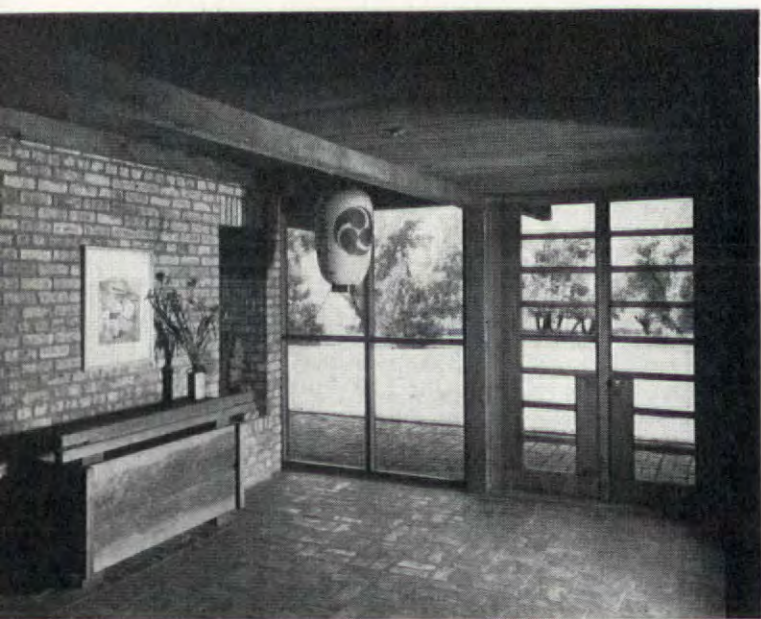
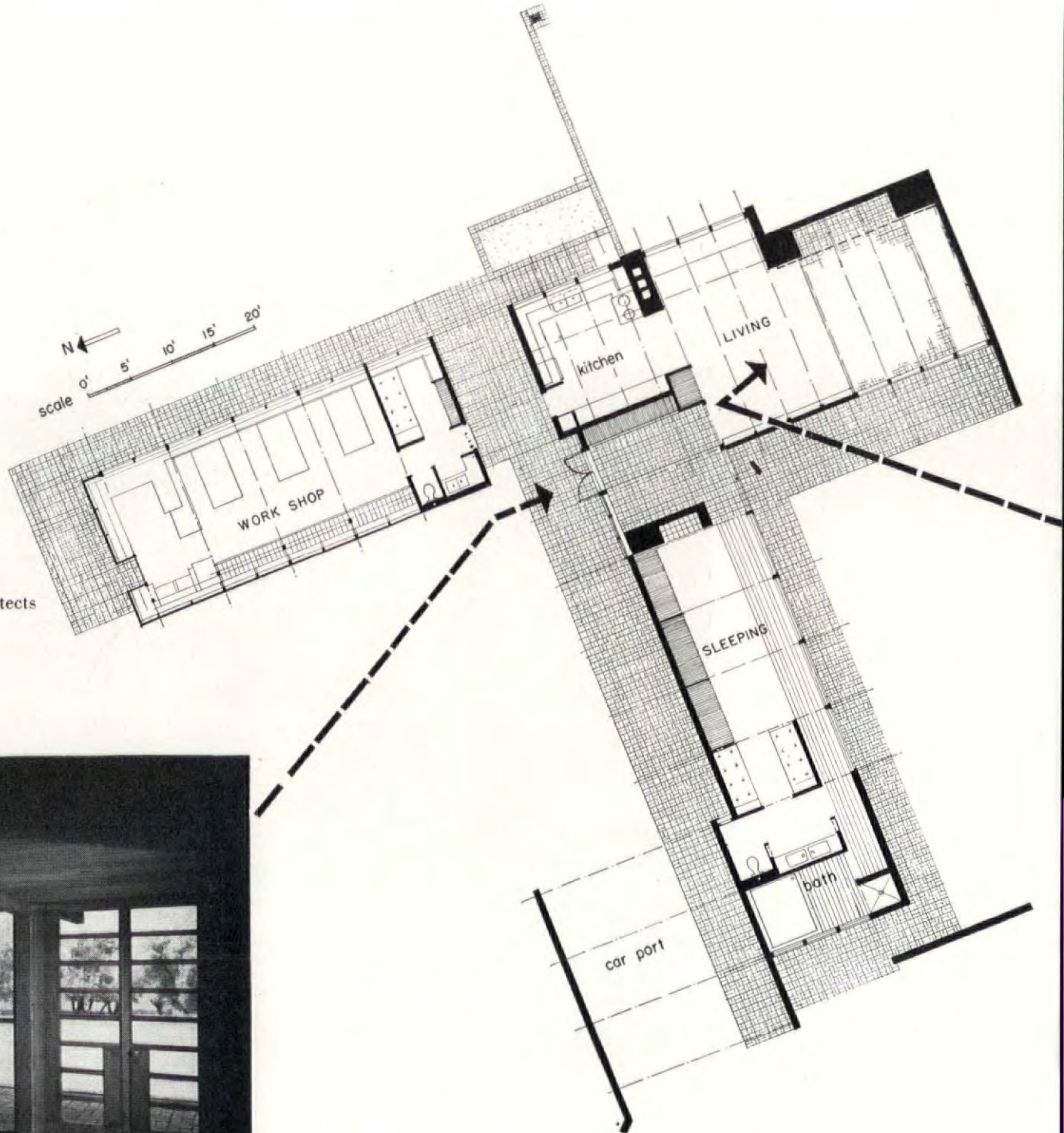
The Architectural **FORUM** Magazine of Building



BOLD HANDLING
OF SIMPLE MATERIALS
MARKS ARCHITECT'S HOUSE
AND OFFICE

Photos by Hedrich-Blessing Studio

HOUSE NEAR ROSELLE, ILL.
PAUL SCHWEIKER, Owner
SCHWEIKHER & ELTING, Architects

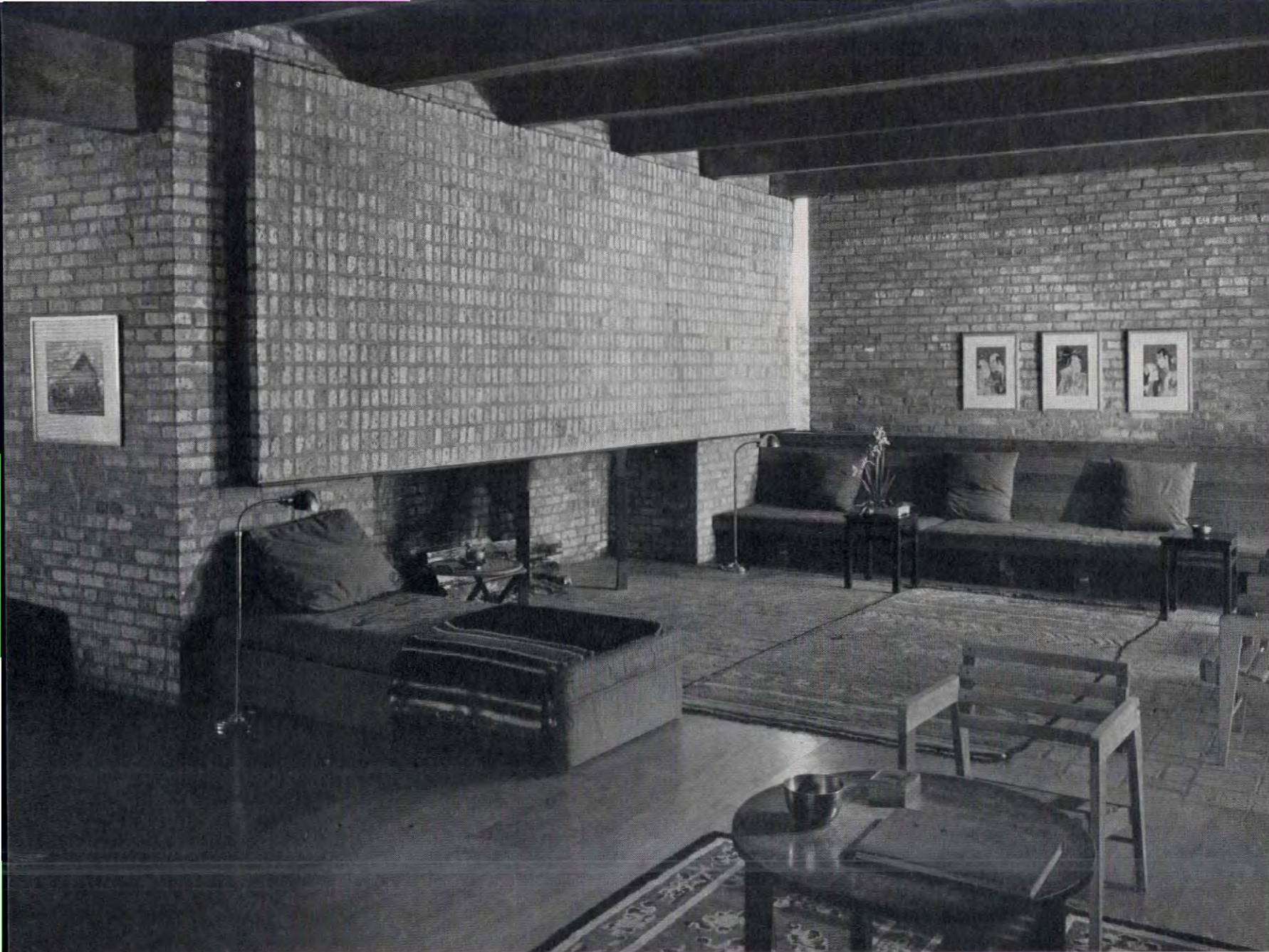


BRICK AND WOOD HIGHLIGHT TREATMENT THROUGHOUT

House in rural Illinois features a plan



LIVING AND SLEEPING WINGS EMBRACE A GRAVEL COURT WHICH PROVIDES FOR SHELTERED OUTDOOR LIVING. ALL TREES WERE IMPORTED



LIVING ROOM BOASTS AN ENORMOUS FIREPLACE. HEARTH REPEATS BRICK OF WALLS. CEILING BEAMS ARE CALIFORNIA REDWOOD

of marked simplicity vigorously translated into structure and detail

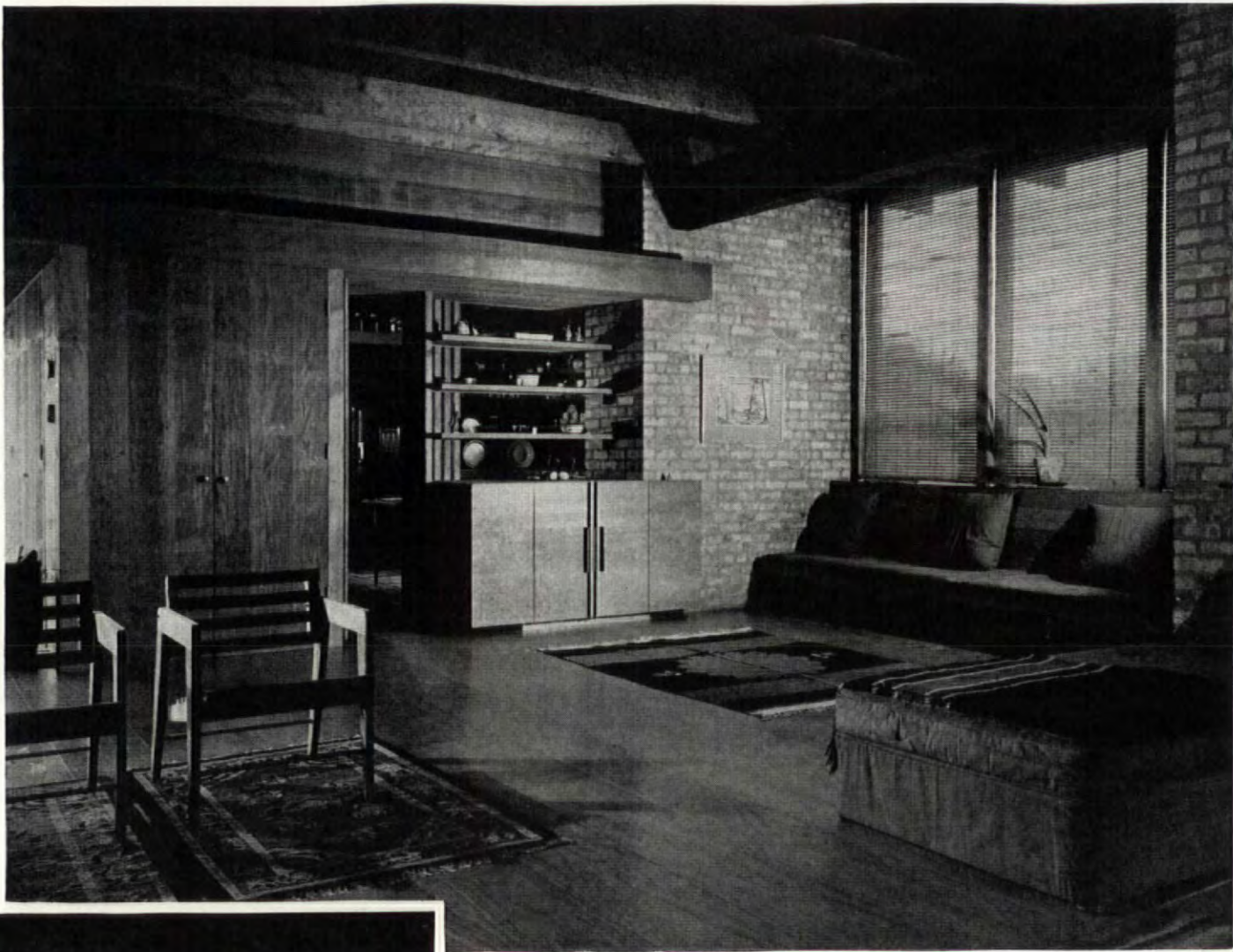
The thorough integration of plan and structure which characterizes this house is what happens when the architect builds for himself.

The site contains $7\frac{1}{4}$ acres sloping gently down to a small stream that runs parallel to the north boundary. The property is in the heart of farming country, seven miles from the nearest town and twenty-seven miles from Chicago. The house site is back about 500 feet from the road with the driveway approaching its northwest corner. The living area is oriented to the west, the bedroom wing to the south. A narrow brick terrace within the L of these two wings forms two sides of a gravel courtyard which is screened on the south side by a dense planting of arbor-Vitae. This creates a generous outdoor living space, sheltered from the wind, and, since the view to the south is blocked by the hillside anyway the planting is logical. The west end of the court however, is open to the view, with ground cover and low growing conifers separating it from the lawn beyond.

The plan, is an open one with free interpenetration of space though

completing the distinction between the working, living and sleeping areas. Only the office wing is definitely segregated to the north of the house. Both the bedroom and living room are flanked by a gallery whose glass wall overlooks the terrace and courtyard. The dining area which faces east over the fields is a part of the living room adjacent to the kitchen. The beds occupy a small alcove which can presumably be closed off to keep the larger dressing space warm. The bathroom is copartmented and has a large sunken cyprus tub in the oriental manner.

Heavy timber construction was used with 4 x 6 posts and 4 x 12 joists at four and eight foot intervals. The exterior finish is California redwood siding with the joints covered by 2 x 2 batten, vertical and horizontal. Common brick used for the chimneys is carried to the interior for certain wall and floor areas. All fabric used for upholstery is of neutral brown or tan shades. Bright rugs, mostly Indian, furnish the color accents.

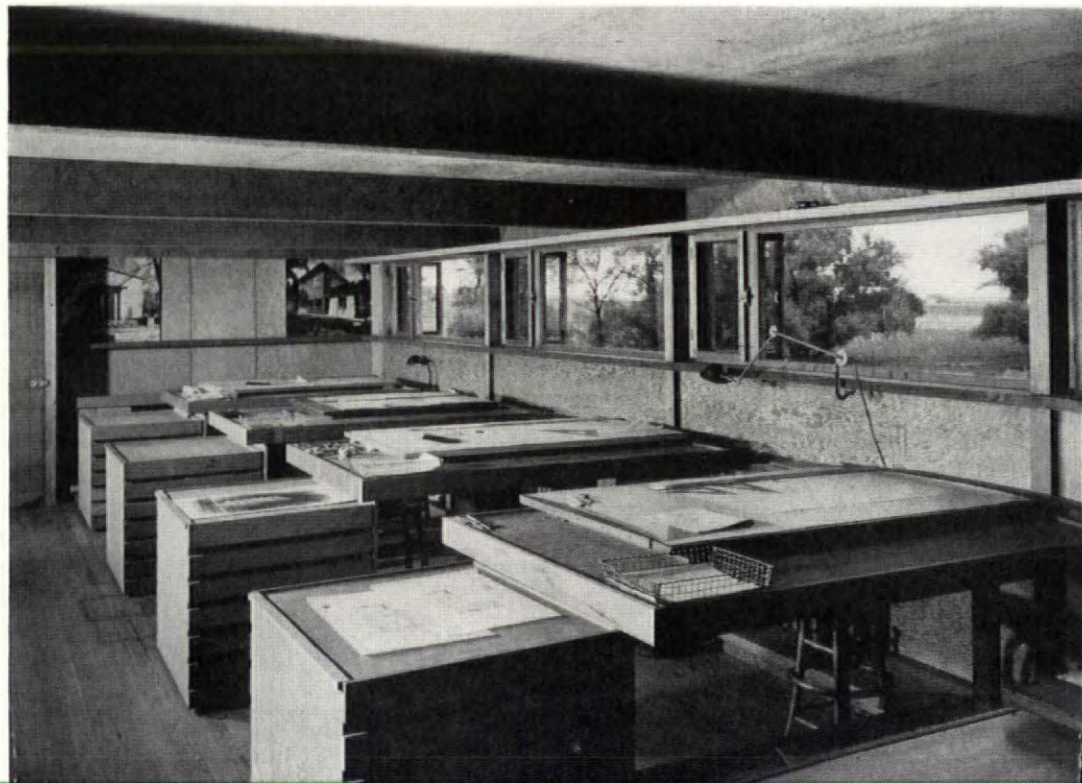


OPEN SHELVING IS USED TO SEPARATE THE LIVING ROOM AND KITCHEN

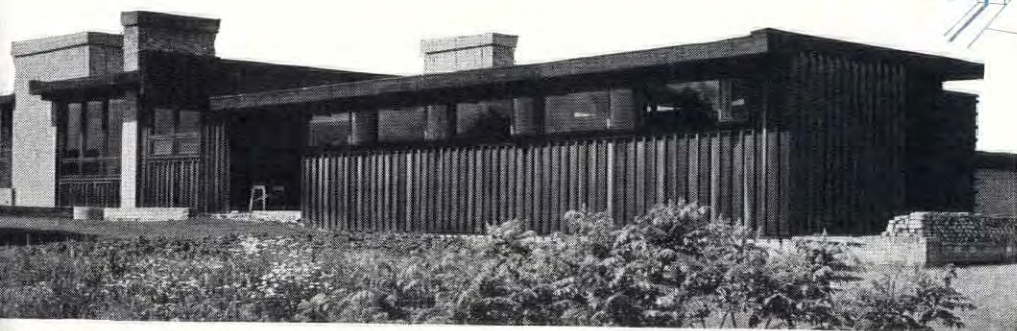
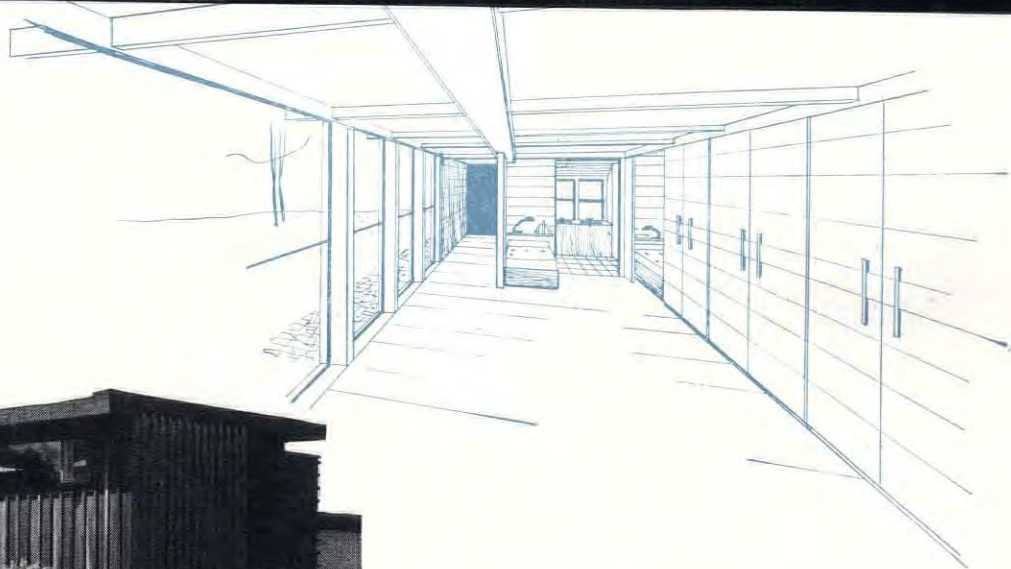
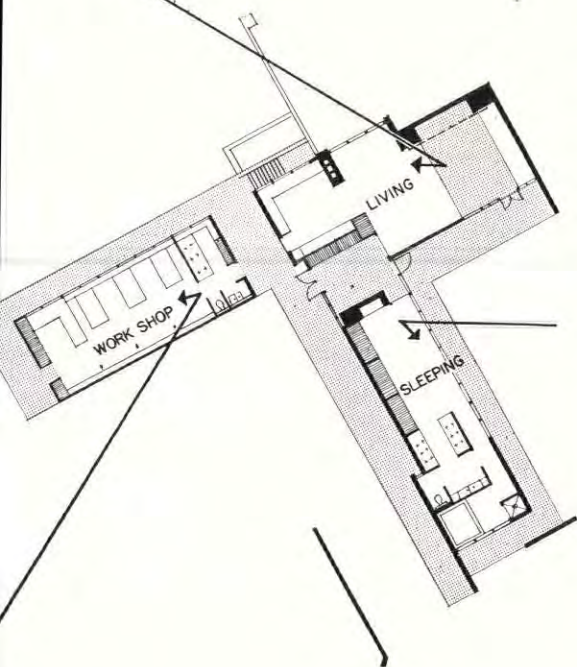


BOOKCASES ARE BUILT BETWEEN POSTS

DRAFTING ROOM AND OFFICES OCCUPY ISOLATED WING, GIVING FAMILY PRIVACY



BEDROOM HAS SLEEPING ALCOVE,
WINDOWS ALONG ONE WALL,
CLOSETS ALONG THE OTHER



BREEZEWAY SEPARATES OFFICE WING FROM THE LIVING PORTION OF THE HOUSE

Desert house blends drama and serenity, glamor and simplicity

HOUSE IN PALM SPRINGS

RAYMOND LOEWY, Owner and Designer

CLARK & FREY, Architects

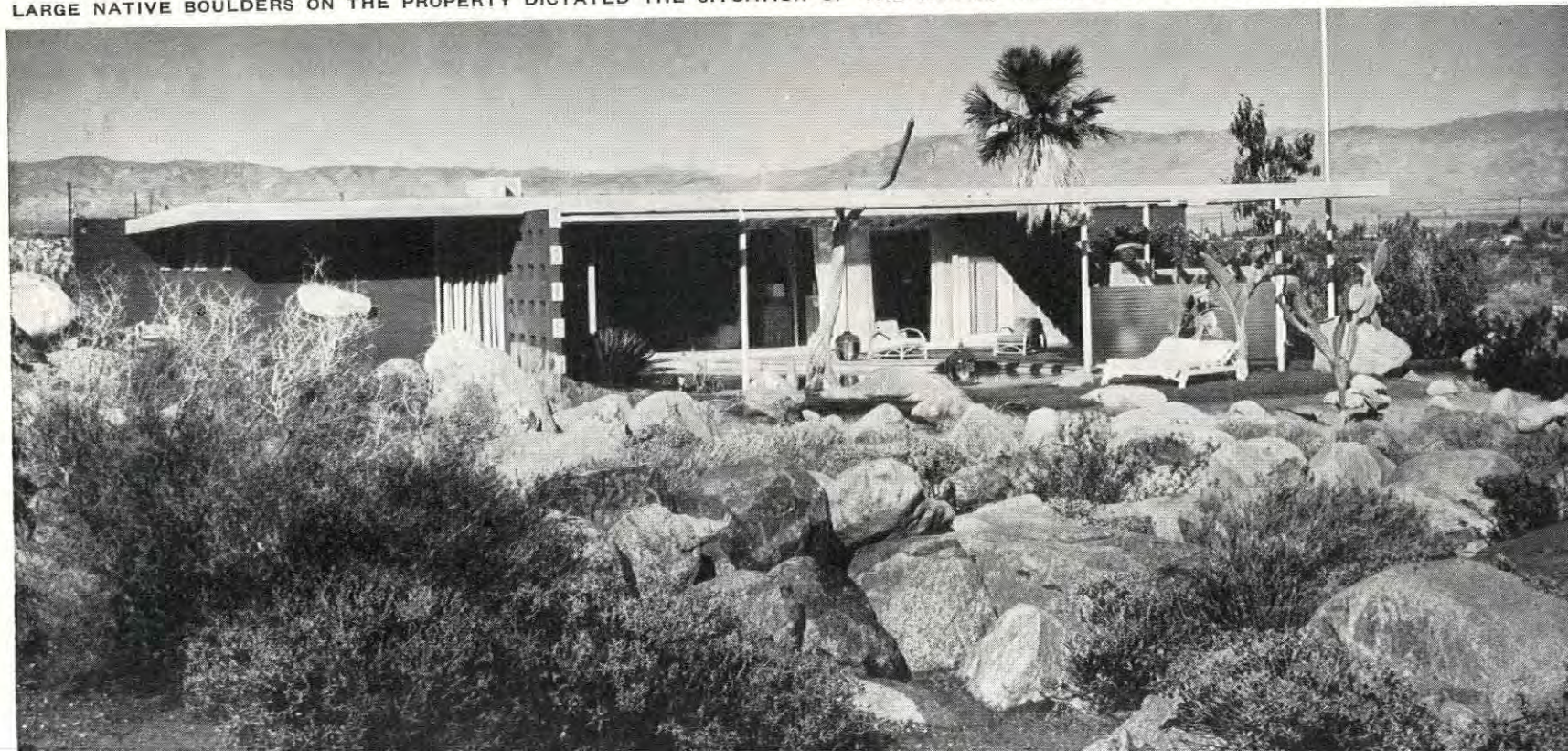
WAALE-CAMPLAN CO. & SMITH, INC., Contractors

Of Industrial Designer Raymond Loewy's many hobbies, houses have always been closest to his heart. But whereas he used to go around picking up old mansions that intrigued him—a hunting lodge in Rochefort-en-Yvelines, a resort house in St. Tropez on the Riviera, "Sands House" at Sands Point, L. I.—in recent years he has discovered that there is far more thrill in building than in buying. First came a glamorous house in Mexico (recently sold), then this desert retreat which is his latest, but probably not his last, experiment. Intended as a vacation house, Loewy wanted "Tierra Caliente" (Warm Earth) to be small, compact and easily maintained with one servant. He also wanted privacy without sacrifice to climate or scenery. Despite the apparent wildness of the setting, land in this region is zoned in a checkerboard pattern, with every other lot retained as an Indian reservation. Since the Loewy property measures only 180 by 330 ft., the contingency of future neighbors close at hand had to be considered. The L-shaped building faces south with a screened, semi-circular patio to the east. An egg-crate pergola joining north and west wings completes the square. Wherever practical, light perforated or semi-opaque materials were used to soften the transition from house to desert.



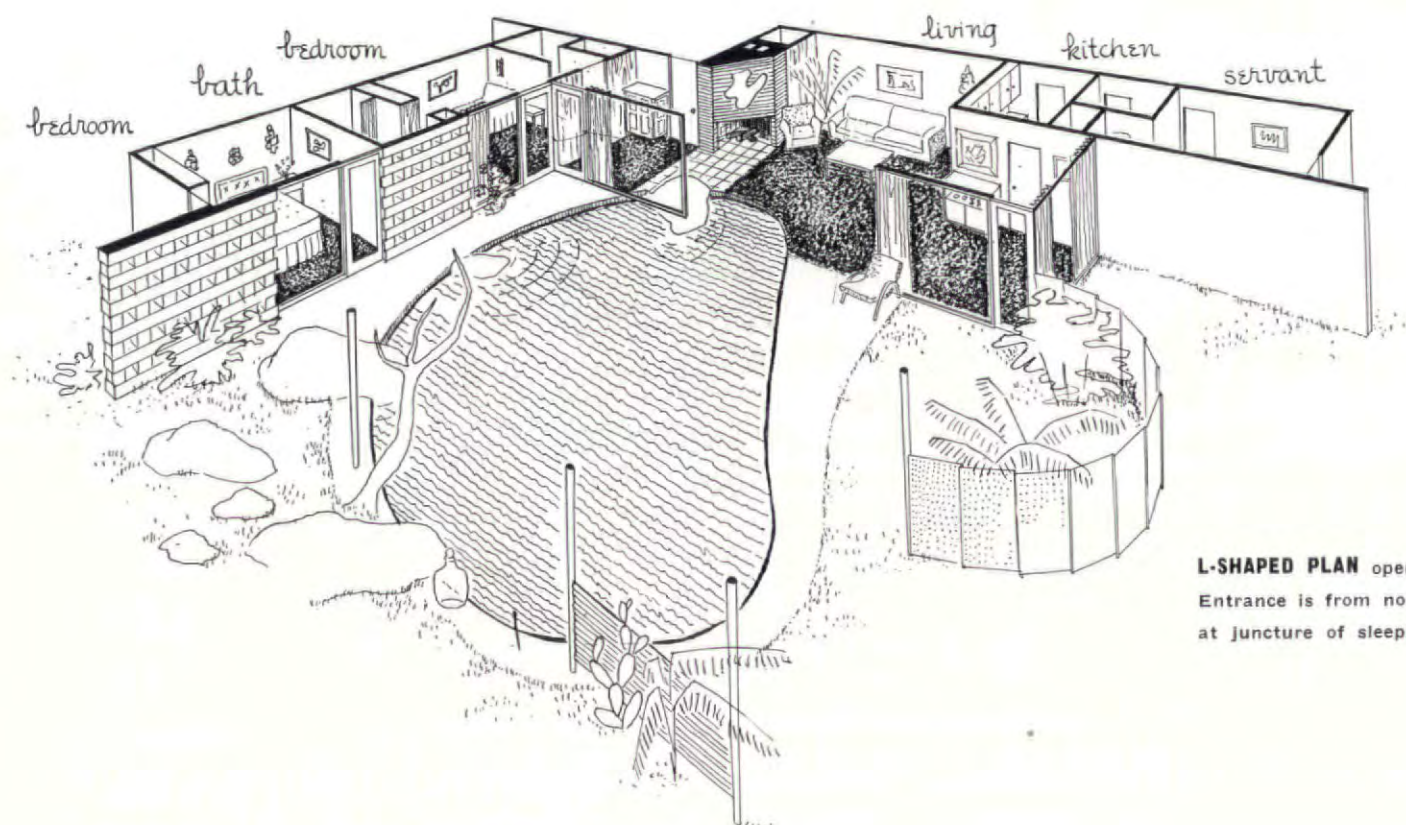
HOUSE IS BUILT AROUND A SHALLOW SWIMMING POOL WHICH

LARGE NATIVE BOULDERS ON THE PROPERTY DICTATED THE SITUATION OF THE HOUSE, PREDICATED ITS SHAPE AND ARRANGEMENT





ACTUALLY PENETRATES THE LIVING ROOM. ITS REFLECTION OF SOFT DESERT COLORS AND WEIRD CACTUS SHAPES IS OF IMMENSE DECORATIVE VALUE



L-SHAPED PLAN opens to south and east. Entrance is from north site through foyer at juncture of sleeping and living wings.



FOYER and living room are carpeted to edge of pool which has a removable guard rail. Two glass panels slide toward center, rest on boulder to enclose living room. In addition, a clear plastic insert can be fixed below water level to seal room completely. Natural Salton Sea stones, highly polished, are used as decorative "free forms" above fireplace and living room cabinet, also on the exterior.



BEDROOMS open directly to pool. Pierced wall along inside of west wing is of pecky cyprus which is also used extensively as an interior finish. Other materials are concrete slab painted chocolate brown, champagne colored brick and corrugated aluminum. Pergola is pierced at two intervals by tall trees. Shape of pool was determined by the location of boulders. It has submarine lighting, filtered, constantly—flowing water.

Photos by Julius Shulman



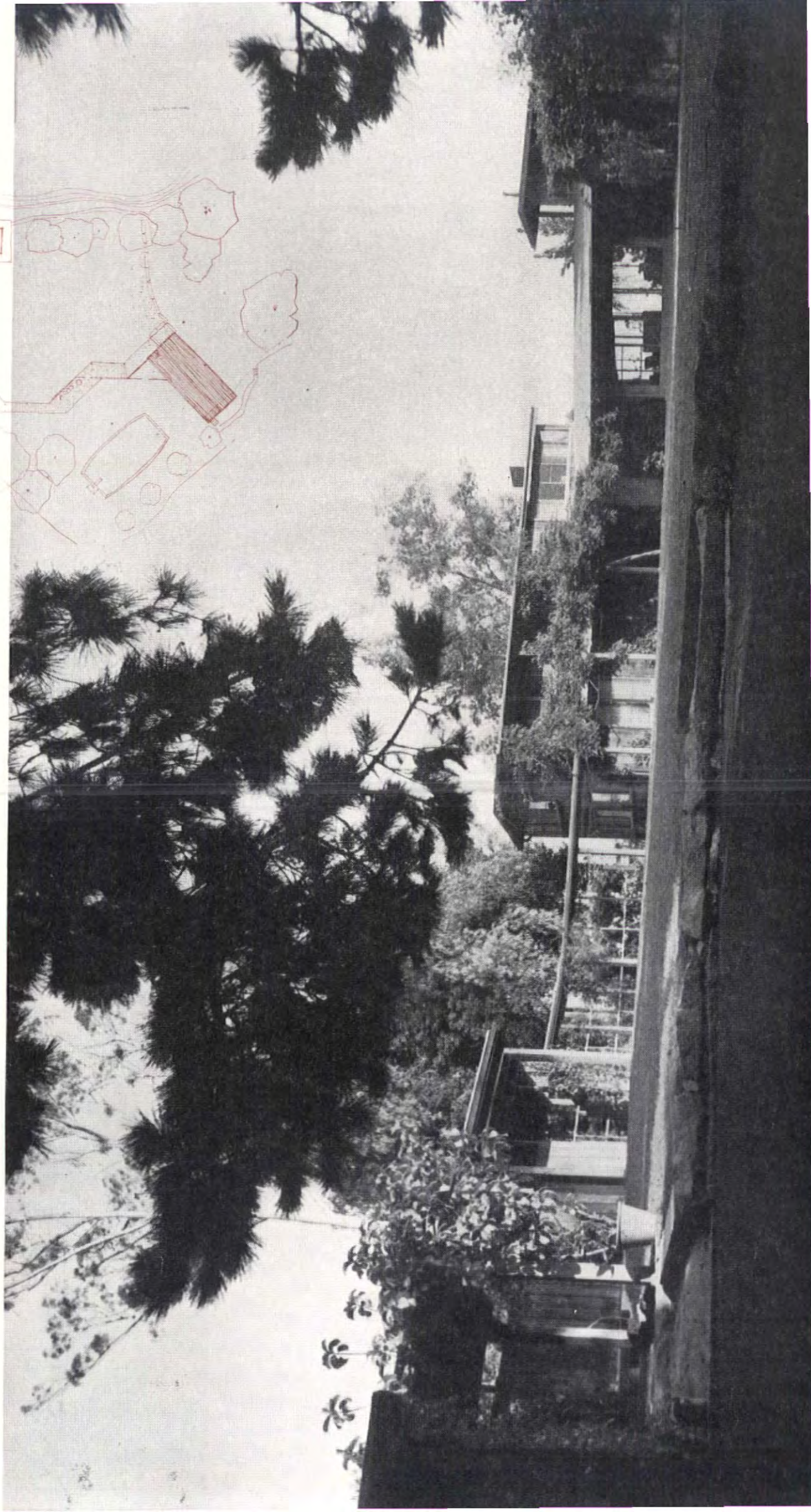
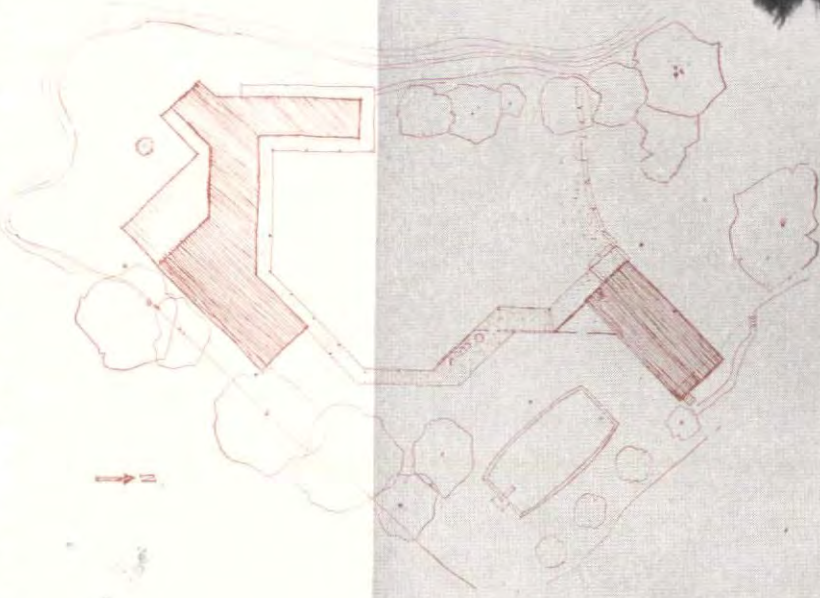
California House, built on the bench of an old gravel cut, achieves unusual graciousness through a leisurely sprawling plan.

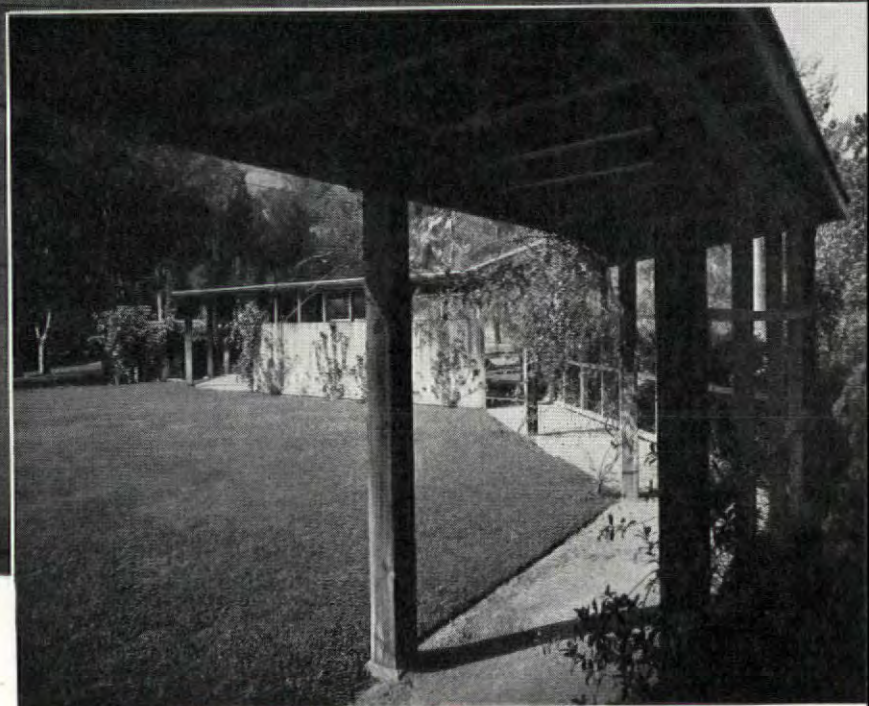
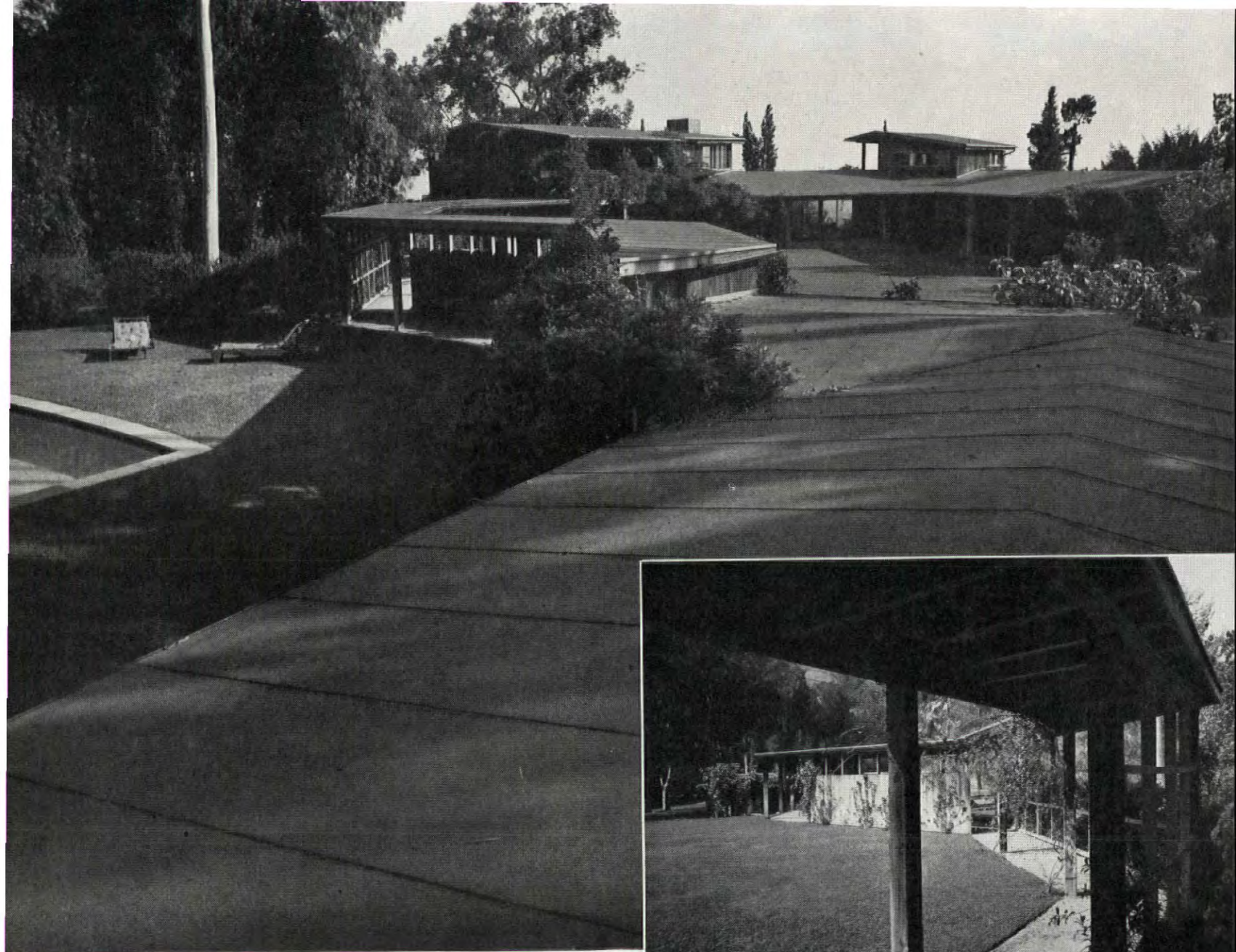
HOUSE IN SIERRA MADRE, CAL.

C. G. WILLIS, Owner

JOHN I. MATTHIAS, Designer

EARLE HUGENS, Contractor



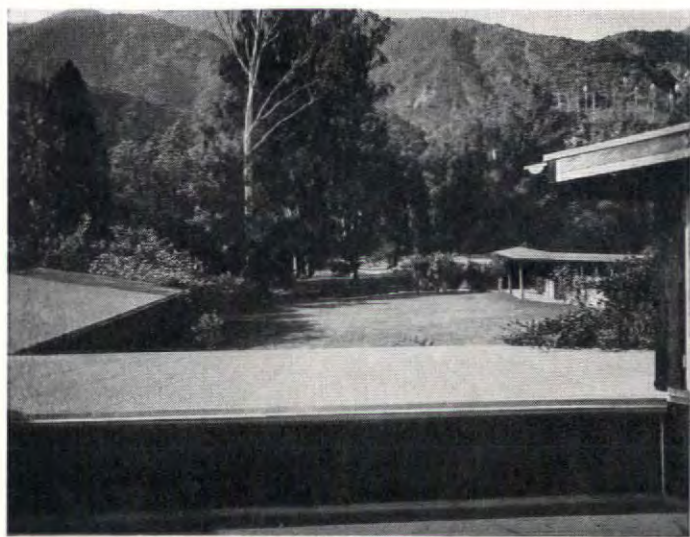


COVERED WALK CONNECTS HOUSE WITH POOL SHELTER AND CARPORT

GENERAL VIEW OF GROUNDS SEEN FROM HIGH BLUFF NORTH OF POOL



Making the most of a site's existing amenities is a rudiment of good planning but properties with the potentialities of this one are few. The bench of an abandoned quarry provided a flat $2\frac{1}{2}$ acre table, backed by sharply rising mountains, which at one time it accommodated the main house of the ranch that eventually became the City of Sierra Madre. The contour of the banks, existing trees and weather requirements mold the basic pattern of the present house. Its living area is oriented to the south, stands on a small promontory that commands a picturesque mountain view. The approach drive is at the opposite end of the property. A long covered walk connecting house and carport provides sheltered access, screens the pool and makes an attractive framework for seasonal planting arrangements. Wrapped around a central lawn area, the building group with its interesting roof planes has about it suppleness, harmony and a definite air of hospitality. Every effort was made to utilize existing material from the granite foundation slabs of the original ranch house to the vines and pool on the terrace side.



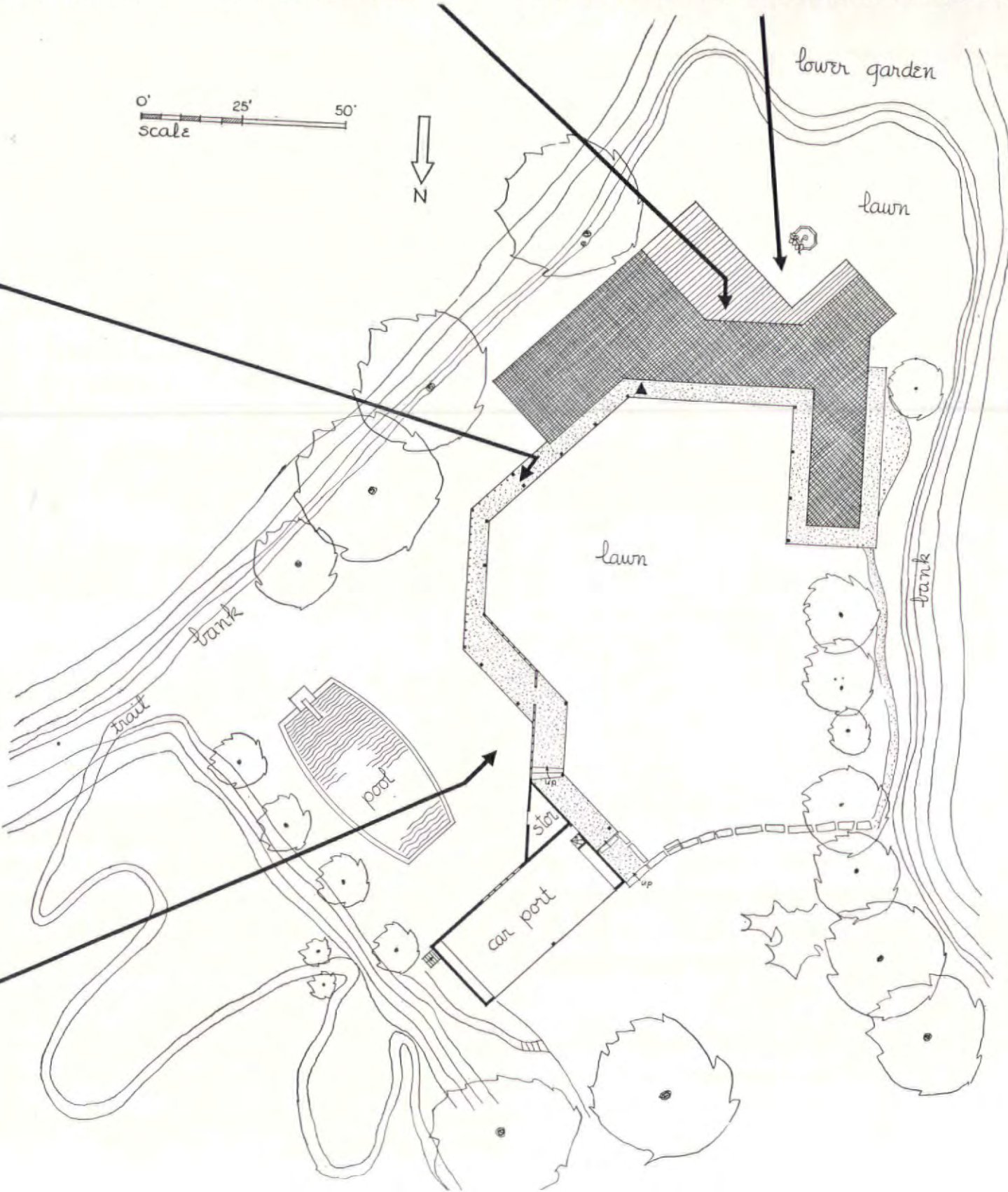
VIEW OF NORTH LAWN ACROSS ROOF OF SUMMER ROOM



MAIN TERRACE IS SCREENED BY PLANTING AND ROLL-UP PORCH BLINDS

0' 25' 50'
scale

N

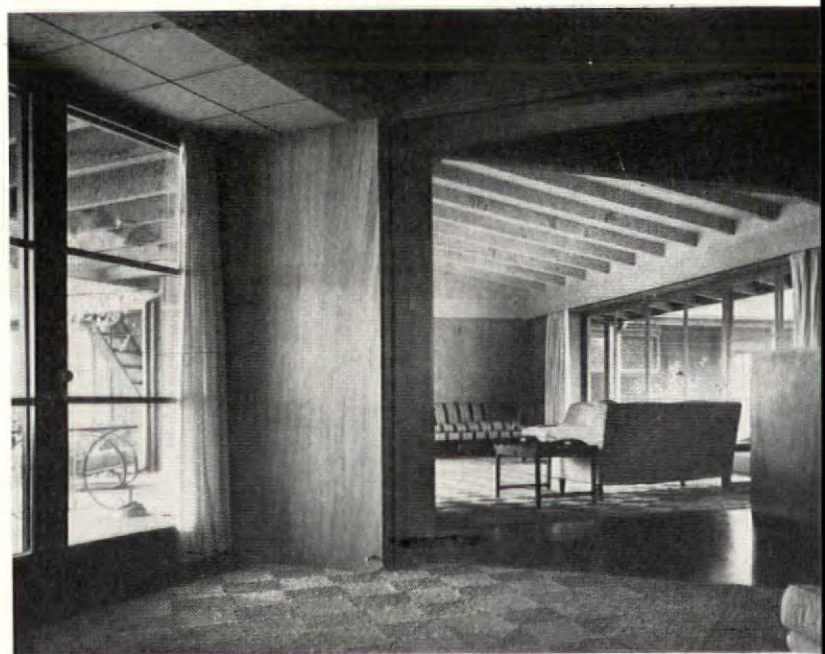




GLAZED AND SCREENED PANELS SLIDE INTO WALL POCKET, OPENING SUMMER ROOM TO TERRACE. STAIR LEADS TO SECOND FLOOR STUDY

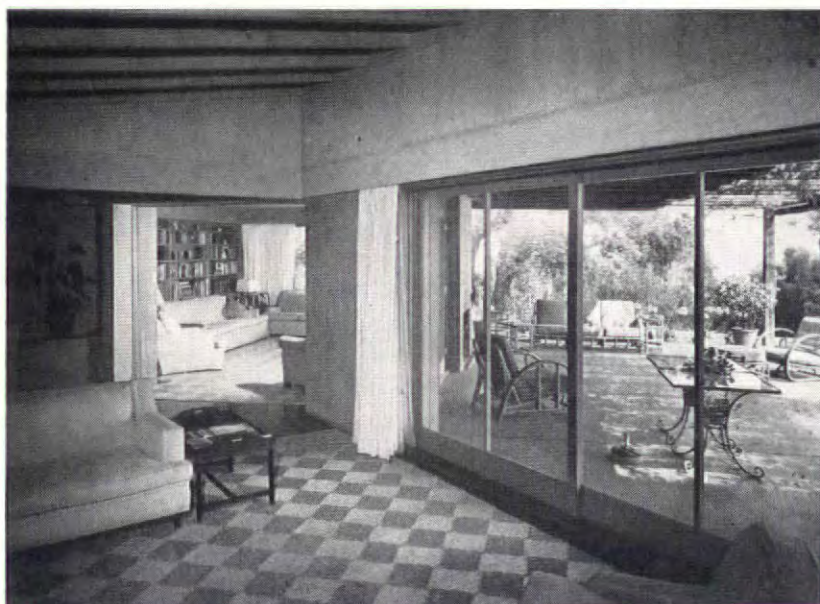
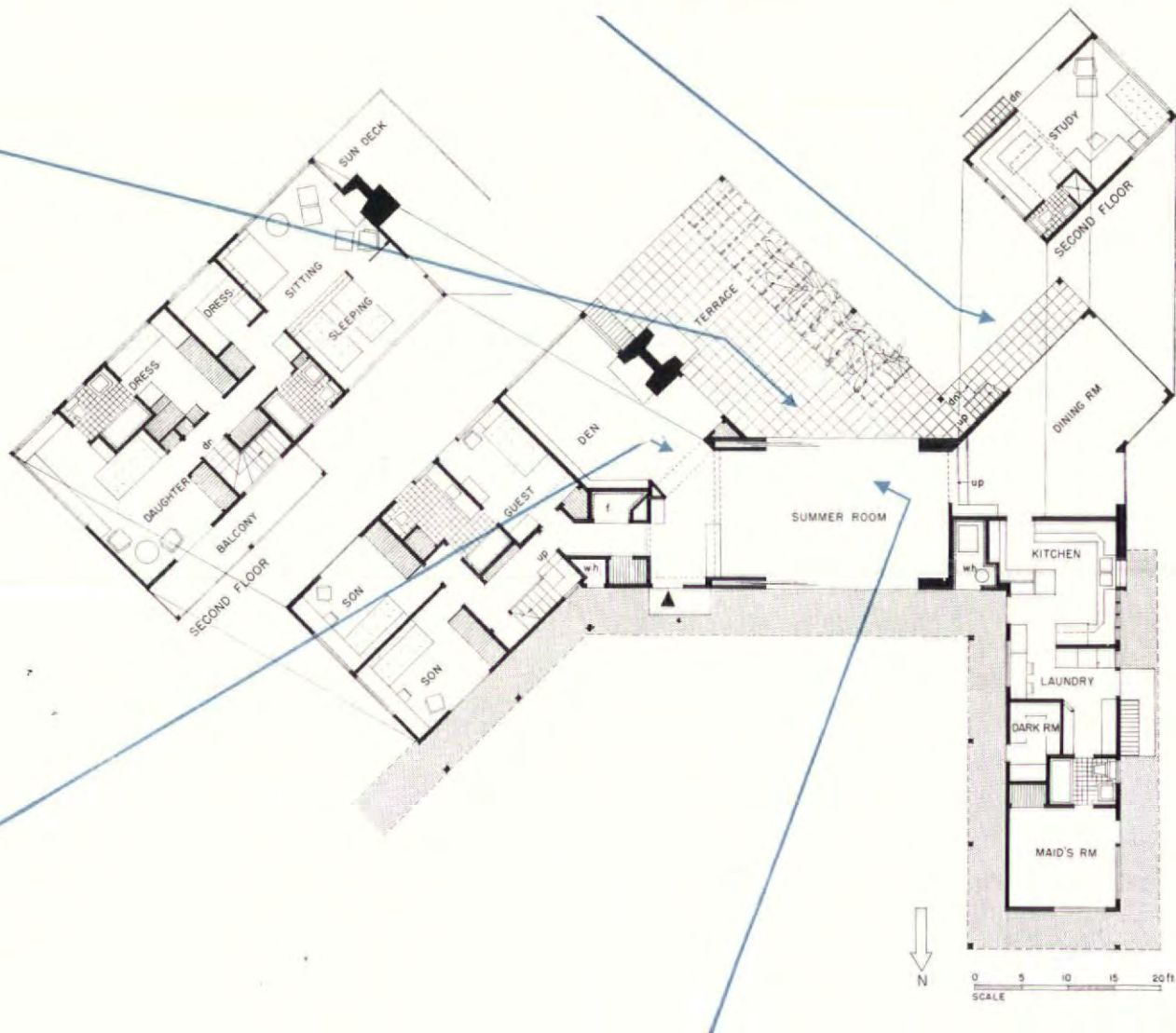
The owners' requirements in this instance were not unlike those of any average American family, although the means at their disposal were more ample. They wanted accommodations for three growing children but also realized that these rooms would not be needed indefinitely. Consequently, and with unusual foresight, the bedrooms were laid out with future simplification in mind so that eventually the spaciousness of this wing will match that of the rest of the house. For entertainment, current and future, the arrangement of the summer room, den and terrace permits them to be used individually or in combination. The owner's profession necessitates his having privacy and means for concentration. This was taken care of by a detached study over the dining room accessible only by an outside stair. All major rooms have opposite exposures, are laid out to take advantage of up and down mountain draughts that comprise the prevailing breeze during warm weather. Rough sawed redwood, used as exterior finish is also carried indoors and combined with natural plywood. Only the sash is painted. Except in the kitchen and bath, concrete floors are left exposed at ground level.

