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# FORUM

Magazine of Building

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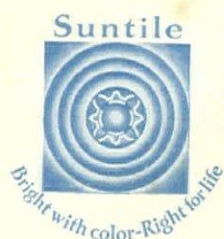
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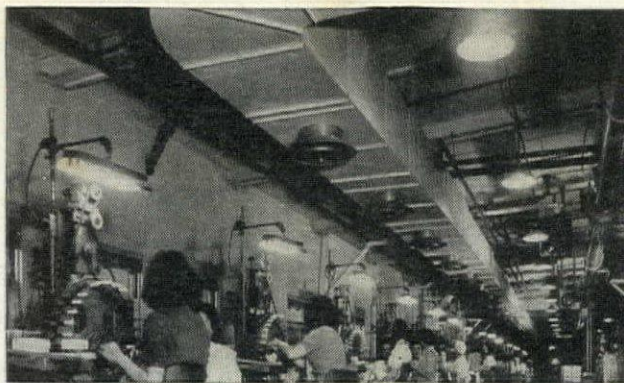
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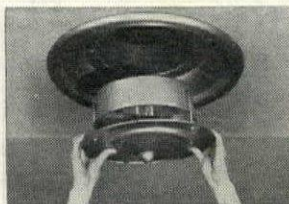
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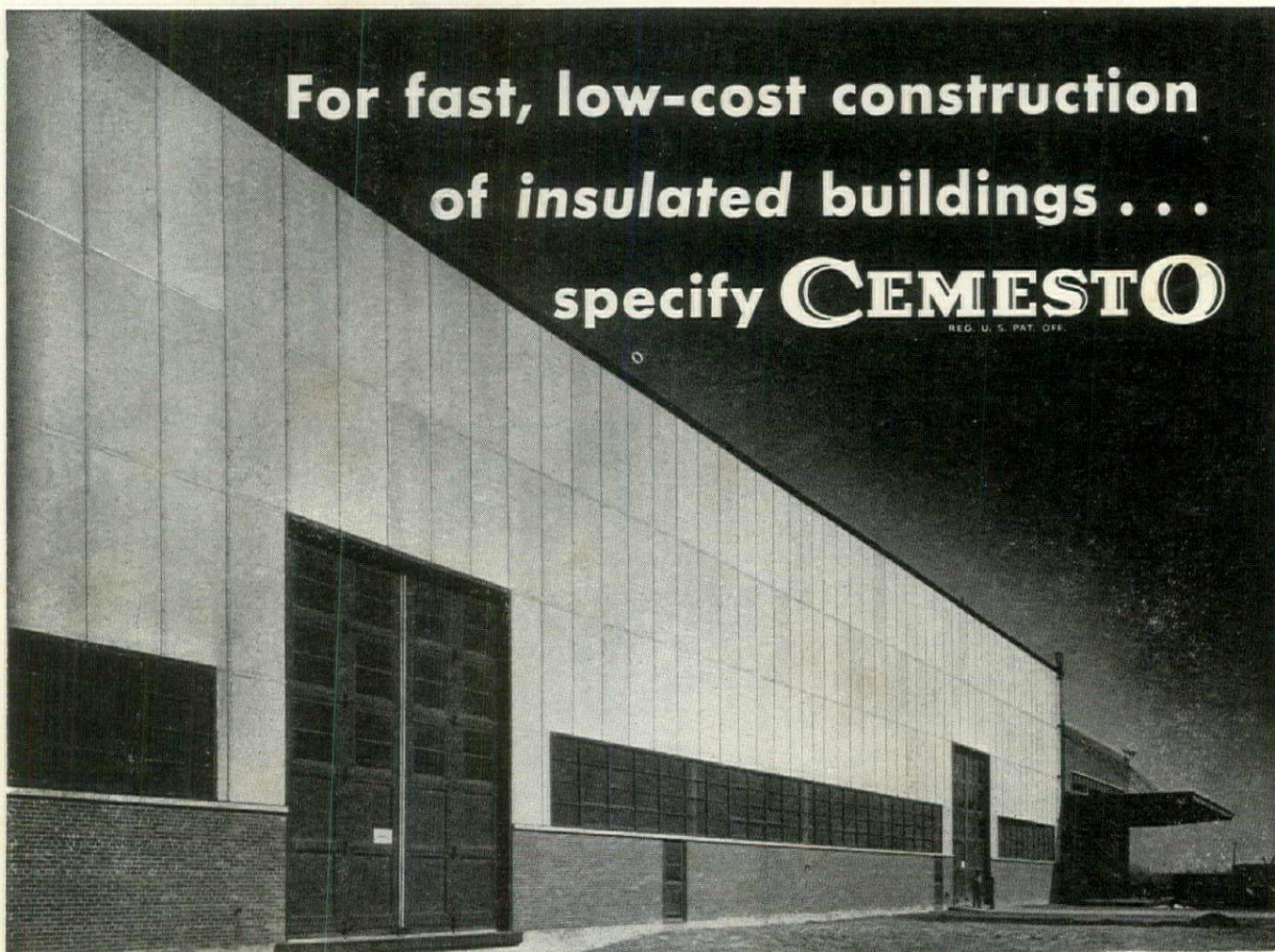
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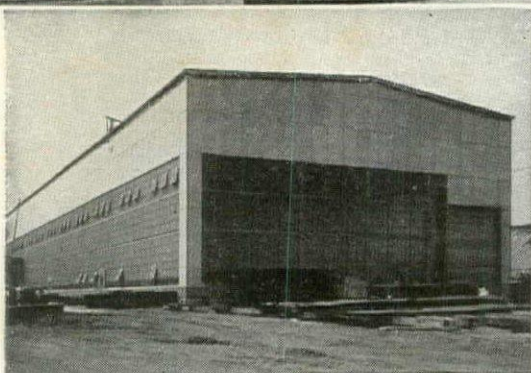
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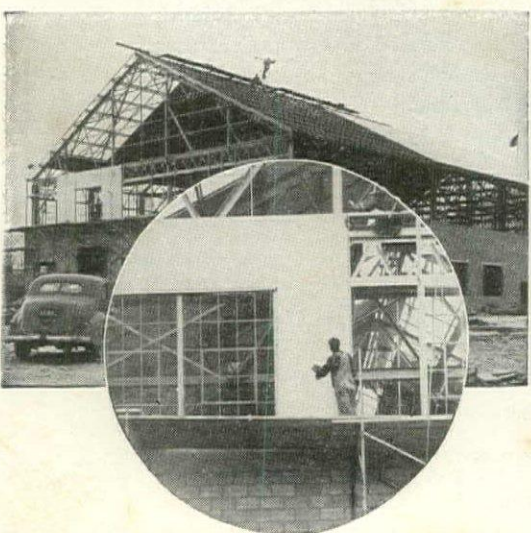
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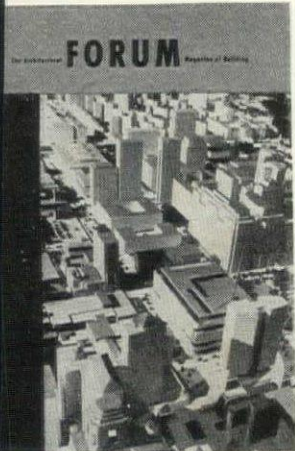
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DECEMBER 1947

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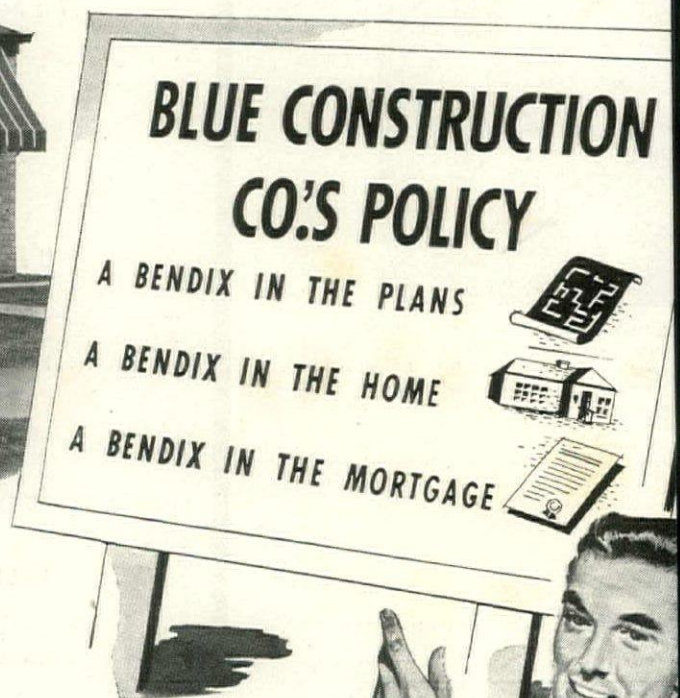
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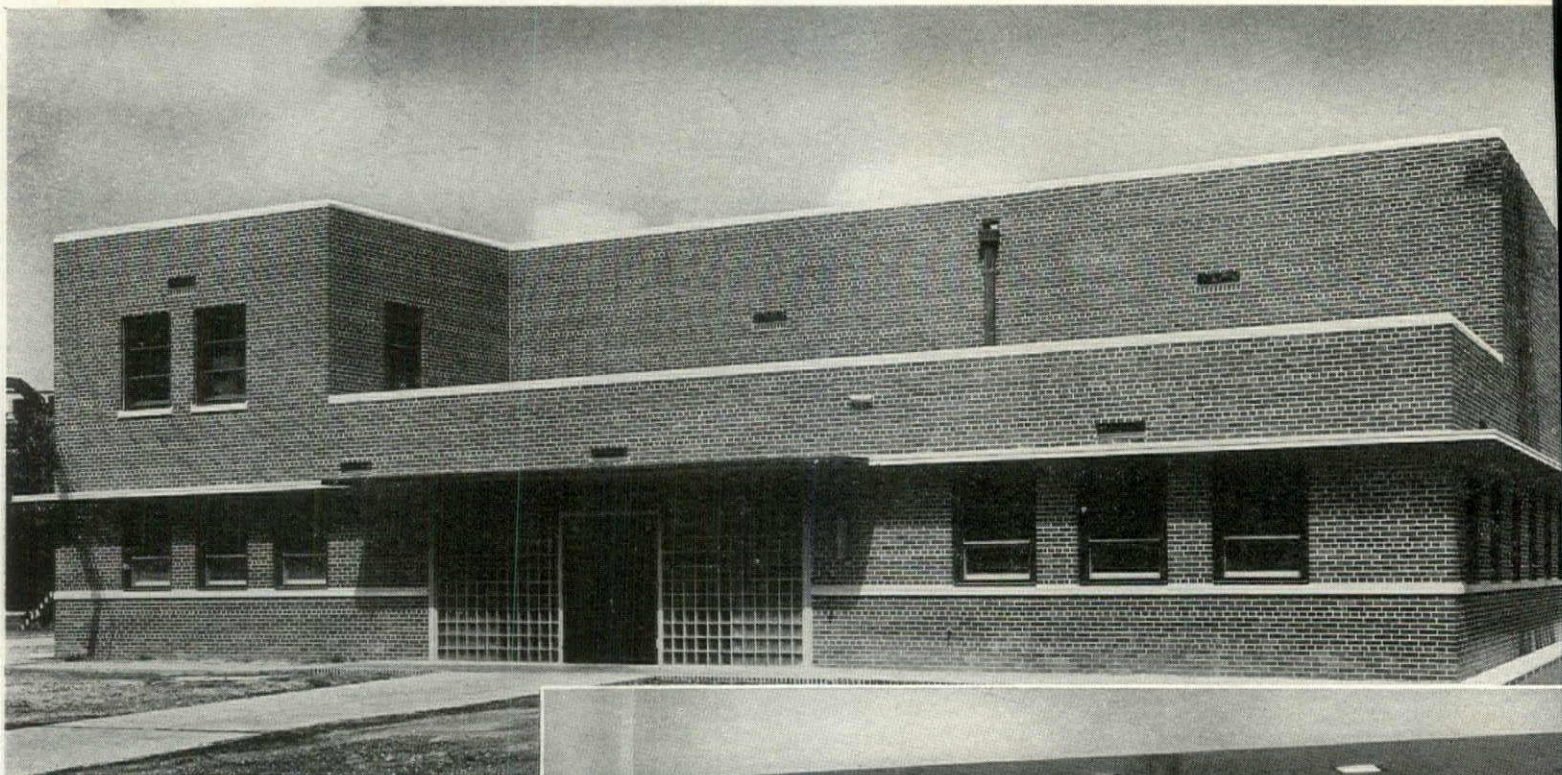
play a major role in the thoroughly “opened” plan.

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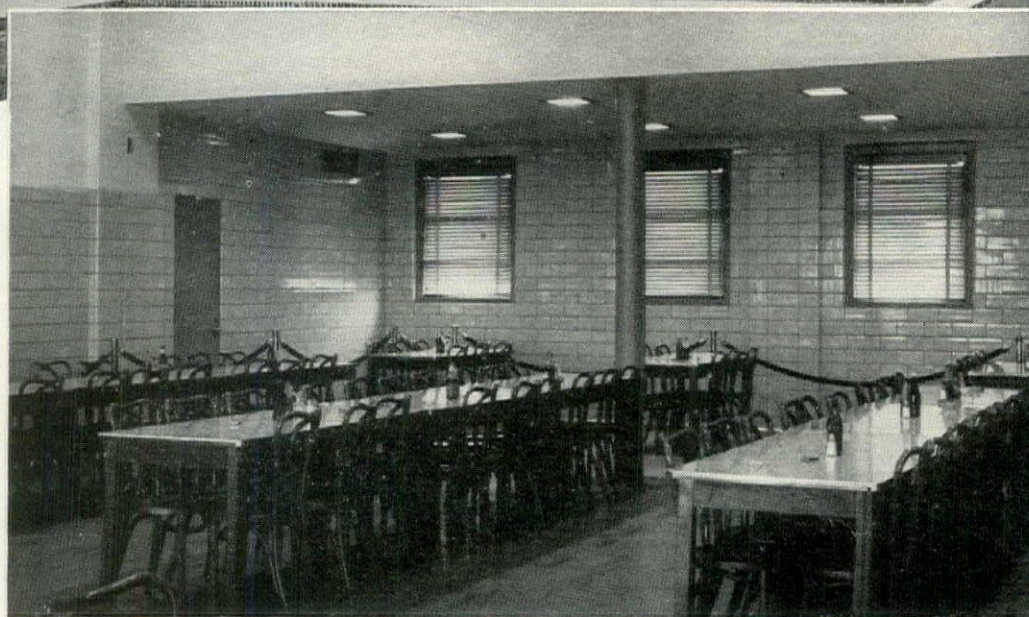
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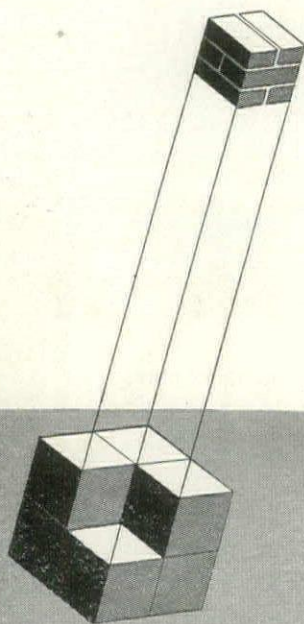
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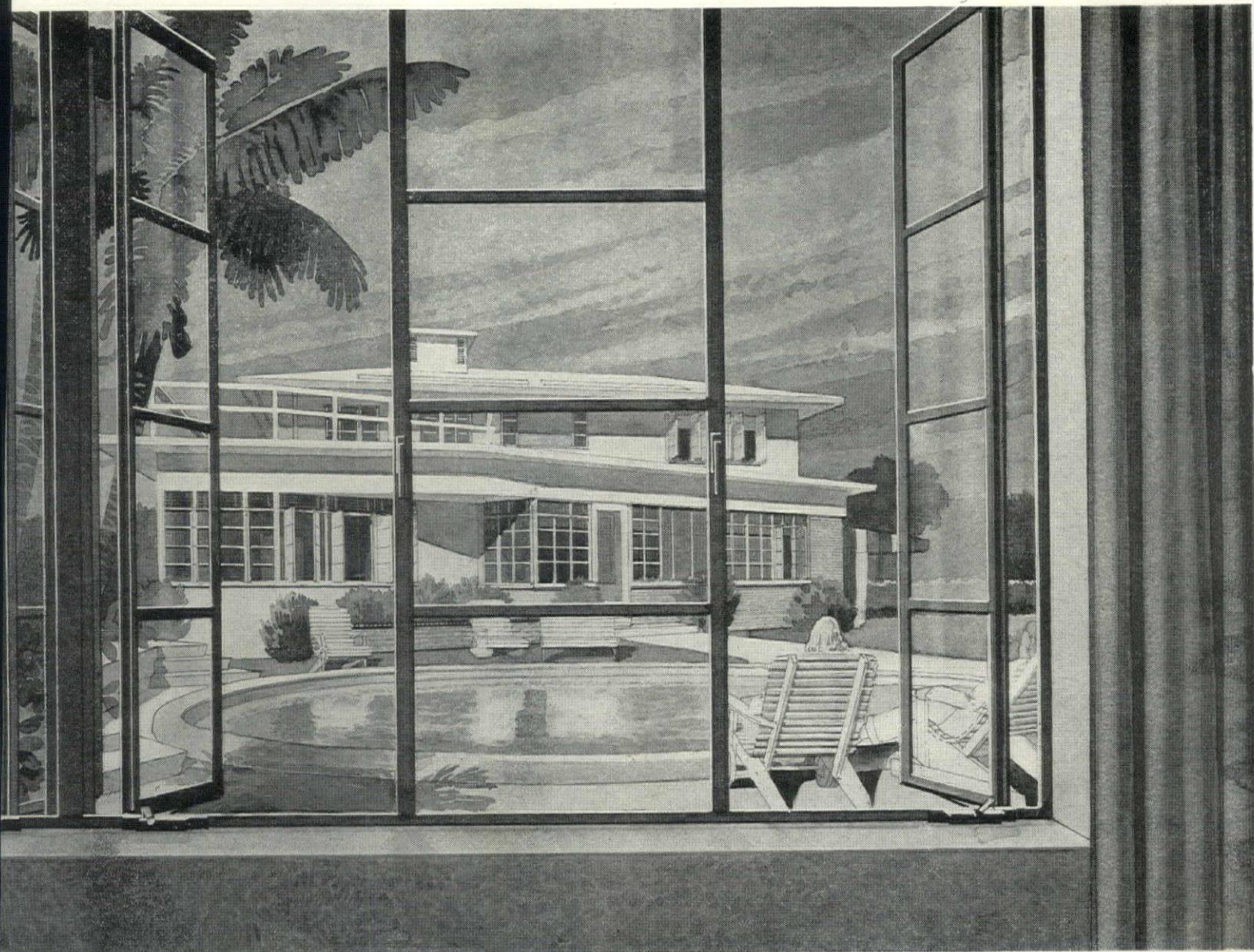
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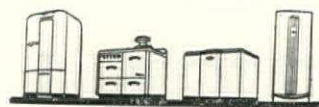
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# NEWS

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**BUILDING MONTH.** Everybody agreed that 1948 was going to be a good year. Even the most pessimistic guesser—F. W. Dodge's Thomas Holden—guessed that it would be at least as good as busy, housebuilding 1947. The joint Department of Commerce and Department of Labor forecast was the most optimistic: the government statisticians looked forward to \$15.2 billion worth of new construction, with a 25 per cent increase in housebuilding accounting for the biggest part of the rise (see figures, p. 10). The Producers' Council took a more moderate view: \$14 billion—a 13 per cent dollar increase over 1947—is what the materials men expect.

The forecasters all shared the opinion that, while housebuilding volume is trending upward, industrial construction is leveling off. (A notable exception: Admiral Ben Moreell said that Big Steel alone will spend \$1 billion for expansion in 1948). But stores and other commercial construction would follow housebuilding's expansion into new neighborhoods. The big government-aided hospital building programs (see page 11) would account for another big chunk of building.

Last month's rate of housebuilding confirmed the forecasters' rosy expectations. Housebuilding's phenomenal contra-seasonal rise continued in November. The Commerce Department figured that the month's housebuilding amounted to \$525 million, a gain of 2 per cent over record-breaking October. The continuing brisk rate of housebuilding held November's total construction volume (\$1.253 billion) to a less than seasonal drop of only 5 per cent.

On what bustling 1948 will do to building prices, there was much less agreement. Home builders of New York, New Jersey and Connecticut, meeting for a joint conference, agreed gloomily that the cost of building a house will go even higher in the next six months. The builders said they are still buying nails, toilet fixtures, and black steel pipe at double-prices in the "gray market—and they expected things to get worse before they better. The most hopeful looker-ahead was Robert W. McChesney, president of the National Electrical Contractors Association. McChesney told the U. S. Chamber of Commerce's construction industry advisory council that "the price of houses seems to have reached a plateau and there is a reasonable expectancy that the price will decline."

Commerce-Labor forecasters let the public in on their own tussle with the price question. They said that they had "decided to reject the fairly prevalent opinion that housing costs are too high in relation to income and in relation to other prices" and had given "greater weight to the belief that market strength arising chiefly from the still severe housing shortage more than counterbalances the evidence suggesting a possible decline."

Government housing chief Raymond Foley was not so sure. Foley thinks housebuilding can't keep selling indefinitely at present prices, and believes that the housebuilding business can still find a way to yank down its own inflation (see below).

There were, however, signs that the government may lend a hand. If Congress takes Federal Reserve Chairman Marriner Eccles' hard-boiled advice, it will cut down the easy flow of government credit into housebuilding. This is not likely to mean a

sharp retrenchment in the long-term FHA program or the GI guaranty plan, but rather a gradual, general tightening up on appraisals and a scaling-down of mortgage loans. It may also mean a cold shoulder for any new proposals to stretch government credit farther—such as the American Legion's bill for federally backed housing cooperatives. The new trend was already (but rather weakly) apparent in the Senate Banking and Currency Committee's amendment to the bill boosting FHA's Title VI insurance ceiling by another \$1 billion. The amendment instructs FHA to "use every feasible means to assure that estimates [of necessary current costs] will approximate as closely as possible the actual cost of efficient building operations."

Building money already felt a firming of interest rates, while the general tightening of mortgage credit was making inroads on the GI home loan program. The National Association of Real Estate Boards, taking its 47th semiannual look at the real estate market, said that in almost one-fourth of U. S. cities long-term mortgage money is not now readily available to veteran home buyers. Said NAREB: "The old-time regional maladjustment in mortgage flow, which the FHA and the HLBA have done so much to correct, is reappearing."

But even Eccles had said: "Production is the ultimate solution for inflation." This was the rock-bottom of housebuilding's dilemma. Curbing housebuilding credit would make it harder to buy houses—but it was a little like pounding down a cork in a near-explosive bottle. Everybody knew that the best way to take the heat off house prices was to build houses for every family who needs one—at prices they can afford to pay. That job, as it had always been, was up to the housebuilding business.

## HOUSES

### PRICE-CUTTING

Let's have some local "disarmament" conferences, says housing chief Foley

Riding high but uneasily on the housing boom, housebuilders got a sobering prophecy from a man who should know: Raymond Foley, able chief of the Housing and Home Finance Agency. Said Foley: "the housebuilding business cannot keep on selling at its present rate for much more than a year—unless it cuts its prices."

Foley thinks house prices can and will be cut—and he thinks he knows one way to help the price-cutting along. This is a kind



## ESTIMATED EXPENDITURES FOR NEW CONSTRUCTION, 1947 and 1948

Departments of Commerce and Labor

(Millions of dollars)

	1948	1947
<b>Total new construction</b>	<b>\$15,200</b>	<b>\$12,665</b>
<b>Private</b>	<b>11,375</b>	<b>9,730</b>
Residential building (nonfarm)	6,000	4,800
Nonresidential building (nonfarm)	3,250	3,165
Industrial	1,350	1,695
Commercial	1,125	880
All other	775	590
Farm	500	450
Public Utility	1,625	1,315
<b>Public</b>	<b>3,825</b>	<b>2,935</b>
Residential building	100	175
Nonresidential building	850	500
Industrial	25	30
Educational	375	255
Hospital and institu- tional	225	75
All other	225	140
Military and naval	250	195
Highway	1,500	1,190
Sewer and water	375	300
Miscellaneous public service	125	115
Conservation and devel- opment	475	375
All other public	150	85

of repeat performance of the successful campaign he launched last spring to get rental housebuilding underway.

Foley would like to see conferences on ways and means to lower prices initiated by the building industry on the local level. These conferences would be no attempt to pin the blame for the boost in house prices. They would be, rather, "disarmament" conferences in which everybody involved in the price of a house would be expected to try to find out how he could cut it down.

Foley takes a cheerful view: "Greater productivity, still more ingenuity in design, merchandising and land use can cut house prices. It is not a matter of reducing the 'take-home pay' of either management or labor. It is a matter of putting less labor and management pay into each house, of reaching a lower unit cost."

## AMERICAN LEGION

**Its housing parade marches down the  
middle of the road**

Looking anxiously for a safe place in the current housing mess, the American Legion over the last year has been hopping in and out of the real estate lobby's pocket at a rate almost too fast to follow with the naked eye. From time to time the Legion has asked for government controls to speed veterans' housing. But, each time, a sobering talk with realtors' Herbert U. Nelson has been enough to change the Legion's mind. Nelson was also successful in parrying a threatened endorsement of the T-E-W general housing bill at the recent Legion convention in New York.

But when the Legion last month named Walter E. Alessandrini, Philadelphia, as

chairman of its housing committee, housing politicians looked for a shift in the wind. They remembered that Alessandrini had led the convention fight for the T-E-W bill and had presented the minority report urging Legion endorsement of the bill.

They were wrong. Alessandrini told the housers' meeting in New York (see page 10) that neither his own opinion (the T-E-W bill should be enacted) nor the Legion's official policy (the T-E-W bill is not "germane" to veterans' housing problems) had changed a bit. As an officer, he said, he would simply execute the Legion's housing mandate.

The Legion has been finding its own middle-of-the-road on housing, and last month unwrapped proposed legislation intended to make the road a main thoroughfare. The Legion can already point to some 5,000 veterans' cooperative housing projects under Post sponsorship in the various communities (see cuts). It now proposes what it hopes will become the Veterans' Homestead Act of 1948, intended to ease financing for veterans' cooperative projects by providing the bolster of government credit.

Financing for veterans' cooperatives is, of course, already available under VA guaranty or FHA mortgage insurance. But the Legion expects to cut the cost of financing even further by its proposal for 40-year housing bonds, to be fully guaranteed by the government in both interest and principal. Another bid for big investors is the proposal to make the bonds tax exempt.

The Legion's bill, just introduced in the House by Representative Edith Nourse Rogers (R., Mass.), gives the Veterans Administration the job of managing the cooperatives. VA would be empowered to:

- ▶ Charter a Veterans Homestead Association upon the application of five or more veterans.
- ▶ Supervise the operations of such Associations.
- ▶ Sell \$2 billion worth of bonds to be issued by the Associations (up to \$10,000 worth for each member) and set the interest rate on such bonds.
- ▶ Loan money for interim financing, pending issuance of bonds, from a revolving fund of \$100 million.

To make sure that the cooperative housing meets the needs of moderate-income groups, the bill puts a \$10,000 ceiling on each housing unit and provides that any veteran may become a member of an Association by payment of \$100. The Federal Works Administration would also be empowered to make \$200 million worth of 50 per cent grants-in-aid to communities for streets and public service facilities in connection with the veteran developments.

Marketing of the cooperative housing bonds would probably work much like the sale of their closest present parallel: the tax-exempt public housing bonds issued by

municipalities. The big investors have found it a profitable operation complete issues of these bonds, reinvesting in smaller lots to insurance companies and other building investors. Despite the recent deep sag in the bond market, a guarantee would be enough to make cooperative housing bonds attractive. The aspect of the Legion's proposal aroused the antagonism of savings and mortgage banker groups, who considerable prestige with Congress, and home builders lobbies, however, endorsed the Legion's plan.

"The full strength of the 3,245,000 members of the American Legion will be behind the Veterans Homestead Act of 1948," Legion Commander James I. promised. But, despite the weight of the Legion's legislative muscle, it is hard to wonder if Congress would approve further extension of government credit in an already highly inflated area (see page 10).

At a maximum, the Legion's bill might mean the real beginning of a cooperative housing movement in the U. S. The bill, by its low-down-payment and \$10,000 stipulations, had done its best to guard against a repetition of the high-cost cooperative boom of the twenties. The bill raised the old question: why have cooperative housing never worked in the U. S. as it has so spectacularly in the European countries?

Many thought that more than easy financing is needed to get cooperative housing underway. Most cooperatives go to the wall for lack of management and building know-how. Housing specialists deplore

Paul Peters, Business



**VETERANS COOPERATIVES** already include Frank Sharp's handsome cooperative apartments in Houston to cooperative housing in Milton. A 24-house project at Milton (bottom cut) is sponsored by the local American Legion Post. Finished 5-room cost veterans \$7,200.



n's decision to by-pass the accumu-  
 experience of the federal housing  
 ies and give what may turn out to be  
 y big housing job indeed to the Vet-  
 Administration.

make veterans' cooperatives really  
 and to protect cooperative members  
 their own inexperience, a broad-scale  
 am comparable to the Federal Hous-  
 Administration's pioneering standards  
 federal mortgage insurance would seem  
 none too small an effort.

## BUILDING MONEY

### HOUSEBOAT ROCKS

curtail Government housing loans to  
 fight inflation, says Eccles

Federal Reserve Board's blunt Mar-  
 Eccles last month poked a finger into  
 of the soft spots in the nation's queasy  
 omic belly. Eccles had found nothing  
 everybody has known for some time  
 the current housing boom rests un-  
 y on a foundation of government credit.  
 was merely less cautious than most gov-  
 ernment men in pointing to a soft spot that  
 dy dares to cure.

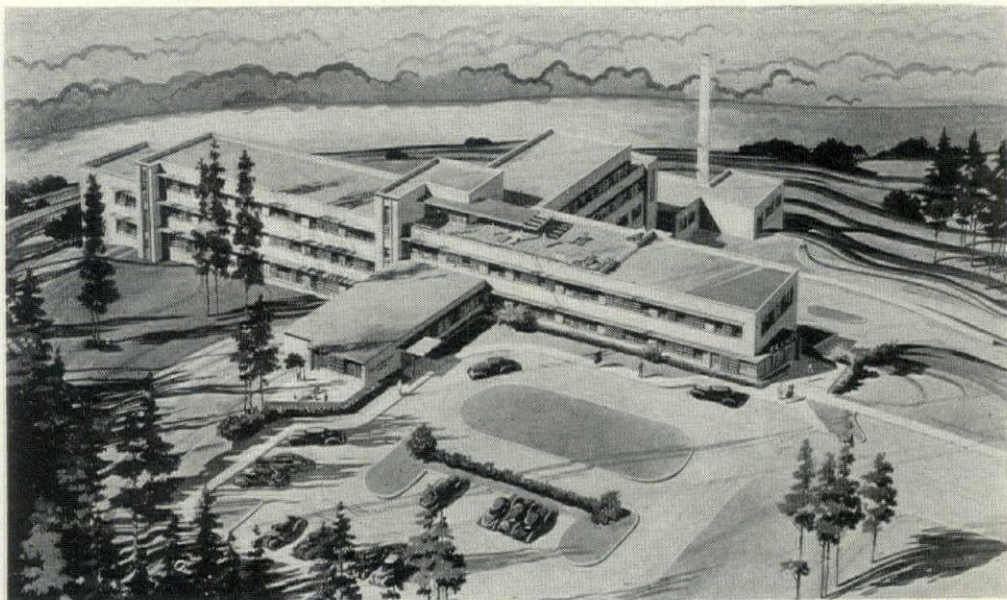
Eccles told Congress that one way to  
 inflation is to curtail government-  
 ed home and farm loans. But, as hous-  
 shortage stalked the nation, nobody  
 ted to make it any harder than it is  
 ady for Americans to connect with  
 es.

he shape of the dilemma had already  
 made plain in the veterans' home loan  
 gram. VA had deplored an appar-  
 y growing tendency among lenders to  
 fire heavy down payments from veterans  
 ing houses under government guaranty.  
 the lenders could argue that one way to  
 a man from buying a house he cannot  
 rd—and so adding his personal push  
 he inflation in housing prices—is to ask  
 for a stiff down payment.

**Billion More.** Now the dilemma was  
 rarer than ever as Congress faced the  
 ernessity of boosting FHA's Title VI—  
 so pouring \$1 billion more in govern-  
 nt credit into the housing inflation. FHA  
 lf has always been wary of the extra  
 ts of war-born Title VI and, time after  
 e, has refused to ask Congress to raise  
 insuring ceiling until the whole pro-  
 m stopped dead—it did on November 12.  
 HA's reluctance to see the bottom of  
 Title VI pocketbook has been a peren-  
 ll headache for builders, who must forsee  
 approaching bottom and rush through  
 rtgage insurance applications in advance  
 actual need. But this is more than bad  
 essage on FHA's part; it is simply FHA's  
 sive resistance to what it considers a  
 ngerous extension of government credit.  
 FHA's Title VI was set up to absorb the  
 ra risks of war housing. It differs from  
 long-term (Title II) FHA program in

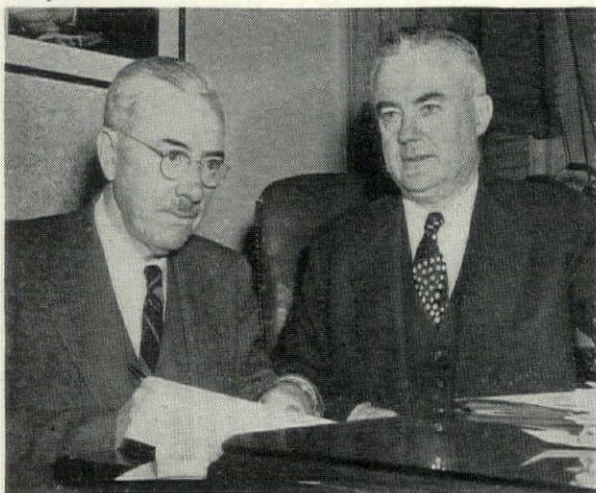
(Continued on page 12)

## HOSPITAL CONSTRUCTION: government-sponsored boom is underway.



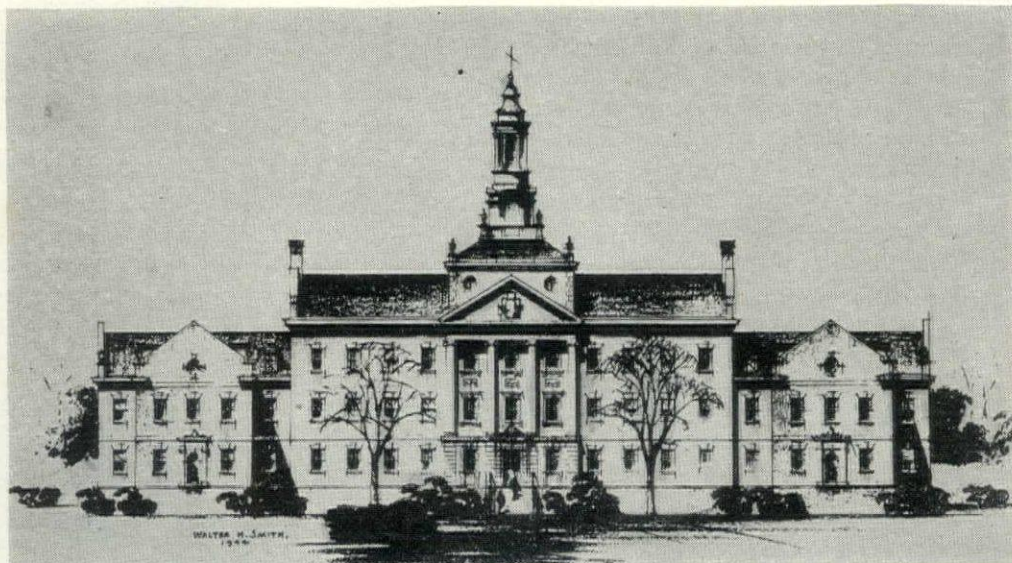
LANGDALE, ALA. HOSPITAL, FIRST APPROVED UNDER HOSPITAL ACT, WILL HAVE 82 BEDS

Reni photo



SURGEON GENERAL PARRAN, FSA'S EWING SIGN

Signing of the first contract under  
 the U. S. Public Health Service  
 program marked last month a  
 construction start on \$1 billion  
 worth of hospital building. This  
 is in addition to the \$1.125 billion  
 veterans' hospital program. Com-  
 parison of the plan for the big-  
 gest veterans' hospital, (below),  
 with the first plan to be approved  
 under the civilian program  
 (above), suggests that the U. S.  
 Public Health Service is making  
 somewhat better use of its money.



Biggest veterans' hospital, the Frank-  
 lin Delano Roosevelt, is almost finished  
 near Peekskill, N. Y. Construction is  
 under direct supervision of the Corps  
 of Engineers, New York District. Hos-  
 pital will cost about \$4,200,000.





its appraisal base of "current costs" rather than "stabilized values" and its provision for high-percentage loans made direct to builders. The maximum permissible mortgage for a single-family house has also gradually been raised: it is now \$8,100, which means a 90 per cent loan on a \$9,000 house.

**The Big Question.** Twin House and Senate bills to boost the Title VI insurance ceiling by \$1 billion were in the hopper. Nobody doubted that Congress would fail to pass them—to do so would mean the collapse of housebuilding. But the real question will come when the legislation creating Title VI expires next April. Then Congress will be obliged to decide whether the liberal credit terms of Title VI need to be tied tighter—a curb for which FHA will undoubtedly ask.

The worst of it all was that the government's housing credit policies have never been tested by a skidding housing market. With the government now obligated for some 925,000 veterans' home loans amounting to \$2½ billion, and, altogether, for one-half the real estate mortgages in the country, it seemed high time to think about what a steep downswing might mean. One sign that private lenders see trouble ahead: most agreed last month that a stiffening in interest rates is at hand.

## MATERIAL

### RICEMENT

#### Rice hulls into building blocks

In the rice-growing delta of Texas and Louisiana, rice millers have now and then recalled the birth of Celotex from sugar cane waste and wondered if some similarly bright future could not be found for rice hulls. For most millers, rice hulls are a big (20 per cent of every rice bushel) and expensive (\$10-\$20,000 a year) disposal headache. The farmers had tried using the rice-hulls for roughage feed, but even the pigs turned up their snouts.

Then one day rice-grower Leonard W. Chappell ploughed up a field where a rice stack had burned years before. He noticed

that the rice hulls had been undamaged by the fire. Why wouldn't rice hulls make a good building material?

With his 17-year-old daughter, Jean, Chappell went to work. They stirred the rice hulls into cement, and pressed their trial mixes into building blocks. Finally they got a "rice-crete" mix which could be sawed and nailed. They worked out their own tests: they left a block under a dripping tap in the barnyard for a month; they applied a blow-torch; they pounded it with a hammer. Their home-made concrete aggregate stood up fine.

Then Chappell built a utility building from the rice-hull blocks. The El Campo Rice Mills got interested and set up mechanical equipment for making a 5 x 8 x 12 in. building block from Chappell's formula. Thomas Hollis, a leading builder in Bay City and El Campo, Tex., got interested, too. Early last year, Hollis leased the machinery already set up by the mill, installed more of his own, settled with Chappell for operation rights, and set up the Rice & Cement Products Mfg. Co.

Since then, Hollis has turned out about 70,000 blocks. A half-dozen El Campo home owners, somewhat to their surprise, are living in what Hollis calls "ricement" houses. Hollis has also used the ricement blocks to build a dental clinic and several small commercial buildings.

Although the ricement blocks have not yet gone through scientific testing, Hollis and Chappell claim a major advantage in high insulating value. They say the blocks are also fireproof, termiteproof, and cheaper than comparable concrete or wood construction.

Hollis thinks "ricement" is essentially an inside building product because it is porous. He has, however, adapted it for exterior wall construction by adding stucco or a dash coat of plaster. He foresees a sizeable market for small fireproofing block, about 2 x 18 x 19 in., for use between walls, where ricement's nailability and sawability would be a big advantage.

The news of Chappell's ricement block has already spread around the world, and the initiators have dozens of inquiries from rice-growing regions, especially in Japan.

## PREFABRICATION

### LUSTRON AHEAD

#### Three AFL building unions sign pact on industrialized house

The AFL—once prefab's biggest rival—last month extended a helping hand which may do more than anything else to put Lustron houses on the market.

Lustron's determined Carl Strandlund flourished a two-year contract with the three main building trades—carpenters, plumbers, electricians—covering his



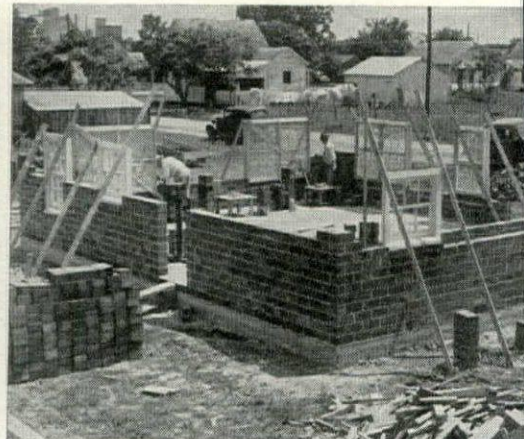
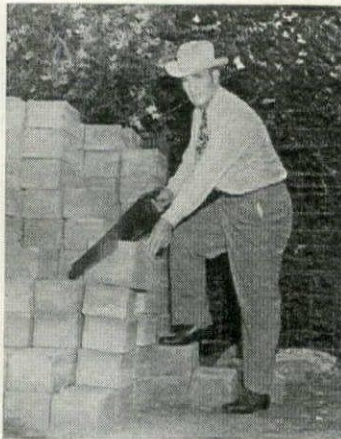
STRANDLUND

now in hand. Insiders said that the backing, plus considerable pressure from the Veterans of Foreign Wars, had been instrumental in clinching Strandlund's \$15½ million RFC loan, despite the thin equity financing of only about \$5 million from private funds.

The Lustron contract is not the first of its kind. Since the violent days when AFL tradesmen have signed with the prefabricator, the three big trades have joined in one master agreement. More important is also the first to provide official reduction of the dozen trades customarily involved in housebuilding to a basic unit.

"No opposition from unions not involved in the agreement is expected," said building trades president Dick Beamed Strandlund: "I firmly believe we have now eliminated . . . all the major jurisdictional disputes and obstacles."

Ricement blocks being laid, builder-manufacturer Hollis with cigar (l), inventor Chappell shows how blocks can be sawed.





# -CON HOUSE

ns improves his lightweight concrete for low cost houses

Jackson Higgins, ebullient chief of Resources, Inc., has brought forth a new version of his light-weight concrete, "Thermo-con," peeled of the which it originally was clothed as "Thermo-namel."

"Thermo-namel," a low-carbon-steel panel the job with the old "Thermo-con" was a big user of critical material—sidetracked in favor of on-the-job plywood forms of the improved "Thermo-con," a mix of Portland cement, and a secret foaming agent.

Best "Thermo-con houses" have been tested and tested satisfactorily in New Orleans, and the company is now franchising for production by the first of Higgins Homes, a division of Resources, Inc., completed the expensive of the two test, six-room house at a cost of approximately \$7,600, or \$1,285 for a special utility house in less than a week. Higgins says that trained men can erect the forms in eight hours, and pour the walls and roof in five hours. An 18-hour set is required for the walls, partitions, and roof are with a vapor bath, and work on floors, windows can continue.

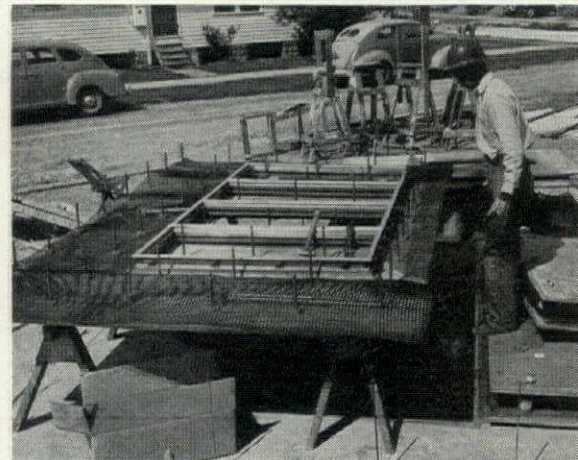
Higgins estimated that the house cost \$4 to \$6 per sq. ft.; he believes, however, that an experienced contractor, building a multiple "Thermo-con" houses without using steel, should be able to erect them in about \$4 to \$6 per sq. ft.

For insulation qualities, durability, fireability, and low maintenance costs are added for the new lightweight material. The walls can be controlled by mix within a range of 25 to 60 lbs. per cu. ft.; the efficient is 45 lbs., used in 6 in. walls. Wall thickness is regulated by spacers made of "Thermo-con"—held in place by 5/8 in. compression bolts to absorb the stress set up when 26-minute, 125 per cent cubic expansion cycle takes place. "Thermo-con" will neither absorb nor transmit moisture, and tests indicate that temperatures within can often be controlled by agitated ventilation only.

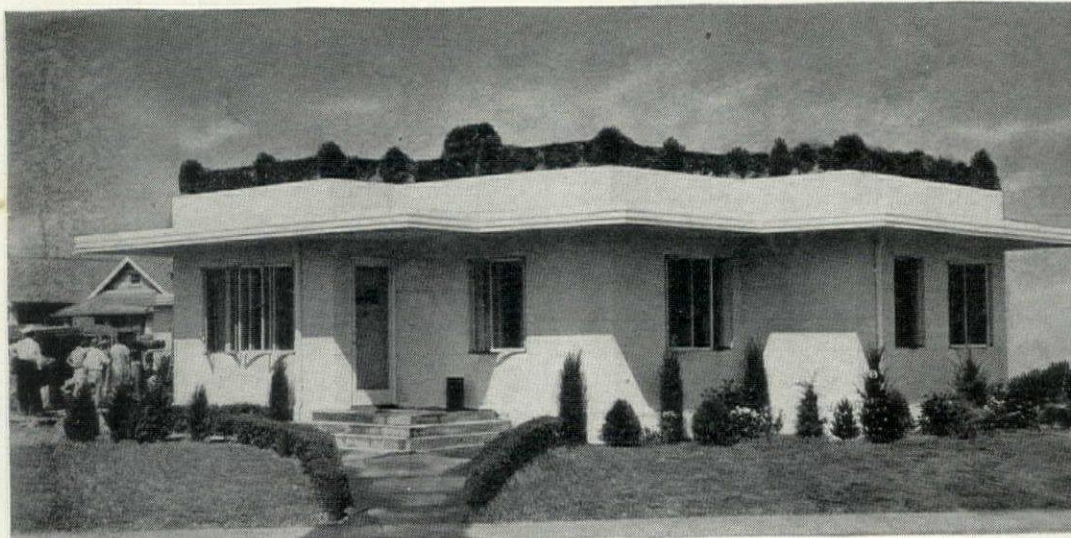
The wall reinforcement comprises expanded steel mesh 1 in. From each surface. Steel beams, reinforcing mesh, and expanded steel mesh are used in the roof.

Windows and door frames in the "Thermo-con" house are provided with a precast framing implaced in the mold. When the forms are removed, the window frames are ready for hanging of the sashes. The material is poured from a "Thermo-con" generator, developed and manufactured by Higgins, into the molds, which are previously treated with a plastic paint which permits easy removal after the 12 to 18 hour set. "Thermo-con" may be used in any design which conforms to standard sizes of the forms.

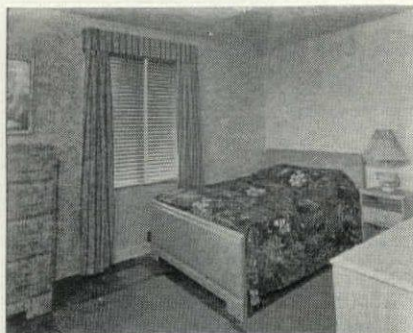
**FOUR WORKMEN** can erect the forms for a Thermo-con house in eight hours, and finish pouring, shown in process, five hours later.



**HIGGINS' MIX**, of Portland cement with water and a secret foaming agent, is poured from a special generator, also manufactured by the company. Window frames become part of the mold, to receive sashes when forms are dropped.



**FIRST THERMO-CON HOUSE**, complete with furnishings, and the two levels of foliage, was put up in New Orleans in a week, Monday morning to Saturday night. Fifty thousand visitors have inspected it.



**BEDROOM** and living room of Mr. Higgins' house. When plywood forms have been removed after pouring, Thermo-seal, a plastic paint, is used in finishing.



Leon Trice Picture Service



LOOKING FORWARD

Kiplinger sees typical city family living in prefab by 1960

Kiplinger's magazine, *The Changing Times*, last month succumbed to a universal urge, asked a provocative editorial question: "What kind of place will America be in 1960?" To answer its question, Kiplinger drew on the Twentieth Century Fund study, *America's Needs and Resources* (see FORUM, May, '47, p. 10) and on what it describes as the "thinking of scores of businessmen, educators, sociologists and scientists."

What the Kiplinger forward-lookers think American houses will be like in 1960, and why, is worth some attention. The magazine findss a typical city dweller, factory worker family (guaranteed annual wage: \$3,196) living in a house which "could have been seen on the cover of THE ARCHITECTURAL FORUM at various times during the 1930's and 1940's . . . The house is a factory job . . . It cost \$6,000."

**Material Competition.** This typical family's house happens to be porcelain-enamel steel, but Kiplinger thinks it "could just as well have been plastic blocks, concrete, wood, even brick or stone, at about the same price." The reason: "In the last few years the producers and distributors of the older building materials and the old craft unions have reorganized their methods, in the face of competition from newer materials, to deliver a comparable job at a comparable price."

"For the first time in history, the price of houses is beginning to go down as production rises."

**Building Bloc Splits.** The Kiplinger notion of what made all this happen may be alarming to some:

"The Taft-Ellender-Wagner housing bill was finally enacted, with strong middle-class support. With some assistance in public financing . . . large scale developers began to rehabilitate run-down neighborhoods and erect big housing developments."

"Behind the scenes, the bloc of builders, labor unions and bankers which together had resisted modernization of the home building industry now begin to split. Fearing government competition, heavy industry began to cast around in earnest for means of beating the government to the draw. Banks and insurance companies had less reason to fear mass-production housing than during the 1930's and early 40's, when they had strenuously resisted 'prefabrication' as a danger to their mortgages in a depressed real estate market. The high postwar price level protected their stake in the older houses and made them willing to back the new."

**Thousands Wiped Out.** "With a positive push from Wall Street money and Detroit skill, factory houses really began to roll by the mid-50's . . . Thousands of small contractors were wiped out, although some grouped

together or found jobs with the big operators."

"Beginning about 1955, a swelling volume of production from the assembly lines and from new methods of erecting houses on the building site tapped the 'mass market.'"

"With the production of private housing at 1,377,000 units annually by 1960, private industry since 1947 has come within 82 per cent of providing decent shelter, by modern standards, for every man, woman and child in the United States."

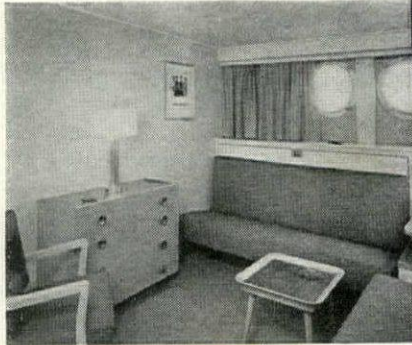
DESIGN

PACIFIC LUXURY

J. P. Morgan's Corsair is redesigned as commercial cruiser

J. Pierpont Morgan's famous black-hulled yacht "Corsair," behind whose gilded bowsprit the late financier cruised the waters of the world for ten years before giving her to the British Admiralty in 1910 for wartime convoy duty, has been refitted as a luxurious Pacific commercial cruiser. William Schorn Associates did the job for Pacific Cruise Lines, Ltd.

The rakish (342 ft. overall, 42 ft. beam) yacht will now ship 85 passengers, instead of the master and ten guests for whom it originally was built. The lavish rooms and suites feature a folding marine sofa-bed, designed by architect-naval architect-industrial designer Schorn while he was chief of the U. S. Maritime Commission's Joiner Design Section during the war. Another solution to stringent shipboard space limitations is a chiffo-chest which includes a dresser, a writing desk, and a dressing table (see cuts). Throughout the design, with its unique marine problems (such as proof against stowage of narcotics), emphasis was on luxury. One of the few interior finishes retained was the original teakwood stairway and corridor



CORSAIR berths day and night



paneling in the \$2,000,000 Morgan yacht. The somber teakwood, however, was bleached to a sand tone, and waxed.

LONG JOURNEY HOME

Convair car runs out of gas

*If you were born to walk the ground remain there; do not fool around!*

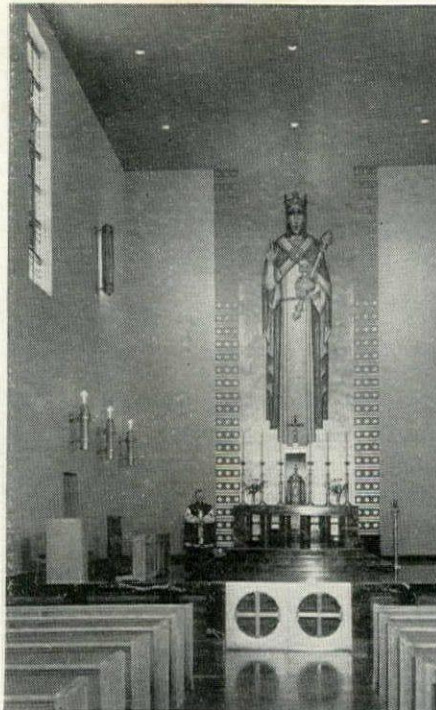
—Hillaire Bell

When Consolidated Vultee first began think about converting from B-24's peacetime planes, it engaged top-flight Industrial Designer Henry Dreyfuss to develop his airborne ideas. Among these was a design for a flying car—the Convair car—to be made in two sections: the first to be a lightweight automobile; the second an airplane assembly, with wings, tail, and 190 h.p. engine. The car alone would be used on routine, everyday local trips. The

Loren F. Smith



**ROMAN CATHOLIC CHURCH** in Los Angeles has stripped off medieval symbols to rear a blue-green cubistic mass, shining with steel and chromium. Even the altar lights have tiny neon crosses. Architect Ross Montgomery thinks it an appropriate religious form for "an age of machines and advanced science." Others may disagree.





ane assembly could be parked at the est airfield, ready to be picked up and ed to the car's roof whenever the owner ed to take an extended, cross-country

Both car and plane were to be con- ed from the driver's seat. The whole complete with the airplane assembly, at cost around \$6,000. It seemed the ver to many an American's prayer.

ast month, at Consolidated Vultee's Diego plant, the first of three Convair models took off on a short flight. It ked well, looked a little like Ganymede ag carried off by the mythological eagle

A P Wirephoto



eyfuss flying car

ee cut). One week later, however, in other test flight, the Convair car came grief. Evidently lacking sufficient fuel return to his field, the pilot attempted an emergency landing on very rough ground. od the plane up on its nose, and crashed. either of two occupants was injured seri- sly. The machine itself would soon be ck in operation. Only serious, and unfair, sualty: the Convair car's good reputa- on.

## PAN-AMERICAN MEET

### Five A.I.A. delegates look at Lima

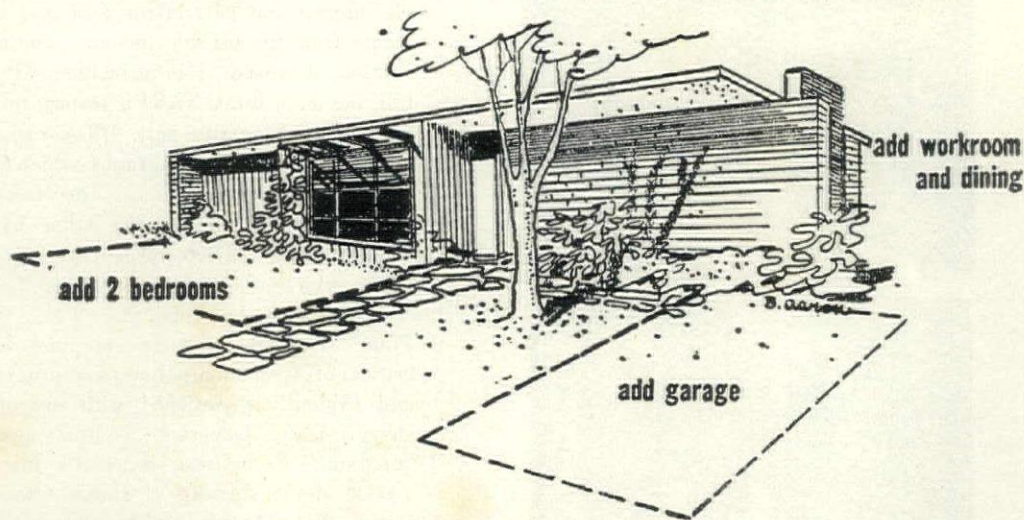
ate in October the A.I.A.'s Julian Clarence evi, chairman of its committee on inter- ational relations, and four other U. S. elegates met with Central and South American architects and planners in Lima. eru to cement friendships, discuss prob- ems, exchange information, look at each ther's exhibits. The occasion was the ixth Pan-American Congress of Architects —the first such get-together since Pearl Harbor.

The conferees soon found themselves up o their ears in discussion of problems. To acilitate an exchange of information, the Congress was divided up into five sections, ealing with "Philosophy of Architecture," "Architectural Education," "American Architecture and its influence on conti- nental Architecture," "Planned commu- nities," and "Housing," respectively. While it developed that there was probably too much material to discuss—and too little time to discuss all of it fully—the American delegates found themselves greatly im- pressed by Latin America's building boom, and by Latin American architects' compe- tence and vitality.

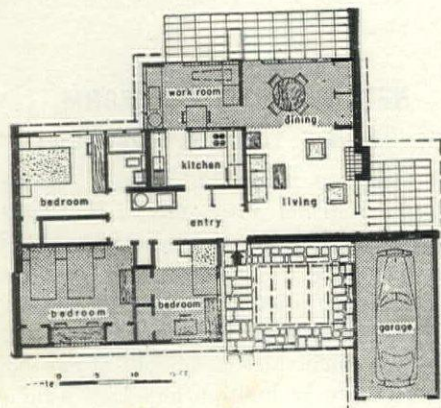
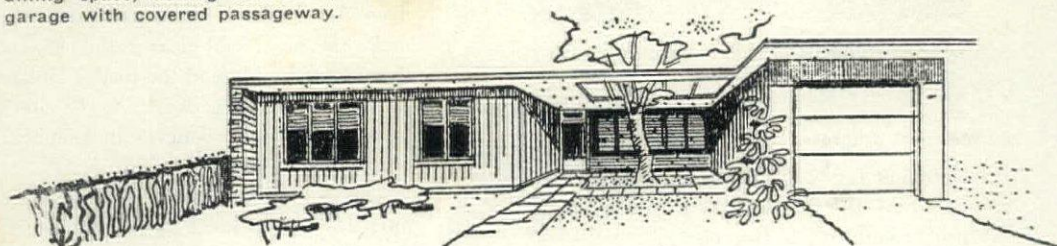
To demonstrate U. S. achievement in architecture since the Pan-American archi-

(Continued on page 16)

## EXPANSIBLE HOUSES: federal housing agency offers prototype plans.



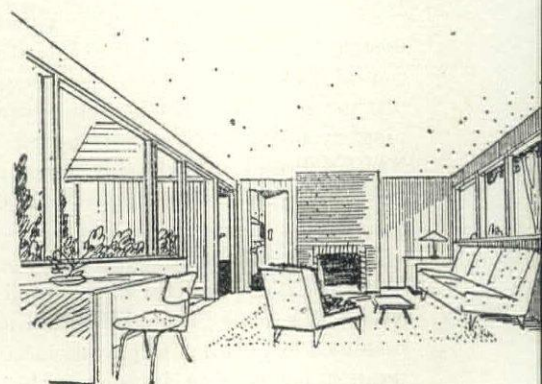
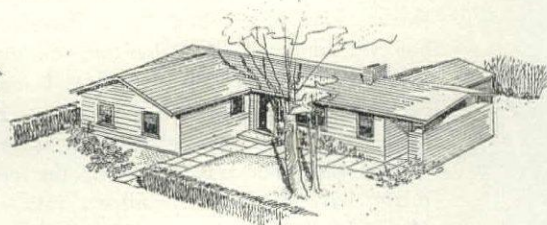
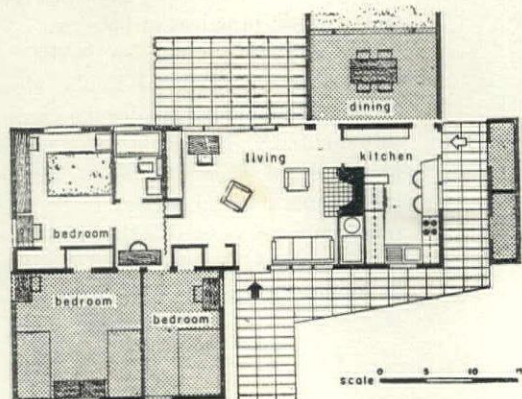
**ONE PROTOTYPE HOUSE** begins as narrow strip, expands by extending living area as dining space, adding workroom, bedrooms, garage with covered passageway.



Like many home buyers, the Housing and Home Finance Agency thinks an expansible house is a fine idea. Last month the Agency offered the public a half-dozen plans for start- ing small and expanding gradually (two samples shown here). Prepared by the HHFA's technical staff, the prototype plans betray a new federal inclination toward con- temporary design, conspicuously not shared in the past by local FHA offices. Leading question: will FHA cooperate in accepting expansible houses for mortgage insurance? So far, FHA has thumb-downed a one-bedroom house. But the high command promised more headway for houses based on HHFA models.



**ALTERNATIVE PLAN** starts out with more space, adds separate dining room, bedrooms, outdoor stage cabinets. Note living room's solar wall.







**PANAMERICAN DELEGATES** Ralph Walker, Commander Marshall Shaffer, Julian Levi with Marion Manley, Mr. and Mrs. Crispin. A.I.A.-sponsored exhibit showed U. S. architectural progress.

jects met last, a 50 panel exhibit was prepared by the A.I.A. with the help of the professional press (see cut).

## MARKET

### POLITICS PALL

**Realtors want no Home Owners' Party, but five million more home owners**

The National Association of Real Estate Boards (NAREB) last month convened in San Francisco for its 40th annual meet at what its outgoing President Morgan L. Fitch called "the most momentous time in the history of organized real estate . . ." Momentous or not, Mr. Fitch added: "This is the year in which the building industry fought its way clear of government control, in which Congress began an orderly process to end the injustice of price control on rents alone, in which a trend toward socialized housing was halted . . ." Privately, however, many a NAREB delegate admitted that the "injustice" of rent controls had been a great stimulant to the business of buying and selling homes: low-rent paying tenants did not have to double up (as they might have to if rent controls fall on March 1, 1948), and newcomers were consequently forced to buy homes or camp out in public parks.

Although few Washington observers thought Congress would fail to extend rent control, NAREB members were hopeful that the government would "return private property to the hands of private owners." NAREB, President Fitch said, wanted nothing to do with the "landlords' subsidies" proposed by some Congressmen.

Principal item on the realtors' agenda was NAREB's "Five Year Plan" to sell five million new homes, backed by a bill to be presented to Congress to provide incentive taxation for housing investors. The bill

would enable any taxpayer investing money in housing for occupancy or rent to deduct his interest and part of his principal payments from his taxable income. The convention approved it in principle. Of its bill, the main thing NAREB seemed to say was that it "contains only 479 words and consists of only five paragraphs, which anybody can understand . . ." The Taft-Ellender-Wagner bill, on the other hand, contains some "22,000 words, covering 112 pages, which no one can understand."

Apart from boosting the "Five Year Plan," NAREB delegates were unusually critical of Association policies and program, and evidently dissatisfied with executive vice-president Herbert U. Nelson's preoccupation with politics—especially his remarks about starting a Home Owners' Party. Nelson's proposal to affiliate with the National Home and Property Owners' Foundation was slapped down, and his drive for a hike in dues was defeated. To make the point still clearer, the convention then elected middle-of-the-roader Hobart C. Brady of Wichita, Kan., to be its new President. Brady believes in keeping out of politics.

The NAREB convention left the door open for a settlement by consent decree of the anti-trust action brought against it by the U. S. Dept. of Justice (FORUM, Sept., '47). But NAREB's officers said they would plead "not guilty."

### NEW HOUSING PLATFORM

**Needed: 20 million more houses**

Delegates to the 14th annual meeting of the National Association of Housing Officials (NAHO) went to work briskly last month to determine what to do about at least two principal issues: 1) housing for middle-income groups; and 2) planning for communities of millions of new homes likely to be built on new land within the next 12 years. The answers reflected not only the gravity of U. S. housing needs, but also a clearer notion of what can be done about them in the light of the current economic and political temper of the country.

First question on NAHO's agenda was: What makes 1947 building expensive? First answer by NYC Housing Authority's John P. Riley: probably not labor. Riley took issue with the fairly widespread opinion that labor is responsible for the major part of the rise in housebuilding costs. He said that cost of labor in New York public housing projects had risen from 39 per cent in 1939/40 to only 41 per cent in 1947. Second answer (advanced by most delegates): monopolistic practices in housing.

The following afternoon NAHO combined with the National Public Housing Conference (NPHC), under the chairmanship of U. S. Housing's able, perennial harbinger of doom, Catherine Bauer, to present the most important U. S. housing report in many years: NAHO-NPHC's joint "Housing Program for Now and Later." Its general principles: We must build 20

million new homes between now and then and we must reconstruct blighted areas. The means: S. 866 (Taft-Ellender bill), plus a great deal more. Interesting points: To get low-income families out of slums, federal aid is essential to reach the middle-group, there is encouragement of private enterprise; to get housing for veterans, supplementary aid will be necessary.

How to reach the middle-group people who are too rich to live in housing's \$9 a room rental projects, too poor to pay private enterprise rents—troubled NAHO-NPHC delegates rest of the day. Said Ira Robbins Charles Abrams: If private enterprise doesn't help these people after a reasonable time, public housing should. And Hovde: NPHC must support the middle group, or lose its support. Objected Catherine Bauer: Let's get at the slum-dwellers first. Anyway, added Bauer and Bohn, private enterprise must be given every possible chance to do the job that it can do. Unanswered question: Who was to fill the no-mans-land between \$9 and \$16 rents?

Nevertheless, the delegates finally decided to vote unanimously that "the government should provide a sufficient volume of public housing to insure necessary housing for those not provided for by private enterprise." Where the dividing line would be, nobody was willing to say.

## CITIES

### PEOPLE

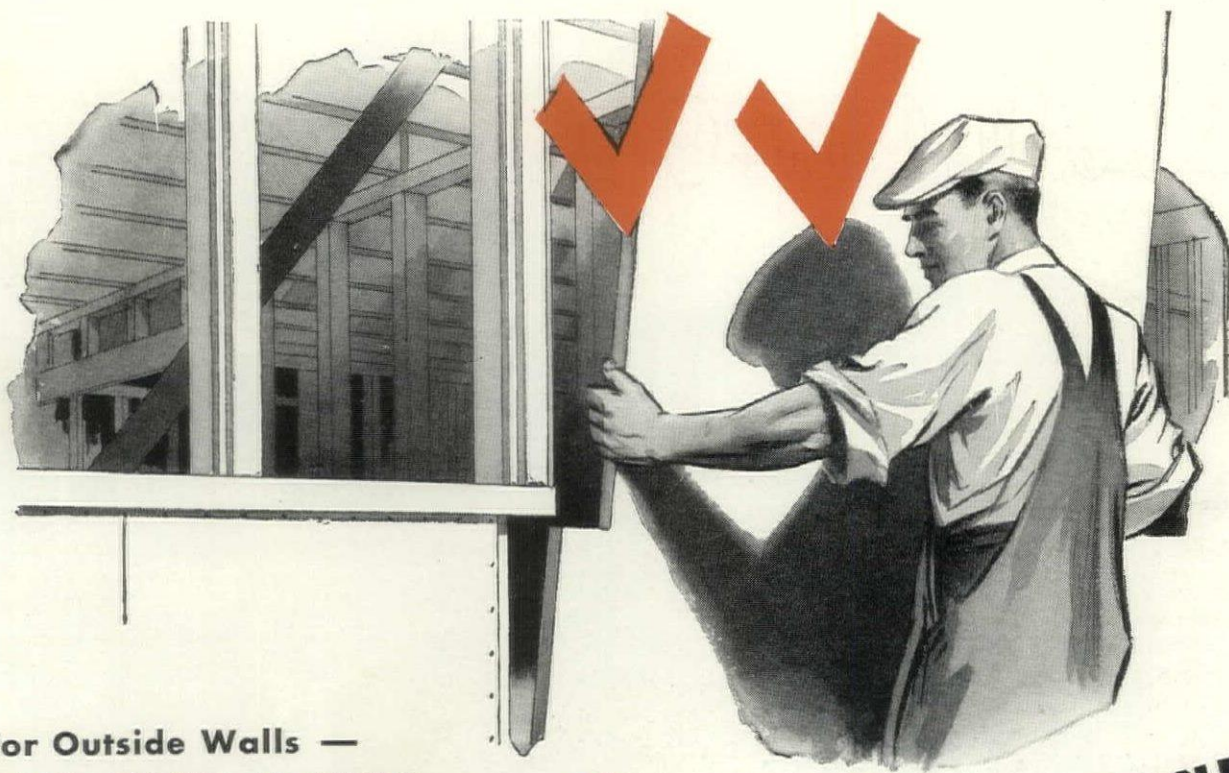
**Their reproductive habits are no longer so constant, sighs the census bureau**

In a menacingly titled section of its census population check-up, "The Demographic Significance of the Growth of Metropolitan Districts," the U. S. Census bureau points out "that people in modern large cities do not reproduce at a rate sufficient to maintain their numbers." Among cities reported on the wane are New York, Chicago and Philadelphia.

The Bureau's companion observation: "The physical structure of such cities, with few exceptions, ideal for destruction by A-bombs." This note of unseemly pessimism the city family group contrasts markedly with "the reproductive habits of the people," who seem to be holding their own very well. Even the smaller cities, such as Salt Lake City, seem to be reproducing adequately—in the case of Salt Lake City more than adequately (the Mormon index is 112 as against the average of 100).

However, the rapid growth of the metropolitan districts—interrupted by depression of the 30's—seems likely to continue, the Census Bureau predicts as long queues of rural people march steadily into the nervous anticipatory grip of the great cities, leaving their abundant reproductive habits behind them.





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In this day of excessive construction costs, here at least is one place where you can tell a client "You get *two* uses for the money you spend."

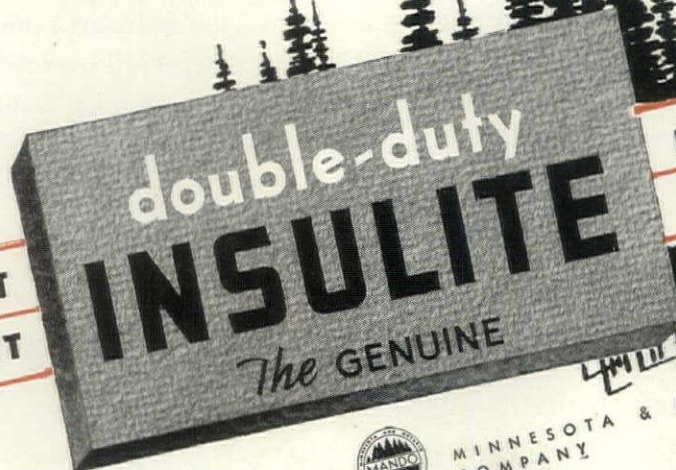
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ONE MATERIAL  
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Refer to Sweet's File,  
Architectural Section 10 a/9

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COMPANY





*James McCreery & Co. chooses...*



*McCreery's new Furniture Department features Lokweave Gropoint carpet.*

## ***...Bigelow Lokweave Carpet for Heavy Duty in Furniture Department***

A wise architect selected Lokweave carpeting for McCreery's striking new furniture floor because he knows it will stand up for years under heavy traffic. This modern type of carpet is installed without sewn seams—the sturdy, closely-woven loop pile is easy to clean—and it comes with "spare parts."

When a spot becomes soiled or damaged, the entire area can be replaced with pieces of carpet left over from the original installation. This amazing feature, plus the low cost of installation, makes Bigelow Lokweave the long-run economy carpet of all time. You will want to use it the next time you select new carpeting.

**BIGELOW-SANFORD CARPET CO., Inc.**

140 MADISON AVENUE, NEW YORK 16, N. Y.

*Fine rugs and carpets since 1825*



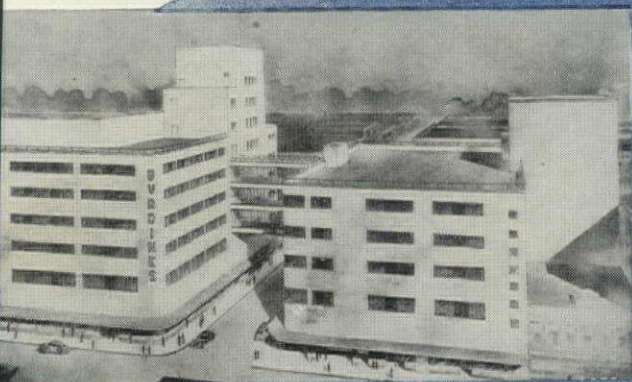


# THE FINEST BUILDINGS OF THE POSTWAR

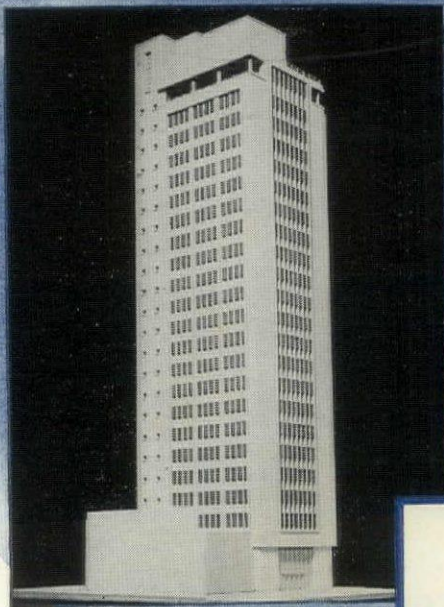
## HAVE Q-FLOORS



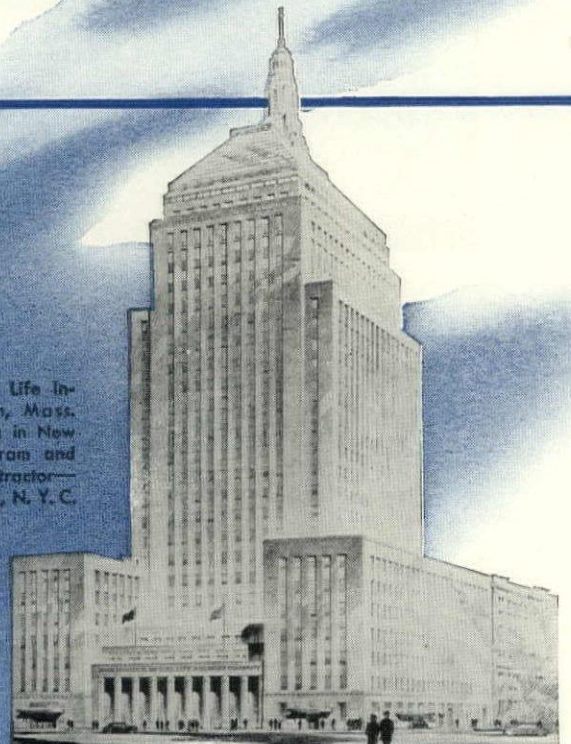
Mercantile National Bank, Dallas, Texas. Tallest office building in the South. Architect—Walter Ahlschlager, Dallas. Contractor—Henger Construction, Dallas.



Burdine's Store, Miami, Florida. Largest department store in Dixie. Architects—E. L. Robertson, Miami; J. R. Weber, N. Y. C. Contractor—Rodney Miller, Miami.

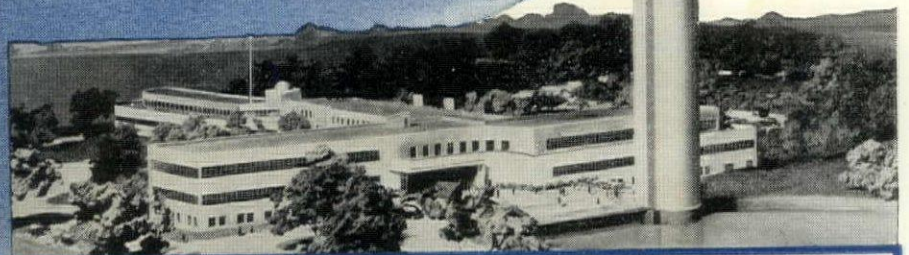


Waterman Steamship Building, Mobile, Ala. Most striking office building of the postwar. Architect—J. Platt Roberts, Mobile. Contractor—J. P. Ewin and Co., Mobile, Ala.



John Hancock Mutual Life Insurance Co., Boston, Mass. Largest office building in New England. Architect—Cram and Ferguson, Boston. Contractor—Turner Construction Co., N. Y. C.

Federal Telecommunications Laboratories, Nutley, N. J. Largest all-metal commercial group in the world. Architects—Louis S. Weeks, N. Y. C. (groups 1 & 2); Giffels & Vallet, L. Rossetti, Detroit (groups 3 & 4).



If you want to know why these architects specified Robertson Q-Floors, please write for literature.

**H. H. ROBERTSON COMPANY**

2403 Farmers Bank Building  
Pittsburgh 22, Pennsylvania

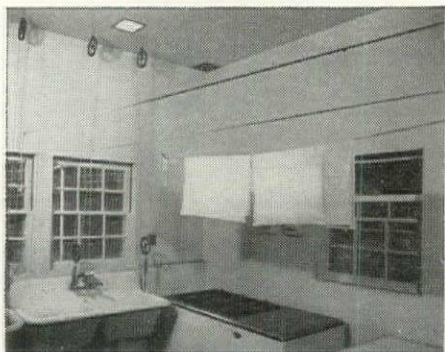


Offices in 50 Principal Cities  
World-Wide Building Service



THIS IS 1 SQ. FT. OF Q FLOOR

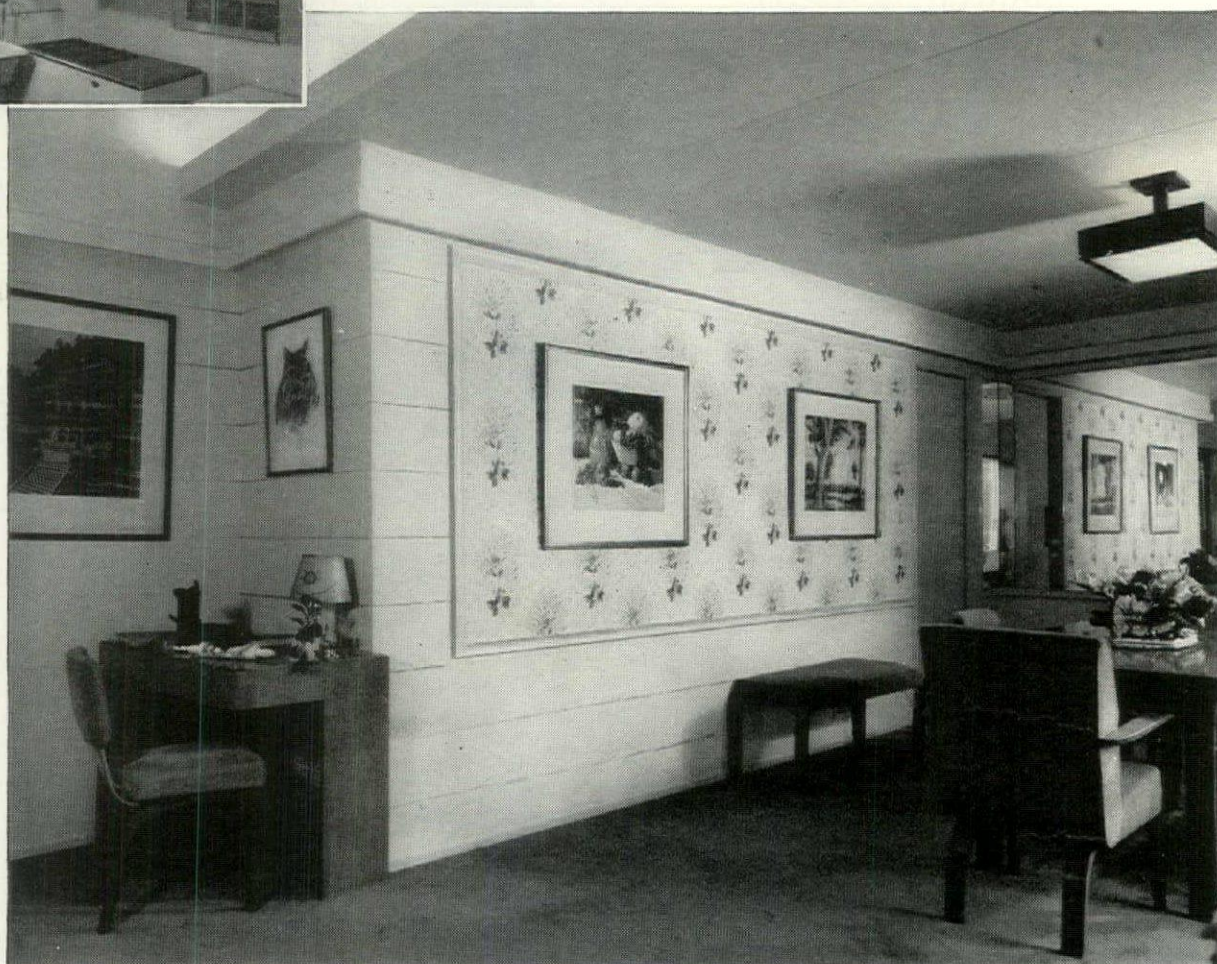




*Left:* Spacious laundry room, with smooth, attractive plywood walls, canvased and painted.

