

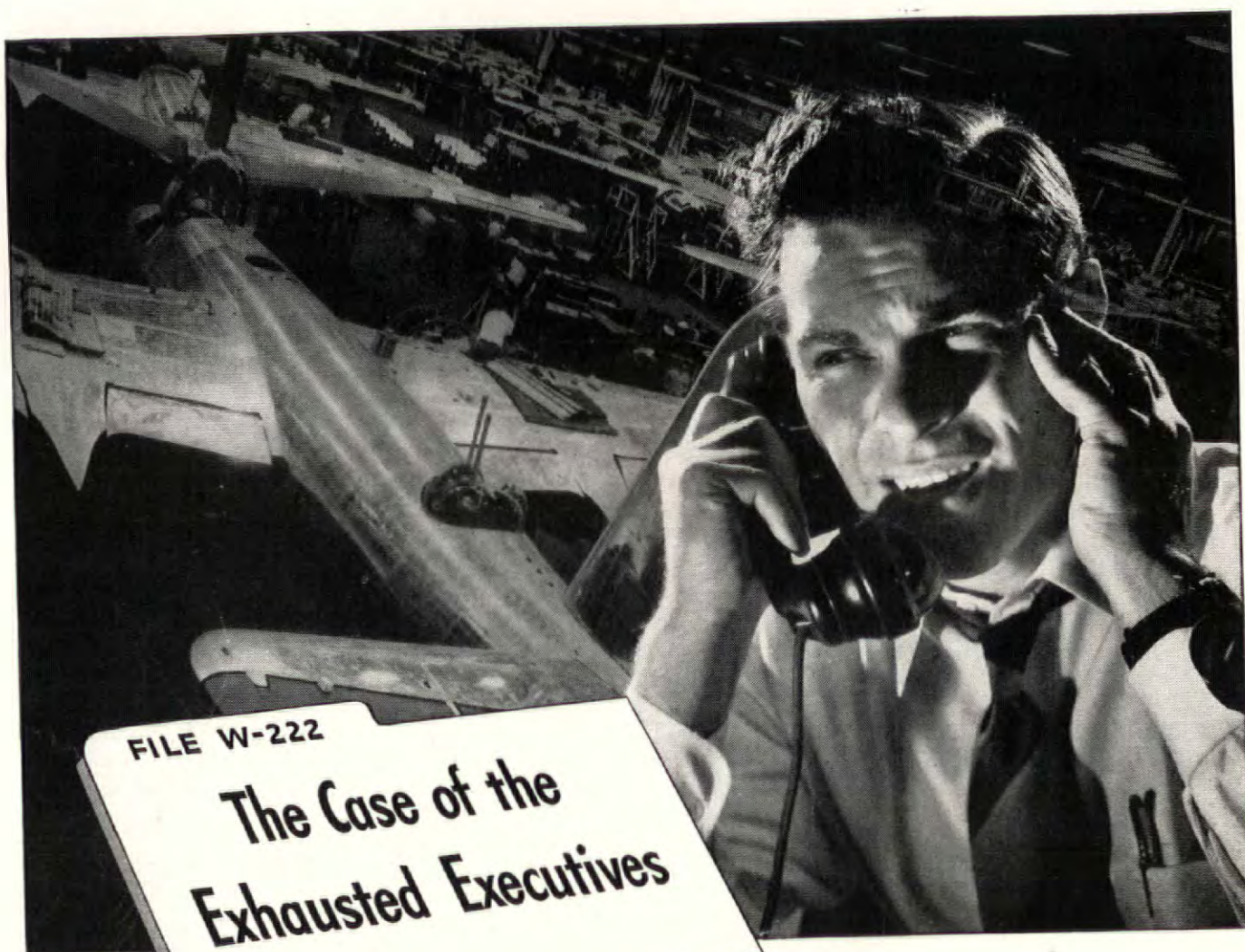
The Architectural

FORUM

Magazine of Building.



May 1946



FILE W-222

The Case of the Exhausted Executives

... It Happened in Baltimore!

PROBLEM: Nerve-wracking noise—in the Baltimore plant of the Glenn L. Martin Co. Production executives—supervising the Mars, the B-26 Marauders, and the PBM Mariners—had offices alongside the production line. The din was constant, exhausting. Executives had to shout to make themselves heard. It was almost impossible to talk on the 'phone.