HIGH CABINET AT LEFT HOUSES SLIDING DOORS AND SCREENS





MORNING SUN the year round was a primary requisite in the orientation of the dining room. It can be opened wide on three sides, and the use of garden furniture relates it even more closely to the outdoors.



SUMMER ROOM (shown here with sliding screens in place), terrace and den were laid out to function as a single room for major entertainment. Fireplace on terrace is used for evening meals.

Photos by Will Connell

A COMPLETE HOUSE FOR \$6,990

is equipped to the hilt to attract the value-conscious

Challenging the host of house builders who have claimed it impossible to provide even shelter at less than \$10,000, these little houses sell for only \$6,990 and offer far more than shelter. Complete houses in the true sense of the word, they pack as much sales wallop as a heavily gadgeted new car, include a range, refrigerator, automatic washer, a whole wall of metal kitchen cabinets, a metal linen cabinet, built-in bookshelves, and metal Venetian blinds. Normally purchased as extras, these items are worth a retail total of about \$720. Moreover, finished stairs lead to an expansion attic, the three closets are bigger and better equipped than usual, and the radiant heated floor slab (merely painted by some builders) is finished with \$280 worth of asphalt tile.

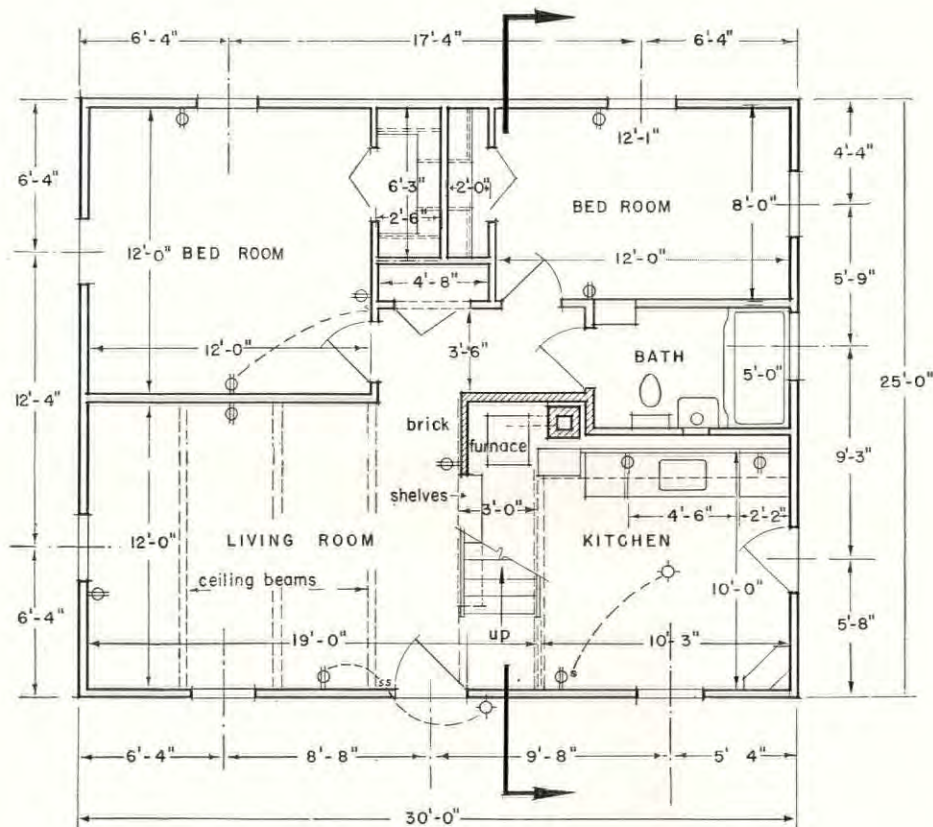
These significant houses and figures are products of Levitt and Sons of Manhasset, foremost of Long Island's many operative builders. Having recently completed 1,000 two-story houses and having found—like builders everywhere—that the last of their 1946 houses did not sell (at \$9,990) as fast as the first, President William J. Levitt has tailored his 1947 models closer to the market by cutting size but not sales appeal.

Fabrication is fast (18 houses a day) but not spectacular. All lumber is precut, but only a few items are preassembled in the shop. About 70 percent of the labor is done at the site. Secret of Levitts' low costs lies in large-scale land purchases at the right time, production of their own lumber on the West Coast, mass purchasing of other materials, a staff of 250 experts and a group of Levitt-trained, close-figuring sub-contractors who do all of Levitts' work—and Levitts' only.

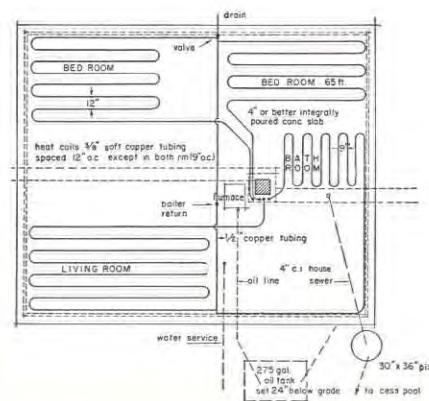
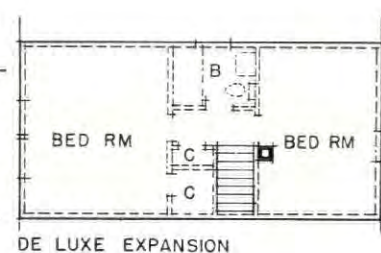
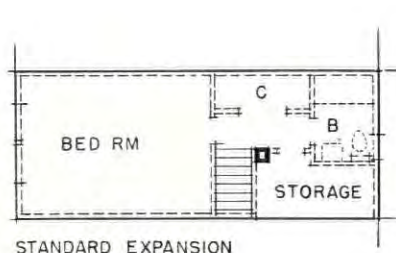
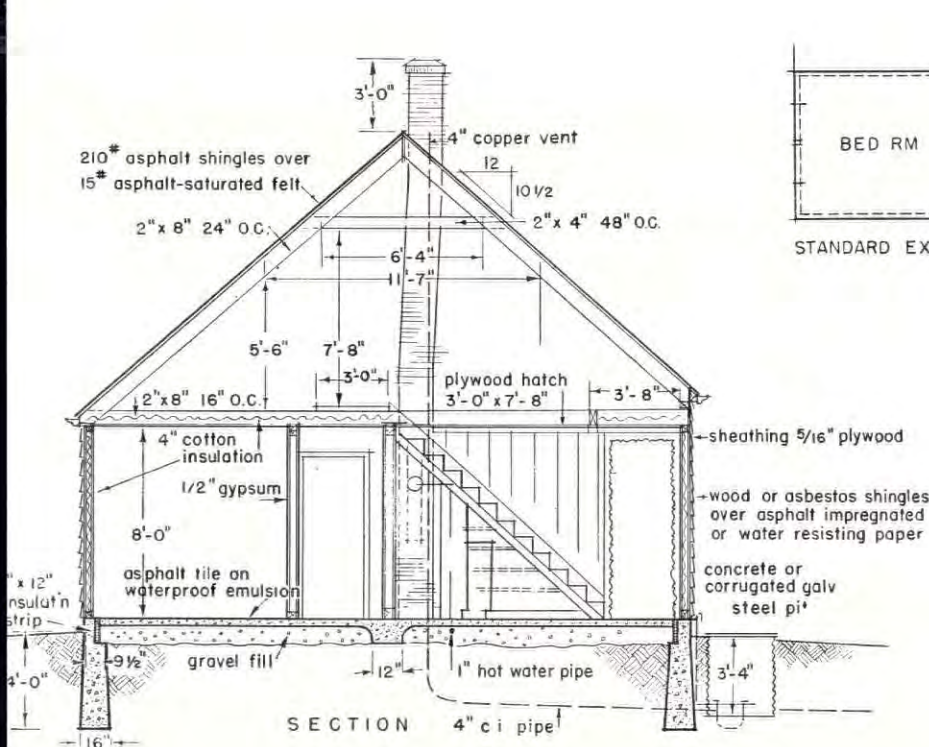
House and equipment are financed together with \$490 cash and a \$6,500 packaged mortgage by Washington Irving Trust Co. Interest at 4 per cent and 25 year amortization require less than \$35 per month. Taxes are \$13; insurance, about \$1. Of the \$49 total, only \$3.82 represents the monthly cost of the \$720-worth of extra conveniences which help make Levitts' houses by far the most salable of any put on the local market this year. Their sales appeal was gauged last month when a test group of 30 houses was sold the day it was opened to the public—without benefit of advertising. Forthwith, the Levitts shifted into high gear toward the production of 3,000 identical units in the next 12 months, 2,000 of which will be rented to veterans at about \$60 per month—\$15 per room and another local postwar record.



DESIGN of the 1947 models by Production Vice President Alfred Levitt is completely conventional, highly standardized and aptly described by the public's favorite adjective, "cute". Varied with many and bold color combinations, the five standard exteriors (above) spring from a single 25 x 30 ft. floor plan (below). Intended for future expansion, the attic may be used for dead storage. While closets are large, no provision is made for storage of garden tools, baby carriages and bicycles.



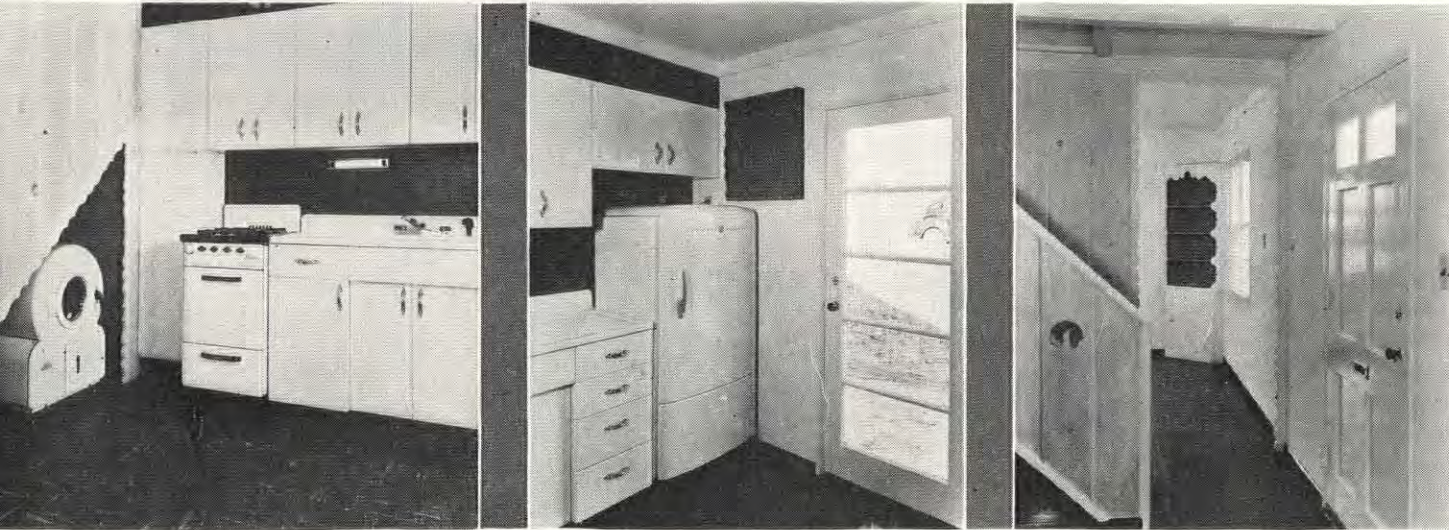
veteran. Long Island's Levitts will build 3,000 this year for sale and rent.



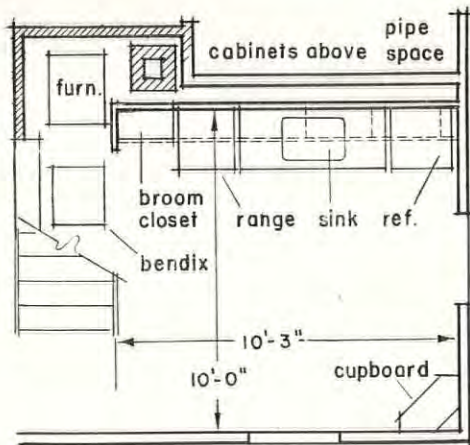
CONSTRUCTION is as conventional as the design. Frame is comprised of 2 x 4 in. studs, 16 in. on centers, sheathed with plywood or composition board. Ceiling joists and rafters are 2 x 8's; roof sheathing is ship-lap. Far from skimpy, specifications include copper for flashing, downspouts, water and heating pipes and waste vents. Walls and ceiling are insulated with 4 in. of cotton, and the slab is insulated from the foundation walls. While only 750 sq. ft. of gross floor area are finished, a third bedroom (178 sq. ft.) may be finished in the attic for about \$350. The entire standard expansion (341 sq. ft.) would cost about \$1,000; the

deluxe expansion's two bedrooms and bath (401 sq. ft.), roughly \$1,300. Site improvements include a 4,000 gal. cesspool, a manhole for access to outside plumbing lines, 30 ft. black-topped concrete streets, concrete curbs, concrete sidewalks along through streets, access walks of slate set in concrete, and complete landscaping of the 60 x 100 ft. lots. Detail drawings show house designed for oil-fired hot water radiant heat; renderings and photographs (next page) are of earlier model, without brick chimney, heated by gas-fired warm air. Heating coils take only about 400 ft. of pipe. Estimated monthly cost of heat and hot water: \$10.

SALES FEATURES of Levitts' \$6,990 houses are built into every room.



Photos by William W. Thomas

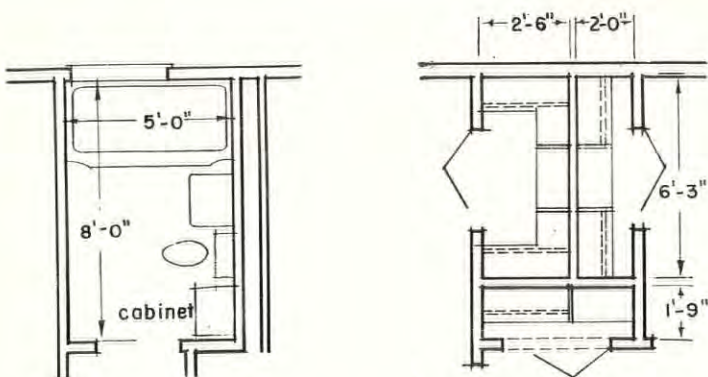
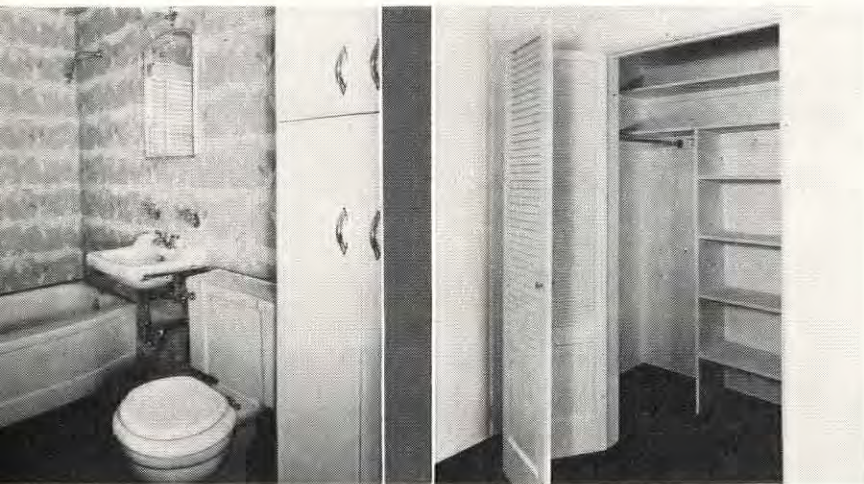


Kitchen is complete with range, refrigerator, automatic clothes washer, 75 cu. ft. of porcelain enameled steel cabinet space, a wood corner cupboard and a service tray which hangs on the wall to conceal electric meter and fuse box. Living room features book shelves beneath the stairs and antique finished ceiling beams (4 x 4 in.) which conceal the joints in the painted gypsum board. Bathroom's oversize dimensions make room for a metal linen cabinet. Bedrooms and hall have big closets (total area: 36 sq. ft.) with built-in shelves and wide folding doors which are louvered for ventilation.

Sales are also stimulated by metal Venetian blinds at all windows, door chimes, a brass entrance light and \$50 worth of landscaping, which, under the guidance of Abraham Levitt (the father) is used to best advantage and is prominently plugged in all Levitt advertising.

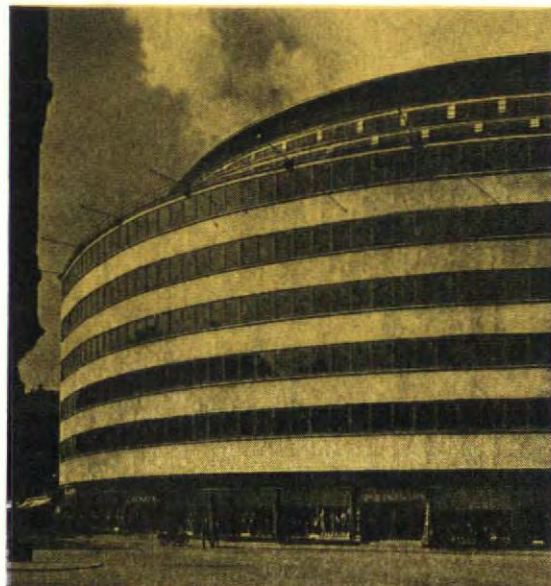
FINISHES AND EQUIPMENT

EXTERIOR: Walls—red cedar shingles or asbestos shingles, Johns-Manville. Roof—asphalt shingles, The Philip Carey Co., Flintkote Co., Johns-Manville, Bonafide Genasco, Inc., and Lloyd A. Fry Roofing Co. **INTERIOR:** Walls, partitions and ceiling—plaster board with taped joints and cold water paint, U. S. Gypsum Co. Bathrooms—Wall-tex, Columbus Coated Fabrics Corp. Floors—Kentile, David E. Kennedy, Inc. **KITCHEN EQUIPMENT:** Range—Welbilt Appliance Corp. Refrigerator—General Electric Co. Sink, cabinets and closet—Youngstown, Mullins Mfg. Co. **LAUNDRY EQUIPMENT:** Washer—Bendix Home Appliances, Inc. **BATHROOM FIXTURES—**Briggs Mfg. Co. Seat—C. F. Church Mfg. Co. Shower—Speakman Co. **ELECTRICAL INSTALLATION:** PVX wiring and switches—General Electric Co. **PLUMBING:** Water pipes and vents—copper, Chase Brass & Copper Co. **INSULATION—**cotton Cellulite, Gilman Bros. Co. **STEEL WINDOWS—**Fenestra, Detroit Steel Products Co. **VENETIAN BLINDS—**Acme Window Shade Co.

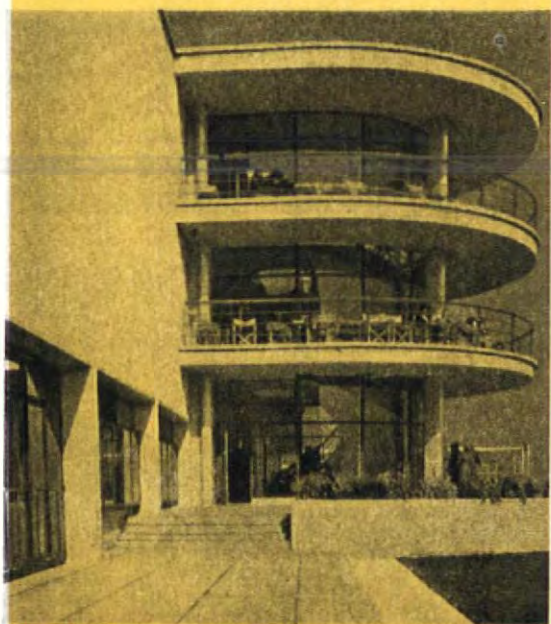




1919: Einstein Tower, Potsdam



1928: Schocken Department Store, Chemnitz



1934: De la Warr Pavillion, Bexhill

1937: Government Hospital, Haifa



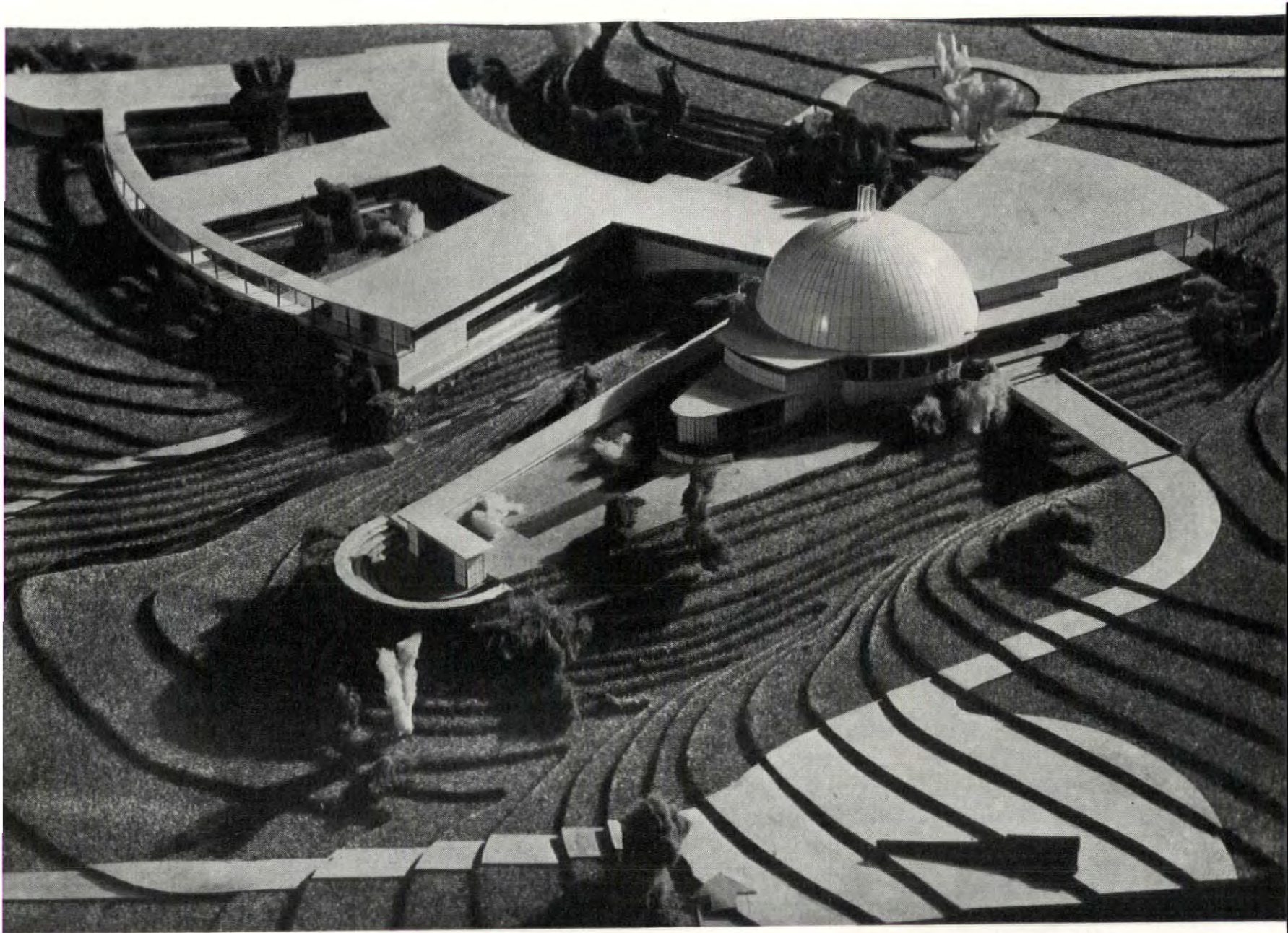
ERIC MENDELSON

The distance from San Francisco to Jerusalem, as the airlines fly it, is 8,898 miles; from Jerusalem to London, 2,548; from London to Berlin, 575. Longer and more wearisome trips, these past few years, than mere mileage would indicate. Yet, since 1933 the architect Eric Mendelsohn has made them all, in the face of adversity which would have dismayed less resolute men. Moreover, he has made them successfully, showing as it were, as much professional as personal resilience to abrupt and violent change. He had been in England only a short time when, in collaboration with Chermayeff, he won the competition for the now-famous pavillion at Bexhill. This project on the south coast of England the British themselves consider their finest seaside building. Mendelsohn showed a similar responsiveness to new cultures and new climates, in the series of houses, hospitals and office buildings which he designed in Palestine after 1935. There, in a landscape as different as possible from that of his native Germany, he built his striking Government Hospital at Haifa. Mendelsohn is now in America, and his current designs demonstrate, once again, his adaptability to new environments.

This record is the more remarkable when one remembers that, for over twenty years, Mendelsohn was one of Germany's most successful architects, with more completed projects to his credit than any two or three of his famous contemporaries. He was, at the same time, one of Europe's most positive stylists. As a graduate of the University of Munich in 1911, Mendelsohn had been deeply involved in the Expressionist movement (an artistic phenomenon which had no American equivalent). Here his vigorous sketches of idealized grain elevators, factories and foundries attracted wide attention. His first building, the Einstein Tower at Potsdam (1919), was in this Expressionist vein. This extraordinary structure was, as Curt Behrendt aptly put it, "eloquent in its effect, filled with declamatory power . . . full of expressive movement." But it was, (as Behrendt also pointed out) "subjective . . . with too many romantic remainders and ostentatious personal elements."

As Mendelsohn matured, his work showed a steady subordination of these elements to the requirements of plan and structure. His buildings not only became simpler: they also became lighter and less forbidding. Even exile did not seriously affect this process: in England, then in Palestine and now in America his development went forward. Yet like those other individualists Wright and Le Corbusier, Mendelsohn has never lost his ability to organize his buildings into characteristic compositions of unmistakable distinctiveness.

Today, having just celebrated his sixtieth birthday, Eric Mendelsohn lives in San Francisco. It looks as though his travels are over (he expects his final citizenship papers this year). And the two new Jewish Centers shown on the following pages seem to indicate that he has lost none of his ability to absorb the lessons of new times and new lands.



In his first American buildings, Eric Mendelsohn continues the dramatic idiom which built his fame abroad

Mendelsohn's design for the new Cleveland (Ohio) Jewish Center displays his ability to marked advantage. Confronted with a 30-acre plot, wooded and sloping to the west, he has deployed his three-part building across difficult terrain with the skill of a military strategist. The Temple area (composed of the Temple proper, Foyer, Assembly Hall and Chapel) holds the triangular promontory between the two streams like a fort. From it a bridge, which houses the Administration and Library, is flung across the northern stream to connect with the School section. Next the classroom wings are deployed, fanwise, across a natural plateau. Yet, for all its spectacular siting, the project has been so adroitly fitted to the topography that little excavation is required.

The Cleveland Jewish Center will house all the religious and cultural activities of a large Conservative congregation.* Heart of the new complex naturally will be the Temple. Circular in plan and domed in profile, it has been so placed that it dominates the project—partially by its very shape, partially by having its floor one story higher than the other buildings. The dome itself is a four-inch thick, semi-spherical concrete shell, carried by a ring of columns interspersed with windows. Nestling against its western base, but one floor below it is a small triangular Chapel. It is reached by a glazed passage which circles the base of the Temple. Tall windows overlook a triangular garden at the tip of which, cantilevered out over the end of the promontory like the prow of a ship, is a small open-air theater.

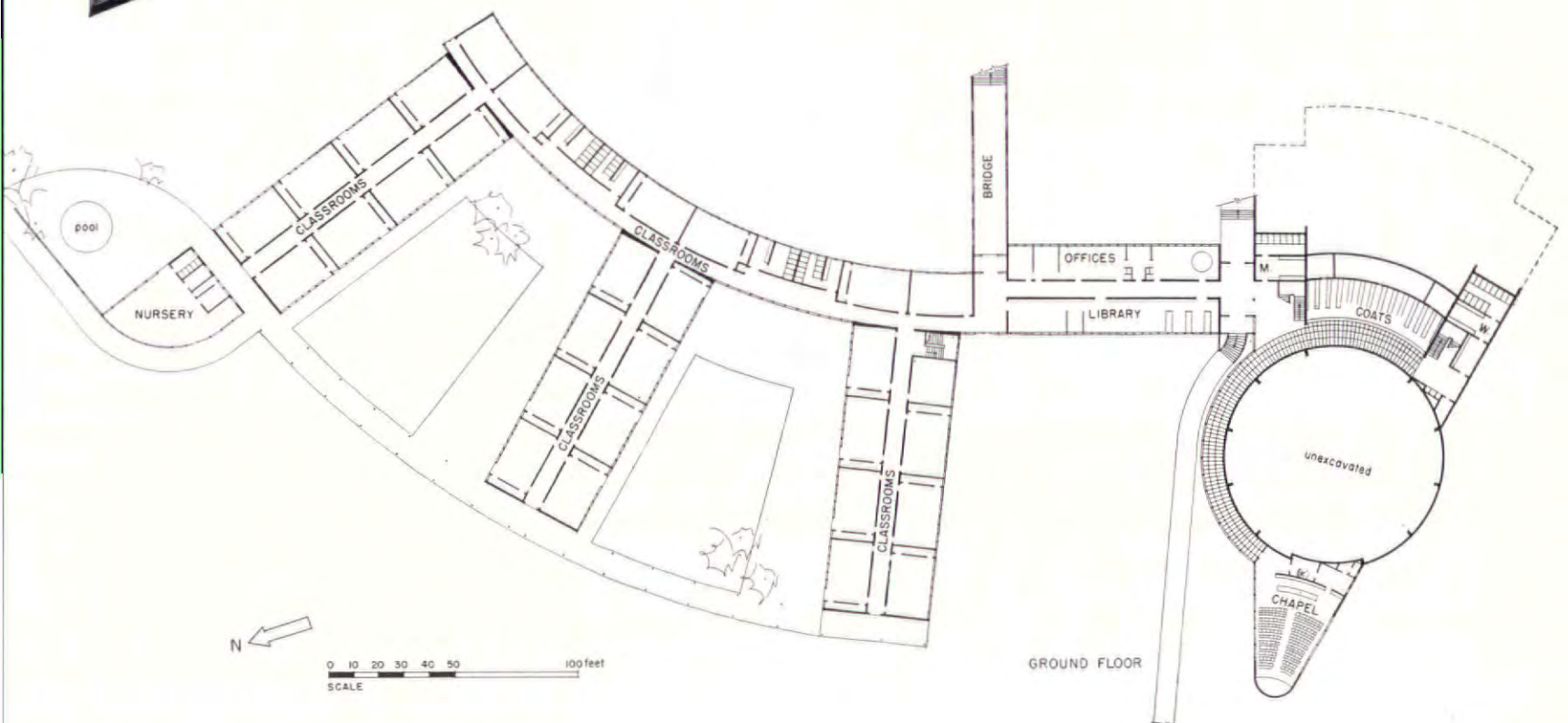
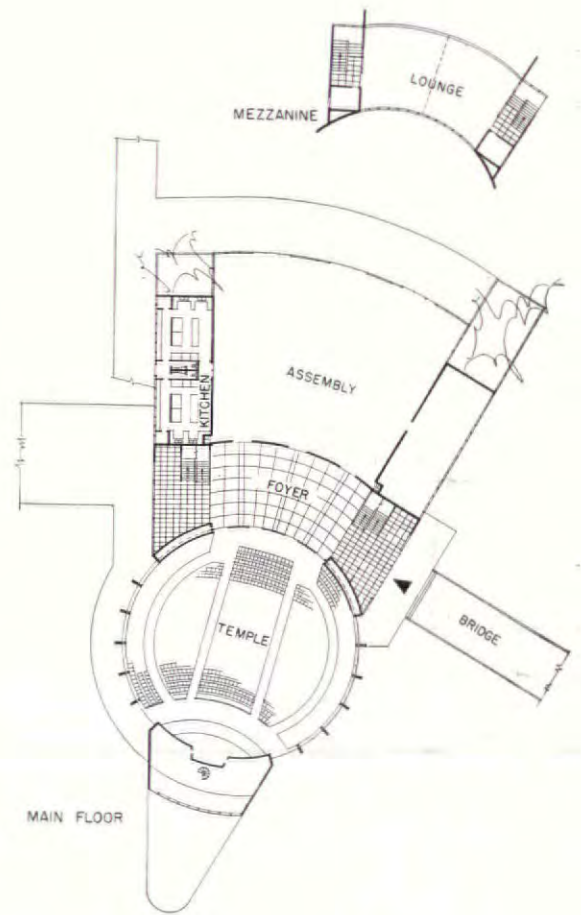
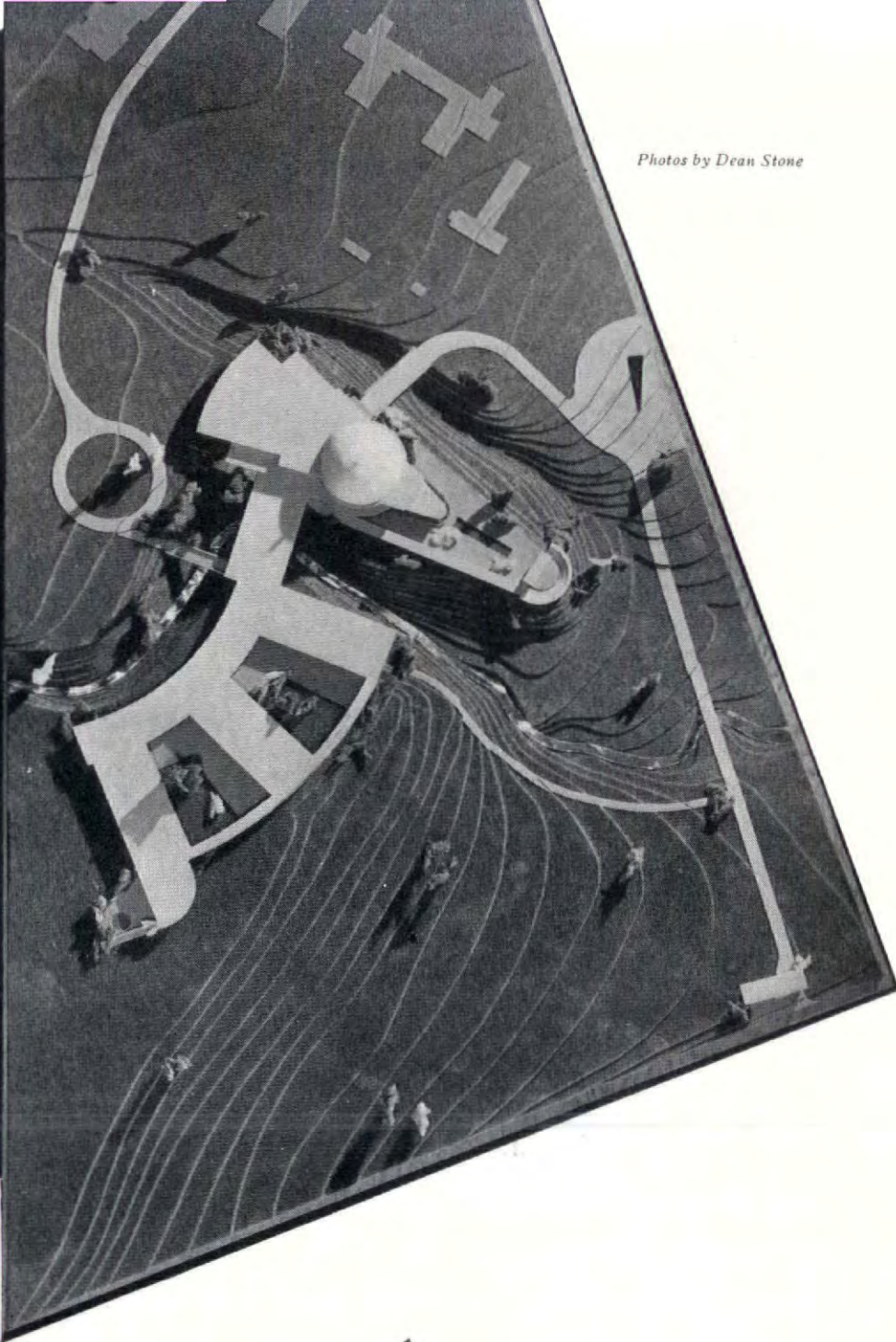
The circular Temple will seat 1,000 persons; but to accommodate

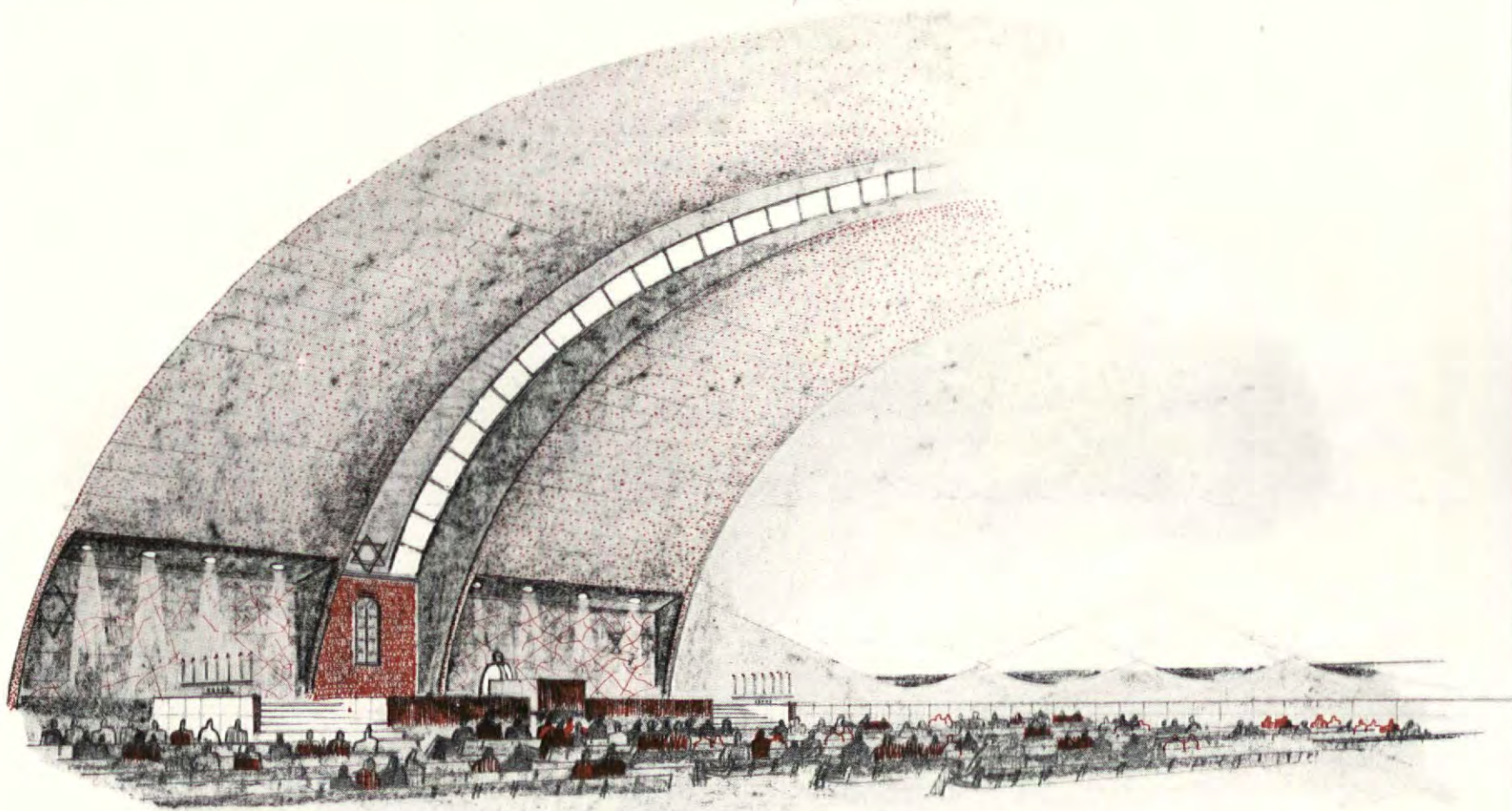
the much larger congregations of the High Holidays, approximately three times as much space will be required. Mendelsohn has met this variation by placing the Temple, Foyer and Assembly on a single level divided by sliding or folding walls, so that all three areas can be thrown together. The fan-shaped east wall of the Assembly is entirely of glass and opens onto a covered terrace at grade level. A large kitchen and pantry along one side, and a large storage room for chairs and tables along the other, make this handsome meeting room easily adaptable to a wide variety of functions.

The ravine which separates the Temple area from the School to the north is spanned by a covered bridge. Because of its strategic location, this bridge has been widened to carry church offices along the east side and library along the west. The School is a complete, self-contained unit of the Center. With thirty classrooms and a nursery, it serves for Sunday school and for daily classes in the Hebrew language, history and religion. (This instruction supplements public school education and follows public school hours.) The classrooms are of standard design and equipment, pleasantly arranged around courts, with separate access by footpath from the lower street and by driveway from above.

* There are three major gradations of Jewish doctrine: Reformed, Conservative and Orthodox, in ascending order of strict adherence to Jewish ritual law. Such differences affect synagogue design to only a limited extent, however. In all cases, the congregation faces the Ark during prayer. In some Orthodox congregations, the Torah is not read from this end of the Temple but from a special reader's desk placed in the center.

Photos by Dean Stone



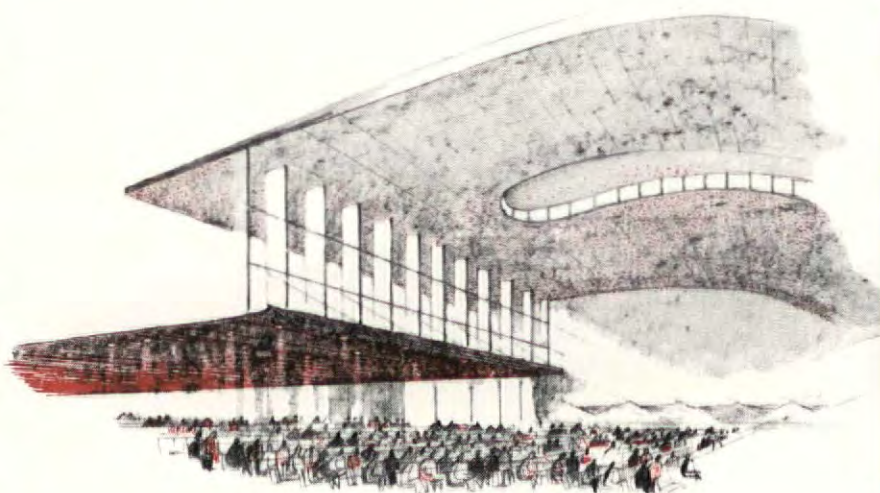


THE TEMPLE WILL BE A SERENE AND ECHOLESS PLACE OF WORSHIP—VISUALLY AND ACOUSTICALLY IN BALANCE

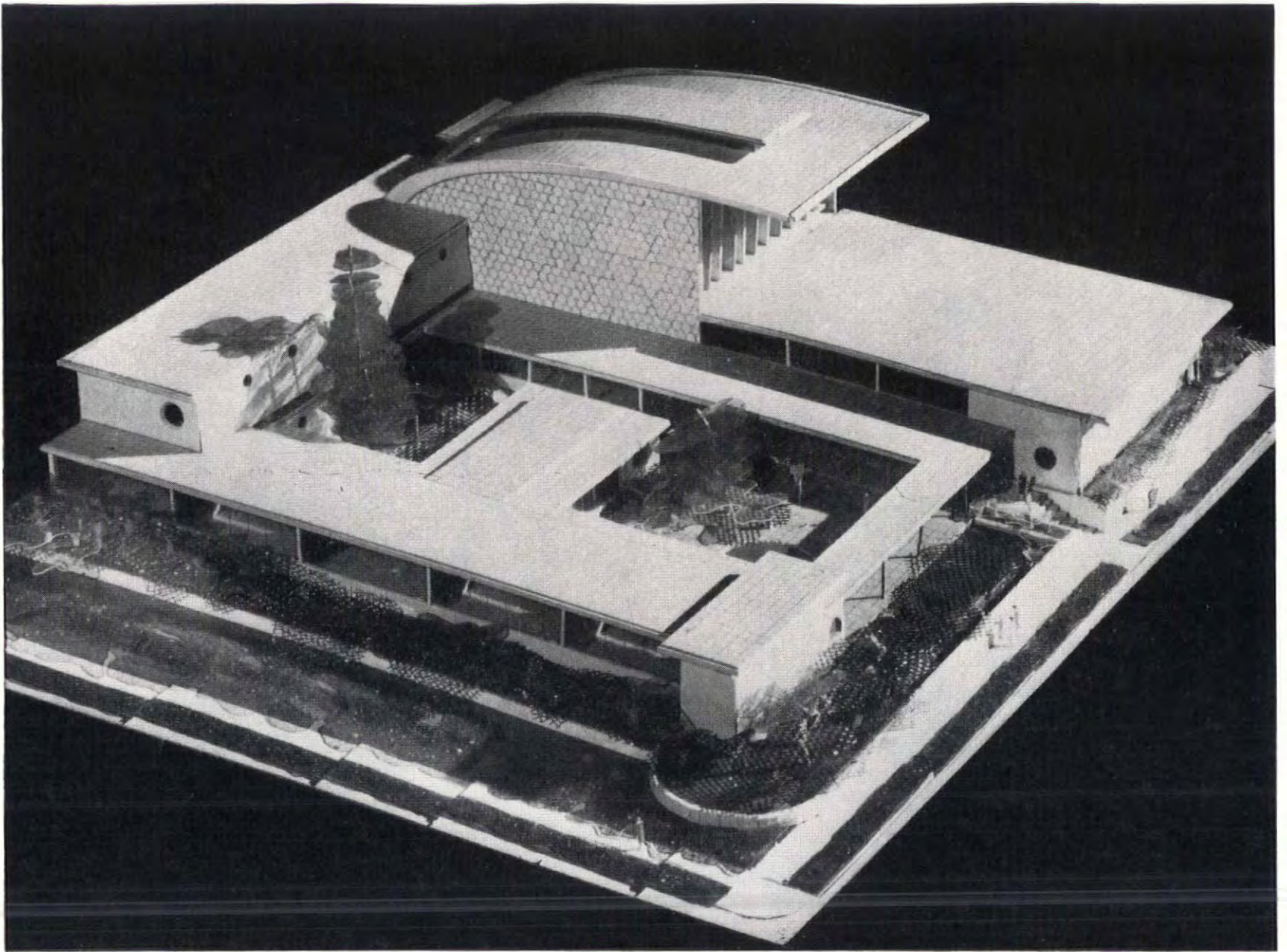
A light and soaring parabola frames the Jewish Temple which Eric Mendelsohn has designed for a congregation in Missouri

Similar to the Cleveland project is Mendelsohn's new center for the Congregation B'Nai Amoona in St. Louis' suburban University City. Here, within the more constricted limits of a 200 ft. square corner lot, he has organized much the same facilities into a quite different pattern. Again, the Temple dominates the group—this time in the form of a great parabolic vault of reinforced concrete—although here the Temple, Assembly and School are tightly arranged around an enclosed garden. The fluctuation between normal Sabbath attendance and that for the High Holidays is again handled by a Temple, Foyer and Assembly which can be thrown together as desired. In this case, the dividing walls are hydraulically-powered, and sink into slots in the floor. The seating capacity of the Temple is 600, smaller than that of the Cleveland Center; but in form it is equally dramatic. Daylight enters only through the giant clerestory across the rear wall and through a monitor running down the center of the parabolic shell. The line of columns supporting the shell at its apex are thin and quite deep; together with the cantilevered overhang of the shell itself, they form an effective system of sun-breaks for the clerestory.