*Below:* Renovated breakfast room, with  $\frac{3}{4}$ " plywood on the ceiling and on the walls—the latter with wall-paper applied over a felt backing.

## Modernized with Plywood ...in 1940



**"Present Condition Excellent,"**—says Architect Whitney R. Smith

**"... as good as the  
day the job was  
completed"**

### PLYWOOD'S MANY ADVANTAGES KEEP DEMANDS GREATER THAN PRESENT SUPPLY

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 obtaining 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.

**T**HIS attractive remodeling job was completed in 1940—with Douglas fir plywood playing a major role in the work. Architect Whitney R. Smith of Pasadena, California, says: "Douglas fir plywood was specified for rigid sub-flooring, for ceilings, walls and many interior details. The entire building is in excellent condition

today—as good as the day the job was completed. The laundry room, in particular, is almost a perfect test for plywood. Damp laundry is hung on the lines and warm air from a forced air furnace is blown through the room. I have specified both Exterior-type and Interior-type plywood for many jobs—and it has always turned in a fine performance record."

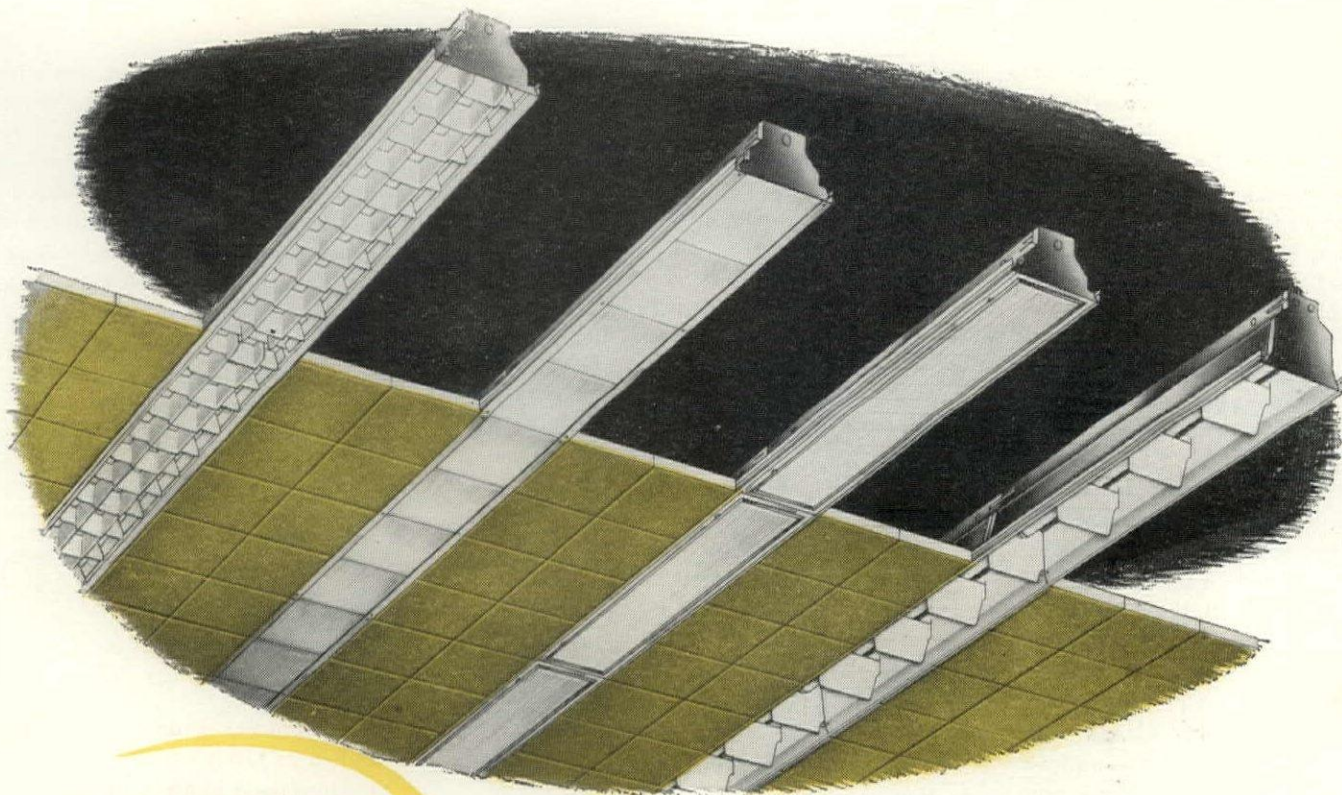
**Douglas Fir  
PLYWOOD**

LARGE, LIGHT, STRONG

**Real  
Wood  
Panels**







# LIGHT—

## AN ARCHITECTURAL MEDIUM

with flexible DAY-BRITE Recessed Troffers

Your ceilings come to life—aglow with functional patterns of light—when you make the lighting system an integral part of your overall plan with these optically-engineered recessed troffers.

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May we send Bulletin 20-A with complete simple pricing information, installation details and photometric data?



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*Lighting*

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In Canada: address all inquiries to Amalgamated Electric Corp., Ltd., Toronto-6, Ontario.



# LETTERS

## ET IN MEMORIAM:

### Forum:

Howard Myers dropped into my office in Chicago one day 15 years ago. There was a telephone, a drafting board, and me and my aspirations. I never knew why he came to see me—I hadn't done anything much—but I never forgot what he told me. In his subtle way he dissolved the practical problems facing me then, and after he left I felt Howard Myers had made me an architect. In the years that followed it was always Howard's opinions of my work that really counted to me—although I wouldn't dare tell him so. You couldn't even thank the guy—or get sentimental.

Today I feel lonely—because way down deep I've been working for Howard Myers these past fifteen years. I wanted all men to be like him and stand for the same things—and be my friend. Well, there just isn't another—and I guess I wouldn't believe it if there was.

If there were anyone else lost to the profession I could probably express my feelings in terms of the loss to the profession. But in Howard's case the loss is my loss—a deep hurting loss that's my special problem—even though I know I'm not alone...

WILLIAM L. PEREIRA, Architect  
*Los Angeles, Calif.*

### Forum:

... I received word of Howard's death just as I was about to speak in Spokane, Wash., and with that knowledge pounding in my head, I have never been up against a more difficult assignment. Like thousands of others everywhere, I not only respected but loved Howard Myers. No one in the architectural field, in public housing, or engaged in any of the social fields can fail to owe a deep debt to Howard.

... It was my good fortune to spend an afternoon with him just before leaving for the West and even though he had been desperately ill, I went away feeling that after all, in the great place of leadership, there was a person whose feet were planted firmly, and all of us whether engaged in private or public enterprise needed his wise counsel more than ever. While my feeling of personal loss was almost overwhelming, I believe that the average person has lost a champion who cannot be replaced.

LEE F. JOHNSON, Executive Vice Pres.  
National Public Housing Conference  
*Washington, D. C.*

### Forum:

A friend has gone.

When I arrived in New York from

Europe, one of my first telephone calls was for Howard Myers. The answer was, "Howard died just a short time ago."

Howard, to me, belonged to those straight spirits who saw the Arts in an honest way. He disliked snobbism. But his eyes smiled when he saw something being created without the use of force. He loved those who understood how to avoid foolishness and based their thinking on nature...

Howard Myers was always hoping and waiting for a new movement. But he, as well as the rest of us, was not patient enough. We expect such things to go fast. We forget that history goes slow. Speed is, in reality, nothing.

CARL MILLES, Sculptor  
*Bloomfield Hills, Mich.*

### Forum:

YOURS IS A WARMLY HUMAN TRIBUTE TO A MUCH LOVED PERSON. HOWARD MEYERS WAS A CITIZEN OF CIVILIZED WORLD YET TO COME.

PIETRO BELLUSCHI, Architect  
*Portland, Ore.*

### Forum:

... His tremendous humor, warmth, as well as his devotion to the modern architectural cause made their impact unforgettable. In the first few days that I landed in America, Howard gave me a sense of the universality of modern architecture, on that occasion when he managed to make the man from abroad, myself, feel among friends—the architects of the U.S.A. Since then, I have never hesitated to ask for his advice and was amazed at his capacity to spare apparently limitless time to all his innumerable friends in the profession.

SERGE CHERMAYEFF, President  
Institute of Design  
*Chicago, Ill.*

### Forum:

Here was a man who by his every act, word and look, helped others wend their burdensome way toward truth in their labors. The tradition of Howard Myers is the American way of making progress, by intelligent open discussion, giving weight and consideration to ideas from all sources even though they be without pattern or chart. Through his brilliant, fearless handling of the rudder he brought forward the arts in which he was most interested to a point from which progress will not only be great but much speedier and greater for the fact of his existence. Howard Myers will be among my most treasured memories.

WILLIAM ZECKENDORF, President  
Webb & Knapp, Inc.  
*New York, N. Y.*

### Forum:

... Howard was generous and broad and fought for some wonderful things. The Architects Advisory Committee to the Federal Public Housing Authority was an idea of his, aided and abetted by Marian Howden. We members feel a real responsibility to carry on this fight as his heritage to us.

Howard always gave young architects a chance to show their work. A great group over the world delight in this debt to him. Business men and manufacturers were persuaded by Howard that we live in a world of today and today's products, and so he has a basic share in the acceptances we now take for granted.

WILLIAM W. WURSTER, Dean  
Massachusetts Institute of Technology  
School of Architecture & Planning  
*Cambridge, Mass.*

### Forum:

... Here was a life of many aspirations fulfilled as much as it can be done below the clouds and in an earthly career.

RICHARD J. NEUTRA, Architect  
*Los Angeles, Calif.*

### Forum:

... It is not necessary for me to tell you how much the majority of architects admired Howard. Many of us have turned to him for advice, knowing that he would understand our problems and would give us unstintingly of his time and experienced judgment.

Your own description of the evolution of The FORUM and of Howard's aims constitute an excellent tribute. But to me one of his outstanding characteristics is his realization of the greatness and native quality of our own American architecture. By publishing the best work that we have produced, he has shown to prospective clients, practicing architects and students tendencies and potentialities of contemporary architecture in this country, and he has proven the fact that modern work, like all historical expressions, is to some extent international; but it must also achieve national, and even regional characteristics if it is completely to fulfill its requirements. This Howard knew well, and he expressed his conviction by featuring the best work of our best contemporary designers. For this reason The FORUM has become an important professional journal both at home and abroad.

With Howard's untimely death the architectural profession has lost a highly esteemed critic and supporter; the public at large has lost a strong and vocal advocate

(Continued on page 24)



# TOUGH JOBS

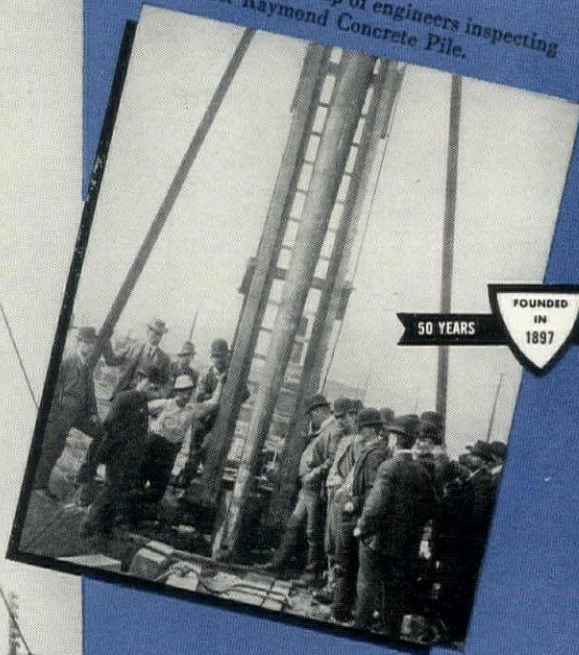
**OUR SPECIALTY  
FOR FIFTY YEARS**

*SCOPE OF RAYMOND'S ACTIVITIES—includes every recognized type of pile foundation—concrete, composite, precast, steel, pipe and wood. Also caissons, underpinning, construction involving shore protection, shipbuilding facilities, harbor and river improvements and borings for soil investigation.*

Mr. A. A. Raymond undertook the first Raymond "tough job" fifty years ago when he sought a sound pile foundation to supplant the relatively perishable wood piling which had been the standard for many years. The result of his persistent efforts was the Raymond Concrete Pile which now numbers in excess of two and one half million piles driven. This was the beginning of a long record of greatly diversified "tough jobs" successfully completed by the Raymond organization totaling more than 12,000 contracts.



(BELOW)—Group of engineers inspecting the first Raymond Concrete Pile.



50 YEARS

FOUNDED  
IN  
1897

OF PROGRESS

(LEFT)—Mr. A. A. Raymond (wearing derby) supervising the driving of the first Raymond Concrete Pile.

## RAYMOND

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## LETTERS

# ALASKA

92°F above  
34°F below

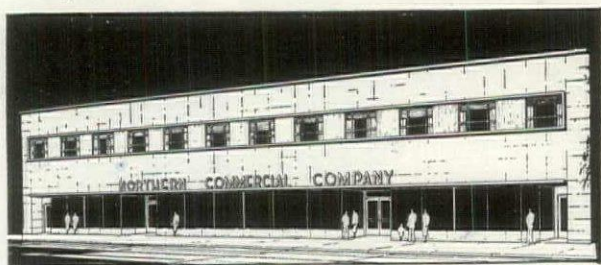
... *Seaporcel*



This is no weather report . . . simply a reference to fact. Alaska weather is one of daily extremes. In January the thermometer will range from 56°F. above to 34°F. below . . . and in July it may vary from a high of 92°F. to a low of 34°F. below zero.

Exposed building materials must resist the injurious effects of such erratic weather, so Anchorage, Alaska, for the first time is going to have SEAPORCEL Architectural Porcelain Enamel. The convincing reason is that it will withstand the rigors of 58 inches of snow . . . or sudden chilling rains, concurrent with 92°F. above zero. Very few other finishes, if any, can surmount these rapid changes in temperature.

The architect's rendering depicted here illustrates a building 150 ft. long by 30 ft. high. The entire exterior facing and raised letters are SEAPORCEL Porcelain Enamel in semi-matte white and rich red finish. Lighting is provided by neon tubing ingeniously silhouetting the letters against the fascia panels.



Owners: Northern Commercial Company, Anchorage, Alaska  
Architects: Bain, Overturf, Turner & Associates, Seattle, Wash.  
Gen. Contractor: C. W. Hufeisen, Anchorage, Alaska

Sparkling ceramic fused to steel at 1550°F., SEAPORCEL can be fabricated to any shape, form, section . . . finished in any shade or color and in many interesting textures.

So, specify SEAPORCEL\* . . . a proved color-fast and durable material . . . defiant of weather conditions.

Write today for catalog showing applications and current jobs.

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Formerly Porcelain Metals, Inc.  
28-24 Borden Avenue, Long Island City 1, N. Y.

\*Registered U.S. Pat. Off.



# Seaporcel

Member: Porcelain Enamel Institute, Inc.

for better building; and many of us who knew and admired him have lost a true friend.

LEOPOLD ARNAUD, Dean  
Columbia University  
School of Architecture

New York, N. Y.

Forum:

. . . I whole-heartedly agree with your last line, "he saw it big." In my 30 years in America, it has been my privilege to be associated with some of the great professional and industrial leaders of our time. They also "saw it big." However, this was often accompanied by a certain ruthlessness or at best by a feeling of definite harshness. Not Howard Myers. He "saw it big" too, and "he saw it kind."

RAYMOND LOEWY, Designer

New York, N. Y.

Forum:

. . . Those of us who knew Howard can fully appreciate how he put his "heart" into his work. It was a privilege to have known him, and his life and work can well be an inspiration to all of us who have the opportunity to continue to build on the foundation he laid.

The world is surely a better place for his having lived in it!

LEON SHIMKIN, Publisher  
Simon & Schuster, Inc.

New York, N. Y.

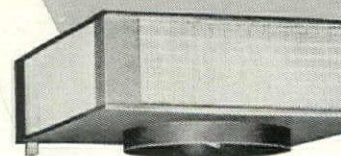
Forum:

I don't remember exactly when it started. Perhaps 15 years ago or so . . . Howard was doing well a most important job, a job which implied some danger to him. For Howard was the first to publish modern buildings in an American architectural magazine. He was writing, encouraging others to write about what architecture is, about what buildings should do for people. Because he had the courage and the imagination to do this, the "old guard" was attacking him. Some were threatening to cancel subscriptions, other to withdraw advertisements, in short to try and ruin his magazine. But Howard knew that what he was trying to do was right, and that the magazine would grow. And it did grow—wonderfully.

. . . We served together on the Architects Advisory Committee to the FPHA. He was made chairman. What an able and likable architects' ambassador he was! He took such a natural pleasure in good things, well planned, well designed. One day I found him in his office, gay and excited. Some photographs had just arrived from California, showing the work of an unknown young architect. His joy was good to watch

(Continued on page 26)

## Problem Solved with Webster-Nesbitt Unit Heaters



Webster-Nesbitt Little Giant  
Down-Blow Unit Heater

In 1944, Schutte & Koerting manufacturing engineers for power and process industry sought a means to eliminate comings in the steam heating system of their Cornwells Heights, Pa., plant.

High ceilings with skylights, long narrow manufacturing buildings, large windows on both sides caused difficulties, discomfort for the men and lost time due to

After study, a decision was reached to install Webster-Nesbitt Little Giant Down-Blow Unit Heaters above the crane runway, approximately 40 feet above ground. Care was taken to determine the proper size, spacing and discharge velocity of these

After more than two heating seasons of operation, here are the results according to Winfield, plant superintendent.

The heated air leaves the unit heaters at high velocity, diminishes the working level so that the air spreads out to provide comfort in the working zone. The units are placed so that the effective circles overlap each other.

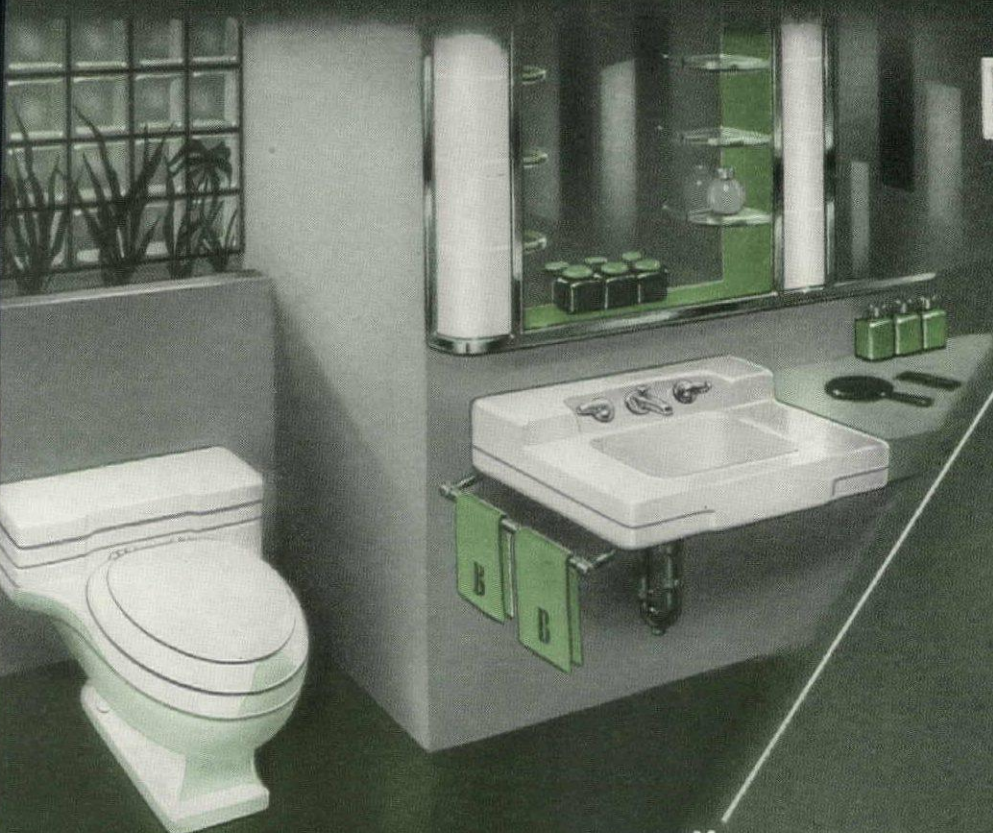
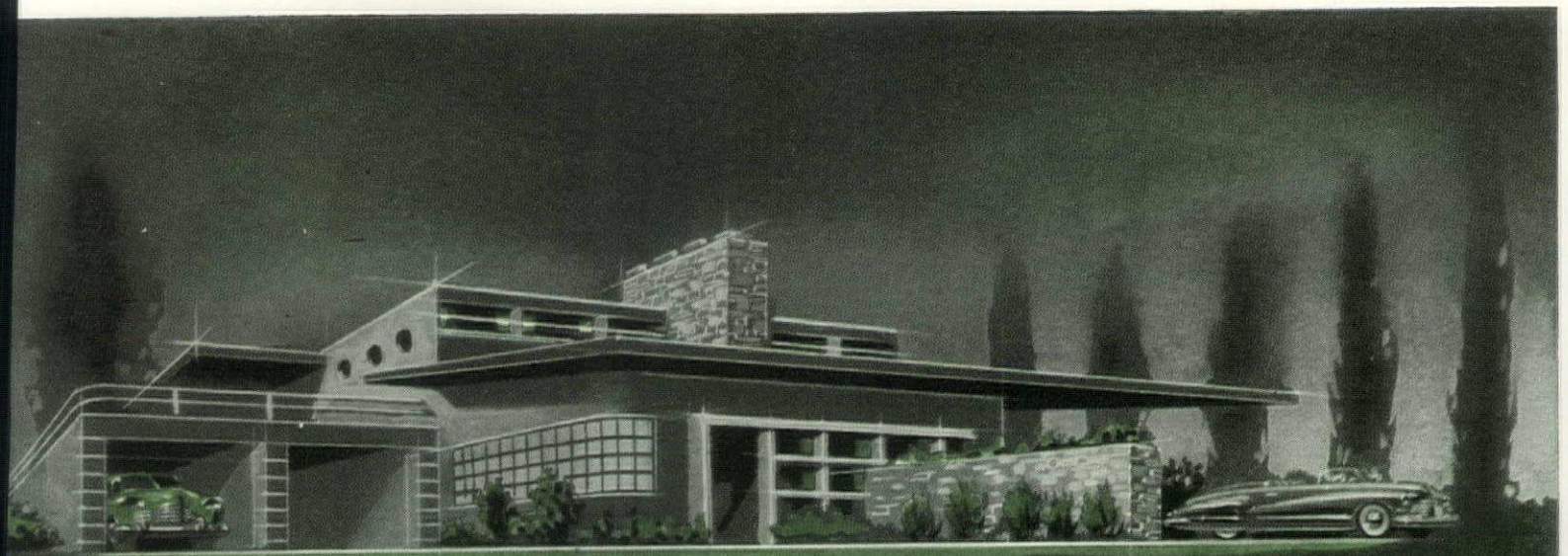
If you are experiencing difficulties heating your plant, perhaps the engineered application of Webster-Nesbitt Unit Heaters and Webster Steam or Hot Water Heating Equipment may provide the solution.

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Representatives in principal U. S. Cities : :  
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# Webster-Nesbitt

## HEATING SYSTEMS





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Skin*

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Very durable. Retains its  
soft white lustre for years.



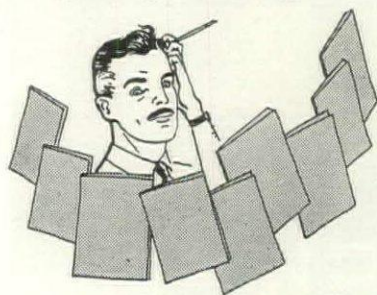
**BENEKE CORPORATION**

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



## LETTERS

easy, sure way to  
quality heating



specify  
**Weir-Meyer**  
equipment  
for all fuels

**GAS** 

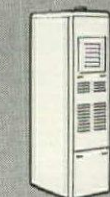
**OIL** 

**COAL** 

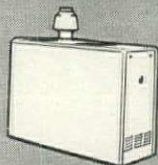
for all  
installations -  
**RESIDENTIAL**  
**COMMERCIAL**  
**INDUSTRIAL**

There is dependable, fine-  
performing WEIR-MEYER  
heating equipment for every  
job. Write for literature  
and specifications.

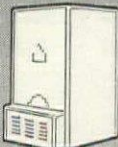
**Weir-Meyer** means modern heat



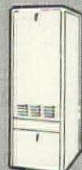
Gas-fired Hi-boy



Gas-fired Air Conditioner



Gas-fired Gravity



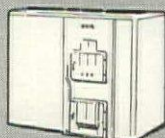
Oil-fired Hi-boy



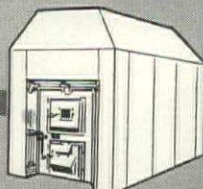
Oil-fired Air Conditioner



Weir Steel furnace



Coal-fired Air Conditioner



Industrial & commercial  
heating equipment



**THE MEYER FURNACE COMPANY**  
Weir-Meyer Furnaces & Air Conditioners for GAS, OIL, COAL  
Offices: Peoria 2, Ill. • Factories: Peoria 2, Ill. and Peru, Ill.

and to share. Another time, in his apartment, with obvious fatherly pride he showed me some school drawings by his daughter. He made a wonderfully understanding and encouraging, yet critical, audience. . . .

WILLIAM LESCAZE, Architect  
New York, N. Y.

Forum:

ANY TRIBUTE MUST CONTAIN AN OBLIGATION TO MAINTAIN AN ATTITUDE THAT WE ARE SURE WOULD BE HOWARD'S WERE HE BEGINNING AT THE POINT WHERE HIS WORK HAS ENDED.

IT MUST BE REMEMBERED THAT HOWARD MYERS HAS WON HIS BATTLE. HE HAS LEFT A PUBLISHING WORLD WHERE BY HIS EFFORTS, MODERN ARCHITECTURE, IS THE RULE NOT THE EXCEPTION.

WERE HE STARTING AGAIN I FEEL THAT HE WOULD NOT ACCEPT THIS ACCOMPLISHMENT AS A STATUS QUO. AND IF IT WERE PRESENTED TO HIM I BELIEVE HE WOULD BE OBLIGED TO MOVE AGAINST IT.

WHAT ACTION IT WOULD BE WE DO NOT KNOW—POSSIBLY THE CLOSEST INSPECTION AND SELECTION WITHIN MODERN ARCHITECTURE TODAY, BUT CERTAINLY IT WOULD INCLUDE THE SETTING OF KEENER STANDARDS OF PHYSICAL, ESTHETIC, AND SOCIAL INTEGRITY.

Venice, Calif.

CHARLES EAMES

Forum:

. . . I have lost not only a friend but a guiding spirit.

FRANCIS X. GINA, Architect  
New York, N. Y.

Forum:

. . . Of, course, after the first terrible grief all of our thoughts flew to the idea of some wonderful and telling memorial—something a little more tangible than that which we all carry in our hearts for Howard. Actually, the magazine and its forceful continuation is the only real memorial Howard would have wanted. He was a great force in all our lives, and also the life of America. And I am sure that you will all see to it that the magazine continues as a powerful influence. Please do call on me at any time for anything I can do to help you and your confreres. . . .

San Francisco, Calif.

DOROTHY LIEBES

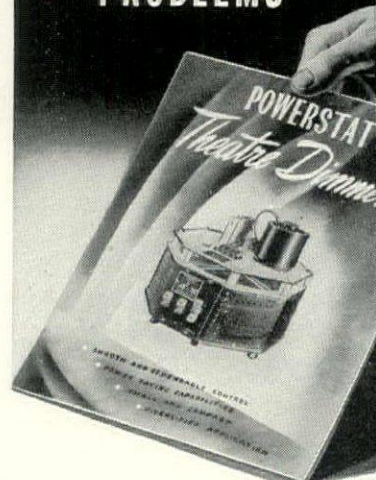
Forum:

. . . I am flying East (I was here in California when news of Howard's death reached me) and I dread coming into New York knowing that Howard will not be there. An hour with him was always a friendly oasis in a business day.

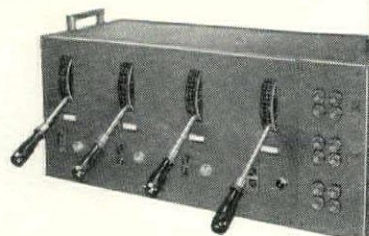
Aside from all personal feelings, I think

(Continued on page 30)

Here's a practical  
solution to your  
**LIGHTING**  
**CONTROL**  
**PROBLEMS**



Effective lighting in the theatre . . . lounge . . . auditorium . . . church display window is attaining ever greater importance. To insure the desired result equipment employed to dim, brighten, or the light must offer smooth, precise and reliable operation. POWERSTAT Theatre Dimmers provide these essentials.

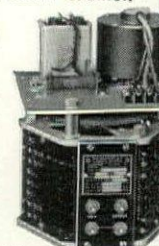


"PACKAGED" TYPE DBP3-12

Three dimmers operate from individual line or master control. All components housed in attractive black wrinkle-finish cabinet.

**MOTOR-DRIVEN DIMMERS**

A complete line of motor-operated dimmers are available in numerous ratings. House lights are easily controlled from remote push-button stations.



Write for illustrated folder or consult Lighting Department on specific problems.

**THE  
SUPERIOR ELECTRIC  
COMPANY**  
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CONN.





# Industry, too, recognizes Better Value in **REYNOLDS *Lifetime* ALUMINUM CLAPBOARD SIDING**



*Contractor: Gauch and Browner. Jobber: Igoe Brothers.*

**I**LLUSTRATED above, is Factory No. 1 of the American Gas Furnace Company, Elizabeth, N. J. It originally had wood siding, badly deteriorated through the years. Now, with Reynolds Lifetime Aluminum Clapboard Siding, it is bright and clean, has important extra protection against fire, and is definitely cooler in hot weather. Furthermore, it will have all these advantages *permanently*.

It is notable that other industrial and commercial orders for Reynolds Lifetime Aluminum Clapboard Siding keep coming in from the Elizabeth area, directly following the above installation. In addition, the American Gas Furnace Company is roofing another of its plants with Reynolds Lifetime Aluminum "Snap-Seal" Roofing. As is always true with a superior product, one sale makes another and another.

Dealers who promote one installation of this siding will find they have started an endless chain of profits. Builders and architects who specify it will enhance their reputation for being up to date and value-conscious. See Sweet's or write for detailed A. I. A. file brochure.

Reynolds Metals Company, Building Products Division, Louisville 1, Ky.

## **A COMPLETE LINE OF BUILDING PRODUCTS FOR HOME, FARM, COMMERCE AND INDUSTRY**

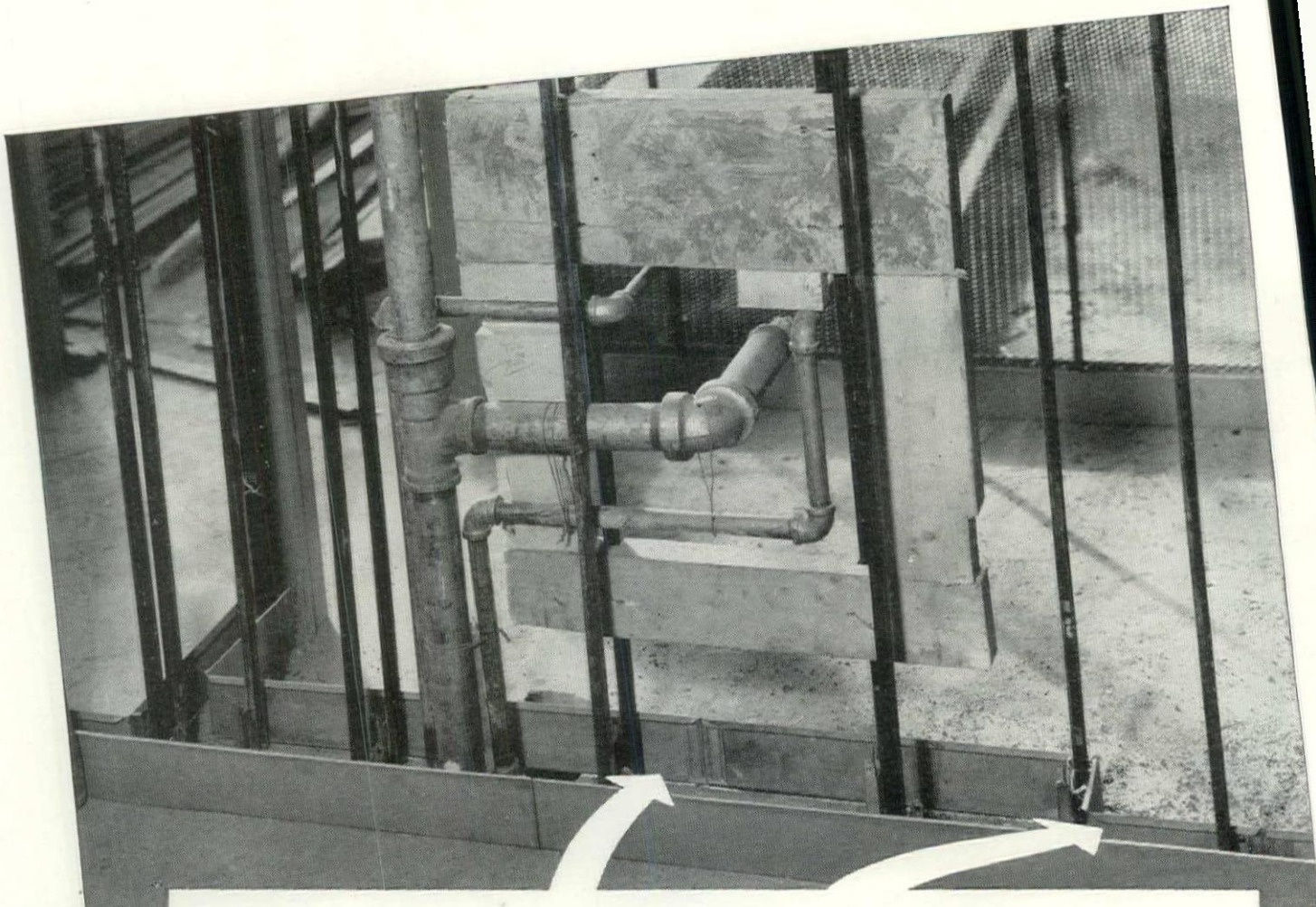
ALUMINUM SHINGLES  
CLAPBOARD SIDING  
WEATHERBOARD SIDING  
STANDING SEAM ROOFING  
REYNOLDS "SNAP-SEAL" ROOFING  
5-V CRIMP ROOFING AND SIDING  
CORRUGATED ROOFING AND SIDING  
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**YOU'LL** save money and space for your clients when you combine two great wall systems...the Gold Bond Hollow Wall and the Gold Bond 2 inch Solid Partition.

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Combine two good ideas and you get a better idea... and at no higher cost! You'll find Gold Bond Partition Systems listed in detail in our section of Sweet's, or write for descriptive catalogs.

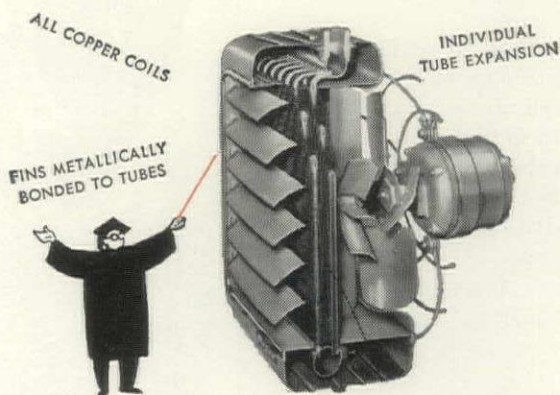
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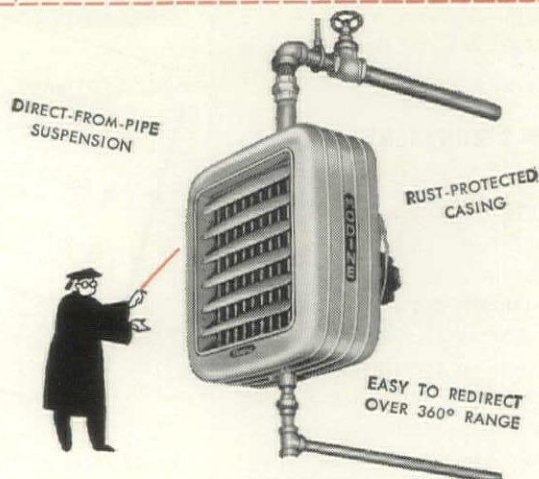
## 1. What's the **INSIDE** Story?

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## LETTERS

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you will agree that architects, until recently, have not been too receptive to the industrial designer—and yet years ago Howard, with a completely open mind, had "taken us in;" and don't think we did not appreciate his understanding.

HENRY DREYFUSS, Industrial Designer  
New York, N. Y.

### Forum:

... I think Howard would like your tribute. It is as simple, offhand and effective as he himself always was. I find that only a great gap fills my mind when I try to say anything about him. All words seem thin and tired and his presence still has so much reality that I cannot speak as though he no longer existed.

ALVIN LUSTIG, Designer  
Beverly Hills, Calif.

### Forum:

... No man could write his epitaph. We feel this way, because, after spending a wonderful evening with him a month ago, we went away knowing we had met a man unique in his field ... Immediately he made us, from far off Texas, feel perfectly at home and at ease. We deem it a cherished pleasure to have known him.

MACKIE & KAMRATH, Architects  
Houston, Tex.

### LETTER FROM CZECHOSLOVAKIA

#### Forum:

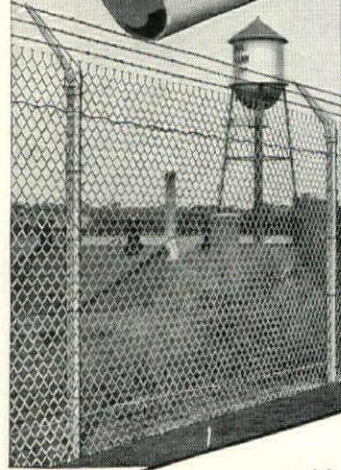
Czechoslovakia, in the heart of Central Europe, was the first country to be swallowed by Hitler in 1939, and, due to the tragic circumstances of the war, the last country to be liberated from the German yoke by the American and Russian armies. Thus it is the country which suffered, if not worst, at least longest under the German occupation. War damage was worst in the Eastern provinces Slovakia and Moravia, Bohemia remaining almost untouched.

The "Third Republic," as the present regime, which was created in 1945, is called, has taken upon itself a tremendous economic burden, which presses heavily upon the Czech economy, and thus upon building also. About 70% of the industry of the country has been nationalized, i.e. taken over by the Government. Heavy industry, banks, insurance companies and all larger enterprises are now called "Narodni Podnik," which means "peoples' enterprise".

From this country, where once lived Czechs, Slovaks, Germans, Hungarians, Poles and Jews, the Government removed all minorities. One of the gravest postwar problems of Czechoslovakia is how to replenish the vacuum created in this way.

(Continued on page 34)

**How To SPECIFY  
A FENCE THAT'S  
BETTER IN  
4 WAYS:**



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- 2 Square Frame Gates remain free from sagging and warping.
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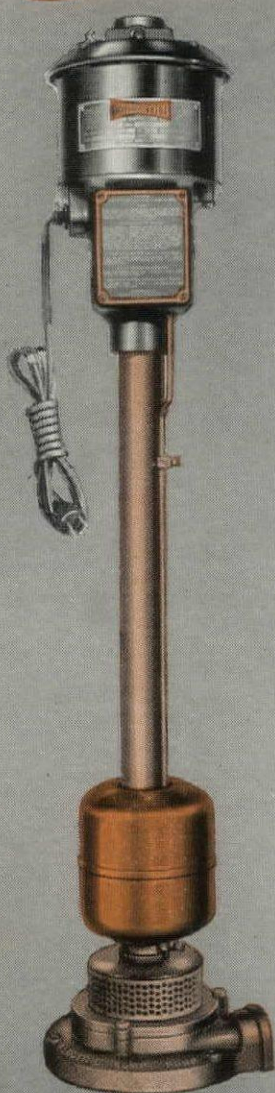
**WRITE TODAY** for your copy of "Anchor Protective Fences." It's both a catalog and specification manual for your Anchor File 14-K. Contains structural diagrams and specification tables, installation photos, many types and uses of Anchor Chain Link Fence. Just ask for Book 110. Address: ANCHOR POST FENCE DIV., Anchor Post Products, Inc., Eastern Ave., Baltimore 24, Maryland.

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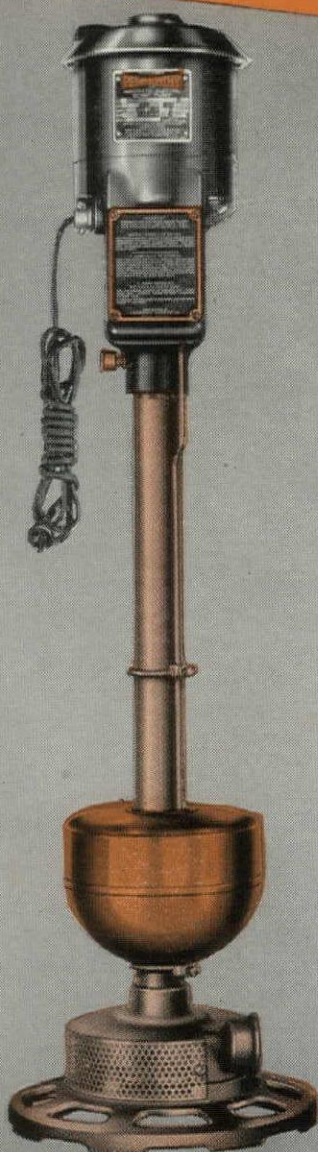


# PENBERTHY AUTOMATIC ELECTRIC SUMP PUMPS

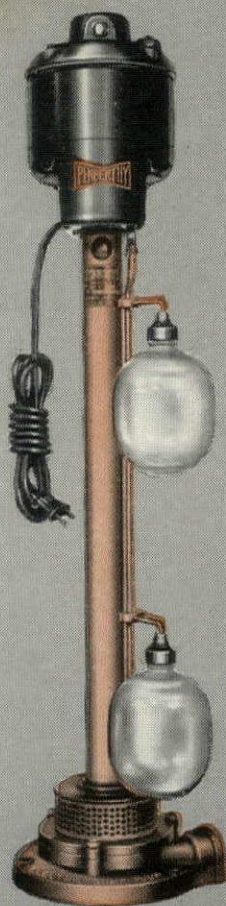
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*Made for 5 Different  
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# Here is the ideal year-round

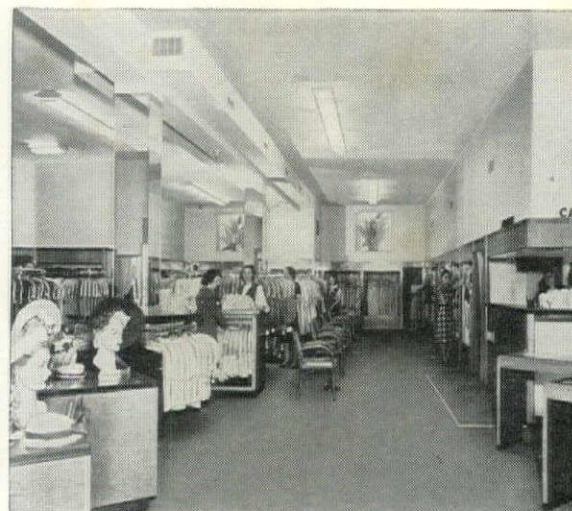
**SERVEL ALL-YEAR GAS  
SEASON COMFORT, PROM**



**The home of Architect Otto Woestemeyer, 2351 Claremont Ave., Houston, Texas, features the year-round comfort of Servel All-Year Gas Air Conditioning. Mr. Woestemeyer says, "The summer cooling provided by Servel is most welcome in this warm, moist climate. The air filtering qualities of Servel are superb. Operating costs have been amazingly low."**



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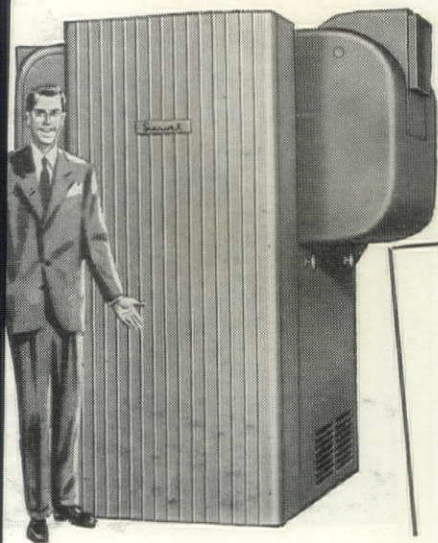


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## LETTERS

for economical  
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A special Rehabilitation Department has the difficult task of refilling the empty border territories (Sudetenland, etc.) as well as trying to settle the imported workers from Italy and Bulgaria . . . Without the qualified workers whose craft has been handed down from generation to generation, the revival of industry is hardly to be considered.

On January 1st, 1947, a two-year plan was solemnly inaugurated, to be followed later by a five-year plan. All planning in Czechoslovakia must be coordinated with this two-year plan of the Gottwald Government, which not only provides for the repair of war damage and the restoration of buildings to their original condition, but takes it upon itself to make fundamental improvements in buildings, districts and even whole communities. Preparations for reconstruction are on a broad scale. A general raising of the building standards is considered. More than 220,000 houses destroyed or damaged must be restored. In order to satisfy the most urgent demand for housing it will be necessary, according to the program, to build or restore 125,000 apartments. As in all war damaged countries it is very difficult to achieve the necessary speed of reconstruction.

Utmost economy is the first demand. It is a necessity which is called 'Socialist Realism'. The 'Socialist Realism' in Czechoslovakia is a sober economic point of view without a Moscow coloring. The slogan has a different meaning in every country. For instance, in Russia it serves as cover for any cheap and shoddy trash. In general it would be a good thing if Czech and Russian architects would cooperate, but so far they have not and there is still too great a cultural difference between them.

No matter how idealistically the two-year plan may have been conceived, those industries which are compelled to provide living quarters for their workers have to adhere to very tight minimum standards for this housing—much tighter than the minimum standards for living space set up by "BAPS," the central architectural committee.

In Czechoslovakia all architectural associations are combined in a central organization which is called "block of progressive societies," initials BAPS, and which has far reaching influence. No competition can be held without the permission of "BAPS." "BAPS" does not permit changes to be made in a building, even after years, by any architect other than the original designer. "BAPS" fights successfully for the position of the architect in the new planned economy and it fights against trash and shoddy

(Continued on page 38)

## Join the FIREPLACE TREND

Save Labor  
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by using this  
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The Builder Says

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on my Jobs Saving 16 hours  
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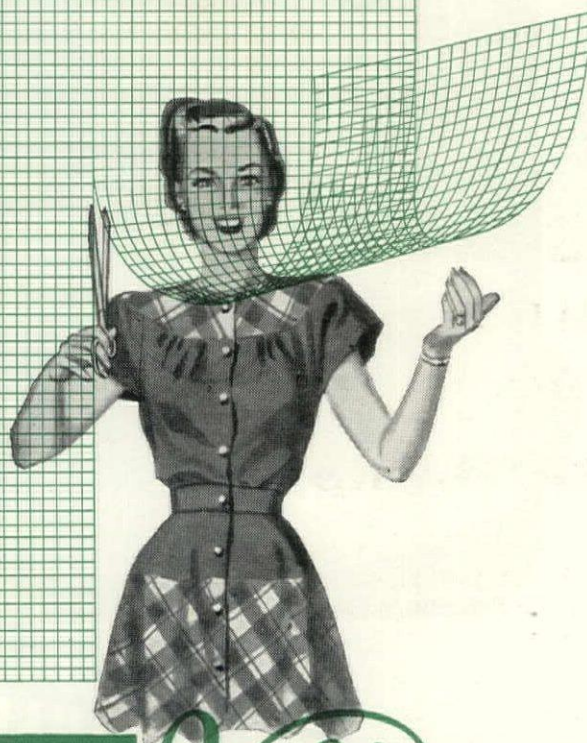
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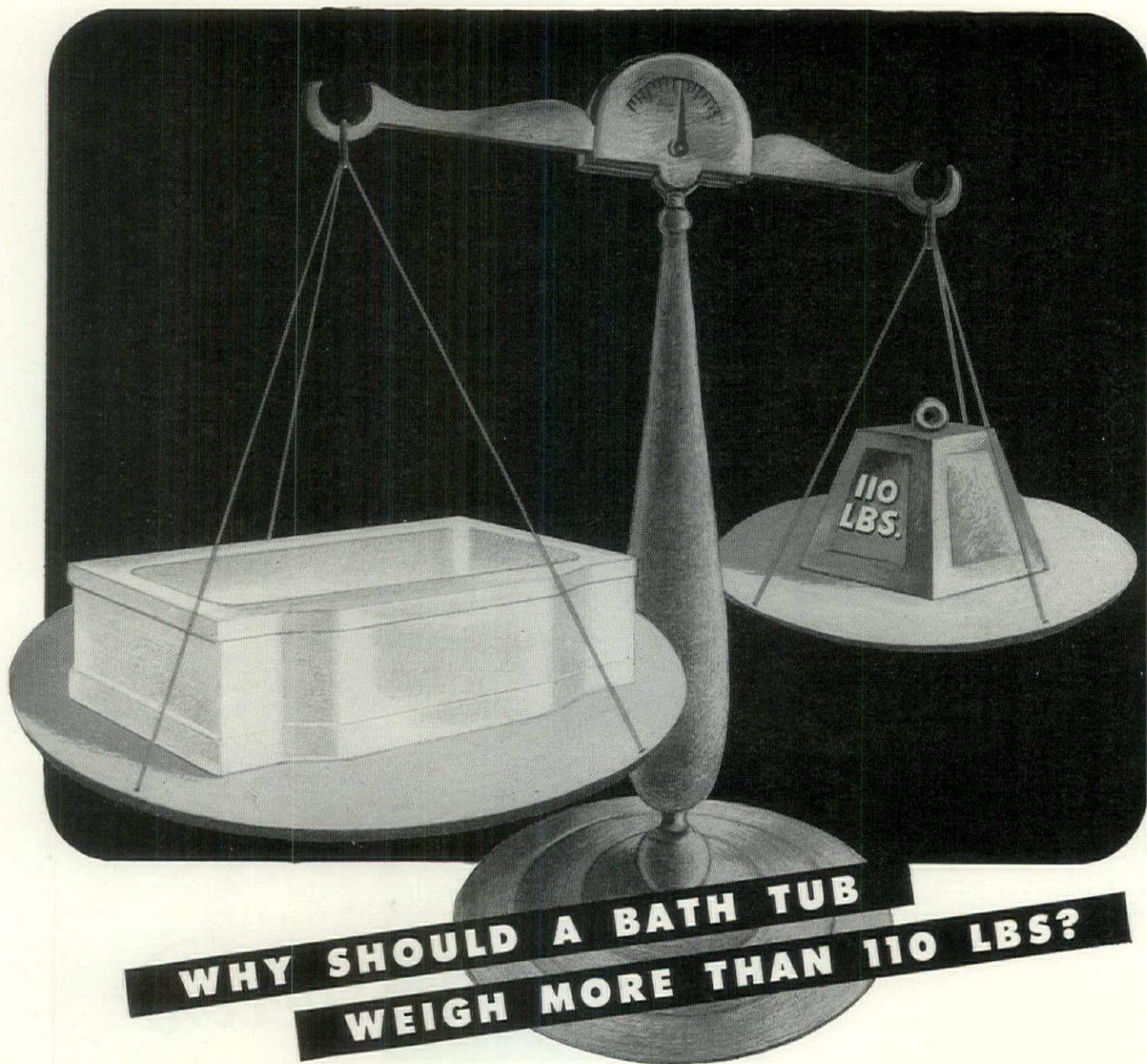
*Velon*\*

### TINTED SCREENING

*Velon* is a welcome revelation to anyone who has to handle screening. It works like cloth, cuts quickly with an ordinary scissors, can be installed easily at great saving in time and temper. When working with *Velon* there's no hazard of jagged edges . . . anyone can handle it with ease. These are only two of *Velon's* many advantages — yet it costs less than good metal screening. Available in all standard widths. Write now for full information on *Velon* screening to Firestone, Akron, O.







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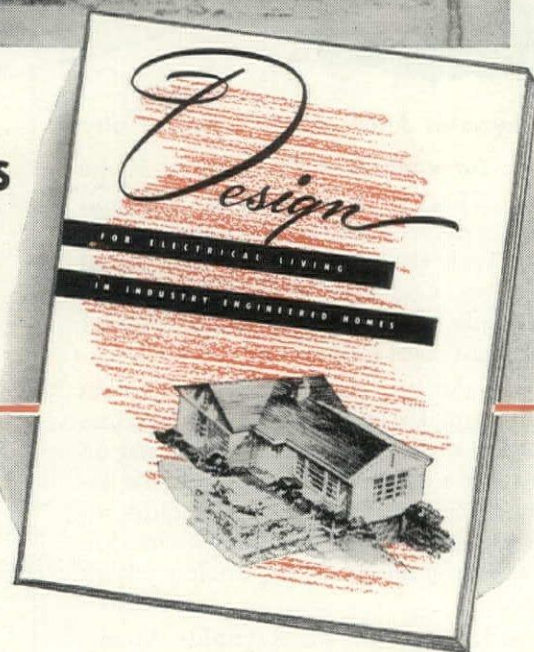


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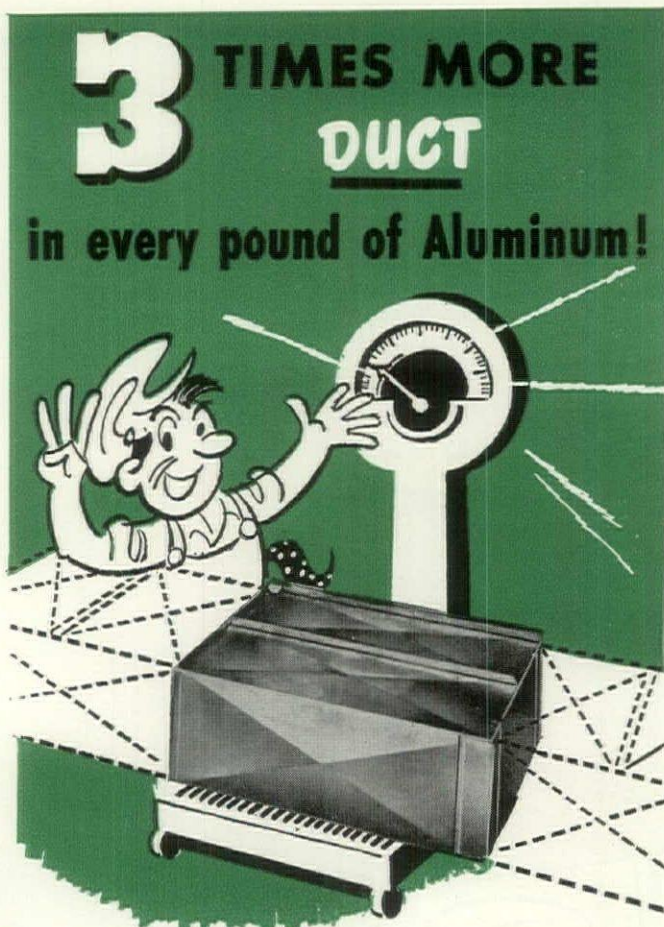
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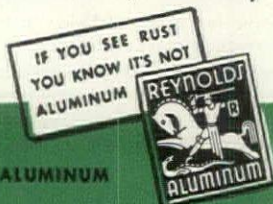


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design. In questions of urbanism and regional planning "BAPS" has a decisive influence. Owing to these special circumstances the sharp division between traditional and modern architects, which exists in the West, is unknown in Czechoslovakia.

The fight between opinions is not exhausted in sterile discussions about styles and meaningless estheticisms, but is being fought about vital things such as the form of society in general, the nationalization of the building industry. The power of the central architectural committee has increased so much because there is no private building market and there are no private clients. The employers of the Czech architect are the State, industry and public organizations. This means that all the architects are civil servants or are employed by industry in their building offices. This is the reason why opponents to the modern movement seem to have died out.

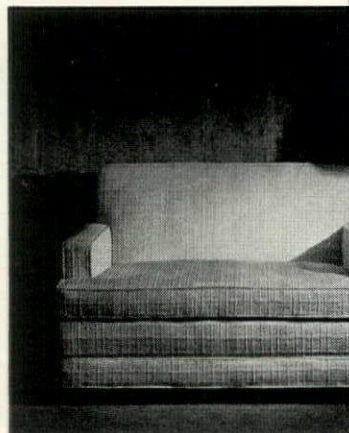
Some readers may ask what happened to the individual building client. The answer briefly is, that no one is any longer allowed to dispose freely of a personal bank account. Therefore no more houses can be built for wealthy clients as they were before the war on the Barrandov hill near Prague. But it is also impossible to project bank palaces in early Renaissance style or barracks with Gothic towers.

The most interesting building projects are without doubt those in connection with the nationalization of the steel and textile industries. The Ministry of Social Welfare and Planning has a decisive say in the matter. For instance, small textile mills, which are scattered about all over the country are to be moved to the poorer regions and the larger ones combined into more economic units. The lack of a young generation of workers forces the administration of the nationalized industries to request of its architects generous plans for apprentice homes, schools and nurseries.

Other large projects are concerned with the new universities in Olomouc and Pilsen, the new Parliament building in the center of Prague and the regional planning schemes spread all over the countryside. The country is full of life, the architects are full of principles, the magazines full of proposals—which however come nearer to propaganda than to reality.

The first great architectural event in postwar Czechoslovakia was a competition for workers' housing arranged by the Czech Steel Works at Most in northern Bohemia. The program calls for living quarters to be coordinated into an extended strip settlement for about 30,000 inhabitants. The chief interest is concentrated in the 11-story apartment building for collective living. It

(Continued on page 42)



**DUNBAR**  
*For*  
**MODERN**

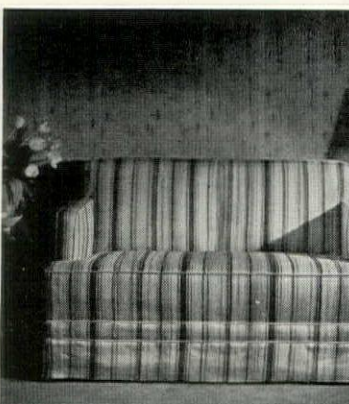


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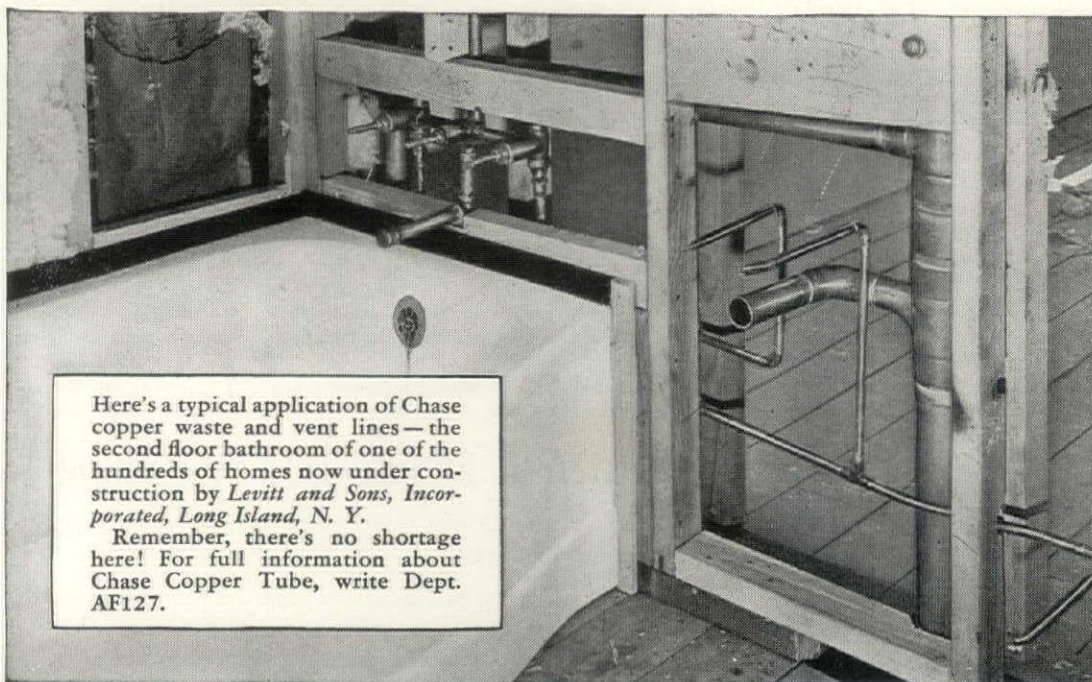
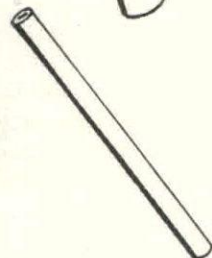
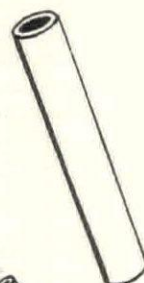
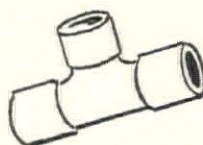
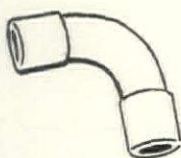


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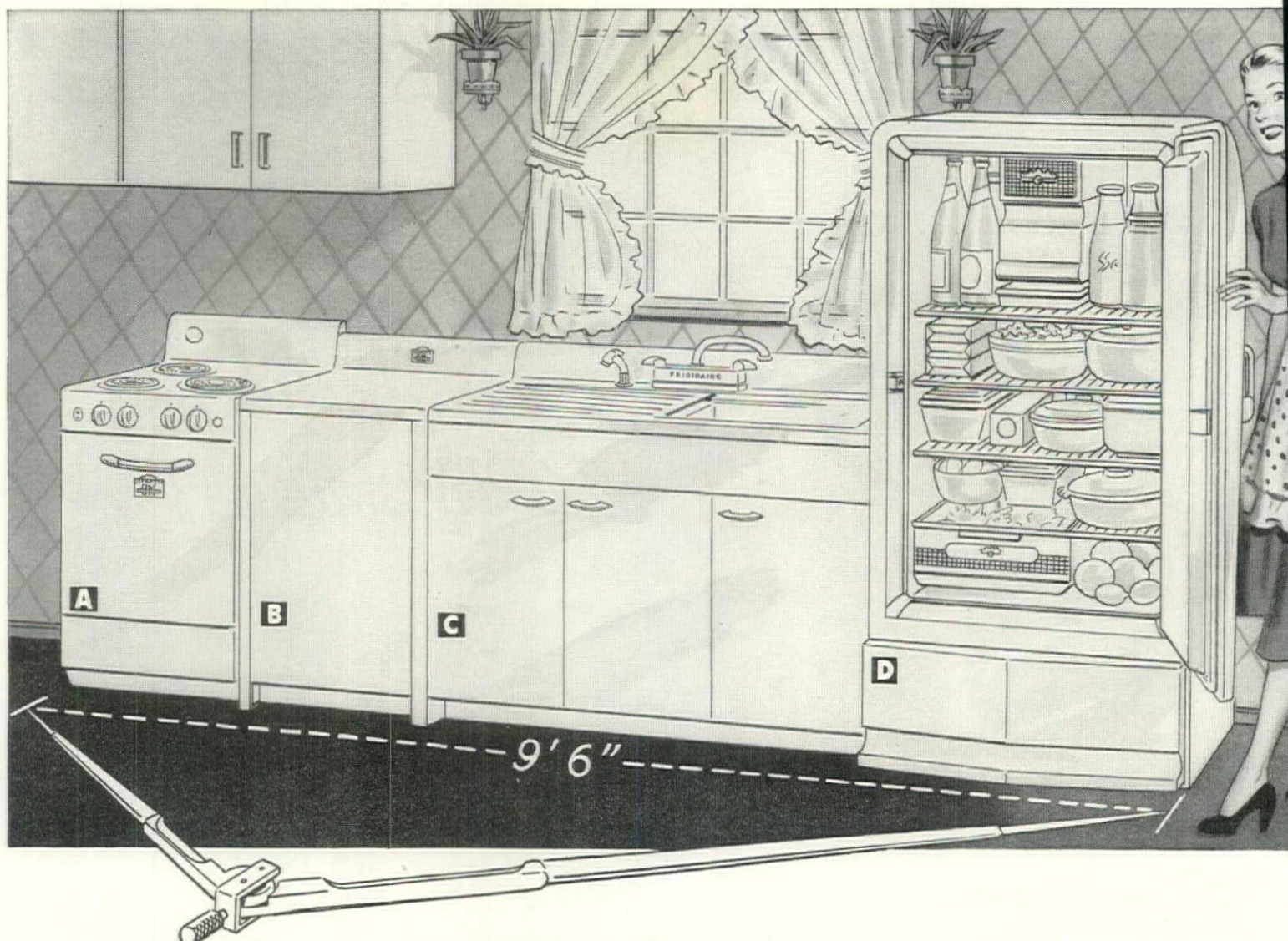
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**A** Frigidaire RJ-3 Electric Range, only 21" wide, virtually same cooking and baking capacity as standard size. Full-size twin-unit oven, high-speed broiler, 5-speed Radiantube Surface Units, all-porcelain finish, stainless porcelain cooking top.

**B** Frigidaire "Table-Top" Electric Water Heater, only 21" wide. Designed specially for kitchen or utility room installation. Entirely automatic, Lifetime Porcelain finish, welded steel tank, Radiantube Heating Unit, shaped to flex off scale deposit.

**C** Frigidaire all-steel, double-bowl Cabinet Sink, 48" wide. All-porcelain, sliding drain board and porcelain top. Sturdy hinges, quiet drawer slides, mixer faucet, finger-tip spray, cutting board, rust-proof soap rack, towel bar, chromium crumb-cup.

**D** Frigidaire's new "Compact-Six" Refrigerator, only 4' 6" high. Outside it's a 4-foot 6-footer. Holds nearly 50% more than conventional refrigerator outside size. Quickcube Ice Maker, many other interior conveniences.

## Frigidaire makes four most-needed kitchen appliances to fit into only 9½ feet of wall

Yes, that's right. Only 9 feet, 6 and one-quarter inches of wall space is needed to install the new Frigidaire RJ-3 Electric Range with full-size oven and Radiantube Surface Units... 30-gallon, "Table-Top" Electric Water Heater... new 48-inch double-bowl Cabinet Sink... and new Frigidaire "Compact-Six" Refrigerator.

New home-building today demands this sort of space economy with greatest usability. Frigidaire meets it with other new "compact" refrigerators to supplement the "Compact-Six." Each of these new "Compact" Frigidaires contains 30-50% more usable storage

space than conventional refrigerators requiring the same floor area.

**Architects! Builders!** Use these compactly designed Frigidaire appliances to take full and profitable advantage of today's demand for greatest utility in smallest space.

**See your Frigidaire Dealer!** Find name in Classified Telephone Directory. Or write Frigidaire Division, General Motors Corporation, 1210 Amelia St., Dayton 1, Ohio. Leaside 12, Ontario.

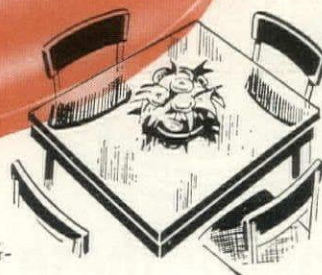


*You're twice as sure with two great names*

**Frigidaire** made only by **General Motors**



# It's the **Tops** that take the wear



**DECORATIVE MICARTA** — made by WESTINGHOUSE — gives you a durable, economical, ever-beautiful surface for table tops, bars, booths, walls.

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

- 1 *Won't scratch or mar* under ordinary service conditions. Finished surface is hard and durable.
- 2 *Strong, dense material.* Guaranteed not to warp, chip or crack under ordinary service conditions.
- 3 *Genuine wood veneers available.* Truwood Micarta combines the beauty of such woods as primavera, mahogany and walnut with all the practical features of Decorative Micarta.
- 4 *Quickly and easily cleaned,* because of its permanently smooth surface.
- 5 Available in "cigarette-proof" grade at slight extra cost. Even when cigarettes burn out on it, "cigarette-proof" Decorative Micarta remains unmarred.

- 6 *Will not spot or stain* from spilled food, grease, alcohol, etc. Highly resistant to heat, moisture, mild acids and alkalies.
- 7 *Color-fast, permanent finish.* Unusually clear, lustrous colors and patterns won't fade or darken.
- 8 *Exclusive "Beauty Mask"* of tough Kraft paper protects surface during shipping, machining and installation. Strips off easily when ready for use.
- 9 *Optional finishes.* Brilliant high-gloss or lustrous satin.
- 10 *Large 4 ft. by 8 ft. sheets* of Decorative Micarta are available for covering large surfaces quickly, and with a minimum of joints. Smaller sizes also available for table tops and similar applications.

Get complete information on Decorative Micarta. It's the tops! Just the right color and pattern is available now for your interiors. Write:

**UNITED STATES PLYWOOD CORPORATION**  
New York 18, N. Y.

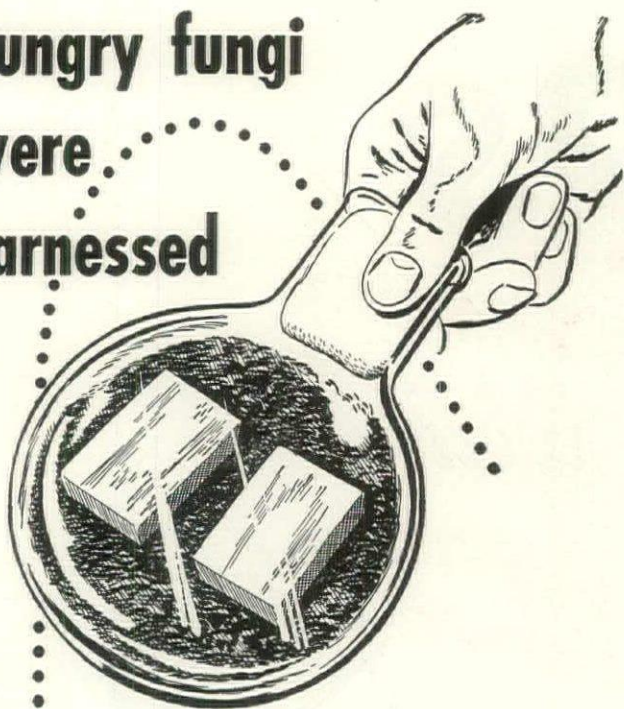
Weldwood\* Hardwood Plywood  
Douglas Fir Weldwood  
Mengel Flush Doors  
Douglas Fir Doors  
Overhead Garage Doors  
Molded Plywood  
Armorply\* (metal-faced plywood)  
Tekwood\* (paper-faced plywood)

Flexmed  
Weldwood Glue\* and other adhesives  
Weldtex\* (striated plywood)  
Decorative Micarta  
Flexwood\*  
Flexglass\*  
Firzite\*  
\*Reg. U. S. Pat. Off.

**DECORATIVE  
MICARTA**



hungry fungi  
were  
harnessed



## to provide these NDMA STANDARDS

No pains were spared by NDMA in developing reliable tests of toxic preservatives for millwork such as doors, screens, and windows. Hungry fungi—more virulent than are ever likely to be encountered under actual service conditions—were pitted against treated and untreated wood. Wood samples were buried in swamps—subjected unpainted to violent weather conditions...

Out of these tests—out of consultations by eminent scientists—came the six important steps which help to make wood a better building material than ever... supplementing its natural lasting qualities through reliable measurements of toxic treatment efficiency. Here is what NDMA has done—and is doing—to serve the public and you:

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**

McCORMICK BUILDING • CHICAGO, ILLINOIS



is to be completed in 1947. The program includes a twin block for 800 inhabitants.

What does collective living mean? It means living with a community. Living collectively is the compression of living units—i.e., apartments and dormitories, into a large block which is administered like a hotel from a central office and in which both men and women are freed of the housework by a carefully considered service system. The women especially gain because a rationally working help service takes care of all those time-consuming daily tasks which are indispensable to living. In a limited measure such service is already familiar to us in the electricity supply, water supply and district heating. In principle the tenant is offered all the comfort of a household with two servants. Cleaning, dusting, window cleaning, shopping and food preparation are all taken care of by the service. In addition extra living space is available in the way of rooms that may be rented for family gatherings, private dinners, club meetings, sports and hobbies. As answer to the question whether the individual culture of living does not suffer, it is asserted that rented rooms are only used temporarily, that living in a hotel is no different, and that people who decide to live in a collective house have a certain amount of collective spirit, which makes it easier for them to sacrifice individuality for a simplified life.

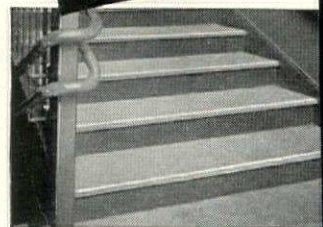
If common living under one roof becomes something more than being thrown together by chance as in a hotel and if there is a common philosophical ideal to act as a unifying factor, a new sociological concept arises. This concept is used by the Czech magazine "Architektura" whenever the question of the collective house—in Czech "Koldum"—is discussed.

No matter how carefully the architects have thought out the "Koldum," the workers look at it with suspicion. Their ideal continues to be the detached small house with a garden and rabbits, all surrounded by the highest possible hedge. "Your wish is our command" says the works administration, and makes only careful advances with the collective houses. The new ways of life are not being determined at green or red tables. This model form of living cannot even now be ordered by decree, but can be made popular only slowly by a few well-thought-out examples. The proportion of people who favor the "Koldum" in comparison with traditional living is estimated at about one in ten. It is believed that such basic changes in the so far private lives of the working population of Most can be made only in careful doses.

The same restraint in the propaganda for  
(Continued on page 46)

safe  
stairs  
with

**ALBERENE**  
Tread Stock



Wet or dry, Alberene's highly toothed surface ways safe. You'll find comfortable, too—retains your feet, but never brings them to a dead stop.

Learn about the many advantages of Alberene stock by writing—

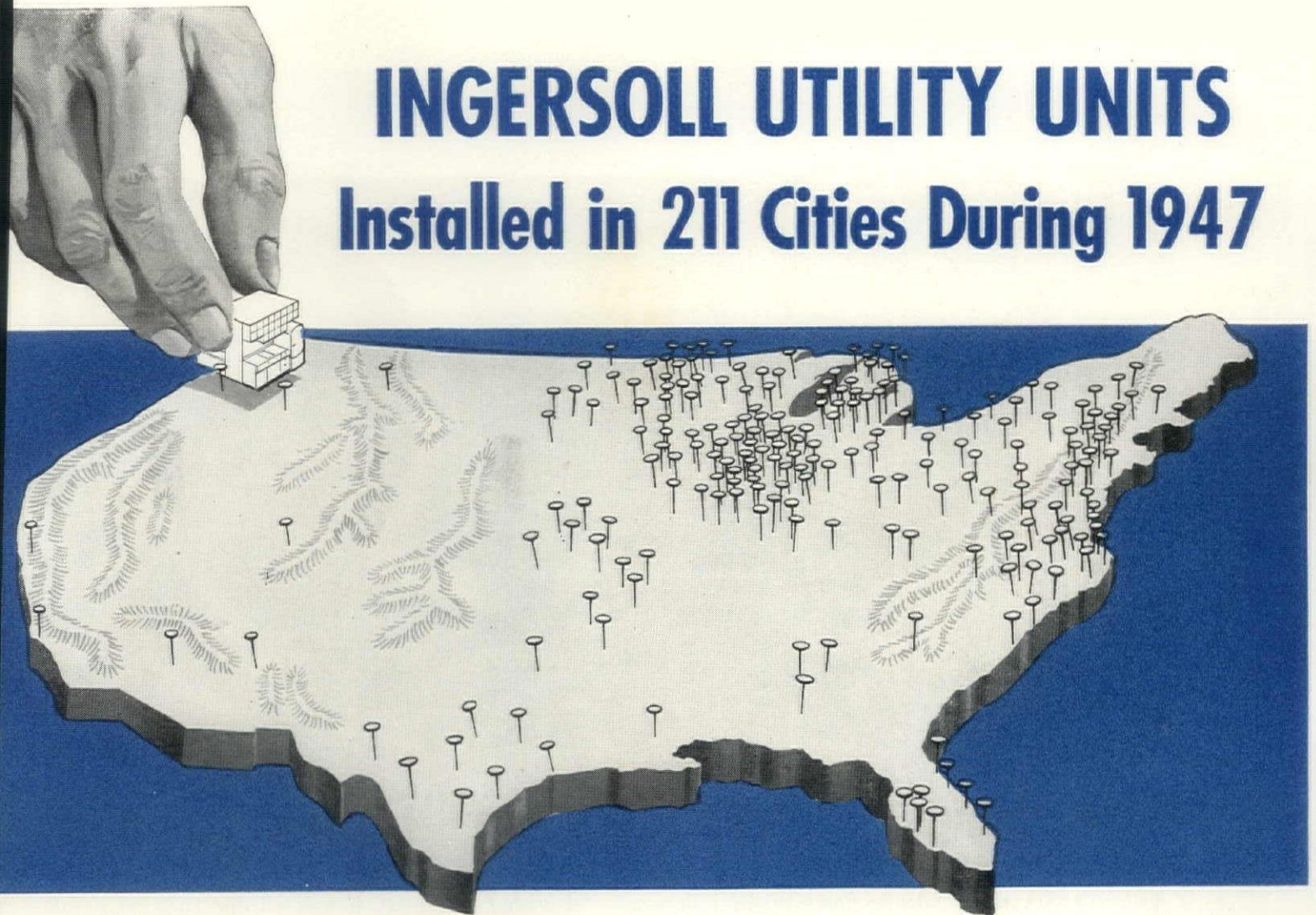
**ALBERENE STONE CO.  
OF VIRGINIA**

419 — 4th Ave., New York 16,



# INGERSOLL UTILITY UNITS

## Installed in 211 Cities During 1947



**Proved Practical, Economical, Convenient  
in Homes All Over the Country...**

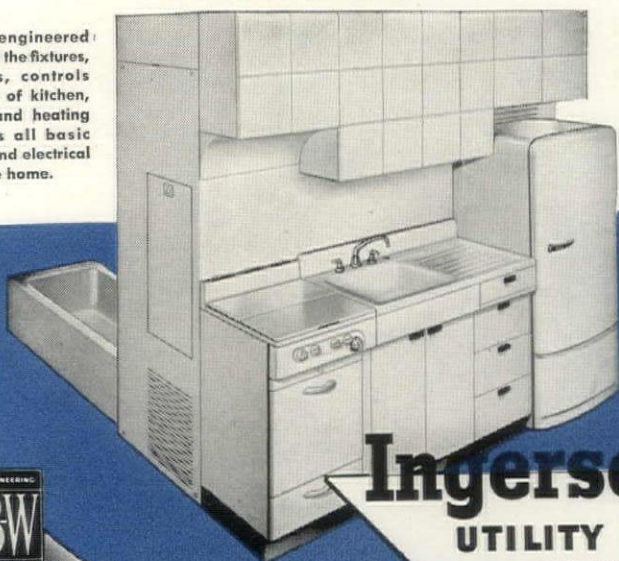
**Architects and Builders Enthusiastic  
Over Time and Space-Saving Advantages**

**1 PACKAGE  
PURCHASE  
INSTALLATION**

A little over a year ago The Ingersoll Utility Unit was in the experimental stage, new and untried. Now in thousands of homes, it has proved itself for convenience, economy, adaptability. Architects and builders everywhere, thoroughly convinced by its practical, flexible performance, are specifying it for single home construction and in projects up to 1000 and more dwellings.

The Ingersoll Utility Unit is adaptable to a wide variety of individual plans and needs. It is compact, requires less than 80 square feet of floor space, and provides more living space for less money.

Complete, it eliminates time-consuming specifications—everything comes with one purchase, from one source, right when it's needed. It cuts building time from three to four weeks and can be installed before, during or after construction of building framework.



Ingersoll Steel  
Division  
Borg-Warner Corp.  
Chicago 4, Illinois

**Ingersoll**  
UTILITY UNIT

TRADE MARK

**INGERSOLL STEEL DIVISION  
Borg-Warner Corp., Dept. F12,  
310 S. Michigan Ave., Chicago 4, Ill.**

Please send me illustrated booklet showing details of the complete Ingersoll Utility Unit.

Name .....

Firm .....

