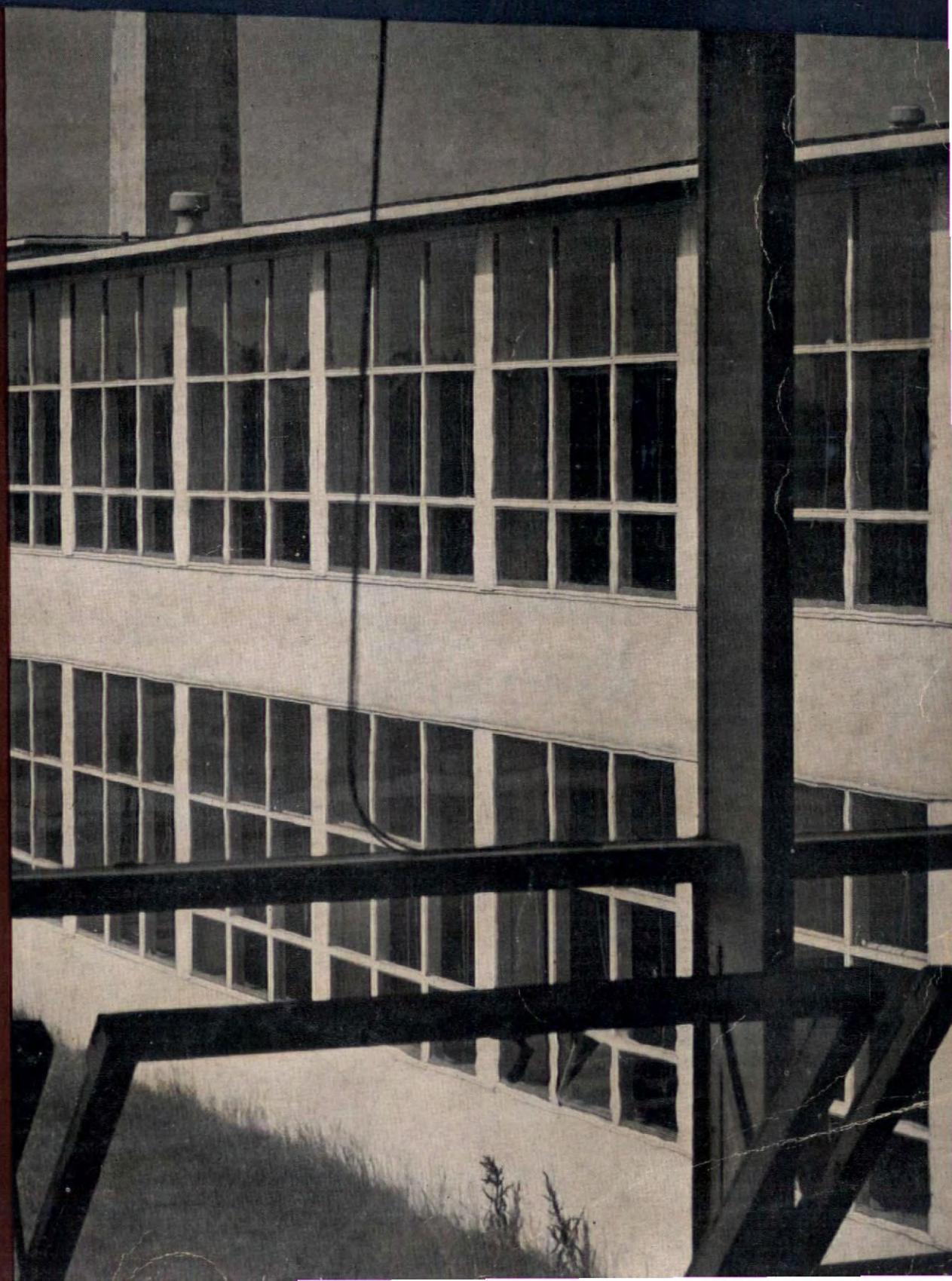


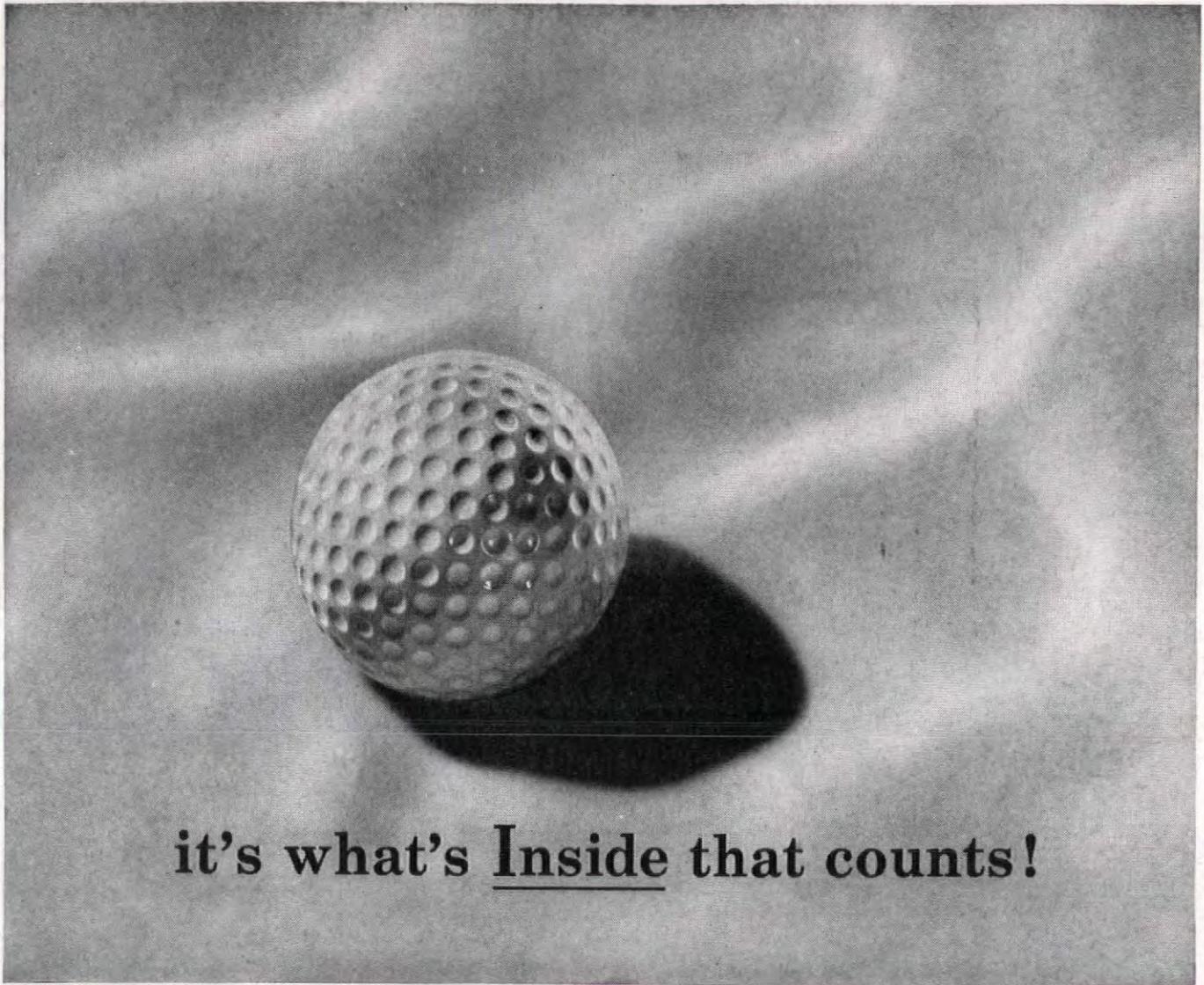
The Architectural

# FORUM

Magazine of Building



December 1946



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# FORUM

MAGAZINE OF BUILDING

DECEMBER 1946



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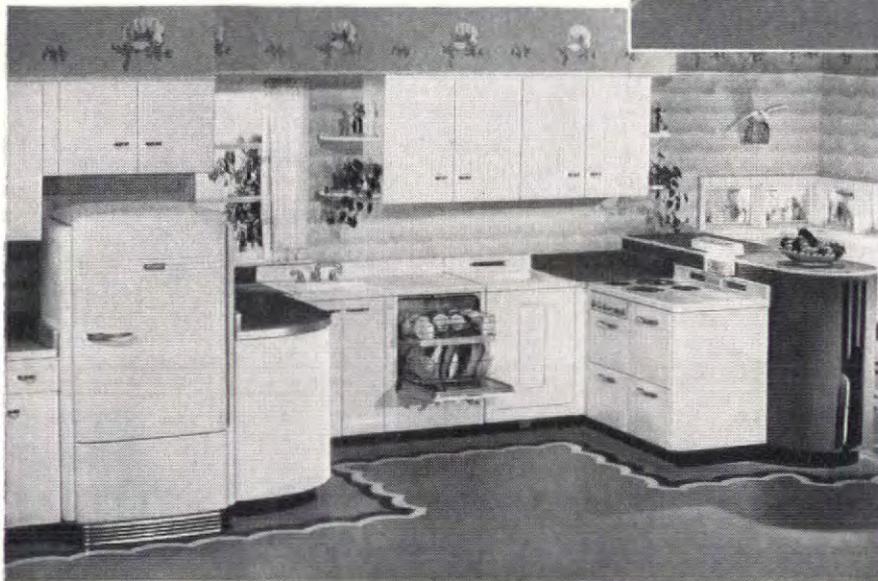
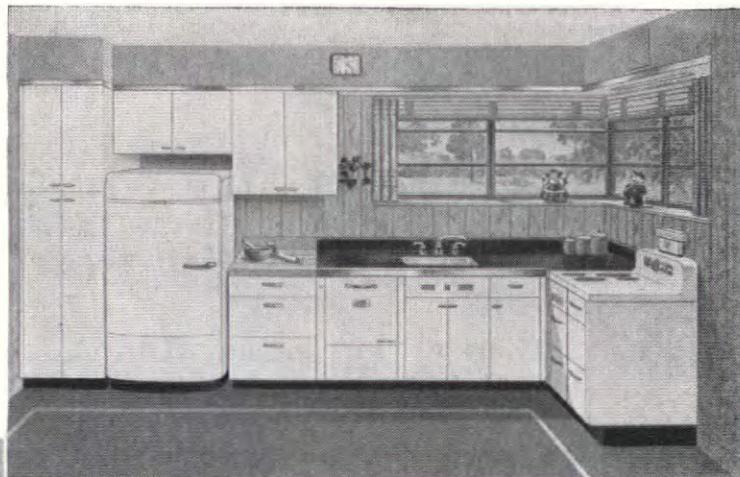
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**BUILDING MONTH.** Between Election Day and Thanksgiving lay more than the turn of party power. In that brief three-week interval the guard changed all along the economic line. American business suddenly found itself free to come and go across price boundaries; federal wage regulation toppled. And finally, like an ironic commentary on the economy's new-found freedom, came a crippling coal strike to menace hard-won progress toward reconversion.

Wilson Watkins Wyatt was ready to call it tether's end. First, price release on building materials threatened to squeeze out low-cost homes. What, he asked, would be the meaning of a priority system which left veterans the unpalatable privilege of having first bid on materials priced beyond their reach? Next, rent ceilings were scheduled for modification. Up the flue, then, would go the average veteran's bid for a modest rented apartment. Finally, as the last explosive blow, the Expediter now met opposition to his program of aid for prefabricators in the very bosom of the government family. If the RFC refused to approve loans to a new prefab firm or the WAA to give it preference over other industries in obtaining surplus plant facilities, (as had happened in the case of the Lustron Co.) industrialized housing would fail to reach mass-production dimensions.

How far would, or should decontrol go? This was the knock-down, drag-out topic of the month. On one side labor, consumer groups and the government fought a losing battle against the scuttling process. On the other, almost all of business cried for a clean sweep of all restrictions. Both sides might have found one point unarguable. Building would face a tough go of it, half-captive, half-free. With rising labor and materials costs, non-housing construction would be able to out-bid home builders confined to a \$10,000 top cost and rentals of \$80 a month. It would be better to have either more control—or less.

Less is what it seemed bound to be. Part of the consequence was already apparent three days after building materials slipped out from under OPA price lids. A ten per cent price advance had added \$350 to the cost of a \$10,000 house. NHA experts figured that the same house would reach \$13,000 in a few months. Government loan officials glumly asserted that the market was being pumped full of helium. Federal Home Loan Bank Administrator John Fahey predicted a "mortgage panic". He said: "we are in the midst of the most serious inflation of real estate prices in our history . . ." Builders and real estate men, however, were unworried. Their argument: speedier building of higher-priced homes would result in cheaper hand-me-down accommodations. The alchemy of a "free" market, they trusted, would somehow brighten at once both Building's prosperity and the veterans' hopes.

Rents were the range along which the decontrolers would stage their final battle. OPA officials were ready to concede a five per cent step-up, but OPA's housing rent advisory committee championed a 15 per cent boost. Landlord groups staged a nationwide "strike" against continuation of rent control. Meeting in Oklahoma City, members of the National Apartment House Owners Association reported that 300,000 rental units had been closed in a demonstration against continued rent curbs. In Texas, alone, 10,000 units were being held off the rental market. In Colorado Springs,

Colo., landlords were advised to let their tenants "sit and freeze" as protest against rental ceilings. But not all landlords liked such tactics. Hugh McKeivitt, president of the Apartment House Owners' and Managers' Association of San Francisco called the strike a "millionaire's gesture". National strike action, pressed by many landlord groups, was finally turned down by the Oklahoma City convention.

As the FORUM went to press the probability was that the administration would leave the problem of ditching, or overhauling rent control in the hands of the 80th Congress. In the Senate, Republican members like Albert Hawkes, (N. J.) Kenneth Wherry, (Neb.) and Bourge Hickenlooper, (Ia.) had already given notice that they would introduce decontrol measures.

Also hanging fire at month's end was the resolution of Wyatt's controversy with the RFC and WAA over the government sponsorship of prefabrication. On this issue, it was said, Wyatt would throw down his challenge to the Administration. Either the President demonstrated that he would stand behind the national housing program, or else Wyatt would resign.

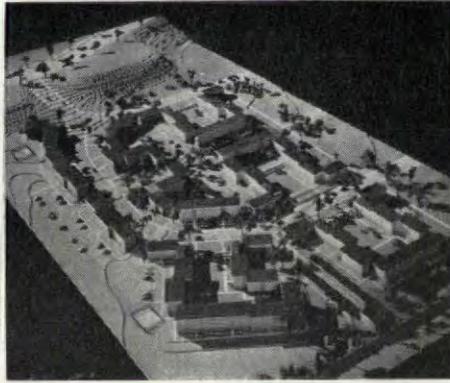
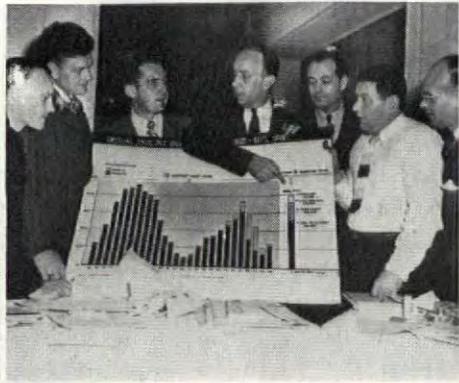
As the end of the year came steadily closer, Wyatt ruefully reminded the President that he had been instructed to "make no little plans". The year had already been one in which more new kinds of governmental persuasion had been applied to housing than at any previous period in U. S. history. The result was not inconsiderable. But, despite a probable showing of more than 400,000 completed houses, no one was satisfied: neither the builder nor the materials manufacturer and least of all the man the shooting was all about—the homeless veteran.

## POST-CRISIS PROGRAM

### After the battle what remains?

Even if Wyatt reached for his hat, somehow the administration would have to patch up the remnants of its battered program. What changes might be expected?

Revision, if not elimination, of production premiums seemed inevitable. If prices and production of scarce building goods rose, premiums to manufacturers would not be necessary at all. But in immediate need of revision would be the plywood and hardwood flooring plans, each containing "pass through" clauses which permit manufacturers to pay their suppliers a bonus over the OPA ceiling.



**THE MAN IN THE MIDDLE** was Wilson Wyatt. Rental units were under way, but some, like the Phoenix, Ariz. veterans housing project at left, were so bad as to be termed "monstrosities" and ordered abandoned, others, like the well-planned \$3.5 million apartment project planned by William Joern and Sons, Chicago (right), were still to be built. In center, Wyatt adds up the score for members of the Legion Housing Committee.

The entire priority procedure would probably come in for some overhauling. Long suggested has been the elimination of such time-consuming procedures as compulsory presentation of plans and specifications to the FHA and inspection at the site. The process might well be slimmed down to simple application by the builder who obligates himself to sell or rent veteran's dwelling units at controlled ceilings.

These rates have been the most bitterly disputed parts of the Wyatt program. Builders now anticipate that they will be caught between the \$80-rental, \$10,000-sales price ceilings and upward surges in building costs. Yet, most veterans can hardly afford dwellings at even these prices. Likelihood is that there will be some give—a general expansion of controls on an individual case basis, without loudspeaker announcements.

Many expected that a further measure of encouragement might be offered to builders of rental housing. One way of doing this would involve the RFC in granting second mortgages on rental projects, with RFC bridging the gap between the equity of shoestring developers and the lower limit which FHA is willing to insure.

## POLICY-MAKERS

### Congressmen who will govern building measures.

In the bobtail last days of November it began to look more and more as though most of the big decisions would be made by Congress, few by the possum-playing administration. Elimination of rent controls or even a major rent increase seemed likely to be left up to the new legislature, though some token advance might be granted before Congress met in January. Congress would probably settle the fate of NHA's emergency powers by deciding on passage of a retrenchment resolution shutting off the President's war powers. General housing legislation of some sort was sure to be undertaken: while the new Congress might find itself unable to stomach the W-E-T bill, it would probably feel obliged to draft some substitute. The 128 new members of

the Senate and the House would find house-hunting in still-crowded Washington a problem pressing enough to keep them reminded that getting more homes built was the knottiest domestic issue before the 80th Congress. Finally, Congressional fireworks were scheduled over housing by both the House Banking Committee and the Senate War Investigating Committee, who already promised investigations of the national housing program.

The G.O.P. line-up disclosed six most influential housing policy-makers:

Senator **Taft** who would take the post of Senate Finance Committee chairman, though not in an official position to take active interest in housing measures, most likely would press for re-introduction of the W-E-T bill. Whatever markdown he accepted, the cautious, conservative Ohio party leader would incline to hold out for some measure of planning, perhaps accepting elimination of the public housing features of his bill.

Senator **Owen Brewster**, of Maine, the ranking Republican member of the War Investigating Committee, would direct the dredging of the Wyatt pond requested by Republican Senator Ferguson a month ago. Both Ferguson and Brewster, G.O.P. stalwarts of the Pearl Harbor investigation, promised more than a fishing expedition. Brewster had already tipped his hand by his pre-election disclosure of a committee "exposé" of Administration war-housing operations.

Chairmanship of the Senate Banking Committee, most critical Congressional channel for housing legislation, would probably go to New Hampshire's tough-minded Senator **Charles Tobey**, one of the

Administration's few Republican supporters on housing and price control. On the house side, however, Representative **Jess Wolcott** of Michigan, able, shrewd opponent of price control, would be likely to nullify any Senate attempts to retain control. As chairman of the House committee on banking and currency, Wolcott will oversee any house amendments to the veteran housing program, will handle the W-E bill, should it be revived.

Other house members at the controlling housing legislation during the coming session will be **Harold Knutson**, of Minnesota and **John Taber** of New York, chairmen of the influential Ways and Means and Appropriations Committees.

Loud-mouthed, ultra-conservative **Harold Knutson**, who will have supervision over a tax bills in the new house, bodes no good for measures aimed at supporting any housing law; penny-pincher **Taber**, (who proposes firing a million government employees) promises to use the axe on a expenditure, housing included.

Augury as to what a Republican Congress would do to maintain or destroy measure of control over building was curiously confused. On the one hand there were the records and opinions of the men in the saddle, adding up to a policy of freeing industry from as much control as possible on the other hand there was this: victor had put the Republicans on the spot to demonstrate that they could provide roof overhead, as well as criticism.

## HOUSING TRIAL

### Legion holds Washington hearings.

Biggest U. S. veterans' organization, the American Legion staged the biggest public examination of the housing question. In Washington, and in a score of cities, its Special Housing Committee, (see photo above) listened to gripe and counter-gripe. It heard from veterans and industry groups from the CIO, the AFL and from Wilson Wyatt. Its question, to all: "Where in Sa Hill are the houses?"

When everyone else's answers were in, the Committee did not hesitate long over its own conclusion. It recommended: abolition of the FPHA and the Office of Housing Expediter; establishment of a control board with veteran representation; FHA 100 per cent guarantee for 40-year loans to veterans; FHA 100 per cent guarantee for rental projects under \$500,000; transfer of rent control authority from OPA to FH.

## MEN IN CONTROL

Taft



Brewster



Tobey



Taber



Wolcott



Knutson



# PREFABRICATION

## GOVERNMENT HAIRPULLING

**Prefab issue sets Wyatt against RFC and WAA.**

If there were to be any low-priced houses at all next year, they would probably have to be prefabs. Watching price decontrol float the cost of the conventional house out of the small buyer's reach, Wilson Wyatt tightened his grip on the one sort of house whose cost he could still anchor through government production loans, purchase contracts and other aid. For a free hand in applying this ballast he was willing to wage a showdown fight.

The fight came promptly enough. Early in the month Wyatt asked the RFC for approval of \$70 million dollars in loans to a dozen manufacturers of prefabricated houses and house parts; got back a flat rejection of all but \$21½ million. Biggest among the rejected loans was \$32 million of recommended credit to the Lustron Corp., a vitreous enamel producer of gas station fronts who was ready to turn out an enameled steel house. RFC had explained: Lustron and the other new prefabbers were putting up too little of their own money as equity, making the loans a bad risk for the government.

Before he could turn around Wyatt got another slap-down; the War Assets Corp. refused to hand the prefab firm a lease on the surplus Chrysler-Dodge factory in Chicago. Reason: only a few weeks earlier it had been formally promised to the Tucker Corp., prospective producers of a bullet-shaped auto. Wyatt had hoped to pry the plant loose with the cry, "houses are more important."

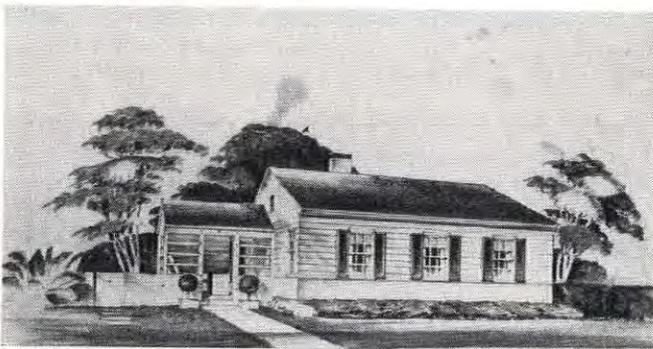
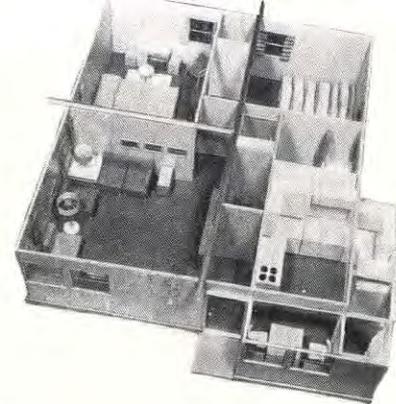
When that had not worked, he had taken up the black-jack of his super-priority compulsions as Expediter, sternly ordered WAA to turn loose the 83-acre plant. Simultaneously he laid into RFC with another directive ordering that agency to grant its funds to Lustron on emergency rather than strait-laced banking terms.

It was a squabble full of personalities. There was earnest, black-haired Preston Tucker who came up with the dark story that a Washington lawyer had tried to shake him down for pressuring against the NHA, and there was hoarse-voiced, big Carl Strandlund, president of Lustron. There was Wilson Wyatt and President's friend George Allen, master of the RFC who met to iron out the matter and smilingly confirmed their unaltered disagreement. At month's end the decision seemed to be in the hands of the President and the Department of Justice.

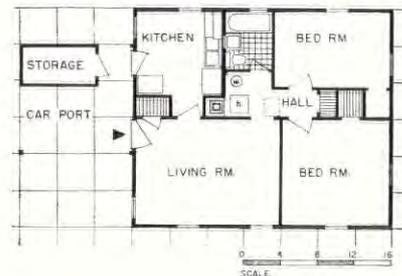
More important than the specific outcome of the Lustron affair was Wyatt's battle for backing from his fellow members of the executive family. While this basic issue stalled, the whole progress of the Expediter's prefab program was at a standstill. Guar-



**PREFAB GUARANTEED MARKET CONTRACT** went last month to manufacturers of stressed-skin plywood house above, American Fabricators, who will turn out 7500 units. Cost, with land, \$6,800.



**KNOX CORPORATION** of Thomson, Ga., was only other recipient of market guarantee, last month. House, designed by Chapman and Evans, is wood-plywood. Cost, \$5,500 to \$7,400.



**LUSTRON HOUSE**, most headlined recent prefab, is trim, up-to-date design. Made entirely of non-glossy enameled steel, inside and outside surfaces are permanent, washable. Cost, around, \$7,000.



**FIRST AIRCRAFT PREFAB** to be unveiled is this model of aluminum house slated for manufacture by Consolidated Vultee Aircraft. Convair house has been approved for future contract. Cost, \$7,000-8,000.





**MEN ON THE BOARDWALK.** Between sessions at the Atlantic City convention of the NAREB, delegates strolled, discussed decontrol drive. Left to right, new president Morgan L. Fitch, Joseph Ford, Curt Mack, Henry Bunker, Bob Armstrong, Charles Rush, David Bohannon, Newton C. Farr, Joseph Thorsen, Ronald Chinnock.

anted market contracts now only numbered four. The second two, signed last month, went to American Fabricators, Louisville, who promised 7,500 factory-built plywood houses, and the Knox Corporation, Thomson, Georgia, who would produce 6,000 prefab wood-plywood houses next year. Knox was also the recipient of a production loan; only other prefab firm that had gotten RFC aid was the General Panel Corp. of California. But Wyatt pointed out that many prefab contracts simply waited on loan approval—most new manufacturers needed both inducements to go into production. From the list of loan candidates which RFC had rejected, he said, about 100,000 homes might be expected next year, if NHA won its case.

Some manufacturers loomed on the horizon who were big enough not to need loans from the government. Consolidated Vultee Aircraft released a picture of a model aluminum house it was prepared to produce and at month's end was ready to sign a government contract for mass-production in its own plants.

## BUILDING BLAST

### NAREB and C. of C. want controls off.

They were 5,000 strong and there was blood in their eyes. From every part of the country they had come—delegates to the 39th annual convention of the National Association of Real Estate Boards, and they were mad. In a week of sessions that broke all previous precedent by including no top government spokesman, they had listened to a fire and brimstone attack on government in business. Unanimously they passed a list of resolutions that made no slightest compromise with the devil, conspicuous by his absence, who went by the name of Wilson Wyatt.

It was the largest NAREB convention ever, and probably the most aroused. Lunging into the current battle over decontrol of building the delegates called for the elimination of all rent ceilings, of public housing, of the NHA system of priorities for veterans. They advocated a taxpayers' and landlords strike to break Federal controls, exhorted each other to meet Congress "on the Capitol steps".

Getting down to specific steps the Association acknowledged that immediate rent release might work hardship on tenants. It advocated therefore, a "cushioned" process of decontrol which would allow an immediate rise of 15 per cent, full removal of ceilings later on.

A week later, the Chamber of Commerce's Industry Advisory Council, representing 100 Trade and Professional Associations in the building field, spoke as uncompromisingly. After two days of discussion they agreed upon a program which called for "removal of all controls and establishment of a free market".

Yet neither the NAREB nor the Chamber's voice was really that of all of building capital. One important group, the home-builders, was seriously troubled by the prospect of ripping all controls from building. The National Association of Home Builders, member group at the Industry Council sessions, refused to go along with the resolution. Its spokesmen contended that while materials were still scarce veterans must be given preference in the purchasing of new homes and the rental of new units. Otherwise, argued NAHB, veteran groups would demand of government the direct construction of housing which home-builders themselves most disapproved.

## BUILDING MONEY

### PACKAGE MORTGAGES

#### A pre-war idea comes of age.

One prewar idea that has put on long pants in recent months is the "packaged mortgage," finally come of age through 1) recognition by government loan authority; 2) large-scale adoption by home builders, sparked by appliance firms.

In a directive to its loan guarantee officers, the Veterans Administration has cleared the way for GI loans tying home appliances, house and land in one easy-to-carry bundle. VA liberally requires only that the equipment combined into the purchase of a veteran's home "be in full keeping with the class of home in which it is installed." Argues Thomas King, head of the VA Loan Guarantee Section: "It is good business to get items of equipment neces-

sary for running the average household included in the mortgage. It saves the veteran money just when he is likely to be strapped. The ex-GI gets long-term credit at 4 per cent instead of having to buy such appliances as stoves and refrigerators in the open market at high cost rates."

Builders have not been slow to take up the selling advantages of package-mortgaged houses. Also pushing the movement into high gear has been the recent bid of appliance manufacturers for home builder business. General Electric, hottest on the trail of new direct-sales markets for its all-electric kitchen, has led the way in urging package-mortgage home sales. Last month, all-electric package-loan developments of low cost homes were reported under way in a score of cities. In Pittsburgh, George C. Brown, completing a GE-furnished, 110-unit project in suburban Masontown, announced that he would expand his development to 1,000 homes, spread out into adjoining areas in Ohio, West Virginia and Western Pennsylvania in further projects totaling 5,000 homes. Building newcomer Brown had already scored snap-up sales of his small, fixture-studded products. For payments averaging \$52 monthly on a \$8200 home, the purchaser got a neat cottage with electric range, refrigerator, sink, cabinets, dishwasher, waste-disposal unit, water heater and washer, tucked under the same mortgage wrapping. While the ungarnished house was modest enough (four rooms, unfinished space for two more on the second floor, dimensions, 22 x 28 ft.), GE trimmings made it a good buy at the stretched out rate of a 25-year mortgage.

In St. Louis, H. B. Deal & Co., builders of large industrial, commercial and institutional projects, were deep in the small-home market with another all-electric package-mortgaged house. The Deal two-bedroom brick-and-masonry-walled, 32' 11" x 24' 7" sales package contained the full GE kitchen, metal window sashes, screens and trim. Extra customer tickle was provided by an electric kitchen clock and radio and a kitchen exhaust fan. Price—chopped down into low mortgage payments—was \$9,700, including payments on a 6,000 sq. ft. lot.

**N. Y. TRAFFIC ANSWER**

**Plan Commission offers \$132 million garage and highway plan.**

On the blade-shaped island of Manhattan, traffic is a daily skirmish among embittered motorists, the police, pedestrians. Hardly less contentious are the arguments of the city's traffic problem-solvers, who have waged a Thirty Years War of their own over what to do about it. Last month, the city government took a look at a 44-page, 12 x 17 in. slick-paper report warily titled: "Selected Measures for the Partial Relief of Traffic Congestion in New York City". It was the fifty-first survey of the city's traffic since 1907 and had cost \$80,000. Of its principal recommendations, the City Planning Commission (who had ordered the study made) itself unanimously rejected three of the most important, split on three others. Whatever the plan's merits, it seemed to be heading for the usual tussle. Within twenty-four hours, civic groups pledged to fight the proposals if construction was given priority over schools and hospitals; merchants opposed such specific suggestions as a sub-surface walk beneath 34th St.; the Automobile Club of New York called the plan "inadequate."

Ordered by the Planning Commission in August, the study contained recommendations of the three-man engineer team of Gilmore Clarke, Earl Andrews and Gano Dunn, picked by bossy Construction Coordinator Bob Moses.

Their plan, which would cost about \$132 million to effect, included:

- 1) Off-street parking in 16 municipal garages (12 in Manhattan alone) and three outdoor parking lots for 15,000 cars.
- 2) Installation of 8,500 parking meters in the congested sections of the city.
- 3) Pedestrian underpasses beneath Manhattan's two principal cross-streets—42nd St. and 34th St.
- 4) Construction of two elevated expressways—one crossing lower Manhattan to link the East and Hudson River drives, the other banding its midsection.
- 5) Widening bedraggled Second Ave. into a handsome landscaped thoroughfare.
- 6) Enactment of legislation to require building owners in commercial and manufacturing districts to provide off-street loading facilities within a set time, and amendment of the zoning law to restrict the bulk of future buildings, a piece of advice reminiscent of the city's lately-defeated zoning measure (FORUM, Sept. '46).
- 7) Construction of four bus terminals for intra-city bus lines.

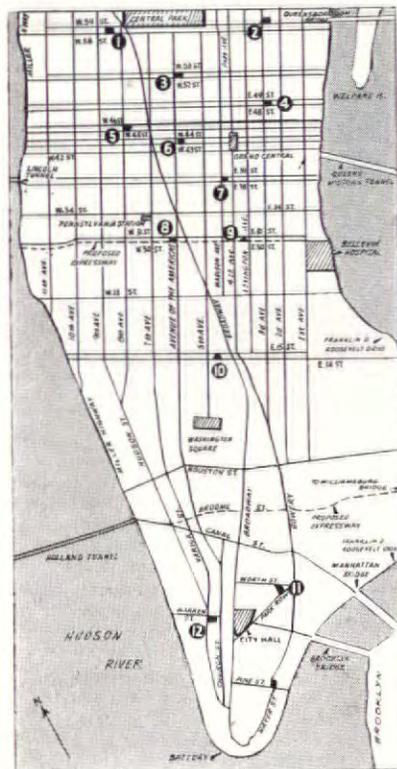
The measure that seemed likely to please everyone was the recommendation that the city finance and build a system of multi-deck parking buildings. All, with one exception, would require substantial subsidy. The exception was a spectacular combination which would tuck a large parking



**NEW MADISON SQUARE GARDEN** to cost \$20 million will be the largest enclosed arena in the world. Designed by New York architects Leon and Lionel Levy, it will be third structure to bear Madison Square Garden name; first, built in 19th century, was actually a garden, actually at New York's Madison Square, blocks further downtown.



**12 GARAGES** have been planned for Manhattan below Central Park (see numbers on map, below). Garages are located to serve theoretical radius of 1,600 ft. In crowded midtown and lower Manhattan, motorists will never be far away from at least one. At right, typical eight-story garage.



**CROSS-TOWN EXPRESSWAY** along New York's 30th St., right, may run from river to river. Proposal has been criticized because it fails to connect Holland and Queens-midtown tunnels.



garage into a mammoth sports arena covering two square blocks. To be built by the Triborough Bridge Authority, the project would be leased and operated by the owners of Madison Square Garden. The Garden Corporation would pay the Authority a share of its profits in exchange for reduced tax charges. Financing of the rest of the parking system would depend largely on the revenue to be derived from garage charges, commercial rentals and income from the parking meter system.

Bound to irritate many people was a proposal which called for building four terminals to receive buses entering the city from the New York-New Jersey tunnels. Bus parking is the hottest issue in New York's current traffic controversy. Ranged on opposite sides are the Greyhound Bus Co., which wants to enlarge its own midtown terminal, and the Port of New York Authority, which has offered to build a single terminal on the West Side, advocated prohibition of Greyhound's expansion near busy Eighth Ave. Distaste for the solution presented by the Plan Commission's consultants was voiced by Commissioner Goodhue Livingston: "In the case of the buses, their report has been of little assistance. The bus situation, from all practical standpoints, remains as much up in the air as it was . . ."

There were other disagreements, major and minor. Three of the seven Plan Commissioners opposed the location of the Midtown Expressway, all of them thumbed down the consultants' contention that the off-street parking provision should be retroactive upon existing buildings. Nevertheless, the Board of Estimate signified its readiness to approve preliminary funds—\$3.5 million—to pay for plans and designs of all the important projects recommended.

## DENVER CODE

**Plumbing and electrical barriers are let down.**

Denver was amply tired of clogging code restrictions. Time and again since the war had ended, Denver builders found that supplies of conventional materials were going to cities closer to manufacturing sources; substitute materials, meanwhile, were kept away by a restrictive building code.

Last month, however, Denver got relief—relaxation of some of the city's most hidebound building rules for the duration of the housing emergency. Action had come when the Mayor's committee on veterans' housing pointed to the incontrovertible statistics of 363 homes stopped short of completion for lack of the lead bends and traps required by the plumbing code, and 859 homes stalled because builders could not get rigid electrical conduit. Under the new law, however, it became permissible to install cast iron bends and traps and use any flexible metal-sheathed wire approved by the National Fire Underwriters. Immediate proof that the code break-through

would mean speed-up in Denver home construction was the disclosure that 800,000 feet of flexible aluminum tubing would be available in Denver the next week.

Denver code reform, prompted by extremity, was scheduled to be crossed off as soon as scarce materials put in an appearance, not later, in any event, than June, 1947. Suggested a few who hoped for more lasting changes—perhaps by then, Denver would have received a lesson in alternate ways of building.

## MILWAUKEE RE-MAKE

**First surplus war plant to be converted to housing.**

First surplus war plant to be slated for conversion into temporary housing was the big, uncompromisingly industrial Milwaukee Ordnance building. Years of factory tenancy (before the war, by the Signal Battery Company) had bequeathed a grim decor to its block-length floor areas: the cement floors were covered with a solid coat of dirt and asphalt; piping and hoist tracks, lighting fixtures and sprinkler networks webbed the 14-ft. ceilings; two floors were cram-packed with storaged machine parts. Yet Milwaukee County officials saw a happy let-out of the housing squeeze in the plant's 40,000 sq. ft. of space. With alterations kept to a minimum, they figured that 300 apartment units could be stitched into its sturdy structure.

The apartments would hardly be elegant. Children could stamp unheard on the mas-

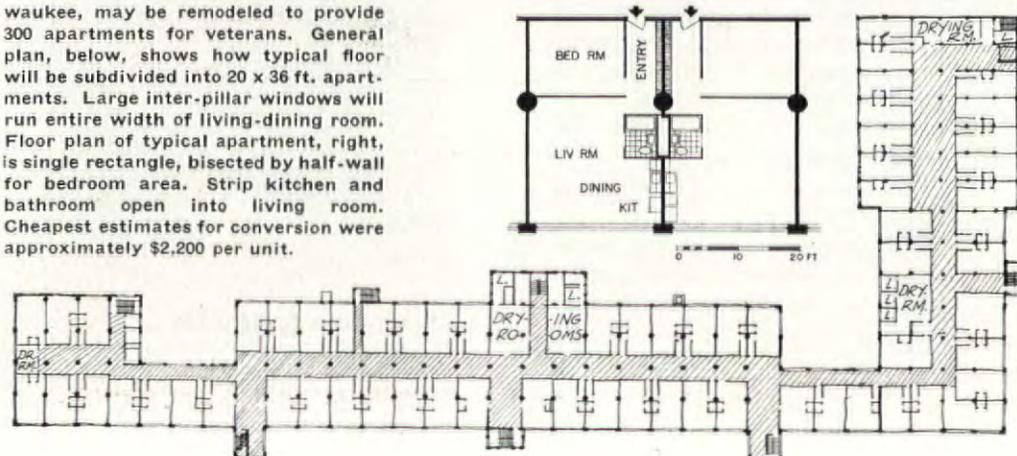
sive floors (built to withstand loads of 600 pounds per sq. ft.) but their mothers would find 11 ft. windows a real decorating problem; partition walls were to be only half room-height within apartments; bedrooms were windowless curtained alcoves; no attempt would be made to mask the pipes and wires hanging overhead.

But, despite these unesthetic features, the apartments looked good to many a hard-driven veteran and his family. A day after the project was announced in the newspapers, some 200 applicants had lined up at the Red Cross housing bureau for a chance to move in. NHA promptly gave its approval to the plan, added the hope that other cities would please copy. Milwaukee would be charged a ground rent of \$15 a year for each apartment. Rentals were to be kept at between \$25 and \$35 a month.

Late in the month, however, a heavy-weight applicant was reported to be seeking the head of the line. Cuneo Press, Inc., big Chicago printing firm, offered the War Assets Administration \$1 million for the plant and property; volunteered to donate 15 acres of adjoining land to the county, as site for a new housing project for veterans. While veterans grumbled that such a project would not be built this winter, Milwaukee County officials kindled to the idea. Reason: conversion and operating costs of making dwelling units out of the plant itself had been calculated to total \$1,700,000 over a four-year period. The resulting operating deficit would amount to \$106 per unit per year above rental revenues.



**VAST FACTORY BUILDING** at Eline, Milwaukee, may be remodeled to provide 300 apartments for veterans. General plan, below, shows how typical floor will be subdivided into 20 x 36 ft. apartments. Large inter-pillar windows will run entire width of living-dining room. Floor plan of typical apartment, right, is single rectangle, bisected by half-wall for bedroom area. Strip kitchen and bathroom open into living room. Cheapest estimates for conversion were approximately \$2,200 per unit.



# REUNION IN EUROPE: first postwar international meetings of architects and planners.

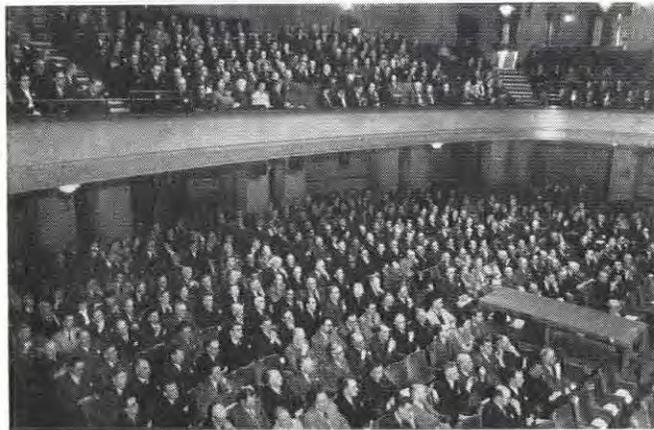
While their governments still stammered the language of internationalism, architects and city planners from every continent were ready to begin the world's rebuilding. Britain, last month, was host to two emotion-swept reunions, first postwar meetings of the International Union of Architects and the International Congress on Housing and Town Planning. The searing experience of the last six years had left few at either gathering untouched; the desire for world amity was intense. Observed the editors of *Design and Construction*: "It is just as if brothers who had been sorely parted for many years had come together again to talk about family affairs — things which really matter. Even the remote possibility of war seems strange in such an atmosphere."

Six years ago, many of the distinguished delegates had hardly thought to see each other again. A number had been in concentration camps. The entire family of a Polish houser had disappeared. A prominent Danish planning expert had lived through the war in a house adjoining a Gestapo jail. A Norwegian architect had been compelled to serve the perilous function of go-between in securing food for his city from the Nazis. Such was the mood of the conferences that no one was surprised when a dignified Dutch professor suddenly stopped his discourse on planning technique, pulled out a photograph of his two-year-old child — shot by brawling Nazis forcibly quartered in his home.

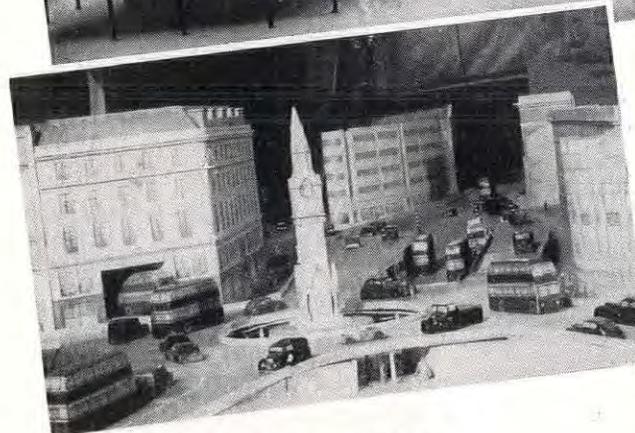
Among the colleagues brought together again were such honored names as Aalto, Giedion, van Eesteren, Monteiro, Krejcar, Vinck, Markelius, Rasmussen and Crevel, representing Finland, Switzerland, Holland, Portugal, Czechoslovakia, Belgium, Sweden, Denmark, France. Altogether, the delegates to the two meetings came from 18 European and three South American countries, Australia, India, Dutch East Indies, New Zealand, South Africa and the United States, as well as England.

Scheduled first, the conference of architects was held in London as guest of the Royal Institute of British Architects. In six brisk meetings, the thousand-odd members put behind them a formidable organizational program which included: 1) a World Federation of Architecture, as a permanent union of professionals in every country; 2) acceptance of an international secretariat in Paris, offered by UNESCO's Secretary-General Julian Huxley; 3) an International Union of Architects to act as a UN-style General Assembly on architectural questions; 4) an International Architectural Bureau which would undertake such projects as publication of new work, arrangement of world exhibitions, comparative study of standards, composition of a uniform technical glossary.

Photos: Graphic, L. Gräver-Johnson, British Combine

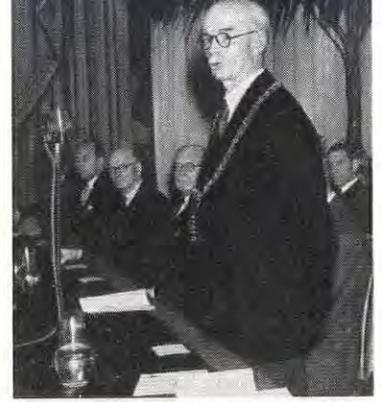


PLANNERS MET IN HASTINGS



EXHIBITS SHOWED PROGRESS OF PLANNING

ARCHITECTS MET IN LONDON



HASTINGS MAYOR



PLANNING MINISTER SILKIN



FRENCH PLANNING DELEGATES



BELGIAN SENATOR

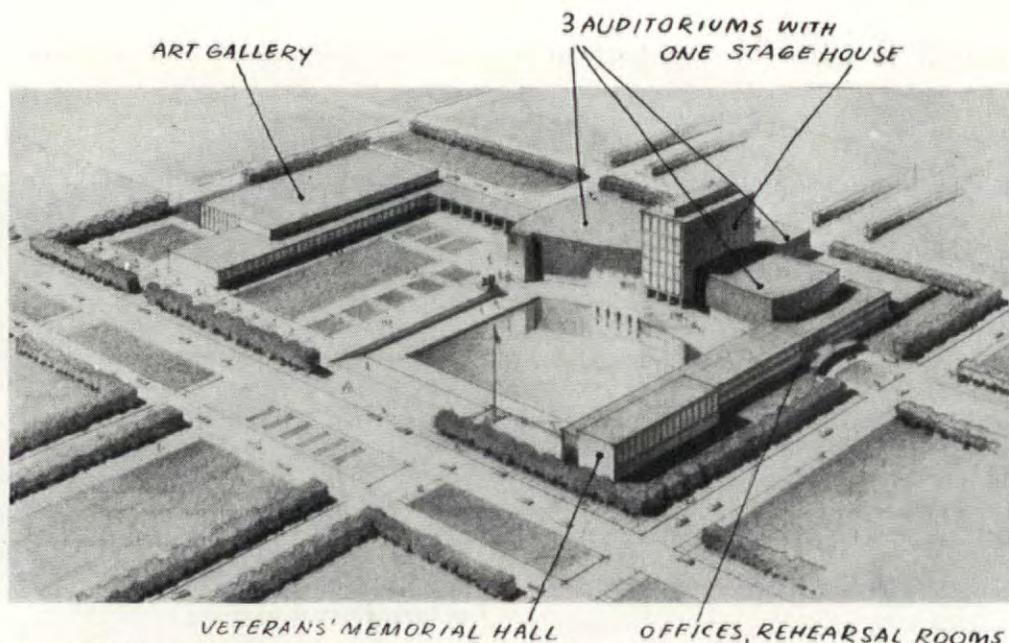
ENGLAND WAS HOST to two international congresses. At left, famous architects from Britain and Europe opened the International Union of Architects meeting in London. Picture shows Sir Patrick Abercrombie speaking. Seated: Pardal Monteiro, Portugal; Pierre Vago, France; Auguste Perret, France; Erno Goldfinger, England; Jules Ghobert, Belgium. All photos above were taken at the International Congress on Housing and Town Planning a few weeks later in Hastings. The planning congress was the 18th international meeting of the Federation for Housing and Town Planning. Among the delegates present were some, like venerable Senator Vinck, who were responsible for the original organization; others, like M. Vergnolle (left, in picture above) Communist President of the Paris City Council who represented a new Europe.

The conference, which wound up with a cross-country tour of Britain building projects, paid tribute to the English leadership by electing as president busy Sir Patrick Abercrombie, successor to France's venerable August Perret. It also empowered the newly-constituted Central Committee to broaden the membership of the organization by soliciting representation from non-member countries such as the USSR.

A few weeks later, the quiet seaside town of Hastings was the scene of an equally historic get-together. The International Congress of the Federation for Housing and Town Planning summoned some 1,200 representatives to a week-long convention. The Federation's own 33-year-old records, at its Brussels headquarters, had been swallowed by the war. Arranged by Chairman George Pepler, British architect-planner, the meeting included U. S. planners Frederick Adams and Walter Blucher, housers Coleman Woodbury, John Ihlder, Charles Palmer and Catherine Bauer. In a newsletter to the FORUM, delegate Bauer wrote: "There is health in Europe, and real optimism. On the whole, the opportunity offered by the bombed cities and the housing crisis is being grasped with hope and fresh ideas and new and better standards rather than desperation—weary though everybody is."

Main points of agreement reached at Hastings included the immediate need for more houses in all countries, but also for higher space standards, lower densities, scientific neighborhood planning and population redistribution. Reported observer Bauer: "The fact that minimum floor areas for English houses, already greater than U. S. public housing standards, have been increased once more (to about 900 sq. ft. for an average family dwelling) in this difficult period is significant in itself. But devastated Holland will raise her minimum standards also, following the lead of architects who met in underground committees during the war. In addition, to implement new planning standards and ideals, all European countries are assuming a degree of land-use control and public initiative and ownership that makes the WET bill look as if it had been written by Calvin Coolidge."

Excellent exhibition material supplemented the reports of delegates from Holland, Poland, Denmark, Switzerland and England. The U. S. contribution, on the other hand, wrote Miss Bauer, "is worth an objective note without comment as to the emotions of our delegates when they beheld it. It consisted of about thirty black and white panels depicting the work of the Planning Commission of Contra Costa County, near San Francisco, and included, it would seem, just about everything they had in their files. . . . However, do not blame the Contra Costa Planning Commission. At least they took the International Congress seriously." To plan for new activities the convention set up a large governing council, scheduled it to meet in Paris this spring.



**MILWAUKEE'S MEMORIAL** to the dead of this war will be an imposing cultural center occupying six city blocks. The reflecting pool will serve as a cooling pond for the air conditioning system; primarily, however, it will focus the buildings upon a sunken court. Three separate auditoria will back into the tall stage house at the center. Accommodating 3,500, 1,500 and 500 persons respectively, the theaters will be for amateur, professional and semi-professional use. The design would provide for a monumentality of ground design — long vistas, bold entrances, scale doubled by the reflecting pool.

### SAARINEN MEMORIAL

**Milwaukee plans a spacious center for community use.**

Milwaukee's perfunctory attention to memorializing the dead of World War I is one of that city's sorest burdens of conscience. Only realization of many 1918 plans for noble commemoration is a sturdy flagpole erected on a downtown triangle. Last month, Milwaukee announced it was prepared to do better this time. Cooperating city, county and private groups were engaged in forwarding a \$5 million project designed by keen-handed Eliel Saarinen, which would occupy about 20 acres, include three auditoria, a community art gallery, a memorial hall and offices, curving in a leisurely sweep about a clear lagoon.

Most imposing of present memorial designs, the Saarinen plan argues persuasively for the "living" memorial type by concentrating many community functions in its continuous U-belt of building (see sketch, above). For the purpose of "permanent reminder," the architects have relied almost completely on the hope that the center's functions will prove lasting and valuable demonstrations of the uses of peace. Unobtrusively embedded in one arm of the building they have placed a long arcade in which the names of the war dead will be carved.

The memorial, for which the county has pledged itself to purchase a site, will be built through funds raised by popular subscription. Credit for organization of the movement to build goes to Metropolitan Milwaukee War Memorial, Inc., with a well-heeled citizen roster, which developed a realistic building program out of a canvass of local group needs and engaged the architects. Individual veteran organizations gave detailed accounts of their desires

for meeting halls; social service and educational organizations reported the requirements of the community for cultural facilities.

Construction of Milwaukee's Memorial building group would, fittingly enough, wait upon the termination of the housing shortage for the living veterans of World War II. When the job is completed, the booster corporation will withdraw, the center will be dedicated to the county.

### WITHERING GRASS

**Rye's plan to make park out of Main St. meets defeat.**

The big Election Day issue in New York City's silk-stocking suburb of Rye concerned neither parties nor office-holders. As it had always done previously, Rye cast its patrician vote for the G.O.P. and let Manhattan do the arguing. Instead, Rye went to the polls with its mind in turmoil over the town's widely praised Master Plan (FORUM, August '46) about which local controversy had spluttered for a year. Up for referendum by the town's property owners was the initial bond issue that would start the plan into action by purchase of off-street parking space for the congested downtown area. Eventually, the plan would call for circling of the central business district by a highway loop and as a much-publicized consequence, turning its main thoroughfare into a landscaped pedestrian promenade.

The referendum tally was one to shake the spirit of bold planners everywhere. The People—or at least the taxpayers of Rye—had spoken against the bond issue. Mourned the *Rye Chronicle*, edited by plan-proponent Howard Archer: "Rye has been set back considerably by this unfortunate outcome of the referendum vote.

(Continued on page 14)



## A house, too, can be “caught out on a limb”!

● Every architect and builder knows, of course, that you just can't beat bituminous coal for dependable, uniform, low-cost heat.

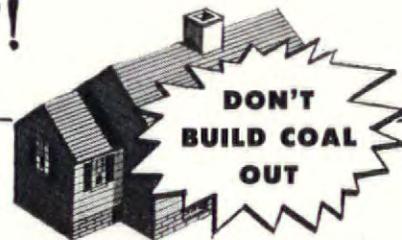
But even when a client *insists* on using some other fuel in his new home, be sure you give him the chance to change his mind sometime in the future—and turn to coal.

Otherwise, his house will be “out on a limb” when stoker developments, local coal heating services, cost differentials, or other factors convince him that he should get the benefits of coal heat.

This means: (1) provide a chimney with sufficient flue capacity to burn coal efficiently; (2) provide sufficient space adjacent to the heating unit for eventual coal storage and stoker installation.

The cost of taking such sensible precautions is negligible. And it constitutes valuable insurance of the future value of the home.

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



Every new home you design or build should be planned to permit the efficient burning of coal—no matter what fuel may initially be selected. In two simple ways you can free any new home to turn to coal—the most plentiful and most economical fuel of all. This means:

1. Provide a chimney of adequate flue capacity.
2. Provide sufficient space adjacent to the heating unit for eventual coal storage and stoker installation.

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Opportunity was at hand for us to immediately go forward; and now it is highly speculative what the future will bring. Of one thing we are certain: Rye's business section will become increasingly congested with each passing day and those of us who shop here will have cause to regret that a few partisan-minded taxpayers were sufficient in numbers to block . . . a prospect that would have placed our community in the forefront."

Nobody seemed quite sure what had happened. From the thicket of arguments that had sprung up about the Master Plan issue, any citizen could pluck an easy dozen viewpoints. Partisans of the plan had pointed out that at least a third of retail buying was being done outside Rye, partly because people couldn't shop conveniently downtown. Five-block-long Purchase St. was a nasty, barren-looking traffic channel, incongruous in a community boasting some of the country's most comfortable homes. Foes of the plan feared that taxes would go up not only to service the bond issue but also because the land bought by the city for parking and greensward would go off the tax roll. Many of the merchants, whom the plan seemed most to favor, had complained that they would be forced into expensive alteration to provide back entrances to their stores. A YMCA veterans' club, on the other hand, thought the plan was too good to the merchants while neglecting the rest of the community. Many, finally, were victims of a wrongly-inflected phrase; the 300 yards of mall to appear in Purchase St., though not an immediate step in the plan, was—you could say it in two ways—paving Main St. with grass!

When the smoke cleared, it was plain the plan was not altogether destined for the scrap-heap. Like any defeated ball

club the planners said: "Wait till next year." Actually, balloting on the referendum had been skin-close. Some 800 negative votes had opposed some 650 affirmative ones. The plan still had many starting points beside the problem of parking on Purchase St.—a community recreation system, for example, was also on the list of improvements contemplated. By next year, much of the confusion on specific issues would have been cleared and then planning might emerge with success.

### CHICAGO SATELLITE TOWN

**American Community Builders plans complete suburban community for 25,000.**

In Chicago, private enterprise was about to launch the building of a planned town five times bigger than Rye, New York. On the far south side of Chicago, 30 miles from the center of the city, construction of a \$70 million suburb for 8,500 families was soon to be started by a newly-formed company headed by former FPHA commissioner Philip Klutznick.

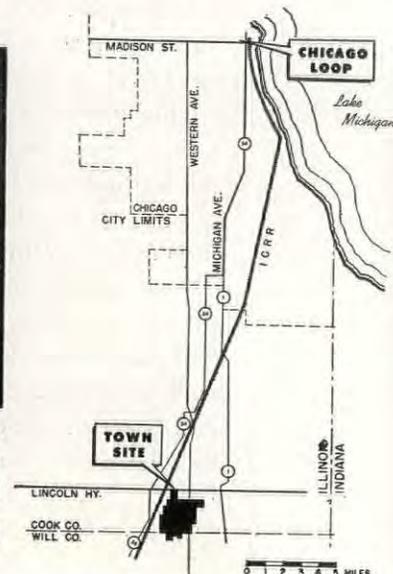
When complete, the town might be the largest privately-planned community in the country. The overall layout is the work of Elbert Peets, planner of Kohler and Greendale, near Milwaukee. It calls for a residential grouping of contiguous neighborhoods separated by landscaped highway. At the center of the group will be a town-center, a park and "uptown" shopping facilities. Within each neighborhood, the plan will provide individual recreation and shopping centers as focus for a neighborhood of 5,000 persons.

The schedule of construction calls for initial building of 5,500 dwelling units for veterans, including 600 rental apartments; 650 twin houses for 1,300 families, 200 four-

(Continued on page 18)

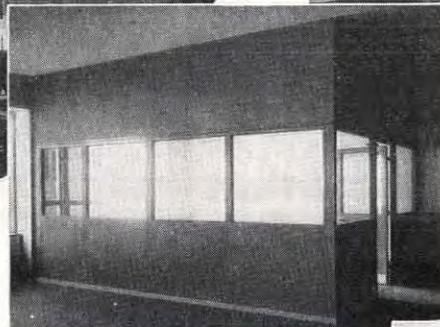
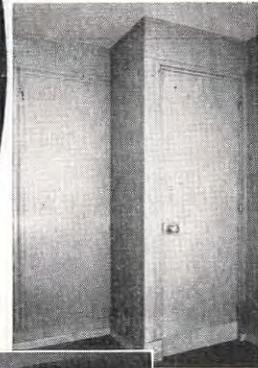


PLANNERS of American Community Homes suburb for 8,500 families are, grouped about architect Jerrold Loeb, (holding ruler), William J. McArthur, Richard M. Bennett, left; Norman J. Schlosman, Harry R. Nortman and Elbert Peets, right. At right, map shows location of new development along Illinois Central R.R. line and bounded by the Lincoln Highway.





Jamestown Metal Corporation requests an opportunity to work with architects on plans for Elevator Enclosures, Interior Trim, Hollow Metal Doors, Office Partitions and Cold Rolled Mouldings in Bronze, Aluminum, Steel and Stainless Steel.



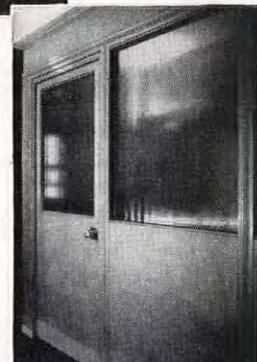
*A few interior close-ups of partitions, clothes closets and doors*

**CRIMINAL COURTS BUILDING, New York City**

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 Design, construction and operation under the jurisdiction of the Dept. of Public Works.

This excellent example of modern hollow metal installation combines simplicity, beauty and utility.

The Jamestown Metal Corporation is represented in this project by several thousand feet of flush metal partition together with special applications such as low railing, cubicles and clothes closets, as illustrated, in addition to the complete installation of steel swing doors and frames.

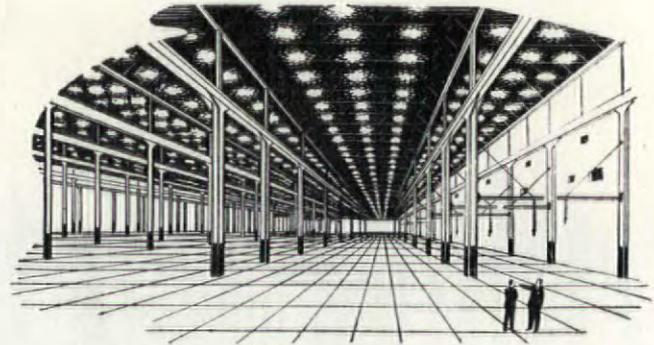


*Jamestown Metal Corporation*  
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Forward Step in  
Carrier History*

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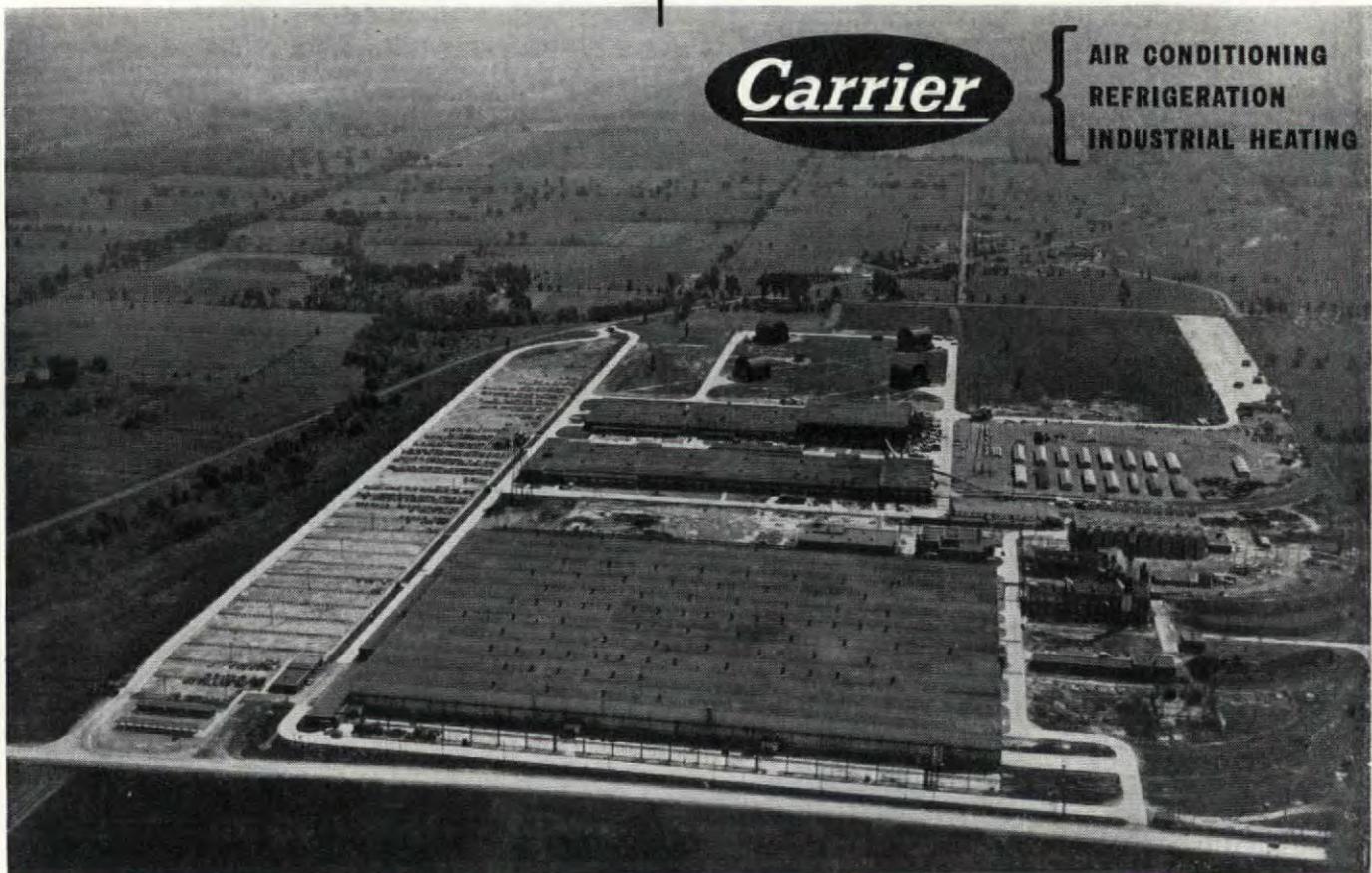
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Refrigeration**



Today, more than ever before, Carrier leads in air conditioning and refrigeration. For the acquisition of a huge, new 660,000-sq.-ft. plant in East Syracuse gives Carrier Corporation facilities that are among the largest, most modern in the world for the manufacture of air conditioning and refrigeration equipment!

This additional plant—part of Carrier's great expansion program—is necessary to meet the ever-mounting demand for Carrier products. Together with the large plant in Syracuse, it will in a matter of months produce the greatest volume of air conditioning and refrigeration in Carrier history.

Here, in these vast new facilities, is impressive evidence of Carrier's position in the air-conditioning field . . . a dramatic re-statement of the Carrier leadership which began with the creation of air conditioning 44 years ago.





# STAIRWAYS of Metal

- ... distinctive
- ... durable
- ... fire-safe



Strength . . . Safety . . . Fire Protection . . . These are the features you want most in stairways, whether for commercial or residential buildings. These are the features you get when you specify "metal" stairs.

And, like all other forms of architectural metal work, metal stairs can be fabricated to conform to any design or style of building.

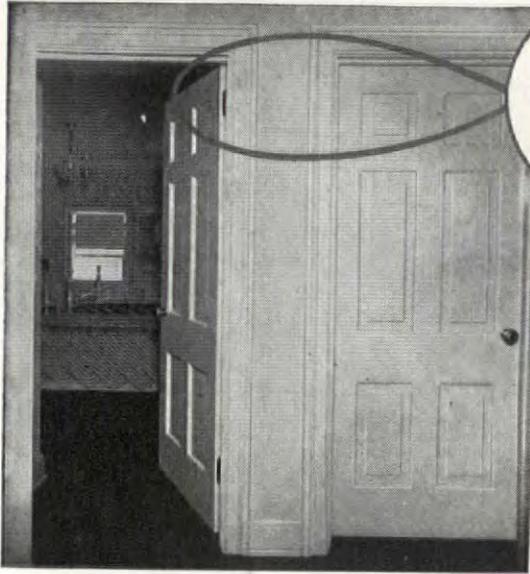
As you plan new buildings, include not only metal stairs but also make full use of architectural metals for entrances, doors, hand rails, grilles, store fronts, and hundreds of other items where you want lasting service, durability and distinctive design.

Architectural metals are available in many different materials, both ferrous and non-ferrous. They offer you the choice of many varied qualities, colors and characteristics. Use them to add a new touch to an old building—to glamorize the interior of modern, new structures.

The manufacturers and fabricators of Architectural Metals will be glad to help you with your design and detailing problems. Consult them now. A new, 32-page Handbook on Metal Stairs & Railings is available to architects through members of the Association. For a Directory of Leading Metal Fabricators and the name of nearest member, write to Dept. AF-12.

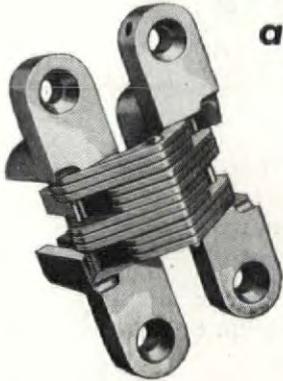
**NATIONAL ASSOCIATION OF  
ORNAMENTAL METAL MANUFACTURERS**

209 CEDAR AVENUE, TAKOMA PARK, WASHINGTON 12, D. C.



*The  
SOSS  
INVISIBLE  
Hinge*

*"It is Different . . .  
and so Modern!"*



● How often you hear this remark when folks inspect a home where the doors, panels and cupboards have no hinges showing . . . in other words, when SOSS INVISIBLE HINGES are "on the job." These hinges give

THE modern touch. They eliminate unsightly broken surfaces marred by protruding butts, and permit the flush surfaces so important in modern streamlined design. Soss Invisible Hinges are located where hinges naturally should be—out of sight. They are nationally advertised.

*Write for the Soss "Blue-Print Catalogue" giving full details of the many applications of this modern hinge. Free on request.*

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**SOSS** Invisible  
**HINGES**  
*The Hallmark  
OF TOMORROW'S HOME*

family units which the planners called "town and country homes." Purchase price for individual houses will range between \$7,000 and \$10,000. Eventually, the new suburb would consist of a community of middle-income dwellings for 25,000 and would incorporate shopping centers, schools, recreational facilities and provision for light industrial establishments.

The new building firm, American Community Builders, Inc., was something very new to building in Chicago or anywhere. In addition to Klutznick, its officers included most of the executive, planning and building talent needed to carry out the project. Treasurer of American Community Builders was Nathan Manilow, biggest operative builder in the middle west; vice-president was architect Jerrold Loehl. Other officials included Hart Perry, former special assistant of FPHA, Carroll Sweet, president of L. B. Harris & Co., and consulting engineer Charles Waldman.

## LAND OUT OF SIGHT

**Shortage of improved lots begins to plague new building.**

Three miles beyond Seattle's city limits, the state of Washington had some snippets of land it didn't want—187 lots of its vast park acreage. Gingerly, the state land office offered them for public sale to the highest veteran bidders, promised to put in graded roads but warned that no responsibility was being taken for sewers, electricity or water. Gasping at the crackling bids of some 500 veterans (most lots went for around \$1,000), Deputy County Auditor Edward J. Logan found breath enough to quip: "If there's oil on that land the mineral resources belong to the state!"

The U. S. felt land-hunger knotting its belly. New building, which would lick the housing famine, was aggravating this hunger. Current house construction was rapidly exhausting sites acceptably priced with utility services and adequate roads available. NHA estimated that more than 300 square miles of raw land would have to be developed in order to meet the housing program for 1947. About 75 per cent of next year's housebuilding would have to be done on such land. Communities would find that this development would cost them a total of \$1 billion, mean a staggering requirement of cast iron pipe, fittings, hydrants, manhole frames and covers, steel pressure pipe. The figures: 1.7 million tons of cast iron products; 700,000 tons of steel for water and gas mains; 350,000 tons of vitri-



**LANDLESS HOUSE** is this apartment-sized houseboat built by Steel Marine Corp. Suggested as a "practical permanent home, not a luxury," it carries 130 gallons of fresh water, is fireproof, mineral wool insulated and completely equipped with built-in furniture. Shaped on assault-boat lines with all-steel hull, it is first self-propelled commercial houseboat and contains three 8 x 10 rooms. Price: \$9,900.

fied clay products—and cement for all the streets and sidewalks leading to new homes? By the midmark of 1947 it could be expected that more than 4.5 million barrels per quarter would have become necessary.

Even if materials production could be boosted sufficiently to take care of homebuilding demands, cities would have a tough time paying the bill. Some welcome might be given water service, with its revenue-producing character, but sewer extension would drain city funds as well as suburban waste. And there were other things to be bought and paid for—schools for instance. It was enough to make city treasurers weep.

Paradoxically, the land rush was bringing one compensating cheer to treasurers' offices. In New York, big real estate operators were bidding avidly for liens imposed by the city against properties three years or more behind in taxes. Reported City Treasurer Spencer C. Young: some operators had bought up as many as 250 to 1,000 liens on building sites within city limits. At this rate, Young predicted, most of the 85,000 liens on the city's books would be sold within two years. Jubilantly added Acting City Collector John J. Fagan: these 85,000 liens represented 10 per cent of the city's taxable parcels and about \$100 million in unpaid real estate and water taxes.

Yet the in-city land rush, if comforting to civic coffers, would only partially help the land-seeking homebuilder. Much lately

*(Continued on page 22)*



★ Things are rolling at American-Standard plants. Production is steadily increasing. New facilities are being added. So that next year, you can expect more and more American-Standard Heating Equipment and Plumbing Fixtures to be available for you.

We suggest you contact your Heating & Plumbing Contractor for complete details. Purchases for modernization can be made on a convenient Time Payment Plan. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.



**LOOK FOR THIS MARK OF MERIT**—It identifies the world's largest line of Heating and Plumbing Products for every use . . . including Boilers, Warm Air Furnaces, Winter Air Conditioners, Water Heaters, for all fuels—Radiators, Convectors, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships, and Railroads.



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that fits a "Round Hole"

"Imagination unlimited" . . . that's the scope of Sheetrock\*, the best in fireproof gypsum wallboard. Sweeping curves, arrow-straight planes, graceful arches, all are possible with this versatile material. And, when treated with the Perf-A-Tape\* joint system, Sheetrock forms smooth, unbroken surfaces. Fireproof, non-warping, non-buckling, these crack-resistant panels should last the life of the building. More, application is fast and easy, you can decorate by any method

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as soon as the joints are finished. Add it up. That means saved days, lowered expenses, and increased efficiency . . . important when millions of families desperately need housing. For large free book of complete Sheetrock data, write now to 300 West Adams Street, Chicago 6, Illinois. \*Sheetrock and Perf-A-Tape are registered trade-

marks which distinguish the fireproof gypsum wallboard and joint reinforcement system manufactured by the United States Gypsum Company.



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**For Building • For Industry**

Gypsum • Lime • Steel • Insulation • Roofing • Paint

# THERE IS A NEW TREND IN STORE DESIGN

William Lescaze's  
conception of a theatre



"This theatre dramatizes the use of glass and lighting, so that the entire building front becomes a distinctive and theatrical landmark.

"The marquee and sign of illuminated Tapestry Glass offer a striking and flexible method of advertisement.

"Illuminated Kodachrome transparencies provide further means of display. The ticket booth, with its 'Turret Top' of Multiplate Safety Glass, acts also as an observation control.

"To the left of the entrance is a Garden Lounge surrounded by a 'Glazed Trellis Screen', and by the clear glass walls of the vestibule and of the foyer. This garden might be used for refreshments and for waiting while cars are being parked."

*W. Lescaze*  
and  
WILLIAM LESCAZE, Architect

THE consistently high quality of Pittsburgh Glass and Pitcco Store Front Metal—and the adaptability of these products to a wide range of designs—has won them acceptance among noted American architects for use in modern store fronts and interiors.

Also, Pittsburgh Plate Glass Company is advertising to merchants in 23 leading retail magazines, urging them to consult their architects about building new sales attraction into their stores, telling them the advantages of using "Pittsburgh" products.

When you recommend Pittsburgh Glass and Pitcco Store Front Metal for store modernization projects, a nation-wide system of "Pittsburgh" branches and dealers stands ready to render you prompt and helpful service.

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It contains photographs of store fronts and interiors—representing practically all kinds of business, in all parts of the country—selected from the thousands that have been remodeled with Pittsburgh Glass and Pitcco Store Front Metal. Send in the convenient coupon for your free copy of this up-to-date book of ideas, "How Eye-Appeal—Inside and Out—Increases Retail Sales".

## "PITTSBURGH" STORE FRONTS AND INTERIORS

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2147-6 Grant Building, Pittsburgh 19, Pa.  
Please send me, without obligation, a free copy of the book, "How Eye-Appeal—Inside and Out—Increases Retail Sales".

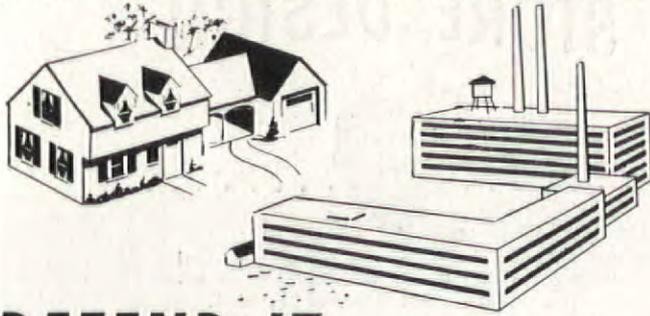
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City..... State.....



"PITTSBURGH" stands for Quality Glass and Paint

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IF IT'S WORTH BUILDING...IT'S WORTH SAVING



## DEFEND IT from its 7 enemies

You can protect any building against the harmful effects of wear, dirt, disintegration, weather, moisture, rust or corrosion, inside or out, with Sonneborn "Building Savers."

The products in the chart below are a few of many which Sonneborn has developed to protect and preserve, renovate and decorate wood, metal, concrete, masonry and other building surfaces—new or old, large or small.

Sonneborn catalogs in SWEET'S give further information. For descriptive literature on specific Sonneborn "Building Savers" to help solve particular construction or maintenance problems, write Dept. E-12.

SONNEBORN "BUILDING SAVERS"	
This Product	For This Purpose
LAPIDOLITH	Hardening, wearproofing and dustproofing new or old concrete and terrazzo floors, other concrete surfaces.
LIGNOPHOL	Preserving and finishing wood floors, trim, doors, paneling—in one application.
CEMCOAT Filler and Dustproof	Protecting and decorating cement and wood floors, porches, decks. Colors and transparent.
TRIMIX	Improving quality and workability of concrete and mortar mixes.
STORMTIGHT (Liquid and Plastic)	Protecting and preserving, patching and repairing roofs of all types, new or old.
S. R. P. ("Sure Rust Prevention")	Protecting iron, steel and other metal surfaces, inside and out, against rust and corrosion.
SONOLASTIC Aluminum Paint (Ready-Mixed)	Protecting and brightening interior and exterior surfaces—metal, wood, masonry, wall-board, etc.
SONNEBORN'S Caulking Compound	Caulking, pointing up, sealing, glazing, etc. Knife and gun grades.
SONOMEND	Patching and resurfacing concrete or wood floors.
FLOORLIFE CLEANER	Cleaning and waxing wood floors and linoleum in one application.
HYDROCID E Colorless	Protecting exterior masonry walls against disintegration due to water absorption.

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delinquent land might be going into speculative circulation only to re-enter an exchange that had priced it out of the building market once before. St. Louis, mindful of this danger, considered a measure authorizing the Board of Estimate to sell delinquent lots for half their assessed value to contractors or builders promising under bond to build cheap veterans' homes. In New York, former Commissioner of Housing Joseph Platzker urged that legislation be passed permitting sale of tax-logged properties directly to veterans for a nominal sum—\$1 a lot or 10 per cent of the assessed valuation.

Though it was true, as housing experts had often pointed out, that American cities had plenty of vacant and developed land right inside their boundaries—44.7 per cent of the total land area of the first 22 cities was not built on—it was also true that nothing seemed so difficult as cheap and quick acquisition of such land by the homebuilder. As in previous land-rush periods, it was probable that the doughnut hole would stay at the urban center, while new building would bulge, expensively, into the undeveloped suburb.

## MATERIAL

### 'WARE THE WOODCUTTER

U. S. may move to lease private lumbering.

For decades, lumbermen have fought the prospect of government regulation of private timber lands. Last month, like old rangers, they smelt smoke in the wind; the showdown was just over the ridge.

In Washington, the American Forest Congress heard that federal regulation was inevitable and immediately necessary. Gone for good were the days of "cut out and git out." Only selective, regulated cutting could preserve the forest resource in the face of the greatest lumber demand in history. Industry spokesmen, who had heard it all many times before, cried out that they were being charred by the old "conservationist cant." But many admitted that regulation in some form was probably desirable. For the last five years, an annual cut of 30 billion feet has taken huge chunks out of our permanent forest resource.

Labor, in the person of 42-year-old, blue-eyed Ellery Foster, research director of the International Woodworkers, was the federal government's most sensational surprise witness. Traditionally, lumber workers had been indifferent to the fate of the forests. More trees felled meant more jobs. Now,

(Continued on page 26)



## FACTS FOR YOUR FUTURE...

presented quickly,  
authoritatively

THE key to your future may lie in the answers you can get at the coming Air Conditioning Exposition. Information on latest products . . . newest trends . . . available sources of supply . . . answers to these and other current questions will be on tap for you at the Exposition. The ideas and information you get may be your greatest business asset in the months to come.

Under one roof—in one short week or less—through more than 300 technically staffed exhibits—the Exposition offers you more information, more contacts, more IDEAS than you could get in any comparable time or way.

You'll see what's newest and best in all types of heating, ventilating, air conditioning and related equipment. You'll talk to engineering specialists at the exhibition booths—men specifically on hand to help you with your problems, tell you what you want to know.

No engineer, architect, manufacturer, building owner, contractor, or distributor can afford to miss this first Air Conditioning Show in seven years . . . and the biggest ever!

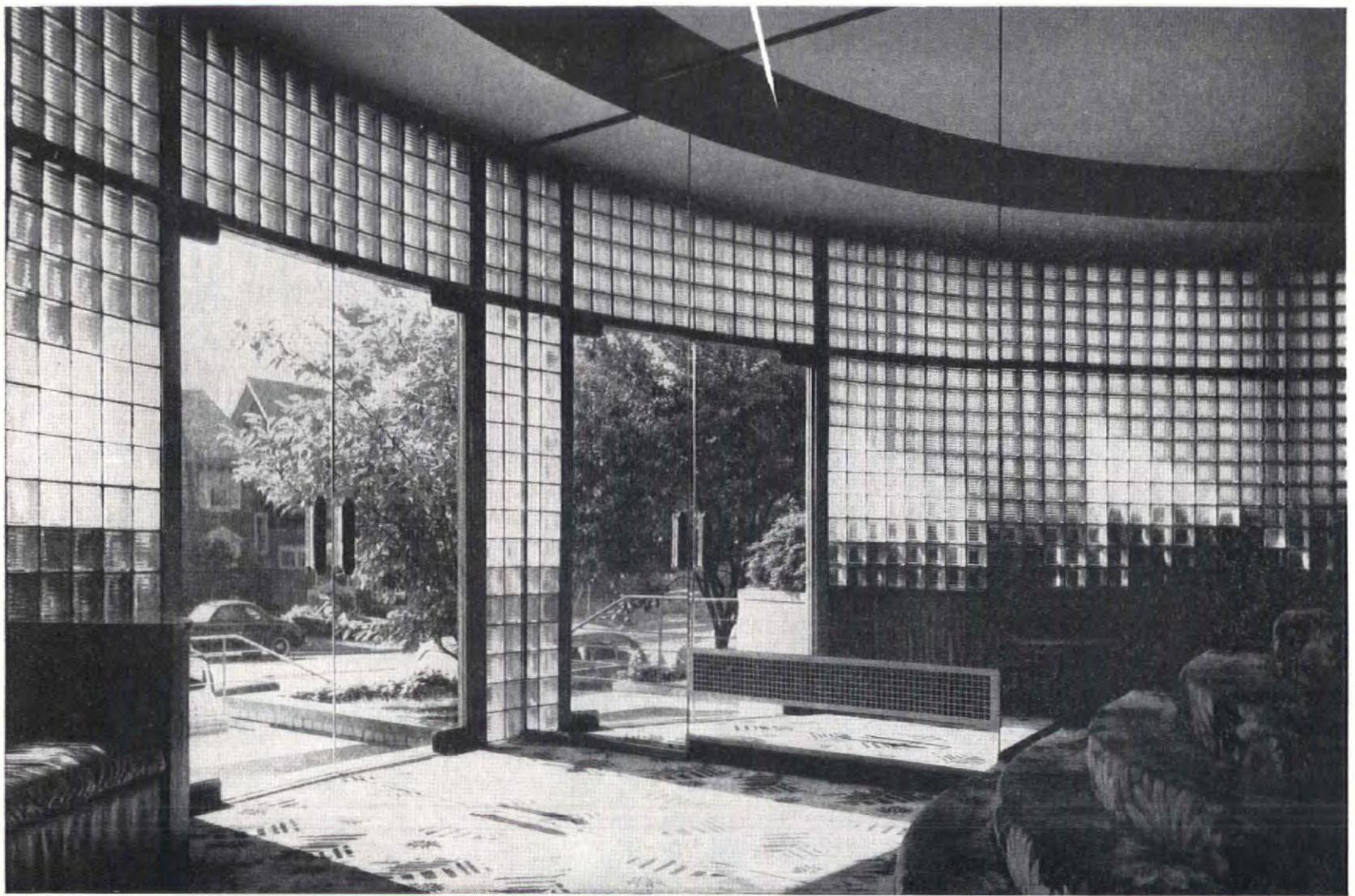
Be sure to attend. Admission by registration only.

7th INTERNATIONAL HEATING & VENTILATING EXPOSITION

The Air Conditioning Exposition  
LAKESIDE HALL, CLEVELAND, OHIO  
JANUARY 27-31, 1947

Under the auspices of  
the American Society of Heating & Ventilating Engineers

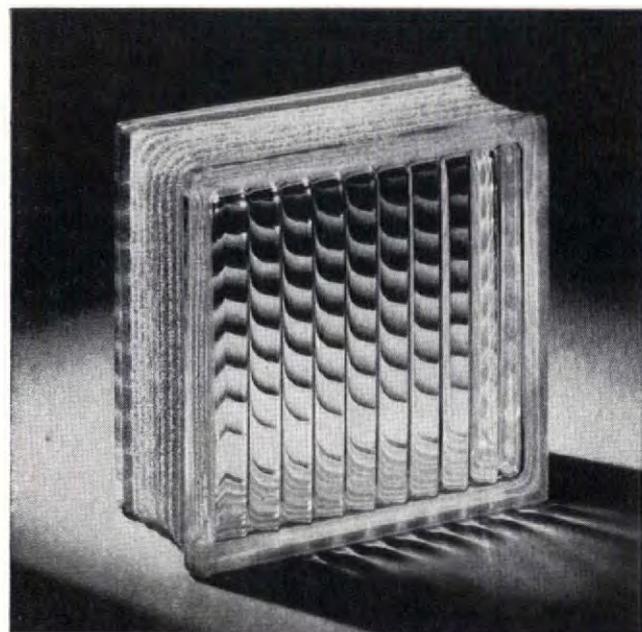
Management of International Exposition Co.,  
Grand Central Palace, N. Y. 17, N. Y.



Good example of the functional and decorative value of Insulux Glass Block—the lobby of this apartment on Wisconsin Ave., Washington, D.C., is light—appears spacious, luxurious. Architects Berla & Abel have main-

tained a clean simplicity of design. Insulux panels transmit daylight freely, while barring the street view in private portions of the room. Builder is H. K. Jawish.

## Lobby with a lighting lesson



*Insulux Glass Block is a functional building material—not merely a decoration. It is designed to do many things other materials cannot do. Investigate!*

**You can learn** from this lobby that there's no equal or substitute for natural daylight. It gives openness and a feeling of richness.

Double value comes when you let the light in and still retain privacy.