The site of the Center, at the intersection of two important streets and overlooking Washington Square with its City Hall, Masonic Temple and several churches, is a logical one. It is, at the same time, exposed and noisy. The architect has minimized these factors by designing the building as a hollow square, placing the Temple at the interior corner. With the garden some ten feet above street level, he thus gives the interior of the project a maximum of privacy and repose.

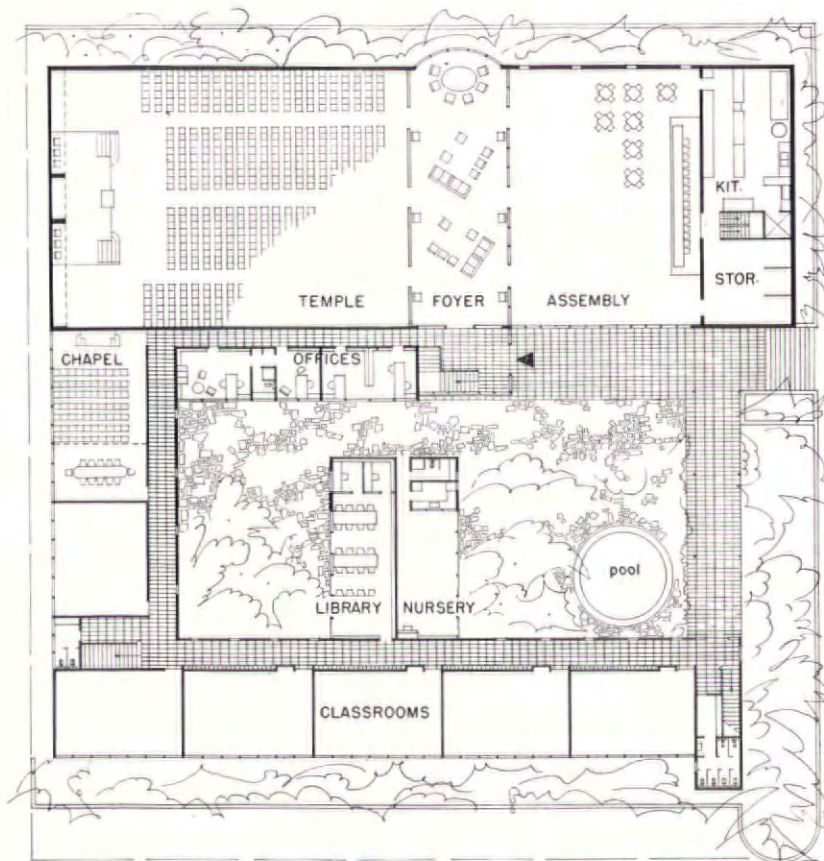


WIDE EAVE AND THIN, DEEP COLUMNS ACT AS SUN-BREAK



John H. Lohman

LOCATED TEN FEET ABOVE A BUSY INTERSECTION,
B'NAI AMOONA CENTER USES COURTYARD
AND CLOISTER FOR QUIET AND REPOSE



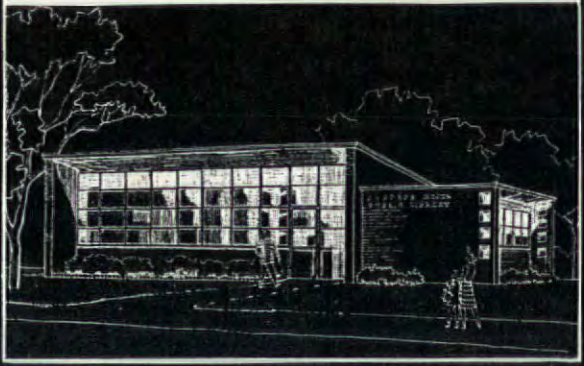
NEW BRANCH LIBRARY

MARIO BIANCULLI, Designer of prototype
JOHNSON & WILLARD, General Contractors

BEALER & WILHOIT, Architects



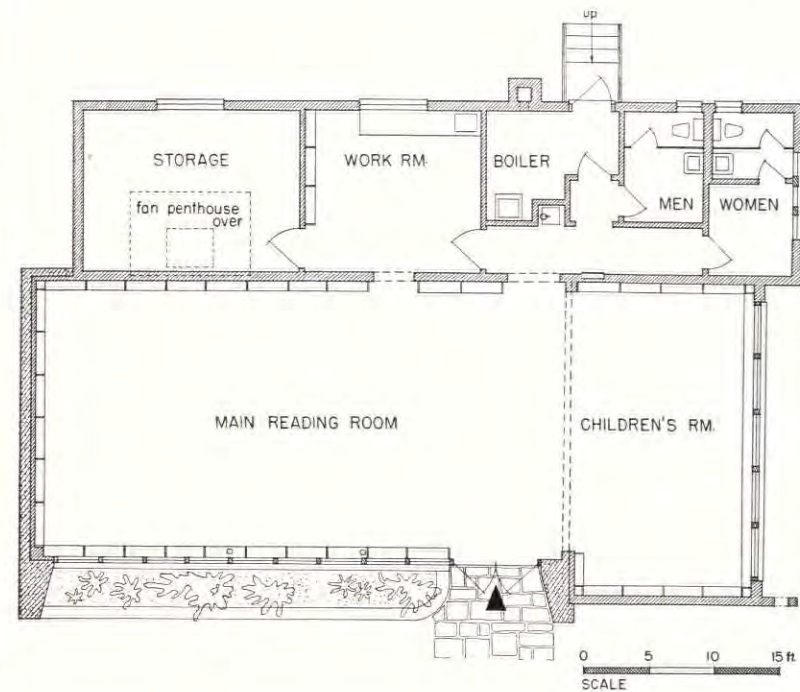
In January 1946, FORUM presented this prototype design for the branch library shown below in finished form. Jointly developed by the Tennessee Library Board and the TVA, it is one of a series aimed at setting new standards of design for small libraries.



Located in a middle-class residential section of Knoxville, Tenn., the new Burlington Branch Library is the first architectural expression of a program formulated by the librarians of the state in 1945 (FORUM, Jan. '46). The library was sponsored by a group of businessmen, a garden club, a parent-teachers club and several church groups. And now that the building has been in use for six months, everybody seems pleased. "They take the greatest pride in it," says Helen M. Harris, Knoxville's head librarian. "Although it is a modern building in a conservative—not to say old-fashioned—neighborhood, it has met with complete community approval." In addition to traditional library activities, the new structure is much in demand for forums, showing of films and other small meetings. The librarians themselves also like it—especially the radiant heating and "the glorious sunlight from the front window." Both reading public and library workers find its open planning, good lighting and bright colors a welcome relief from the dimly-lit, fumed-oak interiors of the traditional library. Architects Bealer & Wilhoit have, at the request of the sponsors, followed the original prototype design quite closely.



in Knoxville reflects librarians' determination to achieve more suitable buildings for their work.



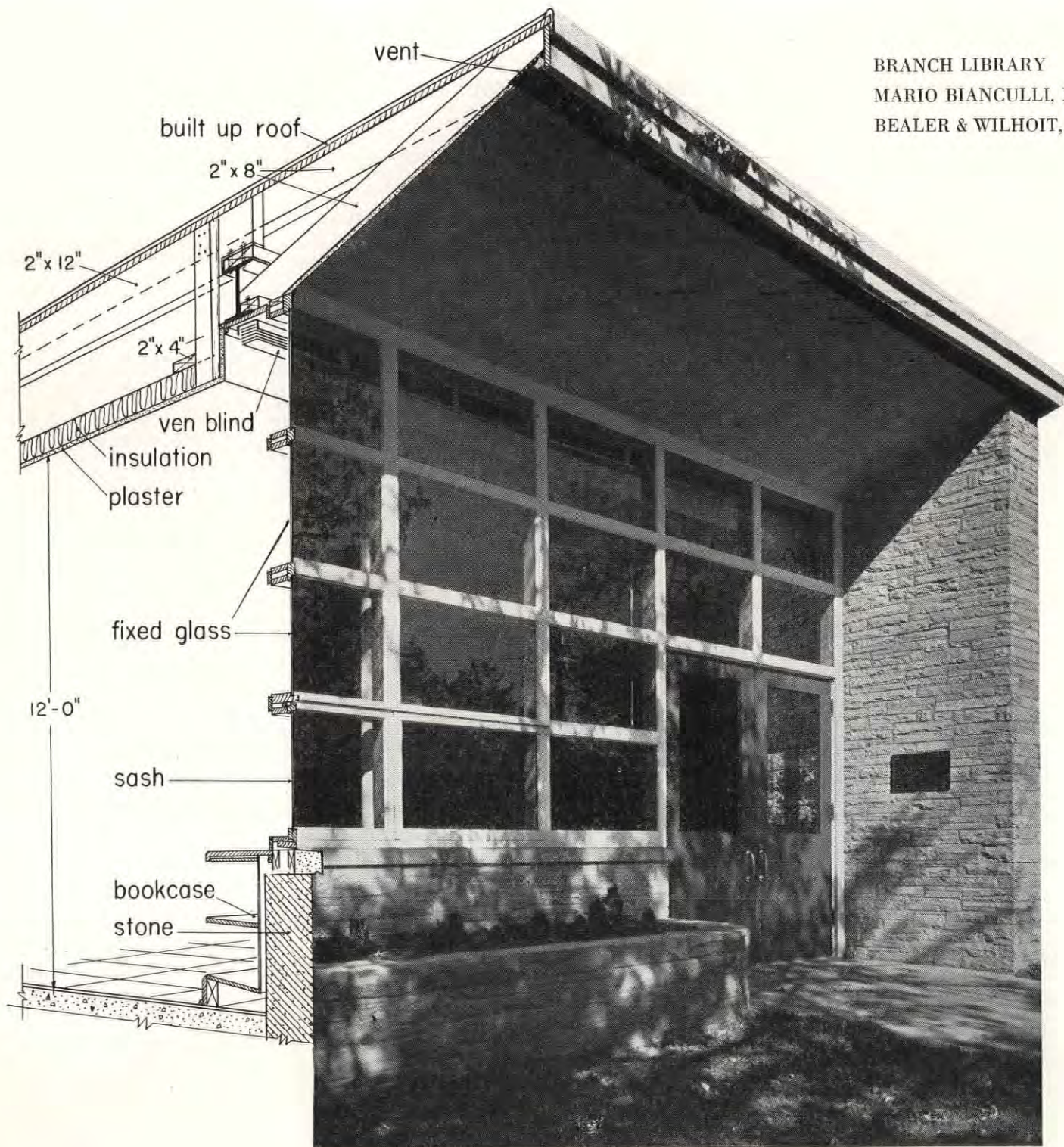
CONSTRUCTION OUTLINE

FOUNDATIONS—concrete. **STRUCTURE**: Exterior walls—stone with brick backing or brick walls, brick backing. Interior—clay tile. Columns—steel pipe. Floors—concrete. **ROOF**—built-up, 20-yr., The Barrett Co. **SHEET METAL WORK**: Flashing and gutters—Armco galvanized iron, American Rolling Mill Co. **INSULATION**: Roofs—rock-wool, Johns-Manville. **WINDOWS**: Sash—steel Fenestra, Detroit Steel Products Co.; wood, double hung, Curtis Companies, Inc. Glass—double strength, quality B. **FLOOR COVERINGS**—asphalt tile, Uvalde Rock Asphalt Co. **WOODWORK**: Trim and doors—pine. **HARDWARE**—P. & F. Corbin and Vincent Whitney Co. **PAINTS**—Oliver Johnson & Co., Inc. **ELECTRICAL INSTALLATION**: Wiring—conduit. Switches—General Electric Co. Fixtures—Edwin F. Guth Co. **PLUMBING FIXTURES**—Crane Co. Pipes—cast iron. Water pipes—galvanized steel. **HEATING**—radiant system. Boiler—Crane Co. Regulators—Minneapolis-Honeywell Regulator Co. Circulating pump—Bell & Gossett Co.

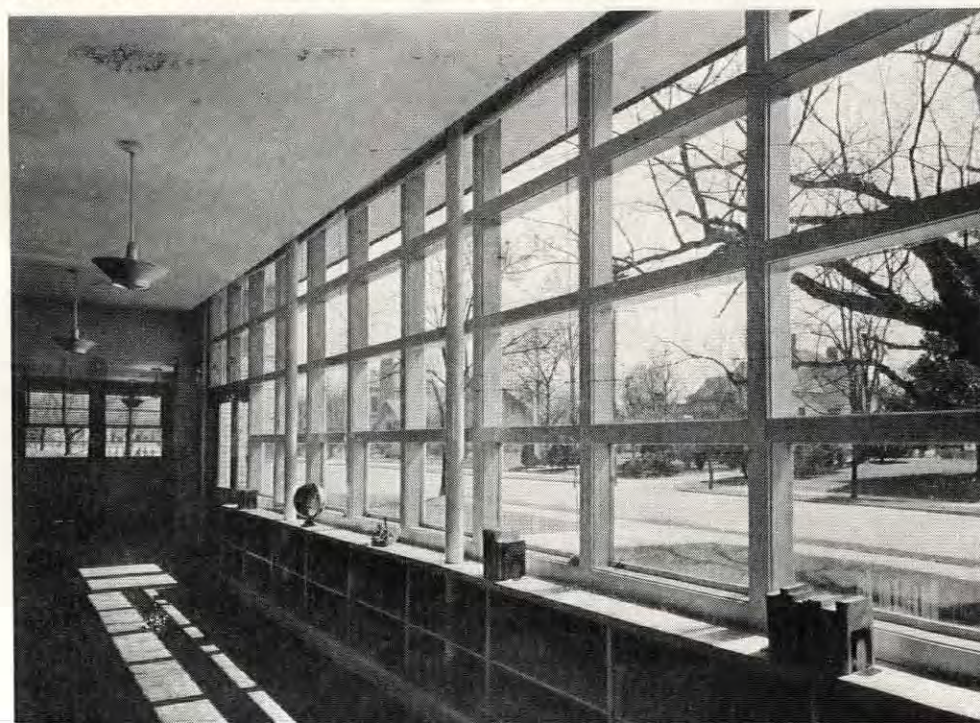
Billy Glenn



BRANCH LIBRARY
 MARIO BIANCULLI, Designer
 BEALER & WILHOIT, Architects



ARCHITECTS PROVIDED AMPLE RECESS FOR BLINDS IN SUN-FLOODED WINDOW WALL



HOUSES USA

A Brief Review of the Development of Domestic Architecture in America

Part III, 1880-1946, the Modern Approach

THE MODERN PIONEERS

In the last quarter of the 19th century, in the midst of the satisfied confusion of Eclecticism, a few men began to question the course of American architecture. To them, the falseness and often ugliness of the many building styles used both separately and intermixed was not progress. Such buildings did not even repeat the honesty and sensitivity of the vernacular American construction in wood, much less did they allow for the expression of new and revolutionary techniques such as the steel skeleton and reinforced concrete. To three courageous men in particular we owe the American beginning of the conception of Modern architecture—

HENRY HOBSON RICHARDSON, 1838-1886, was the first of the three pioneers. After education at Harvard and the Ecole des Beaux Arts in Paris, he established a large and fashionable practice based on the French Romanesque style. It was this phase of his work that attracted many imitators, and caused the rash of gloomy "Richardson Romanesque" buildings that still frown on many American streets. In his later work, especially in commercial structures, Richardson gradually discarded Eclecticism, substituting such basic, but then rare, qualities as logical planning, directly expressed in the exterior; sympathetic use of the chosen material; frank revelation of the structural system in the visible forms of architecture.

Berenice Abbott



The dignity and power of Richardson's work are perhaps best shown in the Marshall Field Warehouse (3) in Chicago, 1885, with its rhythmic arrangements of wall surfaces and window openings. Unlike its contemporaries in Chicago of 1885, the Glessner House (2) turns a boldly unornamented facade to the street and opens broadly to an inner courtyard. The simplicity of a Richardson shingle house (1) in Cambridge, Massachusetts, 1882, contrasts with contemporary Eclectic uses of the same material.

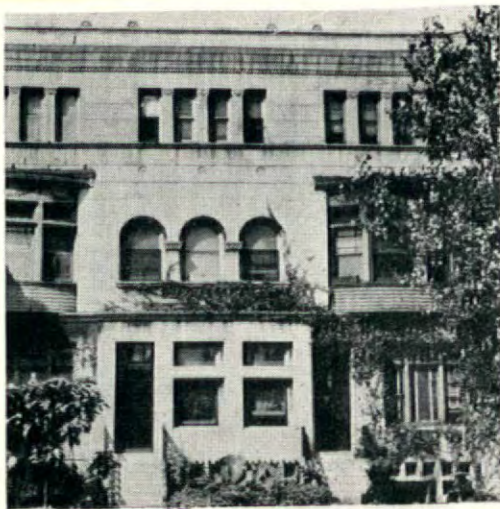


3.

Museum of Modern Art



Kosti Ruohoma



4.

Wayne Andrews



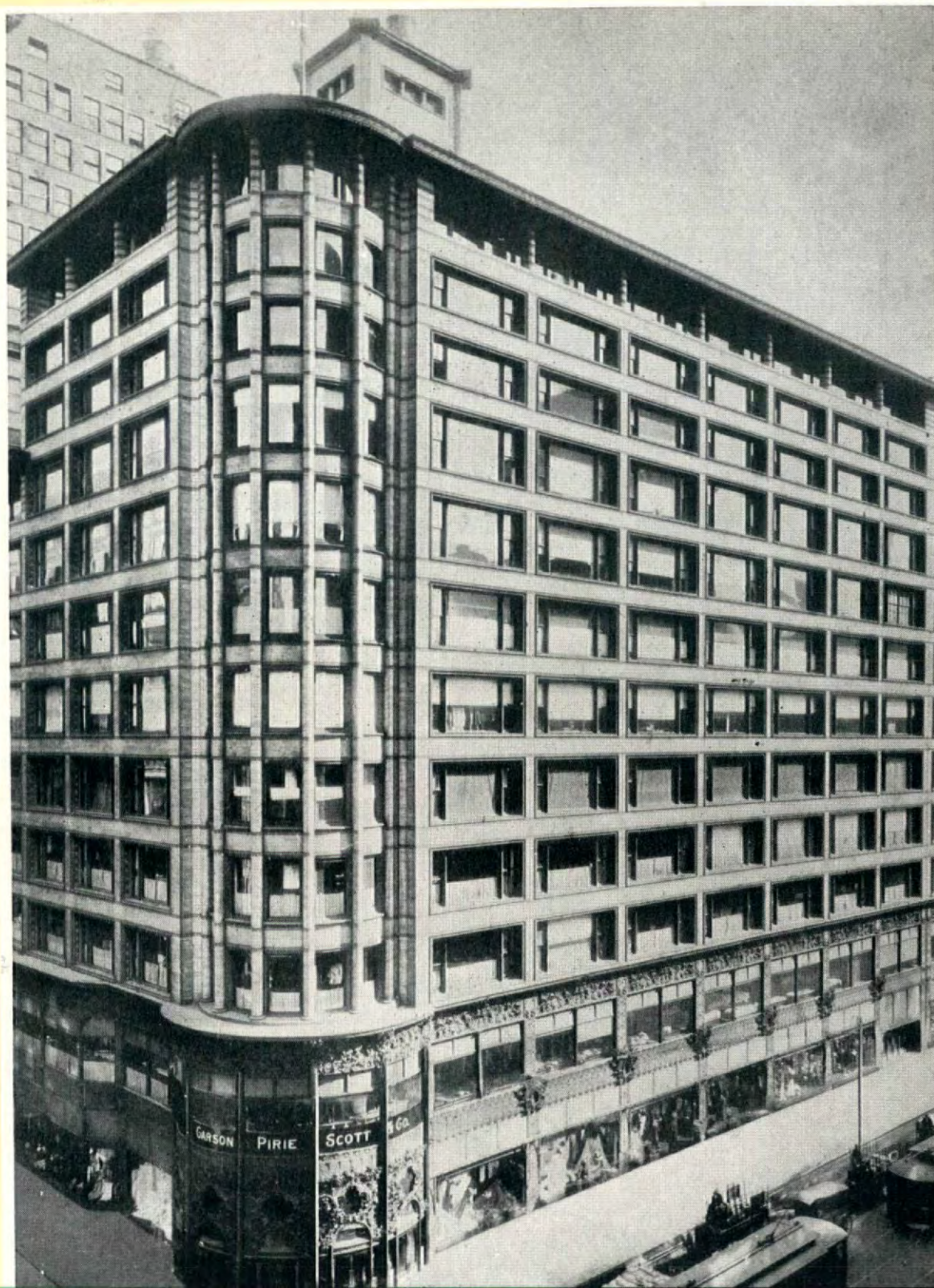
5.

6.

Museum of Modern Art

LOUIS HENRY SULLIVAN, 1856-1924, was the second of the three American pioneers of Modern architecture. He was the architect in the following generation who most fully understood the greatness of Richardson's late work. Sullivan was active in Chicago in the eighties and nineties when the steel skeleton was being developed, and it was he who first gave the skyscraper valid architectural form. The steel skeleton, which made tall commercial buildings possible, was one of the most drastic revolutions in the history of architecture: walls ceased to be supports and became weather screens hung on a steel frame.

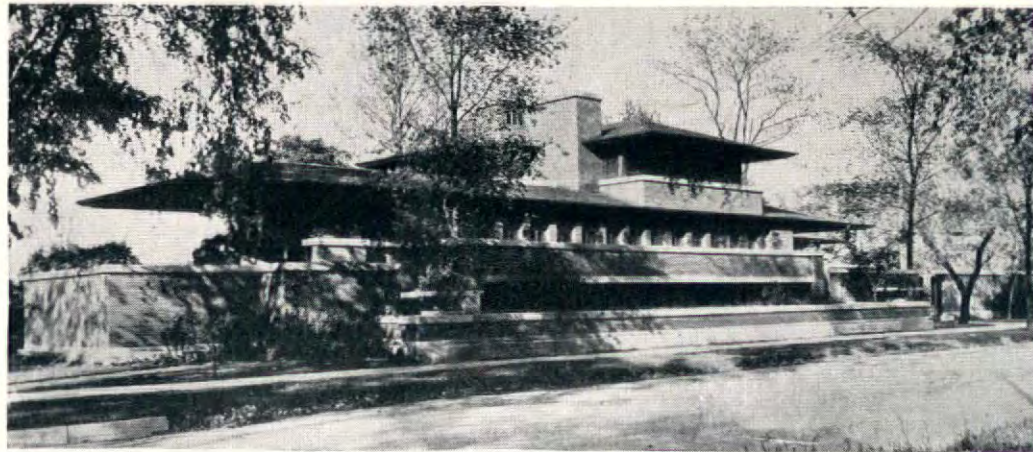
Still perhaps the most magnificent expression of the steel structural system extant is Sullivan's Carson Pirie Scott store building (6) in Chicago, 1899-1904. The firm of Adler and Sullivan, in which Sullivan did the designing, built a series of residences about Chicago. Typical are the Falkenau Houses (4), 1888, and the Charnley House (5), 1891. Drawings for the latter were prepared under Sullivan's direction by a young draftsman named Frank Lloyd Wright, who had been with the firm since 1888.





7.

FRANK LLOYD WRIGHT, 1869—, is the third great pioneer of Modern architecture. However, Wright is not merely an "old master"; he remains today the most vitally creative architect of our time. Although he has designed many types of buildings, houses have made up the major part of his work and have had the greatest influence, especially those he built around Chicago between 1900 and 1910, such as the Willits House (7), 1902, and Robie House (8), 1908. Wright's new kind of open interior planning, and the horizontal emphasis of his masterful plastic compositions have been widely influential throughout the 20th century.



8.

Museum of Modern Art, photos

DURING THE LAST 15 YEARS another style was imported from Europe . . .

Le Corbusier & Pierre Jeanneret, 1929



Walter Gropius, 1925-26



Richard J. Neutra, 1929



has been modified by native influences . . .

Old barn in Pennsylvania



Workers' Houses, Connecticut, 1840



Frank Lloyd Wright



. . . and the result has been . . .

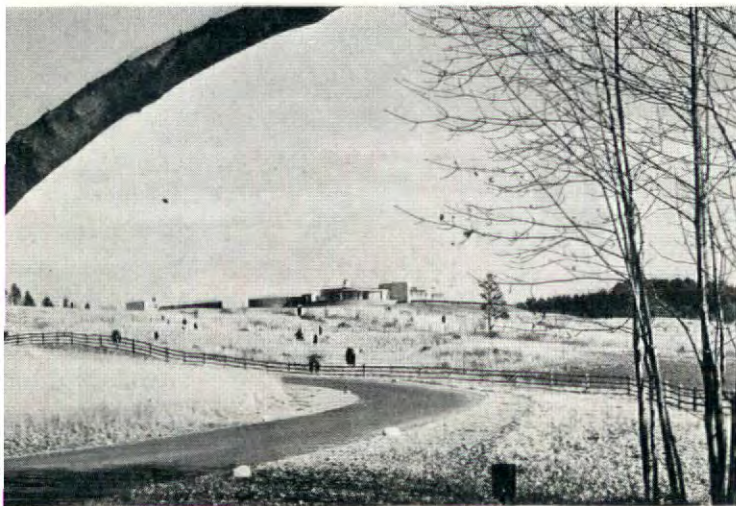
CONTEMPORARY AMERICAN ARCHITECTURE suited to its time and place

About 1930 there began to appear in the United States houses built in the "Functional" (or "International" or "Modern") Style, which followed closely such revolutionary European work of the 1920's as shown on the previous page. Again, American architects were importing a style. But, paradoxically, the European originators of this style had been inspired by early work of the American architect Wright, and also by the smooth and powerful geometrical forms which American engineers had achieved in such purely utilitarian structures as grain elevators. All evidence of traditional construction and design had been consciously avoided. Machine-smooth surfaces and carefully calculated asymmetry had replaced ornament and symmetry. The new style was based on a severely rational approach to problems of building; aesthetically, it was closely related to contemporary movements in abstract painting.

Although comparatively few Americans accepted wholeheartedly the severity of this new architecture, it opened their eyes to the possibilities of a fresh and unprejudiced approach to living as well as to building. And during the last fifteen years the original rigid adherence to "functional" theories has given way to a humanization of design. Some of the factors responsible for this trend have been new interest in the work of Frank Lloyd Wright, fresh admiration for traditional vernacular building, and constant development of new materials and techniques.

Modern houses in the United States today vary widely in structure and materials and form, for this contemporary architecture is not a stereotyped style but rather a point of view. Unhampered by arbitrary rules and outworn traditions, the modern architect is a scientist and artist who seeks to provide aesthetically pleasing dwellings which are truly contemporary in convenience and economy, in construction and design.

1.



2.



House at Old Westbury, Long Island, 1940, Edward D. Stone, architect (FORUM, July, '41). This luxurious house at the top of a hill is designed to take full advantage of handsome views across a rolling countryside (1). As in many modern houses, the projecting roof slab (3) is not only a pleasing feature of the design but has been carefully calculated to protect the glass walls on the south from sun in summer but not in winter. Heating is unnecessary on sunny winter days. A wide, well-lit corridor serves also as a gallery for some of the owner's famous art collection (2).

3.

Ezra Stoller





4.

Haskell



5.

Bailey

House in Lincoln, Massachusetts, 1939. Walter Gropius and Marcel Breuer, associated architects (FORUM, Dec., '39). The materials used are traditional—native rock and wooden boards painted white (4). The rooms are arranged in a simple two-story block, while the vertical shaft of the stairs is enclosed as a separate wing (5).

Town House in New York City, 1942, William Hamby and George Nelson, architects (FORUM, Apr., '43). This house is divided into two sections separated by a courtyard and joined by a system of ramps at one side of the court (6). On the street facade, windows are shaded by adjustable wooden louvers which assure privacy as well as protection from the sun (7).



6.



7.

Damora

Double House in Channel Heights Development, Los Angeles, California, 1943. Richard J. Neutra, architect; Lewis Eugene Wilson, consultant (FORUM, Mar., '44). Each house is planned for convenience and carefully placed for optimum sun, breeze and view (8). In addition, the architect designed appropriate and inexpensive furniture (9).

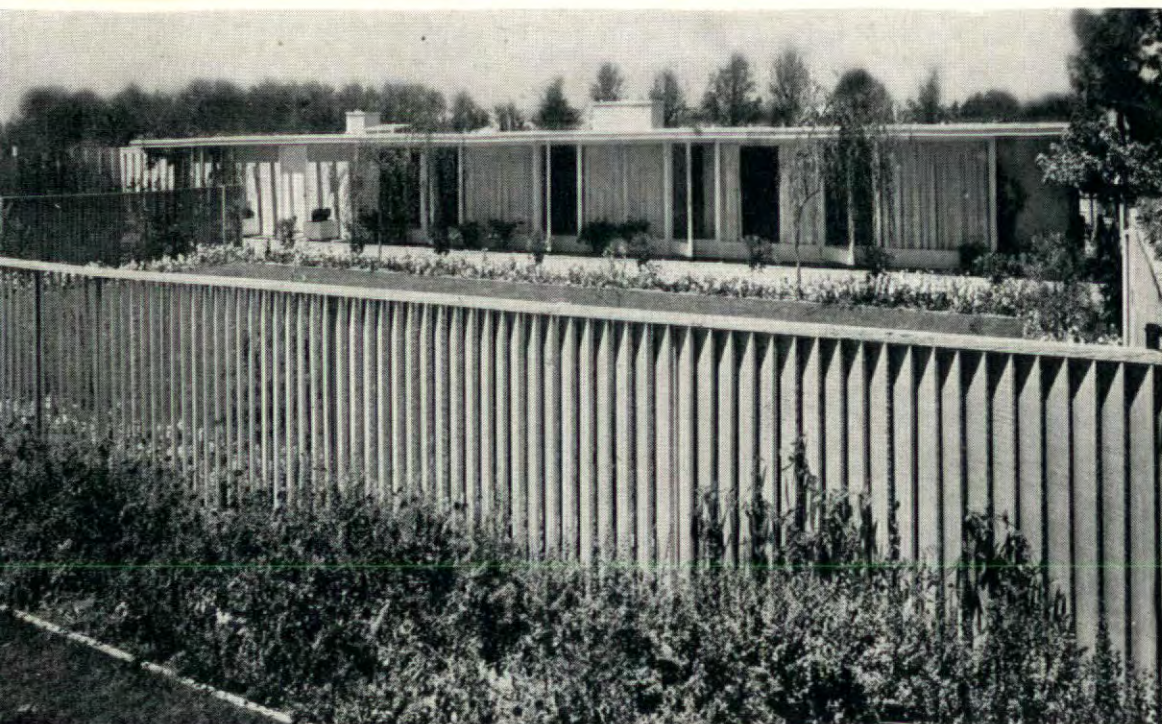
8.



9.



Shulman



10.

Roger Sturtevant

House in Modesto, California, 1939, John Funk, architect (FORUM, Mar., '41). This home is a direct and deceptively simple solution to the problems posed by a suburban site and hot climate (10). Rooms (11) are arranged in a long block to get cross ventilation, and the whole house is set far back on its lot, separated from the street by a sunny fenced-in garden (12).



11.



12.

Kosti Ruohoma

13.



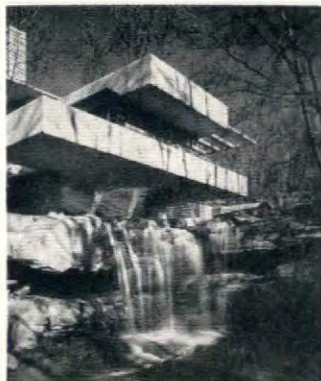
Summer house on Mount Desert Island, Maine, 1939, George Howe, architect (FORUM, Dec., '39). Constructed by local workmen from local materials, this house (13) seems as appropriate to the rocky coastline as the farmhouses, barns and bathouses of the area. The ceiling surfaces, painted an atmospheric blue-gray, continue beyond the walls to form generous eaves (14).

14.

Ben Schnall



15.



On this page are three houses typical of the work of Frank Lloyd Wright during the 30's. **Fallingwater, on Bear Run, Pennsylvania** (FORUM, Jan., '38). This dramatic house exploits to the full a picturesque site (15) and the possibilities of reinforced concrete (16).

House in Okemos, Michigan. Wright's best small houses all have a fine relation of exterior (17) to interior (18).

House near Phoenix, Arizona. Made of native boulders (19), the house suggests a haven on the desert's floor (20).

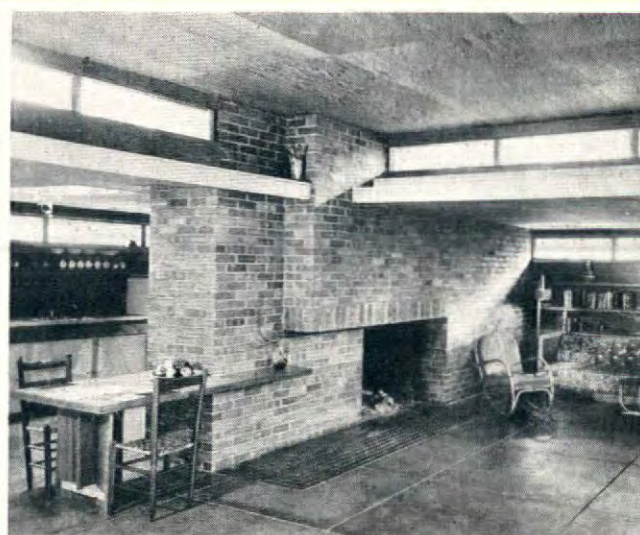


16.

Hedrich-Blessing

17.

18.



Leavenworth

19.

20.

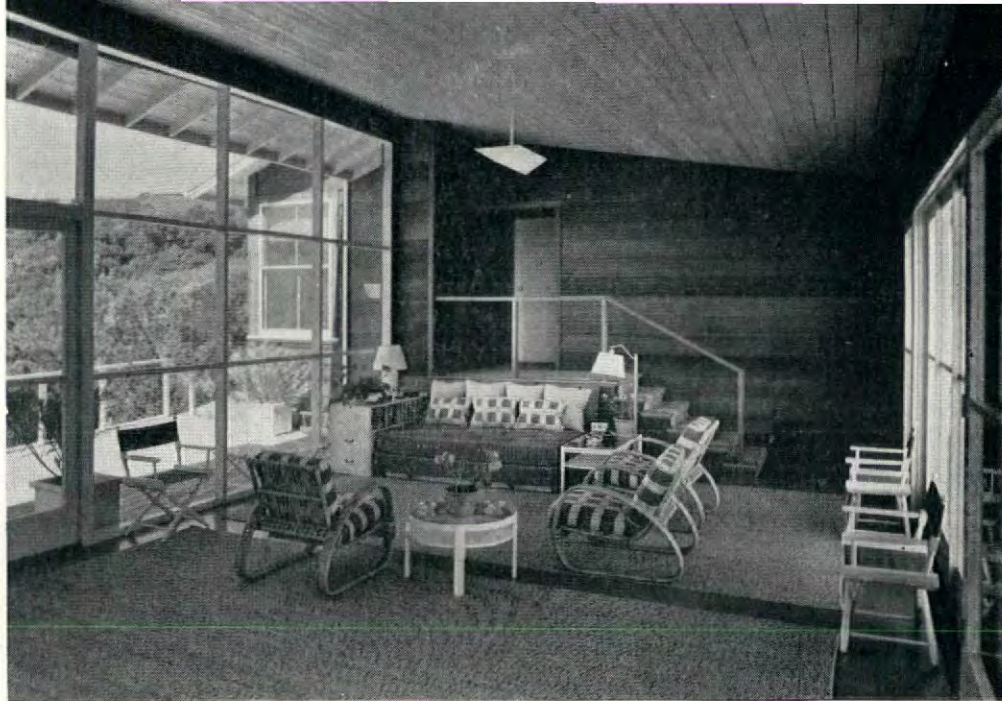


Guerrero

House in Saratoga, California, William Wilson Wurster, architect (FORUM, Apr., '41). This hillside house (21) is essentially two units connected by an enclosed porch and an open terrace (22), an arrangement making generous provision for the three types of living desirable in the year-round temperate climate of the San Francisco area.



21.



22.

Roger Sturtevant

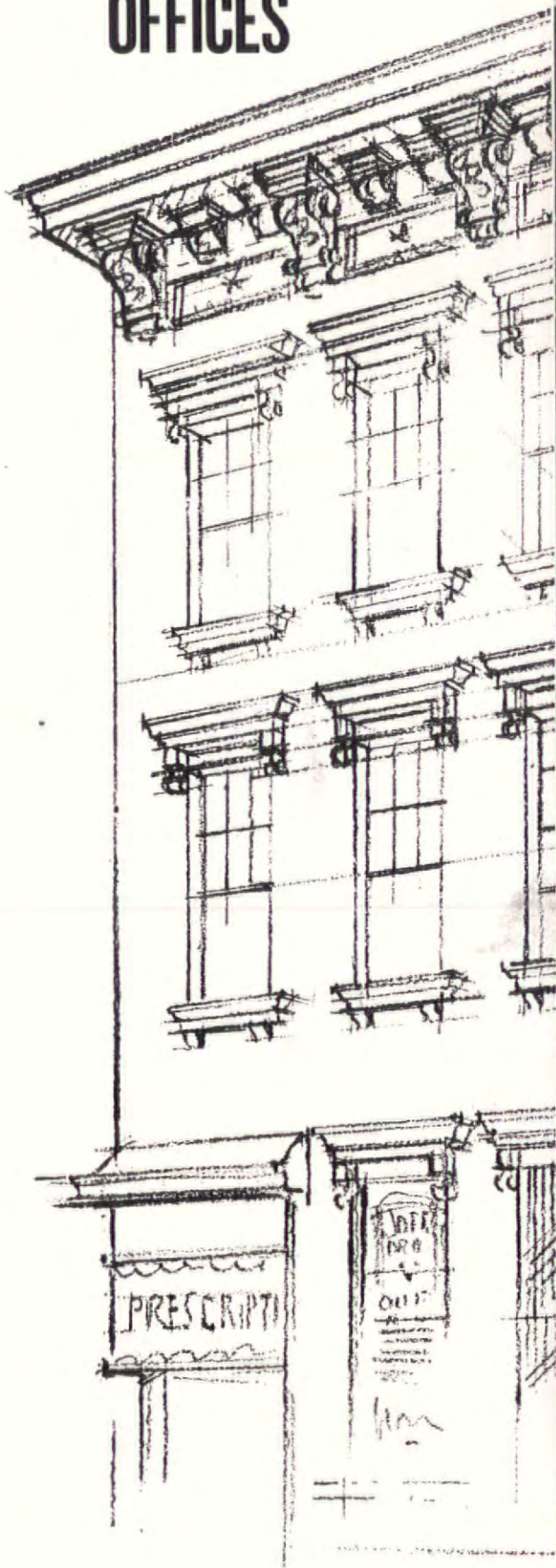


AND THE FUTURE . . .

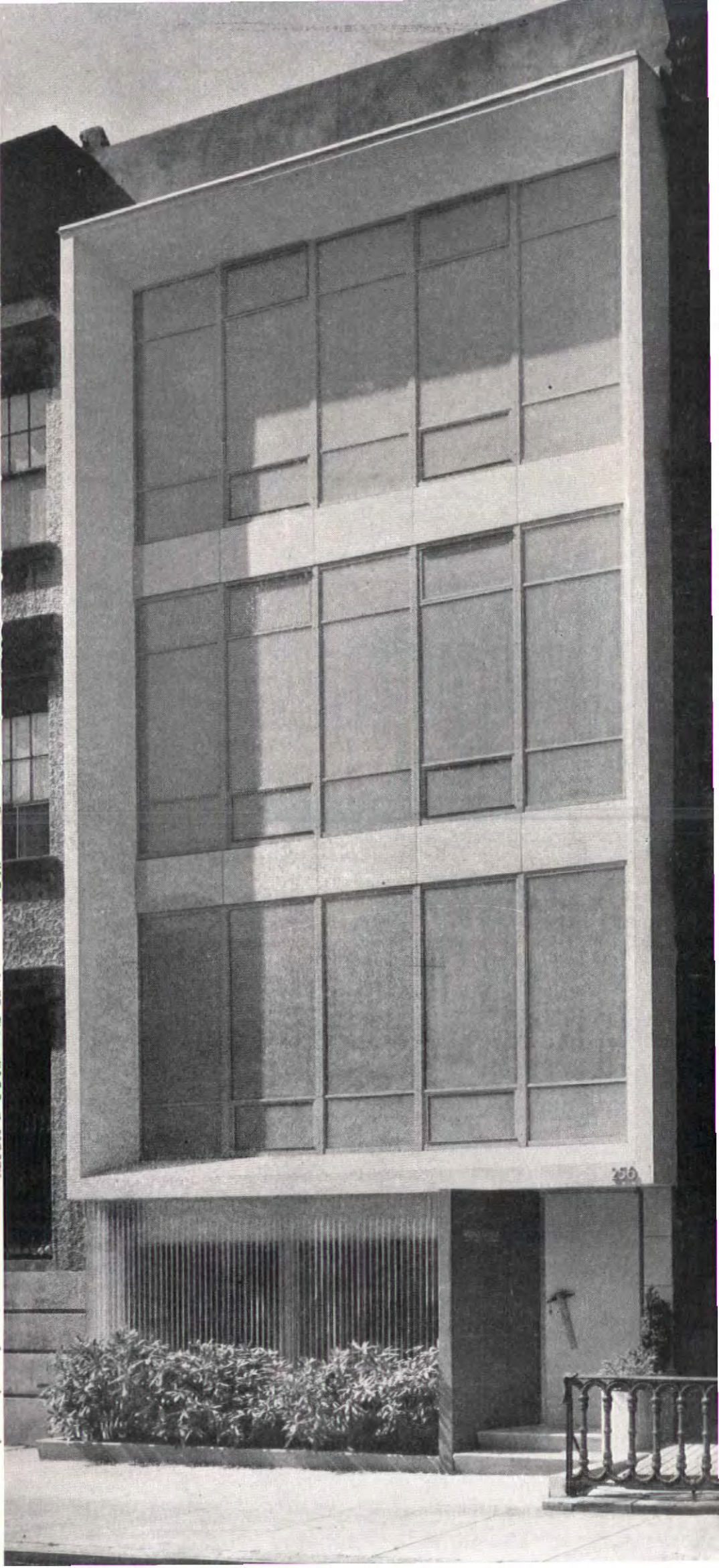
New homes for ten million families are part of the expected building activity in the United States between 1946 and 1956. Many of these families will still prefer the escapism of imitation colonial architecture even at the sacrifice of convenience and economy. But an increasing number of Americans are learning to appreciate the advantages of houses planned with all the freedom, economy, efficiency and freshly creative beauty possible in the mid-twentieth century.



DESIGN OFFICES



REMODELED BROWNSTONE
PROVIDES OFFICE SPACE
FOR THREE DESIGN FIRMS,
HAS A HANDSOME GLASS FRONT



ARCHITECTURAL OFFICES

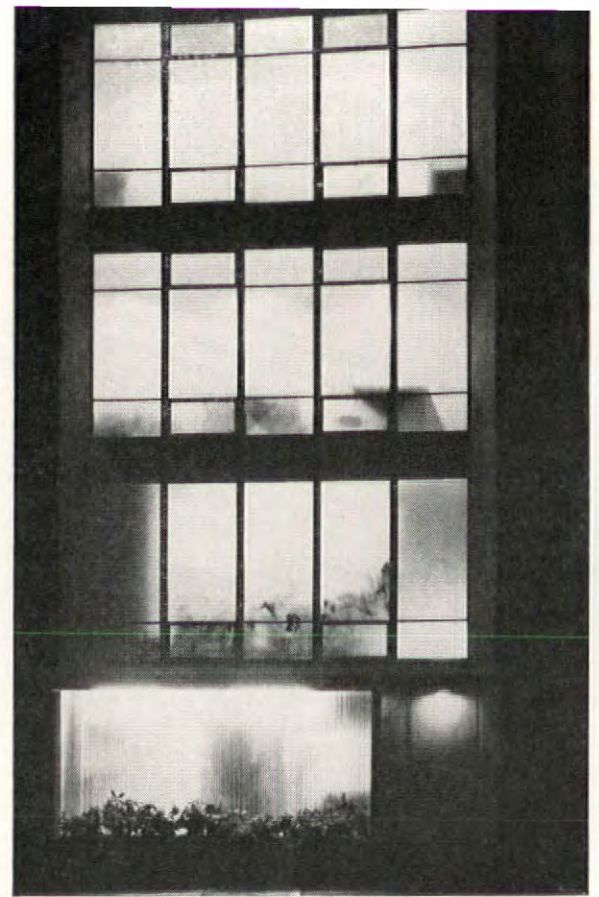
in a small remodeled brownstone
are compact and economical.

MORRIS LAPIDUS, Architect

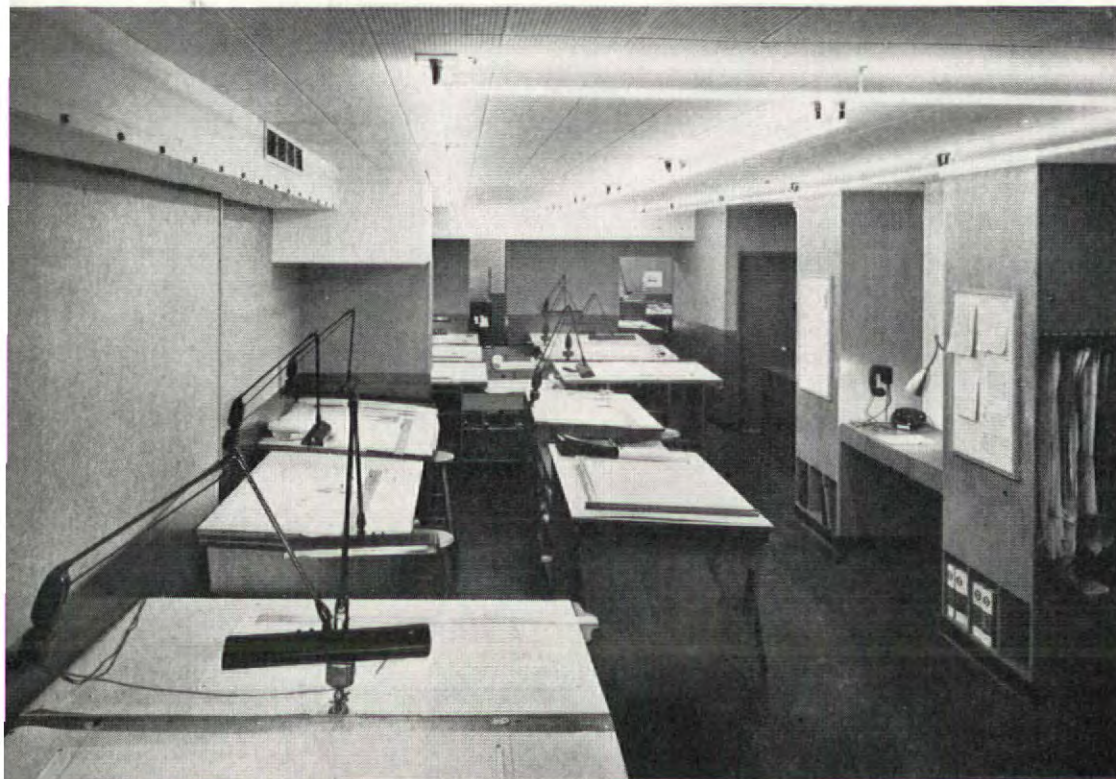
HERBERT CONSTRUCTION CO., General Contractor

Although it is only 20 ft. wide and 50 ft. long, this remodeled Manhattan rooming house provides complete and seemingly spacious office facilities for the designer's staff of 25, plus two upper floors for smaller architectural firms. Secret of the highly efficient space-use is the incorporation of much built-in furniture and cabinet-work and the frequent employment of skew lines in the interior design. The latter create not only space but also the illusion of spaciousness.

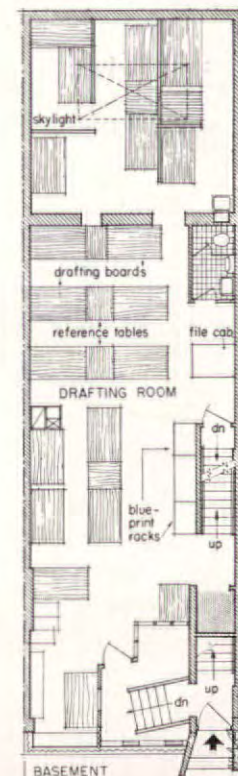
Only the structure of the \$21,000 brownstone was saved; its extensive remodeling boosted the total investment to \$61,000, of which \$25,000 was raised via a 4½ per cent 10 year mortgage with 2 per cent amortization written by East River Savings Bank. Against annual operating expenses of approximately \$5,000 (including taxes, maintenance, services and mortgage payments, the architect-owner receives \$4,000 in rent from his two overhead tenants. (The \$2 per sq. ft. rate is less than half that charged in local new office buildings.) If he charges himself \$5,000 a year for his first floor, basement and cellar (at about \$1.50 per sq. ft.), Architect Lapidus will retire the mortgage in seven years and thereafter pay himself only a trifling \$1,000 "rent" for his attractive, made-to-order offices. Equally important, by building his own offices Lapidus has created a street facade which effectively advertises his business and his proficiency—a valuable asset which could not be gained by renting from someone else.



NIGHT LIGHTING SILHOUETTES THE CONSTRUCTION



BASEMENT DRAFTING ROOM ACCOMMODATES 12 TABLES, TWO BLUEPRINT FILE CABINETS

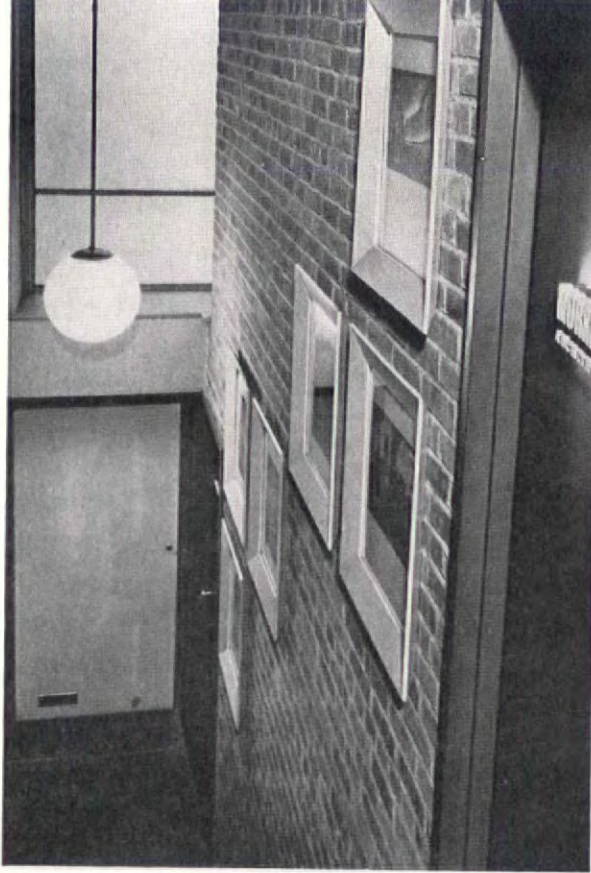


FINISHES AND EQUIPMENT

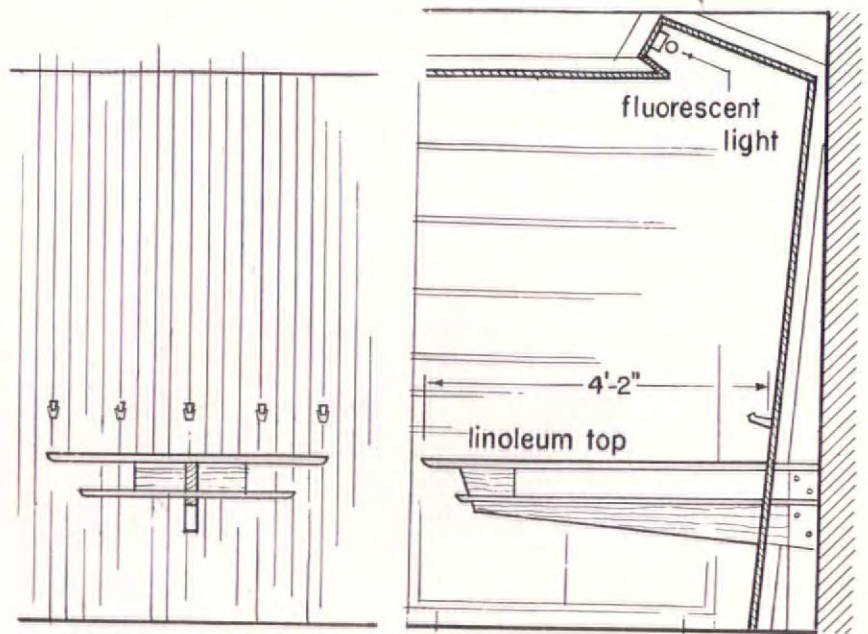
CEILINGS—plaster, perforated Acousti-Celotex, Celotex Corp., and Sabinite acoustical plaster, U. S. Gypsum Co. SOUND INSULATION—4 in. rockwool bats, Johns-Manville. GLASS—Bandlite and structural corrugated glass, Mississippi Glass Co. FLOOR COVERINGS: Asphalt tile and linoleum—Armstrong Cork Co. Carpet—Mohawk Carpet Mills, Inc. WALL COVERINGS: Fabrikona—H. B. Wiggins Sons Co. Weldtex—U. S. Plywood Co. FURNISHINGS—Gerber Construction Co., J. G. Furniture Co. and H. G. Knoll Associates. HARDWARE—Schlage Lock Co., Oscar C. Rixson Co. and P. F. Corbin. PAINTS—Pittsburgh Plate Glass Co. ELECTRICAL FIXTURES—Gotham Lighting Co., General Lighting Co. and Nulite Co. PLUMBING FIXTURES—Crane Co. HEATING—gas fired boiler, low pressure steam, National Radiator Co. AIR CONDITIONING—Armo Cooling & Ventilating Co., Inc. Radiators—American Radiator Co. Grilles—U. S. Register Co. Regulators—Minneapolis-Honeywell Regulator Co. Water heater—Rheem Mfg. Co.