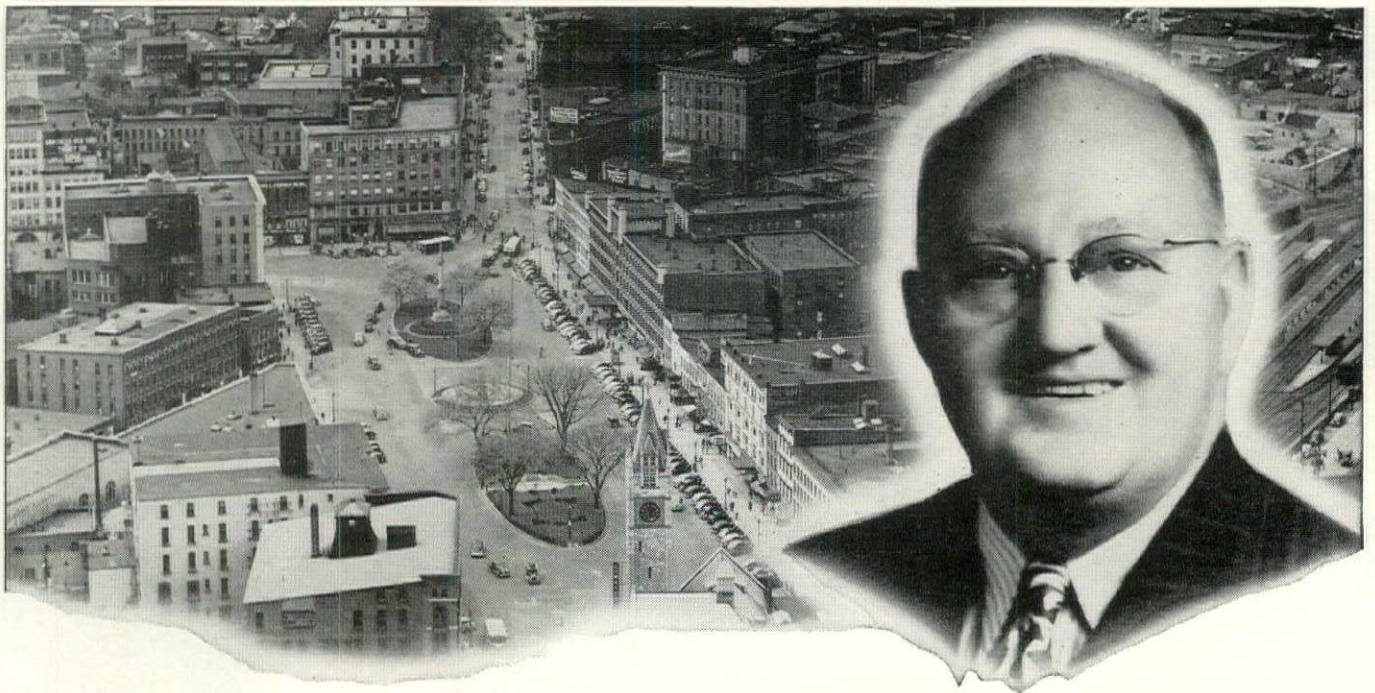
Address .....

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

...engineered  
...of the fixtures,  
...ces, controls  
...ngs of kitchen,  
...n and heating  
...plus all basic  
...g and electrical  
...the home.

ENGINEERING  
**BW**  
PRODUCTION  
PRODUCT OF  
**BORG-  
WARNER**





## He changed "Watertown" to "Timken Town"

**A**LL AUTOMATIC oil burners installed in Jefferson County, N. Y., have to pass a state electric inspection. So says the law that went into effect in February, 1947.

And here's what Jefferson County records say: *Timken Dealer C. A. Burkhard, Watertown, N. Y., has installed more Timken Silent Automatic Oil Burners since that date than the total of all other makes combined.*

And thereby hangs a tale.

Burkhard took the Timken franchise in 1936—did a steadily increasing business in the next few years—sold 41 Timkens in 1941, last full year of prewar production.

But here's his record since that time: 1946—126 Timkens installed; first four months of 1947—74 Timkens installed!

"I wish I could say it was all due to good selling on my part," writes Timkeneer Burkhard, "but it wasn't. *Satisfied users and public acceptance of Timken have been principally responsible for making Watertown another Timken Town.*"

That's the way it goes, wherever a Timken is installed. Neighbor follows neighbor—neighborhood follows neighborhood—until entire communities know the comfort, convenience and economy of Timken Oil Heat.

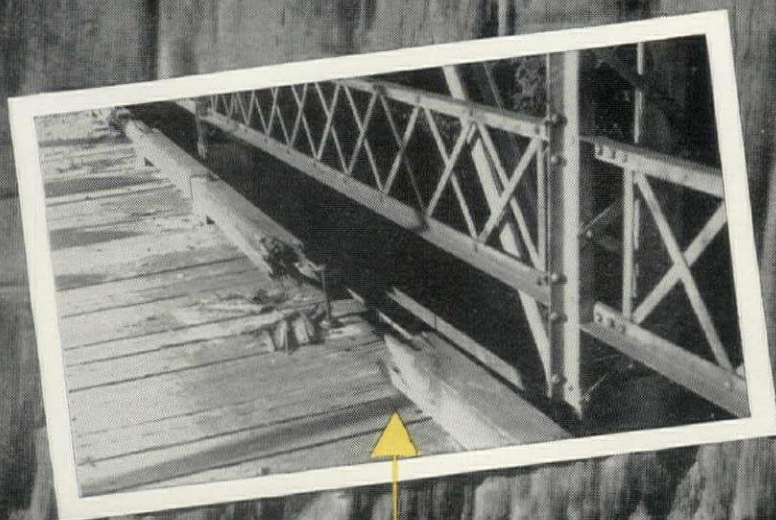
The steadily growing public preference for Timken is based on one thing: *Homeowners are convinced that Timken quality is the best possible buy.*

And the value of the Timken Dealership Franchise grows, as town after town becomes a *Timken Town.*

### *The Royal Family of Oil Heating*

 <p>OIL BURNERS</p>	 <p>OIL BOILERS</p>	<p><b>TIMKEN</b> <i>Silent Automatic</i> <b>OIL HEAT</b></p> <p><small>TIMKEN SILENT AUTOMATIC DIVISION The Timken-Detroit Axle Company JACKSON, MICHIGAN</small></p> <p><small>Accepted Standard</small></p>	 <p>OIL FURNACES</p>	 <p>WATER HEATERS</p>
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**prevent THIS loss**

**with**

**the great advance in wood preservation**

**penta**  
ANOTHER DOW PRODUCT  
**-chlorophenol**

You can prevent the costly destruction of wood by decay and termites with a treatment that leaves wood *clean*. Wood properly treated with Pentachlorophenol builds for permanence, yet it is easy to handle, non-bleeding, paintable. This great advance in wood preservation makes lumber even more widely useful than before—helps you cut building and maintenance costs!

Impartial ten-year tests have established the

lasting effectiveness of this modern treatment. Pentachlorophenol protects even under severe service conditions, such as high humidity and actual ground contact. Its cleanliness makes it useful indoors or out.

For application to wood at low concentrations in petroleum oils by established pressure and non-pressure treating methods, Pentachlorophenol is available now.

**See How to Cut  
Building Upkeep Costs!**

Send for this new free booklet today. It tells how Pentachlorophenol adds years to building life. Ask for Booklet No. PE 29.



THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN

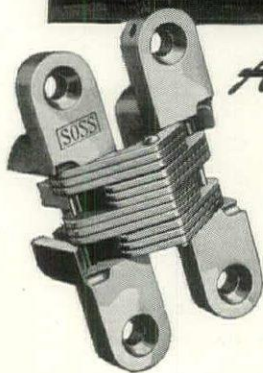
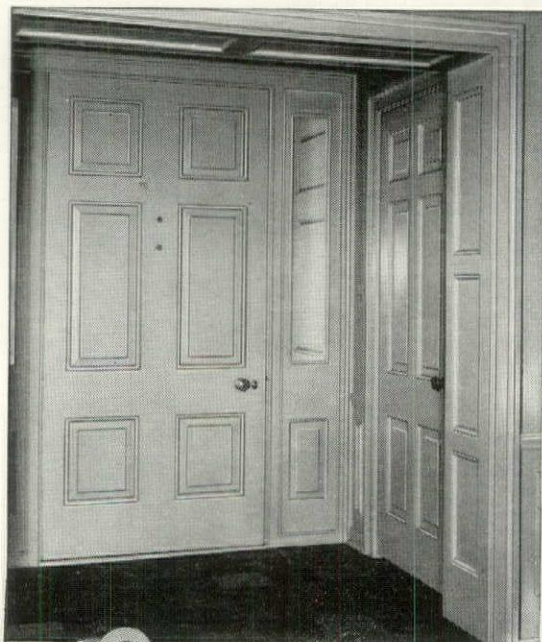
**TERMITE**  
**DECAY**  
**Protected**  
TREATED WITH  
PENTACHLOROPHENOL



CHEMICALS INDISPENSABLE  
TO INDUSTRY AND AGRICULTURE



*But what makes these rooms*  
**SO DIFFERENT — SO DISTINCTIVE?**



*A logical question  
—often asked!*

The answer may be that the visitor does not see door hinges anywhere. Hinges are present to be sure—but they are not visible to the eye. They

are Soss Invisible Hinges.

When Soss Invisible Hinges are a feature of building design, the architect is enabled to employ flush surfaces for doors, panels and cupboards. He can then obtain the streamlined effects which provide so modern and distinctive a touch to home interiors. Your clients will appreciate these modern hinges and the results they make possible.

Write for Soss "Blue Print Catalog" giving full details of these modern hinges. Free on request.



**SOSS MANUFACTURING COMPANY**  
21767 HOOVER ROAD • DETROIT 13, MICHIGAN



modern living can be found in the housing schemes of the other nationalized industries. The textile industry, which is passing through a stage of complete regeneration, is planning garden cities the largest of which is to house 3,000 workers—according to the population key this means about 12,000 inhabitants. They are satisfied with housing 50-60% in multi-story "Koldums."

A complete socialization of building including the ownership of land has not taken place despite reports to the contrary. Nationalization of land and real estate has only taken place where large land owners have been convicted of crimes against the nation. A reorganization of landed property, as for instance suggested in the Uthwatt report in England, cannot be considered. Furthermore the suggestions of the Uthwatt report, which have been of such great service to modern urbanism, are unknown in Czechoslovakia.

On the question of single versus multi-story building the magazine "Architektura" writes: "We are of the opinion, and shall defend our point of view in future, that families with children should not live above the second floor." This principle is adhered to elsewhere. How could it happen that the "Koldum" was planned with eleven stories? In collective living on the Czech plan children are taken care of in a nursery which is in the middle of the same building. The "Koldum" project for the Steel Works put this nursery, which is divided off according to age groups, in the center of the twin block. The apartments of the parents are in the immediate vicinity. The child is taken away from the parents' apartment for teaching, eating, sleeping and studying—not too far away: that was one of the conditions made by the administration of the Steel Works. This principle is defended by reference to the English boarding school system. Large athletic fields and facilities complete the collective house.

In considering the pros and cons of collective living it must be stated that living standards show a steady development and that a standard once achieved has never been sacrificed except under duress. Living has always made use of all progress and inventions, despite the events of time. There is very little doubt on which side collective living stands in the age-old conflict between progress and conservatism.

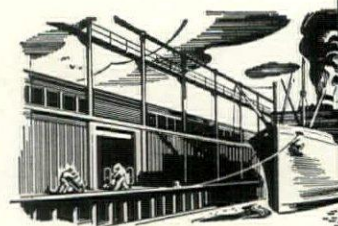
K. K. PERLSÉ, Architect

Prague, Czechoslovakia

## RATE-OF-RISE

Of late I have noted a tendency toward greater recognition of devices pertaining to fire protection, which is indeed gratifying as in years gone by it seems there has been

(Continued on page 50)



**Millions of Feet Say  
"This Wood Adds Long L**

**DOCKS AND PIERS** and boat walks—wood that has demonstrated its durability on these jobs will give you lasting economical construction. "Wolmanized" Treated Lumber is a new kind. Examinations of over 100 front installations employing millions of feet of this long-life lumber for superstructure show some of it put there two years ago—prove this.

**"WOLMANIZED" LUMBER** gives you this plus value without sacrificing the other very desirable advantages of wood construction: lower first cost, ease of handling and erection, light weight, strength, resilience, is clean, odorless, and it can be painted.

**VACUUM-PRESSURE** impregnation with "Wolman" wood preservative makes any kind of lumber highly resistant to decay and termite attack. "Fixation" prevents leaching, washing out of the preservative. The treated wood does not corrode spikes, bolts and metal fittings. Control of impregnation processes in treating plants, one central laboratory insure uniformly high-grade products.

**"WOLMANIZED" LUMBER** can be the key to faster construction schedules on your structures and long life at low annual cost. American Lumber & Treating Company, 1647 McCormick Building, Chicago 4, Illinois.

\*Registered Trade Marks U. S. Pat. Off.

**Wolmanized  
TREATED LUMBER**





Thousands who are planning new homes know about it!

# Hot Water "Packaged-in-Glass"

WHEN YOU SPECIFY "PERMAGLAS" they know you are recommending cleaner, purer hot water free of all tank rust and corrosion.



*Permaglas*  
TRADE MARK REG. U.S. PAT. OFF.

**WATER  
HEATERS**

*No Rusting-  
No Corroding*

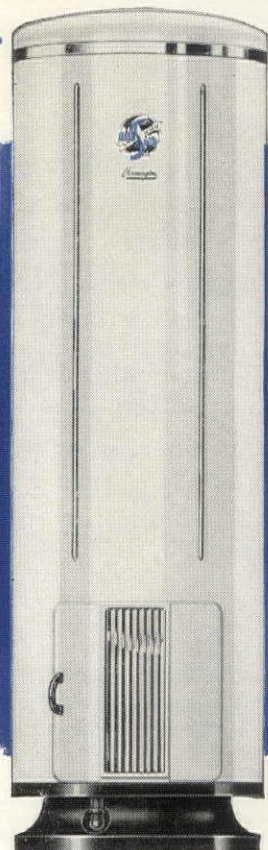
THE TANK LINING of the *Permaglas* Water Heater, an original A. O. Smith discovery and development, is *glass-fused-to-steel*. It CANNOT rust or corrode under ANY water condition!

This great feature alone makes "*Permaglas*" the nation's best water-heater buy . . . and the best

you can specify for the completely satisfactory house.

Thousands of people in *your* community know it, because the most sustained national advertising program ever devoted to a water heater is informing them . . . in the popular magazines that all home-planners read and study.

*Send the coupon for complete specifications, today!*



Gas, LP Gas, and Electric



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**A. O. SMITH**  
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A. O. SMITH CORP.  
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Without obligation, send specifications on the following SMITHway Water Heaters:

☐ Gas Water Heaters  
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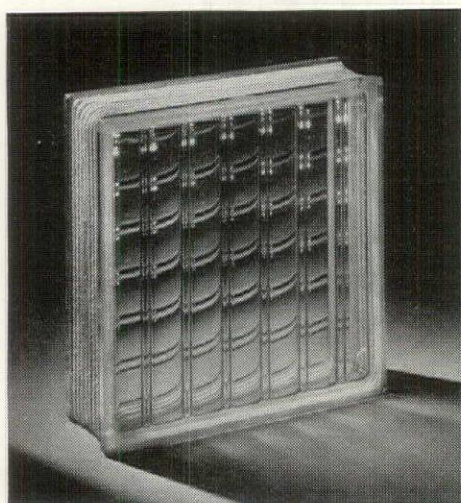
New York 17 • Atlanta 3 • Chicago 4 • Houston 2 • Seattle 1 • Los Angeles 14 • International Division: Milwaukee 1 • Licensee in Canada: John Inglis Co., Ltd.

Manufacturers also of quality zinc-lined *Duraclad* and *Milwaukee* models





**Curved panels** of Insulux Glass Block bring daylight with privacy to tenants of eight-story apartment building. Architect: Berla & Abel, Washington, D. C.



**OWENS - ILLINOIS**  
**INSULUX**  
**GLASS BLOCK**

*Insulux is made in three sizes—many attractive and functional patterns. Investigate this modern material that has solved many complex architectural problems.*

## Here's enlightened living for city dwellers!

**N**O NEED for apartment houses to be gloomy and dreary places . . . let Insulux Glass Block light the way!

Versatile Insulux combines a graceful design in modern buildings with the functionality to insulate against summer heat and winter cold.

Insulux permits new flexibility and originality in architectural planning and execution. It is ideal for bringing light deeper into rooms, spreading daylight over wider interior spaces. Wherever daylight with privacy is desired, there's a place for Insulux!

Widely used by many outstanding architects for residences, apartments and commercial establishments, Insulux Glass Block is installed in a manner similar to brick. Once in place, panels are permanent, require no painting, won't rot, rust or corrode.

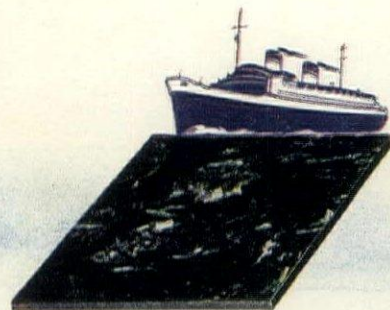
For complete technical data, specifications and installation details, see the "Glass" section of Sweet's Architectural Catalog, or Dept. D-24, Owens-Illinois Glass Company, Insulux Products Division, Toledo 1, Ohio.



**Bright, modern living room** shows how Insulux Glass Block brings daylight far into living room; relieves corner darkness. Occasional washing is only maintenance required by Insulux.



# why the trend to RUBBER TILE?



THERE IS A STRONG and growing demand for rubber tile, and no wonder. For here is a modern floor that offers superb decorative advantages in combination with "you-can't-wear-it-out" durability. And DANBURY RUBBER TILE includes these important features:

**DISTINCTIVE COLORS** that can be woven into an endless variety of floor patterns.

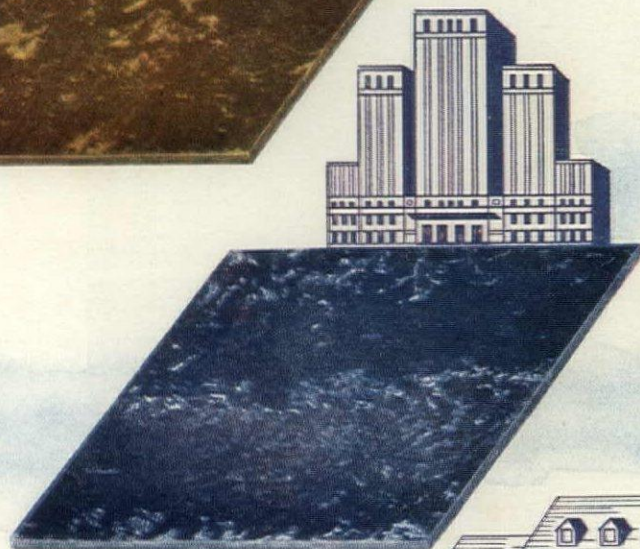
**MARBLEIZATION** that goes all the way through to the back of the tile — a homogeneous material.

**DURABILITY** that makes the first expense of installation practically the last expense.

**QUIET AND COMFORTABLE**, because rubber tile hushes impact, and its give reduces fatigue.

**HIGH GLOSS FINISH** that pleases the eye with its muted overtones of reflected light.

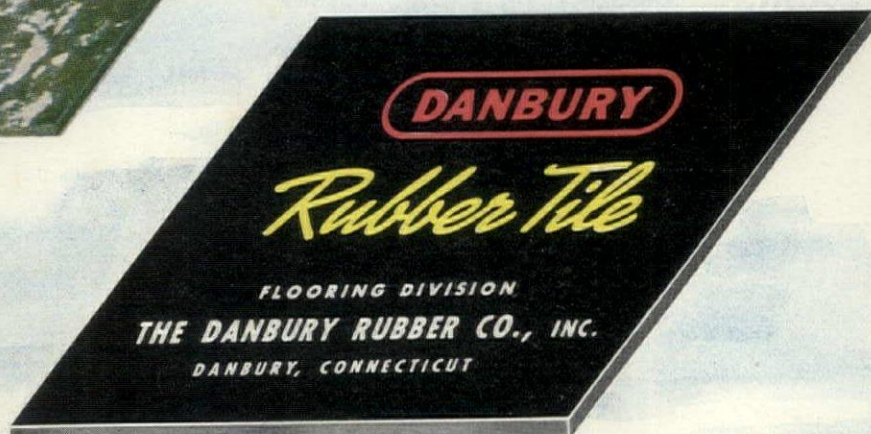
**EASY TO MAINTAIN** and to keep refreshingly new and bright.



Danbury's research in rubber chemistry, its exhaustive testing and quality control are directed toward a single objective — to assure you of rubber flooring that provides enduring evidence of careful planning. Danbury's experience and research are supported by modern, newly equipped and expanded production facilities. For a quiet, comfortable, colorful and durable floor that is easy to maintain, specify — DANBURY RUBBER TILE.

SEND FOR THE NEW DANBURY CATALOG  
SHOWING 23 OF OUR COLORS AND A  
SELECTION OF NEW ARCHITECTS PATTERNS.

NOW MAKING 30 BEAUTIFUL COLORS IN 1/8" AND 3/16"

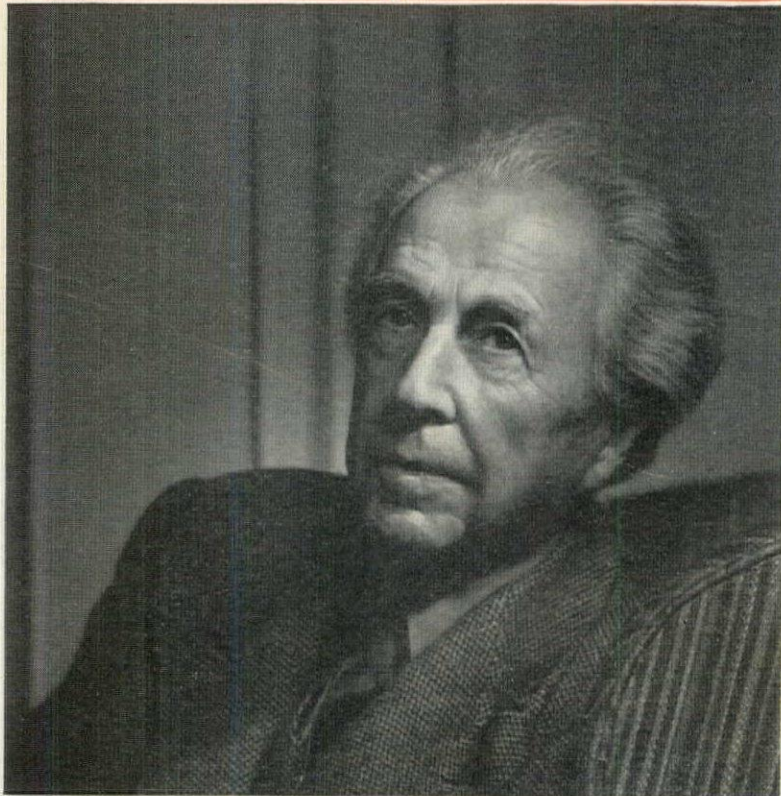




January 1938

January 1948

For  
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Frank Lloyd Wright

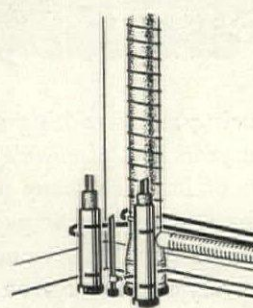
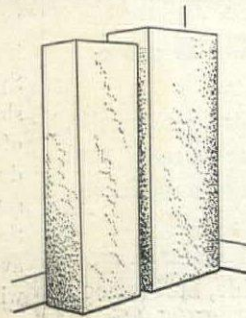


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Frank Lloyd Wright

*A limited number of single copies of the January Frank Lloyd Wright issue will be available for two dollars*





How Conduit System saves space. One small-diameter conduit for air and pipes for refrigerated or heated water take only 25 per cent as much space as ordinary supply and return ducts. Elimination of ceiling ducts saves still more space.

## It's always fair weather for all tenants

A particular office may get cool morning shade, hot afternoon sun. But tenants in the Durham Life Insurance Building, Raleigh, N. C., can be comfortable all day long every day in the year. Carrier's remarkable Conduit Weathermaster System of air conditioning permits any office to have the kind of "weather" the occupants like.

This year-round Carrier system has proved its worth in many leading office buildings, hotels, hospitals and

other multi-story structures. Using small-diameter vertical conduit instead of bulky ducts, it often saves enough space on a floor for an *extra rentable room*. And, since normally no ceiling ducts are needed, it is sometimes possible to plan an *extra floor* without increasing the new building's over-all height.

The Conduit Weathermaster System can be applied to both old and new building installations. Its many

other advantages are described in the booklet, "Carrier Conduit Weathermaster System." Write for your *free* copy today.

Carrier engineers—who created the Conduit Weathermaster System—have worked closely with architects and their consulting engineers for years. Their world-wide experience is your assurance of efficient, dependable air conditioning. Carrier Corporation, Syracuse, New York.

# Carrier

air conditioning

refrigeration

industrial heating



## LETTERS



● No disfiguring rust streaking on sills or sidewalls, even after four years—Lumite *can't* rust or corrode! And that's just one of Lumite's many points of superiority, just one of the reasons why it pays to specify Lumite screen for every home. This wonderful material side-tracks almost every common screen trouble, builds good will every time it's installed. Here's why:

**PROVEN DURABILITY.** In recent tests by an outside engineering organization, no other type of screening commercially available showed up as well as the material from which LUMITE is woven (Dow's Saran). It was the only one to earn top rating in every category—from immersion in salt water to accelerated weathering and exposure in a tropical chamber.

**STRONGER BY TEST.** A 5-pound steel weight dropping on a framed LUMITE screen couldn't dent it in 42,300 blows. With filament diameter of .015", LUMITE has greater impact strength than metal!

### NEVER NEEDS PAINTING.

LUMITE requires no painting or protective coating of any kind. Will not "rust out"—will never change color. Keeps its "sheen"; stays clean.



### SPECIFY LUMITE SCREENING FOR YOUR CLIENTS

Sold through Hardware and Lumber Dealers  
and Screen Manufacturers

### LUMITE DIVISION

Chicopee Manufacturing Corporation, 47 Worth St., New York 13

# LUMITE

QUALITY INSECT SCREEN CLOTH

\*Registered Trade-mark

a general laxity towards publicity for fire prevention. As you undoubtedly are aware, our country is experiencing a tremendous fire loss, and fire prevention should therefore be constantly before the public.

I wish to take this opportunity to commend you on your fine article in the July, 1947 FORUM, in which you outline the experiments that have been conducted by the Otis Elevator, Westinghouse, and Grinnell Companies on the protection of floor openings. In the September issue further reference has been made to this form of protection and it also shows illustrations of the escalator installation in the Kresge Department Store of Newark, N. J.

However, in this article you speak of the actuation of the motor driven shutters by thermostats and I wish to make a correction in this respect. We were instrumental in making that part of this installation and it is our ATMO Automatic Fire Alarm System that actuates the motor driven shutter. This takes place through a rate-of-rise system wherein operation is produced through a rate-of-rise of temperature, rather than a fixed temperature basis, which thermostats would normally indicate to the average reader. Our system when installed will operate when there is continued abnormal rise in temperature of approximately 3° per minute. The system compensates for any gradual change in temperature and is thereby safeguarded against false alarms.

CHARLES M. BLAESI, Mgr.  
J. H. Scharff, Inc.

Orange, N. J.

### Forum:

Since we bought our house over 25 years ago (the owner took a year to build it and it is just a 3-story tapestry brick, 6-bedroom house, costing \$30,000) I have wanted a house similar to the type that Stanwood Phillips (Fifth Avenue) builds—only in not such a grandiose manner. Why can't we, in this climate where we have rainfall, have roofs (that look like roofs) and have houses that look like houses.

My father came from England where his country house (I never liked the Georgian town house) gives me a nostalgia for roofs and rock gardens and gates. Why are so many American houses so severe in line? Why isn't it possible to have streamlined kitchens and baths and yet have a house that looks as if it melts into the landscape?

AUGUSTA PARKER WOOSTER  
Atlantic City, N. J.

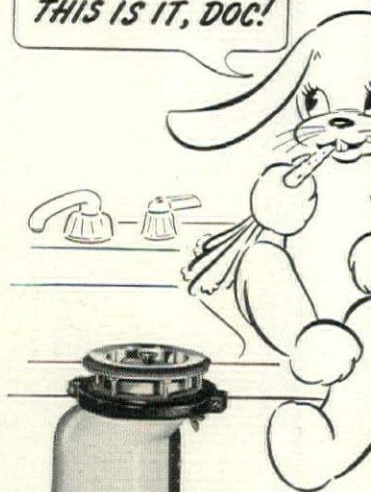
Maybe we Americans just don't like that fenced-in feeling, but we have some roofs and gardens this issue (see HOUSES pp. 93-104)—Ed.

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Add to all these a distribution set-up that puts the man who makes the installation — the plumber — and you've got a garbage grinder you own with pride, specify with confidence

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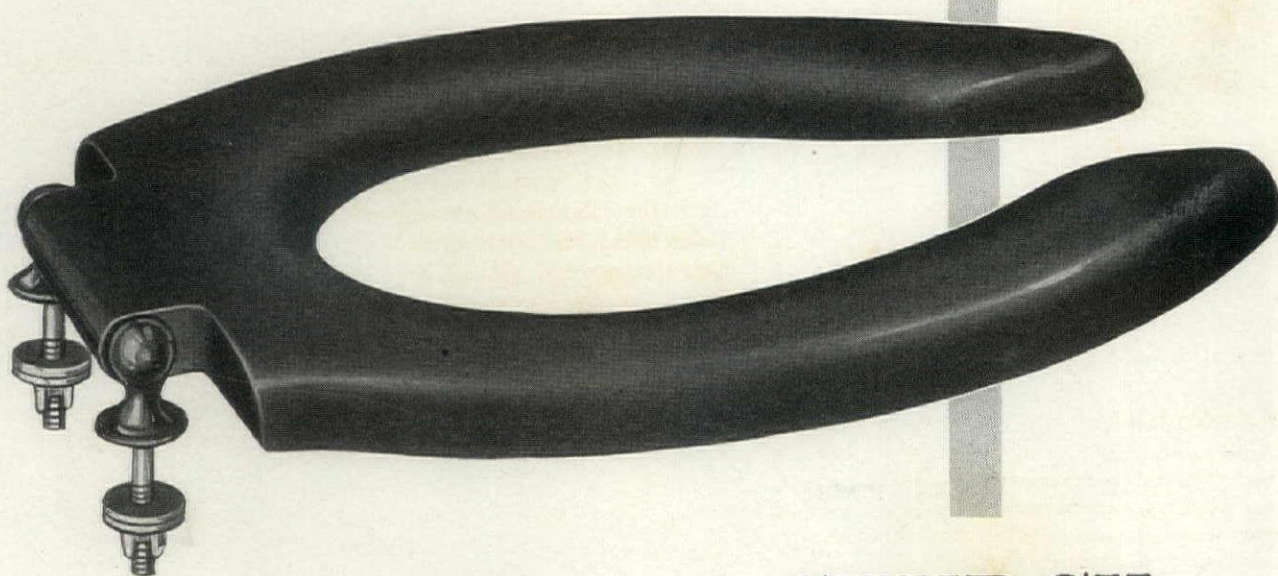
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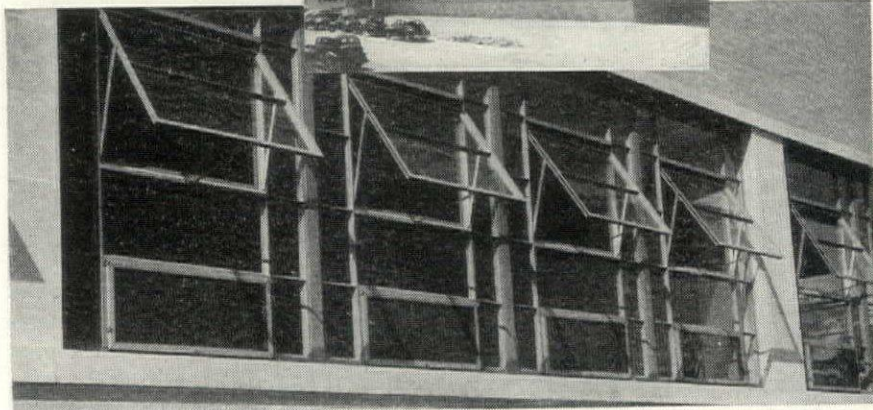
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*The Truscon Planning Board Says: "Normal delivery on many of our Steel Building Products is now possible. In fact, on all material for which raw*

*material is readily available, a normal rate of production and delivery is currently in effect." However, since production and delivery schedules change from week to week, we suggest you contact the nearest Truscon Sales office for the latest information.*

## Free Light and Air ... With Modern Architectural Beauty



The National Advisory Committee for Aeronautics is engaged in development work that is aimed at keeping and increasing America's leadership in air flight. At the Flight Propulsion Research Laboratory, Cleveland, Ohio, a supersonic tunnel is the scene of much development work that will influence aeronautics.

The office building for this project is liberally equipped with Truscon Intermediate Projected Steel Windows, to permit the generous use of nature's free light and fresh air.

Where neat design and economy are the keynote of construction, architects and builders will appreciate the quality, appearance, performance and low cost of these windows. The projected feature is especially valuable when ventilation depends upon the natural clearing off of vapor, smoke and stale air. The tilted ventilator acts as a deflector of the elements and can be kept open in all kinds of weather. Drafts are eliminated and a continuous change of air is obtained.

In the Truscon projecting type window, the ventilator, when open, does not extend beyond one face of the window plane. Projecting outward ventilators do not extend inside

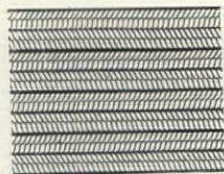
the window, while projecting inward ventilators do not extend outside the window. Projecting outward ventilators are used where it is necessary to have free aisle space along the window wall, where shading is important, or where pipes, conduits, racks, etc. pass across the ventilator. Projecting inward ventilators are used when the building is close to the property line and when economical screening is required. Both types of ventilators permit cleaning of the outside of the glass from within. Ventilators are balanced on supporting arms and are held in any desired open position, by forged brass sliding friction shoes.

*Truscon Intermediate Projected Windows installed in the Eight-by-Six-Foot Supersonic Tunnel office building at the Flight Propulsion Research Laboratory of the National Advisory Committee for Aeronautics, Cleveland, O.*

Write for complete information on Truscon Intermediate Projected Steel Windows.

## Improved Wall Construction

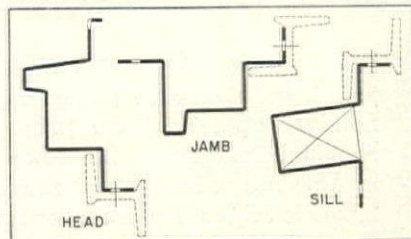
Truscon Metal Lath products are recognized by authorities for their strong construction features and fire-resistive qualities, especially for schools, hospitals, theaters, hotels and other buildings in congested areas. Truscon has a wide range of types of metal lath, corner beads, stucco mesh, corner reinforcements, hollow partition studs, base screeds, cold rolled channels and other products related to the plastering trades. All Truscon Metal Lath products are manufactured in accordance with U. S. Department of Commerce Simplified Practice Recommendation R-344. Write for catalog showing the complete line, or refer to SWEET'S.



*Truscon Doublemesh  
Herringbone Metal Lath  
Reg. U. S. Pat. Off.*

## Truscon Formed Steel Surrounds

Truscon now offers formed STEEL SURROUNDS for use with Residential Casements. Made of 18 gauge electro-galvanized steel, bonderized and shop painted with a high quality baked-on primer, surrounds are now available for use where a wider and moulded frame appearance is desired. The members are formed to pleasing contours lending depth and character to the appearance of the window openings and at the same time facilitating installation and anchorage.



Of particular interest to builders in concrete block or similar standard masonry units, are the resultant modular dimensional opening widths when steel surrounds are used with the popular two, three and four light wide casements. The opening dimensions of 3'-4", 4'-8 1/8" and 6'-0 3/8" work in closely with standard 16" modular masonry units, thus permitting the masonry walls to be laid up around window openings with full-blocks and half-blocks at minimum cost.

Truscon formed steel surrounds are designed for shipment knocked-down, permitting assembly and attachment in warehouse or at job site. The corners are accurately coped to present neat joints and the surround members are conveniently secured to the casement by self tapping screws.

The surround jamb members are made in the four standard Residence Casement heights. Head and sill members are provided for single unit openings in the four standard casement widths and, in addition, in widths permitting combinations of units up to a total of six lights wide. It is expected that the popular picture window openings of 1-3-1 or 1-4-1 unit combinations will prove particularly pleasing to architects, builders and owners. Write for catalog.

## Truscon Curb Bars

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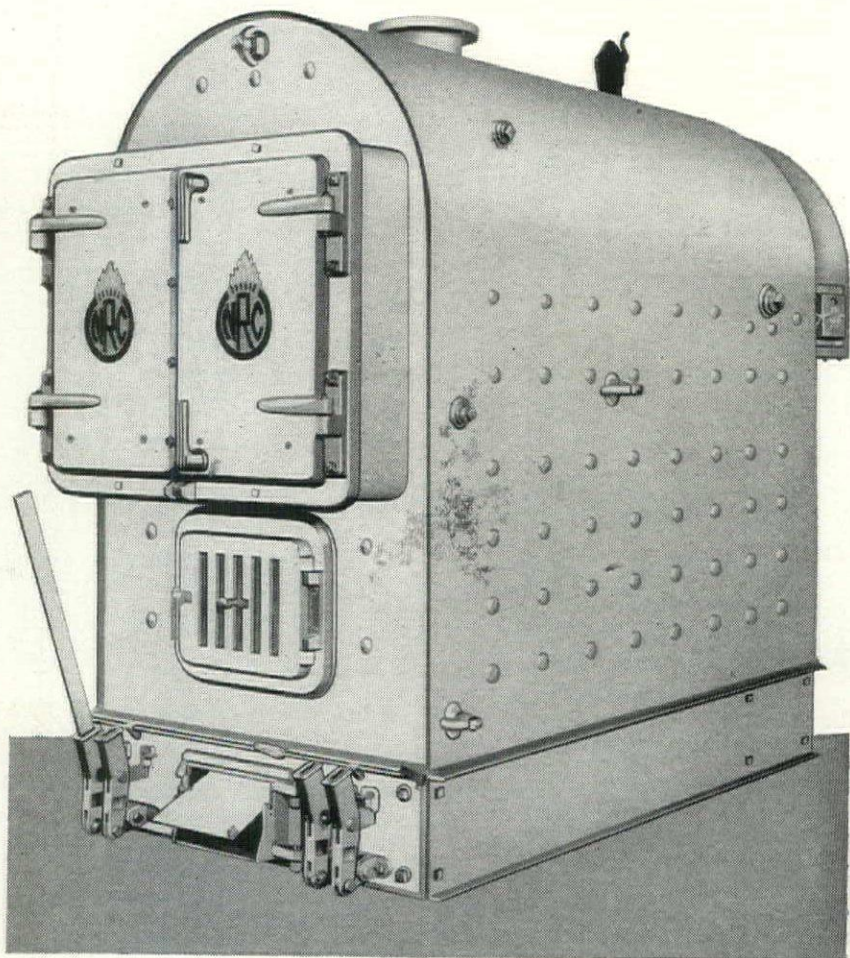
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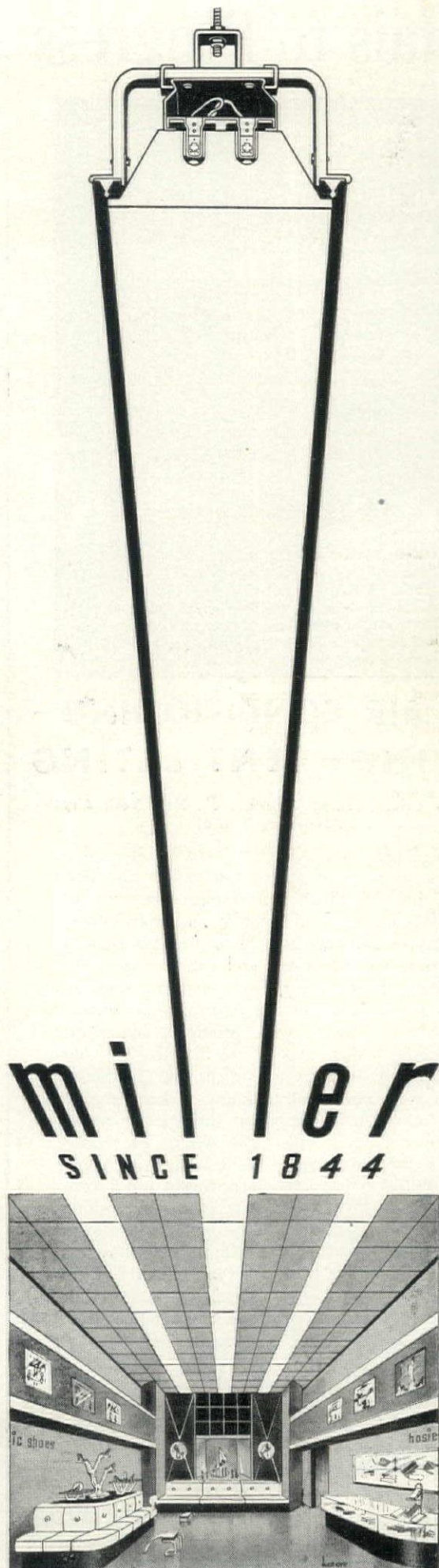
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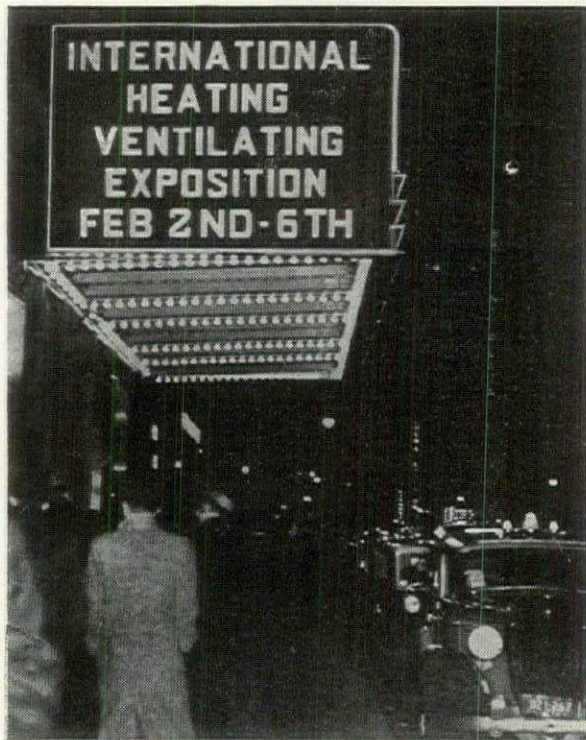
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## FORUM

Behind the scenes with FORUM contributors



**HENRY HEBBELN**, who makes his FORUM debut with a re-Connecticut farmhouse (p. 93), is one of the crop of architects who have opened their own offices since the professional record reads like a Who's Who of modern tecture, for among his former boss's are Alvar Aalto, Dailey, Antonin Raymond, William Lescaze. Graduate Cornell in 1937, Hebbeln also studied regional planning at Cranbrook Academy of Art, housing in Sweden, Denmark, Finland.



Philadelphia's super-colossal city planning exhibition (pp. 10-11) has involved, during the past two years, the talents of hundreds of Quaker City citizens. Near the head of this multitude is **OSCAR STONOROV**, designer of the project and one of the most important spark-plugs since he and colleagues Robert Mitchell and Walter Phillips dreamed up the idea in 1944. Stonorov, who studied in Florence and Zurich and worked in Paris under Andre Lurcat, has won his American reputation in the field of public housing and planning.



**EDMUND N. BACON**, co-designer of the exhibition, thought out many of his ideas via correspondence with Stonorov and more actively engaged in the invasions of Iwo Jima and Okinawa. Now Senior Land Planner for the Philadelphia City Planning Commission, Bacon started his career with a Cornell University job and study under Eliel Saarinen at Cranbrook Academy. His previous jobs include architecture in Shanghai, China; advisor of City Planning in Flint, Mich.; Managing Director of the Philadelphia Housing Association.



**ROBERT MITCHELL**, Executive Director of Philadelphia City Planning Commission, acted as liaison man between the designers and the city, supplying the vast amounts of information on which the exhibition was based. One of the original student days at the University of Illinois, when he worked on the late Henry Wright's Town Plan for Radburn, N. J., he served as chief of the Urban Section, National Res Planning Board.



**WALTER M. PHILLIPS**, is Chairman of the Citizens' Council, which, with the Chamber of Commerce, sponsored the exhibition. A graduate of Princeton and the Harvard School, Phillips got his start in 1938 with a Philadelphia charter movement which promptly failed. The group of frustrated young crusaders then turned to city planning, made a hot political issue, emerged in 1943 as the present influential Citizens Council. They are largely responsible for the establishment of a permanent city planning commission.



**EDWARD HOPKINSON, JR.**, honorary Chairman of the Planning Commission who served as coordinator of the exhibition, has been termed the most important man in Philadelphia outside of politics. As a partner in Drexel & Co., Vice President of the Investment Bankers Association of America, member of one of Philadelphia's oldest families and a name friend of every influential business and government figure in the city, Hopkinson insured both financial and legislative support for the planning project.



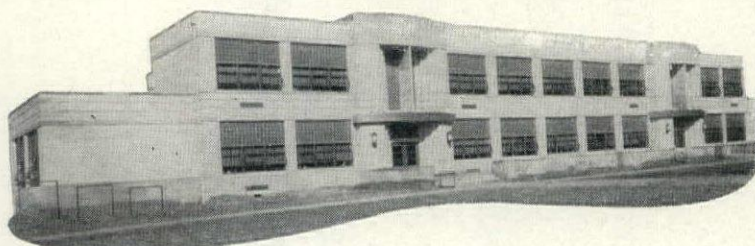
**ARTHUR C. KAUFMANN**, Vice President and Director of G. B. Brothers Inc. and Executive Head of the Philadelphia City Planning Commission, donated the 50,000 sq. ft. of space on Gimbel's fifth and sixth floors where the spectacular exhibit was staged. Kaufmann is not the first member of his family to take a flyer in modern architecture. Cousin and fellow-merchandise Edgar J. Kaufmann, President of Kaufmann's Department Store in Pittsburgh, is the famous owner of Frank Lloyd Wright's Fallingwater.



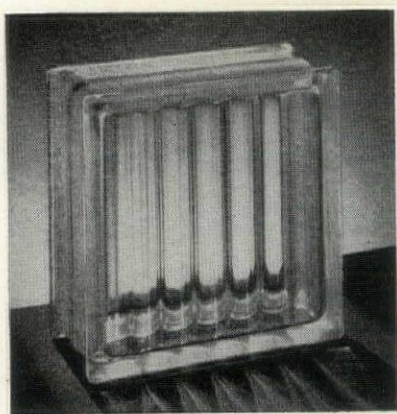
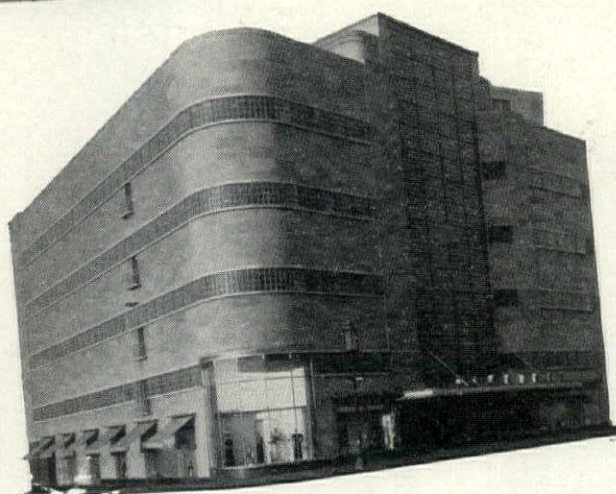
The panels of PC Glass Blocks in this big modern plant admit plenty of clear daylight into extensive shops, work rooms and offices. By directing good working light to remote desks, machines and benches, in all sorts of buildings, PC Glass Blocks prevent waste of valuable floor space and reduce artificial lighting costs—economies your clients will find important.



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The architect gave this fine modern store more "buy appeal" by his smart use of PC Glass Blocks. They also bring plenty of clear daylight into salesrooms, showing off goods on sale at their colorful best. Harmful dust and grit cannot infiltrate through the solid wall of glass, so damage is prevented, cleaning minimized. PC Glass Blocks help to pay for themselves in increased sales and profits. Stiles O. Clement, Architect.



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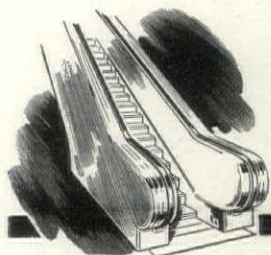
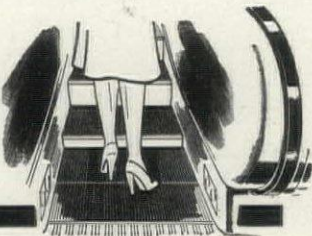
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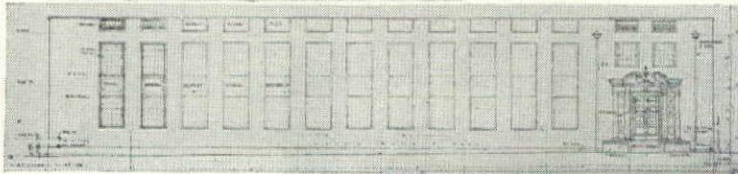
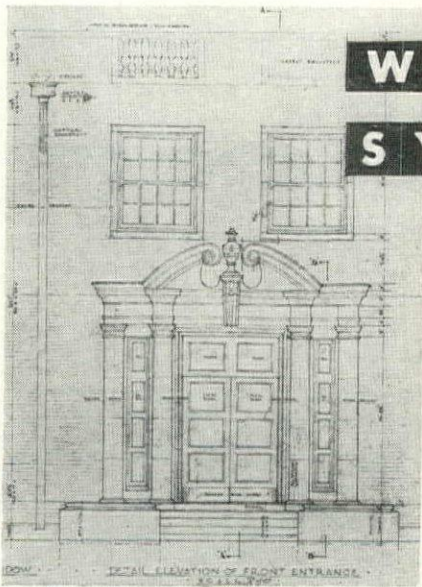
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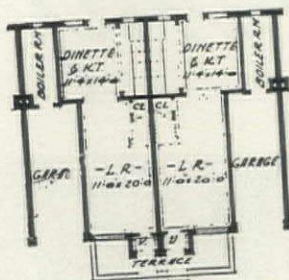
Write to us for our Catalogue No. 146 or consult  
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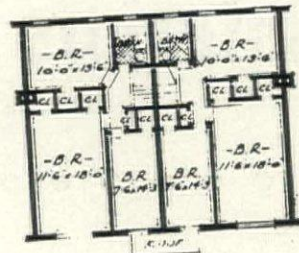
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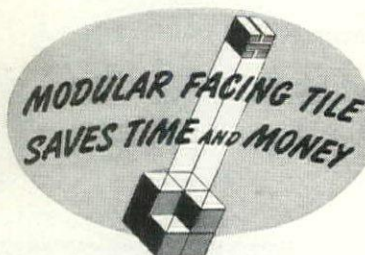
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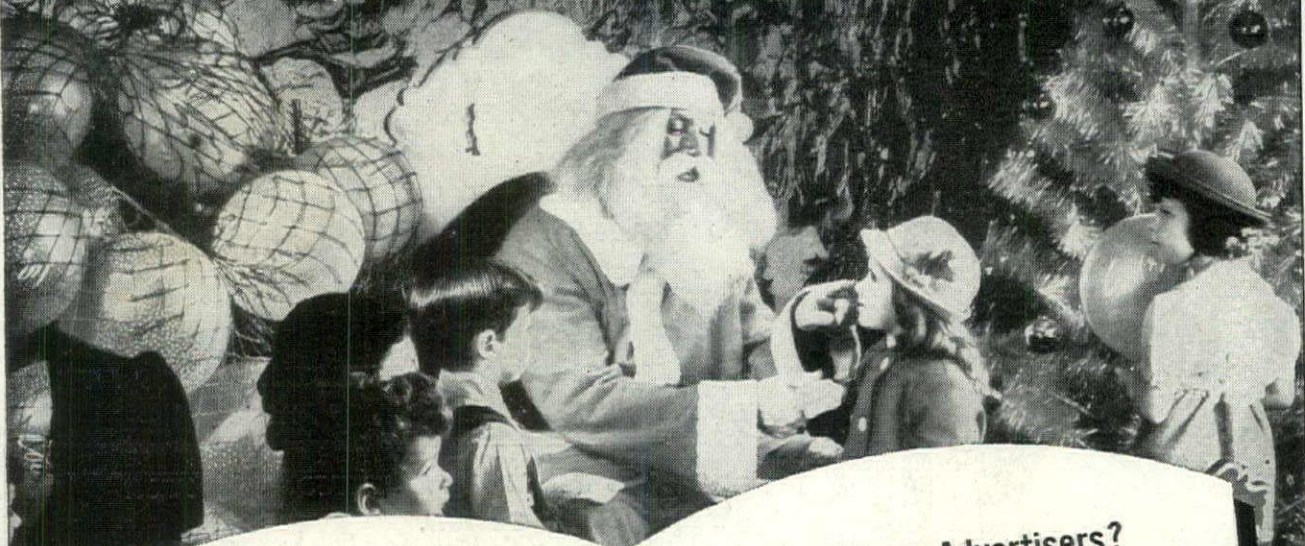
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### MAJOR APPLIANCES

Bendix Washer  
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### MAJOR APPLIANCES (Cont'd)

Deepfreeze  
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The Architectural

# FORUM

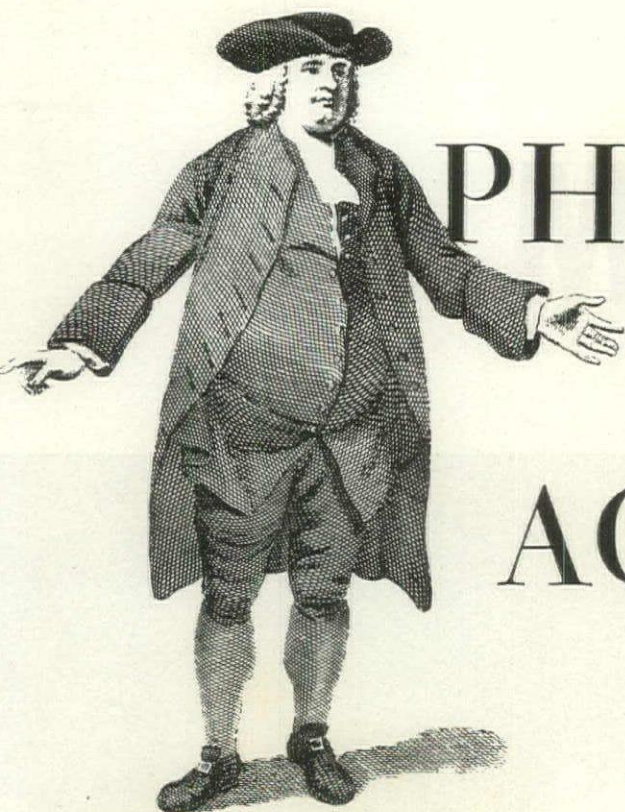
Magazine of Building



PHILADELPHIA'S MAMMOTH  
ANNING EXHIBIT EMPLOYS THE  
TOUCH, DRAMATIC DISPLAYS

*Esra Stoller, photos*





# PHILADELPHIA PLANS AGAIN

William Penn's Greene Countrie  
its ills in dramatic exhibition de

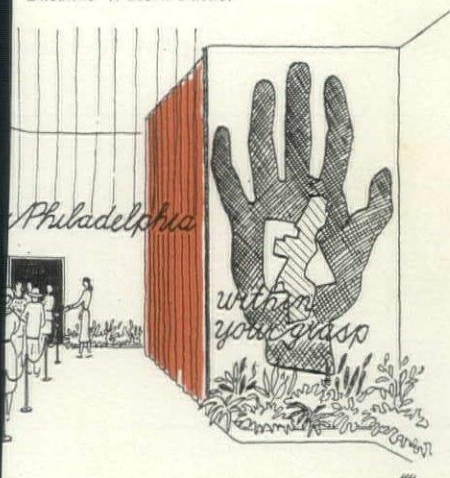
Last September and October, more than 385,000 Philadelphians came to see one of the largest and most spectacular displays ever designed to sell city planning to the citizenry. Costing \$340,000 and occupying an advantageous spot on Gimbel's fifth and sixth floors, the exhibition boasted three-dimensional models, a huge aerial photo map, movies, a diorama, murals, wall panels, cartoons, a reproduction of an actual street corner and mechanical gadgets—every device known to the display artist—to sock home what is wrong with Philadelphia and what, specifically, can be done about it. In contrast to the extravagant character of the exhibition, however, the improvements it suggested were realistic ones. The value of dramatic displays was in bringing abstract concepts down to human scale, showing the layman, simply and forcefully, what city planning could mean to him.

The exhibition, designed by architect Oscar Stonorov and planner Edmund Bacon, was the climax of but five years of actual planning work, for unlike most large cities, Philadelphia did not even have a paid plan commission prior to 1942. Famous as one of America's early planned communities laid out by William Penn in 1786, Philadelphia grew haphazardly out of its original small boundaries, pushed by expanding commerce, controlled by machine politics and upheld in righteousness by memories of Benjamin Franklin and the Continental Congress. Not until the past decade, when industry started moving away and the phrase "City of Beautiful Homes" began to ring hollowly in Philadelphia's dingy streets, did a complacent citizenry start to worry. The city's present planning enthusiasm stems from the year 1940 when a few civic-minded young men formed "The City Policy Committee," an organization which has since snowballed into one of the most vigorous planning movements in the country. Keynote of their meetings was the feeling—"since we have to live in the darn place all our lives, we might as well do something about it." Heading this vanguard was a brash bluestocking named Walter M. Phillips, fresh out of Harvard Law School and aching for reform. After the failure of an ill-fated

city charter movement, Phillips rounded up the frisky young progressives who had backed it and gave them something new to think about: city planning for Philadelphia. First necessity here was an expert grasp of the problems involved in running a big city—thus availing the charge of useless muck-raking before it could be made. Fifty of them—doctors, lawyers, architects, engineers, experts and social workers—met at luncheon two weeks to talk government structure, sewage disposal, segregation, neighborhood planning. A compact organization, "The Lawyers' Council on Civic Affairs," was also set up in this eventful year to do a similar job in more conservative quarters. Remembering the fate in an unfriendly council of earlier attempts to establish a planning commission, the two underground groups (now united as "The Joint Committee on City Planning"), laid their strategy carefully. They had submitted to the City Council an ordinance calling for a permanent planning commission. Unlike New York's powerful one-man operation, it was to be an advisory group, working through the Mayor and Councilmen. They felt to be, not only a preferable scheme, but one more acceptable to wary legislators than a super-government capable of dictating its demands. Nevertheless, it was a figurehead organization. It asked for a nine-man board of experts, a top caliber technical staff under civilian supervision, and an adequate budget. Council President Galloway introduced it "By request," which said to the knaves "Don't take it seriously, boys."

The knock-down battle which ensued is, in retrospect, blessed by the young liberals, for it necessitated gathering widespread support for the planning program. The City Policy Committee went after nearly every organization in the telephone book, from the T-Square Club to the Graduate City 52nd and Market Streets Business Men's Association. They corralled architects, engineers, and lawyers, hauled in wives, the Chamber of Commerce, clergymen. Edw. J. Hopkinson, Jr., one of the most powerful business leaders in Philadelphia, had already seen the light. He paid an important call on Mayor Samuel. Under attack from



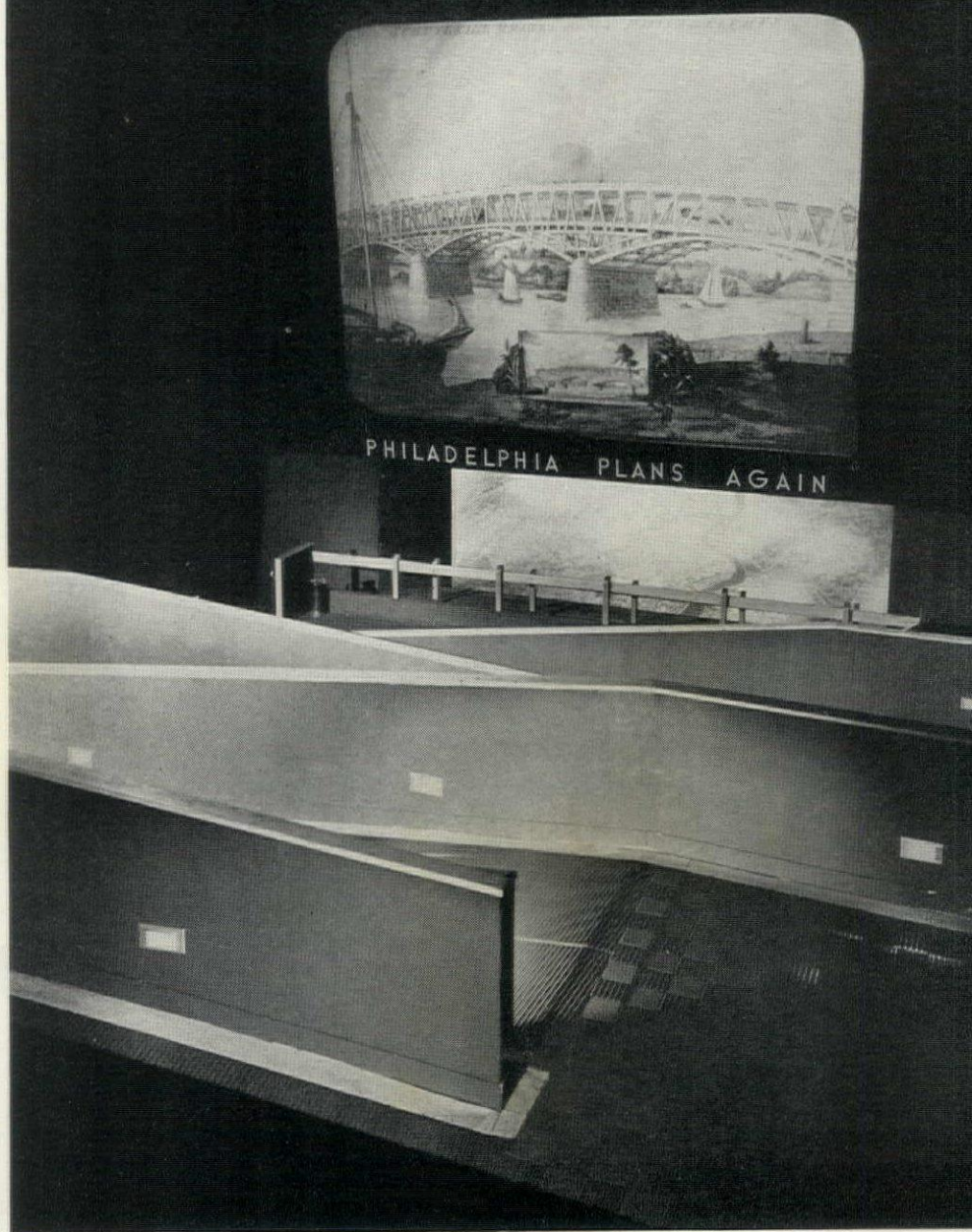


## gray, machine age city, diagnoses future citizen support for planning

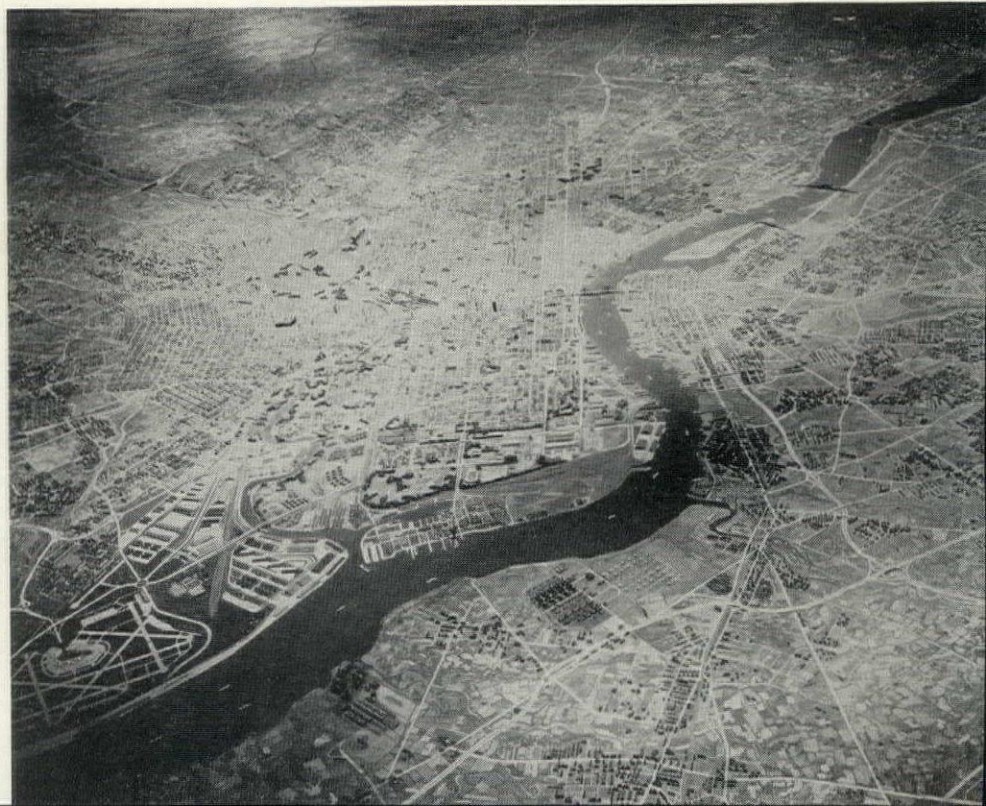
and the bottom, City Hall crumpled. After two  
checked public hearings, called "stampede" by a hard-  
d realtor, the ordinance was unanimously approved.  
Samuel obediently appointed a first-rate com-  
n with an initial budget of \$40,000 [now \$200,000  
lly] and a technical staff headed by expert Robert  
tchell, formerly of the NLRB. Many planners be-  
that the commission is the best in the country

ce their victory, the Planning Commission has in-  
d successive six year plans which are referred to  
ty Council every September and are distinguished  
e down-to-earth character of their suggestions. They  
also worked out a more ambitious long-range pro-  
which takes Philadelphia up to 1982.

st important work of the past year and a half has,  
urse, been the huge exhibition designed to explain  
programs to the great mass of Philadelphia citi-  
Jointly sponsored by the Chamber of Commerce  
he Citizens Council on Planning (latest name for the  
Joint Committee" which by now boasts 114 member  
izations), the exhibit has been in the idea stage  
1944. At that time Stonorov, Phillips and Mitchell  
ght forth this grandiose scheme for educating the  
ic, but not until the end of the war could it get fully  
r way. In 1945, Hopkinson, who pulled so much  
ht in establishing the Planning Commission, again  
ed to. He extracted contributions of thousands of  
ars from Philadelphia businessmen and insured poli-  
and financial backing from the city. Publicity, un-  
edented in scope and given free, included 2 million  
cards, posters, window displays and billboards, over  
columns of news stories, 20 full pages of advertis-  
63 major radio broadcasts and 228 spot announce-  
ts. The public could hardly help itself. It came,  
ed and, according to questionnaires collected at the  
bit, was impressed. Whether or not the impression  
be lasting remains to be proven. But at the very  
t, thousands of citizens are no longer in the dark as  
what city planning means and means for them.

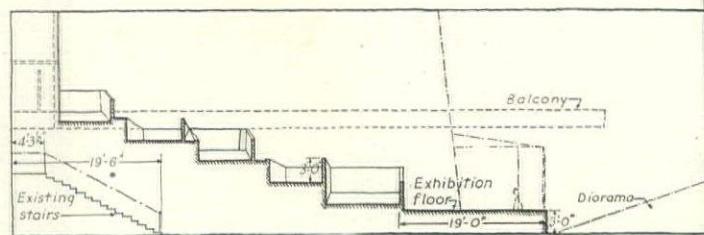
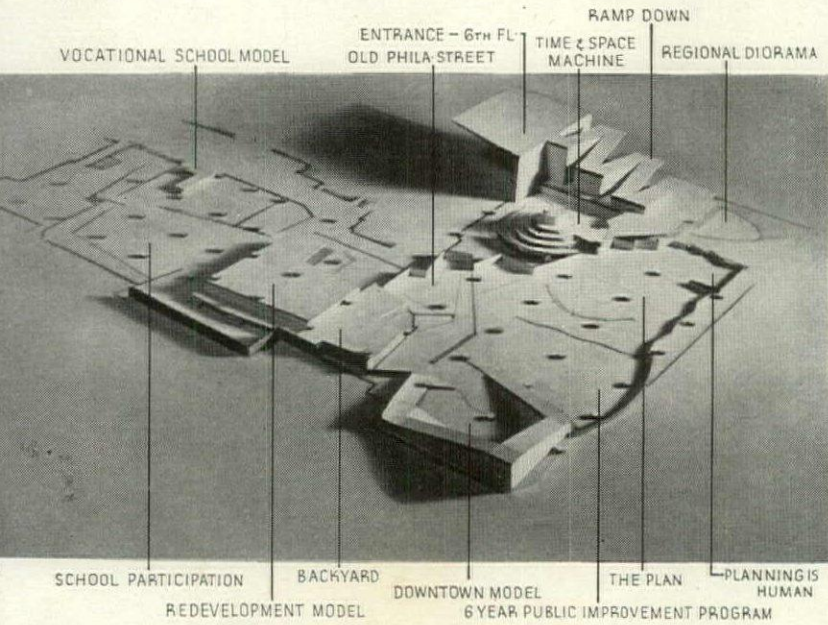


RAMPS which lead from the lobby entrance were designed as a bottleneck, regulating traffic flow into the main exhibition rooms. First display at foot of ramps contrasts projected engravings of old Philadelphia with a diorama of the future city in 1982—as it will look if the ambitious planning program is put into effect. A recorded commentary used throughout to supplement visual material, begins here with an introduction to the goals of city planning.

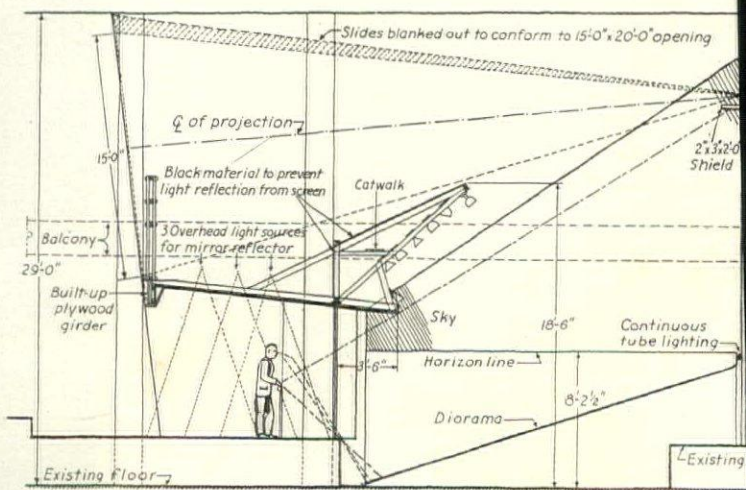




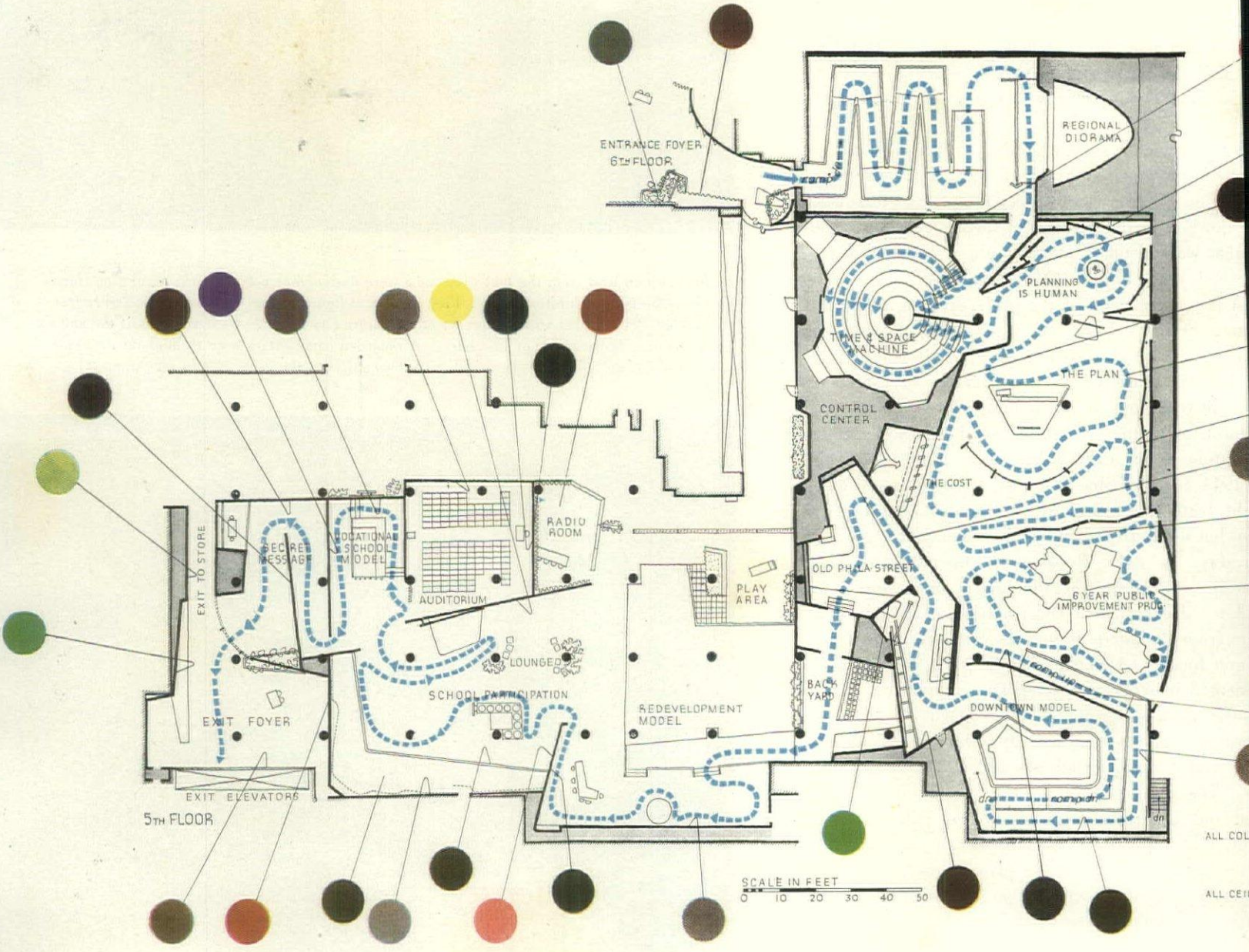
Adroit layout and handsome settings employ sound and motion in almost every known display technique



SECTION THROUGH RAMP



SECTION THROUGH DIORAMA





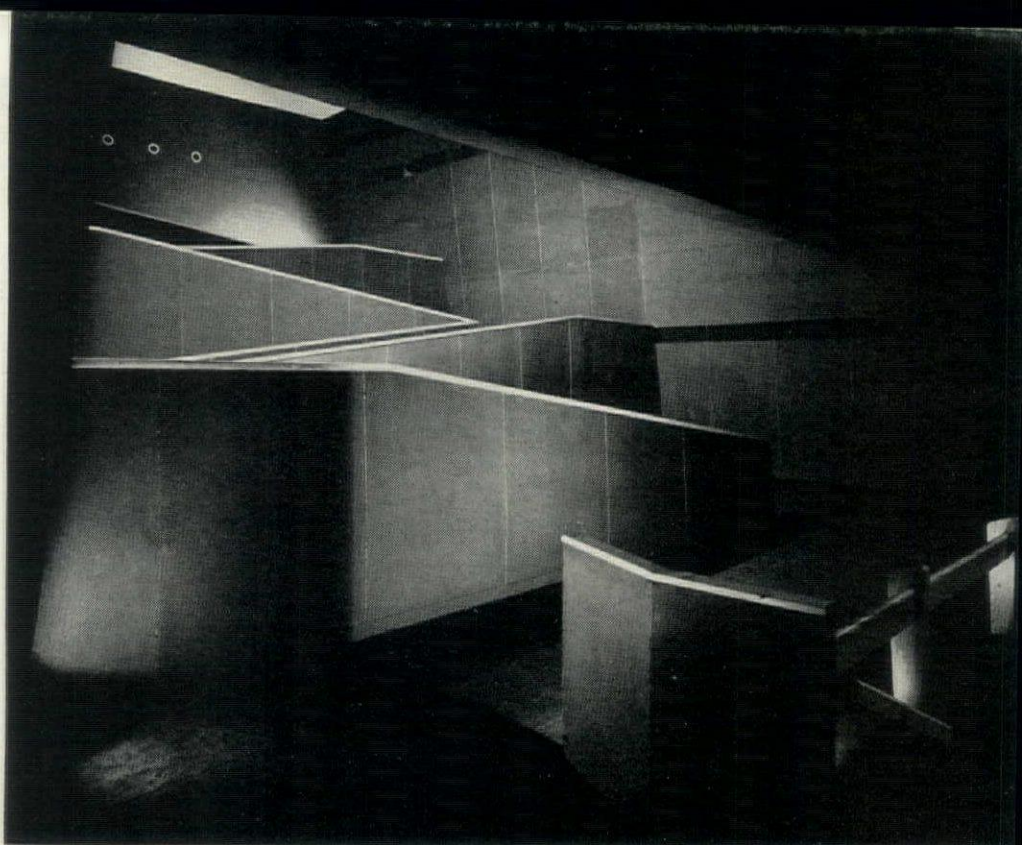
ance to the exhibition, with ramps leading into a brightly illuminated area, is strikingly reminiscent of Futurama at the World's Fair. Visitors are guided by the voice of a narrator which recurs throughout the show to emphasize the message of visual experience. This entire introductory section, including the diorama and the theatrical "Time-Space Machine," is kept in semi-darkness with individual displays dramatically lighted from behind. Visitors then move into a large open section with bright, overall illumination. This alternating play of darkness and light is used adroitly throughout the exhibit to help separate sections and avoid monotony. Wall surfaces have been painted in a variety of gay colors, another simple technique for heightening mood and defining separation. Boundaries have been kept simple in order to focus attention on the graphic material and, on the whole, the entire structure is stylish and expertly done.

The treatment of light and color of necessity played an important part in the organization of such a complex exhibit. Equally important was the changing of floor level at strategic points. An existing two-story auditorium at the corner of the building was utilized as a space between the sixth floor entrance and fifth floor exit rooms. The ramps were placed here, descending from a platform which allows visitors to look down on the diorama below. This raised floor section then feeds into the Time-Space Machine, an exhibit designed as a series of concentric circles to provide easy vision of displays along the wall. Finally, spectators reach the fifth floor level which extends for the major portion of the exhibit. Ramps are again introduced at the downtown redevelopment study to allow a birdseye view of the giant scale model. Only other raised area is a row house mock-up.