For these reasons, more and more architects are using Insulux Glass Block. Possibilities for this versatile material extend to almost every room in a private home—and also to a variety of points in commercial and industrial buildings.

Insulux panels are high in insulating value, thus lowering the cost of heating and air conditioning operations. Upkeep is low because

painting is not required and Insulux will not rot, rust or corrode.

Are you familiar with the host of uses for Insulux Glass Block in both contemporary and traditional design and construction?

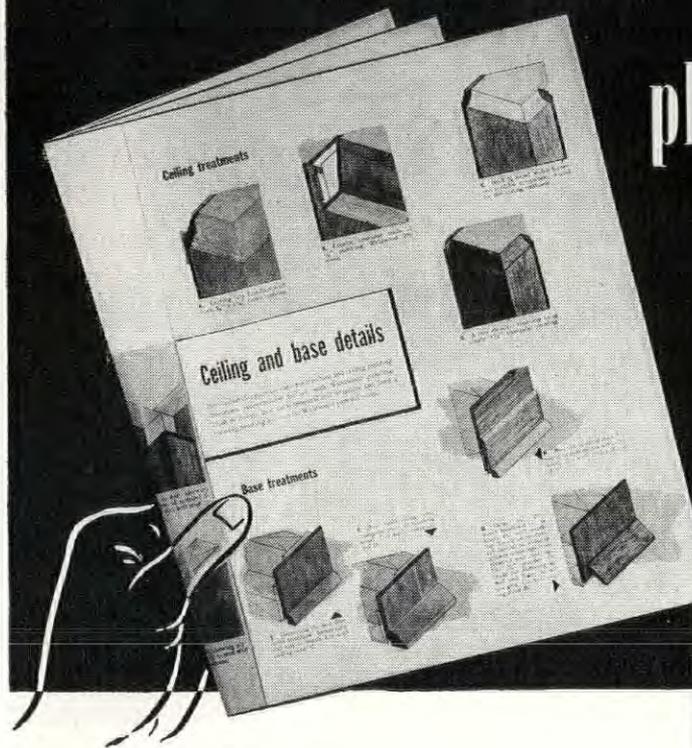
For technical data, specifications and installation details, see the "Glass" section of Sweet's Architectural Catalog, or write Dept. C-24, Owens-Illinois Glass Company, Insulux Products Division, Toledo 1, Ohio.

**OWENS - ILLINOIS**

**INSULUX**  
**GLASS BLOCK**

# How to Construct Base and Ceiling Details for plywood paneled rooms

...as explained in the  
**Weldwood Installation  
Booklet**

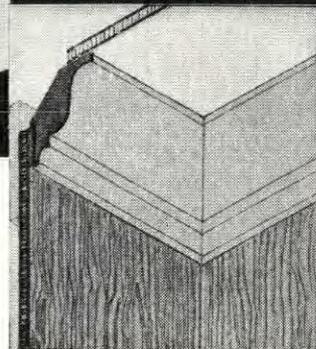


A HOST of appealing finishing touches are at your command . . . when you specify Weldwood paneled walls.

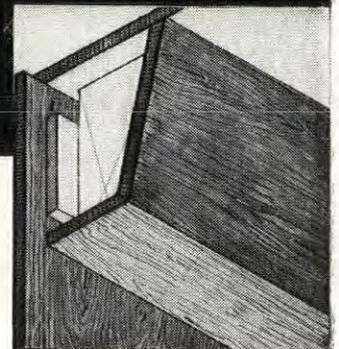
Weldwood corners, joints, panels, and other effects become attractive "points of interest." And, they do not present difficult installation problems.

Illustrated on this page are a few suggested ideas for base and ceiling designs. Just how these and other effects may be economically built . . . right on the job . . . is fully explained in the new Weldwood Plywood booklet. In addition, this booklet gives planning and construction data and shows numerous photographs of completed Weldwood interiors.

Free copy of this booklet will be mailed to you on request. Send for it today.



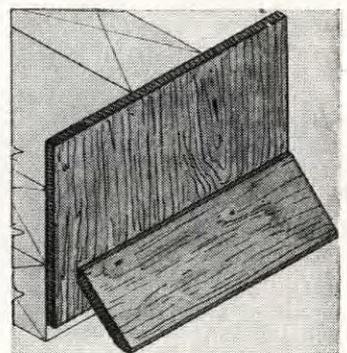
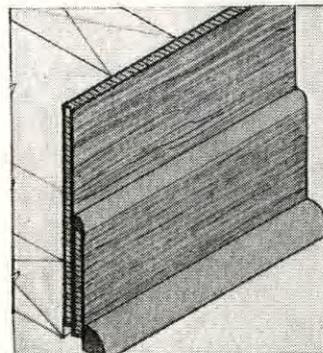
**ABOVE:** Showing attractive ceiling line finished with stock crown molding.



**ABOVE:** Cornice treatment made of 1/4" matching Weldwood Plywood.

**BELOW:** Matching base using 1/4 round in conjunction with plywood strip.

**BELOW:** Economical baseboard detail utilizing leftover trimmings from plywood wall paneling.



## Weldwood Plywood

Weldwood Plywood and Mengel Flush Doors are products of  
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New York 18, N. Y.      Louisville, Ky.



Plastics and Wood Welded for Good

Waterproof Weldwood for exterior use is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood for interior applications are manufactured with extended urea resins and other approved bonding agents.

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



# 6 ways

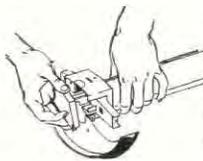
the new Wakefield STAR makes it easy to



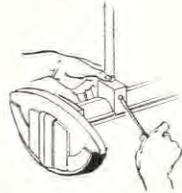
## "Hang the Sky"

# FOR Over-ALL Lighting

Design Pat. Pend.



1. Easy to assemble... precision fit parts are completely interchangeable.



2. Easy to lock stem anywhere on channel to avoid ceiling obstructions or meet existing outlets.



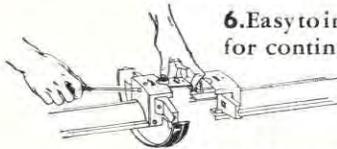
3. Easy to hang... stem slides readily into key slot.



4. Exclusive design hanger strap simplifies side to side adjustment of stems for perfect alignment.



5. Easy to adjust stems up and down to correct for slightly uneven ceilings.



6. Easy to interlock units for continuous runs.

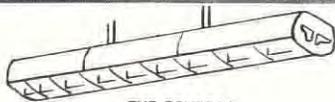
For full details write for Catalog No. 46. The F. W. Wakefield Brass Co., Vermilion, Ohio.

# Wakefield

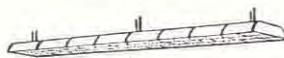
LIGHTING EQUIPMENT FOR OFFICE, SCHOOL AND DRAFTING ROOM



Over-ALL—  
in lighting,  
in construction,  
in ease of maintenance.



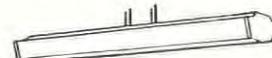
THE GENERAL



THE GRENADIER



THE COMMODORE



THE DIPLOMAT

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REG. U. S. PAT. OFF.

### METAL TRIMS

answer every "FLOOR" need, too!

13 STAIR NOSING

15 BUTT EDGING

936 1/4-ROUND SHOE MOULDING

234 THRESHOLD STRIP

• You'll find all types of mouldings for every type of "floor application" included in the big line of Chromedge Metal Trims. Butt edgings, threshold strips, 1/4-round shoe mouldings, cove base trims, stair-tread nosings—Chromedge has them all, in a full range of sizes for all floor-covering materials. In fact, on walls, counters or floors—for service or for decoration—Chromedge Metal Trims assure a better job with least trouble.

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For Purchases of:	Rebate
1. Not less than \$300.00 to not more than \$599.00.....	4%
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3. Not less than \$800.00 to not more than \$999.00.....	8%
4. Not less than \$1000.00, or any greater amount.....	10%

The **B & T METALS CO.**  
Columbus 16, Ohio

declared Foster, the largest CIO union west of the continental divide was fighting a system of producing lumber which also produced ghost towns. "A forest is cut down, the camp is moved on to another forest marked for destruction. We seek instead permanent communities which gain their economic sustenance from forests logged selectively over a long period of years. To get them we need a supervised industry."

Hotly debated were recommendations for increased cutting in what lumbermen like to call "hoarded timber," the country's still virgin national forest. A big slice of it is already being marked for felling through federal construction of access roads into isolated stands. More than two billion feet of lumber, most of it from federal land, will be secured by this method by the end of next year. But, that, said Chief U. S. Forester Lyle Watts, is literally barking up the wrong tree: "The solution lies primarily not on public lands, which occupy only a fourth of the land, but on private lands, which occupy three-fourths of the land, and are, in the main, poorly managed. The principal forest problem is to get satisfactory forest management on private lands—especially on small private holdings."

One piece of proposed legislation aimed at such regulation is the Forest Conservation and Development Act introduced into Congress last session. It provided for national forest credit for small lumbermen; policing of forest cutting; enforced restocking; inducements to efficiency. While last month's elections washed out its sponsor, liberal Michigan Congressman Frank E. Hook, similar legislation was certain to knock on Congress' door again.

## PEOPLE

### JOHNS-MANVILLE'S BROWN

Top man at the top.

Johns-Manville, high-balling into a \$50 million improvement program, announced that it expected to double its prewar volume of business. At the throttle was big,



Brown

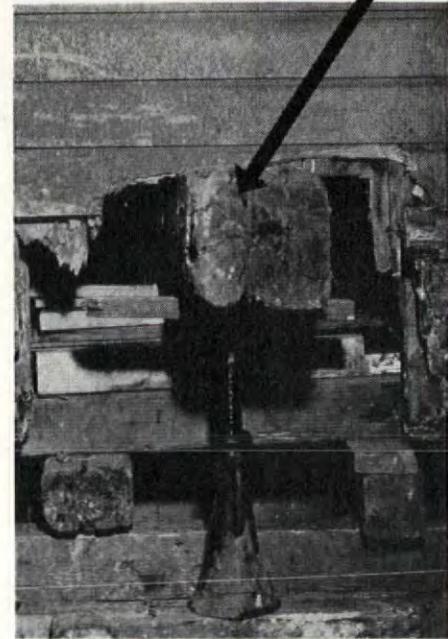
personable Lewis H. Brown, newly-elected chairman of the board and chief executive officer after fifteen years as company president.

Moving into the top ownership seat of the biggest building-materials firm in the U. S., Brown neatly rounded out 25 years with J-M. Now 50, he had taken over as president at the unheard-of youthfulness of 35, steered the firm out of the depression

(Continued on page 30)

## NOW...

### You Can Safeguard Clients Against This Costly Damage

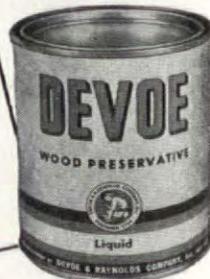


## SPECIFY DEVOE WOOD PRESERVATIVE

NO longer need sills and other timbers be an immediate invitation to the ravages of wood-destroying fungi, termites and other insects. Devoe Wood Preservative brings within the reach of all the same active ingredient (Copper Naphthenate) that protected Army and Navy installations so effectively throughout the world. It is easily applied by brush, dip or spray, and penetrates deeply into the wood fibres. The oil base vehicle assures long-lasting effectiveness, is non-leaching—and permits treated members to be painted over readily.

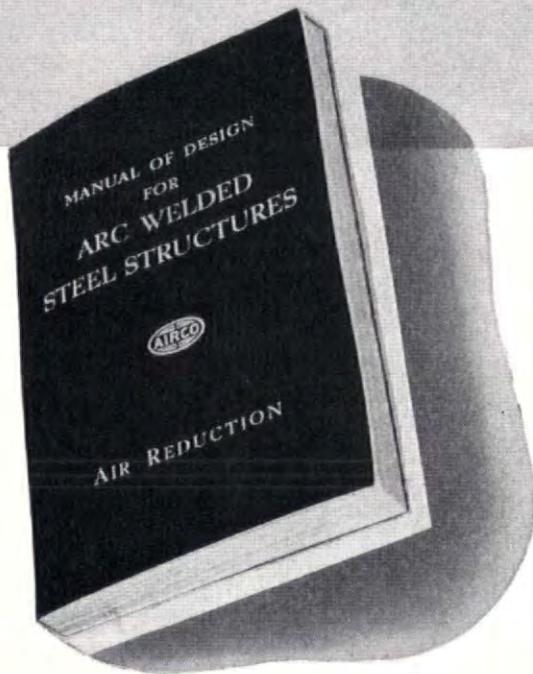
Begin now to specify Devoe Wood Preservative for all new construction and to safeguard timbers on reconstruction jobs. Write today for informative brochure.

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Here is the first book of its kind ever published — the “Manual of Design for Arc Welded Steel Structures.” It is handy, useful, bringing you a wealth of information covering design, materials, inspection, estimating, and engineering control of welding and related operations . . . tables of standardized welded connections for all sizes of beams . . . AND a series of diagrams for the rapid design of special connections.

These few chapter headings give you some idea of the vast amount of material covered by this definitive 300-page work:

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- ★ Specifications for Welded Buildings, Bridges and Similar Structures
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- ★ Economical Weld Sizes and Groove Forms
- ★ Diagrams for the Rapid Determination of Allowable Eccentric Loads on Welded Connections
- ★ Standardized Welded Connections for Simple Framing and Tables of Allowable Loads on Beams and Piece Marks for Welded Connections
- ★ Estimating Electrode Requirements, Weight of Deposited Metal, and Cost Factors

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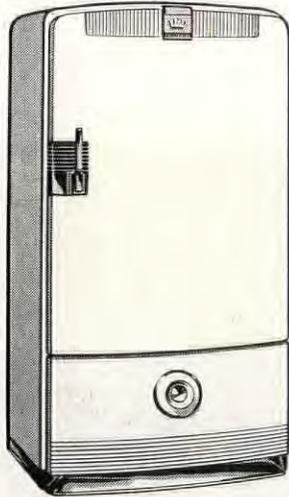
Headquarters for Oxygen, Acetylene and Other Gases . . . Carbide . . .  
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## Frigidaire Refrigerator



Plenty of easy-to-reach storage room . . . Extra capacity for frozen foods . . . Generous tall-bottle space . . . Moist storage for fruits, vegetables . . . 16-way adjustable interior . . . Quickube Trays for ice cubes fast and easy. (Special Cold-Wall models provide moist cold; permit uncovered food storage; store up to 35 lbs. of frozen food.)

Meter-Miser refrigerating mechanism protected against service expense for 5 years. Simplest ever built . . . Compressor has only two parts that move . . . Uses less current than ordinary light bulb.



## Frigidaire Electric Range



Radiantube Units—fast-heating . . . Definite cooking speeds . . . Extra-large oven heats to baking temperature in 5½ minutes . . . Automatic Cook-Master Control turns oven on, off, cooks meal by itself . . . Thermizer Cooker for soups, stews, pot roasts, other foods that require long cooking time . . . Waist-high smokel broiler—easy to use.



One-piece top . . . Lifetime porcelain finish, inside and out . . . Heavily insulated oven . . . No danger from fuel or flame . . . Radiantube Units laboratory-tested to the equivalent of 15 years of actual kitchen service.

# Frigidaire Appliances

get a Smile from HER . . .

and a Nod from HIM

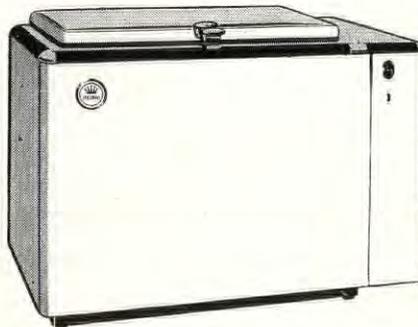
Yes, a smile of approval and a nod of confidence! For Frigidaire appliances are known—known for their convenience and dependability. That's why every Frigidaire appliance you specify will build a backlog of good will for you in the years ahead.

## Frigidaire Home Freezer

For "fresh" fruits, vegetables all year 'round . . . Frozen meats . . . Frozen pies, cakes.



So well insulated that temperature remains uniform throughout the cabinet . . . Dependable and economical Meter-Misercold-making mechanism . . . Automatic alarm protects in case of power failure . . . Counter-balanced lid for easy opening . . . Large capacity.



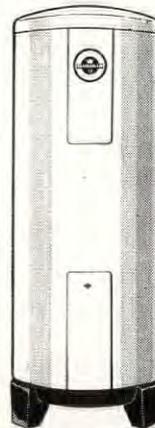
**Frigidaire All-Steel Kitchen Cabinets, Sinks** combine with Frigidaire appliances for extra-efficiency work centers.

## Frigidaire Water Heater

For a dependable, carefree hot water supply whenever it's wanted.



Specially shaped Radiantube Units flex off scale deposit, retain heating efficiency . . . Heavy insulation saves current . . . Entirely automatic—maintains water at constant temperature . . . completely safe . . . may be placed anywhere in house.



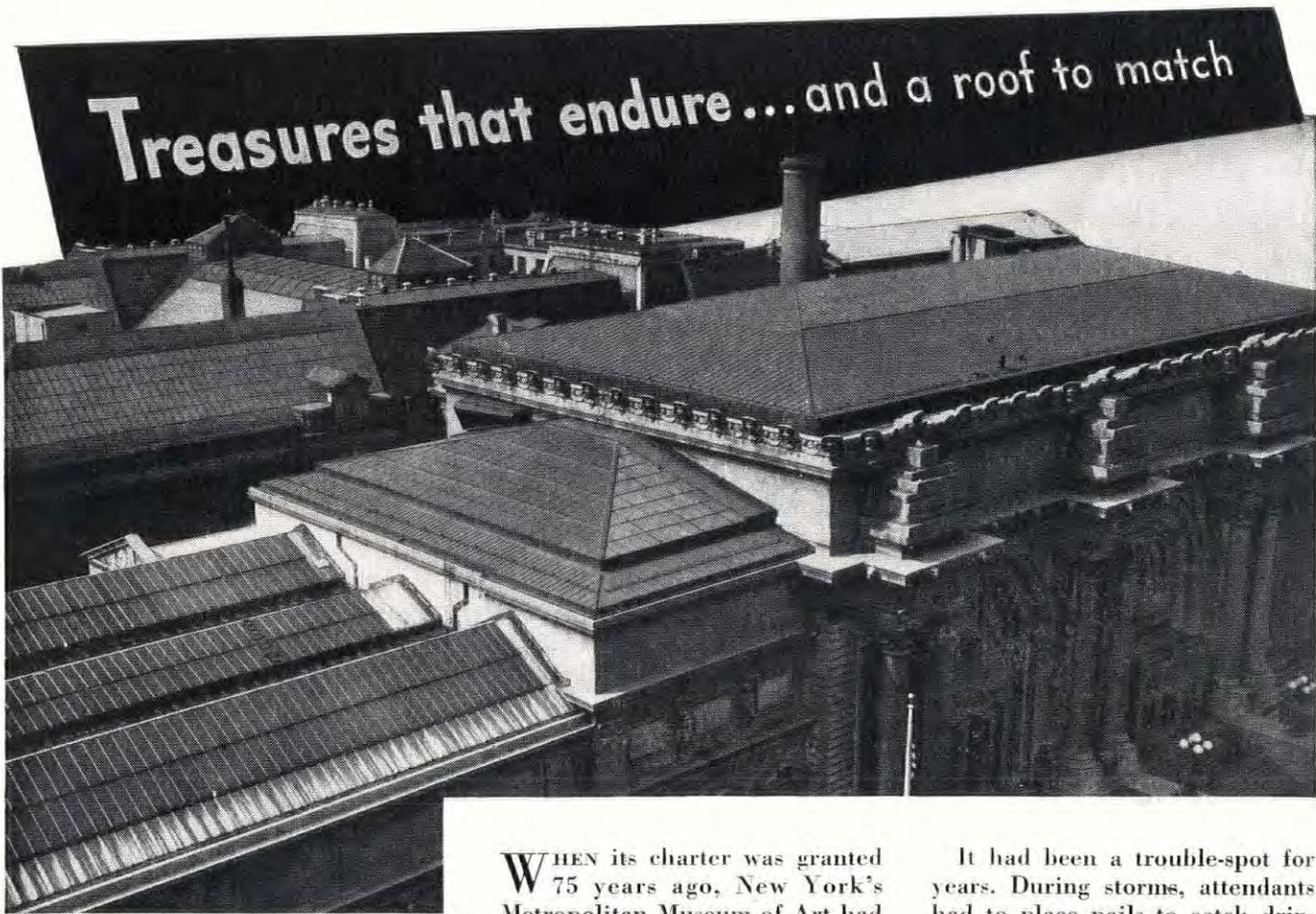
**See your Frigidaire Dealer.** Ask for pictures, dimensions, full descriptions of these and other Frigidaire appliances and equipment for homes, stores, restaurants, schools, institutions, offices, factories. Find his name in Classified Telephone Directory or write Frigidaire, 865 Amelia St., Dayton 1, Ohio. In Canada, 592 Commercial Rd., Leaside 12, Ontario.

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REFRIGERATORS • ELECTRIC RANGES • WATER HEATERS • HOME FREEZERS • KITCHEN CABINETS  
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Treasures that endure... and a roof to match



METROPOLITAN MUSEUM OF ART, Fifth Avenue, New York, installed Monel roofing 10 years ago to protect its famous collections from leaks and seepage. The Museum now plans large-scale construction and remodeling in connection with its 75th Anniversary program.



VIEW OF MONEL GUTTER and section of standing seam roofing and flashing installed in 1936.

WHEN its charter was granted 75 years ago, New York's Metropolitan Museum of Art had no collections, no endowment, no land and no buildings.

The Metropolitan is now celebrating its Diamond Jubilee — as one of the great treasure houses of the world.

Its galleries and store rooms cover nearly 14 acres of floor space, and contain approximately a million works of art reaching through five thousand years of history.

Still growing, the Museum plans extensive new construction and reconstruction, to be brought about by the successful completion of its Diamond Jubilee Campaign. They'll simplify and regroup collections. They'll add new buildings, and completely modernize present facilities.

Naturally, for roof renovation and new construction, the Metropolitan will give special consideration to Monel\*, the durable Nickel Alloy which they first used in 1936 to replace the Museum's old, faulty roof.

It had been a trouble-spot for years. During storms, attendants had to place pails to catch drippings from ceilings and skylights. Leakage endangered many priceless collections.

That picture changed after the installation of 120,000 square feet of Monel standing seam roofing... Monel gutters, conductors, skylights, frames, siding and flashing.

Monel is rustproof. It's stronger and tougher than any other non-ferrous roofing. It resists corrosion caused by chemicals in city air; it withstands the corrosive atmospheres of industrial and coastal areas. Its low co-efficient of expansion and high endurance strength reduce the possibility of fatigue failure.

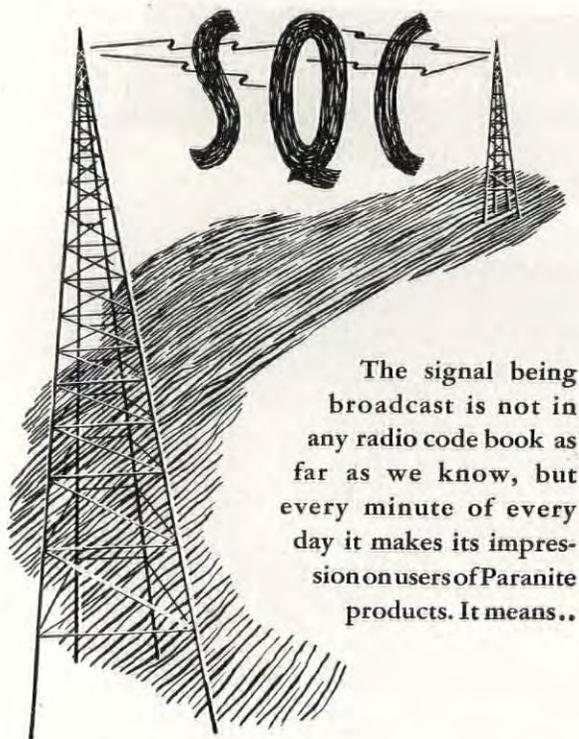
To The Metropolitan Museum of Art, the properties of Monel assure dependable protection, long roofing life and low maintenance expense. *And these are the benefits your clients, too, will have — when you specify Monel for roofing.*

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

Monel

THE INTERNATIONAL NICKEL COMPANY, INC.

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The signal being broadcast is not in any radio code book as far as we know, but every minute of every day it makes its impression on users of Parinite products. It means..

## STATISTICAL QUALITY CONTROL

Leaving nothing to chance—scores of tests, graphs, measurements—figures and figures—by columns; by rows of columns—are drilled and marshalled by our statisticians—are compiled *and analyzed*, while the individual operations are still in progress.

With our goal set high and Statistical Quality Control guarding each individual operation, you know that—

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Mo.; \*Los Angeles, Calif.; \*Newark, N. J.; Philadelphia, Pa.;  
\*St. Louis, Mo.; \*San Francisco, Calif.

(sales \$20 million, stock \$20 a share) into its present prosperity (sales \$86 million, stock \$127 a share). Brown direction had not only worked toward accelerating income: such less tangible assets as good public relations owed their increments to the company's alert boss. Typical Brown touch was the restyled annual report, first issued in 1937 in two editions, one for the company's 7,000 stockholders, one for its 11,200 employees. Simplified, illustrated, worded in primer language, the workers' report became a standard corporation *noblesse oblige*.

Last month, ready to manufacture a surface for all present purposes, Johns-Manville promised big research investment into products to meet future requirements, seemed ready to keep its grip on the title of "General Motors of the building industry." Realignment of responsibilities will be created by organization of the company into six operating and research divisions—industrial products, building products, Celite, Canadian products, asbestos products and an international division. Moving up into Brown's roomy presidential shoes is R. W. Lea, vice president for Finance since 1939 and executive vice president since last January. Lewis Brown will continue to direct general policy, public relations, long-range programming of corporate objectives; will leave the new president the internal administration of the vast J-M organization.

### J. ARCHER TURNER DIES

Construction company head.

Last month, J. Archer Turner, 61, acting head of Turner Construction Co. was dead. Only recently chosen chairman of the board upon the retirement of elder brother Henry C. Turner, his death left Turner



Turner

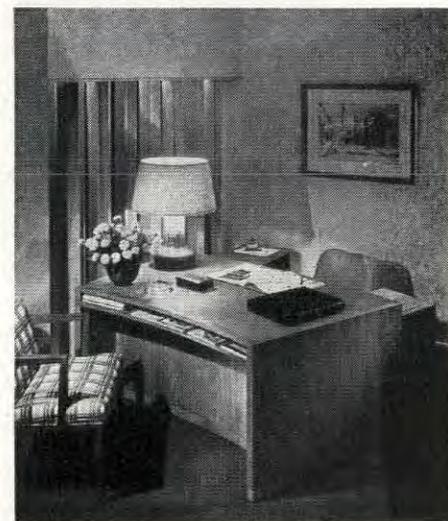
without the founding family for the first time in 44 years.

J. Archer Turner became Turner's president in 1941; oversaw the company's phenomenal defense and war program, including the administration of the Roane-Anderson Co., Oak Ridge management organization, construction of \$31 million of aviation and fuel storage facilities for Navy bases in the Pacific, and many of the country's biggest war plants.

A civil engineer, J. Archer Turner had been in the building business 40 years. In 1931, he became vice president at Turner's Philadelphia office; in 1941, he succeeded his brother as president; on Oct. 1, he moved into the position of board chairman.



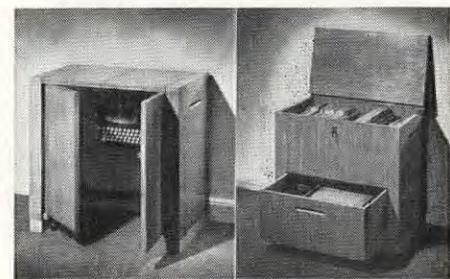
## DUNBAR For MODERN

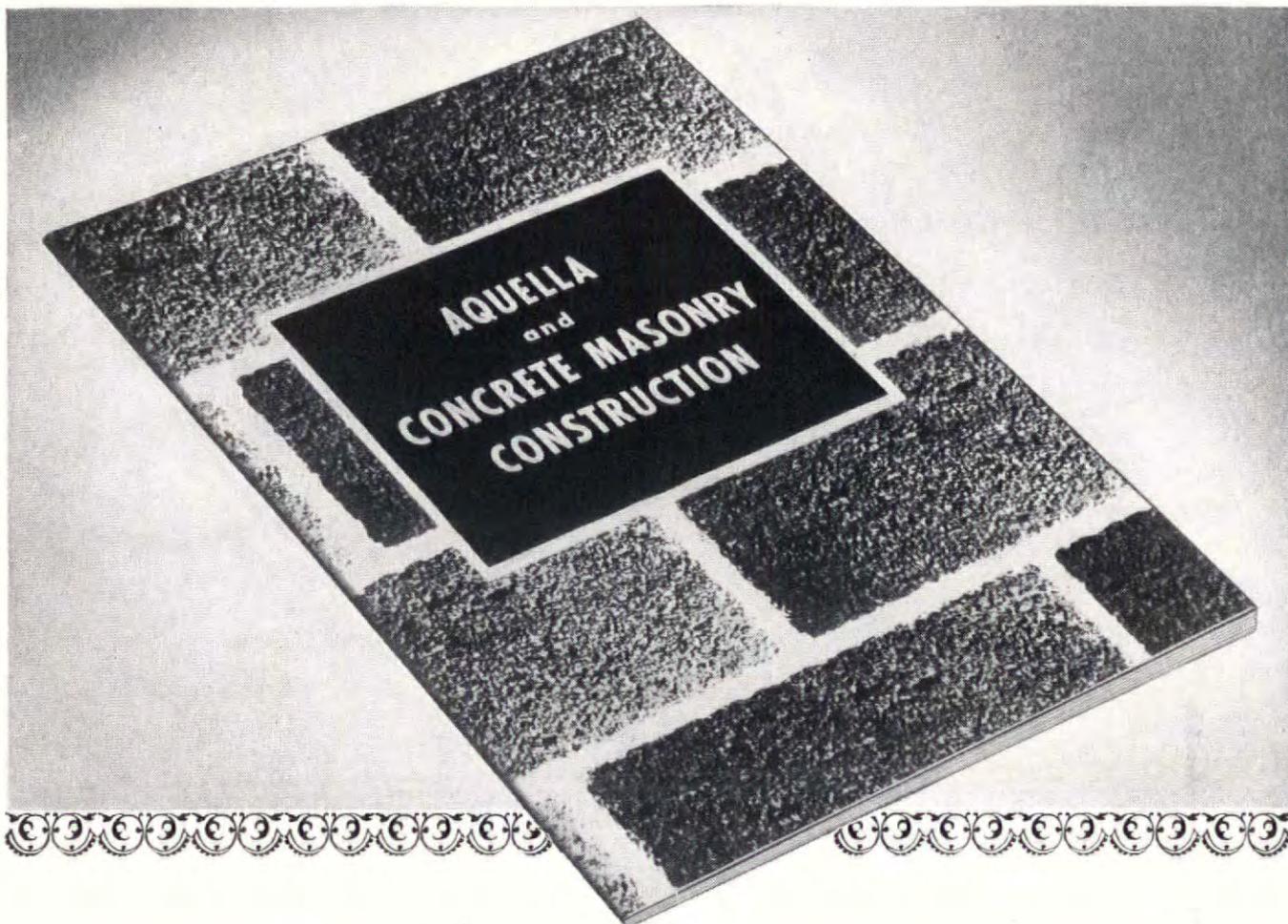


A COMPLETE OFFICE-AT-HOME  
generous-sized desk with  
portable file and  
full-size-typewriter compartments.  
Available in 1947.

DUNBAR FURNITURE MANUFACTURING CO.  
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**This 16-page brochure shows how and why Aquella is used throughout the Nation to control water seepage and dampness**

Here is the new 16-page brochure, "Aquella and Concrete Masonry Construction", that will be welcomed by members of the construction industry. Highly informative, it brings a wealth of technical data on Aquella ...the principle on which it works to control dampness and seepage on all porous masonry surfaces—plus many interesting examples of the ways it is being used throughout the nation. For your copy, simply fill in and mail the coupon at right.

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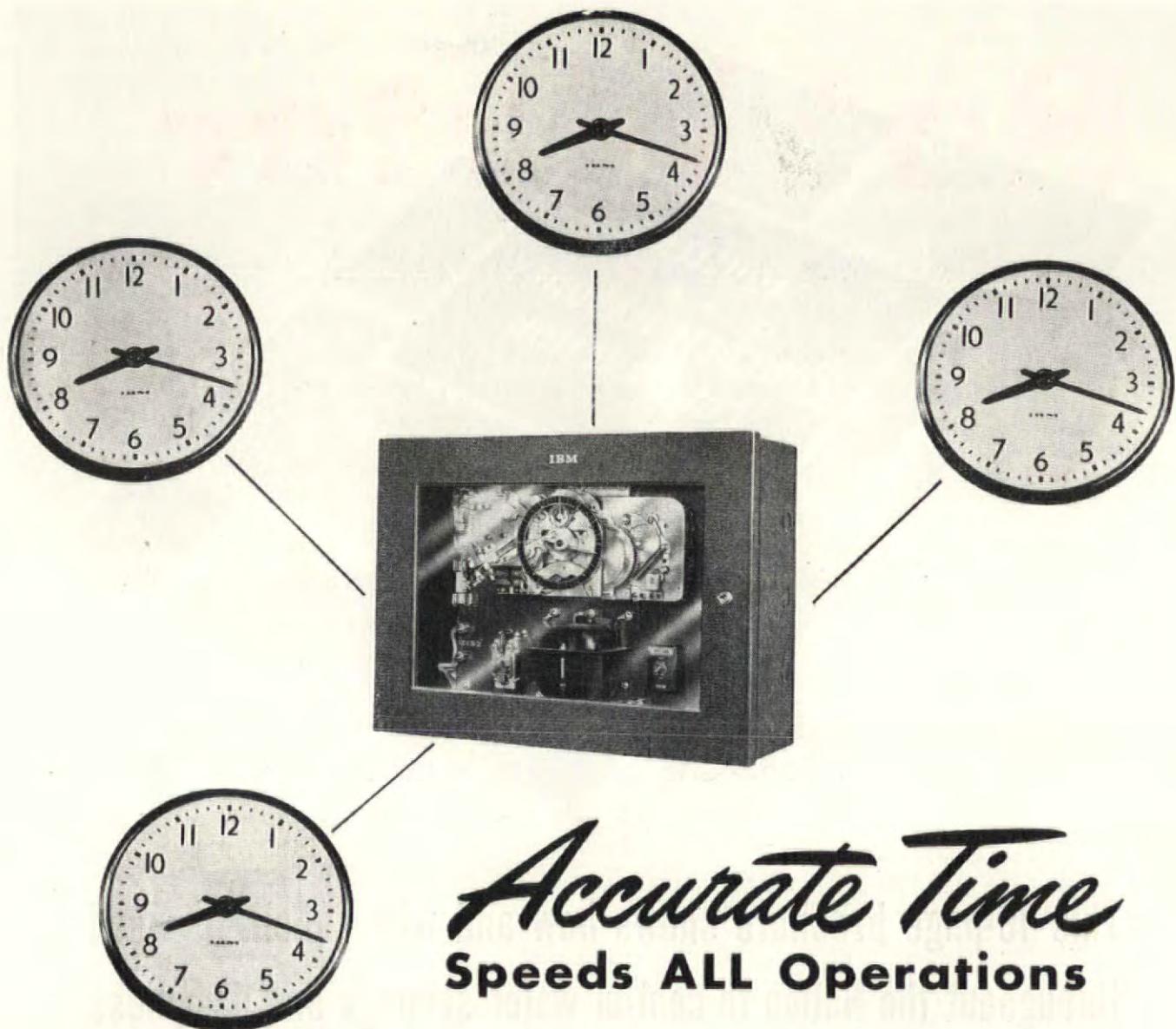
Please send my free copy of "Aquella and Concrete Masonry Construction".

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# *Accurate Time* Speeds ALL Operations

With the installation of an IBM Time Control and Time Indicating System, all operations can be keyed to the same accurate time.

Secondary clocks and connected time recording devices of all types are automatically self-regulated every hour by this IBM Master Time Control unit.

The latest model of this unit even provides

reserve operating power for use in the event of power interruptions. The unit also automatically regulates the rate of the clock to agree with the frequency rate of the electrical supply used.

As an integral part of an IBM Time Control and Time Indicating System, this new unit automatically provides constant, accurate time year in and year out.



**ELECTRIC TIME SYSTEMS AND TIME RECORDERS**  
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**AND SERVICE BUREAU FACILITIES**  
**ELECTRIC TYPEWRITERS • PROOF MACHINES**

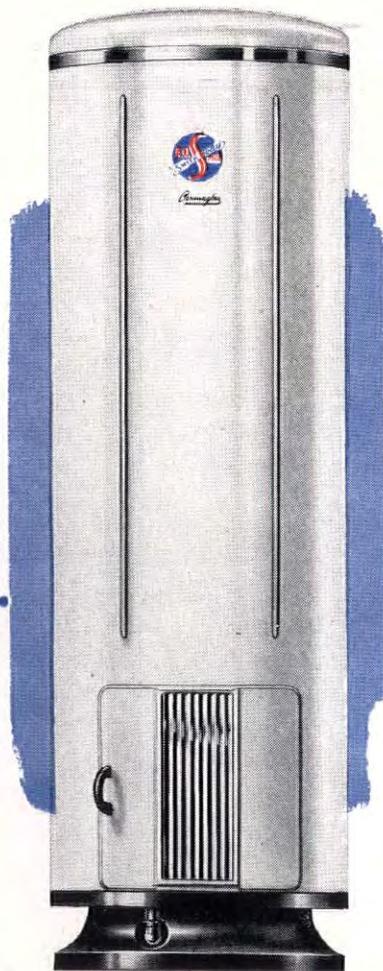
International Business Machines Corporation, World Headquarters Building, 590 Madison Avenue, New York 22, N. Y.

# Hot Water

Can Be Old-fashioned!

Let the home be modern, the kitchen a "dream," and the bath a beauty. But if the hot water runs rusty and stained with corrosion dirt, then it's as out-of-date as a pump!

## Permaglas <sup>Modern</sup> WATER HEATERS



... banish all tank rust and corrosion stain because they CANNOT rust or corrode under *any* water condition! Tests with waters in every state prove it!

*Permaglas* Water Heaters have the tank of mirror-smooth, sparkling blue glass-fused-to-steel... sanitary as a clean drinking glass.

They assure cleaner, purer hot water for every home use, enough for all the newest kitchen and laundry appliances. Fully automatic, gas or electric.

### *SPECIFY Sparkling Clean Hot Water*

No other water heater combines the health protection of the glass-fused-to-steel tank with such smooth, modern style, convenience, and trouble-free service.

Get all the facts on the *Permaglas*—now. Write the A. O. Smith office nearest you for a copy of "The Inside Story of Permaglas."

*"Packaged-in-Glass" Hot Water*



# A. O. SMITH

Corporation

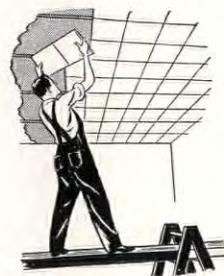
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### MOVABLE ASBESTOS WALLS

The keystone of flexibility in Unit Construction is the J-M Transite Asbestos Wall. Can be disassembled and relocated as often as needs require, without waste . . . with little or no inconvenience. Made of fireproof asbestos and cement, practically indestructible materials, the movable panels form rigid, double-faced partitions, 4" thick. Can also be used as interior finish of the outside walls. Removable Transite panels permit ready access to wiring, etc.



### ACOUSTICAL CEILING

Helping to overcome the handicap of distracting noise, J-M Acoustical Ceilings provide a quieter and more pleasant atmosphere . . . reduce fatigue and nervousness . . . and thus are beneficial to health and work efficiency. Demountable units are easy to clean, have high coefficients of sound-absorption and light-reflection. An exclusive J-M patented construction system permits interchangeability of flush-type fluorescent lighting and acoustical ceiling units.

*Now, Executive Offices  
can be flexible, too!*

**Johns-Manville System of Unit Construction—Walls, Ceilings, Floors**  
—provides flexibility as well as architectural beauty. Now you can  
enlarge, decrease, or rearrange office areas whenever needs require!

**W**HETHER you're thinking of a private executive office, a suite of offices, or an entire office building, Johns-Manville offers you a completely new and practical method of interior construction which has the combined advantages of flexibility, greater comfort, and attractive appearance.

Unit Construction meets the problem of ever-changing business needs. You can now provide for endless revisions of space-use—*at low cost*. Three Johns-Manville materials are united to form Unit Construction:

1. **Movable Asbestos Walls** . . . readily assembled . . . interchangeable . . . 100% salvageable.

This executive office is part of a complete building interior, using J-M Unit Construction throughout. Structurally flexible, it can easily be taken down and re-erected to meet changing business needs—yet it has all the qualities of solid, permanent construction.

Made of asbestos-cement Transite panels, they combine all the qualities of permanent construction. And they are hard to mar, easily cleaned—advantages that make a big difference in the maintenance budget.

2. **Acoustical Ceilings** . . . attractive . . . demountable . . . reduce distracting noise. Units can be taken down and relocated as desired.
3. **Colorful, Resilient Floors** . . . quiet underfoot. Small units permit easy extension of floor pattern.

The constituent parts of J-M Unit Construction are *built to last*. And they're so easy to keep clean that they bring maintenance costs way down.

Moreover, this proved method of construction makes the whole interior—walls, ceilings, floors—available under *one* specification, *one* manufacturer's responsibility.

Write for colorful brochure, showing many uses of this important development. Johns-Manville, P. O. Box 290, New York 16, N. Y.

**COLORFUL,  
RESILIENT FLOORING**

J-M Asphalt Tile Flooring completes the Unit Construction System. Made of asbestos and asphalt, the units withstand hard wear and give long years of service. Even a carelessly dropped cigarette will not mar their built-in beauty. Not only durable, J-M Asphalt Tile Floors are pleasantly comfortable and quiet underfoot. Individual units permit easy alterations or extension of patterns. Made in a wide variety of plain and marbled colors.



# Johns-Manville Unit Construction

- ASPHALT TILE FLOORS
- MOVABLE TRANSITE WALLS
- ACOUSTICAL CEILINGS



# Guth LIGHTING...

**IS GOOD LIGHTING . . . EVERYWHERE!**  
**THIS MAISON BLANCHE INSTALLATION**  
*Is Another Typical Example!*

This successful installation . . . like hundreds of other successful GUTH installations in many types of buildings all over the country . . . is the result of carefully planned lighting. Planning which begins with the designing of GUTH Fluorescent . . . and ends only when the proper luminaires are hung in the proper locations, and in the proper surroundings to provide the utmost in effective easy-seeing illumination.

At MAISON BLANCHE, New Orleans' famous department store, the entire fifth floor is efficiently, attractively lighted by GUTH Recessed Troffers.

For stores, offices, schools, public buildings . . . everywhere that there's a need for well-engineered, lighting fixtures to conform with sound lighting plans . . . GUTH has the right answer.

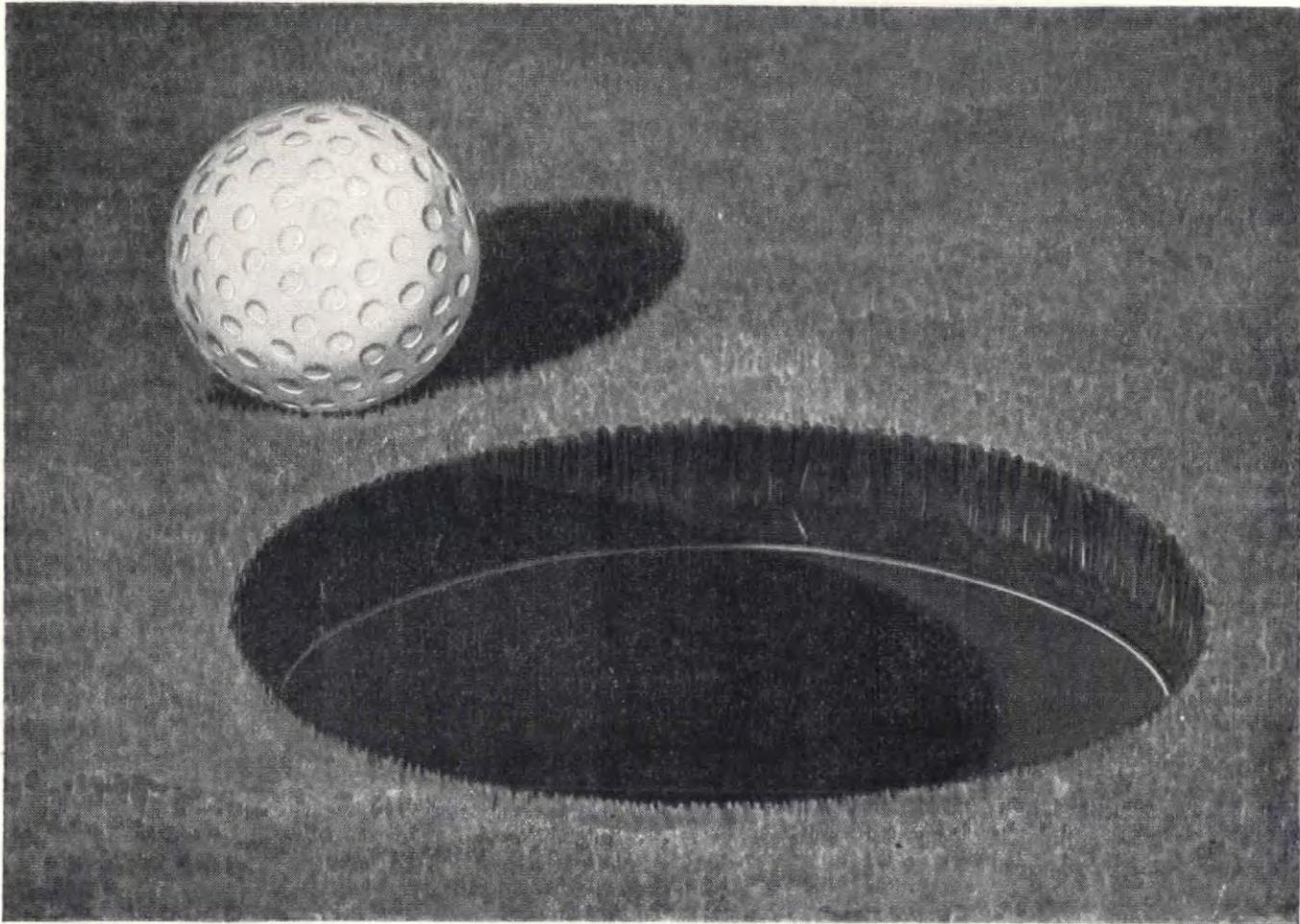
**A new Data Booklet telling you how to apply  
modern Recessed Troffers is available  
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today!**

Leaders in LIGHTING Since 1902

★ ★ ★ THE EDWIN F. Guth COMPANY ★ ★ ★

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## When a Couple of Inches Mean a Lot...

**Y**OU need doors and plywood. Our ability to meet your needs largely hangs on a couple of inches in the width of the doors and plywood you specify.

The production of stock sizes means multiplied production—more doors and plywood for more customers. On the other hand, odd-size doors and plywood mean manpower wasted—production slowed—orders unfilled.

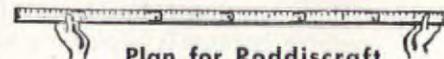
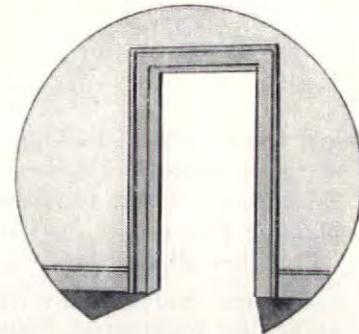
So plan for stock sizes only and we'll plan to meet your needs.

### Roddiscraft WAREHOUSES:

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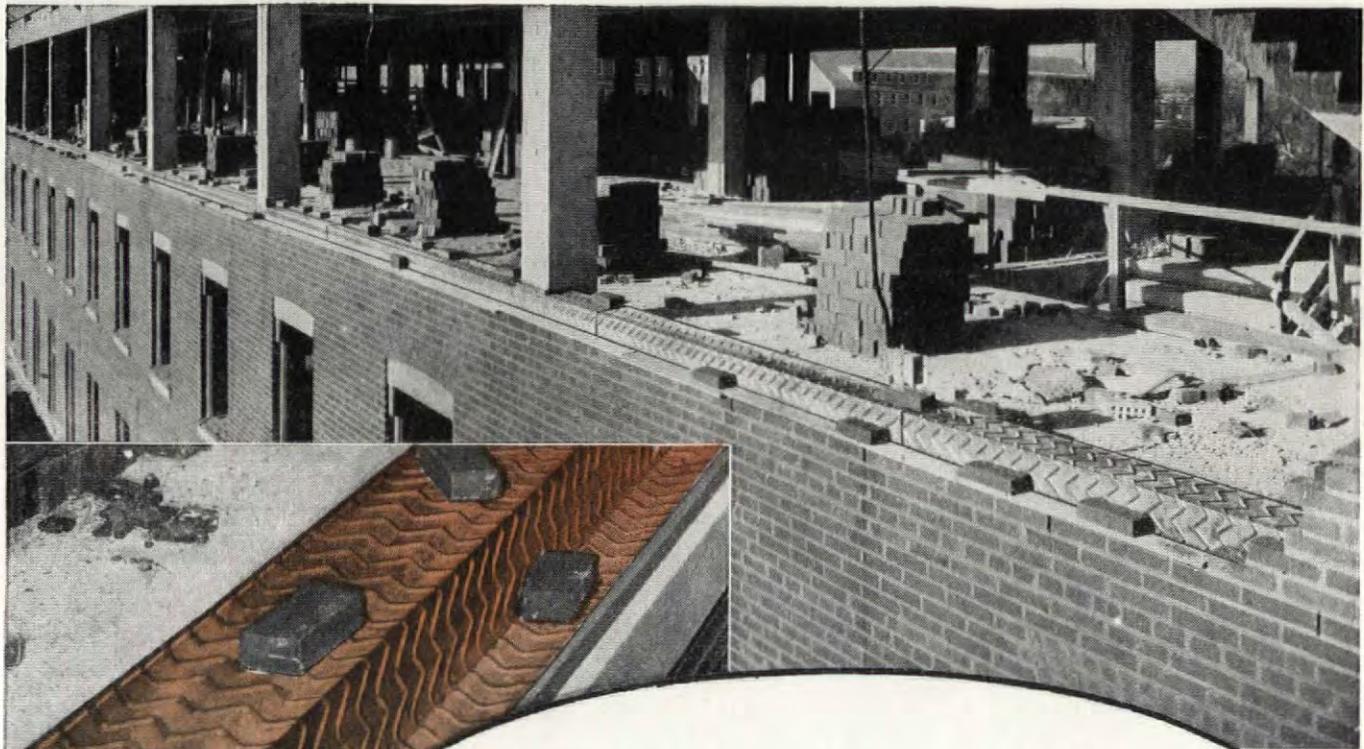
Plan for Roddiscraft doors and plywood in stock sizes—

# Roddiscraft

*Roddis Lumber & Veneer Co.*

MARSHFIELD, WISCONSIN

Roddiscraft warehouses, located at strategic points throughout the country, have been set up to save you time and serve you better—by making stock size doors and plywood available when and where you want them. Roddiscraft warehouse service is based on production and stocking of doors and plywood in stock sizes. Only by limiting ourselves to stock sizes can we give you the additional value of "on hand" service at convenient locations.



In this new Navy building  
**ANACONDA THROUGH-WALL FLASHING**  
*Keeps water out*

Anaconda 16 oz. Through-Wall Flashing in spandrel applications on new Navy building. J. D. Hedin Construction Co., Washington, D.C., General Contractor.

**I**N THE NEW Navy building illustrated above, the J. Edw. Linck Sheet Metal Works of Washington, D. C., installed 6,500 lb. of *the flashing that drains itself dry . . .* Anaconda Through-Wall Flashing.

This exceptionally effective flashing has been chosen for commercial, industrial, educational and institutional buildings throughout the country, because it offers these exclusive advantages:

1. Pre-stamped dam and corrugations which provide positive drainage.
2. Dam so designed that edge can be placed within 1/4 inch of face of wall and still allow for pointing of mortar joint.
3. Flat selvage in which sharp bends can be made without distorting flashing.

4. Readily locked endwise to form thoroughly water-tight joints, by nesting one or two corrugations.

5. Corrugations provide a strong bond with mortar, and prevent lateral movement.

Write for Publication C-28, which contains complete description and specifications; or refer to Sweet's Architectural Catalog.

4655



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*Anaconda*  
**COPPER**

**THE AMERICAN BRASS COMPANY**  
 General Offices: Waterbury 88, Connecticut  
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 New Toronto, Ont.



## Prelude to Progress

Paderewski himself couldn't have done better, the Sunday Evening Music Club decided as the new pianola rippled its phantom chords. The piano-player was costly culture in the Nineties... but it brought a library of classical music into the parlour, and progressive families considered it a part of good living.

Like the people who collected music by the roll,

House & Garden readers buy the best pianos, radios, phonographs, collect the finest recordings of today. Here

is a market of top families who are looking to House & Garden for *new trends in living*. .who are starting new sales for you.



# House & Garden

*sells America's most influential families*

October Commentary . . . Cover Designs Excoriated . . . Sullivan's Disciples . . . The Fountainhead in Retrospect . . . Moderate-Cost Home, '01 . . . More on Wright . . . William the Conqueror . . . Cracking the Housing Bottleneck.

## THE TWAIN SHALL MEET

Forum:

May I compliment you on the choice selection of homes you show in the October issue. I think they are more illustrative of public taste than the two-dormer pseudo-Cape Cod boxes which are multiplying like microbes in this section. It is regrettable that the current forced market makes them so readily salable. Five more years of such construction may solve the housing shortage, but it will certainly leave architecture with a black eye for years to come.

EDGAR S. VORRATH

Hillsdale, N. J.

Forum:

Even though I'm one of those frowned-upon lovers of the traditional, I still find great inspiration in your magazine. So much, in fact, that I have on my board now a half-dozen "modern" (couldn't we find a more apt term?) houses and I'm really having fun with them!

Incidentally, I like the new size and format—things are so much easier to find and follow.

HELEN W. DOUGLASS

Akron, Ohio.

## OCTOBER COMPLAINTS

Forum:

We would like to bring to your notice the condition of the FORUM as it arrives here. The binding does not hold and leaves fall asunder; also the few mice that we have are fond of the gum on the binding.

HENNESSY, HENNESSY & Co.

Architects and Consulting Engineers—  
Brisbane, Australia

Forum:

I find the October issue interesting, but I have a gripe to register regarding page 124 where you say: "when Garret Eckbo completes the landscape gardening." Simply "landscaping" would have been a much better term and not subject to the stigma that makes a landscape architect shudder. I don't know how Mr. Eckbo feels about it but, personally, I think that anyone who owns a wheelbarrow can do landscape gardening.

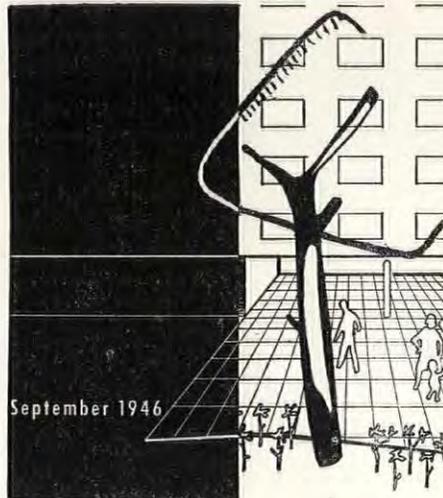
R. BURTON, JR.,  
Landscape Architect

Berkeley, Calif.

Just as anyone who owns a T-square can do architectural designing?—Ed.

Forum:

Is this a tree? No wonder you people in



New York scream at the sight of one. So would I.

CLARENCE (GRANDPOP) KEARFOTT  
Bristol, Va.

The picture was made just after the hurricane struck.—Ed.

## DEPARTMENT OF AMPLIFICATION

Forum:

Those things which reader Kearfott complains about in the "Grass on Main Street" issue of the FORUM (see people in cut above—Ed.) are a form of growth incubated under fluorescent lighting.

They are an outgrowth of pflug, the by-product of artgum, and begin to hatch out in temperatures of not less than fifty-five degrees.

At the first sign of movement, they acquire bad manners, a taste for all synthetics like chocolate flavor, orange drink and vanillin.

They spend all their time talking about a forty-hour week, time-and-a-half, retroactive pay and look forward to the time when the government will take over everything. They do no work.

A fifty-fifty mixture of D.D.T. and chlorine gas will exterminate them in three sprayings, one hour apart, and if they get in your hair, use the old-fashioned kerosene treatment.

WILLIAM O'NEIL

New York, N. Y.

## UNMENTIONED DISCIPLE

Forum:

In the article on the marking of Sullivan's birthplace (FORUM, Oct. '46, p. 12), it is

mentioned that "Sullivan's only disciple, Frank Lloyd Wright, was not present in Boston last month."

As an extremely interested student of Sullivan, Wright and others of the Chicago school, I would like to know what you had in mind. It seems to me that Sullivan had other disciples: George Elmslie, for instance.

Elmslie was for many years Sullivan's right-hand man and Elmslie's own later work, as the designing member of the firm of Purcell & Elmslie, is among the best of the Chicago school.

L. MORGAN YOST, Architect  
Kenilworth, Ill.

Forum:

. . . Not as well publicized but in every sense a more devoted follower is George Grant Elmslie of Chicago who, since beginning his career in Sullivan's office, has been inspired by a love and understanding of his great teacher.

ELIZABETH LORCH BAILEY  
Ann Arbor, Mich.

An olive branch to Readers Yost and Bailey. To FORUM's newshound, a reprimand.—Ed.

## FOUNTAINHEAD REVISITED

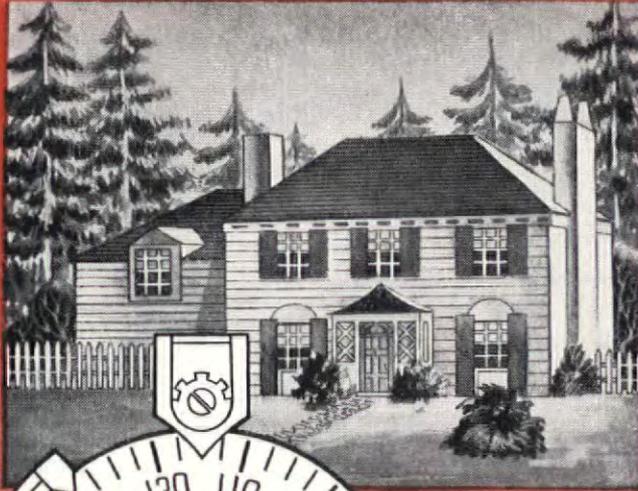
Forum:

*The Fountainhead*, written three years ago by Ayn Rand, has been hailed as an American classic. As late as March 17 this year, the book was still on the *New York Times*' best-seller list with more than 290,000 copies sold. In the six months since, monthly sales averaging around 1,000 have pushed the total to 350,000. As the first popular book dedicated to modern architecture, *The Fountainhead* has undoubtedly influenced lay attitudes on this subject more than anything ever written. It is too bad that it is a bad book.

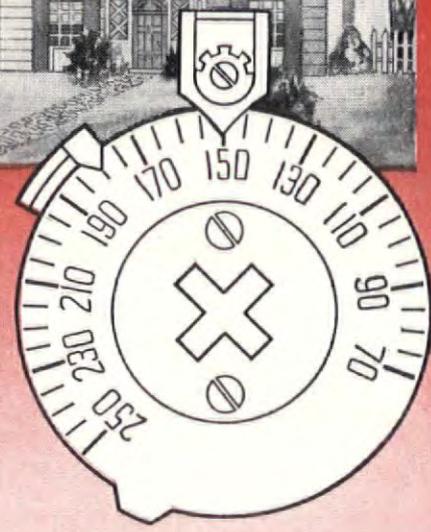
The FORUM, one of the few exceptions among ecstatic reviewers, originally compared *The Fountainhead* to children's comics. Among architects it has become a joke because of its singular lack of reality in portraying the architectural profession. But I, for one, consider *The Fountainhead* not only an absurd book, but a pernicious one. It is a story told with a forked tongue. One prong declares: every individual should be allowed to develop his highest potentialities according to his own lights; the other insists that the masses of people are incapable of developing into anything but sheep and therefore need not be given

(Continued on page 38)

# How W-R Controls help to solve INDIVIDUAL HOME HEATING PROBLEMS



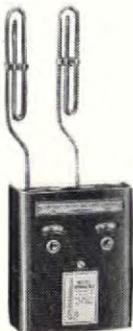
**The same equipment  
installed in identical  
homes requires dif-  
ferent adjustment**



External conditions such as exposure, prevailing winds and even the number of people in the house call for different requirements from a heating plant.

As the dials of White-Rodgers automatic tem-

perature controls are marked accurately in degrees Fahrenheit and the controls perform exactly as set anywhere within the range of the control, more and more manufacturers of heating equipment are adopting them as standard.



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**Upper right:** Series 3000 Gas Safety Pilot is simple in design and reliable in performance. Operates by difference in expansion of two stainless steel members. Automatically recycles, requires only relighting.

**Lower right:** Series 2600 Diaphragm Gas Valves give high capacity and smooth operation. May be operated manually in case of power failure. Also available with built-in limit control.



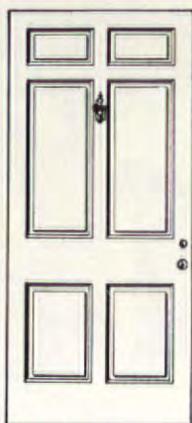
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# what should YOU know 6 about this important fold protection?

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**QUESTION:** What is the basis of NDMA protection?

**ANSWER:** A reliable test, developed through years of research, for measuring the effectiveness of toxic preservatives for woodwork such as doors, screens, frames and windows.

**QUESTION:** What is the value of this test?

**ANSWER:** It makes possible the establishment of minimum standards for wood treating—standards easily and quickly applied.

**QUESTION:** How can I identify woodwork which meets these standards?

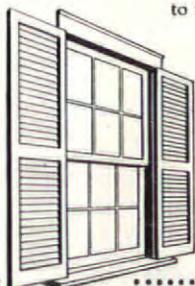
**ANSWER:** Such woodwork bears the NDMA seal of approval—available by license to all manufacturers and distributors who conform to NDMA toxic preservative standards.

**QUESTION:** How are NDMA standards applied?

**ANSWER:** By periodical mill inspection made by NDMA technicians of wood treating equipment and practices.

**QUESTION:** Is continuing conformity assured?

**ANSWER:** Yes, by means of check tests of preservative solutions, made by NDMA laboratories. These tests assure absolute and continuing uniformity to minimum toxic treatment standards.



**QUESTION:** How can I keep up to date on NDMA developments?

**ANSWER:** A continuing educational program is carried on by NDMA to acquaint architects, builders and the public with the results of scientific research in toxic preservative treatment.

**NATIONAL DOOR  
MANUFACTURERS ASSOCIATION**

McCORMICK BUILDING • CHICAGO, ILLINOIS



the chance. These two contradictory themes are evident in Miss Rand's approach to the philosophy of architecture. She plugs the design ideas of functionalism and organic construction advanced by such men as Louis Sullivan and Frank Lloyd Wright while in the same breath damning any form of social planning. She assumes that the two are mutually exclusive. Actually, they are two sides of the same coin: designing for people and for a better life. But this interweaving of truth and falsehood is so expertly done, the result such a garble of fact and fiction that the average reader is taken in by Miss Rand, unthinkingly swallowing her false premise. The book thus becomes a potent propaganda tract for reactionary political views.

If Miss Rand's interpretation of the design philosophy of modern architecture showed any understanding, the book might have a certain worth in spite of the danger of its social theories. But even here she misses. Her shallow touch turns the esthetic concepts of pioneer modern architects into a series of clichés.

Some scenes in the book give a hazy impression of beauty: "dynamic composition of glass and concrete;" "planes flowing together up into one consummate harmony;" "limestone looked silver against the sky" etc. But their effect depends upon the reader's acceptance of the author's assurance that the scene is beautiful. In terms of honest, fresh description, the scenes are false and superficial. The phrase concrete and glass is used throughout as automatic approval, the way a cheap short story might refer to a woman as a "Red-head."

The whole architectural profession is given a fake romantic slant. Howard Roark, Architect, is the hero: an infallible, unapproachable superman, years ahead of his time, distinguished mainly by supreme egotism—a swashbuckler with a T-square. Parallel with the build-up of Roark as the genius-architect is the inflation of Hearstian newspaperman Gail Wynand into a superman of business. Wynand rose from Hell's Kitchen to become a man of fabulous wealth by giving free reign to his most aggressive and brutal tendencies. But because, like Roark, he led his life in a completely selfish way, Roark cherishes him as an experience absolutely unrepeatable in its great quality.

On the feminine side of the ledger we have Dominique Francon, Woman incarnate: beautiful, wealthy, desired by all men, gifted in all ways. By some strange quirk, however, this Super-woman is sexually frigid. Early in the story she is brutally raped by Roark, still a complete stranger. From this act onward she be-

longs to him, even though the relationship is expressed in her attempt to injure him and to escape from him. She marries the mediocrity, Peter Keating in order to win prospective clients away from Roark. Her greatest sexual thrill is to go to Roark at night after stealing a commission from him in the day. "She had an exquisitely vicious mouth."

When she leaves Keating, it is to marry Gail Wynand. Their sexual union derives its intensity from his sadism and Dominique's masochism; the primitive act of the savage and his victim is raised to the highest pinnacle of sophistication. Thus, Miss Rand, lacking genuine literary power, gives her escape-world emotional punch by exploiting the morbid, the neurotic and the frustrated tendencies that our time generate in us.

Through skillful manipulation of her super-characters, the author puts across her main message: sound progress requires that we entrust the building of our world to such people; the cardinal sin is to seek a better organization of society. Says Roark, "The only good which men can do one another and the only statement of their proper relationship is—Hands off!" The contradiction between "hands off," Wynand's rapacious career and Dominique's twisted sexual life escapes Miss Rand.

Instead she chooses as her scapegoat any kind of public planning or social legislation.

She proclaims these things about all government housing, regardless of the nature of the government—capitalist, socialist or fascist; corrupt or democratic:

▶ Staggering of rents so that families with a higher income pay a greater share of the cost is evil.

▶ Government-sponsored homes cost \$10 thousand whereas private builders can put up the same homes for \$2 thousand.

▶ Government housing made all building so expensive that private owners cannot afford any type of low-rent construction.

▶ It is wrong to build a decent home for a man who earns \$15 a week because it forces a man with a \$40 income to live in a rat-hole.

▶ Working people do not mind living crowded together; for other people, however, dwellings should be out of sight of each other.

Nevertheless, Roark, the super-architect, designed a public housing project. During the course of construction—while he was off on a yachting cruise—a number of changes were made: balconies, gymnasium, and a little theater added. Its esthetic integrity impaired, Roark blows up the whole building with dynamite. After his acquittal in court, Roark gets his wealthy friend, a

(Continued on page 42)

# Points of Distinction

OF THE MODEL M

## PENBERTHY AUTOMATIC ELECTRIC SUMP PUMP

**1** MOTOR— $\frac{1}{4}$  hp capacitor type special vertical motor designed expressly for sump pump operation has maximum resistance to moisture and corrosion, and is practically free from radio interference.

**2** OVERLOAD PROTECTION—Built into motor, protects motor in case of improper voltages, overloading or trouble of any kind.

**3** MERCURY SWITCH is sensitive, dependable and particularly adapted to float operation. It has no mechanical contacts to wear or spark.

**4** IMPELLER has high efficiency and operates successfully against a head of 22 ft.

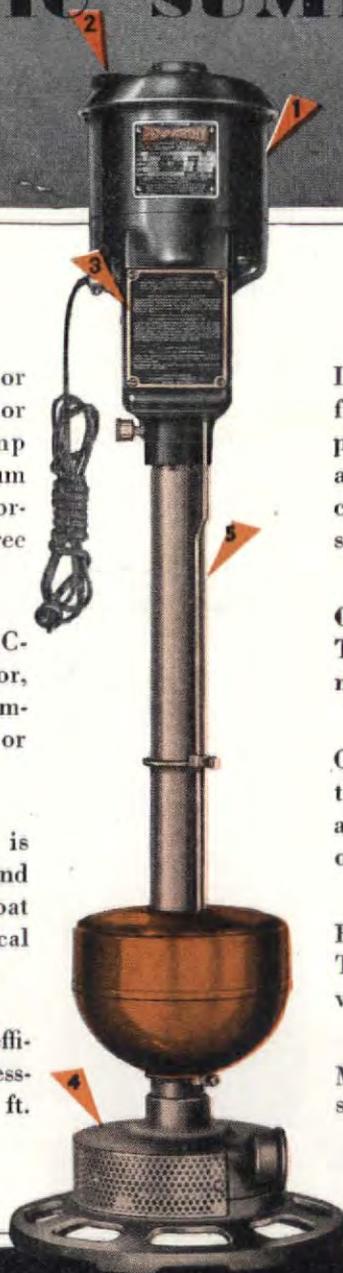
IMPELLER SHAFT is fully enclosed and held in perfect alignment by bearings at both ends. Flexible spring coupling relieves motor shaft of sudden starting shocks.

COPPER AND BRONZE THROUGHOUT; it is immune to corrosion.

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Made in FIVE SIZES for sump depths, from 2 to 8 ft.



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Established in 1886



Canadian Plant, Windsor, Ont.

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"Today's Idea House" treats doors and windows functionally—in terms of what they can do to make living more convenient and more comfortable. Send today for this booklet—your copy is waiting.



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Chicago 2, Illinois  
Please send me a free copy of "Today's Idea House."

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Address .....

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

## **SOLVING TRAFFIC CONGESTION**

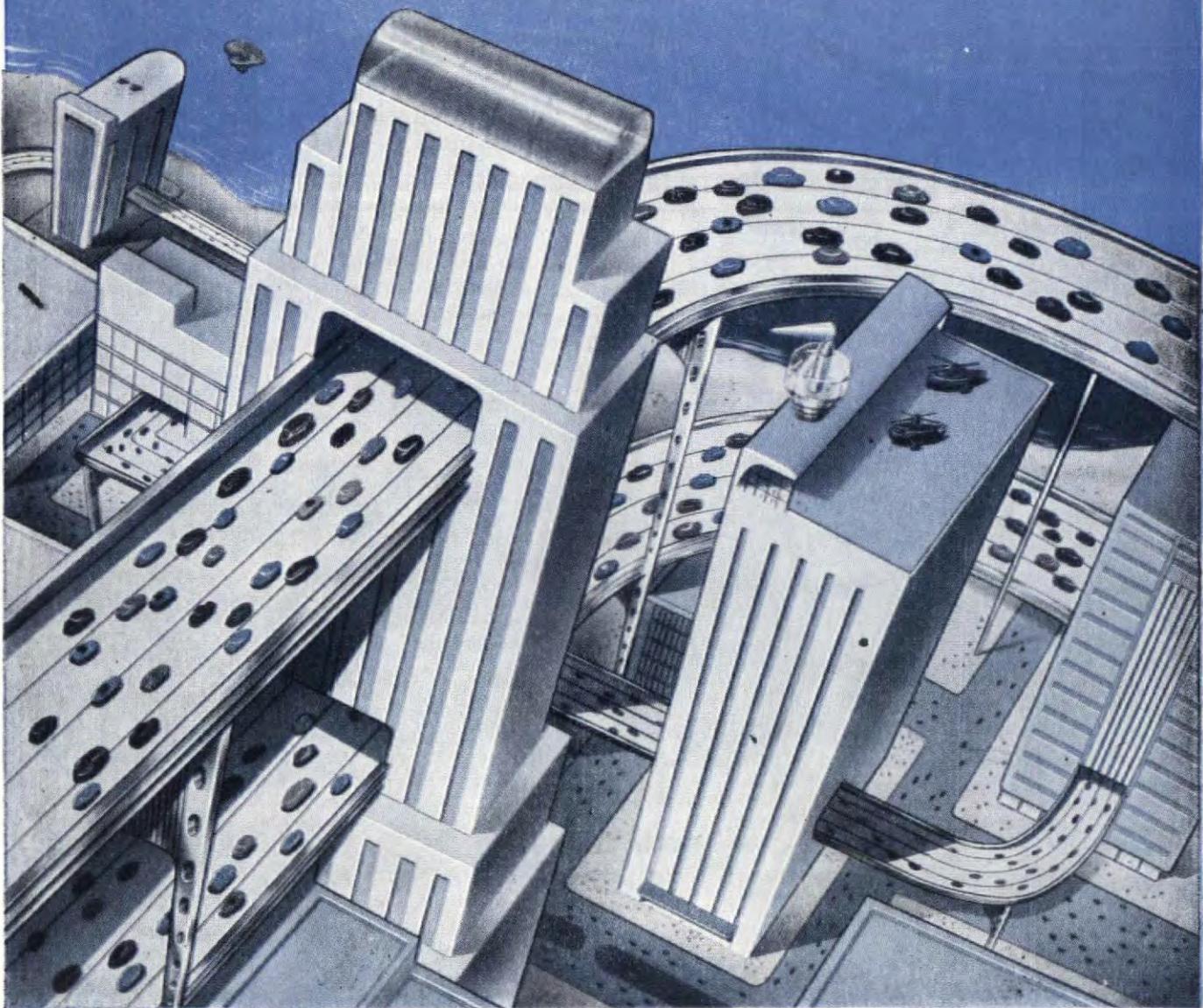
Traffic congestion on main arteries in some of our major cities has reached a point where a solution must be found. But widening skyscraper-lined streets is too costly. So it has been proposed that highways be built through these skyscrapers—using them as supports for the roadways. In the world of metals, aluminum and magnesium—the new light alloys—are supplying the solution for many manufacturers in gaining lightness in their products with no sacrifice of strength. Many other advantages are also obtained by use of these versatile metals. Bohn engineers would like to discuss possible applications with you.

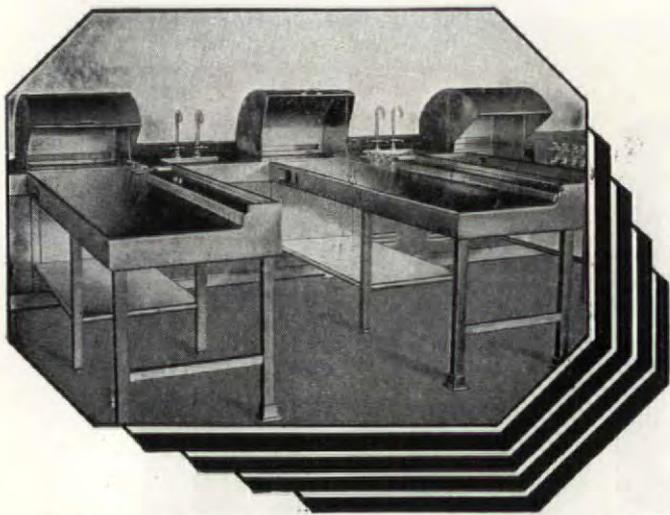
# **BOHN**

**BOHN ALUMINUM & BRASS CORPORATION, DETROIT 26, MICHIGAN**

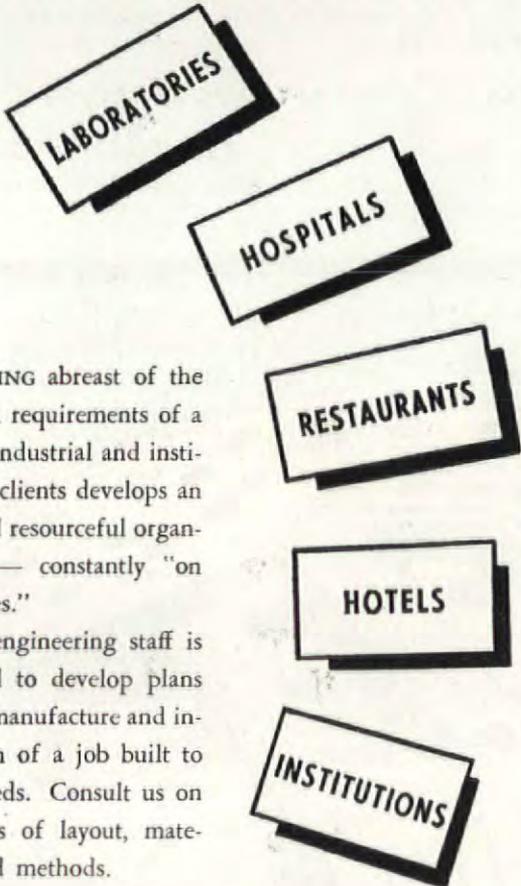
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private entrepreneur, to rebuild the project with his own funds, set low rentals and make a comfortable profit for himself to boot. What Roark does, specifically, to cut the cost down to *one-tenth* of the cost of the same project publicly financed is not made clear.

The cynical philosophy behind these ideas seeks to paralyze people, tends to restrain them from taking common action for public housing and social legislation. On the one hand, false qualities are imputed to public housing; on the other, we are urged to put our entire faith in the rugged individualists — the Leaders — to take care of us. The ideas propounded are especially dangerous because they involve a central problem of our era: how reverse the world-wide trend toward authoritarianism?

In social action, as in every other sector of experience, men awaken and learn by doing, develop sureness and confidence by their own activity. The greatest single weapon against authoritarianism is the stimulation of every man to play an active role in his world. *The Fountainhead* has the opposite effect: it substitutes reliance on the Leader for the activity of each individual in the group. That is why its popularity makes it a dangerous book.

HENRY FAGIN

New York, N. Y.

THEN AND NOW

Forum:

Here (*Ladies Home Journal*, Jan. '01) is a 45-year-old solution to the moderate cost house problem. The estimate of \$7,500 for this 3-story and basement structure is a bit startling when placed beside today's



1901 House by Ralph Adams Gram

figures . . . There is also an amusing difference between the past and present meaning of "utmost simplicity, both in material and treatment."

JULIAN H. SALOMON

Suffern, N. Y.

FRANK LLOYD AGAIN

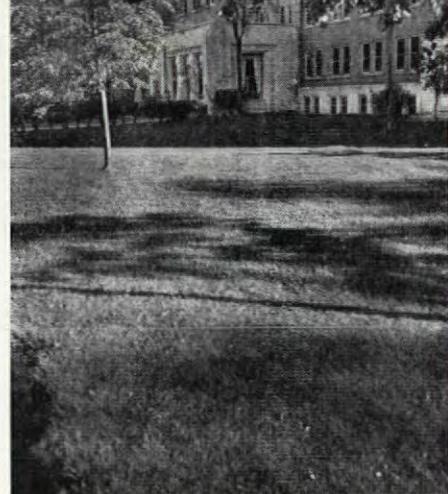
Forum:

Your last few issues have been somewhat overloaded with retorts and retaliations concerning Frank Lloyd Wright by men of assumed architectural authority.

(Continued on page 46)



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For the finishing  
Touch to Fine  
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LAWN SEED DIVISION

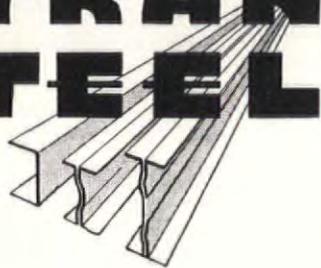
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BUILD WITH  
**STRAN  
STEEL**

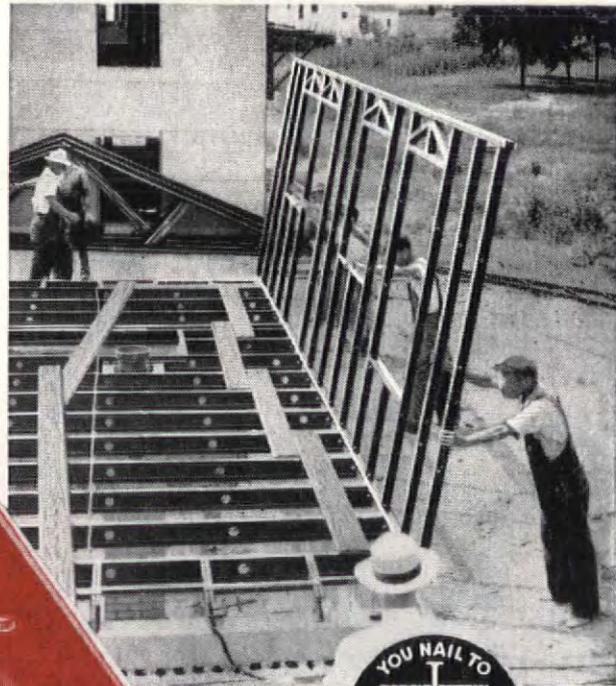


● **SIMPLICITY**—With versatile Stran-Steel, only a few basic types of framing members are required. Assembly on the site is fast and easy, because all materials are pre-cut to precision lengths. Erection tools are simple, too; ordinary carpenter's equipment does the job.

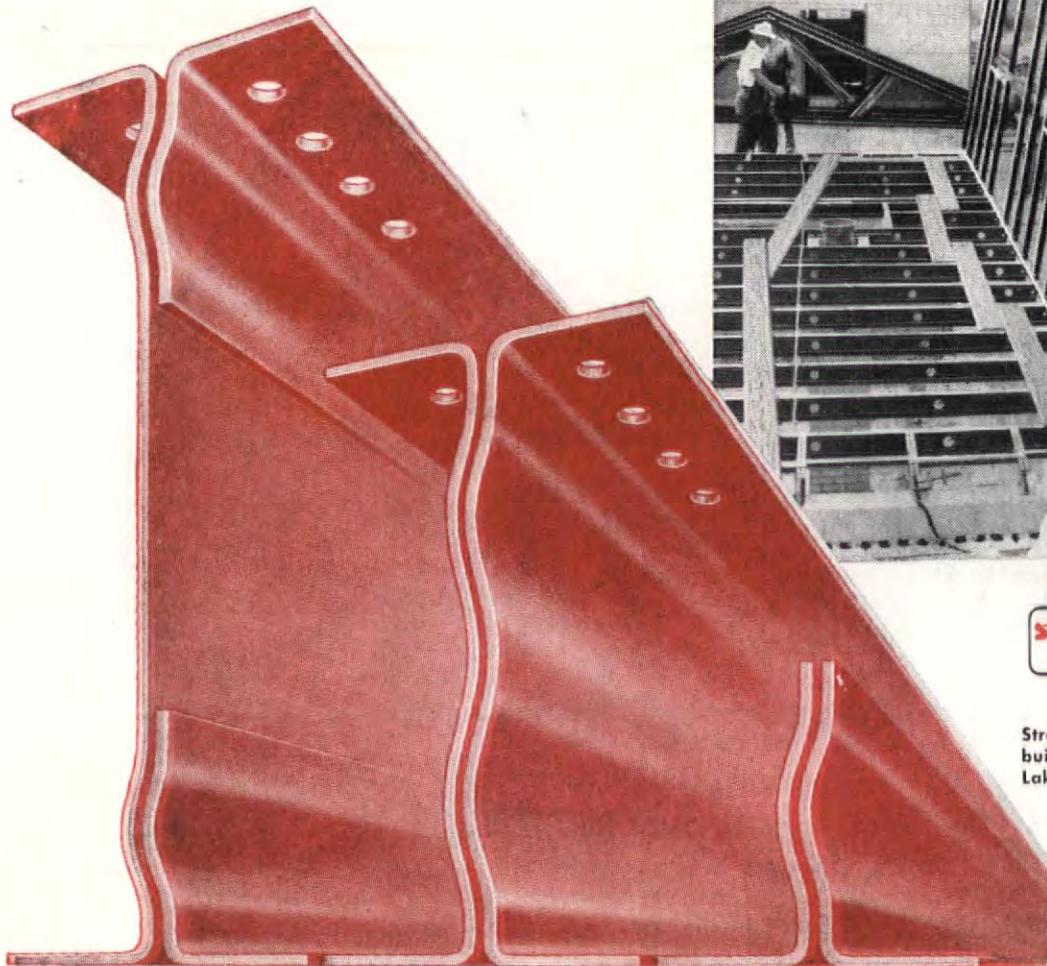
● **EFFICIENCY**—Stran-Steel framing can be assembled quickly with sheet metal screws or by welding. Collateral materials are *nailed* securely to the frame itself by means of the *nailing groove*, a patented feature of all Stran-Steel joists and studs. Architects have full latitude in working out widely varied exteriors in brick, lumber, stone and other materials.

● **ECONOMY**—In apartments, terraces and other multiple housing projects where framing members are duplicated frequently, Stran-Steel usually costs no more than other framing materials. In single homes, stores or other individual light-load buildings, the initial cost of Stran-Steel may be slightly higher, but the extra investment is repaid many times over in low upkeep and longer building life. For details, see Sweet's File, Architectural, Sweet's File for Builders, or the January issue of Building Supply News.

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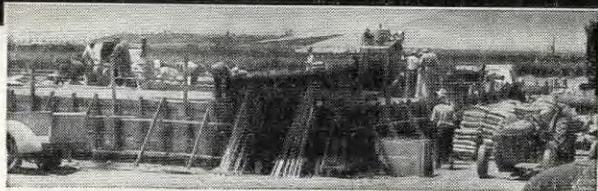
Easy to install between joists in attics and between studs in sidewalls. Weighs about 6 pounds per cubic foot. 100% fireproof—rotproof—verminproof. Won't irritate workers' hands! No masks required!

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Ideal for insulating fill and structural roof decks. Fireproof—rotproof—permanent. To make Zonolite Insulating Concrete simply mix with ordinary cement instead of sand. Weighs as little as 16 pounds per cubic foot when mixed. Used for floors in homes, commercial buildings and farm structures.

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• Screeding Zonolite Insulating Concrete roof fill over concrete slab. Easily formed into saddles and cants for proper drainage.



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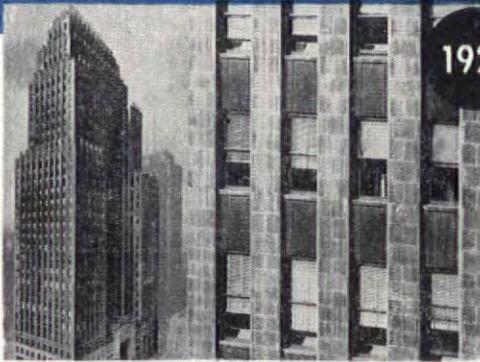
Address.....

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



1929

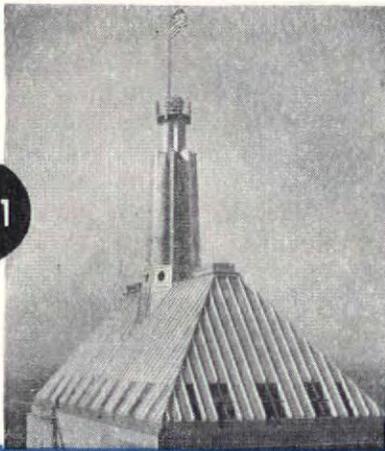
Nineteen years ago Alcoa Aluminum window sills were installed throughout the Chrysler Building, New York, N.Y.