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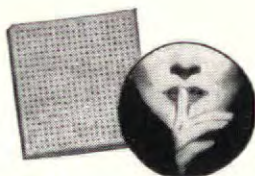
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The Architectural

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MAGAZINE OF BUILDING

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Published by TIME Incorporated

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The Architectural FORUM is published monthly by TIME Inc., 350 Fifth Ave., N. Y. 1, N. Y. Subscription may be sent to publisher's office or to 330 East 22nd Street, Chicago 16, Ill. Address all editorial correspondence to 50 Fifth Ave., N. Y. 1, N. Y. Yearly subscription payable in advance. U. S. and Possessions, Canada, Mexico, South America, \$4.00. Elsewhere \$6.00. When available, single issues, including Reference Numbers, \$1.00. All copies mailed flat. Copyright under International Copyright Convention. All rights reserved under the Pan American Copyright Convention. Entered as Second Class Matter July 17, 1944 at the Post Office at New York, N. Y., under the act of March 3, 1879. Copyright 1944 by Time Inc.

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VOLUME 84, NUMBER 5

Cover photo by Maya Deren

DESIGN POSSIBILITIES FOR RESIDENCES

... with

Glass

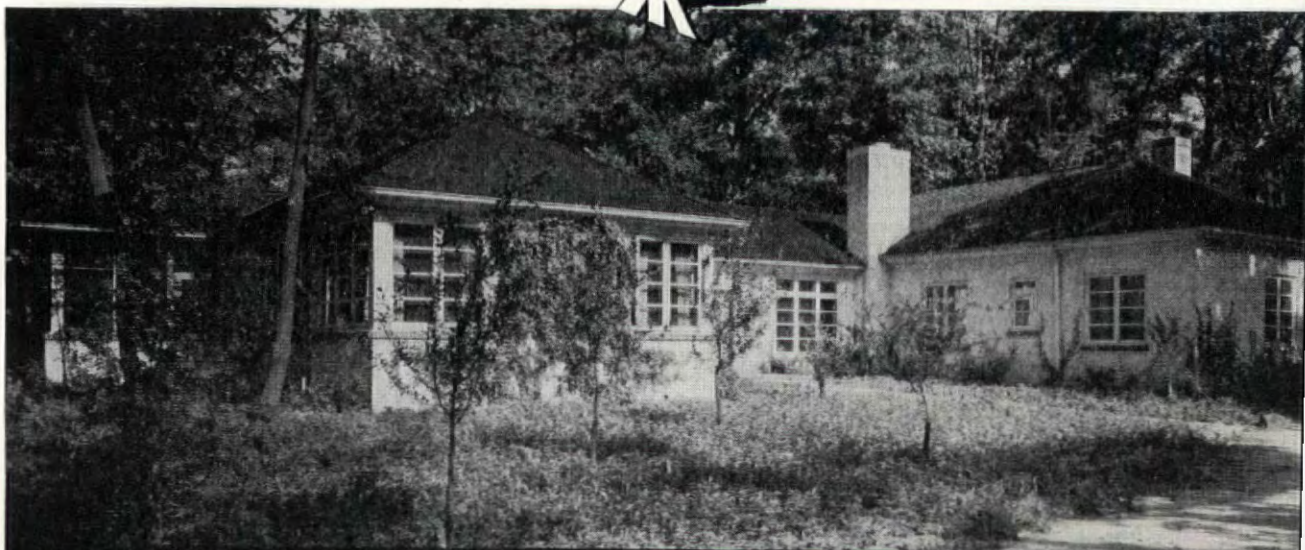


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PACEMAKERS IN CRACKPROOF PANELS

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BUILDING MONTH. If the familiar sound of the riveter was still missing from city streets, the rasp of the carpenter's saw was loud in the suburbs. Outlying plots were turning over almost as fast as they had in the twenties. New York reported the month's biggest land purchase. N. K. Winston-Arnold Holzer Associates bought nearly 4,000 acres stretching through Long Island, Westchester and Putnam counties and into New Jersey. The firm, which owns many New York apartment and commercial buildings and turned to housebuilding during the war, plans to put up 10,000 homes for veterans.