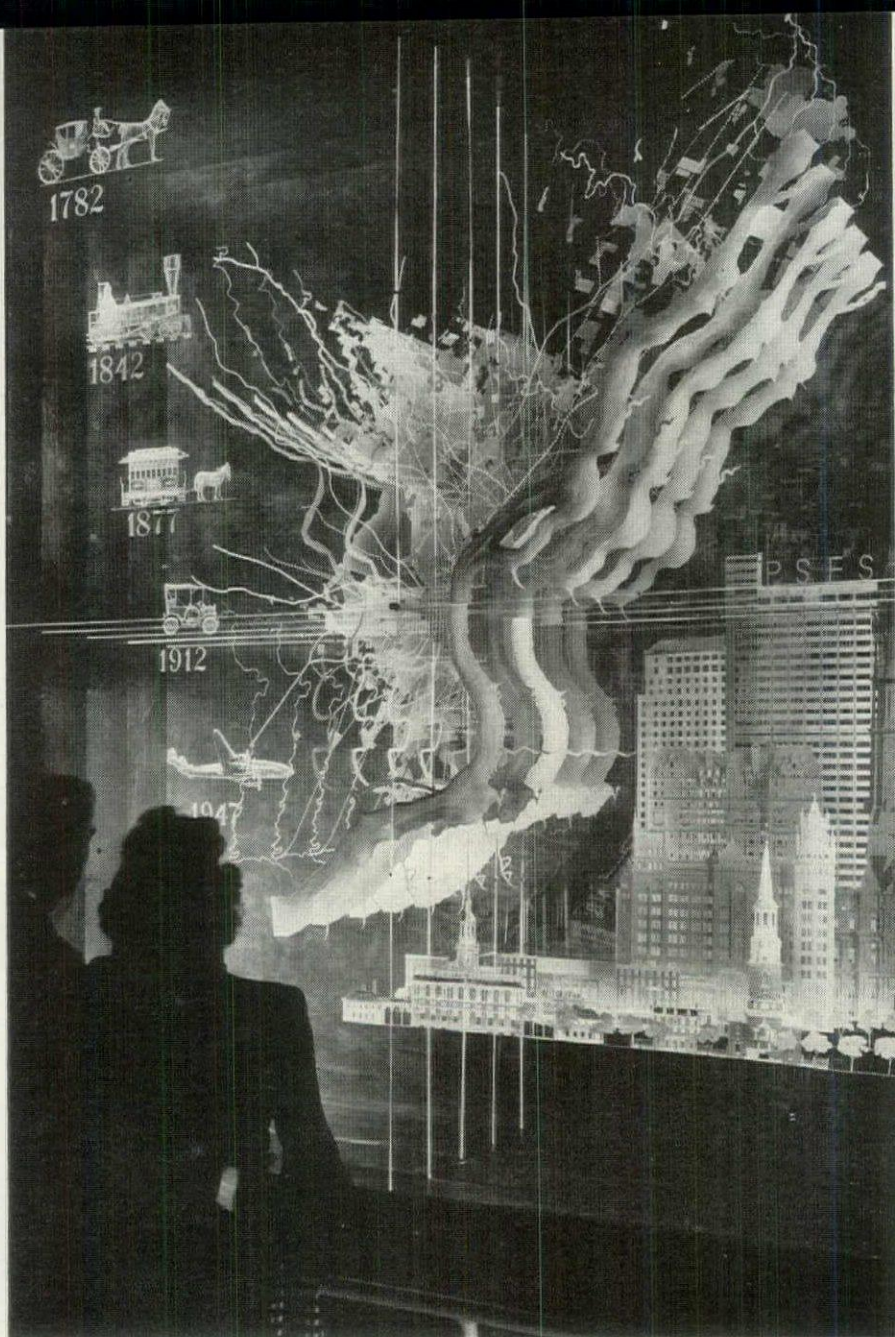
A compromise between forced and free circulation has been used to facilitate viewing of different types of displays. Visitors must follow a general route, but within these limits are allowed considerable latitude in browsing. In the Time-Space Machine, however, visitors are admitted in groups of 85 to 100, pausing successively at four lighted stages for a recorded explanation of the displays. At the downtown model, visitors stand on surrounding ramps until the demonstration is finished.

Because the idea behind the exhibit is to take city planning out of the abstract category, numerous humanistic techniques have been employed. Cartoons by Herbert Osborne, nationally known artist, remind visitors that city planning is just a large-scale application of everyday process — like ordering groceries or buying furniture. The full-size replica of a typical row house, showing what can be done by private citizens to improve their own backyards, also provided a human touch. Favorite of the entire show, however, was the final exhibit, a display of neighborhood replanning by children.

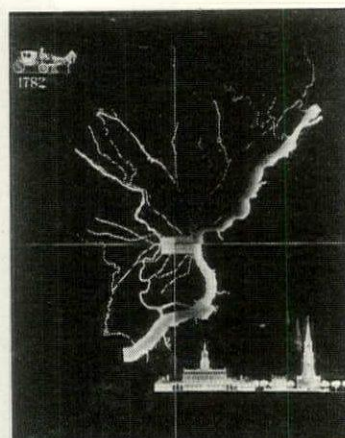
Typical of the lush scale of the undertaking is the television and television room from which 60 newscasts and 115 telecasts were directed at Philadelphians during the exhibit's run. Most thoughtful provision was a room reserved as a supervised play space for children.





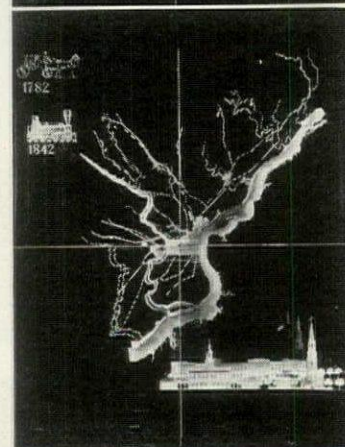


SUPERIMPOSED, edge-lighted plexiglas planes, illuminated one after the other, show growth of Philadelphia from 1782 to 1947. Changing methods of transportation which have basically influenced the city's pattern are illustrated together with important buildings of their era. Final map (above) reveals speed-up of decentralization caused by the airplane, plus present congested mid-town skyline with Girard Trust and Philadelphia Savings Bank towering over earlier buildings.

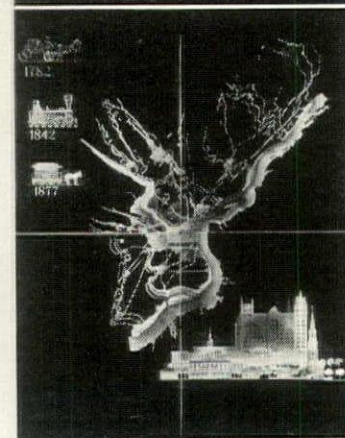


1782 Horse and carriage Philadelphia planned it, a small, unfilled area between the Delaware and Schuylkill rivers. Independence and Christ Church are city landmarks.

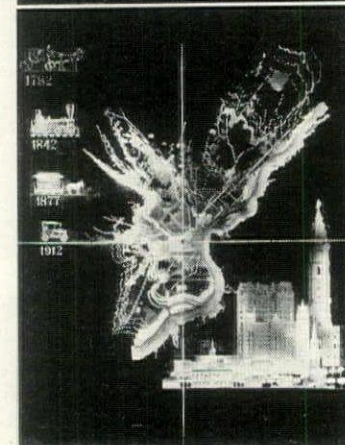
## Growth and decay



1842 The steam railroad has been invented and its growing network has brought Philadelphia new in new communication, new commercial buildings on central Market Street.

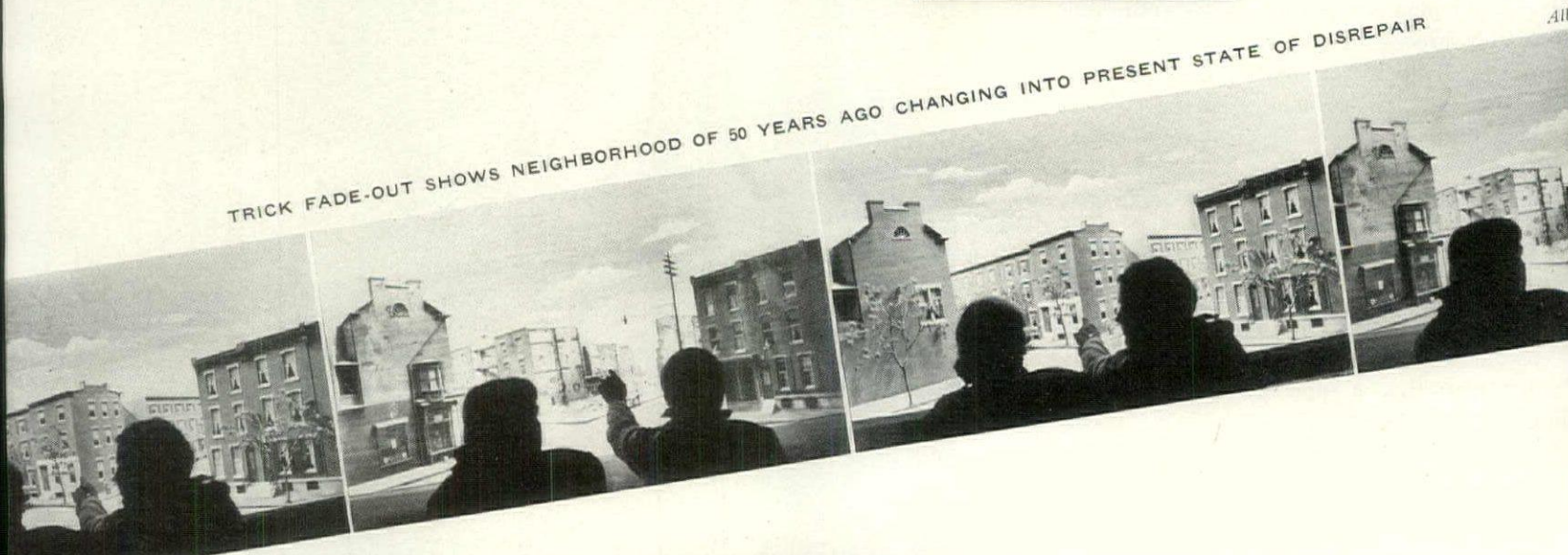


1877 Horse-drawn trolleys and railroads are spreading residential areas. At the time: Broad Street Station, the "Chinese Wall" (elevated tracks which cut the city in two).



1912 The age of the automobile has begun and the city has spilled its boundaries into the country. City Hall and The Bellevue-Stratford Hotel push the skyline higher.

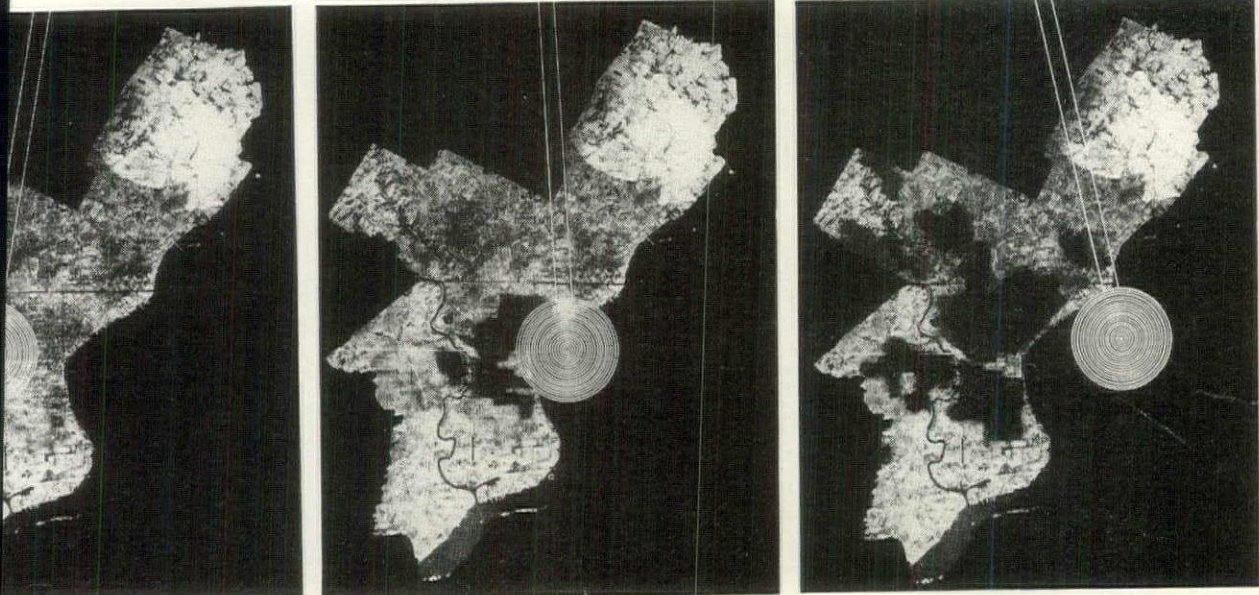
TRICK FADE-OUT SHOWS NEIGHBORHOOD OF 50 YEARS AGO CHANGING INTO PRESENT STATE OF DISREPAIR



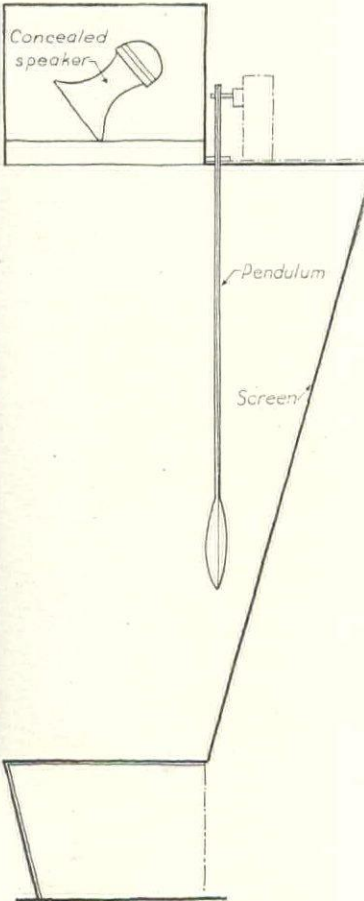


in a series of changing displays dubbed the "Time and Space Machine"

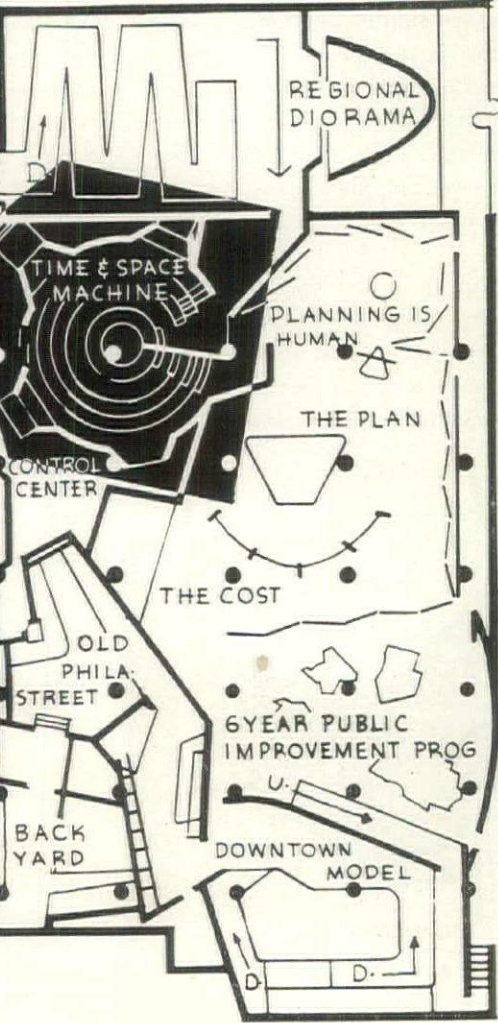
Ezra Stoller, photos



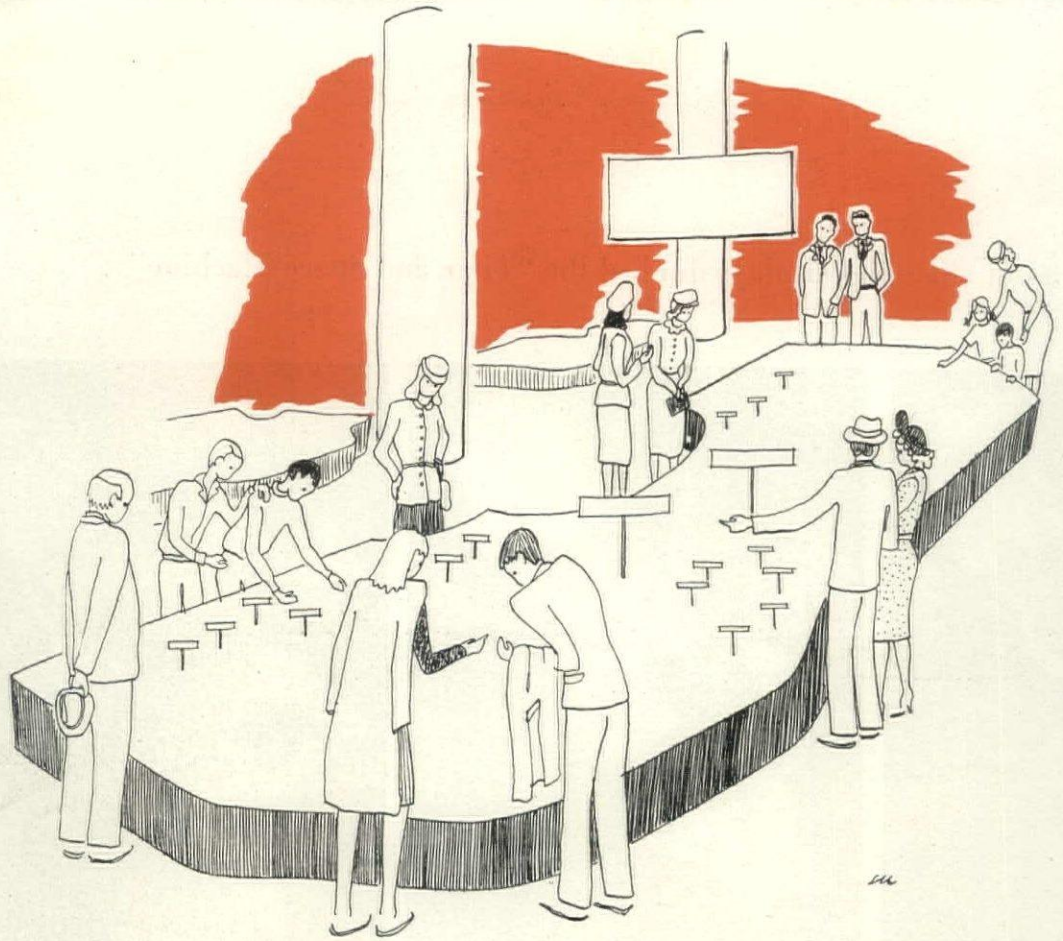
PENDULUM SWINGS, THE SHADOW OF BLIGHT SPREADS GRADUALLY OVER THE HEART OF THE CITY



SLOGANS CALLING FOR CITIZEN SUPPORT LEAD FROM PAST TO HOPED-FOR FUTURE





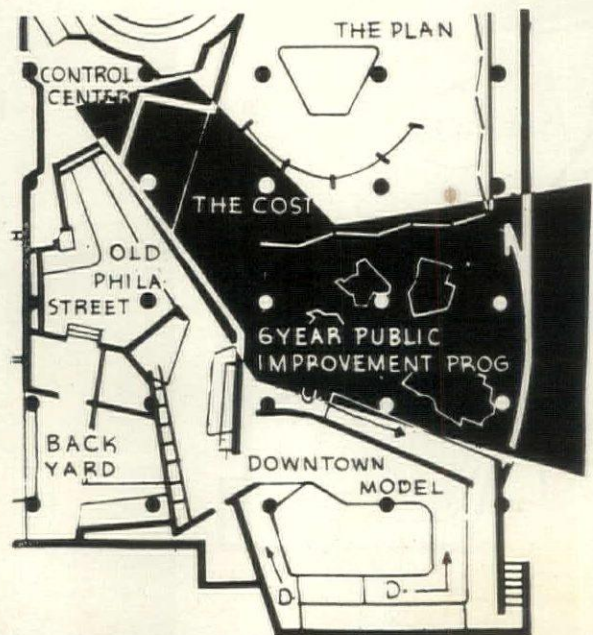


Giant air view shows how realistic six-year program would change the city's face

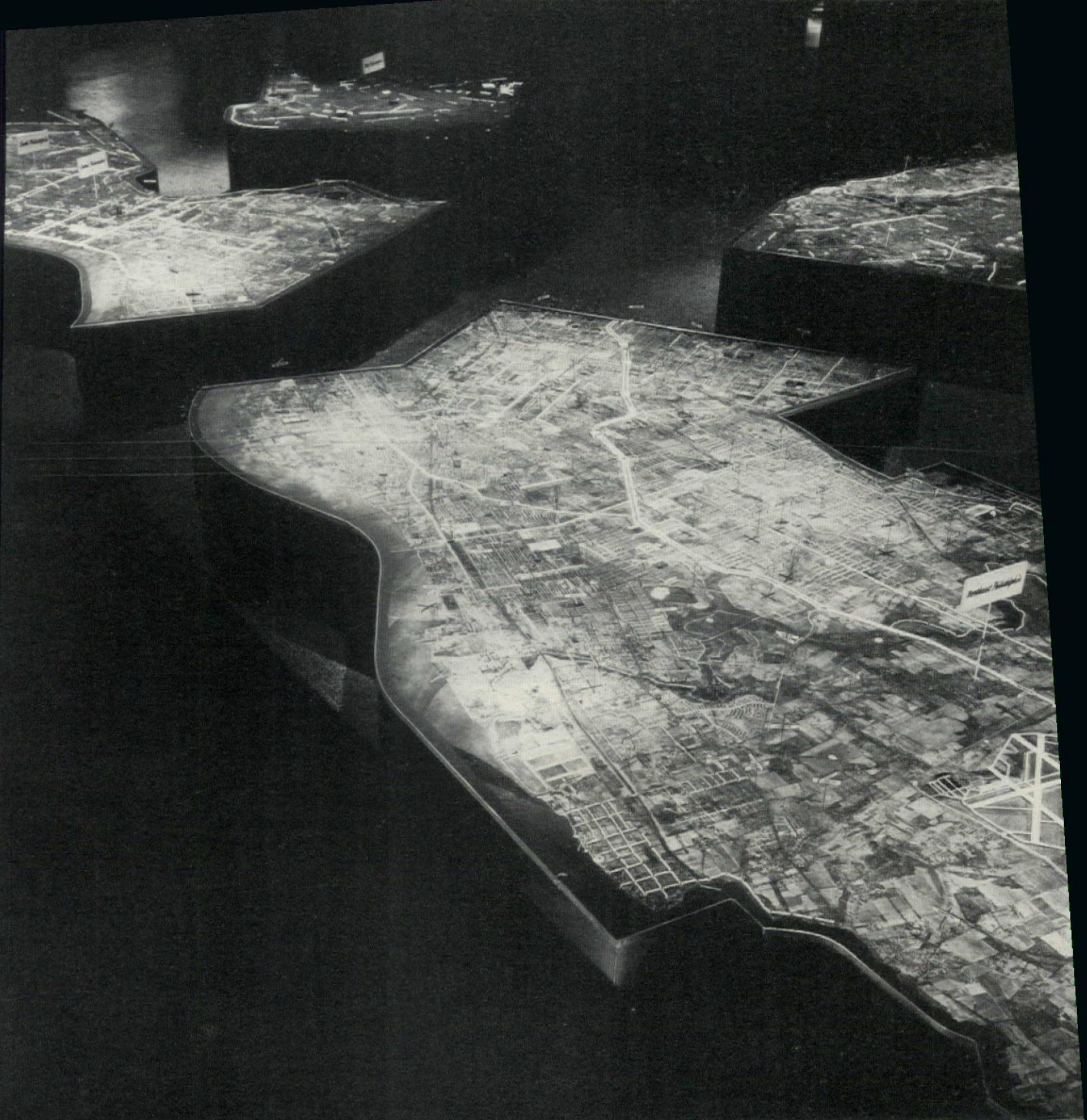


This huge photo-mosaic features only projects already approved by the City Council. It is of particular importance in gaining the confidence of a public made cynical by utopian futuramas and the promises of local politicians. Every project, down to the last length of pipe, has been accounted for in the current six-year budget although much construction has not been definitely scheduled due to material shortages and similar complicating factors. The display also shows the continuity of the six-year programs. Each September a new plan including unfinished projects from the preceding year's recommendation plus one year's new work, is submitted by the Planning Commission to the City Council. Thus at any given time, some Six-Year plan is in effect. Each succeeding plan is modified to allow for such factors as available funds, labor market, material shortages, general business conditions, etc.

The map (see right) is divided into four sections, South Philadelphia, Central Philadelphia, West Philadelphia and Germantown, so that spectators can get a close view, locating their neighborhood and their own home. Thus, improvement gains a personal meaning which could not be conveyed by an abstract listing of projects.





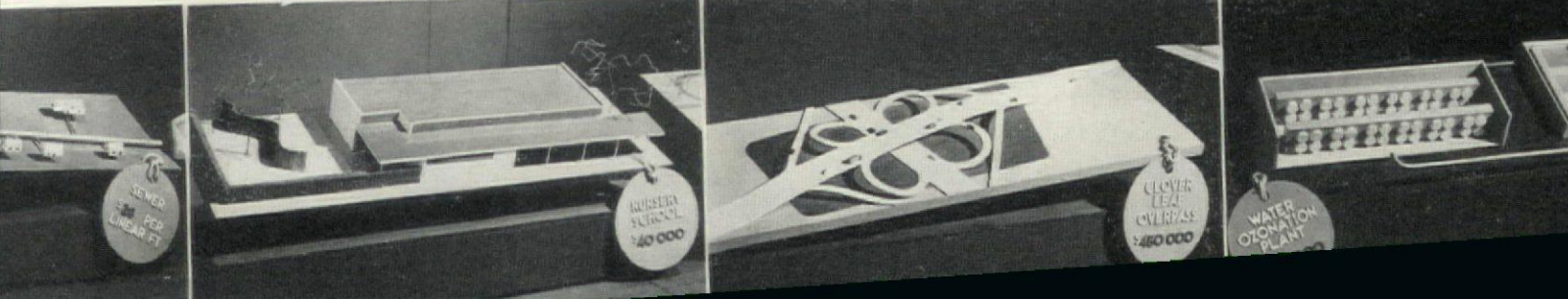


PUBLIC IMPROVEMENTS ARE SPOTTED ON SECTIONAL PHOTO-MOSAIC BY MEANS OF PLASTIC SYMBOLS, LIGHTED FROM BELOW

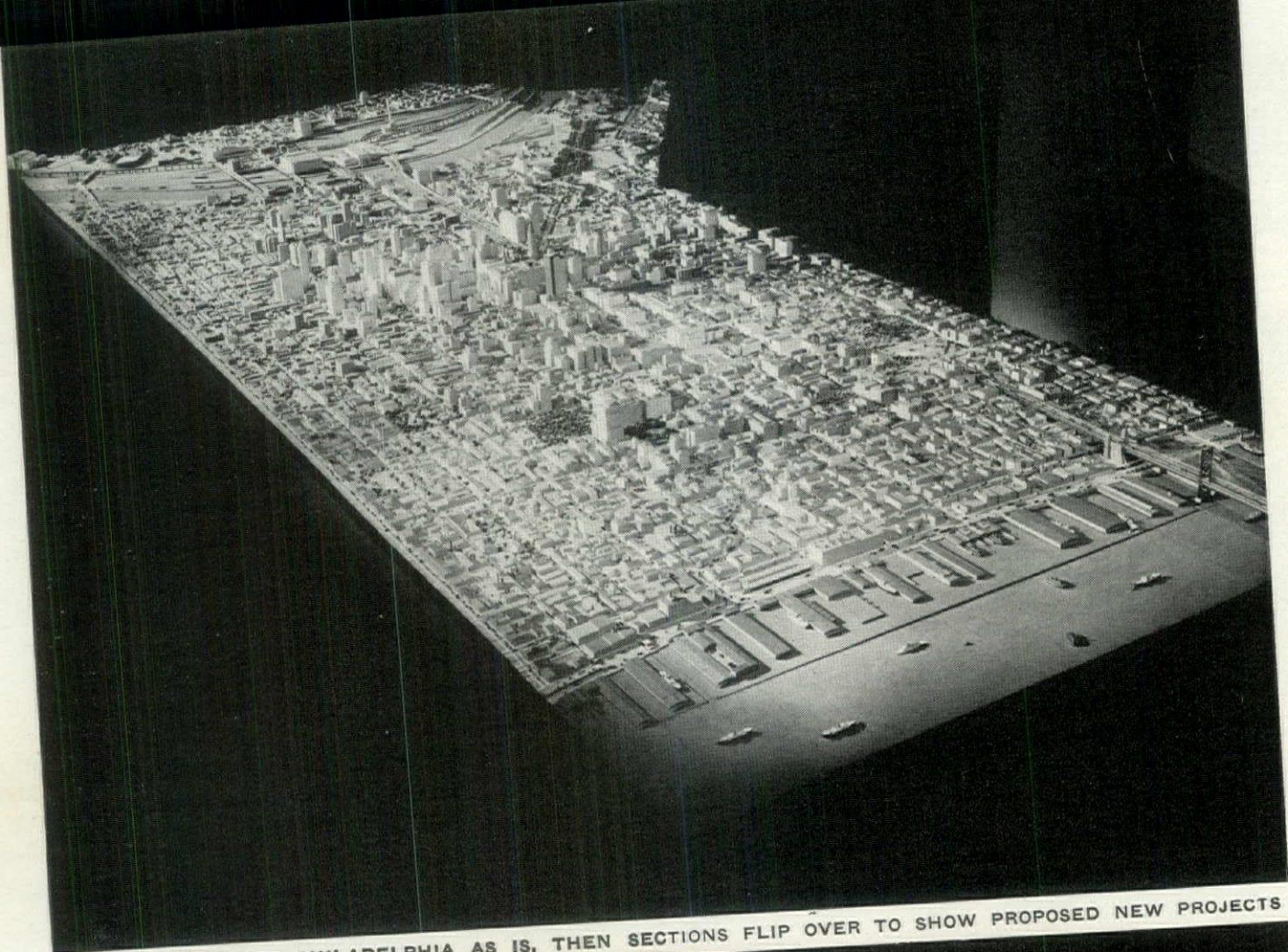
rd and street signs are placed at close intervals to enable visitors find their way easily in the map. The 1947-52 plan shown here typical of Philadelphia's down-to-earth improvement program. It ludes: 1) Abatement of river pollution, extension of sewers and er lines. 2) Full development of Southwest Airport. 3) Replace- nt of elevated tracks in center of city by a new boulevard.

- 4) Construction of Penrose Avenue Bridge and approaches. 5) In- creased recreation facilities such as parks, playgrounds and swimming pools. 6) Extension of Market Street subway. 7) New health centers, schools, and other much-needed institutional building. 8) Incinerators for improved refuse disposal. 9) Completion of Pier 80, South Wharves. 10) New highways and street paving. 11) New police and fire stations.

ICE TAGS ON SCALE MODELS OF TYPICAL PROJECTS GIVE TAXPAYERS A REALISTIC IDEA OF THE COST OF CIVIC PROGRESS

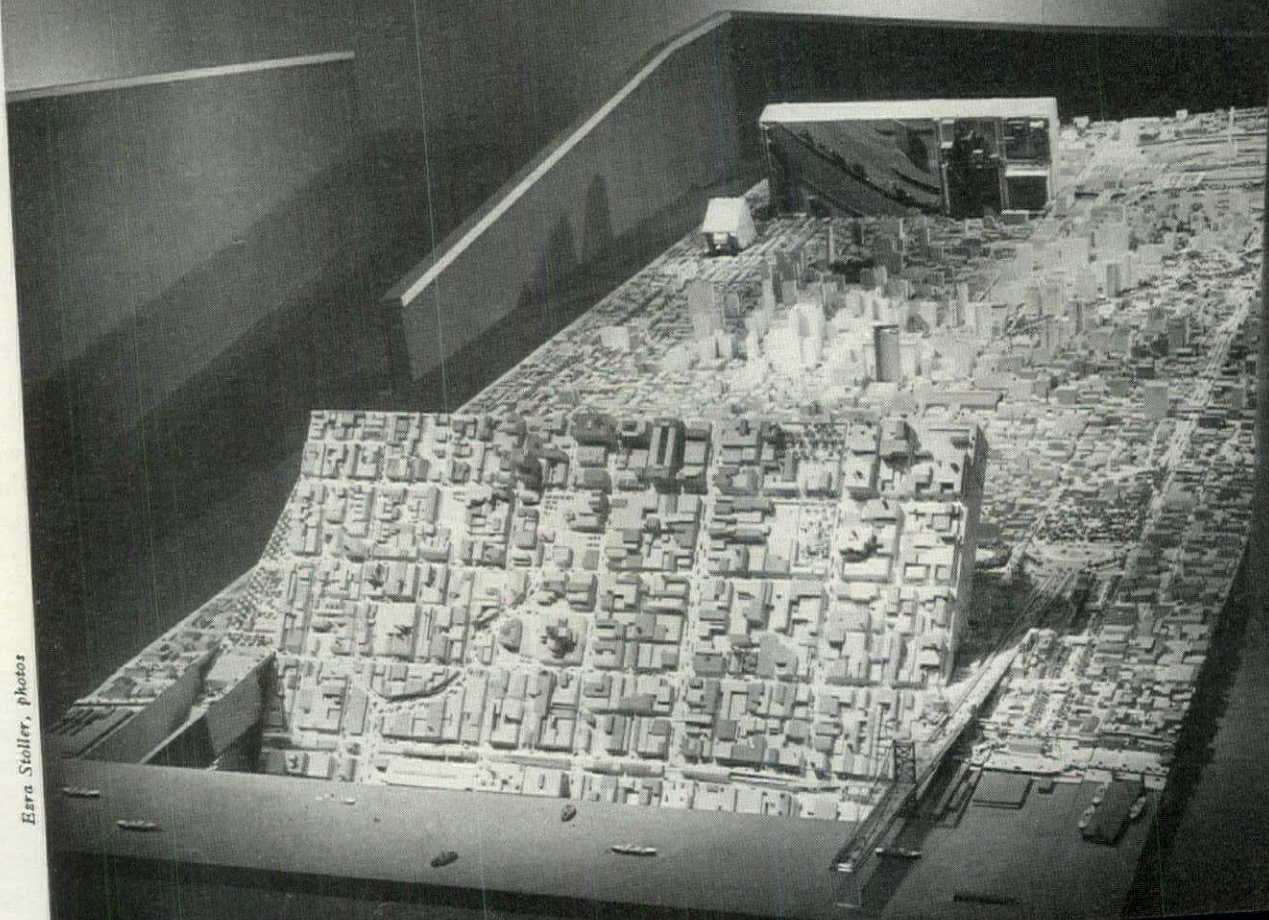






VISITORS FIRST SEE PHILADELPHIA AS IS, THEN SECTIONS FLIP OVER TO SHOW PROPOSED NEW PROJECTS

SECTION 7  
DOWNTOWN PHILADELPHIA





## Scale model of downtown improvements

is a successful tour de force

The most elaborate display in the exhibition is a 30 x 14 ft. scale model of the downtown area of Philadelphia from the Delaware River on one side to the University of Pennsylvania beyond the Schuylkill River on the other. As the visitors approach down a ramp, they first see the city as it now is. Then, synchronized with an explanatory dialogue and section-by-section spot lighting, portions of the model flip over to show the proposed improvements. Eventually the entire model is reversed, showing the center of Philadelphia as it could be in 30 years if all improvements were carried through. This is the long-range program for which the Planning Commission particularly needs informed citizen support and which is therefore the major *raison d'être* of the exhibition. Improvements include a widened Vine Street (the state has already acquired the necessary land), a large bus terminal, an express highway along the Delaware River, a new merchandising center with underground parking at the foot of Market Street, new bridges and apartment house projects, a stately mall to set off Independence Hall (the state has set aside \$4 million toward the purchase of ground and buildings) and the replacement of the "Chinese Wall" with a new midtown boulevard.

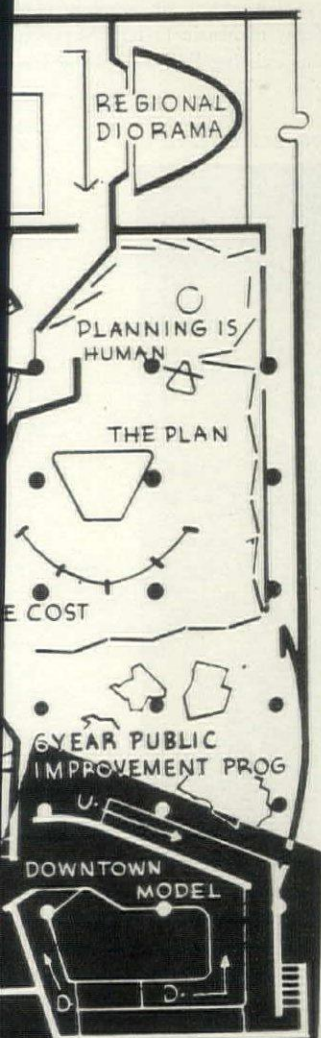
The model itself cost \$50,000, took nine months to build and contains 45,000 buildings, 25,000 autos and buses and 12,000 individually made trees, fashioned of buckram.



enn, Life

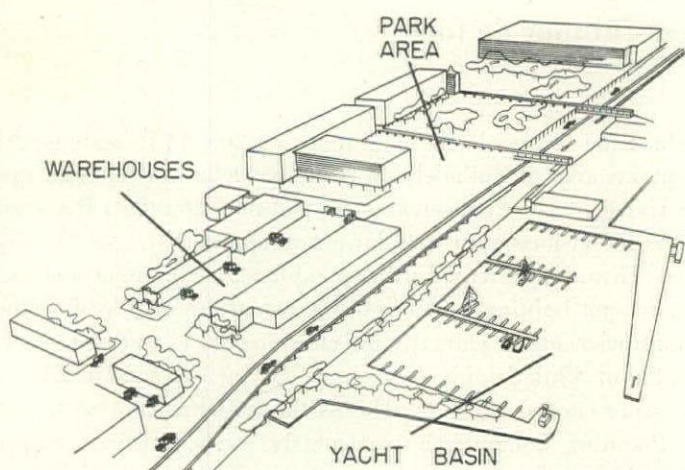


UPSIDE-DOWN MODEL shows central section of city as it should look by 1982. View is from West Philadelphia past the Schuylkill River toward the Delaware. A park on the banks of the Schuylkill, widening of Lombard Street and a bridge are visible in right foreground. Existing 30th Street Station (center) has a cross-river approach from City Hall, replacing elevated tracks of the "Chinese Wall."

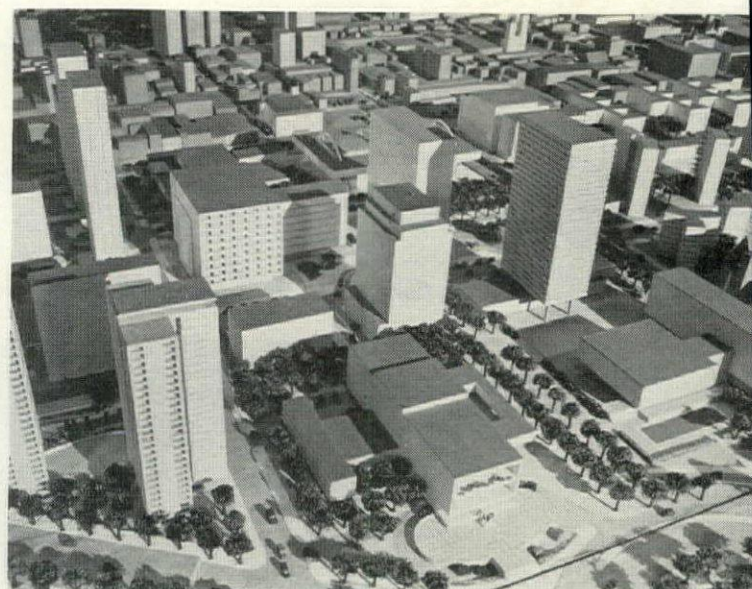
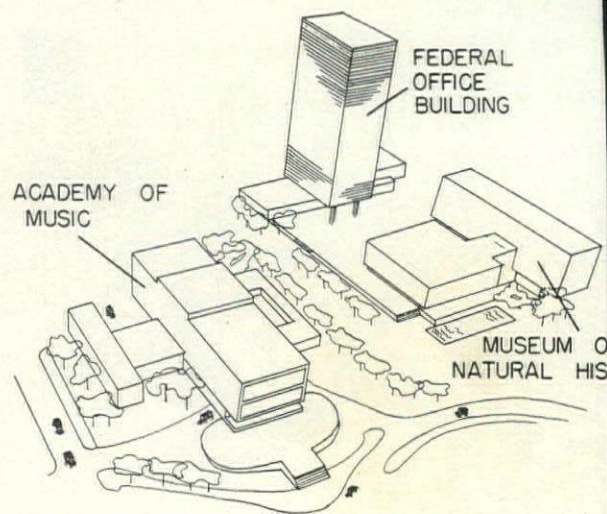




Close-up views of proposed projects for downtown Philadelphia, worked out in detail by various arch



REDEVELOPMENT OF DELAWARE RIVER FRONTAGE. Express highway is flanked by yacht basin and a wholesale center, designed with underground parking. Adjoining the center is a playground.



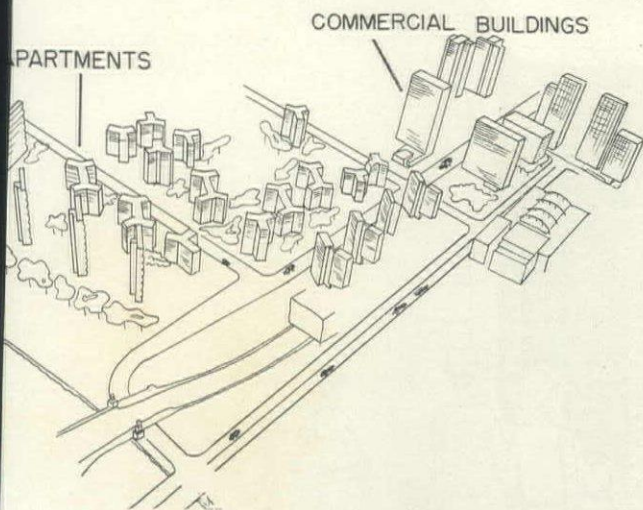
NEW PUBLIC BUILDINGS. Low structures connected by sunken plaza. Museum of Natural History (right) and Academy of Music (left). Skyscraper is the new Federal Building which adjoins existing Bell Telephone Building.

VINE STREET BRIDGE ADJOINS APARTMENT GROUP, IS SURROUNDED BY PARK ON EITHER BANK OF SCHUYLKILL





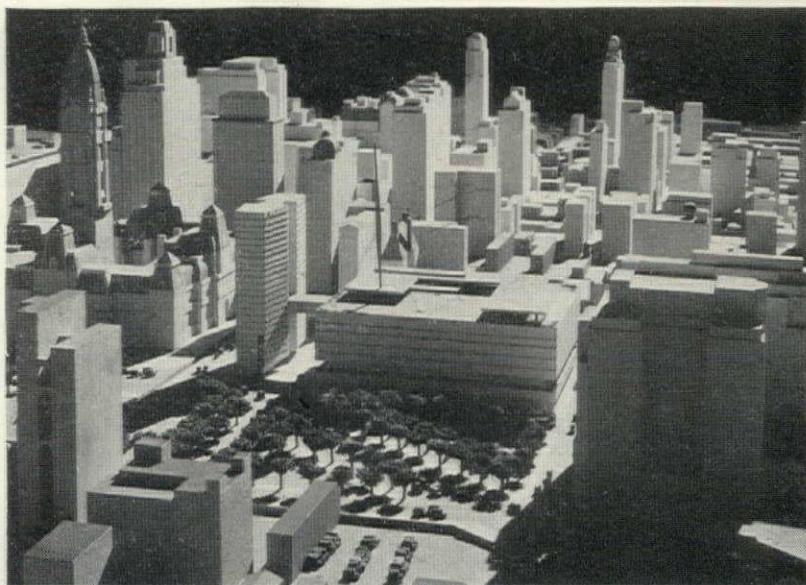
uggest a possible pattern for future building, both public and private



Esra Stoller, photos



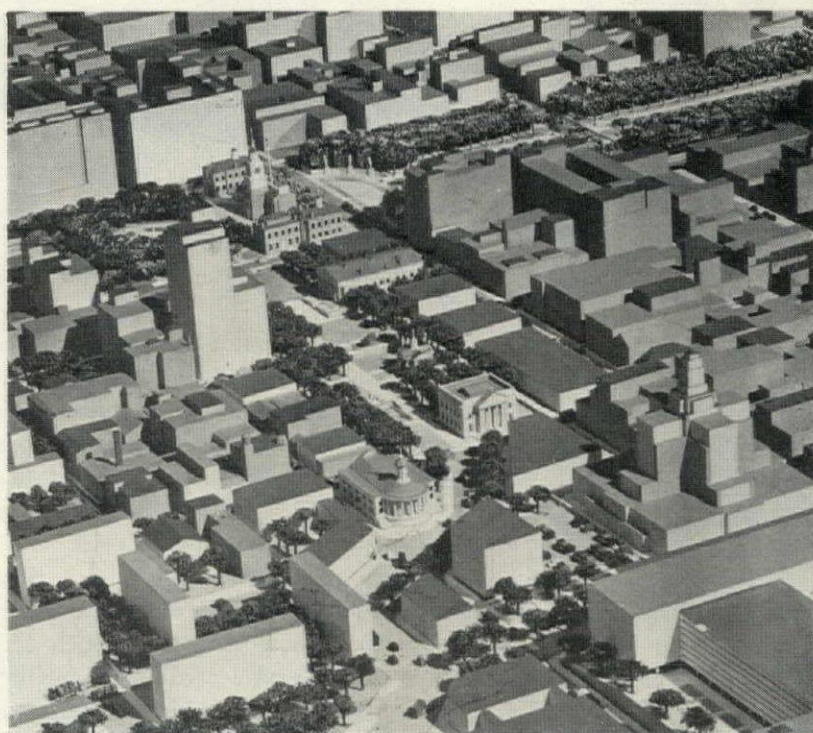
NSYLVANIA BOULEVARD, new approach to the 30th Street Station, cuts through the center of town, relieving traffic tangle. Left triangle of office and apartment buildings laced with green space.



NEW COMMERCIAL BUILDINGS in heart of business district. Department store (center) connects with office building by means of an overpass. Small park relieves monotony of city concrete near existing City Hall (upper left).

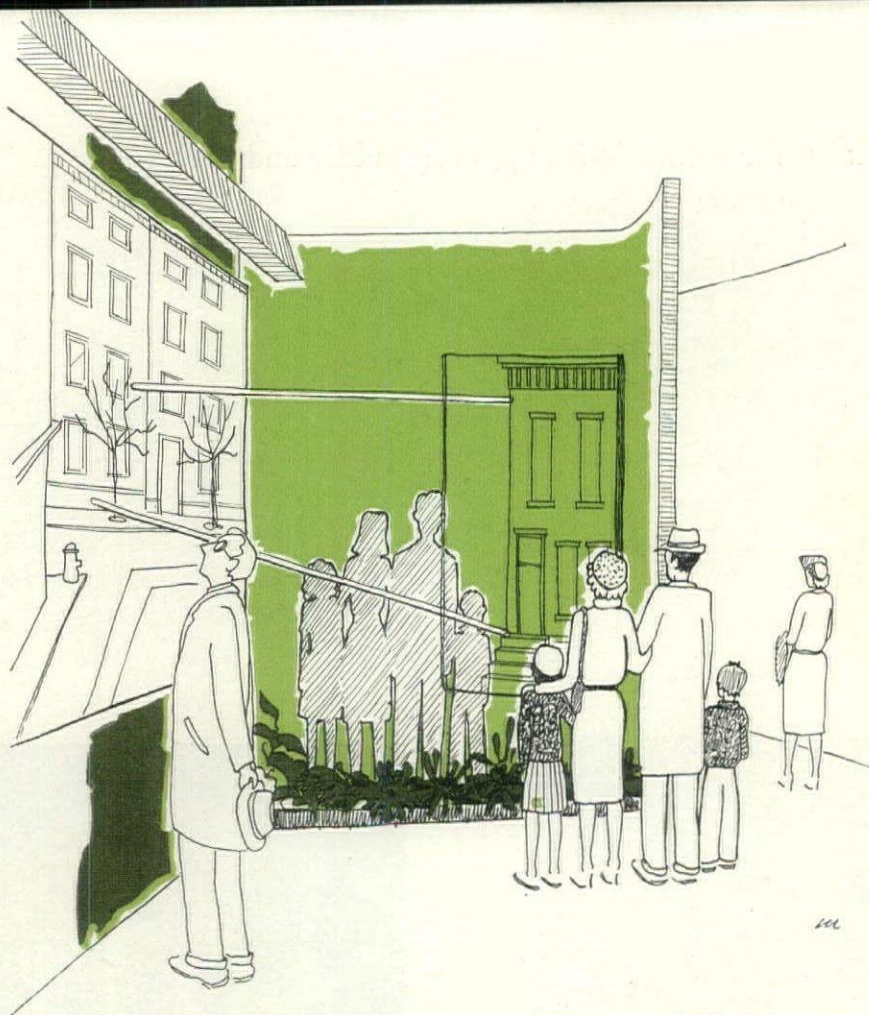


APARTMENT HOUSE DEVELOPMENT near 30th Street Station and Drexel Institute of Technology. Low density and park-like surroundings are characteristic feature of all new residential districts.

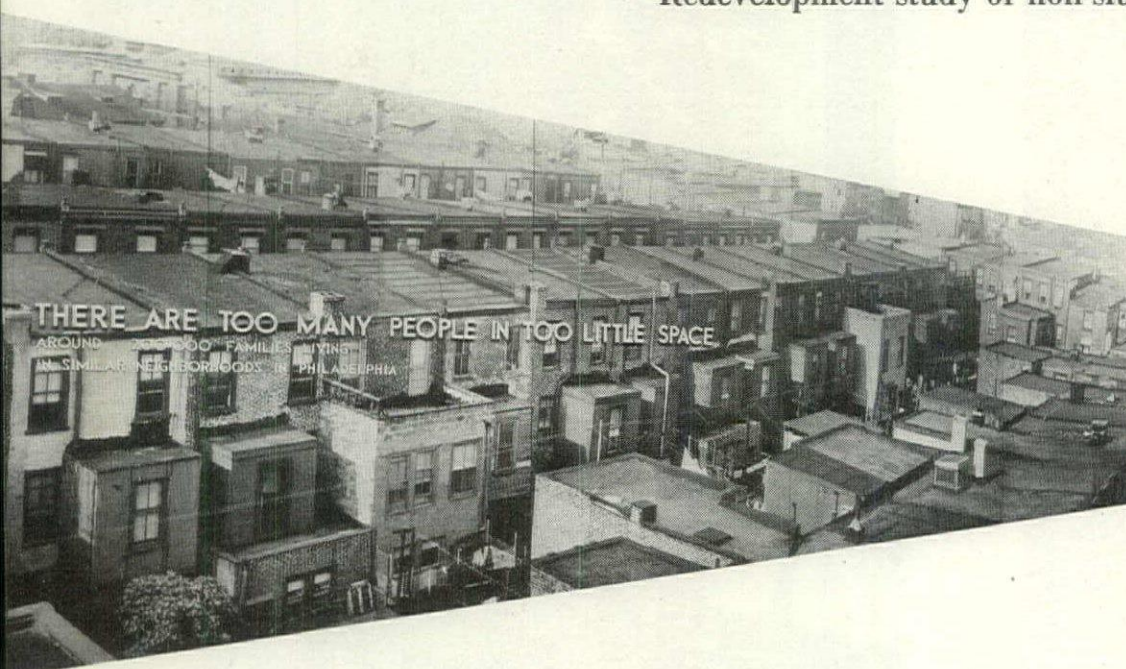


MORE TREES, MORE OPEN SPACE. Independence Mall (top right) will be extended by the State, East Mall (center) by the Federal government. Opening up acres of closely-spaced buildings is a prime objective of the long-range program.





Redevelopment study of non-slum neighborhood shows its striking



From the overpowering and rather impersonal display of Philadelphia's downtown public improvements, the exhibition jumps to the study of an actual community. This district, chosen for overhauling by the city's Redevelopment Authority, is typical of South Philadelphia's dingy, overcrowded neighborhoods. Although not a slum, it nevertheless lacks adequate shops, play space and new housing. Visitors are introduced to this community study with a full-size reconstruction of a street corner on one boundary of the district. Complete even to a messy garbage can, it recreates the atmosphere of drabness and monotony which blights many of Philadelphia's residential areas more than actual disrepair. After this introduction, visitors enter the mock-up of a row house, typical of homes in the same district, but with a revamped backyard. The simple, inexpensive changes show what private families can do to

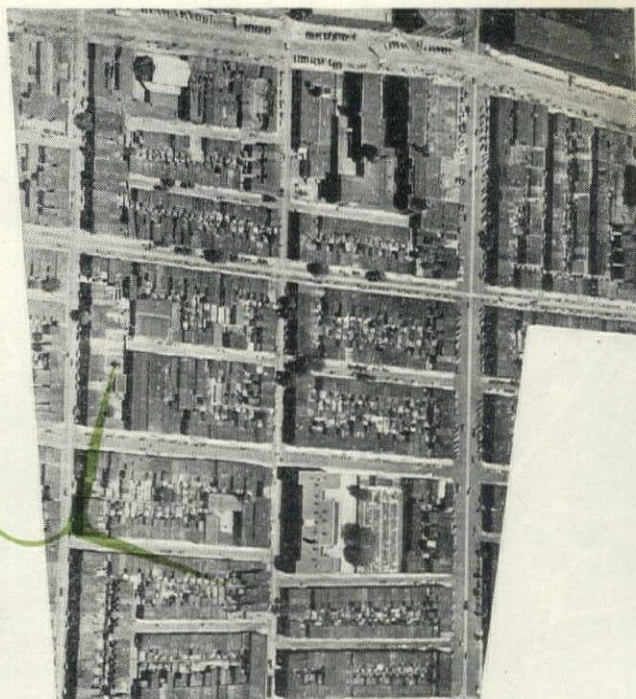
make their own quarters more livable. Last, the visitors view a scale model of the entire neighborhood it would look after the planners had their way. In recommending changes, the Redevelopment Authority has left most of the buildings intact since they were not actually in bad condition. One section, including an old factory and a few dilapidated houses, is scheduled for demolition. Key to the improvement of the neighborhood, however, is the removal of 11th Street and its replacement by a playground next to an existing school. Trolley car lines are removed and traffic is routed on widened 11th Street. As a result, residents would live on quiet loop streets whose only traffic would be to their own homes. New construction is primarily designed to add convenience and pleasure to the neighborhood. It includes a shopping center, community building, nursery school, playgrounds





L-SIZE RECONSTRUCTION OF AN ACTUAL STREET CORNER IS DINGY OBJECT LESSON OF WHAT IS WRONG WITH PHILADELPHIA

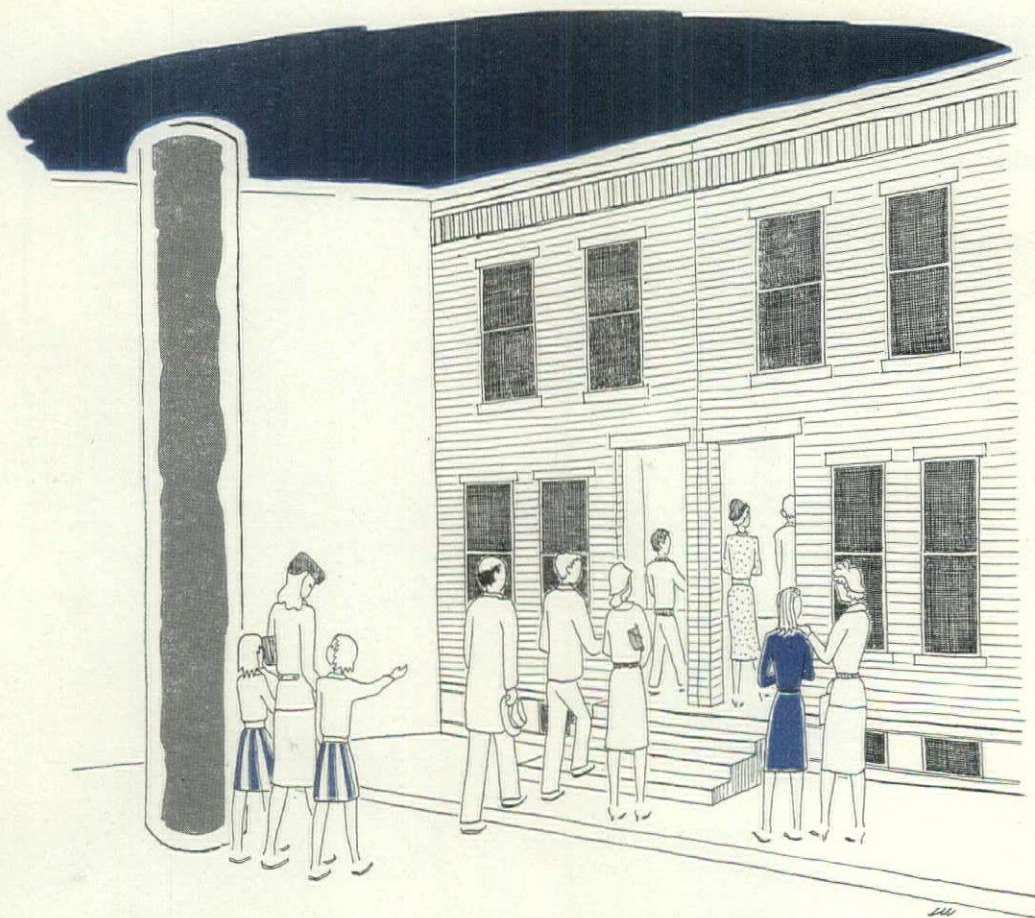
Esra Stoller, photos



apartment groups, row houses and low rent hous-  
Private capital is also expected to find building  
fitable when blight is removed from the district and  
are stability established.

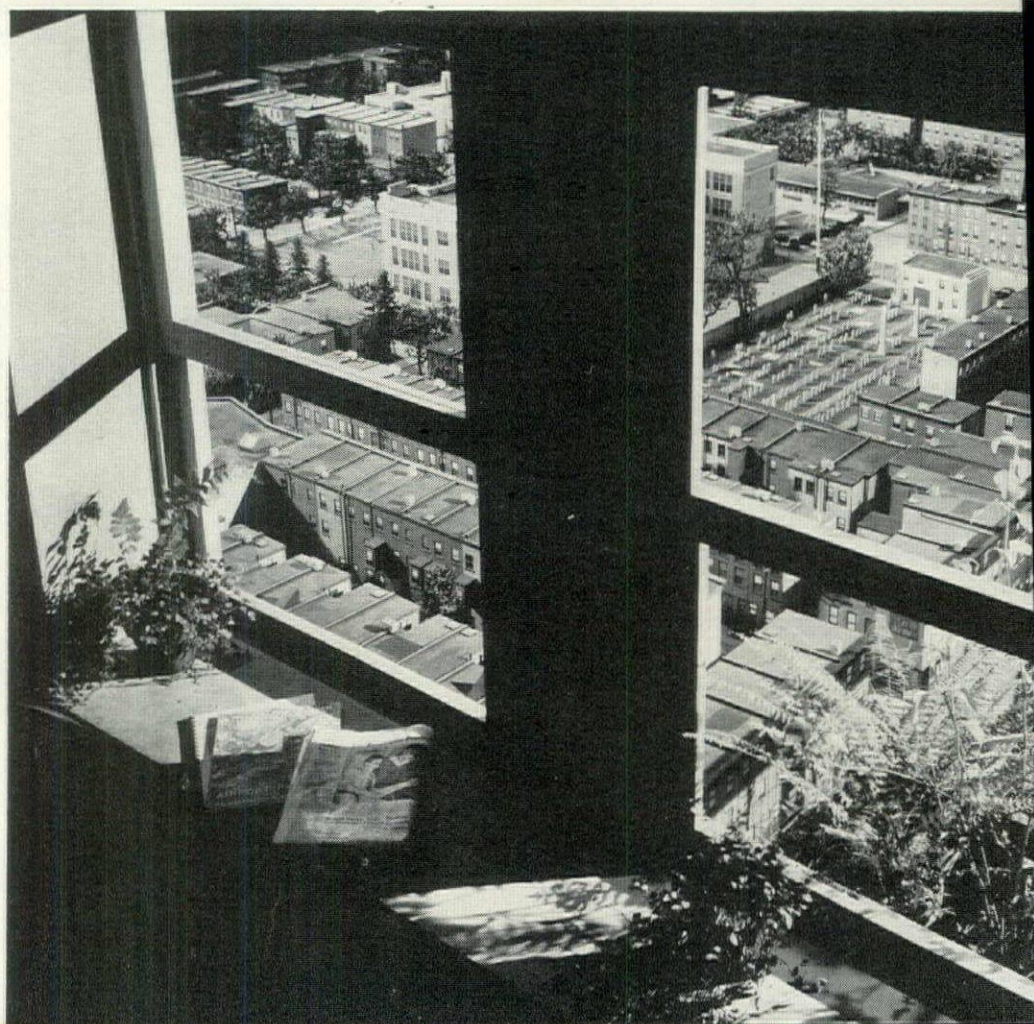
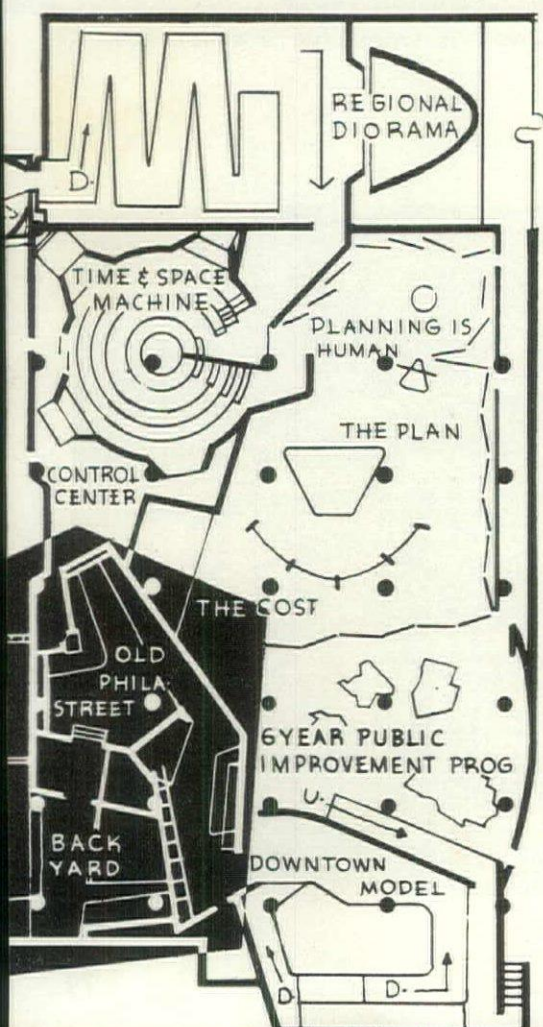
This approach, which foregoes sweeping changes in  
or of simple rehabilitation, is likely to gain favor  
among real estate interests and a conservative  
zenry which has little quarrel with the status quo.  
e anonymity of huge, one-class housing projects,  
eady in disrepute among planners themselves, would  
initely not go down with Philadelphians. Therefore,  
en a wholesale redevelopment of row house neighbor-  
ods would, according to plan, produce a Philadel-  
ia quite recognizable to its present inhabitants. But,  
one citizen expressed it: "If some guy wants to fool  
ound with this place and double the value of my  
use, God bless 'im."



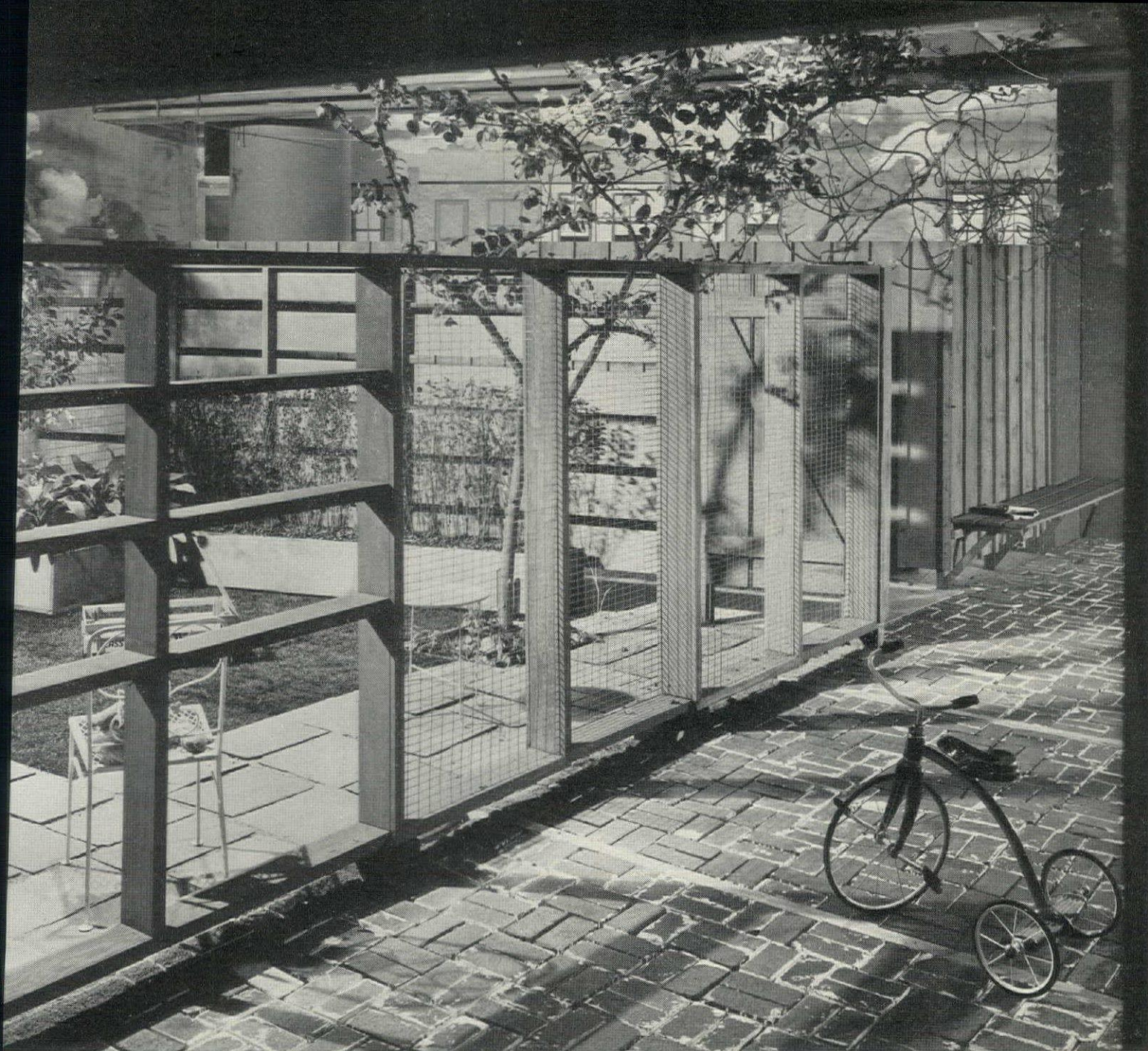


Replica of typical row house shows homeowners how to refurbish their own backyards

THROUGH MOCK-UP WINDOW VISITORS GLIMPSE MODEL OF REDEVELOPED NEIGHBORHOOD



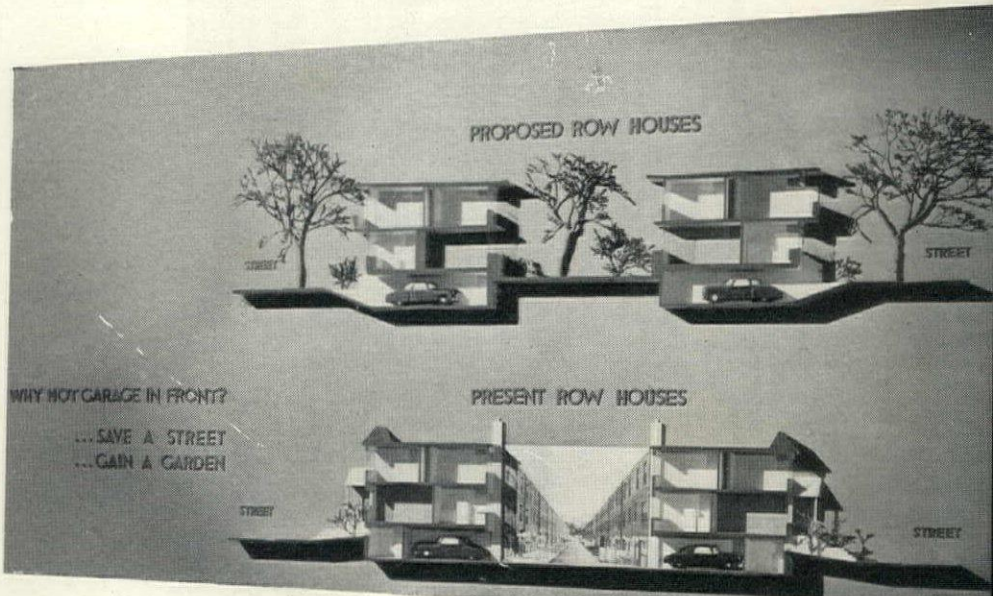




YARD OF TYPICAL ROW HOUSE IS RESCUED FROM DRABBNESS BY SIMPLE LANDSCAPING WITHIN MEANS OF AVERAGE HOUSEHOLDER

g the row house mock-up, visitors glimpse from  
ing room window the model of the entire neigh-  
d which they later examine at close hand. Im-  
ely recognizable is the elimination of through  
and the opening up of crowded blocks with  
arks and playgrounds. In some cases the small  
rds of row houses have been thrown together  
common park and play area. In others (see cut  
t), the street between adjacent blocks of houses  
en closed and planted to gardens.

nlight of this display, however, is not the distant  
but a full-size backyard, redesigned to show  
s how to improve their own property. Unfinished  
s of wood, wire mesh and inexpensive paving  
have been employed to produce a handsome  
in place of the former dismal city yard. Such  
ials would cost no more than \$75, might be  
up by many householders for less. Grass, trees  
ower boxes while indigenous to most urban en-  
es, have here been planted with an eye to the  
ll design.



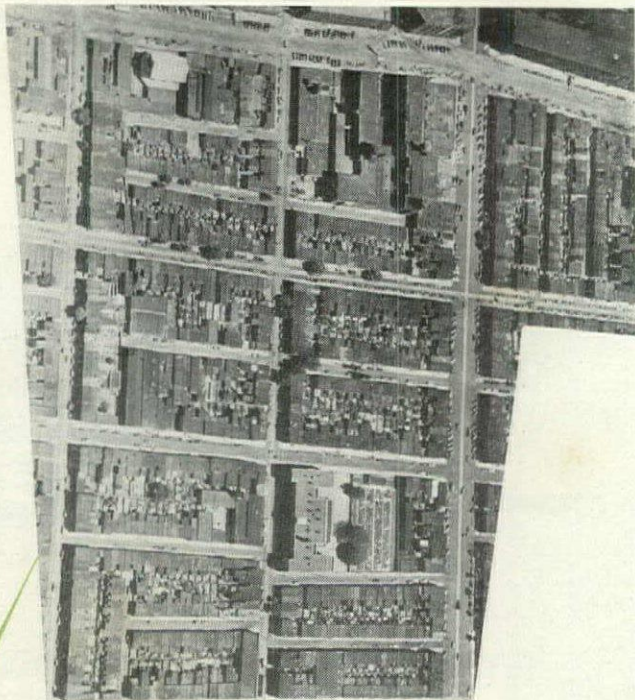
Esra Stoller, photos



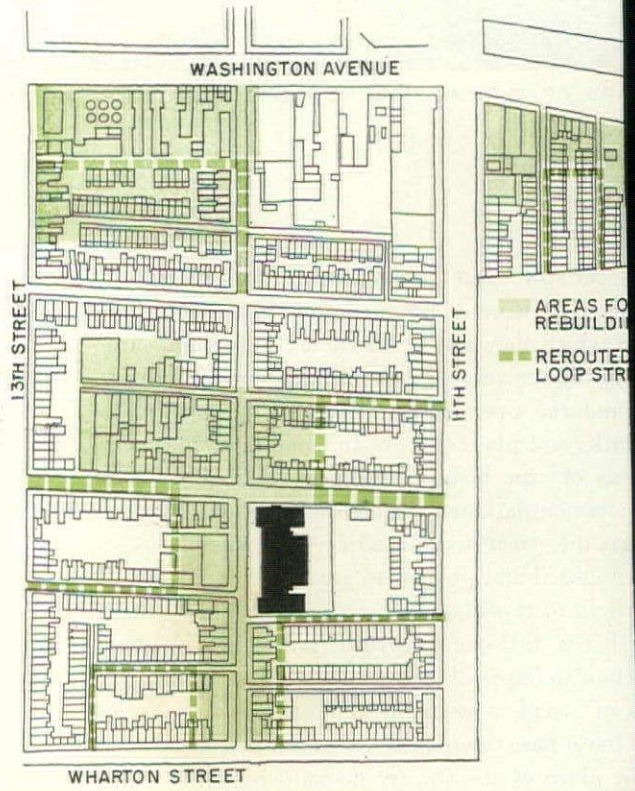


MODEL SHOWS EXISTING HOMES (FOREGROUND), NEW BUILDINGS (FAR LEFT AND RIGHT). SCHOOL PLAYGROUND (TOP) REPLACES S

Improvement program retains all sound building, adds facilities for full community life



AIR VIEW OF EXISTING NEIGHBORHOOD REVEALS HIGH DENSITY



SCHEMATIC PLAN BLOCKS IN NEW AREAS, REROUTES TRA





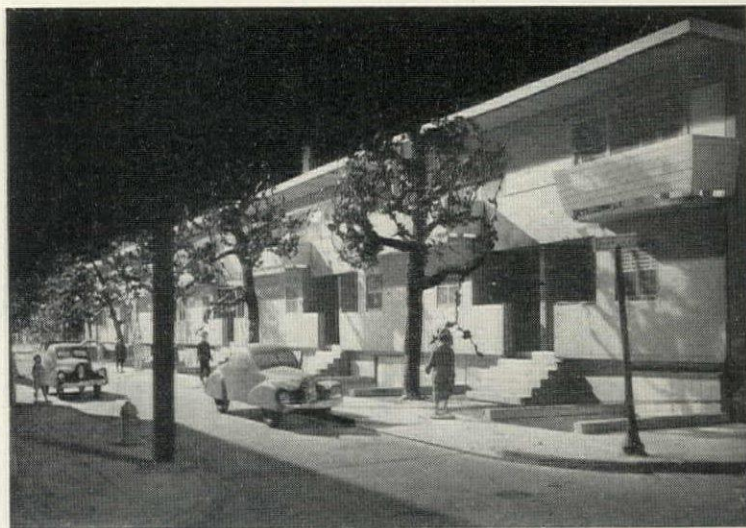
1) THREE-STORY APARTMENT BLOCK northwest of the existing high school is an open U-shaped plan surrounding a spacious planted courtyard.



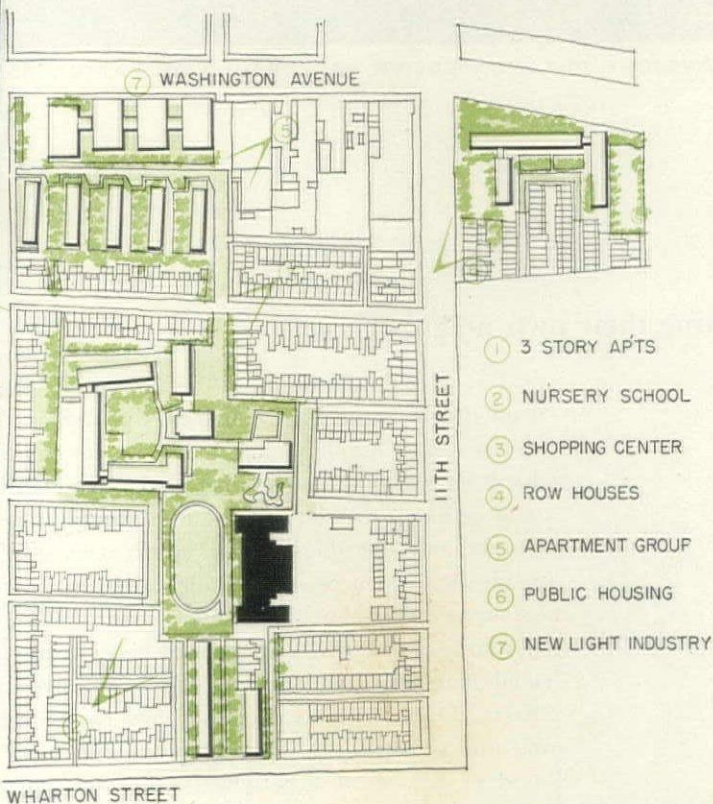
2) NURSERY SCHOOL with specially equipped playground for small children is located near apartments, may be reached without crossing street.



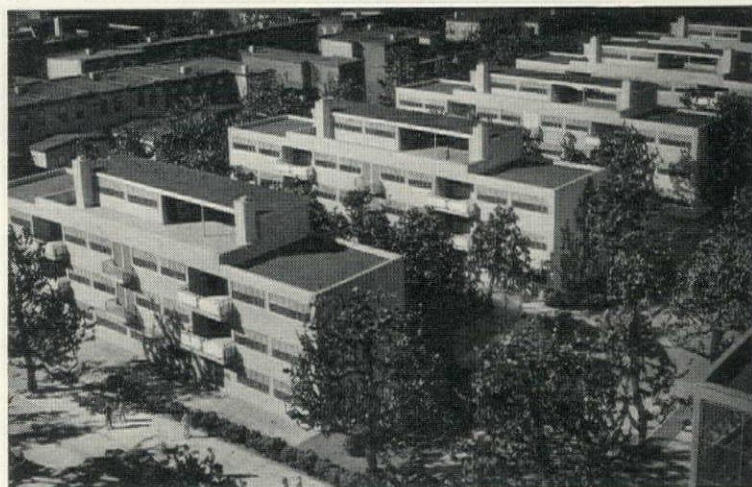
3) SHOPPING CENTER is near apartment group, centering daily activities within easy radius. Parking is for customers beyond walking distance.



4) ROW HOUSES to south of high school are planned as double row with green space between. Balconies and over-all crisp design, relieve monotony.



COMPLETED PLAN FEATURES OPEN SPACE, CONVENIENT GROUPING



5) APARTMENT GROUP is also planned to the north of the redevelopment area, near a concentration of new light industry shown in diagram left.



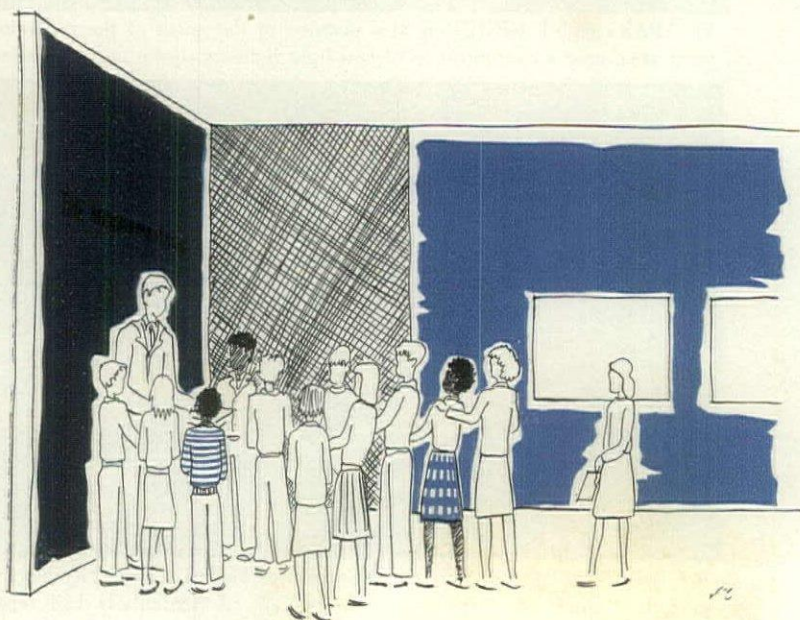
6) PUBLIC LOW RENT HOUSING replaces half of a large city block at northeast corner of district where homes are in particularly bad repair.





NEOPHYTE REDEVELOPMENT STUDIES ARE SET AGAINST HANDSOME BUT INEXPENSIVE BACKGROUND OF BATTEN BOARD

### School children learn about planning by redesigning their own neighborhoods



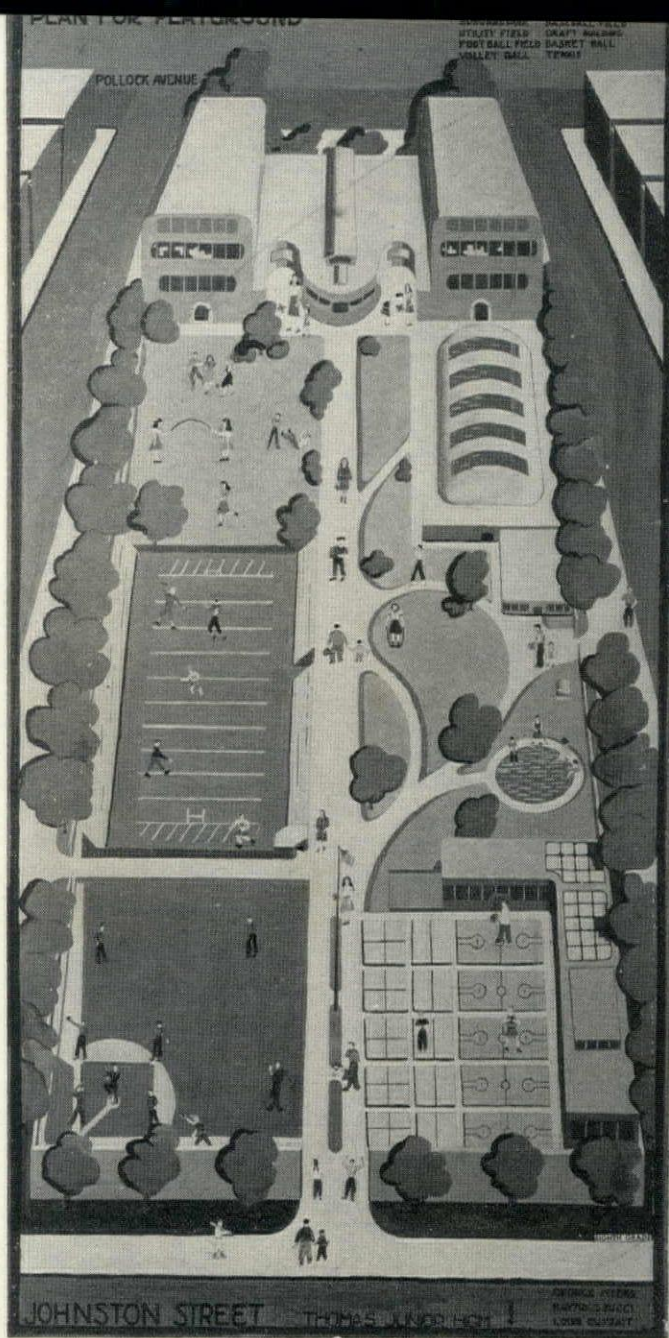
Of all displays, the least elaborate was perhaps the one most popular with Philadelphians. This was an exhibit for school children, showing what their neighborhoods would be like if they had a hand in planning. The program was introduced last year as an experiment in 15 schools. Its success has made it a regular course of study in every school in the city.