CHIEF DESIGNER'S ROOM AT REAR IS SKYLIGHTED



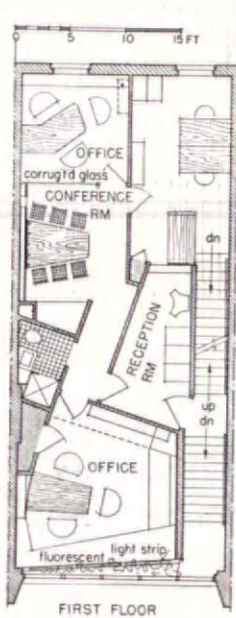
VESTIBULE IS LIGHTED BY FIRST-FLOOR WINDOW



DETAIL: CONFERENCE TABLE

SECTION

CONFERENCE ROOM FEATURES CANTILEVERED TABLE AND SLOPING DISPLAY WALL



FIRST FLOOR

Photos by Gottscho-Schleisner



FRONT OFFICE HAS SKEW WALLS, APPEARS BIG



INDUSTRIAL DESIGNER'S OFFICES

belie their location in a dark, old building.

McSTAY JACKSON CO., Designers

When McStay Jackson Co. of Chicago applied its talents to the design of new offices for its Industrial Design Division, the primary problems were the existing building's 16 ft. ceilings and lack of natural light. Both were economically and attractively solved by cutting the ceiling height in half with open grillework comprised of 1 x 4 in. pine boards 1 ft. on centers. Set flush with the grille's upper surface, fluorescent lighting fixtures brighten the rooms without being obtrusive. Outlets of the ventilating system are similarly located.

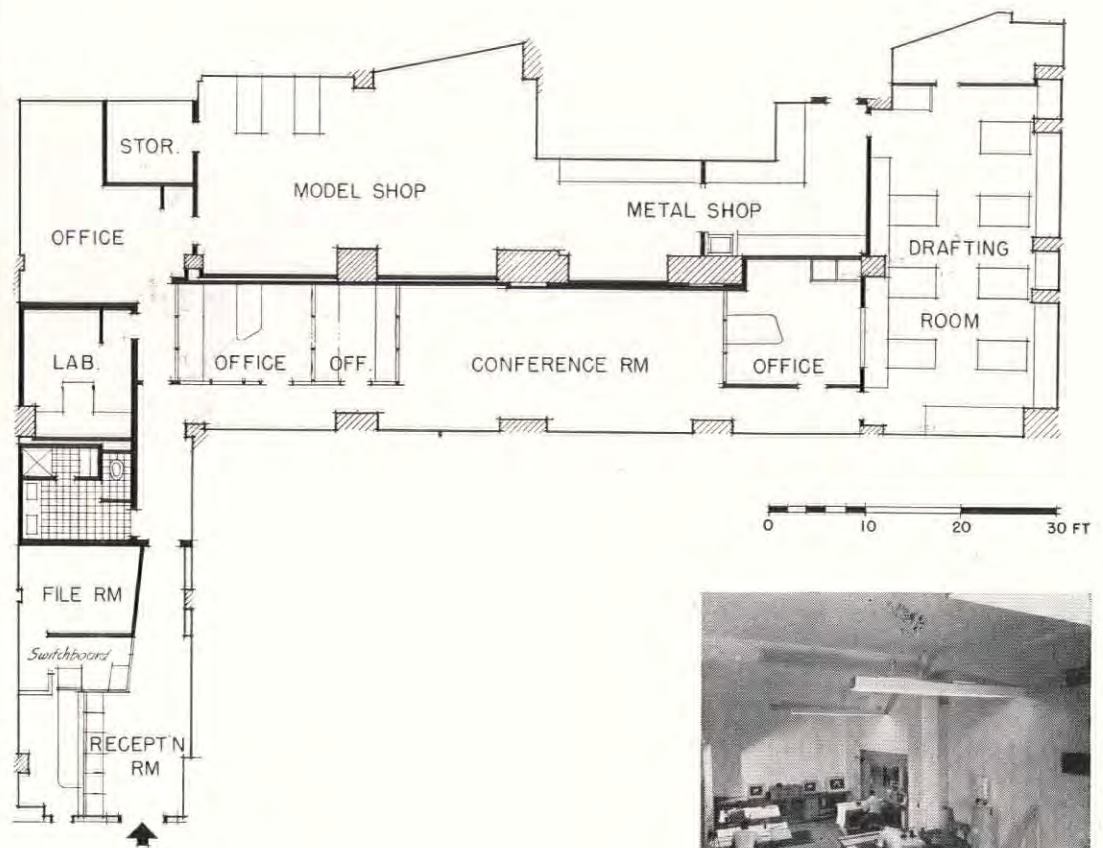
Blending with the structural character of the grilled ceiling, walls are of red brick and fir plywood finished in its natural color. Furniture is of equally severe design—much of it built-in. Contrasting with these materials, the office floors are finished in rich parquetry and (in the reception room, below) covered with a thick green shag rug. Partitions are half glazed, thus simplifying the lighting problem and increasing the apparent size of the rooms.

The original high ceiling was preserved in the design room to provide a better diffusion of light in conjunction with light-colored tile walls.



OFFICE PARTITIONS ARE GLASS AND PREFABRICATED FIR PANELS





DESIGN ROOM IS BIG, BRIGHT

CONFERENCE ROOM, LIKE ADJOINING OFFICES, HAS WOODEN GRILLED CEILING AND WILLIAMSBURG RED BRICK WALL. FLOOR IS CONCRETE PAINTED A TILE RED





LARGE OFFICE OPENS TO SHOW ROOM THROUGH A GLASS PARTITION

DISPLAYS INCLUDE FURNITURE, SCULPTURE, PAINTINGS, FABRICS

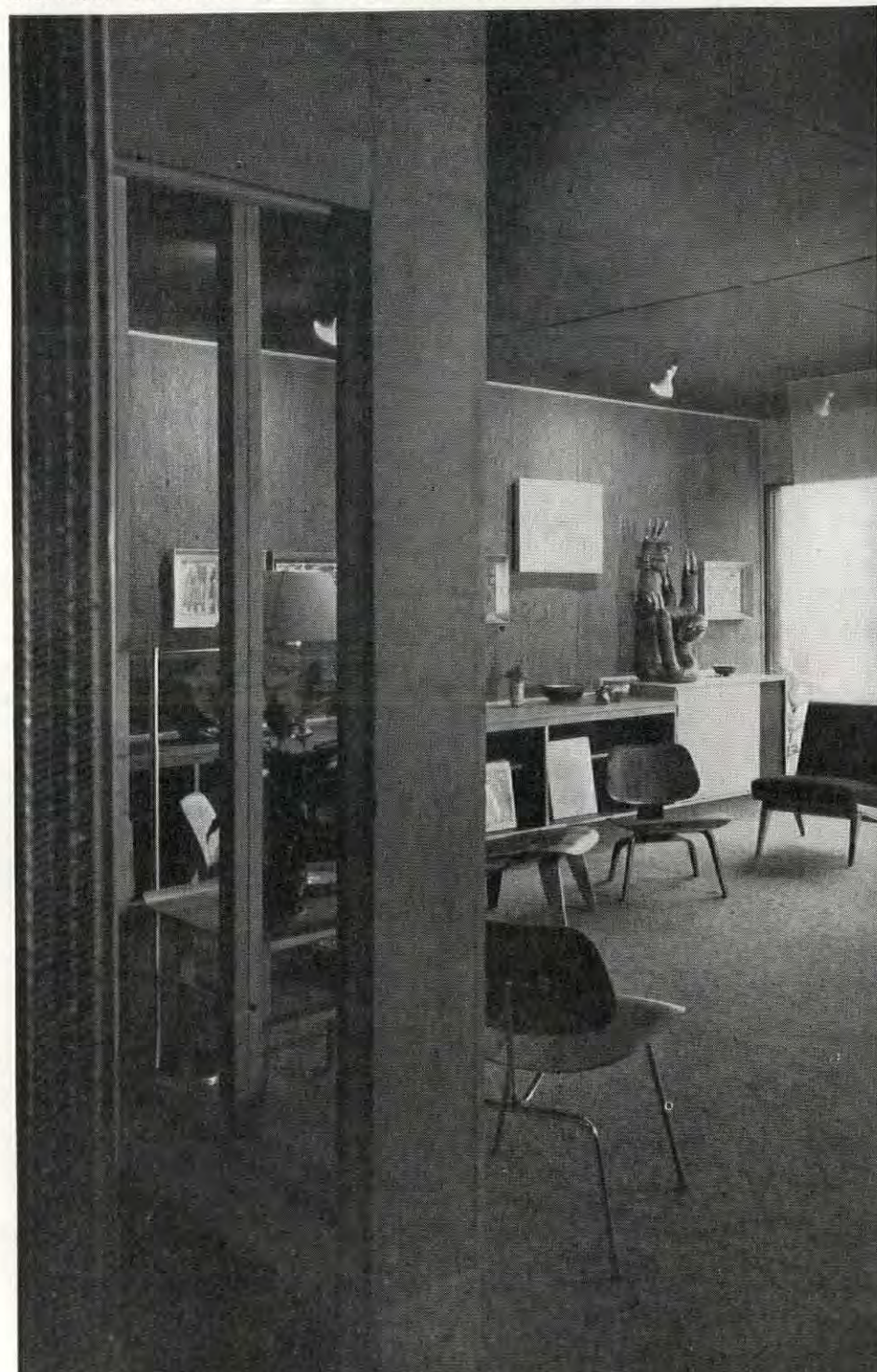
OFFICES AND DISPLAY ROOM

are created from an old Detroit hamburger stand.

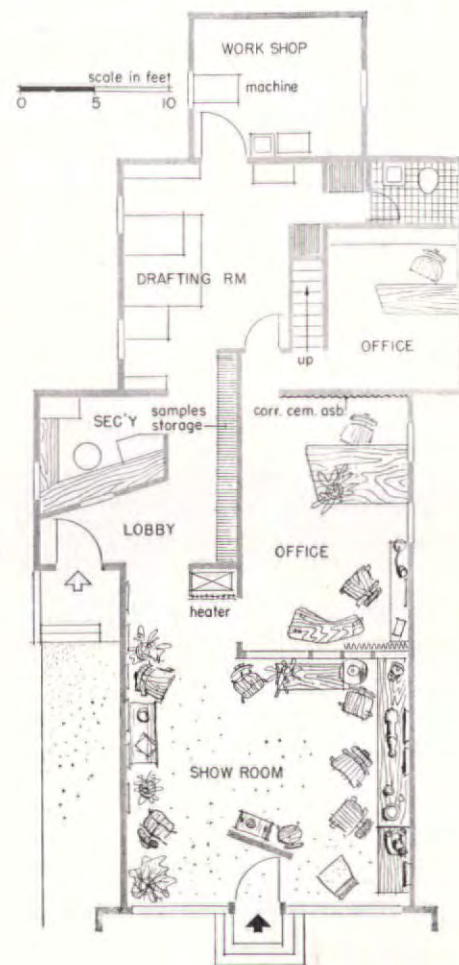
ALEXANDER GIRARD, Architect

Foiled in his efforts to rent suitable office space in Detroit's swank suburban Grosse Point, Architect Girard found an old hamburger stand in a good neighborhood and converted it with a minimum of time and money into attractive offices for himself and his decorator wife. For \$2,000 they pulled together the three box-like parts of the building and refinished the interior with striated plywood in its natural color, asbestos cement painted gray-blue, jute and burlap fabrics on the walls, black-painted fiber board on the ceilings and tan carpet on the floors. To give them a feeling of greater spaciousness, the showroom and main office were separated by a glass partition which may be screened with a curtain. The large windows facing the street were preserved to give the showroom an open front, but have been backed with a cellulose fabric because the continual peering of sight-seers distracted the occupants and their customers and because passing children are tempted to use the big windows as snowball targets.

Practicing all phases of design, the Girards laid out their modest building to accommodate all types of samples and displays, including building materials, wall finishes, furniture, fabrics, paintings and sculpture. Exhibited art is both borrowed and owned and is frequently changed for the benefit of potential customers and art classes from local schools and universities.



AND WALL FINISH



Photos by Elmer L. Astleford

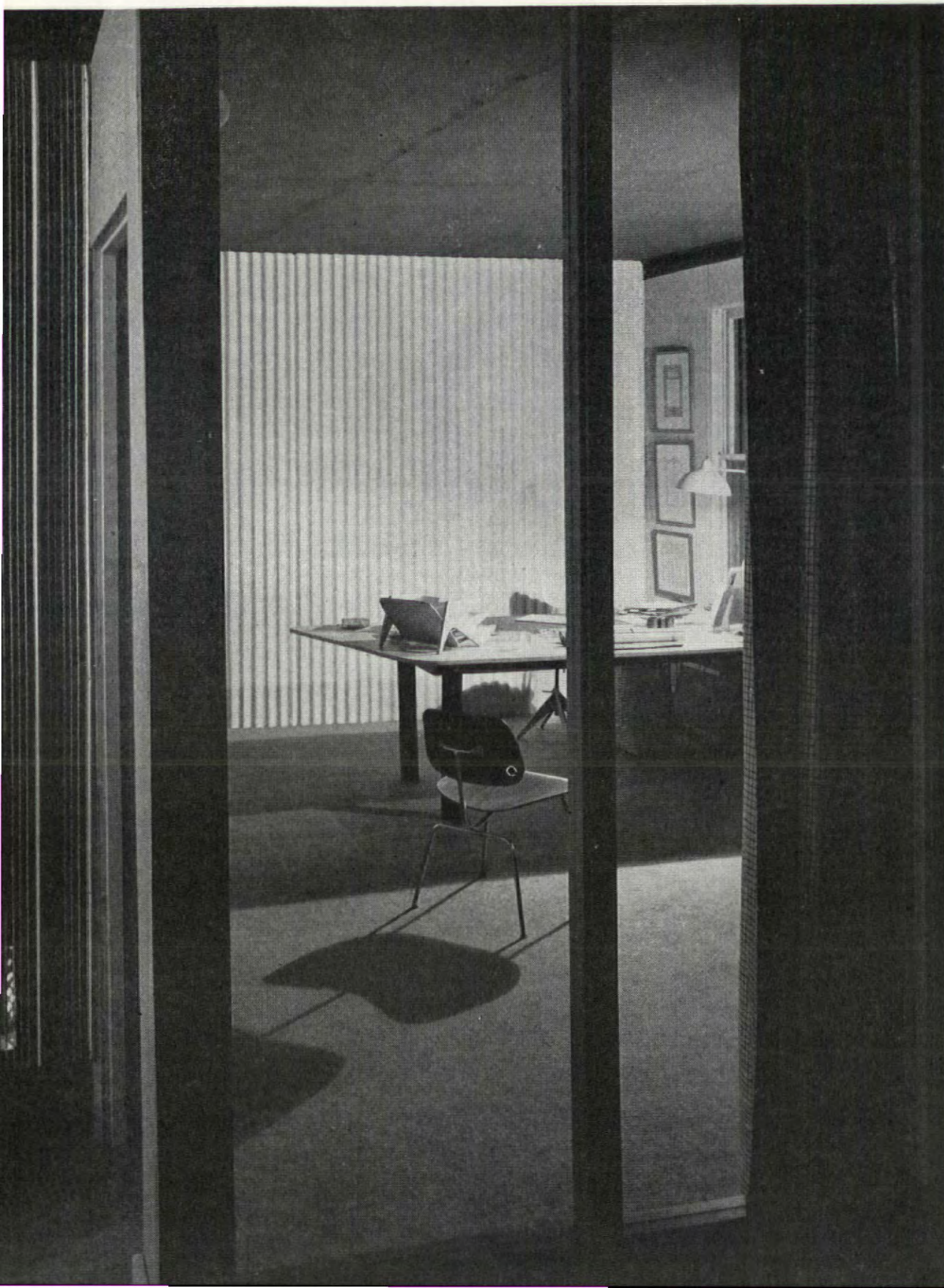
NATURAL LIGHT FROM FRONT WINDOWS IS AUGMENTED BY SPOTS

SHOWROOM FURNITURE IN MOLDED PLYWOOD IS BY CHARLES EAMES. NOTE SAMPLE DRAPERY MATERIALS AGAINST WALL



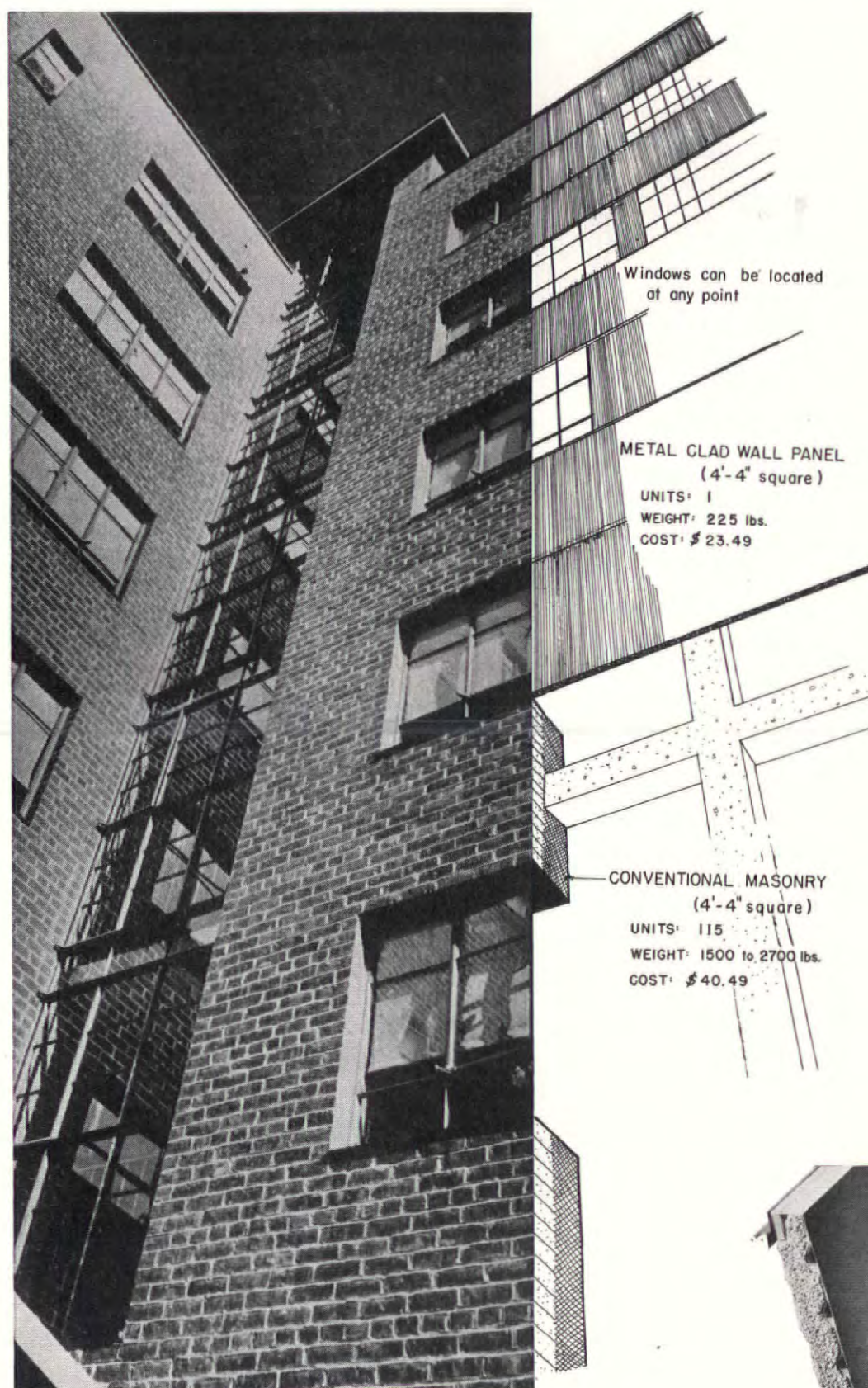
GIRARD OFFICES AND DISPLAY ROOM

DESIGNER'S OFFICE RELIES ON VERTICAL PATTERN OF FINISHING MATERIALS (STRIATED PLYWOOD AND CORRUGATED CEMENT ASBESTOS BOARD) FOR DECORATION. THE VERTICAL METAL LATH (LEFT) SCREENS HALL HEATER.



PRODUCTS AND PRACTICE

THE CURTAIN WALL—missing complement to the skeleton frame—is brought several steps nearer commercial reality by William Lescaze and Robert Davison, whose new design promises many economies to multi-story housing.

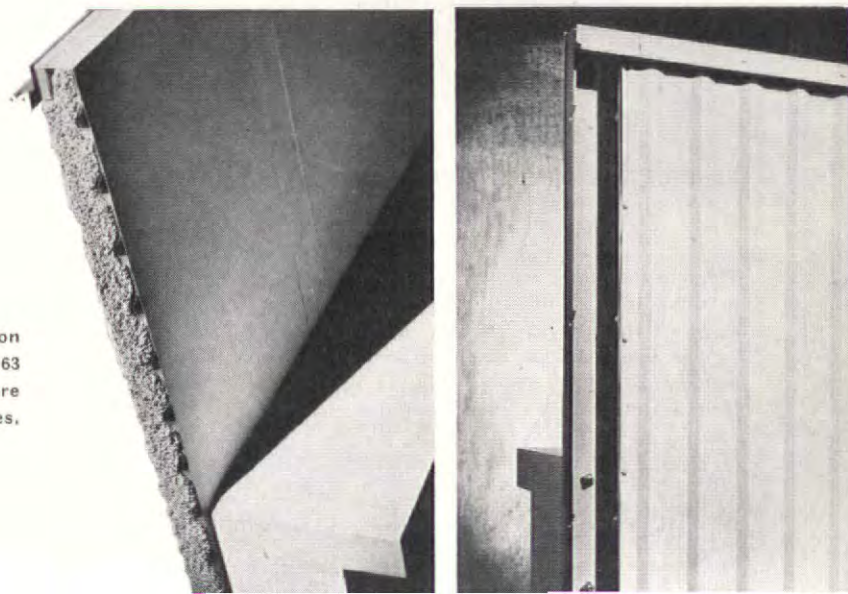


Ever since the steel or concrete skeleton reduced the wall's function to that of a mere skin, the concept of a "curtain wall" has intrigued American designers. A large, light-weight wall unit—incorporating fire- and weather-resistance as well as thermal insulation—was the obvious parallel to the development of the skeletal cage. The wonder is that such surfacing systems have not been commercially available for years. The reasons they have not, of course, are only too familiar to the building field: an unhappy cycle of restrictive building codes, restrictive trade and labor practices. Yet the demand for such a solution to the multi-story building has steadily increased. Two New Yorkers—Architect William Lescaze and Building Researcher Robert Davison—have now increased this pressure by developing a system called Metal-Clad Insulating Wall.

Subsidized by the nonprofit, privately-endowed New York Housing Trust, Lescaze and Davison last year set to work on the new system. The outlines of the problem were clear. Whatever they developed would have to be adaptable to conventional framing systems. It would have to be standardized in dimension, yet flexible enough to meet small but exasperating variations in ceiling heights, column spacings and sash sizes. Obviously, it would be a prefabricated panel, large yet easy to handle and easy to attach to either steel or masonry frame. It would have to meet current criteria of strength, fire resistance, weather-proofness, etc. Finally, the design would have to be easy to fabricate from a wide variety of available surfacing and insulating materials.

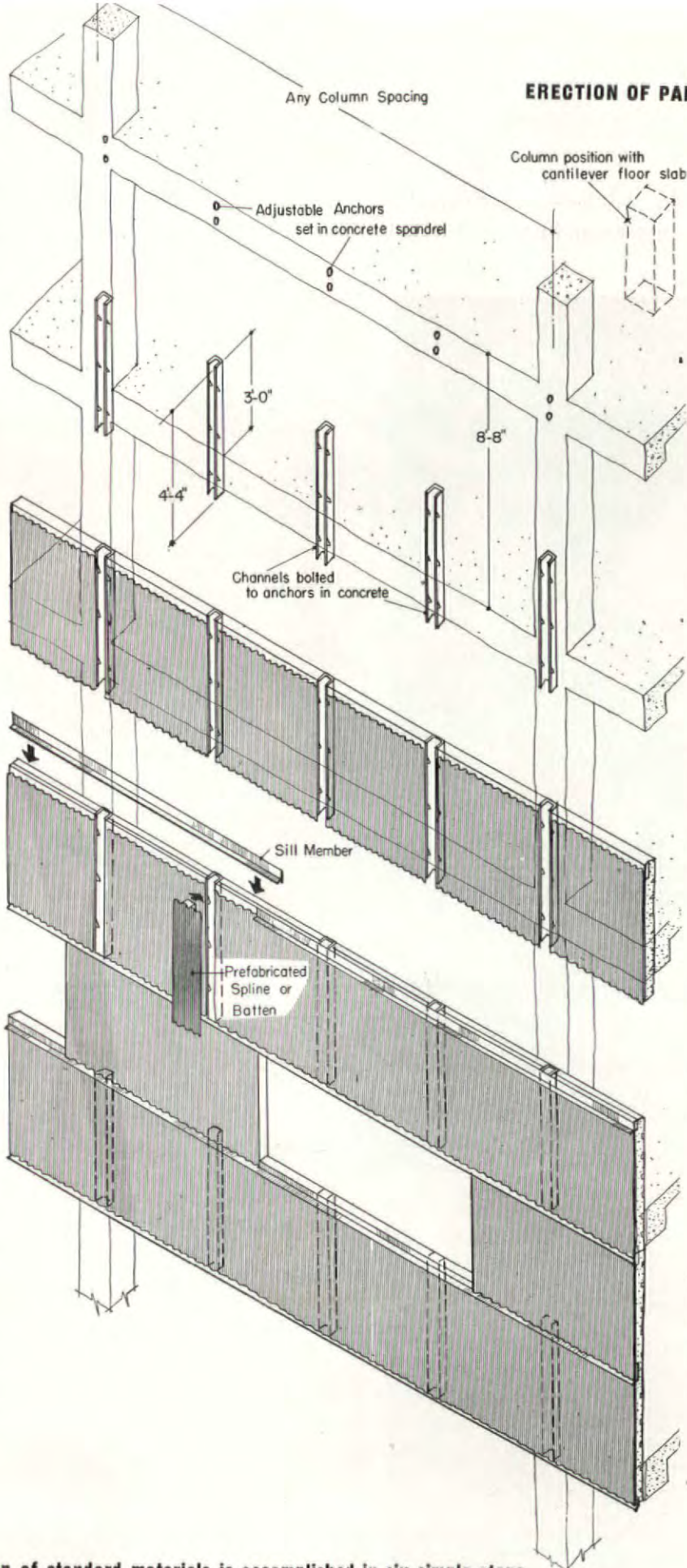
The Metal-Clad wall, as shown on these pages, meets the above specifications admirably. It is a horizontal system, the panels running in strips around the building, two to a floor. The lower panel, attached directly to the spandrel beam, is solid and carries the load. The upper strip carries any combination of window and solid wall desired, a device which frees the system of any dependence on columns and gives it dimensional versatility.

METAL-CLAD INSULATED CURTAIN WALL, as developed in Lescaze and Davison prototype (right), can reduce weight by as much as ten times, bulk by 63 per cent, cost by 42 per cent—all with no sacrifice in performance. (Costs are estimated on basis of current prices and include all labor, materials, finishes, painting and scaffolding.)



A shop-fabricated curtain wall for skeleton frames promised important economies in labor, materials, rental space. This has been apparent for decades: but, in evolving an actual prototype which any manufacturer might produce and any architect use, Lescaze and Davison had to go through a long process of selection. They cleared the first hurdle with the discovery that a non-structural skin applied horizontally was more versatile than one applied vertically. Next, the design of the individual units or wall panels: these would be fabricated out of standard sheet (stainless steel, aluminum, copper) and insulating material (from glass, asbestos-cement, vermiculite, etc.). But exactly how? It was found that, theoretically, some twenty variations of a sandwich-type panel, with and without structural frame, were possible. Nine of these were discarded as contradictory or otherwise impractical. The remaining eleven were gradually weeded out (see p. 100) until one remained: this was then developed for both installation (right) and manufacture (below).

Although the New York Housing Trust, as sponsor, had no plans for actually manufacturing the curtain walls, the program called for complete engineering data which interested manufacturers could adapt. Laboratory tests on the Lescaze-Davison prototype are not yet complete. But enough data is already available to indicate that the Metal-Clad Insulating Wall, if it ever gets into production, will offer the masonry wall a run for its money. One of the new wall panels, 4 ft. 4 in. square, replaces 115 masonry units. The complete panel weighs 225 lbs. against 1,500 lbs. (brick and hollow tile) or 2,700 lbs. (solid brick): this weight differential alone should yield important economies in the skeleton itself. The new panel is 3½ in. thick instead of the conventional 13 in., yet it has a K factor of .12—twice as favorable as brick and furred plaster. Under test, the panel resisted forces twelve times the required wind load of 15 lbs. per sq. ft. Under transverse concentrated loading, a test panel showed a bond failure (between core and skin) at 600 lbs.: final failure occurred at 1,490 lbs. The panel meets a four-hour fire-test. Finally, costs per square foot are lower for the panel than for conventional 13-in. masonry walls. The designers' estimates indicate that this saving may amount to \$0.92 per sq. ft. Though this margin may be less under actual conditions, it is likely to remain substantial.



ERECTION OF PANELS is dry, rapid, foolproof: a complete wall results.

FIRST STAGE in erection of curtain wall consists of insertion of two anchors in spandrel beam, spaced 4 ft. 4 in. o.c., regardless of column spacing.

SECOND STAGE. Vertical steel channel studs are bolted into place. Exact alignment of studs, despite any irregularities in building frame, is possible by adjustments.

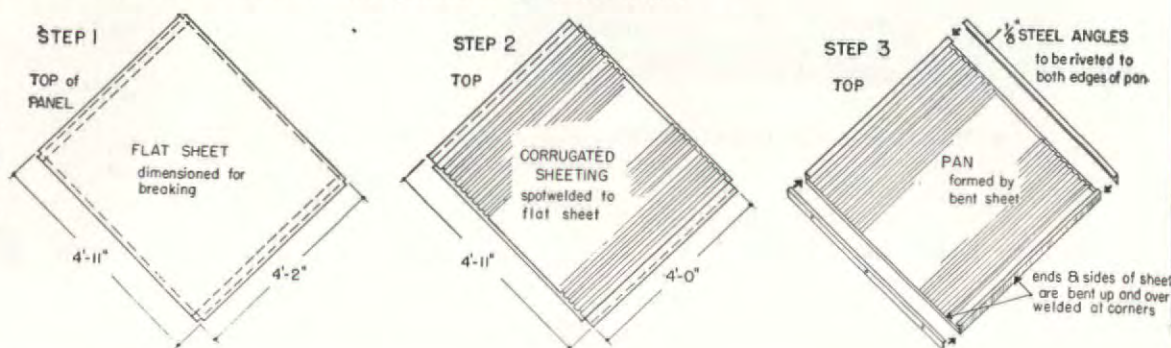
THIRD STAGE of Lescaze-Davison prototype (left) differs from Republic's (right) in that the former bolts panels to studs, while the latter next attaches continuous horizontal sill and head members to studs (3, right).

FOURTH STAGE. In Lescaze-Davison design, horizontal sill and head members are now attached, while, in Republic's, wall panels are slipped into place. Prefab spline seals vertical joint in both systems.

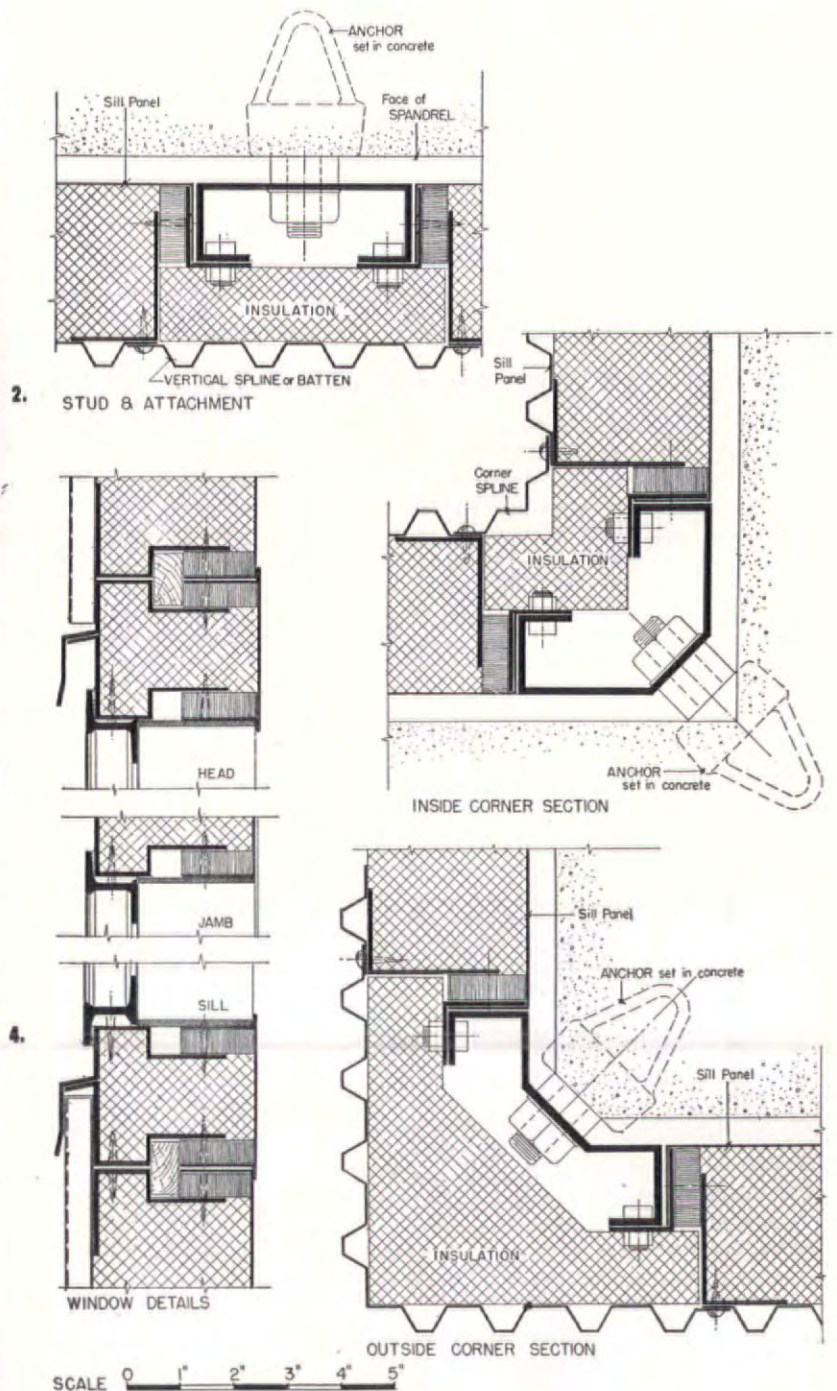
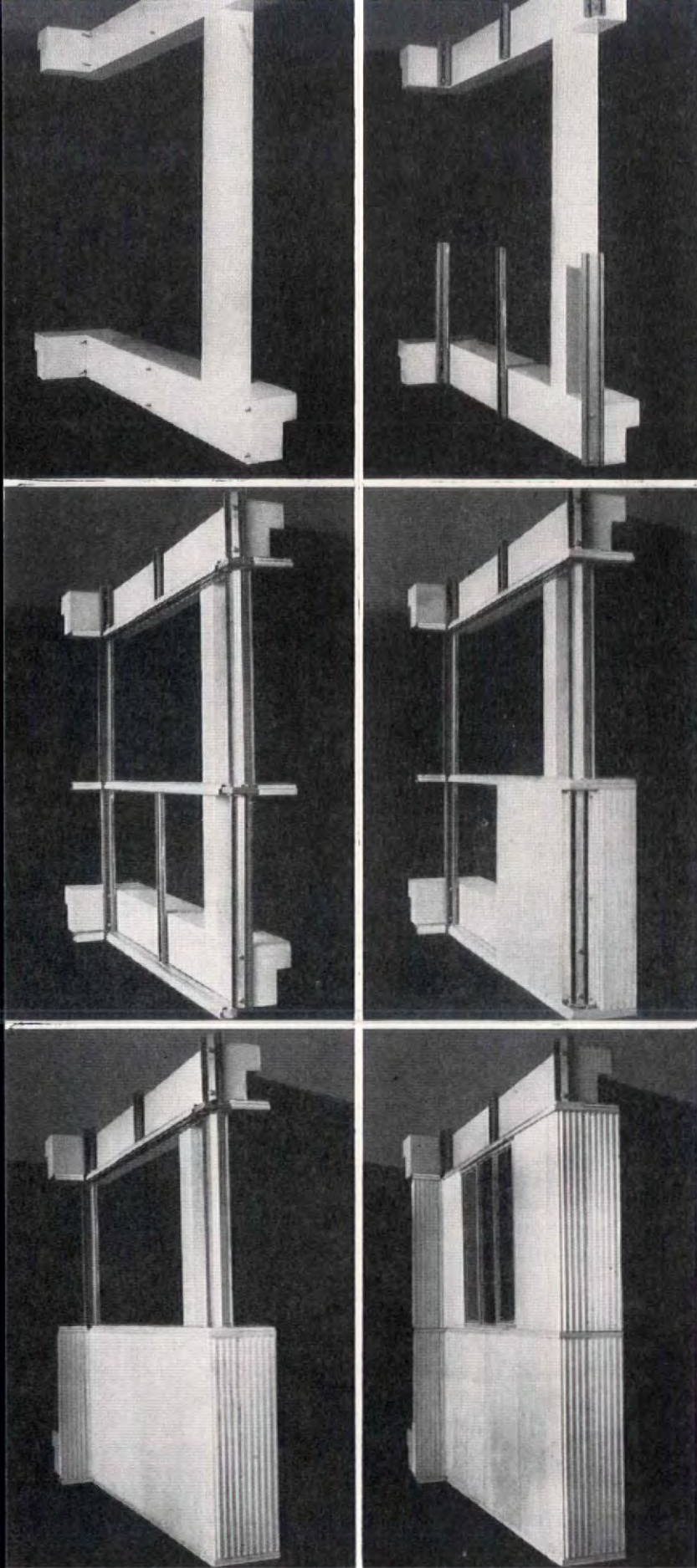
FIFTH STAGE. With continuous horizontal spandrel strip complete, installation of window strip proceeds. Supported by panel strips below and above it, this area can have any proportion of glass and solid wall desired.

FABRICATION OF PANEL from any combination of standard materials is accomplished in six simple steps.

The manufacturing process, in the stages shown at right, is fundamentally the simplest sort of sheet metal work, requiring no elaborate dies or similar equipment. A standard break, welding equipment and presses (if core is bonded to inner metal skin) are the essential equipment.

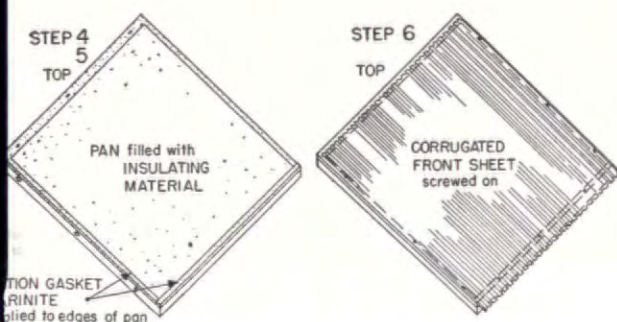












REPUBLIC STEEL, aware of curtain wall's potentials, produces an experimental variant which it may ultimately market.



6.

Swamped with a backlog of postwar demands, Republic Steel finds itself in no position at the moment to launch a new building line, prefab or otherwise. Nevertheless, with an eye on market conditions a couple of years hence, it set its Process and Product Development Division to work on a modification of the Lescaze-Davison design. The system shown here—experimental in every sense—follows the prototype in all basic points. The outer corrugated skin and horizontal members are of stainless steel, the inside surface of enameled steel. Republic engineers have made a slight variation in erection sequence (left, above), which yields a complete hanger system before panels are bolted into place. They have also omitted as structurally unnecessary the inner corrugated sheet. (In the prototype, this is tack welded to outer surface of inside metal skin.) Instead, they have successfully bonded the insulating core to the inner skin, using both a porous silicate product and Pittsburgh-Corning's Foam Glass. Experimental work on both the system as a whole and its various parts is still continuing at Republic's Cleveland laboratories. However, there is no indication when—or if—Republican can make this system commercially available.

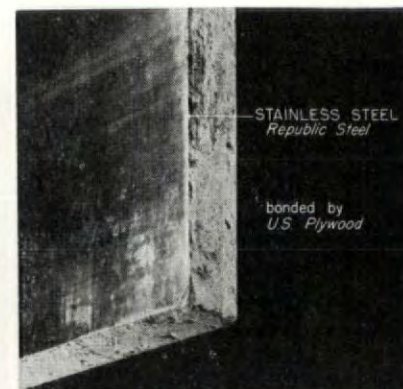


			BOTH SKINS PARTICIPATING	NON - PARTICIPATING CORE		CORE PARTICIPATING WITH ONE SKIN	
				Rolled Metal Frame	Sheet Metal Frame	Rolled Metal Frame	Sheet Metal Frame
STRUCTURAL FRAME	NO FRAME		A-1 				
	SINGLE FRAME CONNECTED TO TWO SKINS			BF-2 		CF-2 	
	TWO SINGLE FRAME INTER. CONNECTED TO: One Skin			BF-3 	BS-3 	CF-3 	GS-3 
					BF-4 	BS-4 	CF-4 

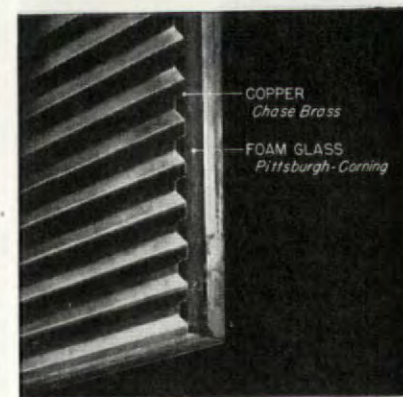
FINAL PANEL TYPE selected from many possible variants.

Even within the apparently simple limits of designing a 52-in. square, non-loadbearing wall panel, an amazing number of variables present themselves. Lescaze and Davison found at least twenty possible combinations—with and without frame, with and without participating insulation core, etc. They systematized the process of elimination and selection by the checklist shown above. Problems of jointing and weatherproofing eliminated the simple bonded sandwich (Type A-1 on chart) immediately. Metal-to-metal contact through the wall eliminated several others (BF2 and CF2). Although the concept of

folding the metal skins into girder shapes to replace a separate frame seemed attractive, tests revealed that no economical fold gave the panel edges sufficient rigidity to transmit transverse loads. This eliminated BS3, CS3, BS4, CS4. Thus, by degrees, choice was narrowed down to Type CF4 as being the most practical to develop. This design was used both in the Lescaze-Davison prototype and (without the inner corrugation) by Republic Steel. Other study: the Housing Trust research project merely developed the type with widest application.



Two of many panel types show . . .



. . . possible combinations of material



FLASHBULB LIGHTING of sculptural group shows immense spread in values between marble head (center) and others around it. Problem was to light each piece to bring out inherent qualities yet prevent domination by any one.

EXHIBITION LIGHTING shows how successfully this has been accomplished. Note that marble head (left, below) does not dominate either alabaster head in center or bronzes around it.



THEATRICAL LIGHTING used by electrical engineer to create dramatic sculpture display.

A young lighting engineer named Richard Kelly last month gave New York's famous art market—East 57th Street—a lesson in how to display sculpture to best advantage. The occasion was the Knoedler Galleries' large retrospective show of the work of the late French-American sculptor, Gaston Lachaise. The show, which received high praise from the press, was not only lighted, but designed as well by Kelly. Describing his approach to the problem, he points out that the main problem was that of satisfactorily organizing a lot of small sculptural pieces into a pleasant, coherent design.

"The grouping of the sculpture was in three parts: in the first room, the idealized heads and a group of figures—including the giant nude. The portrait heads (right) were grouped in the inner room. Most of these pieces were small. They would have been lost in the tremendously high ceilings of the big rooms." So circular screens, concealing the lighting fixtures, were hung from the ceiling to establish proper scale. These suspended screens gave the figures intimacy without reducing the spaciousness of the room.

The circular screens were covered in white cotton scrim, loomed to a 12 ft. width. All lighting equipment was mounted above them on a frame of metal tubing. The points at which the spots came through the screens were painted with black paint to prevent diffusion and glare beneath. "We did not want light reflected on the ceilings or the walls," Mr. Kelly says. "The walls were covered in dark brown velvet, and—by keeping them dark—we made the sculpture appear to float."

Each sculpture within these groups, Mr. Kelly points out, was individually lighted. "There is ten times the amount of light on the head of Marin as on the woman's head in white marble. The Marin was of black bronze, which took a very hard light to bring out its bronze quality. We used an additional soft light on one side to light the shadows. The trouble with the white marble head was that it had too much impor-

(Continued on page 102)



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Any good garage door will protect the contents of your building, but Ro-Way protection goes much farther than that. *First*, when opened, no part of the Ro-Way Overhead Type Door is exposed to the elements or to breakage from outside forces. *Second*, Ro-Ways operate so easily the user is never tempted to carelessly leave them open. *Third*, Ro-Way Tracks, Rollers, and all other hardware parts are protected by Parkerizing and painting *after* fabrication.

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Every Ro-Way Door is built completely by Ro-Way, and Ro-Way sales and installation service is nationwide. Distributors in all principal cities. See your classified directory, or write for distributor's name. See our catalog in Sweet's.



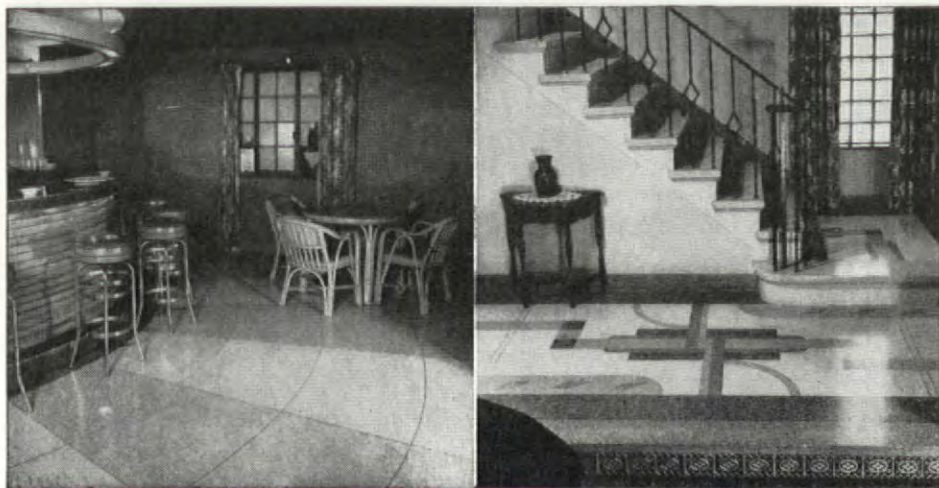
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Due to its marble chip content, terrazzo is ideal for floor type radiant heating. The installation of terrazzo over heating pipes—buried in the concrete directly below—not only assures warm floors but makes practical ones too. Terrazzo provides sanitary, vermin proof, enduring surfaces that require no costly maintenance—that clean easily with soap and water.

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When you specify terrazzo, be certain your exact desires of patterns and colors can be carried out easily. Specify Medusa White Portland Cement—the cement with the successful 40 year service record for outstanding terrazzo. Pure non-staining Medusa White as a matrix, sets forth the colored marble chips in such a manner to give maximum color values in the finished floor. And, by adding color pigments to Medusa White, delicate shades for blending or contrasting backgrounds can be obtained.

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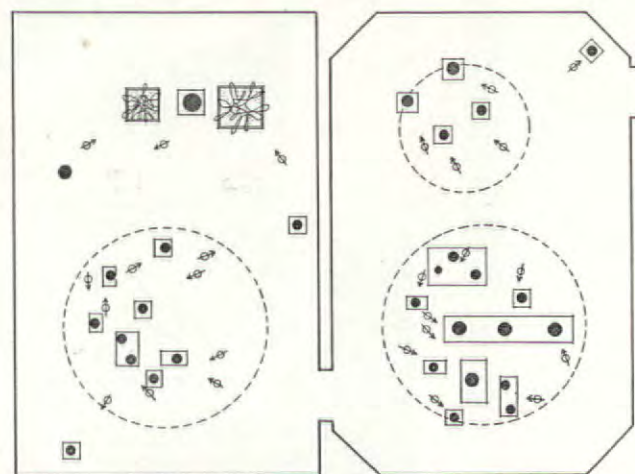
Also made by Medusa Products Co. of Canada, Ltd., Paris, Ontario

"FIFTY-FIVE YEARS OF CONCRETE PROGRESS"

MEDUSA *white* PORTLAND CEMENT

tance over the others in an intimate group—it stood out too much under general lighting. There had to be a different light on each one to bring out the materials. For instance, the Warburg head transmuted light through the alabaster, so it was luminous (center, lower right).

"Most of the fixtures used are from the theatrical lighting field. There are large Fresnel lens units (the round tube type). This type had to be hung low. The screen was designed to shield this equipment, although it did not completely hide it: at least, you did not feel its presence. In addition, the scrim had just enough general over-all light to soften the shadows. The Fresnel lens units have a very soft edge. One soft unit was used for the Van Vechten and Kraushaar heads—one unit on both heads as they both needed the same quality of light. Because the Van Vechten was a very light bronze and the Kraushaar a white marble, however, they could not have the same intensity, so a half filter was used to cut the beam in two.



↔ spot lights or flood lights

SMALL SCULPTURES IN A BIG GALLERY would be lost under ordinary display techniques. Hence Kelly grouped them on pedestals under suspended circular screens, cut out regular lighting altogether, illuminated each piece individually.

"Besides the Fresnel, two types of baby spots were used with simple convex lenses; there were a number of compound lens spots; condensing lens, and compound lens with shutter adjustment—giving a very fine controlled beam. There were miscellaneous filters on all of them; some short focus, some wide focus, some with asbestos shield. When there are a lot of different materials, no one white light will bring them into complete relationship. So we used some color filters, for warm light and cool, to bring out the quality of the pieces. On the marble head we used, for warmth, a chocolate filter.

"The total wattage for the whole show is roughly 8,500. The ordinary lighting of the two rooms, designed for paintings and coming from the high ceilings, totaled 12,000 w. We actually cut this regular gallery lighting out altogether. A total of 27 units was used in the two rooms."

ELECTRIC SPACE HEATING proves efficient for large plant in public areas.