From Chicago came word of a new kind of insurance company venture into housing: the Continental Assurance Co. planned to build \$5 million worth of veterans' houses to be sold at \$8,000-\$9,000. Philadelphia's Mayor Bernard Samuel used a silver shovel to break ground for the first big housebuilding job in the area: 2,200 houses all to sell under \$10,000. The builders, Warner-West Corp., said houses would be ready to move into by early summer.

While housebuilding leaped ahead, the ban on commercial and industrial building was clamping down over the nation with less discomfort than might have been expected. One reason: Civilian Production Administration offices were looking leniently on legitimate hardship cases where building commitments had already been made. But CPA made it clear that hardship pleas will be a poor case from now on, since Building men and Building's customers have had a chance to reshape their plans to fit the new rules. However, CPA boss John Small gave Big Building one piece of good news. Small said he hoped the restriction order might be lifted entirely in not more than nine months.

Auto Plants Go Ahead. In Detroit, CPA men figured that they were working with just about the toughest territory in the country. Big population increase plus a long deferral of all but war building made almost any building job seem essential. Applications for federal permits to build poured in at the rate of 150 a day. In its first three weeks of operation, the Detroit CPA office had approved about \$12 million worth of construction, denied applications amounting to about \$2 million.

A sample hardship case that got a permit to go ahead: A Detroit women's wear shop, in business 32 years, had been evicted from its building. The store asked a permit to spend \$7,500 to alter a new location. During the war such an application would have been turned down on grounds that the war effort was paramount to private business. But CPA now made it clear that no firm will be obliged to go out of business.

The Detroit CPA office had also approved many projected plant expansions where materials had been specially fabricated or were in process of fabrication and could not be used for any other purpose. The intricately meshed auto industry required rules all its own. Denial of an application for construction of a single plant might mean the closing down of a half-dozen others. Thus CPA approved these plant jobs: \$960,000 Oldsmobile assembly plant expansion at Lansing; \$700,000 Pontiac iron foundry; \$150,000 Cadillac plant addition; \$450,000 addition to a Fisher body plant in Detroit; \$628,000 worth of

new building and \$472,000 worth of alteration for Chevrolet at Saginaw.

Sample applications denied in Detroit: five-and-ten cent store, bowling alley, auto sales room, churches, stores. So far CPA had found 200 violations of the building restriction order, most of them turned in by irate citizens.

San Francisco Stall. CPA machinery was not working everywhere with equal smoothness. In San Francisco, builders reported considerable confusion about the new rules. The CPA office was snowed under by thousands of applications. Builders said they expected no replies for 30 to 60 days.

In Atlanta, representatives of 19 AFL building trades in eight southern states forecast serious unemployment in cities like Brunswick and Savannah, Ga. and Mobile, Ala., where, they said, there is a surplus of war housing available to veterans. J. A. Harper, vice-president of the Georgia Federation of Labor, predicted that the restriction order would be rescinded in 90 days.

In San Antonio, Texas the district CPA office counted 160 building applications in the first three weeks of operation. Few big jobs have been passed upon, pending appointment of citizens' advisory committee. Biggest job so far refused: a \$400,000 Baptist church. In spite of building cut-down, the local building inspector gloomily estimated that the black market is still supplying more building material than any other source.

Chicago Approvals High. In Chicago CPA was issuing an average of nine permits to every building denial, but warned that the ratio would change due to decrease in hardship cases. In a single week CPA approved \$5,600,000 worth of construction, turned down jobs amounting to \$3 million. Sample approvals: two Illinois & Bell telephone buildings, freight truck terminal, railroad car wheel factory, two building hardware factories, two food manufacturing plants, three school extensions. Turned down: a doorbell factory, a bottle top factory, three store fronts, cocktail lounges, amusement park equipment factory.

Washington CPA Chiefs, who must pass upon all construction plans amounting to over \$1 million, approved these big jobs: \$1,675,000 American Homefood plant at Elkhart, Ind.; \$3 million Borden Co. plant in Sheboygan County, Wis.; \$7 million Chevrolet plant at Saginaw; \$1 million Owens-Illinois Glass Co. plant at South River, N. J., which will make a new type of building board.

WASHINGTON

WYATT PROGRAM STALLS

Congress cannot agree on Patman bill.