Enthusiasm is equally distributed between planning school authorities and the children themselves. The Citizens' Council gloats over the mass base for planning this program should produce in a decade. The Board of Education is delighted with an opportunity to "teach children how to integrate themselves in society." The children, for the first time actively involved in community life, are filled with a new importance. Their surveys of local conditions have taught them more about the neighborhood than their parents know, have helped arouse interest on the adult level.





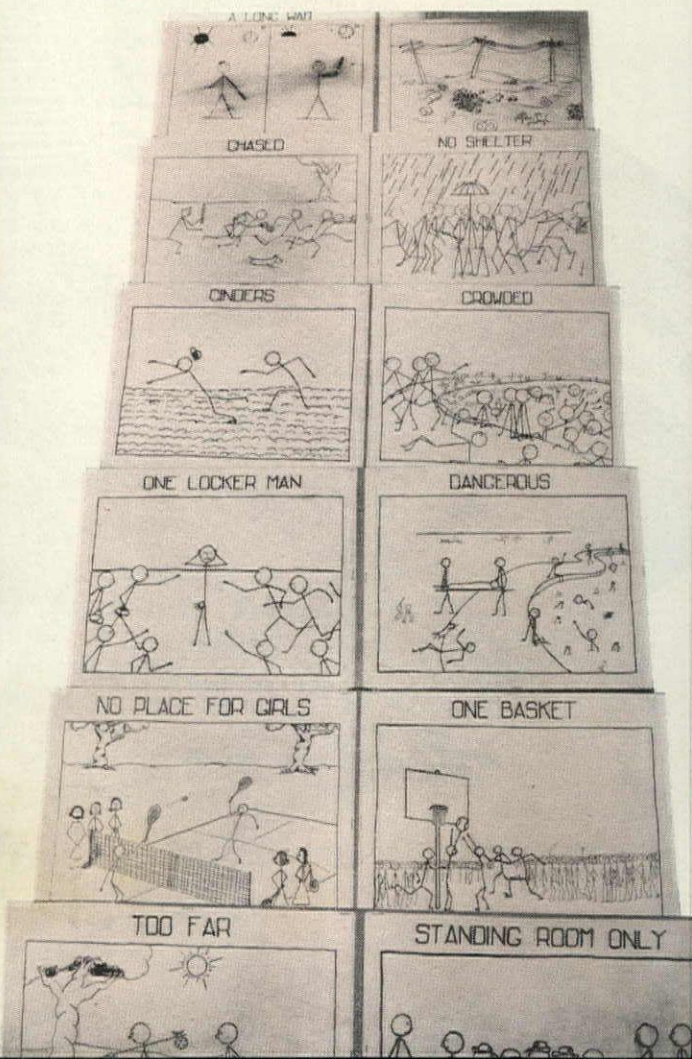
Fenn, Life



PLAY SPACE IS PRIMARY CONCERN OF YOUNG PLANNERS



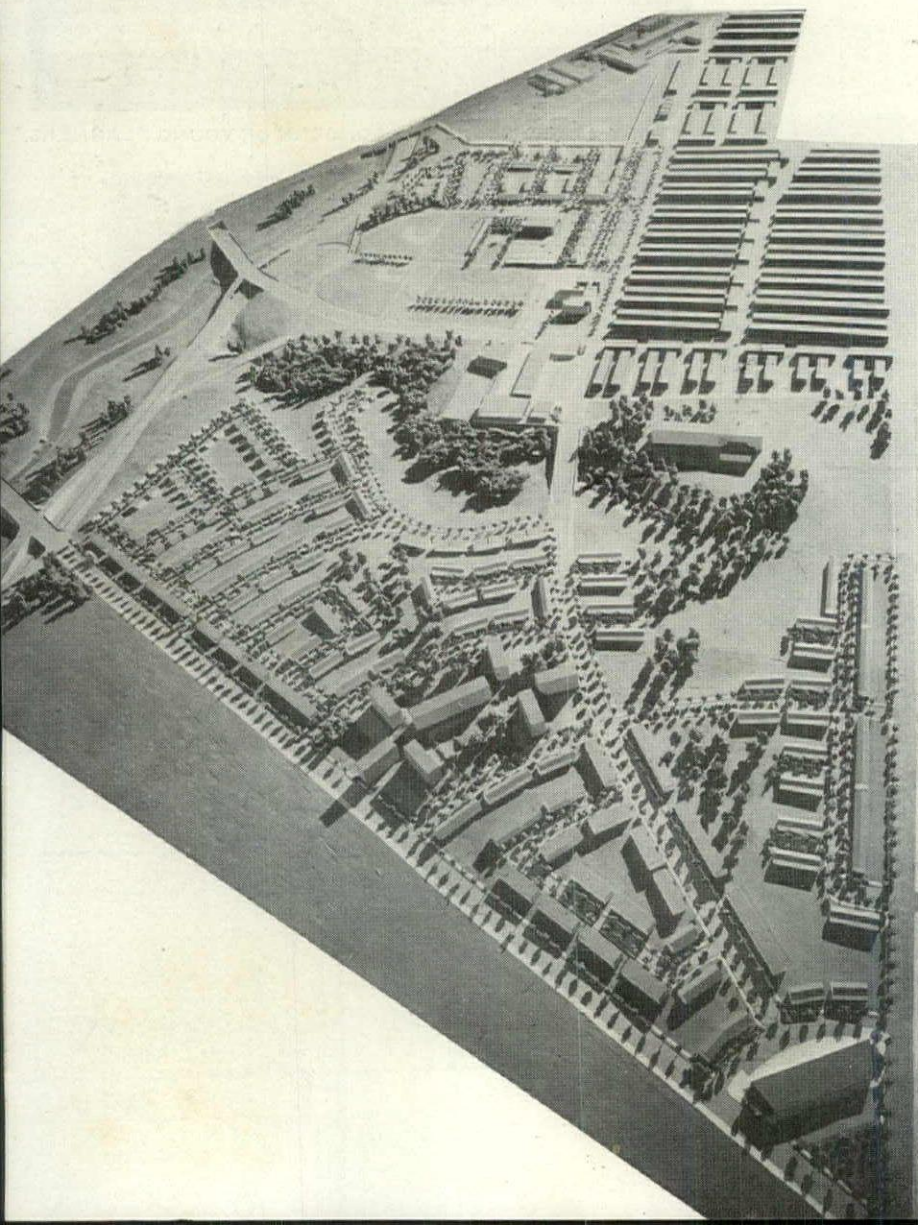
DENT MODELS AND SKETCHES, GIVE CHILDS-EYE VIEW OF COMMUNITY FAILINGS



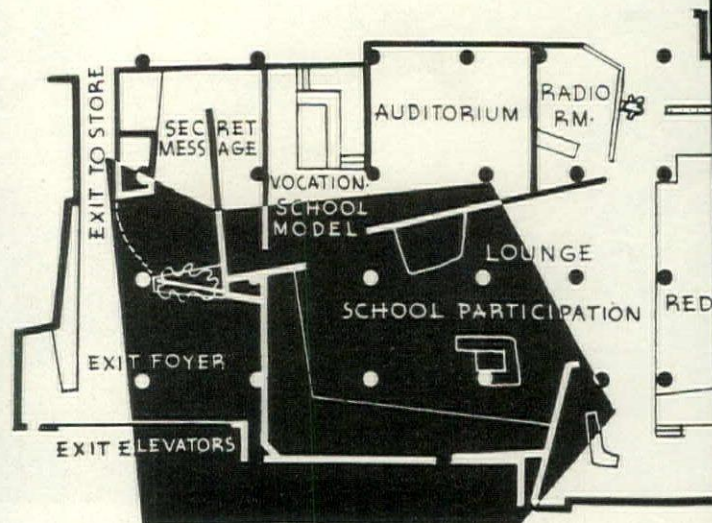




Planned communities for undeveloped outskirts of city are recommended to avoid future s



In addition to the problem of reclaiming run-down areas, the exhibition also stressed the importance of planning in the use of the 15,000 acres of undeveloped land still in Philadelphia. Photo-murals show an untouched suburban landscape at one side by the grid pattern of a typical row house development. Rather than spoil the land's natural assets with an old-fashioned real estate pattern, the planners recommend a modern community (left), laid out in an informal pattern with wide areas of open space.





The lavish exhibition still has a trick to go—"a magic ending" of which the designers are rather proud. As visitors pass the last of the displays, an attendant hands them a "secret message" from Mayor Samuel, apparently no more than a blank sheet of paper. Not until they pass through a dark passage on the way out can they read, by black light, the letter from the Mayor.

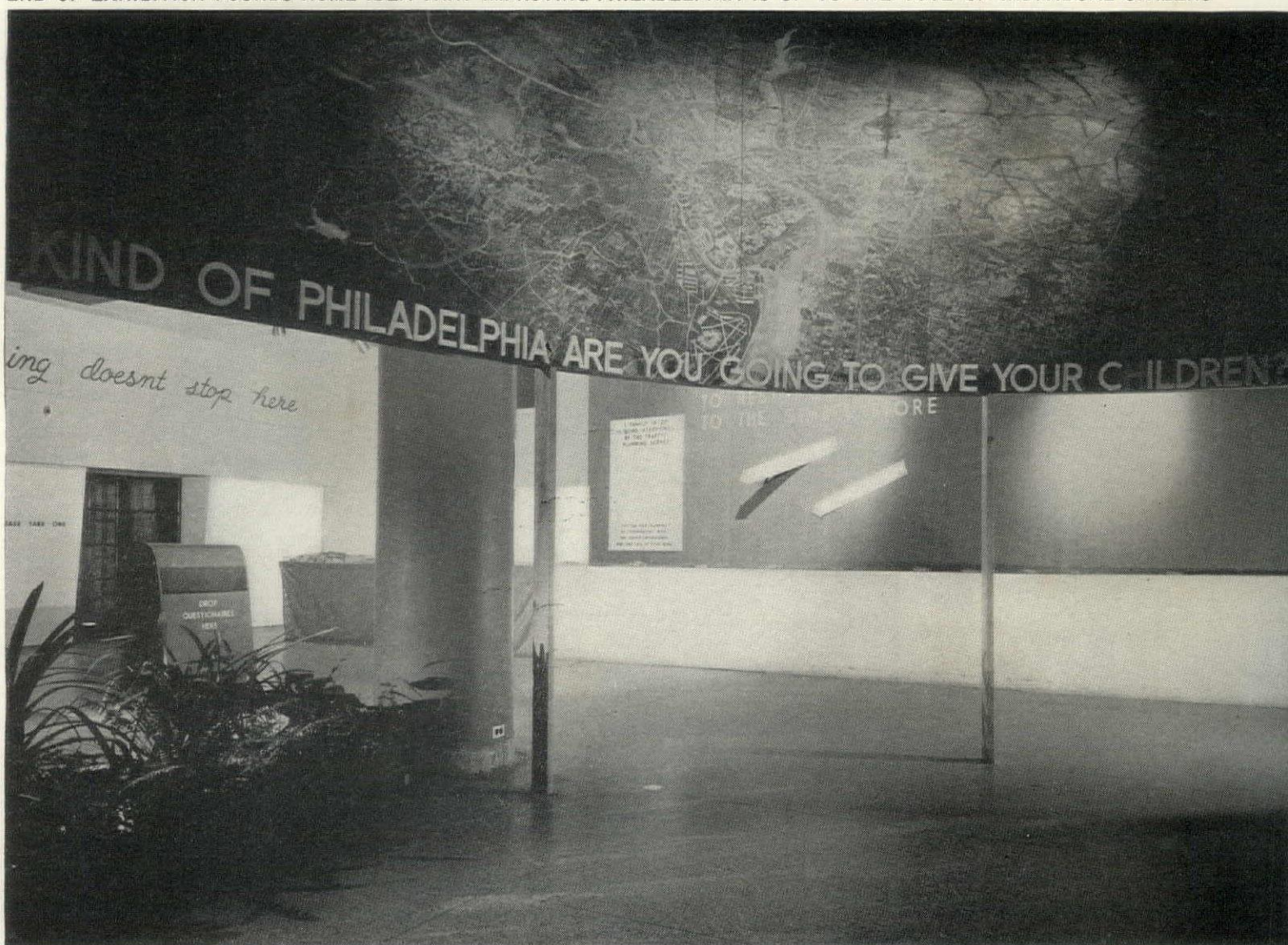
It is to be hoped that city government will continue to view planning with the favor bestowed by the Mayor's message. But as the Planning Commission knows, neither official cooperation nor spectacular display can insure the success of any program. One thing the planners hope for is a permanent berth for the dismantled show, so that an increasing number of Philadelphians can see it. Most important, however, is a continuing effort to enlist citizen participation at the neighborhood level. This is being done in Philadelphia with the "Neighborhood Planning Conference," a program which, if successful, should vastly increase mass support.

First introduced in 1945 as an experiment in South Philadelphia's third ward, it may (according to hopeful planners) eventually become a citywide program. Neighborhood committees, mainly housewives, study local transportation, lighting, safety, etc., discuss their findings and suggest im-

provements to the Planning Commission. As a rule the recommendations are sensible ones and many could have come only through first-hand knowledge of the district. One example is the local rejection of a large central market which the Commission had dreamed up to replace messy pushcarts and stall markets on certain Philadelphia streets. The housewives preferred their familiar and convenient shopping methods, asked only to have the neighborhood stalls put in order. Bowing gracefully to the weight of superior judgment, the Commission was able to cut an expensive item from the budget.

Obviously, the most important aspect of such "grass roots," planning, is its educational value. A pre-exhibition survey had shown that only 10 per cent of Philadelphians knew what city planning was and an even smaller number that it had any connection with them. As in every city, getting out an informed vote is therefore the major problem before the planners. Most encouraging note was sounded by questionnaires distributed at the recent exhibition. Sixty per cent of the 365,000 citizens queried answered "yes" to the \$64 question: Would you be willing to pay a little more each year in taxes in order to get things done? Whether the same answer will be given at the polls remains to be proved.

END OF EXHIBITION POUNDS HOME IDEA THAT IMPROVING PHILADELPHIA IS UP TO THE VOTE OF INDIVIDUAL CITIZENS

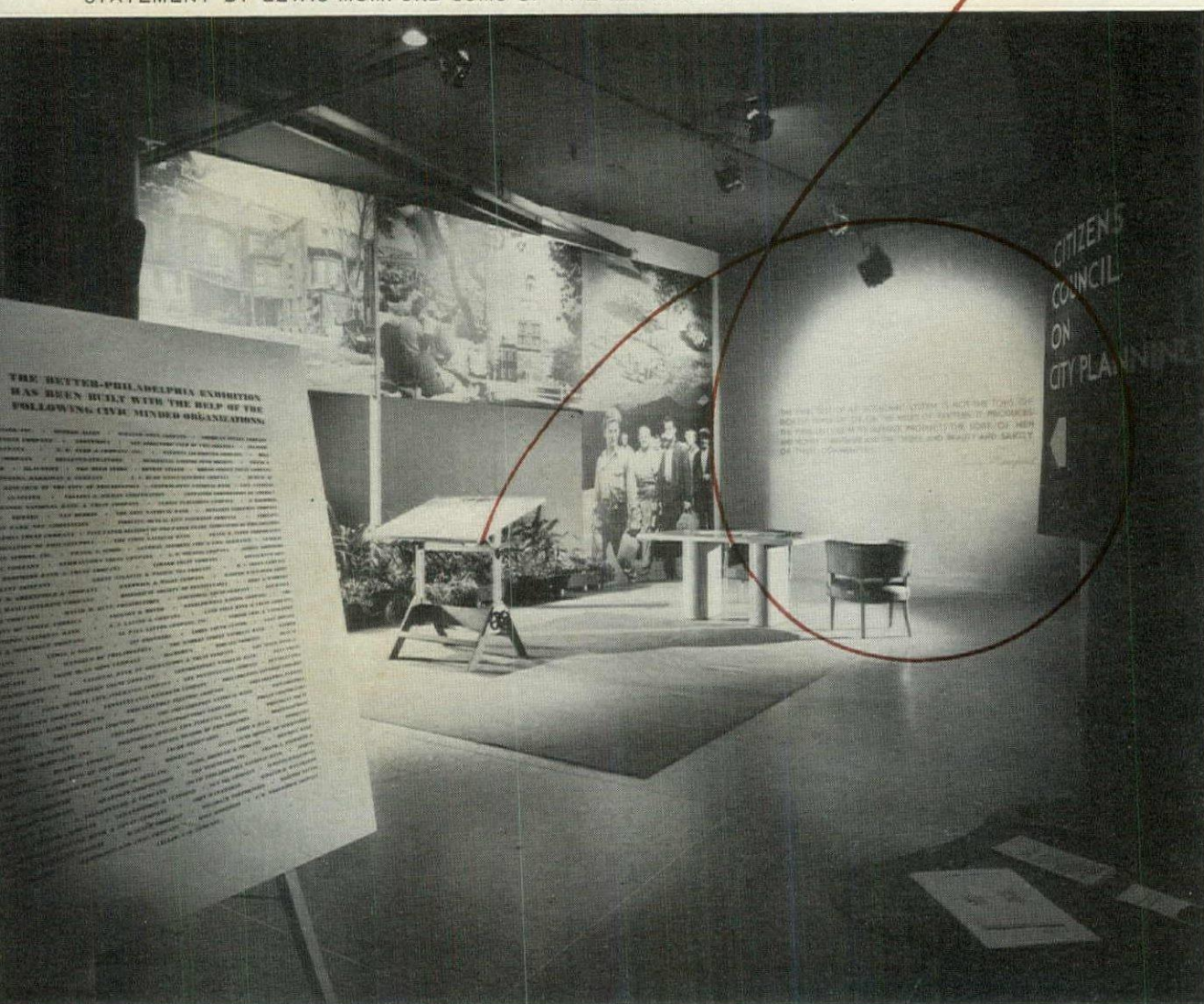




The final test of an economic system is not the tons of iron, the tanks of oil, or the miles of textiles it produces: the final test lies in its ultimate products—the sort of men and women it nurtures and the order and beauty and sanity of their communities.

*Lewis Mumford*

STATEMENT BY LEWIS MUMFORD SUMS UP THE MEANING OF EXHIBIT, IS GIVEN IMPRESSIVE SETTING



# CREDIT

for staging  
the exhibit  
goes to  
behind-scenes  
experts:

**DESIGNER and TECHNICAL**  
Oscar Sidorov; **CO-DESIGN**  
Bacon; **ASSISTANT TECH**  
**RECTOR**, David Longmaid;  
**NICAL STAFF**, Charles Th  
erick Savage, William Stont  
Vivrett, Robert Beals, Cor  
Frederick Dubin.

**SPECIAL CONSULTANTS:**  
**ING**, Daniel Kiley; **LIGHT**  
Kelly; **COLOR**, Susan Wa  
**DOCUMENTARY PHOTOGR**  
landt Hubbard.

**ADMINISTRATIVE STAFF:**  
**DIRECTOR**, R. H. Protheroe  
**OF PROMOTION**, Harry Na  
**TOR OF PUBLICITY**, Hugh  
**SECRETARY**, Edna Smeltz  
**ARTISTS**: Roy Webber, f  
hand at entrance; James  
parent plastic mobile; Robe  
cartoons on planning; Morri  
backdrop painting of 13th  
Streets.

**SPOKEN COMMENTARY:** S  
**SCHOOL PRICIPATION:**  
Cushman, Associate Superi  
Schools, and John Mladjen  
school teacher; Bok Vocal  
School, Neighborhood Planni  
sion model.

**MODEL AND DISPLAY MAK**  
play Studios with Design-Bu  
diorama; public improvement  
motorization of downtown m  
ramic Studios, downtown mod  
& Berlinghoff, plexiglass design  
and Space" exhibit; Diora  
mechanical and lighting equip  
and Space" exhibit; Jefferso  
turing Corp., redevelopment m  
Photo Service, photo mosaic.  
**GENERAL CONTRACTOR FO**  
**LATION:** David Marder.

**CORPORATE OFFICERS:** PA  
Benjamin Rush, Jr. (Vice Pre  
surance Co. of North America,  
**VICE PRESIDENTS:** A. L.  
(President, Chamber of C  
Walter Phillips (President, Citi  
cil) Arthur Kaufmann (Vice  
Gimbel Brothers); **SECRETA**  
Mitchell (Philadelphia Elect  
**TREASURER**, Frank Smith  
Trust Co.); **PUBLIC RELATIO**  
**MITTEE CHAIRMAN**, Al Pa  
(President, Al Paul Lefton Co  
**BITION COMMITTEE CHAIRM**  
Eager (Director of Publicity, P  
Evening Bulletin).



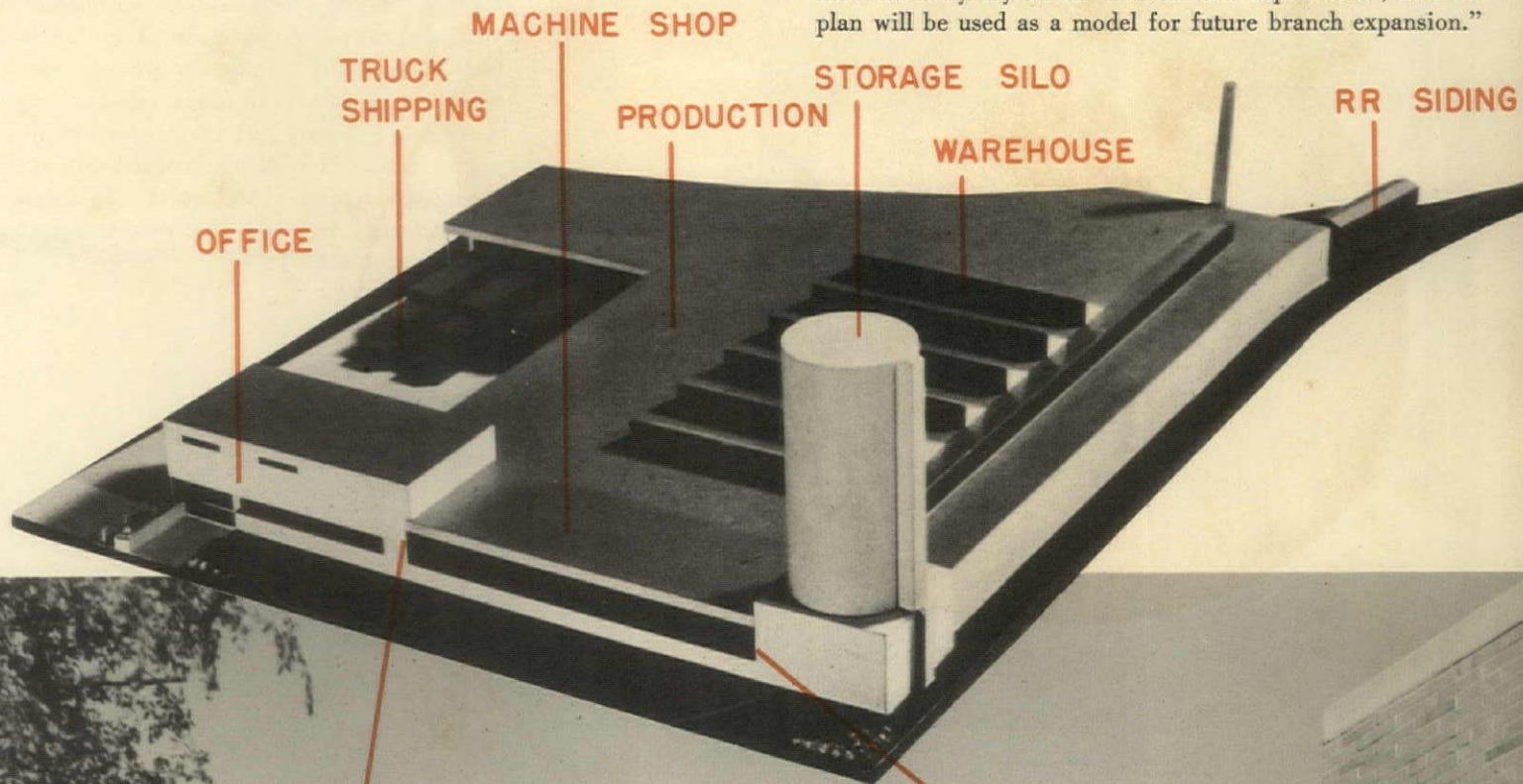
# MIDWEST BAB-O PLANT

Architect sells an old packaging firm a one-story layout with room for storage and inside loading.

HENRY L. BLATNER, Architect

GEORGE A. TEELING, Heating & Ventilating Consultant

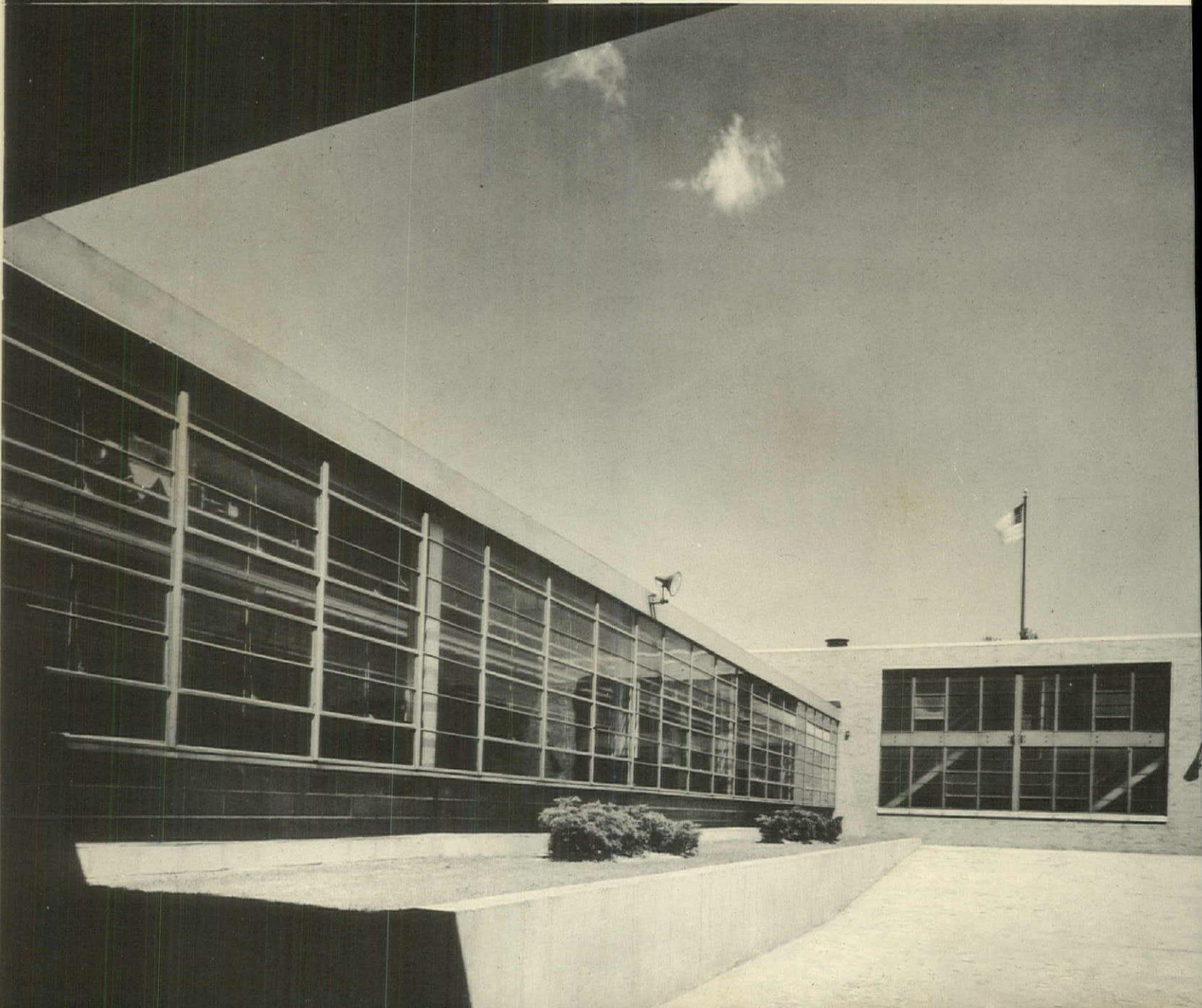
Located in Chicago's Clearing Industrial District, this plant was built by the B. T. Babbitt Co. to manufacture Bab-O drain cleaner and another cleaning caustic for rapid midwest distribution. After an exhaustive study of operations at the main plant in Albany, Architect Blatner finally sold this old (1836) firm on the advantages of a one-story layout, providing for uninterrupted flow of materials and interior loading. And the company seems likely to stay sold. Says president Alton P. Mendleson: "Our ideas on packaging were that gravity must be used to feed production lines. But the result obtained in this one-story layout far exceeds our expectations, and the plan will be used as a model for future branch expansion."



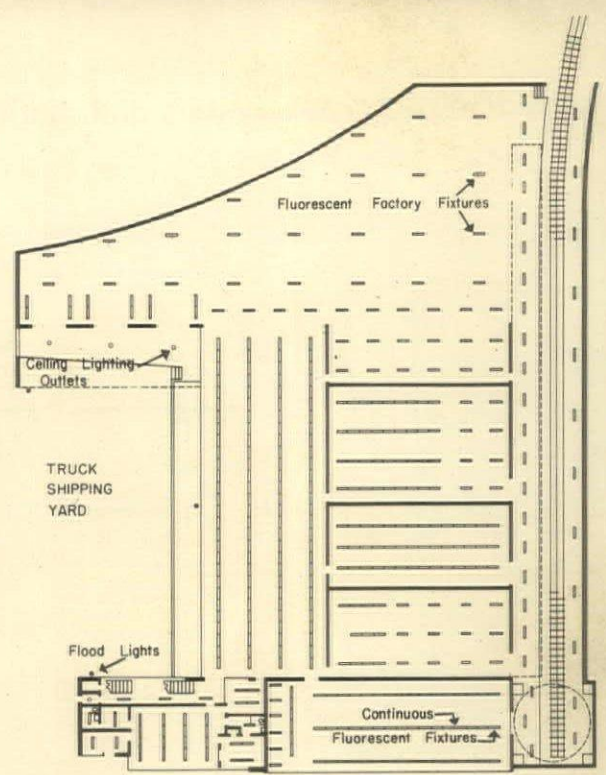
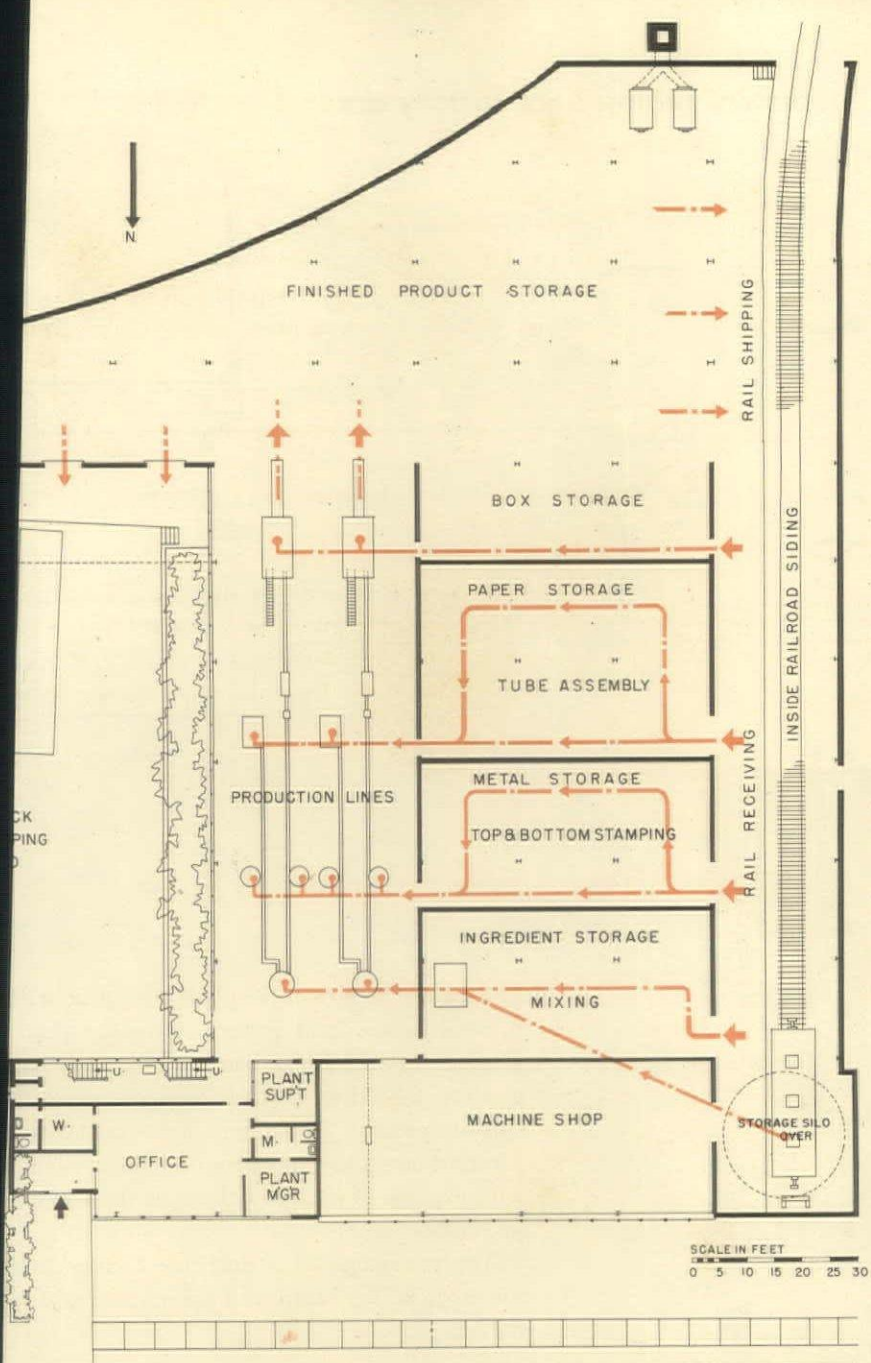




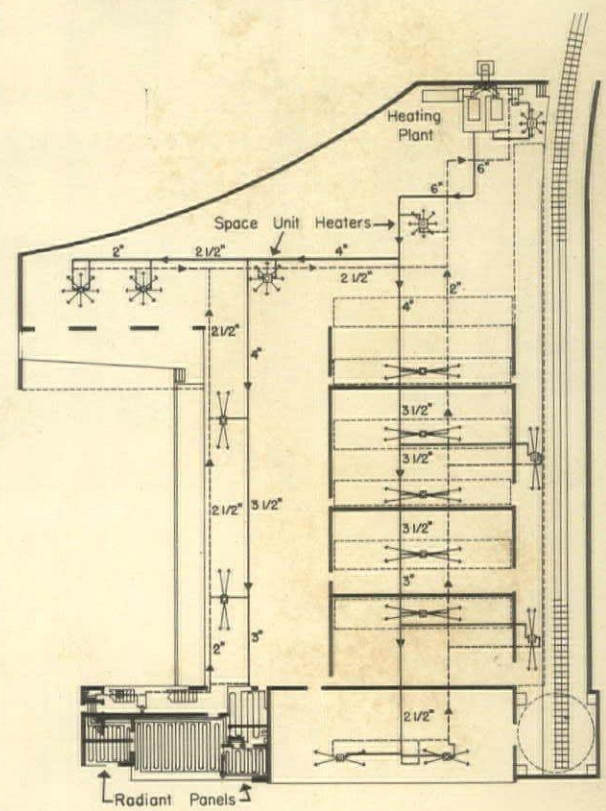
The architect's desire to plan an efficient, attractive building that would serve as a model for future branches, and the excellent character of the surrounding industrial community, led to this simple straightforward solution. The walls of brick and concrete block are happily blended with the projected steel sash of the long windows. Entry to the building is through the neat reception room pictured at left, which is furnished with recessed fluorescent fixtures plus a wide glazed entry with its own spaciousness to a minimum allotment of space. Office space is kept at a minimum since the greater part of clerical production will be handled by the main plant, is strategically placed to insure smooth operation between manufacturing, finance and clerical departments. The plan at the right illustrates the well-knit production process, where chemical materials are mixed next to filters, can bodies made in a room adjacent to the entry into the production line, stamping, capping machines with labels and boxes stored next to the labeling and packing departments. To insure healthy working conditions a special dust collection system and lighting was installed.





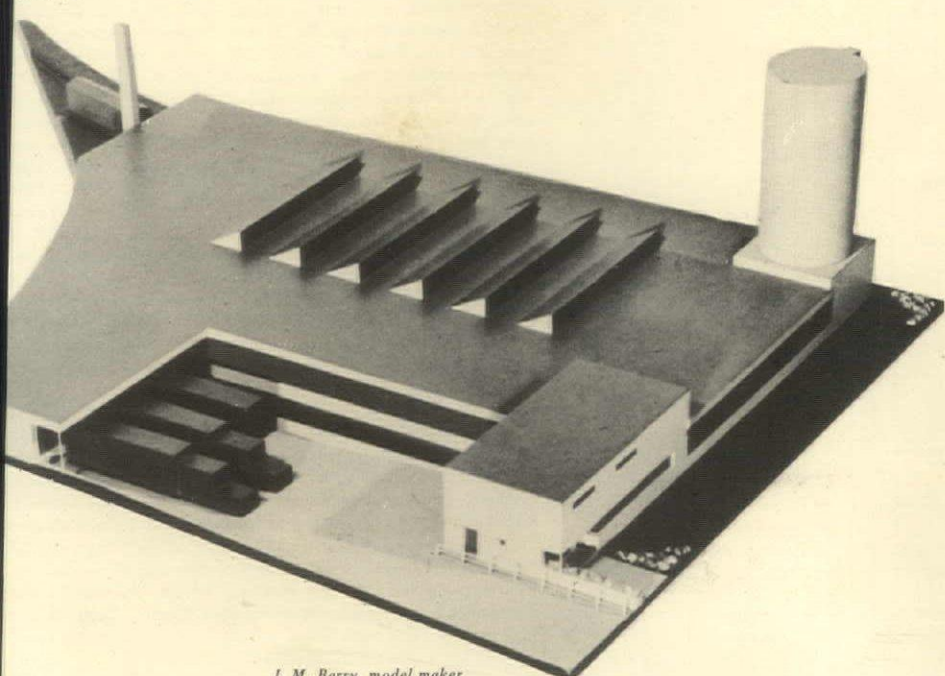


**LIGHTING** was a specific company requirement for better working conditions. Effective placement of continuous fluorescent fixtures over machine shop and production areas assures high-level illumination, while the oddly-spaced distribution of smaller fixtures over the long railroad spurs affords good light distribution for the loading and unloading of cars.



**HEATING** consists of a split-system of radiant coils in concrete slab for offices, plus unit heaters for the factory section. The revolving head unit heaters used in assembly and production areas are placed in the central portion of the room in such a way as to set up rotational circulation of air towards exposed walls.

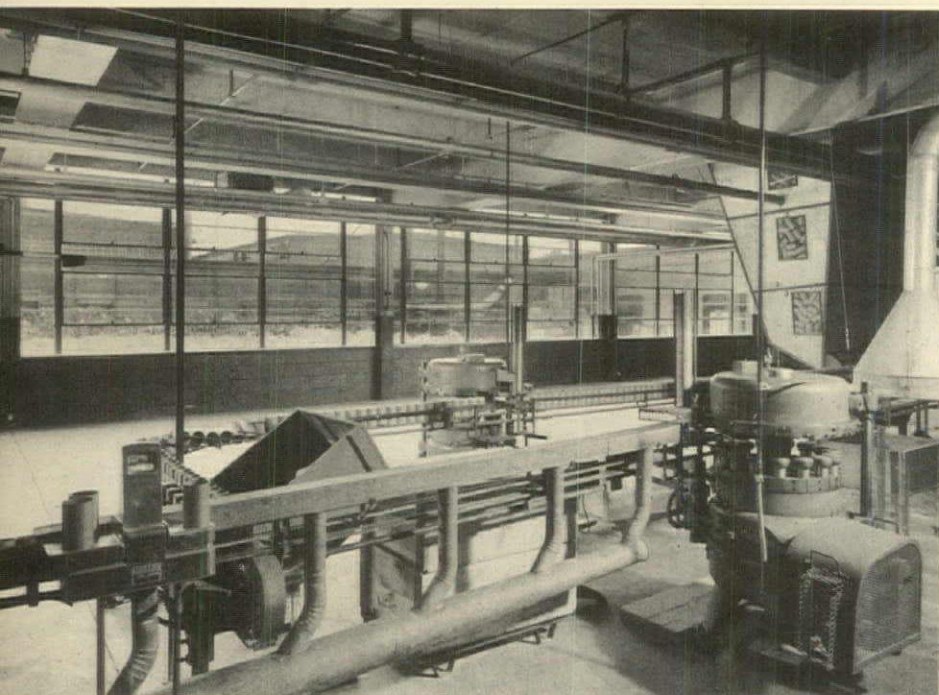
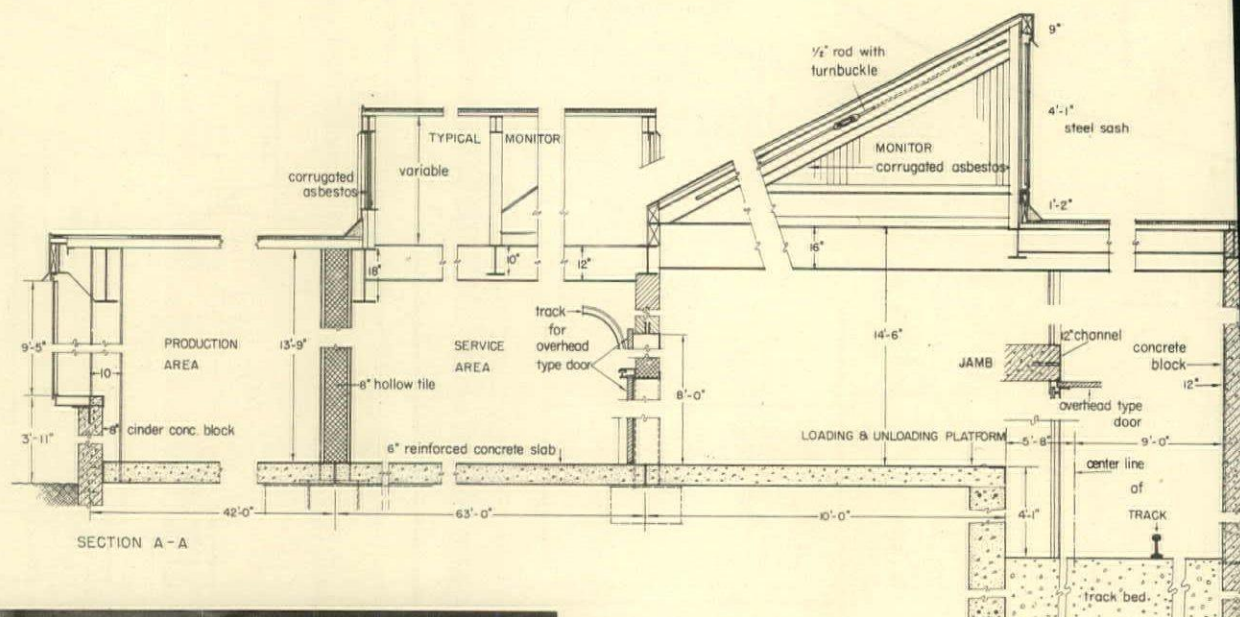
ing the southwest corner of the model below, and symbolizing the company's product, is the silo and conveying system for bulk ingredients. Servicing both receiving and shipping facilitates the flow of materials from box-cars inside through storage and service areas to production lines at the spot where they are used. At the storage and shipping end of the building the street truck loading dock large enough to accommodate materials left overnight for pickup.



J. M. Barry, model maker



**SAW-TOOTH ROOF** monitors and continuous fluorescent tubing light factory area.

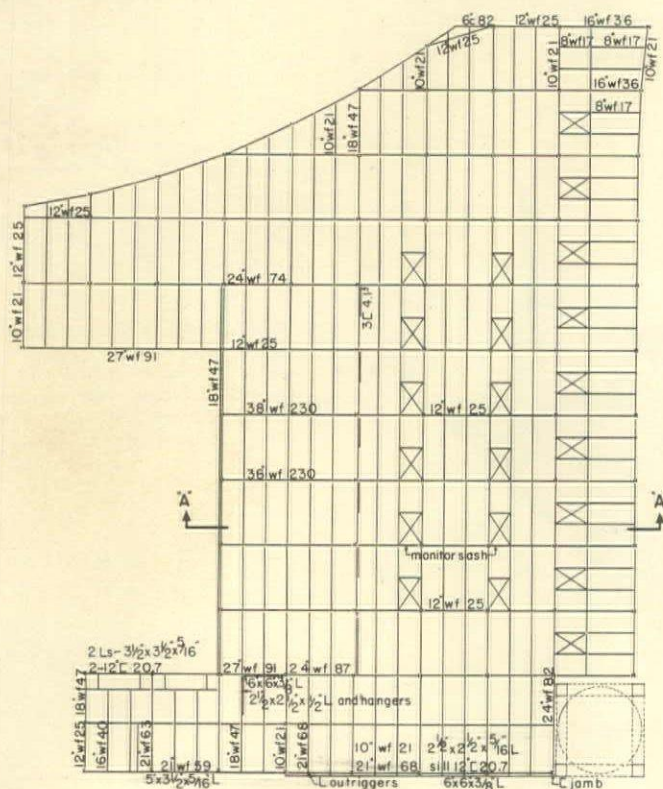


The main structure of the plant is built on a 21 ft. steel-framed grid pattern. Over the production area, steel roof framing consists of heavier members to allow for future second story expansion. A continuous monitor, 200 ft. long, lights the loading form, while six saw-tooth roof monitors augment the wide expanse of window lighting in the assembly and production areas.

The advantage of a dust-free factory is clearly apparent in the clean and open room picture on the left.

## CONSTRUCTION OUTLINE

FOUNDATIONS—poured concrete. STRUCTURE: Exterior v (factory) cavity wall, 2 in. air space and concrete block: (o brick, Streator Brick Co. and concrete block. Interior parti concrete block; plywood in office, U. S. Plywood Co. Str steel—American Bridge Co. Floors—poured concrete. ROO year built-up, Ruberoid Co. SHEET METAL WORK: Flashin ducts—galvanized steel, American Rolling Mills Co. INSULA Walls and office roof—glass wool bats, Owens-Illinois Glass Co. crete roof areas and ground floor—Celotex, Celotex Corp. ble and offices—U. S. Gypsum Co. WINDOWS: Sash—pro steel, Truscon Steel Co. Glass—Libbey-Owens-Ford Glas STAIRS—steel, West Architectural Iron Co. FLOOR COVERIN asphalt tile, Thomas Moulding Co. FURNISHINGS—Yawm Erbe and Scott & Duncan Co. DOORS—Roddiss Lumber & V Co., Curtis Companies, Libbey-Owens-Ford Glass Co., Rowe Co. Rolling steel shutters and rail siding—J. G. Wilson Corp. H WARE—P. & F. Corbin and Oscar C. Rixson Corp. PAINTS—den Co. and Pratt & Lambert. ELECTRICAL INSTALLATION: V system—copper wire in rigid conduit. Switches—tumbler, Ge Electric Co. Fixtures—fluorescent. Special equipment—Hein Co. PLUMBING FIXTURES—Henry Weis Manufacturing Co. P Crane Co. HEATING AND AIR CONDITIONING: Offices—ra hot water coils, A. M. Byers Co. Factory—unit heaters, L. J. Co. Air conditioning—cooling, ventilating, humidifying, dehu fying and filtering, York Corp. Boiler—U. S. Radiator Corp burners—Ray Co. Air diffusers—Anemostat Co. Regulators—H well Regulator Co. Radiant heat controls—Sarco Co. Valves—C Co. Water heater—Patterson-Kelly Co. Heat exchange—Bell & sett Co. Pump—Economy Pump Co. Storage silo—William Constructors, Inc.; vacuum cleaning system, Spencer Turbine Compressed air system—Westinghouse Electric Corp. Dust c tion system—Pangborn Corp.







# HOUSES

Remodeled farm house in Connecticut

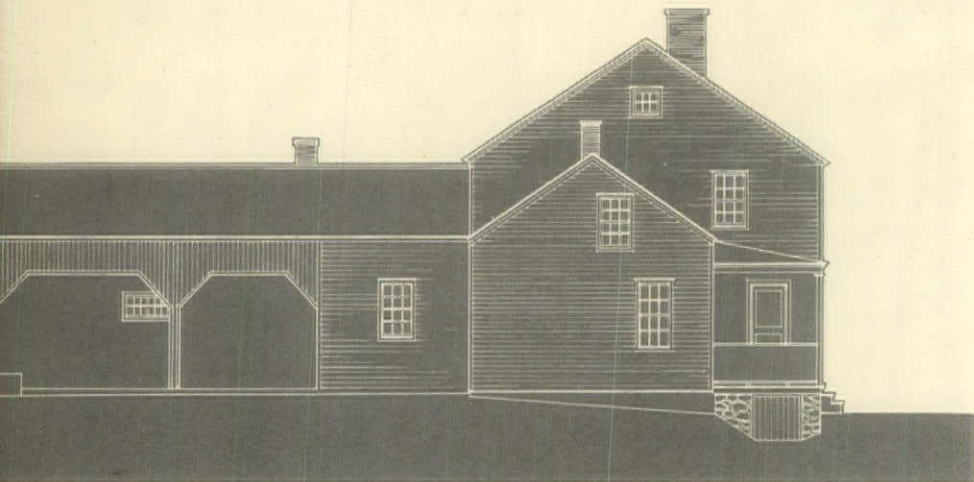
HENRY HEBBELN, Architect



# Colonial and contemporary are handsomely combined



AWNING-TYPE WINDOWS, DEFTLY PLACED, MEET VENTILATION NEEDS ON THE SOUTH SIDE



SOUTH ELEVATION OF ORIGINAL STRUCTURE SHOWS SMALL WINDOWS IN BEST DIRECTION

Snapped up in the nick of time, this old farm house had already been gutted in preparation for demolition. Fortunately, however, the clapboard exterior had been left on to protect its excellent bones from the weather. Rebuilt a little over a year when materials were still sadly lacking, the house throughout was to provide the most comfortable house possible for a minimum expenditure. The colonial framing, in which the ends of the buttresses serve only as stiffeners, plus the bad condition of the clapboard on the south side of the house led naturally to the solution of glazing this area. The module was dictated by the proportions of the structure, also by available dimensions of glass. The windows were set in a framework of standard 2 x 6 in. lumber kept as simple as possible. The size of living room hearth was determined by the existing foundation, what had once been an old central chimney. The plant corner in the south window is likewise laid out around an old kitchen hearth.

The house is located a mile from the village center. It has an elementary school, library, fire station, community playhouse and general store. Good commuting and other shopping facilities are within ten minutes. Environment is typical of Connecticut—rich, green, rolling, partially wooded land.

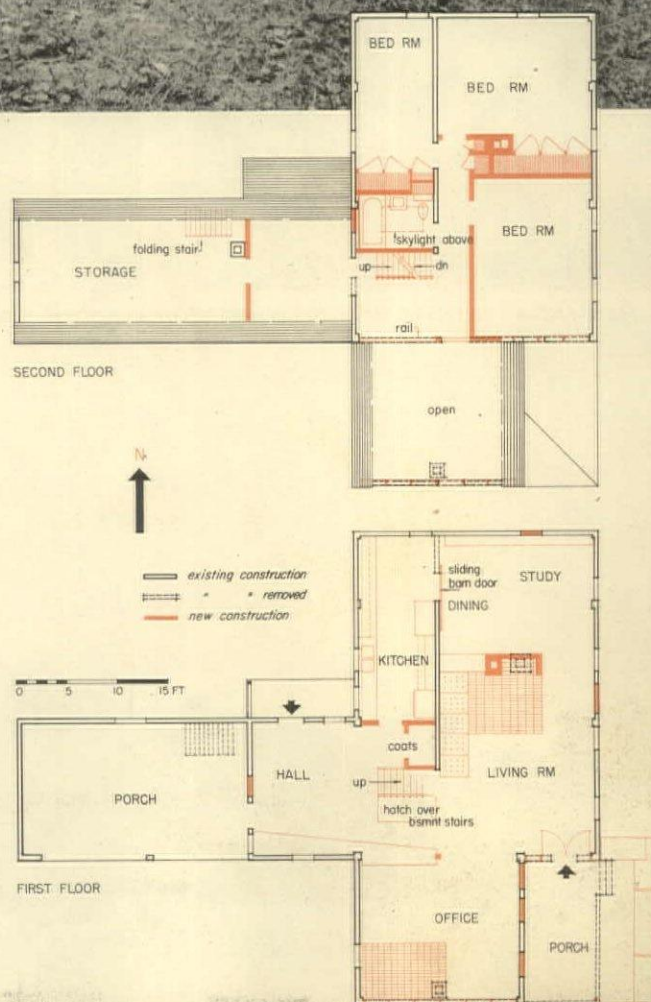
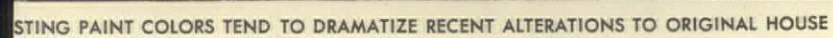
## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—chestnut post and beam frame, sheathing and clapboards; inside—Sheetrock, U. S. Gypsum Co. taped joints. Floors—chestnut boards. Ceiling—Sheetrock, Gypsum Co. **ROOF:** asphalt shingles, Johns-Manville Corp. **INSULATION:** bat insulation, Johns-Manville Corp. **SHEET METAL WORK:** Flashing—copper. **WINDOWS:** Glass—double strength quality A, Pittsburgh Plate Glass Co. **ELECTRICAL FIXTURES:** Versen and General Lighting Co. **KITCHEN EQUIPMENT:** Refrigerator—electric, Kelvinator Div., Nash-Kelvinator Corp. **BATHROOM EQUIPMENT:** Crane Co. **PLUMBING:** Soil pipes—cast iron. Vent pipes—lead. **HEATING:** hot water system.

OFFICE AND LIVING ROOM OPEN WIDE TO ONE ANOTHER. NEW GLAZING PROVIDES ILLUMINATION FOR BOTH, AUGMENTED BY ORIGINAL EAST WINDOWS IN LIVING ROOM



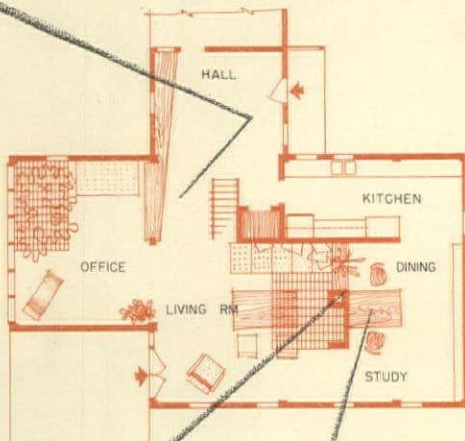








OPEN STAIR RECALLS ASCENT TO OLD HAYLOFT



The only space division remaining within house was a structural stud wall from the to the eaves. This now serves as the partition the living room and kitchen. In plan, the entire house with the exception of the second floor bedroom kept as unencumbered as possible. The balcony to the glass end of the house as well as the hall. This, in turn, is open to the third floor providing a greater sense of spaciousness and ventilation. Everything is planned for the simplicity and ease of a simple country life. The walls are finished in Sheetrock and weathered wood incorporates a few rough wood posts where they were required them. Open shelves and sliding doors of plywood were selected for their simplicity. Most of the cabinet work incorporates salvaged from an old barn. The main entrance was borrowed from the carriage house window in the rear which was otherwise left unchanged.

Lionel Freedman, photos



FREESTANDING FIREPLACE SEPARATES LIVING ROOM AND STUDY. THE LATTER, ALSO USED FOR DINING, IS DIVIDED FROM KITCHEN BY SLIDING BARN DOOR







SCO EFFECT OF THE CENTRAL STAIR AND LANDING IS UNIQUELY SPACIOUS. THOUGH PART OF THE SECOND FLOOR IS VISIBLE, BEDROOMS ENJOY COMPLETE PRIVACY



# Winter house tilts shed roof to view

ARTHUR T. BROWN, Architect

JOHN M. HARLOW, Landscape Architect

MEREDITH WOOD, Owner

The requirements of three school-age boys were paramount in shaping the plan of this Arizona house for winter residence. Asking that living space be opened as much as possible to the out-of-doors and view, the owner also emphasized privacy for each member of the family. The architect's elongated plan swings around a generous patio and cuts down cross traffic through the house by providing direct access to the patio from kitchen, living and bedroom areas. The direct connection is particularly important in utilizing the outdoors as part of the boys' sleeping-and-play area in the west wing.

To capture a view of the Catalina mountains, the window wall was placed on the north and the roof tilted in this direction. The unfinished redwood beams of the living room ceiling are carried out in a wide roof overhang above the fieldstone patio.

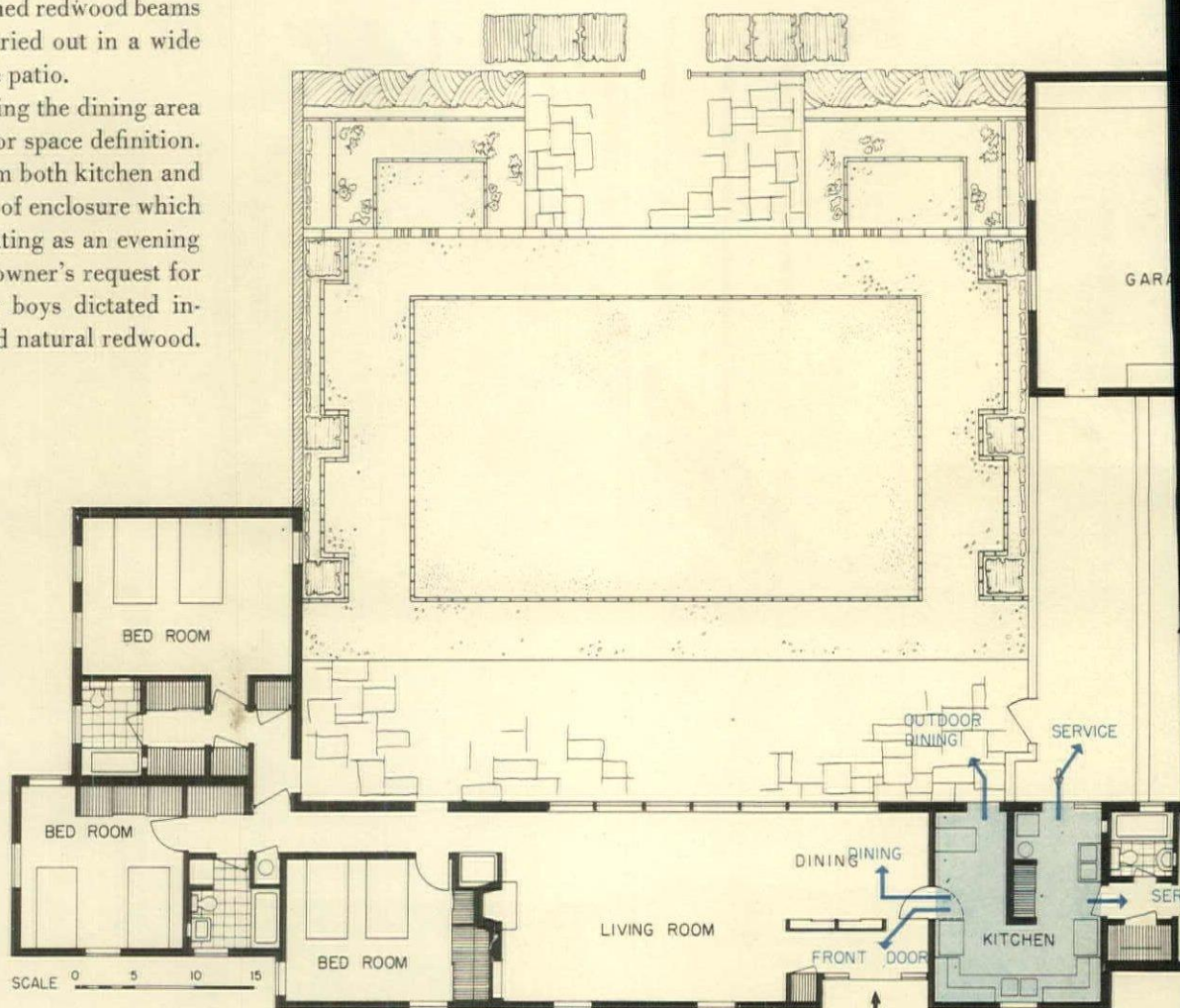
The storage wall section bordering the dining area is noteworthy as a simple device for space definition. It creates a hallway accessible from both kitchen and living room and also gives a sense of enclosure which helps to make the dining area inviting as an evening study place for the children. The owner's request for materials impervious to growing boys dictated interior finishes of painted brick and natural redwood.

## CONSTRUCTION OUTLINE

**FOUNDATIONS**—concrete, Portland Cement Co. **STRUCTURE:** Exterior walls—brick. Floors—colored cement. Ceilings—redwood or plaster. Roof—asbestos white top, Johns-Manville Corp. **INSULATION:** Roof—Celotex Corp. **FIREPLACE:** Damper—H. W. Covert Co. **SHEET METAL WORK:** Flashing—aluminum, Aluminum Co. of America. **WINDOWS:** Sash—steel casements, Soule Steel Co. Glass—Libbey-Owens-Ford Glass Co. **FLOOR COVERINGS:** Main rooms—rugs. Kitchen—asphalt tile, Armstrong Cork Co. **PAINTS**—The Sherwin-Williams Co. **WOODWORK:** Doors—flush gum, Rezo, Paine Lumber Co., Ltd. **HARDWARE**—Schlage Lock Co. **ELECTRICAL INSTALLATION:** Switches—Bryant Electric Co. Fixtures—General Electric Co. **KITCHEN EQUIPMENT:** Range—Tappan Stove Co. Refrigerator—Westinghouse Electric Corp. **LAUNDRY EQUIPMENT:** Washing machine—Easy Washing Machine Corp. **BATHROOM EQUIPMENT and HEATING**—forced warm air system. Regulator—Minneapolis-Honeywell Regulator Co. Water Heater—American Radiator-Standard Sanitary Corp.



ON STREET SIDE, WHITE SHUTTERS AGAINST BLACK-CHERRY-RED WALL ARE GESTURE TO CON



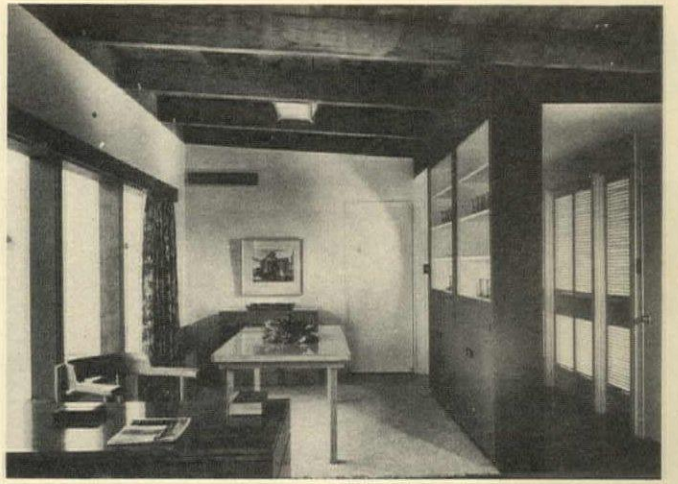
KITCHEN IS SPLIT BY CENTRAL UTILITY WALL INTO SERVANTS' DINING, COOKING, LAUNDRY







FROM LIVING AREA IS EMPHASIZED BY UPWARD SLOPE OF ROOF TO WINDOW WALL

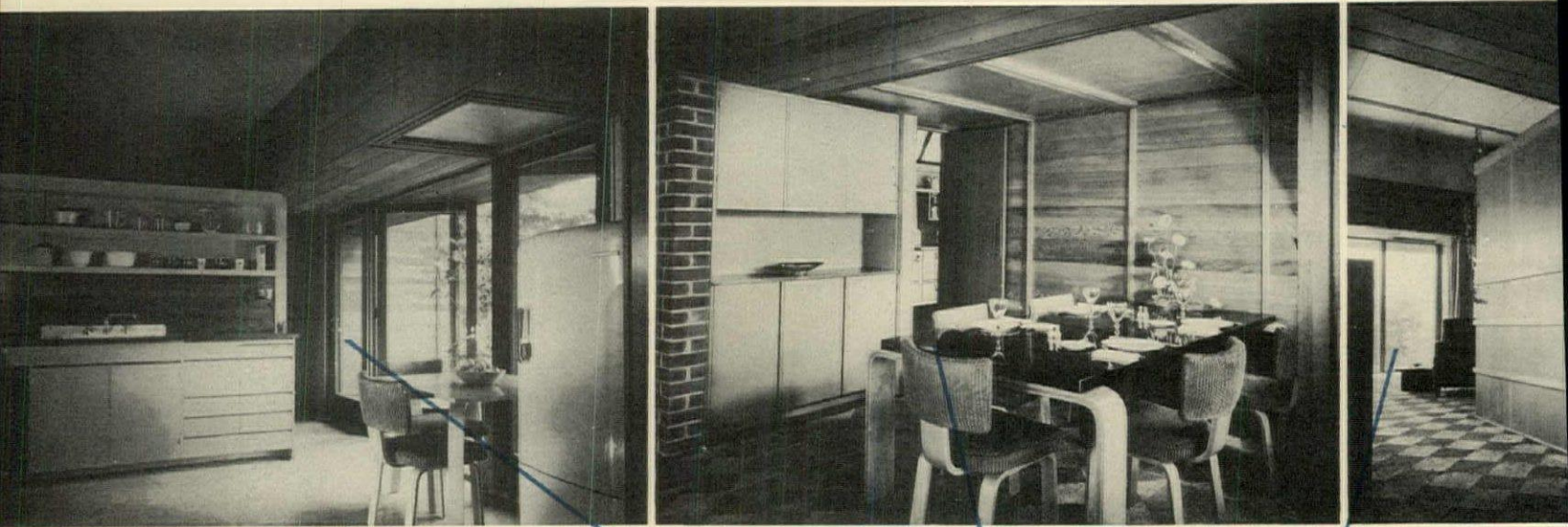


STORAGE WALL ISOLATES DINING SPACE, CREATES ENTRANCE WAY

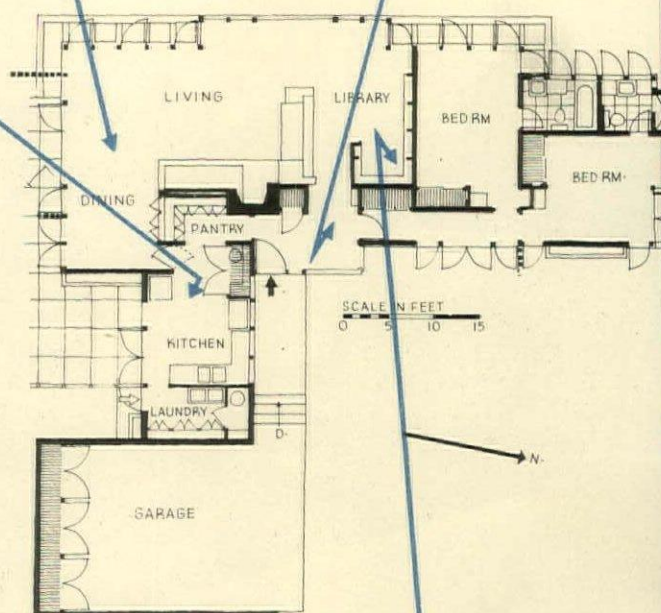
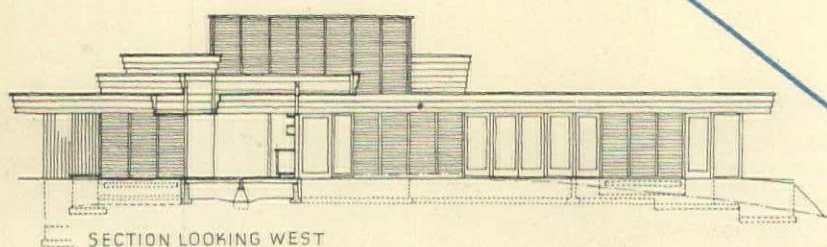


SEGATED PLAN TURNS AT BEDROOM WING TO EMBRACE A FLAGSTONE PATIO AND GRASS YARD, ENCLOSED ON WEST BY WALL AND SERVICE YARD LEADING TO GARAGE





HOUSE IS SIMPLY FURNISHED, THANKS TO A WEALTH OF BUILT-IN EQUIPMENT IN KITCHEN (LEFT), DINING ROOM AND PANTRY, (CENTER) AND LIVING ROOM (RIGHT).



Although in some hands a module might prove restrictive, here it appears as a liberating factor, permitting variations in both plan and elevation. The line of the cornice, although rigidly fixed at the window head throughout, thus becomes a lighting cove in the living room; and the living room ceiling, raised one module above the rest of the house, adds space where it is most effective. A similar regularity is found in the color scheme of the house—a scale established by the colors of woven grass carpeting, natural wood and warm coral brick.

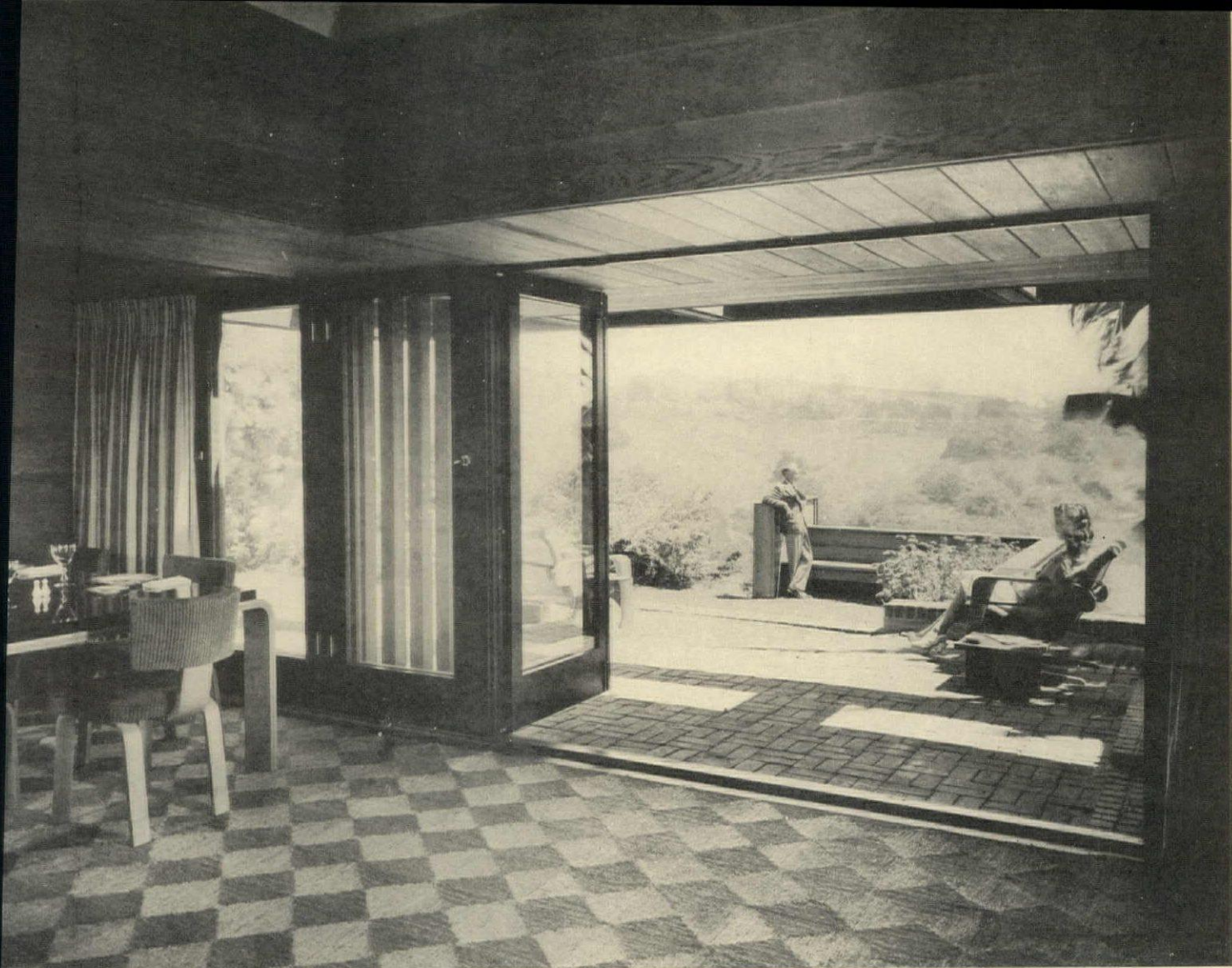
#### CONSTRUCTION OUTLINE

FOUNDATIONS—concrete. STRUCTURE: Exterior walls—studs faced inside and out with T. & G. redwood, waterproof felt. Floors—fir. Ceiling—Celotex panels, Celotex Corp. ROOF—Tropi-Cool Products Co. INSULATION—Celotex Corp. FIREPLACE: Damper—Superior Fireplace Co. SHEET METAL WORK: Flashing—Armco, American Rolling Mill Co. Leaders—cast iron. Ducts—galvanized iron. WINDOWS: Sash—wood. Glass—Libbey-Owens-Ford Glass Co. FLOOR COVERINGS: Main rooms—hemp squares. Kitchen and bathrooms—linoleum. WALL COVERINGS: Main rooms—redwood or plywood. Bathrooms—plaster. PAINTS—Sherwin-Williams Co. and Samuel Cabot, Inc. WOODWORK: Doors—Paine Lumber Co., Ltd. HARDWARE—Schlage Lock Co. KITCHEN EQUIPMENT: Sink—Crane Co. Fan—Pryne & Co. BATHROOM EQUIPMENT—Crane Co. Cabinets—Formica tops, Formica Insulation Co. HEATING—warm air system, Payne Furnace & Supply Co. Water heater—Crane Co.

BOOKCASES FORM NOOK IN THE LIVING ROOM







ING DOORS AT SOUTHERN END OF LIVING AREA OPEN ONTO A SERIES OF SHADED BRICK AND OPEN GRASS TERRACES COMMANDING FINE VIEW OF HILLS  
 E AND SURFACE TREATMENT OF LIVING ROOM YIELD GOOD ACOUSTICS FOR RADIO, RECORD PLAYER AND LOUD SPEAKER BUILT INTO CABINET AT LEFT





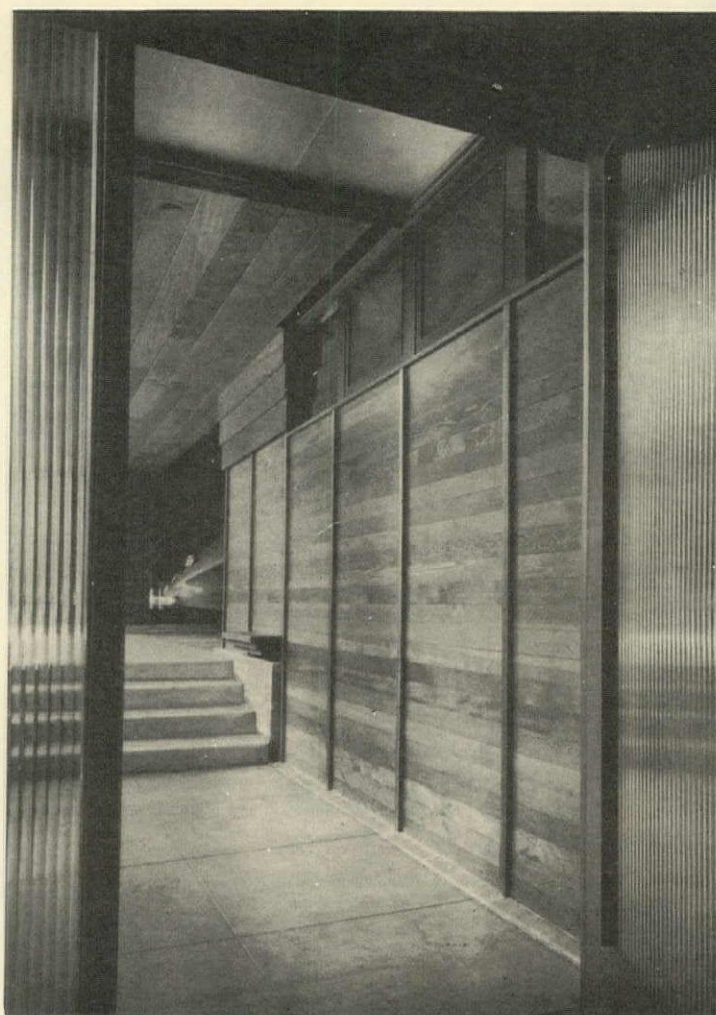


FROM THE NORTH, THE HOUSE PRESENTS AN APPEARANCE OF UTMOST SIMPLICITY AND REPOSE. SERVICE WING IS AT LEFT, ENTRANCE CENTER, BEDROOM WING AT

WHERE EAVE IS REQUIRED, HORIZONTAL BAND IS PROJECTED ABOVE WINDOWS

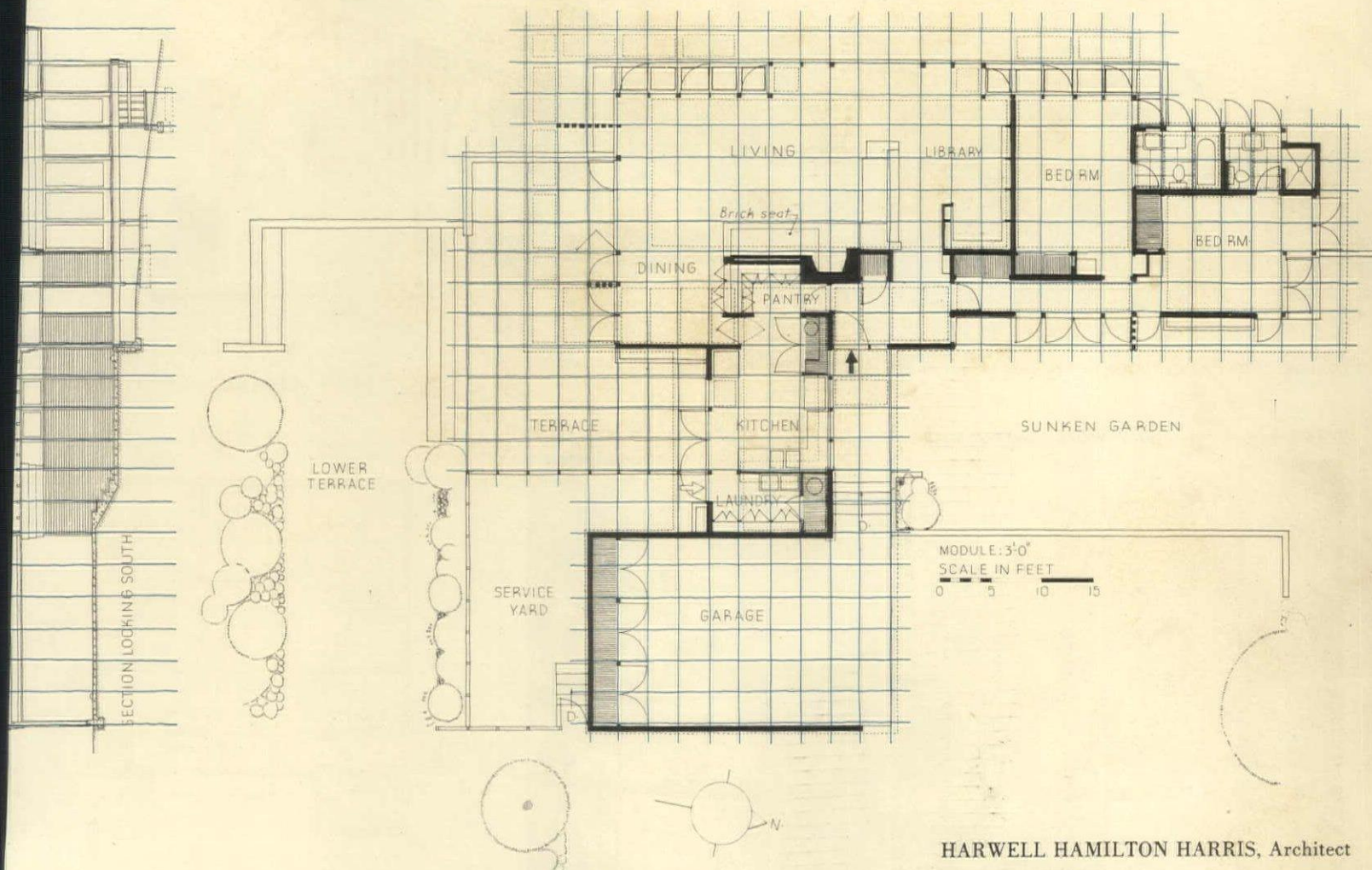


SHEATHED SOFFIT OF GARAGE ROOF EXTENDS TO COVER ENTRANCE PA





# roit handling of wood marks this hilltop house



HARWELL HAMILTON HARRIS, Architect  
JUSTUS BIRTCHER, General Contractor

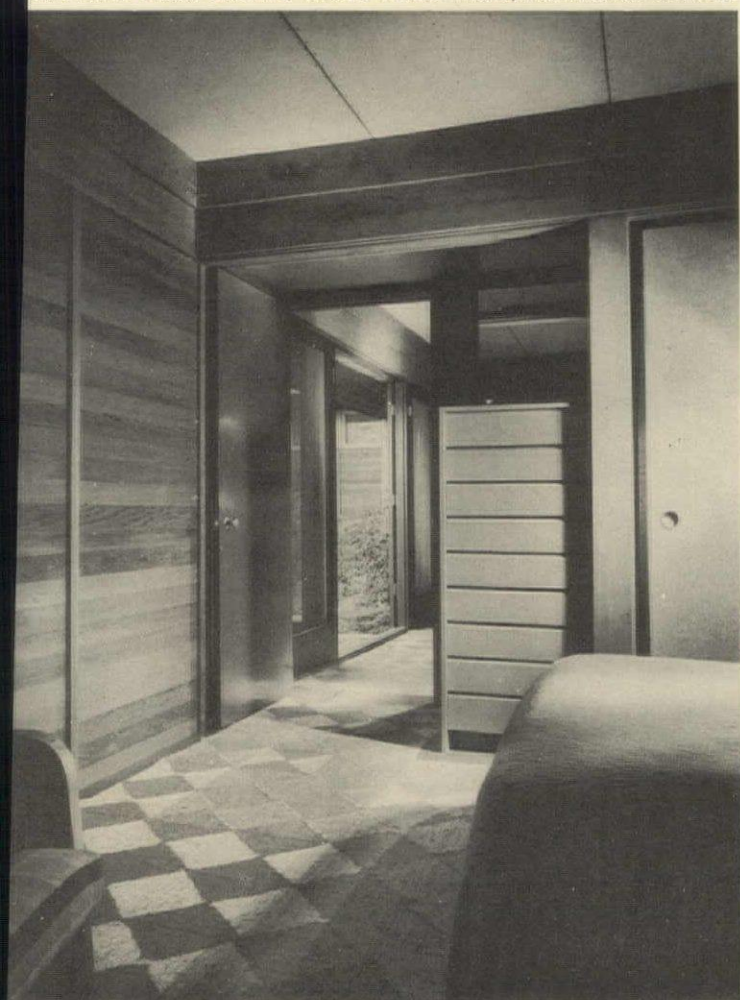
OMS HAVE GRASS CARPETS, WAXED WOOD WALLS, FIBER-BOARD CEILINGS

This house in Los Angeles shows the architect's characteristically competent utilization of a typical piece of Southern California hillside and demonstrates once again his masterful handling of wood. Entered from the motor court at the northeast corner of the plot (top, facing page), the house is organized into an L-shaped plan which places all living areas to the south and west. Here there is a fine view out toward the Pacific and a sufficiently sharp drop to the land to afford complete privacy for the large glass areas. The house is actually not large,\* although its 40 ft. living room is so cannily linked with a system of covered and opened terraces as to create the illusion of great spaciousness.