When officials of the Mountain City Mill Company, Chattanooga, Tenn. put in their new heating system, they found a way to cut heating costs appreciably, control temperatures throughout the plant and make more space available for productive purposes. They also helped to prove that, in areas where power rates are comparatively low, electrical space heating is coming into its own. (Continued on page 104)

G.E. ELECTRONICS PARK SELECTS G-E Q-FLOOR WIRING SYSTEM FOR COMPLETE ELECTRICAL FLEXIBILITY

Taking full advantage of its own up-to-the-minute Q-Floor wiring, General Electric has made sure that its new electronics plant will keep pace with fast-moving changes in the electronics field. With this modern underfloor system, Electronics Park will have electrical service when and where needed . . . as long as needed.

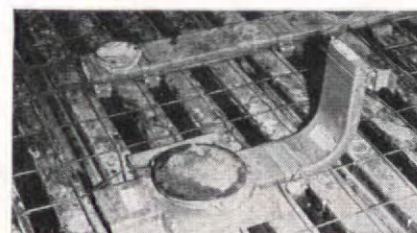
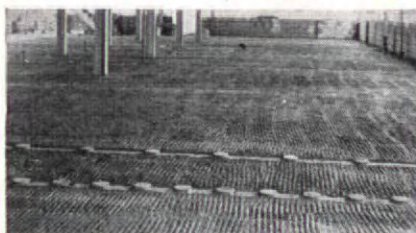
Flexibility for All Buildings

Robertson Q-Floors with G-E Q-Floor Wiring make a sturdy, flexible system of cellular raceways that provide for all present wiring needs, and are adequate for any future requirements. Once installed, Q-Floors permit addition of any number of outlets, without the nuisance of tearing up floors or laying more raceways.

All buildings — factories, hospitals, offices, retail stores, and other commercial structures — can be designed to stay electrically young with G-E Q-Floor Wiring. Projects large or small can benefit from the wiring convenience they provide. Give your General Electric merchandise dealer, or a factory underfloor specialist, a call — or write to Section C58-54, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.



As modern as the equipment it will build, Electronics Park, the 157-acre General Electric installation at Syracuse, N. Y., is prepared for any future changes in electrical needs — with adaptable Q-Floor raceways.



Construction views of Q-Floor wiring installations at Electronics Park.

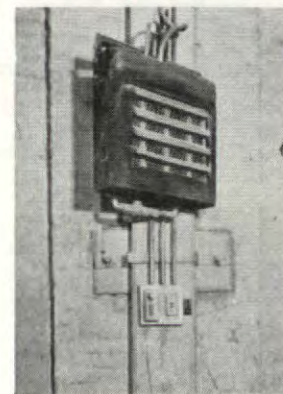
CONSTRUCTION DATA

Project: Electronics Park, Syracuse, N. Y.
Architect: L. Rosetti, Giffels & Vallet, Inc., Detroit, Mich.
Structural and Mechanical Engineers: Giffels & Vallet, Inc., Detroit, Mich.
Building Contractor: Walsh Construction Company, Davenport, Iowa
Electrical Contractor: Fishback & Moore, Inc., New York City

GENERAL  **ELECTRIC**

Company officials first experimented by heating several areas of their plant—a large flour mill—with electric unit heaters manufactured by Electromode Corporation of Rochester, N. Y. As a result of this preliminary test, the mill's old heating system was entirely removed and fifty unit heaters, provided with thermostatic control, installed.

Mountain City Mill Company thus became the Tennessee area's largest single user of electricity for space heating. The



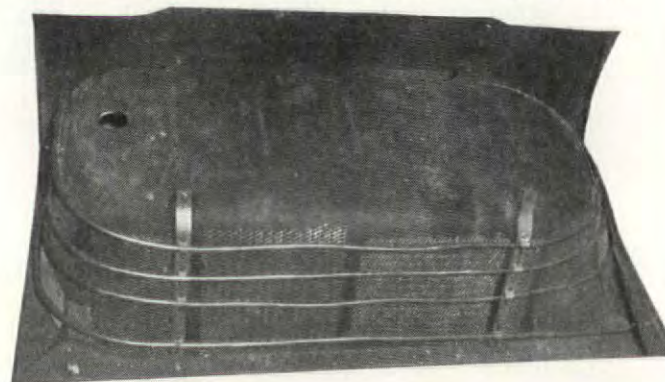
main mill has five floors, with insulated ceiling and tight-fitting windows and doors. The mill was heated 24 hours a day, seven days a week during the winter months. The connected load for the mill's 598,650 cu. ft. is 655.5 KW, with fifty heater units ranging in capacity from 7.5 to 20 KW. It was found that this load could be operated for a large part of the time off the peak of the 900 KW demand of the mill's productive equipment.

When all factors were considered, mill officials found that the first full heating season with these heaters showed an appreciable saving in plant heating costs. Individual thermostatic control of the heaters tended to eliminate unnecessary operation and reduce waste, since each heater operates only when heat is required in that particular area. All electrical energy is converted 100 per cent into heat, distributed by means of fans and adjustable deflectors. Another important cost factor was maintenance of pipe and fittings.

The experience of one winter showed unusual uniformity of temperatures throughout the plant. This was due to the extreme flexibility of the system. When lowering temperatures occurred anywhere in the plant, the heaters in that section responded immediately and automatically.

Complete protection against fire and explosion hazards was achieved because of the patented enclosed construction of the Electromode heating element. There are no exposed glowing wires because the resistor is insulated and encased in a tubular sheath which, in turn, is totally embedded in a one-piece finned aluminum casting. Besides giving absolute safety, this feature tends to prolong the life of the equipment by preventing oxidation and deterioration.

"COMFORTIZED" TUBS preheated by copper coils.



HEATED BATHTUBS, developed by W. H. Armstrong of Boston, Mass., have been successfully used in several new homes. He wraps a standard tub in four coils of $\frac{3}{8}$ in. copper tubing, laid on top of metal lath, and covers it with 1 in. of cement plaster. Tub can then be connected to either radiant or conventional hot water system with balancing valve located in accessible spot.

SPECIFICATIONS

Frame—One-piece heavy aluminum alloy.

Jamb—Heavy aluminum alloy.

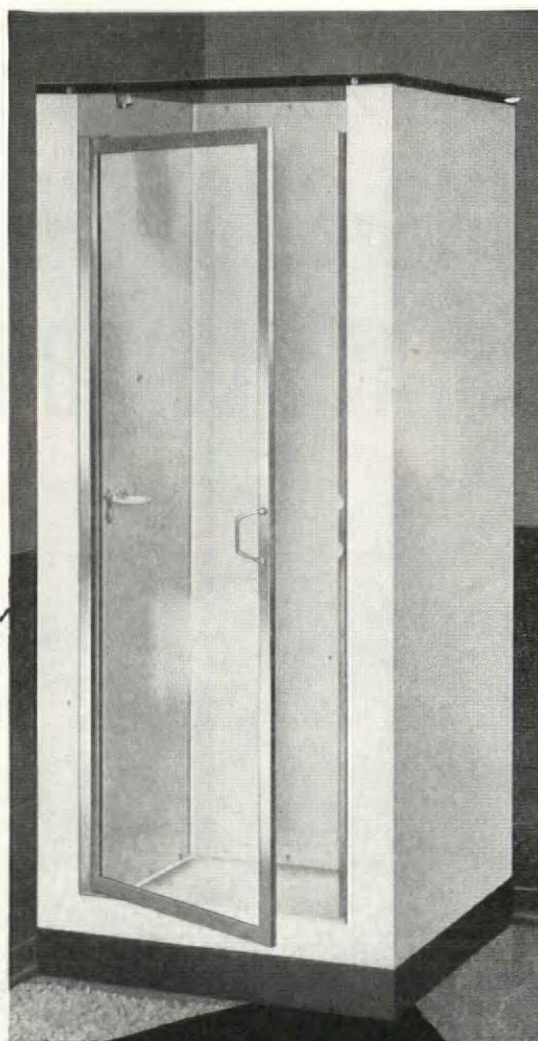
Hinge—Reversible, can be installed right or left without special drilling.

Catch—Bullet type.

Handle—Offset design on both sides.

Finish—Anodized aluminum.

Size—24"x64", for opening 24" wide.



A NEW GLASS SHOWER DOOR

Fiat

Low Door

...has exclusive reversible hinge feature. Can be installed either right or left hinging without special drilling * * * The smart distinctive appearance of this new shower door puts any shower installation in the luxury class, yet its cost is the lowest of any door Fiat has produced. The frame and jambs are the typical solid sturdy Fiat construction built to last a lifetime. A new type of hinging arrangement, with door hung on a heavy pin top and bottom, eliminates the expensive piano hinge. * * * Illustration shows the new Low Door and Fiat Skipper shower, a combination of unusual values that cannot be equalled for low cost bathroom installations.



In Canada—
Fiat showers are made in Canada by
The Porcelain and Metal Products, Ltd.
Orillia, Ontario

Metal Manufacturing Company

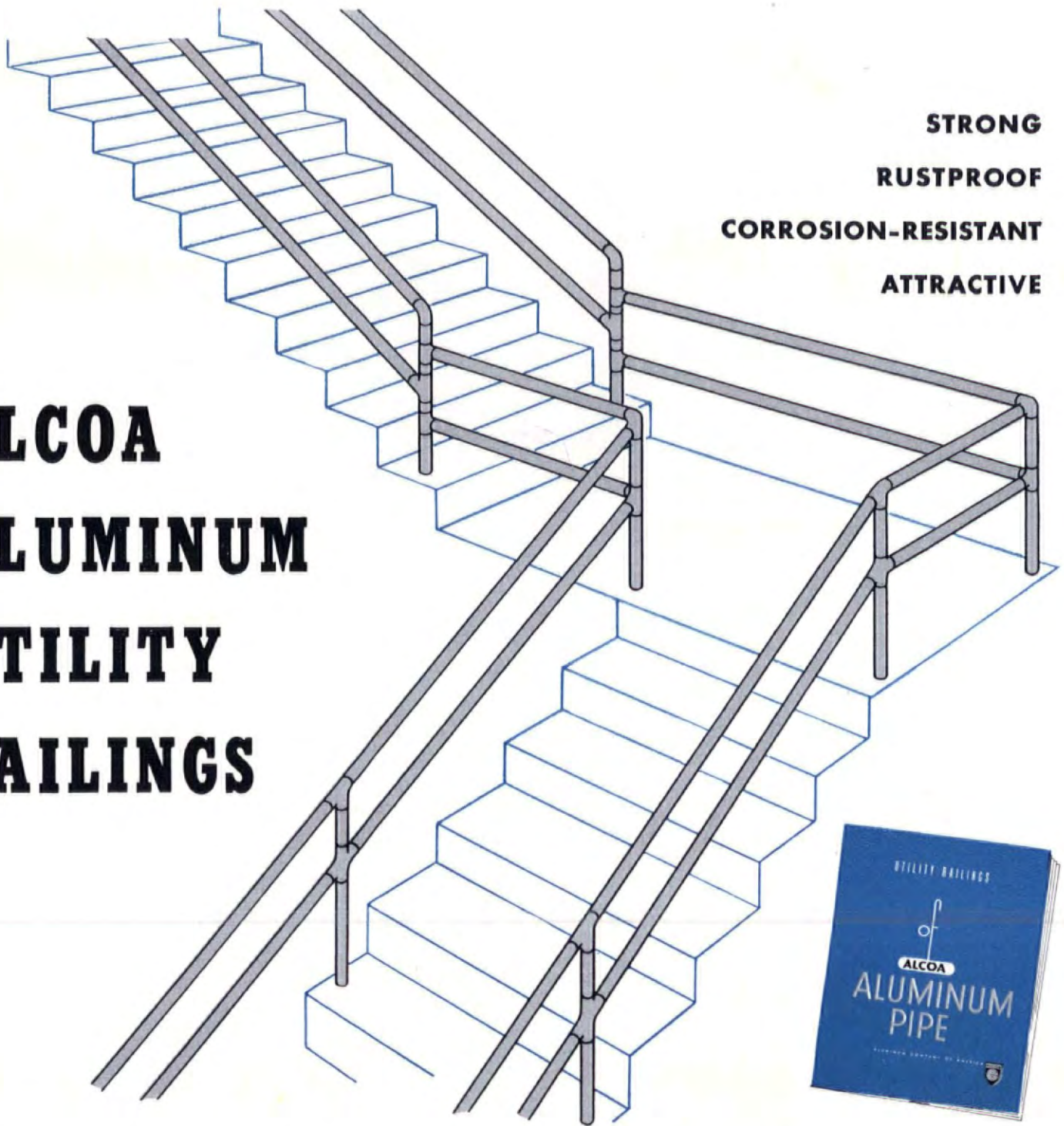
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ALCOA ALUMINUM UTILITY RAILINGS

**STRONG
RUSTPROOF
CORROSION-RESISTANT
ATTRACTIVE**



Used for utility railings, Alcoa Aluminum Pipe is rustproof and corrosion-resistant. It cannot cause streaking or staining of adjacent surfaces. Strong, it provides adequate protection. Attractive, it enhances the appearance of buildings. Easy to work, produced in a variety of standard shapes,

sizes, and fittings, Alcoa Utility Railings may be installed quickly and at low cost.

The Alcoa Booklet, illustrated (A.I.A. File No. 14-D), contains detailed information. For copies, write to ALUMINUM COMPANY OF AMERICA, 1866 Gulf Building, Pittsburgh 19, Pennsylvania.

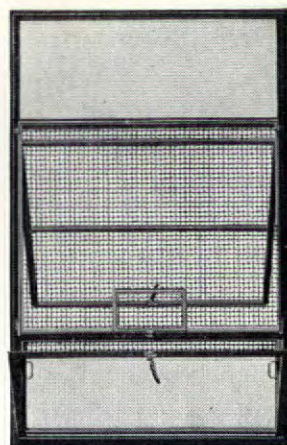
MORE people want **MORE** aluminum for **MORE** uses than ever

ALCOA FIRST IN ALUMINUM

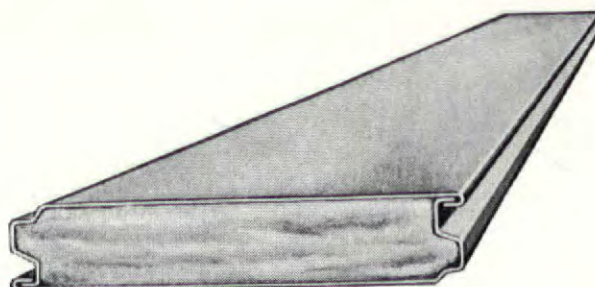
IN EVERY COMMERCIAL FORM



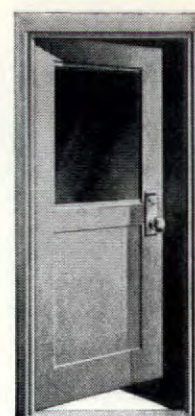
ECONOMICAL! COMPLETE! Prefabricated units for faster *Building Enclosure*



WINDOWS. Standardization in modular sizes of most types of Fenestra Windows enables you to use them with greater economy—with savings both in first costs and in installation. From the smallest house to the largest office building, school, hospital or factory, there's a Fenestra Window that's *right*—in size, appearance and operation.



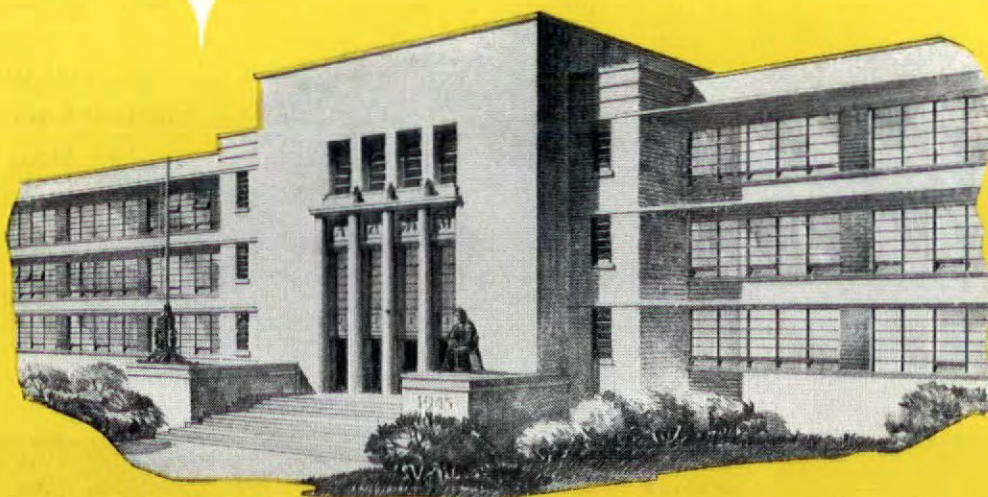
PANELS. These prefabricated panels fit together in jig time, to form lightweight, fire-resistant floors, walls, ceilings and roofs. Extremely versatile—permitting a wide variety of uses. Some types include raceways for electrical, plumbing, heating and ventilating facilities. Ready for application of the surface material of your choice.



DOORS. These standardized doors are real time savers. For one thing, many of them come complete with frame and hardware—that cuts fitting time. All are standardized in size for maximum economy in first cost—as well as in installation time, labor and materials. Designed for easy operation. Swing, slide and overhead types available.

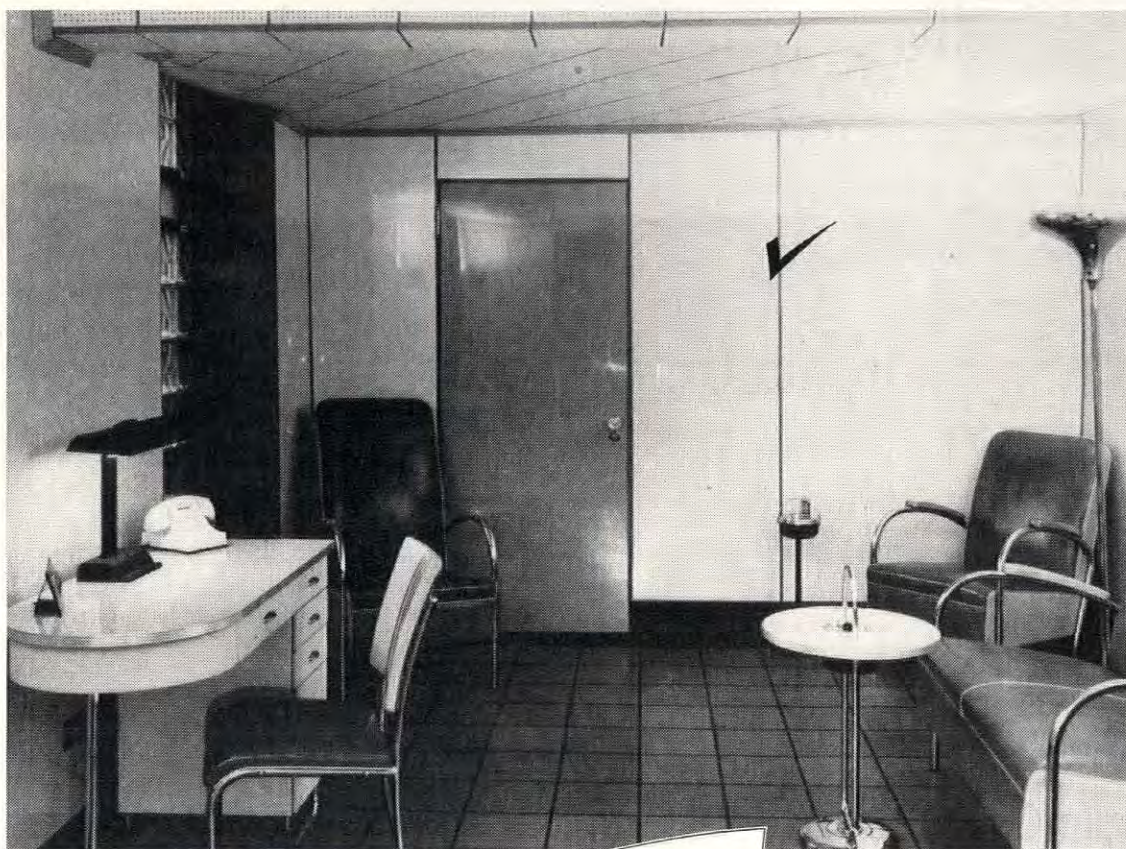
ALL FROM FENESTRA. Fenestra's knack of steel fabrication has been put to work in new lines of windows—in new kinds of metal panels—and in new standardized doors. Every unit is well-known Fenestra quality—you can specify Fenestra with confidence for America's finest buildings.

Six large plants are turning out these products to meet the heavy demand. For product information, see Sweet's Architectural File for 1947 (Sections 16a-9 and 3c-1). Better yet, call us.



Fenestra BUILDING PRODUCTS

DETROIT STEEL PRODUCTS COMPANY
Dept. AF-5, 2251 East Grand Blvd., Detroit 11, Michigan



*Prescription
for Perfection*

plan on
Marlite
walls

Interiors that meet the most rigid requirements for sanitation, yet retain the warmth and cheerfulness that benefit patients and staff alike . . . that's the prescription for perfection in hospital interiors. Planning interiors that perform this double-duty service is easy—just specify Marlite plastic-finished

wall and ceiling panels. Wherever sanitary, colorful interiors are needed . . . plan now on modern, hygienic Marlite. Wide range of colors and patterns plus unusual flexibility of material give full freedom to your architectural ingenuity. Although production has reached an all-time high, the tremendous demand for Marlite makes it necessary to continue to allocate deliveries for the present.

MARSH WALL PRODUCTS, Inc.
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Marlite
REG. U. S. PAT. OFF.
PLASTIC-FINISHED
WALL PANELS

FOR CREATING BEAUTIFUL INTERIORS

If Clients
built houses..



...they'd include these

2 BIG IDEAS

1. Home Cooling

2. Kitchen Ventilation

If Mr. and Mrs. Client were building their own home, they'd be sure to "build in" two important comfort features—an Emerson-Electric Home Cooler Fan for a cool, "sleepable" house on hot summer nights—and an Emerson-Electric Kitchen Ventilator for an airy odorless kitchen.

Emerson-Electric is continuing to sell these two home-comfort ideas in more than a score of popular magazines, reaching thousands of present and prospective home builders. You're sure to please your clients and make your client-job easier, when you specify and install Emerson-Electric Kitchen Ventilating Fans and Home Cooler Fans.

For detailed specifications and complete information, write for free illustrated catalog No. 202 *TODAY*.

THE EMERSON ELECTRIC MANUFACTURING CO., ST. LOUIS 21, MO.
Branches: New York • Chicago • Detroit • Los Angeles • Davenport



EMERSON-ELECTRIC HOME COOLER FAN

Installed in attic, this sturdy fan forces out the day's accumulation of hot air, pulls in cool night air through open windows and doors. Designed to give years of silent, trouble-free service in all types of homes.

KITCHEN VENTILATOR

Adjustable to wall thickness, this dependable fan whisks out kitchen heat and cooking odors, prevents spread to other rooms.



EMERSON ELECTRIC
MOTORS · FANS · APPLIANCES

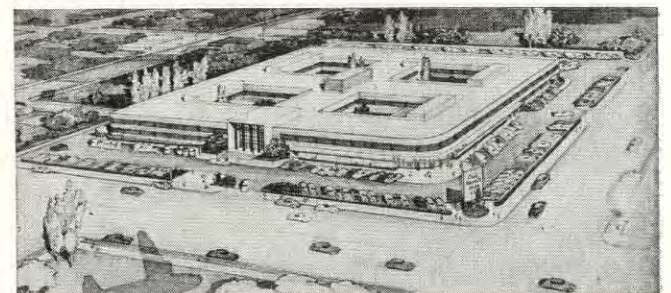
THE NEW YORK CITY HOUSING AUTHORITY announces the formation of an Advisory Committee on Community Activities. This group of 23 public and private experts is said to be the first of its kind. Among basic policy matters now before the committee are: the extent to which an Authority should supplement existing community facilities for families in its projects; who should staff and supervise their operation; for what age groups the program should be planned; and how space in the community centers should be utilized.

A SIX WEEKS "STUDYTOUR" on European Reconstruction and Community Planning, of particular interest to specialists in planning, architectural, and engineering fields is scheduled to visit England, Czechoslovakia, Poland (and probably Russia) during the coming August and first part of September. Hermann Field, AIA, of the architectural firm of Antonin Raymond & L. L. Rado, is planner and leader of the tour. Further information may be obtained from him at 101 Park Ave., New York City or from World Studytours, 417 W. 121st St., New York.

FONTAINEBLEAU SCHOOL OF FINE ARTS, France, announces that its summer courses for advanced American students of architecture, painting, sculpture and applied arts will be given from July 1st to September 1st. The program will be conducted by Jean Labatut, Architecture; Lucien Fontanarosa, Painting; R. La Montagne St. Hubert, Mural Painting and Fresco; Denis Gelin, Sculpture; Paul Fromentier and Eric Bagge, Applied Arts. Applications for admission should be addressed to: Fontainebleau School of Fine Arts, 206 E. 62nd St., New York 21, N. Y.

MICHIGAN STATE COLLEGE, East Lansing, Mich. has added the study of urban planning to its major curricula. This course will now include: methods of collecting and using basic planning data, arrangement of land uses, protective regulations, traffic control and systems of thoroughfare, zoning, platting, and housing. Prof. Harold Lautner has been in charge of planning this extension in the college program.

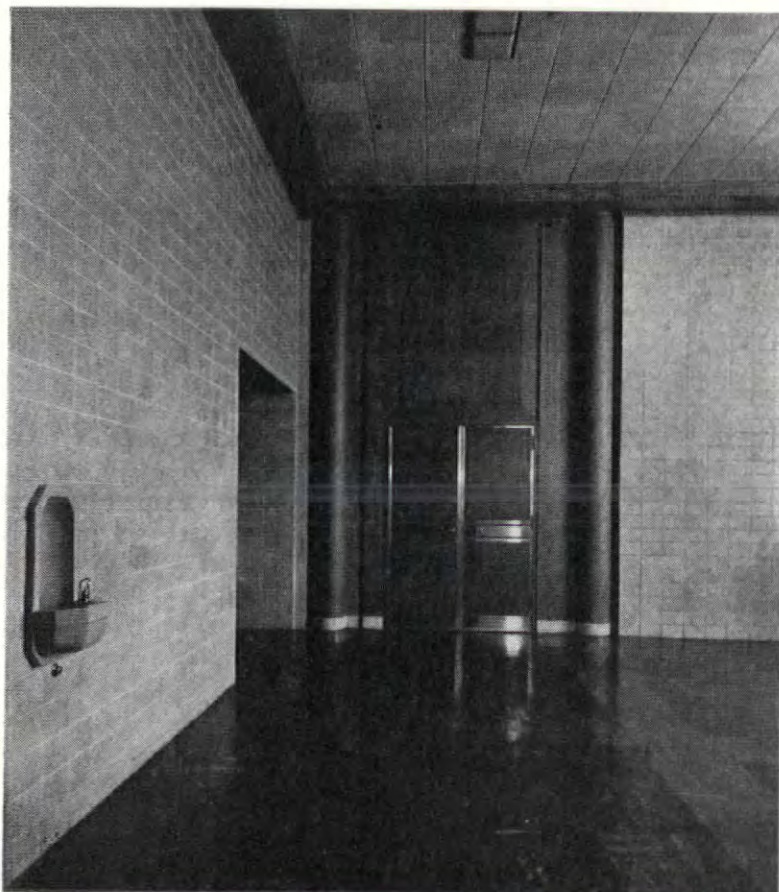
BUILDING PREVIEWS



THE WORLD'S LARGEST DRUGSTORE and headquarters for Rexall Drug Company in Los Angeles, Calif., will be completed this summer. Its two-story reinforced concrete structure on concrete pile foundation will cover three acres and four courts for the recreational and dining use of employees. The drugstore will provide even more extraneous departments than usual (cameras to hunting knives) while a dining room will adjoin the customary soda fountain. The upper floor (also completely air conditioned) will house business, personnel and medical departments. A 300-car parking space is provided for customers and employees.

THE CULMORE HOUSING PROJECT, Fairfax County, Va. will provide facilities for about 2,000 families in its 200 multiple-dwelling units (construction to *Continued on page 108*)

Facing tile increases the beauty and utility of public building interiors



WHEN YOU design public buildings, you can achieve interiors of greater beauty and utility by specifying Structural Clay Facing Tile, either glazed or unglazed.

This dual-purpose building material combines a beautiful, hard-surfaced finish with a fire-safe wall of great structural strength. A variety of attractive colors, textures and modular sizes is available to enhance the design of any Library, Court House, Memorial, Recreation Center, Museum, Institution or other public building.

Most public buildings are subjected to rough usage and harsh treatment. They require materials that will not scratch, crack, mar or decay—that will resist stains, grease and dirt. Structural Clay Facing Tile fills this need at a minimum cost.

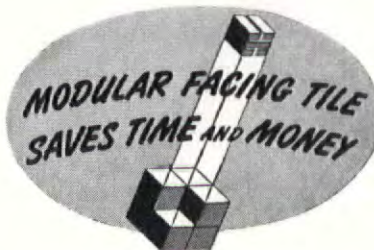
And it's easy to keep public building interiors clean and sanitary, if Facing Tile is used. A simple soap and water washing does the job.

Production of Facing Tile in modular sizes means even more advantages—greater flexibility in design . . . perfect fitting with other modular materials . . . less time needed for drafting and site supervision . . . less material waste . . . better workmanship with less labor . . . earlier occupancy.

Write to Desk AF-5 of the Institute for 90-page Facing Tile Handbook showing methods of determining modular layout procedure—FREE to registered architects and engineers; 50 cents to all others. Refer also to Sweet's 1947 Architectural Catalog. Institute Members are at your service.

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When Trouble Hits the Ceiling

Water vapor condensing on roof members causes trouble aplenty if building materials used there can't stand moisture. Upkeep costs skyrocket.

Use Wolmanized Lumber* and another of your worries disappears. It's standard structural lumber, pressure-impregnated with Wolman Salts* preservative, making it highly resistant to decay that's fostered by the presence of moisture.

FOR FLOORS, TOO

You head off decay, reduce maintenance costs, by setting your floor on Wolmanized Lumber subflooring and nailers.

Wolmanized Lumber gives the builder all of wood's advantages—speed of erection, light weight, resilience, high insulating value, paintability, low first cost—plus long life.



*Registered trademarks

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1647 McCORMICK BUILDING, CHICAGO 4, ILLINOIS

begin in July). On a 118-acre site the development will also include a shopping center of 30 stores, a theater, offices and a bowling alley. The apartment structures will cover only 20 per cent of the area, the remainder of which will be devoted to lawns, recreation areas and streets. All buildings are designed for brick masonry construction and will feature radiant heating. Albert Lueders is architect for the \$12,000,000 project; John Campbell- builder.



THE PRUDENTIAL INSURANCE CO. OF AMERICA announces that construction has begun on its new granite and glass office building in Los Angeles, Calif. (sketch above). Wurdeman & Becket were architects for the air conditioned structure which makes provision for open-front shops at street level with 400,000 sq ft. of office space on upper floors for Prudential's 2,000 employees. The solid shaft in the center of the building will house elevators and other utilities.

CONVENTIONS

THE SIXTH PANAMERICAN CONGRESS OF ARCHITECTS, to promote better understanding of the various problems of architects throughout the western hemisphere, will be held at Lima, Peru in October 1947.

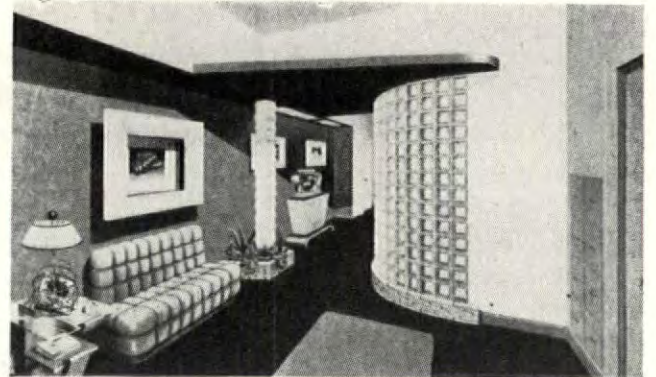
THE ILLUMINATING ENGINEERING SOCIETY (East Central Region) has announced a two day conference in Washington, D. C., at the Statler Hotel, May 15-16.

THE AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS announces that its semi-annual meeting will be held at Coronado, Calif., June 1-4.

THE SECOND INTERNATIONAL LIGHTING EXPOSITION in Chicago [November 3-7] will stress the importance of "Planned Lighting" for industrial, commercial and home uses.

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS will hold its 1947 Meeting in Atlantic City, N. J., December 1-5.

FATHER AND SON



THE T. KIRK ALMROTH ASSOCIATES, father and son, specialists in package design, have located their new studio in Van Nuys, Calif. (see above) to handle all types of business and industrial design. Mr. Almroth Sr. (Continued on page 110)

It's so easy to get information on General Electric HEATING

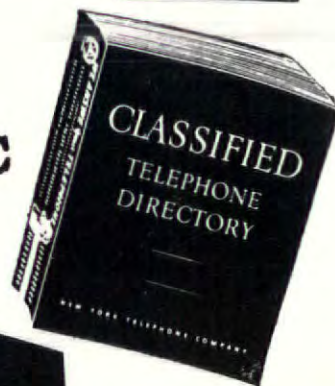


FOR SUMMARY SPECIFICATIONS, SEE
SWEET'S ARCHITECTURAL FILE,
SECTION 29A-6.

FOR GAS AND OIL HEAT, LEADING ARCHITECTS
AND DISCRIMINATING CLIENTS LOOK FOR
THE GENERAL ELECTRIC MONOGRAM.

General Electric Heating equipment is coming
from the production line faster than ever before.
In many respects, it has been redesigned, restyled,
and rebuilt to incorporate the latest refinements
in heating engineering. And, remember, General
Electric heating equipment is *priced competitively in
the better grade heating field.*

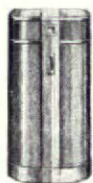
General Electric Company, Air Conditioning Depart-
ment, Section 7135, Bloomfield, New Jersey.



GENERAL  ELECTRIC

FOR PRICES CALL YOUR GENERAL ELECTRIC
DEALER. HE'S LISTED IN THE
CLASSIFIED TELEPHONE DIRECTORY.

OIL-FIRED



G-E Boiler for steam
or hot water



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GAS-FIRED



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ANNOUNCEMENTS

PresTile National Advertising pre-sells your clients



EACH month, through Better Homes & Gardens, American Home and other magazines, more and more homemakers are learning about the advantages of using Prestile . . . the quality tileboard with its plastic beauty baked in. While we are striving to meet overwhelming demand, Prestile continues to advertise as an aid to dealers, contractors and architects.

PRESTILE MANUFACTURING COMPANY
2860 LINCOLN AVE., CHICAGO 13, ILL.

PRESTILE

"It's Plastic Beauty is Baked In"

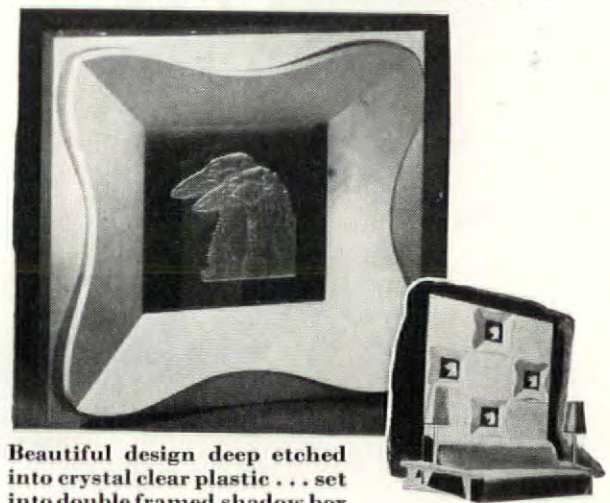
has designed outstanding exhibits in all major World Fairs starting with the Chicago Century of Progress Exposition, and in the four most recent—the Dallas, Cleveland, San Francisco and New York Fairs—father and son have worked jointly on exhibits.

EXHIBIT



A SHOWING OF WALLPAPERS by Katzenback and Warren on view at the Philadelphia Art Alliance Galleries through April and early May symptomizes the wide variety of tastes in wallpaper as well as the recent growing interest in its design. "Aquatint papers" (see example above) provide backgrounds adapted to a variety of informal rooms. The exhibit also includes novel "sculptured" (Continued on page 112)

For Elegant Home Settings IN THE MODERN MANNER



Beautiful design deep etched into crystal clear plastic . . . set into double framed shadow box with fluorescent illumination

Gracefully curved and beveled veneer frame finished in soft off-white is mounted on finely constructed, rich gold, finished box. Has third dimensional effect . . . controls light and directs interest to design. Back panel finished in rich red tone. Fourteen watt tube and electric cord furnished with each unit. Size: 22" x 22" x 5 1/2" deep. Each \$50.00.

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With photographs and complete information about our large line of decorative plastics. Write for it today!



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AMERICA'S LARGEST ORGANIZATION
SPECIALIZING IN
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**It's been dropping
ever since we installed
Adlake Windows**

THE MAN ISN'T FOOLING—maintenance costs *disappear* when you install Adlake Aluminum Windows, because **NO MAINTENANCE IS REQUIRED!** Built from lustrous aluminum, Adlake Windows need no painting or care other than routine washing. What's more, they never warp, rot, rattle, swell, or stick. You install 'em—you *forget* 'em!

ONLY ADLAKE combines nonmetallic weather-stripping and serrated guides to stop excessive air infiltration and give you finger-tip control. Expertly designed to harmonize with either traditional or modern buildings, it gives a lifetime of beauty and service.

TRULY the amazing Adlake Window fulfills your every architectural requirement! Complete information and data will be mailed you on request. Drop us a postcard today . . . there's no obligation, naturally. Address: The Adams & Westlake Company, 1101 N. Michigan, Elkhart, Ind.

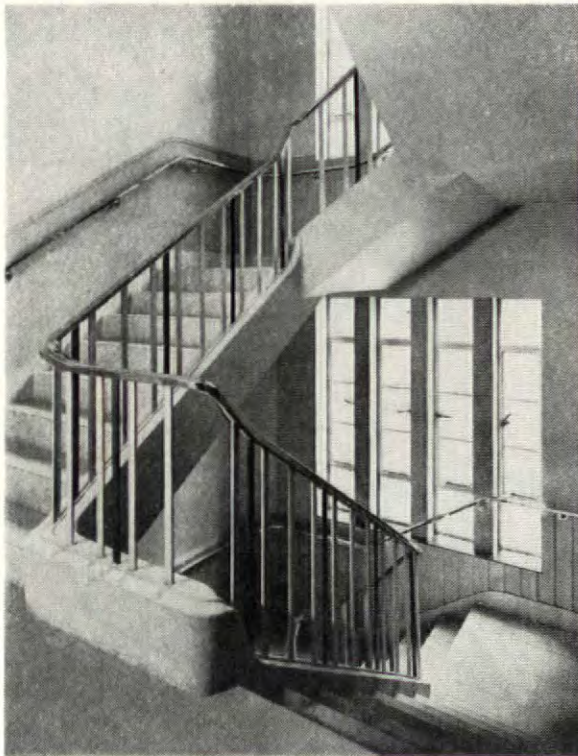
Furnishers of Windows
to the Transportation Industry
for Over Thirty Years

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Stairway to Safety



Alundum Stair Tile Guarantees Permanent Non-slip Surface

ALUNDUM Stair Tile (and Floor Tile) is recommended to architects by Norton Company for an important function: to overcome both the slipping hazard and the excessive wear of stairs, ramps and floors subjected to severe foot traffic. Its ability to withstand the most concentrated traffic—without lessening its non-slip effectiveness or showing appreciable wear—has been substantiated by installations that have given 25 years of service under the severest conditions. ALUNDUM Tile always provides reliably safe walkways. It retains its non-slip advantage when wet. No amount of traction will smooth its surface, reduce its non-slip protection.

NORTON COMPANY
WORCESTER 6, MASS.

ALUNDUM—Registered trade-mark for Norton Company's aluminum oxide abrasive.

NORTON *non slip* ALUNDUM FLOORS

See our catalog in Sweet's.

wallpapers (plastic coverings of simple ridged designs); flowery Williamsburg Restoration prints; and a showing of "Architecture by the yard—including pilasters, chairrails, dado, cornice and overdoor."

INFORMATION

THE SOCIETY OF THE PLASTICS INDUSTRY announces a public relations service to clear up the confusion of many consumers as to the uses and applications of plastics. General inquiries of this nature may be addressed to the SPI's Public Relations Committee, 295 Madison Ave., New York 17, N. Y.

AWARD

THE AMERICAN DESIGNERS INSTITUTE, New York, announces that the first prize of \$1,000 in its contest [co-sponsored by *Garrison's Magazine*] for a "family store" design was won by Paul Canin, Industrial Design Student at Pratt Institute. Prizes of \$100 each were also awarded to: Anna Bonk, Paul Wrablich and Pamela Dohner, George Fitzsimonds and Max Hanenstein, Harry Gutmaker, and Weston Anderson.

APPOINTMENTS

ALFRED H. BARR, JR. has been named Director of Museum Collections at the Museum of Modern Art, New York City. He will direct the planning and care (including publications and display) of all present museum collections as well as acquisition of new paintings and sculpture.

EDWIN G. THURLOW has been appointed Head and Professor of the Department of Landscape Architecture at the University of North Carolina, Raleigh, N. C.

ANTONIN HEYTHUM is in charge of planning Syracuse University's new 5-year Industrial Design curriculum, in coordination with the university's Architecture, Art and Engineering facilities.

(Continued on page 116)

TWO KINDS OF HEAT IN ONE GREAT MODERN BLEND!

— that's what Modine Convectors offer you!



1

RADIANT HEATING

Mild, radiant heat in just enough quantity to offset heat loss from window areas — that's what those arrows represent, coming from the Modine Convector Panel below the window. To this we add . . .



2

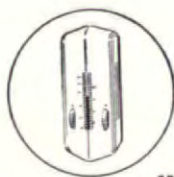
CONVECTION HEATING

Warmed air circulated by Convection Heating. Hot water or steam passes through copper heating unit which draws cooler, floor-line air into bottom of convector where it's warmed, rises and then passes out through grille.

Result: A modern, blended heating system for modern winter comfort — whether it's school, hospital, home or apartment! A heating system that gives you individual room control . . . gentle, draft-free air circulation without the use of moving parts that wear out! Yes, the dependable heating comfort, distinctive charm, space saving, cleanliness, and long service life of Modine Convector Radiation is recommended for all types of residential and institutional heating needs. Look for Modine's representative in the "Where to Buy it" section of your phone book. Write for complete information and free descriptive literature. MODINE MANUFACTURING CO., 1776 Racine St., Racine, Wis.



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BEAUTY



CLOSE TEMP-
ERATURE CONTROL



EASY TO
INSTALL

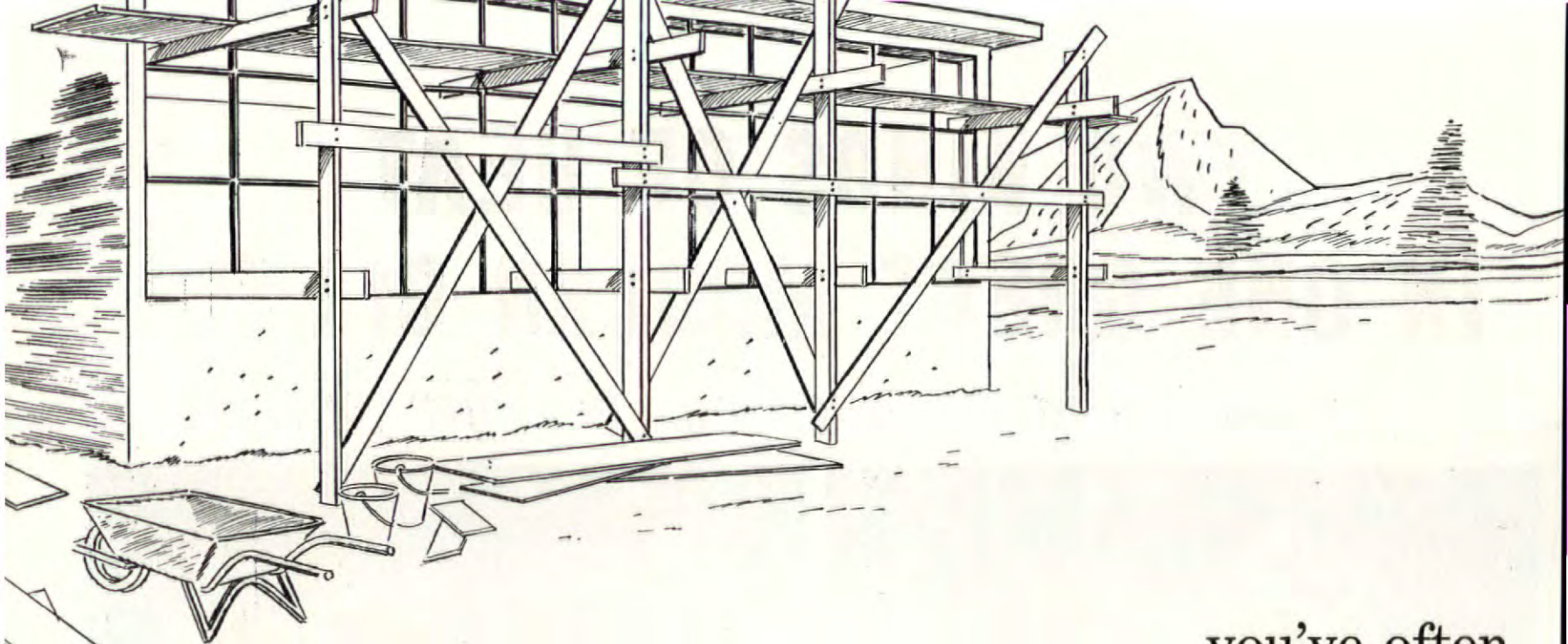


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LIVING SPACE



PRICED
FOR TODAY'S
HOMES AND
APARTMENTS

Modine
CONVECTOR RADIATION
The Modern "proved by use" heating method



What about
the plumbing?

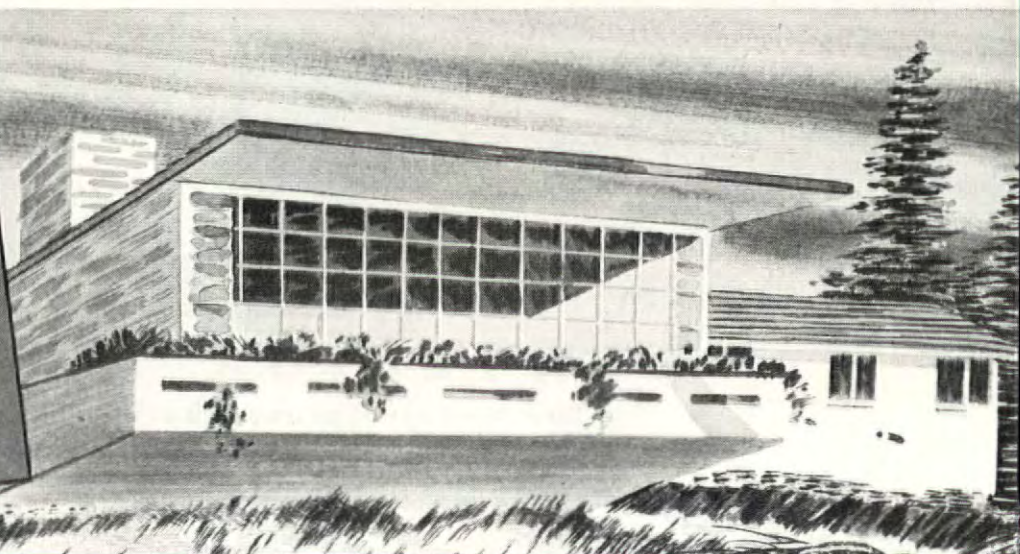
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seen their ads
in The Saturday
Evening Post



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PEOPLE KNOW AND PREFER
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YES KENCORK IS BACK AGAIN

—the finest floor and wall tile

—modern since 1899

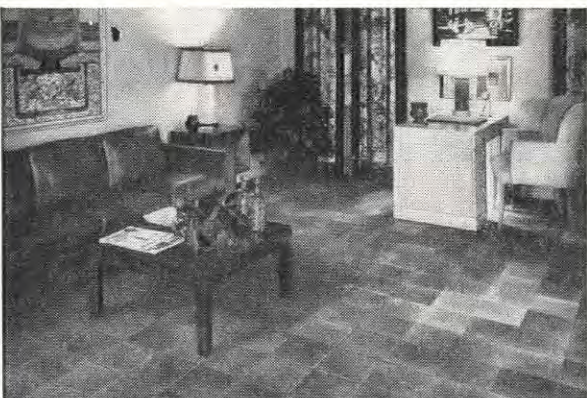
—now further improved
by war-time research*

available without
special order in
6"x6" 6"x12"
12"x12"
random shades
5/16" thick

* Because of our experience making cork cartridge plugs for the Navy, Kencork is now made so micromatically accurate *it can be installed without machine sanding on the job.* The tiles are coated with a heated wax at the factory—can be installed on any smooth sub-floor in one fast, clean operation and is then ready for use.

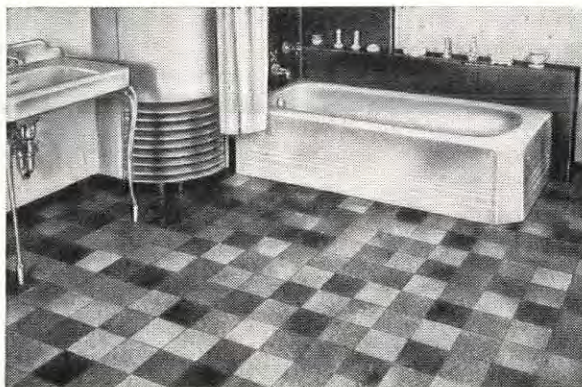
IN LIVING ROOMS

for sheer beauty—
distinction—quiet



IN BEDROOMS

for loveliness—softness
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for luxury underfoot—dry
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for practicality—quieting—a "cush-
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the friendly floor

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—blends so beautifully everywhere
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452 Statler Bldg., Boston 16, Mass.

614 Olympia Rd., Pittsburgh 14, Pa.
1211 N. E. C. Bldg., Cleveland 14, Ohio.
1355 Market St., San Francisco 3, Cal.
Metropolitan Bank Bldg., Washington 5, D. C.

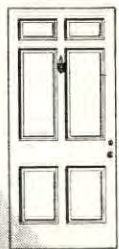
ANNOUNCEMENTS



-this NDMA PROTECTION

Their forefathers built homes of wood—the building material of the ages. And today, this young couple is secure in the knowledge that wood is a better building material than ever! NDMA standards of toxic preservation for woodwork such as doors, screens and windows have helped to make it so—have added further assurance of lasting value to wood's natural qualities of endurance.

NDMA Toxic Preservative Standards are backed by the integrity of a great industry—and by the utmost resources of science. Behind the NDMA seal of approval stand the six measures which this non-profit organization maintains in the public interest.



1. An efficient test for measuring effectiveness of toxic preservatives.
2. Minimum standards governing the toxic preservative treating of woodwork products.
3. A seal identifying products treated in conformity with NDMA Toxic Preservative Standards.
4. Mill inspection of treating equipment and practices.
5. Laboratory check-tests of preservative solutions.
6. Educational effort in the public interest.

NATIONAL DOOR MANUFACTURERS ASSOCIATION

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1222 Market St., San Francisco 3, Cal.
1325 E. 5th St., Cleveland 4, Ohio
Olympia Bldg., Pittsburgh 1, Pa.

NEW OFFICES

WALTER GORDON AIA has opened an office in the Mead Bldg., Portland 4, Ore.

R. DUANE CONNER and FRED POJEZNY, JR., architects, are now practicing at the Kerr-McGee Bldg., Oklahoma City, Okla.

JAMES HUGHES AIA and HARRY DENYES AIA announce the formation of an architectural partnership at 187 S. Woodward Ave., Birmingham, Mich.

GEORGE CAVALIERI AIA, formerly chief architect of FHA in New York, is associated with ANTHONY DeROSE AIA in general practice at 370 E. 149th St., New York 55, N. Y.

CRONHEIM & WEGER, registered architect and engineers, have opened offices at 1728 Spruce St., Philadelphia 3, Pa.

BROTHER CAJETAN BAUMANN OFM, AIA, has opened an architectural office at 44 Whitehall St., New York 4, N. Y.

VIRGEL DAVIS, architect, has resumed private practice at 106½ W. 2nd St., Odessa, Texas.

ETHELBERT FURLONG, landscape architect and site consultant, has reopened his office at 93 Baldwin St., Glen Ridge, N. J.

GABRIEL HARMAN and ROBERT O'DONNELL are associated in the practice of landscape architecture and land planning at 628—15th St., Denver 2, Colo.