The whole veterans' housing program stalled while Congress rushed home for Easter recess. Reason: a day-long session of House and Senate conferees had failed to reach agreement on the building materials subsidy provision of the Patman bill. Four of the seven House conferees—Republicans Wolcott (Mich.), Crawford (Mich.), Gamble (N. Y.), plus Democrat Brown (Ga.)—stubbornly refused to consider any compromise that will permit the government to pay subsidies to increase production of scarce building materials. Other conferees guessed that the dissenting Representatives might change their minds after an encounter with their veteran constituents over the Easter holiday.

After the walloping it took in the House (FORUM, April, '46), the Patman bill had been restored to something close to its original shape by the Senate. The Senate had voted for \$600 million worth of federal subsidies to stimulate building materials production and for government-guaranteed markets for prefabs. Voted down by the Senate was the proposal to fix ceiling prices on existing houses and on building lots.

But, in spite of the legislative delay, housing boss Wilson Wyatt happily reported that much progress had already been made in increasing production of critical materials. Over last year's rates, production of brick is up 100 per cent, cast iron soil pipe 75 per cent, cast iron radiation 35 per cent, gypsum board and lath 25 per cent, clay sewer pipe 23 per cent, and warm air furnaces 20 per cent. Even lumber is showing improvement.

Last month Wyatt found his No. 2 man, asked Rear Admiral Kirby Smith, who bossed \$4½ billion worth of Navy building, to pitch in as General Deputy Expediter.

CHANNELING ORDER

"Dividing line" house price ceilings.

The long-anticipated National Housing Agency order channeling bulk of new house-building into low-priced brackets sets individual "dividing line" price ceilings for each city and requires that one-fourth of all new houses be built for rent.

Housing boss Wyatt said he expected the order to increase by 50 per cent the number of houses built under \$6,500. House-builders generally approved the order as "realistic."

The "dividing line" price ceilings mean that from now on one-half of all houses built must sell for prices within the ceiling set for each city. For the other half of

house construction, priorities will continue to be issued for houses selling up to \$10,000 and renting for up to \$80 a month.

The new house price goals are based on records of housing priorities already issued in the various cities. Dividing lines have been set in each city at a point equal to the highest approved sales price in the lowest third of priority applications received in the January 15-March 29 period. But no dividing line may be set at higher than a \$7,500 sales price or a \$60 a month rent level without special Washington approval. Housing boss Wyatt said high dividing lines as now worked out for some cities may be reduced.

Dividing lines for sales price in major cities are:

New York, \$9,000; Chicago and Washington, D. C., \$8,500; Pittsburgh, \$8,000; Philadelphia, Boston and Providence, R. I., \$7,500; Los Angeles and Milwaukee, \$7,000; Indianapolis and Kansas City, Mo., \$6,500; Denver and Seattle, \$6,000; Atlanta, Louisville, Fort Worth, \$5,500; New Orleans, \$4,500.

PRICE CONTROLS WAVER

Wyatt says House action may zoom building costs, destroy market.

The mangled House version of the price control renewal bill would tear the heart out of his housing program, housing boss Wilson Wyatt said. Wyatt thinks that new price formulas proposed by the anti-OPA Representatives would boost building material prices to a point where almost nobody could afford to buy a house—or be badly gypped if he did.

Some gloomy forecasts of what may happen unless the Senate overrules the House:

► Under the new price formula fixing ceiling at cost plus a reasonable profit on every item produced, producers will be able to boost costs at every stage of production. (Most producers cheered for this amendment since it means that a firm would no longer be compelled to turn out some products at a loss or at a small profit simply because overall-earnings are satisfactory.)

► Many scarce building materials will be completely free from controls under the amendment lifting ceilings from a product when it can be shown that output during the last twelve months equals volume produced in the fiscal year 1941.

► Uncertainty about the effect of the new amendments will mean inventory hoarding and even greater shortages of building materials—at a time when the building season is at its height.

► Rental construction will be hardest hit. No investor will want to be stuck with a property built at inflated cost levels. Such a property would mean that substantially higher rents would have to be charged for the life of the mortgage than for competing buildings built at more stable prices.

Not everybody agreed. Some economists argued that the best and only way to get full production is to let normal pricing

methods prevail—and let industry regulate itself. Said Producers Council head L. C. Hart: "The OPA bill as passed by the House would speed up home building considerably by permitting greatly increased production of low-cost building materials."