To protect his glass areas from the afternoon sun, Mr. Harris has employed wide cantilevered eaves. These are low (6 ft. 10 in.) and quite thick (2 ft. 6 in.); and to prevent them from seeming oppressive, he has perforated the outer edge with a line of open coffers, whose depth is sufficient to exclude all but the noonday sun.

The structural system employed was a controlling factor in the entire design. Built entirely of redwood, the walls are framed to a 3 ft. module, and sheathed inside and out with tongue-and-groove redwood planks, with the joints covered by battens nailed to the studs. This creates a panel effect which carries up to the line of door and window head (6 ft. 8 in.). Above this is a continuous band of lapped boards which, when projected, forms the deep eaves described above.

\*Originally built for a childless couple, it was subsequently sold to another family—also childless—who find that it suits their needs perfectly.



Edward Parker, photos



# Small house gives maximum space in minimum area

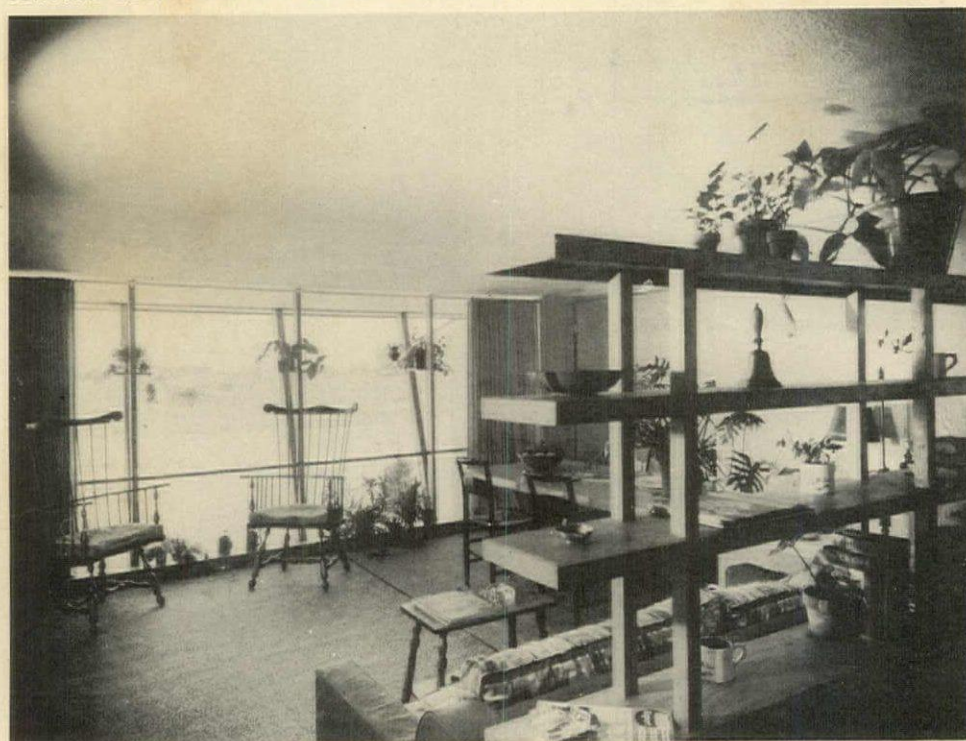


CARPORT SERVES AS OUTDOOR SITTING AREA, CAN BE ENCLOSED TO PROVIDE FOR FUTURE EXPANSION

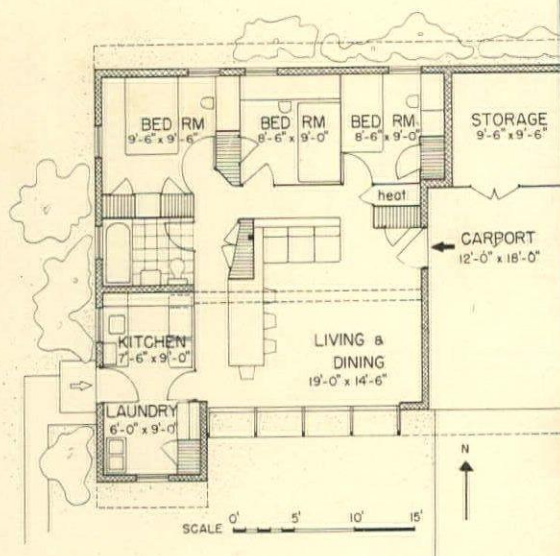
ALDEN B. DOW, Architect

LESTER V. KENT, General Contractor

SOFA AND BUILT-IN CABINET WORK COMPRISE SOLE BARRIER BETWEEN LIVING AND SLEEPING AREAS



PARTITIONS WERE INSTALLED AFTER CEILING HAD BEEN FINISHED. BOTTOM VIEW IS TOWARD KITCHEN



With the sleeping and service areas bent in an L-shape, a spacious central living room, architect Dow produced an extremely compact and economical house for the midwest. One of the most important savings realized by this arrangement was the elimination of one wall of the interior corridor. This, in addition to the feeling of spaciousness, provides better ventilation yet maintains a clearcut circulation pattern. Access from the outdoors is either through the kitchen or the carport. Oblique supports from the living room window sill to the edge of the overhang have more decorative than structural value but tend to increase the apparent size of the house from within and without. Exterior walls are of cinder block exposed on both sides and painted turquoise inside and out. Woodwork is yellow: sash, magenta. By enclosing the carport, the tool room could be made into an additional bedroom with storage under the eaves.

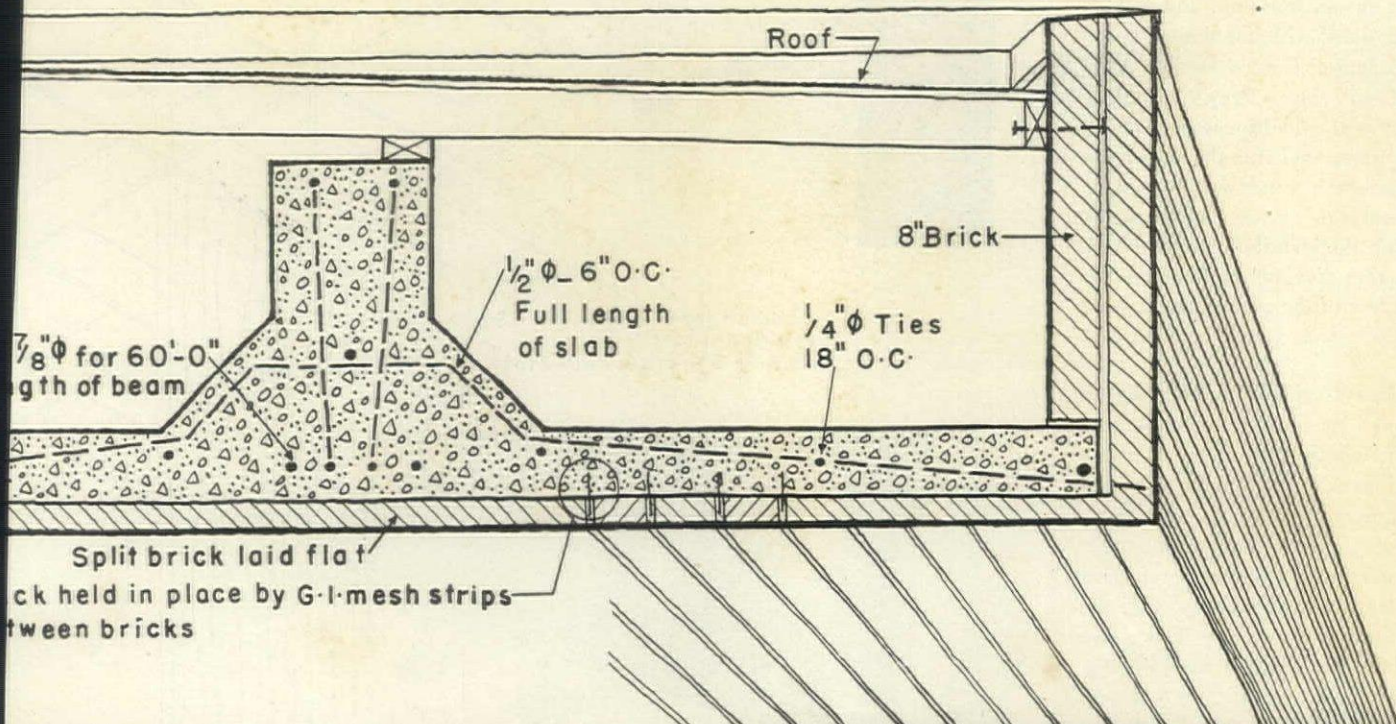
## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—cinder concrete blocks. Floors—E. L. Bruce Co. Ceiling—plaster board and Rocklath, U. S. Gypsum Co. **ROOF:** 3-ply gravel, built-up. **SHEET METAL WORK:** Flashing—galvanized iron. **WINDOWS:** Sash—double hung and fixed. —double strength and plate. **FLOOR COVERINGS:** Kitchen and bathrooms—linoleum. **WALL COVERINGS:** Main rooms—plywood. Kitchen and bathrooms—plaster board. **ELECTRICAL INSTALLATION:** Wiring system—Romex, General Cable Corp. Fixtures—special. **KITCHEN EQUIPMENT:** Range—gas. Refrigerator—electric. **LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc. **HEATING:** Coleman floor hot-air heaters, The Coleman Co., Inc. Water heater—gas.



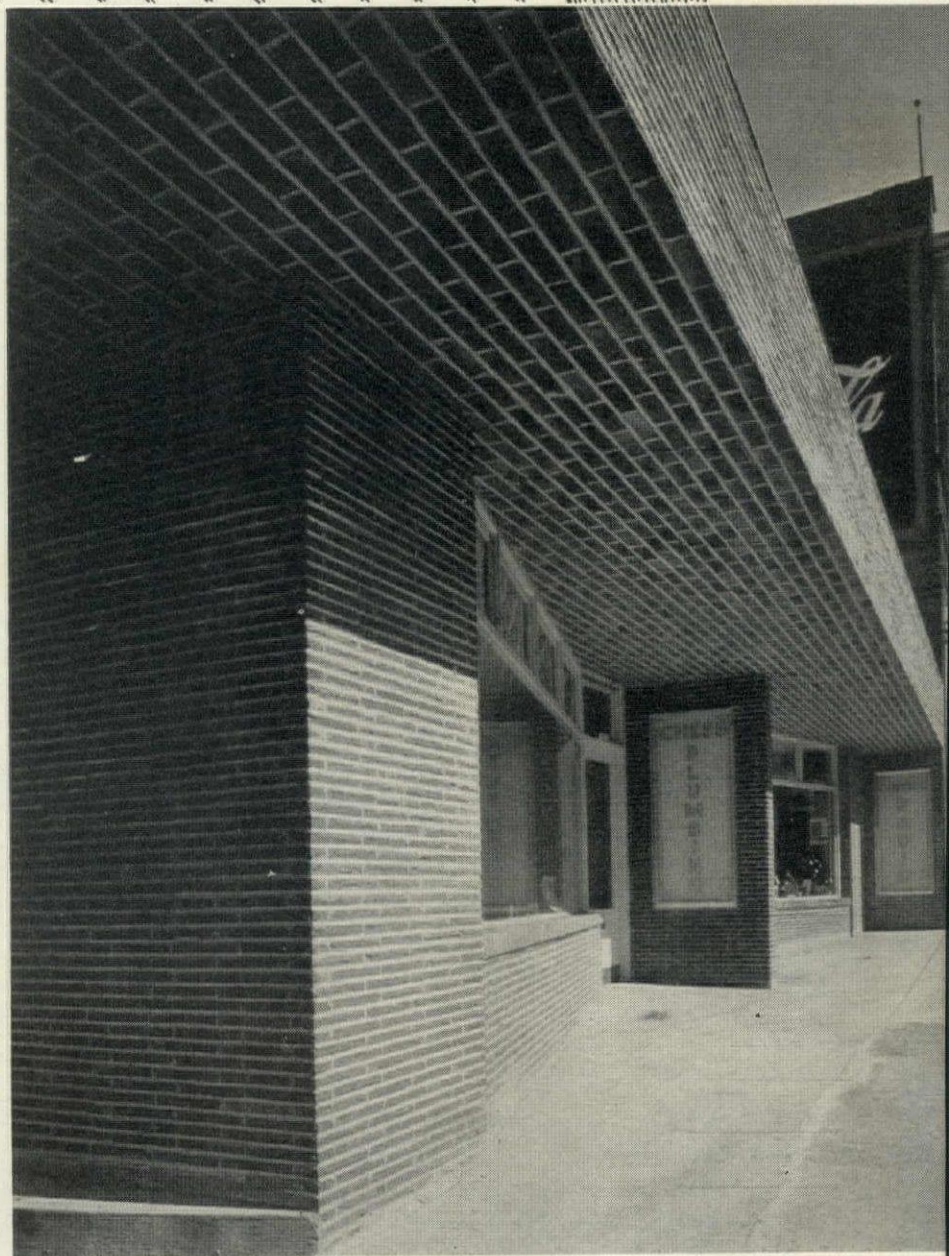
# PRODUCTS AND PRACTICE

**BRICK-SHEATHED MARQUEE** uses ingenious method for attaching brick to concrete.



The old problem of avoiding plaster or sheet-metal work in exterior soffits has been solved by Van Evera Bailey, Portland (Ore.) in a recently completed commercial building. Inspired by some soffits he had once seen in Europe, Bailey worked out this method for permanently attaching Roman half-brick to the underside of a concrete slab. For all its *tour-de-force* appearance, the method is actually quite simple. Instead of the standard form, a wooden platform was erected. Over this 1 in. of mason's sand was evenly spread and on top of this the brick were carefully spaced, with about  $\frac{1}{2}$  in. of sand swept into the open joints to keep them in place. Then long, 2 in. wide strips of galvanized metal mesh were stuck in the lateral joints; a thin cement grout was poured into the joints, engaging the mesh which protruded about 1 in. above the surface of the brick. After this grouting had set, the reinforcing steel was placed and the pouring of the slab proceeded in the usual fashion.

Architect and owner are well-satisfied with the result. "Experimentally, we tried to pull out a brick from below," says Bailey. "We had to pulverize the brick to get it out." The facing was also economical: according to Bailey, it cost "less than the \$250 labor which the mason contractor had allowed for it."



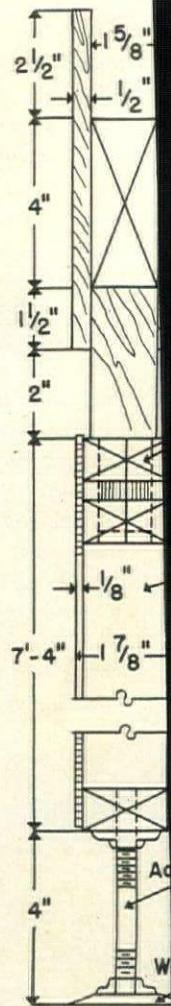
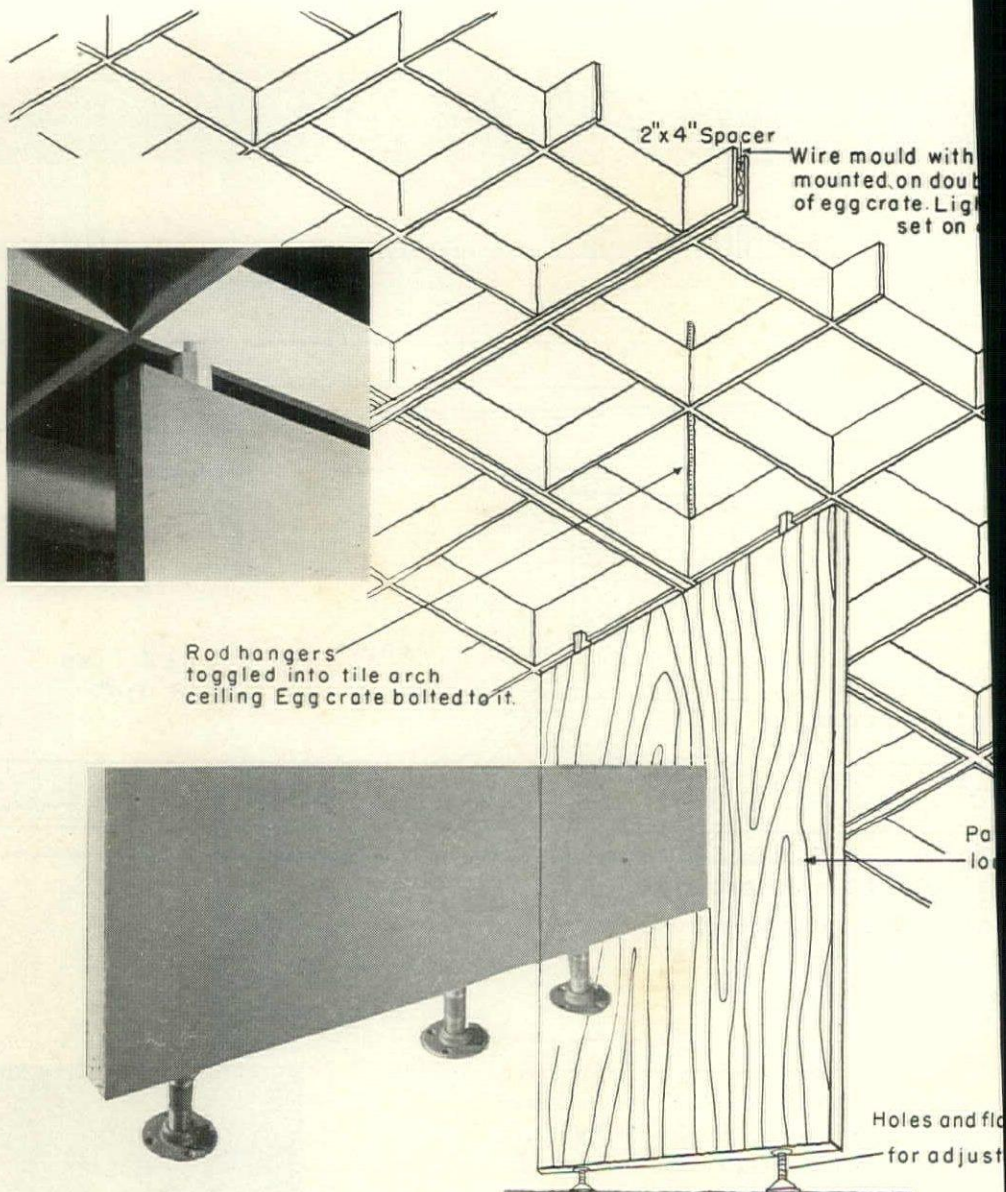


## FLEXIBLE AND LIGHTWEIGHT, Deskey's modular screening system is first step in Boston renovation job.

One of Boston's oldest furniture stores—the John H. Pray & Sons Co.—wanted to add a new line of furniture, wanted to display it appropriately in an old building, and wanted the whole thing done with maximum speed and minimum expense. Donald Deskey Associates, engaged to solve Pray's problem, decided that what was called for was, in effect, a complete new inner shell for the showroom which would mask the window-and-radiator-spotted walls and the uneven, pipe-scarred ceiling. Moreover, the installation would have to be flexible, so that displays could be readily rearranged, and free of the ceiling and outside walls, so that alterations would be held to a minimum.

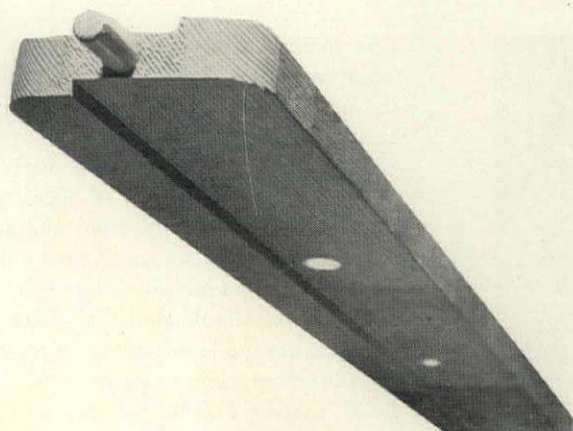
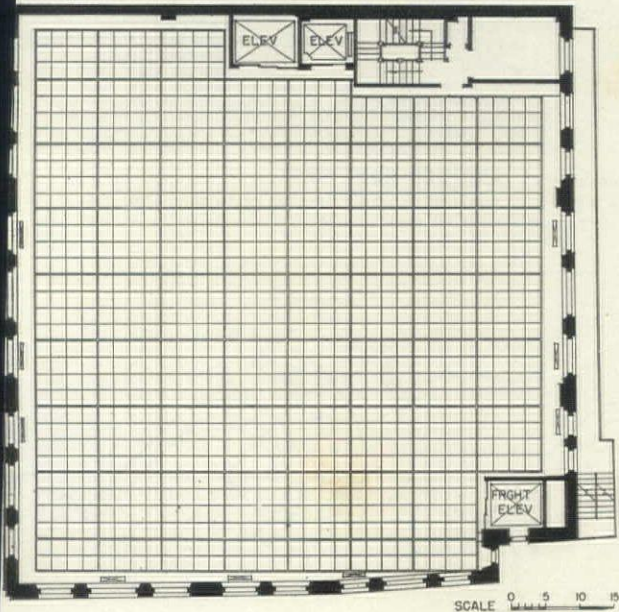
The system as installed consists of a wooden eggcrate, designed to a 2 ft. module and suspended 8 ft. above the floor, a series of four types of panels, identically sized but offering solid, louvered and trellised effects. These panels have a simple method of attachment to the eggcrate and—because of their threaded pipe legs—may be easily adjusted for small variations in the floor. The entire system is thus both flexible and self-aligning.

Before installing the eggcrate, the old ceiling was painted a dark dull gray. Spotlights, which can be clamped anywhere on top of the eggcrate, can create any effect desired. Louvered and trellised wall panels permit a relatively free movement of light, air and heat from outside walls.

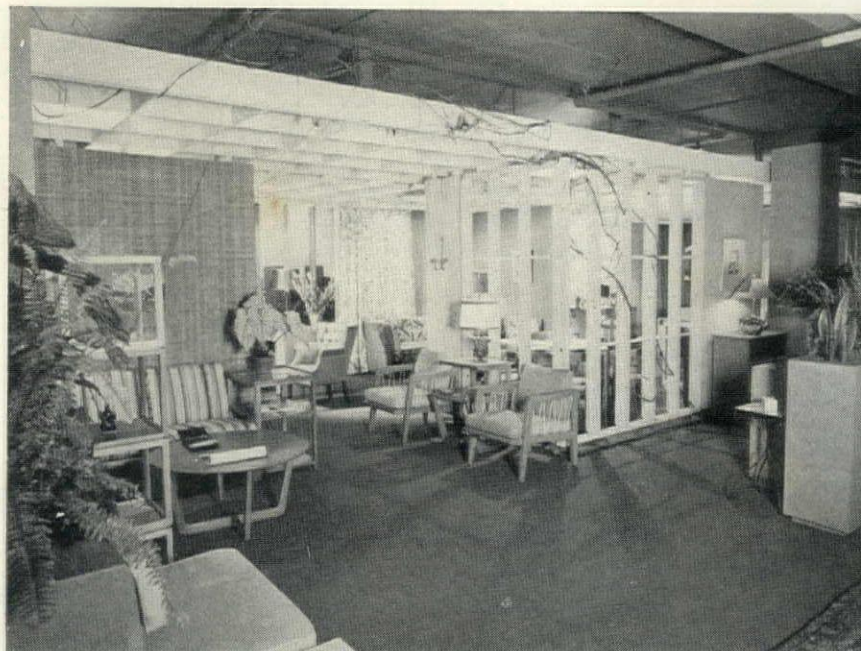




**STRUCTURAL AND MECHANICAL ALTERATIONS** were held to a minimum by designing the new screen system to hang free of structural ceiling and outside walls. Designed as a 2 ft. module—which matched the column spacing—the egg-crate ceiling was fabricated in 8 ft. sq. units. These were suspended 8 ft. above finished floor.

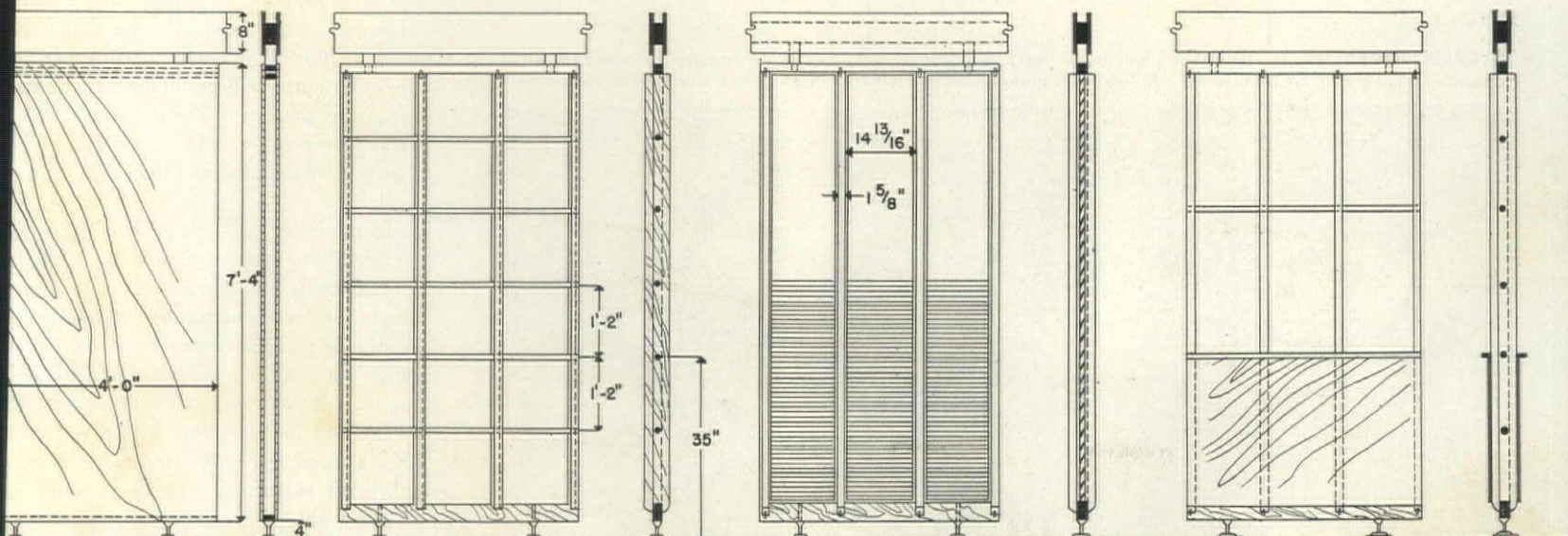


**MODULAR CEILING GRID** permits great flexibility in placement of partitions.



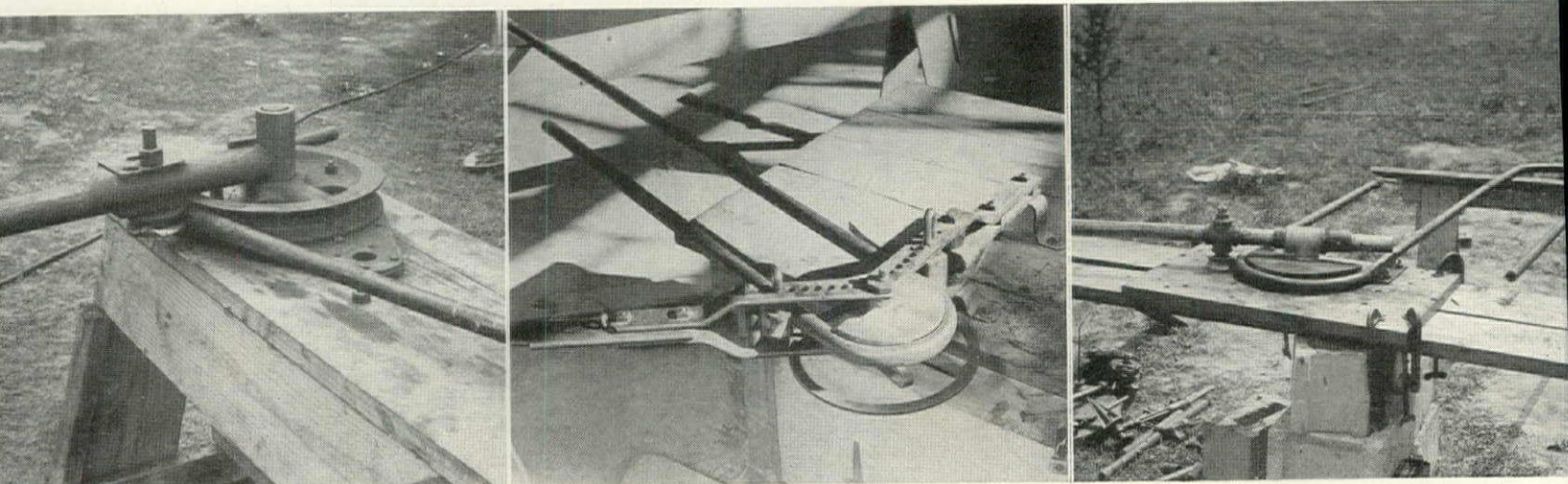
**COMPLETELY MASKED** by new suspended eggcrate, the old ceiling with its pipes and beams was painted dark gray. Lights may be clipped to new grid anywhere.

**FOUR TYPES OF WALL PANELS**, of standard size and identical method of support, permit display areas to simulate solid wall (in either natural wood or painted finish), shutters, windows or trellises. Vertical member (left) is designed for open panels, pivots so that louvered screens may be easily inserted.





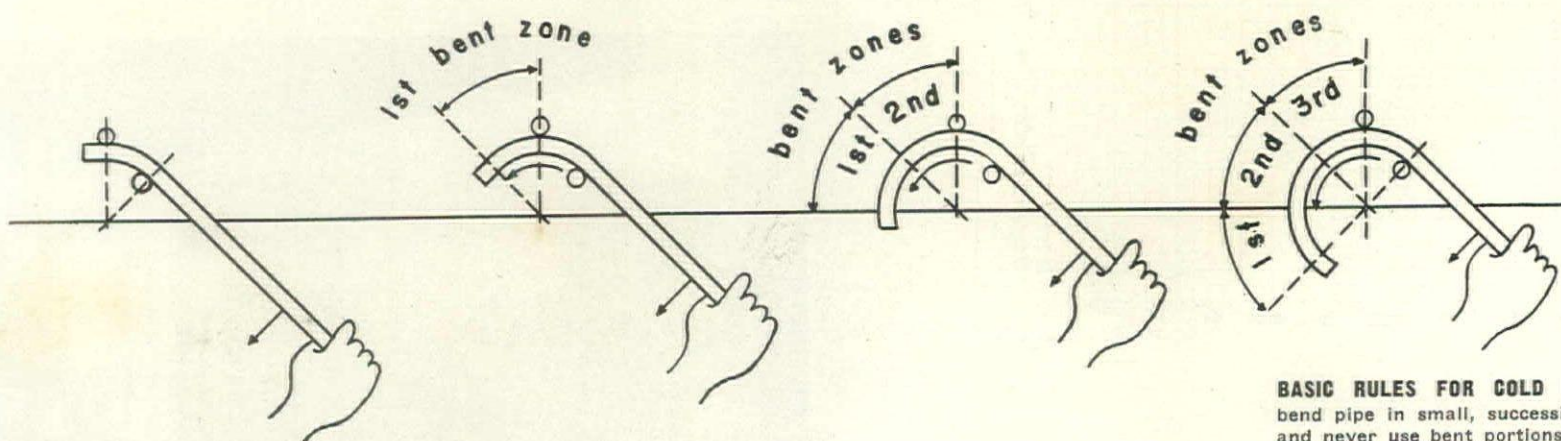
COLD BENDING of pipe coils for radiant heating installations facilitated by new benders.



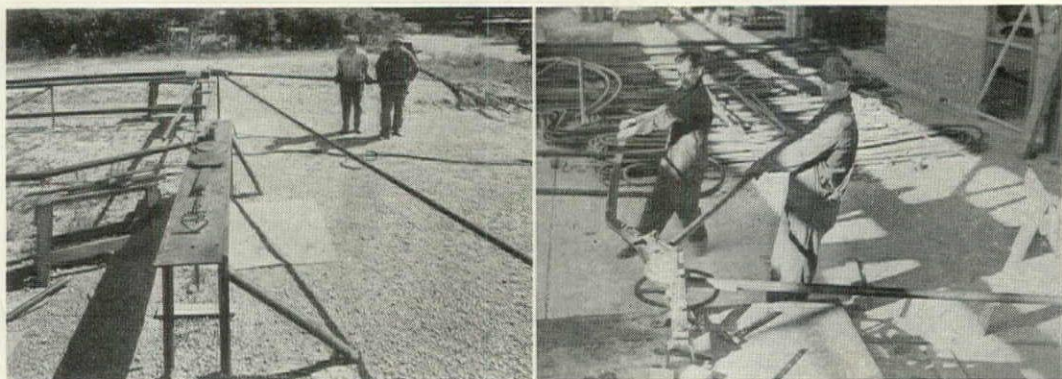
AT A COST OF \$6, this effective pipe bender was rigged up for on-the-job bending.

20,000 FEET of wrought iron pipe coils were successfully fabricated on factory-built bender. Lever arm at left.

ANOTHER HOME-MADE pipe bender, simple and pensive to assemble, easy to operate. Lever at left.

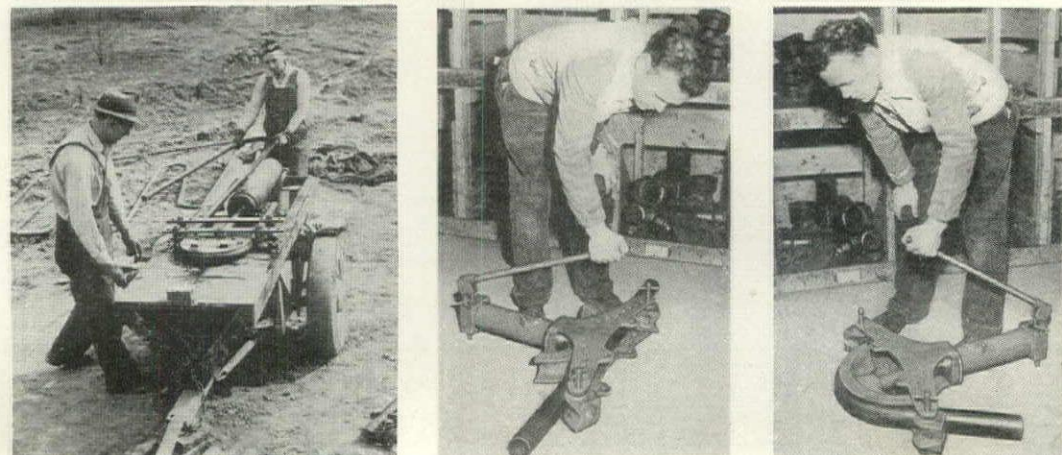


BASIC RULES FOR COLD BENDING pipe in small, successive, and never use bent portions as



FOR LARGE JOB-SITE fabrications of many coils of same dimension, a jig may be set up (left). On large diameter pipe one man operates lever arm while another pushes pipe through sheaves in successive steps.

HYDRAULIC BENDERS may be either homemade (left) or commercial (right), manually or mechanically operated. Tal's Prestal Bender Inc., Milwaukee, makes portable model which bends pipe in one operation.

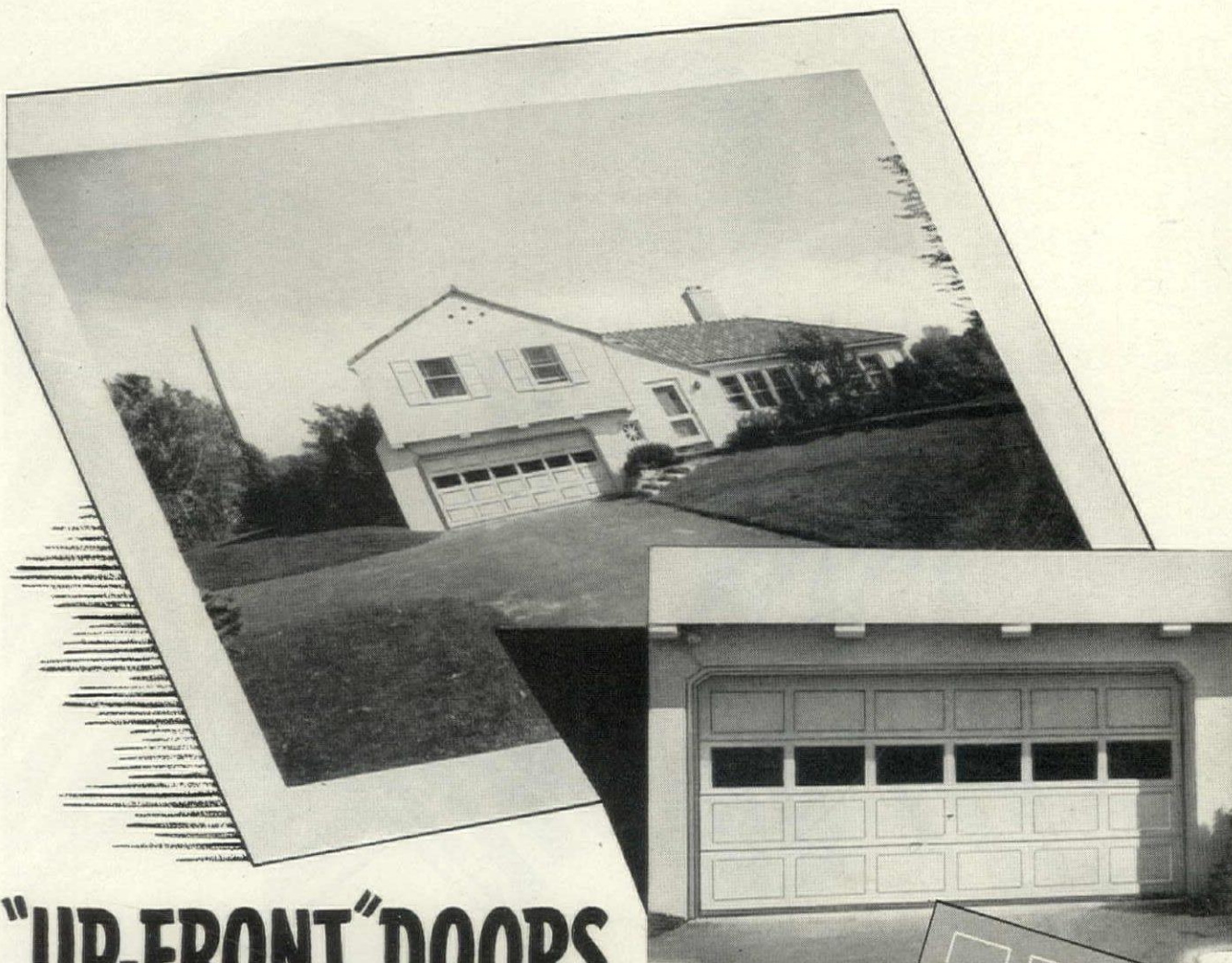


All photos courtesy A. M. Byers Co.

How to bend a piece of pipe without deforming it was, until fairly recently, the least of the headaches facing building men. But with the increasing use of panel heating has brought the problem of coil fabrication sharply into the foreground. One of the trickiest of these has been that of cold bending the pipe: and already a number of ingenious mechanisms have appeared, some of which are shown here, to make the operation simple and sure. Some of the pipe benders use levers and some are hydraulically-operated; one costs as little as \$6 to build, another \$1,000. But they all recognize one principle: when you bend a piece of wrought iron or steel pipe, you stretch the pipe-wall along the outer edge and compress it along the inner one. The pipe wall on the outer curve will be thinned, that along the inner one, thickened. The diameter of the pipe must therefore be held in strict ratio to the diameter of the pipe and thickness of the wall.

To minimize deforming, other factors must be taken into account in cold bending. In the first place, a pipe should never be bent in a single continuous operation. Instead the bend should be made in short, successive stages or zones. In addition, each zone after it is bent should be pushed through the machine away from the operator, so that it ceases to be a part of the lever arm and is hence not subjected to further bending stresses. (See diagram above.)





## "UP-FRONT" DOORS

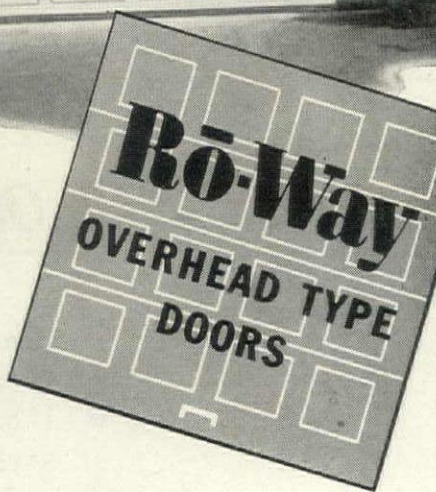
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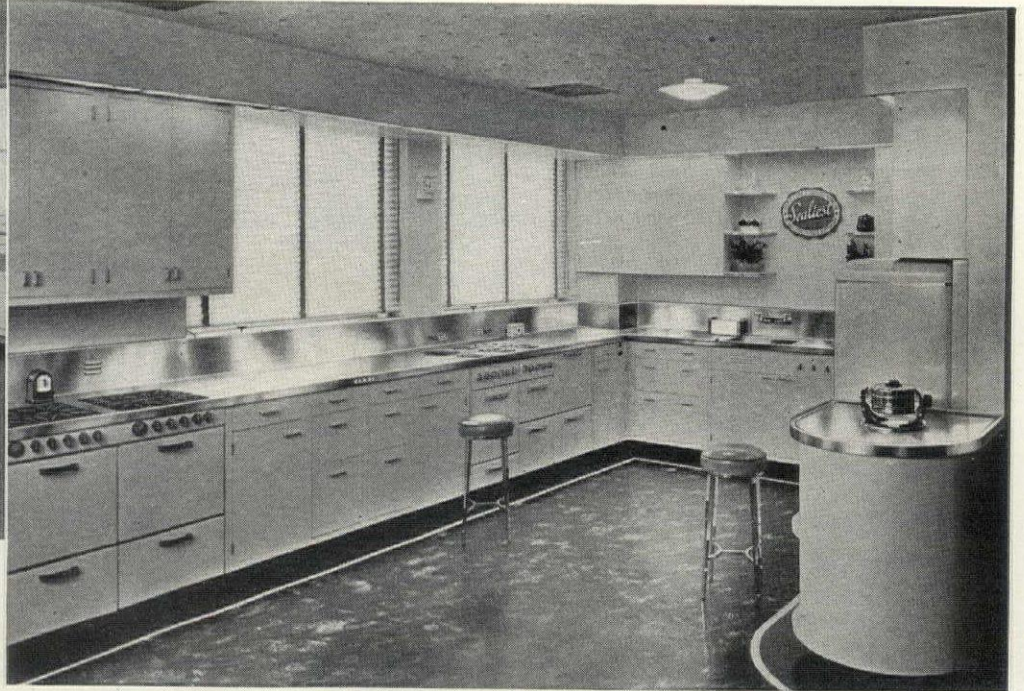
National Naval Medical Center, Bethesda, Md.  
 Wey Memorial Hospital, Chicago  
 George Washington University Hospital, Washington, D. C.  
 Conness Hospital, Minneapolis  
 Lady of Victory Hospital, Lackawanna, N. Y.  
 St. Mary Hospital, Bay City, Mich.  
 Cook County Research Hospital, Chicago  
 Northwestern Hospital, Minneapolis  
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 Kraft Cheese Company, Chicago  
 Waunee Manufacturing Co., Adrian, Mich.  
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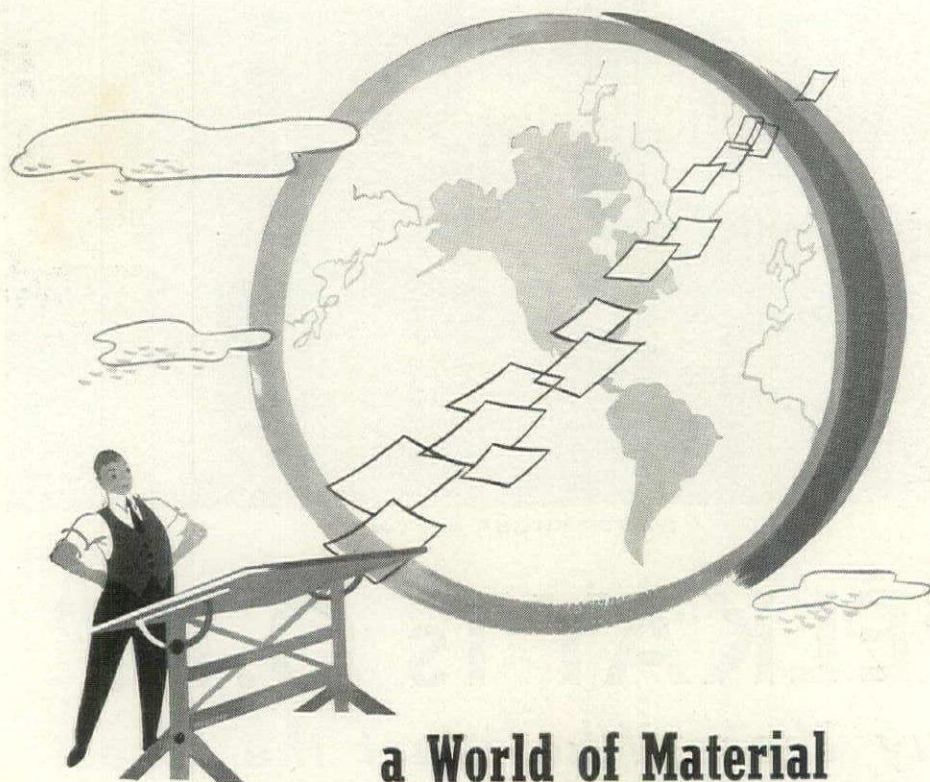
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## ANNOUNCEMENTS



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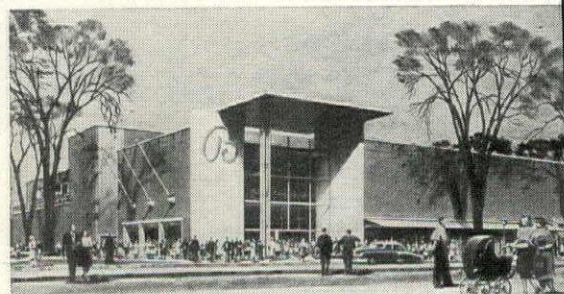
PHILADELPHIA 2, PA., 1256 Commercial Trust Building

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A SUBURBAN BRANCH FOR BLOOMINGDALE BROTHERS, a large New York department store (sketch below) started this fall in the New York Life Insurance Co. development at Fresh Meadow, Long Island. Walker, Foley & Smith, architects for New York I work with Bloomingdale's consultant architects Jacobs, and engineer Edward Ashley in developing Fifty departments will be included in the new two-story basement building which will also provide parking for 1,000 cars and space for baby carriages and bicycle storage. Construction should be completed by August 1948.



A LONG-RANGE BUILDING PROGRAM for the Buick Division General Motors at Flint, Mich. is being undertaken by Kahn Associated Architects and Engineers. An event of 20 new buildings will replace present miscellaneous structures. First unit to get under way in the new assembly is a three-story building (1,000 x 200 ft.) with a 55 ft. bay at the north end to handle incoming car-frame shipment. Truck receiving-docks are located at the south end. The assembly line starts at the cranebay near the frame shop space and moves down through multiple sub-assembly buildings. The whole structure slopes with the grade—1¼ in. per 28 ft. bay. All new units will be of structural steel with sash and brick facing.

#### AWARDS

THE JAMES LINCOLN ARC WELDING FOUNDATION announced winners in its \$200,000 Design-For-Progress Program prizes ranging from \$100 to \$13,200. Top prize money to a team of three collaborators in the Aircraft Classification; Paul Hackethal, Clarence Mast and Douglas M. Ton, all of Koppers Co., Aeromatic Propeller Department. The second main award (\$10,700) was won by Dumbauld, Design Engineer, for his project in the Structural Building and Bridges division; third (\$8,200) was to Storatz, Engineer, in the Industry Machinery Classification.

Winners have been announced in the FOURTH ANNUAL NATIONAL TEXTILE EXHIBITION sponsored by the Women's College of the University of North Carolina. Judges were Simonson, Mimi Blaker and Noma Hardin. Among pronounced "best of type" and recipients of \$100 prize: Roslyn Bileck, New York, printed textiles group, for a tone leaf design; Ed Rossbach, Seattle, Wash., woven; Joy Lind, Cranbrook, Mich., woven drapery and upholstery; and Tina McMorran, Eugene, Ore., woven synthetics.

#### EXHIBITS

U. S. TRAINING FOR ARCHITECTS, 1947, the first comparative exhibition of work by architectural students, has been enabled by the Architectural League of New York for a nationwide tour after its preliminary

(Continued on page



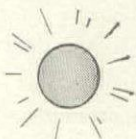
# What keeps the walrus feeling swell can keep your clients happy, too!



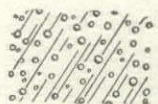
Over 90 years of successful roofing experience has demonstrated the sound value of the gravel or slag wearing surface for built-up roof construction.



1. It holds in place the heavy poured (not mopped) top coat of coal-tar pitch which provides an extra thick waterproof covering.



2. It provides protection against the sun's actinic rays which otherwise dry out the valuable oils in roofing bitumens.



3. It protects the roof against mechanical damage, hail and wind, wear and tear.



4. It interposes a fireproof surfacing material between the building and flying embers—makes a roof that carries Fire Underwriters' Class A Rating.

The ice-capped Arctic seas appeal to Mr. Walrus—he'd rather be there than anywhere! Because good old Nature has given him a thick, tough hide as protection against the elements.

Like the walrus, the Barrett Specification\* roof has extra protection—an *armored wearing surface*.

Built up of alternate layers of coal-tar pitch and felt, topped by a thick *pouring* of pitch to *anchor* the gravel or slag wearing surface, Barrett Specification roofs are the toughest, longest-lasting, built-up roofs made!

Remember these facts when you write your building specifications. Protect your buildings with Barrett Specification coal-tar pitch and felt, applied by Barrett Approved Roofers according to Barrett application methods, and you've provided your client with lasting freedom from roof troubles. Barrett Specification roofs are so reliable that they can be bonded against repair and maintenance expense for as long as 20 years.



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36th Street & Gray's Ferry Road  
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In Canada: The Barrett Company, Ltd.,  
5551 St. Hubert Street, Montreal, Que.

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

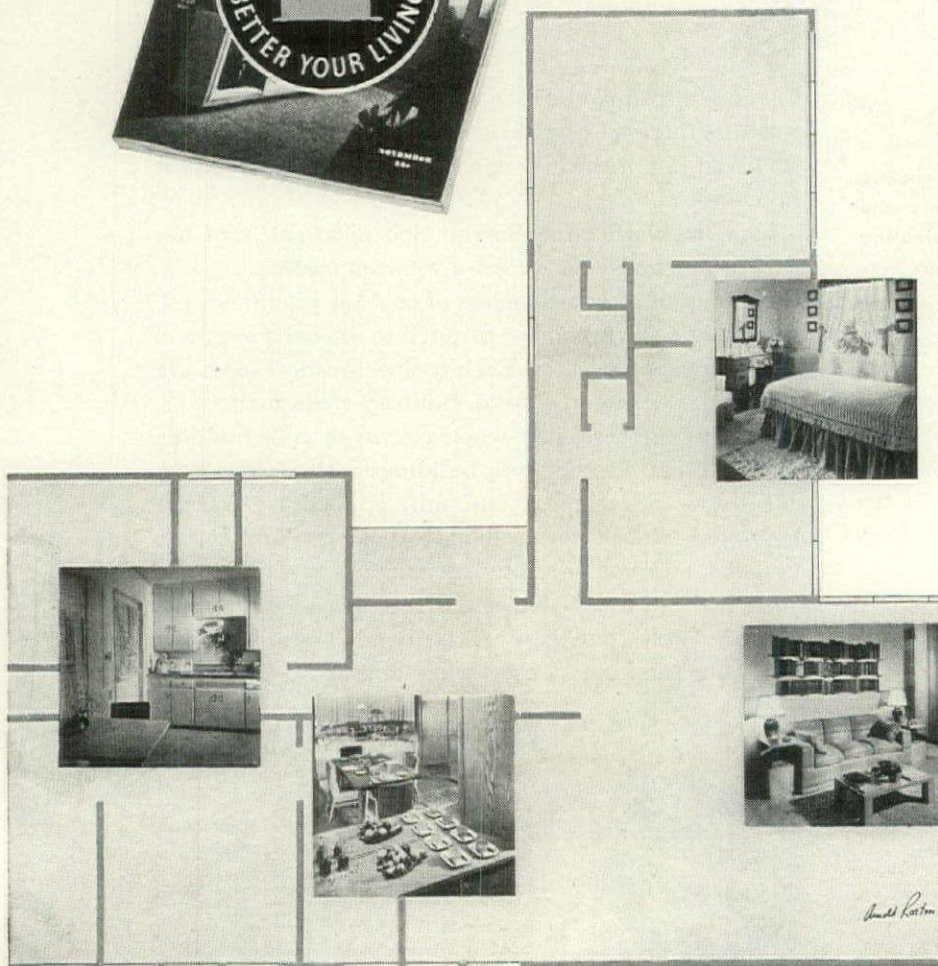
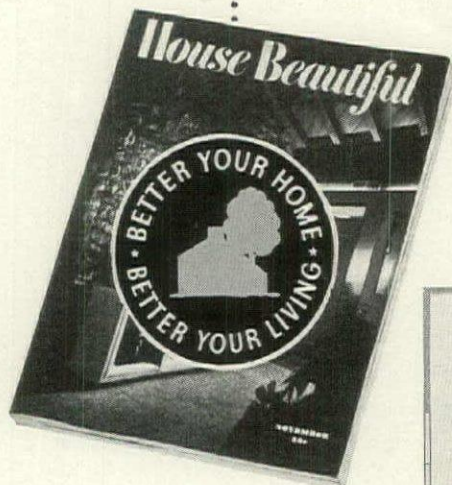


## ANNOUNCEMENTS

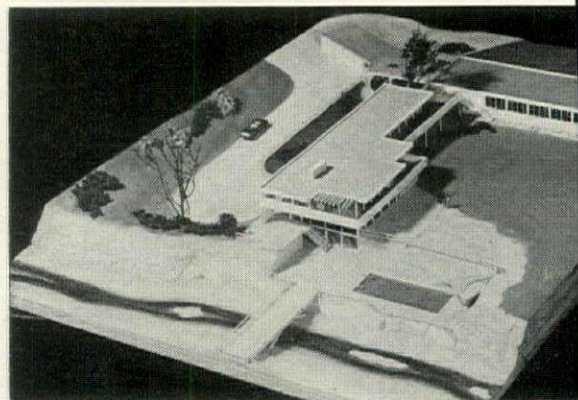
Source: "Leading National Advertisers," July 1947.

House Beautiful leads all magazines

in home furnishings advertising



showing in New York during November. Planned limitations of a traveling show, the presentation of each 35 participating schools is limited to two 4 x 6 ft. whose design expresses its aim in architectural education. William Wurster of Massachusetts Institute of Technology, Serge Chermayeff of the Chicago Institute of Design, Frederick Murphy of the Catholic University, Washington, D. C., presented concepts of professional training needed for university representatives which opened the dinner. In spite of differences in method and degree, Mr. Chermayeff's dictum "Let us not speak of form—but of purpose and nature" summed up the spirit of 1947 educators.



Several colleges worked out models to supplement those expressed in their panels. Most effective among these were Cornell's double study of its ideal swimming stadium; redevelopment suggestion for a section of New York Avenue of the Americas; and (see above) Notre Dame country house designed for a stream-side slope. More than 50 architectural schools in all parts of the country already requested showings of the exhibit.

### APPOINTMENTS



HAROLD HAUF, professor of architectural engineering at Yale University, is now Chairman of its Department of Architecture. Edward Stone will be associated with the newly organized department as Senior Critic in Architectural Design. To supplement the series of Visiting Critics, Yale has invited a number of "visiting critics in

dependence" each of whom will stay at the University for a period of five weeks to supervise a major problem in Advanced Design. These critics will include: Louis Kahn, Paul Schweikofsky, Carl Koch and Gardner Dailey.

HENRY DREYFUSS has been elected president of the Society of Industrial Designers for the coming year. Other officers are: Harold Van Doren, vice-president; Egmont Arens, secretary; and Ray Patten, treasurer.

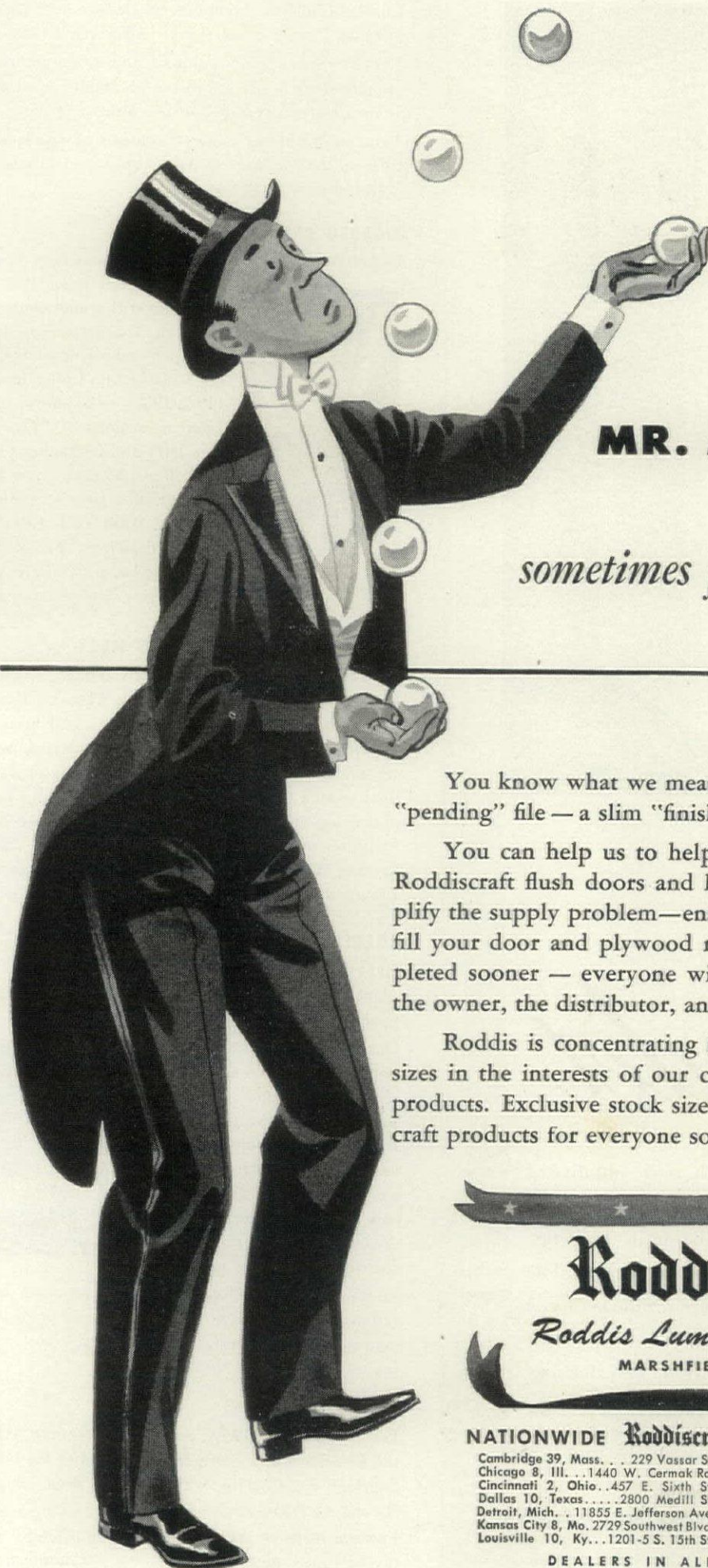
JOSEPH BLUMENKRANZ, New York architect, has been appointed hospital consultant for the War Department Committee of Engineers in connection with its nation-wide \$770,000 construction program for the Veterans Administration.

HUSON JACKSON and ARTHUR MALSIN have been named Design Critics for Pratt Institute, Brooklyn, N. Y. Ronald Allwork is now Instructor of Construction at the Institute.

TULANE UNIVERSITY announces the following additions to teaching staff at the School of Architecture: Dr. Maurine Barret—Town Planning;

(Continued on page 1)





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sometimes feel like this?*

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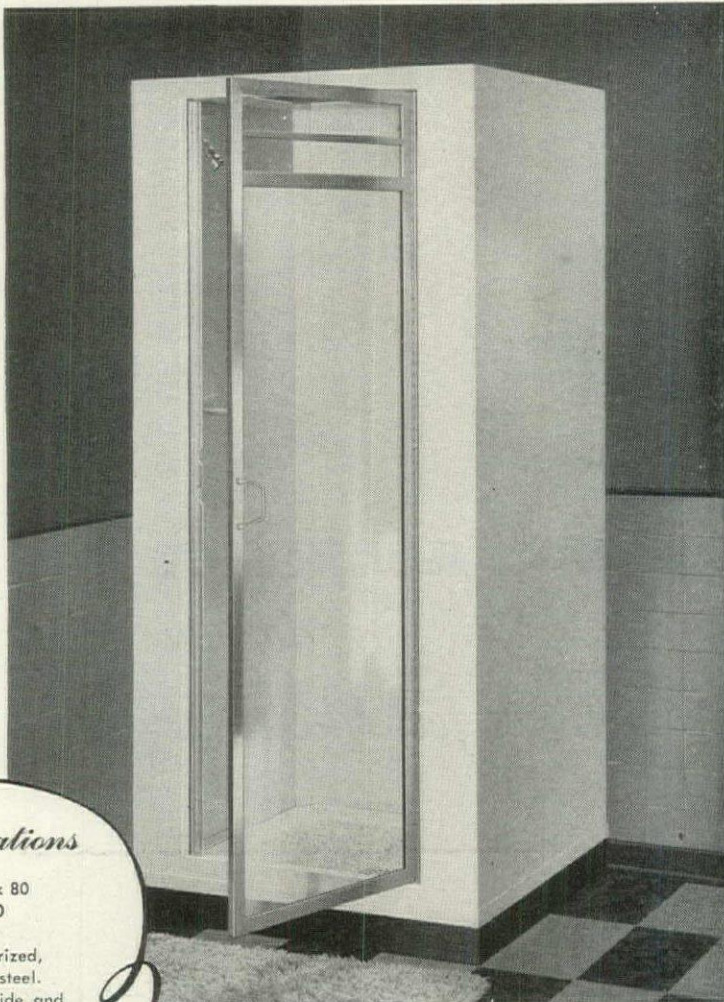
Cambridge 39, Mass. . . . 229 Vassar St.  
Chicago 8, Ill. . . . 1440 W. Cermak Rd.  
Cincinnati 2, Ohio . . . 457 E. Sixth St.  
Dallas 10, Texas . . . 2800 Medill St.  
Detroit, Mich. . . . 11855 E. Jefferson Ave.  
Kansas City 8, Mo. . . 2729 Southwest Blvd.  
Louisville 10, Ky. . . 1201-S S. 15th St.

Long Island City, N. Y. . . . .  
Review & Greenpoint Ave.  
Los Angeles 11, Calif. . . 2860 E. 54th St.  
Marshfield, Wis. . . . 115 S. Palmetto St.  
Milwaukee 8, Wis. . . . 4601 W. State St.  
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## ANNOUNCEMENTS



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*Metal Manufacturing Company*

Chicago 13, Illinois

Long Island City 1, N. Y.

Los Angeles 33, California

Charles Colbert—Architectural Design; and James L. (former FORUM cover man)—Advanced Drawing and EUGENE STERNBERG, architect and town planner, has appointed associate professor of architectural design at Denver University School of Architecture.

MORLEY WILLIAMS is now Professor of Landscape Architecture at the College of Agriculture and engineering University of North Carolina.

### PICASSO PRINTS

EXHIBITS of recent Picasso drawings at New York's Museum of Modern Art prove that the Spanish artist can still arouse controversy in the drawing medium. A series of reproductions from pen-and-ink drawings in the Mir Golschmann Collection show examples of his technique (1923-1938) examples of his technique. Limited editions of "Tete de Femme" (see left) and four other prints (11 in. x 20 in.; \$5 each) have been brought out by Esther Gentle Studios at 77 West 47th St., New York City. Two Matisse drawings, "Femme au Chapeau" and "Head of a Girl" are also available in the series.



### PENNSYLVANIA ARCHITECTS MEET

A SERIES OF THREE ALL-DAY SYMPOSIA is being sponsored by the Pennsylvania branch of the AIA. Each session is conducted in Philadelphia, Pittsburgh and Harrisburg on successive Saturdays. The first was held during November 12-13, the second, "Schools," will be in Philadelphia on January 10-11, and the final session on "Office Practice," March 6th. The University of Pennsylvania, Pennsylvania State College and Carnegie Institute of Technology will collaborate. Speakers include Lessing Williams, Fred Severud, Judson Vogdes, Jr., George Fischer and Castro Bullock.

### CREDITS

HEDRICH-BLESSING STUDIO photographed the Babbitt plant seen on pages 89-92 of this issue; photographs of the model are by M. Schwartz.

Our October news-section report on the UN capitol used eight photographs of an impressively life-like model (see right) to illustrate planning and design features of the project. Unfortunately omitted was credit to Raymond Lester Associates, Mt. Vernon, N. Y. for constructing the model.

"RADIANTILE," a cellular tile product used for flooring in radiant-heated Keck house (September FORUM, pp. 108-9) manufactured by the Cannelton Sewer Pipe Co.—not Cannelton as misspelled in the text.

### NEW OFFICES

ELIEL SAARINEN, RAIA, and EERO SAARINEN, AIA, announce the formation of a new partnership under the name Saarinen & Associates with offices at West Long Lake Road, Bloomfield Hills, Mich.

EDWARD DUNLAP, AIA, has opened an office for general practice at Edlee, Bethesda, Md. (Continued on page 117)





# KEWANEE

## SQUARE-HEAT TYPE R

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For Medium Size Buildings

**Low Cost...with Oil, Gas or Coal**

An improved "streamlined" version of the Kewanee Square "R" Boilers so outstanding for seventeen years . . . Square Heat Type "R" is built in 8 sizes and designed for utmost dependability heating the medium size building economically.



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Built of steel for extra strength and dependability.

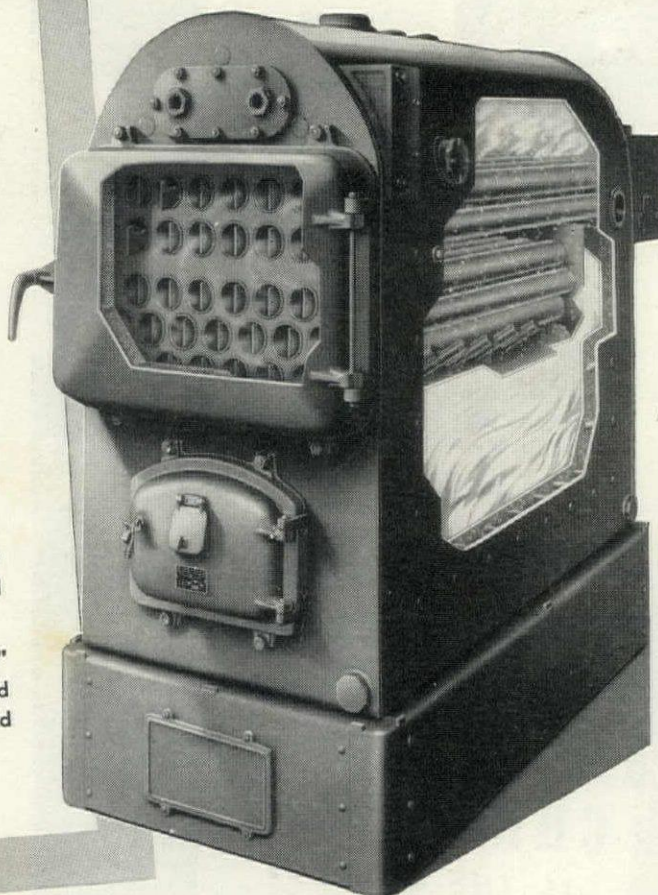
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FACE WIDTH 2 3/16"  
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HERE ARE TWO of the many Chromedge sections designed to hold standard-sized price and information tags on shelf and counter edges of every type. A choice of additional shapes, in various sizes, meet all similar needs. Note how section 1019 holds tags at an easy-to-read angle on either high or low counters, depending on which way it's mounted. Gracefully formed of sturdy, durable extruded aluminum, these Chromedge mouldings add "beauty that protects" to any installation. We'll gladly send full details on request.

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1019  
FACE WIDTH 1 7/16"  
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On High Shelf  
Or Low...

JOHN CARROLL DUNN, AIA, announces the opening of his office at 717 Washington Place, Baltimore, Md.

ARTHUR KELSEY has opened an architectural office at 1830 Jefferson Place, NW, Washington, D. C.

WILLIAM FREED and MILES GORDON have formed an association for the practice of architecture at 624 Madison Ave., New York, N. Y.

ROBERT LITTLE, architect, is now practicing at 1303 Prospect Ave., Cleveland, Ohio.

DONALD MILLER, AIA and NSPE, announces that he is in private practice at Hametown-Richfield Road, Barberton, O.

HAROLD WRIGHT, RE, announces the opening of an office at 20233 Mack Ave., Grosse Pointe Woods 30, Mich.

DONALD FUDGE, RA, and ALPHEUS UNDERHILL, engineer, are associated as Fudge & Underhill, architects and engineers, at 103 E. Woodlawn Ave., Elmira, N. Y.

S. Y. SAITO, architect, and THOMAS FLINN have opened an office at 513 Lafayette Bldg., Waterloo, Iowa.

PENNURBAN HOUSING CORP. with offices at 125 E. 23d St., New York, N. Y. is a new firm for the planning, construction and management of investment housing, with emphasis on prefabricated houses.

FREDERICK PERL, architect, has opened an office of interior design at 12 E. 46th Street, New York, N. Y.

FINSVEN, INC. at 925 Madison Ave., N. Y. C. is the new distributor for furniture by Alvar Aalto, Finnish designer.

NEW DESIGN, INC., a center for the display and sale of outstanding contemporary  
(Continued on page 120)

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AS AMENDED BY THE ACTS OF MARCH 3, 1933, AND JULY 2, 1946 OF THE ARCHITECTURAL FORUM, published monthly at New York, N. Y. for October 1, 1947.

State of New York )  
County of New York ) ss.

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Vernon Hitchcock, who, having been duly sworn according to law, deposes and says that he is the Business Manager of THE ARCHITECTURAL FORUM and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, as amended by the Acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business manager are: Publisher, Time Incorporated, Time & Life Building, Rockefeller Center, New York 20, N. Y.; Editor Henry R. Luce, Time & Life Building, Rockefeller Center, New York 20, N. Y.; Managing Editor, Henry Wright, 350 Fifth Avenue, New York 1, N. Y.; Business Manager, Vernon Hitchcock, 350 Fifth Avenue, New York 1, N. Y.

2. That the owner is: Time Incorporated, Time & Life Building, New York 20, N. Y.; that the names and addresses of stockholders owning or holding one per cent or more of total amount of stock are: William V. Griffin, 20 Exchange Place, 34th Floor, New York 5, N. Y.; Irving Trust Company, N. Y. C., Successor Trustee U-W of Briton Hadden for the Benefit of Elizabeth Busch Pool, c/o Irving Trust Co., Custodies Dept., 1 Wall Street, New York 15, N. Y.; Robert L. Johnson, Temple University, Philadelphia, Pennsylvania; Margaret Zerbe Larsen, c/o Time Inc., Time & Life Building, Rockefeller Center, New York 20, N. Y.; Roy E. Larsen, c/o Time Inc., Time & Life Building, Rockefeller Center, New York 20, N. Y.; Henry R. Luce, c/o Time Inc., Time & Life Building, Rockefeller Center, New York 20, N. Y.; Samuel W. Meek, c/o Greenwich Trust Company, Greenwich, Conn.; J. P. Morgan Co., Inc., for the Account of Henry P. Davison, P. O. Box 1266, New York, N. Y.; The New York Trust Company, for the Account of William Hale Harkness, c/o Income Collection Department, 100 Broadway, New York, N. Y.

3. Stock to the extent of more than one per cent is registered in the names of the following companies, but in each case the company is a nominee for a number of stockholders, no one of whom is known to own more than one per cent: Brown Brothers, Harriman & Co., 59 Wall Street, New York 5, N. Y.; Cobb & Co., c/o New York Trust Company, 100 Broadway, New York 5, N. Y.; J. & W. Seligman & Co., 65 Broadway, New York 6, N. Y.

4. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

5. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

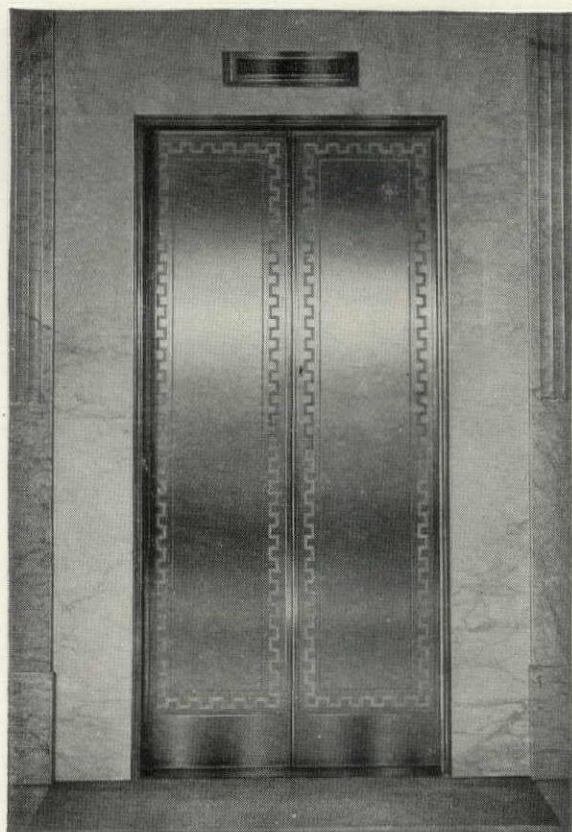
(Signed) Vernon Hitchcock,  
Business Manager.

Sworn to and subscribed before me this 29th day of September, 1947.

JEANNE MARIE CONNOLLY,  
Notary Public.

(My commission expires Mar. 30, 1949)





## *"This Way... To the EGRESS"*



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*Illustrated above:* Dahlstrom elevator entrances in natural bronze. Door design in etched bronze.

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Ingham, Boyd & Pratt, Architects

# DAHLSTROM

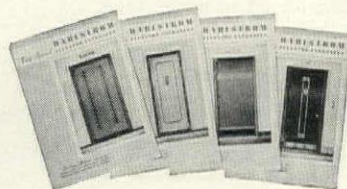
METALLIC DOOR COMPANY, JAMESTOWN, N. Y.

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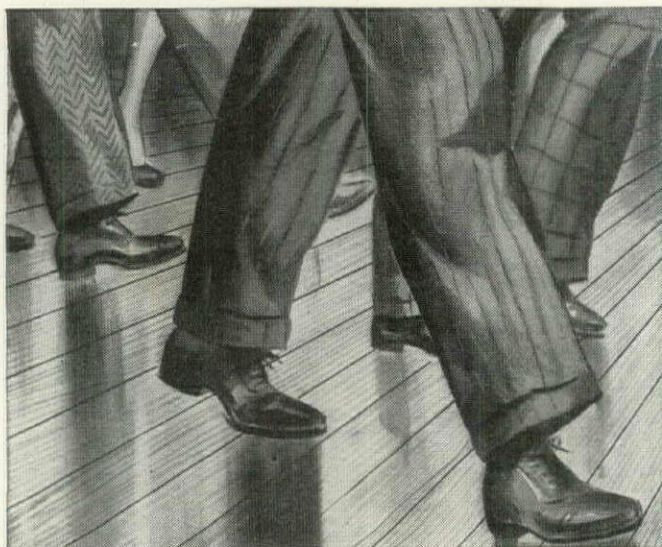
### *To Aid in Your Planning*



Four colorful folders on Dahlstrom Elevator Entrance Opening Types containing detail drawings, descriptions and specifications to help you plan new elevator entrances. Write for your set.



## ANNOUNCEMENTS



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LIGNOPHOL is more than a surface treatment. It penetrates into the wood, strengthening the fibres exposed to traffic. It seals the surface against dirt, grime and moisture... retards shrinkage, warping, cracking, curling and splintering. Will not chip or peel.

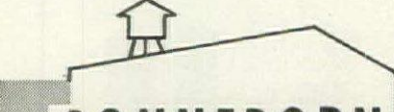
Economical LIGNOPHOL preserves and finishes in one easy application — adds many years to floor life.

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IF IT'S  
WORTH BUILDING  
IT'S  
WORTH SAVING

Building Products Division, **L. SONNEBORN SONS, INC.**, New York 16, N. Y.  
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furniture and home accessories, also offers architectural planning for interiors. Director of the new firm at 33 E. 75th St., New York City, is Dorothy Q. Noyes; assistants are Harriet Rosenberg and Edith Perlman.

#### CHANGES OF ADDRESS

C. HARDY OLIVER, AIA, and ALEX DICKSON, AIA, announce the removal of their offices to 2065 Blossom St., Five Points, Columbia, S. C.

FAULKNER, KINGSBURY & STENHOUSE, architects, with BEN DYER associate have moved to new offices at 1200 18th St., W., Washington 6, D. C.