1929

Another veteran Alcoa installation—967 cast aluminum spandrels on the Koppers Building, Pittsburgh, Penna.

Thirteen years ago Alcoa Aluminum flooring and railings on this bridge saved one and one-half million pounds of dead weight.



1931

Fifteen years of trouble-free service is the record of this aluminum roof on the First National Bank Building, Oklahoma City, Okla.



1933

TAKE A LOOK AT THE PERFORMANCE RECORD OF

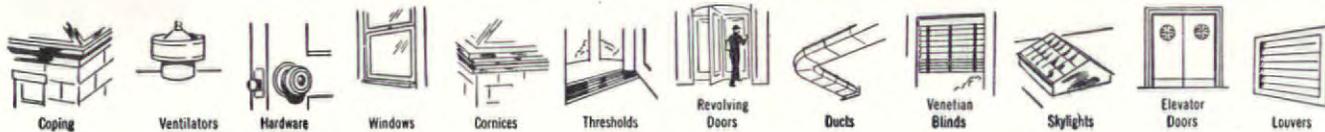
*Alcoa Aluminum*

There's plenty of proof that it pays to use Alcoa Aluminum in building construction. Just take a look at its performance record.

For instance, aluminum windows, roofs, ornamental work, are still giving excellent service after 15 to 20 years. There's a church steeple erected 20 years ago, which is in as good condition now as when it was installed.

Look around and you'll find aluminum windows, doors, screening and spandrels; you'll see coping, skylights, roofs and cornices made from Alcoa Aluminum. Check some of these installations yourself and you'll see why Alcoa Aluminum should be included in the plans of your future buildings. Write for our booklet—"Let's Look at the Record". ALUMINUM COMPANY OF AMERICA, 1866 Gulf Building, Pittsburgh 19, Pa.

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Who are these men who so completely denounce and condemn a work of architecture? Does a man who owns a Ford because he dislikes a Chevy feel that he can give an unbiased evaluation of styling and engineering?

A young lady, after her third trip through the Johnson building, exclaimed over and over, "It's breathtaking, simply breathtaking!!!" These responses were made by a person who had never heard of Wright and who had had no appreciation of the word "architecture" before her first trip—which inspired research and interest in both. Now Mr. Wright and his works are, to her, master and masterpieces. She is just one of thousands that have been architecturally influenced by these so-called "pieces of exhibitionism."

... Until several centuries ago, architecture was the creation of a minority for a majority, and built by a majority. Practically everyone was concerned with a building or its construction. Today, the word "minority" seems to fit the formula in all three phases. But Mr. Wright has led both the majority and minority in forthright ideas and presentations.

... What are these fellows trying to prove? Nothing—except that people who shout about nothing seem to have nothing to shout about. From this corner, Mr. Wright's attempts may be classified as triumphs because he has given rebirth to old and tried theories as well as to new and untried idealisms.

A young fan of Wright's has written these words: "What a pity there aren't more men who have the power of imagination, the strength to defend, the unfeared defiance and undaunted belief that he has shown and demonstrated in these seventy-some years of his life."

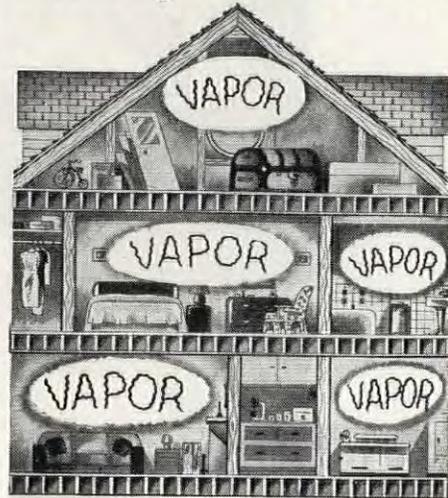
To which can only be added, "Amen!"  
BRONZE WOOD  
Jefferson City, Mo.

### Forum:

When it comes to something I know ever so little about, like the Frank Lloyd Wright story, I am depressed by the barrier which seems still to be growing between Europe and America. The two continents are twin stems of a common stock, and the work of a highly individualist artist like Wright is meaningless unless related to a common tradition. More than that—his work can have no survival factor unless its technique can be transmitted to succeeding generations. That will be the final test of his merit, as it is actually the only valid basis of criticism. He began practising at about the same time as my father—in the nineties. Both built largely for a privileged class of client. In both cases few of their houses,

(Continued on page 50)

## Indoor **STORM CLOUDS** Endanger Insulation



## Prevent "In-wall" Condensation

with  
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**VAPOR BARRIER**

When the "storm clouds" of vapor, present in all buildings, condense within walls they make insulation soggy, impair its efficiency, cause paint peeling, hasten structure rot. The simple, effective remedy for this condensation evil is a separate vapor barrier applied on the warm side of insulation. The standard, in use throughout the world, is Bird Neponset Black Vapor Barrier—lasts a lifetime, costs only about \$20 for a \$10,000 building—safely repels vapor, keeps insulation at peak efficiency. Consult Sweet's Architectural Catalog 9b-2 or write Bird & Son, inc., 137 Washington St., East Walpole, Mass. for sample.



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Nationally distributed through leading electrical supply houses.

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



913

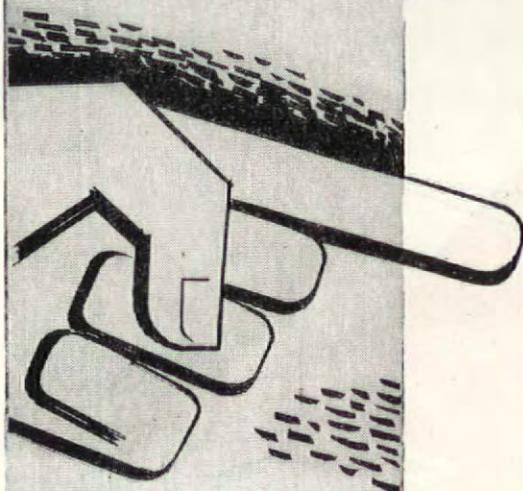


IT'S EASY TO SEE WHEN IT'S

# DAY-BRITE

*Lighting*

# OUR PLEDGE TO THE ARCHITECT



**Adequate Plant Facilities**

**Continuous Product Development**

**Uniform Product Quality**

**Controlled Installation Standards**

**Maintenance Service Program**

**—YOUR ASSURANCE**

## *of better, longer lasting floors*

During the past year, this five-point pledge has been the mainspring of Tile-Tex policy.

New plants have been built and are now in production. Research facilities to assure new and better products have been sharply expanded. New techniques have been developed to guard the uniformity of Tile-Tex quality. Programs designed to lift installation standards and make effective intelligent maintenance service to the architect's client

are in full swing.

This basic Tile-Tex pledge will continue to protect you and your client. It enables you to specify Tile-Tex Asphalt Tile with the full assurance that your client will get maximum satisfaction from the floors in his building.

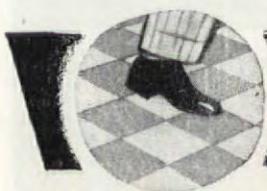
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**THE TILE-TEX COMPANY, Inc.**

ASPHALT TILE MFR.

SUBSIDIARY OF THE FLINTKOTE COMPANY

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**LOOK TO *Tile-Tex* IN '46  
FOR THE BEST IN FLOORING**

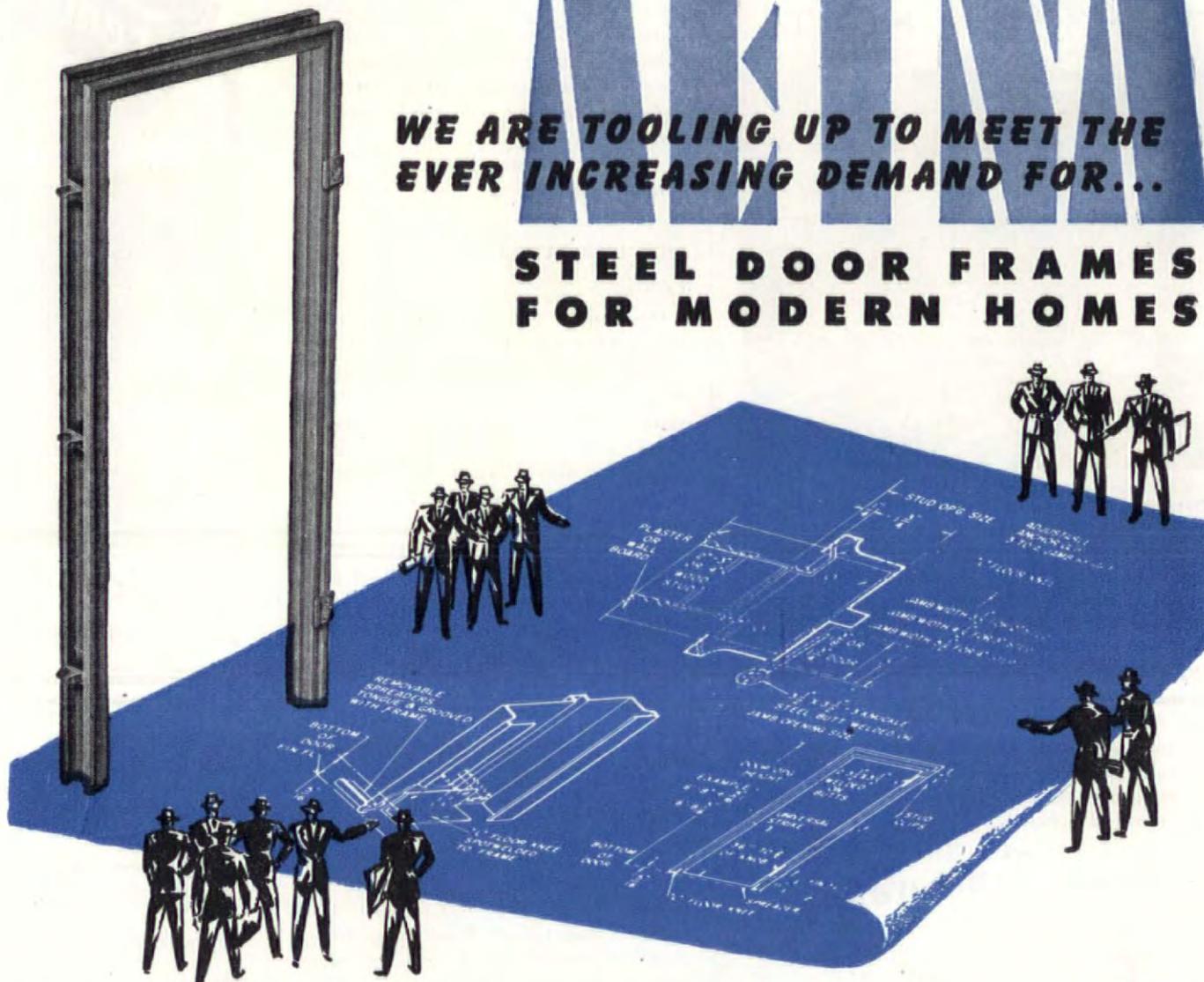


# GOOD NEWS FOR 1947!



**WE ARE TOOLING UP TO MEET THE  
EVER INCREASING DEMAND FOR...**

**STEEL DOOR FRAMES  
FOR MODERN HOMES**



## THESE ADVANTAGES ACCOUNT FOR THE GREAT DEMAND

- **STRENGTH**—Welded to form a complete integral unit of jamb, head, and two sides trim; resulting in great strength.
- **RIGIDITY**—Being one complete integral unit, they will not warp or crack, and mitres will not open. Aetna Frames will not absorb moisture and swell, thus the size of the frame will not change.
- **SIZE**—Designed for 1 1/4" and 1 3/4" standard size doors.
- **PERMANENCY**—Will not chip or damage, eliminating costs and inconvenience of repairs.
- **FINISH**—Prime coated at the factory, saving one coat of paint.
- **HARDWARE**—Hinges are welded to frames at the factory, saving the cost of a pair of hinges and application. They are spaced to fit virtually all prefabricated doors. Bronze strike plate is furnished to fit most standardized bit/key and tubular locks and latches.
- **LOW COST**—Cost less than wood jambs and trim installed.

Aetna Steel Door Frames, like many modern improvements in the construction field, will serve as a stimulant toward building activity. Aetna Frames are easy to erect requiring less handling at the building site, offer you mass production economy and simplify your supply problems.



SEND FOR NEW AETNA STEEL DOOR FRAME FOLDER.

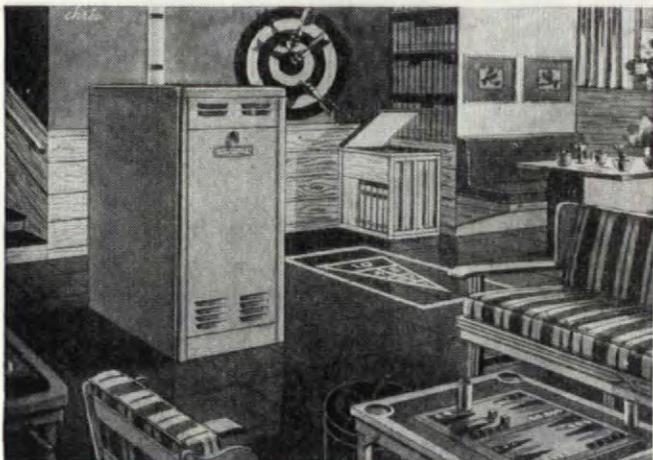
**AETNA STEEL PRODUCTS CORPORATION**

EXECUTIVE OFFICES: 61 Broadway, New York 6, N. Y. • PLANT: Pottsville, Pa.



# KOVEN WATERFILM BOILERS

For Economical **QUICK!**  
HEAT!



Home owners may differ in their tastes, but when it comes to heating their homes they all demand a heating unit that will provide dependable comfort. By installing a KOVEN WATERFILM BOILER you're giving your customers the ultimate in radiant heat that assures even room temperature throughout the house and a plentiful supply of domestic hot water at all times.

KOVEN WATERFILM BOILERS are the fastest steaming boilers on the market and their patented construction incorporates all the newest scientific improvements.

Attractively jacketed, these boilers are available in a variety of models suitable for large or small homes, apartment houses and industrial plants. Write for a copy of the free illustrated booklet.

Even Room Temperature...



...Throughout the House!

**Waterfilm Boilers, Inc.**

154 Ogden Avenue, Jersey City 7, N. J.  
Plants: Jersey City, N. J. • Dover, N. J.

as such, will survive very long in an industrial civilization. But their art as architects is another matter. It will either exercise a continuing influence or it will not, and both of them will have failed if they were no more than the products of national temperament and national genius.

I do not know the extent of Wright's influence in the States. It has been very extensive in Europe and, on the whole, bad—largely because his essential romanticism has been misunderstood. It is that which makes me wonder whether he is merely an empiricist.

ROBERT LUTYENS, F.R.I.B.A.

London, England

### THIN INSPIRATION

Forum:

Once upon a time, 'way back in the nineteen-twenties, I was an architectural student. To me it was a wonderful profession with a long and glorious past and an equally brilliant future, and my head was awl with admiration for those deities with the names of Henry Bacon, Bertram Goodhue, Paul Cret, Jules Guerin, John Russell Pope, Otto Eggers, Charles Platt, Mellor, Meigs & Howe, Lee Lawrie, Ralph Adams Cram, Cass Gilbert and so many others.

Today my son is dazzled by the splendor of "William the Conqueror!" What tragic emptiness, what thin inspiration is the lot of my son!

URIE McCLEARY

Los Angeles, Calif.

### POCHOIR REPRODUCTION

Forum:

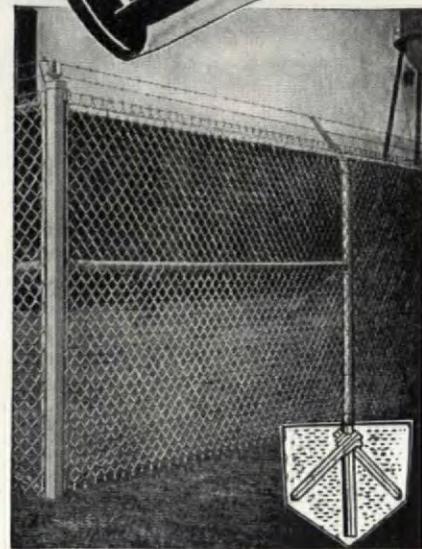
In your Reviews column on *Prints* (FORUM, July '46, p. 168) you omitted to mention that Lyonel Feininger's "Gothic Spire" at The Willard Gallery was reproduced in our studio.

This print, like all the ones we have done, was not merely rolled off a press like other reproductions. Instead, it was made in the same way that the artist made his original—by wetting the paper and letting the water color run freely into place. In order not to sacrifice any quality of the original work of art we limit all our reproductions to small editions.

As with the Feininger, we found that the *Pochoir* method of using water color and brush directly on rag paper was also the best way to achieve transparencies and variations in the "Yellow Donkey" by Paul Klee, "Still Life" by Picasso, Milton Avery's "The Brown Hat" and Hans Hofmann's "Composition in Blue."

In all these prints it was necessary to

(Continued on page 54)



## Check Exclusive Anchor Features

Anchor Chain Link Fence provides important and exclusive advantages which are found in no other fence:

**Deep-Driven Anchors**, which facilitate erection, hold fence permanently erect and in line, yet permit relocation without waste if enclosed area changes.

**Square Frame Gates**, inseparably butt-welded at corners, amazingly free from sagging and warping.

**Square Corner Posts**, better looking and much stronger than round posts of comparable size.

**U-Bar Line Posts**, which further increase rigidity, strength and durability.

Send for our Book No. 110 for your A. I. A. File No. 14-K. Shows many types and uses . . . pictures prominent installations . . . contains structural diagrams and specification tables for Anchor Chain Link Fence. No obligation. Address: Anchor Post Div., Anchor Post Products, Inc., 6635 Eastern Avenue, Baltimore 24.

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Nation-wide Sales and Erecting Service

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*Magic Chef*  
**THAN ON ANY OTHER RANGE**

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**TO ARCHITECTS  
AND BUILDERS  
THIS MEANS...**

Magic Chef will add prestige to any kitchen you plan because it is the Range that most consumers know and use.



**YOU SPECIFY THE BEST WHEN YOU SAY** *Magic Chef*

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New York • Atlanta • Philadelphia • Chicago • Cleveland • St. Louis • Los Angeles

# SYLVANIA NEWS

## ARCHITECTURAL EDITION

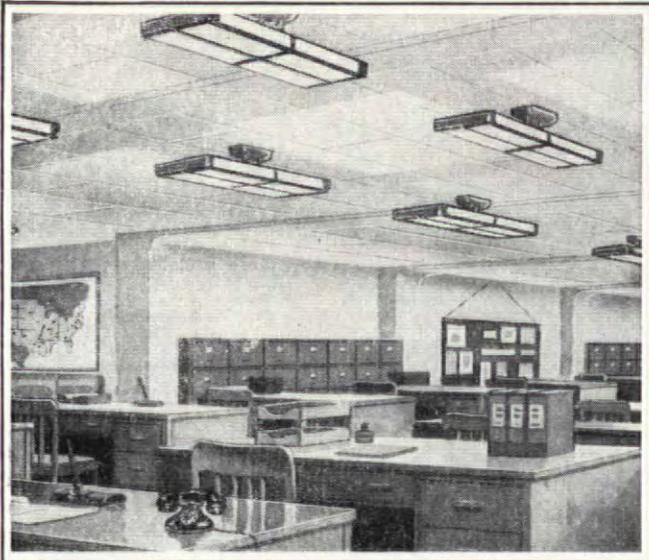
DEC.

Prepared by SYLVANIA ELECTRIC PRODUCTS INC., Salem, Mass.

1946

### ARCHITECTS! FILL VARIED LIGHTING DEMANDS . . . WITH SYLVANIA'S LINE OF CUSTOM-TYPE FIXTURES!

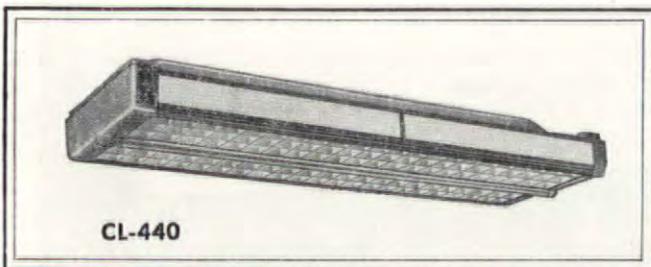
#### New "Basic Chassis" Design Meets Requirements Of Supermarkets, Offices or Small Stores



Beautiful and modern glass-shielded CG-440 contributes to trim, efficient appearance of office rooms. Containing four 40-watt fluorescent lamps, this pendant or flush-to-ceiling mounted fixture fills the requirements of the most exclusive shops as well.



Of the same design family as the CG-440 and the CL-440 (lower left) is the C-440 — the ideal fixture for applications where shielding is not essential. Equipped with four 40-watt lamps, the C-440 gives the ample illumination necessary for supermarkets, for example.



The CL-440 is a four 40-watt lamp fixture fitted with louvers. Used wherever attractive diffused lighting is desired. Has same "basic chassis" as fixtures above.

One basic chassis! That's the secret of the versatility of Sylvania's new line!

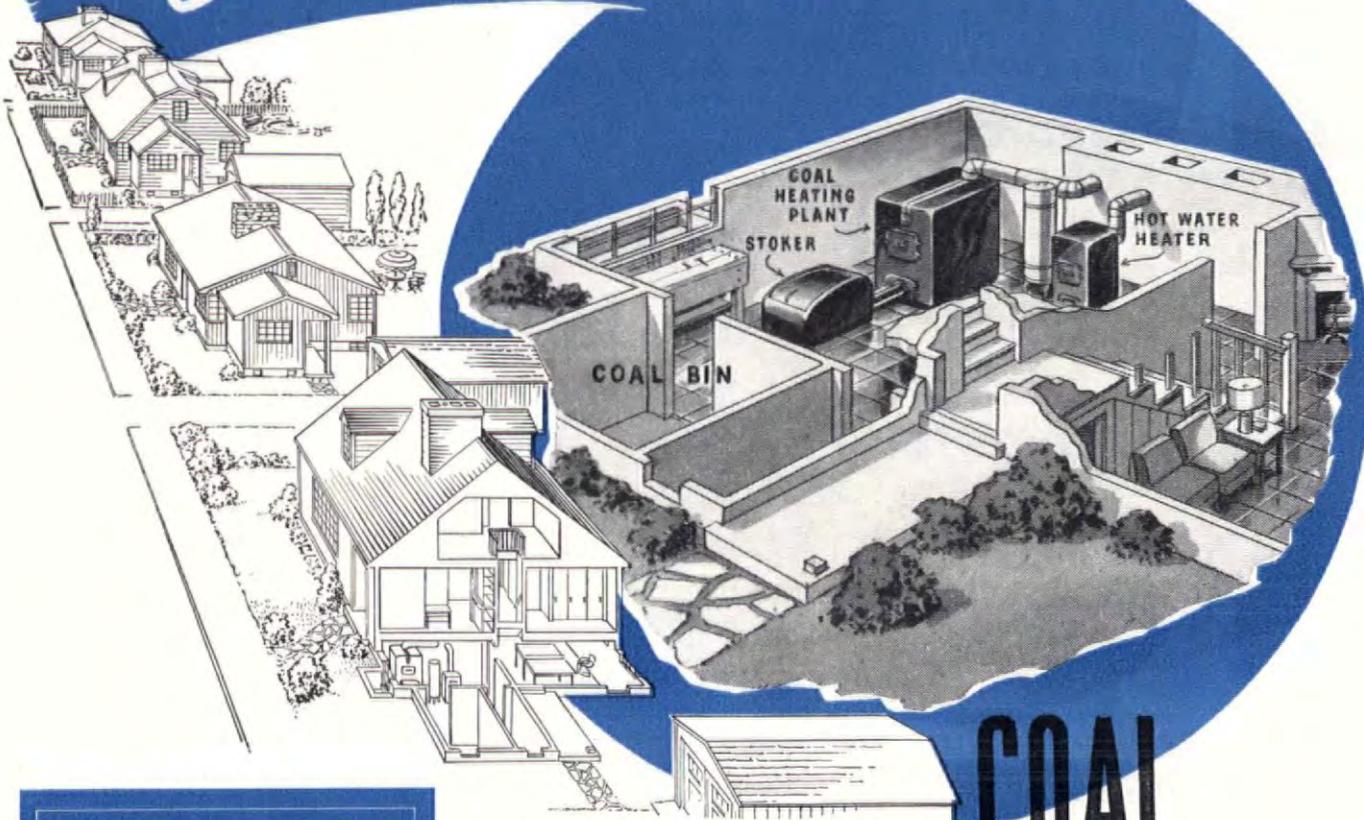
That's the fundamental reason why more and more offices, all types and sizes of stores, look to Sylvania for the best in fluorescent illumination *plus* the ability to choose exactly the kind of fixture required.

For complete installation information contact a Sylvania Distributor or write address above. Remember, all fixtures in this new line can be surface or pendant mounted, singly or continuous row!

# SYLVANIA ELECTRIC

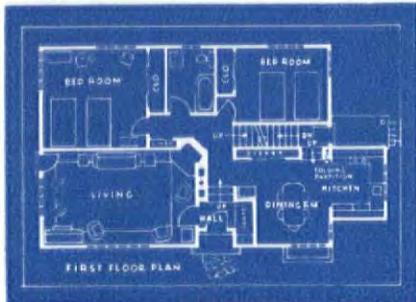
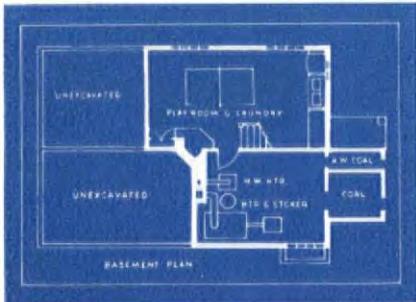
MAKERS OF FLUORESCENT LAMPS, FIXTURES, WIRING DEVICES; ELECTRIC LIGHT BULBS; RADIO TUBES; CATHODE RAY TUBES; ELECTRONIC DEVICES

# Easy Street



## COAL

### BASEMENTS BUILT FOR COAL MEAN BETTER LIVING . . .



It's easy to build homes on Easy Street. These have a pleasing variety of appearance. All have the same first floor plans, plus identical half-basements designed for modern coal heating plants . . . making excavation easy for the builder and payments easier for the buyers!

This basement plan provides an ample, well lighted play-room-laundry at less than one-third of the cost of equivalent space on the first floor. The stoker-fired coal furnace, which makes heating costs less in the long run, is located for

easy access and a minimum of operating effort. Economical houses with basements like these are the kind of homes our veterans are looking for.

When you design or build, remember a coal heating plant is the only installation that can be converted to all other types of heating — play safe, provide coal storage space and chimneys adequate for any fuel. Coal is economical, safe, clean, quiet, odorless and abundant . . . basements built for coal mean better living and better sales value.

✓ **INITIAL COST ECONOMY.** A hand-fired coal furnace is the least expensive of all central heating plants.

✓ **AUTOMATIC HEATING.** The cost of a stoker-fired coal furnace is no greater than the cost of a good installation using any other fuel, over a period of time . . . economy in cost of fuel is the saving.

✓ **FULLY AUTOMATIC HEAT.** The ultimate in cleanliness, safety, comfort, convenience and economy, is a bin-fed, ash removal, coal-burning stoker — the cost is little more than a regular stoker.

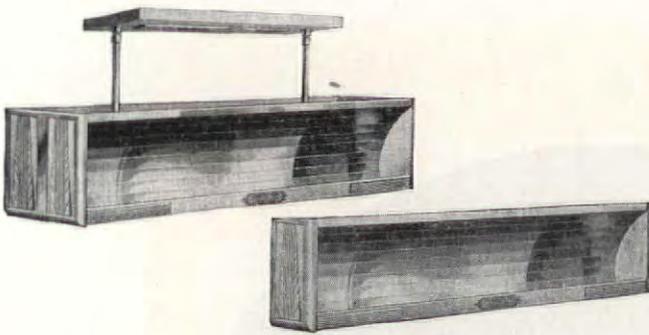
✓ **CLEAN, SMOKELESS FUEL.** Coal today is sized, cleaned, and dustproofed at the mine.

✓ **PLENTIFUL FUEL SUPPLY.** We have a three thousand year coal reserve. Other fuels may be exhausted while your building is still relatively new.

✓ **CONVERSION POSSIBILITIES.** A conversion burner can be installed economically in a coal furnace. The reverse is not possible. Be safe . . . provide for coal.

**Norfolk  
and Western  
RAILWAY**

CARRIER OF FUEL SATISFACTION



**CURB THE SPREAD OF  
AIR-BORNE BACTERIA  
with  
DISINFECTAIRE**

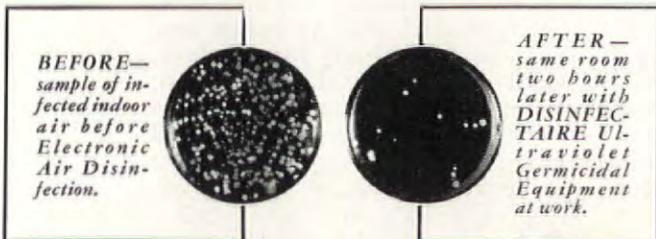
REG. U. S. PAT. OFF.

*Electronic Air Disinfection*

You can now control the spread of air-borne diseases in schools, offices or any building where people congregate.

Potent ultraviolet energy from DISINFECTAIRE units quickly destroys 99% of the bacteria and viruses in the irradiated area . . . greatly reduces the spread of such infections as the common cold, measles, whooping cough, influenza and many other respiratory diseases.

Minimized absenteeism in schools, offices and factories makes an installation of DISINFECTAIRE a sound investment. Write for booklet explaining how DISINFECTAIRE can help solve problems of personnel or product.



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sample of in-  
fected indoor  
air before  
Electronic  
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same room  
two hours  
later with  
DISINFEC-  
TAIRE Ul-  
traviolet  
Germicidal  
Equipment  
at work.

Distributed exclusively by electrical wholesalers

**THE ART METAL COMPANY**

*Manufacturers of Engineered Lighting and Ultraviolet Equipment*

1814 EAST 40TH STREET • CLEVELAND 3 • OHIO

vary tones by actual brush stroke—the only true way to achieve the brilliance and aliveness of texture which a fine painting possesses. These pictures are on exhibition at 51 Grove Street. Brochures can be obtained upon request, and there are also a few left for sale.

ESTHER GENTLE

New York, N. Y.

**FAT-HEADED RESPONSE?**

Forum:

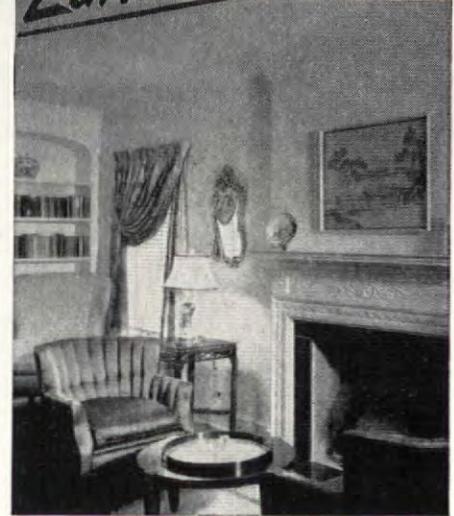
Recent FORUMS have contained a number of letters from European architects seeking various types of assistance. While I am sure we all share a feeling of sympathy for European building technicians facing titanic problems under the most adverse conditions, we might well consider whether individual responses to such appeals are likely to be the best way that we can help.

First let us consider the requests for technical data. Do architects who have written for such assistance know what information concerning American building methods and design is already available to them? Very conceivably, they do not know that in nearly every European country, and in the larger nations throughout the world, the State Department's Office of International Information and Cultural Affairs has established libraries which contain a better selection of books and architectural magazines than could be found in any but the most luxuriously equipped American offices. In every United States embassy and in most important consulates there are also complete collections of government publications relating to housing, planning and building methods, augmented each month. Finally, many foreign governments, among them the British, French, Italian, Polish and Russian, have made systematic collections of American documents and data.

. . . I should also like to mention the need of foreign architects for drafting instruments and other professional equipment. Here again, if we are to help where help is most needed, our method of assistance cannot be allowed to descend to the level of intellectual panhandling. Why, to be brutally precise, should urgently needed equipment be given to individuals who may well use them to design pretty villas for Europe's black-market profiteers? Here we need to work through professional associations of architects and planners in other countries rather than soft-heartedly (and perhaps fat-headedly) in response to individual appeals. A splendid job can be done by the A. I. A., the International Committee of the American Institute of Planners and other professional associations. I am sure we will all give more willingly and

(Continued on page 58)

*Quicker DELIVERY  
Earlier OCCUPANCY*



*USE Luminall PAINT  
OVER NEW PLASTER!*



*That does it!*

Wherever time is a vital factor in delivering a new or remodeled building, paint all interiors with LUMINALL. This highly light-reflective casein paint can be applied while new plaster is still damp, thanks to its porous film which allows moisture to escape without harming plaster or paint.

LUMINALL gives a velvety smooth finish, either in white or in many lovely, pure colors. One coat covers—no primer needed—dries in 40 minutes—odorless! LUMINALL is specified for the finest interiors, yet so moderate in cost that it can be used for work or storage areas.

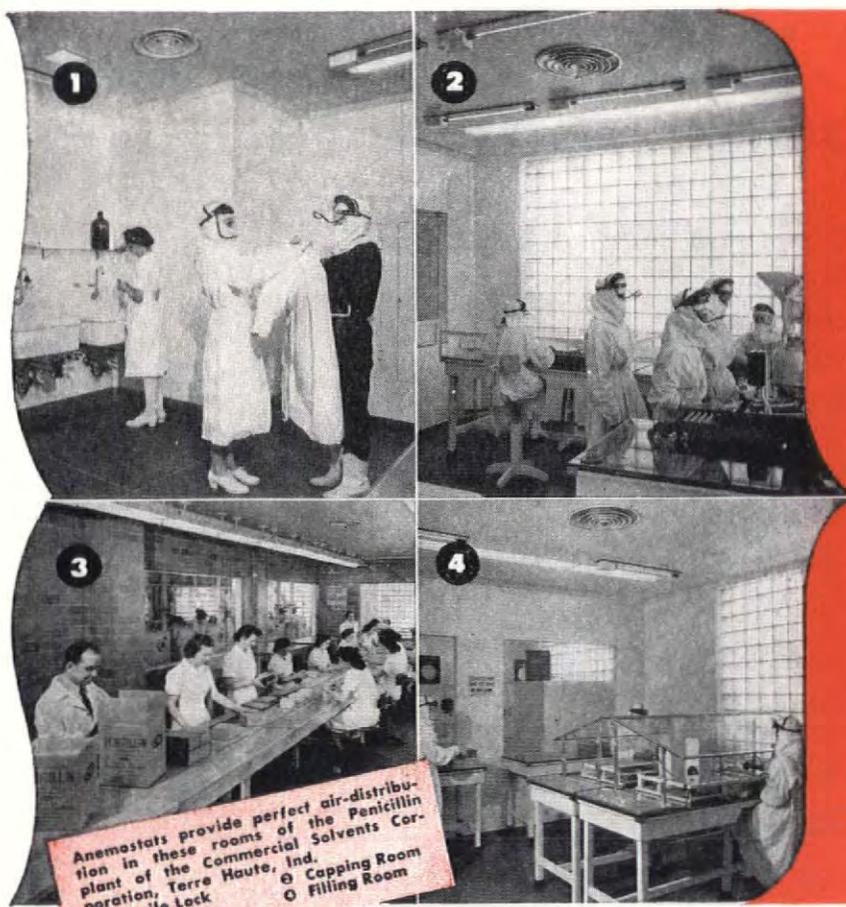


*Ask for Your Copy*

Send for "Painting for Light & Decoration" which gives complete data, information, and specifications on the use of Luminall in residential and non-residential structures.

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3612 S. May St., Chicago 9

**LUMINALL**



Anemostats provide perfect air-distribution in these rooms of the Penicillin plant of the Commercial Solvents Corporation, Terre Haute, Ind.  
 Ⓞ Sterile Lock  
 Ⓞ Packing Line  
 Ⓞ Capping Room  
 Ⓞ Filling Room

# PENICILLIN PRODUCTION depends on SUCCESSFUL AIR-DISTRIBUTION

Anemostats meet the strict demand for successful air-distribution at the Penicillin Plant of the Commercial Solvents Corporation.

Total control of conditioned air is a critical factor in the production of Penicillin.

Before conditioned air can be distributed to the rooms of the "sterile area" of this Penicillin plant, it must be filtered, washed, cooled, irradiated with ultra violet. And it must reach these rooms that way!

At the Penicillin plant of the Commercial Solvents Corporation, Anemostat Air-Diffusers serve all the rooms in the "sterile area." They solve specific air-distribution problems . . . from the perfect air-diffusion required in the filtration, vial-filling and final sealing rooms . . . to providing fullest air-comfort for workers obliged to wear an extra head-to-toe outfit of sterile garments.

An executive of the corporation states: "Inasmuch as Anemostats are necessary for efficiently supplying the sterile conditioned air required in the processing and testing of Penicillin, this equipment may be considered to contribute importantly

to the actual production of Penicillin."

Such air-diffusion, controlled to scientific standards, is possible through Anemostats because they are scientifically designed to distribute conditioned air in pre-determined patterns without drafts. Here is how Anemostats provide perfect air-diffusion:

Anemostat Air-Diffusers siphon room air (equal to about 35% of the supply air) into the cones. This room air is then mixed with the supply air within the Anemostat — and thereby revitalized — before it is recirculated in a multiplicity of planes in all directions equalizing temperature and humidity throughout the room.

If you have an air-diffusion problem, an Anemostat engineer is ready to help. We'll be glad to arrange a consultation without obligation.

Write today for full details.



All Anemostats are specially designed to solve individual air-conditioning problems. However, the great variety of models that have been developed and standardized, often permits us to assure prompt delivery from stock.

# ANEMOSTAT

REG. U. S. PAT. OFF.

ANEMOSTAT CORPORATION OF AMERICA  
 10 EAST 39th STREET NEW YORK 16, N. Y.

REPRESENTATIVES IN PRINCIPAL CITIES

AC-1073

**"NO AIR-CONDITIONING SYSTEM IS BETTER THAN ITS AIR-DISTRIBUTION"**

# to make sure your clients get ALL of these top performance features

- Superaging
- Resists flame
- Small Diameter
- High dielectric strength
- Resists oils, acids and alkalis
- High mechanical strength
- Free stripping, easy pulling
- Nonfading color coding
- No over-all braid required
- Smooth, glossy finish
- Low moisture absorption

Approved by the Underwriters' Laboratories, Inc., in sizes 14 to 4/0 for new wiring and rewiring in raceways, and for open-wiring in sizes 14 to 2,000,000 CM, inclusive.  
 Type T approved by National Electrical Code for general-purpose wiring at 60C maximum operating temperature.

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## "ALL G-E THERMOPLASTIC"



You can specify numerous types of good building wire with assurance that each will have some of the features required in any given installation. Yet, frequently, a building wire that is especially suited to one specific use may not measure up where different types of service conditions must be met.

You can solve such problems by specifying "G-E Thermoplastic throughout" on every job. This versatile building wire possesses a happy blend of outstanding electrical and physical properties that make it suitable for a very wide range of applications in standard or special wiring installations. Two types (Type T — for general use; Type TW for wet locations) are available to meet the requirements of every job.

It's easy to compare the over-all advantages of G-E Thermoplastic with other building wires. Simply check the claims for any other wire against the proved-in-service features of G-E Thermoplastic. We think the comparison will be your

best reason for specifying "G-E Thermoplastic throughout," from now on.

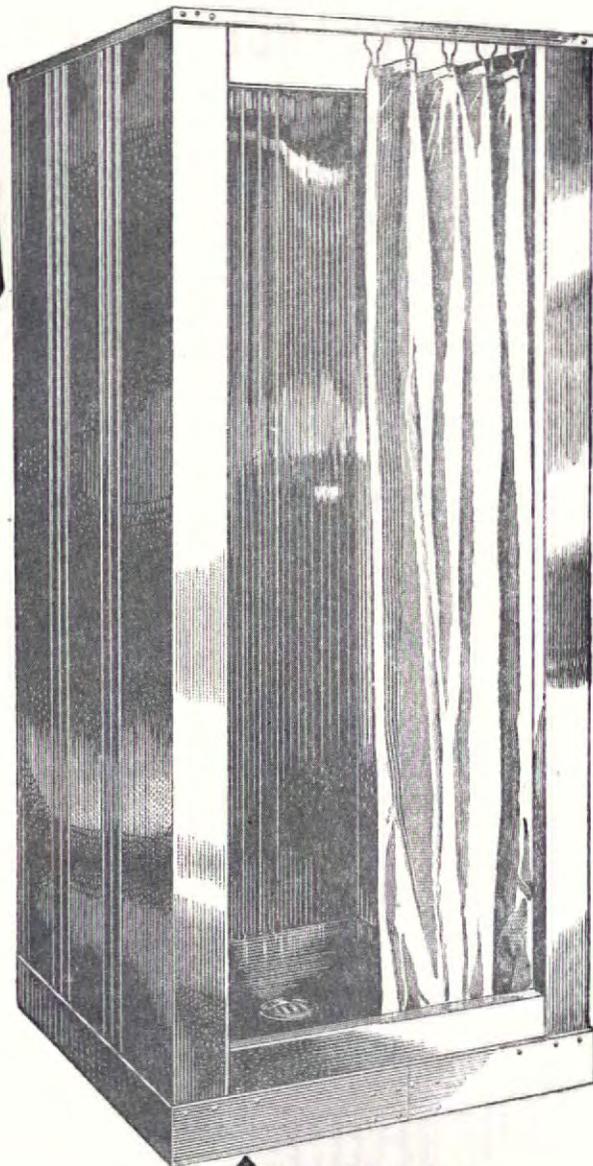
More complete data can be obtained from your local G-E Merchandise Distributor, or by writing to Section W23-1226, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.



**GENERAL  ELECTRIC**

# SILVER SPRAY

ALL-ALUMINUM SHOWER CABINETS



**LIGHTER** ... Total shipping weight only 63 pounds.

**BETTER LOOKING** ... Handsome design and gleaming aluminum finish blend harmoniously wherever installed.

**DURABLE** ... Never any refinishing or repainting. Silver-Spray's aluminum finish can't rust.

For detailed information, write  
**AMERICAN SANITARY PARTITION COMPANY, INC.,**  
 3706 22nd STREET, LONG ISLAND CITY, NEW YORK

Every Silver-Spray Shower Cabinet includes these

accessories:

- Non-skid aluminum receptor
- Chrome-plated brass drain
- Chrome-plated hot and cold shower valves
- Chrome-plated water-saver showerhead
- Soap dish
- White plastic shower curtain with pins

## QUICK, EASY INSTALLATION

ALL YOU NEED IS A SCREWDRIVER — AND TWENTY MINUTES!



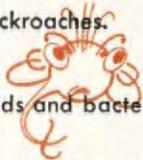
AMERICAN SANITARY PARTITION COMPANY, INC.

Any or all of these  
**SPECIFICATIONS FOR  
FLOOR SURFACE**



1. Repels cockroaches.

2. Inhibits many molds and bacteria growths.



3. Resists foods and kitchen fats; does not crack or disintegrate in the presence of fats.



4. Withstands neutral oils and greases common to machine shops; does not dissolve in these solvents.



5. Is non-static, non-sparking, non-dusting.



6. Is non-denting under ordinary point loads.



7. Is resilient to walk on yet more than challenges cement and hardwood under foot and light-wheeled traffic.



8. Monolithically applied. No joints. Attractive colors.



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**HUBBELLITE**

IS SOMETHING TO KNOW ABOUT



It would be stupid to promote Hubbellite as doing so much, unless it could live up to every claim. We have records of impartial laboratory tests and also of actual installations in hospitals, commercial kitchens, locker rooms, factories. You never know when you'll have a call for any—or all—of these Hubbellite features. We will be glad to furnish you copies of these records for your file. Write.



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Offices in 50 Principal Cities  
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more abundantly when assured that our contributions will go where they will be most useful in relieving the distress of Europe's masses . . .

FREDERICK GUTHEIM

Dickerson Station, Md.

**HOUSING SOLUTION**

Forum:

Enclosed is a plan for expediting construction of veterans' housing, submitted to the National Housing Conference by the Special World War II Housing Committee of the American Legion. The writer was connected with the War Production Board for four years and believes that the present housing deadlock could be broken if WPB methods used to expedite war production were employed to solve this urgent peacetime need.

1. *Special Priorities Should Be Given to Housing Nearest Completion.*

Field examinations made at the building site should be coupled with affidavits filed by building contractors to determine those specific houses or units in housing projects which are nearest completion; i.e., lack the least number of critical materials or the least aggregate dollar value compared with the actual completion cost. Top priority should be given contractors on these jobs to see that the specific quantity (and no more) of the critical materials necessary for completion are furnished.

2. *Pre-War Manufacture-Dealer Distribution Pattern Should Be Broken.*

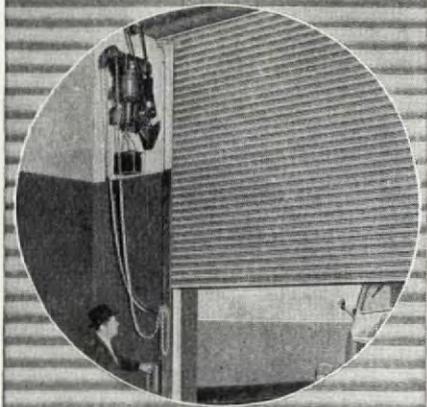
Building materials manufacturers should be directed to supply their materials in greatest quantity to those areas which have buildings most nearly completed. This is opposed to the present tendencies of many manufacturers to re-establish pre-war dealer relationships—as the result of which, building supply dealers in areas where housing is not so urgently required, are being supplied at the expense of shortage areas.

3. *A Greater Proportion of Critical Materials Should Be Channeled for Renovating Existing Buildings.*

Since materials shortages are the greatest factor in delayed completion, a given volume of materials used to renovate old housing will complete two or three times as many units as if used to construct new buildings. Another advantage is that shopping, school and transportation facilities in old areas are already established. New housing in outlying communities must be provided with sewers, water supply, streets and community service buildings.

(Continued on page 62)

**KINNEAR**



**ROLLING DOORS**  
feature  
**INTERLOCKING  
STEEL-SLAT CONSTRUCTION**

with these major

**ADVANTAGES**

- RESILIENT STRENGTH
- COILING UPWARD ACTION
- GREATER PROTECTION
- SPACE ECONOMY
- LONG SERVICE LIFE

plus

the added Convenience of time-and-labor-saving KINNEAR Motor Operators and Remote Control if desired.



Each Kinnear Rolling Door is individually assembled of standard parts to fit any size door opening, in old or new buildings. Choose Kinnear Rolling Doors for extra years of efficient, low-cost service. Write for details.

**THE KINNEAR MFG. CO.**  
FACTORIES  
1640-60 Fields Ave.,  
Columbus 16, Ohio  
Offices and Agents in all  
Principal Cities

**KINNEAR**  
ROLLING DOORS



*From any angle . . .*

**THE IDEAL  
REFLECTOR MATERIAL!**

This is a specially selected sheet of Alcoa Aluminum. The miracle of it, as far as a lighting man is concerned, is that you can make about any type reflector you want of it. All of them will be about the best of their type you can get.

With the highly efficient Alzak\*-finished Aluminum reflecting surface already a part of the metal, it may be bent and shaped without damage to the tough, protective oxide coating. Or the Alzak finish may be put on after you have drawn or spun the sheet.

High efficiency results from such reflectors, for fluorescent, incandescent, or radiant application.

The exterior surface may be polished, or etched, or in iridescent color.

The reflecting surface may be either specular or diffuse.

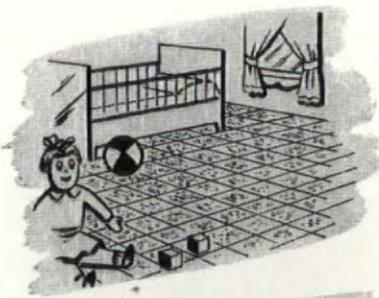
You'll find it more efficient, longer lasting, tougher, less affected by the hazards that reflectors are exposed to, than any reflecting surface you can get. ALUMINUM COMPANY OF AMERICA, 1944 Gulf Building, Pittsburgh 19, Pennsylvania. Sales offices in principal cities.

\*Patented Process

**ALCOA** **FIRST IN**  
**ALUMINUM**



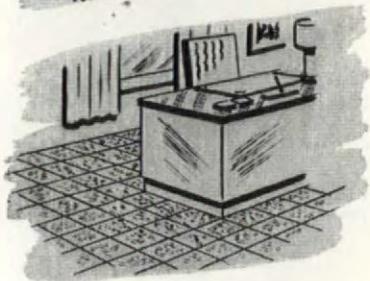
IN EVERY COMMERCIAL FORM



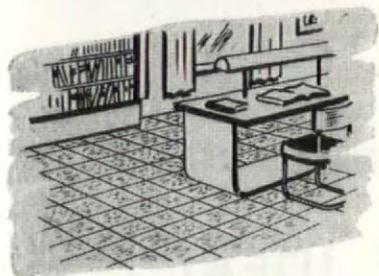
IN HOMES

# Kencork's Friendly!

For smart looks—for service—for blending with any scheme—for comfortable resilience—for quiet—Kencork's friendly every way.



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Because Kencork is *all* cork—moisture resistant, resilient, soft enough for thumb tacks but tougher than hard wood

... Kencork is ideal for playrooms and bathrooms

Because, being cork, it's a natural insulator against cold and heat

... Kencork is ideal for bedrooms and nurseries

Because, being cork, it tends to absorb sound waves, deaden noise

... Kencork is ideal for libraries, clubs, private offices and public buildings

Because, being cork, it's non-slippery, luxurious looking

... Kencork is ideal for fine shops, and reception rooms



There are more reasons than you have fingers why Kencork is a preferred flooring today. Reasons that are *plus* its luxurious tones of tans and browns which give smartness to all decors. Today's Kencork is so perfected by its war services that it's pre-finished at the factory, ready for instant laying, requiring *no sanding* after installation. For further facts (and there are plenty), send for our free color folder. David E. Kennedy, Inc., 69 Second Ave., Brooklyn 15, N. Y.





Photograph courtesy of Dictaphone Corp.

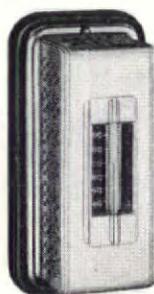


## The Stage Is Set by **CONTROL**

Everything in the office of Mr. Tom Connors of 20th Century-Fox Films denotes control: telephone, Dictaphone, electric light switch, clock. All, in a way, indicate control of distance, time or physical forces. On the wall, at the edge of the window drape, the Johnson *thermostat* controls the temperature of this individual room, independent of any other room in the building. It is the "nerve-end" of a skyscraper's "respiratory system."

Johnson individual room control of temperatures creates made-to-measure environment for thinking, sets the stage for precise judgment and quick action. All over the continent—in great office buildings, hospitals, schools, hotels, theaters, factories, and large residences—Johnson Automatic Temperature Control Systems are the "brain" of heating and air conditioning installations. They produce economy, comfort and convenience in a busy world, by conserving human energy and fuel.

Consult a Johnson engineer from a nearby branch office for the answer to *your* temperature control problem, in either existing or new buildings. There is no obligation, of course. Johnson Service Company, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.



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**CUSTOM-BUILT FLOORS**  
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**RUBBER & ASPHALT  
 TILE FLOORING**

**4. Veterans' Groups Should Assist in Making Inspections to Determine Where Help Is Most Urgently Needed.**

In order to expedite the above plans, it is suggested that the veterans' groups appoint representatives to work under the Housing Expediter. They should be authorized to visit projects and report those nearest completion, checking to see that such houses are first to be furnished the necessary materials. They should also be empowered to visit lumber and building supply dealers, plumbing, heating and electrical equipment dealers and manufacturers. They would be asked to report hoarding of building materials and accessories, or setting aside of materials for favored contractors who may not be in a position to use them for many months.

**5. New Starts Should Yield Precedence to Expedite Early Completion of Those Under Way.**

All communities need some housing; some need it more than others. Channeling of materials should be so coordinated that some completions can be expedited in each community, with special emphasis on those in greatest need. New starts should be permitted in any locality in the interim during which buildings already started are being rushed to completion only if the new starts entail use of materials already available in that specific area. In other words, if Portland cement or other materials are surplus in a given area, and if buildings well along to completion are already supplied, it would be permissible to start new buildings using those materials.

Scarce material should not be held for local use in buildings not yet started unless no close-by area needs them. On the other hand, an increased charge should be allowed to cover cost of transportation of idle materials to other localities so that they can be used on buildings waiting for completion.

**6. Nation-Wide Publicity Recommended to Secure Necessary Cooperation.**

Finally, this entire matter is one requiring a great deal of cooperation and a patriotism and fervor not unlike that which helped win the war. Therefore, nationwide publicity should be given to methods which will foster cooperation between manufacturers, labor, dealers, builders and contractors working with the Veterans Administration and the Housing Expediter.

If some such plan is not evolved, selfish interests will continue to make housing a political football, postponing the great benefits which a healthy construction industry can give to the entire country.

ERWIN M. LURIE

Washington, D. C.

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*Big!*  
*Quiet!*  
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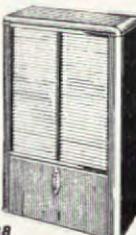


Reznor space heaters located at ceiling height or floor level and fired by gas, operate with automatic control. The big fan plus directional louvers direct abundance of warm air where you want it and only when you want it. Commercial establishments and buildings of all types, factories and warehouses, offices and homes use these attractive Reznor heaters for comfort, cleanliness, and economy. Write for further data.

**REZNOR**  
*Gas fired unit heaters*  
**SUSPENDED  
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 A SIZE FOR EVERY NEED

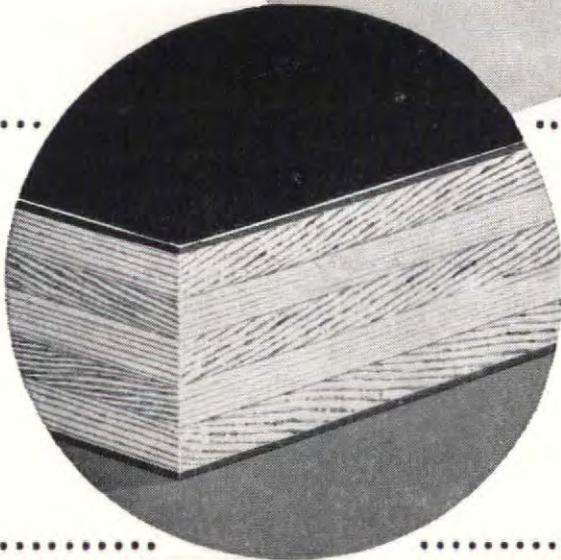


**REZNOR CO.**  
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 NO FUEL STORAGE • NO FIRE TENDING

# Kimpreg\* + Plywood

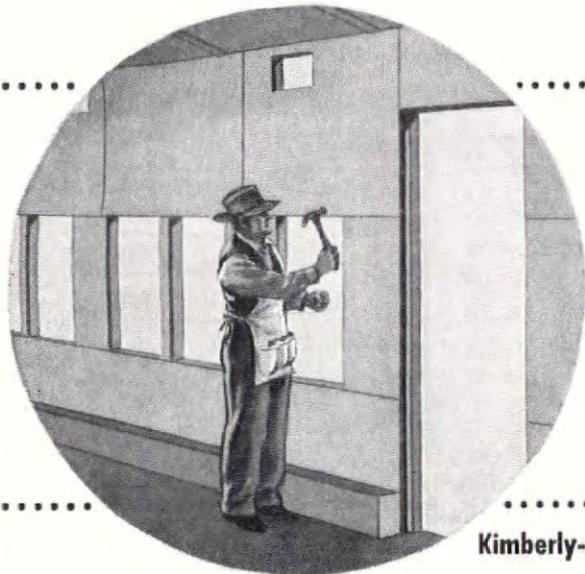
Wonder-working new plastic alloy for you



## PLASTIC-ARMORED, WEATHERPROOF

Armored against wear and weather, Kimpreg + Plywood resists deterioration. Unaffected by rain, snow or sub-zero cold. Withstands exposure, for short periods to temperatures up to + 350° F. Designed for enduring service.

**ATTRACTIVE, DURABLE** Glossy, flint-like and washable, Kimpreg + Plywood combines utility and smartness for bars, kitchen counters, cafeteria tables — or wherever a surface should be durable and attractive. Kimpreg is mar-resistant, stain-proof, impervious to alcohol and weak acids.



**VERSATILE, WORKABLE** Kimpreg + Plywood is an entirely *new* material with the use-advantages of plastic plus the basic economy and workability of plywood. Learn how it provides new horizons for your ideas and product planning. Mail the coupon for full information today.

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\*TRADEMARK



Chase Copper Tube is attached to wood ceiling joists with semi-circular copper tube straps, which are simply nailed in place.

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*Copper Tube* \*

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The light weight, too, makes it easy for workmen to handle the long coils that substantially reduce the number of joints needed. Chase Copper Tube can be bent to shape right on the job.

No fittings needed at bends—

and no special tools are required:

Wherever fittings are *needed*, permanently tight joints are readily made with Chase Solder-joint Fittings.

With Chase Copper Tube offering so many obvious advantages for radiant heating, we are not always in a position to meet your requirements. Information, however, is available for your use now, to aid in your future planning. For copies of our radiant heating literature, address Dept. AF126.

- 7 Reasons WHY CHASE COPPER TUBE FOR RADIANT HEATING**
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  - \* 3. SOLDERED FITTINGS
  - \* 4. SMALL DIAMETERS
  5. LONG LENGTHS
  6. LOW COST
  7. LONG LIFE



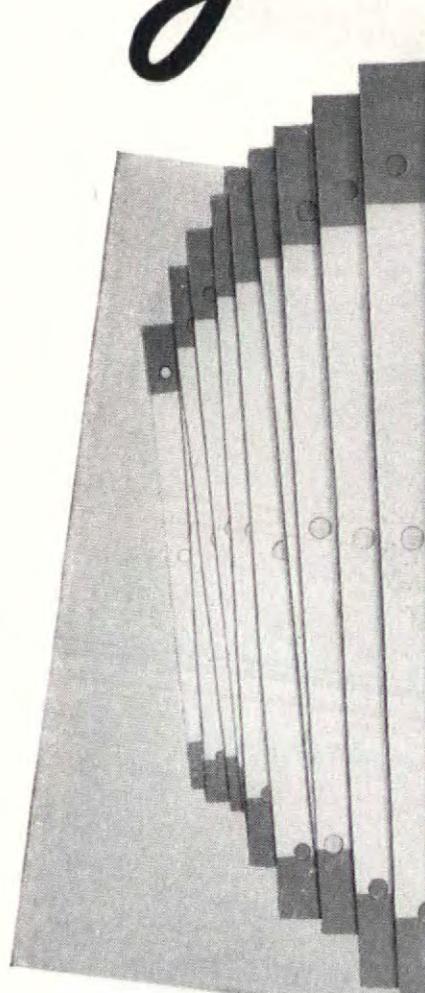
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# Yours now! This practical file of better ways to insulate



## KIMSUL

INSULATION

**HOW TO INSULATE CEILINGS**

From Above (New or Existing Construction)

Application Data Sheet No. 6

AIA 37B

1. KIMSUL is easily installed from above if roof pitch is steep enough so that rafter plates are easily accessible. In such cases KIMSUL is installed from the attic side after ceiling material has been applied. (See Figure 1)
2. Cut KIMSUL blanket to fit required joist span. Then with entire blanket (or several feet on an end) expanded, lay blanket between joists with waterproof cover side down. Nail or staple end of KIMSUL blanket to top of rafter plate. Then pull across and fasten to opposite plate. A supply of fiber nailing strips is enclosed in each roll of KIMSUL to facilitate end attachment.
3. Occasionally a joist span may be insulated more conveniently with two KIMSUL blankets. In such cases, the first blanket is stretched from the rafter plate to an intermediate partition plate and fastened with a fiber strip. The second blanket is cut long enough so that, after stapling to the opposite rafter plate, it will pull out and overlap the first blanket approximately 6". The second blanket is then fastened to the partition plate. (See Figure 2)
4. Side fastening of KIMSUL blanket is not necessary except at bridging. When running KIMSUL over bridging, staple sides of blanket to joists to insure a snug fit. Usually it is easier to run KIMSUL under wiring. (See Figure 3)

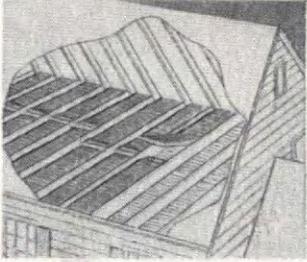


Figure 1

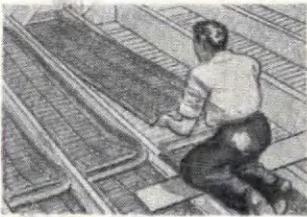


Figure 2

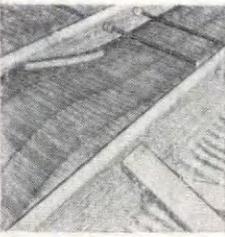


Figure 3

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Pat. 2,127,150

KIMSUL

Page

Jan. 1, 1946

811

G

Eleven fact-filled pages like this one are yours for the asking—in the new KIMSUL\* Application Data File, a source of technical information you can use to advance to the most difficult, can be more efficiently handled with prefabricated, many-layer KIMSUL. To get your

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\*KIMSUL (trademark) means Kimberly-Clark Insulation

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Kimberly-Clark Corporation  
KIMSUL Division, Neenah, Wisconsin

Please send at once FREE Application Data File and full information on many-layer KIMSUL Insulation.

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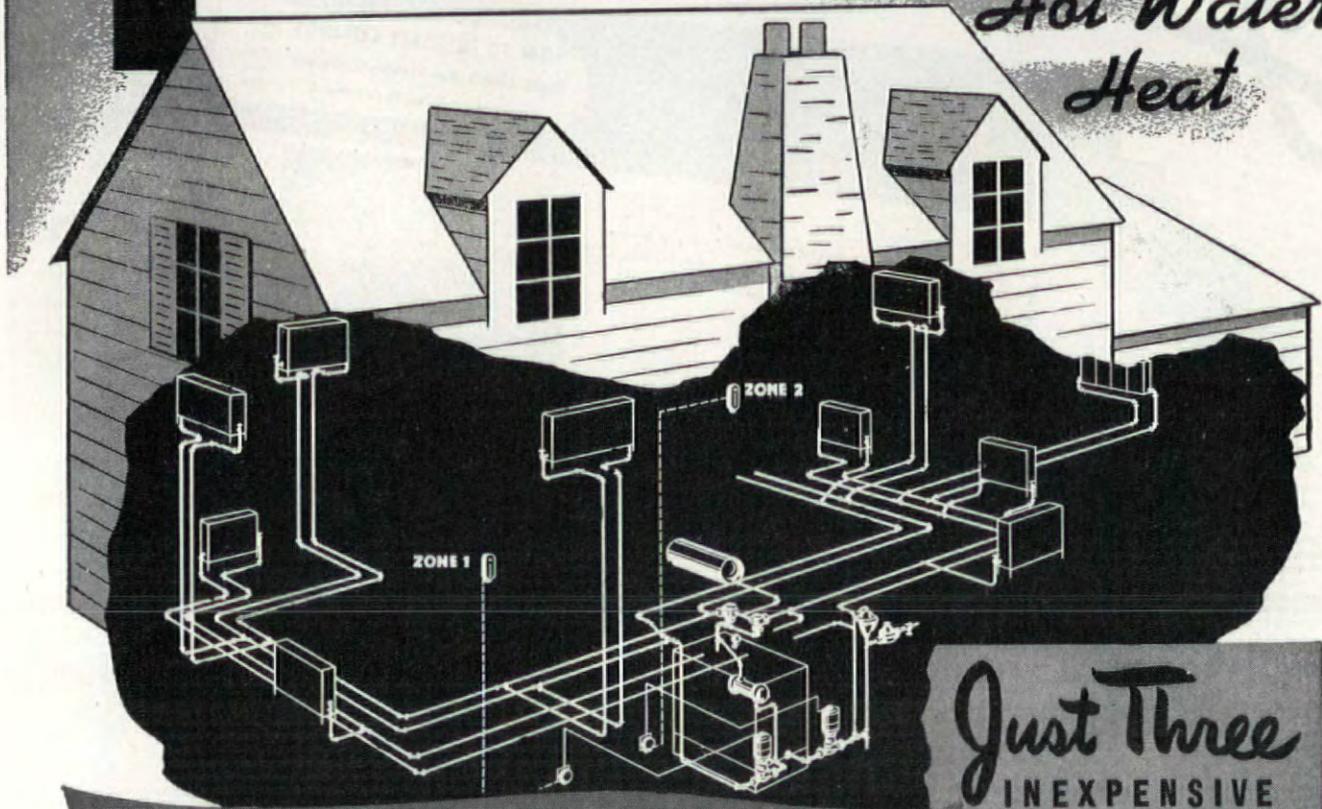
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City, Zone, State \_\_\_\_\_

( ) Architect    ( ) Builder    ( ) Contractor    ( ) Other

65

# THRUSH *Zoned Hot Water Heat*



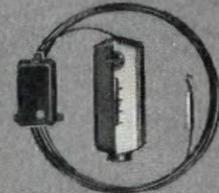
FORCED CIRCULATING

THRUSH ZONE CONTROL

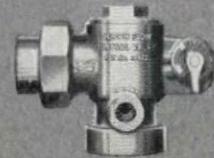
*Saves Fuel!*

**INVESTIGATE** the Thrush method of zoning which heats two or more separate apartments or buildings from one hot water boiler, and provides domestic hot water for kitchen, laundry and bath, summer and winter. The temperature in each zone is automatically regulated to suit the needs of the occupants, whether there are five zones or twenty. Heat is transmitted only when needed in that zone without affecting other zones. It's the simplest zoning method yet devised, inexpensive to install . . . and assuring a real reduction in fuel costs. Write for bulletin describing Thrush Zone Control, giving interesting facts on installations and fuel savings in large homes, apartments or commercial buildings, and ask your wholesaler about Thrush equipment. Address Department H-12.

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INEXPENSIVE  
UNITS



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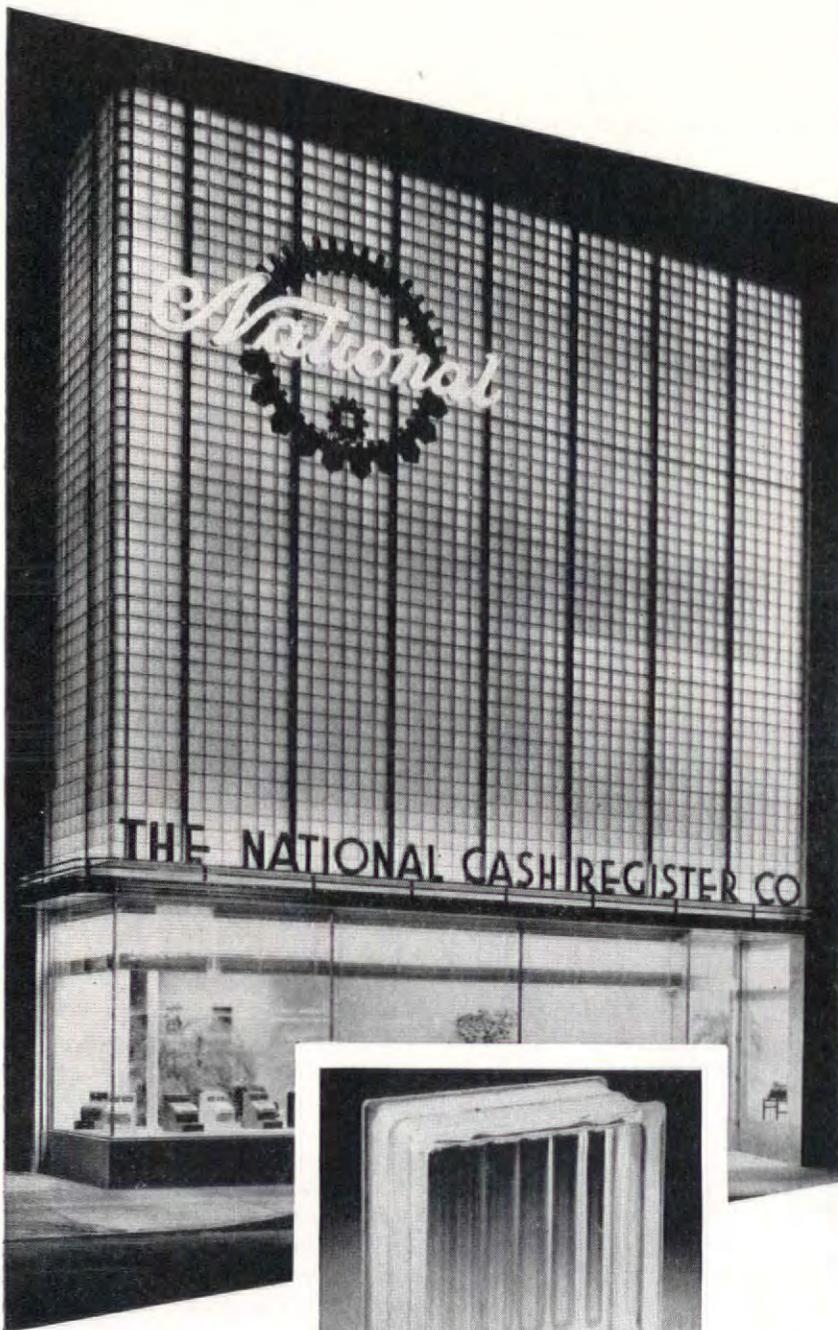
FLOW CONTROL VALVE



WATER CIRCULATOR

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"Our PC Glass Blocks, by improving our lighting, enable our workers to turn out more goods."

"The big panels of PC Glass Blocks are easily kept clean. There are no unsightly broken panes of glass."

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**80** Dimensionally accurate aluminum moulding shapes, expertly designed in matching groups to fit any installation, illustrated in the new full-color CHROMTRIM Catalogue No. 2. Also features many unique installation possibilities.

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**FORUM**

Behind the scenes with FORUM contributors

**J. Palmer Boggs**, a giant with a flaming red beard, is the unconventional engineer who called out the history books to solve the present materials shortage. Taking a cue from Hannibal's watch towers and centuries of Rhone Valley farmhouses, he has introduced *pise de terre* to skeptical Colorado farmers. Muttering crowds which gather to eye his masterpieces (p. 147) predict darkly that the "mud huts" will melt in the first rain. But an unperturbed Boggs, comfortably backed by over 2,000 years of precedent, merely strokes his beaver and dwells on the advantages of his system. "You just get a lot, assemble some forms and then start shovelling the lot into the forms." Probably the only method on record of eating your cake and having it too.

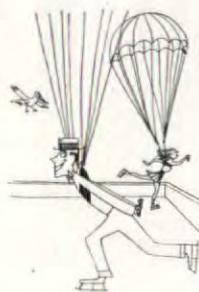
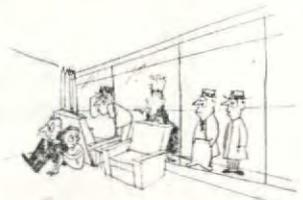


**Mario Corbett**, designer of the Carniglia house (p. 94), is one of those singular creatures who actually prefers work to play. Son of a Beaux Arts architect, he was weaned on the glories of European tradition, but soon sacrificed trans-oceanic cathedral hopping for the greater glory of a job as his father's office boy. From the age of thirteen he spent every vacation glued to a drafting stool.



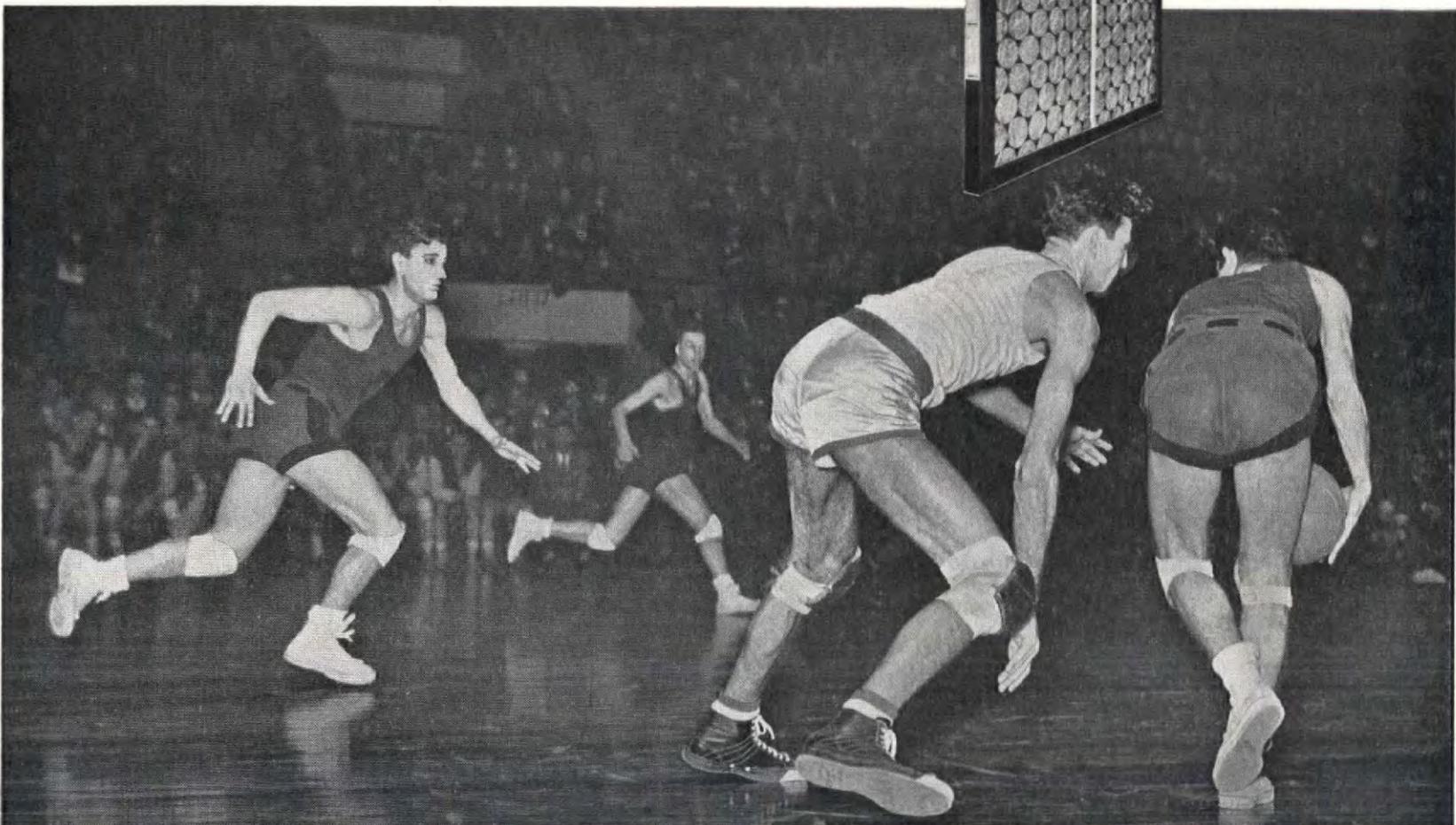
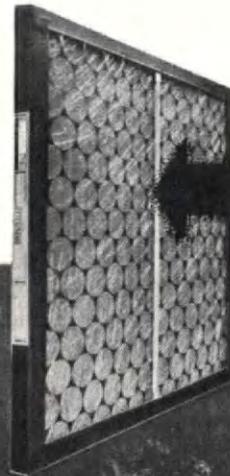
Later, in the midst of the depression, he stubbornly hung onto his office, turning out cities of small houses for non-existent clients. Last summer he finally relaxed enough to venture a fishing trip at Lake Tahoe. But the fish went uncaught while Corbett happily scanned cabin sites, thrust them on old and trusting friends. Next summer he'll spend a halcyon vacation building the cabins. Possibly, just possibly, in 1948 he'll go fishing.

**The Canadian solar house** (p. 91), designed by Gordon Adamson, has become something of a national peepshow since its completion last January. First hallowed by a visit from the Royal Architectural Institute of Canada during an annual convention, it has remained ever since an object for the fascinated gaping of curious Torontoans. The owner, C. F. Wood, President of Hobbs Glass Ltd., originally built the house for a publicity stunt which came off rather better than expected. He and Mrs. Wood, desperate after months of goldfish bowl existence, have at last barricaded themselves behind a pile of furniture, recommend the use of large glazed areas only if they're kept a strict family secret.



After a year and a half on Skidmore, Owings and Merrill's historic Oak Ridge construction project, **Bill Brown** thankfully traded mud and chiggers for a nice quiet job in the heart of city traffic. Still scratching a few hardy bites and removing tenacious Oak Ridge burrs from his pants' legs, he completed his peacetime reconversion by taking over as project manager of Cincinnati's Terrace Plaza Hotel (p. 100). From Oak Ridge's goal of spreading housing and services over a vast amount of acreage, he switched to squeezing them all into one vertical package. The Terrace Plaza rides piggy-back on stores and restaurants, boasts penthouse dining rooms and an 8th floor outdoor skating rink. Perhaps it was a wartime hangover or just plain city nerves that prompted Brown's suggestion of issuing a parachute with every pair of skates. To an old one-story construction man, eight stories down looks like a nasty fall.

# FILTERED AIR



INS Photo

## *Specify DUST-STOP for Big c.f.m. Requirements*

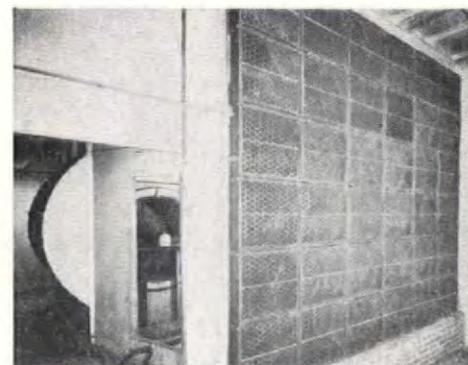
By specifying DUST-STOP Air Filters in air-conditioning systems in schools, auditoriums and gymnasiums, architects, builders and building managers assure clean, filtered air at both low initial and low maintenance costs for heating, ventilating and air-conditioning systems requiring a large volume of air.

These replaceable-type filters for central-system filtration can be installed in custom-built frames, or in the complete, ready-to-assemble DUST-STOP steel frame cells that can be built up to handle any *cfm* of air required. Once the filter bank is installed—whether in the smallest residence or the largest commercial or industrial system—maintenance is easy and economical. DUST-STOP Filters are easily replaced and are readily available from authorized suppliers in every community.

Made up of packs of adhesive-coated Fiberglas\* fibers, DUST-STOP Filters provide an efficient medium for catching and holding atmospheric and manufactured dusts and most air-borne bacteria.

Complete information on DUST-STOP Air Filters will be sent on request. Write for 24-page illustrated booklet—"Air Filtration in Central Systems" (A5.2.1). Owens-Corning Fiberglas Corporation, Dept. 830, Toledo 1, Ohio. Branches in principal cities.

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



A DUST-STOP installation typical of many providing filtered air for large auditoriums and gymnasiums.

# DUST-STOP\*

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The Barrett Specification\* Roof, with its armored wearing surface of gravel or slag, provides equally sturdy protection for buildings. It's so long-wearing it can be bonded against repair and maintenance expense for as long as 20 years.

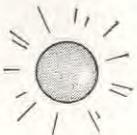
Built up of alternate layers of coal-tar pitch and felt, topped by a thick pouring of pitch to *anchor* the gravel or slag wearing surface, it is the toughest, longest-lasting built-up roof made. It is waterproof, fire-safe, sun resistant, and armored against mechanical damage.

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**1.** It holds in place the heavy poured (not mopped) top coat of coal-tar pitch—providing a doubly 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.



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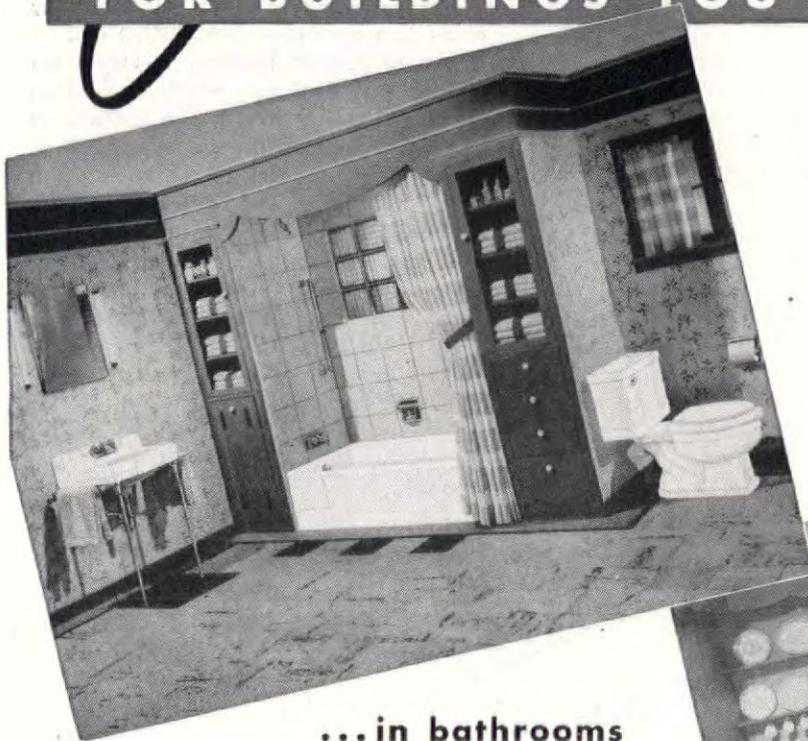
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Shown here is one of the new bathroom groups which bring fresh styling to American homes. It incorporates such advanced engineering features as *Dial-ese* trim that means an end to stubborn, hard-to-close faucets. Of course, demand still exceeds supply, but every day brings us closer to the time when bathroom fixtures will be in more plentiful supply.

● Since the end of the war Crane plants have been producing plumbing and heating equipment in ever-increasing quantities, despite innumerable difficulties. Practically all this production has been on equipment suitable for low-cost housing. But as fast as facilities permitted, more and more items have been put into production to give home builders the wide choice they have a right to expect from Crane.

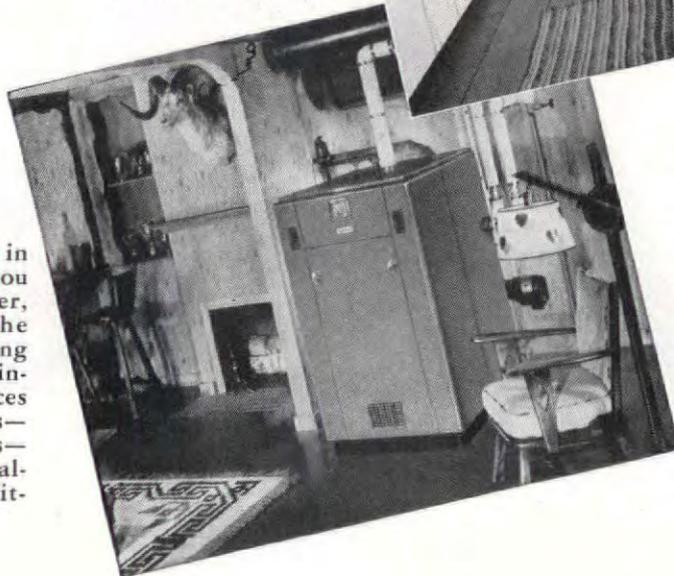


## in kitchens...

New Crane kitchens like this bring new beauty—new step-saving efficiency to American homes. The Crane line today includes a variety of sinks and—as rapidly as conditions permit—this line will be extended to offer dishwashers, kitchen ranges and other equipment to lighten housework.

## ...in heating

What are you planning in heating for the homes you plan to build—hot water, steam or warm air? The Crane line of home heating equipment is complete, including boilers and furnaces—stokers and oil burners—radiators and convectors—controls and heating specialties—pipe, valves and fittings.