SYLVESTER LEROY SMITH, architect, and JUDSON VOGDES, JR., engineer, are associated in general practice at 315 Broad St. Station, Philadelphia 2, Pa.

DONALD STEINBAUGH AIA and JOHN WHEELER AIA have formed an architectural partnership at 509 Presbyterian Bldg., Nashville, Tenn.

(Continued on page 120)

Plan for health-safety ... it comes first



Whether it's a hospital, church, school or public building, architects know that the specification of Halsey Taylor Drinking Fountains is an assurance that health-safety comes FIRST! For these modern fountains were developed primarily to protect the user from contamination. Sanitation is as important as design... Halsey Taylors provide both! Get our latest literature.

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DRINKING FOUNTAINS

A-3



A BENDIX WASHER MAKES THE HOUSE COMPLETE!

WALLS ARE UP, roof is on, floors are down! Yet in your customer's mind the house is incomplete unless it's ready to go to work in the business of "being-lived-in." For a woman's house is her workshop too.

IN HER NEW HOUSE a woman wants a planned, equipped laundry—for laundering's her most dreaded job. Offer her a planned laundry equipped with a Bendix automatic Washer. And provide space and wiring or piping for a Bendix Dryer and a Bendix Ironer. On this basis you're selling a complete house-package, and the reasonableness of the price-tag will be readily apparent to the woman.

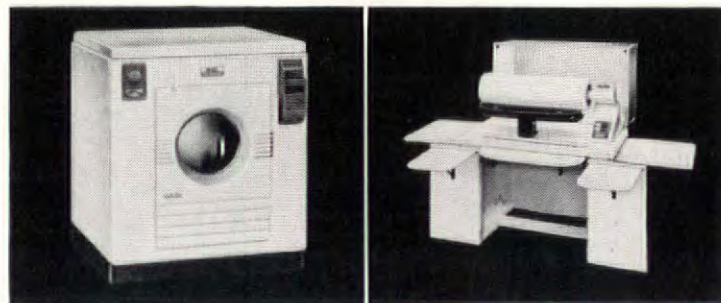
FOR SHE KNOWS the Bendix washes, triple-rinses, damp-drys, then empties itself and shuts itself off—even when she isn't present. It never slops the floor, needs no set-tubs—and washes clothes thrillingly clean.

She'll buy that!

OFFER THE WHOLE PACKAGE UNDER FHA

In most States the Bendix Washer can be financed as an integral part of the house under an FHA mortgage. That's a convenience to the customer. And for you it means an easier sale, an extra profit.

BENDIX HOME APPLIANCES, INC., SOUTH BEND, INDIANA



BENDIX
automatic
Home Laundry

New aluminum combination

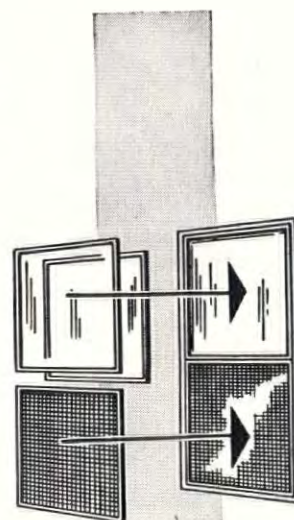


Aluminum storm panels for metal casements also available

In construction products **CECO ENGINEERING**

storm panel and screen

- 1** You change from winter storm windows to summer screens in seconds—just raise the bottom panel.
- 2** Yet, if desired, the storm panels and screen are easily removed from inside the home.
- 3** This Ceco all-aluminum all-weather window and screen adds beauty to any style of architecture.
- 4** The frame is easily adjusted to the window opening by use of special closure sections.
- 5** Remains economical through the years. Maintenance is eliminated—no painting or repairing.
- 6** Storm panels and screens are easily washed at the sink—no standing on ladders.
- 7** Provides all-weather ventilation and protection—ends nuisance of frosted and steamed windows.
- 8** Saves up to 30% on fuel by keeping heat from dissipating through single glass panes.



SELF STORAGE SAVES SPACE!

Leave all four parts of this amazing auxiliary window in place all year round. You change from winter storm windows to summer screens in a few seconds—just raise the bottom storm panel, as shown above. For winter, simply pull the storm panel down—no storage problem.

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Please send me FREE folder on aluminum combination storm-panels-and-screen.

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Firm

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ANNOUNCEMENTS

RICHARD BISHOP, architect, site planner and consultant, has opened an office at 401 Board of Trade Bldg., Indianapolis 4, Ind.

SAUL EDELBAUM AIA announces the opening of an office of architecture, planning and design at 624 Madison Ave., New York 22, N. Y.

KENNETH WHITE ASSOCIATES, a firm for retail planning, development and design has opened offices at 516 Fifth Ave., New York 18, N. Y.

ROBERT GOLDBERG ADI, recently returned from Navy service, announces the opening of industrial and marine interior design offices at 11 Broadway, New York, N. Y.

ALFRED RUMMLER and STEWART JAMES, designers of industrial products and modern furniture, have opened an office at 166 E. 96th St., New York 28, N. Y.

KNOLL ASSOCIATES, INC. have opened a new showroom for contemporary textiles at 31½ E. 65th Street, New York, N. Y. Arundell Clarke acts as sole agent for these textiles.

T. H. HEWITT announces the opening of a studio for the design and weaving of modern fabrics and accessories at 3782 Elmora St., Houston 5, Tex.

THE O'BRIEN VARNISH CO., South Bend, Ind., has formally changed its title to the O'Brien Corp., makers of paints, varnishes and other protective coatings.

DIED

ARMEN TASHJIAN, Ohio architect and engineer. Mr. Tashjian designed and engineered many prominent Cleveland buildings, including the NBC Building, the Federal Reserve Bank Building, the Main Public Library, Allen Memorial Medical Library and the Cleveland Postoffice. He was also the originator of many innovations in building materials and processes.

NOT A
Scratch
IN A
Carload

HOME
INSULATION
*You Love
to touch*



Cotton Insulation is good soft fluffy cotton like you've used at home since babyhood—but **flameproofed** to make it amazingly fire-resistant. You could even wear Cotton Insulation next to your skin.

Get the whole factual story of this miracle insulation, now being told to millions of magazine readers each month. It's ready for you in the illustrated folder listed below. Write for your copy—now.

THE ABOVE ADVERTISEMENT WILL
APPEAR IN MAY ISSUES OF

Better Homes and Gardens

House and Garden

ALSO IN JUNE ISSUES OF

American Home • House Beautiful



TOTAL CIRCULATION
OVER 5¼ MILLION

FREE! Send for your copy of the new folder "Cotton Insulation." It gives you many suggestions for dramatizing the powerful sales story of this amazing product. Address National Cotton Council, Box 18, Memphis, Tenn.

**COTTON INSULATION ASSOCIATION
NATIONAL COTTON COUNCIL OF AMERICA**

"so they
MASTIPAVED
the floor!"



NO MORE WORRIES
WHEN WE CAN SAY
THAT AGAIN!

For 23 years, PABCO MASTIPAVE again and again has demonstrated its amazing ruggedness—its ability to solve one tough floor problem after another at exceptionally low cost. Past performance has proved that more and more of the Nation's toughest floor-problems will be solved as MASTIPAVE production can be increased.

**PABCO
MASTIPAVE**
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FLOOR COVERING

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MASTIPAVE—Non-Slip
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RUGGEDNESS!



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NEW YORK 16 • CHICAGO 34 • SAN FRANCISCO 19
Makers, also, of Pabco Linoleums, Grip-Dek and Sani-Grip Floor Coverings; Pabco Paint, Roofing and Building Materials



"Heaven's face doth glow"

America has been called "The Workshop of the World." It is. It is also much more!

The crimson glow of furnace fires on the evening sky, symbolizes not alone our industrial might but also the will of a people to express themselves through progress. A young and vigorous people, unfettered by the past and unafraid of the future.

The kind of people who dream Golden Gate bridges, then fling them across untamed waters. Who dare to think that even the humblest citizen may own an automobile, and then produce a million "tin

Lizzies" to make that fable a fact!

Thus is our industry a reflection of the American will to *do*.

You would know, then, that when progress was impeded by lack of adequate facilities to convey water, gas, steam, oil and other liquids in the processes of industry, someone would develop ways and means of producing inexpensive, durable, reliable *steel pipe* to solve the problem.

So for nearly sixty years *steel pipe* has paced the growth of industry. From steel mill to machine shop, from refinery to service station, from fabricating plant to food factory . . . modern industry is a

veritable maze of *steel piping*. Yes, *steel pipe makes it possible*, and with this vital servant the wheels of industry will keep turning . . . and the face of the heavens will continue to glow in the evening sky.

The interesting story of "Pipe in American Life" will be sent upon request.

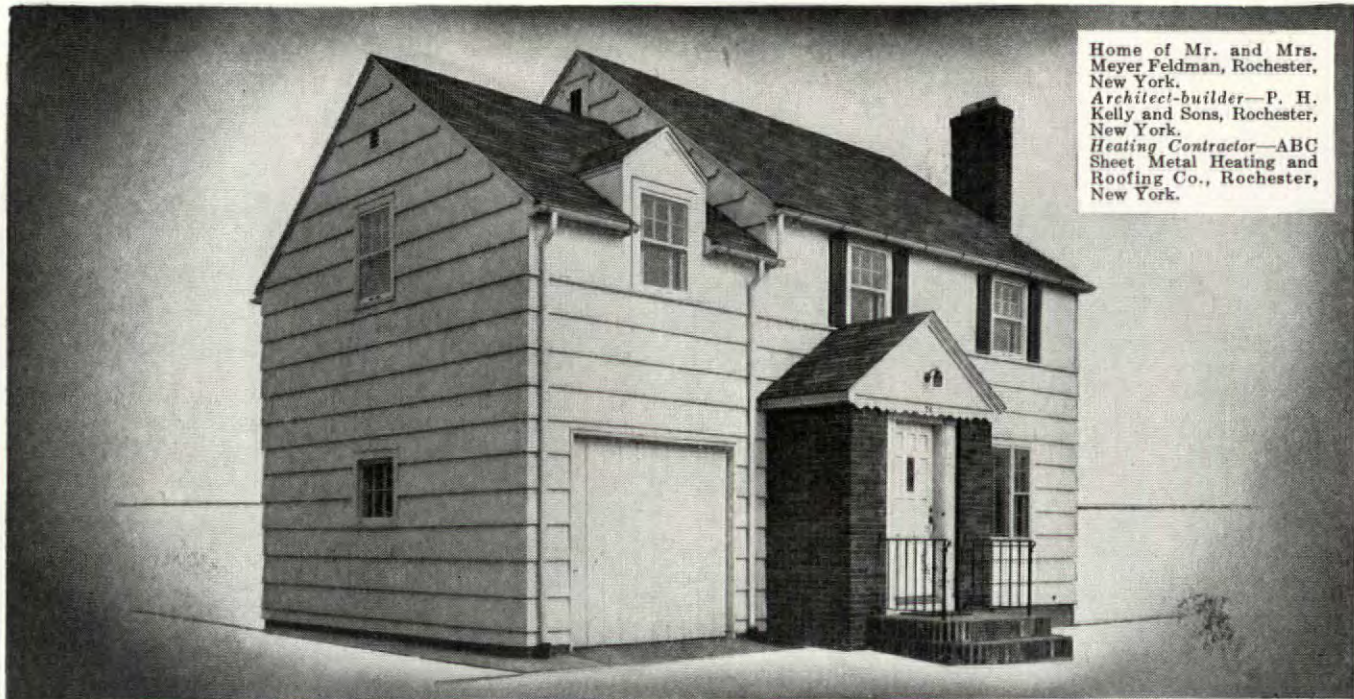
*Committee on
Steel Pipe Research*
OF
AMERICAN IRON AND
STEEL INSTITUTE

350 FIFTH AVENUE, NEW YORK 1, N. Y.

STEEL PIPE MAKES IT POSSIBLE!



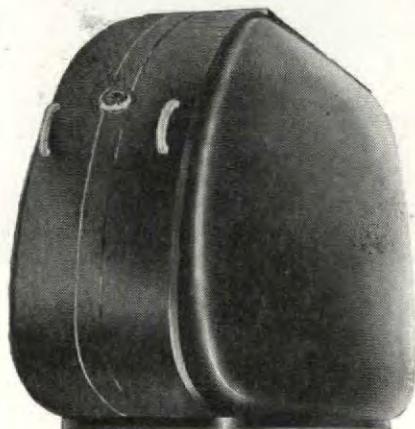
. . . better living through pipes of steel for plumbing and heating purposes.



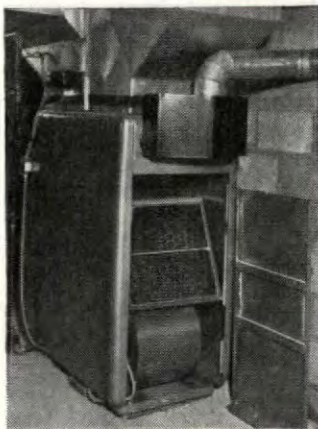
Home of Mr. and Mrs. Meyer Feldman, Rochester, New York.
Architect-builder—P. H. Kelly and Sons, Rochester, New York.
Heating Contractor—ABC Sheet Metal Heating and Roofing Co., Rochester, New York.

NO WONDER MORE PEOPLE INSIST ON

Warm-Air Heating



Mor-Sun Model T-6-G gas-fired furnace, made by Morrison Steel Products, Inc., Buffalo, N. Y. Equipped with 3 DUST-STOP Air Filters.



• Homeowners and potential owners, by the thousands, have expressed their preference for warm-air heating in several recent surveys. They know the "extra" values it gives in comfort, convenience and economy.

More people are insisting on today's winter-air-conditioning systems because of this exclusive combination of values:

1. **WARM AIR**, with room temperatures quickly responding to automatic controls.
2. **CLEAN AIR**. Filtered at the heating unit, all heat delivered throughout the warm-air duct system is free of nuisance dusts, lint and most air-borne bacteria. Housekeeping burdens are lighter because walls and furnishings stay clean longer.
3. **MECHANICALLY - CIRCULATED**

AIR keeps warm air fresh and clean while providing the proper number of air changes per hour.

4. **HUMIDIFIED AIR** affords greater physical comfort at lower room temperatures.

Architects, builders and contractors who specify and provide modern warm-air heat know that circulating air will be cleaned efficiently. For DUST-STOP* Filters, a Fiberglas** product, are the choice of most manufacturers as original equipment. They're the homeowner's choice, too, for replacement DUST-STOPS are readily available at low cost through suppliers in every community.

For complete information see Sweet's Files or write: Owens-Corning Fiberglas Corporation, Dept. 830, Toledo 1, Ohio. Branches in principal cities.

In Canada: Fiberglas Canada Ltd., Toronto 1, Ontario.

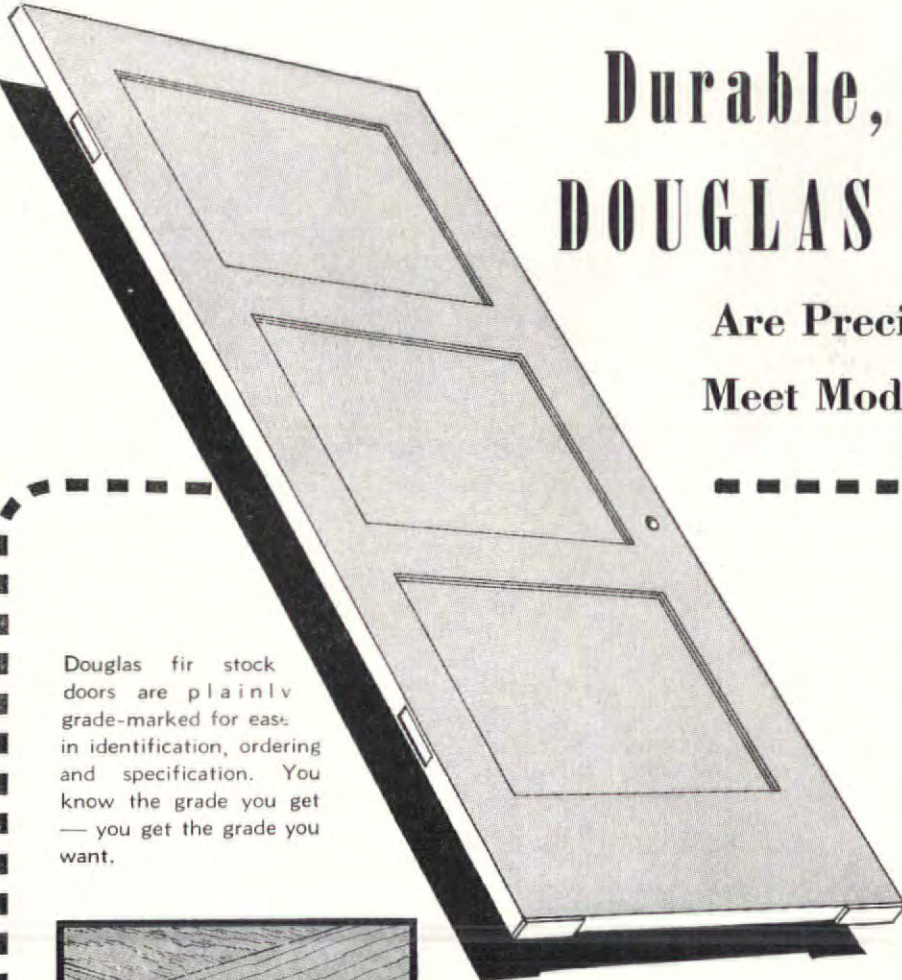
*T. M. Reg. U. S. Pat. Off.

**Fiberglas is the trade name (Reg. U. S. Pat. Off.) of a variety of products made of or with glass fibers by Owens-Corning Fiberglas Corporation.

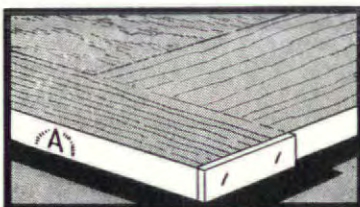


Durable, Attractive DOUGLAS FIR DOORS

Are Precision-Made to
Meet Modern Demands



Douglas fir stock doors are plainly grade-marked for ease in identification, ordering and specification. You know the grade you get — you get the grade you want.



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Douglas fir stock doors are pre-fit to exact size. No on-the-job fitting or cutting is necessary. Doors are scuff-stripped for protection in shipping.

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Douglas fir stock doors are pre-sealed — a feature which improves dimensional stability, reduces moisture absorption, and eliminates the need for one prime coat.

FACTRI-FIT

Douglas fir doors may also be ordered completely machined — not only pre-fit, but gained for hinges and mortised for locks as well. All work is done at the factory by modern, high-speed precision tools.

More Doors Soon!

It is a fact that the supply of Douglas fir doors will continue critical for a number of months. Two factors make this true: the present overwhelming demand — and the shortage of shop lumber. But production IS stepping up. Warehouse and dealer stocks should soon reflect this increased production. We suggest that you keep in touch with your regular source of supply.



DOUGLAS fir stock doors offer real advantages all along the line. Dealers offer them with the knowledge that their precision-made features meet the needs of every customer. Builders save time and money on every installation. Architects specify these fine doors knowing they will result in trimmer, more attractive installations. Prefabricators use them to speed line production. Check the advantages detailed at the left! The slight additional costs are more than offset by on-the-job economies.

Douglas Fir DOORS

FIR DOOR INSTITUTE

Tacoma 2, Washington

Remember!
NATURE MAKES
DOUGLAS FIR
Durable!

Durable Douglas Fir Doors are made from all-heartwood, vertical-grain, soft, old-growth Douglas Fir.

THE NATIONAL ASSOCIATION OF FIR DOOR MANUFACTURERS

NEW CONTEMPORARY FURNITURE OFFERS A WIDE SELECTION, IS DESIGNED FOR VOLUME SALES

Already identified with furniture through the Storagewall he designed in collaboration with Henry N. Wright, George Nelson has moved on to the field of light, portable units. This furniture, recently designed for the Herman Miller Furniture Co., is his latest contribution.

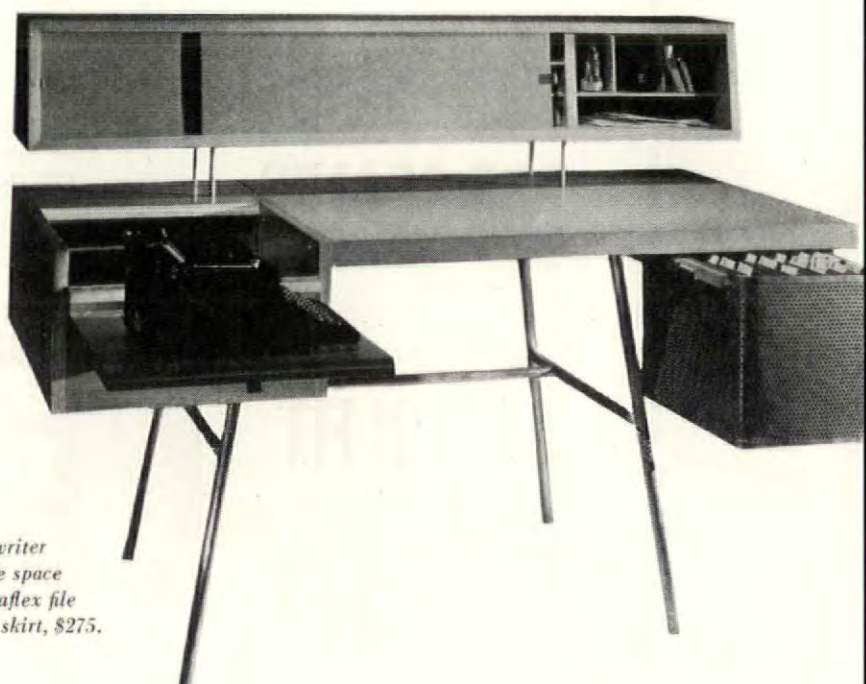
With certain reservations, the Nelson designs can be termed modular, but they incorporate some entirely new twists. For instance, all cabinet units are made from four sizes of board (a device that has handsomely increased the production capacity of the factory). However, the dimensions, do not necessarily share a common denominator. A choice of hardware and finish affords individuality nearly comparable to custom furniture. Three types of pulls are available—a simple metal finger slot in three sizes, a crisp glass and metal knob, and a unique handle known as "the spider" which was evolved through motion experimentation. There is a choice of blond or dark wood—primavera and walnut—ebony, gun metal, red and green lacquer.

Nelson's intention was to keep the lines and detailing as simple as possible since study has shown that, for a general market, high styling is less desirable because of the difficulty of blending it with other pieces. Not inexpensive, the Miller furniture is designed for volume production and nationwide sale, logical under present economic conditions—and since it has a truly homey quality it will undoubtedly carry a wider appeal than many other examples of "modern." Contrary to the usual policy of selling a number of small sectional pieces, in this line emphasis will be on selling larger storage units which, saving the number of finished ends, etc., are cheaper per cubic inch.

Also responsible for the design of the showroom, Nelson has incorporated a clever mural by Madi Black as part of the background. His furniture will be handled by fifteen department stores extending across the country, and, for architects and designers, through the Miller showrooms, which also distribute furniture by Eames, Noguchi and Lazlo.



SHOWROOM DISPLAYS FURNITURE BY VARIOUS DESIGNERS IN TYPICAL GROUPINGS. FOREGROUND MOLDED PLYWOOD CHAIR BY CHARLES EAMES, GLASS TOP COFFEE TABLE BY NOGUCHI



Desk contains individual typewriter unit with self-contained storage space for supplies, desk-weight Pendaflex file enclosed in a perforated metal skirt, \$275.



Occasional chair (left), cane and upholstery, \$59.50.* Platform bench (right) is used as a seat, coffee table or base for cabinets, \$49.50.



Open armchair upholstered in fabric over foam rubber, \$79.50.

Sectional, drawer and cabinet units (right) \$119.50 each—shown on platform bench. Open bookcase, \$59.50.



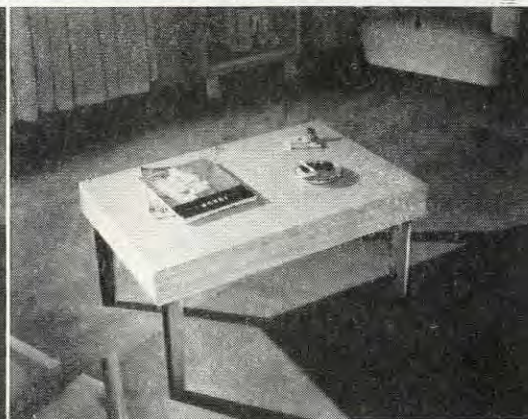
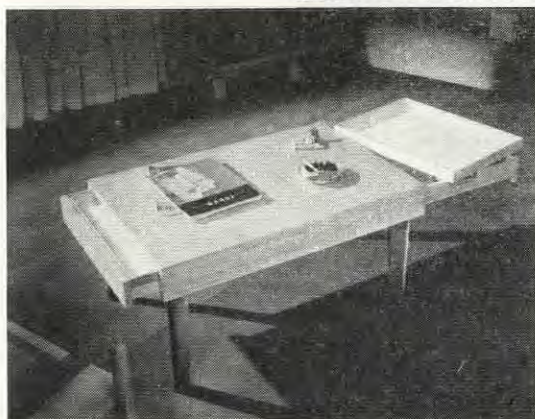
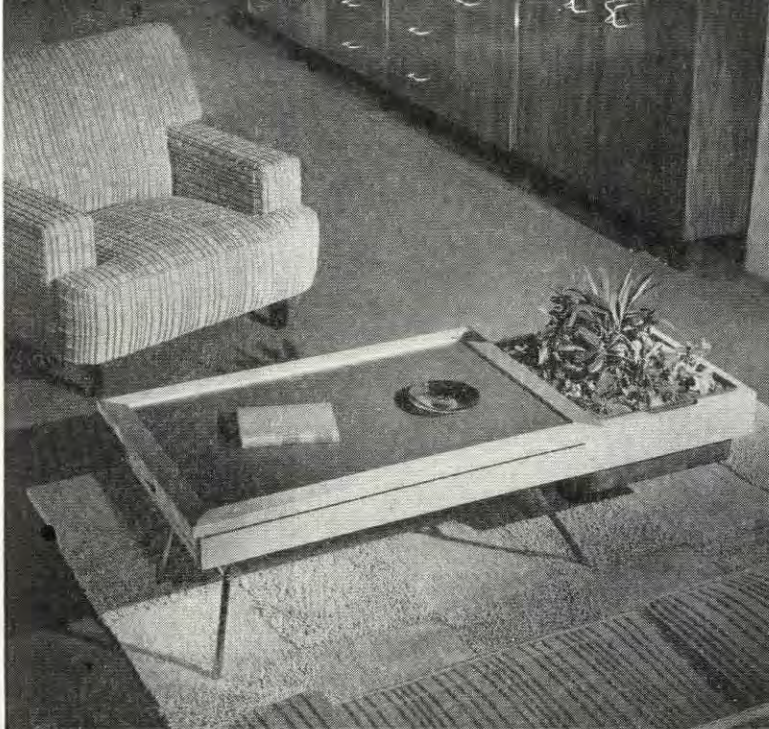
Gateleg table (below) has wood hinges, seats eight \$119.50. Used in conjunction with standard drawer unit shown beside it, \$139, it serves as desk. Glass front cabinet, \$79.50.



REVIEWS

Coffee table (right) has insert copper plant pan which can also be used for bar accessories. Top is of lacquered celotex, resilient and pleasant in texture. End slot is for magazines. Top slides to reveal interior storage space, \$99.50.

Small coffee table is 2 x 3 ft. closed, 2 x 6 ft. opened by two sliding racks. These have removable trays with finished bottoms which, used upside down, make a flush surface, \$109.50.



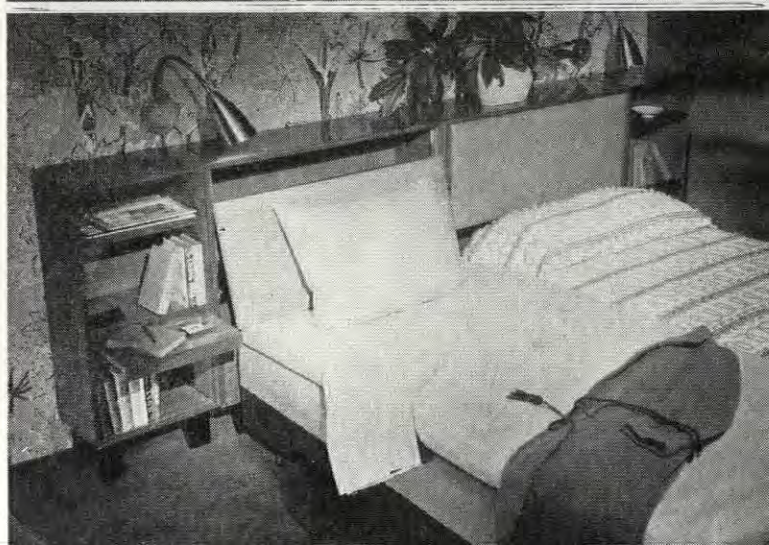
Vanity (below) is leather covered, has storage unit at each end, illuminated frosted glass top, catching mirror, \$229.50.



Vanity (above, right) fits between any standard sectional pieces. Top is mirror backed, \$99.50. Drawer units, \$129.50.



Bed backs have padded headboards that pull out to tilt at any angle with storage space behind, \$119.50 ea. Bookcase, \$69.50.



Kimpreg*... Plastic Armor fused to Plywood



PROTECTS AGAINST WEATHER. Kimpreg-surfaced plywood withstands rain, snow, and extremes in temperature. An amazing success when used for trailer coaches, table or bar tops, and boat decking. Easily adaptable to many other types of construction exposed to rough wear and weather.

INCREASES DURABILITY. Fusing Kimpreg—a thermosetting phenolic material—to the surface of any type of plywood produces Kimpreg + Plywood. Snag-proof, scuff-proof, highly resistant to weak acids, impervious to alcohol.



ARMORS AGAINST DECAY. With panel edges properly sealed, Kimpreg-surfaced plywood is proof against termites, fungus, and bacteria. There are myriads of possibilities in this light, strong material. Mail the coupon today for the names of manufacturers making plywood surfaced with Kimpreg, and complete information on this material.



Kimberly-Clark Corp., Neenah, Wis. Please send me the free Kimpreg book and the names of manufacturers making plywood surfaced with Kimpreg.

AF-547

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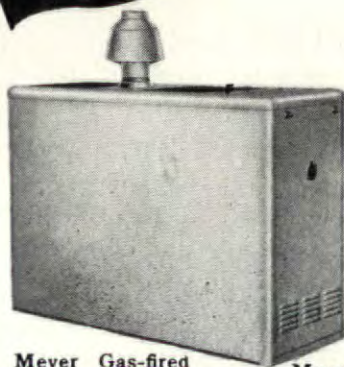


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Address _____
City, Zone, State _____

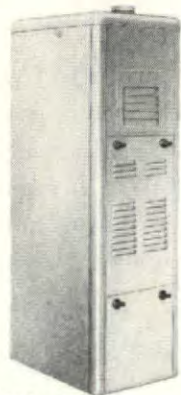
REVIEWS

AUTOMATIC HEAT with GAS or OIL

GAS

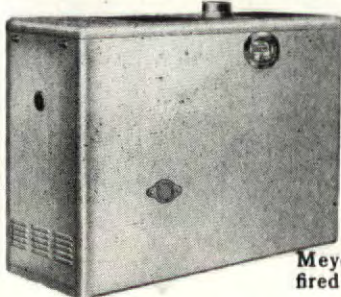


Meyer Gas-fired
Air Conditioner

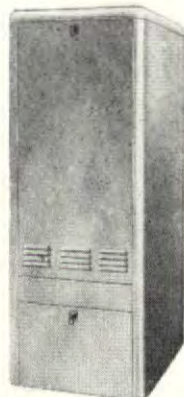


Meyer 'Hi-boy'
Gas-fired Air Conditioner

OIL



Meyer Oil-fired
Air Conditioner



Meyer 'Hi-boy' Oil-
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WEIR-MEYER MEANS Modern Heat

For any fuel, specify WEIR-MEYER. Custom-fitted units available for residential, commercial, or industrial installations. WEIR-MEYER "lifetime" heating plants insure fine performance, economy, ease of installation and freedom from servicing. Post-war improvements are incorporated in WEIR-MEYER equipment. Write for descriptive literature and performance data.



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ARCHITECTURE—AN ART FOR ALL MEN—By Talbot Hamlin—Columbia University Press, New York—255 pp. Illustrated. 6 x 9 1/2—\$3.50.

Usually, when an author has ground out anything as exhaustive and exhausting as a study of the history of architecture, he is inclined to regard it as incontrovertible, final and deathless. Not so Talbot Hamlin. Peering back thirty years at his *Enjoyment of Architecture* he decided that it no longer "served the purpose which engendered its writing." So, by way of remedy, while basking in tropical sunshine aboard a 24-ft. motor cruiser, he did a complete rewrite which now appears under the title, *Architecture, an Art for All Men*.

Though not stated in so many words, it seems safe to assume that this is a book intended for the uninitiate—laymen, students, etc. In purpose and tenor it can be compared with Mumford's *Sticks and Stones* and Whitaker's *Rameses to Rockefeller*, but whether or not it can achieve equal popularity and readership is more than dubious. The style, though less involved and pontifical than Mumford's, is equally wordy. Certainly, among the arts, architecture is most in need of an enlightened public relations job, but Mr. Hamlin's scholarly, academic mind unfortunately and inevitably stands between him and the public. This, therefore, makes it difficult to gauge the exact readership to which his book will appeal. Too generalized and elementary for use as a reference work for professionals, it is also too dry and indecisive for popular consumption. While the first chapter on the appeal of architecture is heartfelt and enthusiastic, the balance of the text fails to live up to it. However, two things in the organization of the material are very much to Mr. Hamlin's credit. First, he has refrained from treating periods in chronological order but stresses structural types and systems instead. Second,

(Continued on page 132)

For Greater FIREPLACE EFFICIENCY

Majestic FORMED STEEL* Dampers

*FORMED STEEL

The heavy-gauge formed steel units developed by Majestic to meet war-vital needs proved the advantages of this advanced construction—which is now featured on the regular Majestic line, including Circulator Fireplace Units, Underground Garbage Receivers, Home Incinerators.

Rugged and Long-Lasting

With Majestic Formed Steel Dampers the proper ratio of throat area to fireplace opening is constant. Correct height of throat and other dimensions are assured. Built to get highest efficiency from every fireplace, these dampers also withstand years of exposure to rust, smoke, soot, and heat without impairment. Valve closes tightly against frame. Operates easily with an ingeniously simplified poker control. The Majestic built-on lintel simplifies installation—no angle iron required. No fitting necessary. Damper rests flat on rough masonry. For safe draft control and permanent, smoke-free satisfaction, specify Majestic Formed Steel Dampers.

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Majestic Co.
833 ERIE STREET
HUNTINGTON, IND.

Nationally Known and Advertised for 40 years

More *Sloan Flush Valves* are sold *than all other makes combined*

THESE 7 FACTS EXPLAIN WHY...



Reputation—Sloan is the world's largest manufacturer of Flush Valves exclusively.

Endurance—Thousands of the first Sloan Flush Valves installed are still in perfect operation after 37 years of daily use.

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Water Conservation—Records prove that reduced water consumption has saved enough to pay for Sloan installations many times over.

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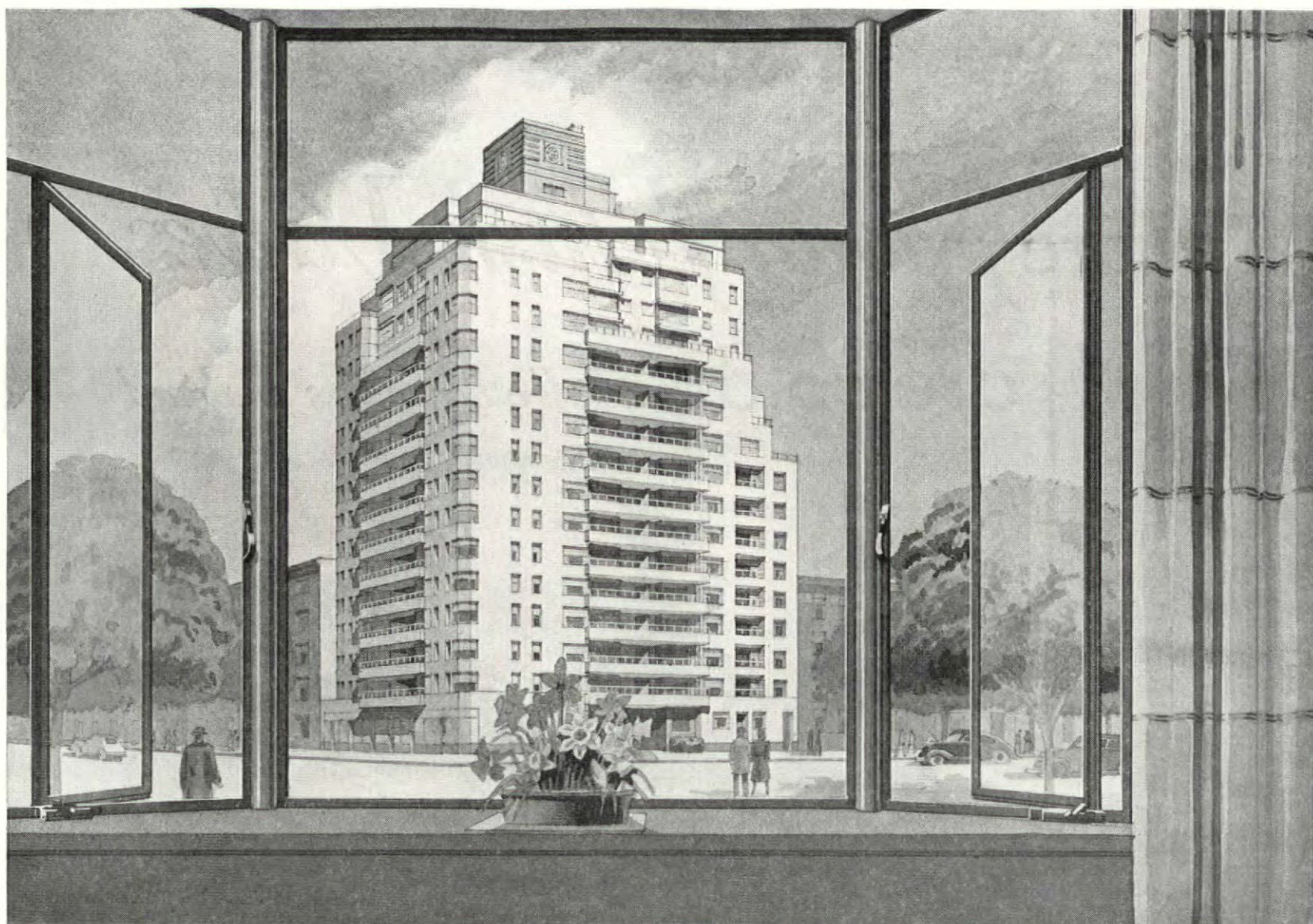
Quietness—Without screening the water, Sloan Quiet Flush Valves are whisper quiet.

Price—The plus values of Sloan's unequalled records of performance in the field are yours at costs no higher than others.

*For the best in Flush Valves
specify Sloan . . . the standard
by which all other makes
are judged.*

SLOAN VALVE COMPANY

4300 West Lake Street, Chicago 24, Illinois



Apartment House, 20 E. 74th St., New York City.
 Architect: Sylvan Bien, New York. Contractors:
 S. Minsciff & Sons, New York. Adapted from the
 original rendering in color by J. Floyd Yewell.

Compact planning, so necessary in apartment house construction, requires the conveniences and comforts available with Lupton Metal Windows. The narrow frames of Lupton Metal Windows increase glass area and harmonize with contemporary design, giving each room the appearance of spacious surroundings and gracious living. Controlled natural ventilation without harmful drafts, and simple operation increase tenant satisfaction. Modern in appearance, flexible in design, there is a Lupton Metal Window for every type of building. Write for our new 1947 Catalog or see it in Sweet's.

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The gleaming beauty of this modern, rustless metal is being used more and more to create distinctive entrances, theater marquees and store fronts. Its dense, hard surface withstands corrosion and the attacks of weather . . . resists scratching and denting. And ARMCO Stainless is solid bright metal all the way through . . . no plating to wear off. Simple cleaning quickly restores its full, rich luster.

ARMCO Stainless has almost limitless applications in the construction field. It lends new appeal to interiors as well as exteriors . . . brightens the small home as well as the

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Armco with its Rustless Division produces a full line of Stainless Steel — sheets, strip, plates, bars and wire. See catalog in Sweet's File, or write for name of nearest Armco distributor. The American Rolling Mill Company, 1301 Curtis Street, Middletown, Ohio. Export: The Armco International Corporation.



SEESWEET'S CATALOG for uses, advantages and specifications of these other Armco special-purpose sheets:

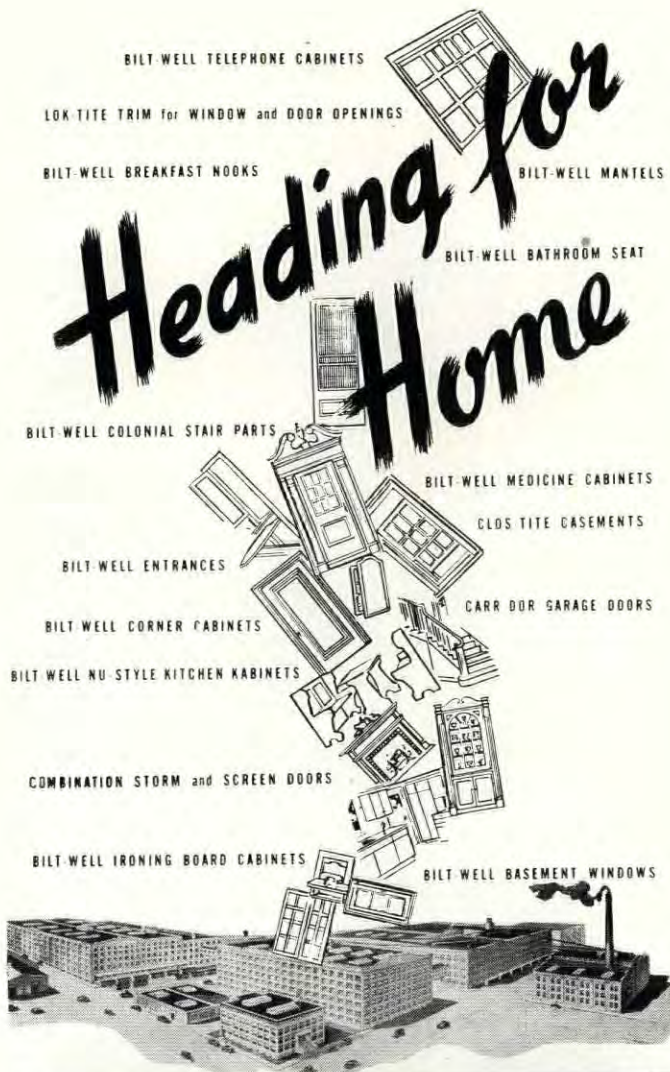
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WOODWORK**

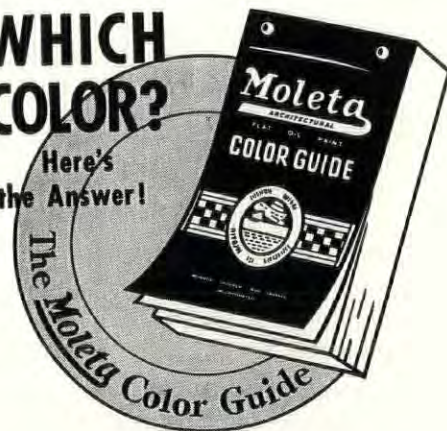
and more surprising, is the large amount of space devoted to ornamentation in architecture; a subject growing daily more important and more controversial among contemporary architects. Mr. Hamlin's approach to modern is detached and energetically unbiased—so much so that the most profound statement he seems to be able to make on the subject of modern ornamentation is: "The answer to the problem of modern decoration . . . seems to lie in finding a modern type of ornament fitted to our present life rather than a defeatist surrender to stark bareness. And the possibilities of such a form of decoration are still numerous . . . manufactured material imaginatively used—the sheen of metal, the bright transparency of glass, the rich color of tile, the brilliance of sheets of plastic . . . the creative decoration of the actual structural materials like that of the precast concrete blocks of some of Frank Lloyd Wright's California houses . . . the suave and continuous modulation of surfaces—in bands, channelings or readings . . . the decorative use of sculpture and mural painting." Such observations, coupled with the author's pat design formulae, reveal an incomplete grasp of architectural evolution to date and its more pertinent problems. As though we were to continue forever building in the eclectic pattern of the twenties, he blandly outlines, for example, the possibilities of exterior moldings: "The string course may be used to express floor levels, or it may be used merely decoratively to cut the building into pleasing vertical relationships. There is often one above the first floor, to make the bottom stories count as a base, and one near the top of the building to form with the cornice and adequate crown; the shaft between is usually unbroken."

In summary, Mr. Hamlin's book largely misses the mark as an intelligent, perspicacious introduction to architecture.

(Continued on page 136)

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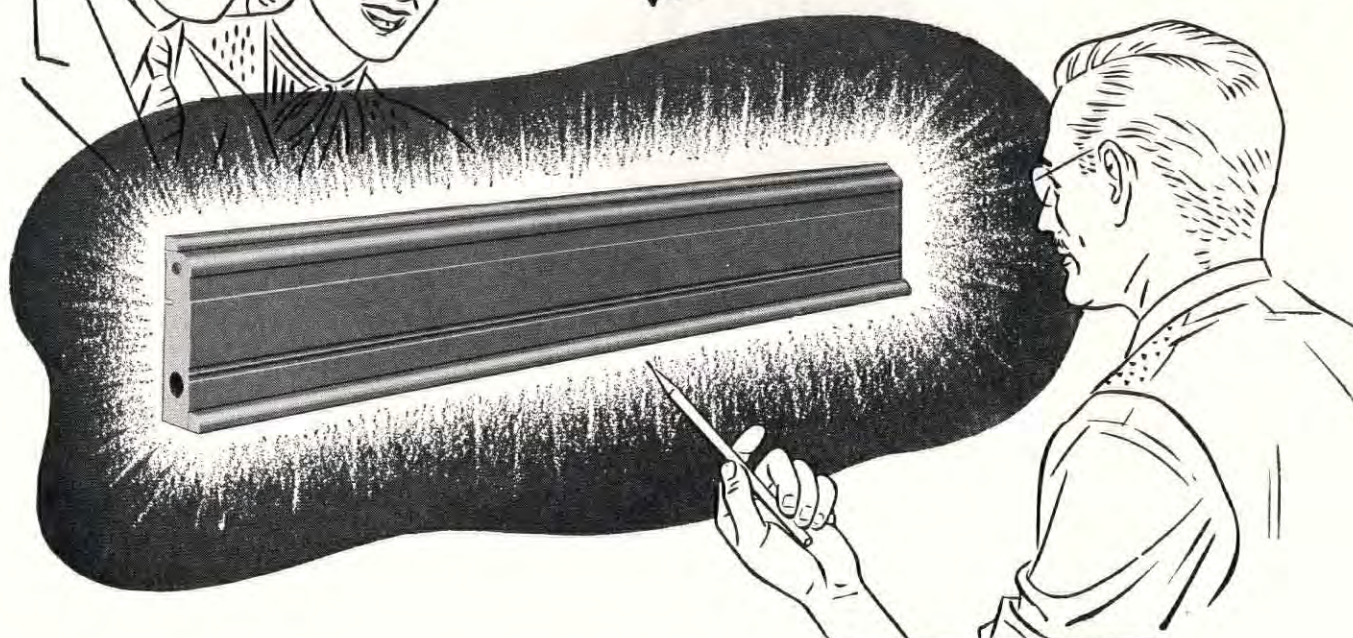
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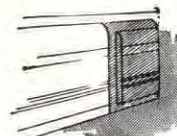


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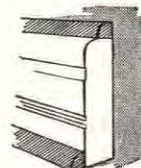
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To provide an even more realistic baseboard appearance and to compensate for irregularities sometimes found in walls and floors, regular wood moldings are added at top and bottom of "Standard" BASE-RAY and at top only of "Hy-Power" units.



Write today for this FREE Booklet, which gives ratings and installation data on BASE-RAY Radiant Baseboards.

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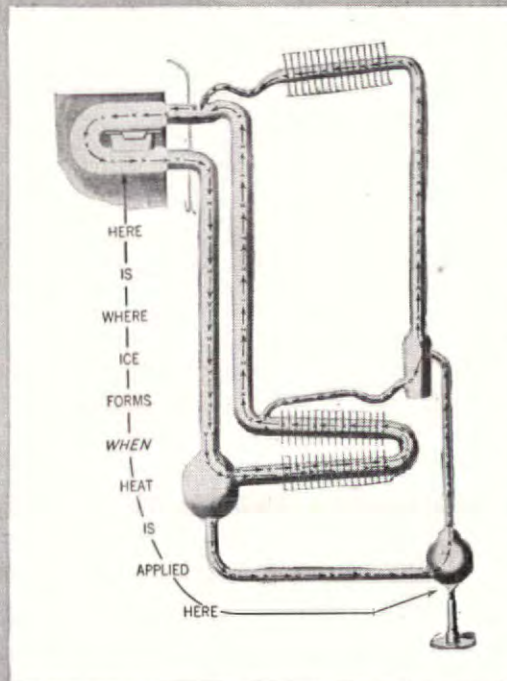
● As more than 2,000,000 Servels have proved, this modern Gas Refrigerator provides noise-free, dependable operation throughout its long life. Now the great new 1947 Serval offers even more—a host of new features that insure the finest in modern food storage.

The new 1947 Serval contains a big Frozen Food Locker that stores up to 60 packages of frozen foods. With it, homemakers can plan varied and delightful menus every season of the year. In addition, the 1947 Gas Refrigerator provides moist cold and dry cold, a new flexible interior adjustable to eleven positions, rust- and scratch-resistant Plastic Coated shelves and many other big new conveniences tenants will appreciate.

Offers Silence and Dependability, Too

Of course, the Serval Gas Refrigerator is still permanently silent, lastingly dependable. Serval's unmatched performance throughout the war has demonstrated to owners that the Gas Refrigerator stays on the job year after year. Operating and maintenance costs remain low. That's because the freezing system of Serval is different from all others. It has no machinery, no moving parts to get noisy, none to wear or break down.

So for the tops in food storage, plus silent, dependable performance, specify the great new 1947 Serval Gas Refrigerator for the apartment buildings and homes you design, build or manage. Plan now to provide outlets for Gas Refrigeration in your current designs and construction work. For installation data and complete information on the new 1947 Serval Gas Refrigerator, consult Sweet's Builders' File. Or write today to Serval, Inc., Evansville 20, Indiana.



Here's why Serval stays silent, lasts longer

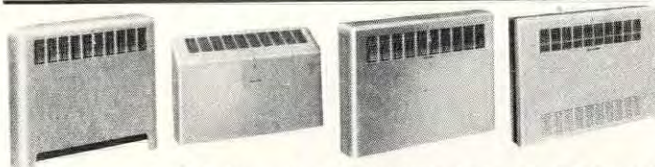
Serval's simpler method of operation is the result of its basically different freezing system. The Gas Refrigerator operates on the continuous absorption principle of refrigeration. In a Serval, the refrigerant is hermetically sealed in a set of vessels connected by pipes. A tiny gas flame is applied to the lowest vessel. Owing to the evaporation properties of the refrigerant and the law of gravity, ice forms in an upper vessel. No machinery—motor, valves, pumps or compressors—is needed. Serval has no moving parts in its freezing system. Thus, it stays silent, lasts longer.

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It is essentially dull and practically void of any imagination which might inspire readers to further thought and investigation of their own. As for the illustrative material, this too is monotonously familiar and less forgivable in view of the fine documentation Mr. Hamlin managed to round up for his *Greek Revival Architecture in America* (FORUM, May '44)—M. S.

ON TRUST FOR THE NATION. By Clough Williams-Ellis. Paul Eleck, 38 Hatton Garden, London. 168 pp. Illustrated 7 in. x 9 1/2 in. 25/.

Celebrating its Jubilee, Britain's National Trust for Places of Historic Interest and Natural Beauty has published a small volume explaining its scope and authority. Corresponding in function to our State and Federal Park Services, the Trust is not, however, a government agency but a "charity" entirely supported by voluntary contributions and managed by private individuals in the interest of the public. Dedicated to the preservation of beauty, this intimately written and illustrated book takes the reader from Northern Ireland past the Scottish border to Land's End and on to the beautiful Scilly Isles. Possessing over 115,000 acres and protecting by covenant almost half again as much, the Trust's responsibilities and achievements are enormous despite the fact that at present less than 230 Britishers per million are helping its work—no great recommendation to England's national pride. But Anglophiles everywhere share the author's expressed hope: "Anything that we may still have in the way of loveliness, whether natural or man made, has, since the Great Disaster, been multiplied many times in value, not only to ourselves but to the whole world—and especially to the young. These places must be jealously guarded so that they may abide as criteria of excellence by which may be gauged the new and different beauty we must create."—M.S.