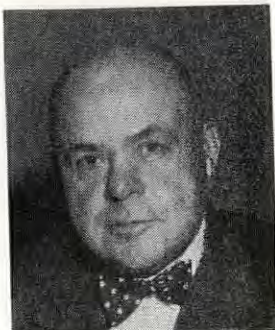
SENATE BLESSING

W-E-T housing bill goes to House.

Last month the Senate, after months of tedious committee hearings, approved the long-coming Wagner-Ellender-Taft general housing bill (S. 1492) with startling rapidity. Opponents accused public housers of legerdemain in slipping the bill just ahead of the urgent British loan agreement.

Much slower, tougher going is ahead in the House. Hearings are scheduled to begin at month's end before the House Banking and Currency Committee, notoriously hostile to public housing. Hope is that the bill may pass the House before summer recess. But a realistic outlook is that the House will put the bill through the same shredder that last month almost destroyed the OPA (see above).

Only change made in the legislation on the Senate floor is the awkward addition of a prevailing wage clause for all construction covered by FHA insurance (see page 8). Best guess is that this is merely a trading device. The Senators foresightedly want to be prepared to yield on something when they join the inevitable battle with the House.



SMITH: No. 2 man



GOODYEAR Tire and Rubber put up this prefab house in heart of Washington to dramatize its need for materials. Built by Goodyear subsidiary, Wingfoot Homes, at Arizona plant, house costs only \$2,500. Large banks will finance buyers on chattel mortgage.



FIBERGLAS AND ALUMINUM portable house to sell for \$1,000 is proposed as emergency vet's housing. This vet's family looks surprisingly happy about moving into it. Producer is James Mfg. Co., Janesville, Wis.

BUILDING MONEY

RENTAL HOUSING

Will present costs plus Federal restrictions block building?

Not more than one out of every five veterans wants to buy a house, according to surveys made at demobilization centers. Veterans are typically young, undecided about their future, likely to move around in the next few years. Not many of them are now in a position to undertake the long-term obligations of home ownership.

According to the ratio of four renters out of every five veterans, the government program of 2,700,000 veterans' houses by 1947 should mean about 2,160,000 rental units. This startling figure is roughly about three times the number of rental units built in the U. S. in the two apartment-building boom years, 1926-27.

Against such big need, housing boss Wyatt's order (see page 6) requiring at least 25 per cent of all new units built to be rental dwellings is pretty small change. But Building men doubt that even that many rental units will get built at today's steep building cost levels. Individual houses, held for rent by operative builders, will, of course, help to meet the total big need. FHA Title VI financing encourages this kind of operation, which many housebuilders found during the war to be surprisingly profitable. With income taxes schedule to stay at a fairly high level, housebuilders will continue to be interested in spreading their earnings over a number of years.

Slow Start. But apartment house building will be slow to get started. Many of the big backers of this type of construction wonder if it will get started at all until present federal restrictions on rent levels are lifted and until building costs level off. In the big building years of the pre-depression decade, apartment house construction reached its peak, not when demand for rental units was greatest, but when a briskly moving securities market showed the most favorable prospects of profit for investors in this type of real estate.

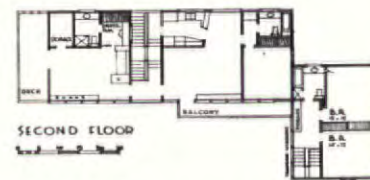
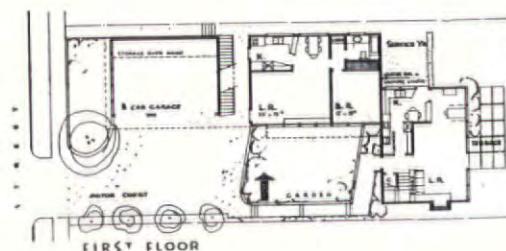
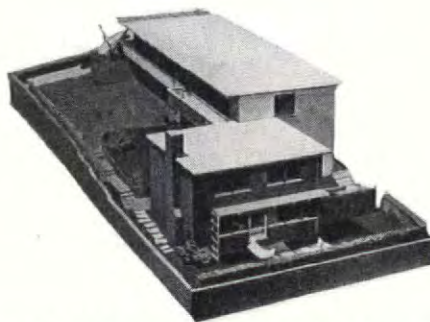
The kind of financing that backed the spectacularly big apartment developments of the twenties has not yet appeared in the current building picture. Nor is it likely to be available so long as luxury apartments are banned by the fact that federal restrictions limit rents to not more than \$80 a month and attempt to channel building to even lower rent levels (see page 6).