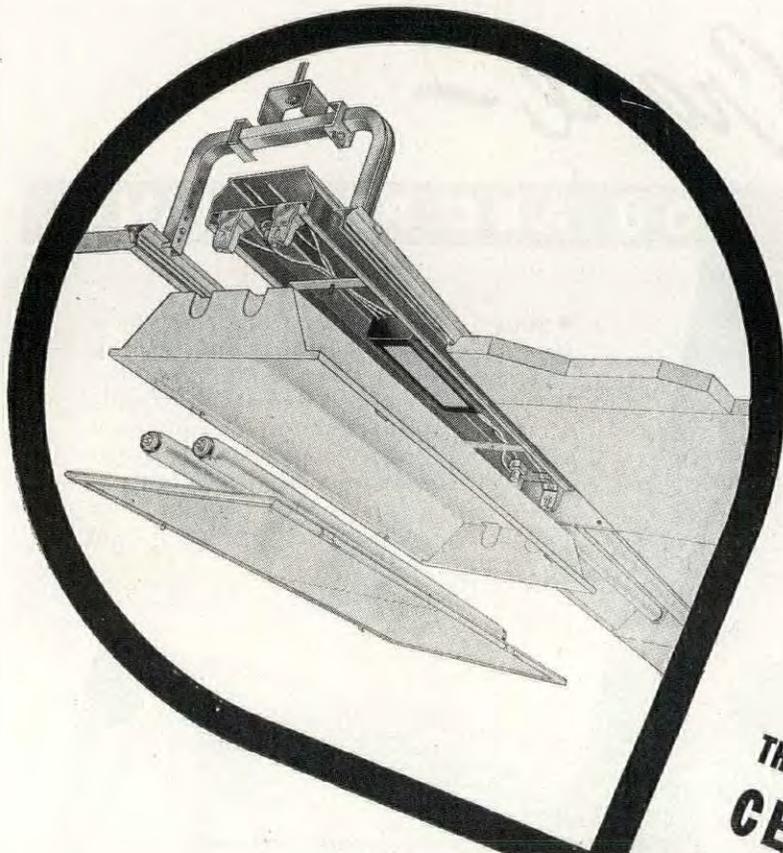


# CRANE

CRANE CO., GENERAL OFFICES:  
836 S. MICHIGAN AVE., CHICAGO 5

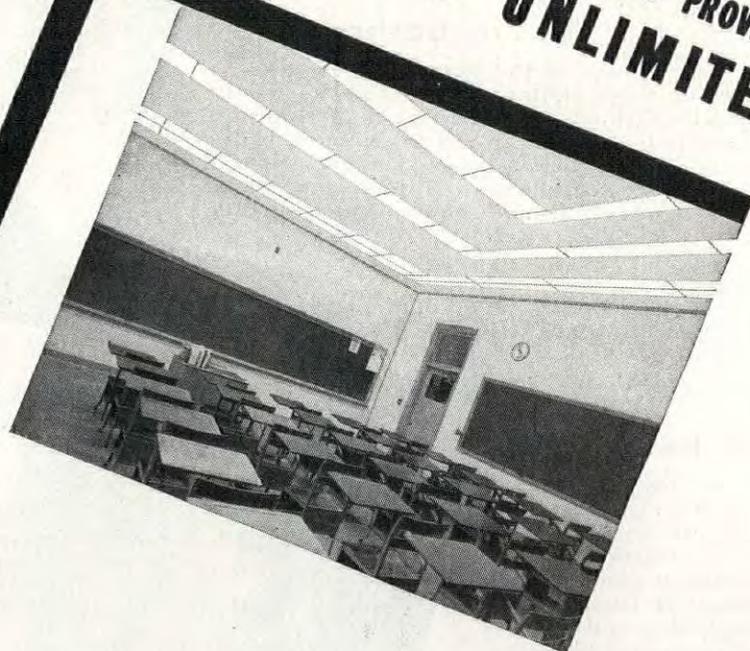
PLUMBING • HEATING • PUMPS  
VALVES • FITTINGS • PIPE

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



Installed in a commercial area of any size — the MILLER FLUORESCENT TROFFER LIGHTING SYSTEM gives you (1) perfect light for easy-seeing; and (2) a distinctive, impressive ceiling treatment. Good lighting is made an integral part of the architecture! Furthermore, you get a saving! The continuous wireway channels reduce wiring costs, conduit and conduit fitting costs, from 50% to 80%. The patented Miller Ceiling Furring Hanger improves and simplifies installation. The versatility of application of the Troffer System offers limitless design opportunity — **CEILINGS UNLIMITED** — while fulfilling its primary purpose — **IDEAL LIGHTING.**

**THE LIGHTING SYSTEM THAT PROVIDES  
CEILINGS UNLIMITED**



**THE MILLER COMPANY • MERIDEN, CONN.**

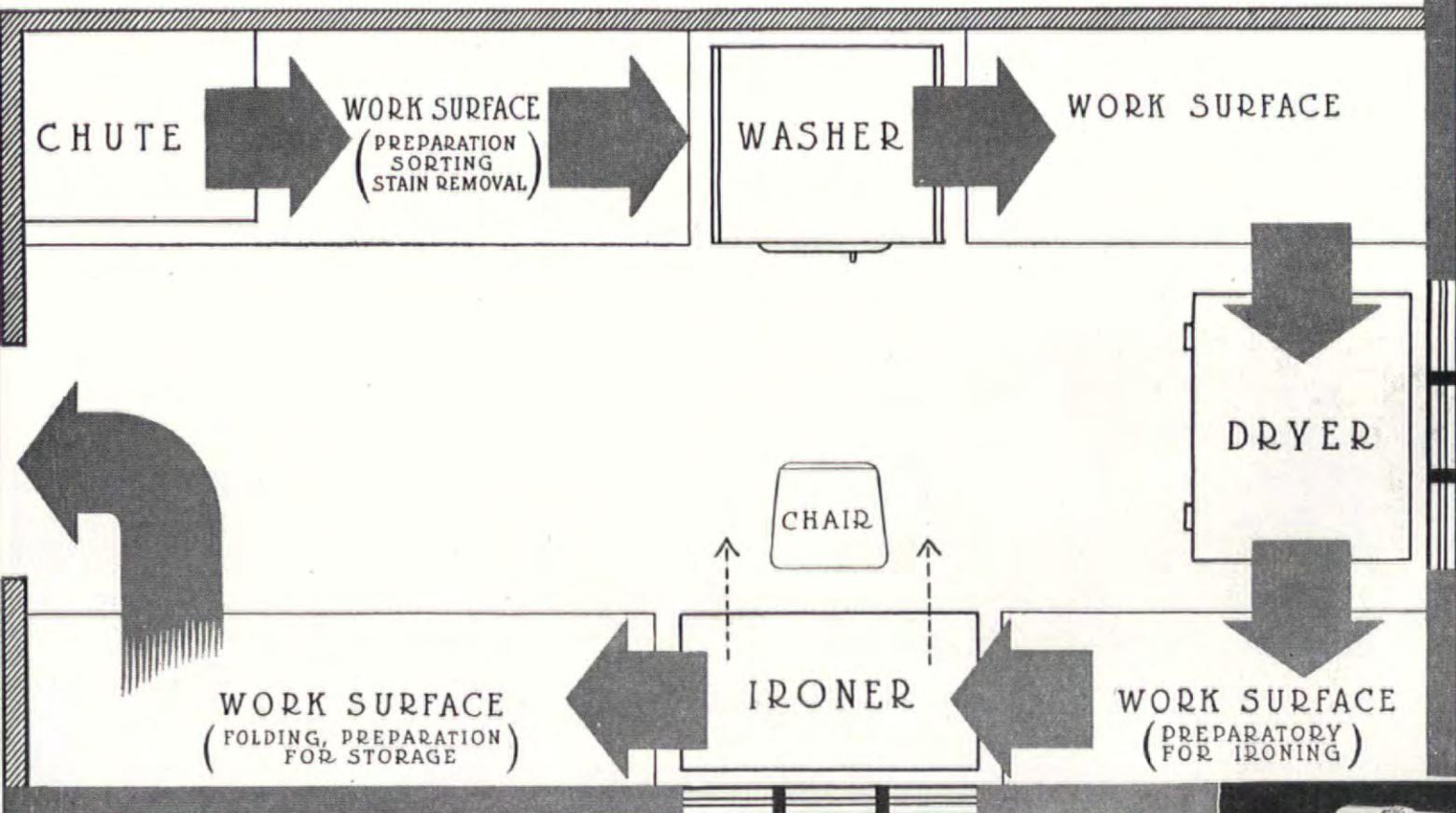
**ILLUMINATING DIVISION**

**ILLUMINATING DIVISION**  
Fluorescent, Incandescent  
Mercury Lighting Equipment

**ROLLING MILL DIVISION**  
Phosphor Bronze and Brass  
in Sheets, Strips and Rolls

**FOUNDRY DIVISION**  
Non-Ferrous Metal  
Castings

**HEATING PRODUCTS DIVISION**  
Domestic Oil Burners  
and Liquid Fuel Devices



## EVER THINK OF A LAUNDRY ROOM ... AS A PRODUCTION LINE?

The modern woman does, (though she may not call it that!) Monday mornings have taught her that it's systematic order in laundering procedure that gets the work done. She knows that work flow principles are as important in the laundry as in the factory.

As she looks over your plans she thinks: "There's the chute. Bins next to it. I can sort the clothes there. Then washing. Next to it drying. Sorting again—and ironing." As she studies your plans she's checking her work procedure against them.

The smart architect fits form to function, and thinks production-line as he locates outlets, lighting, gas-lines, hot-water runs, drains, etc. For he knows that the heart of efficient production is operation-sequence—and automatic equipment!

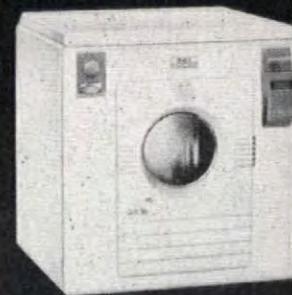
And there's where Bendix Appliances come in! Whether your laundry makes the flow-of-work straight-line, or L-shaped, or U-shaped—so long as that sequence of sorting, washing, drying, sorting, ironing, storing, is preserved, the Bendix Washer, the Bendix Dryer, and the Bendix Ironer will make an automatic work-free laundry that's a housewife's dream of modern efficiency.

For it means no rinse tubs, no clothes hoisting, no wringing, no slopped floors, no trundling of equipment—the Bendix Washer works where it's set. It means Dependable drying—right there—365 days a year. It means Effortless Ironing; fast, efficient, convenient.

With work-flow planning and Bendix Automatic equipment, you can give the housewife what she wants.



BENDIX AUTOMATIC HOME LAUNDRY  
26" x 22 3/4" x 36"—110 V., A.C.



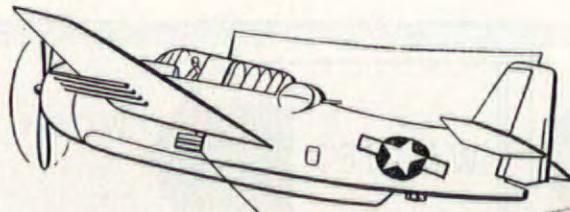
BENDIX AUTOMATIC DRYER  
31" x 25" x 36"—ELECTRIC OR GAS



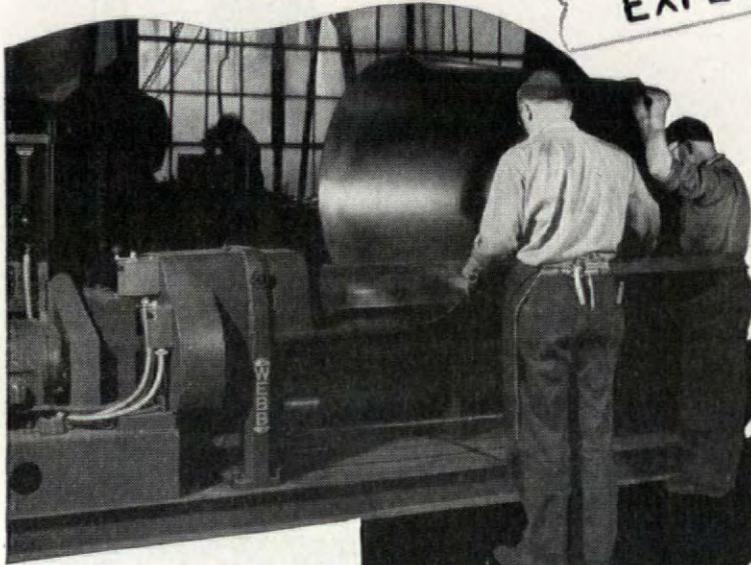
BENDIX AUTOMATIC IRONER  
34 1/2" x 18 1/4" x 36"—25" ROLL

# BENDIX Home Appliances, Inc.

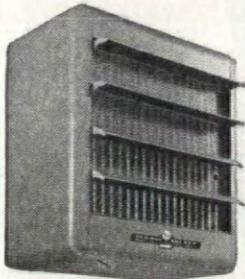
SOUTH BEND 24, INDIANA



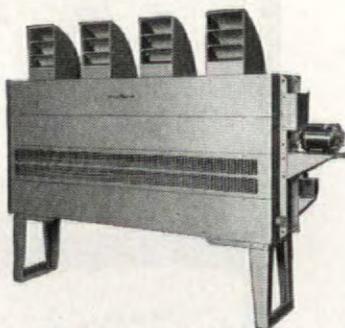
EXPLORE UNDERGROUND BY AIR - - -



*But...* proper heating and ventilating may be vastly more important to your clients



Herman Nelson Propeller-Fan Type Unit Heaters



Herman Nelson Blower-Fan Type Unit Heaters

Developed during the war, Magnetic Airborne Detection and Short Range Navigation may revolutionize accepted methods of discovering metal or oil deposits. However, aerial exploration of the earth's secrets may mean little to your clients.

Installation of Herman Nelson Heating and Ventilating Equipment is important to your clients if they want to improve working conditions and thus help speed up production, keep employees on the job and reduce accidents to a minimum.

Herman Nelson Unit Heaters, Propeller and Centrifugal Fans and Unit Ventilators . . . the result of 40 years' constant and painstaking research . . . incorporate many exclusive features of design and construction to assure superior results. They have proved their value in thousands of installations all over America.

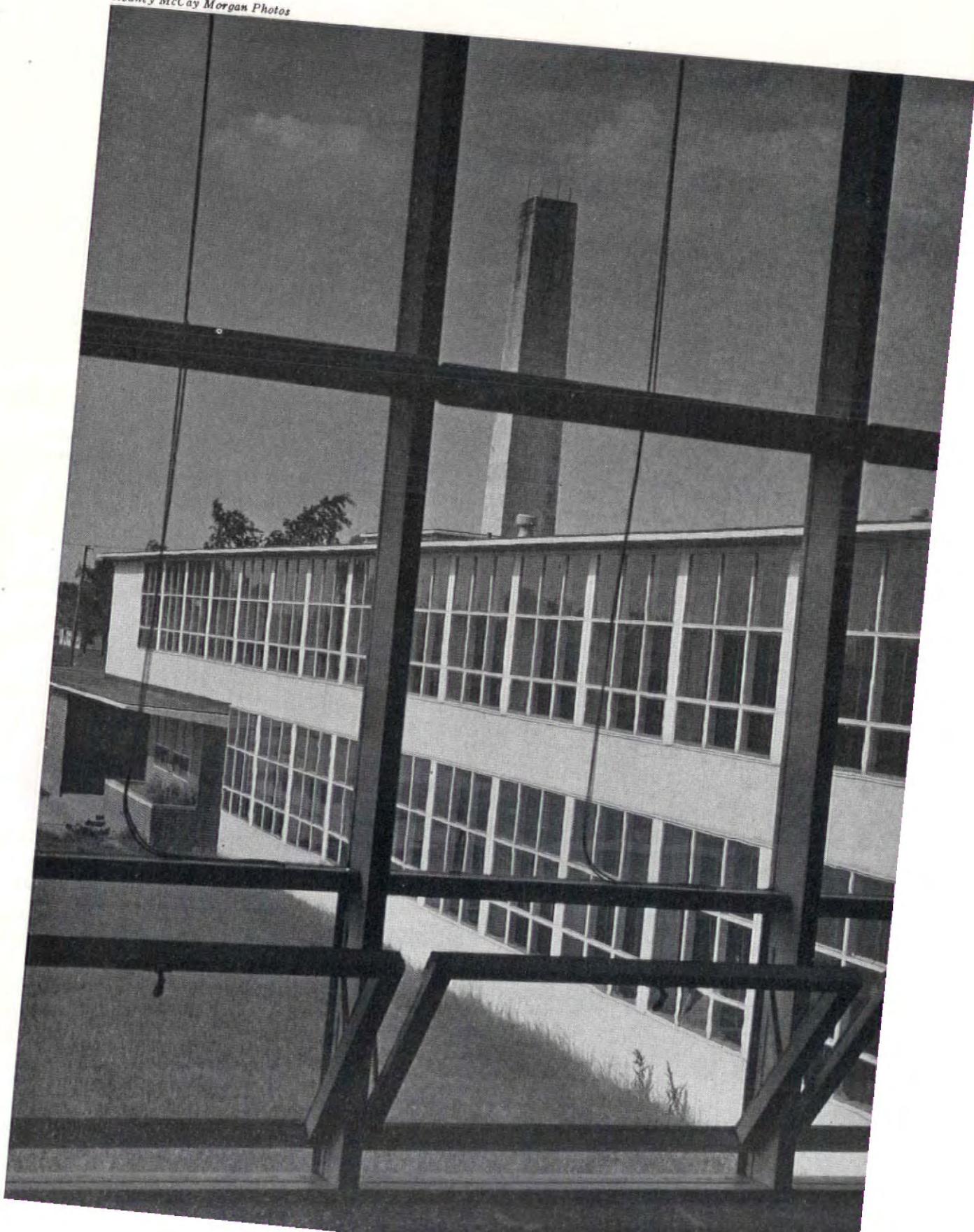
When specifying heating or ventilating equipment in any commercial, industrial, or public building, remember that you can't select better products than those bearing the Herman Nelson nameplate.



**THE HERMAN NELSON CORPORATION**  
for 40 years manufacturers of quality heating and ventilating products  
**MOLINE, ILLINOIS**

The Architectural **FORUM** Magazine of Building

*Rodney McCay Morgan Photos*



SIMPLIFIED ARCHITECTURAL  
EXPRESSION PRODUCES HAND-  
SOME, WORKMANLIKE WHOLE

# THREE SCHOOLS in Wayne County, Michigan, show how to squeeze maximum performance

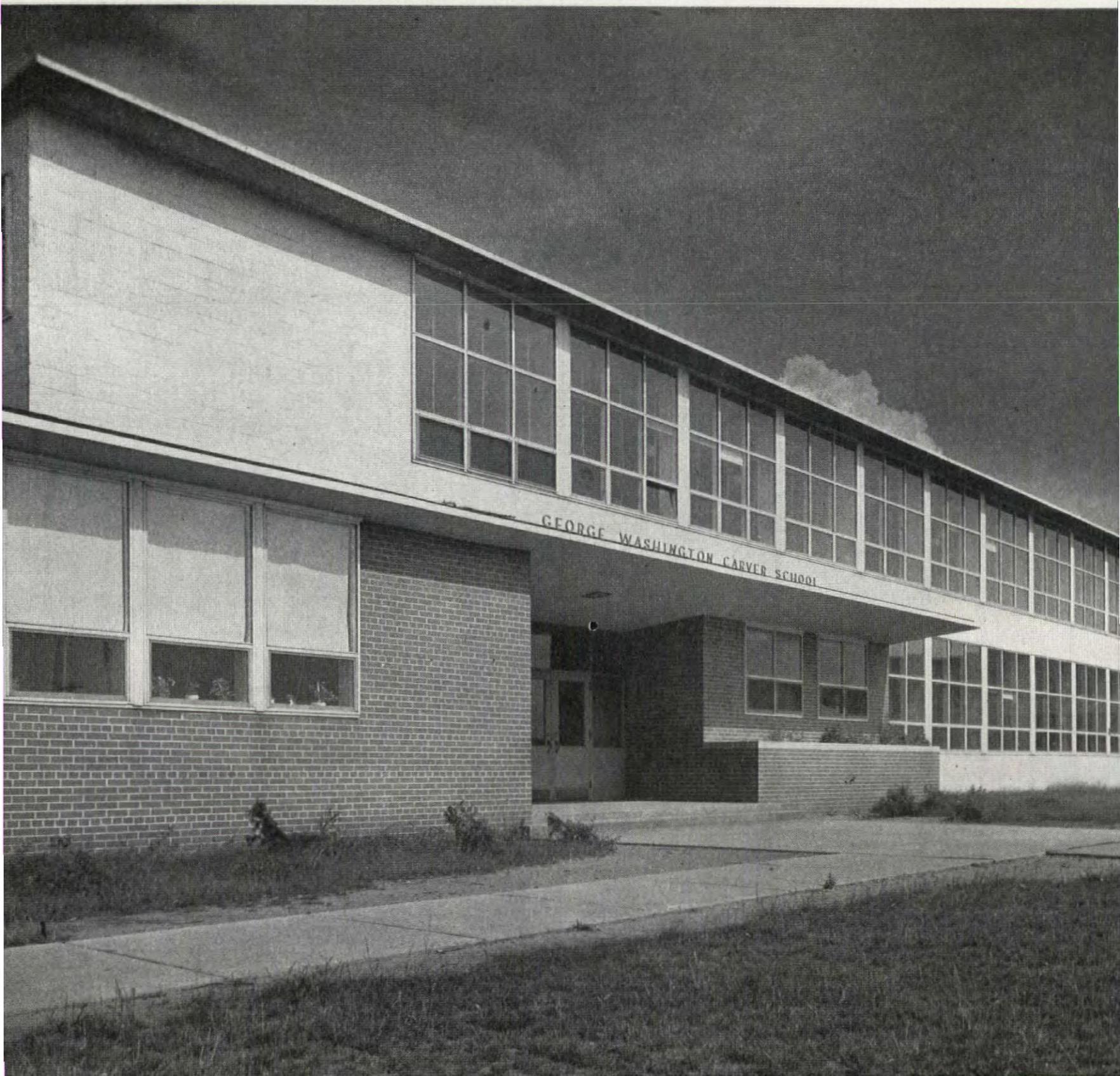
Built during the war years with all their familiar headaches, these schools were needed to partially accommodate a huge influx of workers and their families to the Detroit area. So pressing was the need and so stringent the budget that it was often a toss-up whether or not the schools should be permanent buildings or temporary wooden structures. Only by working out a cheap and quickly erected type of construction could the architects justify their recommendation for a permanent school.

Because they were not considered absolutely essential by the government, many advanced planning and construction principles for elementary schools had to be omitted.

However, the FWA (who, with the FPHA, provided funds) realized the limitations of their standard plans for emergency school building and allowed the architects considerable freedom in rearranging orientation and layout provided costs were not affected.

The largest of the three schools, shown on these and the two successive pages, forms part of the community center for a wartime housing project. The temporary units shown on the plot plan, which separate the school from the adjacent community building and fire house, will be removed in the near future and this land will become a part of the community park.

FENESTRATION EXPRESSES FORTHRIGHT DESIGN: LONG GLAZED STRIPS ARE CLASSROOMS. SMALLER WINDOWS IDENTIFY NON-STUDY AREA

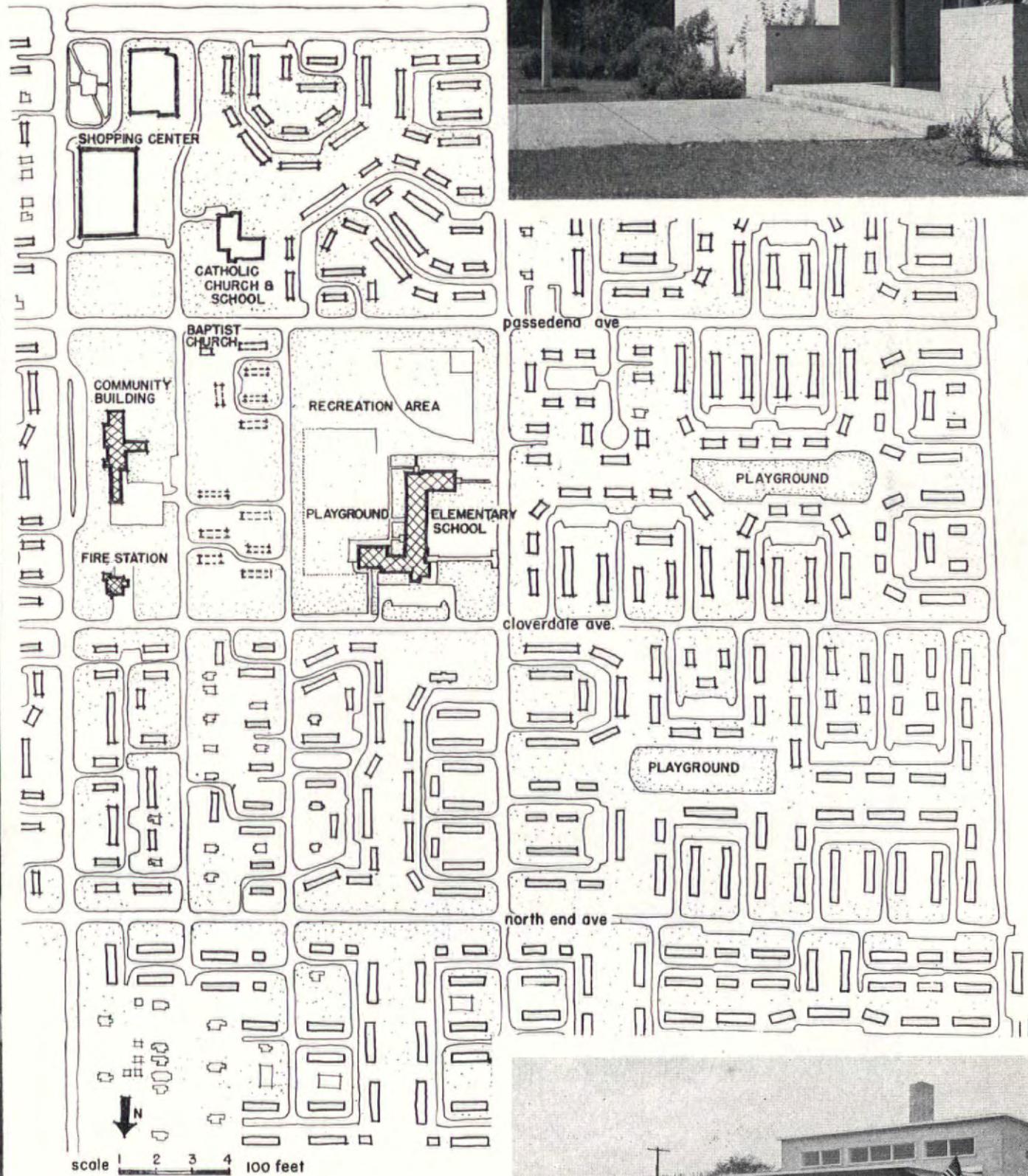


Results from minimum dollars and man hours.

GEORGE D. MASON CO. & EBERLE M. SMITH ASSOCIATES, Architects

EMIL VAN SILE CO., General Contractor

ADJACENT COMMUNITY BUILDING  
REPEATS STANDARDIZED CONSTRUCTION



POLICE AND FIRE HEADQUARTERS

Elmer L. Astleford



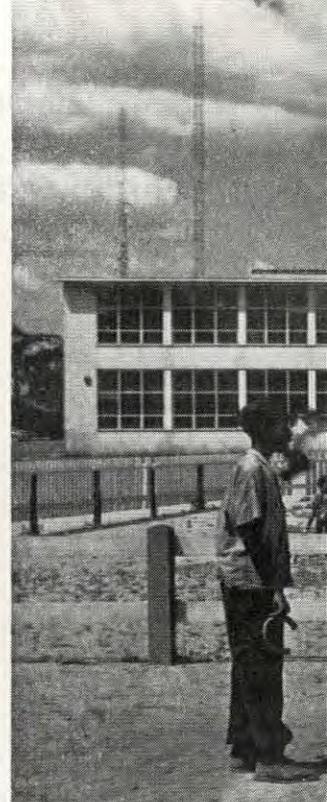
**Carver school is characterized by clean lines, generous glazing and bold use of color.**

The plan of the largest school places two day nurseries at the end of the one-story east wing, well away from other classrooms. These and two kindergartens are closely related to a large multipurpose room also in the east wing which serves as gymnasium and assembly hall, makes a fine indoor play area. As in factory construction, rigid repetition of a standard unit (here, a 22 x 30 ft. classroom) resulted in a less costly building. However, the architects consider these uniform dimensions anything but a perfect solution for diverse grade requirements.

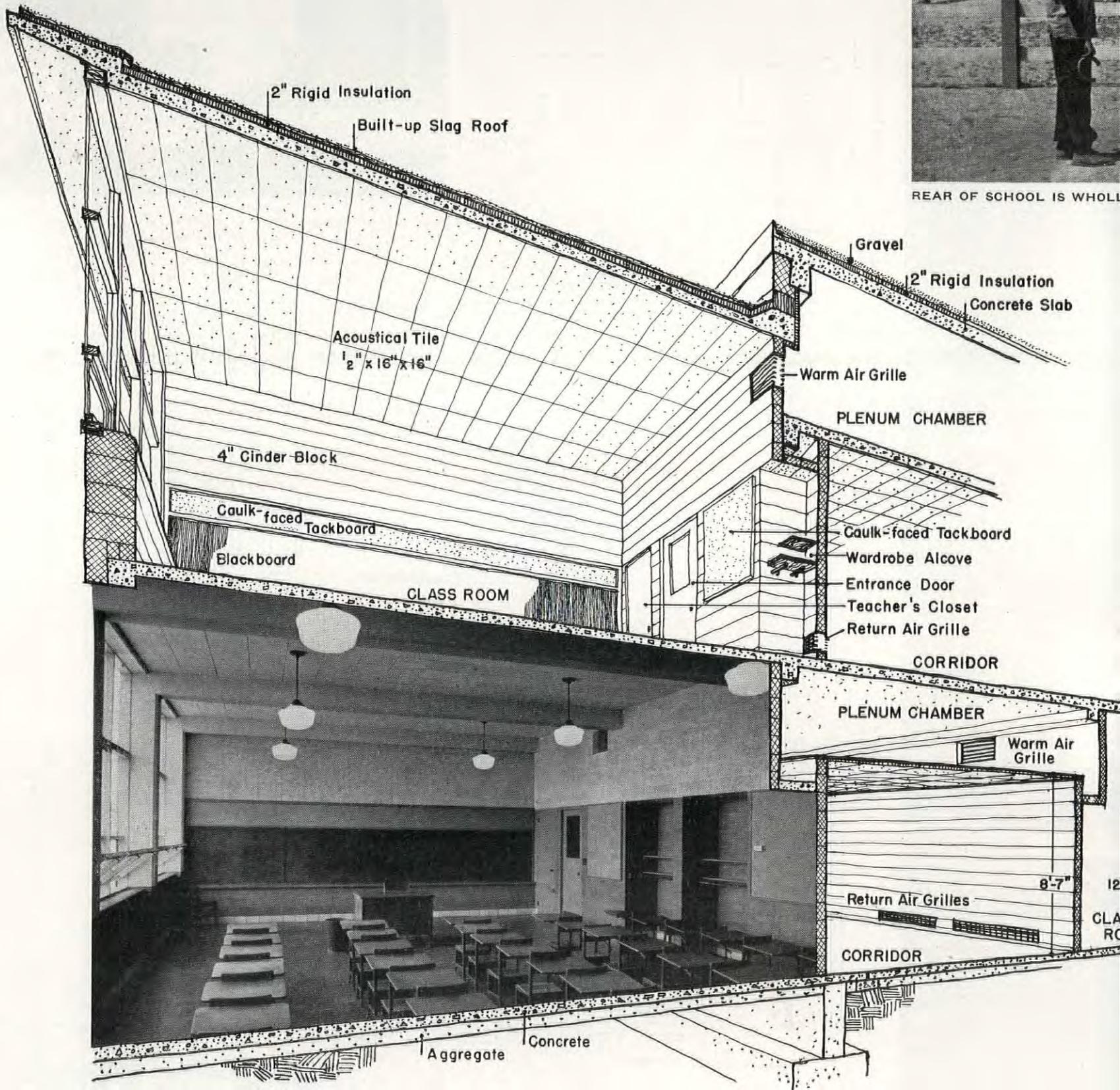
Exposed cinder block serves as both interior and exterior surface, with 4 in. glazed tile set in to form bases in all

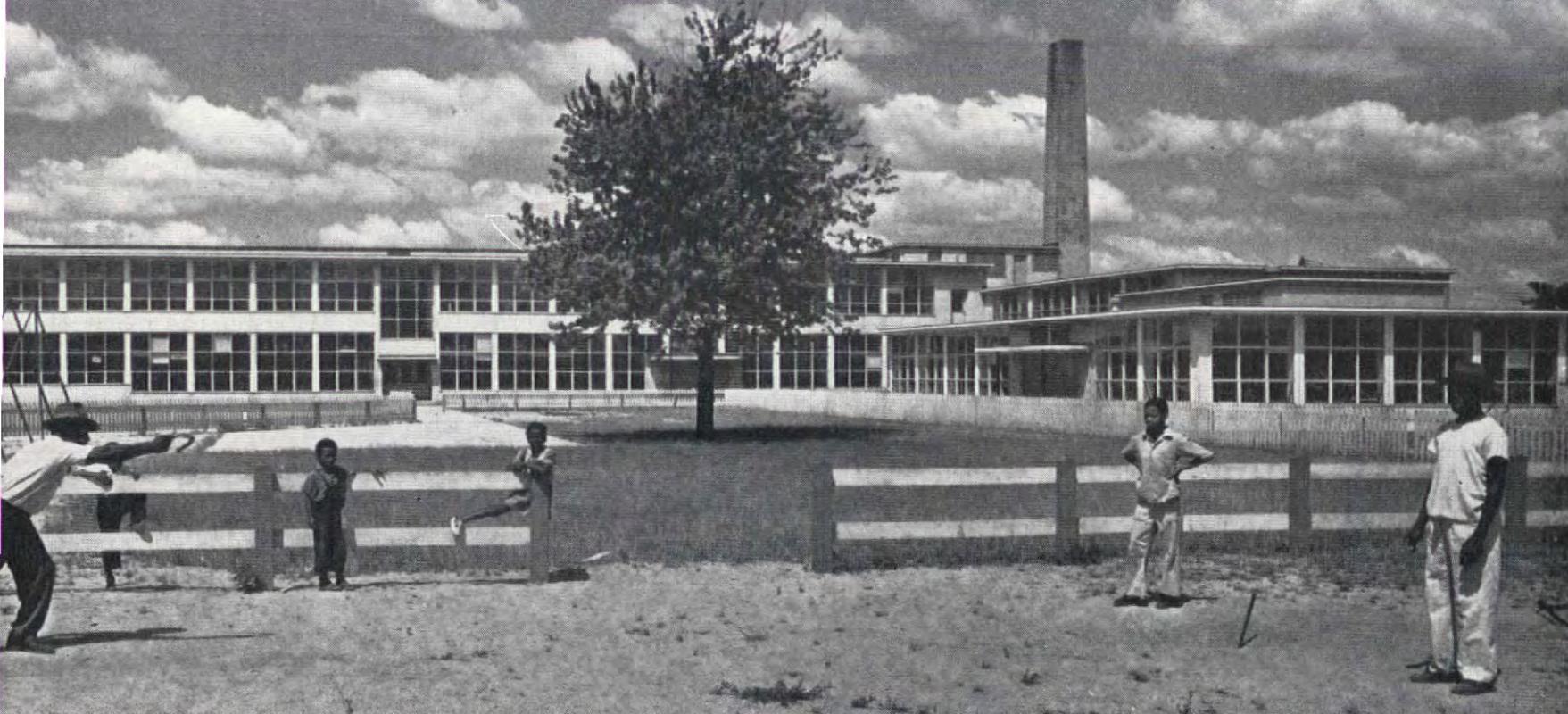
rooms. Color is used boldly throughout. Pale coral and blue-green walls contrast with darker dados of the latter color. Columns and beams are painted a cheerful yellow; interior doors, cabinets and shelves, bright orange. On the outside, entrances are faced with smooth red brick. Doors are painted robin's egg blue, underside of canopies, chrome yellow.

Steam heated coils located in attic fan-rooms warm air, which is filtered and then forced through ducts concealed above depressed ceilings of corridors. Outlet grills are set high in classroom walls. Air is returned through corridors to fan rooms.

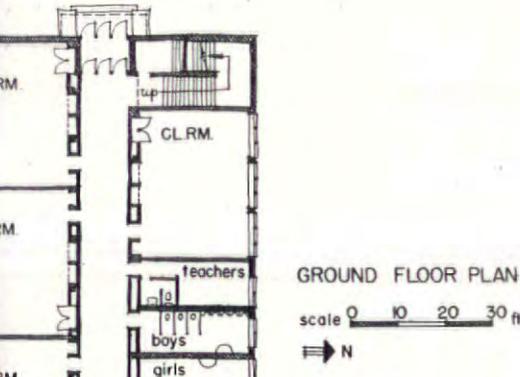


REAR OF SCHOOL IS WHOLLY

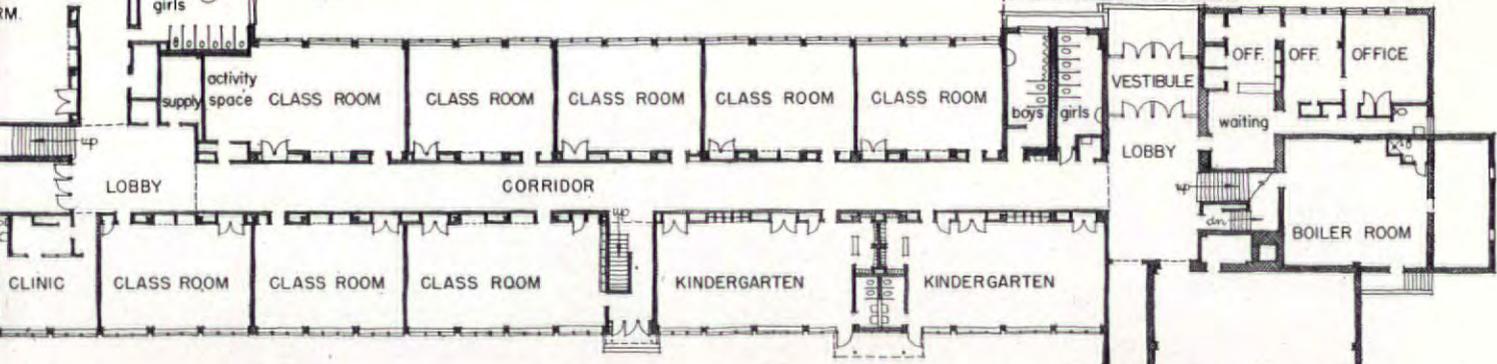




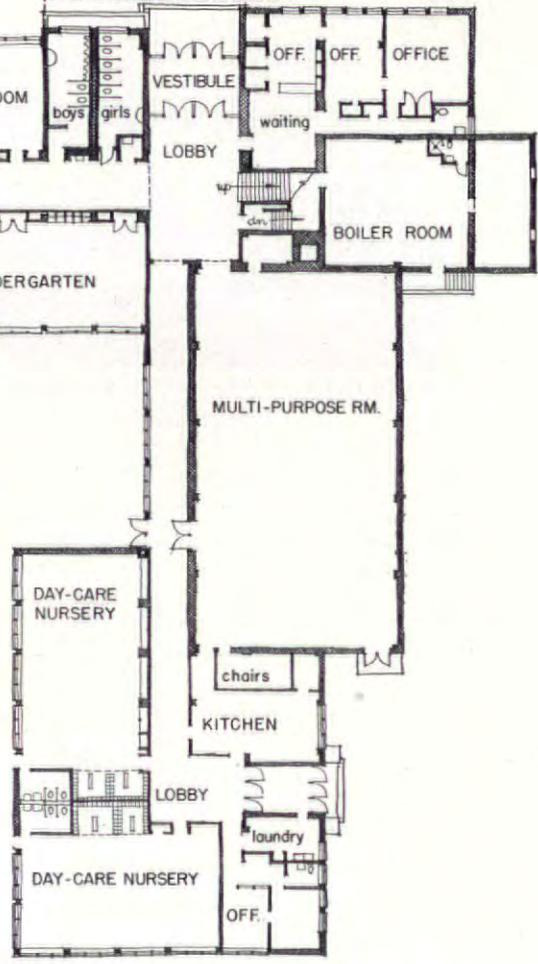
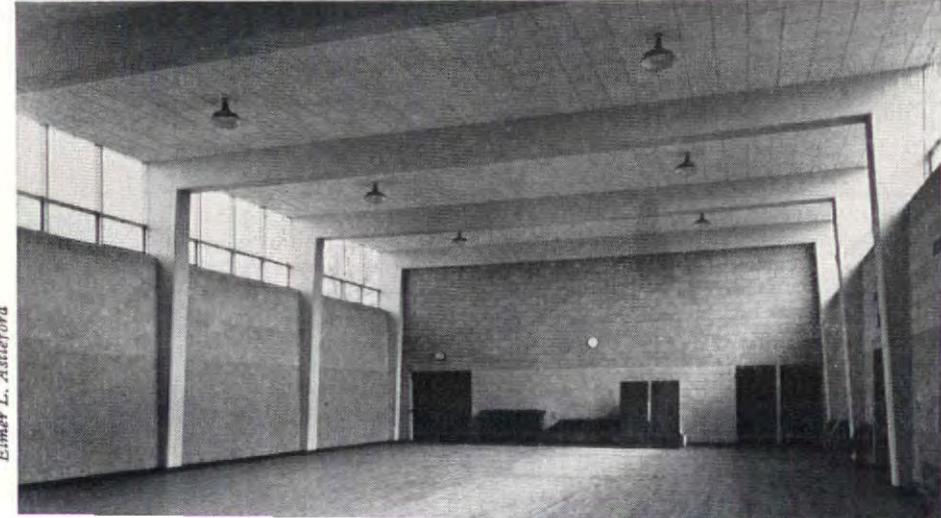
COPIED BY CLASSROOMS ORIENTED TO SOUTH AND EAST. PROJECTING WING SHELTERS LARGE PLAYGROUND FROM NORTHERLY WINDS



GROUND FLOOR PLAN  
scale 0 10 20 30 ft  
N



MULTIPURPOSE ROOM RECEIVES EVENLY DISTRIBUTED LIGHT FROM TWO SIDES



Eimer L. Astleford

## Two smaller schools duplicate practicality and efficiency on a reduced scale

The salient difference in planning between the smaller schools lies in the location of their washroom units. In the Douglas School (left) these are segregated in a wing which also contains utility and office space. In the Heintzen School (right) they are centrally located, wedged between classrooms on the main corridor. This contradiction is explained by the fact that at Heintzen the addition of a second story is anticipated whereas expansion at Douglas is planned as a new wing to the south with access through the present office.

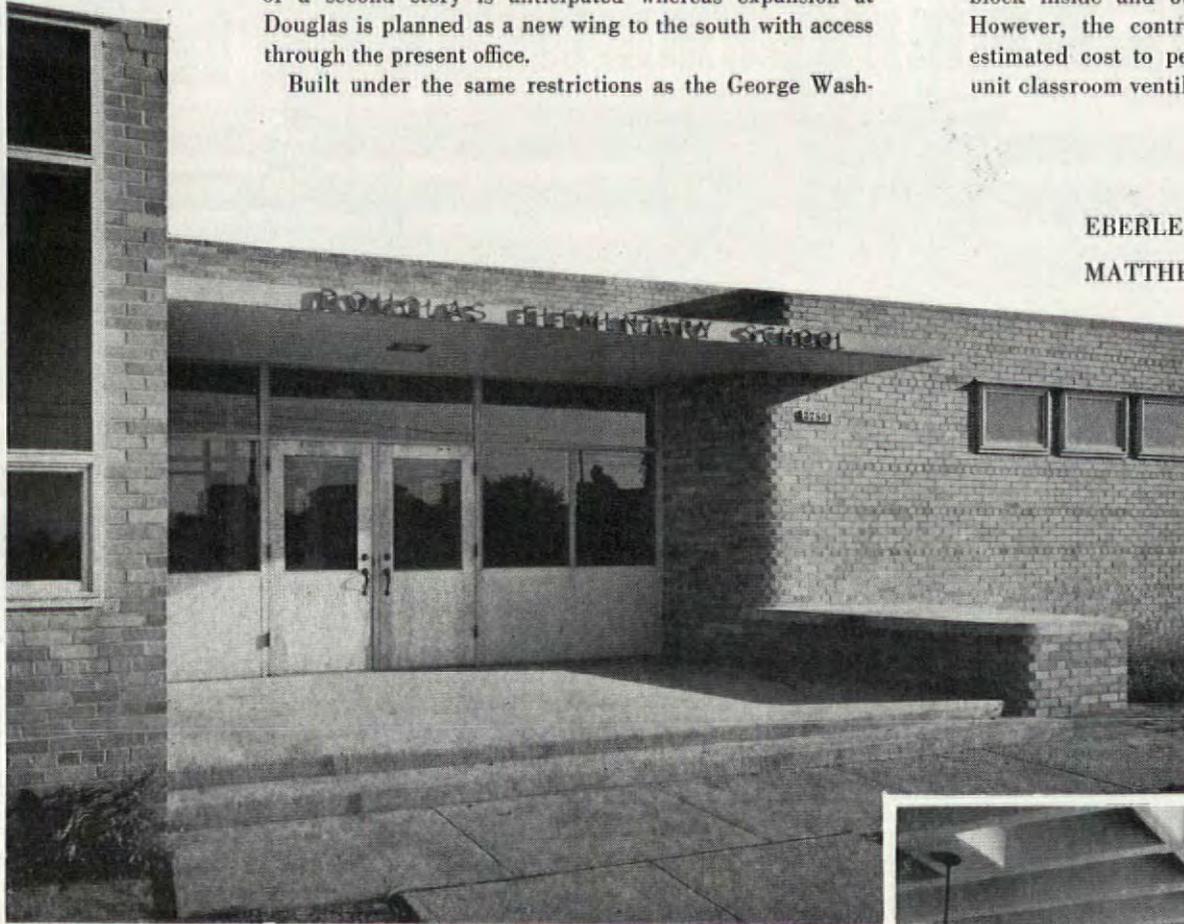
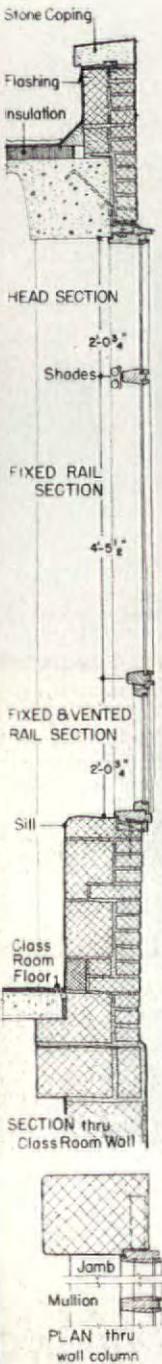
Built under the same restrictions as the George Wash-

ington Carver school, important savings in all three buildings were realized by the elimination of wood trim at doors, windows and cabinets, plank frames being finished with mastic caulking at the masonry intersections. Metal lockers and other amenities were automatically eliminated.

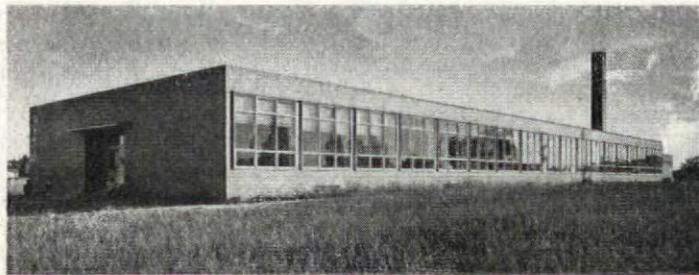
In the case of the Douglas School the building was designed and working drawings made for exposed cinder block inside and out and gravity type roof ventilation. However, the contract price was sufficiently below the estimated cost to permit an exterior facing of brick and unit classroom ventilators.

EBERLE M. SMITH ASSOCIATES, Architects

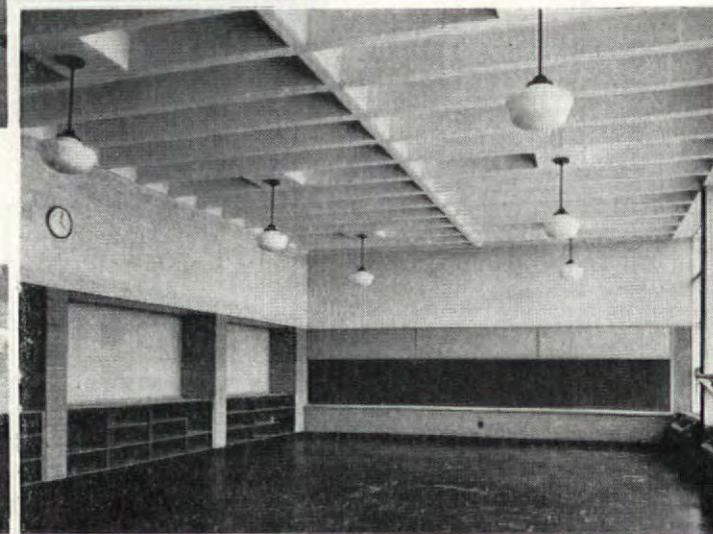
MATTHEW LALEWICZ, General Contractor



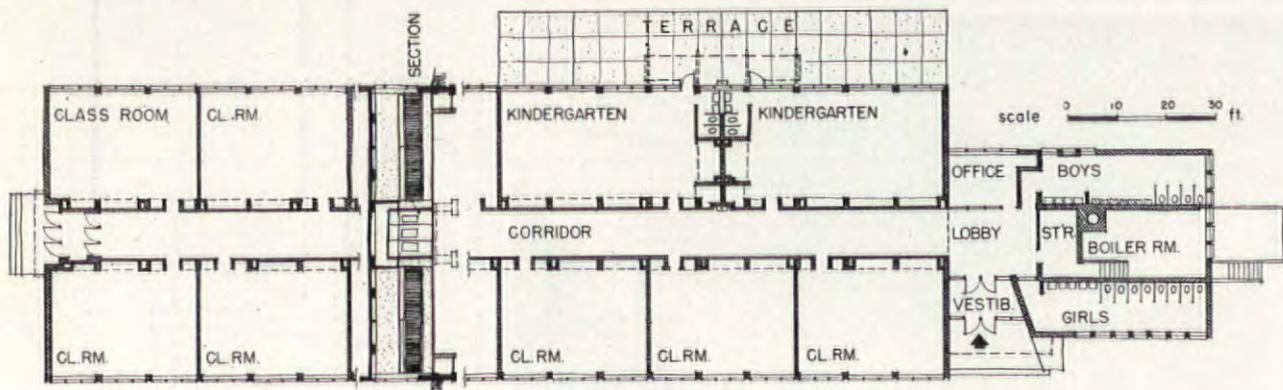
ENTRANCE STEPS ARE AT A SAFE DISTANCE FROM DOORS



CLASSROOMS FLANK BOTH SIDES OF CENTRAL CORRIDOR



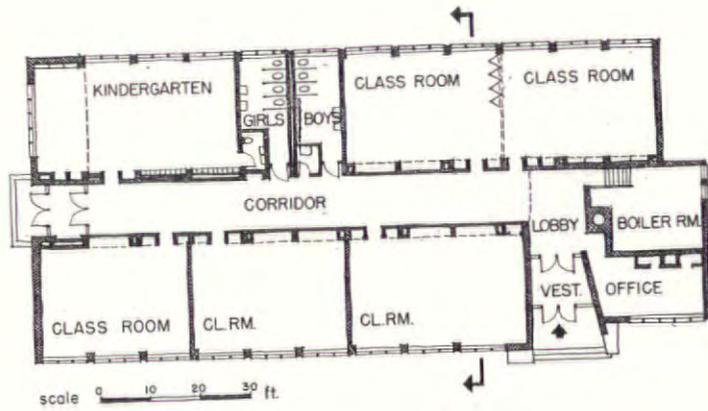
BUILT-IN BOOKSHELVES OCCUPY SPACE BETWEEN COLUMNS



varying layouts anticipate different methods of development.

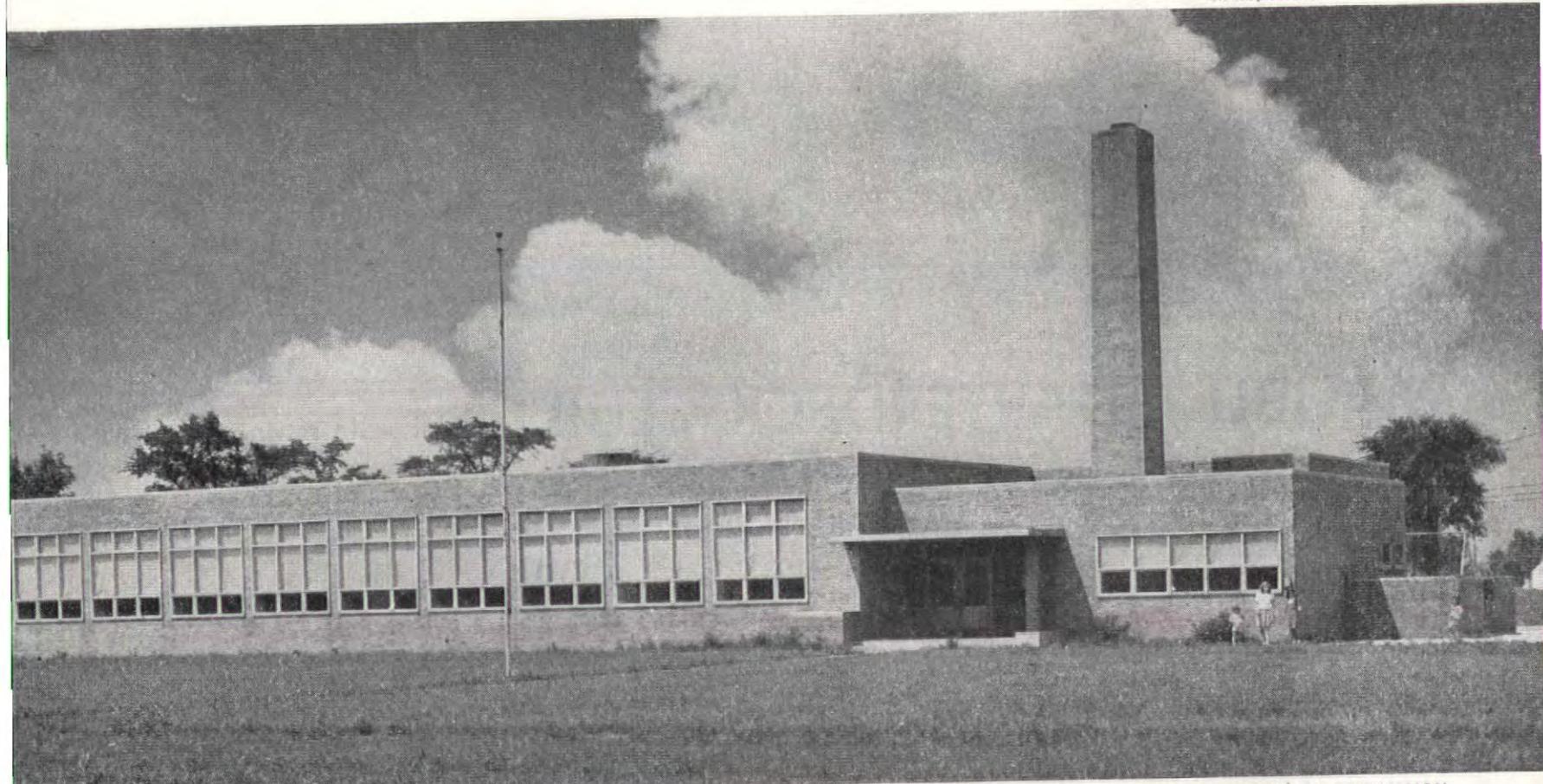
**CONSTRUCTION OUTLINE**

**STRUCTURE:** Exterior walls—cinder block and brick with tile base. Interiors—cinder block. **FLOORS**—asphalt. Bases—ceramic tile. **ROOFS**—slag, tar and gravel, The Barrett Co. 20-yr. bonded. **WINDOWS:** Glass—plate, wire, double strength, quality A. **HARDWARE**—Vincent Whitney Co. **PLUMBING**—J. A. Zurn Mfg. Co., Bradley Washfountain Co. and Kohler Co. Pipes—Alabama Pipe Co. and Wheeling Steel Co. **HEATING**—steam systems. **AIR CONDITIONING EQUIPMENT**—The Herman Nelson Corp., Modine Mfg. Co., Owens-Corning Fiberglas Corp., Allen Co. Boilers—Farrar Trefts, Inc. and U. S. Radiator Co. Regulators—Minneapolis-Honeywell Regulator Co. and Bell & Gossett Co. Water heaters—Bell & Gossett and Weil-McLain Co.

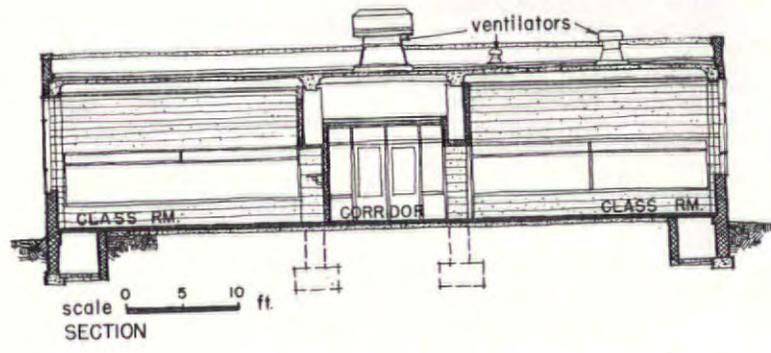


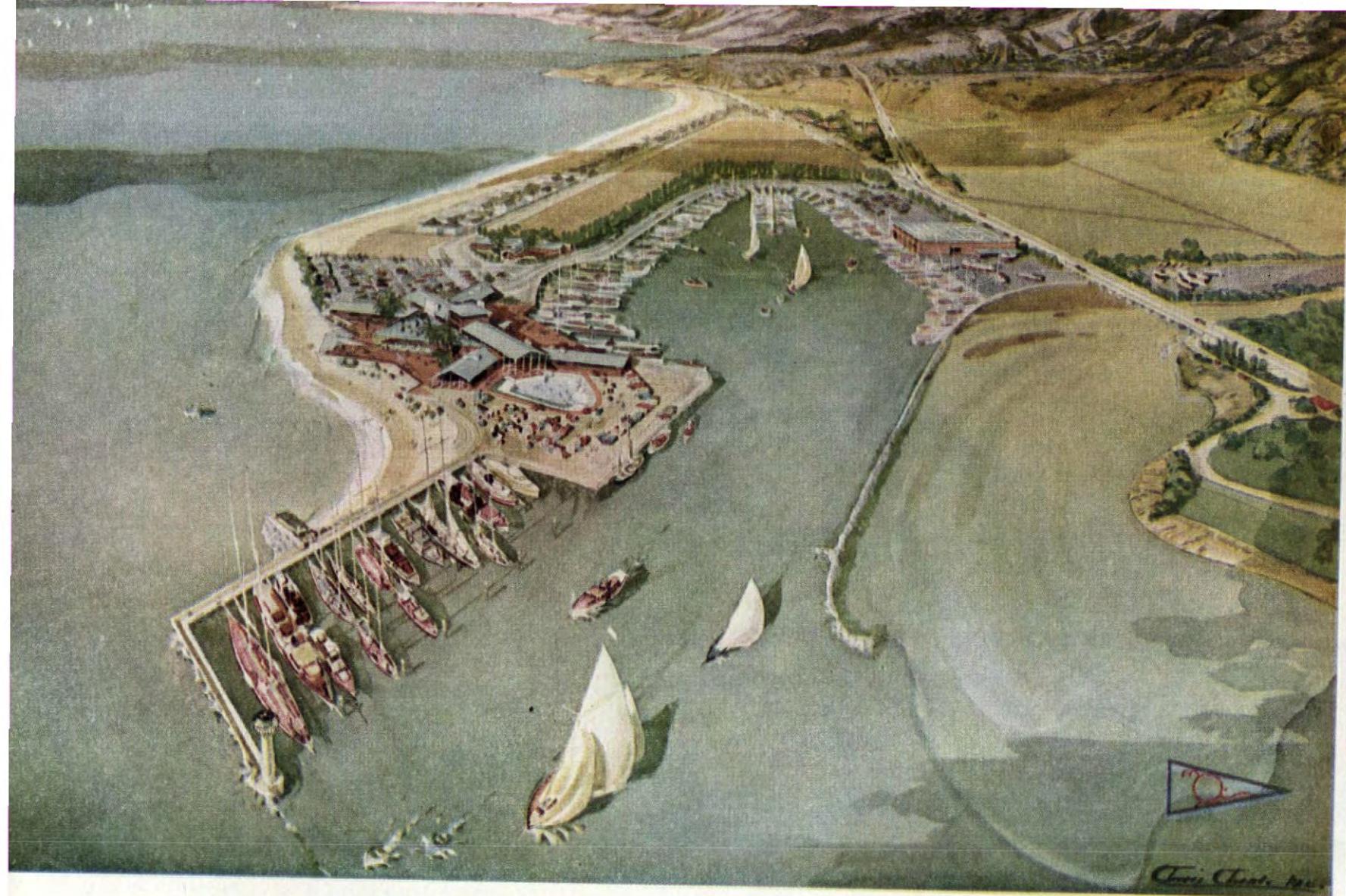
EDWARD H. SCHENDEL & CO., General Contractor

*Rodney McCay Moran Photos*



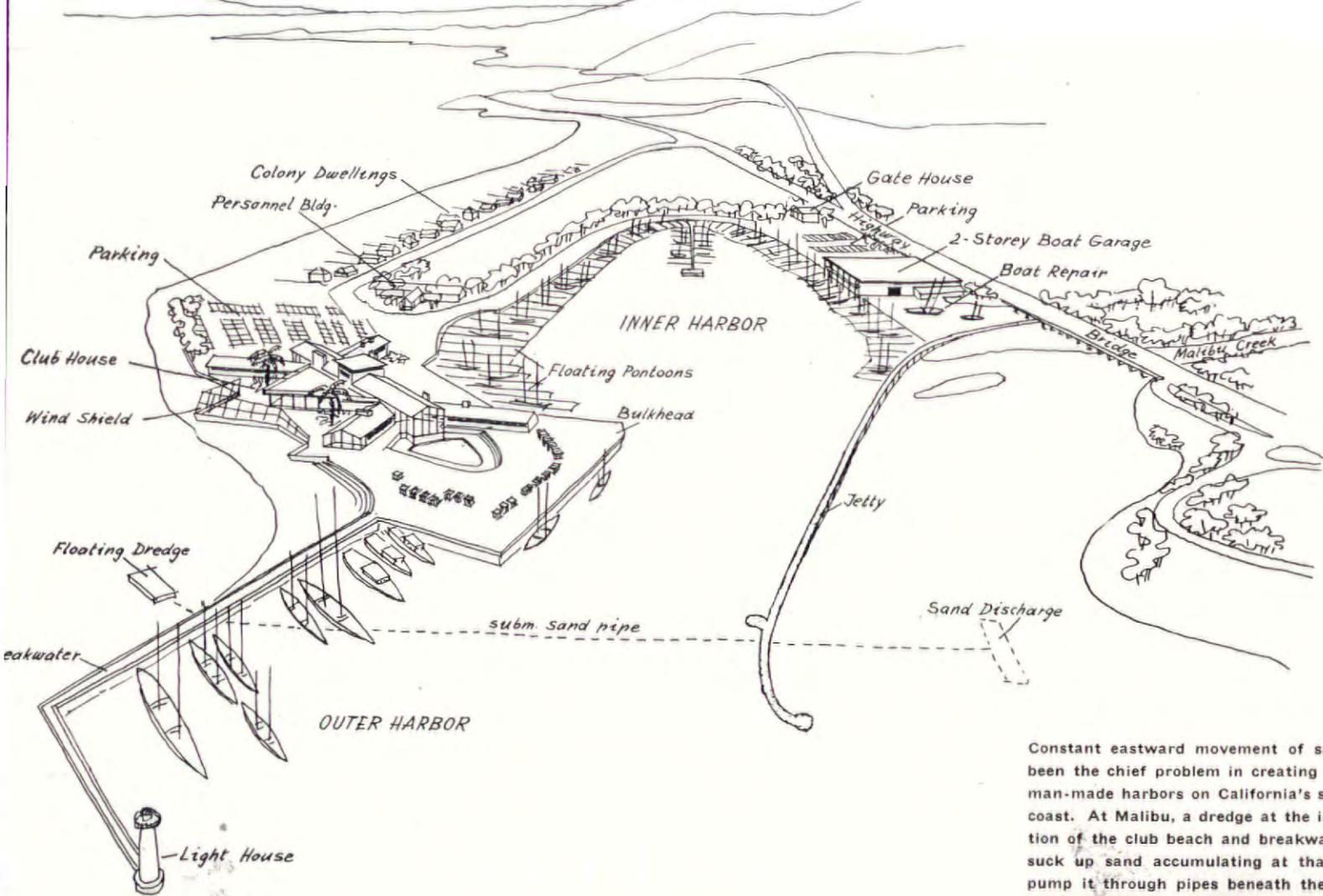
ALLEST OF THE THREE SCHOOLS IS AN UNOSTENTATIOUS BUT WELL INTEGRATED BUILDING PLANNED WITH AN EYE TO FUTURE EXPANSION





## MALIBU QUARTERDECK CLUB—An elaborate setting for private bathing





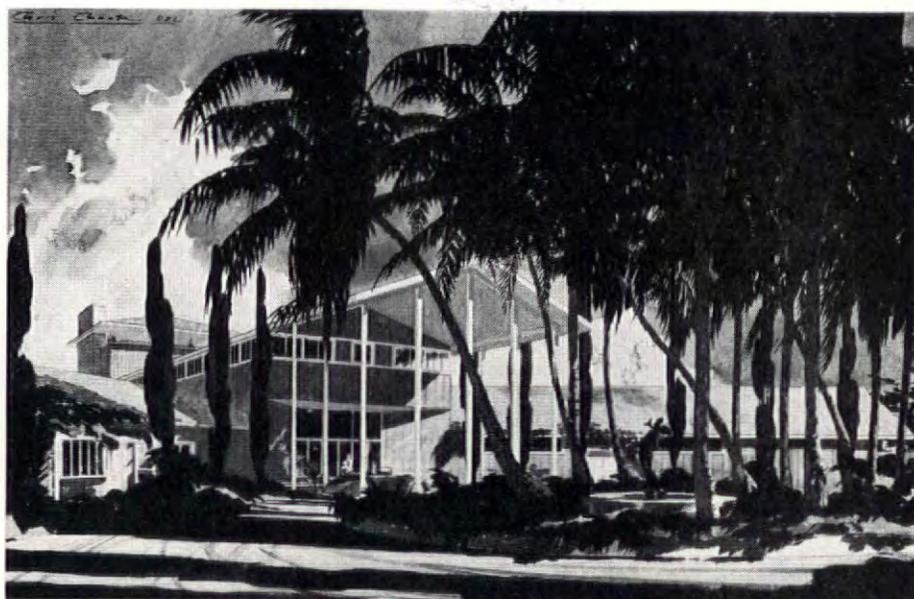
Constant eastward movement of sand has been the chief problem in creating the few man-made harbors on California's southern coast. At Malibu, a dredge at the intersection of the club beach and breakwater will suck up sand accumulating at that point, pump it through pipes beneath the harbor for deposit on beach further east, thus preventing harbor entrance from becoming clogged. Debris and silt brought down from mountains by Malibu Creek will be deflected from inner harbor by projecting jetty.

## boating on California's gold coast.

In the days of silent films, a few nearby Hollywood stars found seclusion in unpretentious cottages on a pleasant strip of beach ten miles north of Santa Monica on the California coast. The beach took its name from adjacent Malibu Creek, which poured occasional heavy rainfall from the mountains into the ocean. As the movies and California together grew to super-colossal fame, Malibu Beach became the swank off-duty spot of the cinema world, and the coastal area became a center for year-round recreation.

But Malibu Beach had no bathing facilities for the many families who lived in the nearby well-to-do residential areas of Los Angeles. And for those who wanted to keep a yacht, the nearest harbor was distant and dirty San Pedro. To meet the obvious need for private bathing and boating, two corporations have been formed to buy the delta of Malibu Creek, finance engineering and architectural studies for the development of such a well-located site, and carry forward the creation of the harbor and construction of the buildings. Work on the harbor has begun and construction of buildings will start as soon as detailed drawings and local and national conditions permit.

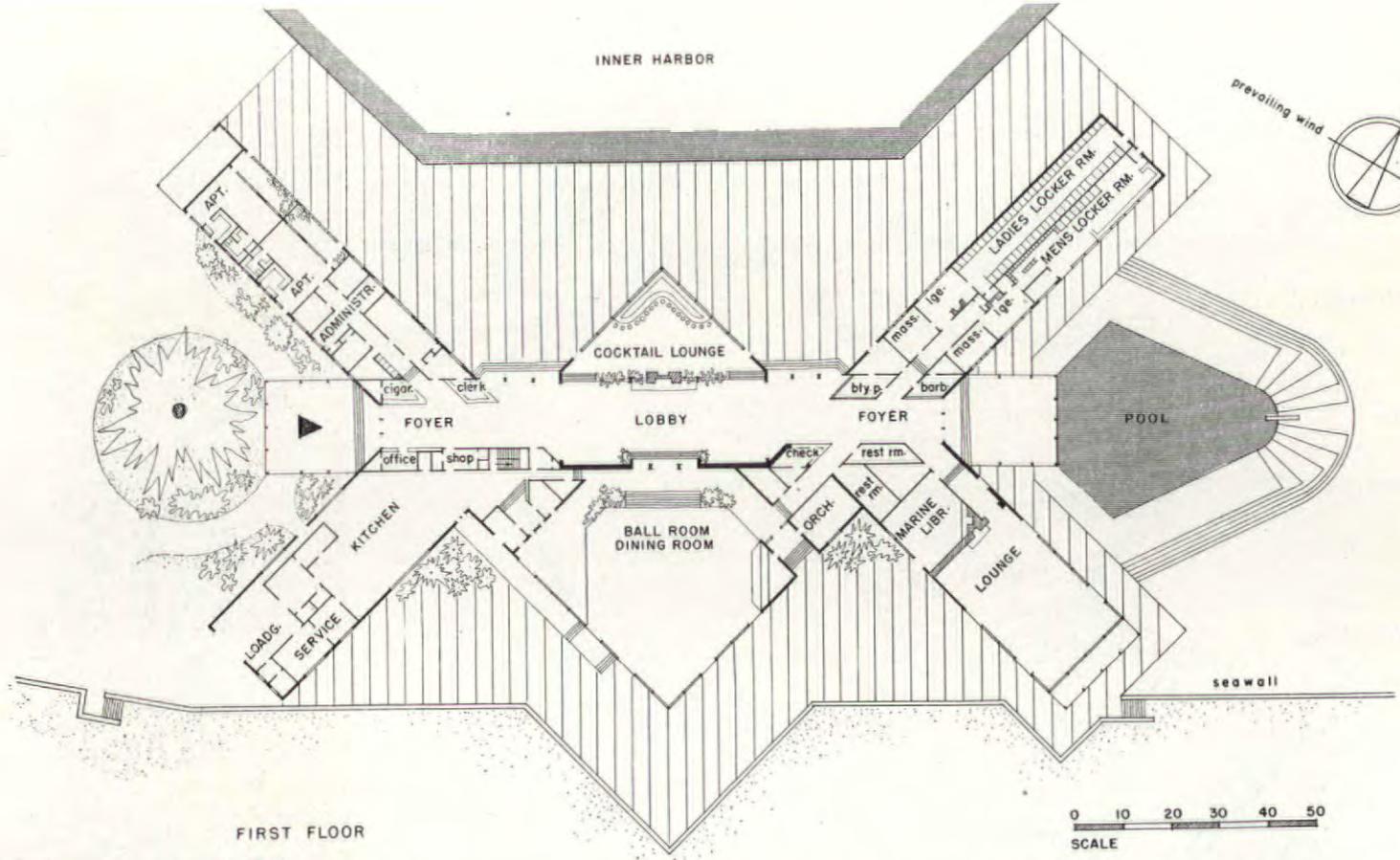
Dredging of the delta of Malibu Creek and the construction of seawalls and breakwater will create a sheltered harbor for the berthage of 520 yachts, ranging from 26 to 150 ft. in length. An additional 180 boats averaging 28 to 30 ft., will be stored in a two-story "boat garage," whose submersible elevators will make all craft available to owners at a few minutes' notice.



MAIN ENTRANCE IS FLANKED BY ADMINISTRATION AND SERVICE WINGS

CLIFF MAY, Designer

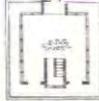
TAGGART ASTON, Harbor Engineer



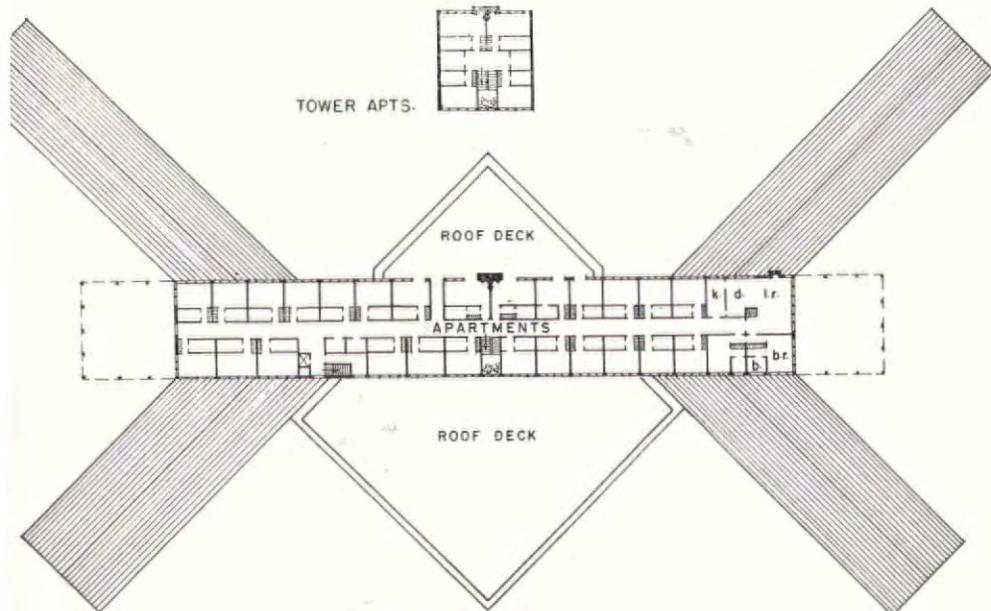
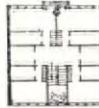
AIR VIEW OF MAIN CLUB SHOWS HOW BUILDING IS INTEGRATED WITH VARIOUS ACTIVITY ZONES OF SITE. SAND AREA AROUND SWIMMING POOL



CROWS NEST

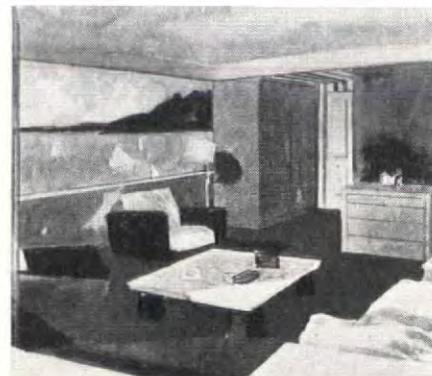
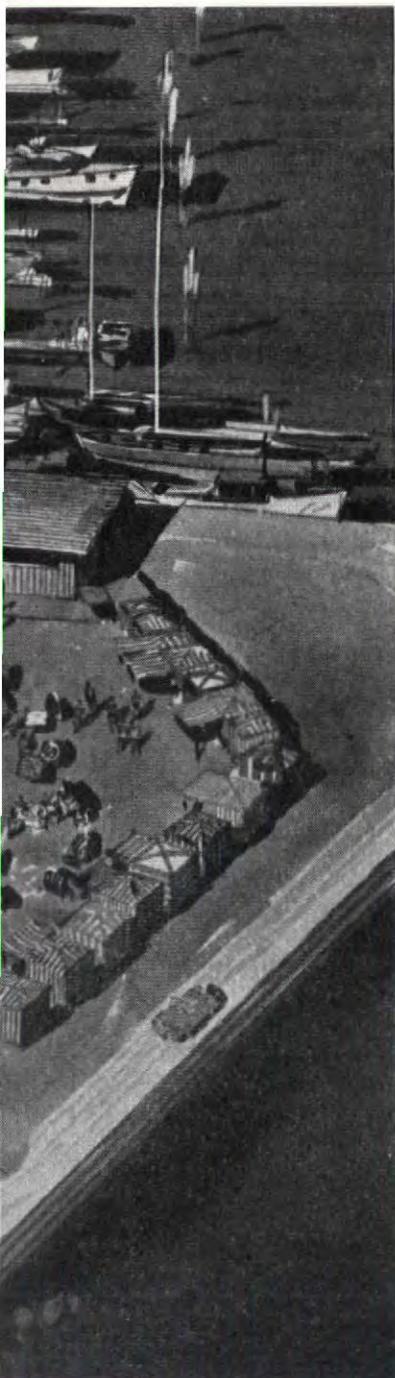


TOWER APTS.



SECOND FLOOR

L IS HEATED BY BURIED PIPES

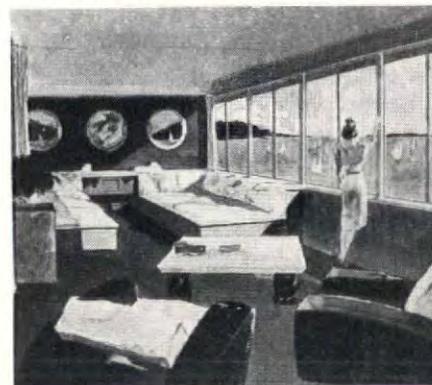


GUEST BEDROOMS ARE ARRANGED ...



TYPICAL APT.

... AS LIVING ROOMS FOR DAY USE



### Jutting wings of club building form sheltered, intimate courts

Cliff May has taken the low, rambling rancho style, adapted it with skill to the needs of a large modern club while preserving much of the informality and human scale so often lacking in such structures. A two-story "backbone" expresses the main circulation, to which are attached four single-story wings each devoted to the specific functions of service, management, lounging and bathing. Between the four wings, projecting as triangular glass-walled spaces on opposite sides of the central lobby, are the dining room with its view of the Pacific, and the smaller cocktail lounge with its view of boat harbor.

A large sloping windshield, like the inverted prow of a ship, shields the beach side of the dining terrace. It will be constructed of specially treated glass and metal and engineered to deflect ocean winds over the heads of diners. Additional comfort on cool nights will come from heating pipes in the terrace floor.

On the second floor are located thirty guest suites, each with private bath, several with living rooms, fireplaces and roof deck terraces. In the central tower, on a third floor, are four deluxe apartments, and above these is the "crow's nest," a large, glassed-in room for watching sailing regattas.

Construction will be of wood frame throughout, set on concrete mat slabs supported by piles driven in the sand. Exterior walls will be covered with hand-hewn redwood boards, and pale green tiles will cover the low-pitched roofs.

## FINANCING of the Malibu Quarterdeck Club is a vigorous example of modern promotion techniques.

When completed, the Malibu Quarterdeck Club will represent an investment of approximately \$2 million. Rather than follow the usual procedure in such matters and launch a single corporation for the whole undertaking, two groups have been established. The Malibu Quarterdeck Improvement Co. was incorporated in 1945 to purchase the property and pay for research, engineering and architectural work. Financing was by sale of 300 \$1,000 shares, without commissions or deductions, to stockholders admitted on a selective basis. Stockholders are chiefly business and professional men of the Los Angeles area—both old and young—all yachtsmen. A return of 25 per cent on the capital invested is the unofficial and rosy expectation of the investors.

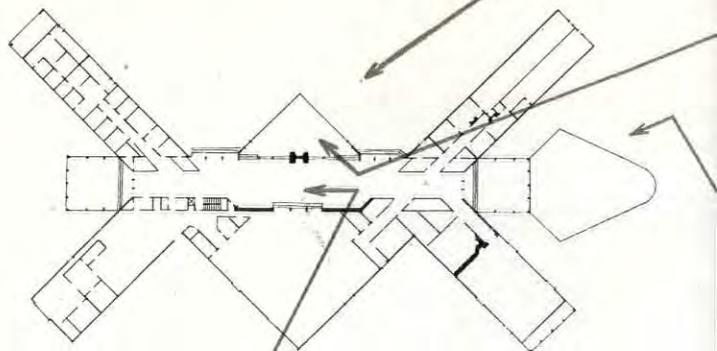
The second corporation is the Malibu Quarterdeck Club. This group will be composed of the eventual club members, of whom there will be one thousand, each paying an initiation fee of \$2,500. The club has leased the property from the Improvement Company for 35 years with option to renew, each eventual member of the club having a proprietary interest in the lease. Membership will be strictly invitational, though memberships will be salable later on a priority basis controlled by the club. Dues are estimated at \$216 per year for each member. No memberships have been sold to date, but over 400 applications are already on file, and it is anticipated that the full membership can be obtained without paying sales commissions or employing a sales force. Of the member applications received, 60 per cent are from owners of boats averaging \$6,000 in value.

The club will pay for the creation of its harbor and buildings out of its original initiation fees. By keeping structural costs within definite limits, it will carry no heavy fixed charges on its physical plant, and thus avoid the fatal mistake often made by such groups in the past. All goods and services provided by the club will be on a strictly cash basis, though deposit accounts will be accepted for those who wish the convenience of signing checks. In addition to the usual services of meals, beverages, rooms, etc., the club will provide complete repair shops and fuel stations for all boats, ship-to-shore radio-telephone service, cruisers and fishing equipment for hire, etc. Storage slips for members' boats, including water and electricity, will be about 65 cents per lineal foot per month, and \$1.20 per month per lineal foot in the boat garage, which includes "in and out" service.

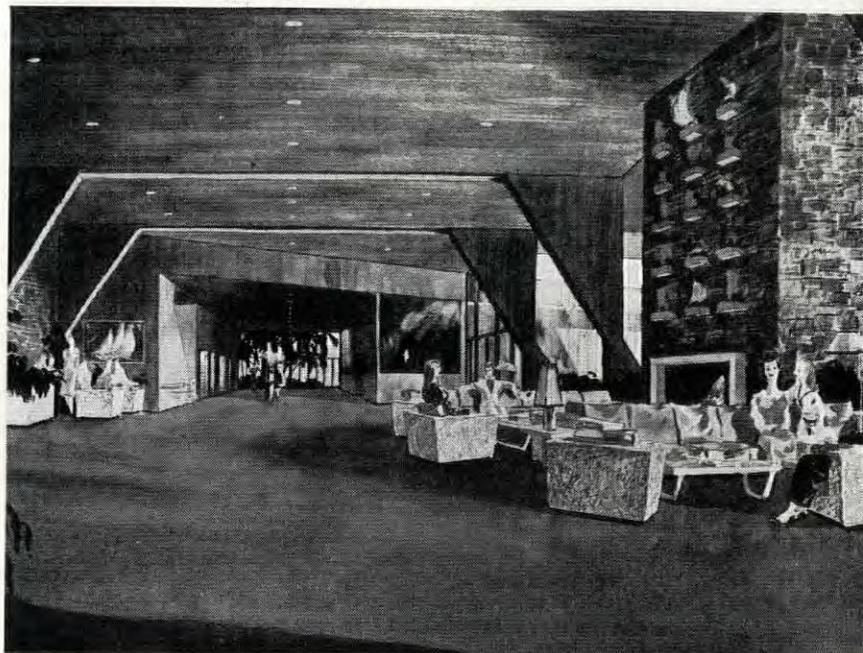
Having satisfied themselves of the success of the project, the incorporators have not been niggardly in the spending of funds to assure the best professional advice. In addition to Cliff May as designer, and Taggart Aston as harbor engineer, groups of top-ranking specialists have been hired to make reports on the harbor plans and creek flood control proposal. The windshield for the dining terrace will be engineered by the company supplying the glass, and the entire design tested in the wind tunnel of Cal.-Tech.

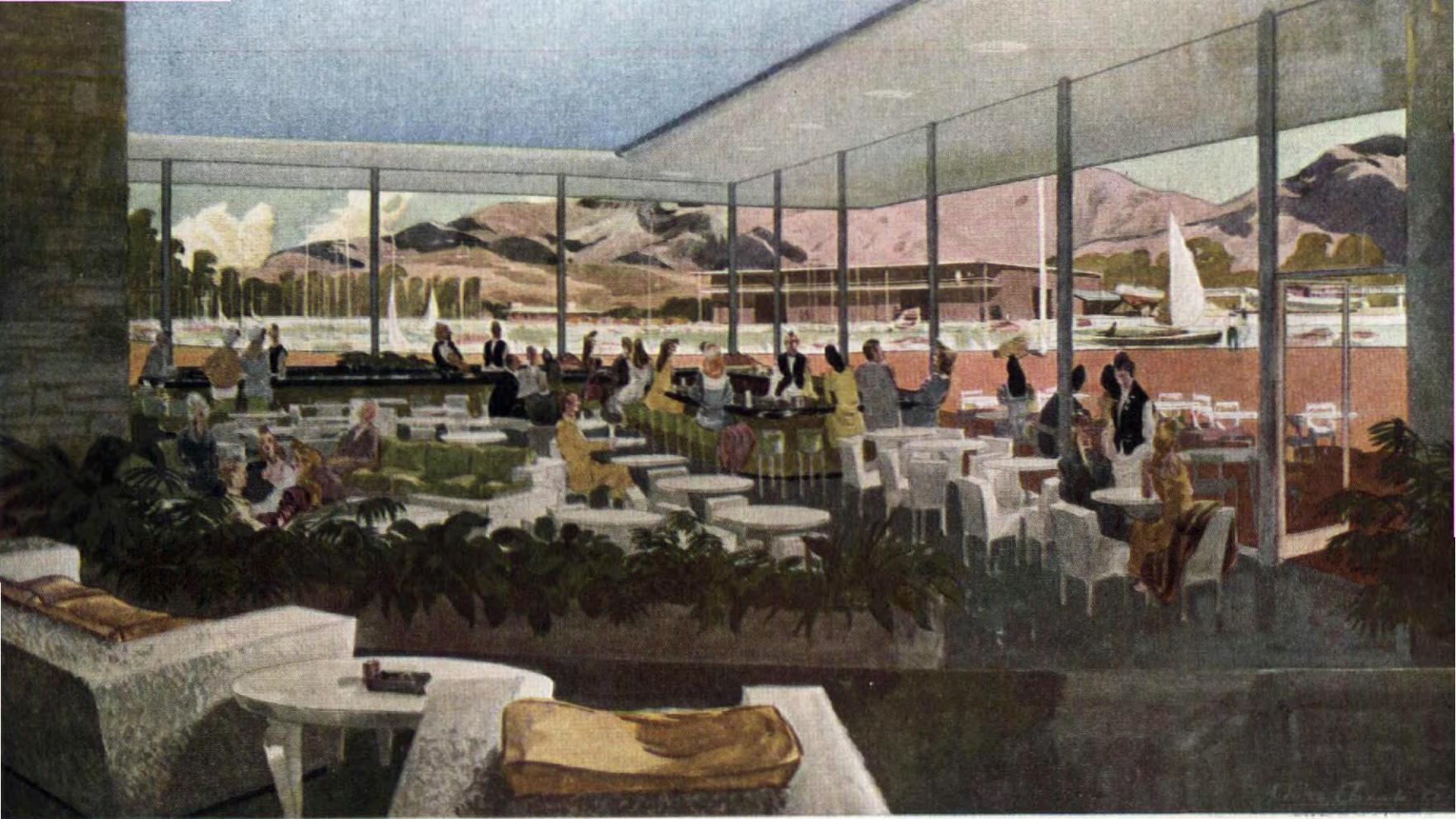
For a brochure planned for presentation to prospective club members, the services of one of Hollywood's leading illustrators, Chris Choate, have been secured to make architectural renderings of the club interiors and exteriors. Ten views will be executed in full color in the brochure, four of which are reproduced in this article.