ALVIN LUSTIG and SAM REISBORD are now at 9126 Sunset Blvd., Beverley Hills, Calif.

RALPH CROOK, RA, announces that he has moved to Lancaster National Bank Bldg., 126 W. Main St., Lancaster, Ohio.

EUGENE BACK, architect, is now located at 677 Fifth Ave., New York 22, N. Y.

JAMES ROSE, landscape architect, announces that his new address is 439 W. 21st St., New York, N. Y.

WHITE & GRIFFIN, architect-engineer associates, have moved their office to 126 John R., Detroit, Mich.

EDWARD MILLS, FRIBA, has moved to 38A Soho Square, London, W. 1, England.

MATTHEW EHRLICH, architect, is located in offices at 908 Chestnut St., Philadelphia 6, Pa.

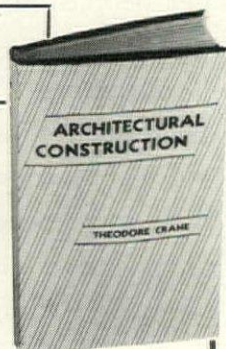
MILTON PRASSAS announces the removal of his architectural and engineering practice to 1737 Harvard St., NW, Washington 9, D. C.

RILEY CONSTRUCTIONAL SYSTEMS, prefabricated house specialists, are now at 1A Cavendish Road, Leeds 1, England.

#### How to coordinate design with constructional methods

## ARCHITECTURAL CONSTRUCTION

*The Choice of Structural Design*  
By THEODORE CRANE, C.E.M.A.  
Consulting Engineer, Professor\* of  
Architectural Engineering  
Yale University



Mr. Crane deals with a problem facing every architect: the appropriate choice for the structural portions of a building as governed by the geographical location, site conditions, type of occupancy, equipment, and architectural design. He offers a procedure for determining the most suitable type of building frame, foundation, floor, roof and wall construction, to meet the requirements of any particular structure.

The book gives a comprehensive treatment of structural types with emphasis on the newer designs, and presents a resume of the various types of construction now available in this country with recommendations concerning their specific applications.

Over 250 illustrations.

1947

440 Pages

\$6.00

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Please send me, for ten days' free examination, a copy of Crane's **ARCHITECTURAL CONSTRUCTION**. If I desire to keep the book, I will remit price, plus postage; otherwise I will return the book postpaid.

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**GENERAL  ELECTRIC**



**UNITED STATES RUBBER COMPANY**  
SERVING THROUGH SCIENCE

**U.S. PLASTIC**

***Naugahyde***  
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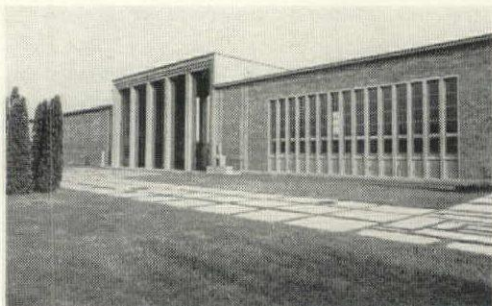
Minnesota Valley Canning Company, Le Sueur, Minnesota. Architect: The Austin Co., Chicago.



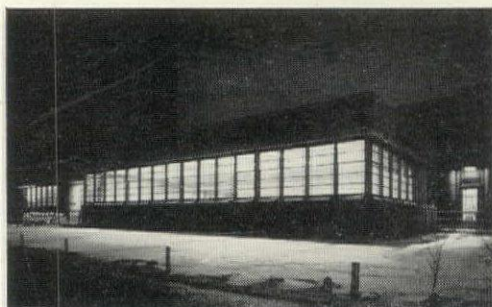
Thermopane in Visual Front of Kohl's Fine Foods, Milwaukee, Wisconsin. Architect: Walter F. Liebert, Milwaukee.



Detroit Steel Corporation. Architect: O'Dell, Hewlett & Luckenbach.



Library of Cranbrook School, Bloomfield Hills, Michigan. Architect: Eliel Saarinen, Detroit.



Offices of Architects A. Epstein & Sons, Inc., Chicago, have continuous fenestration.

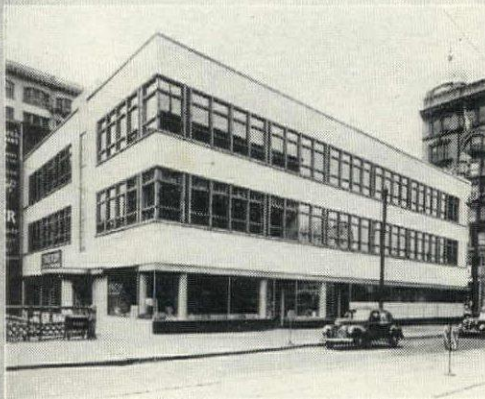


Coca-Cola Bottling Plant, Albuquerque, New Mexico.

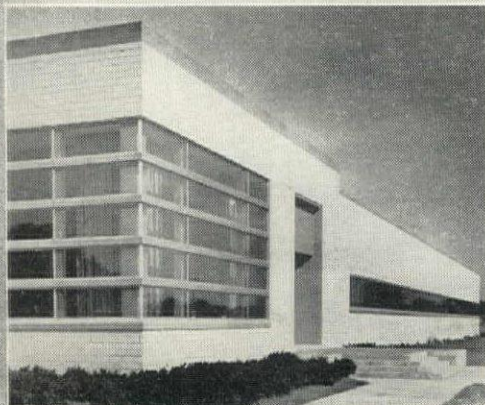
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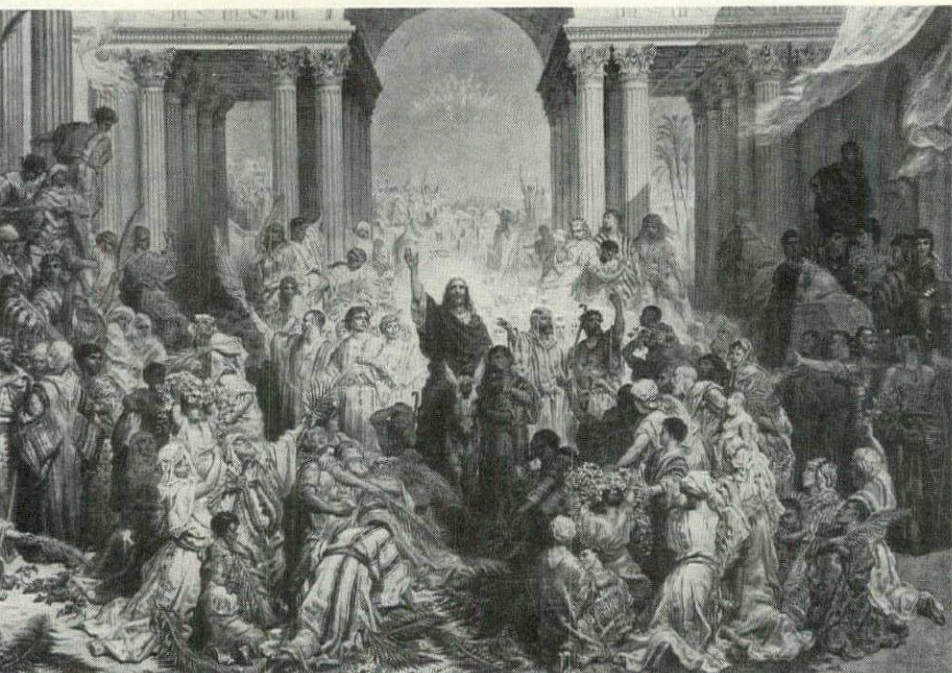
Business Institute, Milwaukee, Wisconsin. Architect: Ebling & Plunket, Milwaukee.



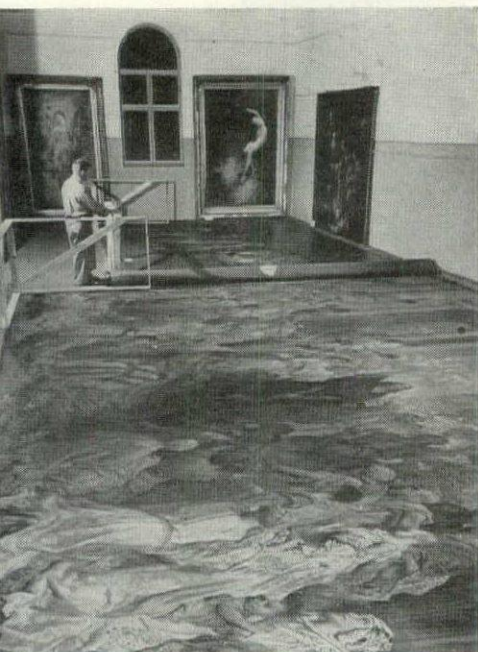
Johnson & Johnson. Cranford, New Jersey. Architect: Ballinger Company, Philadelphia.



# REVIEWS



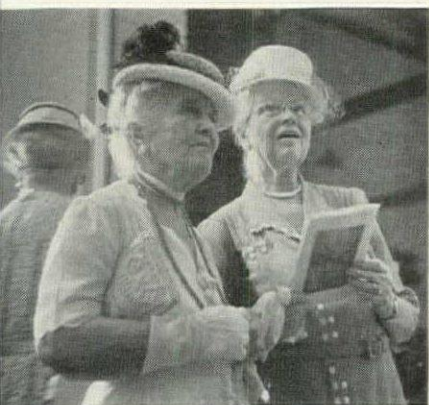
*Christ's Entry into Jerusalem—Oil—20' x 30'*



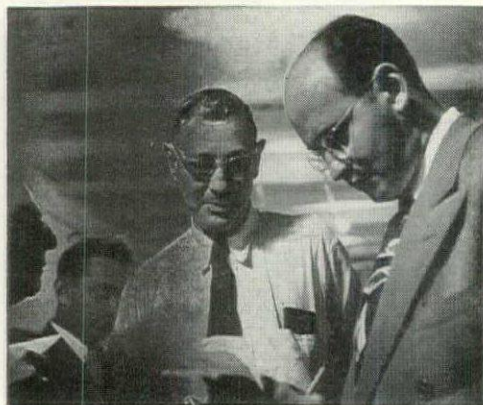
*Canvases strewn the warehouse floor...*



*The hammer rapped twice...*



*Recalls the St. Petersburg showing...*



*Mr. Holzworth (center) agrees...*



*Moses before Pharaoh—Oil—17' 6" x 26' 6"—1878-80*

## DORÉ REGILDED

Second only to the fabled mislaying of the Statue of Liberty was the incongruous loss and recent rediscovery of the famous "Doré Collection" in the recesses of the Maumond Storage & Warehouse Co. Exhumed with the canvases was a tale worthy of Dumas. The financial and artistic fiasco ensued reduced contemporary art circles to pulp story. The collection, comprised of some 85 drawings, engravings, watercolors and oils, was mourned as the genius at the time of its disappearance. Reappearing a century later it had, aside from the accompanying little to offer but garish curiosity value.

During the Victorian era, Alsatian-born Gustave Doré was probably the world's most prolific and widely known illustrator. At the time of his death he was credited with 75,000 items. Most dusty, inaccessible bookshelves of American homes boast familiar classics illustrated by him. Among them are Tennyson's *Idylls of the King*, Milton's *Paradise Lost*, Rabelais' *Gargantua and Pantagruel*, La Fontaine's *Fables*, Perrault's *Fairy Tales*, not to mention the Bible. The last 15 years of Doré's life were devoted to religious painting and a smattering of secular work. It was during this time, his "massive period," that he created the outsize canvases unearthed last spring. The largest, *Christ's Entry into Jerusalem*, measures 20 x 30 ft.

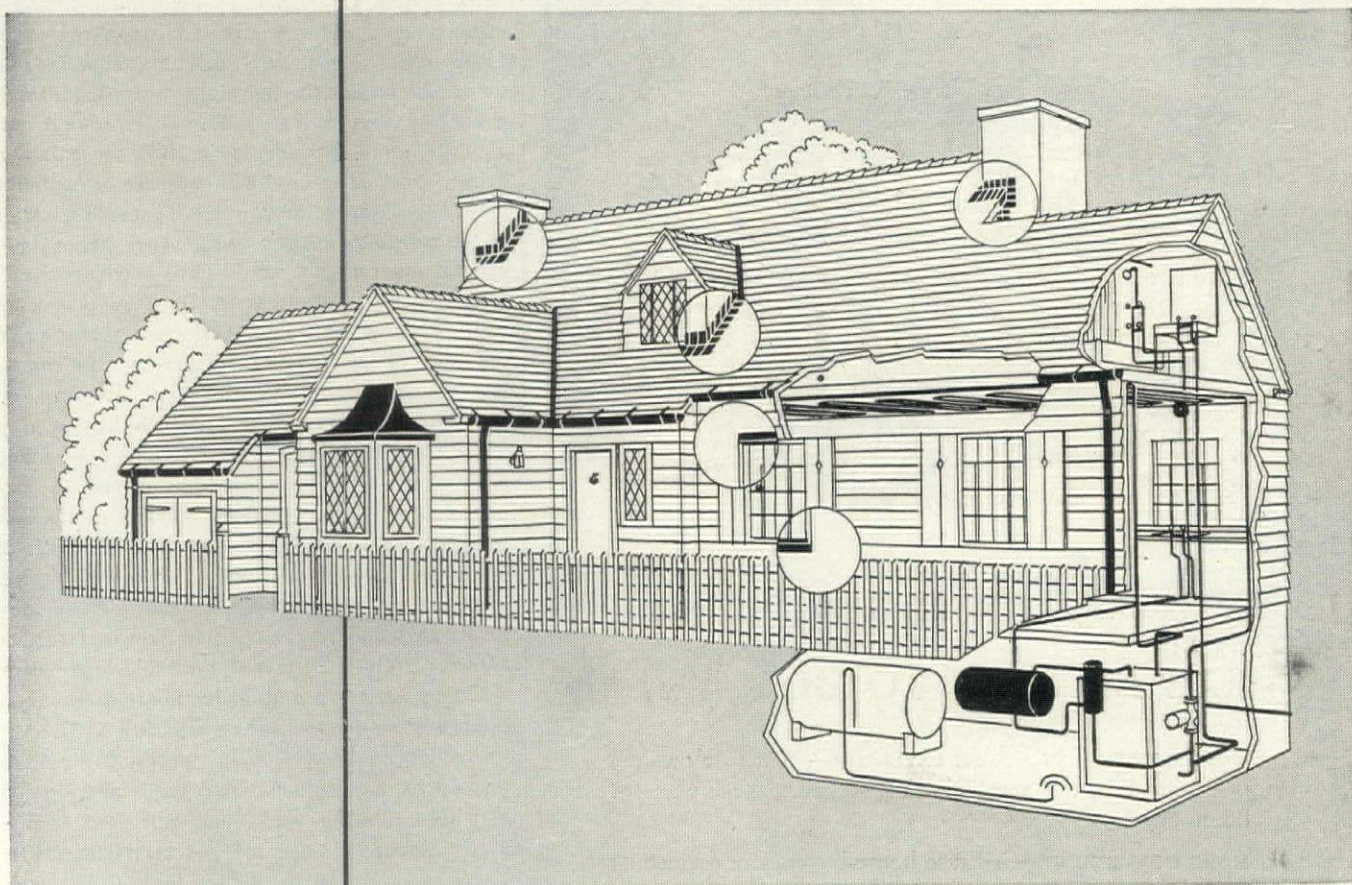
In present day estimation Doré, as a painter, is considered regrettable, if at all. His color is bad, his taste worse, his composition painfully academic. But as a straight delineator he still holds his own. He was endowed with an infallible photographic eye. Nor is it difficult to perceive how and why his peculiar brand of majesty and crawling realism inflamed the repressed Victorian consciousness. This realism was used to advantage in some of Doré's more important and less ostentatious sketches of the sordid slums of his time.

Aside from the volume of his work, Doré, who died at the age of 51, was distinguished among painters for having earned during his lifetime over a million and a half dollars—the acclaim of most literate people. Victim of an Oedipal complex, he never married. He devoted his life to the memory of his mother, survived her by only two years and died because he had never been recognized as a great master. In 1868, two years before his death, Doré sold the "lost" collection.

*(Continued on page 125)*



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# REVERE

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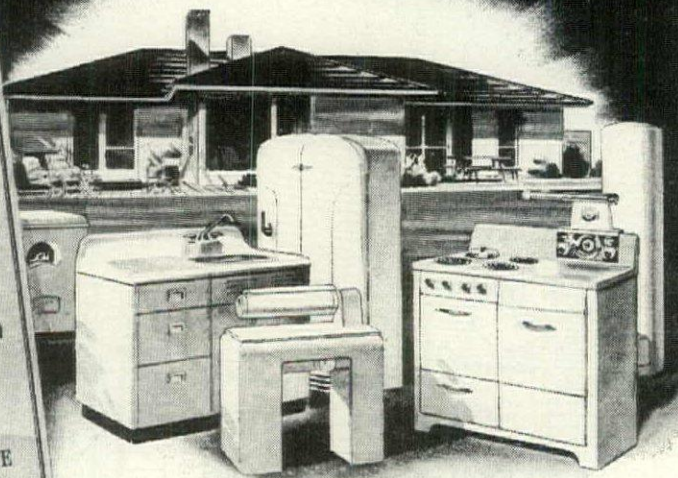
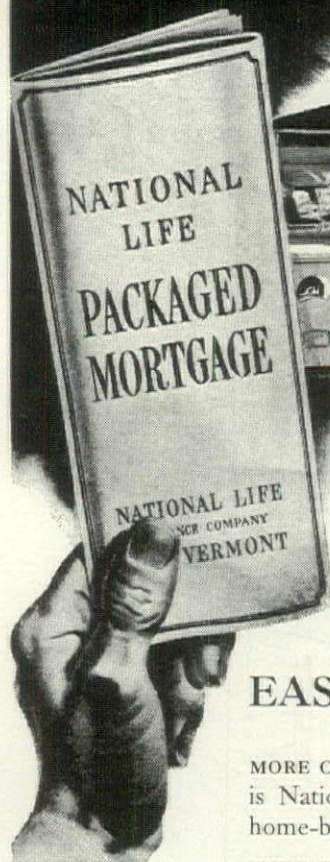
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tion to Fairless & Beeforth, London art dealers, who saw it in a gallery on Bond Street where it was seen by 2,500 people. Queen Victoria purchased several canvasses in 1892, the collection was shipped to America in the hands of its custodian, one Henry Heyman. It was exhibited in New York, Boston, Chicago and Philadelphia stirring up an unparalleled emotional orgy. The Chicago Art Institute packed 16,000 people in one day—still an attendance record. Spectators knelt before the paintings, prayed, confessed and Preachers were moved to deliver impromptu sermons in the exhibition halls. Suddenly, in 1898, the paintings were drawn and disappeared without trace or explanation.

Had the Manhattan Storage Co. made known the presence of the paintings in their vaults at an earlier date, the joy of contemporary art would have been deprived of the rewarding story of our time. As it happened, the warehouse records showed only a number of uninventoried cases stored under the name of the U. S. Art Import Co. (the connection, it is believed, between the mysterious custodian, Heyman, and this company has never been ascertained). Bills had been promptly paid in 1937; then, without a word, payments ceased and only after a lapse of ten years were the cases opened. No one could have been more dazzled than the officials of the Manhattan Storage Co. Investigation revealed only that the U. S. Art Import had gone out of business at the time of their default leaving neither heirs nor records and that the steamship company responsible for importing the collection had likewise folded some 30 years before. Nothing remained for the storage company but to sell the paintings at public auction to defray their long standing bill. The sale took place Sept. 9th, 1947.

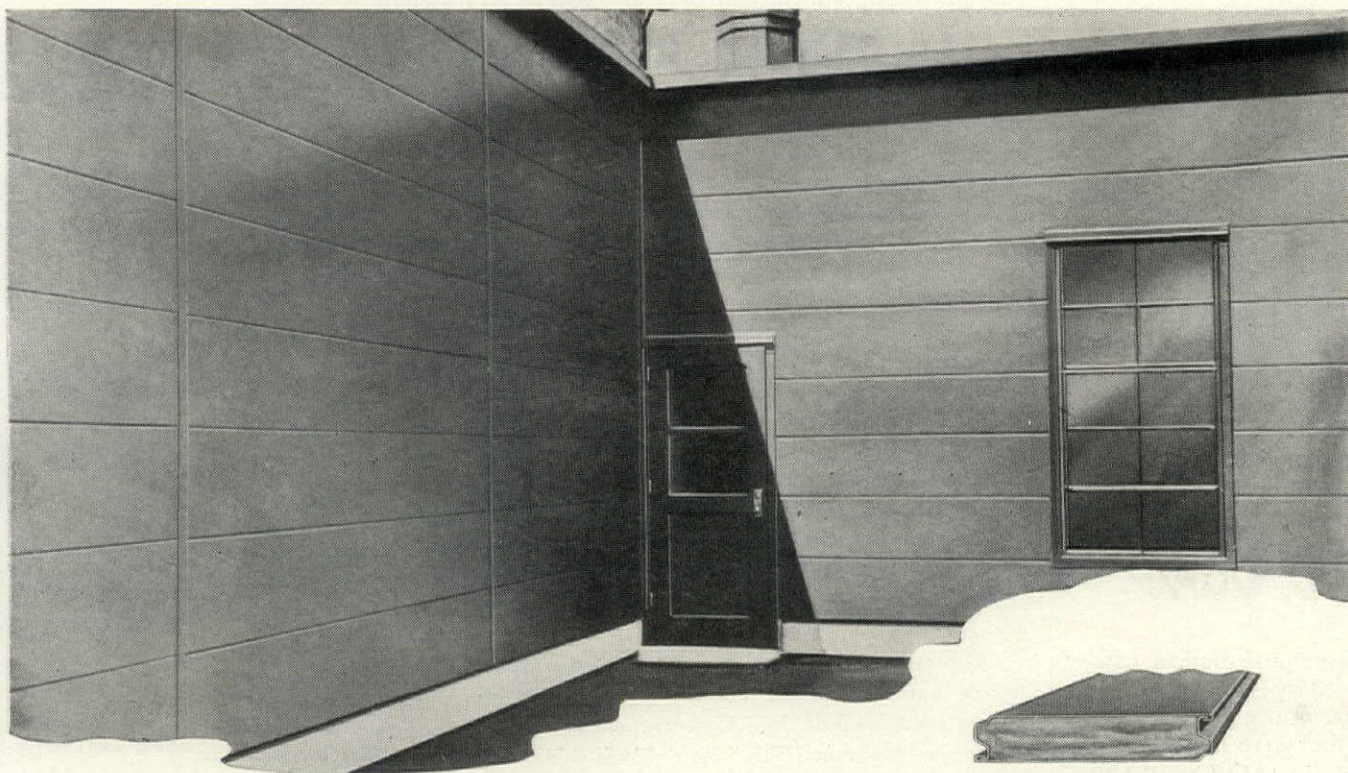
Auctioneer Leon Kaliski, an established impresario of curiosities, was dubious from the beginning. The collection had been valued at \$1,000,000 when last seen on public display. A tenth of this sum had been bid, and refused, for a single painting, but even these figures failed to impress Kaliski. "Now, this *Christ's Entry into Jerusalem*," he said, pushing up his glasses and leaning on the crude board fence surrounding a vast acreage of canvas that had been unrolled on the warehouse floor, "it's so big you can't tell whether it will bring \$100 to \$10,000." As it turned out, the entire collection was sold to lawyer John M. Holzworth for \$12,500. The price, in Mr. Kaliski's opinion, wasn't too bad. The only thing he hadn't bargained for was the fact that the bidder had no bank account. This cloying detail might have gone unnoticed for several days (giving Holzworth the opportunity for a quick turnover on a cash basis) had not New York's Hon. Charles Shelton chosen the same day to clap a charge of petty larceny on him for bad checks amounting to \$91.51. Fortunately, for dramatic sequence, sufficient time elapsed between the final bid and the firm grasp of the detective to permit Holzworth a fling at his favorite outlet—exhibitionism. At the close of the sale he had heartily proposed that: "anyone who has seen the individual paintings can buy them from me for the same price they bid today."

"There," beamed auctioneer Kaliski, "is a gentleman." Ironically, no bids were forthcoming. Unabashed, Holzworth left the warehouse to return two hours later arm in arm with his only competitive bidder. Jointly, to the few present stragglers, they announced the plan for a vast museum to be built in the Yukon, house the Doré paintings, and bring culture to the denizens of the igloo.

Almost within that hour philanthropist Holzworth found himself being questioned by a New York magistrate on—among other things—what he intended to do with the Doré

(Continued on page 122)





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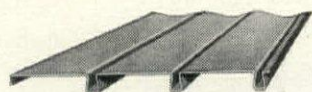
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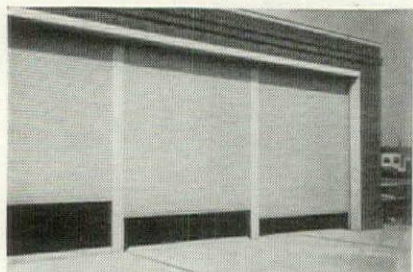




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paintings. His prompt reply was that he was buying them for a St. Paul building contractor, Jim Foley, who was going to give four of the canvasses to the Basilica of St. Mary the Virgin in Minneapolis. (When reached later on, the contracting firm of Foley Bros., Inc., St. Paul, flatly denied the existence of any brother named Jim). Holzworth, acting as his own attorney, put on an impressive court scene, (though the judge repeatedly reminded him that it was only a hearing), finally produced the \$100 required bail and extricated himself from his surroundings, telling the magistrate that he had to be in Washington the next day to appear as counsel in a murder case dating back 16 years. Remarkably, this turned out to be so. However, as Holzworth was leaving the district court in Washington the following day, U. S. deputy marshals nabbed him on another charge involving a \$25 bad check. Wired Holzworth to the New York court: "ARRESTED FBI ANOTHER 25 PHONY CHARGE. GETTING BAIL. TAKING FIRST PLANE. REGRETS. THANKS COURTESY." Characteristically, he saw to it that the press was promptly informed of his latest status, also that he had failed to obtain the writ of habeas corpus which he had come to Washington to seek for his client.

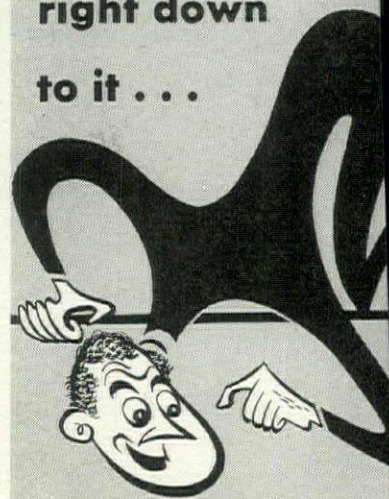
As a patron of the arts, Holzworth is a newcomer, and one to be watched. He is, however, President of the National Association of Wild Life Conservationists. At one time he served as Assistant District Attorney of Westchester County and ran in the Congressional primaries on the Republican ticket. Aside from being a recognized authority on grizzly bears, Holzworth also claims to be an ex-heavyweight wrestling champion, author, explorer, big game hunter and motion picture pioneer. Considerable personal publicity has come his way through several previous brushes with the law in which he was acquitted on other bad check charges, fraud and disorderly conduct in picketing the Capitol. At one time he imported German jackrabbits on a large scale, claiming the American breed too sly for the average hunter. In 1933 he had the distinction of turning the Young Democratic Convention in Kansas city upside down by masquerading as the "lone delegate from Alaska" with forged credentials from the Governor. How he retained his listing in *Who's Who* until this issue is best explained by the editors of that eminent publication.

October 28th saw a more pensive but still genial Kaliski again presiding as auctioneer. This time, however, he permitted himself no personal speculation on the character of the bidders. Matters proceeded in a somewhat more orthodox manner. Seven of the most important canvasses went to San Francisco architect Albert F. Roller, designer of the new Los Angeles headquarters for the Rexall Drug Co., (FORUM, Oct., '47) who had bid against agents representing Cecil B. DeMille and Charles Boyer. An increase of nearly \$500 over Holzworth's bid for the whole collection indicates that events established pretty clearly the market value of Doré's work. Considering the square footage of canvas acquired by Mr. Roller, the problem of hanging the paintings suggests an American Parthenon. Mr. Roller, however, is secretive, admitting only that they were bought for a private collection.

As we go to press, Holzworth, from a Washington jail, has instituted action to acquire the Doré collection which he considers rightfully and legally his. Also on file is a damage suit for false arrest claiming \$12,000,000, naming among other defendants Attorney General Clark and J. Edgar Hoover. Holzworth alleges his arrest prevented the completion of a deal whereby one of his numerous interests, the Yukon Engineering Co., was to have purchased 600 miles of the Alaska Highway.—M.S.

(Continued on page 130)

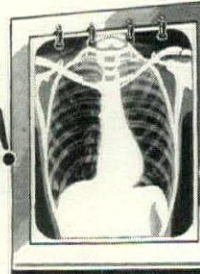
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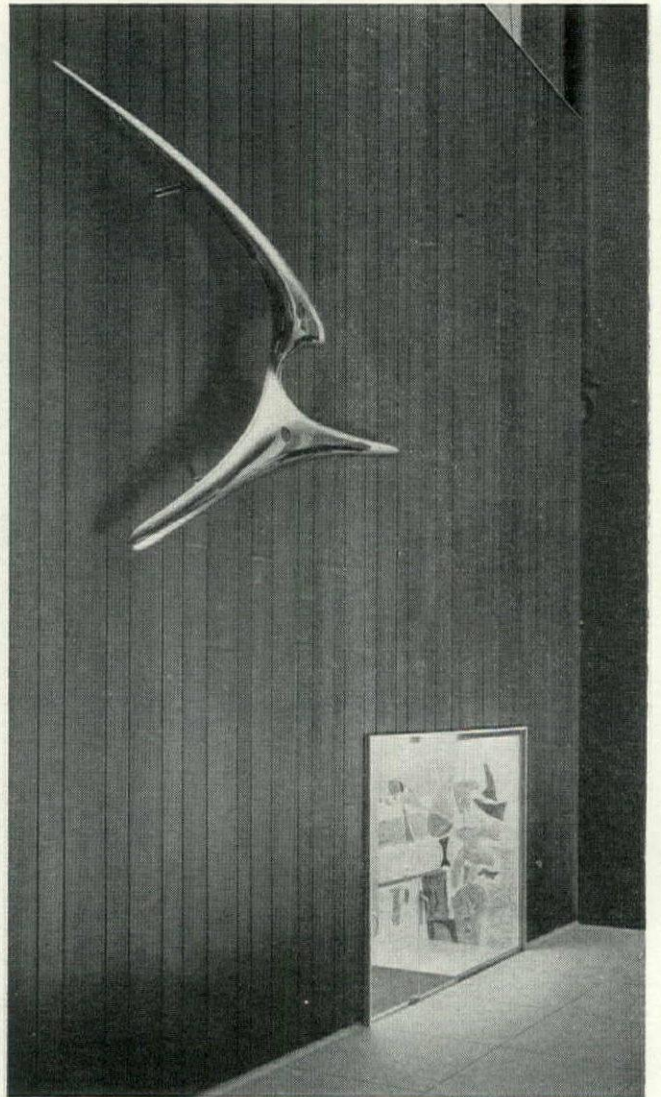
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## EXHIBITION

*The Arts Work Together*, an exhibition on view at the Mortimer Levitt Gallery, New York, through December 6th is an offering of which Director Verna Wear can be proud. Following, as it does, on the heels of the Bertha Schaeffer exhibit (FORUM, Oct., '47), New Yorkers hopefully predict

Lionel Freedman, photo

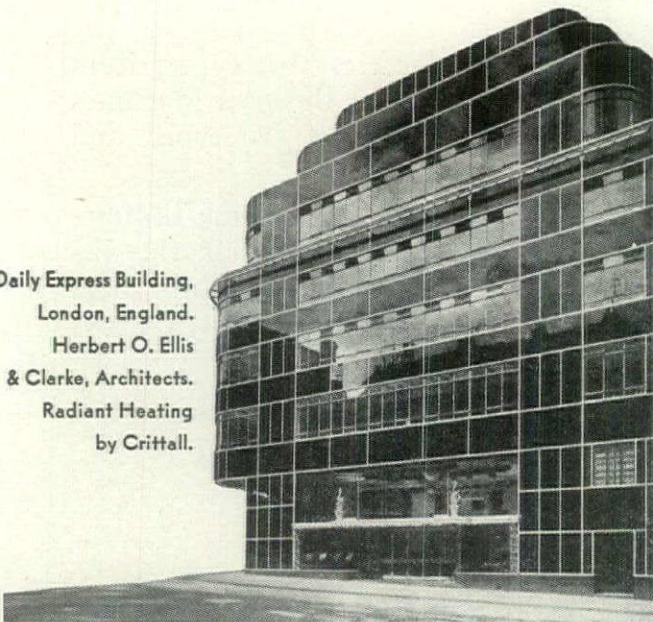


Store facade by Nemeny, Geller, Rivera & Spivack

that more and more people will take seriously this business of closer collaboration between the arts. The Levitt show is the more ambitious and is not limited to houses alone. It is comprised of ten entries, some presented in sketch form, others as scale models, treating residential, commercial and industrial projects. The exhibit, which is the first of a series planned to stimulate the integration of the arts in building, features the work of top flight artists in their respective fields. Shown here is the model of a restaurant facade designed by architects George Nemeny and A. W. Geller, sculptor Jose de Rivera and mosaicist Max Spivak. Though mosaic is constantly gaining in popularity as a durable and easily maintained exterior building finish, in this instance the artist elected to use it inside the glazed entry. The striking sculptural abstraction above is finished in chromium. Typical of Devon Dennett's admirable craftsmanship, this particular model is outstanding. However, that of the El Panama Hotel courtyard runs a close second. Landscaped by Thomas D. Church to compliment and develop Ed Stone's handsome building, it features a

(Continued on page 132)

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## RICHARD CRITTALL

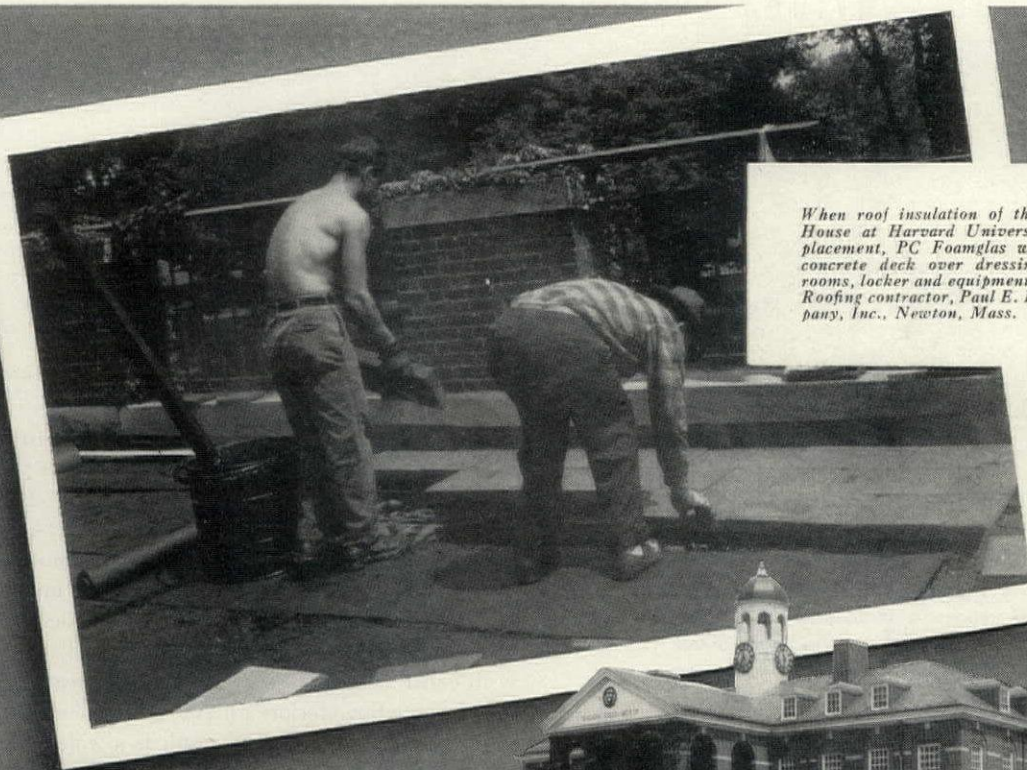
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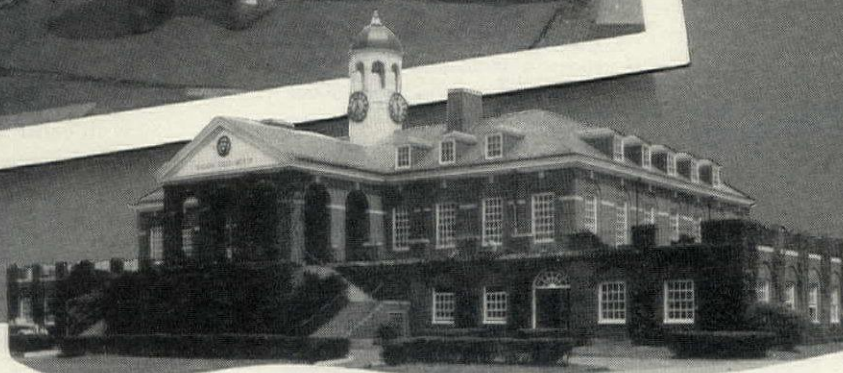
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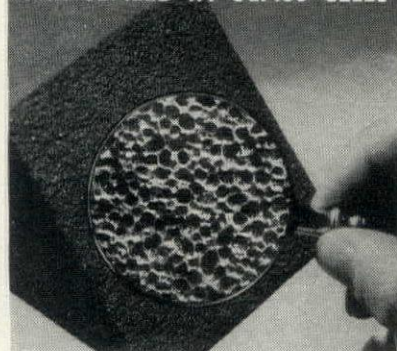
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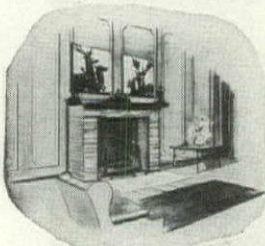
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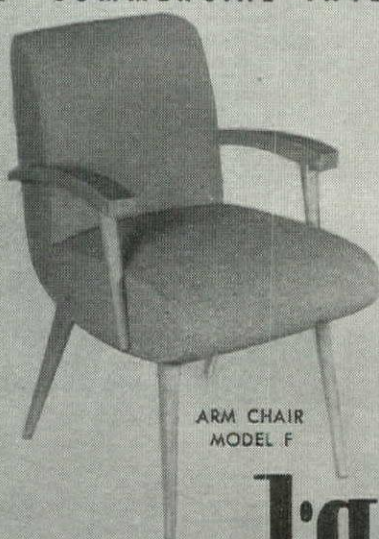


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swimming pool with an island in the center which was in itself treated as a sculptural problem. Here, more Spivak mosaics are found as outdoor decorative elements. Other entries include a nursery school by Texas architects, Jessen, Jessen, Millhouse & Greeving in collaboration with sculptor Charles Umlauf; a divisible exhibition hall for an industrial plant administration building by Chicago architects Schweiker & Elting with murals by Rudolph Weisenborn; and a Cape Cod house by Boston architect Carl Koch also incorporating murals, this time designed by Frederick Wight.—M.S.

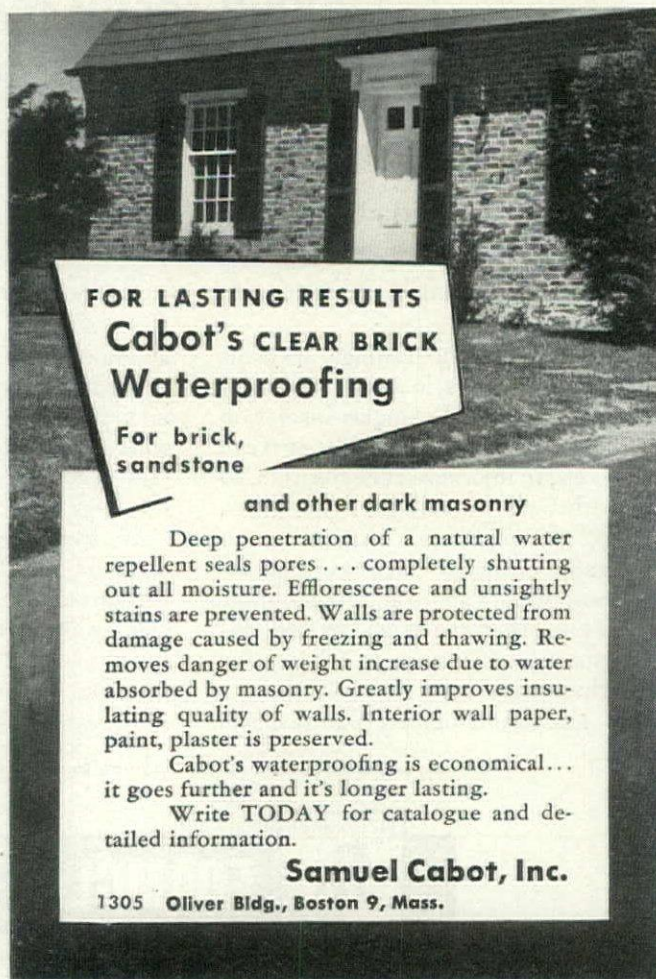
## BOOKS

**YOUR SOLAR HOUSE.** Published by Simon & Schuster, 1230 Sixth Ave., New York 20, N. Y. 125 pp. Illustrated. 13 1/2 x 10. \$3.

Prepared with the cooperation and technical assistance of the Libbey-Owens-Ford Glass Co., this book presents perspectives and plans of one solar house for each state of the Union. Accompanying text was written by the architects. It is stated in the introductory chapter that "the only limits placed on the designs were that they should be within the medium priced brackets . . . and that the houses should lift their faces to the sun through extensive windows, or even walls of glass, not only to enlist solar energy as an auxiliary heating plant but chiefly to unite the interiors with the out-of-doors in a spacious cheer-filled atmosphere." The result is a wide interpretation of the solar house ranging in quality from medium to good. For the sake of presentation all are shown in sketch form.

While the book presents an adequate and simplified outline to the theory underlying solar design, it is badly written and would be practically useless to an architect from a technical

(Continued on page 134)



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viewpoint. However, some pleasant houses are included and the book offers plenty of opportunities for quiet cribbing—M.S.

**FLATS.** By H. Kamenka. Crosby, Lockwood & Son, London, England. 137 pp. Illustrated. 10 x 7 1/2. 15/.

Though new and remodelled apartment buildings pepper our cities in greater concentration every day, until the appearance of Mr. Kamenka's book, this field has been sadly neglected by architectural writers for some time. In it the author, a specialist experienced in multiple dwelling design in Europe and America, analyzes apartment house development of the last 20 years in principal capitals of the western world. Though in American planning he does not cover the most recent and progressive ideas, his grasp of the situation until the outbreak of the war is entirely sound; likewise, his views on community planning, block design, etc. Photographs are excellent and the text neither too brief nor too padded to be a useful architectural reference work. The author, who has established his practice in New York, has arranged to have his book distributed through Brentano's and Barnes & Noble in that city.—M.S.

### FOREIGN PERIODICALS

**WERK.** Technikumstrasse 81, Winterthur, Switzerland. One of the outstanding international monthlies printed in German with French and English translations. Was available throughout the war. Contains much significant architectural and artistic documentation. Annual rate: 40 (Swiss) fr.

**ARCHITEKTURA CSR.** Prague, Czechoslovakia. One of several Czech professional journals understandably preoccupied with national reconstruction problems. Most articles are borrowed from foreign periodicals. No English translations.



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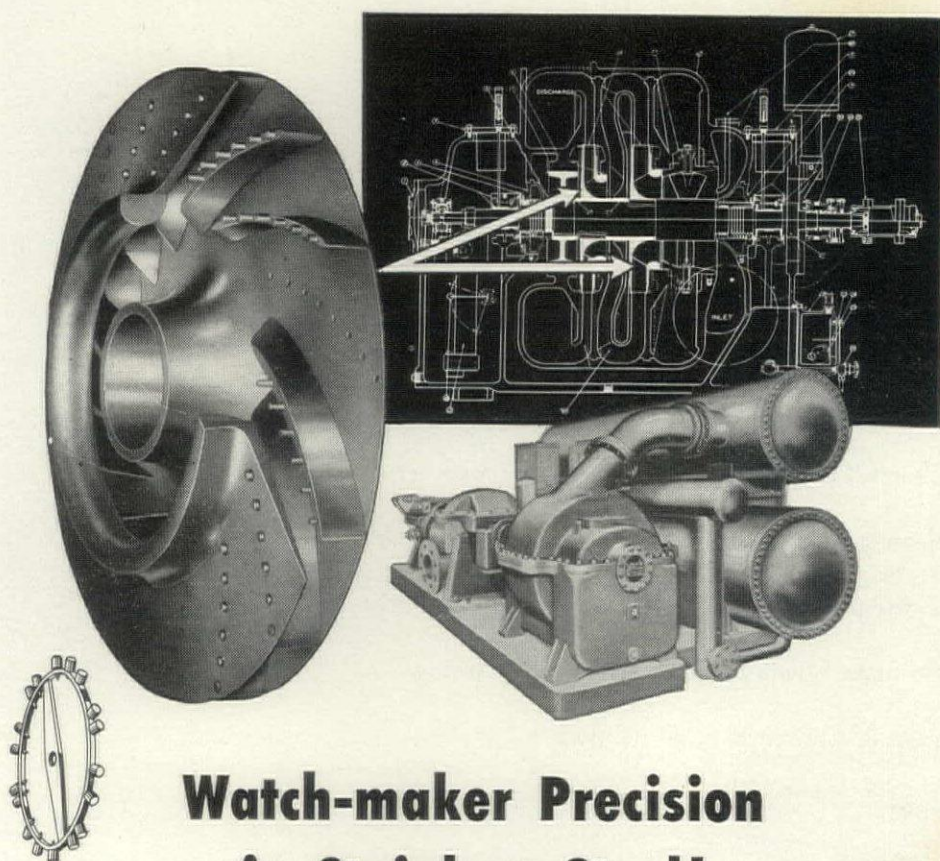
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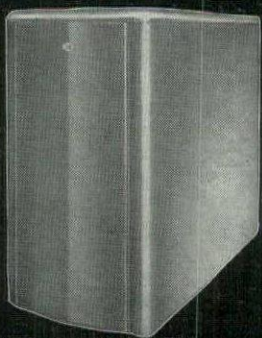


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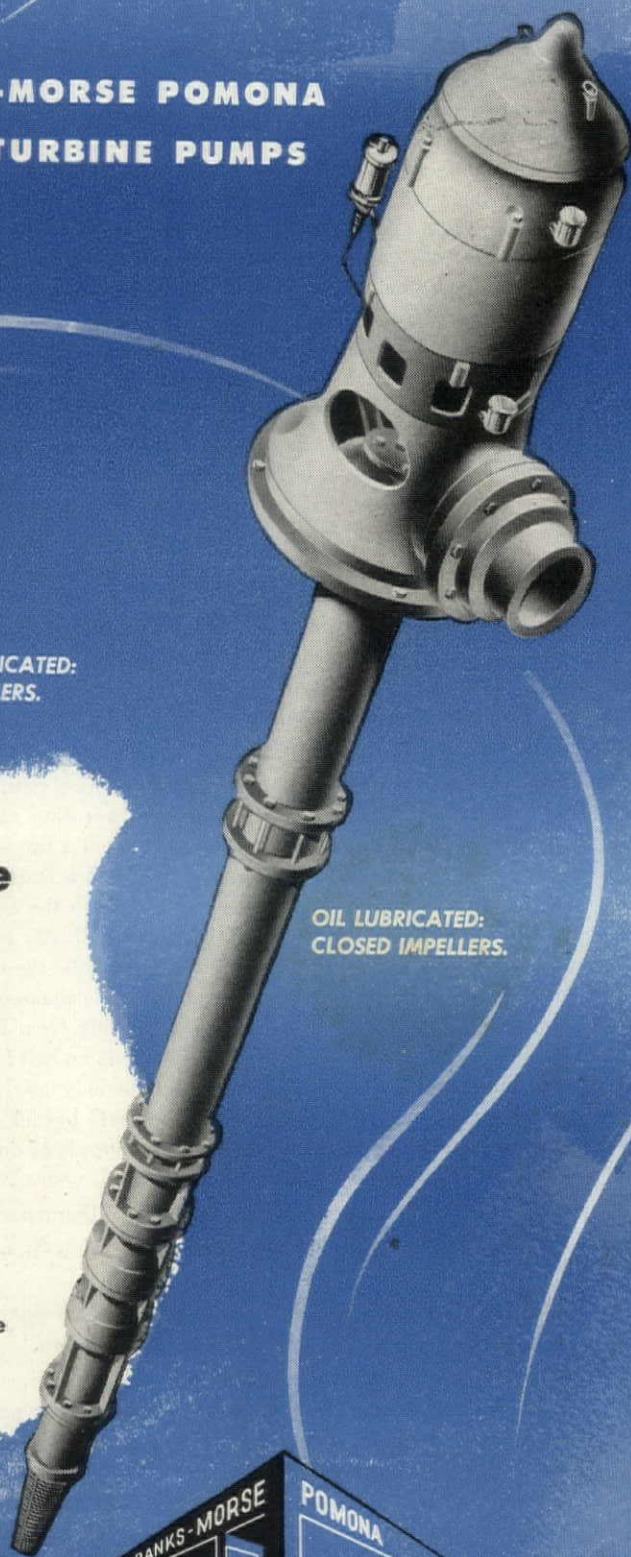
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These two automatic, coal-fired boiler-burner units, a bin feed model manufactured by Axeman-Anderson and a hopper model by D.L.&W. Coal Co., utilize the Anthracite Institute's newly developed Anthratube coal-burning principle (BR 10/44) to achieve greater efficiency, economy and cleanliness. This Anthratube principle completely burns the coal in an exceptionally small combustion chamber by an induced draft. Tests in home installations have shown it to operate at 80 per cent efficiency (as compared with 50-65 per cent in standard equipment) with a result in coal savings of from 15 to 38 per cent. A fan or heat slinger swirls the hot flue gasses against the heat transmitting inner surfaces of the boiler to extract and utilize all available heat. Ashes are automatically discharged into a container and dust is prevented from seeping into the basement by the induced draft.

► Axeman-Anderson's adaptation of the principle, designated as AA Anthratube, is a fully automatic boiler-burner which, in addition to heating a six to eight room house supplies year around domestic hot water. It utilizes an Archimedes screw to feed the pea-size hard coal directly from the bin into the unit. Thermostatic control automatically regulates temperatures as well as activating the fuel supply and ash removal. This new boiler-burner measures 24 in. wide, 31 in. deep by 42 in. high, has a capacity of 400 ft. of steam or 600 ft. of hot water and is easily installed. Rated output is 130,000 BTU's.

► D.L.&W. Coal Co.'s adaptation of the principle is an automatic hopper model which burns chestnut size coal. Only 27 in. wide and 47 in. high, the hopper has a storage capacity of 250 lbs. of coal, or sufficient capacity to heat a five to eight room house for three days during severe winter weather. In this unit, the fuel supply flows by gravity into the compact combustion chamber. The ash ejector automatically removes the ashes into a container large enough to handle the residue from one hopper filling. There are no grates to shake or burn out. Automatic electric controls do everything from feeding the fuel to removing the ashes. When there is no call for heat the unit automatically banks itself for as long as 15 days without attention. This automatic "blue coal" burner can be easily installed and furnishes an abundant supply of domestic hot water all year round.

*Manufacturers:* Axeman-Anderson Co., Williamsport, Pa., The D.L.&W. Coal Co., 120 Broadway, New York, N. Y.

## GAS FIRED WARM AIR FURNACE for low cost homes and apartments provides uniform heat distribution.

Fitting into partition walls or closets of homes or apartments, the Royal Jet Flow is an efficient, low cost, closet type warm air furnace designed to maintain minimum temperature differentials from room-to-room and ceiling-to-floor. According to the manufacturer, the unit provides two-way heating: velocity circulation plus ceiling radiation. Through the use of a venturi principle, heat is delivered from registers placed just below the ceiling at a velocity of approximately 250 c.f.m. An adjustable baffle allows this warm air to be distributed simultaneously in any two or three directions and in any desired volume. Cold air is returned through a grille at the floor level creating a forced air action. The high hot air delivery also converts the ceilings into radiant panels which supplement the convected heat. Quietness of operation is assured by the elimination of mechanical parts plus the use of a Bunsen-type burner and a corrugated fire-box which is designed to avoid annoying contraction and expansion noises. Both

burner and pilot valve are equipped with safety-lock. The new A.G.A.-approved Jet Flow gas furnace comes in three sizes with ratings of 25,000, 38,000 and 55,000 BTU's, and can be equipped with thermostatic controls for automatic temperature regulation. Jet Flow can be inexpensively installed under the floor and is concealed with a pre-cut covering except for the intake and outlet registers.

*Manufacturer:* Royal Heaters Inc., 1024 Westminst Alhambra, Calif.

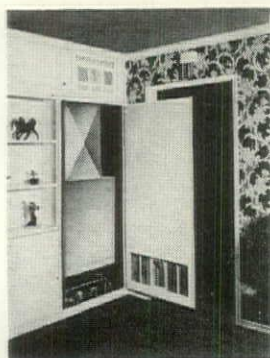
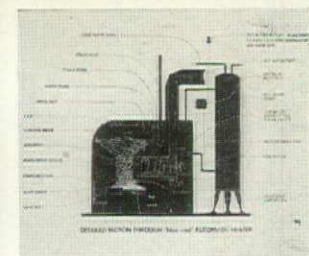
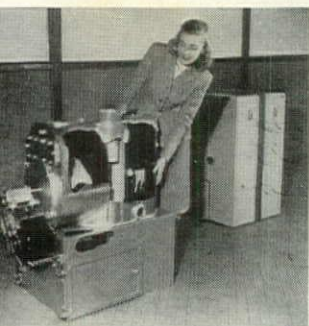
## EXTENDED SURFACE RADIATION for use where floor space is limited.

Webster Type WI Extended Surface Radiation is designed for steam and hot water heating in places where floor space is limited. Installing around walls, under work benches or in overhead locations, the new radiation is reported to fully meet the requirements. Webster Type WI Extended Surface Radiation is completely non-ferrous, being made up of specially annealed copper tubing, aluminum fins and brass linings. Tubing is 1 1/8 in. outside diameter, and .005 in. wall thickness. It is good for saturated steam pressure to 100 lbs. per sq. in. and temperatures up to 350°F. The fins are made of .020 in. aluminum. They are 3 in. square with rounded corners and are rib-reinforced for strength. The radiation is obtained through the use of only one tube diameter and one fin size. Units are available in five lengths from 2 ft. to 6 ft. inclusive. Specially designed brackets, adapters and perforated steel covers are also available. The rating of Type WI Radiation, based on a single row wall cover is 4.25 sq. ft. e.d.r. or 1,020 b.t.u. per lineal ft. of 1 lb. steam and 65°F. entering air.

*Manufacturer:* Warren Webster & Co., Camden, N. J.

## STEAM RADIATOR VALVE permits different temperatures to be maintained in different rooms.

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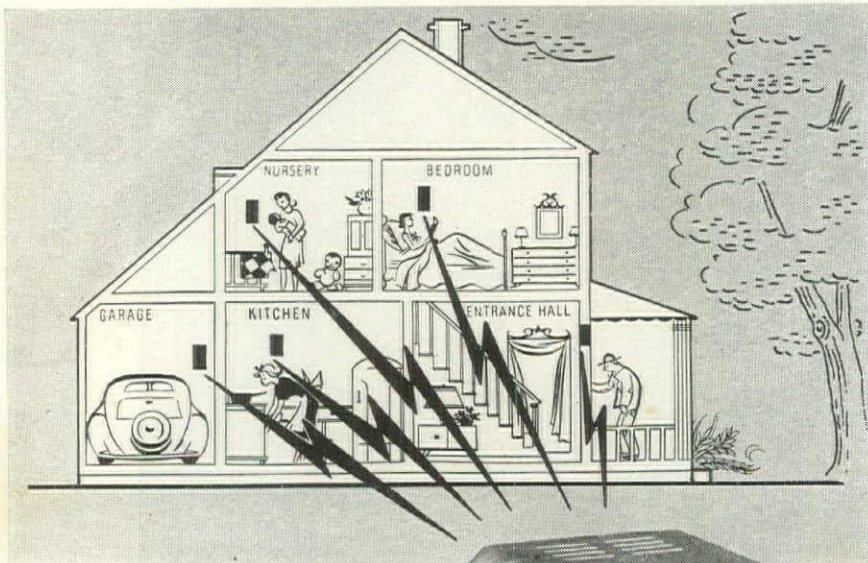


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*Manufacturer:* Heat Timer Corp., 160 Fifth Ave., New York, N. Y.

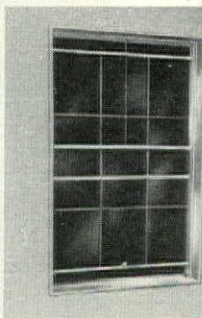
## WOOD STRIP FLOORING SQUARE features attractive appearance and easy installation.

An attractive wood flooring square mounted on a heat- and moisture-resistant backing, Castle Square flooring can be easily glued over existing floors, sub-floors or concrete slabs. Each square measures 9 x 9 in., is made up of a number of kiln-dried oak strips, 1 in. wide by 1/4 in. thick, insulated on all 4 edges with a 1/14 in. latex-impregnated fiber strip and mounted on a backing of the same insulating material. Squares are laid at right angles with mastic glue and the job is finished off with a conventional wooden floor or strips of the new flooring. Surface is sanded and finished in the usual manner. According to the manufacturer, the material has several other noteworthy features. The impregnated fiber strips act as expansion joints, and in addition provide a non-skid safety factor. The end-waste in cutting and matching of the flooring is exceptionally small, averaging only about 4 per cent. Convenient packing in cartons allows easy handling and storage. Castle Square flooring comes in two grades: selected matched and selected unmatched and will be available shortly in 6 in. and 12 in. squares. Cost of the new flooring is said to be approximately the same as oak flooring with appreciable savings in handling and laying.

*Manufacturer:* Newcastle Industries, Inc., 300 West 56th St., New York, N. Y.

## ALUMINUM DOUBLE HUNG WINDOW combines attractive appearance, simple installation and easy cleaning.

Delivered completely assembled, the NuEra double hung aluminum window for residential use can be easily installed in three operations. Extremely narrow muntins and heavy polished plate glass provide maximum light and a trim appearance. A retractable jamb member allows easy removal of both sash for cleaning. Gears within the jamb, operated by a handle and push-button type lock, advance or retract this jamb member. The sash are centrally supported by a fine stainless steel cord which passes over a double pulley concealed in the head. Counterbalanced, they operate together. Thus when the jamb member is advanced or locked in place, the sash slide easily up and down. When completely retracted, they swing entirely free of the frame supported by the cord. Sash can be easily reversed for cleaning from inside the room. According to the manufacturer, the sash are held tightly in place when the jamb member is locked in position. When the window is locked closed there is said to be practically no infiltration of air. NuEra window is made in standard sizes, comes equipped with plastic grounds and shade brackets, trim. (Continued on page 141)





## VANTAGES OF

# Warm-Air Heating Demonstrated



View of Recreation Center, Saginaw, Michigan, showing ceiling diffusing-type registers with returns incorporated in same fixtures. Architect: Franz & Spence, Saginaw, Michigan. Heating Contractor: A. C. Klopff & Sons, Saginaw, Mich.

## In Michigan Bowling Alley

The economies and numerous other advantages of warm-air heating, which have won the preference of many architects and homeowners, are also obtained when modern warm-air systems are installed in commercial buildings. For example, a Jackson & Church "PowerRated" Heater provides ample heat at low cost for the Recreation Center at Saginaw, Michigan. The unit, equipped with twenty DUST-STOP Air Filters, handles 11,000 cfm and provides four changes of air per hour.

Today's warm-air heating systems for many sizes and types of residential and commercial structures give this exclusive combination of values:

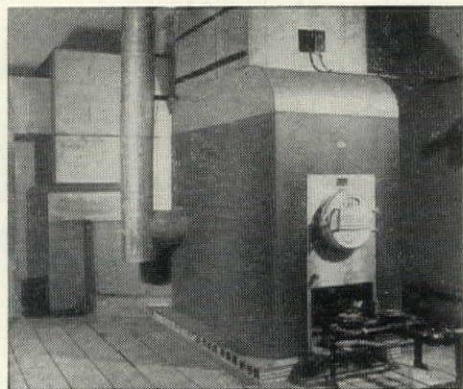
1. **WARM AIR**, with room temperatures quickly responding to automatic controls.
2. **CLEAN AIR**. Filtered at the heating unit, all heat delivered throughout the warm-air duct system is free of nuisance dusts, lint and most air-borne bacteria. Maintenance burdens are lighter because walls and furnishings 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 install modern warm-air systems, 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 easy and economical to maintain, too, for replacement DUST-STOPs are readily available at low cost through suppliers in every community.

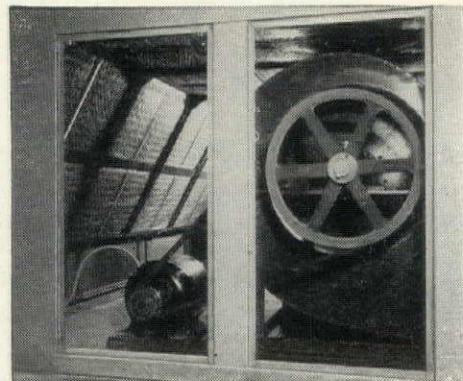
For complete information, see Sweet's Files or write: Owens-Corning Fiberglas Corporation, Dept. 830, Toledo 1, Ohio. Branches in principal cities.

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

The heating surface in this Jackson & Church "PowerRated" Heater is increased by the famous Jackson & Church tubular design. ➔



Section of blower unit equipped with twenty 16" x 25" DUST-STOP Filters. Unit installed in attic space which otherwise would have been unusable. ➔



OWENS-CORNING  
**FIBERGLAS**

TM. REG. U.S. PAT. OFF.



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



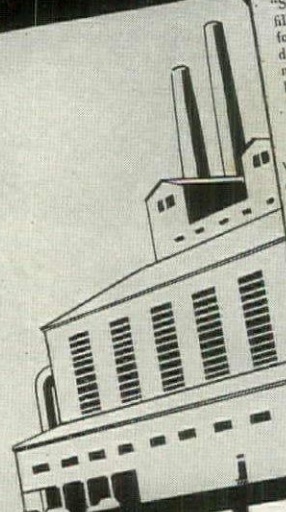
# NOW AVAILABLE!

If it's heavy-duty construction specify **ASBESTONE**

**FIREPROOF**  
**NONCORROSIVE**  
**CLIMATE-PROOF**  
**INSULATING**  
**RATPROOF**  
**NO UPKEEP**  
**NEVER WEARS OUT**

**ASBESTONE**  
ASBESTOS CEMENT  
CORRUGATED ROOFING & SIDING

**ASBESTONE CORPORATION**



A few of the many industrial leaders who have built with ASBESTONE:

- LONE STAR CEMENT CORP.
- CALIFORNIA OIL CO.
- FREEPORT SULPHUR CO.
- NEW ORLEANS PUBLIC SERVICE
- MOBILE PAPER MILL CO.
- CROSBY CHEMICALS

Our production has been concentrated on **ASBESTONE** Corrugated to assure prompt delivery for industrial construction. Free Engineering Service available on request —shows you how Asbestos can be adapted to your needs.

## ASBESTONE CORPORATION

Specialists in Asbestos-Cement Building Products for Over 25 Years

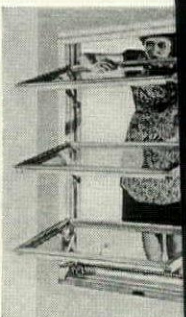
5300 TCHOUPITOUAS STREET

NEW ORLEANS 15, LA.

soffit and hardware. An integral lintel eliminates the separate support and no flashing is required over under sill. The three installation steps include: placing window in opening, bricking to frame and plastering. **Manufacturer:** NuEra Window Co., 23001 Aurora Bedford, Ohio.

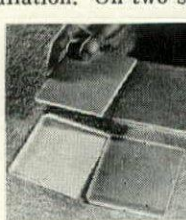
### AWNING TYPE WINDOW provides no draft ventilation

Super-Vent Windows are easy-to-clean, awning type used in homes, apartments, commercial and institutional buildings. Composed of from one to five vents, depending on window height, vents open outward simultaneously, lock securely in any desired position. When raised vents deflect rain and heavy wind. Vents are operated by a handle at the window base, open to approximately 80° horizontally. According to the manufacturer, an important feature of the unit is the patented mechanism which permits cleaning of the vent from inside the building. This allows the upper vent to be lowered when open, permitting access to its exterior glass. The newly-designed Super-Vent mechanism is simple and sturdy and to require little or no maintenance. Screens and storm sash install inside the windows. **Manufacturer:** Super-Vent Co., 303 W. Monroe St., Chicago, Ill.



### PLASTIC WALL TILE is self-aligning.

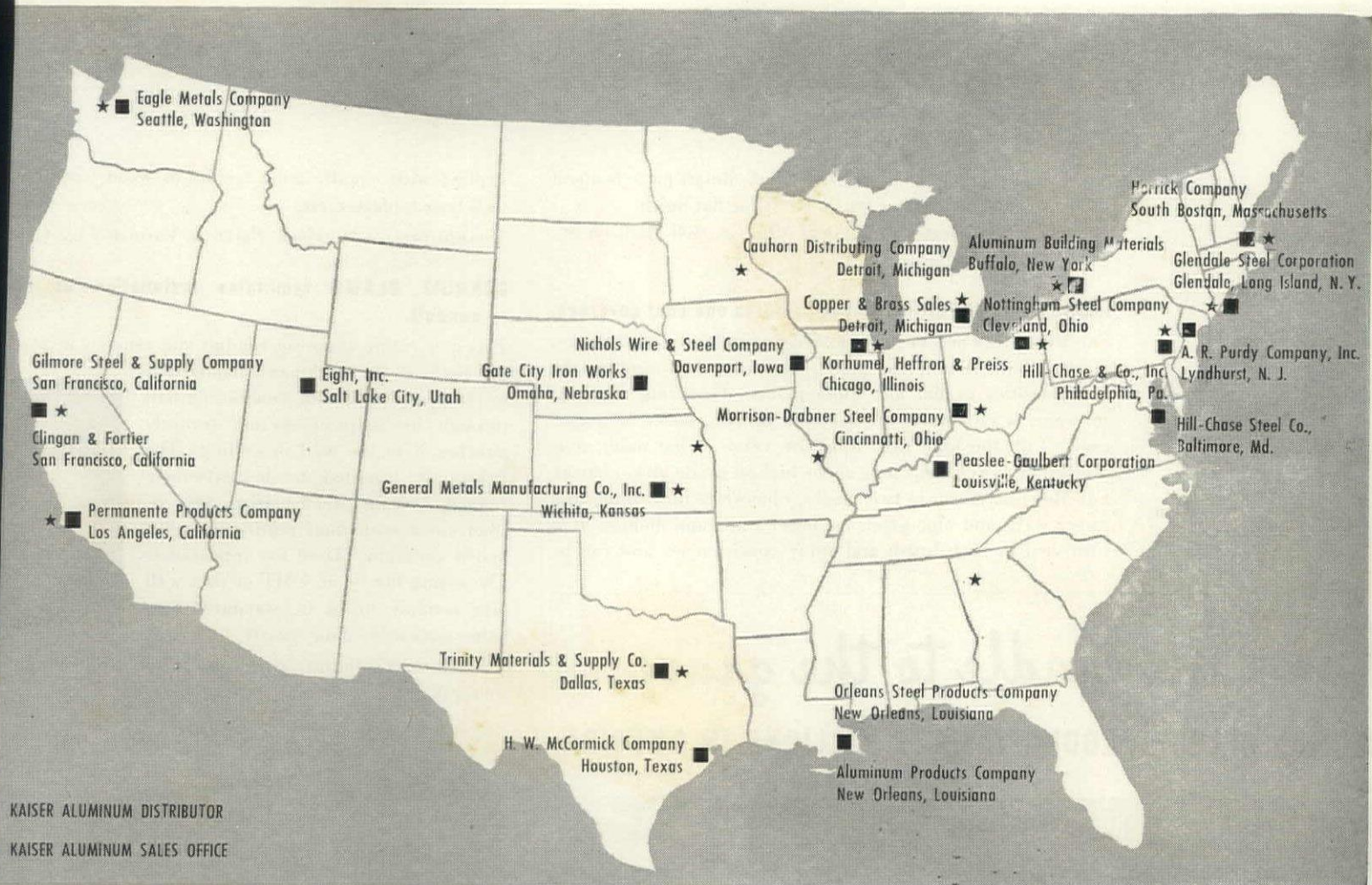
This new plastic wall tile, 4 1/4 x 4 1/4 in., incorporates a self-aligning lap joint for easier installation. On two sides features a tongue and groove type lap joint with a center notch that fits a dot lock in the adjacent tile. This dot lock secures each tile as it is set in correct vertical and horizontal alignment with surrounding tiles. Another advantage of the lap joint design is that it forms a complete plastic wall surface under the joints which stops the mastic forcing through during installation. It also eliminates the need for grouting joints. Tile comes in a choice of plain or marbelized colors. **Manufacturer:** Pittsburgh Tile Co., Terminal Building, Pittsburgh, Pa.



### FIRE RETARDANT PAINT for exterior and interior offers appearance, durability and fire protection.

In addition to providing the durability and appearance of first grade paint, Resistall fire retardant paint offers complete fire protection to any combustible surface to which it is applied. It coats the surface with a tough protecting film which is said to resist attacks of fire, weather, moisture, salt air, and water. Areas painted with it will not flash, flame or burn, washable and non-yellowing. Resistall comes in both enamel and flat finish. Made with an alkyd synthetic resin base, it can be reduced with any of the common thinners or tinted with regular oil colors without impairing its fire retardant qualities. It can be used for both prime or finish coats on wood, plaster, cement, metal, insulation board, etc., and is suitable for either interior or exterior use. Application can be made by brush or spray. Resistall sets up within 2 hrs. and dries in approximately 24 hrs. Coverage is (Continued on page 1)





## Here are your new supply points for Kaiser Aluminum

23 CONVENIENTLY LOCATED DISTRIBUTORS OFFER KAISER ALUMINUM SHEET, PLATE, STRIP, COIL, CIRCLES, ROOFING AND SIDING...IN LESS THAN CARLOAD LOTS

distributor sells in less than carload lots!

This new nationwide network of distributors is in addition, of course, to Permanente Products' 19 sales offices, each ready to help you in solving your engineering problems.

Which means that Permanente Products... in only a little over a year of operation... now completely rounds out its facilities... to bring you more and better aluminum—*faster!*

Ready to serve you—*today*... 23 conveniently located

# Kaiser Aluminum Distributors

PERMANENTE PRODUCTS COMPANY, KAISER BUILDING, OAKLAND 12, CALIFORNIA... WITH OFFICES IN:  
 Little • Oakland • Los Angeles • Dallas • Wichita • Kansas City • St. Louis • Atlanta • Minneapolis • Milwaukee • Chicago • Cincinnati • Cleveland • Detroit  
 Boston • Buffalo • New York City • Philadelphia • Washington, D. C.



approximately 400 to 450 sq. ft. per gal. Retail price is about \$7.95 per gal. for enamel finish, \$5.95 for flat finish.

*Manufacturer:* Brytenu Chemical Mfg. Co., 408 Madison St., New York, N. Y.

## INDUSTRIAL INTERIOR PAINT features one coat coverage.

Far-Mor-Lite, a new one-coat interior paint for use in factories, shops, offices, schools, hospitals, etc., is said to combine the best qualities of flat and gloss paints. Featuring one coat coverage, it eliminates the use of a primer, sealer or undercoat. With the high light reflective value of flat paint, it is reputed to stay clean as long as the highest grade gloss enamel. Far-Mor-Lite comes in two shades, blue-white for ceilings and upper walls and blue-green for lower walls and dadoes. It is furnished in both brush and spray consistencies and can be

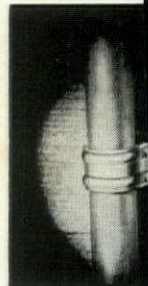
applied with equally good results to wood, concrete, wall board, plaster, etc.

*Manufacturer:* Harrison Paint & Varnish Co., Cant

## CONDUIT CLAMP facilitates installation of ele conduit.

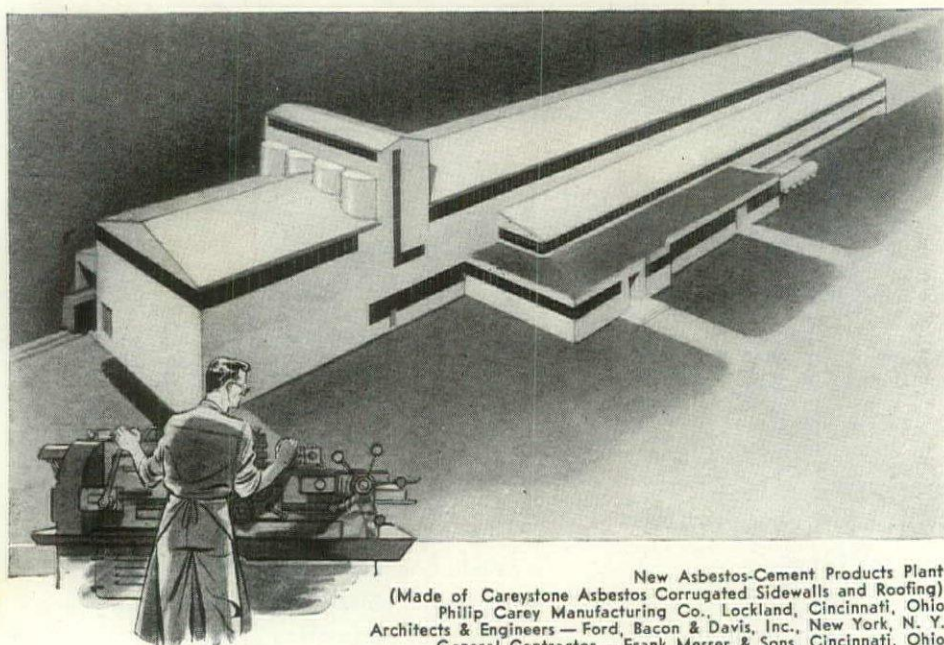
This new clamp snaps on conduit and remains in place both of the workman's hands free to place and install the conduit. A nail through its tailpiece section securely attaches it to the wall or ceiling. The fixture is reported to be extremely rugged, is cold pressed from .062 in. steel stock with dual reinforcing ribs, and is cadmium plated for appearance. The clamp fits 1/2 in. EMT or thin wall pipe conduit, or 3/8 in. standard pipe. Other sizes will follow shortly.

*Manufacturer:* Industrial Devices Inc., 22 State Road, water, N. J.



# From the cradle to the grave...

## HERMAN NELSON PRODUCTS SERVE MILLIONS IN AMERICA



New Asbestos-Cement Products Plant  
(Made of Careystone Asbestos Corrugated Sidewalls and Roofing)  
Philip Carey Manufacturing Co., Lockland, Cincinnati, Ohio  
Architects & Engineers — Ford, Bacon & Davis, Inc., New York, N. Y.  
General Contractor — Frank Messer & Sons, Cincinnati, Ohio  
Heating Contractor — Peck Hannaford & Briggs, Cincinnati, Ohio

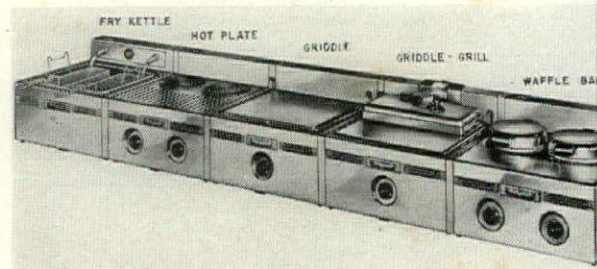
**E**Mployees in thousands of manufacturing plants of all types and sizes, from coast to coast, enjoy comfortable and healthy air conditions provided by Herman Nelson Heating and Ventilating Equipment.

Because the average man spends about 80 per cent of his entire lifetime indoors, it is important that all buildings in which he goes to school, works and plays be properly heated and ventilated.

For over 40 years, The Herman Nelson Corporation has been building quality heating and ventilating equipment for public, industrial and commercial buildings. Leading Architects, Engineers and Contractors, as well as Owners, know that the use of Herman Nelson Products will assure maintenance of desired air conditions.

## MATCHED COUNTER COOKING APPLIANCES permit m mum food production in minimum space.

Featuring five matched nickel-chromium automatics—kettle, griddle, grill-griddle, waffle baker and hotplate—new line of electric cooking appliances is designed to increase the cooking capacity in drug stores and counter restaurants by as much as 70 per cent. It permits a complete line of prepared units in only 7 1/2 ft. from end to end. Special developed banking strips join the individual units together any number or sequence and screws at each corner of appliances permit individual leveling and alignment. units are identical in size (17 15/16 in. x 20 in. x 12 13 in.), all have a working surface height of 8 1/2 in. and a back-splasher approximately 13 in. high. Heat controls recessed on the front of units to eliminate accidental turn off and on, and signal lights indicate when current is on. Conduit knockouts in back of the appliances permit making either permanent installations with conduit or cord and plug connections. The automatic fry-kettle, with a fat capacity of 15 lbs., is said to have over 70 per cent greater frying capacity and approximately 75 per cent reduced operating time. It features high speed Calrod heating units which immerse directly into the fat. The automatic griddle with 212 sq. in. grid area is said to be three times faster than any previous model. A cast-in Calrod heating unit gives uniform temperature of the heating surface. The automatic grill-griddle, for the preparation of combination dishes, features: double cast iron grids, twin thermostats, variable temperature controls, adjustable grid pressure and special splash guard. The double waffle baker with variable temperature controls permits dialing for light, medium and dark waffles. It features patented shake-out handles, a batter seal that minimizes overflow of batter and an overflow trough. The electric hotplate consists of two high speed, 6 in. Calrod units located in the rear with a ribbed landing deck (Continued on page 14)



## THE HERMAN NELSON CORPORATION

Since 1906 Manufacturers of Quality Heating & Ventilating Products

MOLINE, ILLINOIS

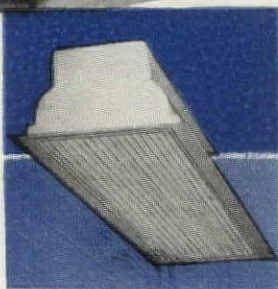


**LIGHTING BY**

*Leader*



**LEADER OFFICER — VL-440.**  
America's most beautiful commercial fluorescent fixture. High gloss white enamel louvers give soft diffusion of light.



**LEADER TROFFERLITE—TG-240.**  
An ideal fixture for use in remodeling or where a streamlined, modern effect is desired. Strong, rigid construction permits ceiling to be hung from unit.

## *"Ten Strike"* for recreation



To those who cater to sports-loving America, good lighting has become a "must." They have proved to their own satisfaction that good lighting, fluorescent lighting by Leader, pays big dividends.

For bowling alleys, billiard parlors, or similar businesses that cater to public patronage, fluorescent lighting by Leader can do much to attract customers and to make their activities more enjoyable.



For home installations, too, such as basement or attic rumpus or game rooms, Leader fluorescent fixtures will add much to their charm and utility. For better lighting for better sports . . . Look to Leader.

**Only better electrical wholesalers and contractors  
distribute and install Leader fixtures.**



**LEADER ELECTRIC COMPANY**

3500 N. KEDZIE • CHICAGO 18, ILLINOIS

WEST COAST FACTORY • 2040 LIVINGSTON ST., OAKLAND 6, CALIF.





## Easy to install—Easy to sell

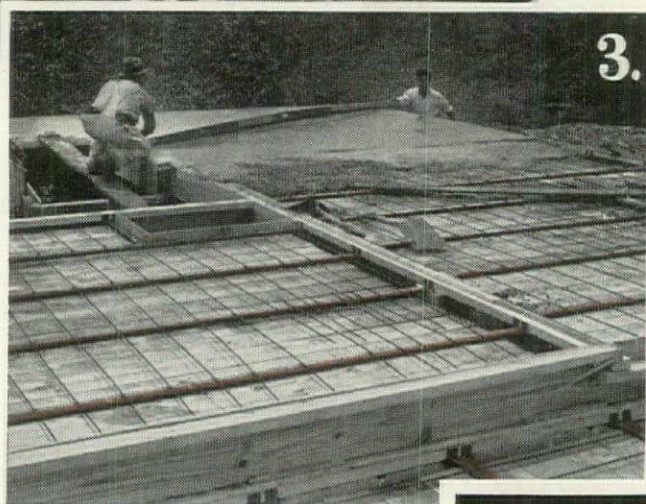
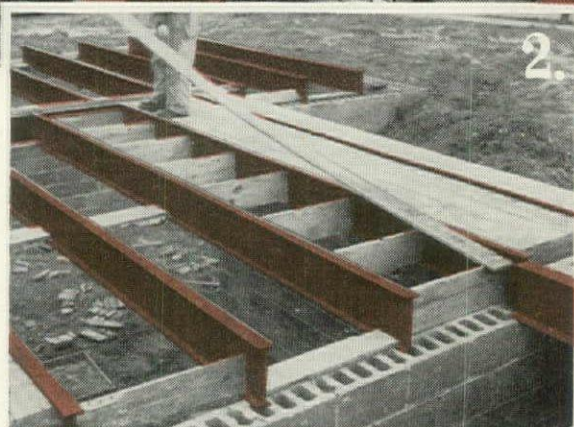
# J&L Steel Junior Beam Floor

### Rigid, Fireproof, Vermin proof

Your plans and methods can be quickly adapted to provide your houses with J&L Steel Junior Beam floors. Installation of this rigid, fireproof, vermin and termite proof, shrink-proof floor is simple and fast. It can be accomplished with a minimum of labor. Also you will save money by eliminating return calls by your contractor to repair plaster cracks, sagging doors, stuck windows and creaking floors.