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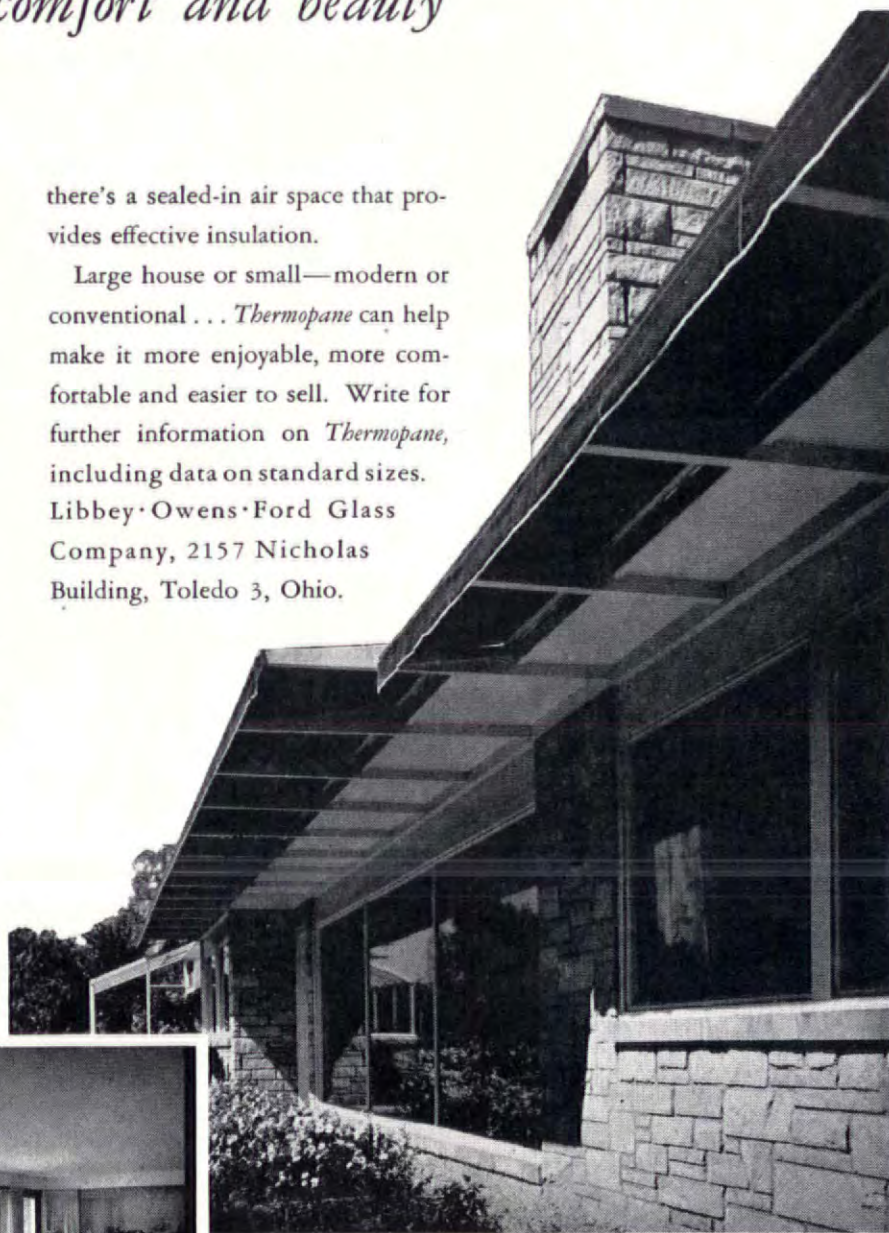
for year-round comfort and beauty

In this attractive house of Mr. and Mrs. H. M. Sloan of Glenview, Illinois, Architect David S. Barrow added the beauty and spaciousness of the outdoors to indoor living. He provided the extra comfort and economy of solar heating with window walls of *Thermopane*, the complete multiple-pane insulating unit.

All year the beauty of the landscape is enjoyed with indoor comfort. In summer, the *Thermopane* units, shaded from the direct rays of the high sun, help keep the house cooler. In winter, sunshine floods the room, warming the walls, floors and furnishings. *Thermopane* helps keep this heat in, for between its two panes

there's a sealed-in air space that provides effective insulation.

Large house or small—modern or conventional... *Thermopane* can help make it more enjoyable, more comfortable and easier to sell. Write for further information on *Thermopane*, including data on standard sizes. Libbey-Owens-Ford Glass Company, 2157 Nicholas Building, Toledo 3, Ohio.



● The overhang is carefully calculated to admit sunshine in winter and keep it out in summer. Notice how the shadow falls along the sill in this summer picture—a shorter overhang being used for the bedroom windows with higher sills at the right. The canvas portion of the overhang is removed in winter to permit the heat-giving rays of the low winter sun to enter.

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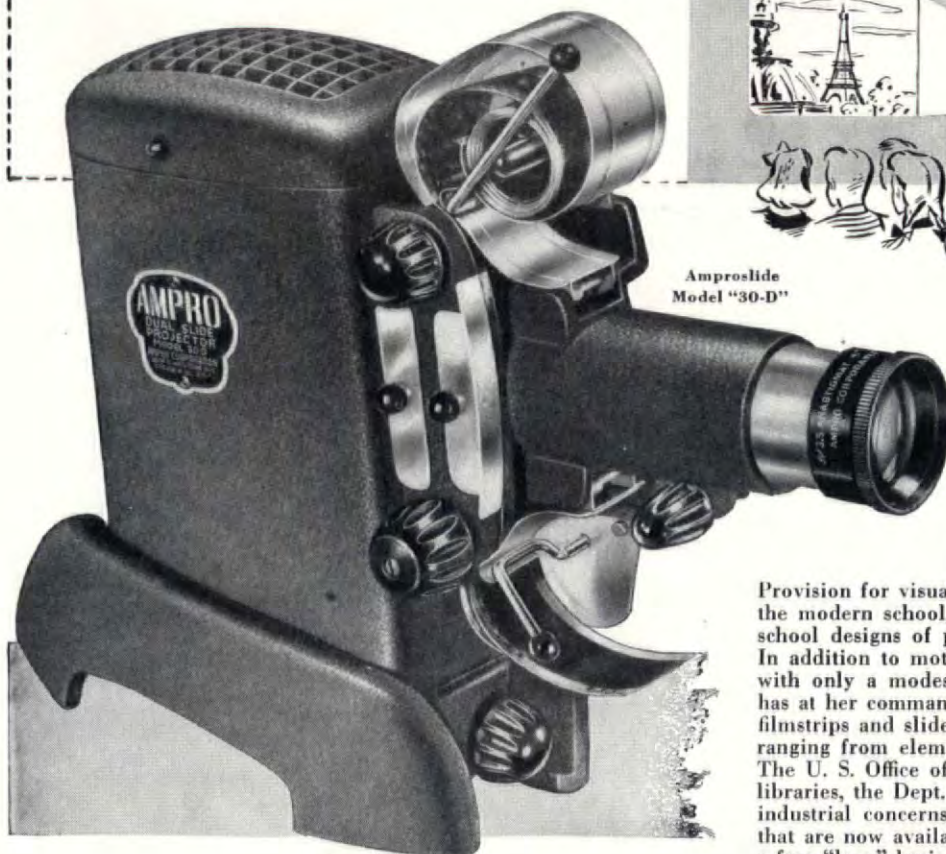


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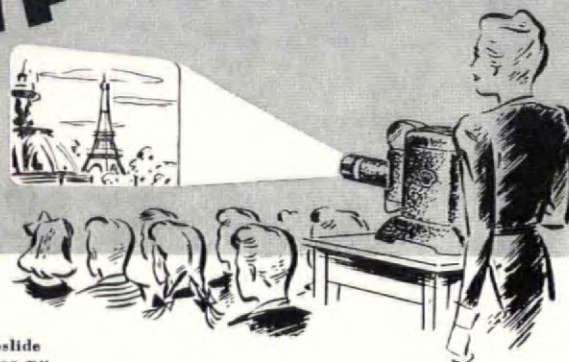
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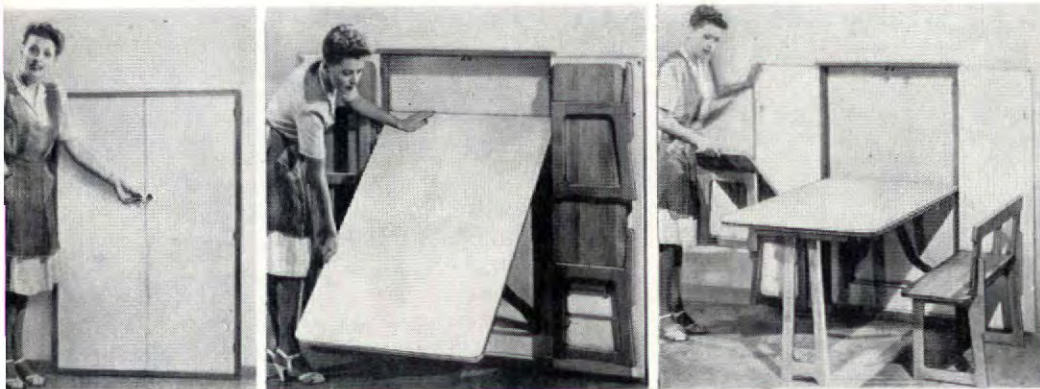
1. Never waste time, never forget, never make mistakes.
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DINING SET builds into a 4 in. wall, saves floor space.

The Fain Foldinette is a complete dining set housed in a cabinet for installation in a standard 4-in. wall. Providing a new solution to the dining space problem, it is especially suitable for use in multiple housing units, small homes and other places with limited floor space. In addition, it can be used as a table or workbench in workshops, dens, childrens' rooms, etc.

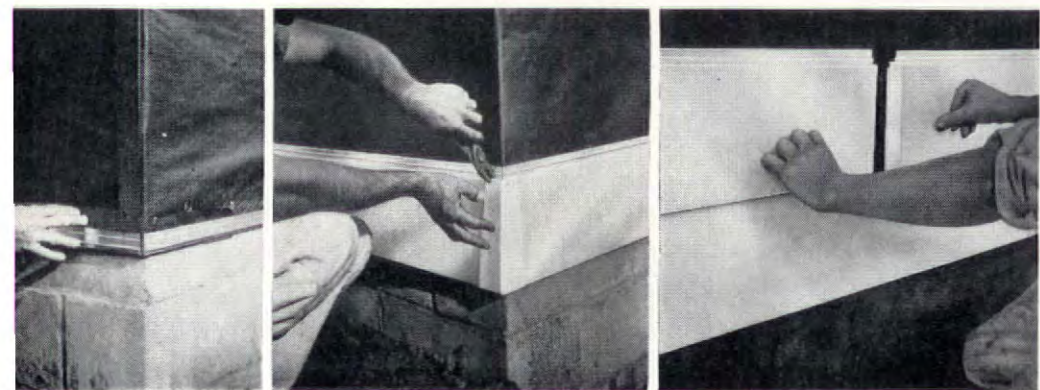


When closed, Foldinette resembles a modern built-in cabinet. Open, it provides a table 32 x 48 in., and two double seats. The table can be used without the seats if desired, has a mar-proof, alcohol- and heat-proof, plastic top. Seats are designed and constructed to place their entire weight upon the floor. Installation of the unit is simple. The cabinet, 36 in. wide x 57 in. high, is recessed in a new wall simply by framing around the unit and fastening to studs and header. Cabinet can be refinished to match any color scheme.

Manufacturer: Sierra Wood Products, Inc., Pasadena, Calif.

ALUMINUM SURFACING MATERIALS insulate, require no maintenance, are easily applied.

Reynolds' line of Lifetime Aluminum Building Products include, among other surfacing materials, an individual roof shingle, a clapboard siding for residential construction and a weatherboard siding panel for home, farm or factory use. In addition to design features, these products provide permanent protection against weather, are fireproof, rustproof, impervious to rot, vermin and termites. They insulate by reflecting heat, require no painting, yet hold paint well if applied. The new roof shingle is designed with a deep shadow line. Formed edges raise it away from the roof sheathing to provide an insulating air space. Interlocking sides also form an air space which prevents capillary action of water between the shingles. The aluminum surface reflects as high as 95 per cent of radiant heat from either direction, thus helping to keep interiors cooler in summer and warmer in winter. Shingles are available in two sizes: 5½ x 18½ in., and 8 x 14½ in., are self-aligning, easy to apply.



Reynolds Clapboard Siding comes in plain or textured aluminum .032 in. thick. Formed with an 8 in. exposed surface and heavy shadow line, it is supplied in 12-ft. lengths which weigh 5 lbs. For installation, only a hammer, pliers, metal saw and miter box are necessary. It can be applied in courses around the house or on a single side at a time.

Reynolds' Weatherboard Siding comes in sheets crimped to look like clapboard. Easily and quickly applied, the sturdy new sheet is 53 per cent thicker than old fashioned 28-gauge galvanized. It is erected horizontally and has a 24 in. vertical coverage. Panel has 4 in. exposed clapboard surfaces, thick butt depth and prominent shadow lines. Weatherboard comes in 8 ft., 10 ft. and 12 ft. lengths. A 10 ft. length weighs less than 9 lbs.

Manufacturer: Reynolds Metals Co., Building Products Div., Louisville, Ky.

PREFABRICATED CELLAR STAIRS for exterior cellarway.

Bilco prefabricated steel cellar stair units consist of risers, treads and side walls for the cellarway. Assembled on the ground, slid into place and caulked along the seams, they provide an economical outside entrance to the cellar. According to the manufacturer, they transform a hole in the ground into an attractive cellar entrance in a fraction of the time and at far less cost than conventional concrete, cinder block, stone or brick construction. To install the unit in new homes, the builder need only leave an opening in the foundation wall and equip it with five anchor bolts on each side for fastening the side walls of the stairs. For existing homes that lack an outside cellar entrance, the unit can be used with a Bilco copper-steel outside cellar door to provide such an entrance.

Manufacturer: The Bilco Co., 164 Hallock Ave., New Haven, Conn.

WATERPROOF BRUSH COAT seals porous masonry materials in one coat.

Tamms Agraseal waterproof brush coat, a watertight material for coating cinder block, lightweight aggregate and concrete block surfaces, seals and decorates in one coat. It penetrates deep into surface pores and dries to establish a positive seal which withstands dampness, water, alkali, oil, sun, heat, frost, ice, etc. Available in white, ivory cream, light buff, natural stone grey, sunny yellow and light green, it is also decorative. According to the manufacturer, a second coat is necessary only when a stronger color value or a smoother finish is desired. Agraseal comes in powder form to be mixed with water and is easily applied with an ordinary scrub brush. One gallon covers 50 sq. ft. for the first coat, 100 to 150 sq. ft. for second coat.

Manufacturer: Tamms Silica Co., 228 N. La Salle St., Chicago, Ill.

WATERPROOFING COMPOUND for masonry materials decorates as it seals out dampness.

Available for national distribution after several years' trial in the east, Celadri is a guaranteed masonry waterproofing that decorates and seals out moisture in one operation. It is said to cost no more than a good grade of paint, yet to completely waterproof concrete, brick, stone, stucco and all porous masonry surfaces, inside or outside, above or below grade. According to its manufacturer, other features include easy application, fast drying and hardening to a rocklike consistency that will last the life of any surface except floors. Odorless, it will not peel or rub off. Celadri is available in snow white, buff, light and

(Continued on page 142)

BRIXMENT Makes Good Workmanship EASIER!

The pictures below show an example of good workmanship — and of bad workmanship. They also explain why mortar such as Brixment makes it *easier* for the bricklayer to deliver good workmanship.

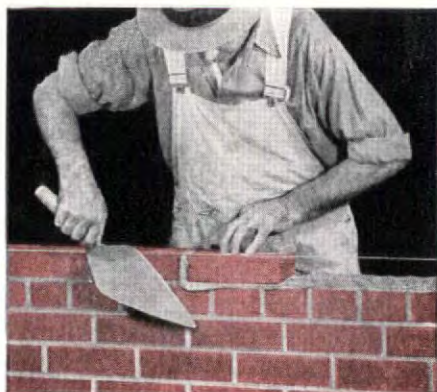
No. 2 OF A SERIES—

THE RIGHT WAY AND THE WRONG WAY—IN BED JOINTS

When absorbent brick are used, especially in hot weather, mortar should be spread out over only a few brick at a time. The brick should be placed on this mortar immediately, before it can stiffen.



The mortar should be spread over a few brick only.



So the mortar will still be soft and plastic when the brick are bedded.



Then the mortar will stick to the brick on top of it as well as to the brick below it.

BRIXMENT makes good workmanship *easier* because it holds its moisture longer than ordinary mortars, when spread out on the wall. This enables the bricklayer to properly bed the brick before the mortar has stiffened too much.

Brixment mortar has greater plasticity, higher water-retaining capacity and bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this combination of advantages, Brixment is the leading masonry cement on the market.

LOUISVILLE CEMENT COMPANY

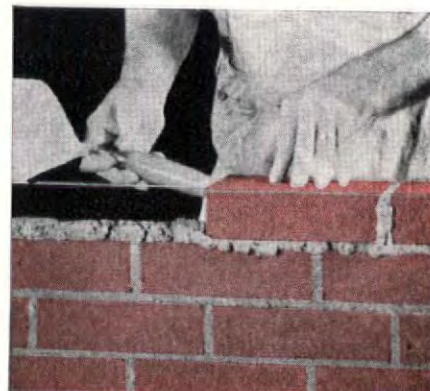
Incorporated

LOUISVILLE, KENTUCKY

If the mortar is spread out too far, or if any delay occurs between spreading the mortar and placing the brick, the mortar will be sucked dry and will not stick to the brick placed on top of it.



Mortar for this bed joint was spread out on the wall too far.



So the mortar dried out too much before the next course of brick was placed on top of it.



Therefore the mortar did not stick to the top brick. A good bond was not secured.

dark gray, blue, green and terra cotta, in 1 and 5 gal. containers. Coverage is approximately 100 sq. ft. per gallon.
Manufacturer: Celadri Corp., 644 Willis Ave., Williston Park, N. Y.

MOISTURE- AND VAPOR-RESISTANT PAPER for use in building.

Presstite Barrier Paper is a high grade, tough kraft paper, saturated and coated with gilsonite, asphalt and wax compound. Moisture- and vapor-resistant, it is used as a moisture and vapor barrier in walls between sheathing and facing materials, under flooring and for roof decks. It also has application in the construction of locker plants and other cold storage areas to protect insulation against infiltration of moisture vapor. According to the manufacturer, Presstite Barrier Paper has withstood the most stringent tests and

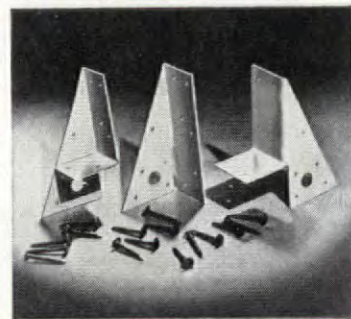
shows a moisture vapor transmission below .40 grams per 100 sq. in. for 24 hrs. Black in color, it has good flexibility, no odor and will not shrink after wetting. It is packed in rolls of 500 sq. ft. weighing approximately 35 lbs.

Manufacturer: Presstite Engineering Co., 3900 Chouteau Ave., St. Louis, Mo.

TIMBER CONNECTORS for economical secondary connections in wood framing.

Teco Trip-L-Grip framing anchors, timber connectors for use in home and light construction, develop both shear and tension. They increase rigidity around window and door openings and provide added strength in floor and wall framing. Laboratory tested at Georgia Tech, they are specified in joining joists to beams, beams to posts, studs to sills, rafters to plates, studs to girts and other house framing connections. In addition, they can be used in farm buildings, prefabricated housing, timber trusses, form work, etc. According to the manufacturer, Trip-L-Grip anchors reduce framing costs by eliminating conventional cumbersome and expensive framing methods. They replace the uncertainties of toe nailing, eliminate bridging in attaching joists on trusses and notching. They afford good wind anchorage by tying rafters tight. Made of 18-gauge zinc coated, corrosion-resistant sheet steel, connectors are available in three simple types. Each anchor has scientifically located nail holes and a large hole to permit spot nailing through a covering surface. Non-splitting full bodied nails that develop maximum shear without splitting the lumber are also supplied.

Manufacturer: Timber Engineering Co., 1319 18th St., N.W., Washington, D. C.



FIRE-RESISTIVE DRAPERY FABRICS approved for places of public assembly in New York City.

Plymouth Fire-Guard Fabrics are a new line of fire-resistive drapery and decorative fabrics for use in hotels, theaters, nightclubs, schools and the home. Woven of approximately 60 per cent Fiberglas and 40 per cent flameproofed cotton yarns, they drape in soft folds, do not stretch and are highly resistant to fading. They can easily be cut, sewed or ironed, and may be dry-cleaned by conventional processes without losing their fire-resistive quality. Tested by the Better Fabrics Testing Bureau and the Board of Standards and Appeals of New York City, the fabrics have been approved as fire resistive and acceptable for use in places of public assembly in New York City. They are available in a wide range of designs, colors and shades and, according to the manufacturer, are priced in line with other quality drapery fabrics.

Manufacturer: Plymouth Fabrics, Fall River, Mass.

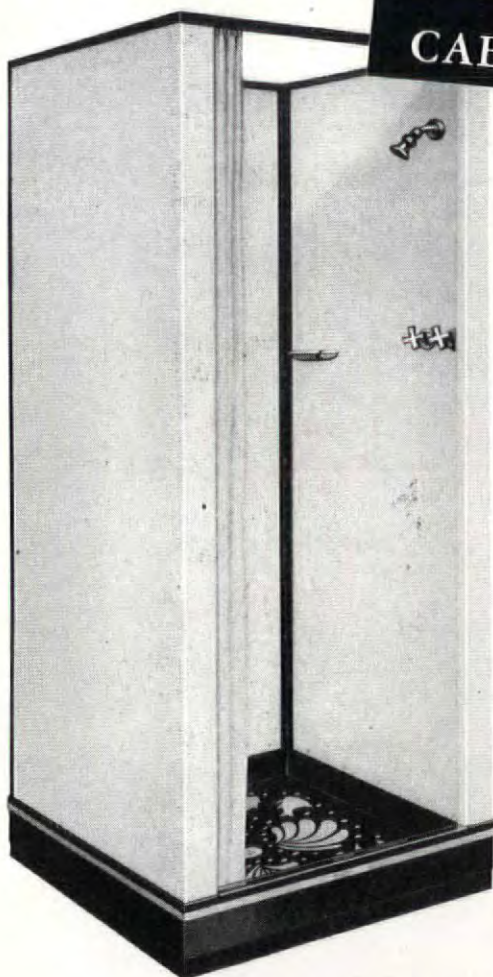
HOT WATER BOILERS for small homes, feature high rate of heat transfer, compact size, easy installation.

Compact in size and easily installed, Briggs gas-fired, hot water boilers are especially designed for the small house. With increased heat transfer surfaces and true counterflow design, they provide rapid heat transfer in a unit only 30 in. high and 18 in. wide. To achieve the fast heat absorption, the water leg of the boiler is divided into two thin channels by a steel baffle. This baffle is so

(Continued on page 144)

AVAILABLE NOW FOR QUALITY BUILDINGS

Weisway STANDARD CABINET SHOWERS



Installation photo shows corner entrance model with in-a-wall adapter

Precision built of service-tested materials, the Weisway Standard model meets the quality requirements for master bathrooms or extra baths in homes of every size and type, as well as for hotels, clubs, apartments, hospitals, schools and public buildings. Walls are 14 B & S gauge aluminum alloy finished white baked-on enamel. Receptor of Armco Iron, one piece, vitreous porcelain enameled, jet black with Foot-Grip, No-Slip floor in textured green sea shell pattern. Available promptly, through established plumbing channels. Write for details.

HENRY WEIS MFG. CO., INC.
 502 Weisway Building, Elkhart, Ind.





A STORY FOR ARCHITECTS AND DECORATORS from McGuffey's ancient "First Reader"

It seems the bus boy persuaded the chef to let him sculp a lion out of butter for a centerpiece. When the prince saw the masterpiece he said "Junior, you are too good to waste your skill on ephemeral butter, and you shall carve lions in stone to flank my drawbridge and I shall pay you well."

Most modern decorative materials are more substantial than butter, but your skill is largely wasted on some of them. Why?

Often the colorful surfaces you create receive hard usage. They receive poor upkeep, infrequent renewal, and scant cleaning. Sometimes they fade. A few years after you finish a building it has lost the colors you gave it, and it doesn't give a prospective client the right impression of your artistry.

Such things can't happen to a Formica surface. Formica is as hard and smooth as a china dish. It cleans as easily. It will not chip, crack, check, or blister. Food and alcohol and cigarettes won't damage it. It sheds dirt. The lovely colors never fade. Simple cleaning brings out their pristine richness after decades of use.

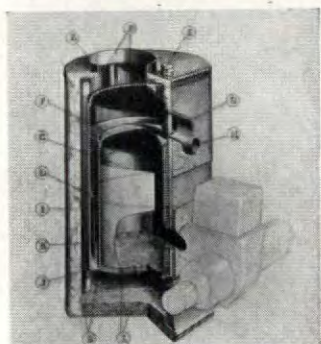


THE FORMICA INSULATION COMPANY

4620 SPRING GROVE AVENUE

CINCINNATI 32, OHIO

installed as to allow water return connection to be placed high on the water leg, thus giving a true counterflow on return



water from the radiators. A spiral ring is installed in connection with the high return and water leg baffle in order to speed the flow and obtain percolator action of return water. This counterflow design, according to the manufacturer, speeds up circulation in the boiler to a point about five times as fast as conventional

hot water boilers with low return water inlet. The Briggs Boiler, weighing slightly more than 200 lbs., can be installed by a mechanic and helper in

THERE'S GOODWILL, MR. BUILDER, IN GOOD WATER!



To the home-owner, good water means less work, fewer plumbing repairs, better operation of all water-using home appliances. To business and industry, it means less waste, lower operating costs. To the builder, however, good water means goodwill!

Where local water conditions are poor, you can provide soft, clear water easily with Permutit® Water Conditioning. Modern, automatic Permutit equip-

ment is as much at home today in private dwellings as in hospitals, laundries, restaurants, and industrial plants.

So when you build, build for the future. Include Permutit in your plans. It's a relatively small investment that will pay you big dividends. Write for particulars to The Permutit Company, Dept. AF-5, 330 West 42nd Street, New York 18, N. Y. or Permutit Co. of Canada, Ltd., Montreal.

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

It's good business to begin
with Good Water

FOR MORE THAN
30 YEARS

PERMUTIT

WATER CONDITIONING HEADQUARTERS

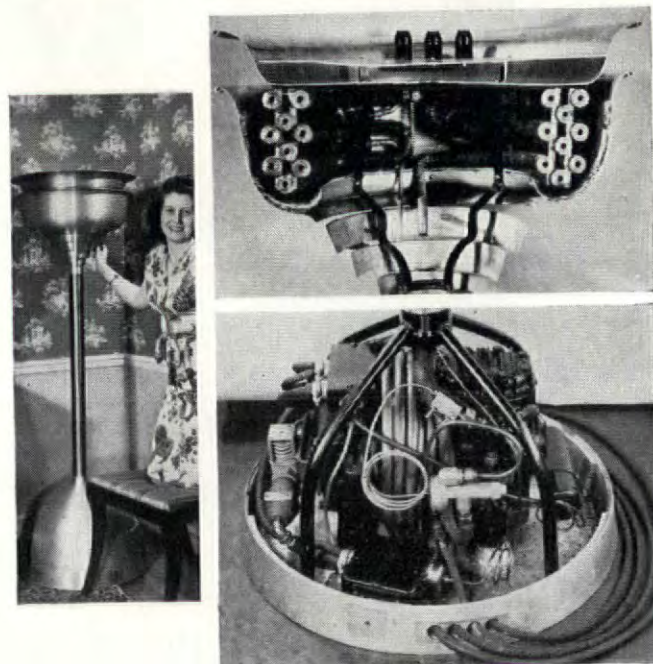


one day. It requires only the water supply and general hook-up to place in operation. Fully tested, it is reported to show outstanding results in fuel economies. Boiler comes in two capacities, 75,000 B.T.U. and 55,000 B.T.U. Domestic hot water coil is available for all year hot water supply.

Manufacturer: The Briggs Filtration Co., Bethesda, Md.

COMBINATION AIR-CONDITIONING AND LIGHTING UNIT for offices, stores, small factories and homes.

Resembling an indirect lighting fixture, Luminaire is a combination room air conditioner and fluorescent lighting unit. It provides general illumination; dehumidifies, cools and circulates air by thermostatic control. The insulated dome, in addition to housing the fluorescent lighting unit on top, contains the cooling coils, circulating fan, inlet and outlet louvers. The insulated base houses the automatic, semi-hermetic condensing unit, 1/2 h.p. electric motor, controls and other essentials for the air conditioning operation. Luminaire utilizes



the water-cooled principle, the same method employed in larger industrial air conditioners. Air flows out over the cooling coils at low velocity which increases the cooling capacity and eliminates drafts. Total cooling capacity is 400 sq. ft. regardless of ceiling height. As the unit cools only the living or occupancy level, the manufacturer states that operating costs are cut to a minimum. Dehumidification tests prove the unit capable of removing moisture from the air at the rate of 5 gals. every 24 hrs. at 90 degrees DB and 75 degrees WB. Luminaire is installed by tying into the nearest water and drain connections and plugging into existing electric outlets. It is suitable for use in offices, stores, small factories and homes, can be equipped with a Sterilamp to provide air sterilization if desired. The unit is 69 in. tall with a 23 in. diameter base, uses Freon refrigerant.

Distributor: Parlong Air Conditioning Corp., 344 Washington Building, Washington, D. C.

ELECTRIC RANGE LINE features new design and construction.

Frigidaire's 1947 line of electric household ranges includes five streamlined models, new in design and construction. Finished inside and out in porcelain, they have one-piece, roll-front, steel cooking tops (Continued on page 146)

More American homes have heating and plumbing products

by... **AMERICAN-Standard**

than by any other single company

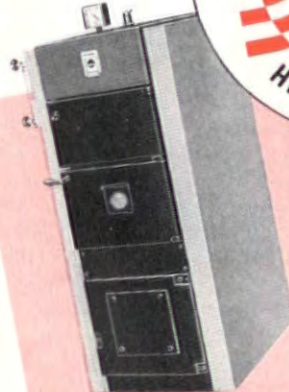
■ Yes, American-Standard Heating Equipment and Plumbing Fixtures enjoy a public acceptance that's second to none! Remember this fact when you're selecting equipment and fixtures. It is your assurance of smart styling, expert engineering, sturdy construction . . . of unvarying quality standards in materials and workmanship . . . of efficient performance and long, trouble-free service. Remember, too, that while they are as fine as money can buy, American-Standard products cost no more than others . . . furthermore, they are available for modernization on a convenient Time Payment Plan. For details, see your Heating & Plumbing Contractor. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pa.



The **MARLEDGE**—A shelf back, square bowl lavatory of genuine vitreous china. Available in white and many attractive colors. Fittings, towel bars, legs and other exposed metal finished in lustrous, non-tarnishing Chromard. This lavatory can also be supplied without legs for wall-hung installation.



The **COMPACT** Water Closet, with its syphon vortex water action, was developed to meet the most discriminating demand for quietness in operation. It is a close-coupled closet combination of genuine vitreous china. Comes in gleaming white and choice of many striking colors with Church seat to match.



The **ARCOLINER** Wet Base Oil Boiler—Provides small to medium sized homes with the comforts of clean, automatic radiator heating. Highly efficient with the Arcoflame or any other standard oil burner. Waterways extending below fire chamber provide extra heating surface and help keep floor cool, thus permitting first floor installation.



MOHAWK Winter Air Conditioner burns natural, manufactured, mixed, or liquefied petroleum gas. Burner of cast iron has patented high temperature alloy, corrugated ribbons. Heating element has precision ground faces and leak-proof joints. Pre-heating return air saves fuel, increases efficiency. In 9 sizes—from 60,000 to 300,000 Btu input per hr.



Serving the Nations' Health and Comfort

LOOK FOR THIS MARK OF MERIT—It identifies the world's largest line of Heating and Plumbing Products for every use . . . including Boilers, Warm Air Furnaces, Winter Air Conditioners, Water Heaters, for all fuels—Radiators, Convectors, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships, and Railroads.

which sweep from the back across the surface and over the switches at the front. End panels are removable and interchangeable. All except the lowest price models have a full-width utensil drawer. Cooking features of the new ranges include: three fast-heating surface units, double-duty deep well cooker, automatic oven-timer, time signal and large oven with waist high broiler. The line incorporates two automatic DeLuxe models, one with two complete ovens; an automatic model of conventional one-oven design and two lower priced ranges.

Manufacturer: Frigidaire Division, General Motors Corp., 300 Taylor St., Dayton, Ohio.

ELECTRIC RANGE LINE designed for better cooking and greater comfort.

Hotpoint's four postwar range models incorporate new engi-

neering advances for better cooking and greater comfort. The Calrod unit has been redesigned with smaller diameter which permits more turns of Calrod per unit and increased contact with the cooking vessel. Calrod units have also been hinged to permit easy removal of reflector pan for cleaning. The 6 qt. Thrift-Cooker, when not in use, can be stored in the range's utility drawer, and the heating unit raised to operate as a fourth surface unit. Oven capacity has been increased 25 per cent by a "sealed heat" construction which places the Calrod unit outside the oven lining. An electric oven-timing clock automatically controls temperature and time, turns oven on and off. Other features of the line include: smokeless broiler, cast aluminum grill for surface cooking or broiling, and fluorescent lighting across back-splasher. In addition to a top model, RC10, the line includes two standard-size ranges with fewer accessories, and an apartment house size.

Manufacturer: Hotpoint Inc., 5600 W. Taylor St., Chicago, Ill.

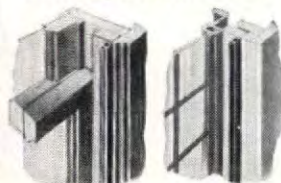
NOW AVAILABLE

the original inside screens
that roll up and down
like a window shade

ROLSCREENS in a house are a "trademark" of good planning. They are a year 'round advertisement for the architect who specifies them. They help to keep a house up-to-date and protect its salability over the years. A big part of your business is selling CONVENIENCE. ROLSCREENS help you to do it like no other window accessories.

EASY TO INSTALL

ON ALL TYPES OLD AND NEW WINDOWS



Double-Hung Application Casement Application

No special mill work, no special fitting or cutting required. Installation made to either of the above windows quickly and easily . . . thanks to new type guide channels.

GOOD DELIVERIES — ROLSCREEN orders are being filled and shipped with reasonable promptness. Materials are back to prewar quality standards. On your next new or remodeling job, include ROLSCREENS. Write for interesting FREE literature and planning information — or see ROLSCREEN Data in Sweet's. Write 757 Main Street.

CONVENIENCE of ROLSCREENS SELLS ON SIGHT

Once in place . . . always in place. That's Rolscreens! No putting up! No taking down! No storing! No painting! No seasonal repairs! Installed and operated on the inside. Inconspicuous. They preserve the beauty of clear, sparkling glass. For all types of windows—both old and new construction.

10 YEAR GUARANTEE

This is your assurance that your clients will be satisfied and enthusiastic about ROLSCREENS over the years.

DEALERS WANTED

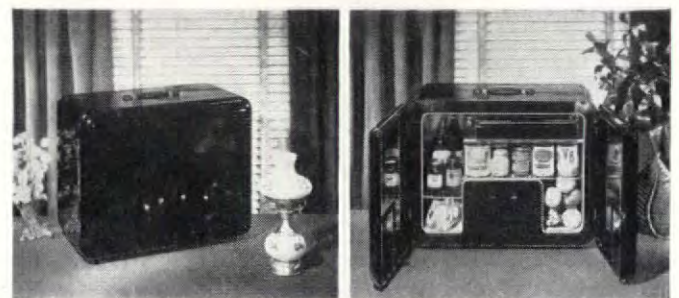
A number of choice territories are open for Building Specialty Dealers with facilities to sell and install ROLSCREENS. If interested, WRITE TODAY for details.



Pella ROLSCREENS
ROLSCREEN COMPANY • PELLA, IOWA



Made by Makers of Famous Pella Venetian Blinds and Casement Windows



PORTABLE ELECTRIC REFRIGERATOR for hotel room, office, cottage or nursery use.

Freez-Pak is a compact, lightweight, 21½ cu. ft. portable electric refrigerator designed for use in home bars, hotel rooms, offices, summer cottages, nurseries and other places demanding refrigeration. Measuring only 22 in. high, 28 in. long, 16 in. deep and weighing only 55 lbs., it operates on either AC or DC. It has an 11-lb. ice capacity or space for eight standard ice trays, and requires no defrosting due to the incorporation of a cold plate. Other features of the refrigerator include a readily accessible open type unit, a Ranco control and nickel-plate shelves. Freez-Pak is constructed with an aluminum inner and outer shell, insulated with 2 in. of Fiberglas, and is available in eight color combinations. It will be in full production by June, will retail for about \$129.50. *Manufacturer:* Freez-Pak Corp., Royersford, Pa.

UTILITY PAD for mounting all types of machinery, incorporates ribbed construction to give resilience.

For use under all types and sizes of equipment as mounting pads or vibration absorbers, MB Isomode pads absorb impact, reduce noise and hold machinery in place. Effective and inexpensive utility pads, they are made of live, oil-resistant Neoprene, compounded to insure ruggedness, high efficiency and long life. Ribbed construction gives the resilience required for general application. Used with rigidly attached machines, the pad absorbs all frame and foundation stresses present during operation. As a mounting pad it permits immediate relocation of equipment whenever desired. By eliminating the need for hold-down bolts, skids, concrete mats or grouting, it reduces cost and time required for installing or removing machinery. Standard pads are 18 in. sq., 5/16 in. thick, can be easily cut to any size or shape desired.

Manufacturer: The MB Manufacturing Co., Inc., 1060 State St., New Haven, Conn. (Technical Literature, page 150)





Who Says You Can't Get Good Siding Now?

—All you want! Shipped within 24 hours!

It could have happened to you. Many a home-planner accepted this new Reynolds clapboard to meet an emergency... then found it wasn't just a substitute, but something new and better.

Now, architects everywhere specify it for new straight-line perfection, never warping, never sagging... for lifetime permanence that defies fire, rust, rot, termites... for extra insulation through radiant heat reflection! Builders are talking about the easy application of this light-weight, self-aligning clapboard... its snug, weather-tight fit... the simple, practically in-

visible butt joints and handsome corner finish.

Your supplier can take advantage of quick deliveries and low price on mixed carload orders. But time's a-wasting! National advertising and promotion is building demand among your own clients. Write, wire or phone for detailed literature... offices in principal cities. Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.



REYNOLDS
Lifetime ALUMINUM
BUILDING PRODUCTS

REYNOLDS *Lifetime* ALUMINUM BUILDING PRODUCTS

ALSO: ALUMINUM STUDS, TRUSSES, WINDOW FRAMES, GARAGE DOORS, REFLECTIVE INSULATION AND COMPLETE ALUMINUM HOUSES.

FOR INDUSTRIAL AND
COMMERCIAL BUILDINGS
...FOR FARM AND HOME!

Weatherboard Siding. Crimped
like 4-in. clapboard. 8, 10, 12-
ft. lengths; 24" coverage.

Shingles. Interlocking, weather-
tight, covering all nails. Two
sizes: 8x14½ and 5½x18½.

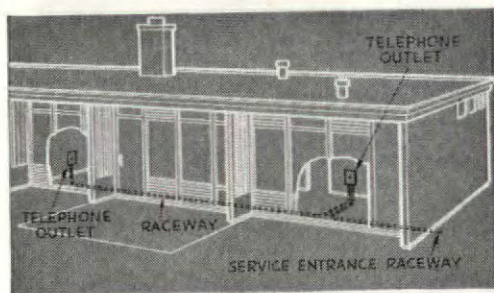
"Snap-Seal" Roofing. Sheets in-
terlock covering all nails. 6, 8,
10, 12-ft. lengths; 24" coverage.

Corrugated. Extra-thick (.024").
6, 8, 10, 12-ft.; 26" wide; 1¼-
in. and 2½-in. corrugations.

5-V Crimp. Extra-thick sheets
(.024"). 6, 8, 10, 12-ft. lengths;
24-in. coverage.



**IT'S NEAT—AND COMPLETE . . .
WITH A RACEWAY FOR TELEPHONE WIRES**



Details are important when you're making a little living space do a BIG job. For example, a raceway for telephone wires will more than justify its small extra cost.

It will avoid exposed telephone wires on attractive walls and woodwork. It will provide the owner with handy, built-in outlets for future telephones.

In homes without basements, wiring channels should be installed before the floors are laid and walls are finished. Otherwise, it may not be possible later on to conceal the telephone wiring.

Your Bell Telephone Company will be glad to help you plan telephone wiring facilities for small homes as well as larger ones. Just call your Telephone Business Office and ask for "Architects and Builders Service."

BELL TELEPHONE SYSTEM



HOFFMAN

THE MOST COMPLETE LINE OF HEATING SPECIALTIES

It's smart business to concentrate on Hoffman Specialties . . . it's the only line that offers all these satisfaction guarantees. It's the complete line. For either steam or hot water installations, Hoffman Specialties provide a single source of supply for all necessary equipment. It's the tested, quality line. Hoffman superiorities of design, workmanship and dependability are well established. Yet Hoffman

Products cost no more than the ordinary kind.

Hoffman Specialties are handled through recognized heating and plumbing wholesalers throughout the country. There is always a stock at a convenient location. Hoffman sales-engineers are ready to serve you.



Guardian of Your Fuel and Comfort

HOFFMAN SPECIALTY CO., INC., Dept. AF 5, 1001 York St., Indianapolis 7 Ind.



RADIATOR VENTS



MAIN VENTS HOT WATER VENTS

VENT VALVES

Venting requirements of both gravity and vacuum steam heating systems are satisfied by a complete selection of SIPHONLESS Hoffman Valves offering many time-tested and exclusive features. A selection of main air and vacuum vents is also available.



THERMOSTATIC TRAPS

Low, Medium and High Pressure Traps have renewable thermal units and seats—assuring long life, low cost service.

SUPPLY VALVES

Reinforced Packless construction, with reversible cone disc, and in wide selection of patterns.



FORCED HOT WATER HEATING SYSTEM CONTROLS



Series 90 Comfort Controller balances supply water temperature to outdoor temp. changes.

Hoffman Control Valve admits boiler water to circulating steam as needed.



Hoffman Circulator continuously circulates water through the system—provides smooth, uniform comfort.

FLOAT AND THERMOSTATIC TRAPS



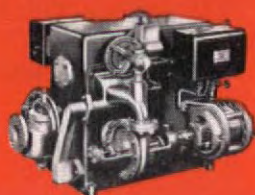
All working parts are mounted on the cover and readily accessible without breaking pipe connections.

AND INVERTED BUCKET TRAPS

Bucket, valve and seat connected to bonnet and removed with it for cleaning. Straight-through pipe connections. Working pressures to 200 lbs.



CONDENSATION AND VACUUM PUMPS



Hoffman-Economy Pumps, both Vacuum and Condensation types, have established a sound reputation with exacting engineers for their ability to keep a heating plant clear of condensate and air—quietly, economically and dependably.

NEWEST MEMBERS OF THE HOFFMAN LINE

PRESSURE

REDUCING

VALVES

For steam, water, air, fuel-oil, gasoline—"dead end" or continuous service.



TEMPERATURE REGULATORS

Sizes from 1/2" to 1 1/2" inc. Steam pressures to 150 lbs./sq. in.

Temperature range from 80° F. to 250° F. For thermostatic water heaters, converters, cookers, plating tanks, processing tanks, sterilizers, fuel-oil pre-heaters, etc.

HOFFMAN HEATING SPECIALTIES ARE SOLD EVERYWHERE BY LEADING WHOLESALEERS OF HEATING EQUIPMENT



ESCALATORS. Otis Escalators. Otis Elevator Co., 260 Eleventh Ave., New York. 22 pp. 8½ in. by 11 in.

Written for prospective purchasers of escalators, this non-technical brochure presents facts about Otis Escalators. Starting with a brief history of mechanically driven moving stairways, it discusses such subjects as location, maintenance and safety of escalators. A double-spread cross-section detail fully illustrates the conveyor's moving parts. Other sections include illustrations and explanations of the driving mechanism and running gear, and photographs showing installation in various types of buildings.

WATER REPELLENT TREATMENT. Hydrocide Colorless. L. Sonneborn Sons, Inc. 88 Lexington Ave., New York, N. Y. 4 pp. 8½ in. x 11 in.

Folder describes the advantages of Hydrocide Colorless, an

invisible water repellent treatment for exterior concrete and masonry building walls above grade. It includes general information, comparative test data, application methods and coverage figures.

ROOFING-SIDING-INSULATION. Flintkote Building Materials. The Flintkote Co., 30 Rockefeller Plaza, New York, N. Y. 14 pp. 8½ in. x 11 in.

Information on Flintkote's line of roofing, siding and insulation materials is presented in this brochure. General descriptions, advantages, uses, application data, sizes, weights, colors, etc. are included for the following products: asphalt strip shingles, individual asphalt shingles, asbestos-cement shingles, asbestos-cement sidings, insulated sidings, built-up roofing, roll roofings and sidings, decorative insulation board, structural insulation board and insulating wool. Dimensioned patterns, colored photographs and installation pictures amplify the text.

FLOORING. Concrete Floors Designed for Comfort. The John B. Pierce Foundation, Raritan, N. J. 12 pp. 8½ in. x 11 in. Price \$.35.

This booklet describes Comfort-Concrete, a new type of concrete flooring for low cost housing, farm service buildings and some types of industrial and commercial structures. Developed by Pierce Foundation as a public service, the formula for the new mix that absorbs 90 per cent of impact and is considerably drier and warmer than regular concrete, is here presented. Booklet outlines advantages, uses, mixing technique, pouring procedure, physical properties, test data etc. It also includes an illustrated, technical article entitled "Concrete Flooring with Asphalt Admixture" by F. O. Anderegg, Director of Building Materials Research, John B. Pierce Foundation.

GLASS. Pittsburgh Data Sheet Handbook. Pittsburgh Plate Glass Co., Pittsburgh Corning Corp., 632 Duquesne Way, Pittsburgh, Pa. 72 pp. 4 9/16 in. x 7 1/8 in.

New edition of the Pittsburgh Data Sheet Handbook contains complete information on the various glass, paint and metal products of the Pittsburgh Plate Glass Co., as well as products of the Pittsburgh Corning Corp. Covering all the advances made during the war years, it gives concise factual data on the various products together with installation procedures. Products covered include: Pennvernon Window Glass; Plate Glasses; Twindow Insulating Units; Herculite Heat Tempered Glass Doors; Mirrors; Carrara Structural Glass; Pitco Store Front Metal; PC Glass Blocks; PC Architectural Glass, Figured and Ornamental Glass, as well as general information on how to specify the various types of glass. A special section is devoted to paints showing modern paint practices and specifications. Data on the Twindow Insulating Unit includes charts on thermal conductivity, types and sizes of units and recommended installation practices. Handbook is made up of a handy pocket-size loose leaf folder containing individual sections, and is indexed for ready reference.

UTILITY UNIT. A Selection of Plans For Small Homes and Apartments Using The Ingersoll Utility Unit. Ingersoll Steel Division, Borg-Warner Corp., 310 S. Michigan Ave., Chicago, Ill. 16 pp. 8½ in. by 11 in.

This collection of small house and apartment plans is intended to demonstrate the complete versatility and practicability of the Ingersoll Utility Unit in a wide variety of homes and apartments. Text briefly describes the unit. Many plans offer suggestions on how the unit may be incorporated in various types of medium and low cost housing, multiple dwellings, 10 and 18 unit apartments. (Continued on page 154)

Announcing the



O'BRIEN COLOR MANUAL AND COLOR-SCHEME GUIDE

\$1.00

OBTAINABLE ONLY
AT O'BRIEN PAINT
DEALERS

- ✓ Speeds color-scheme decisions!
- ✓ Makes color mixing easy!
- ✓ Helps you get more and better jobs!
- ✓ Enhances your reputation as a reliable color authority!
- ✓ Saves time often lost in matching colors — saves headaches!
- ✓ Pocket size — always on hand for unexpected conferences!
- ✓ Handy reference on many painting problems!

O'BRIEN
FINE FINISHES

A SIMPLE, PRACTICAL pocket system of color selection (supplement to O'Brien Keyed Color System). Includes over 100 page-size color swatches of standard O'Brien colors or mixtures thereof (with exact formulae) — together with authentic color-schemes and other data!

It's FAST, COMPLETE, AUTHENTIC! Easy to use! With it you can make color-scheme suggestions for any type of room, any type of home or building — show color swatches in advance, of the colors to be mixed for practically any color-scheme.

1 COLOR MANUAL — in handy pocket size, 7" x 3½" — includes full page standard color swatches and easy-to-make O'Brien mixtures for more than 100 popular colors; plus specifications for using O'Brien Paints; and eleven color cards of leading O'Brien finishes.

2 COLOR-SCHEME GUIDE — to be included in the Manual — lists many authentic, up-to-date color-schemes for living rooms, kitchens, dining rooms, bathrooms, offices, stores, restaurants, etc.

SEE THE NEAREST O'BRIEN DEALER OR
WRITE FOR HIS NAME

© 1947, The O'Brien Corp.

THE O'BRIEN CORPORATION
SOUTH BEND 21, INDIANA

There is no substitute for
TRUE CHURCH TONE

**or for the glories of
majestic Organ Ensemble . . .**

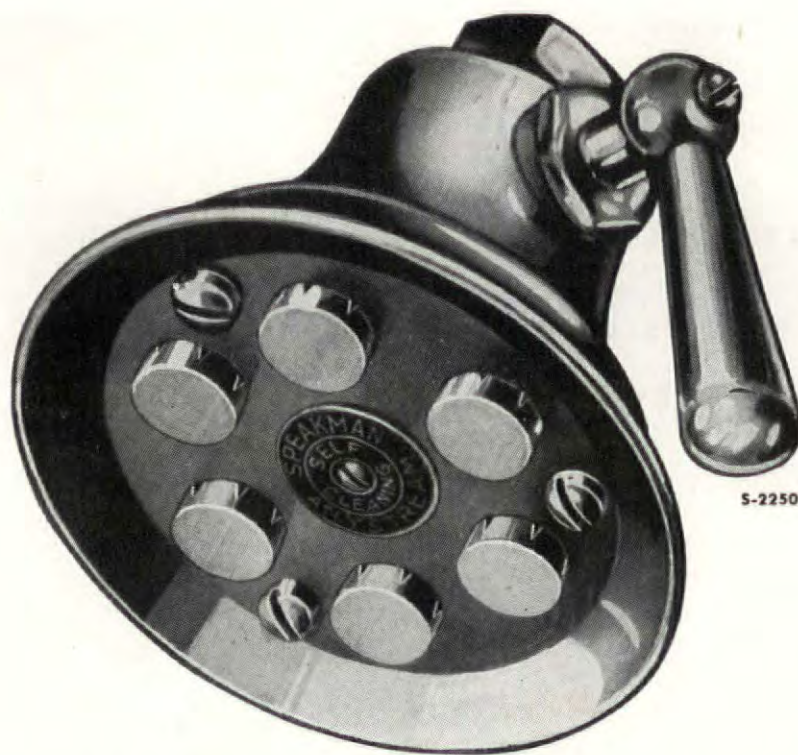
AN organ, like an orchestra, achieves its fullest glory when all its voices are blended into one brilliant ensemble. This is particularly important in church music, to produce the soul-stirring inspiration of a majestic processional or a triumphant hymn.

The new Wurlitzer Organ provides a magnificently beautiful ensemble from both manuals and pedal. Each individual tone contributes its harmonious part to produce a superb tonal climax comparable only to the traditional pipe organ. This glorious effect may be achieved gradually, through the use of stop tablets or the Crescendo pedal; or the organist may change *instantly* from any group of stops to full organ merely by pressing a combination piston.

For more detailed description of the Wurlitzer Organ—*Music's Richest Voice*—write Dept. FO-5, The Rudolph Wurlitzer Co., Organ Division, N. Tonawanda, N. Y.



The **WURLITZER ORGAN**
Series 20 Two-Manual



S-2250

ONLY THE SPEAKMAN ANYSTREAM

is three different showers in one. A turn of the lever and it delivers



REGULAR SPRAY for *relaxation*...