HARBOR TERRACE IS BORDERED BY BERTHS FOR CLUB MEMBERS' YACHTS



SLOPING FORMS OF MAIN LOBBY INTERIOR ARE DIAGONAL WIND BRACING

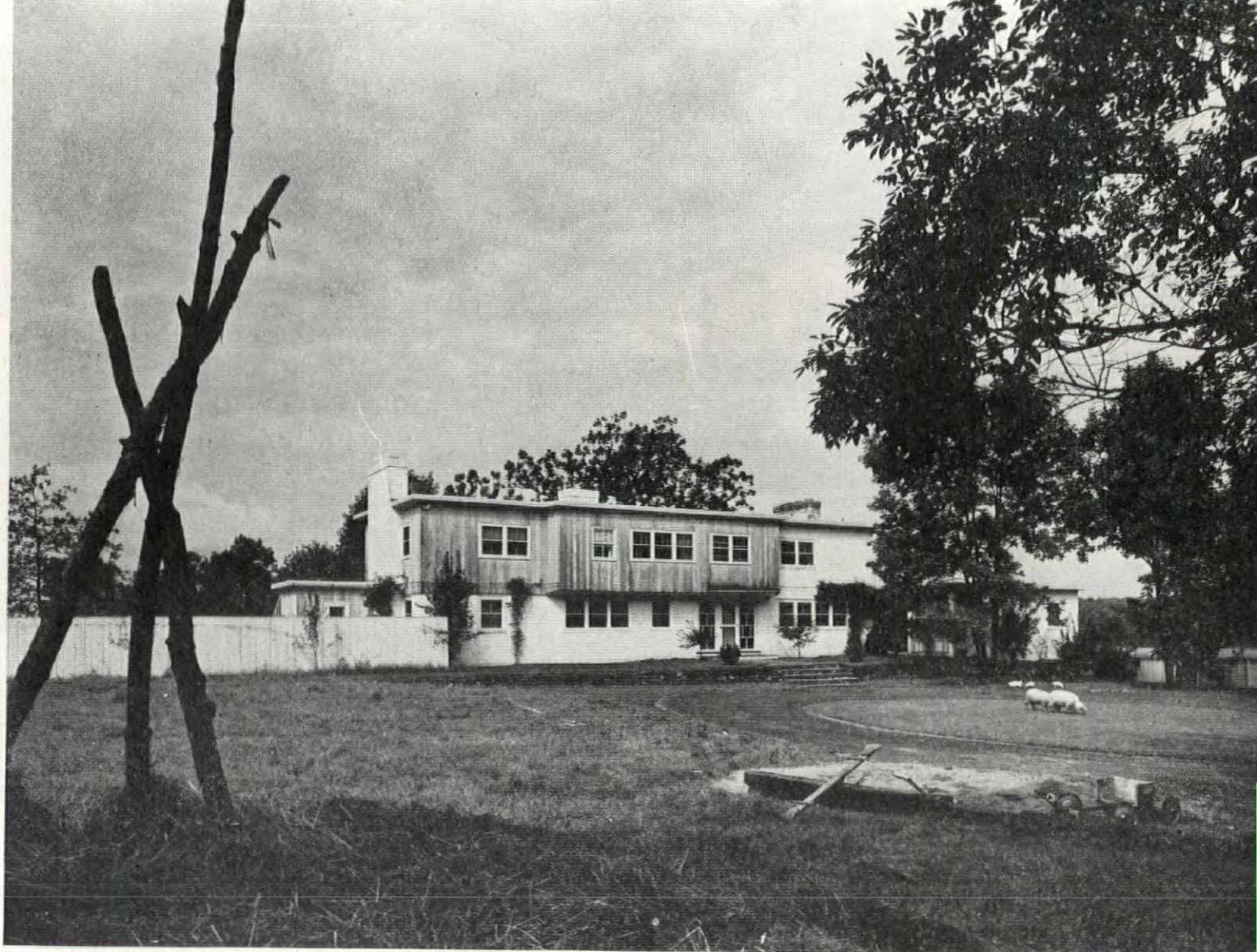




INTERIOR OF COCKTAIL LOUNGE SHOWS FRIENDLY GROUPING OF FURNITURE ABOUT CHIMNEY, CORNER BAR KEPT LOW FOR VIEW TO HARBOR

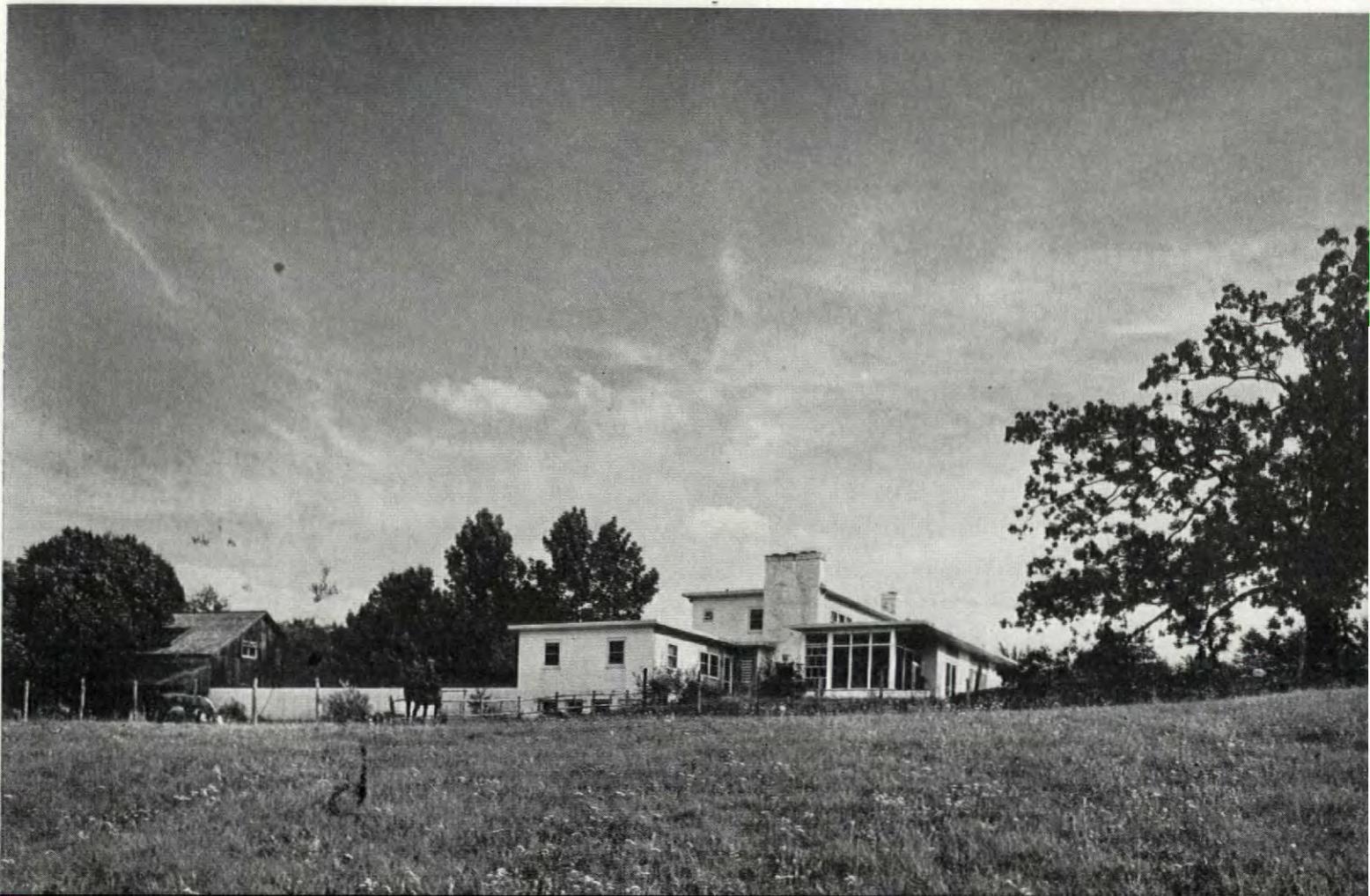
SWIMMING POOL AREA AS SEEN FROM A CABANA; DRESSING ROOM WING, RIGHT; LOUNGE AND LIBRARY, LEFT; MAIN CORRIDOR, CENTER



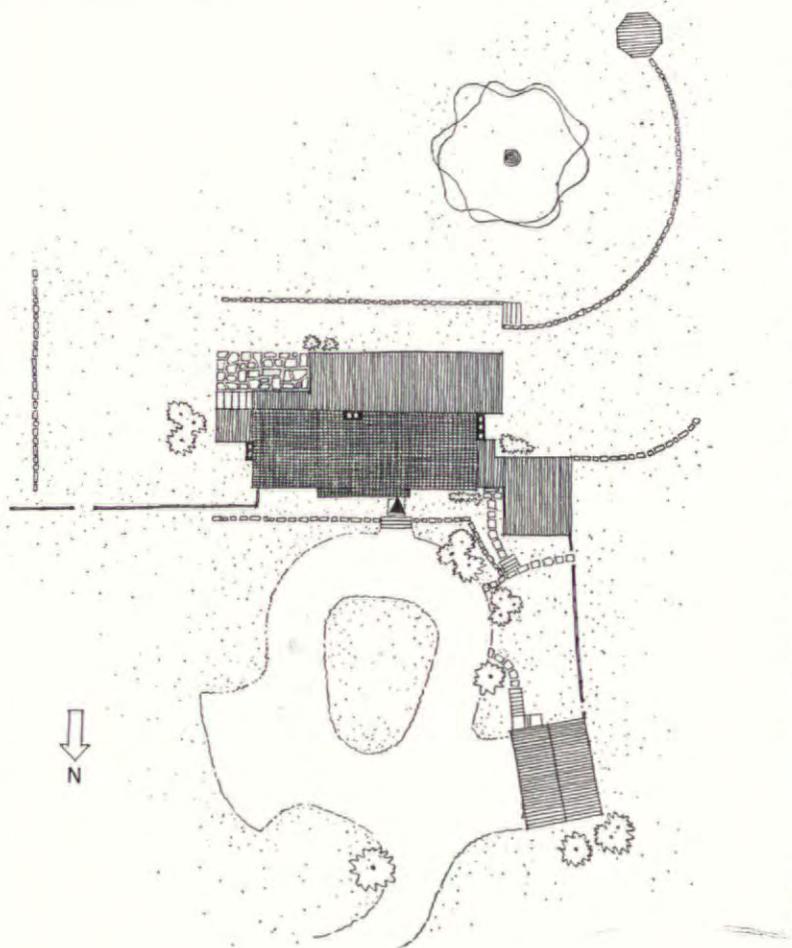


POPULAR COMBINATION OF PAINTED BRICK AND NATURAL WOOD IS USED FOR THE EXTERIOR. GARDEN WALL ELONGATES FACADE

GROUND DROPS OFF FROM DINING PORCH AND SERVICE WING AT NORTH END OF HOUSE. THE BEST VIEW IS TO NORTHWEST



# HOUSE IN CONNECTICUT. Conservative character of country residence results from concessions to the owner, the architects and the war.



Quite different from the provincial manor house the owners first had in mind is their present residence. Its final form was determined by several changes in concept—voluntary and enforced—which overtook them during the design period. The initial idea of incorporating something of the present with something of the past was instilled by a young and starry-eyed architectural student with whom they were in constant association. With a toe in the door, conversion went swimmingly from his point of view, shrinking further and further from tradition. Unfortunately, this happy meeting of minds was brought to an abrupt end when both the owner and his young advisor were presented with IA cards by their respective draft boards. Such schemes as had been developed were thereupon plunked into the capable hands of Architect Douglas Orr, who was left to figure out how they could be executed. The final product embodied much wider compromise than anyone had anticipated. Ruthless pruning and rearranging were essential. Among the adjuncts to be scrapped were corner windows, special millwork, clerestory lighting and a cherished art gallery. However, through his sound knowledge of materials and building conditions, the architect managed to get construction going just under the wire.

The site was originally selected for its convenient location, pleasant, rolling contours and good soil. On it were an old garden cupola and a 400-year-old white oak, both of which were influential in determining the orientation and location of the house. Later they will become important features of the overall landscape design. Having a north-south axis and being on high, exposed ground, the house benefits from prevailing northwest and southwest breezes in summer, but, by the same token, winter blasts roar down its full length. The L formed by the angle of the living room and greenhouse, however, offers a cozy sun pocket in the lee of the wind.

The house is a spacious one and contains an enviable amount of storage space. One of its pleasantest warm weather features is easy access to the outdoors with only one step down. In view of the roomy and elaborate provision for comfort, it is somewhat surprising to discover that five bedrooms and a study on the second floor are served by only two baths.

SIMPLE DETAILS, STANDARD CONSTRUCTION COMBINE HANDSOMELY



## CONSTRUCTION OUTLINE

**STRUCTURE:** Exterior walls—brick veneer and redwood sheathing, wood studs, Celotex Corp. lath and plaster. Floors—steel open truss joists, wood sheathing, Truscon Steel Co. **ROOF:**—20-yr. bonded, The Barrett Co. **INSULATION:**—Celotex Corp. and Samuel Cabot, Inc. **FIREPLACE:** Damper—The Majestic Co. **SHEET METAL WORK:** Flashing and gutters—copper. Leaders—cast iron. Ducts—galvanized iron. **WINDOWS:** Sash—wood, double hung, Anderson Frame Corp. Glass—Pennvernion, Pittsburgh Plate Glass Co. **FLOOR COVERINGS:** Kitchen and bathrooms—Congoleum-Nairn, Inc. Paints—The Reardon Co. and Minwax Co. **GARAGE DOORS:**—Overhead Door Co. **HARDWARE:**—Russell & Erwin Mfg. Co. **KITCHEN EQUIPMENT:** Range and refrigerator—Hotpoint, Edison G. E. Appliance Corp. Fan—I. L. G. Ventilating Co. **LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc. **BATHROOM EQUIPMENT:**—American Radiator-Standard Sanitary Corp. **HEATING:**—one-pipe hot water system, conditioned warm air for living and dining room. Boiler—A. B. Smith Mfg. Co. Radiators—American Radiator Co. Grilles—Hart & Cooley. Valves—Bell & Gossett. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—Taco Heaters, Inc.

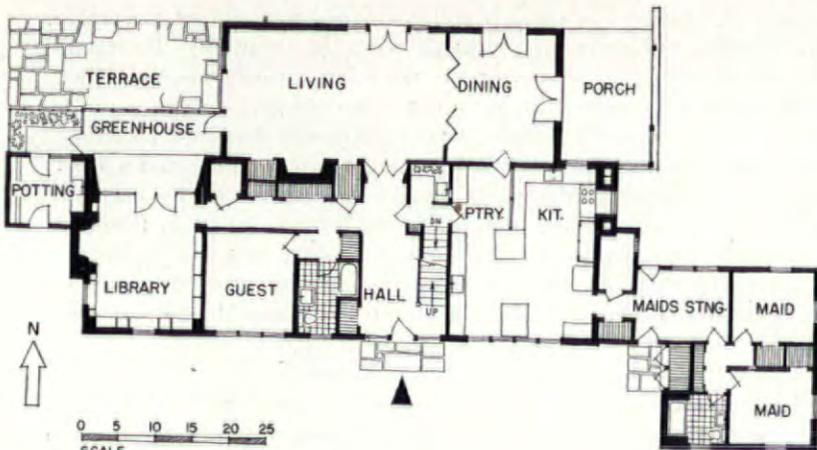
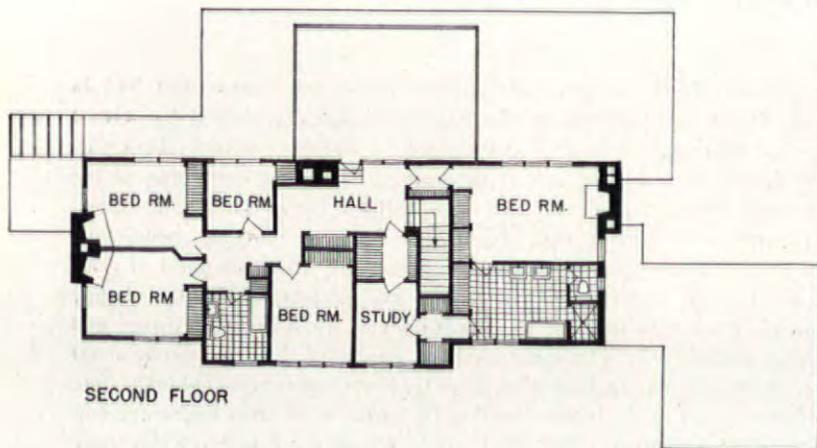
DOUGLAS ORR, Architect

MAYNARD MEYER, Associate Architect

H. WALES LINES CO., General Contractors

Esra Stoller, photos

HOUSE IN CONNECTICUT



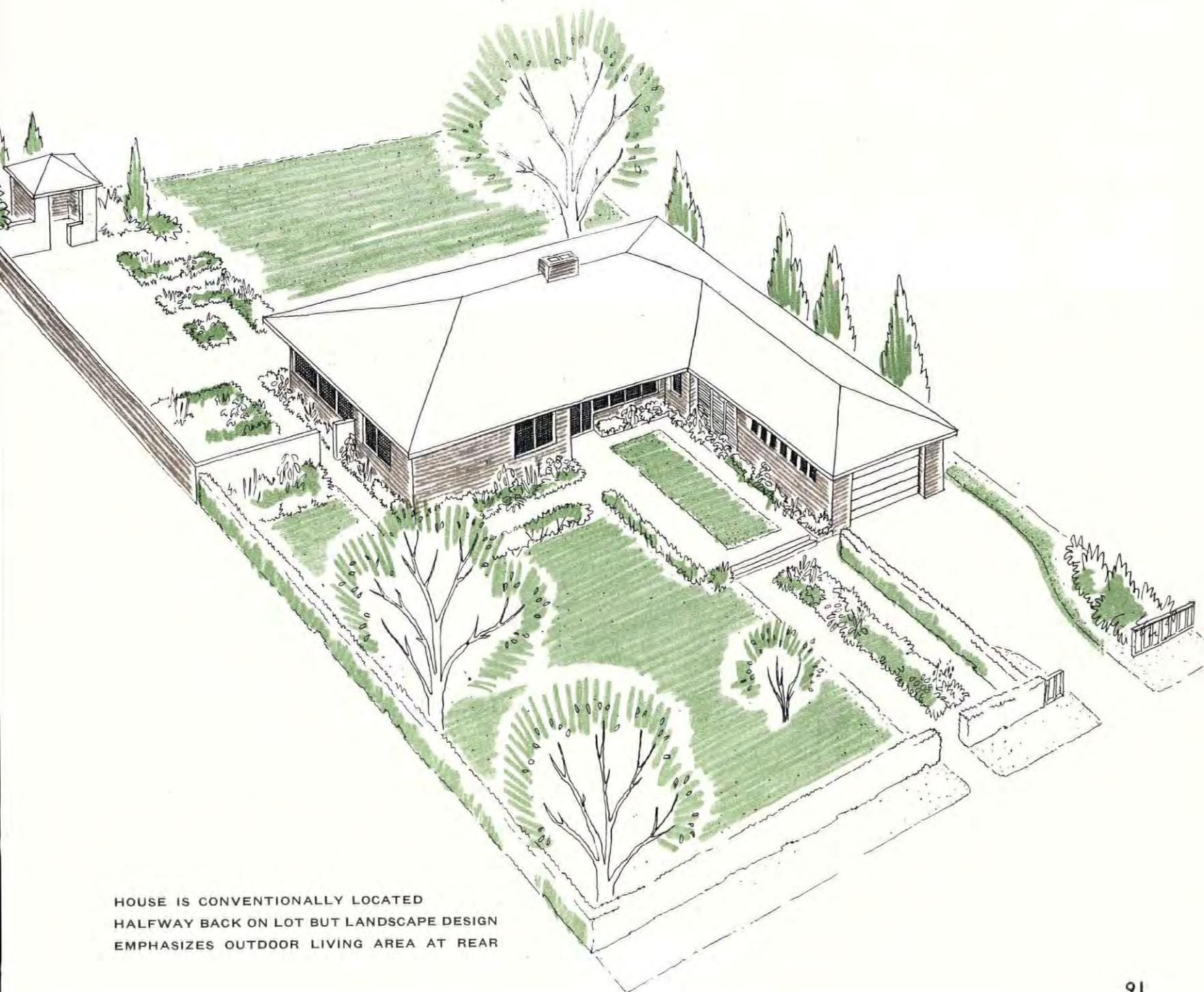
SIMPLE INTERIOR TREATMENT SCORES AGAIN AS FINE SETTING FOR PERIOD PIECES



# HOUSE IN TORONTO. Canada's preview of solar construction is planned for a typical suburban lot.

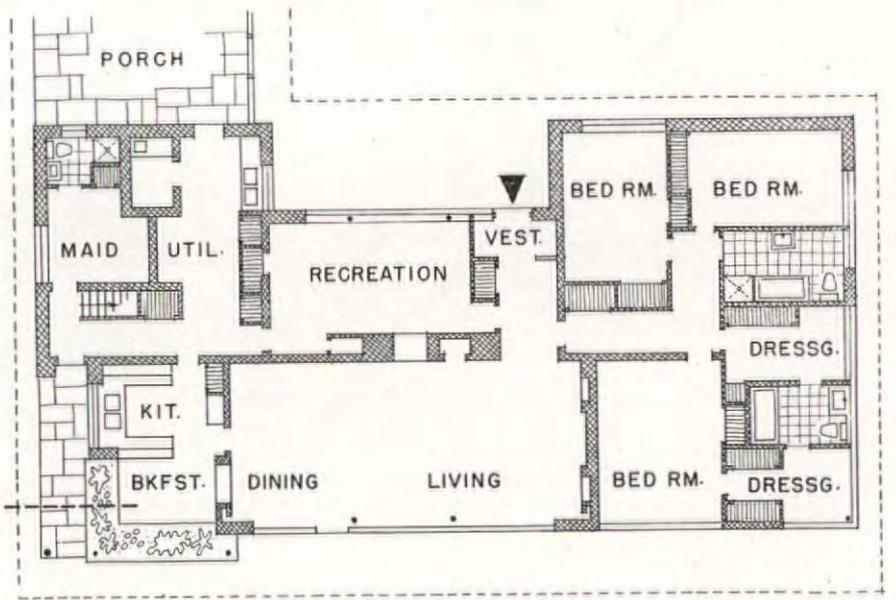
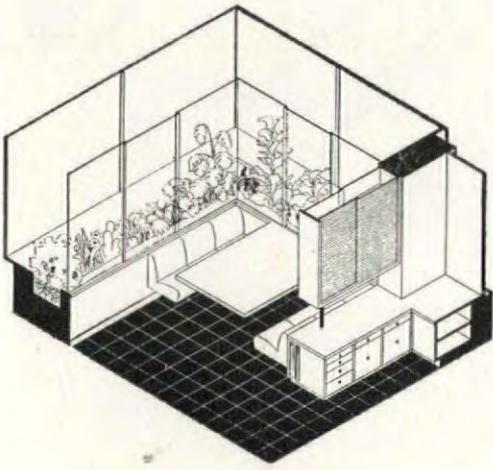
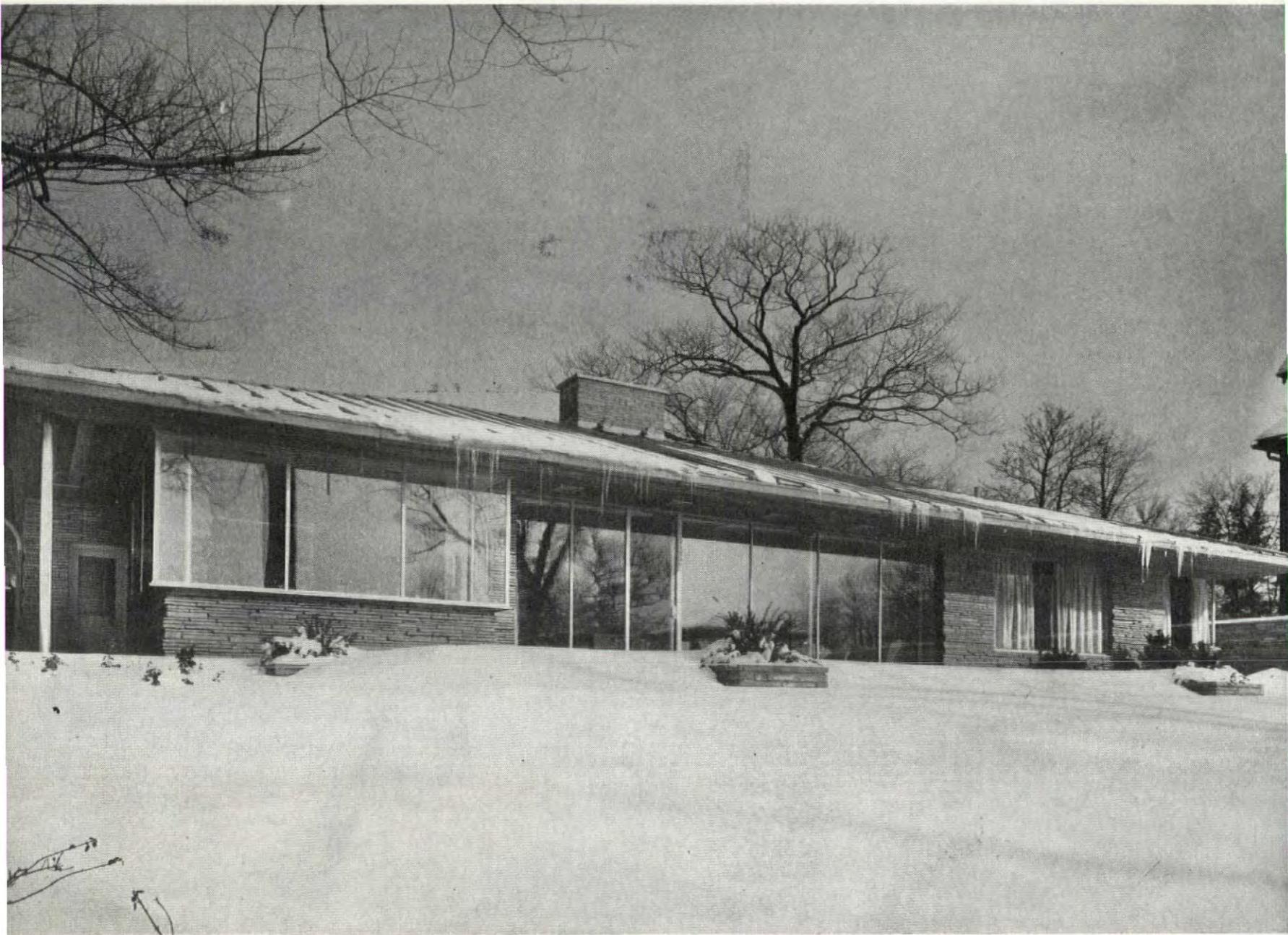
*Rapid Grip & Batten, Ltd. Photos*

GORDON S. ADAMSON, Architect  
ANGLIN-NORCROSS ONTARIO, LTD.,  
General Contractor  
H. B. DUNNINGTON-GRUBB,  
Landscape Architect



HOUSE IS CONVENTIONALLY LOCATED  
HALFWAY BACK ON LOT BUT LANDSCAPE DESIGN  
EMPHASIZES OUTDOOR LIVING AREA AT REAR

Costly construction incorporates latest devices for conserving housewife's energy



0 5 10 15 20 25  
scale

The best way to find out what is wrong with a house is to live in it. After testing several of his own previous attempts, this owner was discouraged and dissatisfied. It was not until a visit to Glenview, Ill. introduced him to the work of solar-pioneer George Fred Keck that his enthusiasm was restored. On the spot he decided to build a solar house. He wanted it to be modern but he also wanted it to be more durable and conservative in appearance than those he had seen. He and his wife discussed and planned their new residence for two long years before consulting Architect Adamson. The result is their pride and joy.

Toronto building codes, like those of many U. S. cities, are rigid and exacting. Because attached garages are taboo, this one had to be connected to the house by means of a covered porch. And, although the owners wanted a one-story house, this was not allowed. Good-naturedly, they compromised by adding an attic which, sensibly enough, houses the heating unit and control panel for an electrostatic dust filter.

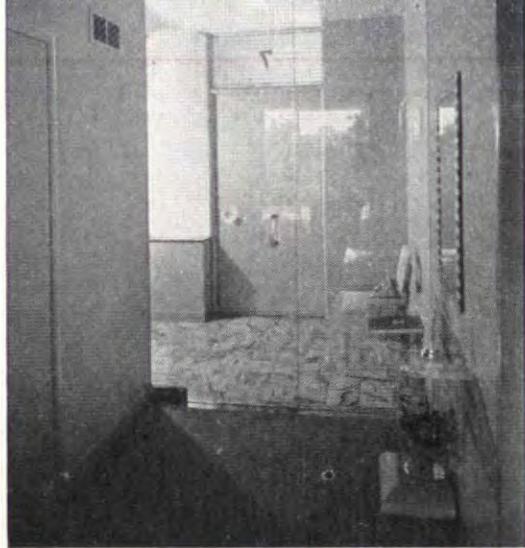
In plan, the house is divided into three distinct areas: rest, recreation and work—each of which is contained within soundproof walls. The east wing, comprised of three bedrooms, two baths and two dressing rooms, is adaptable to a number of combinations. An interesting planning feature is the relationship of the breakfast room and kitchen to the main living-dining area—so arranged that a direct view into the kitchen is impossible.

The house, which is completely air conditioned, has radiant heating. Slightly incongruous is the inclusion of a two-way fireplace which has to be sealed in with tempered glass specially ventilated in order to function. Triple-sealed glazing, specifically developed for climates like that of Canada, is used for all windows. Performance has been excellent. During the month of April, which is definitely cool, the gas fired heating system operated only three hours. The width of the eaves was calculated with the aid of the Canadian Meteorological Service so that, at the winter solstice, the sun will shine back on the living room wall as well as the floor.

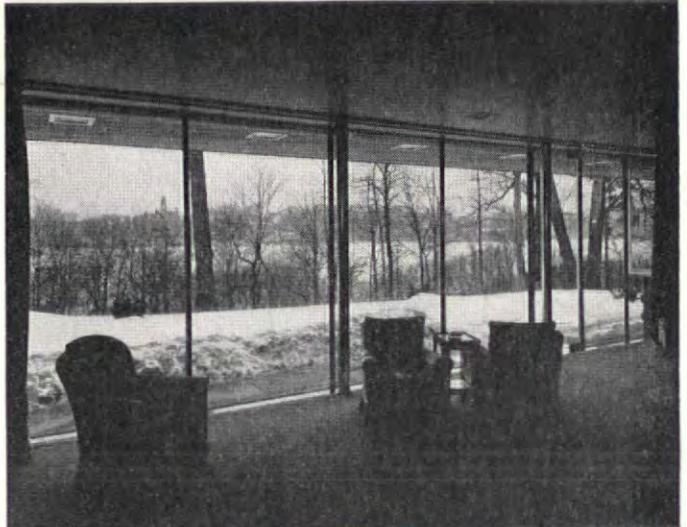
Among the smaller amenities are indirect lighting throughout, tempered glass or transparent plastic shelves, to show the first speck of dust to its worst advantage, a built-in movie projector and light colored plastic blackboard which doubles as a movie screen. Excess heat from the house is piped under the driveway to keep it clear of snow. A large portion of the equipment and furnishings is built in, some of it cantilevered from the wall. The garage door, which operates on an electronic device, eventually will be controlled from the ignition switch in the car by radio.

#### CONSTRUCTION OUTLINE

**FOUNDATION**—concrete. **STRUCTURE:** Exterior walls—stone, brick back-up, emulsified asphalt; inside—cork, plaster, paint plastic veneer or glass. **Floors**—concrete slab. **Ceilings**—Transite, Johns-Manville or plaster; kitchen and owner's bath—Plexiglas panels, illuminated with fluorescent units, Rohm & Haas. **ROOF**—sheet aluminum, Aluminum Co. of Canada. **INSULATION:** Outside walls—cork, Armstrong Cork Co. **Roof**—Fiberglas, Owens-Corning Fiberglas Co. **SHEET METAL WORK**—aluminum, Aluminum Co. of Canada. **WINDOWS:** Glass—Thermopane, Thermopane Div., Libbey-Owens-Ford Glass Co. **STAIRS:** Treads and risers—glass. **FLOOR COVERINGS:** Main rooms—Broadloom. Kitchen and one bathroom—cork, Armstrong Cork Co. **WALL COVERINGS:** Kitchen and bathrooms—Vitolite, Libbey-Owens-Ford Glass Co. **GARAGE DOORS**—Richards-Wilcox Mfg. Co. **KITCHEN EQUIPMENT:** Range, sink, garbage disposal unit and dishwasher—General Electric Co. **LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc. **HEATING AND AIR CONDITIONING:** Radiant heating coils in floor panels; secondary heating and cooling by means of specially developed unit—twin duct distribution system, Bryant Heater Co., gas fired.



FOYER SEEN THROUGH GLASS INNER DOORS



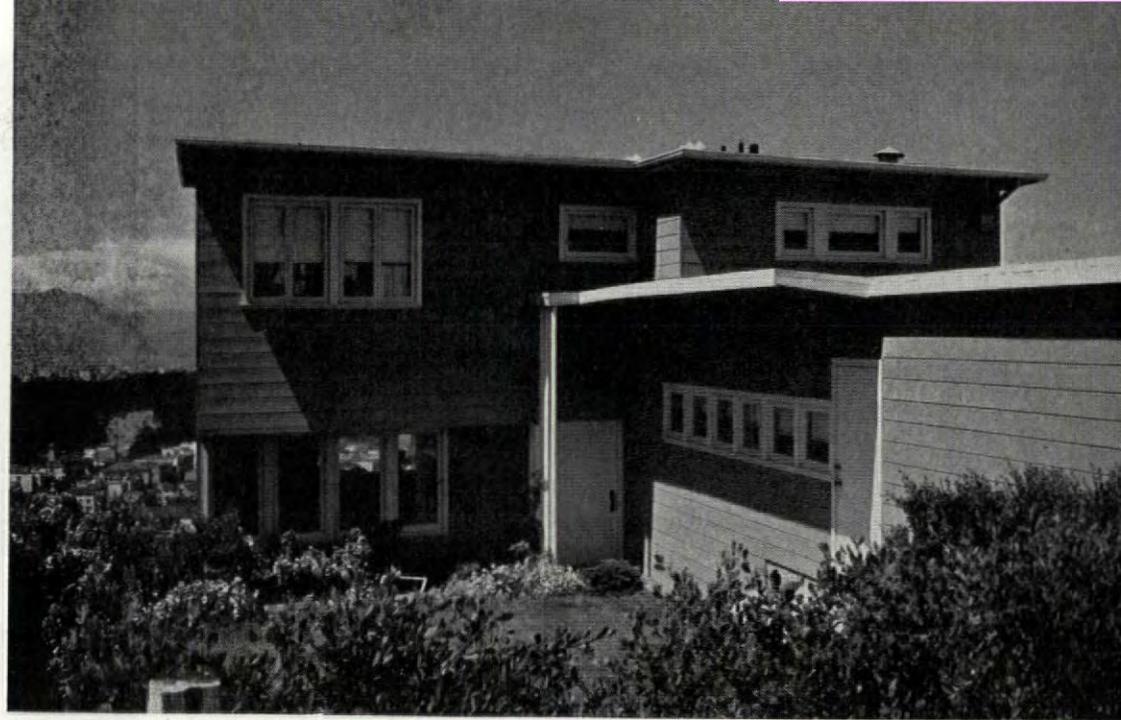
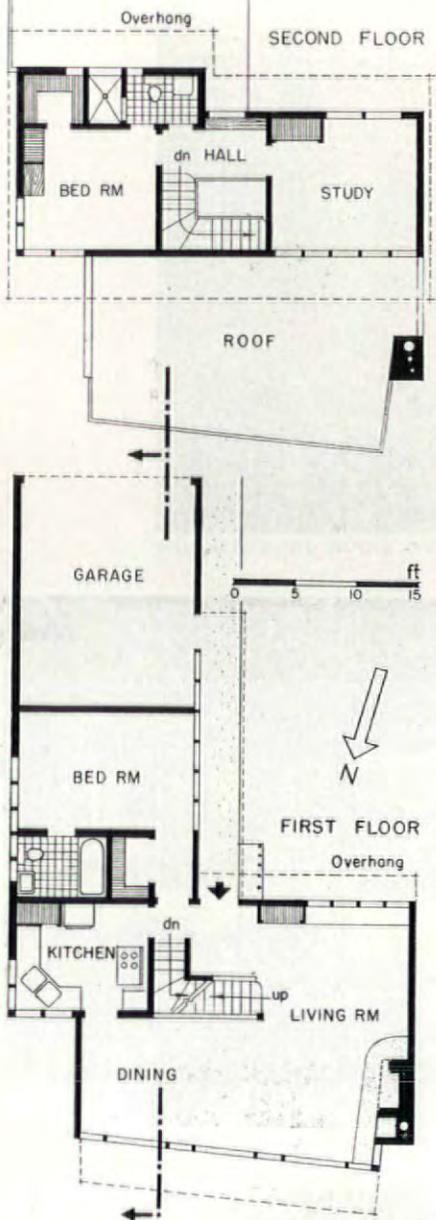
SOLAR WINDOWS ON SOUTH WALL ENJOY EXTENSIVE VIEW



INDEPENDENT DRAFT FROM OUTDOORS FEEDS FIREPLACE

ONE BEDROOM FACES SOUTH, HAS HUGE SOLAR WINDOW



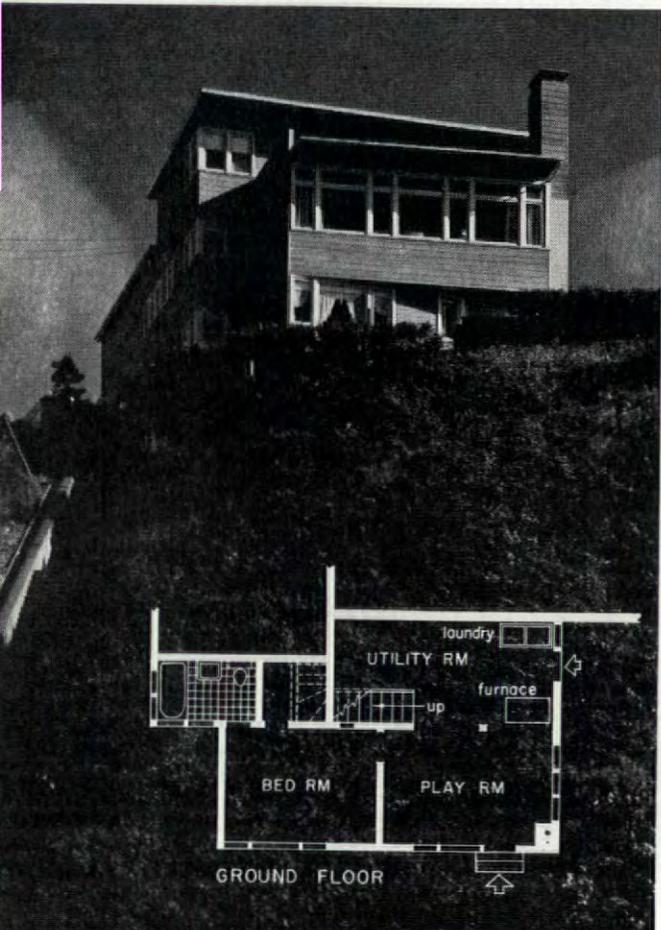


GARAGE'S SMALL OVERHANG IS ADEQUATE SHELTER FOR ACCESS WALK IN SUNSHINE STATE

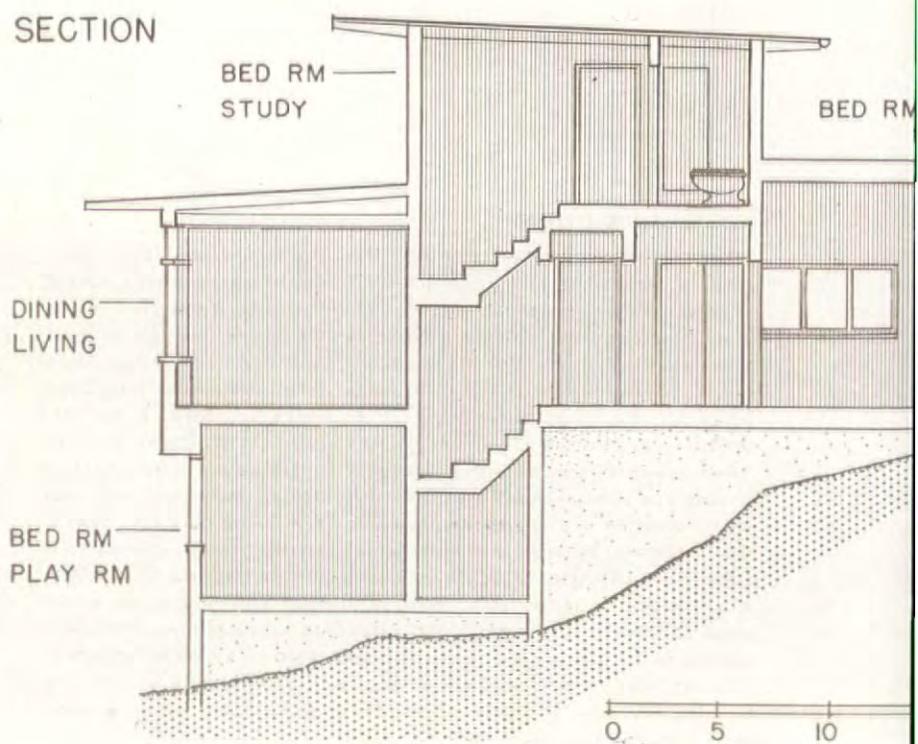
# HOUSE IN CALIFORNIA

Aside from capturing some very spectacular views, cliff dwelling in the California manner has produced certain indigenous building patterns whose popularity has rendered them commonplace. Among these is the practice of transposing the conventional floor arrangement, which inevitably places the bedrooms over the living area. Because it is all but impossible to grade a perpendicular piece of land and because approaching such precipitous sites from the high rather than the low side is easier, safer and more practical, inverted planning works out beautifully in mountainous terrain. From more than mere whimsy, however, Mario Corbett chose to sandwich the main rooms of this house between two bedroom floors. His clients confronted him with a rather unusual set of conditions: a young lieutenant and his wife wanted the house not only for themselves

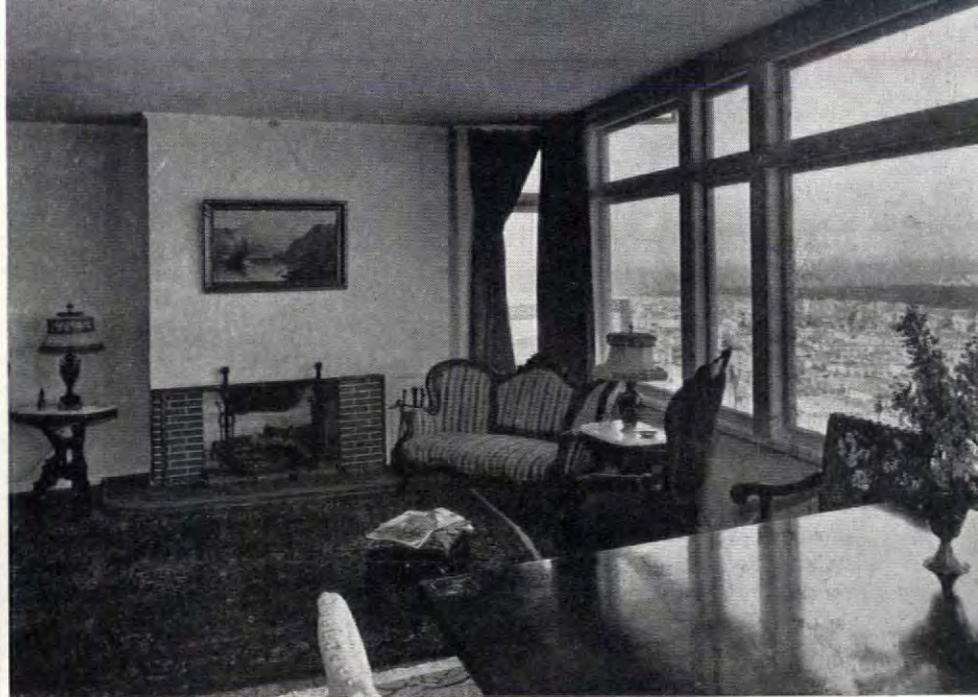
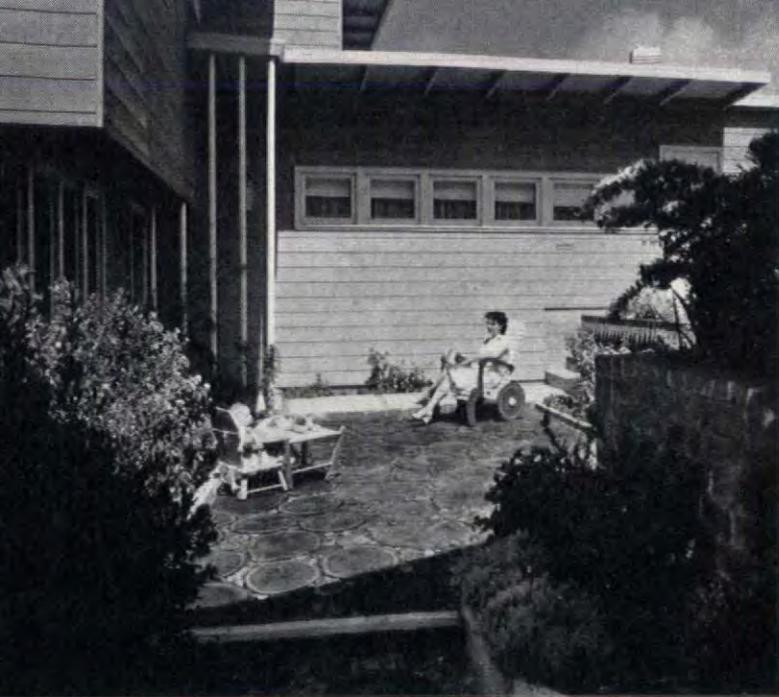
HOUSE HAS ACCESS FROM BELOW AND ABOVE



## SECTION



Roger Sturtevant Photos



GARAGE WING ACTS AS WINDBREAK, CREATES COZY SUN SPOT

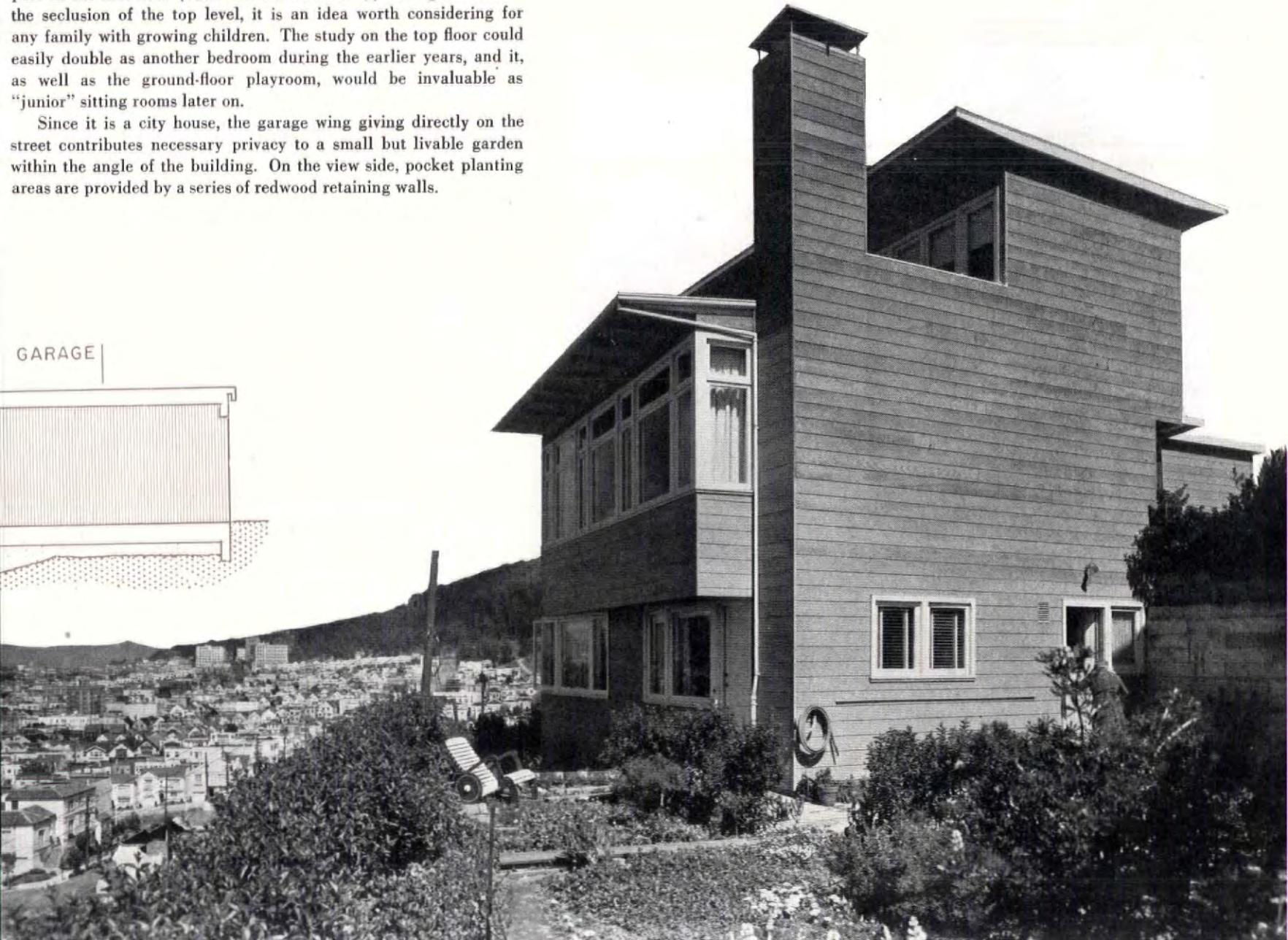
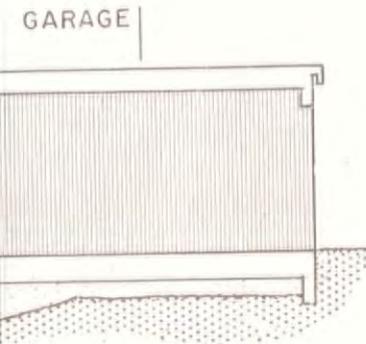
LIVING ROOM WINDOWS OVERLOOK CITY'S UNPARALLELED PANORAMA

## strates San Franciscans' proclivity for building on unscalable heights.

but also for not one—but two mothers-in-law. Architect Corbett's scheme is politic, to say the least. Though it was designed to accommodate the distaff mother-in-law on the ground floor and her counterpart on the first floor (each with her own bath), leaving the owners the seclusion of the top level, it is an idea worth considering for any family with growing children. The study on the top floor could easily double as another bedroom during the earlier years, and it, as well as the ground-floor playroom, would be invaluable as "junior" sitting rooms later on.

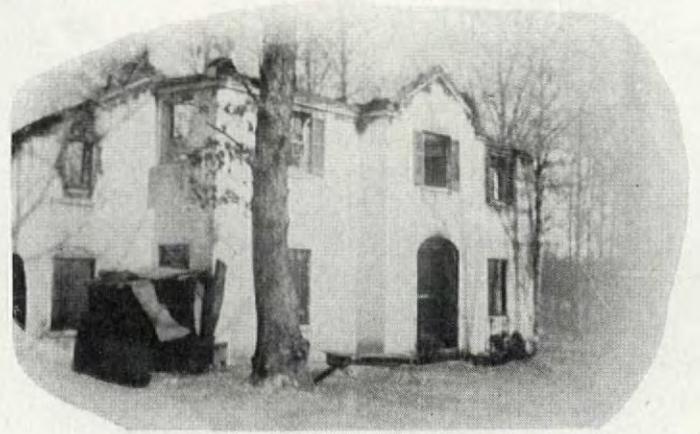
Since it is a city house, the garage wing giving directly on the street contributes necessary privacy to a small but livable garden within the angle of the building. On the view side, pocket planting areas are provided by a series of redwood retaining walls.

MARIO CORBETT, Architect  
 OTTO WINKLER, Associate  
 HYMAN ROSENTHAL, Consulting Engineer



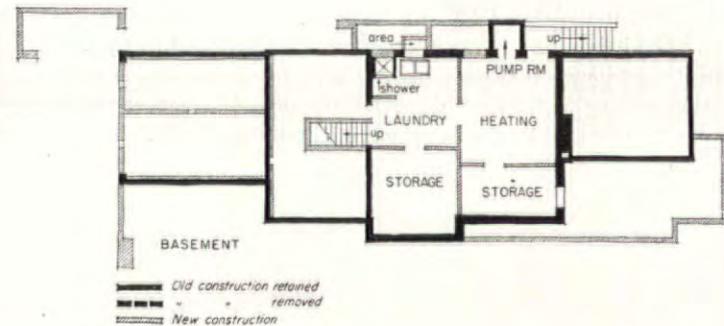
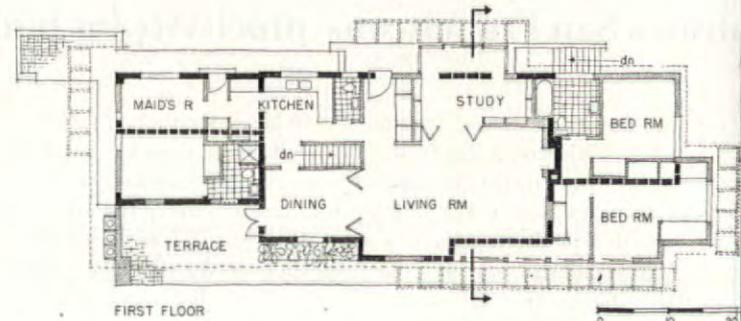
# HOUSE IN VIRGINIA. A vigorous and uninhibited approach to remodel

From its present appearance it is difficult to believe that this house is "second generation Colonial." After the owners acquired a two-story, fire-ravaged farmhouse, they employed Architect Goodman, whose first act was to knock off the second floor, carefully dusting and stacking each brick as it fell. The remainder of the shell was kept for economy's sake, but today's interior arrangement has practically no relation to that of the original house. The entrance is now from the rear rather than from the living side, and what constituted the old driveway has been reclaimed as outdoor living space. Thrift, in a leading role, cut several other corners, ingeniously incorporating considerable leftover material in the new design. The red tile parquet of a former screened porch became the floor of the nursery and adjoining bath. Old slate from the roof is now seen at the hearth and as a flooring strip just inside the sliding glass panels, a device which makes for particularly smooth indoor-outdoor transition. The sliding doors open to a walk and covered terrace lovingly built by the owner himself of leftover brick. The unusual framing seen in section at right is directly translated into the plan which omits all corridors, channels traffic through the main rooms and along the window wall in the living room.



FOUNDATION AND SHELL WERE REUSED

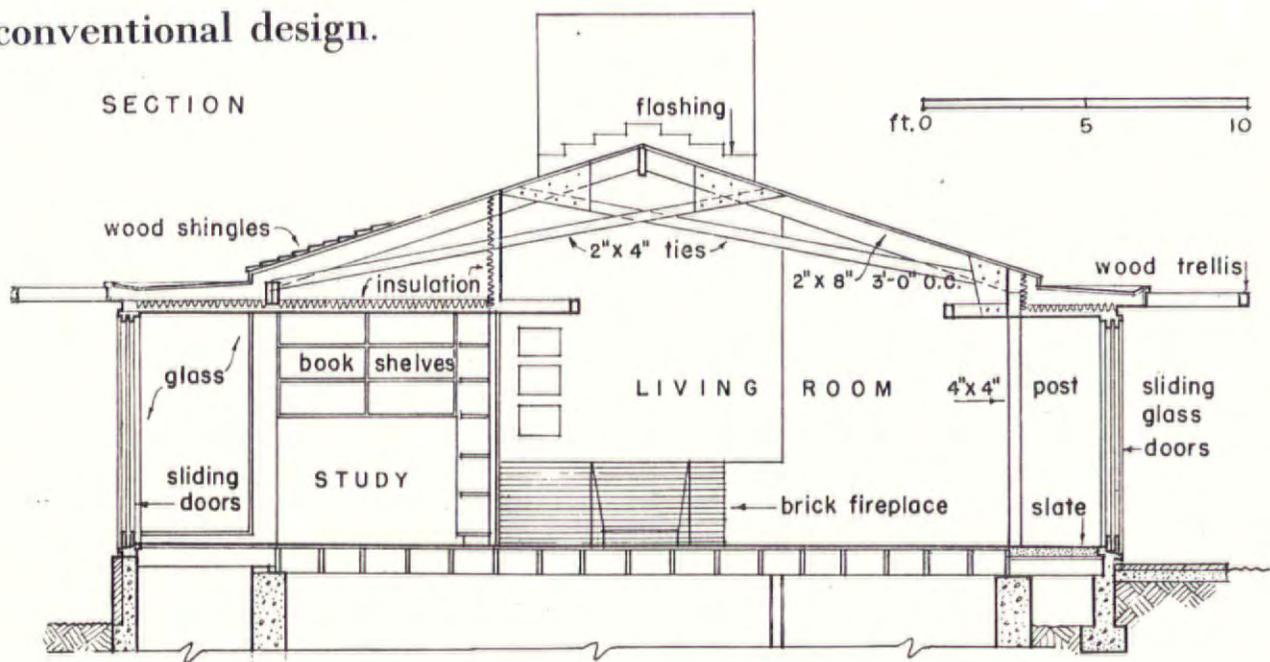
FRAME OVERHANGS SURROUNDING FOUR SIDES ARE FRANKLY DECORATIVE



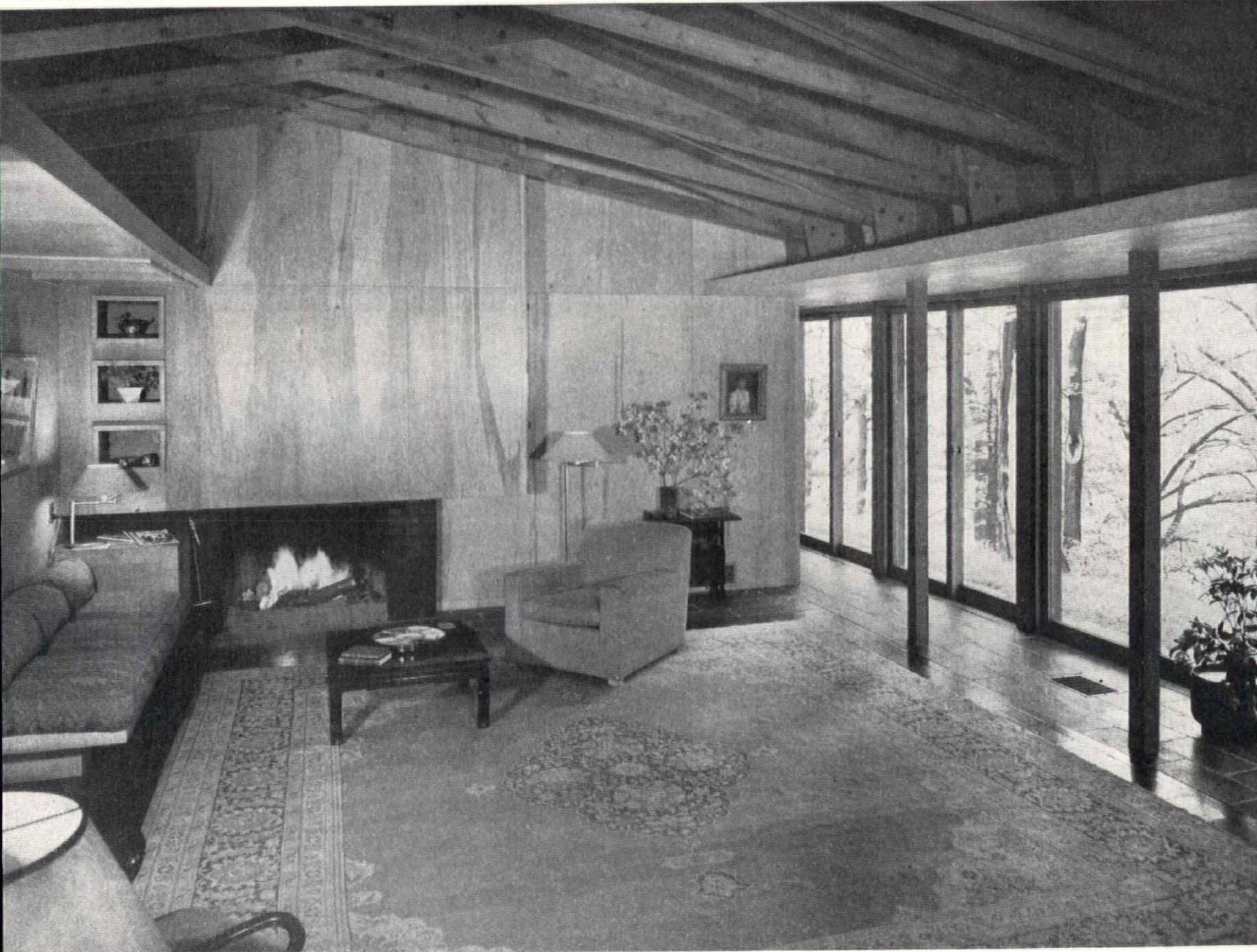
CHARLES GOODMAN, Architect

Rodney McCay Morgan Photos

converts a conventional design.



CROSSED STRUCTURAL BEAMS INTERSECTING OFF-CENTER IN LIVING-DINING AREA CONTRIBUTE AN INTERESTING, EXTRA-HIGHT CEILING

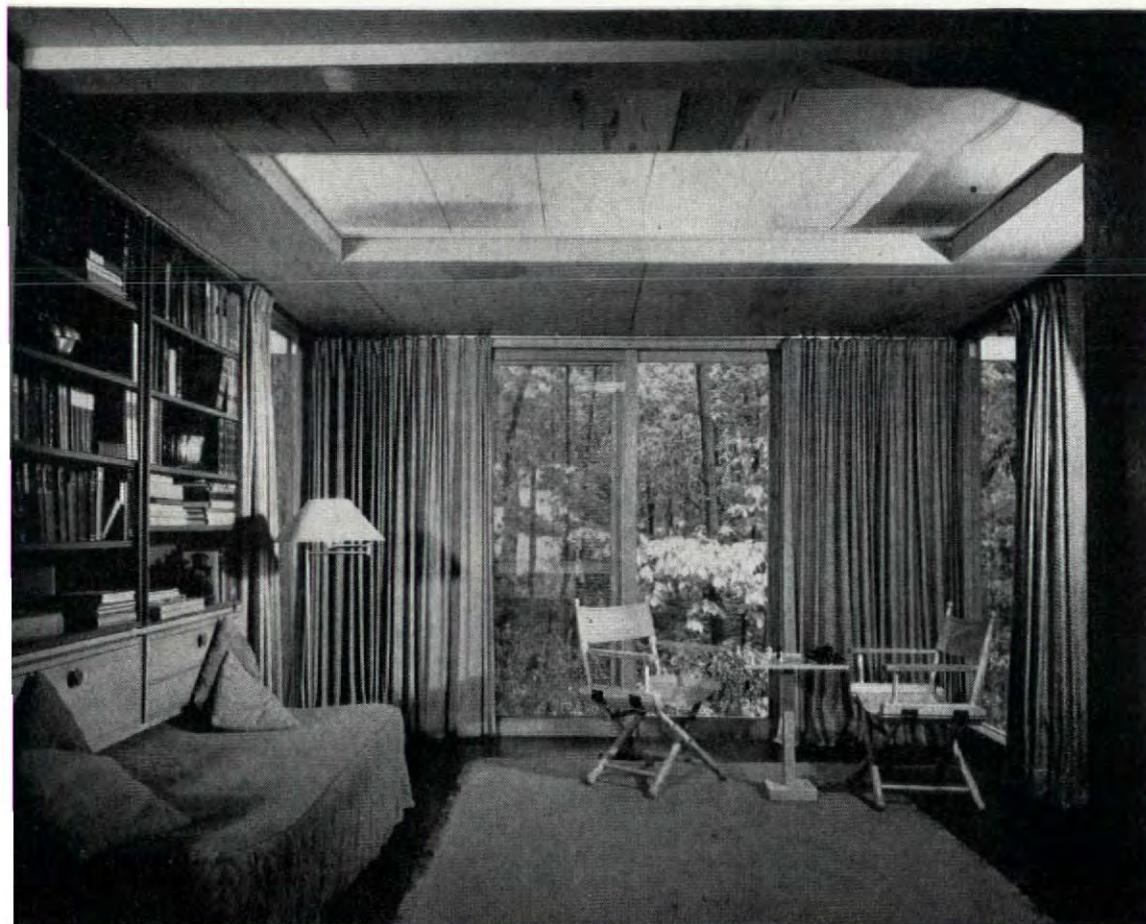
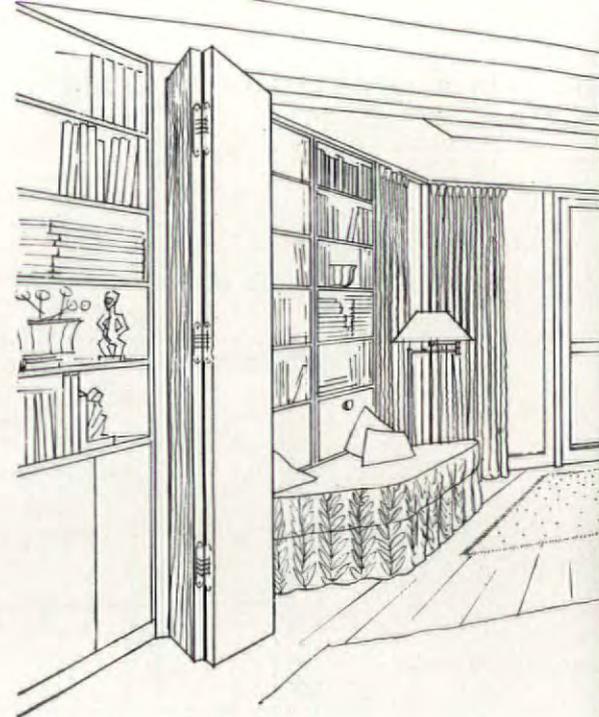


## HOUSE IN VIRGINIA

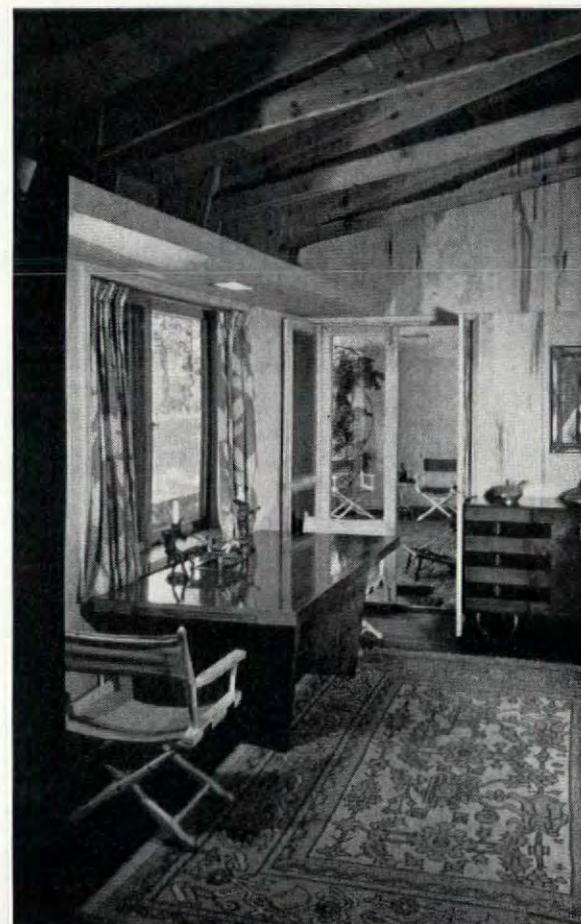
The most distinctive structural feature of the house is its low gable roof which rests on columns placed well inside the front and rear walls. Under the eaves are set wide double-frame ledges extending inside and out. On the exterior they create flat overhangs. Inside they are projected as ceilings for the smaller rooms. In the living-dining area, where the structural rafters are exposed, they have definite esthetic value in emphasizing the view and in playing down the dominance of the ceiling treatment.

The house is small and compact enough for easy maintenance without domestic help. It has a wealth of closets, most of which are equipped with sliding doors. Both the dining room and study can be thrown open to the living room for large scale entertainment or completely segregated, as the occasion demands. Sliding partitions between these rooms are stock doors hinged in pairs. Like the walls, they are finished in natural gum plywood. The study, which doubles as a guest room, has a standard bed that slides a foot into the wall under the bookcases giving the appearance of a sofa by day.

Exterior brick is painted a deep olive green with natural trim. The eave line is painted white. Since this is a country house with ample acreage to insure privacy, the owners have found its openness thorough satisfactory and enjoy being able to step outdoors from every room in the house.



PROJECTING WALL OF SLIDING GLASS PANELS IN STUDY PROVIDES THREE EXPOSURES



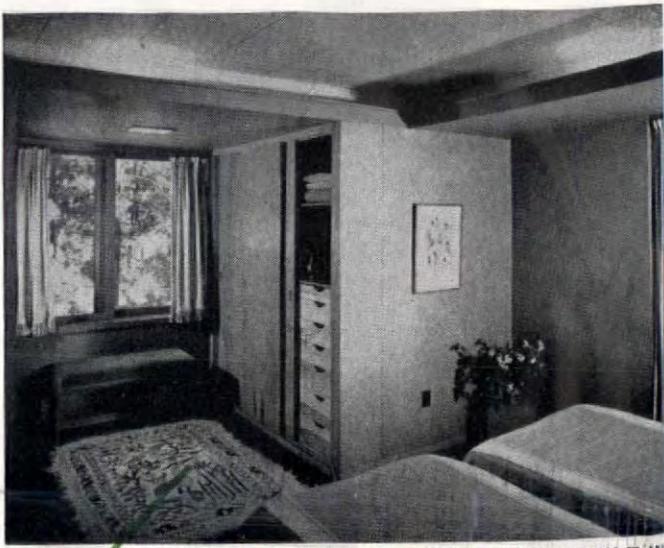
DINING AREA IS PLANNED FOR FLEXIBLE USE

### CONSTRUCTION OUTLINE

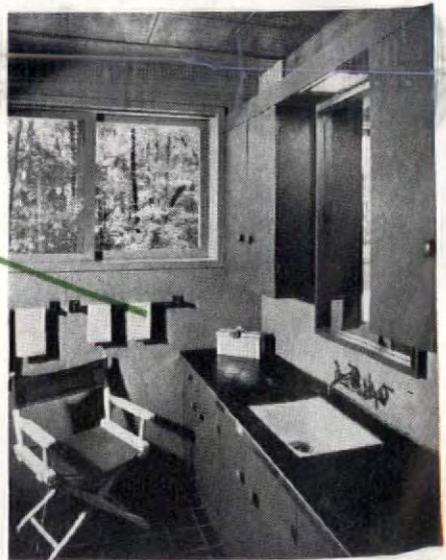
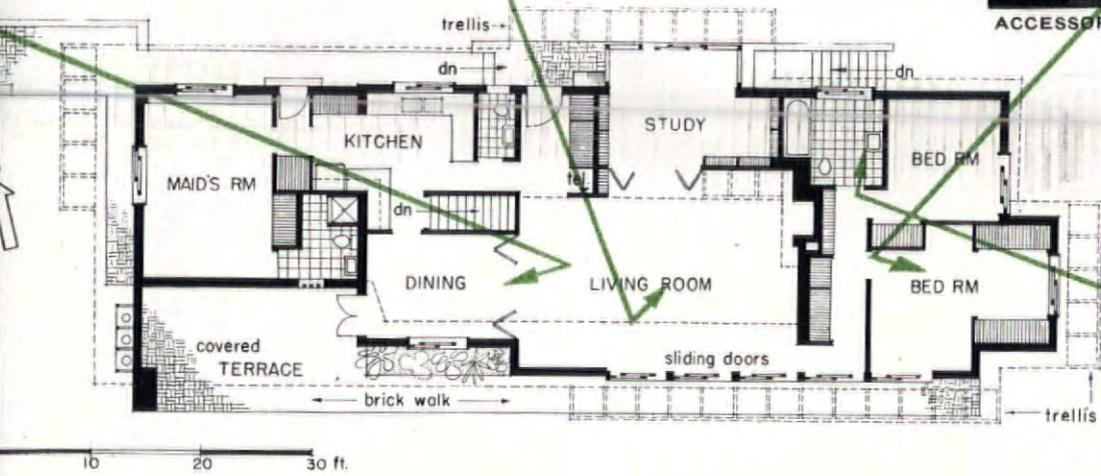
**STRUCTURE:** Exterior walls—brick and cinder block, aluminum foil, furring strips; interiors—gum plywood. Floors—wood joists, plywood sub-floor, wood finish. Ceilings—fur planking exposed and plywood. **ROOF**—cedar shingles. **INSULATION:** Roof—spun glass blanket, Armstrong Cork Co. **WINDOWS:** Sash—white pine, horizontal sliding. Glass—Pittsburgh Plate Glass Co. **FLOOR COVERINGS:** Living room—yellow pine and black slate. Bedrooms—linoleum and red tile. Kitchen and bathrooms—linoleum. Armstrong Cork Co. **PAINTS**—U. S. Gypsum Co. and Minwax Co. **HARDWARE**—Schlage Lock Co. and Knap & Vogt Mfg. Co. **KITCHEN EQUIPMENT:** Range and refrigerator—General Electric Co. **BATHROOM EQUIPMENT**—American Radiator-Standard Sanitary Corp. **HEATING**—forced warm air system, Quiet May Oil Burner Corp. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—General Electric Co.



LEVEL CEILING OF STUDY PROJECTS INTO LIVING ROOM AS A BROAD LEDGE



ACCESSORY FURNITURE OF MASTER BEDROOM IS BUILT IN

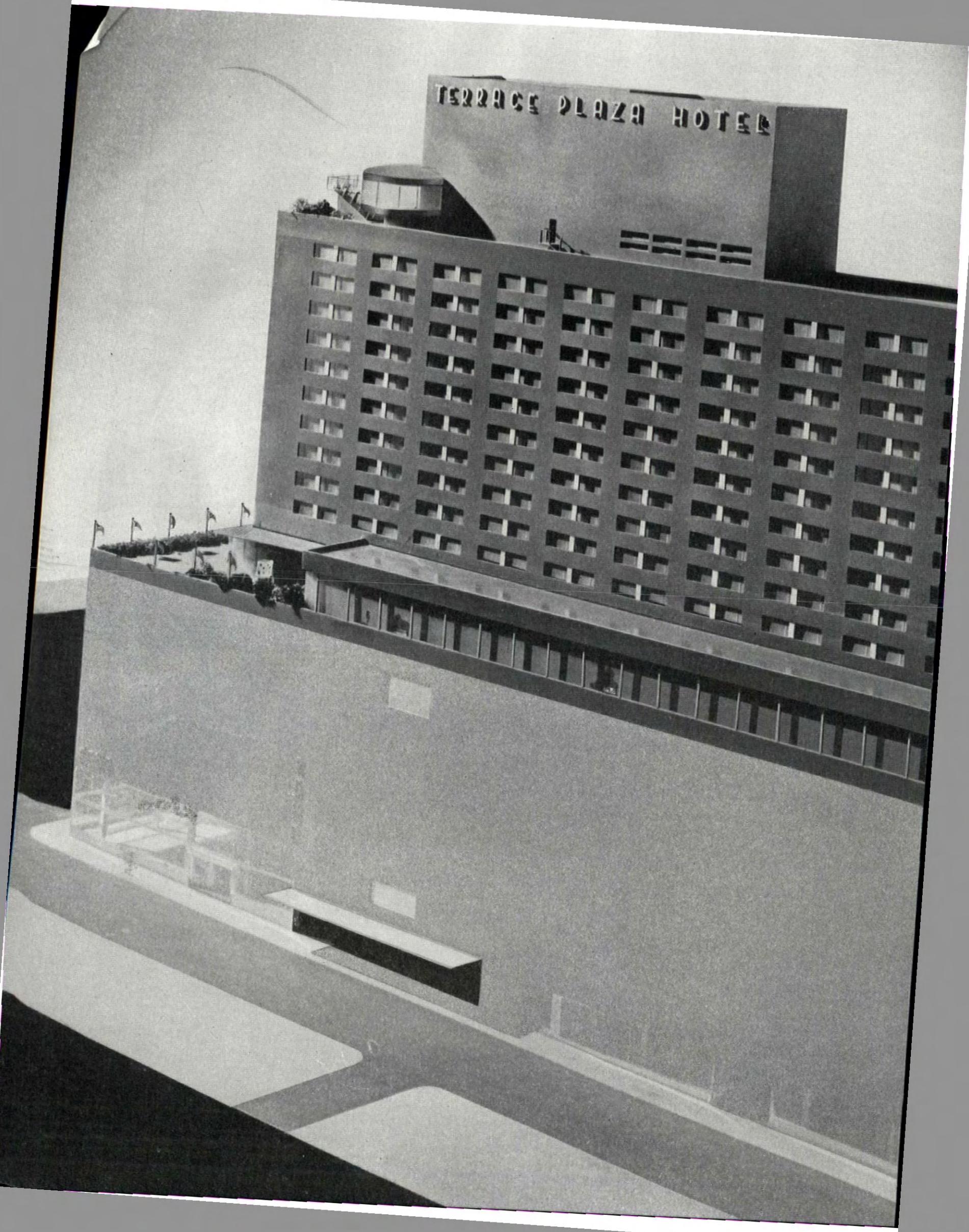


BATH HAS MANY STORAGE CABINETS



COVERED TERRACE AT REAR IS A SECLUDED BUT CONVENIENT SPOT

TERRACE PLAZA HOTEL



# PENTHOUSE HOTEL

for Cincinnati is built on two big stores and the premise that

modern design and engineering are more important than hotel tradition.

THOMAS EMERY'S SONS, INC., Owner

SKIDMORE, OWINGS & MERRILL, Architects

MORAN, PROCTOR, FREEMAN & MEUSER, Foundation Engineers

WEISKOPF & PICKWORTH, Structural Engineers

JAROS, BAUM & BOLLES, Mechanical Engineers

CLYDE R. PLACE, GUY PANERO, Successor, Electrical Engineer

A. FEDER, Lighting Consultant

MARIANNE STRENGELL, Textile Designer

WALTER J. SMITH, Kitchen Consultant

HARRIS, KERR & FORSTER, Accountants & Hotel Consultants

FRANK MESSER SONS, INC., General Contractors

Since the abrupt end of the hotel building spree of the twenties, the U. S. has erected only a few hotels of sizable proportions—300 rooms or more. Biggest of these is Washington's 819-room Statler, whose construction was inspired by the war-boomed population of the nation's capital (FORUM, June '43, p. 61). Not as big in size but bigger in significance, the 350-room Terrace Plaza, now abuilding in Cincinnati, epitomizes all the advancements made in recent hotel design and proudly displays many of its own—not the least of which is its relationship to two large stores which form its pedestal. A monument to modern building techniques, the project demonstrates the benefits of two procedures being adopted in an ever-increasing number of big building projects: 1) close collaboration between a great many highly trained specialists, including the client, and 2) reliance upon the architects for a comprehensive design job including, in this case, even such details as matchbox covers.

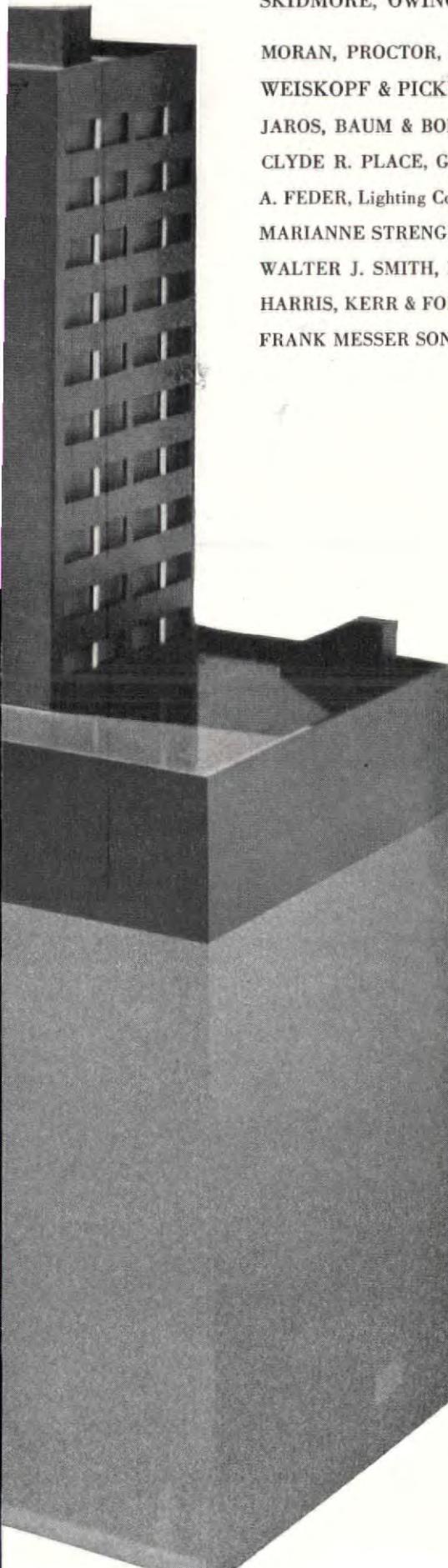
Much of the project's significance is attributable to the experience and openmindedness of its sponsors, Thomas Emery's Sons, Inc., who gained a broad knowledge of building through ownership and operation of Cincinnati's 800-room Netherland Plaza Hotel and Carew Tower, a small edition of New York City's Rockefeller Center. Despite this background, construction of the new building was approached without prejudice; in fact, decision as to whether to build an office building or a hotel was not reached until after consultation with the architects.

The project began in 1943 when Emery's acquired half a city block and signed a long-term lease with J. C. Penny Co. (department store chain featuring moderately priced apparel and furnishings) for store space in whatever type of building they erected. Later, a similar lease was signed with Bond Stores, Inc. (medium priced clothing). Next, they prepared a program setting forth the project's objectives, submitted it to six top-flight architectural firms for their reactions.

Three facts prompted Emery's to entrust the design to Architects Skidmore, Owings & Merrill: 1) They had never designed a hotel, thus had no preconceived ideas. 2) Their record in the development of Oak Ridge, the atom bomb's home town, was proof that they had the necessary staff and research facilities. 3) They presented Emery's with concrete evidence that a combination hotel and store building would be the most productive project for the site (see p. 102). From then on—in what has been an almost continuous conference—The architects learned a lot about hotel operation and design, and the hotelmen admittedly "learned a hell of a lot about modern architecture."

Located on the fringe of Cincinnati's commercial center, two blocks away from the Netherland Plaza, the 90 x 400 ft. site was originally covered by a conglomeration of buildings, separated from a theater and large 5 & 10 cent store by the narrow alley dividing the block in half. Between these two fairly modern structures, Emery's acquired a small parcel of land on which to build a service wing and rear entrance.

Shape of the site was only one of the basic factors controlling the new building's mass. The two big stores had to be at the bottom of the structure, thus pushed the hotel proper high in the air. Penny required 200,000 sq. ft.—more than half of the building up to the eighth floor. Bond's 50,000 sq. ft. took better than a quarter of the space to the sixth floor, leaving part of the sixth and seventh floors available



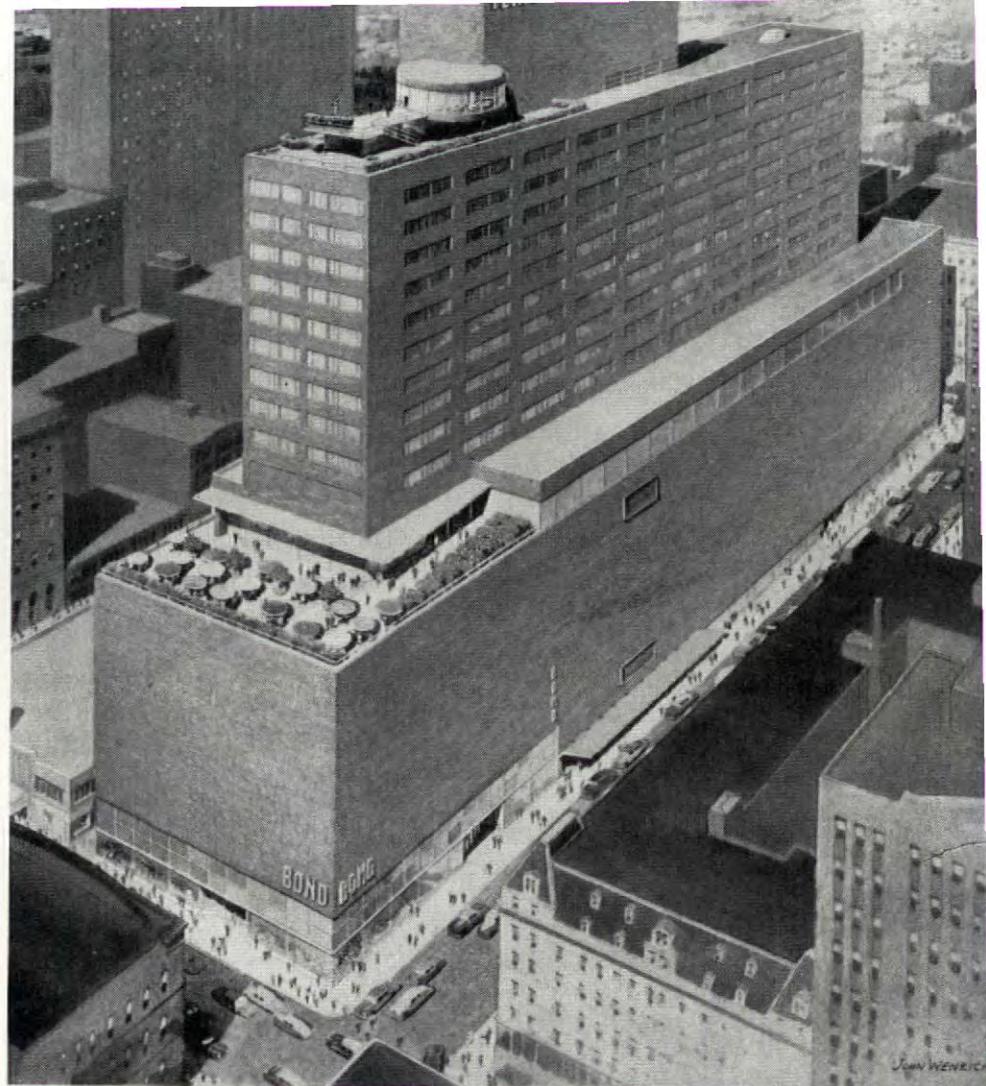
Photos of model  
by Ben Schnall

for broadcasting studios, showrooms or offices. Thus, only an 84 x 90 ft. area on the ground floor remained for the hotel entrance, elevator shafts and two small shops.

The broad base of the building could go up seven stories (twice the width of the surrounding streets) before it was affected by zoning regulations. Thereafter, a setback of one foot for every four feet of elevation was required. Since multiple setbacks such as used in office buildings would have complicated the hotel layout, the 324 rooms and 12 apartments were housed in a ten-story rectangular "penthouse" measuring 50 x 300 ft. The single setback at the eighth (lobby) floor provides space for an outdoor summer dining terrace (winter skating rink) from which the project takes its name. The building encloses 6,388,000 cu. ft., comes within 3,000 of the maximum allowed by zoning regulations.