Prospects quickly see the advantages of permanence, safety from fire, cleanliness, low maintenance and resulting economy provided by J&L Steel Junior Beam floors. They make your houses easier to sell and enhance your reputation as a builder.

J&L Junior Beams are immediately available (see below). Write for booklets "J&L Junior Beams for Residences," "Engineering Data" and "Nine Simple Steps" to help you in designing strong, permanent flooring that is easy to install—makes for quick sales.



**1.** Main wide-flange carrying beam which will support bearing partition also supports Junior Beams on bottom flange. One inch wood spreaders are being placed to space Junior Beams properly.

**2.** Form boards are being placed on wood spreaders which are cut to length so five form boards may be used without ripping. Duct openings are provided in form work. Depending upon the total live and dead load to be carried, Junior Beams can be spaced to accommodate 4, 5, or 6 form boards.

**3.** Reinforcing rods have been clipped to top of Junior Beam. Form is complete and sills for carrying studs above first floor placed. Sills are used as screeds to level the concrete slab. Various types of finished floor may be used, such as carpet on pads, wood parquet, linoleum or mastic tile.

**IMPORTANT:** The wood spreaders and form boards can be salvaged for sheathing or reused as forms.

# J&L STEEL

## JONES & LAUGHLIN STEEL CORPORATION

PITTSBURGH 30, PA.

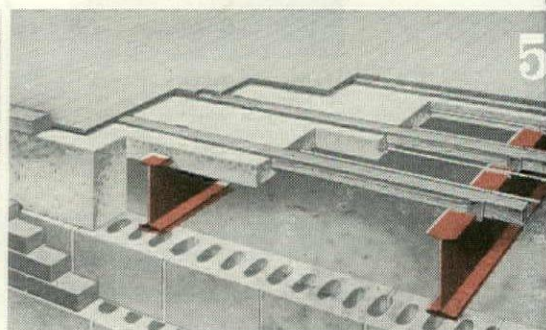
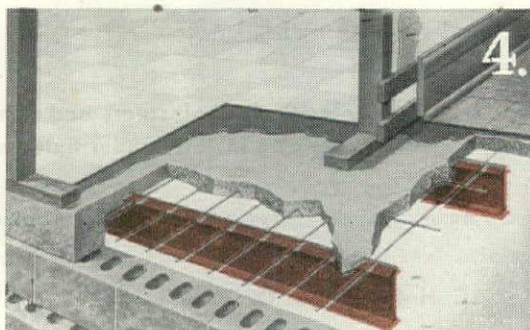
**Immediate Delivery From Your Favorite Warehouse ...**

or ... any of the following J&L Warehouses: Chicago • Cincinnati • Detroit  
Pittsburgh • Memphis • New Orleans • Long Island City, N. Y. \*

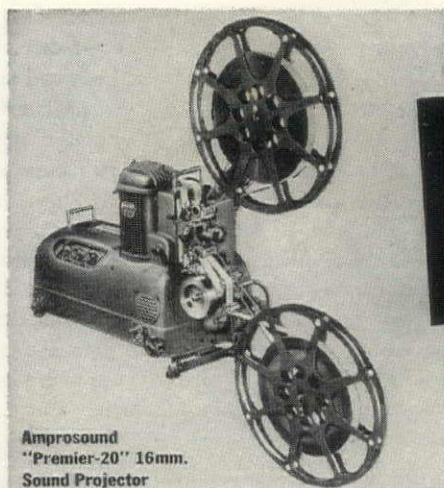
\* Operated by Jones & Laughlin Steel Service, Inc.

**4.** This "cut away view" shows Junior Beams, reinforcing rods, slab with firestop, studs for non-bearing partition and finished tile and parquet floors.

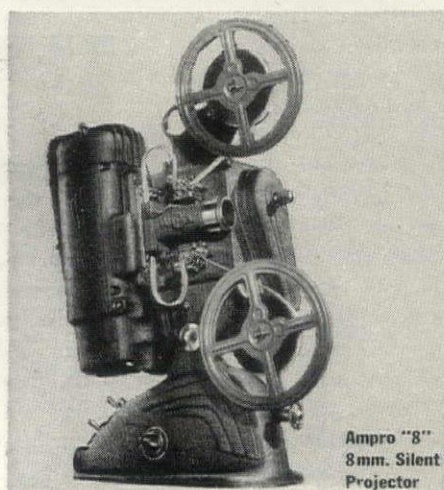
**5.** Shows how conventional hardwood flooring can be nailed to strips which were clipped to top of beam before concrete slab was poured.



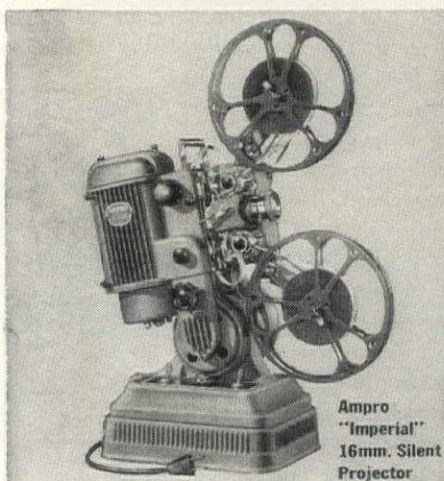




Amprosound  
"Premier-20" 16mm.  
Sound Projector



Ampro "8"  
8mm. Silent  
Projector



Ampro  
"Imperial"  
16mm. Silent  
Projector



Amprosound Model "AA" 16mm.  
High Intensity ARC Projector

# the AMPRO line

## Precision Projectors of professional quality

The name "AMPRO" on any projector is your assurance of efficient operation . . . simplified, convenient controls . . . rugged construction . . . and long, satisfactory service.

Proof of this is in the remarkable performance record established by Ampro projectors during the past two decades in leading school systems, universities, top industrial concerns, churches, many branches of government service and in private homes all over the world.

The Ampro organization has the production and engineering facilities plus the practical experience to make some of the world's finest precision projectors. Before deciding on any projector—for any purpose—be sure to find out what Ampro has to offer you.

Ampro projectors are distributed through better photographic and department stores. Write for the name of your nearest Ampro dealer—and for full details on the Ampro Projectors in which you are interested.

THE AMPRO CORPORATION  
2835 N. Western Ave., Chicago 18, Ill.  
A General Precision Equipment Corporation Subsidiary



Amproslide 2' x 2'  
Projector  
Model "30-A"



Amproslide Dual  
Purpose Projector  
Model "30-D"



at the front. Standard accessories for the line include the patented banking strips, variable sized wire mesh fry baskets and cord and plug assemblies. Rated wattages for the fry kettle, griddle, grill-griddle, waffle baker and hot plate are 4.5 kw, 3 kw, 4.5 kw, 1.65 kw, and 2.5 kw respectively.

*Manufacturer:* Hotpoint Inc., 5600 W. Taylor St., Chicago, Ill.

## WALL-MOUNTED DISPENSERS for hand lotion and powdered soap deliver measured quantity without waste.

These new Bobrick Dispensers, Model No. 85 for hand lotion and Model No. 50 for powdered soap, are designed to dispense a measured amount of their respective product quickly, cleanly and conveniently. Wall-mounted in wash rooms and powder rooms of hotels, filling stations, shops, factories, homes, etc., the lotion dispenser delivers a measured quantity

of protective or germicidal lotion without waste or m dispenses any brand of lotion, does not drip, clog o Model No. 85 is styled with a plastic body and matching globe, has stainless steel working parts. The Kitchen Dispenser, Model No. 50, handles any kind of powdered granulated, bead, pumice or even small flake soap or c An enameled steel unit, 8 in. x 4 $\frac{3}{4}$  in. x 2 $\frac{7}{8}$  in., it has a capacity and can be mounted in the kitchen, bath laundry, etc. A single press of the plunger revolves an in paddle which dispenses a measured amount of soap. paddle also moves an agitator which prevents the soap packing. Both dispensers, according to the manufac can be attached to the wall for home use with plastic add *Manufacturer:* Bobrick Manufacturing Corp., 1839 Ave., Los Angeles, Calif.

## PLANNING KIT for the prospective home builder.

With the House Planitect the prospective home builder work out his ideas on paper in accurate proportions before engaging an architect. He has only to cut out a set of rooms from any of seven cardboard working sheets, arrange them to his taste and paste them on a plotting sheet. Planitect consists of a book of instructions, house plans, four layout sheets and seven working sheets. latter include scaled plans of many size rooms and other used in floor planning such as porches, walks, garages, d windows, furniture, etc. All drawings are  $\frac{1}{4}$  in. scale automatically make allowance for walls. House Plan sells for \$2.

*Manufacturer:* Planitect Co., 539 Magazine St., New Orleans, La.

## LADDER HOIST facilitates handling of building material

A new piece of equipment for lifting building supplies to second floor or to any height up to 40 ft., the Lad-E-Vator hoist is designed for fast, easy, safe handling of loose, flat or roll materials. It is said to carry loads up to 500 lbs. and to travel up to 80 ft. per minute. The Lad-E-Vator hoist consists primarily of a loading platform mounted on four wheels, two aluminum ladder-like tracks and a small gasoline or electric motor. Controlled by an operator on the ground, the loading platform travels up the ladder-like tracks to the top where the track curve over the landing to deliver the load inside the working area. Tracks come in 12 to 25 ft. lengths. Two sections of track can be used to extend the hoist to needed height.

*Manufacturer:* The Campbell Equipment Co., 6643 Rid Ave., Chicago, Ill.

## STAIR SCALE saves time in stair planning.

This time-saving device combines 10 important scales for accurately spacing stair risers and treads, rafters, studs, joists, etc. without lifting or sliding the instrument from the drawing. In addition it provides an accurate architectural scale and a quick, precise calculator for computing all factors in stair planning. Scales are calibrated  $\frac{1}{8}$  in.,  $\frac{1}{4}$  in., and 1 in. to the ft. Over-all size of the device is 3 $\frac{1}{2}$  in. x 10 in.

*Manufacturer:* Rapidesign, Inc., 111-B South Orange Ave., Glendale, Calif. (Technical Literature on page 152)



**"Easy does it"**  
WITH VANISHING DOORS



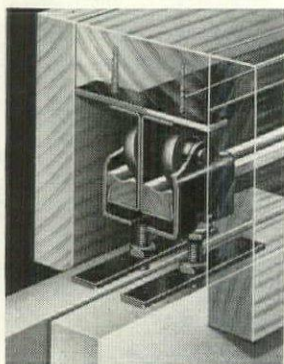
Getting in and out of a clothes closet can be a difficult trick when there's only one door. But it's no trick at all when you install parallel sliding doors the full width of the closet, each door sliding open to permit direct access to the entire closet space behind it. There's no fuss, no muss, no bother . . . just slide open either door and step straight in!

And there's an important *plus* advantage to sliding doors—no floor space wasted by the swinging arc of hinged doors. Furniture, lighting fixtures, rugs and pictures can be conveniently and correctly placed without getting "behind a door."

### SPECIFY R-W SLIDING DOOR HANGERS AND WOOD LINED TRACK

Sliding doors installed with quiet, smooth, trouble-free Richards-Wilcox No. 719 Sliding Door Hangers and Wood Lined Track can simplify home planning, provide more usable floor space and make living easier. Get all the facts . . . call your nearest R-W office. Free consultation available.

Same bedroom with single hinged closet door and with parallel sliding doors. Direct access to either half of closet is possible as each sliding door opens to opposite side of door frame. Note added floor space available with sliding doors.



R-W No. 719 Sliding House Door Hanger and Wood Lined Track, showing application of hangers and track to doors and header.

**Richards-Wilcox Mfg. Co.**

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

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



1880 1947

OVER 67 YEARS



# Now Available!

## STAINLESS STEEL

FOR GUTTER

DOWNSPOUT

CONDUCTOR PIPE

FLASHING



**Architects** prefer stainless steel because it is a proven functional material in the modern style. Low coefficient of expansion and contraction eliminates expansion joints . . . . permits greater freedom in design. Stainless steel is beautiful . . . . everlasting . . . . and available right now.



**Builders** prefer stainless steel because its instant eye appeal and permanent beauty make a better, more salable product. Corrosion-proof stainless steel gutter, downspout, conductor pipe and flashing is light, bright, water-tight.... never needs replacement....can be erected with or without paint. And stainless steel is available right now.



**Home Owners** prefer stainless steel because it is more attractive....permanent....reduces upkeep....does not stain painted, stucco, masonry or brick walls and surfaces. Building need not be delayed because stainless steel is available right now. *Full details upon request. Write*

**SHARON STEEL CORPORATION**

*Sharon, Pennsylvania*

**SHARONSTEEL**

PRODUCTS OF SHARON STEEL CORPORATION AND SUBSIDIARIES: THE NILES ROLLING MILL COMPANY, NILES, OHIO; DETROIT TUBE AND STEEL COMPANY, DETROIT, MICHIGAN; BRAINARD STEEL DIVISION, WARREN, OHIO; SHARONSTEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRELL, PENNSYLVANIA. Hot and Cold Rolled Stainless Strip Steel—Alloy Strip Steel—High Carbon Strip Steel—Galvanite Special Coated Products—Cooperage Hoop—Detroit Seamless Steel Tubing—Seamless Steel Tubing in Alloy and Carbon Grades for Mechanical, Pressure and Aircraft Applications—Electrical Steel Sheets—Hot Rolled Annealed and Deoxidized Sheets—Galvanized Sheets—Enameling Grade Steel—Welded Tubing—Galvanized and Fabricated Steel Strip—Steel Strapping, Tools and Accessories.

DISTRICT SALES OFFICES: Chicago, Ill., Cincinnati, O., Cleveland, O., Dayton, O., Detroit, Mich., Indianapolis, Ind., New York, N. Y., Philadelphia, Pa., Rochester, N. Y., Los Angeles, Calif., San Francisco, Calif., St. Louis, Mo., Montreal, Que., Toronto, Ont.



"Our own experience convinced us . . . .

**BRUCE FINISHED FLOORS**  
*rate HIGH in buyer appeal*  
*...LOW in installed cost!"*

**Reports HARRY J. DURBIN**

*Well-known Detroit home builder*



Mr. Durbin should know. His firm, long-time leader in the Detroit building industry, has used Bruce Finished Floors in more than 1200 units since 1939.

He writes: "Our records, covering eight years' experience with Bruce Finished Floors, show that elimination of the sanding and finishing operations required with old-type strip flooring has saved us an average of \$30 to \$35 and three working days per unit.

"These savings, combined with the almost unanimous enthusiasm of our buyers and tenants for the exceptional beauty and wearing qualities of the finish, have convinced us that Bruce Finished Flooring is the outstanding flooring in the market today."

All over the country, many leading operative builders like Mr. Durbin are having similar experiences. They're discovering, just as he did, that Bruce Finished Floors are best because they eliminate unnecessary costs and give the buyer a more beautiful floor with a superior, long-lasting finish.

**E. L. BRUCE CO.**

Memphis, Tennessee

*World's Largest Maker of Hardwood Floors*

**Merle W. Hogan, Architect**  
for Durbin homes, writes:

"Bruce Finished Flooring was first specified by me in 1939 for use in homes built by Harry J. Durbin. Since that time I have specified it for hundreds of clients and observed how it withstood years of use.

"I am sure Bruce Finished Flooring provides a better floor for residential use than ordinary flooring. It provides a pleasing pattern and a fine finish which is easily cleaned and maintained.

"I have also found that Bruce Finished Flooring actually costs less and saves time during construction."

Yours very truly,

**MERLE W. HOGAN,**  
A. I. A.



**BRUCE FINISHED FLOORS**



THERE'S A NEW

Corner

ON THE MARKET



Now you can free your doorways of **BULKITIS** in the "door closer corner!"  
**NEW YALE COMPACT DOOR CLOSER** has been voted the world's most beautiful closer

You've always hated the door closer corner — for there has never been an *attractive* door closer. They've all had *bulkitis* — which means too big, too bulgy, too clumsy — ugly!

Now comes the Yale Compact Door Closer — the one that architects from coast to coast have voted the world's most beautiful door closer. A new operating structure — rotary piston checking — makes possible an equally powerful, yet 36% smaller door closer — without bulgy "hips". Closing is controlled over the full closing swing,

two-speed adjustment at the latch.

It's a door closer to make any door proud. Brackets, too, are handsome. Priced no higher than ordinary closers with *bulkitis* — it is your answer to the door closer problem.

FREE: Data Sheets and 4-Page Folder illustrating simple operating method, leakproof feature, famous Yale workmanship, "hold-open" device, etc. "Quality Checking Chart" proves Yale Compact Door Closer leads all other makes on 17 quality points. Mail coupon now.



More Beauty . . . Smaller Size  
Smoother Action . . . Same Price

TRADE **YALE** MARK

Compact Door Closer

THE YALE & TOWNE MANUFACTURING COMPANY  
Stamford, Connecticut

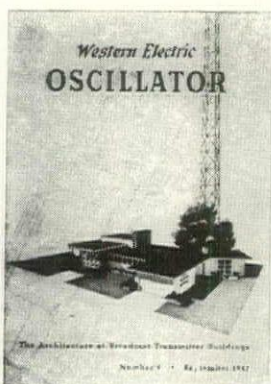
Please Send Me Free 4-Page Folder and Data Sheets on  
Yale Compact Door Closer.

Name.....

Company.....

Address.....





**BROADCAST TRANSMITTER BUILDINGS.** Western Electric Oscillator, No. 9, September 1947. Western Electric Co., 195 Broadway, New York, N. Y. 68 pp. 8½ in. x 11½ in.

This special issue of the Western Electric *Oscillator* presents a complete treatise on the architectural aspects of broadcast transmitter buildings. Prepared to aid broadcasters construct a transmitter building that will be an efficient part of the technical operation, this guide assembles in compact form a wealth of information on the basic principles that underlie the design of practical, efficient transmitter buildings. Contents are divided into five parts. Section I, "Building the Home for Your Broadcast Transmitter," includes a step-by-step discussion of site selection, layout of the building and construction methods. Section II, "Transmitter Buildings With A Future," features six original designs by architects Deigert

and Yerkes. "A Survey Study of 610 Broadcast Transmitter Buildings" gives a detailed picture of the American transmitter building, based on replies to a questionnaire distributed to the broadcast industry. "Six Outstanding Buildings Today" presents buildings in use by broadcast stations of 250 w. to 50 kw., with floor plans, and interior and exterior photographs. Section V, "The Face of the American Transmitter Building" illustrates the exteriors of 24 actual structures of varied style, location and size.

**CONCRETE HOUSES.** On-The-Site Monolithic Concrete Houses. R. G. LeTourneau, Inc., Longview, Tex. 8 pp. 8½ in. x 11 in.

The main features of Tournalayer-built concrete houses are design possibilities, speed of erection and low cost—all in this folder. The basic monolithic units produced by Tournalayer, the mobile machine that lays the houses in various ways these units can be combined to provide a wide variety of homes are illustrated and described. Another section discusses the operation of the Tournalayer, how the house is poured, carried to the site and positioned.

**CONCRETE ROOFS.** Zonolite Short Span Structural Roof Deck. Universal Zonolite Insulation Co., 135 S. La Salle St., Chicago, Ill. 4 pp. 8½ in. x 11 in.

This pamphlet illustrates and describes typical Zonolite short span structural roof deck installations and discusses many advantages. These roof decks are made up of Zonolite Insulating Concrete poured monolithically over paper-bonded welded wire mesh, ribbed metal lath or other supporting forms, and properly reinforced to provide a permanent, lightweight, fireproof roof deck. Specifications for Zonolite Insulating Concrete as used in structural roof decks are included.

**BUILDING AND MAINTENANCE MATERIALS.** Maintenance of Buildings with Sonneborn "Building Savers." Building Products Division, L. Sonneborn Sons, Inc., 88 Lexington Ave., New York, N. Y. 16 pp. 8½ in. x 11 in.

Designed to aid maintenance engineers and contractors in product selection for all types of commercial, industrial and residential buildings, this condensed catalog describes Sonneborn "Building Savers" for construction and maintenance. The advantages and recommended uses of various floor treatments, concrete and mortar admixtures, waterproofing and damproofing products, paints and protective coatings, caulking compounds, roof coatings and waxes are presented along with coverage figures, packaging data and, in several instances, brief application suggestions.

**WINDOWS.** Hope's Lok'd Bar Steel Sash, Revised Sept. 1947. Hope's Windows Inc., Jamestown, N. Y. 28 pp. 8½ in. x 11½ in.

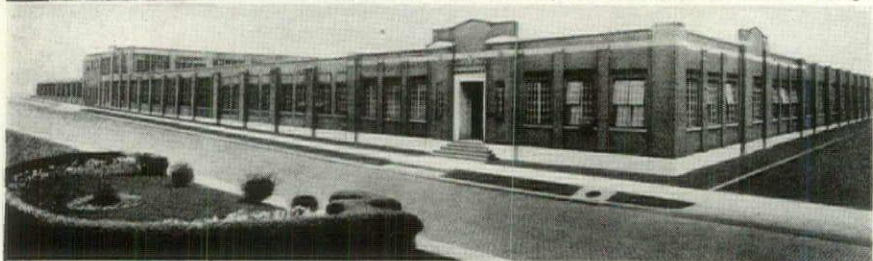
Design and construction features of Lok'd Bar Steel Factory Sash are fully illustrated and explained in this brochure. Dimensions and physical data are shown by full scale drawings including the sections of frames, muntins and Mullions and details of pivoted and projected ventilators. Installation details show application to brick and plaster, concrete and structural steel construction. Size range is shown by diagrams giving width and height of sash, number of lights and ventilators in standard sash. Window opening dimensions are tabulated and hardware details illustrated. Also included is a page of suggested layouts for bays, two pages of Lok'd Bar Steel Sash for interior partitions and a page of security windows. A wide variety of installations in industrial buildings are also featured.

(Continued on page 15)



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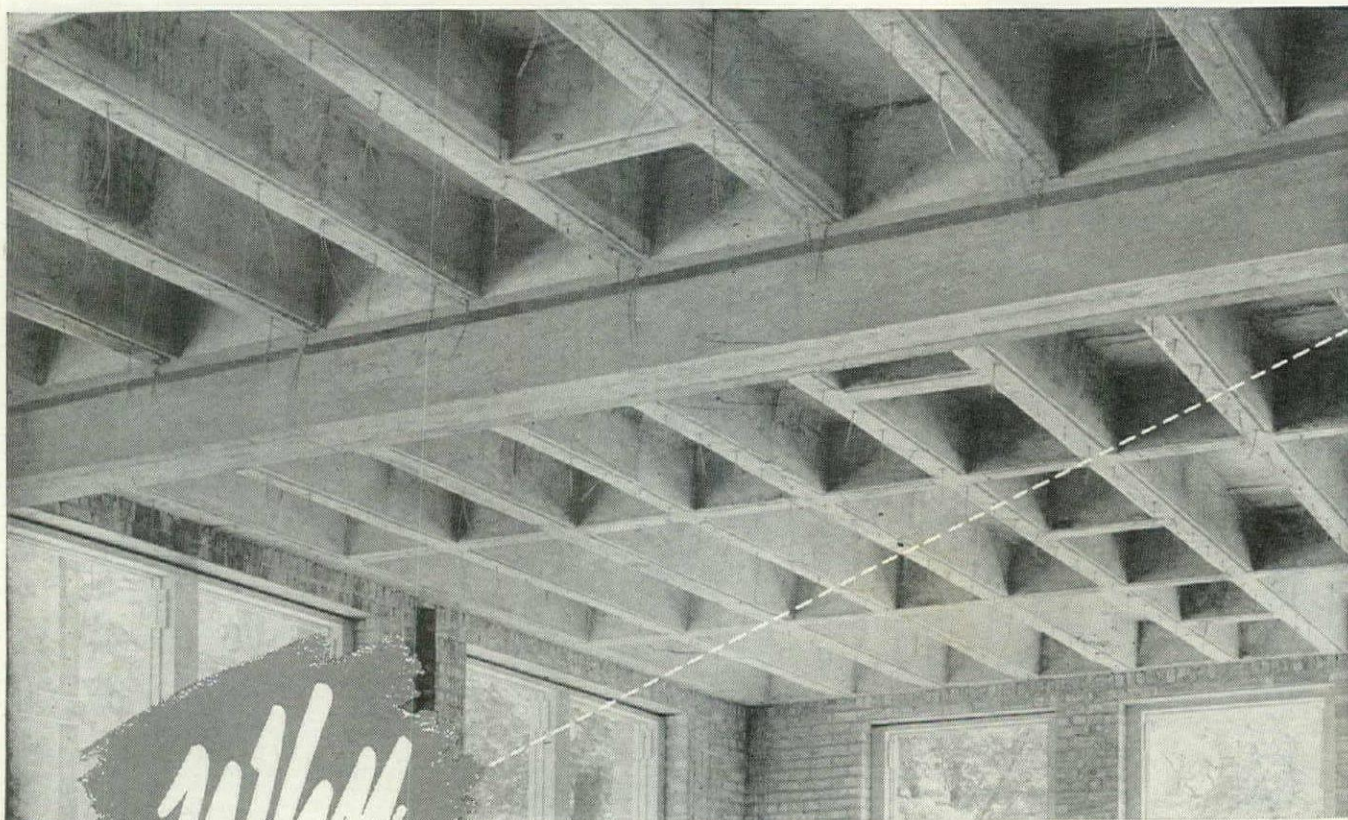
- ☐ Kitchen Planning Manual (\$1.00 enclosed)  
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## Concrete Joist Construction?

Because Today's Costs are NOT Out of Line . . .  
Because, strength and durability considered, concrete joist construction is the most economical way to build . . .

In these days of high costs, economy in building is important, provided strength and durability are not sacrificed. Here is where concrete joist construction comes in—since it provides rigid, strong, sound-proof buildings which are fire resistive, yet construction cost is lower. That is because the amount of concrete and, consequently, the dead load, are kept to a minimum for any span or live load. The concrete joist and monolithic top slab are formed with cores of removable Meyer steelforms, supported on skeleton centering. Once the concrete has set, the forms are removed and re-used from floor to floor and from job to job. Therefore, a nominal rental charge can be made for each use. Construction is speeded up.

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Ceco originated the removable steelform method of concrete joist construction. The company is first in the field—actually providing more services than all competitors combined. So, when concrete joist construction fits your need, call on Ceco, the leader over all. Thirty-five years of experience in the field, on the job, have given Ceco a sure grasp of all concrete joist construction problems. This fund of knowledge is yours to command, in 23 strategically located offices from coast to coast.

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Other Ceco Products Include—Reinforcing Steel, Welded Wire Fabric, Steel Joists and Roof Deck, Metal Windows and Doors, Metal Frame Screens, Aluminum Storm Windows, Metal Lath and Accessories

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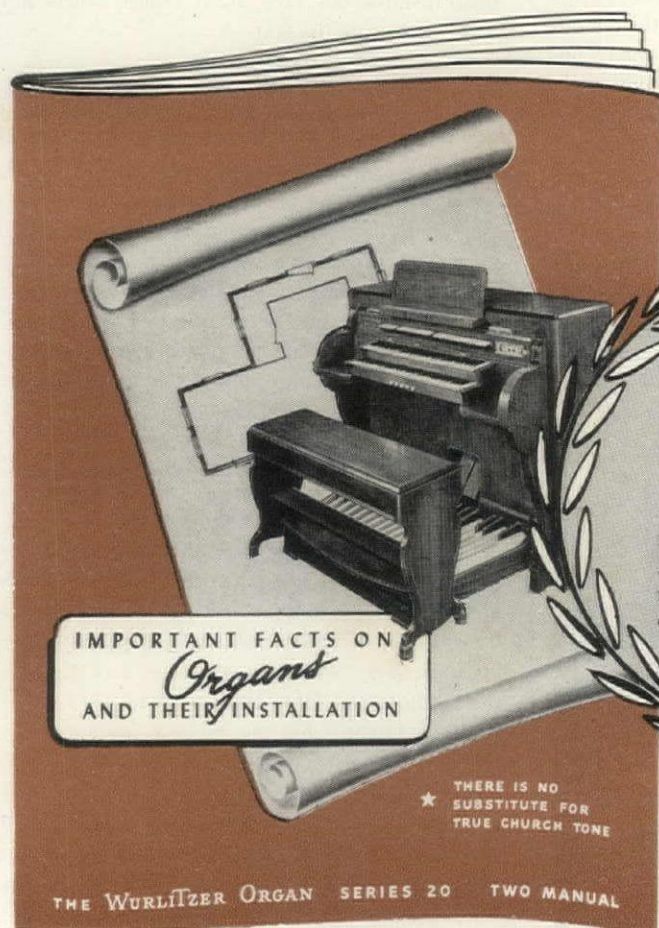
*In construction products* **CECO ENGINEERING** *makes the big difference*



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A 16-page brochure covering features you must look for in any organ you specify: organ nomenclature; American Guild of Organists' playing specifications; relationship of tone, space and cost, acoustics, pipe organ vs. electronic organ; essential and auxiliary equipment; installation requirements and techniques

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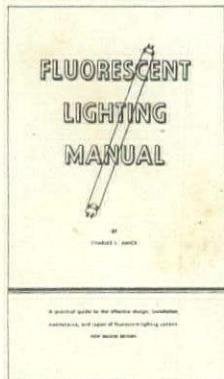
Company.....

Address.....

City..... Zone..... State.....







**LIGHTING.** Fluorescent Lighting Manual, Second Edition by Charles L. Amick. McGraw Hill Book Co., 330 W. 42nd St., New York. 318 pp. 6 3/8 in. x 9 1/4 in. Price \$4.00.

A practical guide to the effective design, installation, maintenance and repair of fluorescent lighting systems, this second edition of "Fluorescent Lighting Manual" is a complete reference manual for solving the various problems of modern fluorescent lighting practice. The book emphasizes practical design, installation and servicing procedures, shows methods of calculating illuminating requirements and provides helpful guidance for the correct maintenance and repair of fluorescent lighting equipment. Thoroughly revised in line with the latest advances, it includes information on new types and sizes of fluorescent lamps, auxiliary equipment improvements and recent lighting techniques. Typical of the new material is

data on Slimline and Circline lamps, full explanation of glare rating system, discussion of the acceptability of lamp installations, etc. Many tables, charts and photographs amply illustrate the text.

**ELECTRICAL WIRING.** Q-Floor Wiring Data Manual. Electric Co., Advertising Div., Appliance and Merchandise, 1285 Boston Ave., Bridgeport 2, Conn. 106 pp. 8 3/4 in. x 11 in.

This data manual describing General Electric Q-Floor opens with a general description of Robertson Q-Floor, the GE fittings and accessories necessary to utilize the floor as raceways for electrical conductors. Subsequent sections contain detailed descriptions of these fittings, accessories and data pertaining to layout design and installation. The concluding 61 pages are devoted to dimension drawings and photographs taken during installation of Q-Floors.

**RADIANT HEATING.** What We Have Learned From Radiant Heating Installations. A. M. Byers Co., Clark Pittsburgh, Pa. 12 pp. 5 1/4 in. x 7 3/4 in.

To give a cross-section view of trends and engineering practices in methods and materials and the limitless variety of applications for radiant heating, this booklet presents the findings of a study of 1,000 radiant heating installations. The findings show "45 of the 48 states now have radiant heating installations . . . Ohio leads with 16 per cent of the total . . . Radiant heating has its biggest market in the residential field . . . 93 per cent of the installations use floor type radiant heating coils exclusively . . . In more than 90 per cent of the projects . . . coils were embedded in concrete floors . . . story buildings make up 73 per cent of the installations. Coil types in several hundred installations showed spiral coils in 55 per cent of the structures, and grid coils in 41 per cent . . . Over 90 per cent of the projects . . . used Wrought Iron Pipe."

**HEATING.** Rempe Engineering Data Book. Rempe Co., 300 Sacramento Blvd., Chicago, Ill. 34 pp. 8 1/2 in. x 11 in. Price \$1.50.

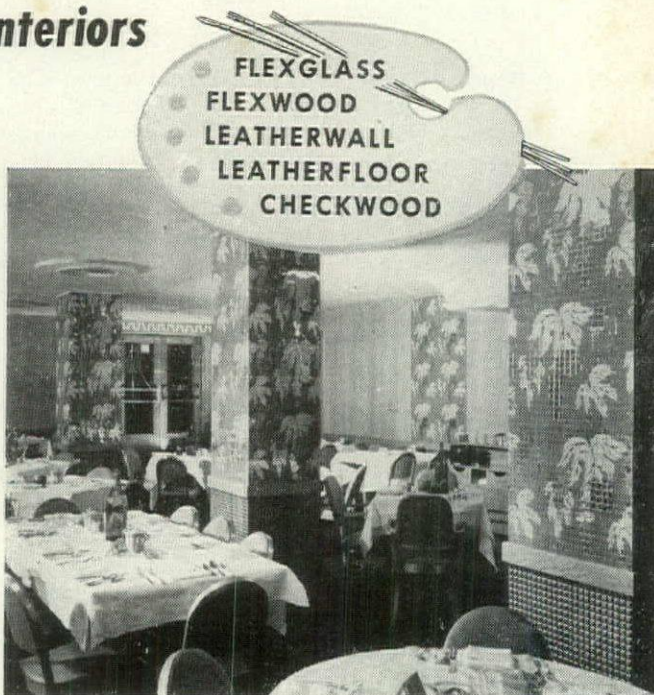
Prepared especially for engineers and draftsmen as a guide in the design of pipe coils and fin coils, this engineering data book provides complete and easily accessible information necessary for laying out pipe and fin coils for heating and cooling applications. It treats heat transfer "K" factor for all ranges of heating and cooling from minus 60° to 350°F, gives recommended air velocities and fin spacing for fin coils and shows in detail how to calculate and design pipe and fin coils for all generally encountered heating and cooling loads. Besides reference and design sections for both pipe and fin coils, the book covers such subjects as inspection, testing and finishing of coils, calculation of heating and cooling coils and methods of computing fin coil surfaces. It also includes information on the application of coils to particular types of heating and cooling units and the proper use of saturated steam. The manual is fully illustrated, has many pages of reference and design tables.

**HEATING.** Trane Presents Eight Pages of Heating Products. The Trane Co., La Crosse, Wis. 8 pp. 8 1/2 in. x 11 in.

This pamphlet offers a brief summary of the following Trane products: heating coils for steam or hot water jobs; type convectors; unit heaters; roof ventilators; wall heaters; valves and traps; hot water products such as circulators, flow fittings, etc.; Trane fan line; the new Trane unit ventilator and air conditioning products. Representative units are illustrated and their outstanding features and uses are discussed.

(Continued on page 1)

## Design your Interiors with this MASTER'S PALETTE



**O**RIGINALITY is at your pencil-point when you work with USP decorative materials.

Whatever the requirements . . . formal or informal, traditional or modern, brilliant or subdued . . . you can create a masterpiece of interior beauty with this figurative palette.

Designer Don Wells offers this suggestion: an arresting Checkwood dado, most of the walls sheer-hung in Rift Oak Flexwood, pillars and occasional wall panels highlighted in "Vintage" Flexglass.

This illustration of the "Vintage Room," Ambassador Hotel, Kansas City, Mo., gives you an idea of the finished result.

"Vintage," "Mimosa" and "Clusters" add new spice to the Flexglass line. Striking designs by Muller-Barringer are fired on the underside of the glass in rich ceramic colors. Three stock patterns available immediately. In addition, you can now order Flexglass in patterns of your own design at slight additional cost.

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## Happy Holiday Warmth

There are no cold spots in this attractive living room, despite its big picture window. The inconspicuous new Baseboard Radiant Panels provide sun-like warmth from floor to ceiling throughout the room. Only 8 inches high, they fit snugly against the wall, look exactly like the baseboard, and can be painted any color to match the wood trim. Give full use of wall and floor space.



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■ In the American-Standard line, you will find heating equipment and plumbing fixtures that are styled, designed and engineered to fit in with, *and enhance*, any architectural plan or decorative scheme. American-Standard Products are as fine as money can buy, yet they cost no more than others. For modernization, they can be purchased on a convenient Time Payment Plan. Contact your Heating and Plumbing Contractor for details. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

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**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, for all fuels—Water Heaters—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.



*New Los Angeles Airport now ready  
for heaviest air and foot traffic . . .*

**100,000 sq. ft. of  
tough  
TILE-TEX\*  
used in buildings  
of modern air center**

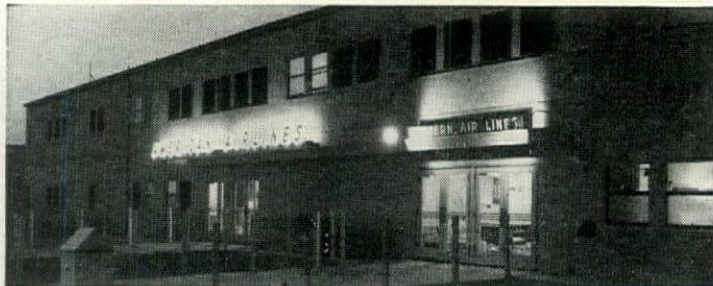
Air traffic will be heavy at Los Angeles' bustling new airport! But patrons of six major airlines are assured of better, faster ticket and baggage service—more comfortable "between flight" facilities await them—in these carefully designed, modern air terminals.

Yes, and even the floors are ready—come what may—as more and more of today's travelers take to the air! For Architect N. M. Cirino specified tough, versatile, immensely practical Tile-*Tex* Asphalt Tile for the passenger terminals and the administration building!

That's easy to understand—because Tile-*Tex* easily fills the exacting requirements for a "public" floor. It's so tough it lasts for years under the hardest use imaginable! Is low in first cost—costs less and less as time goes on—doesn't require elaborate maintenance! Available now in a rich group of colors and design accessories to assure architects of providing the *right* floor for every installation.

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The Tile-*Tex* field representative and flooring contractor in your area will be glad to give more information about this top quality asphalt tile. Just write The Tile-*Tex* Company, Inc. (Subsidiary of The Flintkote Company), Chicago Heights, Illinois. Sales Offices located in Chicago, New York, Los Angeles and New Orleans.

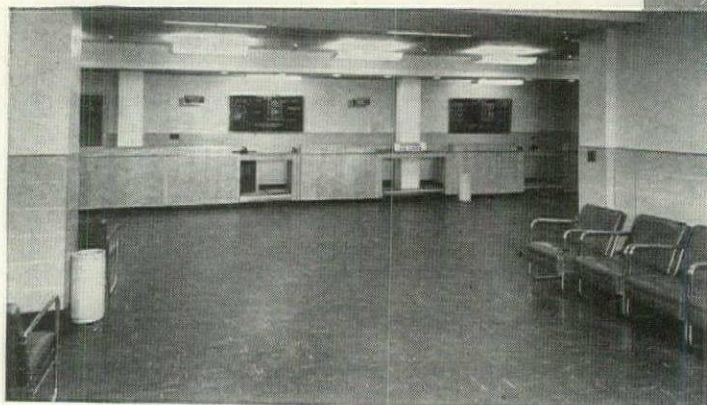


*One of three new passenger terminals at the Los Angeles Airport. All floor areas are surfaced with foot-easy Tile-*Tex* Asphalt Tile.*



*The new Los Angeles Airport was designed by N. M. Cirino, Architect for the Bureau of Engineering, City of Los Angeles. Notice (above) how all the facilities for handling busy air travelers have been compactly arranged for maximum customer convenience. Notice, too, that the brown Tile-*Tex* floor is marbled so dust is less noticeable, maintenance is cut to a minimum.*

*Comfortably resilient Tile-*Tex* and the acoustical ceiling team up (left) to lessen noise and confusion in this busy terminal.*



*Tile-*Tex* Asphalt Tile*

\*REGISTERED TRADEMARK OF THE TILE-TEX COMPANY, INC.

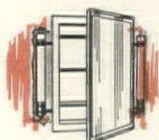


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get into the  
bathroom...*



*...with a **quality line**  
of cabinets?*

## *wait no more* **MIAMI-CAREY IS BACK!**



Available now without allocation... that's the good news about this famous line of bathroom cabinets... the line that has set *quality* standards in the industry for 25 years!

And now the Miami-Carey policy of not skimping on quality, even when materials were mighty scarce, again pays dividends for you. There's no "jerry" merchandise to clear out, no second-rate reputation to be lived down. When you give homebuilders Miami-Carey cabinets... brother, that's the best!

To refresh your memory, that includes such quality features as Paint-grip, Bonderized steel...one piece construction... 5-year guaranteed copper-backed mirrors...high quality finishes...solid brass hinges and stainless steel mirror frames...as well as such famous "firsts" as concealed lighting, round mirror cabinets, tooth brush racks, and others too numerous to mention here.

So if you've been waiting to get into the bathroom with a quality line of cabinets that does justice to a really well-designed, well-built home... wait no more! Now again Miami-Carey is back with three outstanding lines — The Miami, The Cavalier, The Colonial—to fit family budgets of any size!

### *don't forget*

**THE FAMOUS MIAMI-CAREY LINE-UP ALSO INCLUDES . . .** a modern, fan driven, electric bathroom heater that's just what the owner ordered for frosty mornings! A smart, efficient, *comfortable* touch for the most modern bathroom, the Miami-Carey Bathroom Heater does away with "ice box" bathrooms.

The Miami-Carey Line-up doesn't

stop there! From access doors to soap dishes, from towel bars to door stops...there's a full line of chromium accessories to really set-off any bathroom.

But to get the complete story . . .



### *write* **FOR THIS FREE CATALOG**

"Glorifying The American Bathroom" gives you a complete picture of the Miami-Carey line... gives you details and specifications of cabinet units and accessories... spotlights ideas you can use in your business of creating better homes. You'll want a copy handy for reference, for ordering. A postcard request will bring you a free copy by return mail. Address your request to Dept. A-12.

# **MIAMI** *Carey*

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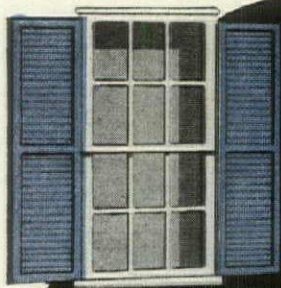
Asbestos Shingles and Sidings • Asphalt Shingles and Roofings  
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**THE MIAMI CABINET DIVISION • MIDDLETOWN, OHIO**

**THE PHILIP CAREY MANUFACTURING CO., CINCINNATI 15, OHIO**

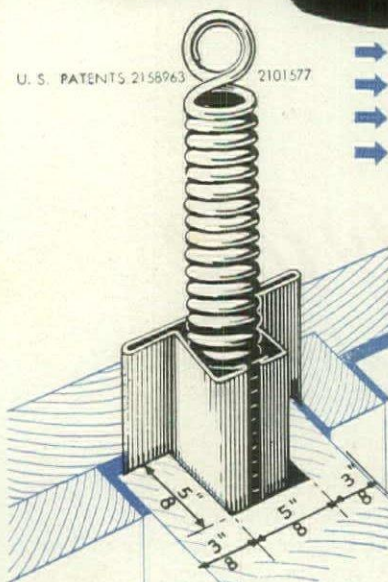




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## MASTER NO-DRAFT SASH BALANCE

U. S. PATENTS 2158963 2101577



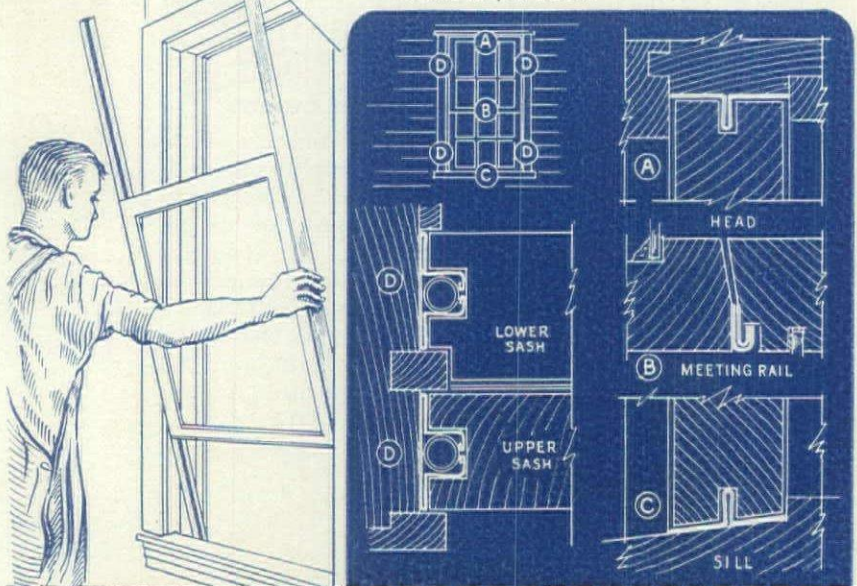
- GIVES SASH FINGER-TIP CONTROL
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Here is the modern, patented and time-tested equipment which provides the most practical and economical protection and operation for double-hung windows. For any window, old or new, Master No-Draft Sash Balance can be installed quickly and easily for life-time service and satisfaction.

Properly tempered, correctly tensioned springs give upper and lower sash perfect balance. Metal housing, self-adjusting to the shrinking or swelling of the wood, provides metal runways for the sash that never need painting. They will not rust. They eliminate sticking, binding and rattling.

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**COMBINATION SINK.** Thor Automatic Sink—Clothes Washer and Sink In One Unit. Thor Corp., 2115 South Ave., Chicago, Ill. 4 pp. 8½ in. x 11 in.

Detailed dimensions, roughing-in data and general specifications for the Thor Automatic Sink Unit, Model 250 C contained in this folder. Drawings illustrate the elements which comprise the clothes and dishwashing assemblies which fit into the Thor Automatic Sink. Information on how these assemblies are installed is also included.

**BATHROOM PLANS.** Modern Bathroom Plans. Plumbing Heating Industries Bureau, 35 East Wacker Drive, Chicago, Ill. 15 pp. 3⅞ in. x 8½ in. Price 10 cents.

Devoted exclusively to the planning and arrangement of bathrooms and powder rooms, this booklet presents 34 of such rooms designed for convenience, safety and usefulness. The plans were developed to serve a three-fold purpose for the prospective homeowner or modernizer: suggest plans for family bathrooms; show economical combinations of rooms and fixtures and indicate how it is possible to obtain bathroom efficiency in minimum areas. Plans, scaled ¼ in. = 1 ft., are divided into the following categories: family bathrooms, compact bathrooms, minimum bathrooms, comparative arrangements, powder rooms and combinations.

### REQUESTS FOR INFORMATION

NEW ZEALAND LIGHTCRETE & CONCRETE CO., LTD., manufacturer, G.P.O. Box 842, Wellington, New Zealand, desires information on building materials and equipment which could be manufactured under license in New Zealand.

GIANCARLO POLO, Via Porte Di Sopra 24, Lendinara, Rovigo, Italy, desires information on prefabrication and modular design.

PAUL A. WILHELM, architect, 1010 East Washington Lane, Philadelphia, Pa., requests literature and information on materials and equipment related to hospitals and housing that are readily available in that area.

R. L. ZERWER, 7234 Woodley Ave., Van Nuys, Calif., seeks information on inexpensive theater construction for neighborhood theaters with seating capacity of 600.

### REQUESTS FOR LITERATURE

PAUL H. AYER, architect, 327 Moronet Building, Bakersfield, Calif.  
J. F. BROWN, Associated Architects-Engineers, Los Alamos, N. Mexico.

COLEMAN & COLEMAN, architects, P.O. Box 212, Landisville, Pa.  
COLUMBUS TECHNICAL SCHOOL, 106 W. 63rd St., New York, N. Y.

I. GELB, architectural student, No. 1, Hall Road, Sea Point, Cape Town, South Africa.

FRANK GRAD & SONS, architects and engineers, 1633 Connecticut Ave., N.W. Washington, D. C.

FRED W. GUINN, draftsman, 900 Branard St., Houston, Tex.

HOWARD H. HALPERIN, architectural student, 3522 W. Ogden Ave., Chicago, Ill.

DONALD O. LOOMIS, architect, 114 South Los Angeles, Anaheim, Calif.

K. L. MEHTA, engineer and architect, The Travancore Rayons Ltd., Via Alwaye Rly. Stn., North Travancore State, Perambavur, India.

EDWARD D. MILLS, architect, 38A, Soho Square, London W. England.

STANLEY C. PODE, architect, 391 Delaware Ave., Buffalo 2, N. Y.

TELCHIN & CAMPANELLA, architects, 22 W. 48th St., New York, N. Y.

UNIVERSITY OF WASHINGTON, School of Architecture, Seattle, Wash.

WOERNER & WOERNER, architects, 141 Church St., New Brunswick, N. J.



# SEVEN-STORY BUILDING GROWS 14 FLOORS TALLER

## General Electric Q-Floor Wiring System Selected to Meet All Present and Future Requirements

Nearing completion in Houston, Texas, is an addition to the National Standard Building that will make it 21 stories tall and, at the same time, provide the complete electrical flexibility of General Electric Q-Floor wiring with Robertson Q-Floors. This addition to the former seven-story structure was possible only with lightweight Q-Floors, which have the advantage of including raceways for power, telephone, and other services right in the floors as they are laid.

### Q-Floors Are Quickly Installed

Because Q-Floors are made in large sections, and can be laid as soon as the structural framework is completed, they contribute immensely to the speed of erection of any structure. The Q-Floor, once in place, becomes a working platform for other trades employed on the same job.

### G-E Wiring Keeps Buildings Electrically Young

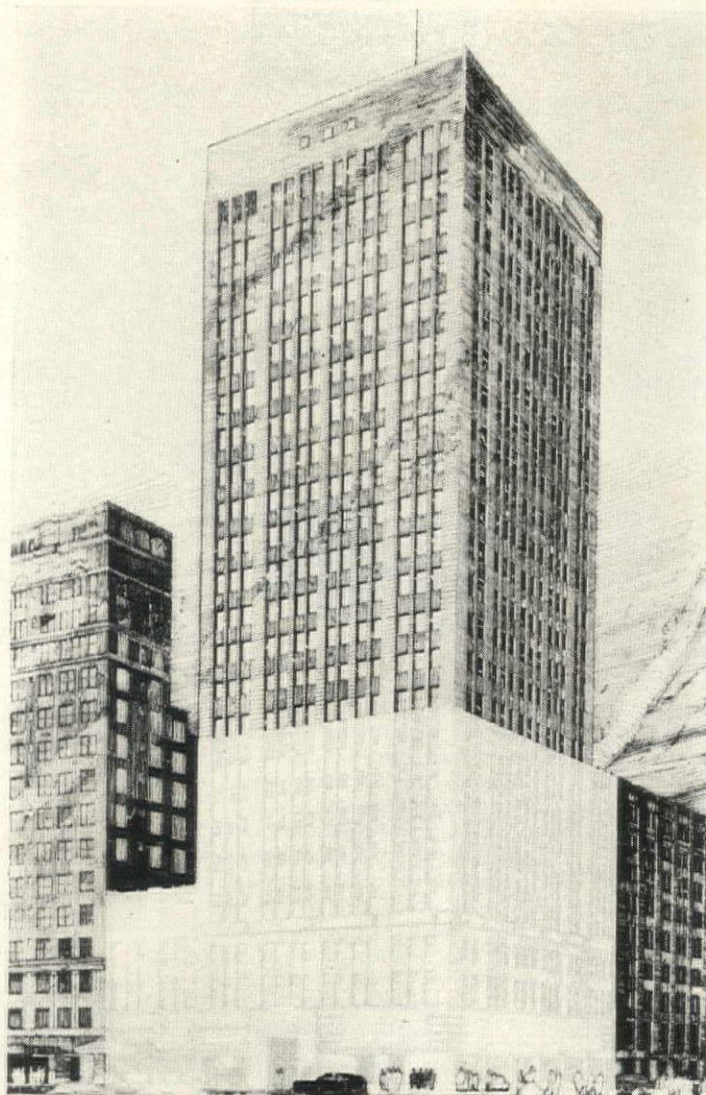
Buildings equipped with General Electric Q-Floor Wiring never become electrically obsolete. At any time during the life of the structure, new wiring can be added, or circuits removed, without tearing up floors or interrupting occupants' activities. It's easy to tap an outlet into Q-Floors—anywhere on 16-inch centers.

For further information on General Electric Q-Floor Wiring, write (on your letterhead) for a free copy of the *Q-Floor Wiring Data Manual*—address Attention C74-124, General Electric Company, Bridgeport 2, Connecticut.

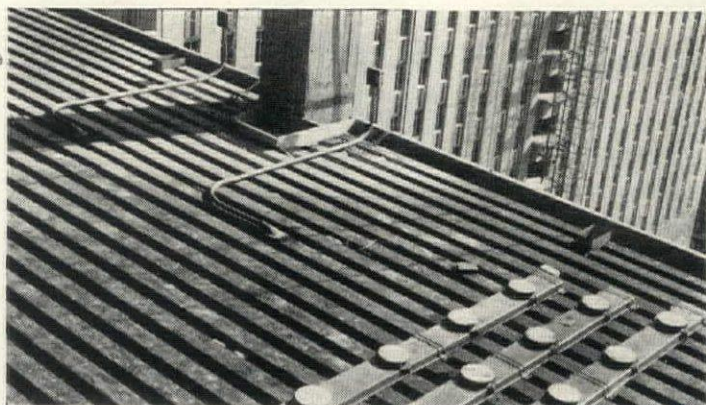
*Q-Floor is manufactured only by the H. H. Robertson Company, Pittsburgh, Pa. Samples can be seen at any G-E Construction Materials or Robertson District Office.*

#### CONSTRUCTION DATA

Architect: A. C. Finn  
Structural Engineer: Robert J. Cummins  
Mechanical Engineer: Reg F. Taylor  
Building Engineers: W. S. Bellows Construction Company  
Electrical Contractors: Fischbach and Moore of Texas



*Growing from seven stories to 21 stories in a comparatively short time, the National Standard Building in Houston, Texas, will be electrically flexible with G-E Q-Floor Wiring.*



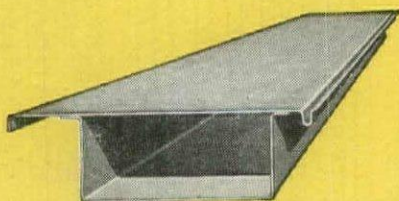
*G-E Q-Floor Wiring utilizes the cells in Robertson Q-Floors as electrical raceways. With Q-Floors, construction is speedy and simple, wiring changes economical, quick, and clean.*

**GENERAL  ELECTRIC**





**STEEL WINDOWS**—Available in a wide range of types including Pivoted, Commercial Projected, Fenestra Casement, Projected and Combination, Residence Casements, etc.—providing windows that are right in size, appearance and operation for factories, offices, apartments, homes, hotels ... in fact, buildings of every type.



**METAL PANELS**—For lightweight, fire-resistant floors, walls, roofs, ceilings and partitions. Variety of types, weights and sizes makes them extremely versatile—suitable for use in many types of buildings. They fit together in jig time, providing a flat surface ready for paint, plaster, linoleum, plywood or other material of your choice. Cellular types provide space for insulation or raceways for wires, pipes or other service facilities.



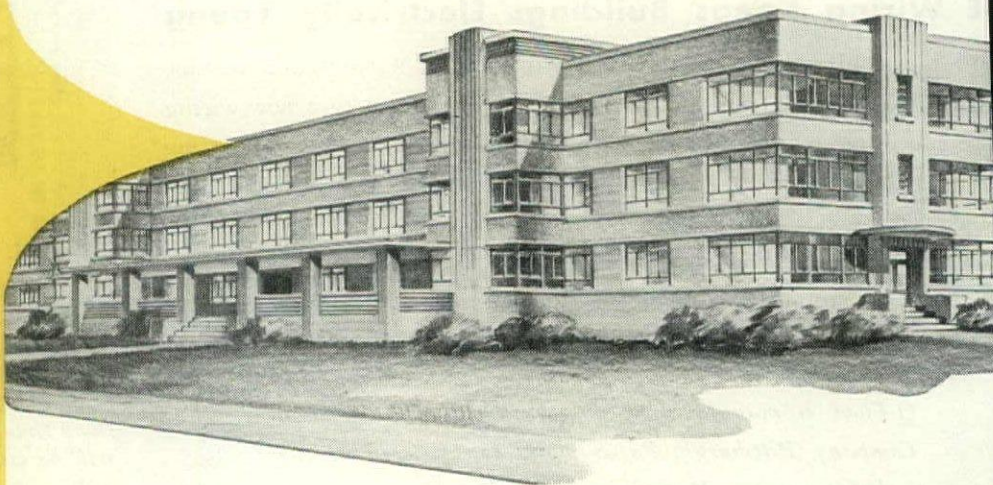
**STEEL DOORS**—Standardized to save you time and money. They come complete with hardware, many with frames—reducing fitting time to a minimum. Available in swing and slide types, in single and double widths. Also turnover and vertical lift doors. Rugged construction assures continued easy operation.

# Let's take the **JIGSAW PUZZLE** out of building

Standardization is the key. Not necessarily standard buildings—but standard parts so designed that they fit together quickly with a minimum of trimming and adjusting.

Fenestra Building Products have been standardized in units which co-ordinate with modular dimensions currently used in modern construction. They keep on-the-site work at a minimum—that saves money. And standardization means lower first costs through manufacturing economies.

This has been accomplished without hampering design freedom. There's a wide choice of types and sizes in each kind of Fenestra Building Product. The three illustrated here are merely representative of broad families of products—enabling you to select a product that's *right* in every respect for your building—and *still* benefit from standardization. A glance at the Fenestra sections in Sweet's Architectural File (16a-9 and 3c-1) will convince you on this point. Look them over—better yet, write or call us.



## *Fenestra*

### **BUILDING PRODUCTS**

Detroit Steel Products Company, Dept. AF-12

2251 East Grand Blvd., Detroit 11, Michigan





120 MILE PER HOUR HURRICANE...



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"...not in one instance did we have any blown-off Tite-On Shingles or go-backs after the hurricane."



"...my Tite-On roof is intact, while the roof next to us, just completed, suffered considerable damage."



"We received several thousand calls to repair damage done by the hurricane...no complaints on Tite-On Shingle roofs."

### There's a Tite-On Shingle for Each Purpose

**Dubl-Coverage Tite-Ons for new roofing**—they give complete double coverage over the entire roof area.

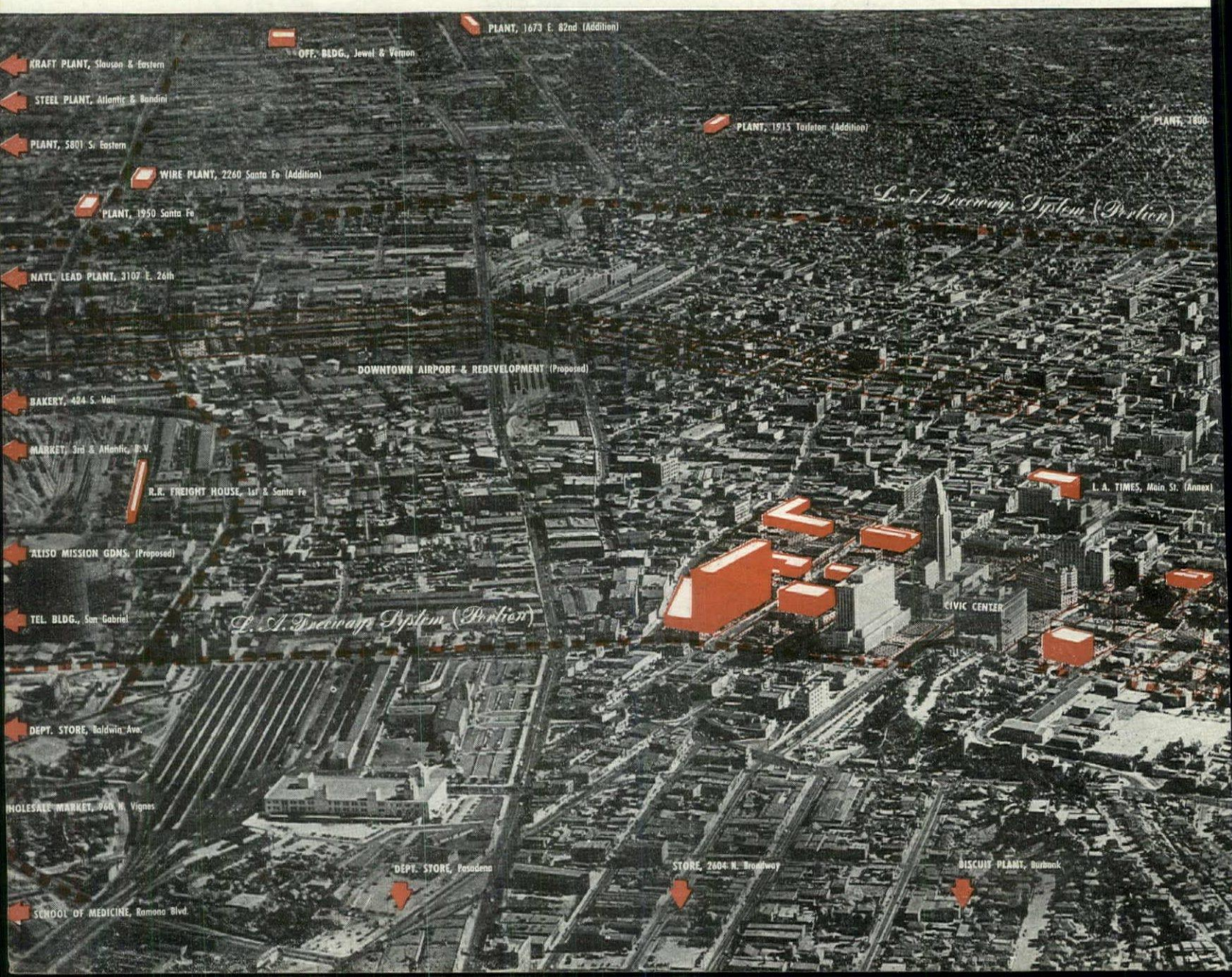
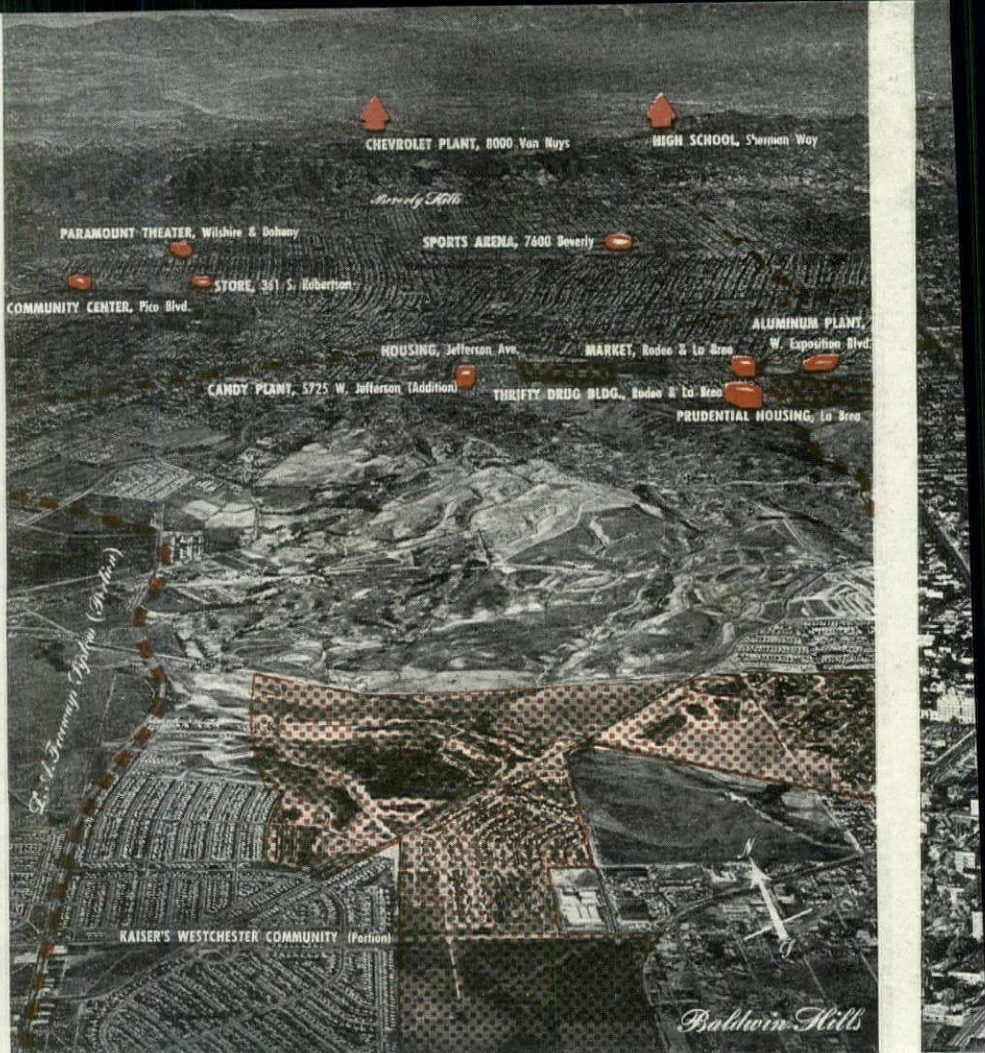
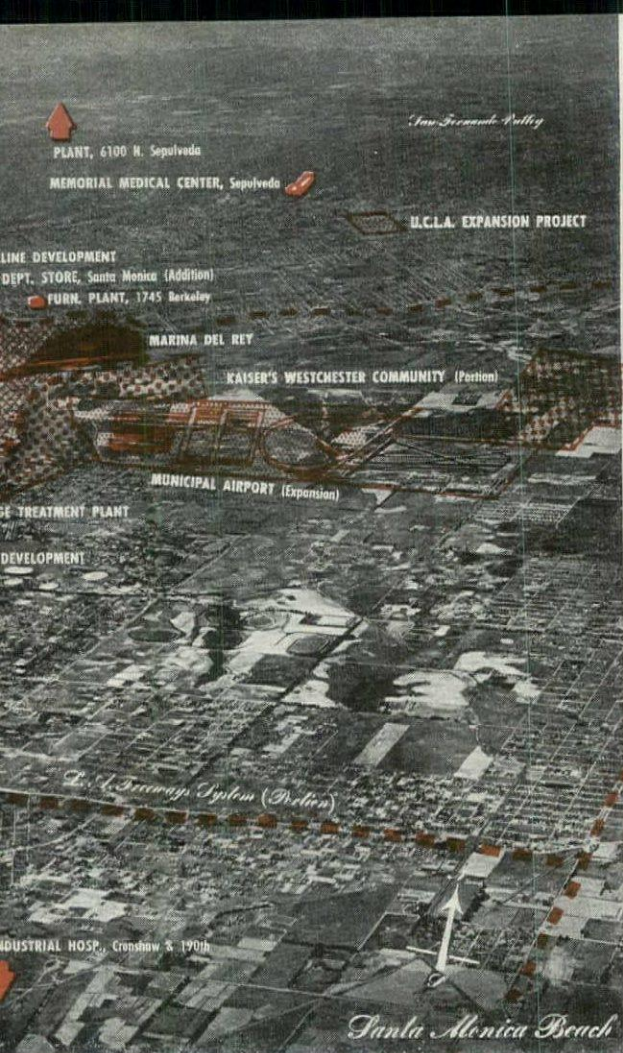
**Standard Tite-Ons for re-roofing**—applied right over old roofing, they give the same wind-proof protection at a savings in cost.

**RUBEROID**

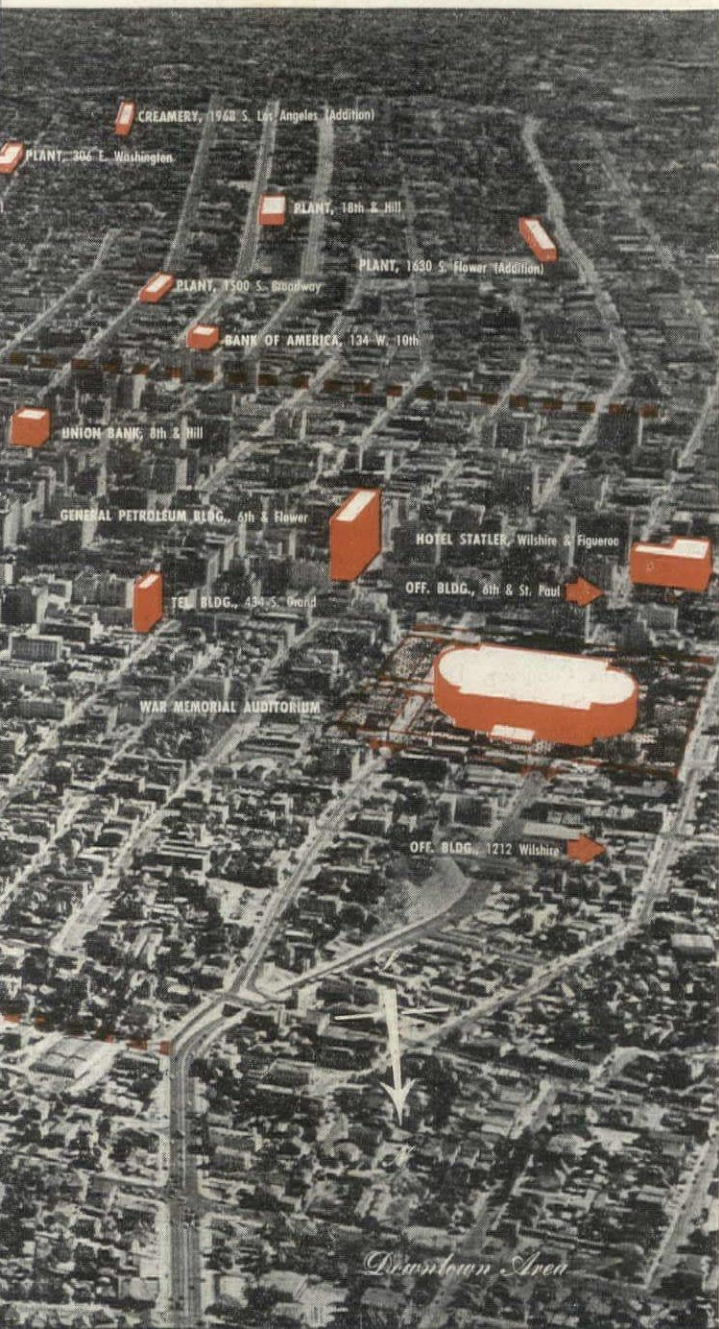
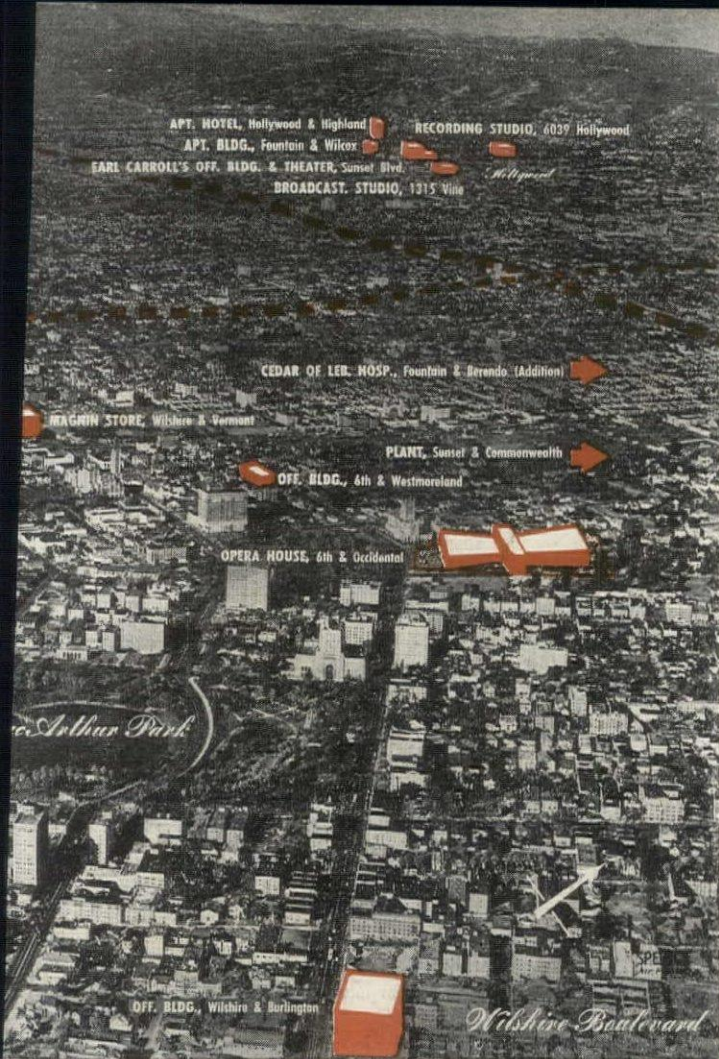
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Made only by The RUBEROID Co.  
Executive Offices, 500 Fifth Avenue, New York 18, N. Y.









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is truly modern...*

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Silbraz joints are leakproof, vibration-proof, and corrosion-resistant. They make the ideal connection for all piping systems where "B" copper tubing or brass pipe is used.

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**Walseal® Valves and Fittings  
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**WALWORTH**  
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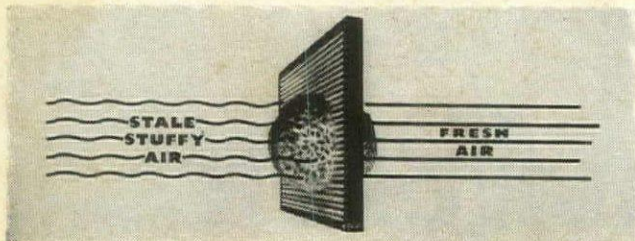
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## Dorex Air Recovery Units

cure such difficulties by this simple method  
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AIR DIFFUSION • AIR PURIFICATION • AIR RECOVERY

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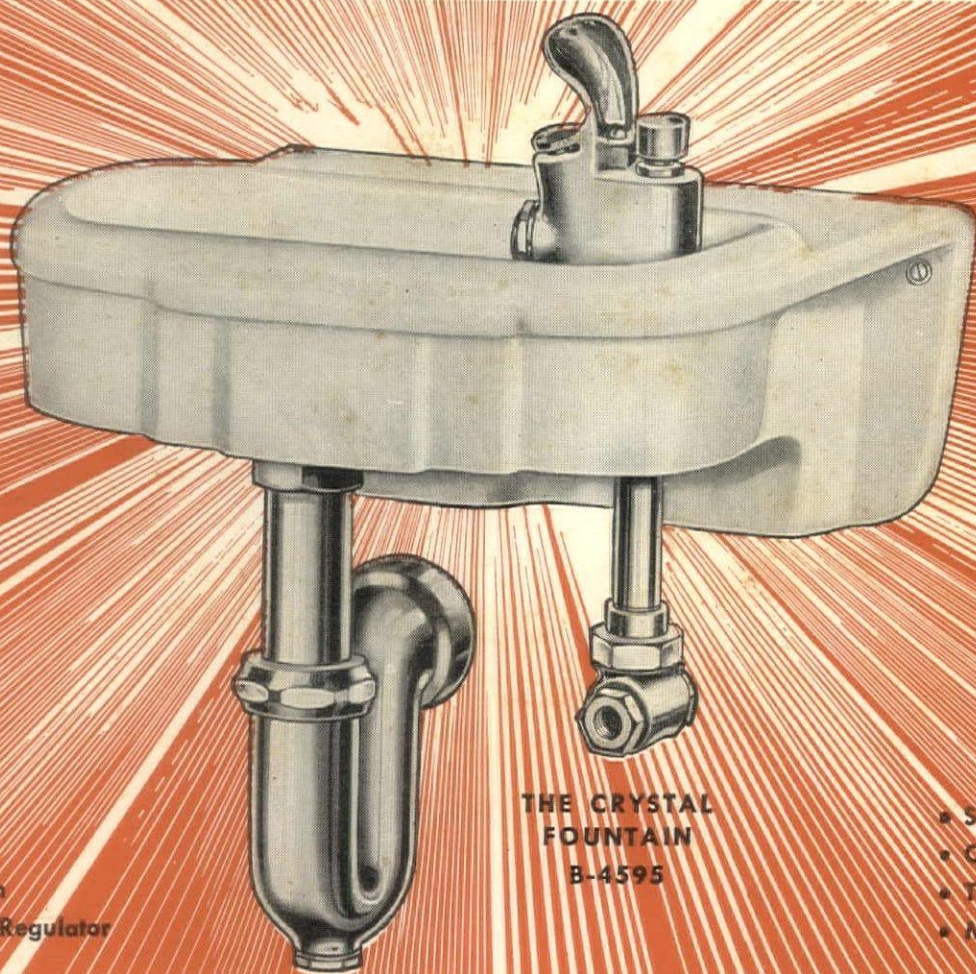
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Chrome-Plated Fittings—with Non-Squirting Bubbler



THE CRYSTAL  
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- Easy to Clean
- Easy to Keep Clean
- Automatic Stream Regulator

- Sanitary Bubbler
- Chrome-Plated Fittings
- Trouble-Free Strainer
- Moderate Price

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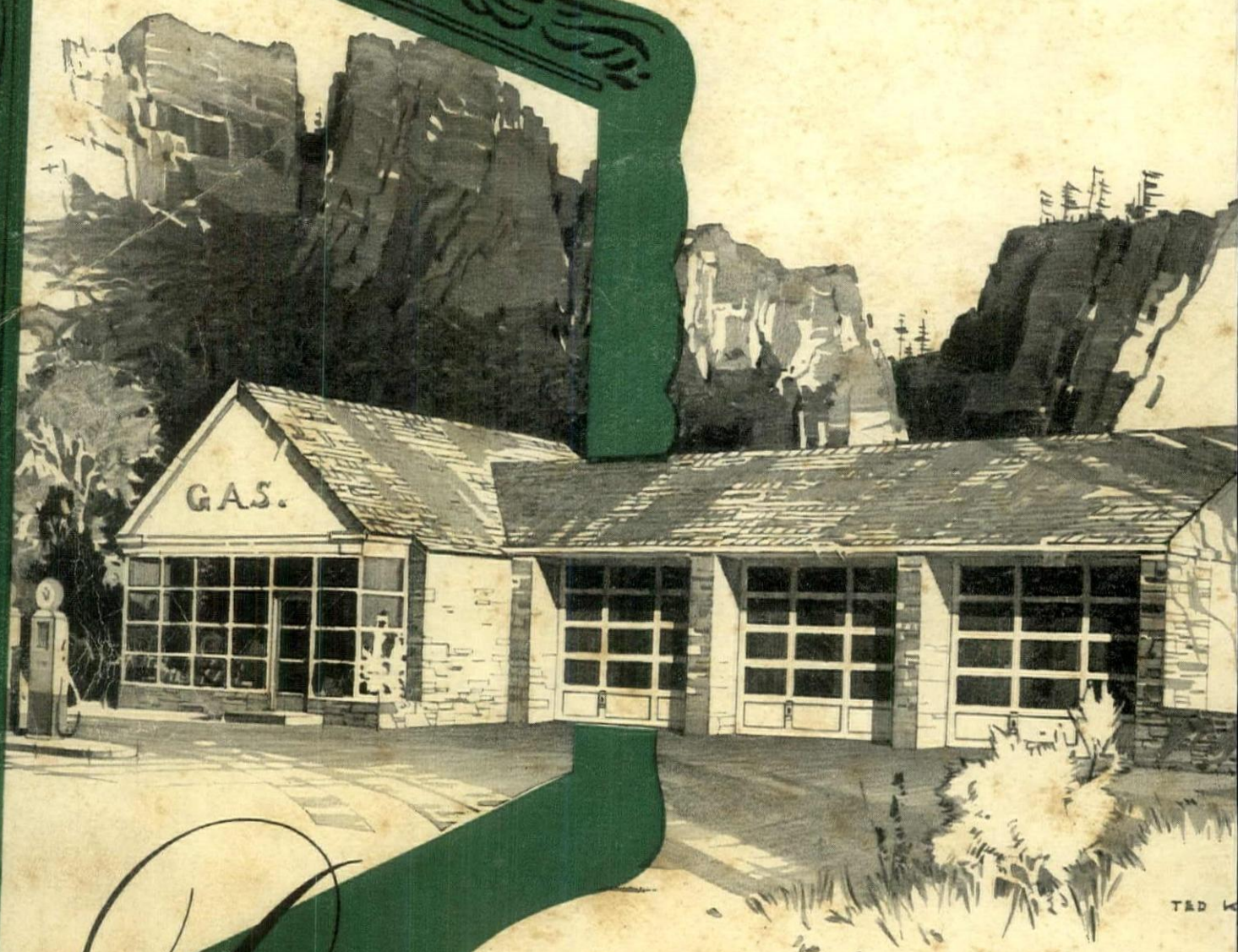
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WITH THE  
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