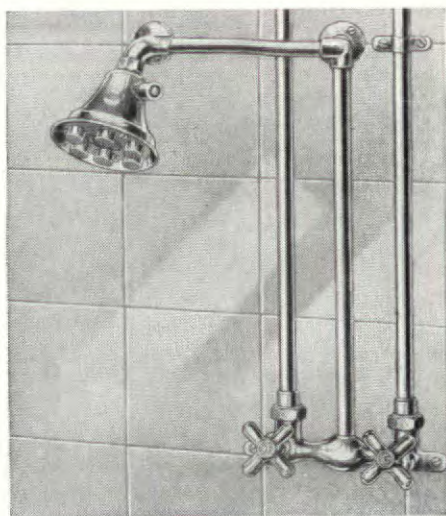
NEEDLEPOINT SPRAY for

stimulation...



or **FLOOD SPRAY** for a *no-splash rinse*. No wonder it's

the choice of architects for installations calling for the latest refinements.



Speakman makes a wide variety of showers and shower heads to meet different requirements. Shown here is the Speakman Commander Exposed Two-Valve Shower (S-1160). The Anystream Shower Head shown is the school and institution type, equipped with the lock-shield control, operated with a special key. A lock-screw prevents malicious removal.

Like all Speakman plumbing fixtures, the Anystream Shower Head is rugged in construction. In the FLOOD position, the Anystream is self-cleaning thus eliminating a major source of trouble and maintenance expense. With all Speakman Showers and Fixtures, repairs may be made quickly and inexpensively, when—after long service—normal wear takes place.

Speakman Showers and Fixtures are distributed nationally through plumbing supply dealers and plumbing contractors.

SPEAKMAN

SHOWERS AND FIXTURES

"The best in brass since 1869"

SPEAKMAN COMPANY, WILMINGTON 99, DELAWARE

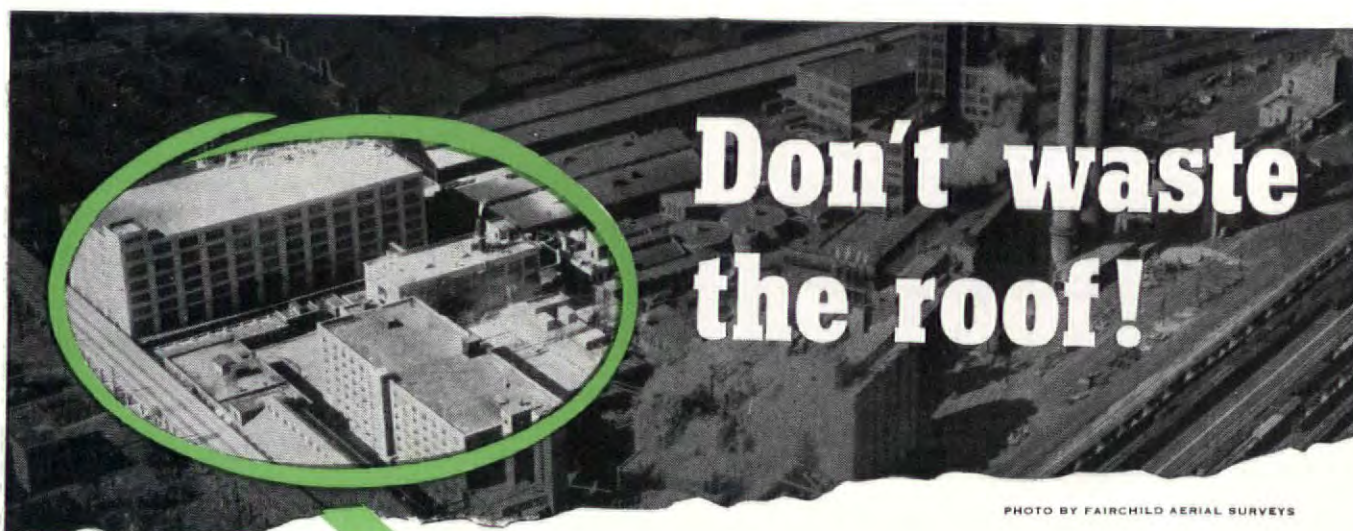
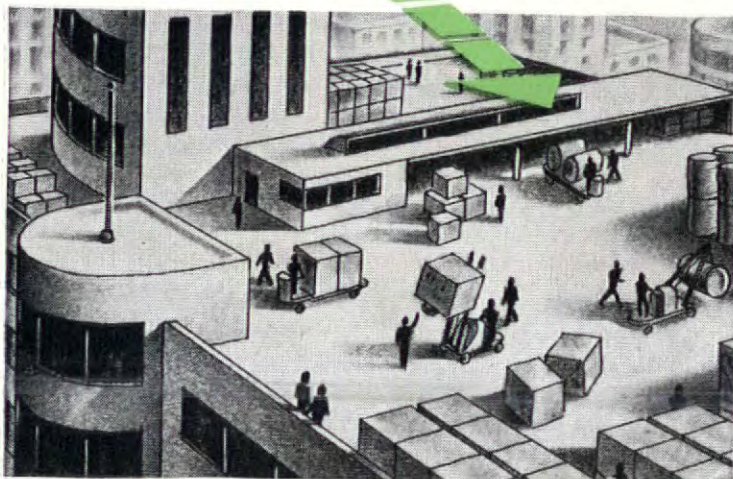


PHOTO BY FAIRCHILD AERIAL SURVEYS



AVAILABLE NOW! NEW WAYS TO MORE EFFICIENT ROOFS!

Here's extra shipping, packing and storage space...one sample of the more productive use of roof areas made possible now by new Ruberoid specifications!

ROOFS LIKE THIS are typical of the modern, functional utilization of an area that formerly went to waste. The factory roof illustrated here has a husky concrete surface for heavy traffic and storage. Other related possibilities are hospitals with outdoor decks for convalescents, apartment houses with garden roofs, department stores with recreational roofs for employees.

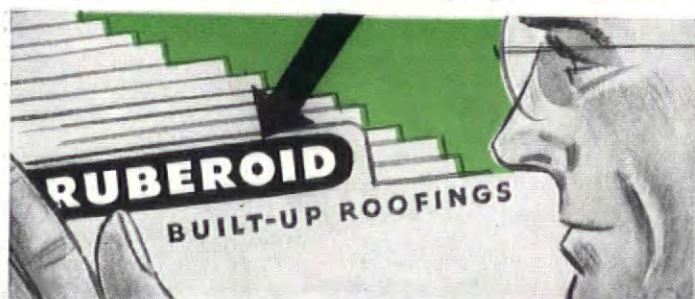
These are "roofs of the future," but recently evolved Ruberoid specifications make them completely possible *today!* As worked out by Ruberoid engineers, these new roofs are not impractical dreams, but thoroughly tested, down-to-earth cer-

tainties! Full details of these and other developments are available from the Ruberoid Company or from your local Ruberoid Approved Roofer. Call on your Ruberoid Roofer for help in the solution of any roof problem. His "know-how" is backed by Ruberoid's years of experience and complete line of all types of roofing materials!

The **RUBEROID** Co.

Executive Offices: 500 Fifth Ave., N. Y. 18, N. Y.
Asphalt and Asbestos Building Materials

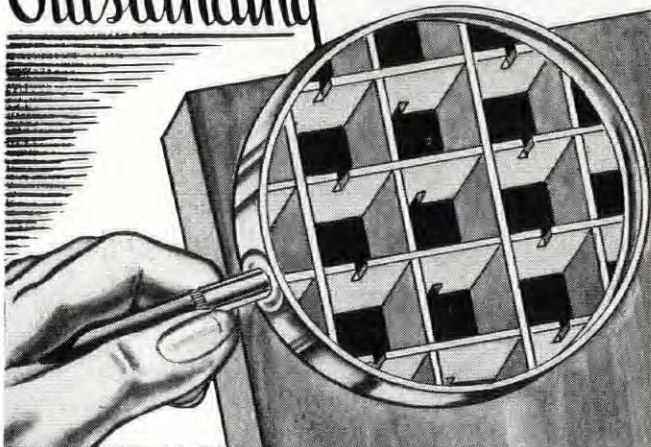
The RIGHT roof for any job—from one source!



Remember that Ruberoid makes every type of built-up roof—Smooth Surfaced Asbestos, Coal Tar Pitch with gravel or slag surfacing, or smooth or gravel-and-slag surfaced Asphalt—in specifications to meet any need. Hence a Ruberoid Approved Roofer is not prejudiced in favor of any one type. His services assure you of one source for all materials, centralized responsibility, smoother operation, uniform quality!

It's the Close-Up Point of View That Makes **PAINE REZO DOORS**

Outstanding



Put these patented,
soundly engineered values
behind your own good name

It is true that all flush doors can be made to look alike—but it's what is inside that counts. Beneath the beautiful matched veneers of the 1-3/4" Paine Rezo door, prefitted to exact size, is the vital air-cell core, an open, channeled "breathing space" for overcoming humidity. This patented, cross-braced, ventilated construction feature holds checking, swelling, warping to an absolute minimum. In addition the air-cell core adds great strength to lightness in weight. This trouble-free performance means longer service life, easier operation, and more satisfaction to your client over the years.

On the market since 1935, these original hollow core doors have proved themselves in over 2,000,000 installations in all parts of the country.* They will be a lasting credit to any building you design. Specify them by name as Paine Rezo; write for a factual, detailed architects bulletin.

*Because of production limitations, Rezo doors cannot yet be shipped to the Pacific Coast.

Manufactured by the
PAINE LUMBER CO., Ltd. Oshkosh Wisconsin
ESTABLISHED 1853

SPACE HEATERS. Dravo Counterflo, An Outstanding Development in Open Space Heating. Bulletin 516. Dravo Corp., 300 Penn Ave., Pittsburgh, Pa. 12 pp. 8 1/2 in. x 11 in.

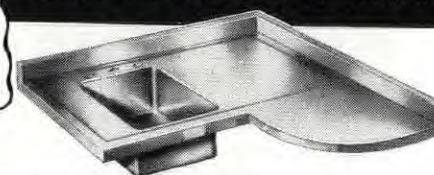
Features and advantages of the Dravo Counterflo Heater, a direct-fired unit heater for industrial and commercial use, are elaborately treated in this bulletin. Text discusses the unit's design and distribution, stainless steel combustion chamber, efficient combustion by the Counterflo method and ready fuel convertibility from oil to gas and vice versa. Other sections stress safety factors, flexibility of application, ease of installation, advantages of the Dravo Heater over other types of systems, specifications, etc. A large cut-away section of the heating unit locates 18 various heater parts and gives their features. These features are titled, "18 reasons why the Dravo Counterflo Heater is superior for open space heating."

HOME FREEZERS. The Home Freezer Handbook by Gerald J. Stout. D. Van Nostrand Co., Inc., 250 Fourth Ave., New York, N. Y. 345 pp. 5 3/4 in. x 8 3/4 in. Price \$3.95.

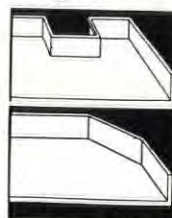
This handbook gives practical information on home freezing, discussing and describing every operation from food preparation to freezer construction. Carefully tested, step-by-step directions fully explain procedures. Many photographs, drawings and plans amplify the text. Organized into six sections, the book opens with discussions of freezer uses in the future, how to figure freezer requirements for a family, cost of frozen foods and advantages of building a freezer. It then gives detailed directions not only for choosing the size and type of ready-built freezer best suited to individual requirements but also for building a home freezing unit. The section on home freezer construction discusses location, materials needed, types of freezers, etc.; (Continued on page 158)



Stainless Steel SINKS AND CABINET TOPS



JUST LINE Custom-Fabricated Stainless Steel Sinks and Cabinet Tops have gained prestige that will be maintained. Standard "Package Kitchen" work has never been allowed to interfere with our custom-built business. We take a great deal of pride in the quality of our custom fabrication and the exclusive advantages of...



Radiuluxe DESIGN AND CONSTRUCTION

Radiuluxe Stainless Steel sinks and cabinet tops give you two important advantages:


IN-BUILT ANTI-SPLASH RIM ON BOWLS, DOUBLE-PITCH DRAIN-BOARDS with no channels to clean, no grooves to endanger fine glassware.

ALL WELDED, seamless construction polished to a beautiful satin finish... radius corners in bowls... vertically and horizontally... fully sound deadened and many other quality features.

Other JUST LINE products are Cabineteer "Package Unit" Stainless Steel Sinks, Stainless Steel Scullery Sinks, and Galvanized Scullery Sinks that are hot-dip galvanized after fabrication.

Write today for bulletins and details.

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4610-20 W. 21st Street, Chicago 50, Illinois



**ELEVATOR CARRYING CAPACITY INCREASED
UP TO 30% WITH... WESTINGHOUSE**

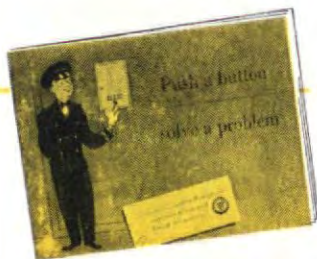
Selectomatic

**The only supervisory system that matches
elevator service with demand . . . automatically!**

Eliminate complaints about excessive waits for service! Assure faster service to *lower* floors and uniform service to *every* floor!

Westinghouse Selectomatic gives you *all* these advantages. This radically new development is the only supervisory control system that coordinates elevator service to widely fluctuating demands all through the day . . . instantly and *automatically*!

Selectomatic—*another* original Westinghouse development—is designed for office buildings, stores, hotels and hospitals. It requires only the push of a button to establish fully automatic patterns of operation that solve the three major types of elevator demand—up peak, down peak, and two-way traffic. Each elevator car is given the “intelligence” to recognize the demand for service and answer it promptly.



Write to Westinghouse for your copy of the book "Push A Button—Solve A Problem", the income-producing story of Selectomatic. Address the Westinghouse Electric Corporation, Elevator Division, 150 Pacific Avenue, Jersey City 4, New Jersey, on your letterhead please.

Westinghouse

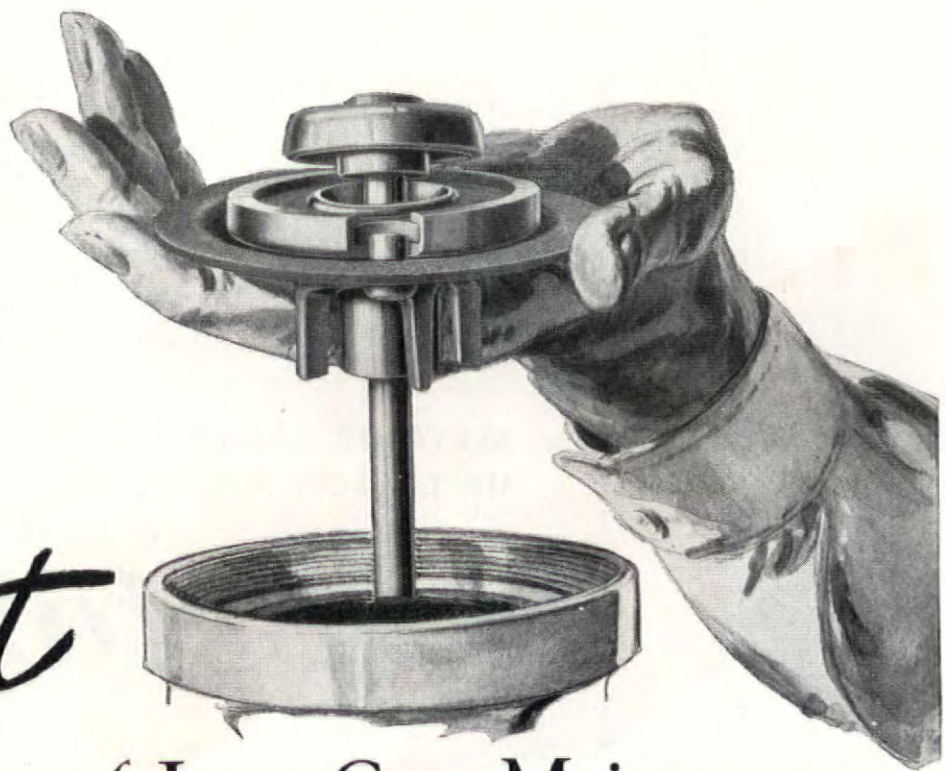
ELEVATOR



DIVISION

J-98501

Only 6 moving parts, the simplest assembly of any flush valve and the quickest and easiest to repair.



The Secret

—of Low Cost Maintenance
is in the Utter Simplicity of DELANY VALVES

It is a known fact that DELANY FLUSH VALVES require less service, over longer periods, but do you know why? There is but one component part subject to maximum wear and tear—the tough leather diaphragm, made to take long and constant use. The other functional parts are loose-fitting and hence free from friction and all wear and tear. A New Diaphragm, when needed after 5 to 10 years, costs little. Its replacement is accomplished quickly and easily, and regains instantly the initial efficiency of the DELANY FLUSH VALVES.



DELANY FLUSH VALVES are highly recommended for private homes, and particularly for "rental construction" as now planned by the Government.

SINCE 1879

Coune & Delany Co.

BROOKLYN N.Y.

FLUSH VALVES · VACUUM BREAKERS · PLUMBING SPECIALTIES



Robert A. Green, Architect

will be sure to go along with Subscriber John Douglas Boyd when he moves into this new home soon to be completed for him in Ardsley, N. Y.

Presenting THE SHOW-ROOM HOMES *of the Nation*

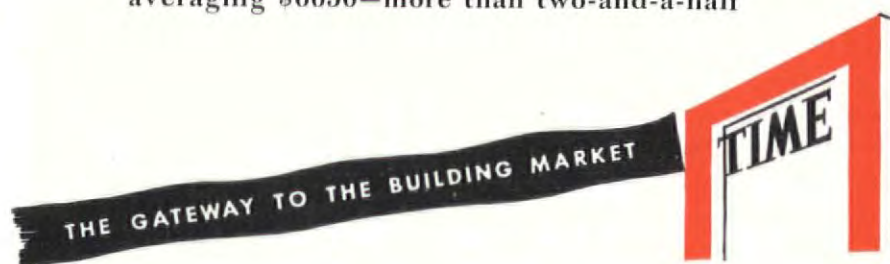
In the forefront of today's new building market are high-income families like the readers of TIME. Almost half a million of them are planning to have—or like Mr. Boyd, actually *building*—the kind of houses where you'd like to see your own products used and have them seen in use by others.

TIME readers have sound dollars. The more than 1,500,000 families who read TIME account for a share of the country's wealth far out of proportion to their numbers. They have annual incomes averaging \$6656—more than two-and-a-half

times the U. S. family average. And families with incomes over \$5000—only 8% of the total—hold 40% of U. S. savings.

And they have influence to match. TIME families' positions of business, civic and social leadership are as stalwart as their finances. Year after year they are the people other people consult on how to plan, invest, buy.

To sell the whole national market, start at the *top* of the market—with the readers of TIME.



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DEVOE CREATES A NEW STANDARD FOR VARNISH SPECIFICATIONS



The synthetic resin used in Devoe 87 Spar Varnish is an entirely new molecular structure created for the specific purpose of producing a finer, more durable all-purpose varnish.

Improved characteristics of Devoe 87 Spar Varnish

CLEAR, PALE: Water-clear and notably lighter in tone than previous all-purpose varnishes.

HARD AND TOUGH: Exceptionally resistant to abrasion. It is unusually hard, yet so resilient it does not crack or chip even under blows which dent the wood underneath.

ALCOHOL AND ALKALI RESISTANT: Unharmed by hot, soapy water, alcoholic liquids, or mild acids such as fruit juices.

FAST-DRYING: Dries in four hours.

ECONOMICAL COVERAGE: Spreading rate of Devoe 87 Spar is approximately 600 sq. ft. per gallon—so that the customary standards for estimating requirements for high quality varnish may be followed, depending on the type and condition of the surface.

ANOTHER DEVOE PRODUCT

Distributed by
PEASLEE-GAULBERT PAINT & VARNISH CO.
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WADSWORTH HOWLAND & CO.
DEVOE & RAYNOLDS CO., INC., 787 FIRST AVENUE, NEW YORK 17, N. Y.

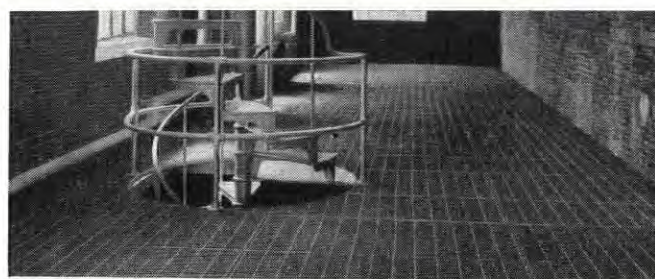
and explains steps in building each type. Care of the freezer, building a combination storage room and freezer and preserving foods by the freezer method are subjects covered in the last three sections. The latter includes full data on preparation of foods, packaging, freezing, etc.

WASHROOMS. Scott Washroom Advisory Service, Third Edition. Scott Paper Co., Chester, Pa. 24 pp. 10 7/8 in. by 8 1/2 in.

To indicate how every type of building can benefit from the Scott Washroom Advisory Service, this brochure presents suggestions for washroom, locker and lounge room planning. Listing the desired highlights for well planned personal services, it includes typical layouts for small and large plant lockers and washrooms, large plant recreation rooms, school washrooms, women's lounge, lockers, etc. Other sections are devoted to a discussion of supply closets, correct placement of fixtures, elevations of a modern washroom and a presentation of Scott fixtures. In addition to covering ways in which careful planning promotes health and good will of washroom users, the booklet describes the services of the Scott Washroom Advisory Service to architects.

RECREATION ROOMS. Ideas for Playroom Planning. The Heil Co., 3000 W. Montana St., Milwaukee, Wis. 22 pp. 8 1/2 in. by 11 in. Price \$1.00.

This booklet features a diversified collection of basement recreation room designs, suggestions and plans. Stressing the fact that automatic heating makes basement playroom design practicable, various Heil heating units are illustrated and described. A basement planning kit which contains a ruled layout sheet and a set of scaled basement and playroom appointment cut-outs is also included. (Continued on page 162)



FOR STRENGTH - LIGHT - VENTILATION specify HENDRICK MITCO Open Steel Flooring

90% open area assures maximum light and ventilation. Square-edge, uniformly spaced metal bars provide non-slipping, level walking surface. Pressure-formed integral construction obviates weaknesses of bolts, rivets and angle irons—eliminates dirt-catching and light-obstructing projections.

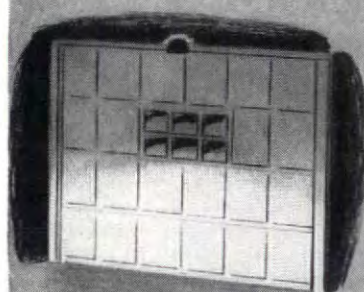
Heavy loads are supported without lateral deflection of flooring, because every Mitco panel is a strong, integral unit. Write for full information.



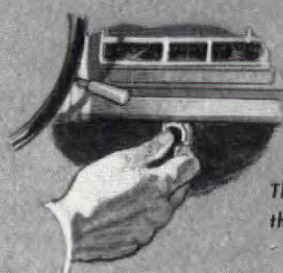
Perforated Metals
Perforated Metal Screens
Architectural Grilles
Mitco Open Steel Flooring,
"Shur-Site" Treads and
Armorgrids

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New Magic FOR HOME OWNERS



As you drive up, your garage door is closed and locked.



To unlock and open the door, touch a button in your car.



The magic of electronics does the work—you stay in the car.

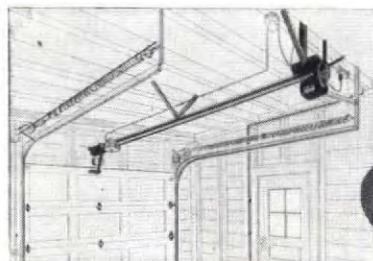


Inside your home another button closes and locks the garage doors.

WITH THE AVCO AUTOMATIC DOOR OPENER!

Today's home is tops in architectural refinements . . . tops because of advanced design and new conveniences like the AVCO Automatic Garage Door Operator. No home will be really new without the AVCO "Doorman." This efficient, electronic device opens or closes any standard-type garage doors, turns house

and garage lights on or off, if desired—all by touch of a button inside the car, garage or home. Already installed on thousands of garage doors, the AVCO "Doorman" is setting records for trouble-free operation, and adding value, safety and comfort to the home. The cost is nominal. Available for immediate delivery. Write today for complete information.



Easily installed, the AVCO Automatic door operator fits sectional overhead, one-piece overhead, tilting or canopy, and two-piece outward swing doors.



AVCO AUTOMATIC DOOR OPERATOR

The Horton Manufacturing
Division—AVCO MANUFACTURING CORP.
Dept. AA-12 Circleville, Ohio



**It's Easier to
Get Things Done
in the Shade!**



**Insure Increased Efficiency and More Pleasant
Summer Living in Light, Cooler Rooms . .**

Specify **KOOLSHADE[®] SUN SCREEN**

No Loss of Light . . . No Glare . . . Clear Vision!

Sun-drenched rooms can be comfortably cool, shaded and light! Actual cases in every section of the country—in factories, homes, public buildings—prove that KoolShade blocks and radiates up to 90% of the sun rays *outside the window*, cuts temperatures as much as 15 degrees and lets in an abundance of clear, glareless light. Vision from inside is not cut off or blurred . . . every breeze drifts through. KoolShade is in effect a miniature outside venetian blind. Paper

thin bronze "slats" are permanently set at a 17° slant . . . blocking sun's heat rays outside the window. It frames and installs as simply and neatly as ordinary insect screen—that's real double-duty efficiency.

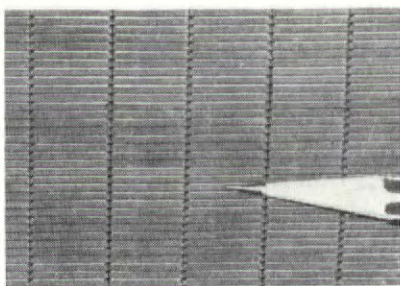
Air Conditioned Rooms . . are kept cooler at less cost in KoolShade equipped buildings because KoolShade reduces the Sun Heat Load on glazed openings, 80 per cent to 85 per cent—thus cutting equipment and operating costs.

KoolShade preserves . . the smart architectural lines of modern building design—no projecting hardware is necessary, no adjusting and practically no maintenance. For economical "sun-conditioning" specify KoolShade Sun Screen.

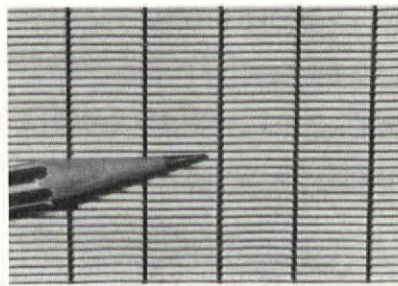
WHY YOU SHOULD SPECIFY KOOLSHADE!

- *Easy and inexpensive to install—will not rust, rot or rattle.*
- *Permanently adjusted for greatest shading efficiency.*
- *Prevents fading of valuable drapes and furnishings.*
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- *Durable bronze KoolShade also effective as insect screen.*

**Tear Out and Mail This Coupon
for Shaded Comfort This Summer!**



Outdoors the sun "sees" the flat of the slats like this—sun heat rays just can't get in.



Indoors only the paper thin edges are seen—you get a clear, unobstructed view.

Ingersoll Steel Division
Borg-Warner Corp., Dept. F5
310 South Michigan Ave., Chicago 4, Ill.

Please send free sample and literature, also the name of my nearest KoolShade distributor.

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Firm.....

Address.....

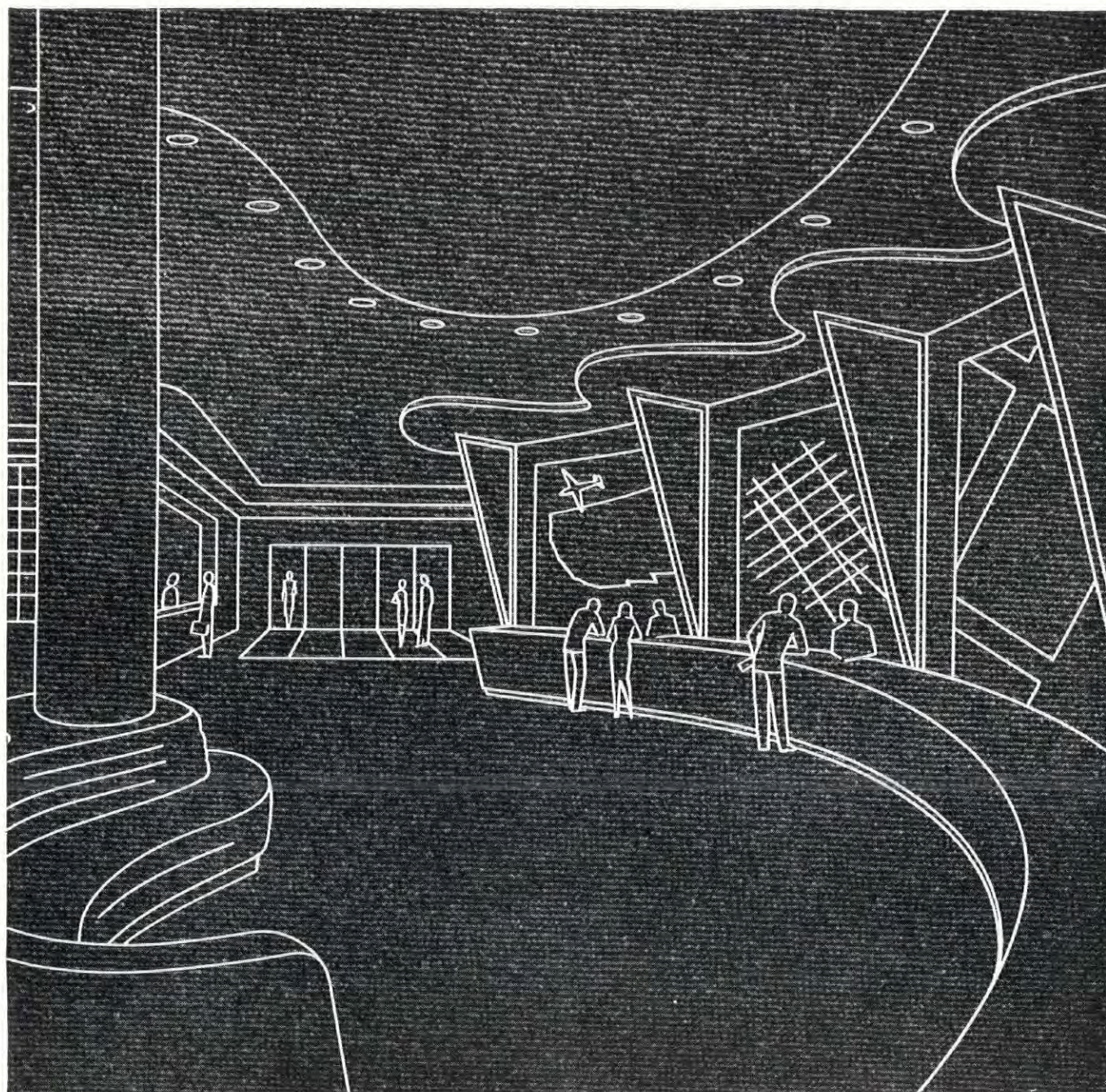
City..... State.....



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**Ingersoll
KOOLSHADE[®] SUN SCREEN**

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Shown Above: Bigelow Gropoint—Lokweave Construction—12 Colors

Plans for the future call for **CARPETS BY BIGELOW**

If your future plans call for the design or redesign of interiors, then the choice of the right carpet becomes a lively issue.

Bigelow puts expert advice and years of experience at your service. See the large selection of patterns and colors, earmarked for weaving

during 1947 and 1948. Let a Bigelow contract specialist assist you to choose the right carpet for the right spaces.

You may have to wait for the carpet you want, but Bigelow can help you with your special planning requirements now.

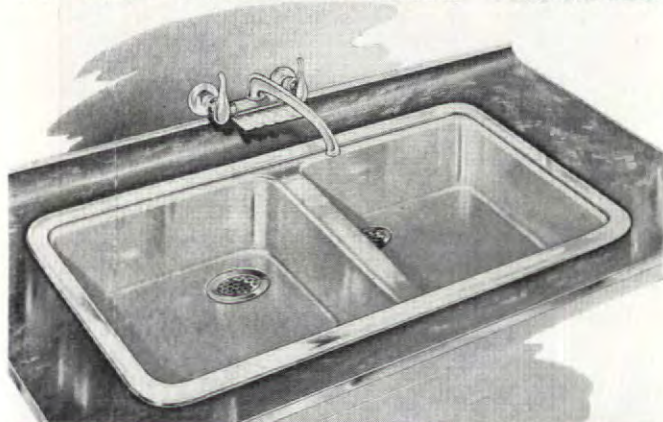


BIGELOW-SANFORD CARPET CO., INC. • 140 Madison Ave., New York 16, N. Y.

CHROMEDGE

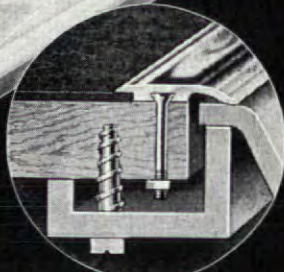
REG. U. S. PAT. OFF.

offers **Newest Way**
TO END SINK-FRAME TROUBLES



CHROMEDGE
#785

BROAD, SMOOTH
FACE



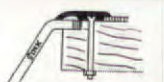
COVERING CAN'T CURL UP

ANCHORED WITH CONCEALED MACHINE SCREWS... A NEATER FIT



LUG MOUNTED

USE WITH ANY MOUNTING...
NO EXTRA SAWING



MORTISE MOUNTED

Use With Any Covering . . . Holds Popular Laminated Plastic Covering Like A Vise . . . Easy To Install

Here's another example of the way Chromedge *made-for-the-job* trims give you a better answer to today's needs. Look at the sturdy, modern beauty No. 785 brings to this sink installation. Notice how the wide projecting lip eliminates exact fitting of linoleum. Look how solidly and firmly it anchors to the cabinet top. Edges of coverings can't curl up or pull loose. And note the two sketches showing how it can be used on any type of sink-mounting . . . no extra sawing is needed, installed sinks don't have to be remounted. 785 is easily mortised to fit corners, or is available in Chromedge's popular one-piece, preformed sink-frames, ready to bolt in place—or can be furnished welded for use with exposed screws. The big Chromedge line offers hundreds of other improved metal trims for better results on every type of installation. See your Chromedge dealer or distributor for the full story.

The B&T METALS COMPANY
Columbus 16, Ohio

REQUESTS FOR LITERATURE

A & M SYSTEM ARCHITECT, representing the Agricultural and Mechanical College of Texas, College Station, Texas.

IRVING M. ADDIS, architect, 6406 South Francisco Ave., Chicago, Ill.
ROLAND E. COATE, architect, 161 East California St., Pasadena, Calif.

LIAM DUNNE, designer, 299 Madison Ave., New York 17, N. Y.
C. PAUL JOHNSON & Co., general contractor, 448 Ravenna Boulevard, Seattle, Wash.

A. STEPHENS, designer, 2037 Claudina Ave., Los Angeles 16, Calif.
HEINRICH H. WAECHTER, architect, 10 Lothian Road, Brighton 35, Mass.

R. L. ZERWER, builder, 10556 Ayres Ave., Los Angeles, Calif.

REQUESTS FOR INFORMATION

MORRIS M. ARNOLD, architectural student, 334 Helen St., Cincinnati, Ohio, requests information on materials and equipment applicable to modern homes, apartments, museums, libraries and public buildings.

DURISOL INC., lightweight building material manufacturer, 420 Lexington Ave., New York, N. Y., desires information on building materials and industrial equipment.

INDIA WATERPROOFING CO. Hassan Chambers, Parsi Bazar St., Fort, Bombay, India, desires to contact manufacturers of structural waterproofing materials with view to sales representation.

K. M. JENSEN CO., architectural, commercial and decorative design, 310 Stewart Ave., Ithaca, N. Y., requests information and literature on products which may be used for interior decorative effects.

(Continued on page 166)

**.. Meet the
UNSEEN GUARDIAN**
SYMBOL OF
SISALKRAFT PRODUCTS

✓ **SISALKRAFT**
... waterproof reinforced
building paper

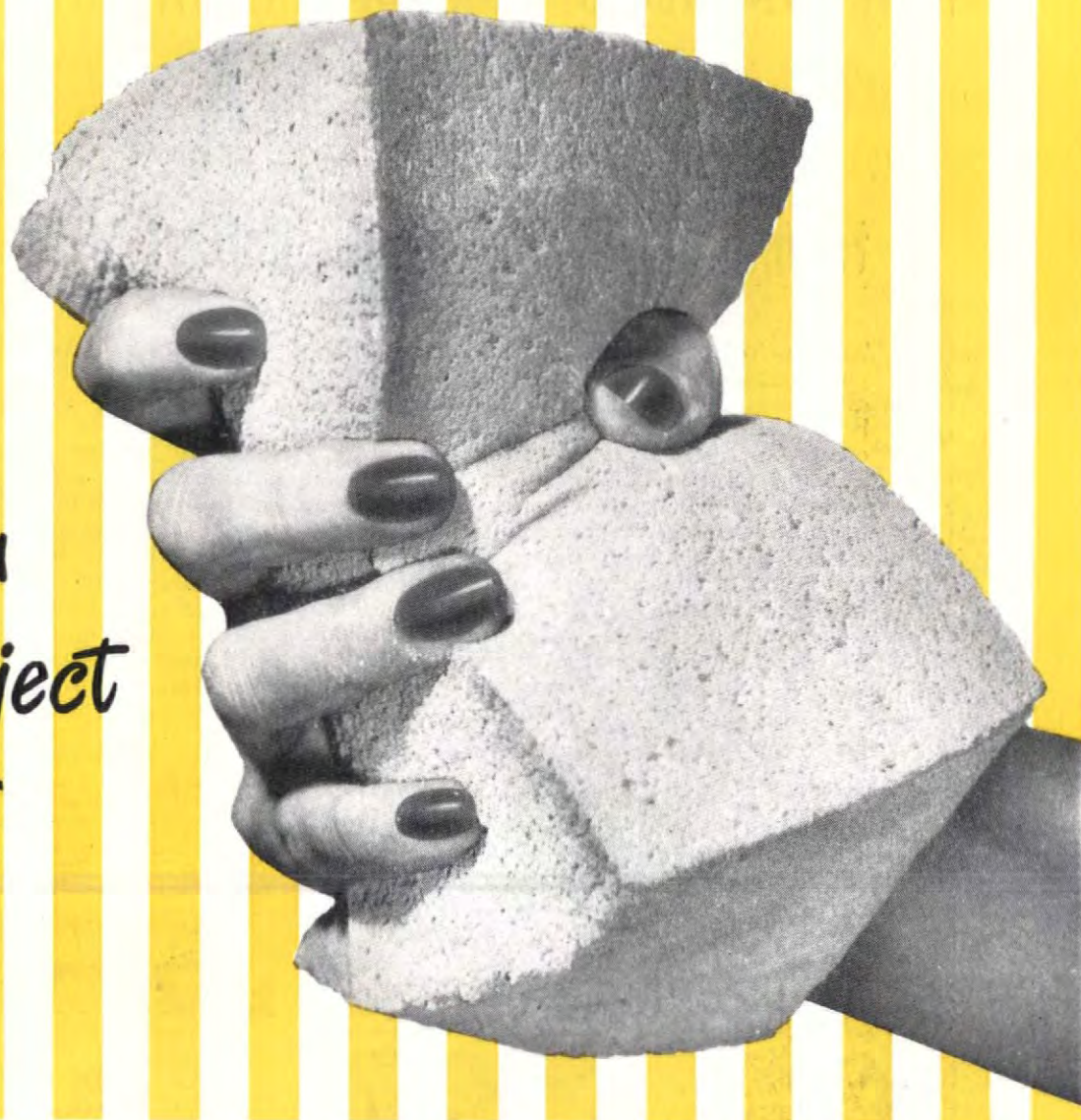
✓ **SISALATION**
... reflective insulation and
moisture-vapor barrier

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SISALKRAFT**
... Sisalkraft plus pure elec-
tro deposit copper

THE SISALKRAFT CO.
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SERVING THROUGH SCIENCE



To help you
grasp the subject
of Comfort

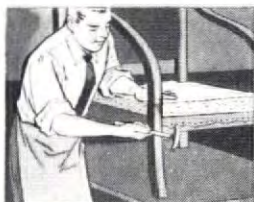
RESILIENT—yet gently resistant. That's Koylon Foam! For this amazing cushioning and mattress material responds to the slightest finger touch—yet supports even a “heavyweight” with floating ease. Buoyant air, captured in millions of tiny latex cells, does it. Every inch of the body has upward support in direct

proportion to downward pressure.

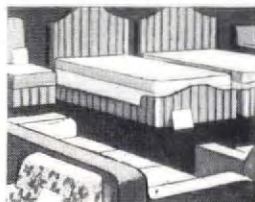
Such *matchless* comfort sells itself—and stays sold! For wherever people sit or sleep, Koylon Foam makes comfort an important service feature. And, best of all, you can provide the comfort of Koylon easily, economically and permanently. In every way, *it pays to specify Koylon Foam.*



How easy to upholster with Koylon! Cuts to shape with a knife or a pair of shears!



No stuffings! And Koylon stays trim and smooth . . . never sags or mats!



Mattresses, chairs, sofas—Koylon provides all with comfort that sells itself!

WHEREVER COMFORT COUNTS, PUT

U.S.
Koylon
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Comfort Engineered



U. S. Koylon Foam Division, Mishawaka, Indiana

More evidence of how the NATION turns to **AQUELLA** to make Wet Walls and Cellars DRY

These actual photographs of completed jobs are but a few examples of the Aquella applications now being made in every part of the country—on every type of porous masonry structure. Never in the waterproofing industry has there been anything like this acceptance by architects, engineers, waterproofing contractors, builders and home-owners.

The explanation is simple. Aquella works—and the principle on which it works is entirely new. The inor-

ganic ingredients are so *finely ground* that, when mixed with water and scrubbed into the masonry surface, they penetrate the minutest pores, then *expand* to form a seal that *continues to harden with age*. Even the presence of a hydrostatic head of 500 lbs. per sq. ft. on the *unprotected side* has no effect on the integrity of the Aquellized surface. Aquella leaves a brilliant white, beautiful finish, which may be painted over. Also comes in soft shades: buff, rose, green and gray.



Residence... Stockton, Cal.



Basement... Vancouver, Wash.



Funeral Home... Bayside, N. Y.



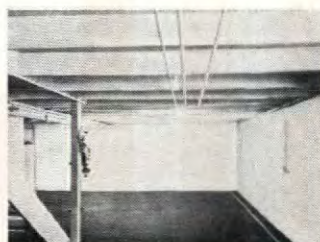
Living Room... Ft. Lauderdale, Fla.



Residence... Buffalo, N. Y.



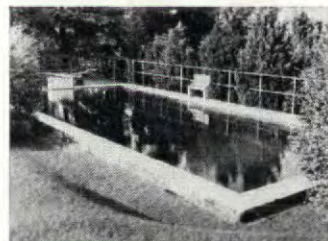
Farm Home... Smith Station, Ala.



Basement... Parsons, Kansas



Apartment House... Norfolk, Va.



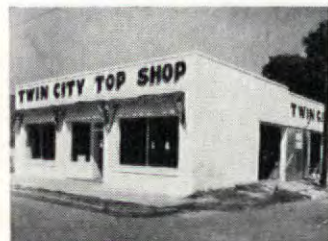
Pool on Estate... Uxbridge, Mass.



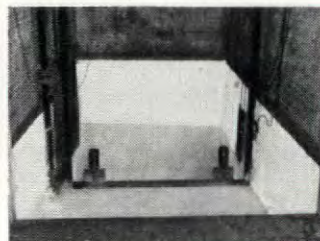
Church... Memphis, Tenn.



Belgian Tourist Ct.... Hwy. US40, Balt., Md.



Shop... Little Rock, Arkansas



Elevator Pit... Bridgeport, Conn.



Animal Hospital... Lansing, Mich.



Small Plant... Coral Gables, Fla.



Laundry... Atlanta, Georgia



Specify Aquella for effective control of water leakage, dampness or seepage on exteriors or interiors... above or below grade... on all porous masonry surfaces, such as concrete, brick, light weight masonry units, stucco or cement plaster.

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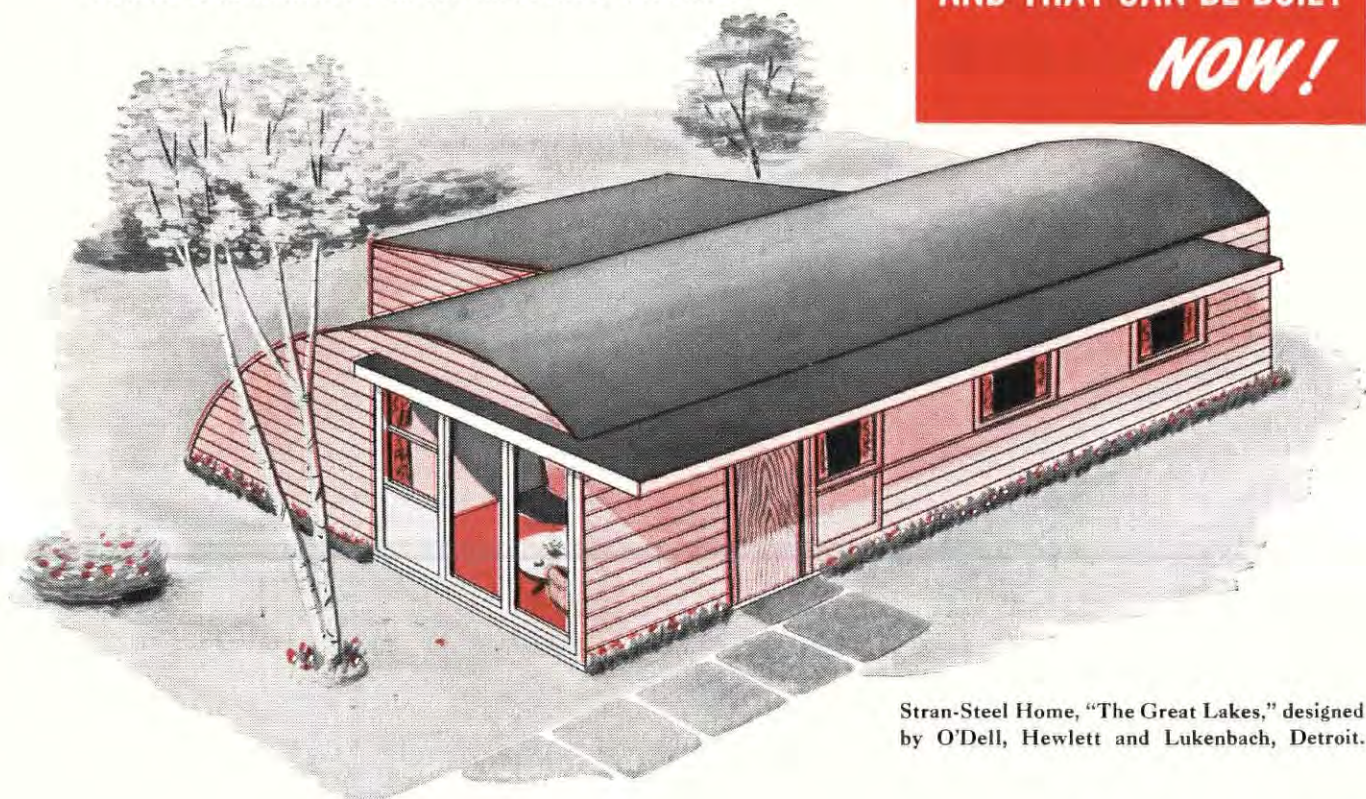
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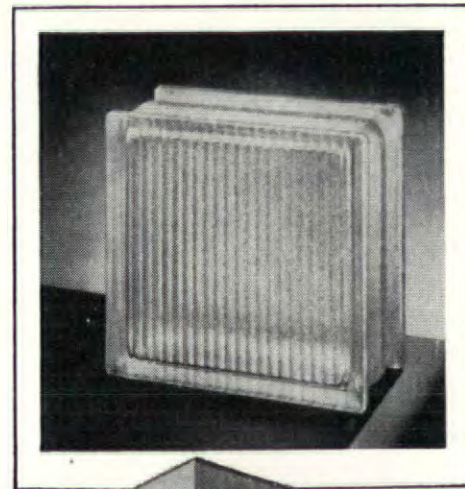
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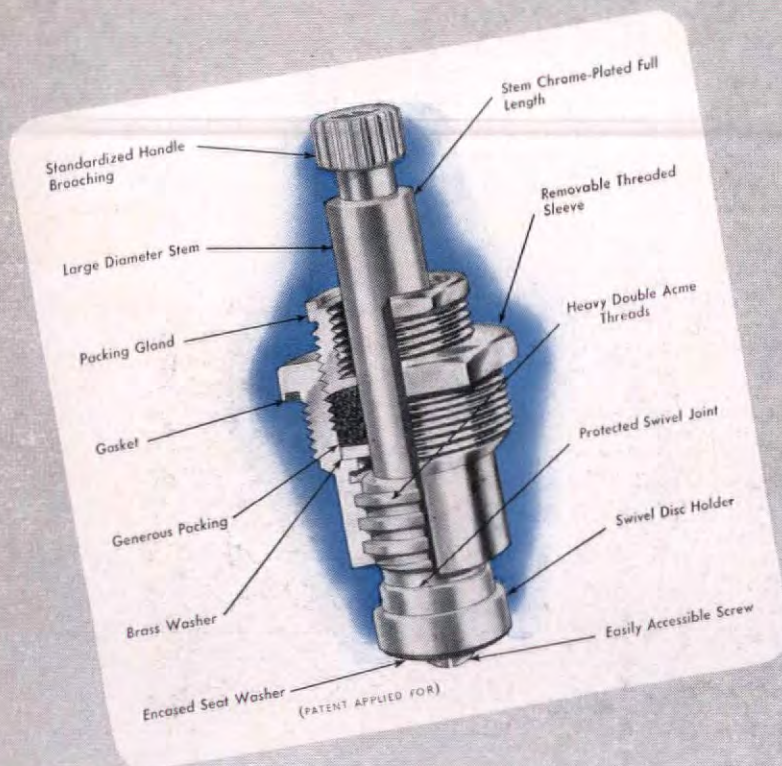
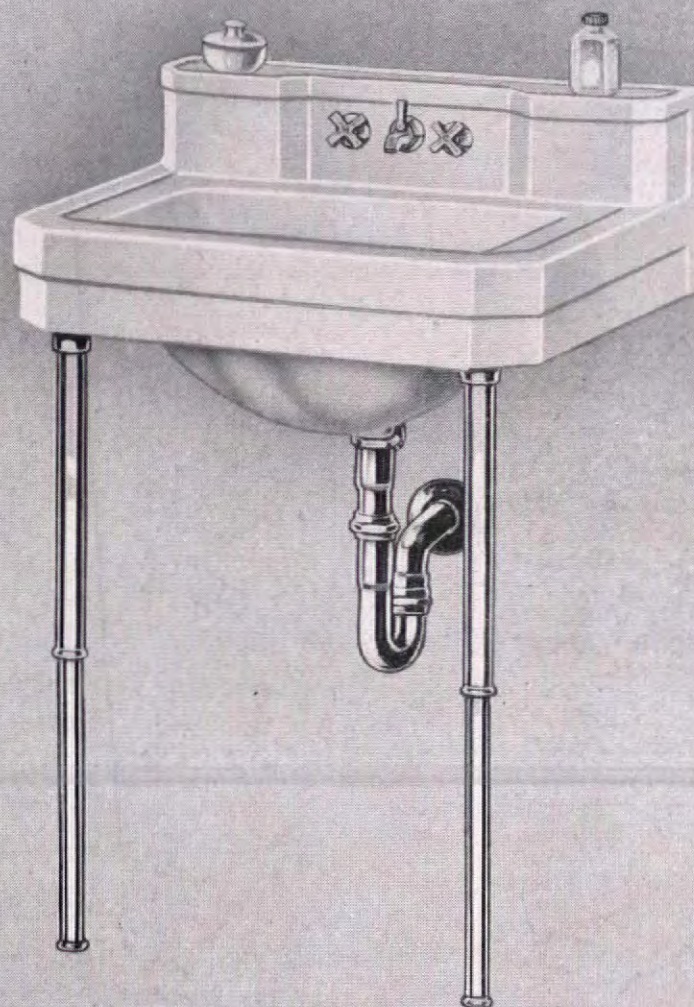
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