With the mass of the building determined, the architects undertook the difficult task of combining its three major elements into a unified design without sacrificing the identity of each. Basing its merchandising methods on the principles of mass buying, Penny wanted a simple straightforward front. On the other hand, Bond habitually dramatizes interior effects and exterior design to stimulate sales, and wanted a rather flashy two-story show window. Since the entire building will be air conditioned (see p. 107) and since windows for other than display purposes only hamper the effective use of store space, they were eliminated in the commercial base of the building. As a result, the multi-windowed hotel rests upon what appears to be a monolithic pedestal.

Part of this effect is created by the building's exterior finish—oversize brick (2 x 4 x 12 in.) laid like tile with vertical joints aligned. The decision to use native mid-west brick came out of a three-way conference between client, architect and contractor and was based on its fitness of purpose, economy and color. The big size was selected to give better scale and an attractively different appearance.



ATOP A SEVEN-STORY COMMERCIAL BASE, HOTEL OVERLOOKS ITS SURROUNDINGS

**COMPARATIVE OPERATING STATEMENTS** prove hotel to be better real estate investment than office building.

Decision to top off the two stores with hotel rooms rather than offices came only after the architects had researched and compared the investment characteristics of each building type (right). Based on typical buildings of similar size and cost, but excluding the financial characteristics of the stores and land, the figures indicate that a hotel on this particular site would earn 7 per cent—2 per cent more than an office building.

This is a conservative comparison. The \$4.50-\$6.50 room rates used in the calculations are low for a modern air conditioned hotel boasting the deluxe appointments of the Terrace Plaza. A boost of only \$1.00 per occupied room would add \$87,600 to the hotel's annual net income, raise the return on the \$2 million capital investment to 12 per cent. (Prepared last spring, prior to the design of the project, these hotel statistics pertain to a hypothetical building, cannot therefore be used directly to measure the financial dimensions of the Terrace Plaza.)

The project will cost an estimated \$10 million, including the two big stores, equipment and furnishings, but excluding land. Construction loans by seven local banks will be repaid upon completion next summer with the proceeds of a 15-year mortgage to be written by the Prudential Insurance Co.

**OFFICE BUILDING**

<b>CHARACTERISTICS:</b>	
CUBAGE (cu. ft.)	1,884,400
COST (about \$1 per cu. ft.)	\$1,915,170
RENTABLE AREA (sq. ft.)	101,925
<b>INCOME</b>	
RENTALS (\$2.25 per sq. ft.)	\$229,331
VACANCY ALLOWANCE (10%)	22,933
<b>GROSS INCOME</b>	<b>\$206,398</b>
<b>EXPENSES</b>	
OPERATING COSTS (61.3c per sq. ft.)	\$62,480
AIR CONDITIONING EQUIPMENT—operation, maint. & depreciation (11c per sq. ft.)	11,212
TAXES ON BUILDING (2% of 70% of cost)	26,812
<b>TOTAL EXPENSES</b>	<b>\$100,504</b>
<b>NET INCOME</b> (bef. depr., land tax)	<b>\$105,894</b>

**HOTEL BUILDING**

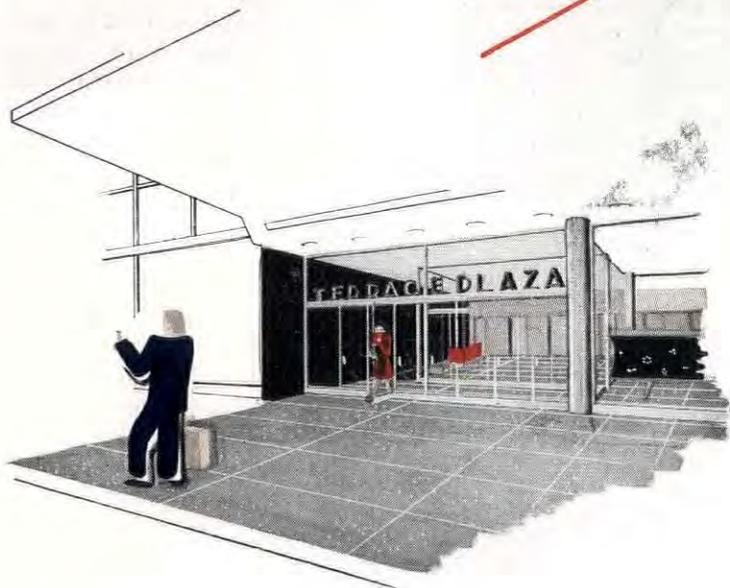
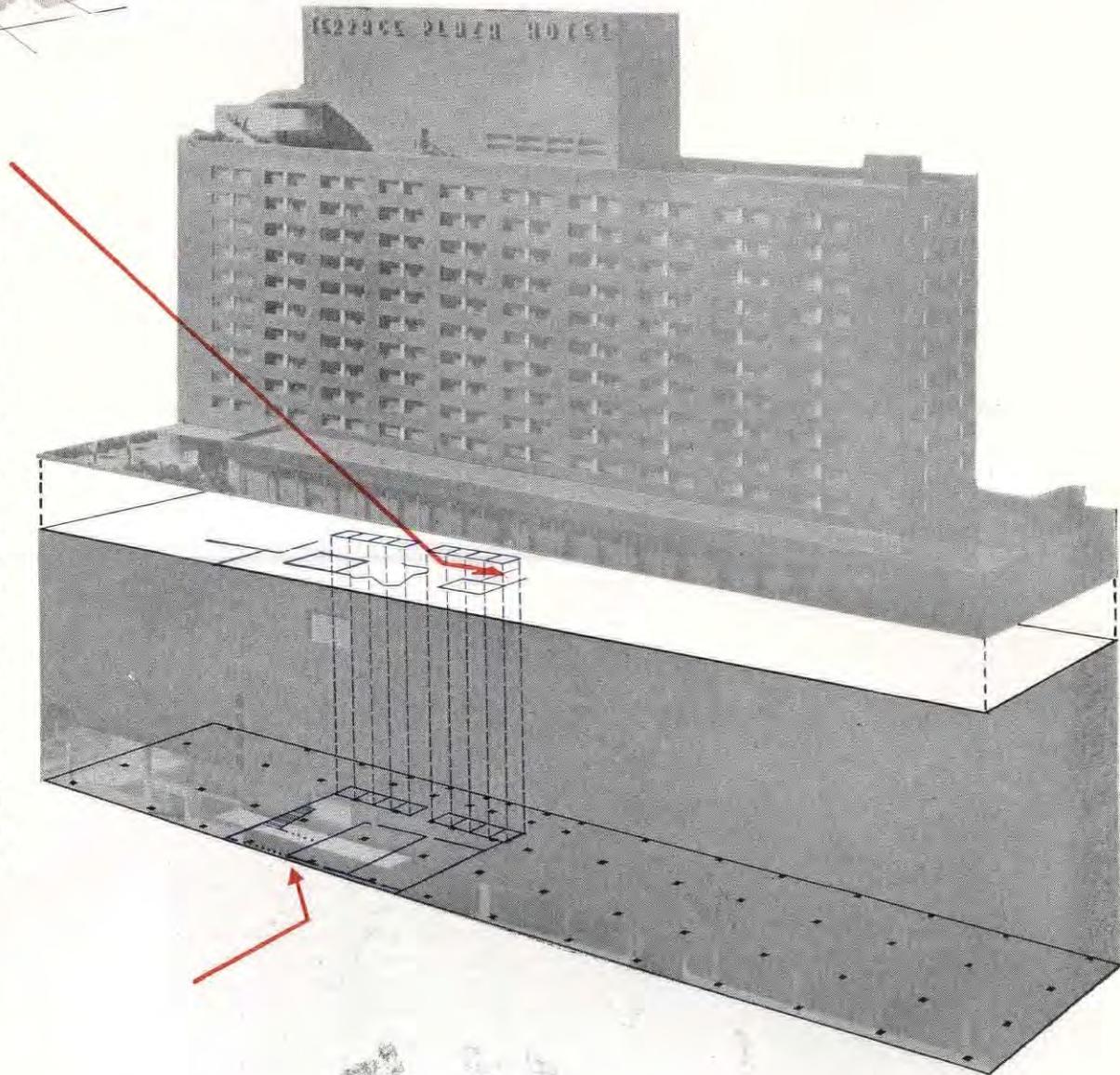
<b>CHARACTERISTICS:</b>	
CUBAGE (cu. ft.)	1,884,400
COST (about \$1.10 per cu. ft.)	\$2,089,510
ROOMS (240 single, 60 double)	300
<b>INCOME</b>	
ROOMS (20% vacancies; singles at \$4.50 per day; doubles at \$6.50 per day)	\$429,240
<b>RESTAURANTS, ETC. (200 seats)</b>	
Food sales—restaurants	\$180,000
Food sales—room service	60,000
Liquor sales—bar & restaurants	72,000
Liquor sales—room service	24,000
<b>TOTAL RESTAURANTS, ETC.</b>	<b>336,000</b>
<b>GROSS INCOME</b>	<b>\$765,240</b>
<b>EXPENSES</b>	
ROOMS (salaries, wages, employes' meals, laundry, linen, guest supplies, cleaning, etc.—30% of room income)	\$128,772
<b>RESTAURANTS, ETC.</b>	
Payrolls: (25-30% sales)	\$96,600
Food Costs (37% sales)	88,800
Liquor Costs (35% sales)	33,600
Other expenses (10% sales)	33,600
<b>TOTAL RESTAURANTS, ETC.</b>	<b>\$252,600</b>
Administration, etc. (9% of room sales)	38,632
Advertising & Promotion (4% of room sales)	17,170
Heat, Light & Power (\$165 per room)	49,500
Repairs & Maintenance (\$165 per room)	49,500
Insurance, Taxes & Depreciation on Furniture	21,000
Air Conditioning—operation, maintenance & depreciation	25,000
Taxes on Building (2% of 70% of cost)	29,253
<b>TOTAL EXPENSES</b>	<b>\$611,427</b>
<b>NET INCOME</b> (before depreciation & land taxes)	<b>\$153,813</b>

Hotel entrance and lobby are connected by nonstop elevators.



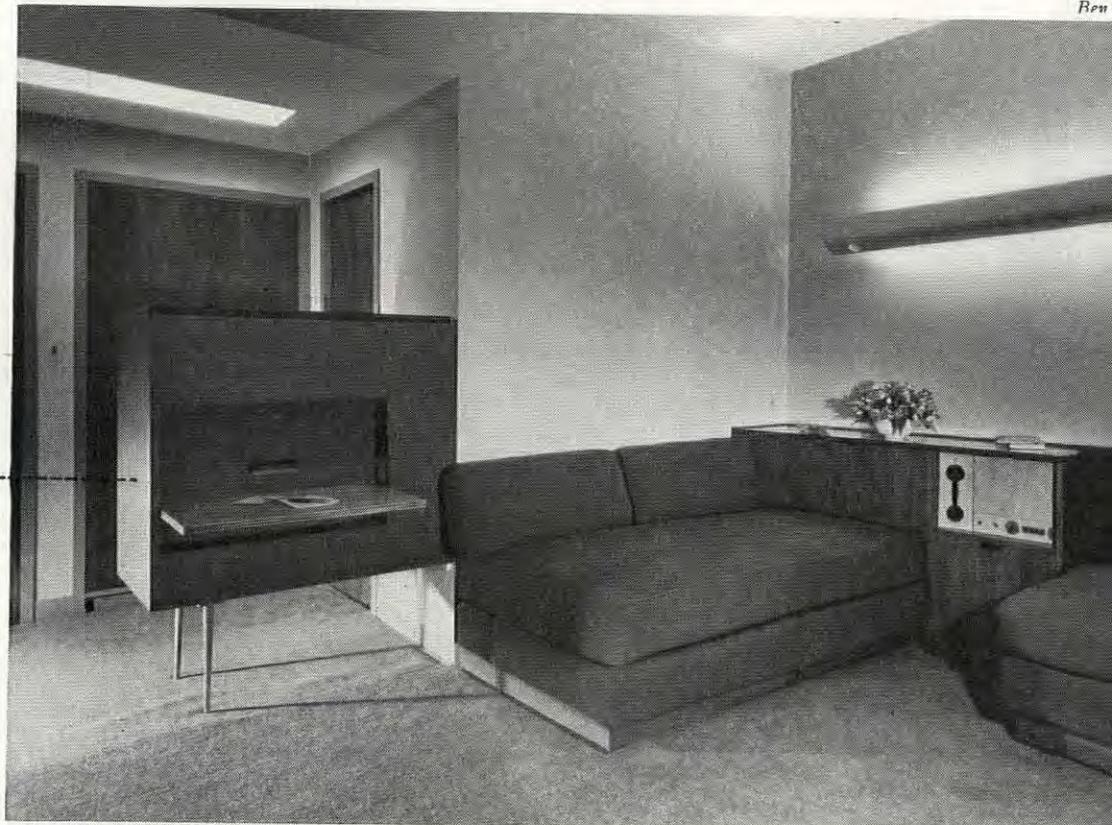
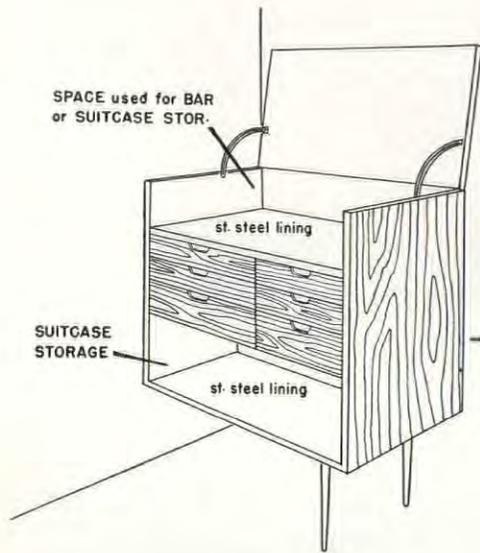
Unlike the conventional hotel with lobby, offices and dining facilities concentrated at ground level, the Terrace Plaza's "main" floor is the eighth. Compressed between two big stores, hotel space on the ground level is limited to a 28 ft. entrance and an elevator foyer. Two small adjacent shops (jewelry and drugs) duplicate entrance detailing, share the marquee and lend design emphasis to the hotel entry. In their layout of the lobby and adjoining offices, the architects were guided by the recommendations of the hotel accountants, acting as the management's efficiency experts.

Elevators are divided into two banks. One bank of four has its terminals at the basement and eighth floors with intermediate stops at the entrance, sixth and seventh (rental) floors. The other bank of four skips from the basement and entrance to the lobby, then serves the hotel floors above. If necessary, this bank may be operated only from the lobby up, thus giving the management close control over circulation. Since the Terrace Plaza has none of the customary conference rooms and banquet halls (with which the Netherland Plaza is over-equipped), elevator traffic will not be as heavy as might be expected.

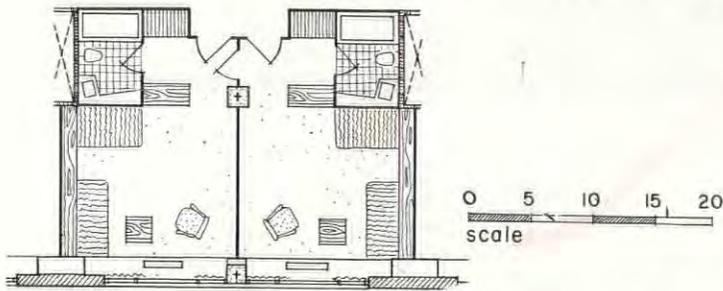


Guest rooms are compact, expertly styled, flexibly equipped and easily maintain

Ben



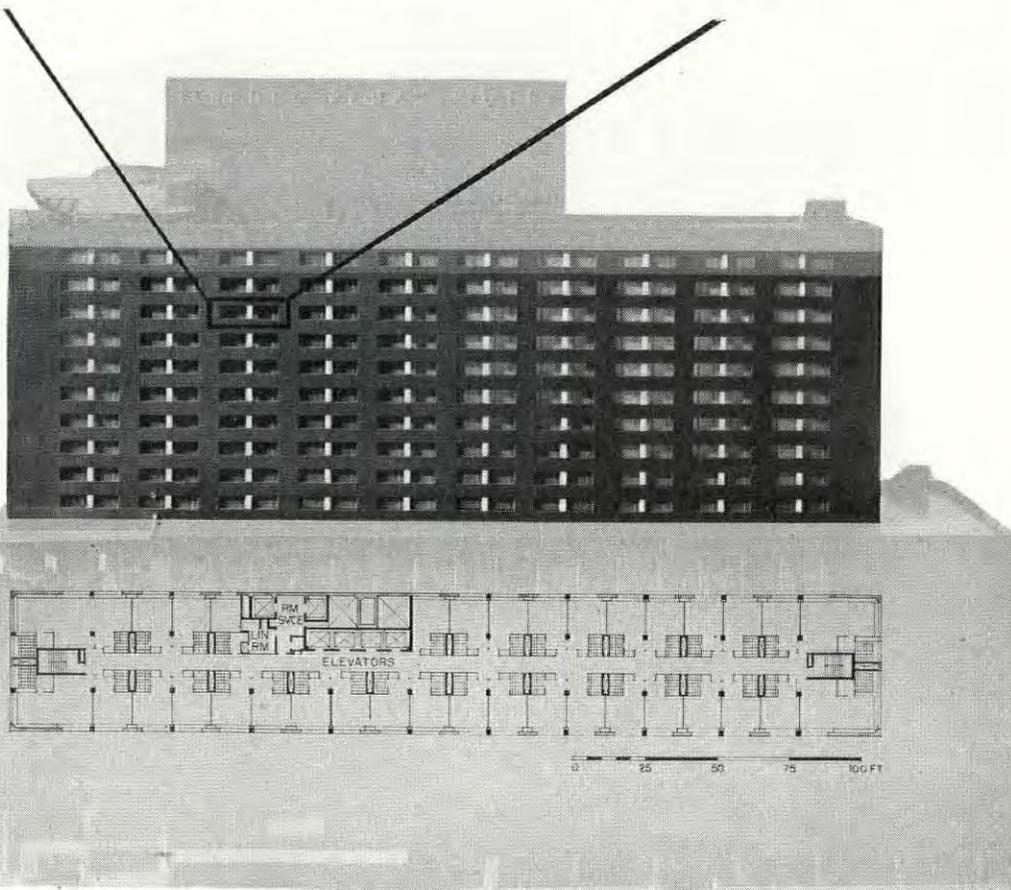
ROOM IS LIGHTED BY FLUORESCENT PANEL IN HALL CEILING, INDIRECT WALL TROUGH WITH S



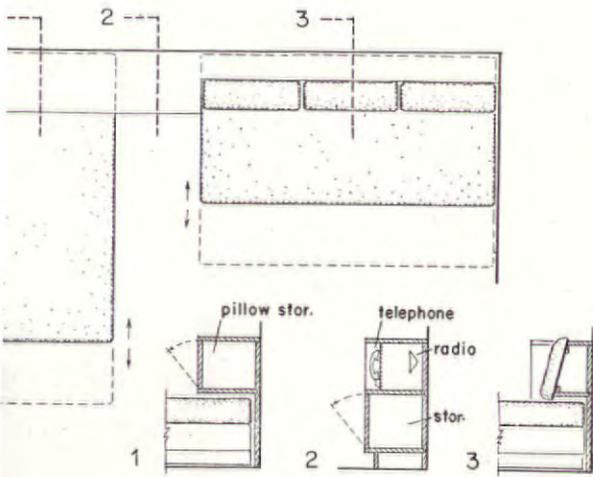
As demonstrated by the mock-up pictured on these pages, the typical guest room is a combination living-bedroom, reflecting the best features of recent hotel design and reinforced by numerous improvements. Functioning with smooth flexibility, the dual-purpose hotel room is apparently here to stay and, incidentally, offers residential builders cogent suggestions for improving the small house. During the day, the two beds boost the small (13 x 14 ft.) room's seating capacity to nine; at night, they slide out on concealed cantilevered tracks. Cushions and covers are replaced by pillows and bed clothes from the adjacent cabinet.

Focal point of the suite is the multi-purpose cabinet screening the bedroom from the hall. Above and below its drawers are suitcase compartments lined with stainless steel. The top opens up to permit easy access to the upper valise, the removal of which creates a bar. A panel at the back of the cabinet drops to form a desk. The unit is easily removed for repair or maintenance.

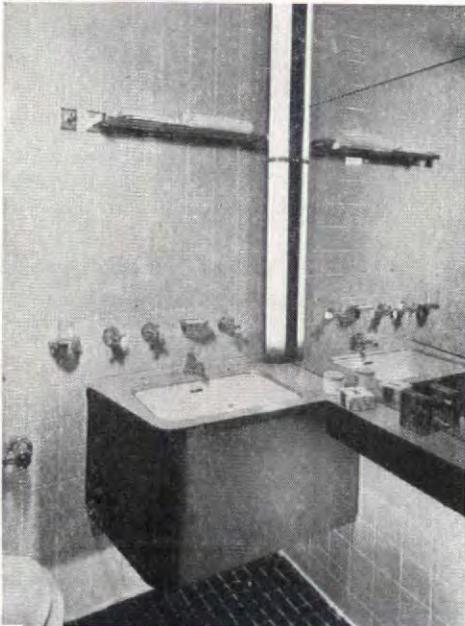
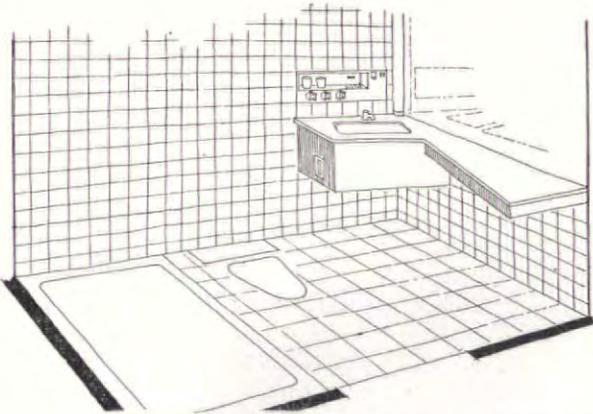
Other features: full width window with venetian blind and functional draperies, designed as a package along with the individually controlled air conditioning equipment which forms the window sill; complete absence of floor and table lamps—another boon for the hotel's maintenance staff; extension of the lavatory across one end of the bathroom to increase counter space under the wall-size mirror (perspective sketch at right shows modification of pictured model); and, between many rooms, a mobile partition which disappears upward to produce double rooms.



room design is equally smart.



SLIDE OUT ANOTHER FOOT TO FACILITATE MAKING

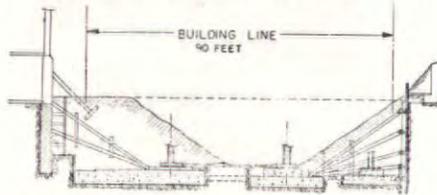


## FOUNDATIONS go deep inside a minimum excavation.

Excavation and foundation construction presented several unusual problems, solved with equally unusual engineering techniques. The problems: foundation walls had to go deep and close to sidewalks and existing buildings.



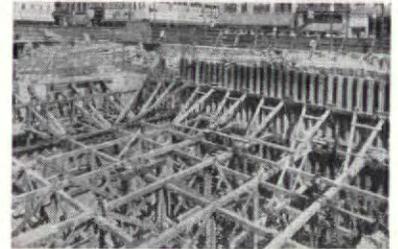
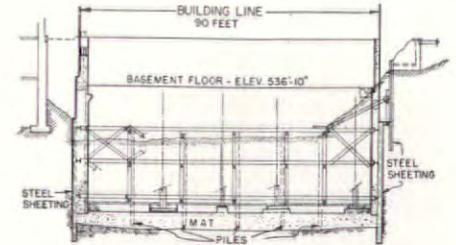
As devised by the engineers, the solution began with a V-shaped excavation (27 ft. deep at center) whose shoulders temporarily buttressed surrounding sidewalks and buildings. At the east end, which was to go down only 35 ft., the adjacent building's foundations were shored up, underpinned with a concrete wall extending down to the proposed level of the



sub-basement and braced with timber struts until the foundations were built and backfilled. Three-inch timber sheeting was driven down to the same level along the other sides of the east end and, as excavation progressed, was braced with 8 x 8 in. timber struts reacting on huge concrete footings previously poured at the

bottom of the V excavation. When the bottom was reached, footings and floors were poured and reinforced concrete walls erected with pockets to accommodate the struts. The latter were removed only after floors had been framed, the sheeting removed and the exterior excavation back-filled and tamped.

At the deeper western end, the operation was similar, except that, when the excavation had reached a depth of 27 ft., timber piles 35 ft. long were driven into the "floor" to support cross-lot bracing erected in three tiers as the excavation progressed

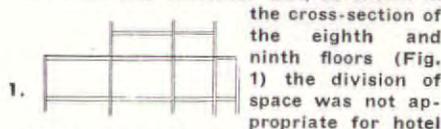


to a depth of 55 ft. This prestressed framework braced steel sheeting driven in place along the perimeter of the building to take the earth pressure and the surcharge of adjacent buildings and to serve as the outside forming for the reinforced concrete walls.

## FRAMING meets conflicting needs of big stores, small hotel rooms.

The Terrace Plaza's steel frame evolved from a study of eight alternative systems prepared by the structural engineers in close collaboration with the architects. Widely spaced columns were needed to give store areas openness of plan, while the small hotel rooms and corridors suggested closely spaced columns.

The first two schemes were based on the maximum use of columns. However, since most of the hotel columns could not be run down through the store buildings, they had to rest on girders—a condition called "column transfer." The deep heavy girders required are expensive in themselves and dictate an expensive increase in story height and waste cubage. The third scheme's principal advantage was its complete elimination of column transfer and the resultant low cost: 72 cents per sq. ft. for steel and concrete. But, as shown in



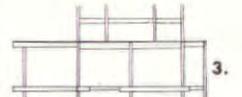
the cross-section of the eighth and ninth floors (Fig. 1) the division of space was not appropriate for hotel floors. In the fourth scheme (not shown) the division of space on the lower floors was improved by the elimination of one row of columns to create three 29 x 28 ft. bays spanned by double girders. But the hotel floors remained poorly divided, and column transfer was reintroduced, and costs went up to 87 cents.

A major change was made in the fifth proposal in that the upper floors were divided into three bays (Fig. 2). Their proportions were adversely affected, however, by their relation to those of

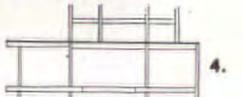


the four equal bays on the lower floors. Moreover, the lower bays were too small and numerous for optimum store layout. Estimated cost was reduced to 78 cents per sq. ft. because the short spans permitted use of single girders.

A good subdivision of hotel space was obtained in the next scheme (Fig. 3) but store areas were cluttered with four rows of columns. Cost estimate: 89 cents per sq. ft. The larger of the two small bays was eliminated in the seventh scheme (not shown) by removing the column under the hotel rear wall and increasing the size of the horizontal members—the additional column transfer boosted costs to \$1.

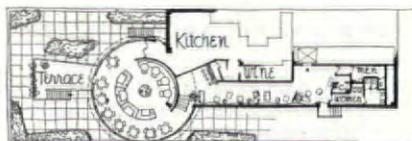
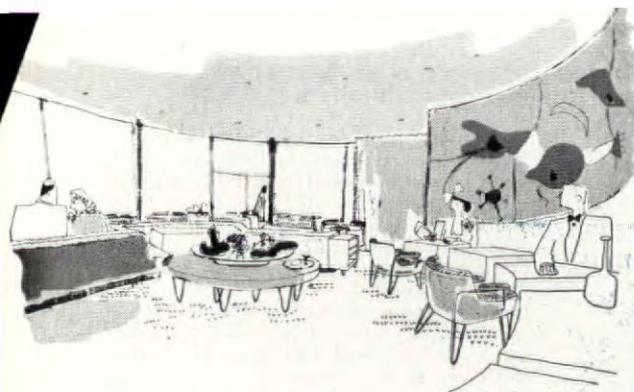


A small modification of this proposal produced the eighth and final framing system (Fig. 4). It met the requirements of both store and hotel spaces better than any of the others, was therefore considered worth the relatively high cost of 98 cents per sq. ft. Small 13 ft. 10



in. bays on either side of the upper structure enclose the hotel rooms, and the 20 ft. central bay includes bathrooms and public halls. Two rows of these columns run down through the lower portion of the building to divide it into a 35 ft. central bay (28 ft. deep), flanked by 23 ft. 6 in. bays. A fourth row, set back 6 ft. from the building's facade, proved a handy device in the design of the street level show windows; on the other floors, the 6 ft. bay provides a convenient place for air conditioning ducts and merchandising cases.

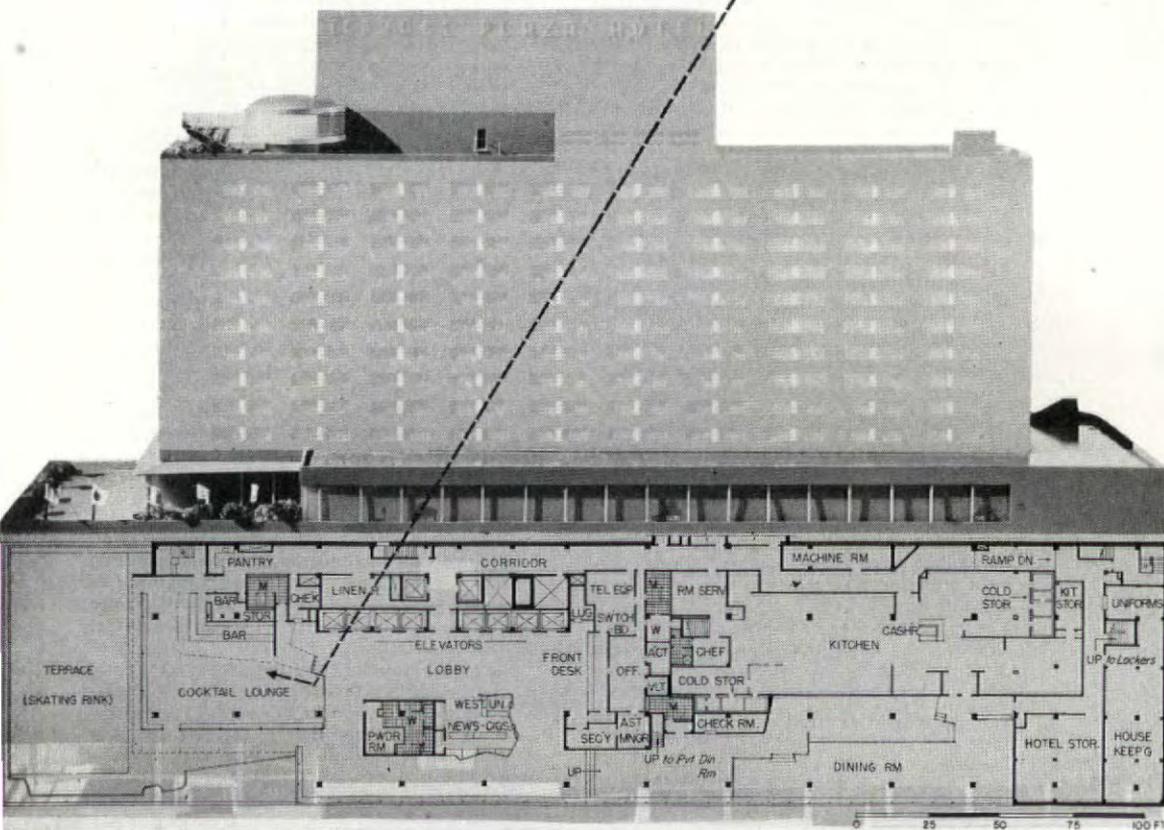
Restaurants cater to wide range of dining habits — fr



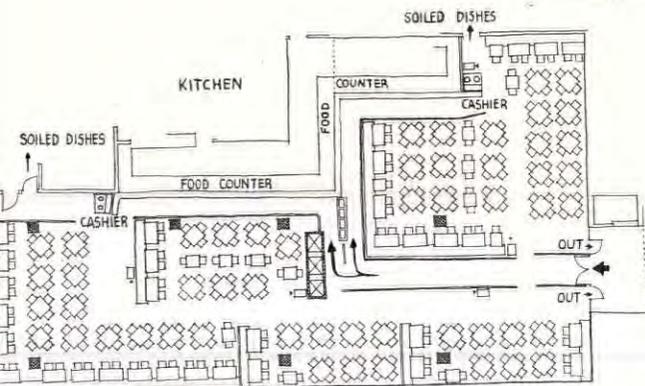
Overlooking the terrace, which will be used for summer dining, the breakfast and cocktail lounge (above) seats 116 for meals, 143 for cocktails, including 10 at the mirror-backed bar. At the opposite end of the floor, the main dining room will accommodate 200 for lunch and dinner. Quicker, less expensive service will be offered in the 362-seat cafeteria (above, right) whose basement location renders it convenient to shoppers and salesgirls in Bond's and Penny's.

Jutting out from the building's utility penthouse, the circular dining room of metal and glass is as exclusive as its size (51 seats, excluding the four-passenger bar) and name (*Gourmet*) indicate. Its simple design is an appropriate backdrop for the 7 x 30 ft. mural to be executed by a prominent European artist. The glass walls are slanted to reduce inside reflection.

Based on the advice of a professional consultant and the long hotel experience of the project sponsor, all of the Terrace Plaza's kitchens are as efficiently designed as its dining facilities.

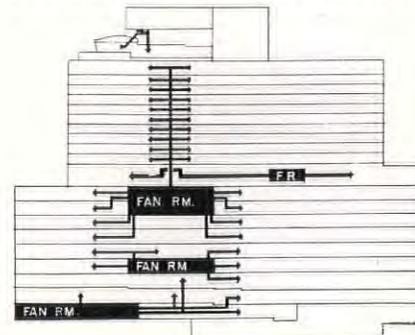


basement self-service to roof-top elegance.



## AIR CONDITIONING of hotel rooms is individually controlled.

Extensive research by the mechanical engineers indicated that, despite the project's division into numerous distinct compartments, by careful selection of air conditioning system types the entire building could be supplied with coolant from one central plant. Located in the boiler room, three centrifugal compressors, whose various capacities aggregate 1,500 tons of refrigeration, deliver chilled water to the cooling units. Due to the premium on commercial and hotel floor space, these units are grouped in six strategically lo-



located equipment rooms from which the distributing ductwork is led off to the various floors and rooms.

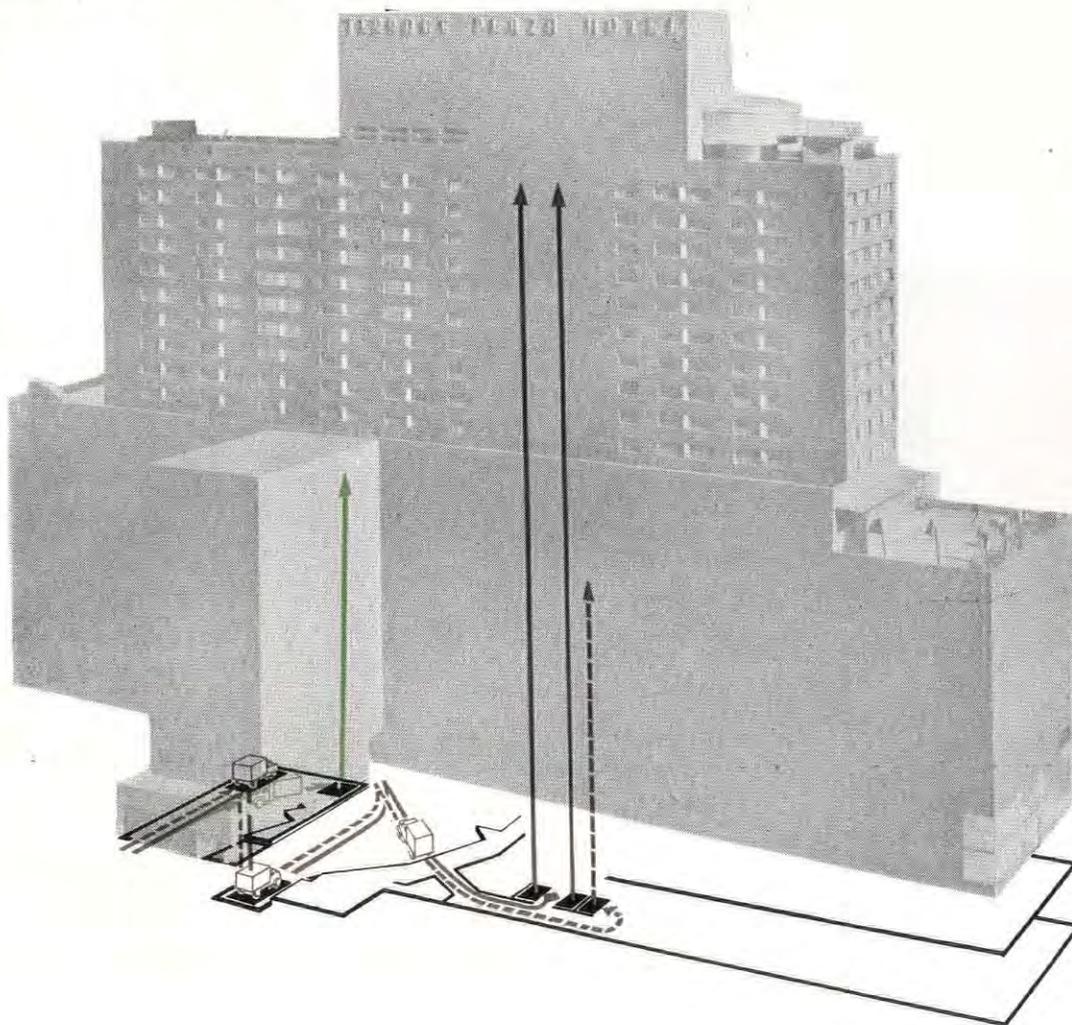
Like the basement cafeteria, each of the big stores has its own system, with independently operated controls. Similarly, the air conditioning of each hotel guest room is individually controlled. Fresh air under high pressure and cold water (hot in winter) are piped to Carrier "Weathermaster" units in each room where the air is cooled or heated in accordance with the setting of the controls and is discharged into the room. Air escapes through the bathroom exhaust grille—none is recirculated outside the room. With windows opening only for cleaning and emergency use, outside dirt and street noises are eliminated.

Cleaned by electrostatic filters, air in the main branches of the system is cooled by new spray-type coils. It passes through interstices between the finned coils, while the cooling water flows through the coils themselves. Sprays on the outside of the coils wash the air in the summer and increase its rate of heat absorption and, in winter, produce the humidification required for comfort.

## SERVICES include off-street truck deliveries and nearby parking lot.

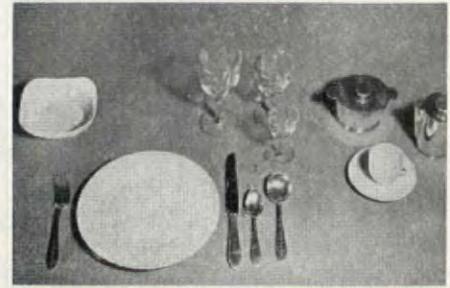
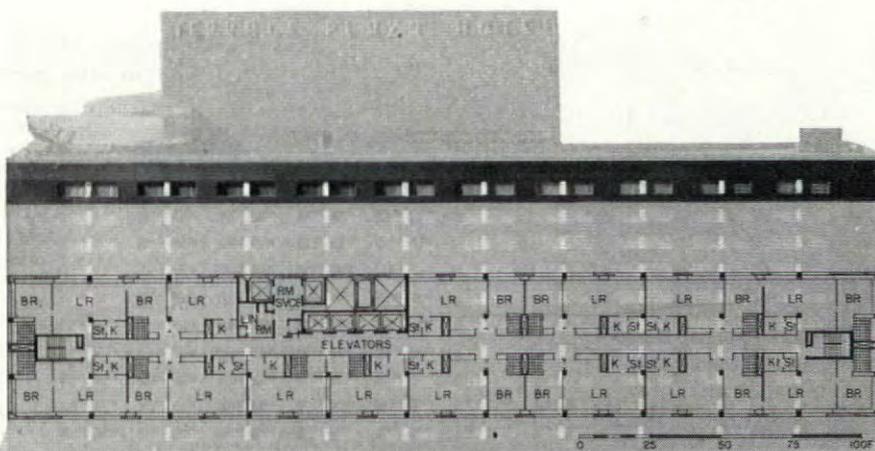
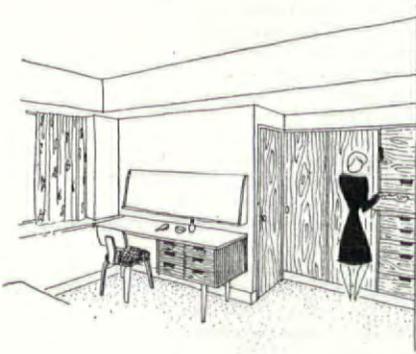
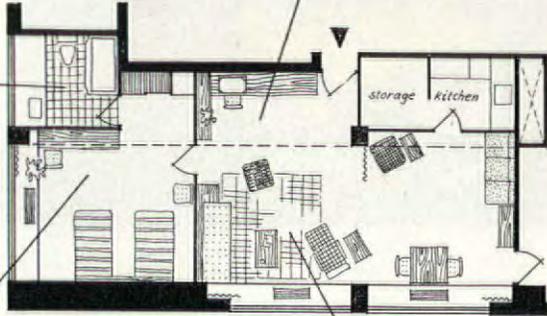
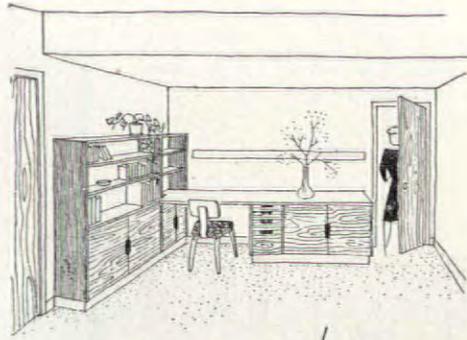
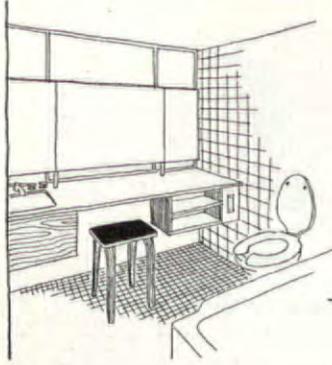
Trucks serving hotel and stores will enter the service annex bridging the alley behind the building. Those delivering goods to Penny will back up to a street-level platform and transfer their loads to an elevator which will hoist the merchandise to Penny's storage areas on the sixth and seventh floors of the main building. Trucks serving Bond's and the hotel will be lowered by elevator to sub-basement unloading and storage areas connected with upper floors by service elevators (two for the hotel, one for Bond's). Of sufficient size to permit turning of vehicles, the sub-basement truck floor will contain manholes for the receipt of coal. Fuel oil deliveries will be made at street level. (Although boilers will be gas-fired, they may be quickly converted in emergencies.) Above the ground-floor truck entrance, the seven-story annex will contain office and employe facilities for Penny.

Original plans included a novel inside-parking scheme, whereby automobiles would be raised to the eighth floor lobby to unload guests and baggage, then parked on the two floors below. However, the use of so much valuable space for such an unproductive purpose was obviously uneconomical, and the scheme was discarded in favor of a nearby parking lot.

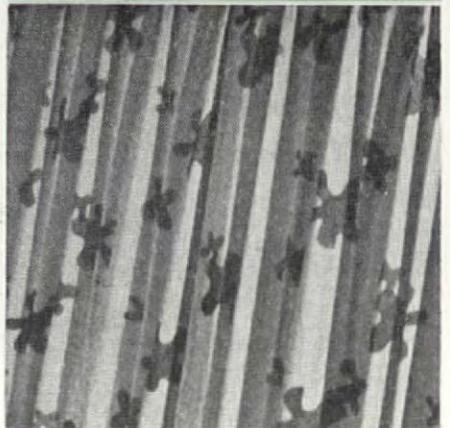
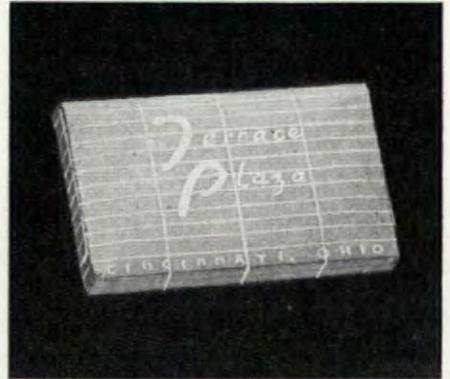
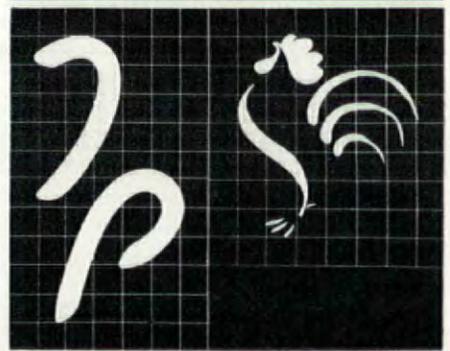


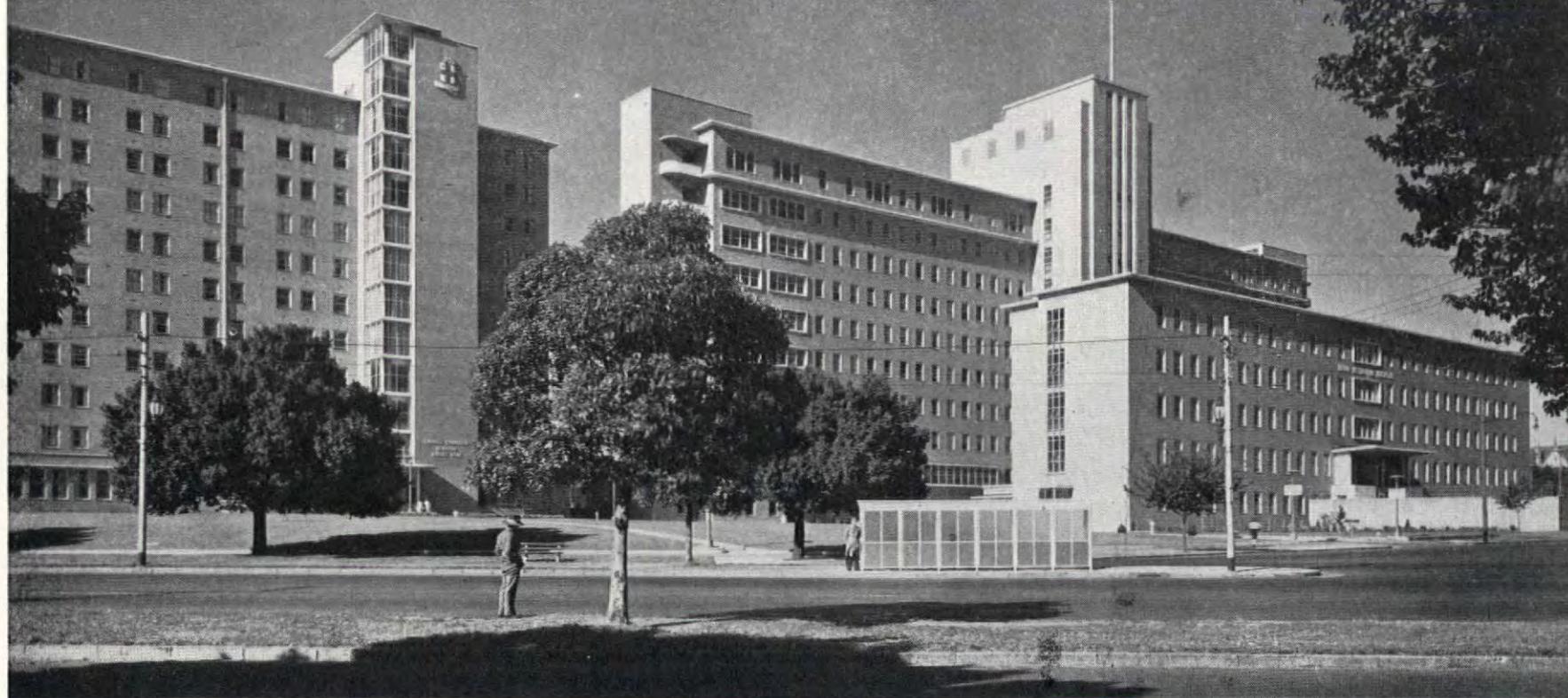
## Top-floor apartments feature conveniences for residents.

Covering the entire top floor, the 12 two- to four-room apartments are designed for "permanent guests" who desire maximum convenience with minimum housekeeping. Although each apartment is equipped with a small kitchen, tenants will probably use the hotel dining rooms or room service for most of their meals.



Comprehensive design extends to such hotel accessories as tableware; TP monogram for towels, tableware and linen; rooster monogram for French restaurant; distinctive pattern reflecting building's brickwork for soap wrappers, match covers and laundry boxes; drapery prints; and (not shown) key tags, uniforms, furniture, carpets, linen and lighting fixtures.

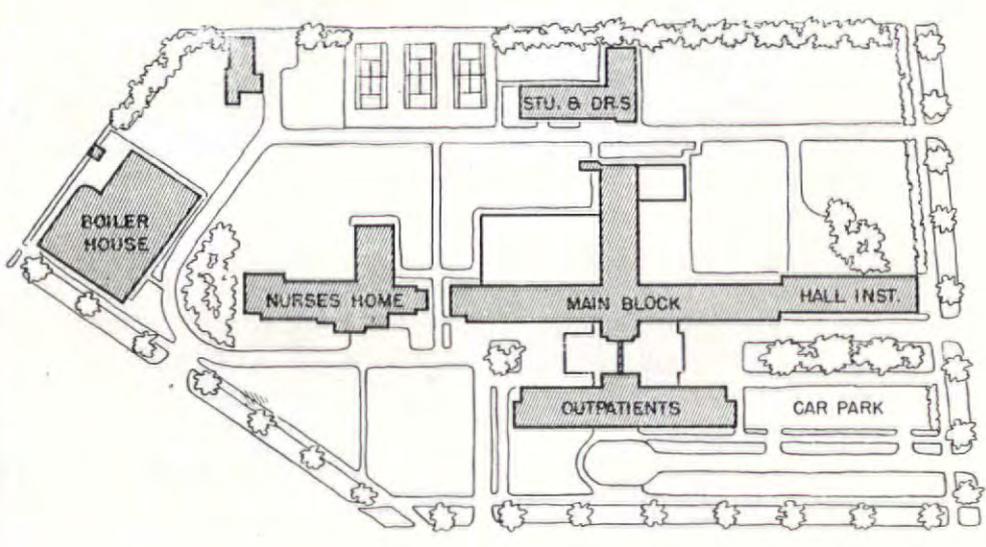




MAIN ENTRANCE TO HOSPITAL IS THROUGH OUT-PATIENTS' BUILDING (RIGHT). WARDS OCCUPY REAR BUILDING, NURSES' HOME IS AT LEFT

# HOSPITALS IN AUSTRALIA

Victoria's citizens and government chip in to finance the new six-building Royal Melbourne Hospital.



Many large urban hospitals, built before cities had grown to their present congested state, are today facing the problem of an undersized site, surrounded by fast-moving traffic and encroached upon by neighboring buildings which prevent much-needed expansion. Chicago's Michael Reese Hospital (FORUM, Sept. '46) chose to stand and fight such decay on its own grounds. The Royal Melbourne Hospital in Australia's capital city has solved the problem by abandoning its old site and building the new plant on an open area away from the city's center. This permits expansion of present facilities and provides the nucleus for a future medical center. Enough land has been purchased to care for any foreseeable new construction while retaining the openness characteristic of the present layout.

This step is due largely to the progressive thinking and planning of the hospital's board of management. The new hospital was under consideration for five years prior to 1939 when contracts were finally let. With the outbreak of war, labor and material supply diminished, but, in spite of these difficulties, construction was completed by early 1942. In March of that year, American military forces took over the hospital, setting up (without overstraining the services) 2,300 beds in a space originally planned for 700 beds and 1,200 out-patient attendances per day. Not until December, 1944 was the new hospital released for civilian use, but since that time its plan—which abandons the old pavilion type of design in favor of the more advanced vertical arrangement with central service—has proved eminently successful.



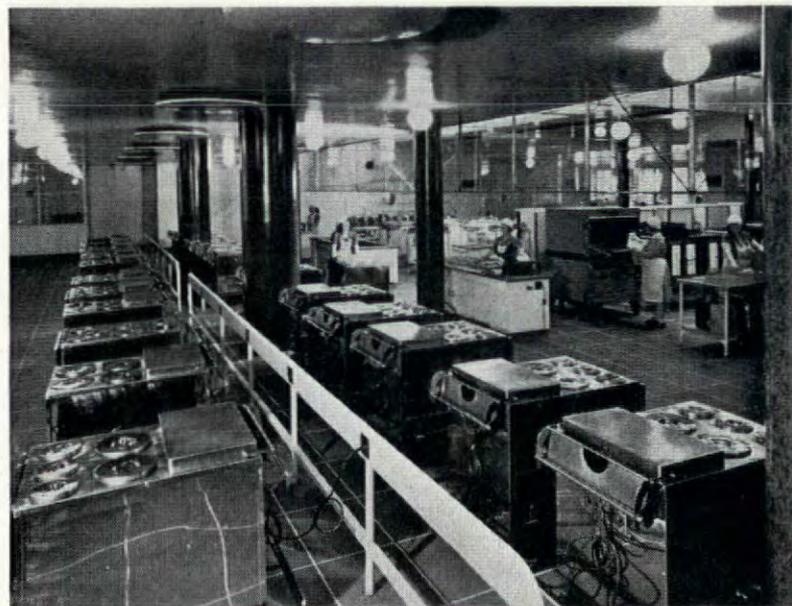
SOUTHEAST VIEW OF OUT-PATIENT DEPARTMENT AND WARDS, CASUALTY ENTRANCE IN ANGLE

## Hospital features easy vertical service.

The architectural firm in charge of the Royal Melbourne Hospital has specialized in medical design for the past twenty years and has more than twenty-seven hospitals and clinics in Australia and New Zealand to its credit. The Melbourne Hospital design was influenced to a great extent by the partners' study of hospital work, housing and industrial buildings during several trips abroad. They believe that, except for differences in climatic conditions, the hospital problem is much the same the world over and that the logical solution for Australia resembles that for the United States.

Like the newer American hospitals, the Melbourne buildings are tall, narrow blocks, calling for vertical rather than horizontal circulation and permitting a maximum of outside rooms. The boiler house is a separate structure, but the kitchen and mechanical services are centralized in the ward building. Each of these operating facilities has been planned for convenient future service of a private hospital scheduled for construction on the same site.

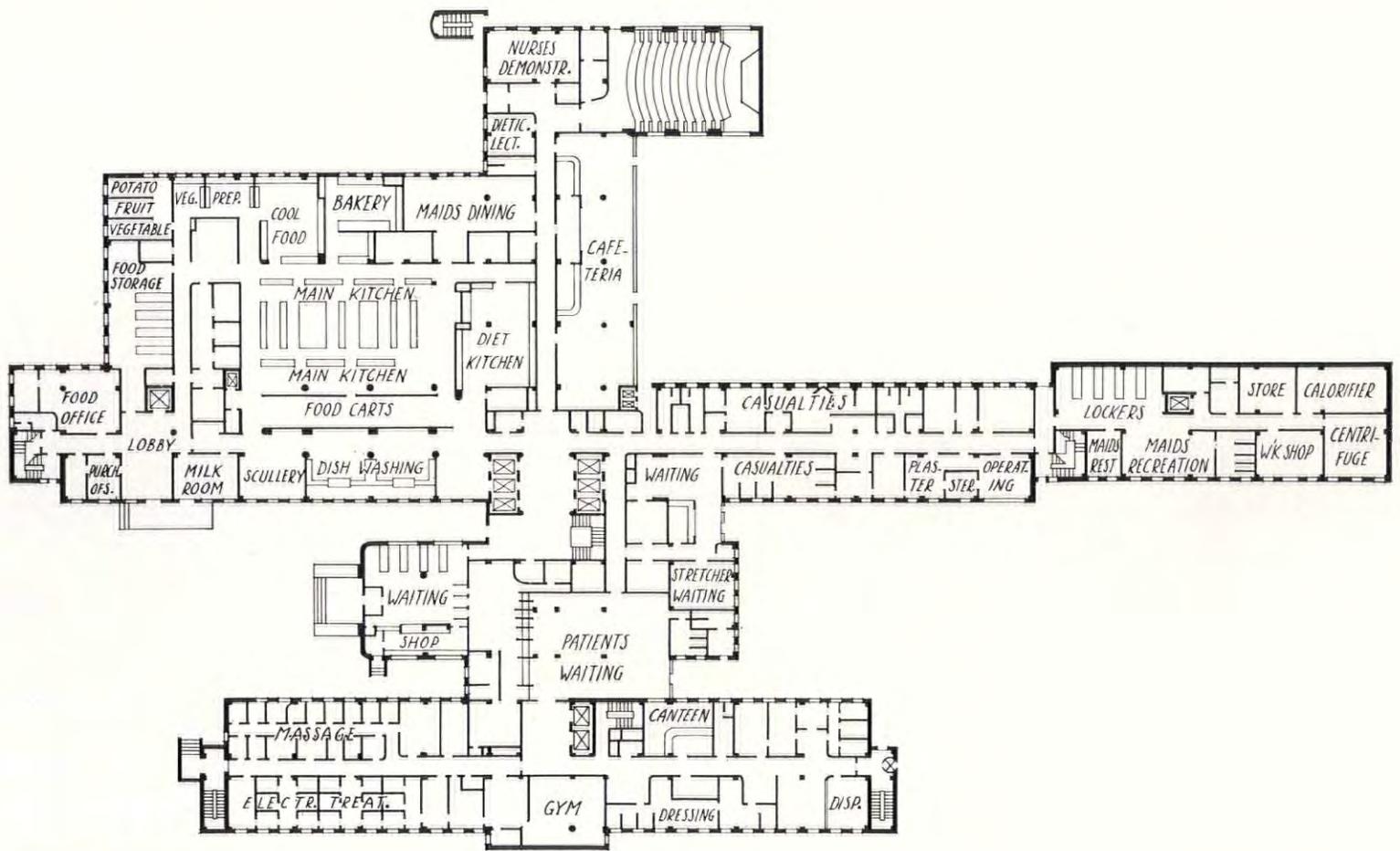
Since the hospital is the major teaching ground for Melbourne University medical students and is the largest clinical school in the state of Victoria, provision has been made for students and clinical services in out-patients' department, wards and laboratories. University departments of medicine and surgery will be added in the not-too-distant future. Already the hospital is faced with the need for additional beds, and plans are underway for adding five new wards to the north wing with a corresponding expansion in the nurses' home. A laundry is also contemplated which will serve both the hospital and other nearby institutions in accordance with the policy of the Charities Board of Victoria.



ELECTRICALLY-WARMED FOOD TROLLEYS LINED UP FOR DELIVERY

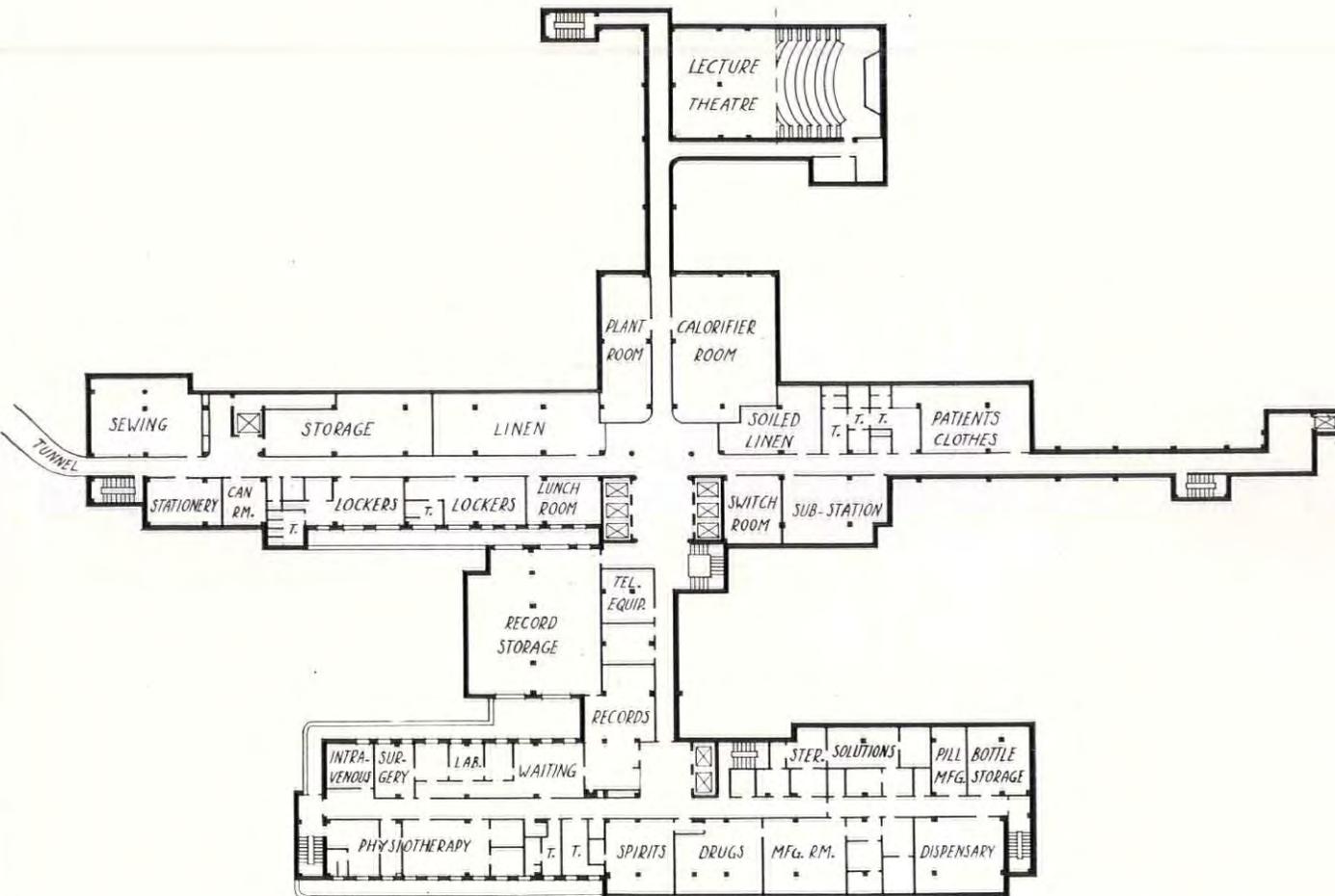
MASS PRODUCTION OF FOOD IS EASY WITH HUGE STEAM COOKERS





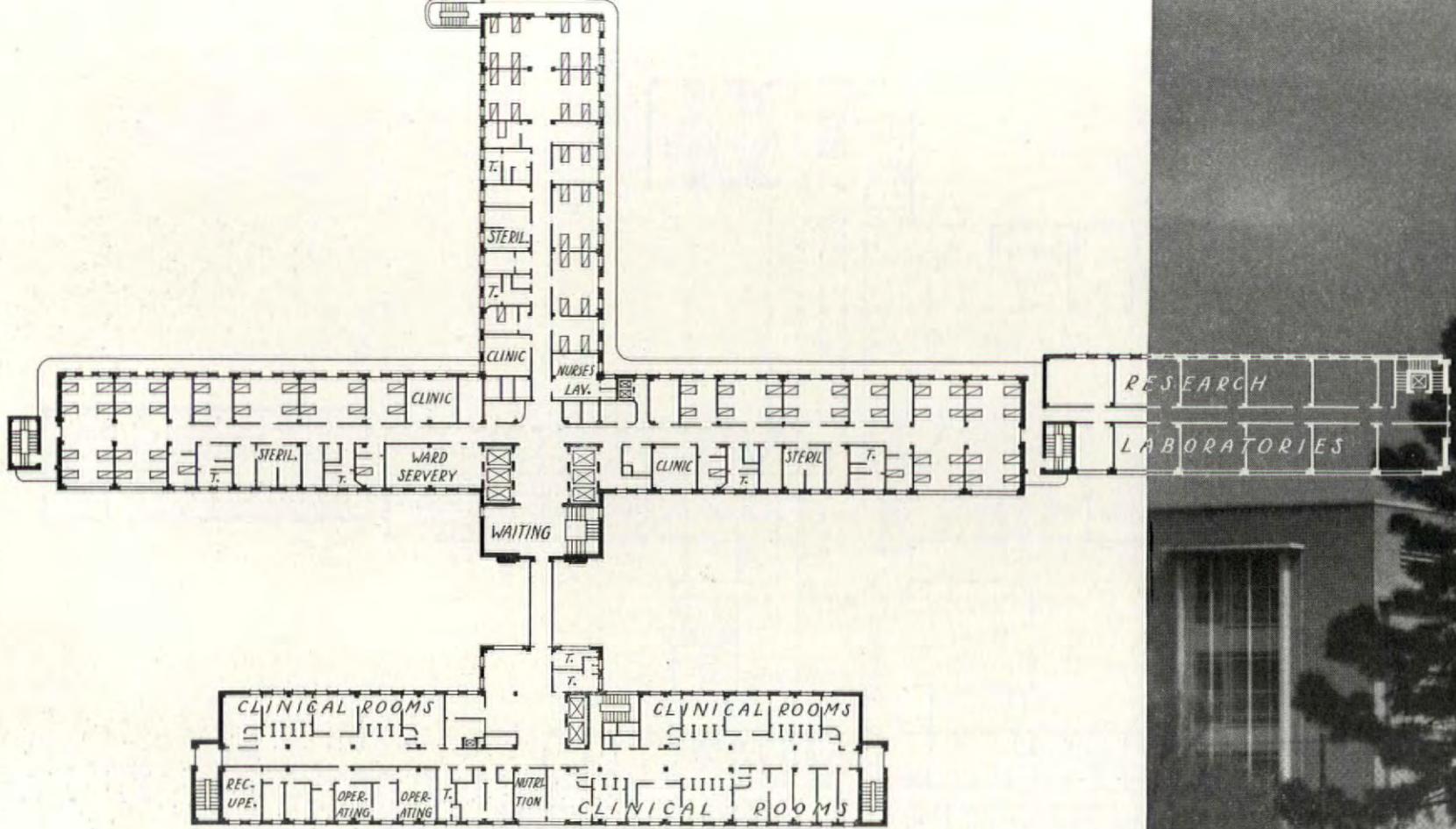
GROUND FLOOR PLAN

SCALE 0 50



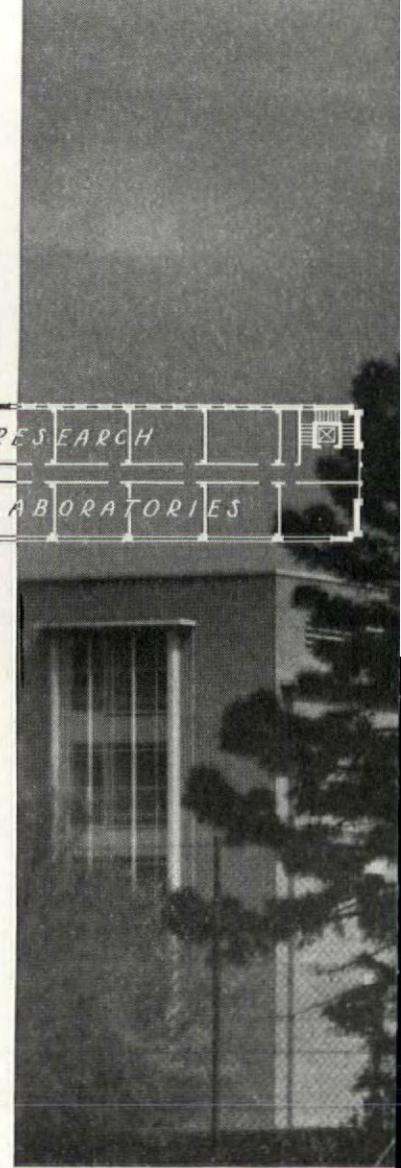
BASEMENT PLAN

SCALE 0 50

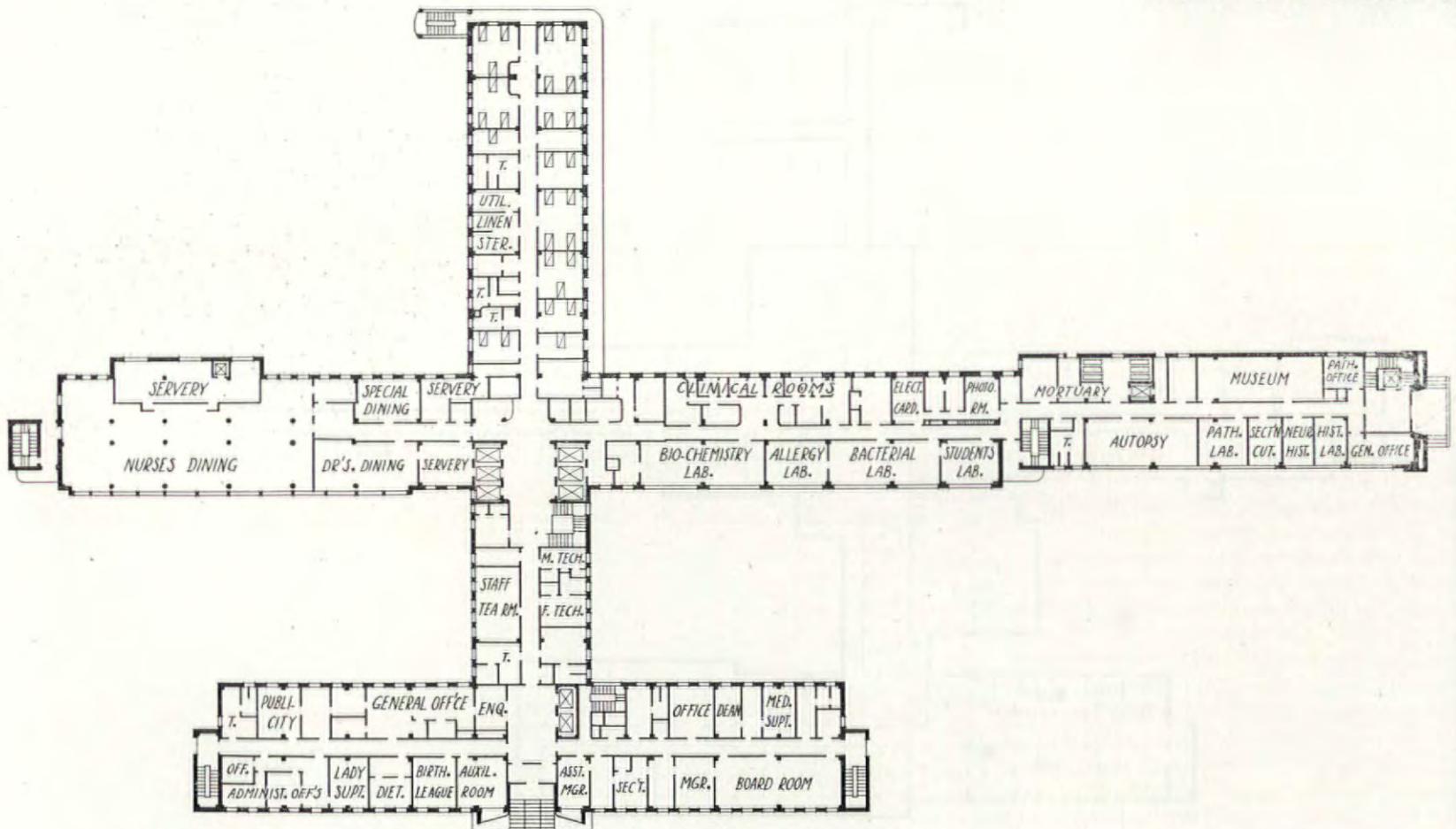


TYPICAL FLOOR PLAN

SCALE 0 50



REAR OF MAIN HOSPITAL BLDG



FIRST FLOOR PLAN

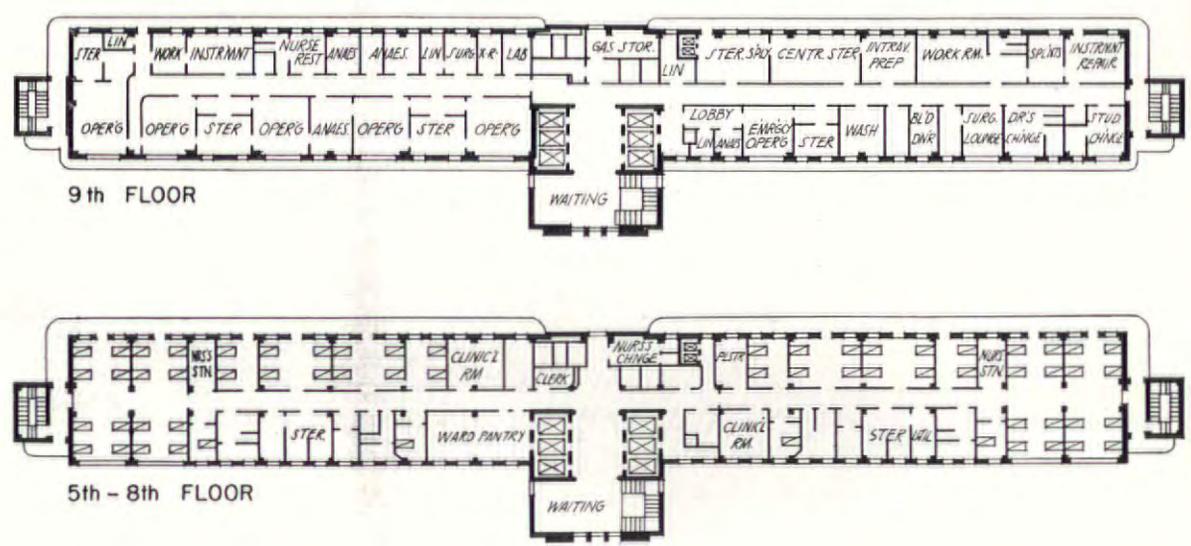
SCALE 0 50



VEALS INTERSECTING BLOCKS AND TRANSVERSE PROJECTIONS, CONNECTING RESEARCH INSTITUTE IS AT LEFT, NURSES' HOME RIGHT

The main nursing unit, which occupies a central position directly behind the smaller out-patients' building, combines a maximum of bed space with convenient surgical and laboratory areas. T-shaped in plan as high as the fifth floor, it becomes a simple slab from fifth to eighth. The narrowness of the building follows recent American hospital designs which have resorted to the extremely thin rectangle in order to exploit natural light in a maximum of interior space. Thus, all rooms can be located along exterior walls which boast a large amount of window area. In this particular scheme, almost every room (and certainly a handsomer facade) might have been provided by throwing the two small windows together or employing continuous ribbons.

One of the best aspects of the design is its balcony arrangement at the rear of the building, a feature which greatly influences interior layout. The majority of patients' rooms are placed at the rear, opening directly onto these balconies which serve both as outside corridors and convenient areas for convalescents to sun and exercise. Laboratories, examination and service rooms are located at the front of the building since they require no balcony access. Placement of surgery at the top story, while traditional procedure, is questionable because of its separation from first-floor laboratories and inconvenience for emergency arrivals.



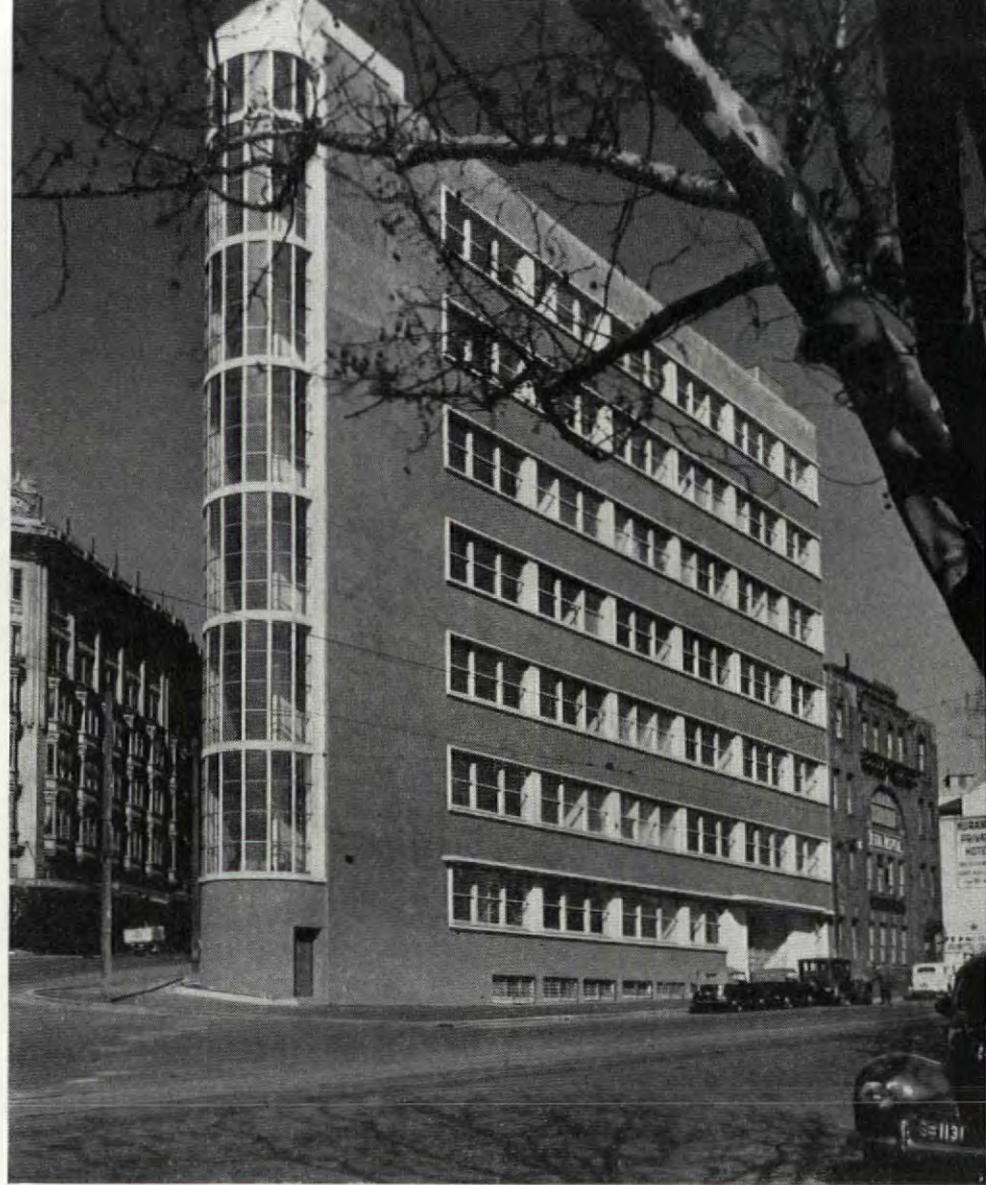
# DENTAL CLINIC

combines treatment, surgery, research.

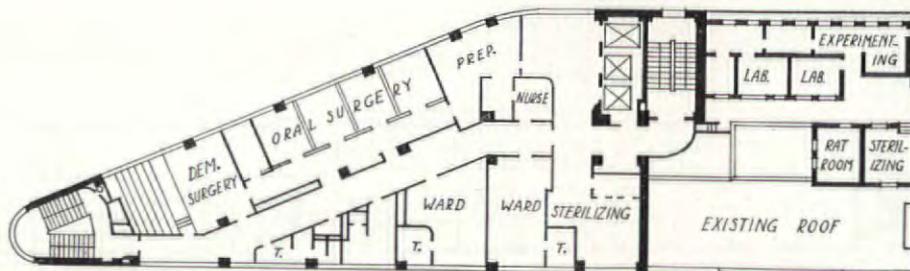
STEPHENSON & TURNER, Architects

This new dental hospital in Sydney has been erected on a flat-iron site next to the hospital which formerly served as a training school for University of Sydney dental students. Most of the old building's functions—including student training and a clinic for low-income patients—have been taken over by its new neighbor and considerably expanded. Present accommodations are for 150 students, 50 nurses, 20 staff dentists, 30 visiting dentists and 30 mechanics; include excellently equipped surgeries and specialized laboratories, plus separate examination rooms, children's department, museum, tea room and administrative offices.

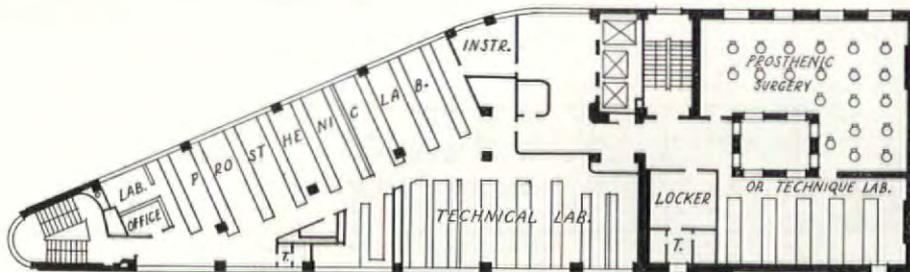
The limitations of a narrow corner lot have been turned to advantage with a slim, wedge-shaped plan permitting abundant natural light. Ribbon windows serve all floors above street level, and a glazed semi-circular stair-tower at the acute angle of the building provides excellently lighted circulation. An interior color scheme of eggshell enamel walls, blue dental units and chairs creates a light, cheerful atmosphere. Exterior curtain walls are brick, rendered in red cement stucco and accented by tailored white trim of windows and entrance.



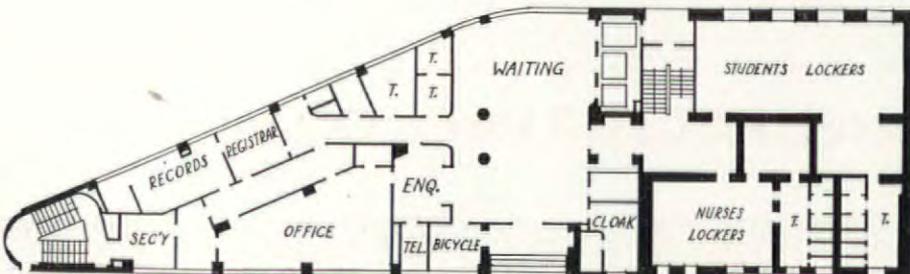
VERTICAL STAIRWELL BAY AND RIBBON WINDOWS DOMINATE DESIGN OF FACADE



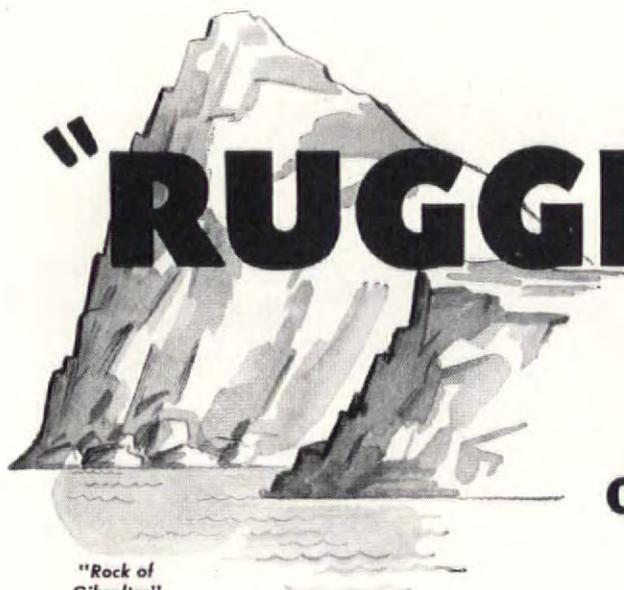
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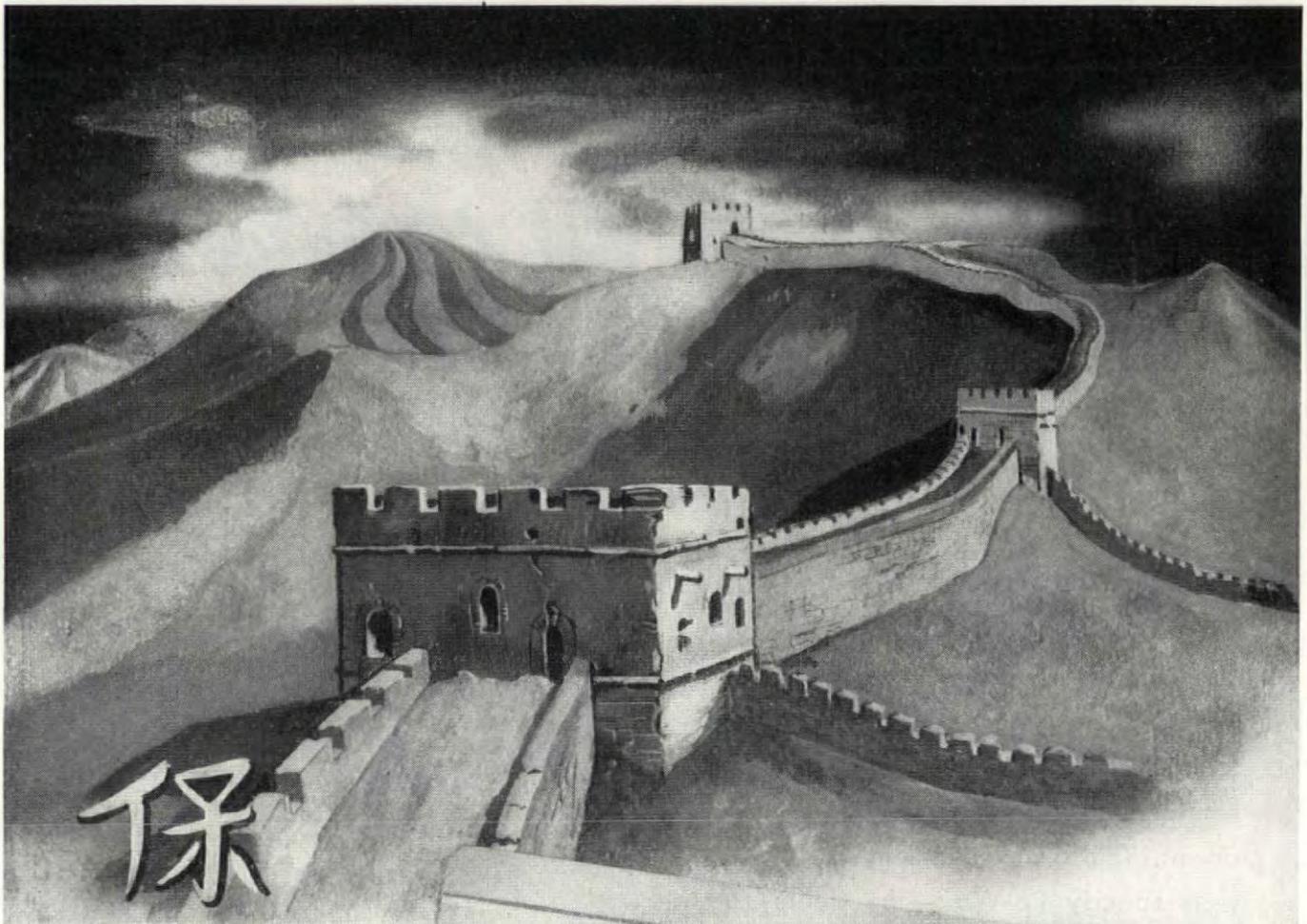
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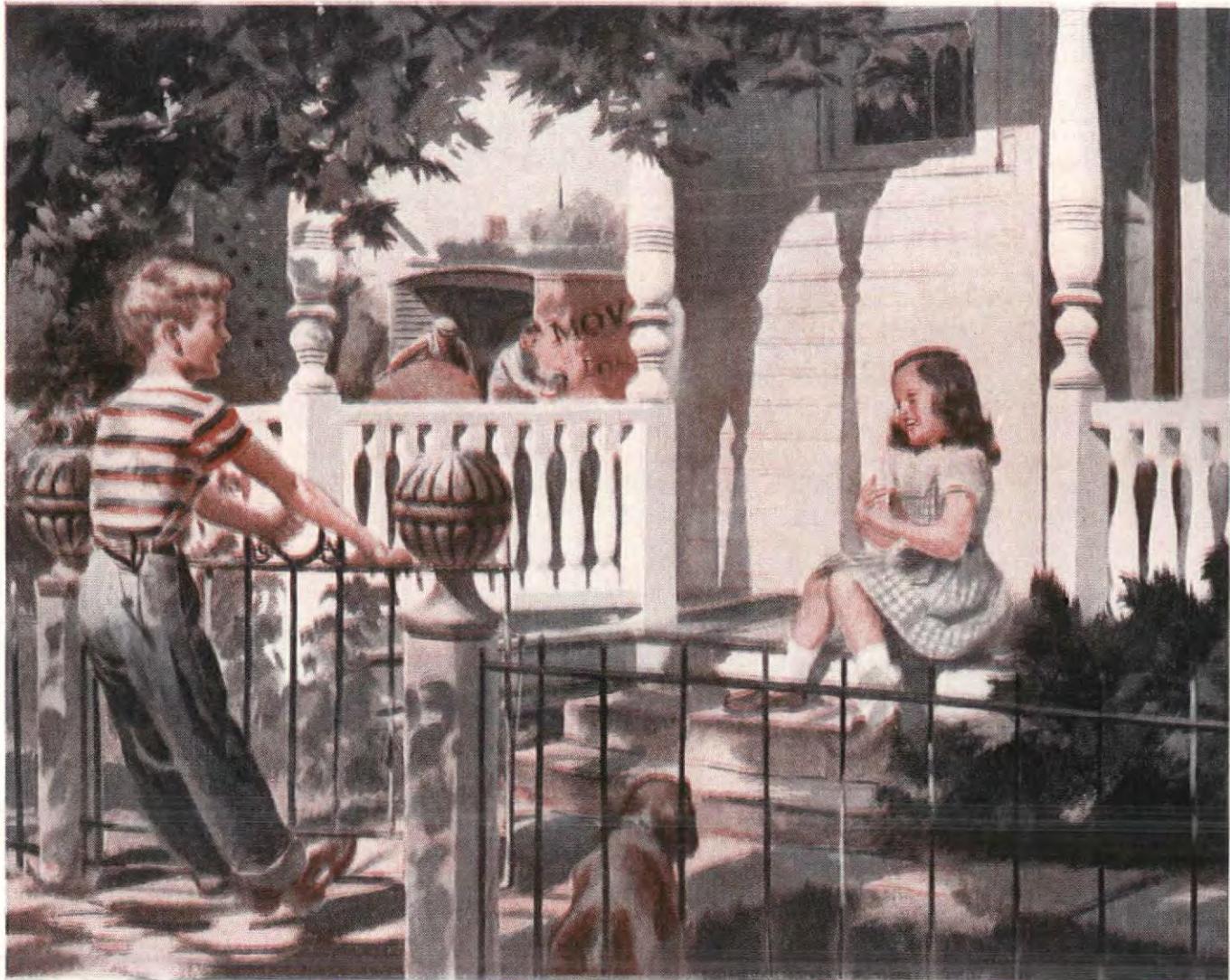
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## BOOKS

**THE HISTORY OF IMPRESSIONISM.** By John Rewald. The Museum of Modern Art, 11 W. 53d St., New York. 474 pp. Illustrated. 21 color plates. 10¼ in. x 8 in. \$10.

Pretentious and expensive as some of the Museum's larger prewar publications, Rewald's study of this nineteenth century group of painters is exhaustively documented and detailed. In the introduction, E. A. Jewell is quoted as having said: "It would be impossible now, I'm afraid, for anyone to piece together a full and in the minutest degree accurate report of the developments that led up to the first impressionist exhibition . . . An exclusive record such as that would cover the germinating decade, and to it we should want added, of course, as full and minute and accurate a report covering the decade that followed with its triumphs, its setbacks, its slow and often painful success in breaking down the barriers of critical and popular disesteem." This pessimistic statement outlines precisely the scope and purpose of Mr. Rewald's book.

Impressionism has long since been accepted as a valid and popular form of artistic expression and, compared to some of its successors, seems comfortably comprehensible to the lay mind. It therefore follows that the average person tends to bracket all impressionist painters as close contemporaries who exercised their option on the canvas in general over a period of years. Actually, their battle for recognition was as long, difficult and dramatic as any in the history of art. Starting off with Pissaro's youth in Spain, Mr. Rewald narrates in chronological order, introducing fellow painters as the story expands. The climax of the book is the eighth impressionist exhibition in Paris which coincided with Durand-Ruels successful introduction of the school to the U. S. Though the picture is a clear one, it has a quality of unreality due to its very intimacy of detail. It may be true that the impressionists were a tightly-knit, self-sufficient little band; nevertheless, more retrospective correlation with the major events of the times, artistic and otherwise, would be welcome.

The text, generously sprinkled with quotations, is on the dry side and none of the artists stands out as having been either personally dynamic or individual which, after all, is a flourish most people expect. It is, however, a valuable book for connoisseur and layman alike for its faithful historical portrayal. To the student it offers a brief but enlightening biographical chart which efficiently interrelates the various careers. There are many black and white plates. Color reproductions, though good, do not compare with the truly outstanding ones in earlier Museum publications. M.S.

**PICASSO: Fifty Years of his Art.** By Alfred H. Barr, Jr. The Museum of Modern Art, 11 W. 53d St., New York. 314 pp. Illustrated. 7 color plates. 10¼ in. x 7½ in. \$6.

When the famous exhibition *Picasso: Forty Years of his Art* was staged by the Museum of Modern Art in 1939, it was accompanied by an excellent catalogue. Mr. Barr's current book, which is a vast amplification of the first publication, adds the decade that included World War II.

Picasso has probably been more written about than any living artist and is notably a controversial figure. But whether you are owner of a Picasso library or simply an ignoramus in transition, this book is definitely on the must list.

Although the accompanying text is reserved in artistic criticism, it is very ably written, and the author succeeds in bringing to life Picasso's astounding versatility, the mercurial about-faces characterized by his early "periods" (blue, negro, etc.), his strong and unpredictable personality. Of greatest

interest, of course, is the work of the past ten years—much of it still unfamiliar to Americans. Supplementing the main body of the book are several pages of notes received too late to be incorporated in the text. Many of these are highly interesting and serve as valuable documentation, although fitting them in to the larger picture is a somewhat tedious job. Significant as ever are Picasso's own statements of 1923 and 1935 concerning his art which are fortuitously included. M.S.

**ART OF RUSSIA.** By Helene Rubissow. Philosophical Library, 15 E. 40th St., New York. 196 pp. Illustrated. 164 b&w plates. 11 in. x 8½ in. \$6.

Since the market is completely without up-to-date books on this subject, it is disappointing to discover what the Philosophical Library largely terms a "history of Russian art" in their advance publicity. Since there is no other writing, it is assumed that they mean the introductory text, which gallops from the thirteenth halfway through the twentieth century in 25 pages. Its inadequacy is positively startling. Baedeker is long-winded in comparison. What the "history" amounts to is a jumbled roster of artists' names with vague hints of their attachment to one group or another. It is not until she reaches the section on *Social Realism* that the author pauses to catch her breath. At last finding herself on surer ground, she states: "Stalin has designated the trend of art in contemporary Russia as 'social realism'. 'Social', communal, as contrasted with the 'individual.' . . . that is what is now of concern. Social realism is a successor to the realism of genre and subject . . . In accord with the times, the theme of social struggle was replaced with that of social construction. But the artist is almost completely controlled by the theme. He simply has no time to think of anything else. He is accountable—his 'line' is checked and 'straightened out' (by means of reprimand and a sermon) if it does not happen to coincide with the ideology and system of work of the State. The State Committee for Affairs of Art . . . sees to that. It organizes exhibitions, grants subsidies and stipends, manages the funds appropriated by the State for art. It also supervises schools, theaters and clubs." Though Miss Rubissow finds that artistic construction has bloomed since the thirties, she does a masterful job of fence-sitting, evading the issue and understating from there on. The result is zero.

As for the reproductions, which are pretty good, it is a pity that some, at least, are not in color. The range of artists, subjects and techniques is both impressive and significant. It's too bad that someone hasn't given it a little more sincere attention. M.S.

**FOR THIS WE FOUGHT.** By Stuart Chase. The Twentieth Century Fund, New York. 123 pp. 8 in. x 5½ in. \$1 Series of six book: \$5.

This book is the sixth and last of a series of reports written for the Twentieth Century Fund by economist Stuart Chase to give an understanding of the great issues of postwar America. Like its five predecessors, it is short (123 pp.), pithy and eminently readable.

Mr. Chase has the happy faculty, so often lacking in today's bewildering whirl, of presenting complex sociological and economic facts in easily understood form. Opening with an analysis of veterans' attitudes, he presents a summary of "What The Veteran Wants" distilled from a number of surveys. According to Mr. Chase, "Unemployment is the major worry, greater in veterans' minds than World War III."

With "What The People Want," Mr. Chase again summarizes a series of public opinion polls. ". . . By and large," he

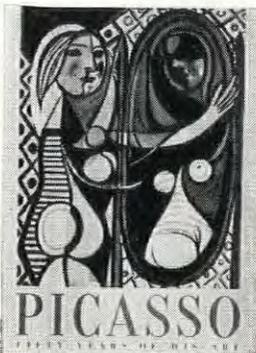
(Continued on page 120)



THE HISTORY OF IMPRESSIONISM

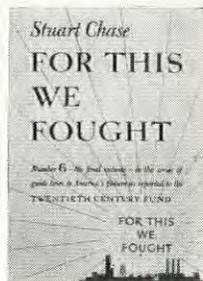
JOHN REWALD

THE MUSEUM OF MODERN ART, NEW YORK



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FIFTY YEARS OF HIS ART



FOR THIS WE FOUGHT

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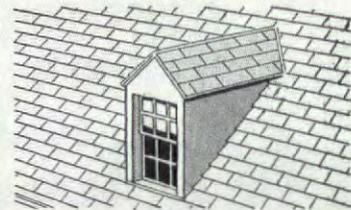
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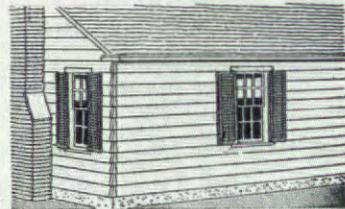
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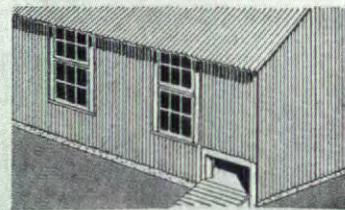
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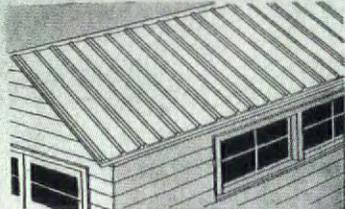
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says, “the rest of us want about the same things the veteran wants . . . The best form of security, the American people think, is the right to work continuously.” Close behind the demand for a chance to work comes “peace founded on some sort of world organization.” Concluding this section, Mr. Chase brings out one fact which might be pondered by many publishers: “Public opinion is changed by events, not rhetoric.” All of which, he concludes, “makes sound biological sense. If the people were swayed by every hurricane of political verbiage, the human race would long since have become extinct.”

Viewing the miracle of America’s wartime production record, the author convincingly blasts the theory that segments of the American people are “bums and loafers.” Given the opportunity, all America turned to work with a will, “destroying the notion that people who are not working are the kind of people who will not work.”

On the financial side, Mr. Chase gives an interesting explanation of why our national debt is so high. Quoting Daniel W. Bell, Under Secretary of the Treasury, he says during the war:

The government paid out	323 billion
Received in taxes	133 billion
—	
Leaving a deficit of 190 billion	

However, he points out, this deficit is not money that has disappeared into thin air. At the same time, the following equation evolved:

The savings of individuals and corporations increased by	182 billion
The savings of local governments increased by	8 billion
—	
Total	190 billion

Thus, says Mr. Chase, “if we had taxed ourselves, our corporations and our local governments enough, we could have paid for the war as we fought it.” But, he hastens to add, taxes on this scale would have been far too heroic as political medicine.

Chase believes that the country’s basic postwar problem is how to utilize the recent expansion of our working population from 45 to 65 million people. But just as important is the question of finding a psychological substitute for the wartime victory urge. “Morale,” he says, “has been described in the terms of a man’s behavior when working with his fellows for what he believes is a worthwhile goal. One cannot have this kind of morale by himself, it is a group phenomena—one cannot have it without a goal in which to believe.” The basic emotion controlling most Americans now is bewilderment. The coiled spring of the war effort which kept us united is now released. Now, too often, it is every man for himself.

Noting the troubles besetting us in the postwar conversion period, Mr. Chase concludes that we Americans “know what to hope for, but not how to get it.” He traces the cleavage between the desires of the American people and their legislators, pointing out, for example, the bewilderment of the average veteran who, after seeing the unbelievable efficiency of Army builders during the war, cannot understand why he can find no place to live today.

Mr. Chase believes there will be no real equilibrium, no “normal” period of any kind until —

The atomic bomb is neutralized.

U. S. — Russia relationships are straightened out.

(Continued on page 122)

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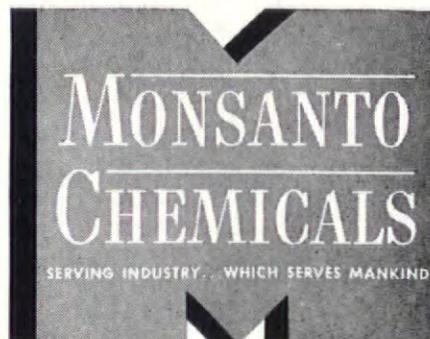
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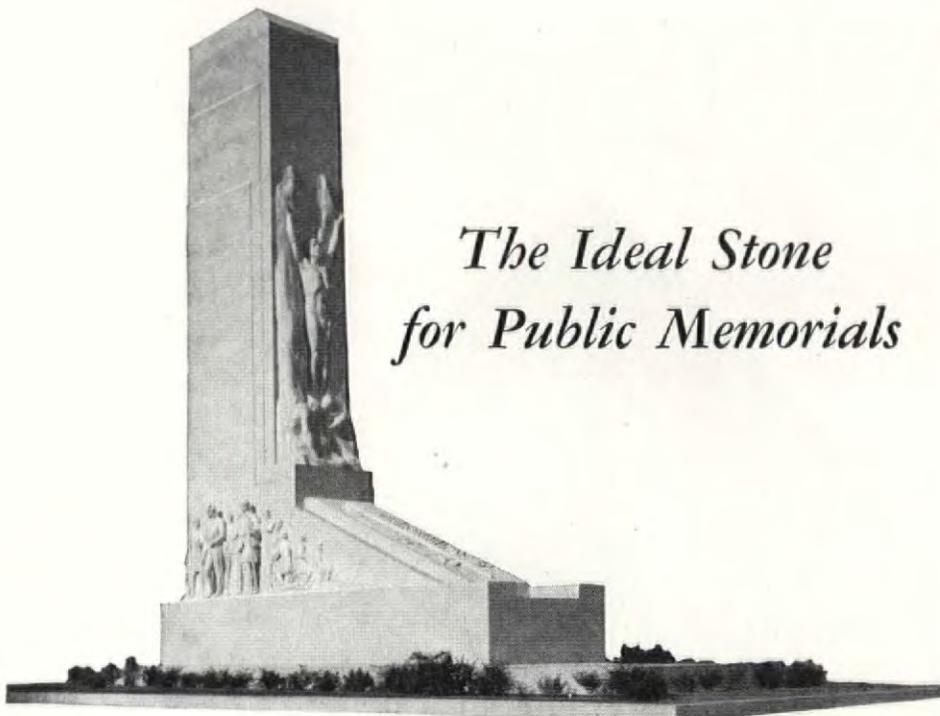
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He presents four alternate economic patterns for the U. S.:

Model A — Continuance of our prewar "mixed system" with government, business, labor unions, farm blocs and other groups all struggling for power with no sense of direction. Under this arrangement, nobody is really responsible for anything until a serious emergency hits us.

Model B — A mixed system with direction, which entails planning with some intelligence and foresight, similar to Sweden's "Middle Way."

Model C — An automatic competitive system, which the author believes is hardly the answer "since free competition in the classic sense has been losing ground since the 1870's."

Model D — An authoritarian state such as Russia's.

Reviewing all these possibilities, Mr. Chase ends by championing Model B, outlined as follows:

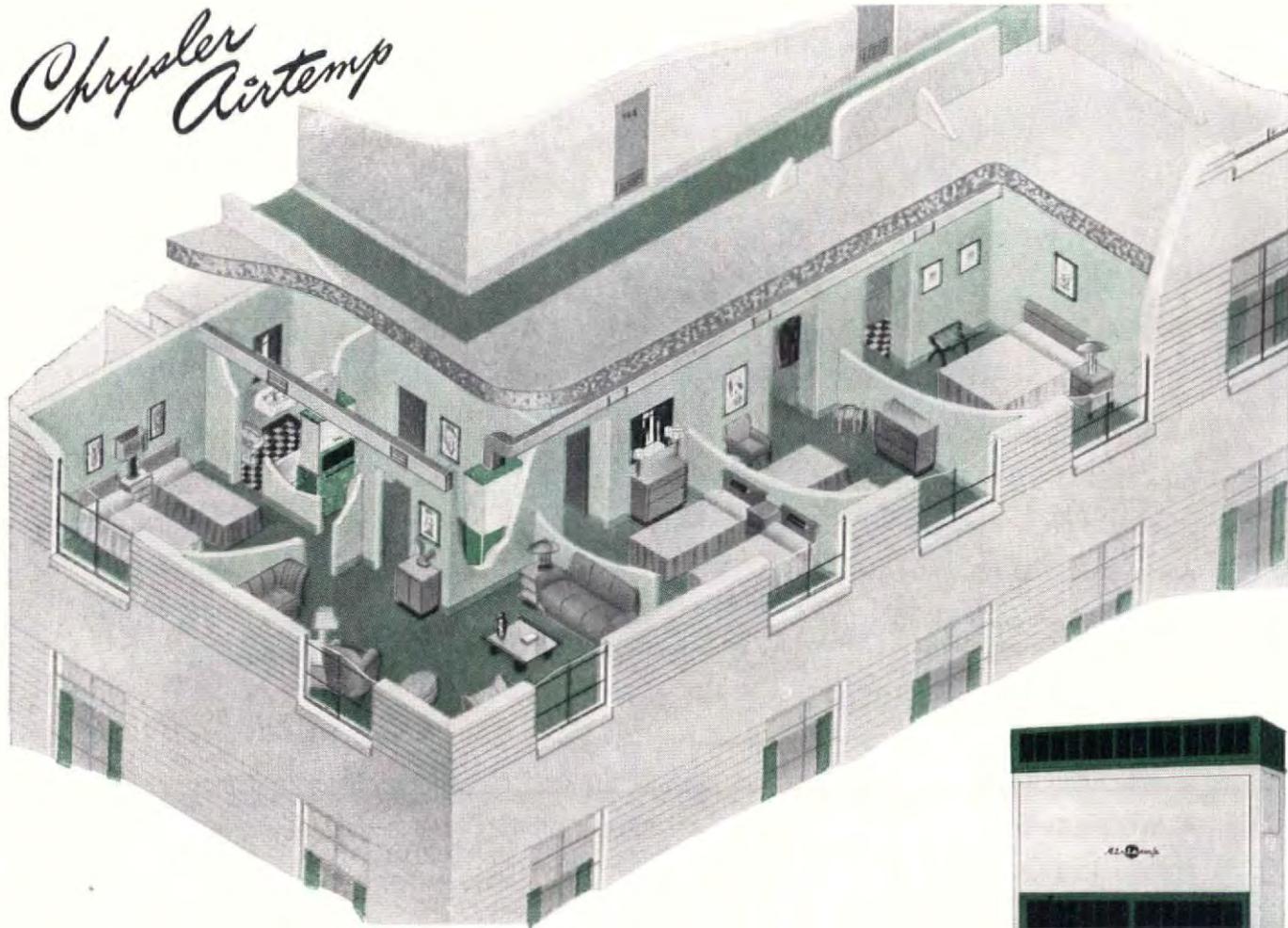
1. Smoothing of the business cycle by a series of compensatory devices including a full employment bill, incentive taxation, public works, control of foreign trade and investment, adjustment of income tax rates and social security tax rates.
2. A flexible double budget, where self-liquidating projects are kept out of the expenditure side and capital outlays are properly amortized over the life of the asset.
3. Social security for every American, including unemployment insurance, old age allowances, health insurance, aid for the handicapped.
4. The G.I. Bill of Rights for veterans, with special consideration for disabled veterans.
5. Minimum wage and maximum hour legislation, to put a firm base under the whole economy.
6. Housing for everyone. Government subsidies for families who cannot afford decent, sanitary houses.
7. Long-range conservation programs, such as TVA.
8. A practical formula for keeping strikes and lockouts at a minimum.
9. Government aid for scientific research — the development of peacetime uses for atomic fission, radar, rockets, microbiology, etc.
10. A national stabilization board, composed of economic experts who will constantly analyze national economic trends, furnish data concerning these to the public, the President and Congress.

But even such measures will be ineffectual, cautions the author, unless our national legislation machinery is overhauled. Examining Congress, Chase points out that "the chief effect of our political machinery is often to thwart the will of the people. In 27 out of 79 Congresses, at least one house of Congress has been of a different party than the President. A more exquisite method for smothering action is difficult to imagine."

In his final chapter, "E = MC<sup>2</sup>," Mr. Chase discusses the atomic bomb and its implications for the future. The major problem, as he sees it, "is whether the present leaders of man-

*(Continued on page 126)*

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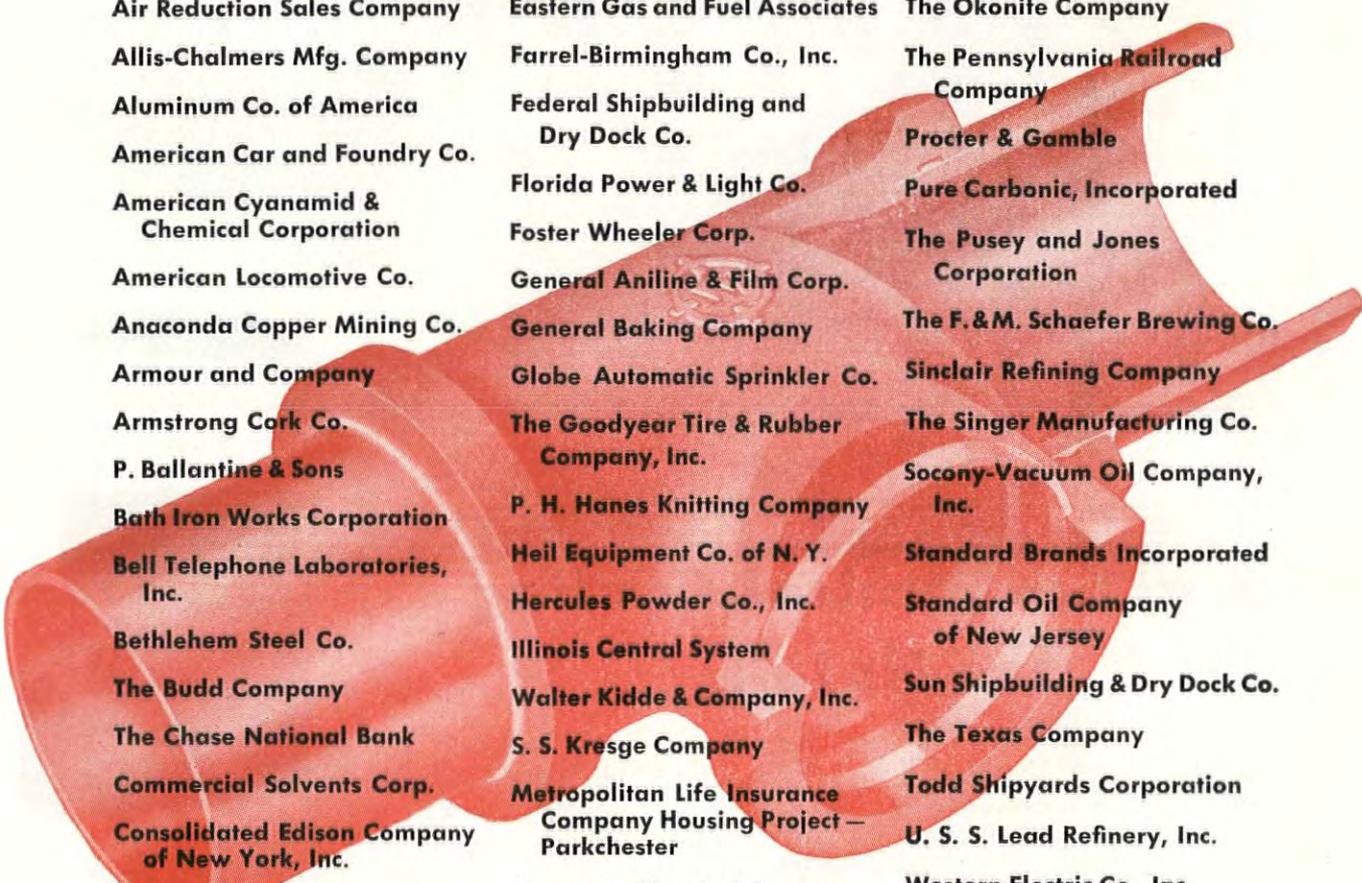
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Air Reduction Sales Company	Eastern Gas and Fuel Associates	The Okonite Company
Allis-Chalmers Mfg. Company	Farrel-Birmingham Co., Inc.	The Pennsylvania Railroad Company
Aluminum Co. of America	Federal Shipbuilding and Dry Dock Co.	Procter & Gamble
American Car and Foundry Co.	Florida Power & Light Co.	Pure Carbonic, Incorporated
American Cyanamid & Chemical Corporation	Foster Wheeler Corp.	The Pusey and Jones Corporation
American Locomotive Co.	General Aniline & Film Corp.	The F. & M. Schaefer Brewing Co.
Anaconda Copper Mining Co.	General Baking Company	Sinclair Refining Company
Armour and Company	Globe Automatic Sprinkler Co.	The Singer Manufacturing Co.
Armstrong Cork Co.	The Goodyear Tire & Rubber Company, Inc.	Socony-Vacuum Oil Company, Inc.
P. Ballantine & Sons	P. H. Hanes Knitting Company	Standard Brands Incorporated
Bath Iron Works Corporation	Heil Equipment Co. of N. Y.	Standard Oil Company of New Jersey
Bell Telephone Laboratories, Inc.	Hercules Powder Co., Inc.	Sun Shipbuilding & Dry Dock Co.
Bethlehem Steel Co.	Illinois Central System	The Texas Company
The Budd Company	Walter Kidde & Company, Inc.	Todd Shipyards Corporation
The Chase National Bank	S. S. Kresge Company	U. S. S. Lead Refinery, Inc.
Commercial Solvents Corp.	Metropolitan Life Insurance Company Housing Project—Parkchester	Western Electric Co., Inc.
Consolidated Edison Company of New York, Inc.	Monsanto Chemical Company	Westinghouse Electric Corporation
Continental Baking Company	The National City Bank of New York	Wilson & Co., Inc.
Corn Products Refining Co.	New York Central System	Worthington Pump and Machinery Corp.
DeLaval Steam Turbine Co.	Newport News Shipbuilding & Dry Dock Co.	
The Distillers Company		
Dravo Corporation		

\*Patented—Reg. U.S. Pat. Off

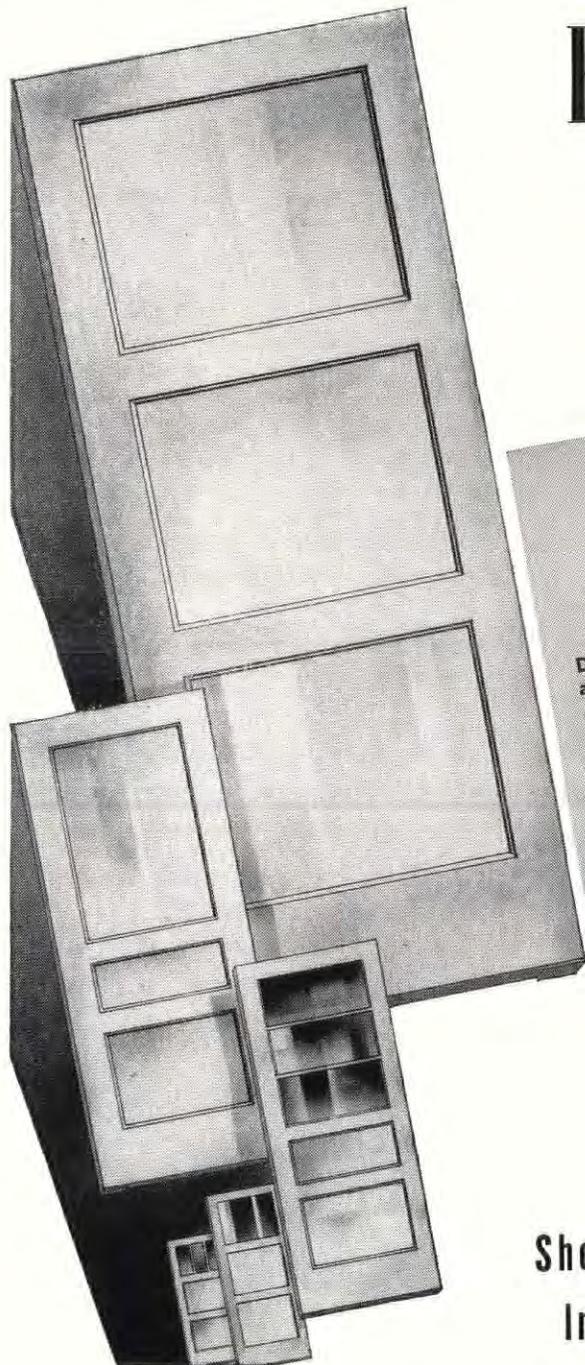
*Make it a "one-piece pipe line" with Walseal*

**WALWORTH**  
valves and fittings

60 EAST 42nd STREET, NEW YORK 17, N. Y.

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD

# These Features Make Douglas Fir Doors Easier and Quicker to Install



PRE-FIT

Douglas fir doors will be available pre-fit to exact book size . . . ready to hang without on-the-job sawing and fitting.

FACTRI-FIT

Douglas fir doors will also be available completely machined — not only pre-fit, but gained for hinges and mortised or bored for locks as well. Doors will be grade-marked, as in the past, for ease in specification and ordering. They'll be better doors in every way.

PRE-SEALED

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

## Shortage of Shop Lumber Is Critical Factor In Increasing Stock Door Production

Every fir door that can be made — with the amount of shop lumber being made available to the door factories — is being made. Production is slowly increasing but current demands for reconversion housing needs are so heavy that there are few doors for warehouse or dealer inventories, or for general building. But when present difficulties are overcome, more and more of these fine, precision-made Douglas fir doors will be available. The features outlined above — the greatest advance in stock door values in a decade — will assure you sturdy, attractive, durable doors, easier and quicker to install. Keep in touch with your regular source of supply!

**Douglas Fir  
DOORS**

Remember!  
NATURE MAKES  
DOUGLAS FIR  
Durable!

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

**FIR DOOR INSTITUTE**  
The National Association of  
Fir Door Manufacturers  
Tacoma 2, Washington

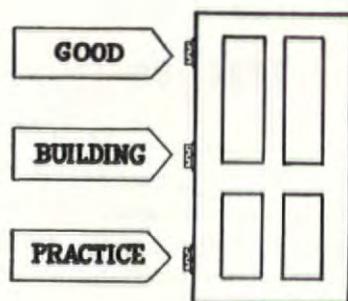


Three hinges to a door throughout the building is not only good common sense construction—but wise forethought.

It is the third hinge that precludes trouble later on by assuring free-swinging, smooth-operating, non-sagging doors for the life of the building.

It is the third hinge that costs so little extra at the time of building, but the lack of which may later cause a lot of unwelcome and sizeable expenses to the owner for re-aligning locks, correcting warpage and door sticking—and hardware replacements.

It is the third hinge on all doors that signifies to the owner your interest, carefulness and thoroughness which in the end saves him money and keeps him a satisfied client.



Be sure to recommend always, "three hinges to a door" throughout the homes of your clients. It is good building practice and to everybody's advantage.



kind, especially those of the Big Three nations, can really grasp the significance of atomic fission. If the bomb is considered as just another element in power politics, just another military weapon, a new Paleolithic Age surely awaits us." Making a plea that all world leaders be given a chance to view an atomic explosion, Mr. Chase says "our leaders must come to see it in its true dimension, a blinding, shattering force, ranking with the discovery of fire and agriculture. Words are thin measures. We must all see the unearthly glare, feel the shattering crunch as the energy is released. Only first-hand experience can hold us to the task of saving our civilization."

This book is an excellent summary of our people's postwar desires and the possibilities of attaining them. Stuart Chase undoubtedly belongs to that amorphous, economic-political group known as "Liberals." Yet many who label themselves "Conservatives" will do well to examine this work, for our public opinions often become political facts, however slowly. And to know where we are heading as a people is a worthwhile goal for every U. S. citizen, regardless of party loyalties.

In ending this series of books with a chapter on the atomic bomb, the author has shown commendable perception of the primary problem confronting all of us today. One wishes, however, that Mr. Chase had given this point cognizance thematically throughout the book. For all our past hopes of slowly working out the world's tangled economic, religious, sociological and political problems must now be reconsidered. Before the atomic bomb, and its twin horror, bacteriological warfare, one felt that, despite constant wars, man was gradually evolving a better world society. Today we must ask ourselves, "Have we time?" Until some form of universal agreement on atomic control is assured, most plans for the future seem meaningless. P.K.

**ELEVATOR MAINTENANCE RECORDS SHOW**

**OPERATIONAL REDUCTIONS OF 24% to 44% K.W.**

**WHEN EQUIPPED WITH ELSCO ROLLER GUIDES**

Reduce operational and maintenance costs and get smoother operation from new or old elevators. ElSCO Roller Guides roll on wheels on a dry, greaseless rail, eliminating kilowatt consuming friction and rail maintenance costs. Compensating arms are spring loaded to maintain constant contact and to take up rail inequalities. Approved by the Board of Standards and Appeals.

FROM ONE BUILDING REPORT "... we actually show an estimated saving of 44.6%."

FROM ANOTHER BUILDING REPORT "... our records now show a reduction in power consumed of approximately 30%."

PATENTED MANUFACTURED ONLY BY

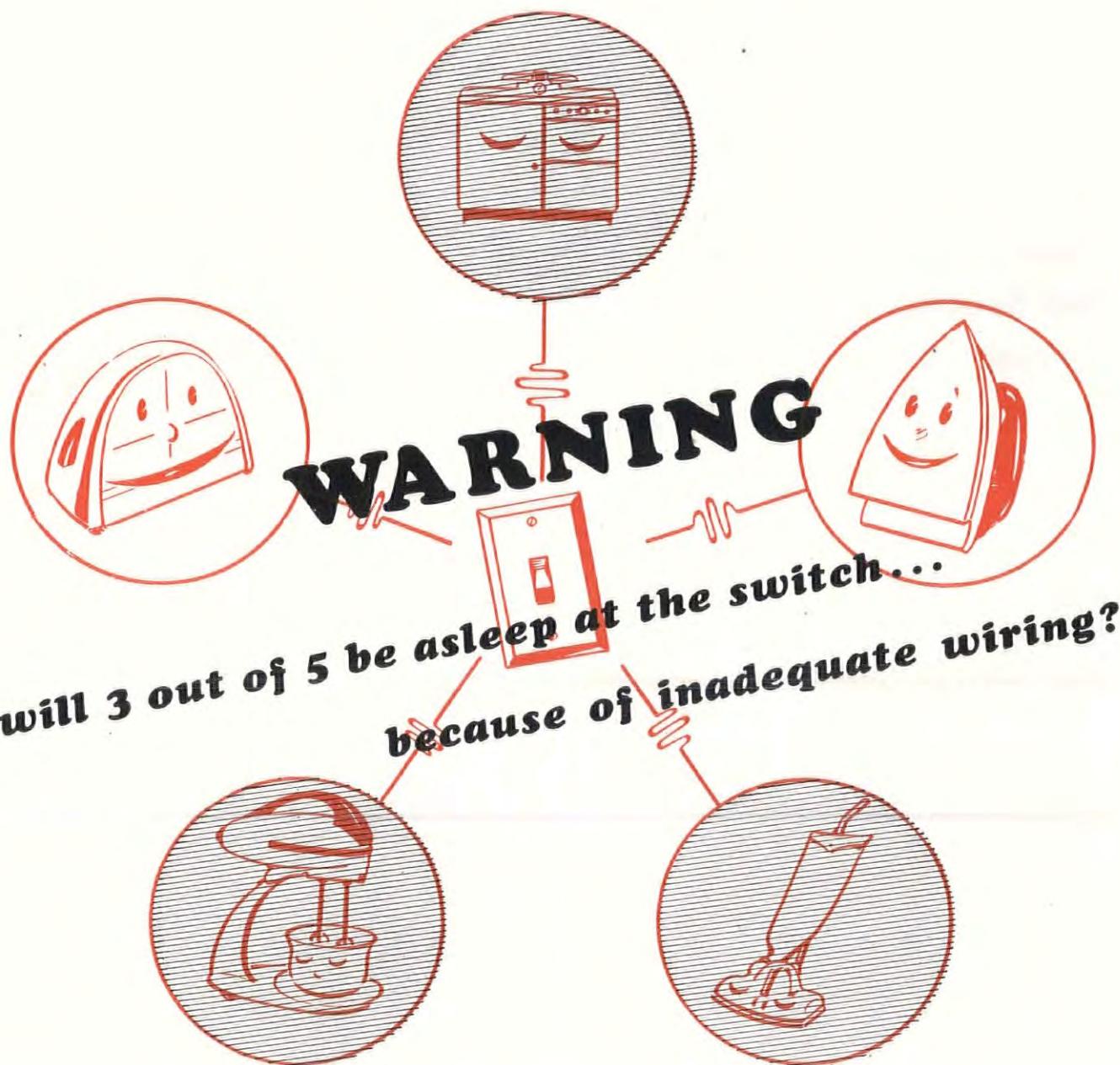
**ELEVATOR SAFETY CORPORATION—DEPT. A**  
165 BROADWAY CO 7-1433 NEW YORK 6, N. Y.

GREASELESS RAILS  
REDUCE FIRE HAZARD

ELIMINATES RAIL JOINT KNOCKS

GIVES SMOOTH GLIDING RIDE

FOR NEW OR OLD ELEVATORS



Homeowners want—and need—the kind of wiring that will give them the full benefits of modern electrical conveniences. No one is in a better position to show them how to obtain these benefits than you—the architects and builders of America's homes.

The promotion of adequate wiring can be one of your most powerful selling tools. It can help to show your clients the way to improved service and happier living. It's sure to help build confidence and to increase sales.

We have prepared a variety of useful booklets to help you sell adequate wiring to every type of owner. They explain why an adequate wiring system is necessary in modern homes—how to avoid having 3 out of 5 appliances asleep at the switch—why adequate wiring increases the investment value of homes. Ask your General Electric representative for them, or write to Section AW-14-1226, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Conn.

**GENERAL**  **ELECTRIC**

in floors, too...

# IT'S THE *Finish* THAT COUNTS!

For Tomorrow's  
Homes the Winner  
Will Be Bruce  
Finished Floors!

## 8 WAYS BETTER THAN ON-THE JOB FINISHES

- 1 Smooth Sanding**—Each strip sanded to perfect smoothness on multiple drum, precision sanders. No sander marks.
- 2 Prime Condition**—Finishing starts immediately after sanding, so no "raised grain." Moisture content of flooring is right.
- 3 Perfect Filling**—Highest quality silex filler is rubbed into wood as flooring moves down the finishing line.
- 4 Thorough Sealing**—Bruce Finish penetrates into wood pores... seals them against dirt and wear. Beautifies wood grain.
- 5 Infra-red Drying** applies heat uniformly... welds finish into a tough, even film. No "unfavorable drying weather."
- 6 Extra Buffing** with high-speed brushes burnishes finish into wood... provides a harder, smoother surface for waxing.
- 7 Superior Waxing**—Special wear-resistant Bruce Floor Wax is applied evenly, then polished with brushes and buffers.
- 8 Ready-to-use**—No waiting on the job for finishes to dry... no hazard of finish being walked on too soon. Ready-to-use immediately.



*America's  
Beauty  
Floors*

### *Worth Waiting For!*

The finest flooring in our history—Bruce Finished Flooring with the new Factory Finish—will be available as soon as manufacturing conditions permit. New technical developments will give Bruce Finished Flooring greater beauty, longer wear, greater cleaning ease. This is truly America's newest flooring sensation—worth waiting for.

**BRUCE FINISHED FLOORS**

# FOUND: 7% MORE LIVING SPACE

LOOKING for a way to get every last inch of space out of a housing project or an office or apartment building? Here's how the architects who designed New York's 295 Central Park West Apartments did it! By using the Gold Bond 2" Solid Partition System with its special adjustable metal base for simple speedy construction, the actual rentable space was increased 7%! The resulting walls, built entirely of metal lath and gypsum plaster, are fireproof, durable, and effectively cut down room-to-room noise. All component parts are Gold Bond Products, designed and precision-made for speedy efficient assembly on the job. You'll find drawings and specifications of the system in our section of Sweet's.



Descriptive book with full details will be sent gratis upon request. Please specify Form 1080.

You'll build or remodel better with Gold Bond

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

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

# FIAT Zephyr SHOWER DOORS

NOW AVAILABLE

The Fiat Zephyr is a high quality shower door designed for service in finest installations. Yet the moderate cost of the Zephyr permits it to be used extensively on all types of shower cabinets and built up showers.

Practical features in design and construction developed through twenty-five years' experience in building shower equipment are incorporated in the Zephyr door. For example—the water deflector with gutter prevents water dripping on the floor when door is open after taking shower, full length piano hinge, bullet type catches that eliminate possibility of door binding, and offset handles are features found only in the best type of shower door construction.

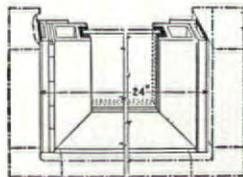
Economical manufacturing methods and volume production enable Fiat to offer to the trade a shower door of high quality at a moderate price.

#### CONSTRUCTION FEATURES

- Frame:** One-piece heavy aluminum alloy.
- Jamb:** Heavy aluminum alloy.
- Hinge:** Specially constructed, continuous aluminum piano hinge.
- Lock:** Two bullet catches, prevent door binding.
- Glass:** Clear glass, set into a heavy rubber "U" channel.
- Handles:** Special offset design on both sides of door.
- Water Deflector:** Made of heavy aluminum alloy with gutter to prevent water from dripping on the floor when the door is opened after taking shower.
- Grille Vent:** Horizontal aluminum bar.
- Finish:** Satin "Alumilite."

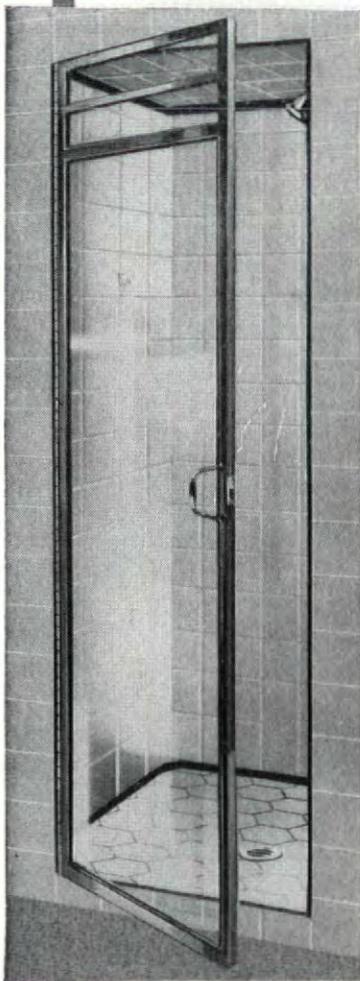
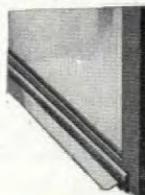
#### STANDARD SIZE

• The standard size (24" x 72") door is built to fit an exact opening 24 inches wide by 72 inches high. All other opening sizes require a specially built door. When ordering a door, state the size of the opening, model, hinging (either right or left when facing), and whether for tile, structural glass, marble or FIAT shower cabinet.



CONSTRUCTION DETAILS

The water deflector with gutter prevents water dripping on the floor when door is opened.



## FIAT METAL MANUFACTURING COMPANY

1205 Roscoe St., Chicago 11, Illinois  
21-45 Borden Ave., Long Island City 1, N. Y.  
32 S. Gabriel Blvd., Pasadena 6, California

## ANNOUNCEMENTS

THE THIRD ANNUAL PLASTICS SHOW and Convention of the Society of Plastics Engineers will meet at the Congress Hotel in Chicago, January 25-31. J. O. Reinecke of Barnes & Reinecke, Chicago is general chairman.

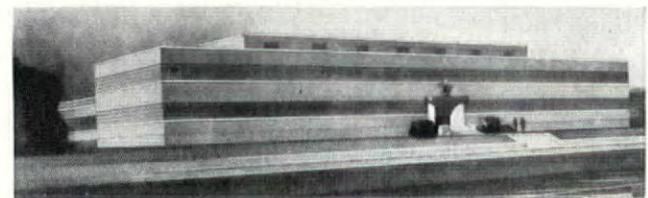
THE FIRST NATIONAL MATERIALS HANDLING EXPOSITION stressing material handling problems from the architect's viewpoint will be held at the Public Auditorium, Cleveland, Ohio; January 14-17. Information may be obtained from Clapp & Poliak, Inc., 37 Wall St., New York, N. Y.

#### BUILDING PREVIEWS



Construction on this \$20,000,000 FACTORY for GENERAL ELECTRIC CO. at Schenectady, N. Y. will be directed by Stone & Webster Engineering Corp., designers of the building. Unusually heavy structural steel frame, heavy foundations and extensive pilings (some reaching down 140 ft. to dead rock) are required to support its enormous machinery for the manufacture of steam turbines and electric generators. When completed, the structure will cover 19 acres, and will accommodate approximately 3,000 employees.

The new BAKELITE CORP. plant at Ottawa, Ill. (Giffels & Vallet, architectural engineers) are planning manufacturing facilities for production and pressing of Vinylite plastic films and sheets, as well as warehouses, offices and a cafeteria. F. H. McGraw & Co. will construct the building.



THE RESEARCH LABORATORY and EXPERIMENTAL CENTER (above) for Allegheny Ludlum Steel Corp. at Brackenridge, Pa. represents a major step in the company's expanding program of fundamental and applied research in specialized types of steel, as well as new and improved fabricating techniques. The two-story steel frame and brick structure will be completely air conditioned and equipped with double insulating glass windows and electrostatic precipitation of dust.

#### APPOINTMENTS

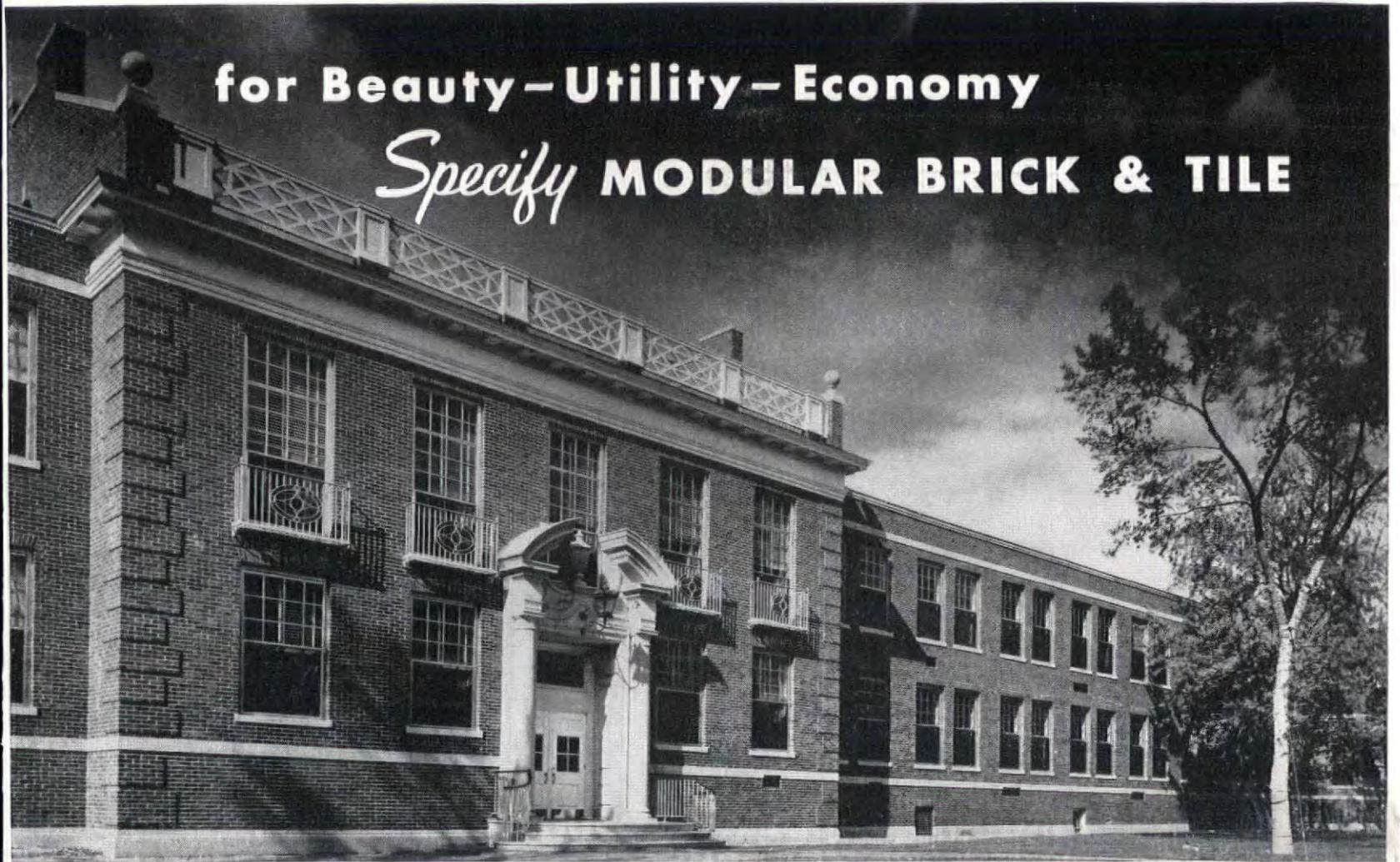
PRATT INSTITUTE, Brooklyn, N. Y. announces that, under the chairmanship of Olindo Grossi, its Architecture Department has made the following additions to the design staff: Walter Sanders, Philip Johnson, Caleb Hornbostel, St. Elmo Piza, William Breger and Konrad Wittmann.

THE UNIVERSITY OF OKLAHOMA announces the appointment of Bruce Hoff of Berkeley, Calif. as professor, Richard Kuhlman as assistant professor and chairman of the Faculty Administrative Committee, and Cecil Elliot as instructor in its Department of Architecture. Joe Smay has resigned directorship of the school but is continuing as a member of the teaching staff.

(Continued on page 134)

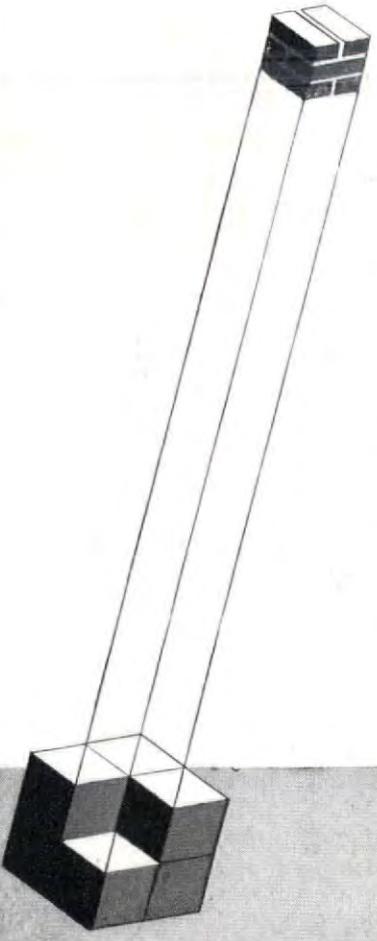
for Beauty—Utility—Economy

*Specify* MODULAR BRICK & TILE



ARMSTRONG, FURST AND TILTON

HEDRICH BLESSING



**For beauty—yes.** The beauty that's natural to brick and tile—that grows out of many color and texture combinations—that blends with almost any setting.

When you specify modular brick and tile, you give more than natural beauty to the buildings you design. Since brick and tile are so versatile, you can develop freely your own artistic conceptions and ideas.

**For utility—yes.** Brick and tile are among the most useful of structural building materials. Many different applications and designs are possible with clay masonry. Your clients get the advantages of almost limitless structural uses.

**For economy—yes.** At a time when building costs are high, the economy of brick and tile of coordinated dimensions is of special interest and value. There is more than enough brick and tile being manufactured for essential building at prices

which have risen but little when compared to other building materials.

Economy is achieved, too, through long-term returns on the original investment. Brick and tile are durable and have great structural strength. This cuts down repair and replacement costs.

When you specify modular brick and tile you promote savings in designing and site-erection time. You assure your clients economy of upkeep and great protection from fire.

Two FREE booklets are available to architects. One, "Modular Sizes of Brick and Tile," for those desiring to use these sizes in current design, and the other, "The ABC of Modular Masonry," for those interested in the development of coordinated dimensions. For either or both write the Structural Clay Products Institute, Dept. AF-12, 1756 K Street, N. W., Washington 6, D. C.



NOW IT WILL BE BUILT WITH MODULAR-DESIGNED

**BRICK AND TILE**

# This "new quality of living"



## TRIED . . . PROVED . . . SUCCESSFUL

*From Boston to San Diego . . .  
... From Bismarck to Miami*

**The Servel All-Year Gas Air Conditioner** is already operating successfully in hundreds of installations from coast to coast. Some have been running for more than four years. The equipment is tried, tested . . . and approved by users everywhere.



**It's always spring indoors** in this modern home at Enid, Oklahoma. Servel Gas Air Conditioning has been providing "a new quality of living" here since

# Increases home values



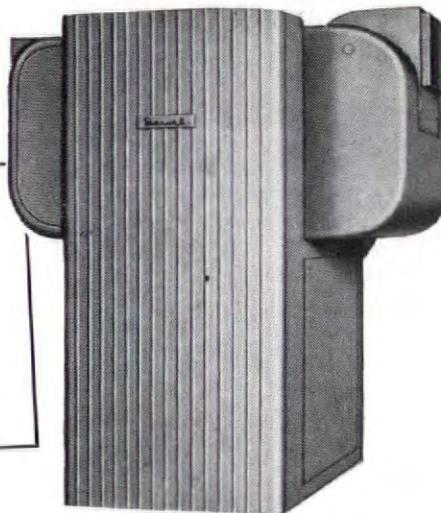
## Comfort is greater, resale price higher with Servel All-Year Gas Air Conditioning

When you specify Servel *All-Year* Gas Air Conditioning, you make it possible for your client to select just the climate he wishes in his home the year round. With the touch of a fingertip he can enjoy cleaned, cooled, thoroughly dehumidified air—refreshing as a mountain breeze—all through the hottest, sultriest summer weather.

And when winter comes, he can flood his home with clean, draft-free, properly humidified warmth—without leaving his living room! Winter, summer, spring or fall, a simple fingertip adjustment of the Selectrol control is all that's required to produce the desired temperature and humidity indoors.

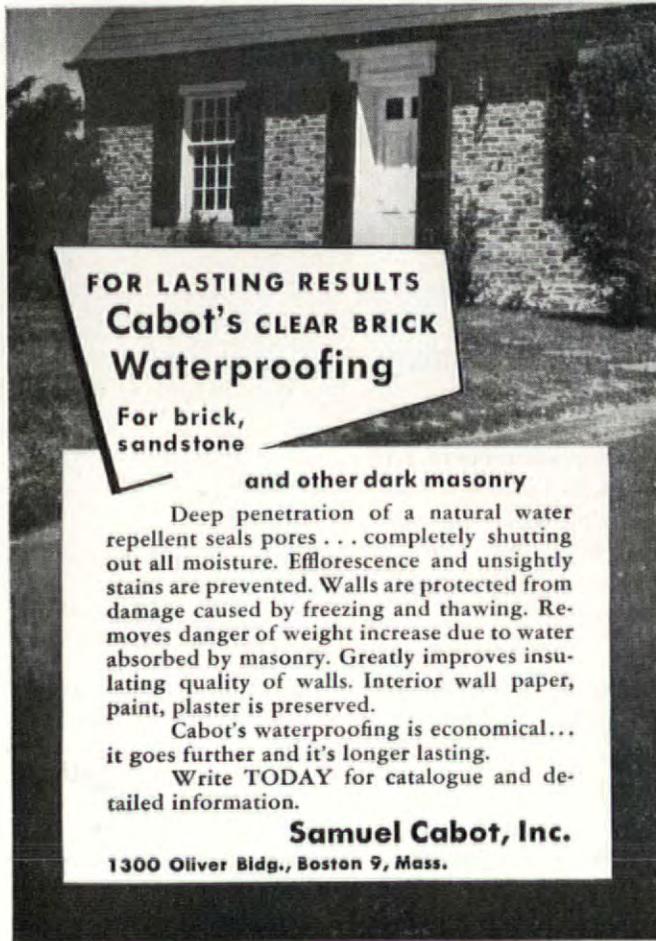
In providing home owners with this simple, efficient, and complete control of their indoor climate, you not only give them a wonderful "new quality of living," but you increase the investment value of their homes. Leading mortgage loan officers all over the country agree that no matter what other new developments in homebuilding are perfected during the next ten or twenty years, homes equipped with the Servel unit will still be up-to-date. And consequently will command a higher resale price over a longer period of time.

For further information on the year-round comfort and investment values of the Servel *All-Year* Gas Air Conditioner, get in touch with your local Gas Company. Or write direct to Servel, Inc., 2612 Morton Ave., Evansville 20, Ind.



# Servel

*All-Year* GAS AIR CONDITIONER



**FOR LASTING RESULTS  
Cabot's CLEAR BRICK  
Waterproofing**

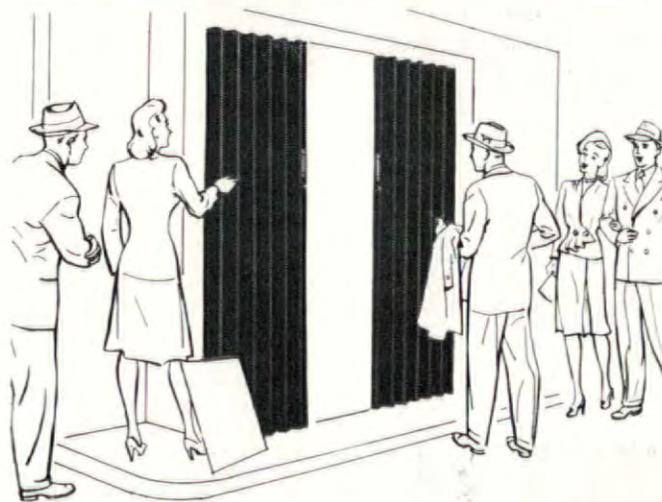
For brick,  
sandstone  
and other dark masonry

Deep penetration of a natural water repellent seals pores . . . completely shutting out all moisture. Efflorescence and unsightly stains are prevented. Walls are protected from damage caused by freezing and thawing. Removes danger of weight increase due to water absorbed by masonry. Greatly improves insulating quality of walls. Interior wall paper, paint, plaster is preserved.

Cabot's waterproofing is economical . . . it goes further and it's longer lasting.

Write TODAY for catalogue and detailed information.

**Samuel Cabot, Inc.**  
1300 Oliver Bldg., Boston 9, Mass.



### Include These Modernfold Advantages In Your Specifications

In your plans you'll find many places for Modernfold. This accordion-type closure is metal-framed with a beautiful fabric-covering. Inspiring beauty . . . of course! But it's practical, too. This efficient door eliminates the swing area of conventional type doors . . . saves space . . . and provides an efficient, economical means of room division. See how you can use Modernfold in living rooms, dining rooms, bedrooms, closets, etc. Also in commercial buildings. Write today.



**NEW CASTLE PRODUCTS**  
New Castle, Indiana

Dealers in all principal cities in the United States  
and many foreign countries

EDGAR HASTINGS, chief engineer of the Richmond, Fredericksburg & Potomac Railroad Co., has been named president of the American Society of Civil Engineers for 1947.

F. ELLIS JOHNSON, former dean of engineering at the Universities of Missouri and Wisconsin, is in charge of educational activities at the Hanford Engineer Works, Richland, Wash. This plant, organized for further development of atomic energy, has recently been taken over by the Chemical Department of the General Electric Co.

FRED KELLY, JR., has been named Editor of *Refrigerating Engineering*, monthly bulletin of the American Society of Refrigerating Engineers, New York City.

RICHARD BOOTH has been appointed head of Product Research at Van Doren, Nowland & Schladermundt, industrial designers of New York City and Philadelphia.

PAUL MACALISTER, former Navy Commander, is now manager of Interior Decoration and Industrial Design Departments at Montgomery Ward & Co., Chicago.

JACK KUSHIN, RA, is now associated with the office of Louis Greenstein, AIA, at 1322 Prudential Bldg., Buffalo 2, N. Y.

LESTER LUTHER, designer, and JUST TRIPPETT, lighting engineer, have joined Rink & Hoffman, store designers, Portland, Ore.

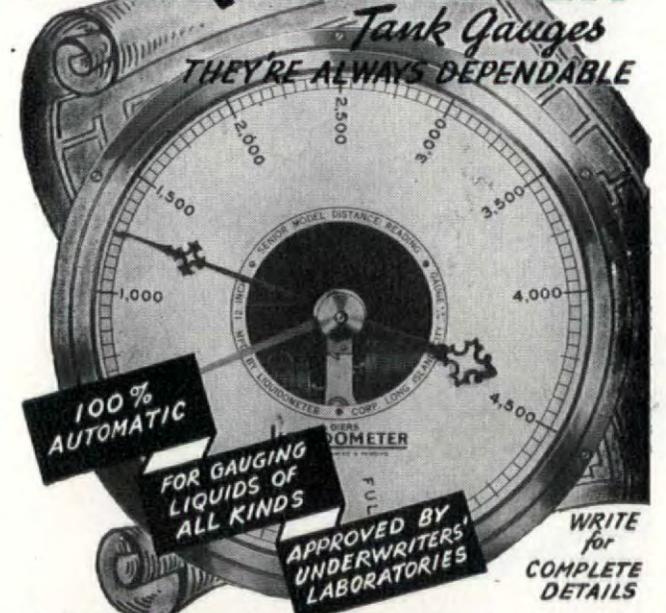
ARCHIE DOOLITTLE has been appointed assistant executive manager in charge of production for Eggers & Higgins, architects, New York, N. Y.

ROY SHIPLEY, president of the National Fireproofing Corp., has been elected president of the Structural Clay Products Institute.

(Continued on page 138)

**IN PLANNING AN INSTALLATION FOR  
STORING VALUABLE LIQUIDS—**

**Specify LIQUIDOMETER**



**Tank Gauges  
THEY'RE ALWAYS DEPENDABLE**

**100% AUTOMATIC**

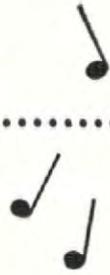
**FOR GAUGING LIQUIDS OF ALL KINDS**

**APPROVED BY UNDERWRITERS LABORATORIES**

**WRITE for COMPLETE DETAILS**

**"LIQUIDS WORTH STORING ARE WORTH MEASURING"**

**THE LIQUIDOMETER CORP.**  
36-30 SKILLMAN AVE., LONG ISLAND CITY, I.N.Y.



a  
**sound idea**  
 ...any way you  
 look at it!

**To Home Buyers**, a NUTONE Door Chime brings comfort. It's nice to look at and a pleasant relief to hear . . . especially when mounted at eye level on the wall.

**To You**, it brings appreciation. It's further evidence of your considerate planning.

**NUTONE Door Chimes** come in fourteen styles to suit every type of interior design and color. Prices, from \$3.95 to \$59.95 (list), make it easy to meet cost specifications on any kind of home.

**A New Folder** giving details on all fourteen NUTONE Door Chimes is yours for the asking. Please address your nearest NUTONE office.

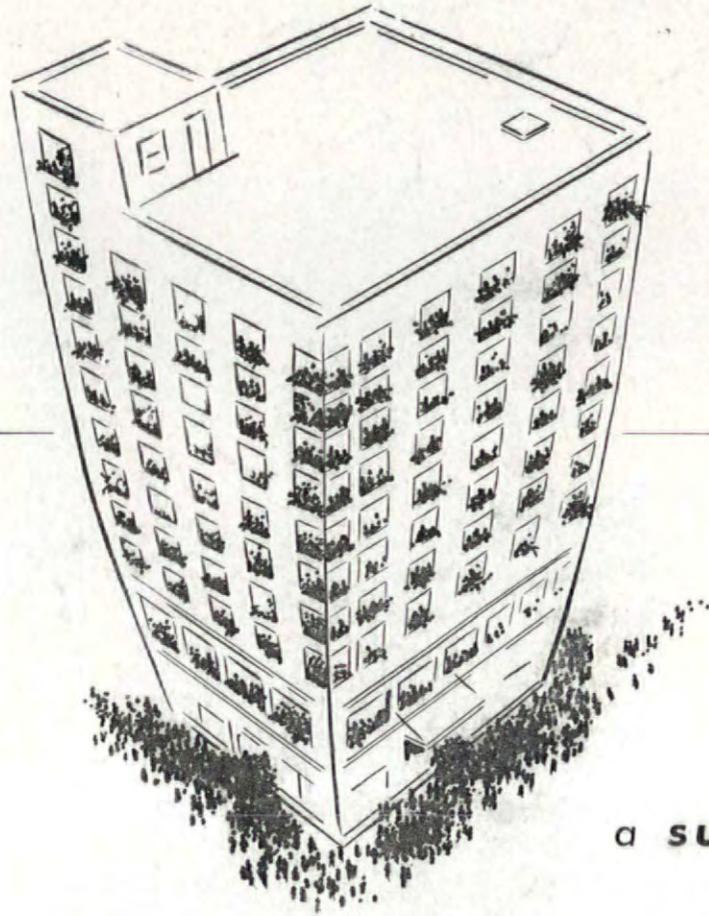
*...better living means  
 better listening, too!*

NUTONE IS THE  
 WORLD'S LARGEST  
 MAKER OF  
 DOOR CHIMES

**NUTONE**  
 TRADE MARK  
**DOOR CHIMES**



NUTONE INCORPORATED, MERCHANDISE MART, CHICAGO 54;  
 200 FIFTH AVE., NEW YORK 10; 931 EAST 31st ST., LOS ANGELES 11; TERMINAL SALES BLDG., SEATTLE 1



*a suggestion  
for over-populated  
buildings*

• Many business firms (like families) have had to "double up" . . . crowd extra personnel into offices already cramped because of inability to rent additional space.

Many apartment buildings are housing twice the number of residents for which they were planned . . . hotels are using every foot of available space to accommodate the unprecedented flood of travelers, sightseers and harried home-hunters.

In such over-populated buildings, passenger traffic may have become too heavy to be handled satisfactorily by the original elevator equipment.

There is a proven remedy for this condition. It is Otis Elevator Modernization. Hundreds of outdated or inadequate elevator installations have been

changed over, and the service improved, to meet the greater demand of present conditions.

In many office buildings a changeover to Otis Peak-Period Control has made possible faster and more efficient elevator service — in a number of cases even with fewer elevators.

An Otis survey of your elevator needs is the first step. For the finest in vertical transportation tomorrow, call Otis today.



ASBESTOS IN ACTION . . .

Looking for a  
"DIFFERENT" material  
that meets your  
three requirements?

K & M "Century"  
ASBESTOS CORRUGATED

Originally designed for industrial plant construction, K&M "Century" Asbestos Corrugated now finds increasing favor in such varied architectural usage as theatres, cocktail lounges, restaurants . . . and even women's specialty shops, as shown above! Seemingly, there's no limit to its application . . . it's a "natural" wherever these three factors are desired:

**1. Appearance**—Corrugations functionally provide structural strength . . . but also create a striking yet dignified decorative pattern that's pleasing to the eye . . . strikes either masculine or feminine motifs, as desired. Its neutral gray color blends well with any scheme . . . yet can be painted, if desired.

**2. Versatility**—Rugged asbestos-cement composition makes "Century" Corrugated equally well

suited for inside or outside construction, whether factory or fashion shop. Climate, local atmospheric conditions, other considerations are all the same to this versatile material. Comes in wide variety of sheet sizes.

**3. Economy**—It is moderately priced and keeps maintenance costs at an absolute minimum. Painting is unnecessary . . . it also resists fire, rot, rodents, termites, and corrosion. Time only toughens it.

Yes, "Century" Asbestos Corrugated is the material of the present . . . and even more so of the future. Write us for further information on the application of this time-defying material to your specific problems.

**KEASBEY & MATTISON**  
COMPANY • AMBLER • PENNSYLVANIA



## ANNOUNCEMENTS

**NEW!** another Miracle way  
to cut costs

**BOND FIXTURES  
FAST!**

NO DRILLING!  
NO SCREWS!



MIRACLE ADHESIVE holds fixtures firmly to any wall surface...anywhere.

MIRACLE is a quick-setting, war-tested, "on-the-job" adhesive requiring no heat or pressure to effect a lasting, waterproof, flexible bond. With it you can install metal, glass, tile, cork, plastics and wood without nails, screws, bolts or other disfiguring fasteners. MIRACLE speeds work and cuts costs on building and modernization projects!

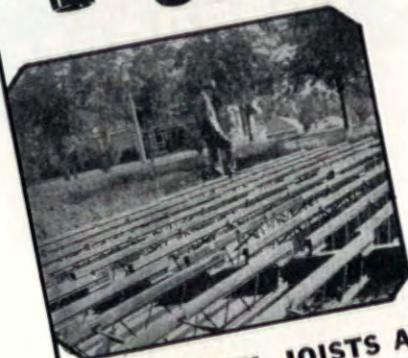
For full information and other time-saving applications, write to: Miracle Adhesives Corp., 852 Clinton Ave., Newark 8, N. J.



**Miracle ADHESIVES**



**LACLEDE  
STEEL JOISTS**



For Fast,  
Economical  
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Joists are shop fabricated to exact dimension to fit job requirements: Ready for placement.

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JAMES MACALARNEY, former Col., U.S.A. Engineer Corps, has joined F. H. McGraw & Co. engineers and constructors, Hartford, Conn.

JAMES JENSEN has been made assistant to the president of James Stewart & Co., Inc. engineers and contractors, N. Y.

RICHARD GEOGHAGAN has joined William Crow Construction Co., 101 Park Ave., New York 17, N. Y.

### NEW OFFICES

SERGE CHERMAYEFF, AIA, has reopened his office for the practice of city planning, architecture and industrial design at 307 E. 37th St., New York 16, N. Y.

RUNNELS & CLARK, ARCHITECTS & ASSOCIATES, have opened an office of architecture, city planning and design at 919 Baltimore Ave., Kansas City 6, Mo.

CARL SCHMUELLING, AIA, after 4 years active duty with the Seabees, has resumed practice at 6224 Kennedy Ave., Cincinnati 13, Ohio.

MAXWELL WRIGHT announces the opening of his architectural office in the Kales Bldg., 76 W. Adams St., Detroit 26, Mich.

ROGER NISSEN, AIA, has reopened his office at 345 Carroll Park West, Long Branch 4, Calif.

A. CARL STELLING and JOHN TREGENZA have formed an association for the practice of landscape architecture and site planning at 77 Park Ave., New York 16, N. Y.

HARVEY CLARKSON, AIA, and SERGE PETROFF, AIA, have formed a partnership with offices at 26 E. 55th St., New York 22, N. Y.

WALTER RABOLD, AIA, formerly with FHA, has resumed architectural and engineering practice, specializing in low-rent (Continued on page 142)

**THE MODERN WAY  
to Dispose of  
GARBAGE  
and REFUSE**

**Majestic  
Fuel-less  
Home Incinerator**



**NO ODORS ESCAPE**

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**LISTEN TO THE VOICE OF FIRESTONE MONDAY EVENINGS OVER NBC**

# BUILD FOR TOMORROW...WITH



The kitchen that  
will still be  
modern in 1957!

Planned according to the latest time and motion studies . . . this "New Freedom Gas Kitchen" design features an "island treatment" that is functional as well as attractive. Note how it is step-planned for an even flow of work from refrigerator to sink to range to serving area . . . how smartly it solves the problem of a convenient eating place that's not underfoot in the kitchen itself!

**21 MILLION PRE-SOLD CLIENTS!** Why do you suppose that more than four-fifths of all the urban and suburban families in America use Gas? Or to go a step further, why in a city like Chicago—where every type of fuel is equally available—Gas does the cooking in 96% of the homes! The answer is simple... *Gas gives more!* It not only cooks better meals but it heats water faster, provides trouble-free refrigeration, presents no dirt or

storage problems in house heating, even keeps the weather under control with year-round air-conditioning. Gas is clean, dependable, flexible, economical—and above all—*modern!* Yes! . . . all the things that comfort-conscious Americans want! But what's more important to you . . . installing Gas conveniences in the home you build today . . . means building the kind of long-lasting satisfaction that leads to *continued good business tomorrow!*

# WHAT THEY WANT TODAY!

*The 1947 refrigerator  
that gives women  
everything  
they want\**

<b>What they want according to recent consumer survey</b>	<b>How the new Gas refrigerator fills the bill!</b>
<b>Frozen food storage</b>	Gas refrigerator has big locker for storing up to 60 standard packages of frozen foods.
<b>Speedier ice supply</b>	Gas refrigerator freezes 10.1 lbs. at once in trigger-release ice trays.
<b>More room for more foods</b>	Gas refrigerator has 11-way shelf adjustment to accommodate all shapes and kinds of foods.
<b>Longer food freshness</b>	Gas refrigerator maintains <u>constant cold</u> ... has no on-and-off operation to endanger freshness.
<b>Moist cold compartment</b>	Gas refrigerator has two dew-action fresheners for crisping vegetables.
<b>Ease of cleaning</b>	Gas refrigerator has streamlined stain-resistant finish inside and out.
<b>Lasting economy</b>	Gas refrigerator has no moving parts to break down or wear out.
<b>Silence!</b>	Gas runs the <u>only automatic refrigerating system</u> that never makes a sound!



**GAS**  
THE WONDER FLAME THAT  
COOLS AS WELL AS HEATS

AMERICAN GAS ASSOCIATION



*What more could you want...*

than the refrigerator you can recommend without reservation . . . the new Gas refrigerator that costs so little to run . . . requires only the simplest connections . . . is compact and smart-looking in the finest new home—and—gives longer service with greater satisfaction!

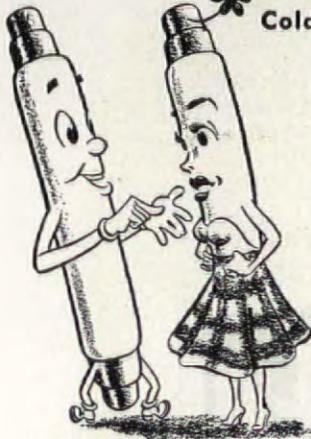
## ANNOUNCEMENTS

### FOOT CANDLES TALK!



with

### \*COLOVOLT Cold Cathode—Low Voltage Lighting



and here's what they say:

"Lower maintenance cost—longer maintenance of a given foot-candle level—greater dependability because of guarantee (One year of light guaranteed, except for failure due to breakage)—instantaneous starting—no flickering—continuous line lighting."

These extra advantages

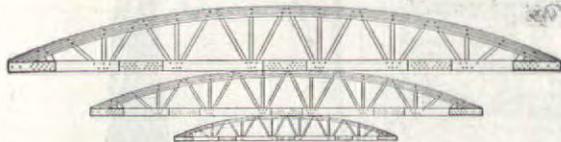
are available to commercial and industrial users of light when installations are made with COLOVOLT Cold Cathode, Low Voltage Fluorescent Lamps and Fixtures.

Write for illustrated material and technical data.



\* Trade Mark Registered U. S. Patent Office

**GENERAL LUMINESCENT CORPORATION**  
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apartment housing, at 245 Elmhurst Rd., Dayton 7, Ohio.  
KARL HOKE, architect, has reopened his office at 1514 Madison Ave., Toledo 2, Ohio.  
PAUL ROGERS, ASS. M. ASCE, plans to specialize in industrial plant design and will provide services for architects and contractors at 8 S. Dearborn St., Chicago 3, Ill.  
PACE ASSOCIATES offer services in planning, architecture and engineering, 53 W. Jackson Blvd., Chicago 4, Ill.  
ROBERT STREETER, ASCE, announces the opening of his office of civil, sanitary and municipal engineering at 214 O & S Bldg., Casper, Wyo.  
R. K. GRUBB & ASSOCIATES, industrial designers, have opened offices at 519 N.W. Park Ave., Portland 9, Ore.

### CHANGES OF ADDRESS

ALFRED GRANT, architect, is now located in the Midland Savings Bldg., Denver 2, Colo.  
ELMER TUTHILL, architect and engineer, has moved his office to 100 Summit Ave., Summit, N. J.  
VINCENT FURNO and RICHARD SNOW, architects, have moved their office to 120 E. 65th St., New York 21, N. Y.  
GEORGE PEPPER, JR., AIA, MAURICE FLETCHER, AIA and JOHN TAYLOR, AIA, have moved to the Lewis Tower, 225 S. 15th St., Philadelphia 2, Pa.  
LEONARD SCHULTZE & ASSOCIATES, architects, will be located at 119 E. 40th St., New York, N. Y.

### CORRECTION

FRANK WEISE should have been accredited as Assistant Architect-Planner in the article on the Michael Reese Hospital (September issue, p. 87).

## WHICH COLOR?

Here's  
the Answer!



### A "find" for the ARCHITECT!

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150 beautiful colors are displayed... Blues, Greens, Yellows, Grays, Browns... every tint from the palest to the darkest!

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ARCHITECTURAL

FLAT  
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THE TRULY WASHABLE FLAT PAINT

The new Mueller Climatrol Type 101 Gas-Fired Gravity Furnace: 2 sizes—maximum B.t.u. input 90,000 and 135,000. AGA approved for operation with natural, mixed, or manufactured gas, liquefied petroleum gas, and at high altitudes.

*Announcing-*

## The New Mueller Climatrol Type 101 Gas-Fired Gravity Furnace

— Provides clean, convenient heating with up-to-the minute efficiency for your "small home" clients

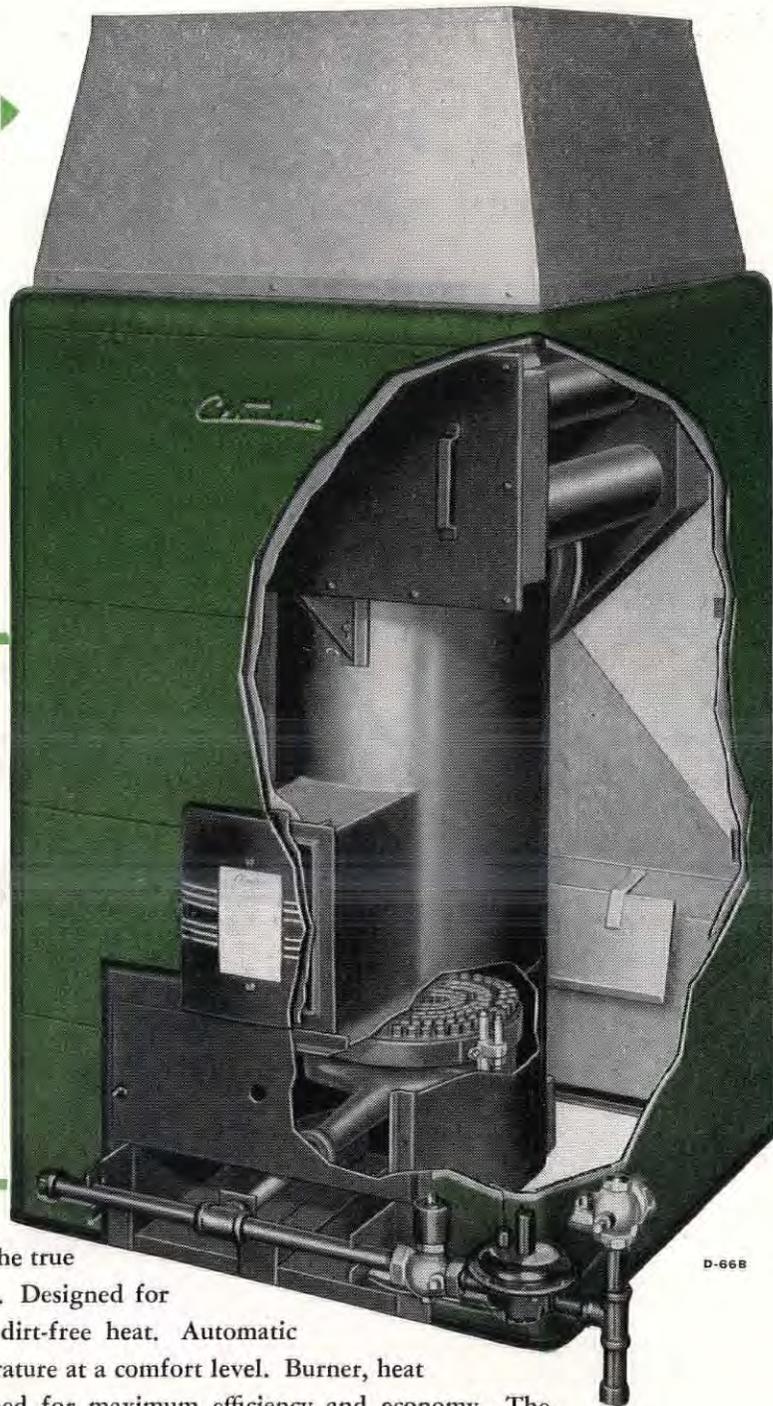
The new Climatrol Type 101 Gas Gravity Furnace gives your clients the true indoor comfort they demand today. Designed for gas, it furnishes clean, dust- and dirt-free heat. Automatic thermostat-controls maintain temperature at a comfort level. Burner, heat exchanger, and controls are designed for maximum efficiency and economy. The attractive styling and dependable performance of this new furnace win hearty approval of home owners. You can recommend the new Mueller Type 101 with confidence and pride, for the many small-home projects within its capacity range. *Write for complete information.*

L. J. Mueller Furnace Co., 2001 W. Oklahoma Ave., Milwaukee 7, Wis.



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*Climatrol*

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D-668

# *Announcement*

**EMINENT SPOKESMEN FOR THE UNITED STATES,  
ITS FORMER ALLIES, AND ITS FORMER ENEMIES  
WILL MEET IN  
CLEVELAND, OHIO, JANUARY 9, 10 and 11, 1947**

**FOR A**

# *Report from the World*

**UNDER THE JOINT SPONSORSHIP OF**

**TIME**  
THE WEEKLY NEWSMAGAZINE

**AND**

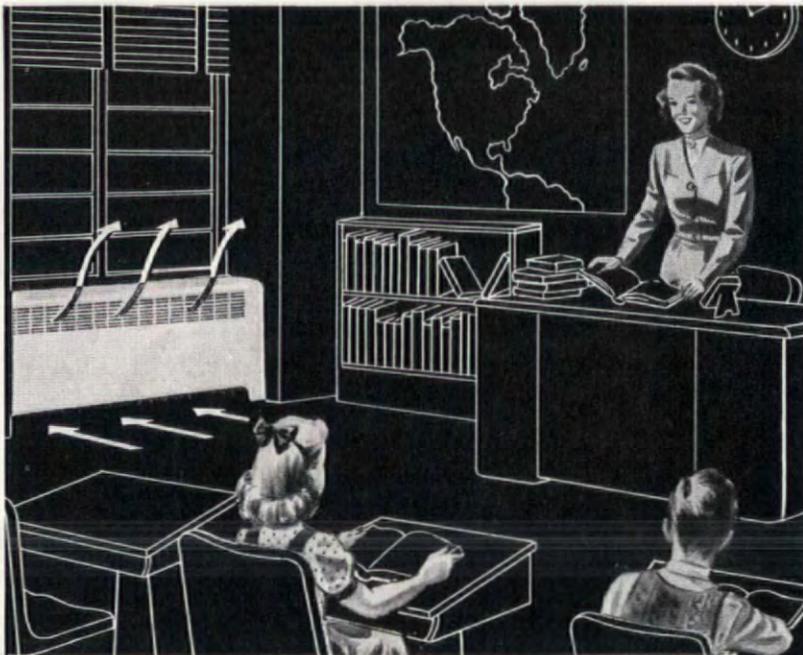
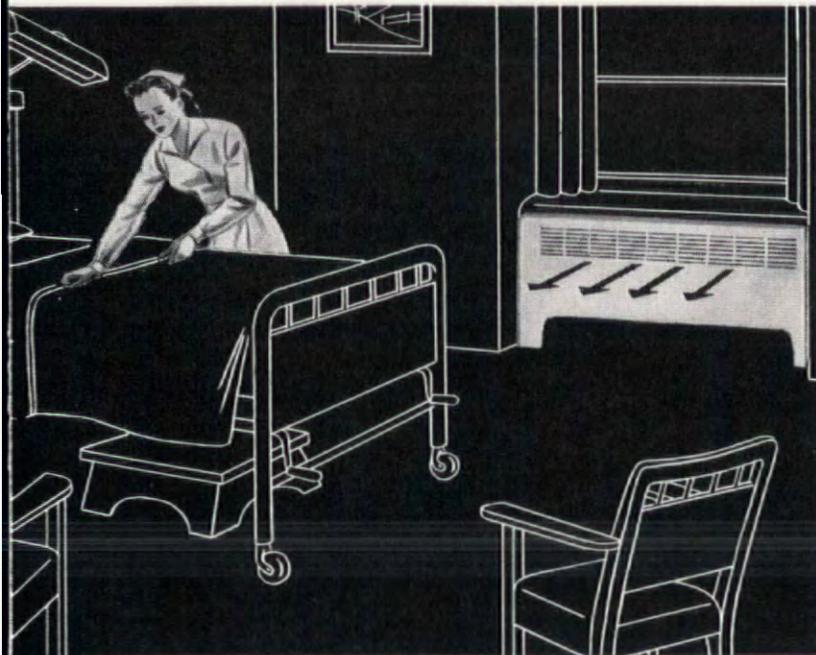
**CLEVELAND'S COUNCIL ON WORLD AFFAIRS**

---

*Purpose:* TO PUT BEFORE AMERICA THE FACTS SURROUNDING TWO URGENT QUESTIONS OF OUR DAY  
**WHAT DOES THE WORLD EXPECT OF AMERICA? WHAT IS AMERICA GOING TO DO ABOUT IT?**  
REPRESENTATIVES FROM ABROAD WILL REPORT WHAT THEIR COUNTRIES EXPECT OF US—IN MONEY, GOODS,  
AND ATTITUDES. U. S. LEADERS WILL REPLY . . . YOUR NEWSPAPERS WILL ANNOUNCE SPECIAL BROADCASTS

# TWO KINDS OF HEAT IN ONE GREAT MODERN BLEND!

*— that's what Modine Convectors offer you!*



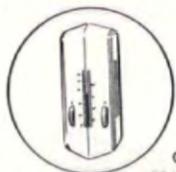
**1 RADIANT HEATING**  
Mild, radiant heat in just enough quantity to offset heat loss from window areas — that's what those arrows represent, coming from the Modine Convector Panel below the window. To this we add . . .

**2 CONVECTION HEATING**  
Warmed air gently circulated throughout the room by Convection heating. Hot water or steam passes through copper heating unit which draws cooler, floor-line air into bottom of convector where it's warmed, rises and passes out through grille.

**RESULT:** A modern, blended heating system for modern winter comfort — whether it's school, hospital, home or apartment! A heating system that gives you individual room control . . . gentle, draft-free air circulation without the use of moving parts that wear out! Yes, the dependable heating comfort, distinctive charm, space saving, cleanliness, and long service life of Modine Convector Radiation is recommended for all types of residential and institutional heating needs. Look for Modine's representative in the "Where to Buy It" section of your phone book. Write for complete information and free descriptive literature. MODINE MANUFACTURING CO., 1736 Racine St., Racine, Wis.



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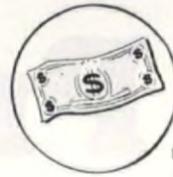
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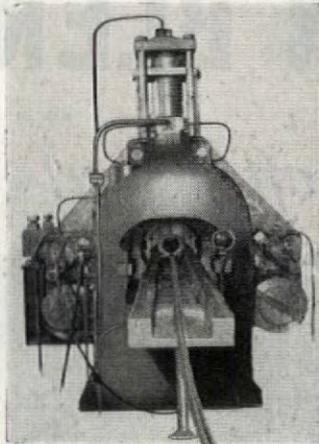


ADDS TO LIVING SPACE



PRICED FOR TODAY'S HOMES AND APARTMENTS

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



• Mammoth extrusion presses like the one illustrated above are putting on a gigantic "squeeze play" for **your** profit. Yes, in aluminum manufacturing plants all over America, component parts of Premier Aluminum Sash are being produced in ever-increasing numbers!

This means larger shipments to us—faster production by us—more complete stocks for you . . .

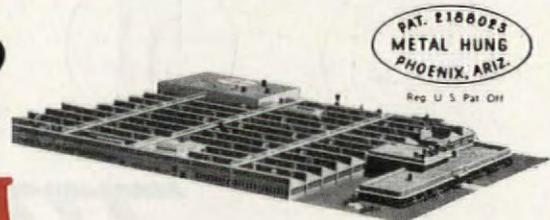
We are shipping thousands of Premier Aluminum Sash and Frames every week. Ask your jobber today about Premier Aluminum Windows . . .

Be sure that **you** have complete stocks on hand for the 1947 building season which starts soon. Insure larger sales and greater profits for your business with Premier—America's finest metal hung windows.

- Easy to Install
- Easy to Service
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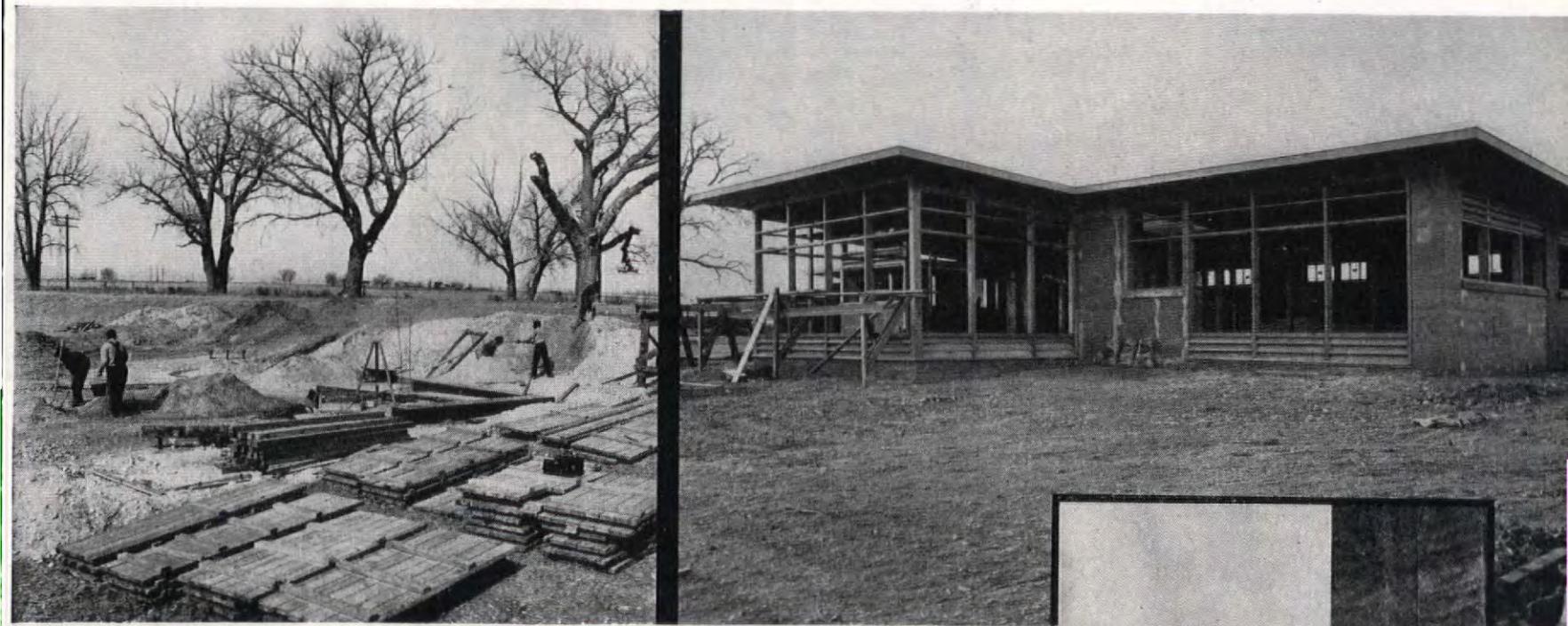
Contact your supplier for complete information or write PREMIER METAL PRODUCTS CORP. for descriptive literature, sizes, detail drawings, etc.

# Premier ALUMINUM Windows



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# PRODUCTS AND PRACTICE



**RAMMED EARTH**— One of man's oldest building materials — is used by a Denver engineer to build a modern house.

There is a perennial interest in rammed earth houses, based partly on the idea that they ought to be dirt cheap and partly on simple amazement that any material as loose and friable as soil could ever be made to hold up a roof. In times of materials shortages, the idea of building a house out of ordinary dirt has an irresistible lure. As a matter of cold fact, rammed earth construction (or *terra pise*, as the Spanish called it) has many merits. When handled with care and intelligence—as in the new house of David Miller at Greeley, Colorado—rammed earth yields handsome, strong and durable walls. Rammed earth's low heat conductivity makes it good for both hot and cold climates. Although not as cheap as might at first appear, on well-managed jobs it may run as much as 20 per cent lower than conventional methods.

The limitations of rammed earth construction are, however, severe. First of all, it is necessary to use suitable soil—preferably 70 per cent sand and small gravel to 30 per cent clay—and it must be carefully sifted, mixed, dampened, tamped and cured. Because of the necessary form-work and scaffolding, it is seldom economic to build earth walls more than a story high. Beams are impracticable in *terra pise* (although current tests indicate the possibility of reinforced earth beams of surprising strength) and any columns must be very large in section. Earth walls must rest on concrete footings well above finished grade and must always be protected by projecting roof or coping. Such limitations as these automatically limit rammed earth to buildings which are simple in both plan and

elevation, with a minimum of tricky detailing.

The Colorado house follows the latest practices in rammed earth construction methods. Topsoil was removed by bulldozer and subsoil massed for convenient sifting and mixing. Forms were prefabricated. Moisture content was controlled (the mix must be just moist enough to ball in the hand), as was the curing process (like concrete, the strength of rammed earth increases with age). Even the intensity of the tamping stroke was important (a heavy stroke yields a wall five times as strong as a light one). Compressed air hammers, equipped with special tamping heads, were used to compact the soil. And, in forming the wall, care was taken to keep the wall rising uniformly along its entire length.

Recent advances in soil engineering—especially wartime experience in airport, highway and dam construction—indicate considerable possibilities in earth construction beyond those indicated in the Boggs house. For example, the strength of earth walls may be increased by as much as 80 per cent, according to one authority, by reinforcing with vegetable fibre. The addition of cement to the soil mixture also increases its strength, although it apparently reduces the thermal resistance of the rammed earth wall. (Asphalt emulsions also strengthen soil mixtures but cannot be used in rammed earth because the mix is too dry; however, emulsions have proved a very valuable addition to adobe bricks, which are mixed at a mud-like consistency.)

Many authorities feel that no exterior protection is necessary for *terra pise* and point



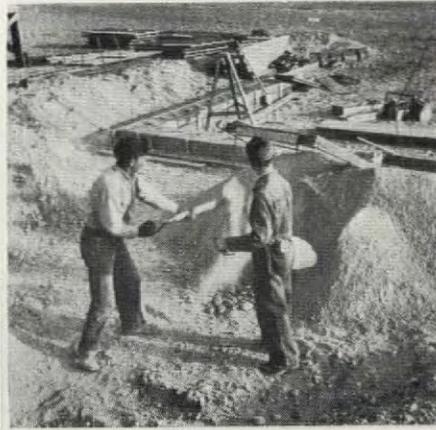
**DESIGNER BOGGS** plays a hose on a new earth wall to demonstrate its surprising resistance to weathering. Soil from the excavation (left above) was used to build the house at right.

to many structures which have endured for centuries without any surfacing. However, some finish is probably desirable, and several types are available. Cement stuccos are satisfactory but expensive because they require a reinforcing to achieve a permanent bond with the wall itself. Dagga plaster (a mud mix of three parts sand to one of clay) has been tested by South Dakota State College and found to make a handsome finish. However, dagga was not permanent unless (after a 10-day curing) it was sized and given two coats of lead oil paint. A very satisfactory alternative was found in the addition of asphalt emulsion to the dagga at the rate of  $\frac{1}{2}$  gal. per 100 lbs. of dry mix. This yielded a permanent finish with or without painting. According to the Department of Agriculture, the rammed earth wall may also be coated with sodium silicate or with paraffin dissolved in benzine. Or it may be painted with a formula of casein glue, trisodium phosphate, lime paste and formaldehyde—a mix which can be tinted any color desired.

**PRODUCTS & PRACTICE**



**TOPSOIL REMOVED** by bulldozer exposes subsoil suitable for rammed earth construction (7 parts sand to 3 parts clay and gravel).



**SOIL IS SIFTED** through coarse mesh to remove stones and debris. Aggregates can range from fine sand up to large gravel but finer particles must predominate.



**MIX IS DAMPENED** by hand. Unlike adobe, terra pise is barely moistened. Soils with high clay content are unsuitable due to high shrinkage and high erosion of clay.



**FORMS ARE OILED** before use to permit removal as soon as ramming is complete. Concrete footing is scored to assure good water- and frost-proof bond with the wall.



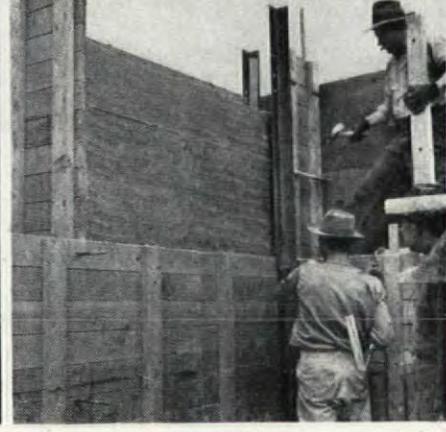
**FORMS ARE HELD** in alignment by vertical scaffolding tied by transverse rods. Holes left by removal of rods are plugged with dagga.



**SOIL IS CARTED** in wheelbarrows along ramps to point of ramming. This need for ramps and scaffolding sets practical limit of one story to use of rammed earth.



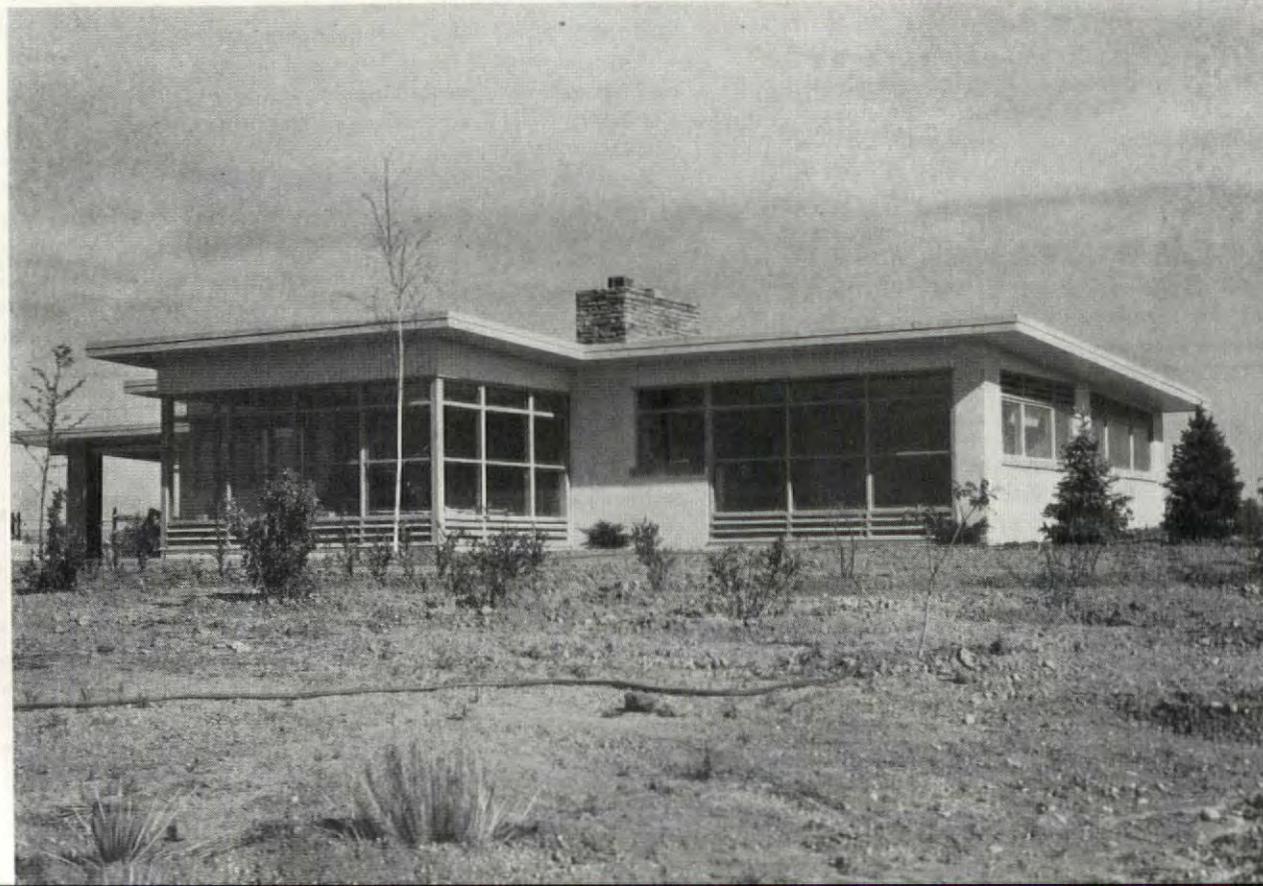
**COMPRESSED AIR HAMMER** with special head compacts soil. Each horizontal run, about 4 in. deep after tamping, is rammed in one continuous operation for each wall.



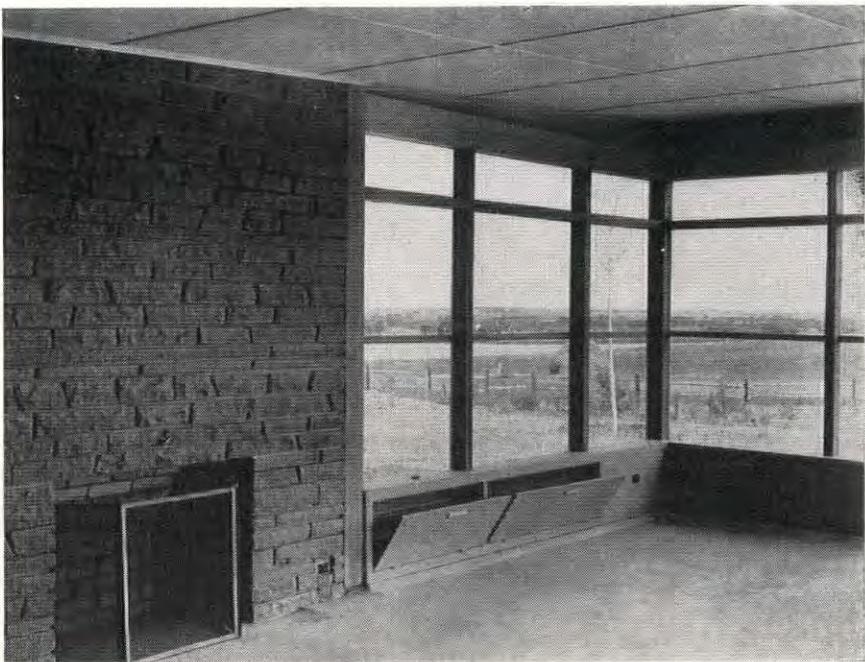
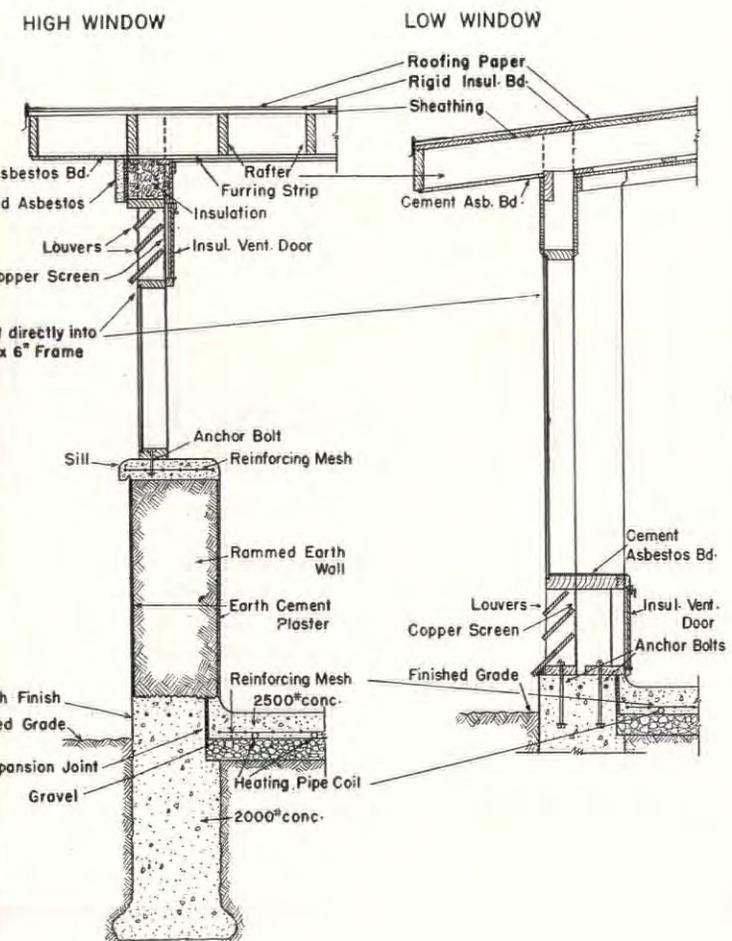
**REMOVAL OF FORMS** can take place immediately, though walls must cure before roof is framed. Initial set takes 10 days, but strength increases for several years.



**EXTERIOR SURFACING** on Miller house consists of dagga-cement plaster, brush-coated with water-proofing and finished with a cement base paint. Local failures in this finish led to tests of new formulae.

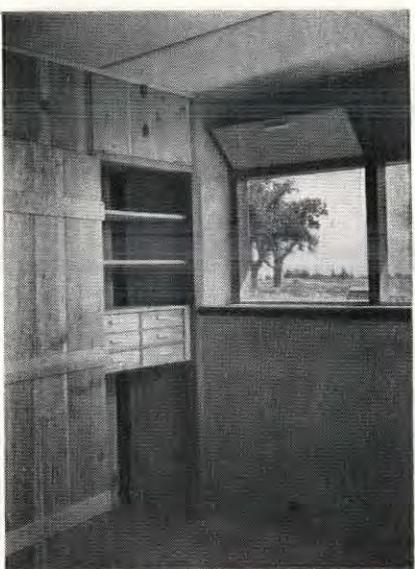


# RAMMED EARTH HOUSE



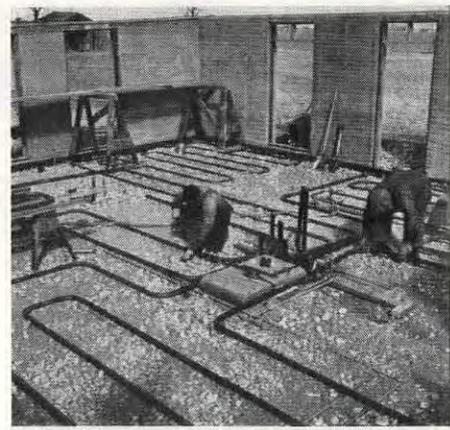
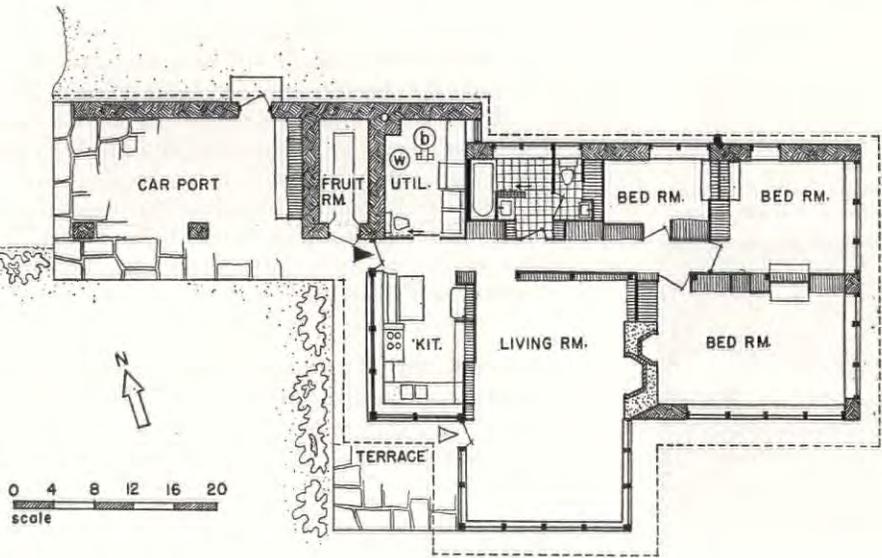
**LIVING ROOM CORNER** faces southeast and has floor-to-ceiling fenestration of simple design. There is no sash in conventional sense. Both the louvered ventilation panels and the glass itself are set directly in a dressed 2 x 6 in. frame. Where it abuts earth walls, this frame is bolted into a groove formed to receive it.

## SECTION

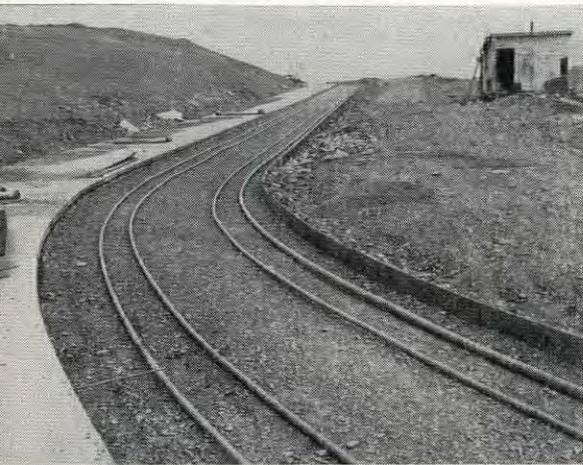


**SINCE INTERIOR WALLS** are exclusively formed by story-high cases of various sorts, the house has an unusual amount of storage space. Interior surfaces of earth walls are dagga plaster, waterproofed and then brushed with one coat of oil paint.

**PLAN OF MILLER HOUSE**, like its elevation, reflects need for simplicity in successful rammed earth construction. Most glass areas and irregularities are concentrated along south side, permitting continuous earth walls along other three sides, with fenestration held to a bare minimum on north. Intermediate roof support is by wood posts and all interior partitions are replaced by built-in storage units of different types. Three-way division of bath is ideal for family of several children.



**RADIANT FLOORS** in the Miller house are similar to installation (shown above) in second of four completed houses. All slabs are topped with integrally-colored cement.



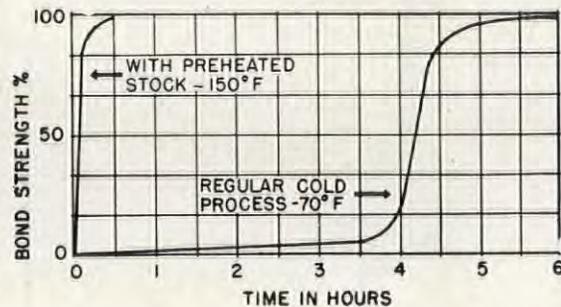
**SNOW MELTING ROADWAY** at American Cyanamid Plant designed to reduce winter hazards.

To eliminate snow and ice from a hillside roadway into their Bridgeville, Pa. plant, American Cyanamid Co. has installed this snow-melting system some 600 ft. long. Consisting of eight hot water pipes welded at each end to a 4 in. header, the pipes are so positioned in the 8 in. concrete pavement, that two pipes, 18 in. apart, fall beneath each wheel track. 165°F. water, heated by steam from the plant's boilers, will be circulated through the pipes approximately 50 gals. per minute against a head of 17 ft.

**"STORED HEAT" GLUING METHOD** facilitates fabrication, reduces bonding time.

Stored-heat method of gluing, using pre-heated stock for accelerating the setting reaction of resin adhesives, is providing fast, waterproof bonds stronger than the wood itself. Developed by I. F. Laucks, Inc., Seattle, Wash. and based upon the fact that wood retains heat, the new method is solving many tricky problems in the prefabricating and woodworking fields. For years, the use of heat as an accelerator has been employed in plywood manufacture, but its application for secondary gluing has been difficult and expensive. With the new method of preheating components before gluing together, however, heat can be stored and applied at the glue line where it is needed. In practice it has been found feasible to heat one of the surfaces to be joined; apply a special Lauxite resorcinol resin glue (which generates its own heat during setting) to the other unheated surface; then assemble and bond the two under pressure of 100-150 lbs. per sq. in. before glue pre-cures. Any of the conventional heating methods—steam plates, electric strip heaters, ovens, infra-red lamps, radio frequency equipment, etc.—can be used for the preheating operation. In general, panels are heated at a temperature of about 300°F in a two opening hot press under approxi-

mately 5 lbs. pressure per sq. in., with surfaces to be glued placed against hot press plates. To obtain the desired bond in a 2-minute assembly, panels are pre-heated—two per press opening—for at least 3 minutes. A typical example of operation is a West Coast prefabricating plant which makes wall sections as follows: Lauxite resin glue is applied to framing



members. Plywood panels are preheated in a 2-opening hot press for 3 minutes. Exterior panel is removed and placed in assembly jig, framing members are positioned and inside panel placed. Bonding pressure of 125 lbs. per sq. in. is applied for 2 minutes. In the meantime, the hot press is reloaded with more panels for preheating.

**BUILDING REPORTER**

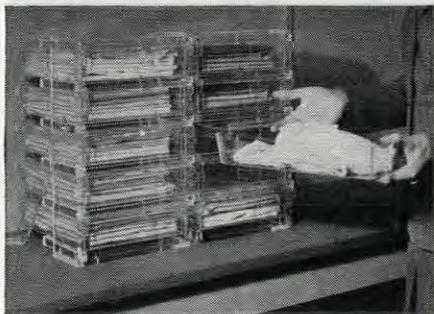
**TRANSPARENT PLASTIC STORAGE UNITS** permit full vision and easy access.



X	7	9	10	11½ in.
Y	9½	12	15	15
Z	1½	2½	4	4

MP Wall Units, a new line of interior store fixtures made of transparent Plexiglas or Lucite, places all forward merchandise in view of the customer and sales personnel. Actually a series of patented drawers set in plastic frames which can be incorporated in existing fixtures or used alone for full wall displays, they are adaptable to most types of folded ready-to-wear goods. Merchandise is maintained in neat, accessible order and is simply dispensed. Key to the new line is a one-piece plastic drawer with reinforced edges and a corner pocket for identification of goods. Resembling a box with top, the cover extends straight out to serve as a lever for removing the drawer. When merchandise is desired, the entire drawer with cover can be removed from the frame, or the drawer can be removed leaving the cover in place. Drawers lock in place automatically when replaced in frame. Completely flexible, uses of MP Units are numerous. Frames and drawers, ordered to size, can be installed in existing fixtures by removing original drawers and shelves. Or utilized in the open, they may be installed with bracket supports on counter tops. Also available is a unique counter display stand for small gadgets, utilizing 5 individual small size drawers in set back. Four standard-size drawers are available, special sizes can be furnished on quantity orders. *Manufacturer:* Merchandise Presentations Inc., 42 E. 51st St., New York, N. Y.

MP Wall Units, composed of plastic drawers and frames, are available with four size trays. Of patented design, these may be removed from frame with or without cover.



**DOUBLE-HUNG ALUMINUM WINDOWS**, at cost of wood windows, are easily installed.

Modern in design, durable and rustproof, the Premier Double-Hung aluminum window is built to compete with the wood window in economy. Equipped with spring-type sash balances for fingertip action and completely weatherstripped with stainless steel, it is glazed with (Continued on page 152)

# *Building Costs...*

## ...and Square D MULTI-BREAKERS



**MULTI-BREAKERS** deliver so much more convenience and protection, that many people think they must be expensive. That's not true. Properly planned, a home electrical system costs no more with Multi-breakers than with ordinary fusible equipment. Frequently less.

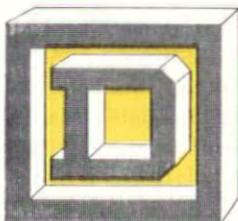
Multi-breakers afford complete electrical circuit protection and convenience. They eliminate fuses entirely. Provision can be made for additional future circuits, easily and economically.

Multi-breakers meet all of the 1946 National Electrical Code requirements for non-tamperable circuit protection.

For facts and figures, talk to your electrical contractor or your Square D Field Engineer.



*The **MULTI-BREAKER** eliminates fuses completely. When a short circuit or dangerous overload occurs, the circuit is cut off automatically. A simple movement of the lever restores current after the cause of the overload has been removed. There are no delays—nothing to replace.*



# SQUARE D COMPANY

DETROIT • MILWAUKEE • LOS ANGELES

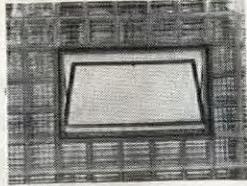
Neoprene in place of putty. Double-strength glass and an unobtrusive, positive lock are additional features. Two styles are available, a two-light double-hung unit or a four-light type with horizontal bars. Both styles are available with or without aluminum frames and can be installed alone or together with the frame in a few minutes. The new unit is adaptable to remodeling as well as new construction, and is available in 25 standard sizes.

*Manufacturer:* Premier Metal Products Corp., Sky Harbor, P.O. Box 1271, Phoenix, Ariz.

### STEEL WINDOWS AND BILTIN SUB-FRAMES for installation in glass block construction.

Five types of steel windows and biltin sub-frames are offered by Hope's for installation in glass block panels at the time of construction. One, a casement for use with 6 in., 8 in., or 12

in. blocks, is suitable for commercial, industrial or residential building. The other four types are projection units for use with 8 in. blocks only. Two of these are applicable to commercial and industrial work, the other two suitable for residential construction. The pressed metal sub-frames, designed for use with conventional glass block wall construction, may be supplied before windows or furnished as self-contained units with windows factory-inserted. They come complete with impregnated felt liners at jambs and sill serving as cushions to absorb the difference in expansion between glass block and steel sub-frame. Sub-frames and windows are bonderized and primed, and come equipped for screens.



*Manufacturer:* Hope's Windows, Inc., Jamestown, N. Y.

### SPLIT STUD speeds insulation application.

Designed for automatic welding in Nelson stud welders, the new split-stud secures rigid, semi-rigid or soft insulation, wires, metal lath, wire mesh and many other materials to metal supports or surfaces. Resembling a cotter pin, the closed end is welded to the surface, leaving the split end projecting. Insulation is impaled on the projecting stud and the split ends bent over to secure the material. Using a Nelson portable stud welding gun, welding is accomplished at the rate of 100 to 200 studs per hour, the weld cycle being automatic. The operator merely loads the stud and protective ferrule into the gun chuck, places the stud against the surface to which it is to be welded, and pulls the trigger. Nelson split studs are available in diameters from 1/8 in. to 1/4 in., and in lengths up to 3 in.



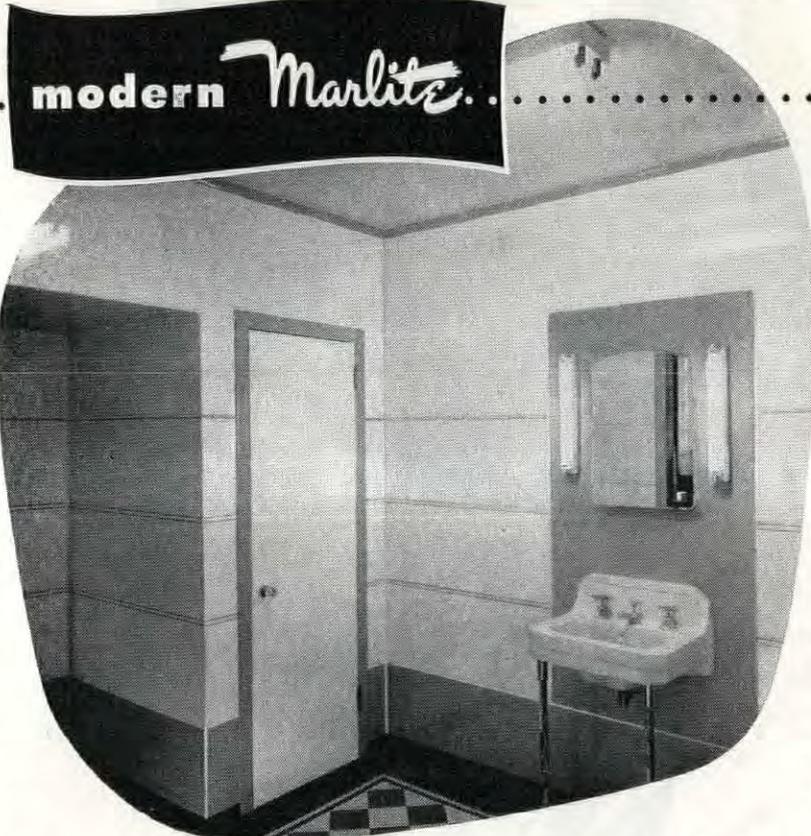
*Manufacturer:* Nelson Sales Corp., Lorain, Ohio.

### SLIDING DOOR HARDWARE, easily installed, provides smooth, quiet operation.

Har-vey sliding door hardware is designed for hanging interior and closet doors weighing up to 100 lbs. Incorporating balanced design, ball bearing assembly and simplicity of construction, it assures smooth rolling, quiet operation and easy, low-cost installation. Two types of hangers are offered for use on either single or double by-passing doors: a non-adjustable unit, and an adjustable hanger which allows 1 in. for clearance as a leveler. A patented lock on each hanger holds it in rigid position and a flip of the finger releases the latch so door may be removed. Hanger-wheel is indestructible vulcanized fibre, mounted on ball bearing assembly. Hanger and door plates are bronze. Track is made of structural aluminum and is stocked in 6 ft. lengths, with special lengths up to 12 ft. available on order. Har-vey sliding door hardware comes packaged: includes track, hangers, plates and screws. *Manufacturer:* Metco Sales Corp., 807 N.W. 20th St., Miami, Fla.

### RIGID PLASTIC WALLBOARD, in unusual colors and patterns, for walls, furniture, store fronts.

Lavernite Rigid Plastic is a semi-structural building board suitable for walls of foyers, kitchens, bathrooms, and other places subject to hard wear, weather, water, dirt, grease, etc. A plastic lamination incorporating the color range and patterns of Marbalia wallpapers (B.R. 9/46), it is decorative, fireproof, weather-, acid-, and grease-resistant. It can be applied to plaster, wood, metal, etc., using a special adhesive. and due to the 1001 colors in the Marbalia line, comes in numerous unusual color com- (Continued on page 156)



modern Marlite.

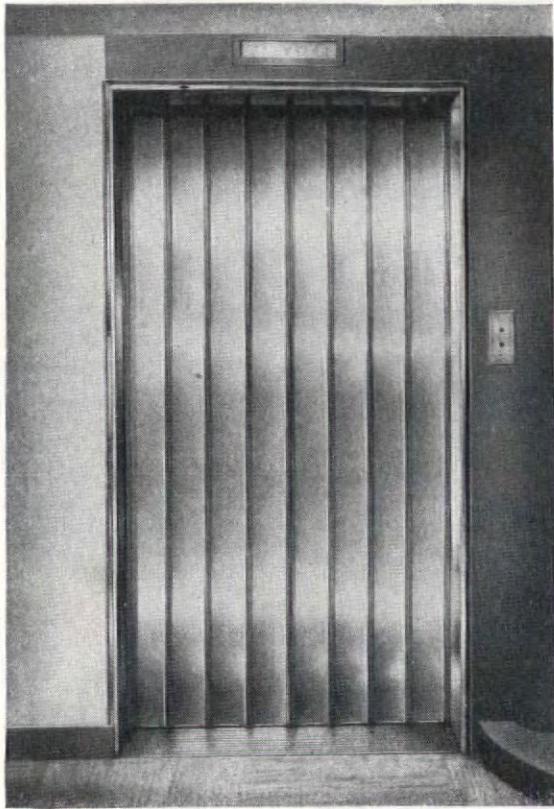
•• your line to least client resistance ••

Specify an interior decorative medium that generates client enthusiasm and satisfaction wherever it's installed. That's the record of Marlite wall and ceiling paneling with its host of applications for all types of rooms in all types of buildings. Also, Marlite's wide selection of colors and patterns gives you the design freedom you need to create tomorrow's interiors. • Once installed, over old walls or new, Marlite's smooth, easy-to-clean, long wearing surface delivers the kind of service that brings lasting client satisfaction . . . and the kind that satisfies you that "you're RIGHT with MARLITE!" Marsh Wall Products, Inc., 121 Main St., Dover, O.

**NOTE TO PATIENT CUSTOMERS:** We're doing our best on deliveries. Marsh Mouldings and Mastic are immediately available, and all Marlite deliveries are gradually improving.



FOR CREATING BEAUTIFUL INTERIORS



## The SKY'S *the* LIMIT



There are very few factors that limit the profit possibilities that follow in the wake of Lobby and Elevator Entrance Modernization. You can check this statement in a preliminary way by getting shoppers' reactions on a busy day. Case histories show that good elevator service pays off in satisfied customers and greater sales. Dahlstrom has contributed its skill in design

and manufacture on a great many elevator entrance modernization jobs in every section of the country. Again, may we remind the profession that Dahlstrom continues to maintain its design service. It is available without charge or obligation. A few minutes spent with your Dahlstrom representative can get the job started and save you time and money.

*Illustrated above:* Dahlstrom elevator entrance in Neiman-Marcus, Dallas, Texas.  
LaRoche and Dahl, Architects. Eleanor LeMaire, Designer.  
Extruded bronze fronts, finished in dull nickel plate.

# DAHLSTROM

METALLIC DOOR COMPANY, JAMESTOWN, N. Y.

*Branch Offices:*

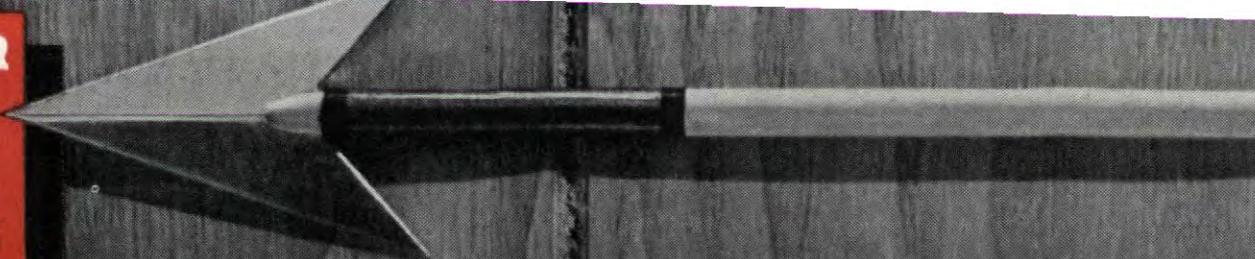
NEW YORK, CHICAGO, PHILADELPHIA, BOSTON, CLEVELAND, BUFFALO, ATLANTA, SAN FRANCISCO

*Representatives in Principal Cities*



### STRIPING DESIGN FOLDERS

showing a wide variety of suggested designs for moderate cost installations are yours for the asking. In many cases, architects will find these folders of considerable interest. Write for copies.



WATCH FOR OUR  
ADS IN THE  
SATURDAY EVENING  
**POST**

When a manufacturer asks you to "watch for our ads in the Post," he's calling your attention to the *best* kind of local support.

For advertisements in the Post reach your *best* customers—the *leaders*, who are first to buy the new and better things.

And advertisements in the Post get attention. For people like to read ads in the Post—far more than in *any other magazine*.

THE SATURDAY EVENING  
**POST**

# NOW..

## TRANE STANDARDIZES the Convector-radiator for Installation Direct from Stock

### Here's what standard means

- 1 element for both steam and hot water.
- 1 cabinet style installed 2 ways.
- Sizes that fit most applications.

### NEW MASS PRODUCED DESIGN FITS MOST HEATING APPLICATIONS

Here is the *standard* convection heating unit long demanded by architects, engineers, contractors, and wholesalers! In the new Type A design, Trane presents a Convector-radiator that operates equally well on steam or hot water—can be installed either free-standing or recessed—and is available in a range of sizes fitted to the needs of cottage, factory, or skyscraper.

### READY FOR INSTALLATION

Now, for the first time, Convectors-radiators will be available from local wholesalers' stocks as a unit package completely assembled and ready for installation. Featuring Trane developments that reduce on-the-job time to a minimum, the new Type A units are mass produced for maximum economy—now cost no more to buy and less to install than old-fashioned radiators.

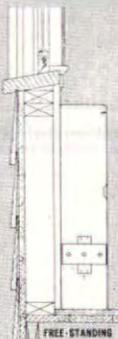
### FOR THE UNUSUAL APPLICATION

Easy to specify, purchase, and install, Type A Convectors-radiators are designed for the great majority of installations. However, for the unusual or special application, Trane still makes available the same extensive special purpose line that established Trane leadership in the convector field.

See your local wholesaler or nearest Trane field engineer for details of the new Type A Convectors-radiator.

### HOW THE TRANE CONVECTOR-RADIATOR CAN BE INSTALLED TWO WAYS

The same cabinet can be installed either as a free standing or recessed unit without change and with no difference in performance.

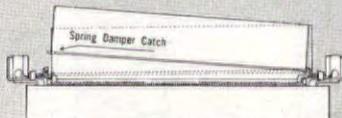


FREE-STANDING



RECESSED

### HERE'S A PLUS FEATURE



Dampers for the positive control of heat can be obtained and installed in two minutes without tools. Operated by an adjustable chain through the grill, these dampers give instant response without the use of valves.



For a complete description of the entire Trane Convectors-radiator line, write for Bulletin DSB-380.



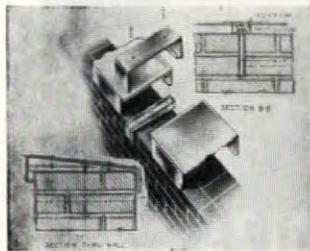
**THE TRANE COMPANY**  
*The House of Weather Magic*  
LA CROSSE • WISCONSIN  
TRANE COMPANY OF CANADA, LTD., TORONTO

MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT

binations. A series of Pennsylvania Dutch scenes is also available. Lavernite Rigid Plastic can be used for furniture such as table tops, counters, etc., and, being weather-resistant, for colorful store fronts. Three size sheets are available: 4 ft. x 6 ft., 3 ft. x 3 ft., 24 in. x 31 in., in three thickness: 1/16 in., 3/32 in., and 1/8 in.

*Manufacturer:* Laverne Originals, 225 Fifth Ave., New York, N. Y.

**PREFABRICATED METAL COPING reduces building costs.** Produced in a series of standard sizes and profiles to fit most coping jobs, the Goodwin Lifetime Metal Coping can be quickly assembled and installed by a sheet metal worker. It is composed of four prefabricated metal parts and requires no caulking or special tools for erection. Corner miters are fabricated at the factory, eliminating site welding. On a new brick wall, installation begins with setting of anchor bolts in



the two top rows. On existing walls, holes may be drilled and anchor bolts set. A formed metal channel fastens to the anchor bolt and longitudinal sheets with crimped edges hook over the gutter bar of the channel to form a tight joint. A safety cover, held firmly in place by two screws, slides over this joint forming a tight seal with ample room for expansion and contraction. According to the manufacturer, the simplicity of the Goodwin Metal Coping design cuts installation costs to a minimum. Present production in many corrosion resistant metals such as aluminum, copper, Monel, stainless steel, etc., is concentrated on 12½ in. and 8½ in. widths for standard walls. Special sizes and designs are also available.

*Manufacturer:* Overly Manufacturing Co., Greensburg, Pa.

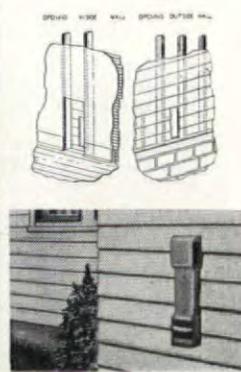
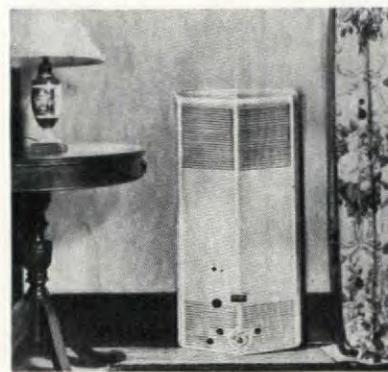
**RADIANT BASEBOARD for heating installations where greater out-put is required.**

Hy-Power Base-Ray, a more efficient radiant baseboard incorporating a series of vertical fins on the back of the unit, with air inlet opening at the bottom and air outlets near the top, delivers approximately 60 per cent more heat than the standard baseboard heater (B.R. 6/45). Developed for heating large areas, rooms with wide window expanses or minimum baseboard space, it operates on hot water, two-pipe steam or vacuum systems. No structural changes are required for its installation, the heating



unit simply replacing the conventional wooden baseboard. Hence, it may be used in new construction or modernization work. Hy-Power measures 7 in. high and 2 in. thick, and installs on one or more of the outside walls. Valves and controls are concealed by a metal enclosure shaped like the unit at each end, and an ordinary wood molding installed at the top of the unit completes the baseboard effect.

*Manufacturer:* Burnham Boiler Corp., Irvington, N. Y.



**GAS-FIRED SPACE HEATER for small houses, attics, offices, eliminates flues, ducts, pipes or chimneys.**

Saf-Aire, a completely self-contained gas-fired space heater, can be installed between the studs of an outer wall to draw air for combustion directly from the outside, and to exhaust all gaseous wastes to the outside. Incorporating a special Lundstrum Safety Vent, placed on the exterior of the building, the unit is assured proper draft and venting regardless of wind direction or air turbulence. The vent housing, measuring 6¾ in. wide, 21¼ in. long and protruding 2 in. from the wall surface, may be painted to conform to exterior walls. Easy and inexpensive to install, the simple and compact heater operates on natural, manufactured or liquid petroleum gas. It has a sealed, all-aluminum combustion chamber, and exhaustive tests

(Continued on page 160)

Photo by F. S. Lincoln



## "SMART" SPECIFICATIONS

North and East wall shall be covered with Tigerwood Flexwood, vertical grain, as selected by Architect from flitch sample to be submitted.

upholstered in Leatherwall with blind fastenings.

Floor shall be Leatherfloor in 8" blocks, applied to ¾" Weldwood sub-floor.

Dado on curved wall forming South and West sides of room shall be Leatherwall #382, applied in a flush treatment directly on plaster. Leatherwall above dado shall be corded in 16" squares and cemented to plaster. Chair rail shall be

Desk top to be covered with Leatherwall, specially treated for that purpose in accordance with manufacturer's specifications. Curved desk apron to be covered with matching Tigerwood Flexwood, bonded to ¼" Weldwood.

**UNITED STATES PLYWOOD CORPORATION**  
Dept. F, 55 West 44th Street, New York 18, N. Y.

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

Leatherwall and Leatherfloor are manufactured by Blanchard Bro. & Lane, and distributed exclusively by United States Plywood Corporation and The Mengel Company.

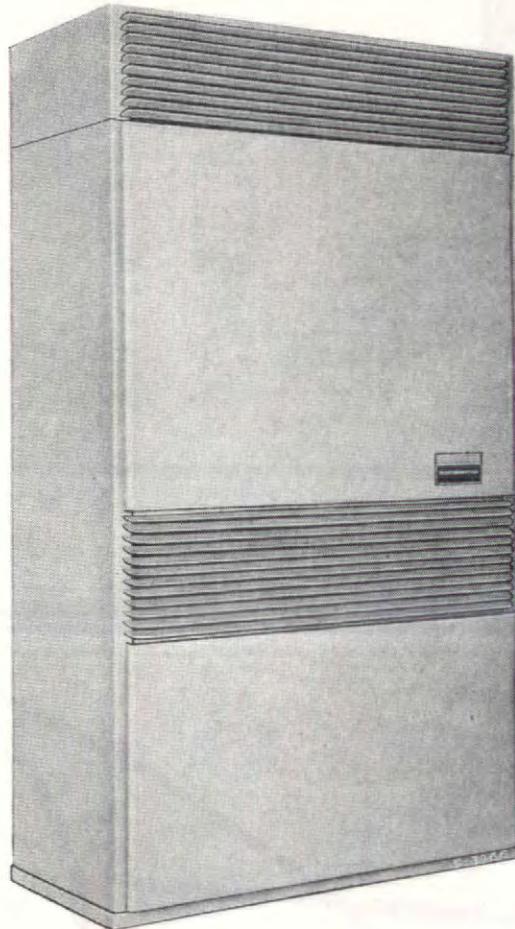


# WORTHINGTON

## *Air Conditioning and Refrigeration Report*

Worthington Pump & Machinery Corporation, Harrison, New Jersey

**"PACKAGED"  
AIR  
CONDITIONING  
MEETS  
A VITAL NEED  
FOR  
SMALLER  
BUSINESS  
PLACES**



Worthington's Self-Contained Air Conditioners — built in two sizes, 3 and 5 ton refrigeration capacities — are especially designed to suit your small or medium sized place of business. These compact, attractive cabinets are complete, factory-built air conditioning systems, fully tested and proved—assuring you effective, low-cost air conditioning 365 days a year.

With one of Worthington's Self-Contained Air Conditioners in your store, shop or office, you will be convinced that these amazingly efficient "packaged" units give you real air conditioning at its best — helping

further to promote better health and better business in every type of smaller commercial and industrial organization. For full details, write for Bulletin C-1100-B29.

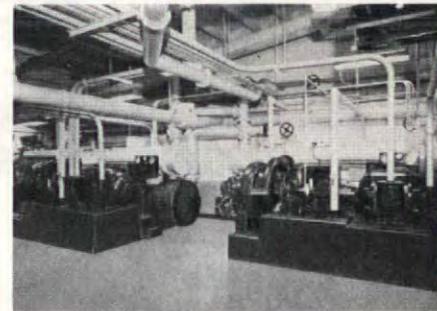
*Worthington Pump and Machinery Corporation, Harrison, N. J., Specialists in Air Conditioning and Refrigeration machinery for more than fifty years.*

AG-16



**Serving Phoenix —  
Served By Worthington**

Occupied chiefly by the medical and related professions, the Professional Building in Phoenix, Arizona, also houses the prominent Valley National Bank and a capacious basement garage. Since its construction in the early 1930's, it has maintained practically 100% occupancy — Worthington air conditioning being one of the most important advantages enjoyed by tenants of this popular, up-to-date office building.



**Two Good Reasons  
For Tenant Satisfaction**

Two large-volume Worthington Centrifugal Compressors, "heart" of the air conditioning system in the Phoenix Professional Building, described above. While Worthington Centrifugal Systems are used primarily in the air conditioning field, they are ideally suited to many other applications — from cooling water or brine for industrial purposes to producing ultra-low temperatures for technical research.

**"Integration" Is A Worthington  
Specialty**

Making more of the "vital innards" of its systems from compressors to fittings, Worthington can supply completely "integrated" air conditioning or refrigeration for maximum efficiency and economy . . . another reason why *there's more worth in Worthington*. See your nearby Worthington Distributor for further information.

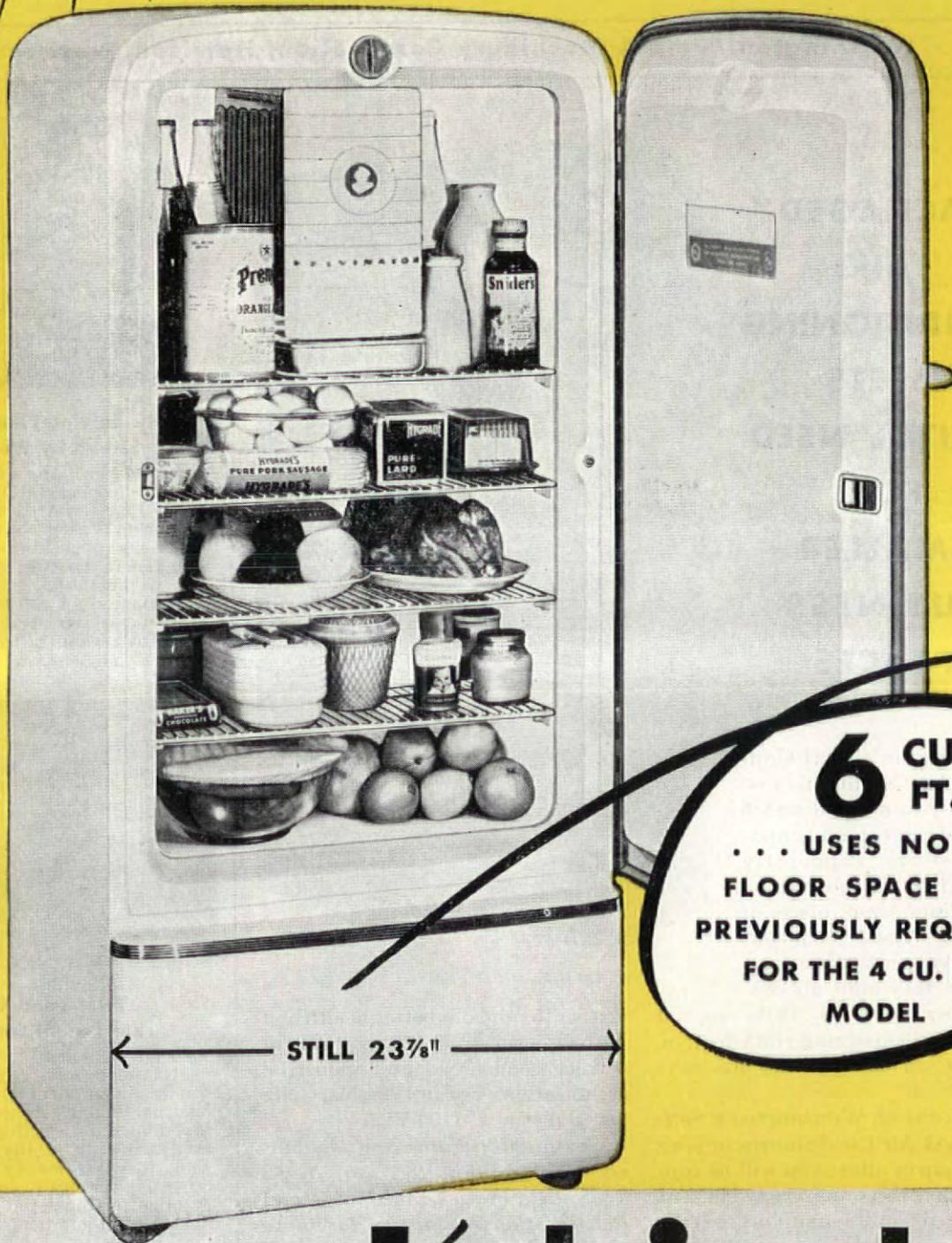
**WORTHINGTON**



*Air  
Conditioning  
and  
Refrigeration*

BRAND NEW

# KELVINATOR



**6 CU. FT.**  
... USES NO MORE FLOOR SPACE THAN PREVIOUSLY REQUIRED FOR THE 4 CU. FT. MODEL



# Kelvinator

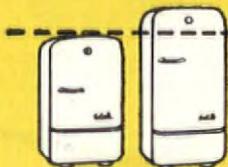
DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT • REFRIGERATORS

# 6 CU. FT. "SPACE-SAVER"

SPECIALLY DESIGNED FOR APARTMENTS AND LOW-COST HOMES



*Only 3 7/8" higher but holds six cu. ft. instead of four*



Architects, apartment owners and home builders will all hail the new Kelvinator "Space Saver" Six. It's made-to-order for the modern trend in conserving kitchen floor space to allow the installation of new electrical labor-saving appliances.

The gain of two cubic feet capacity over the four-foot model means that, with almost the identical floor space, the user enjoys half-again-as-much storage space! The ample facilities

of this new model make it ideal for apartments and low-cost homes.

From the users standpoint the "Space Saver Six" features all the well-known Kelvinator advantages. For those already familiar with Kelvinator's superior quality it will have a special "replacement attraction" where inadequate refrigeration storage capacity now exists.

Watch for the "Space Saver Six," the big, new Kelvinator model that fits in with everyone's modern kitchen planning... Available early in 1947.

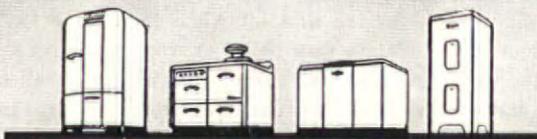
*For full information write to Nash-Kelvinator, Detroit 32, Michigan*

## Kelvinator Quality Through and Through!

- ★ **Beautiful Exterior**—Made of welded steel with a lustrous, long-wearing Permalux finish.
- ★ **High-Speed Freezer**—Made of stainless steel for permanence, beauty and faster freezing. Refrigerant circulates through two extra-fast freezing shelves to insure concentrated cold. Two stain-resistant aluminum ice trays. Self-closing door. Greater storage space for frozen foods.
- ★ **Room for Tall Bottles**—More room for tall bottles on both sides of the High-Speed Freezer. Greater height between shelves provides more usable storage space.

★ **Handy Chilling Tray**—Dual purpose chilling and defrosting tray... an unbreakable, drawn aluminum container.

★ **Sturdy Shelves**—Strong, rigid, closely spaced welded-steel bars permit dishes to slide easily without tipping. Plated to retain their bright, shining appearance.



ELECTRIC RANGES • HOME FREEZERS • WATER HEATERS

*Extra Value with the Newest Kelvinator*  
EXTRA VALUE because of greater capacity is the prime feature of the new "Space Saver Six."  
IN ADDITION to the features shown above, there's the famous Polarsphere Power Unit, the quiet, trouble-free, money-saving mechanism that provides constant cold at controlled temperatures. It's hermetically sealed in a housing of steel and permanently lubricated. No belts, fans, or pulleys to cause noise or accumulate dust—assurance of trouble-free performance.



UNCLE



AUNT



GRANDMA



GRANDPA



FATHER



MOTHER



NEPHEW



BROTHER



SISTER



NIECE



SON



DAUGHTER

## What one gift would please them all?

No matter what their tastes . . . their hobbies . . . their likes or dislikes . . . there's *one* gift that will please them, each and every one.

That gift is a United States Savings Bond.

This Christmas, put at least one Savings Bond under the tree for someone you love.

Contributed by this magazine in co-operation with the Magazine Publishers of America as a public service.



have demonstrated that it is explosion-proof, fire-proof and asphyxiation-proof. Its efficiency, safety and dependability have been proved in sub-zero weather, protracted rain and under cyclone conditions. Saf-Aire, according to the manufacturer, saves up to 20 per cent over operating costs of conventional gas heating systems, and, with available thermostat, makes possible automatic control of individual room temperature where several heaters are installed in one building. Unit is in two sizes, 10,000 and 20,000 BTU per hour. *Manufacturer: Heating Research Corp., Muncie, Ind.*

### ELECTRIC RANGE features three top arrangements, over-size oven, automatic timer.

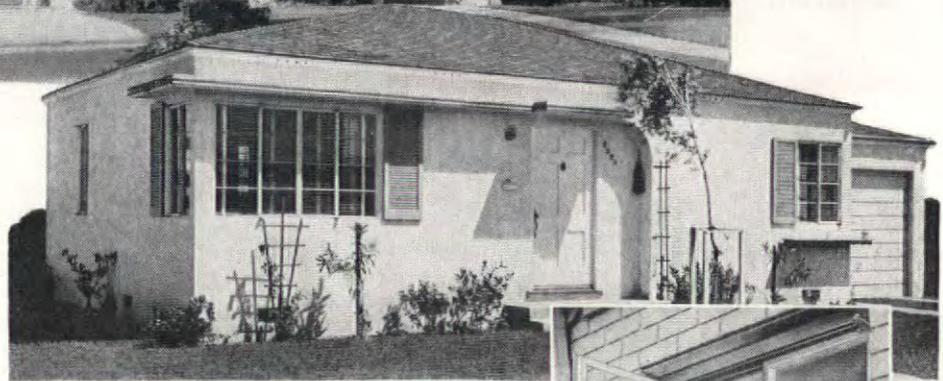
As the result of a nationwide survey to determine what the housewife wants in her postwar electric range, Presteline presents a new range with a choice of three different top arrangements. One model has the top cooking units arranged four in a line at the back of the range as a safety measure. Arrangement Two has a divided top with two cooking units on each side giving plenty of center working space. The third design is a conventional top with cooking units grouped together on the right hand side of the range. Each has three surface cooking units provided with 7 cooking heats, and an economical deep well cooker. The oven, incorporating a waist-high broiler, is the largest on any electric range. One dial regulates temperature, automatically switching from super-fast preheat to selected baking temperature. If desired, the range may be equipped with Presty-Matic Control at extra cost. This includes an electric clock for automatic timed cooking, with a selector switch to control and time oven, deep-well cooker or appliance outlet. *Manufacturer: Pressed Steel Car Co., Inc., 666 Lake Shore Dr., Chicago, Ill.*



### ELECTRONIC RANGE, incorporating magnetron unit, cooks food in few seconds.

The Raytheon Radarange grills hamburgers in 35 seconds and bakes gingerbread or biscuits in 29. Results are claimed to be not only faster but more appetizing and—in the case of frozen foods—thawing is unnecessary before cooking. The typical Radarange compares in appearance with the ordinary home refrigerator, varying from smaller to somewhat larger in size than the standard box. It consists of a power supply, a magnetron unit and an applicator or "horn" through which energy from the tube is beamed and concentrated into food placed in an open oven directly beneath. The Magnetron tube, a wartime electronic development, is the basis of the range. According to the manufacturer, the new electronic unit is simpler and safer to operate than a conventional kitchen range when fused and equipped with safety switches. Operation is controlled by two push-buttons and a timer, which automatically shuts the unit off when food is cooked. Two production models are now being offered: a sandwich model for the preparation of hamburger sandwiches, small baking, etc., and another model for use in airplanes, ships, railroads, etc., capable of handling a complete meal. Wide application of the new range is envisioned for economical cooking of entire frozen and precooked meals on airplanes, as well as for quick sandwich cooking in lunchrooms, etc. A variety of sizes and models to meet specific applications will be offered. *Manufacturer: Raytheon Manufacturing Co., Waltham, Mass.*

(Continued on page 164)



Notice the ease with which metal windows can be washed from within.



## METAL WINDOWS?

All over America architects, engineers, contractors and builders are planning ahead today for the homes of tomorrow—and in the homes of tomorrow they know there must be new features to add to the beauty and the utility of those homes. One feature every home should have is steel windows. They not only offer greater utility but add to the beauty and lasting appearance of any home. Consider the advantages Ceco metal windows offer:

- 1** Tighter weather seal—precision engineering keeps out cold, dust, rain; keeps heat in.
- 2** Gives more light—affords from 20% to 60% greater light area.
- 3** Lowest initial cost installed—metal windows cost less than any other type of windows installed . . . initial cost is the final cost.
- 4** Easy to install—no weather stripping necessary. Minimum labor in installing hardware. No planing or fitting.
- 5** Controlled ventilation—up to 100% . . . catches stray breezes . . . controls drafts.
- 6** Easier operation—always fit . . . no sticking, warping or swelling.
- 7** Fire safety—Ceco metal windows are fire resistive.
- 8** Easily washed from inside—both sides of window can be washed from within.

Partial list of other Ceco Products: Aluminum Frame Insulating Storm Panel for Metal Casements • Meyer Steelforms • Reinforcing Steel • Metal Frame Screens • Metal Weatherstrips • Steel Joists • Metal Lath and Accessories

### CECO STEEL PRODUCTS CORPORATION

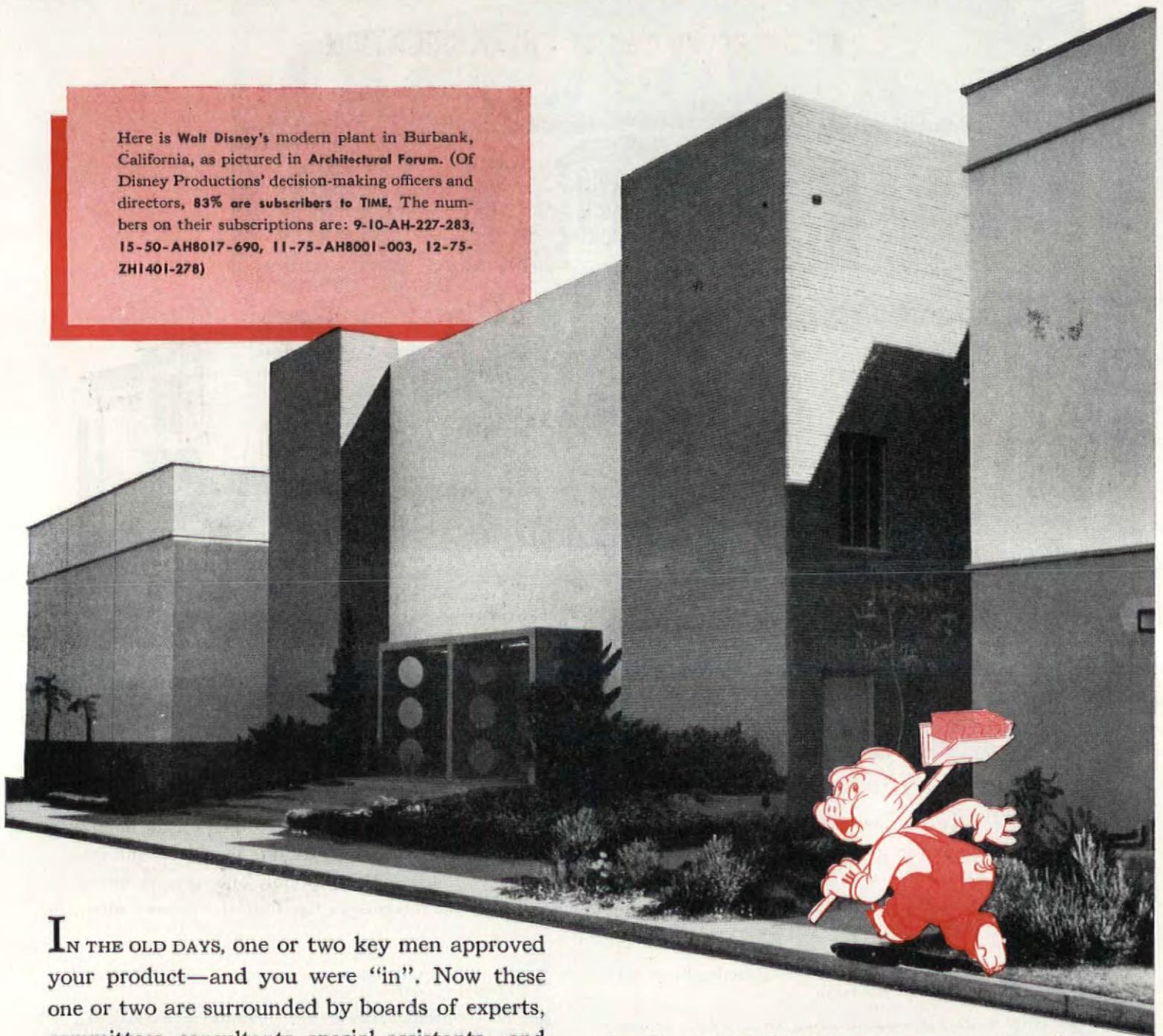
GENERAL OFFICES: 5701 West 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

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**I**N THE OLD DAYS, one or two key men approved your product—and you were “in”. Now these one or two are surrounded by boards of experts, committees, consultants, special assistants—and you often have to get the OK of all of them before you get going.

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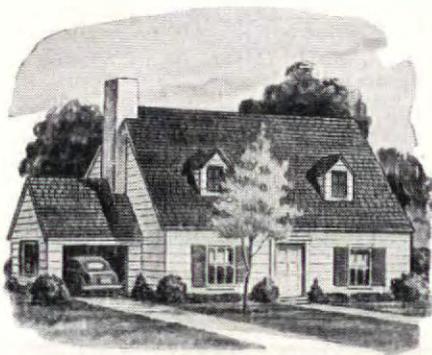
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Cascophen assures you of a bond so durable that it cannot be destroyed without first destroying the wood fibre itself. Furthermore, it has actually been laboratory- and

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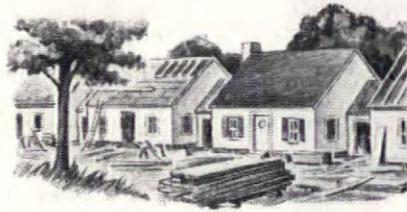
Due to its excellent bonding qualities and proved durability, Cascophen offers the following advantages not only to those doing complete prefabrication but also to those prefabricating parts for the conventional house.



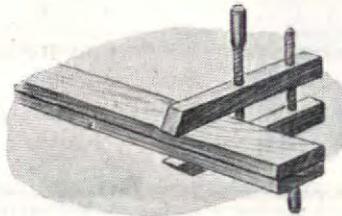
**1.** Cascophen Glue can be used throughout the entire house—for exterior wall panels; fastening interior panels to framing; assembling windows and doors; built-in furniture and cabinets; rounded corner units; or wherever wood or composition material is used.



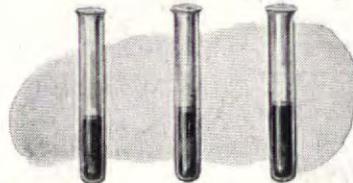
**2.** In many cases nails can be eliminated or used only to provide pressure until glue has set.



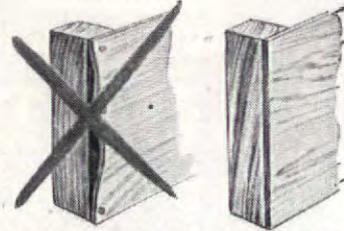
**3.** Cascophen Glue lends itself to mass production. It's easy to use and apply, gives uniform results.



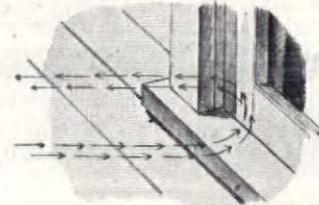
**4.** Requires only moderate clamping pressure. Has a long storage life.



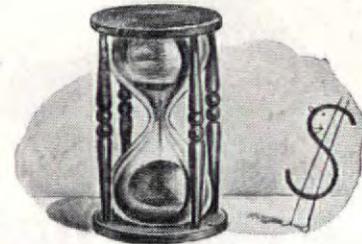
**5.** Cascophen is available in different formulae to suit your operating conditions.



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**7.** Glued joints are practically impervious to air infiltration.



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## REQUESTS FOR INFORMATION

R. R. FURMAN, 3800 Porter St., N.W., Washington, D. C. requests information on housing materials and equipment.

WALTER PARKER MERRILL, contractor, 920 Mulhall St., El Monte, Calif., desires information on new materials and equipment for small homes, store fronts and interiors.

NORTHAMPTON CO-OPERATIVE BANK, Northampton, Mass., desires information on photo-murals.

RESEARCH DESIGN GROUP, 3222 Oakland St., Ames, Iowa, desires material on small residential work.

WILBERT F. SEVERIN, architectural designer and builder, Neskowin Beach, Ore. requests literature on housing.

## REQUESTS FOR LITERATURE

LEONARD BENNETT, architect, Padre Sierra A Munoz No. 26, Oficina 6, Apartado de Correos No. 1.893, Caracas, Venezuela.

R. E. BREARLEY, architectural student, 164 Westmount Rd., Eltham Park, London S.E.9, England.

R. C. DICKINSON, prefabricator, R. C. Dickinson Co., 714 Lincoln Ave., San Jose 10, Calif.

JOSEPH K. DOLIVA, designer and builder, 3764 Fourth Ave., San Diego 3, Calif.

FAIR LUMBER CO., contracting and materials, 170 Conrad St., San Antonio 3, Tex.

S. H. GREEN, architectural student, Heylea, Heybridge Lane, Prestbury, Cheshire, England.

R. K. GRUBB & ASSOC., industrial designers, 519 N.W. Park Ave., Portland 9, Ore.

LEON HALSBAND, civil engineer, Pasteur FF2, Dep. B, Buenos Aires, Argentina.

KARL BUCKINGHAM HOKE, architect, 1514 Madison Ave., Toledo, Ohio.

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

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 Act of March 3, 1933, embodied in section 537, Postal Laws and Regulations printed on the reverse of this form, to wit:

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(Signed) Vernon Hitchcock  
Business Manager.

Sworn to and subscribed before me this 17th day of September, 1946.

JEANNE M. CONNOLLY,  
Notary Public.

(My commission expires Mar. 30, 1947)



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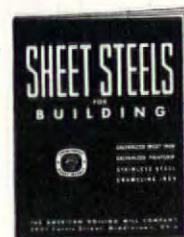
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**In construction** at Croydon Hills, near St. Louis, are these H. B. Deal & Co., Inc., all-electric homes. Present plans call for the building of 500 such homes at four beautiful sites in the St. Louis area. They will be offered in three distinctive designs

and in two different floor plans, but all will have the same complete General Electric equipment that is described on the opposite page. Veterans are getting preference for these homes, of course.



**GENERAL ELECTRIC EQUIPPED HOMES**

# Deal-Built — **WE'RE BUILDING!**

**"They're All-Electric Homes—with General Electric equipment—and they're priced under \$10,000!"**

**says H. B. Deal & Co., Inc., of St. Louis.**

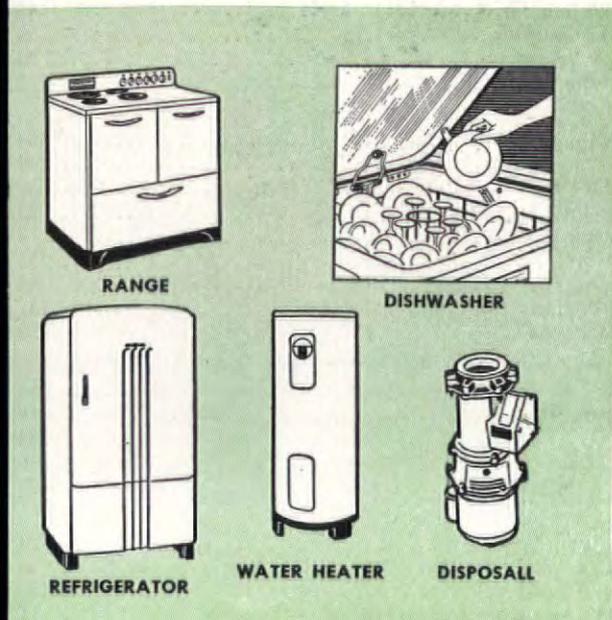
EVERY ARCHITECT and builder knows that electric appliances stand high on the list of things people expect in their new homes.

But when it comes to including these appliances as standard equipment in a home—and still keeping the selling price down—many are often doubtful. Many of them say, "It can't be done."

**Well, it's being done!** H. B. Deal & Co., Inc., St. Louis, is doing it right now. And here's what they have to say about their new development.

"We're selling an all-electric home 'package' at a price that just about anyone can afford.

The kitchen boasts a General Electric Automatic Dishwasher and Disposall\*, as well as a Range and a Refrigerator. And we even include an electric clock and kitchen radio.



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"And here's the *surprise* part of this 'all-electric package.' With the equipment included in the mortgage, the monthly payments are *only about \$3.00 more* than they would be if we hadn't put in any equipment."

**Others are doing it, too!** In Pittsburgh, Denver, Oklahoma City, Ft. Worth—all across the country—architects and builders are planning and erecting new homes with General Electric appliances included as standard equipment.

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1. It doesn't cost you a cent to put in this General Electric equipment. And it usually costs the homeowner less than \$3.00 a month.
2. Your homes will be "first choice" with buyers. For people, today, want completely equipped homes, designed for better living, *electrically*.
3. By offering such homes at fair prices, you're building a good reputation. And, in the long run, a good reputation is just about the biggest asset you can have.

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\*Trade-mark Reg. U. S. Pat. Off.

**THE APPLIANCES MOST WOMEN WANT MOST!**

**GENERAL  ELECTRIC**

dependable General Electric Appliances are standard equipment in Deal-built all-electric homes. The homes are financed by the First National Bank in St. Louis and appliances are included in a single, convenient "package mortgage." This makes only a small difference in initial cost, while the economical operation, low maintenance, and long life of General Electric appliances can more than offset the slight increase in monthly payments.

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Design for The Ohio Oil Company by  
Architects Walker & Weeks, Cleveland.

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Modern merchandising demands that a service station be a salesman that brings in business.

That's why the Visual Front has come to the fore in service station design. Without sales pressure this front asks, "Does your car need lubrication or other services? A new battery? An oil cartridge? Other items?"

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Before your next design goes on the boards, write us for further information. The designs shown in our folders may give you a few glass ideas for your next service station plan. Libbey-Owens-Ford Glass Company, 35126 Nicholas Building, Toledo 3, Ohio.

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**LIBBEY · OWENS · FORD**  
*a Great Name in* **GLASS**

*And all through the house...*



*...Flintkote Building Materials*

# *The NEW LYNDON* by Eljer

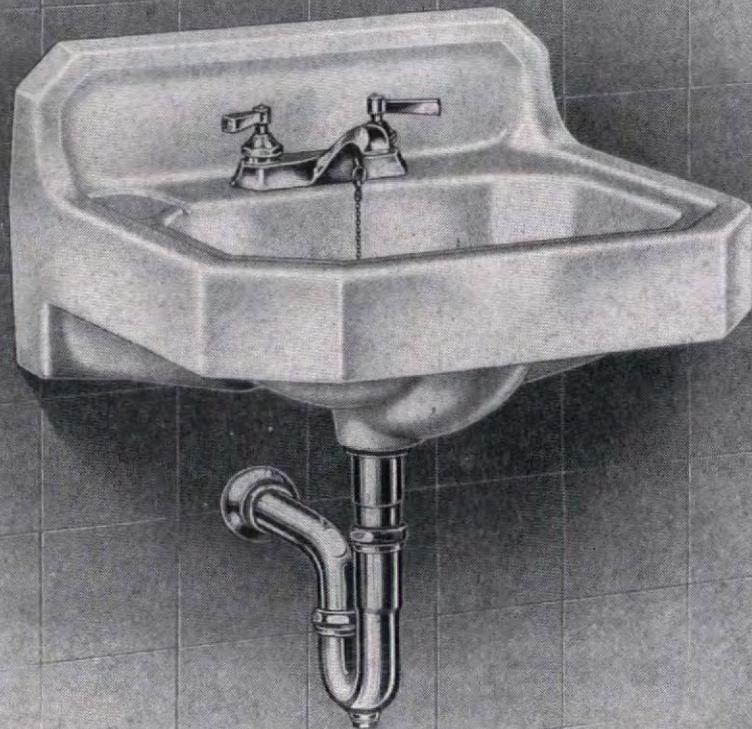


PLATE B-4254-G

- 1** Size 18" x 15" with 4" back
- 2** Eljer acid-resisting vitreous china
- 3** Unit fitting
- 4** Concealed wall hangers
- 5** Front overflow
- 6** Integral soap holder
- 7** Eljer styling and quality

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Eljer's New Lyndon lavatory combines style and practicality in a high-quality fixture for the urgent building requirements of today. It is designed to make efficient and pleasing use of limited space and is an ideal fixture for bathrooms and extra washrooms in homes of small or medium size. Schools, office buildings, factories and hotels gain important advantages in space and service costs by including the New Lyndon lavatory in their building or remodeling jobs.

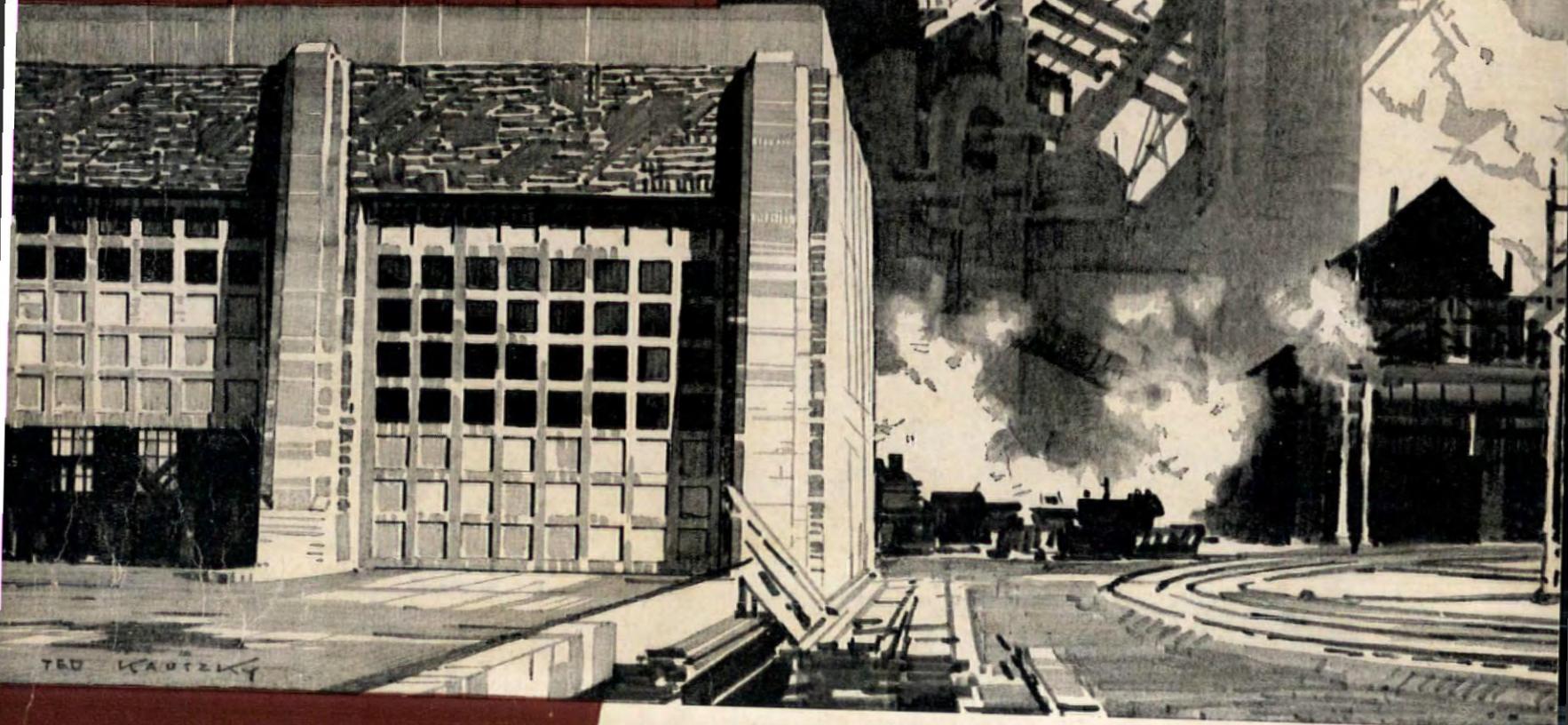
**ELJER CO.** . . . FACTORIES AT

FORD CITY, PA. • SALEM, OHIO • LOS ANGELES, CALIF.

SINCE 1904 MAKERS OF FINE PLUMBING FIXTURES

# Dependable

## door operation



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● Plants equipped with The "OVERHEAD DOOR" with the Miracle Wedge are assured fast, continuous service at all times. Unvarying performance results from precision methods of manufacture and the use of materials of highest quality. The Miracle Wedge and efficient counterbalancing insure instant, easy operation year in and year out. With complete confidence in its dependability, architects and builders everywhere consistently specify The "OVERHEAD DOOR" for residential, commercial, and industrial use.

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