But smaller buildings—four, six and twelve unit apartment houses—accounted for a big part of the strong apartment house market of the pre-depression years. In such construction, the increased savings of the "little man" appeared as a major factor. Not many of these investor-owners actually developed the properties, but bought them from enterprising builders who sensed the possibilities of this profitable market.

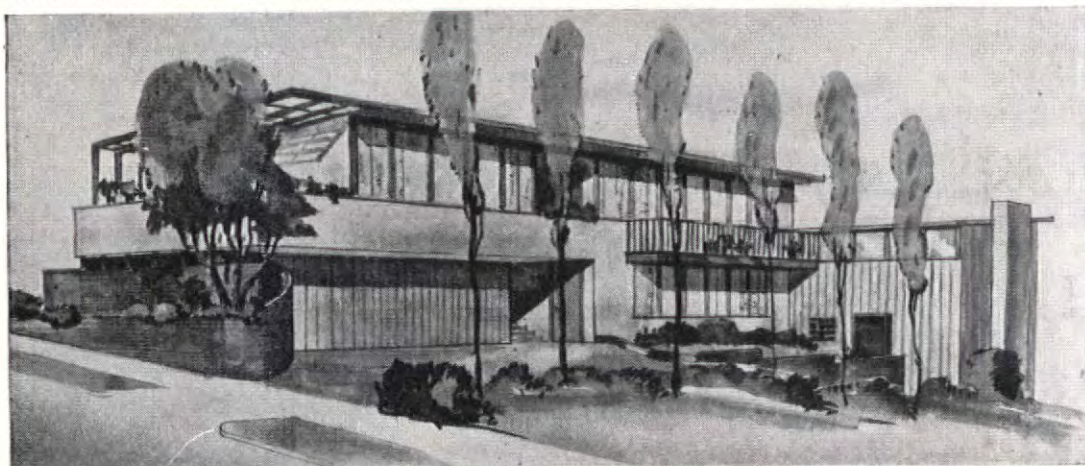
(Continued on page 8)

APARTMENTS are needed in big volume to meet housing need.

The three main types of investment building illustrated by these samples of current planning will have to meet the big present veterans' demand for rental housing. If properly encouraged, small apartment buildings like the California project below may be important in supplying this type of accommodation, represent a big opportunity for building enterprise.



BRICK AND REDWOOD CALIFORNIA BUILDING HOLDS FOUR APARTMENTS, ONE A DUPLEX



PHILADELPHIA PROJECT planned by Mayer Blum (above) cannot be built under present restrictions. Rents would average \$30 a month per room for such luxuries as personalized heating controls, deep-freeze lockers, air-conditioning, sun roof with steam and massage salons.

NEW YORK LIFE garden-type development at Princeton, N. J. may be finished this year. Plans by Holden, McLaughlin and Assoc., New York call for one- and two-story buildings of brick and frame construction to cover 17 per cent of site.





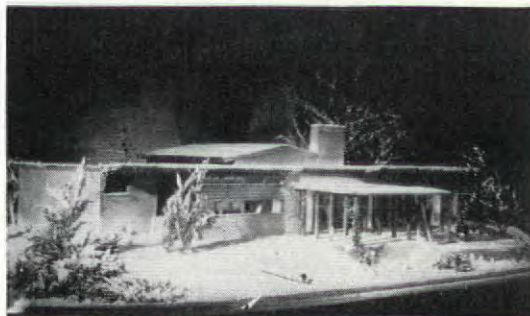
HOST HOUSE designed by Lester Tichy, New York, won first prize in the seven-or-more room class. Planned for much entertaining, the house has a big first-floor living room, overlooking a flagstone terrace, which may be divided by curtains into entertaining and dining areas. There is a second floor family sitting room. A wide ramp replaces inside stairway.

House & Garden Prizewinners

Now on tour of leading department stores throughout the U. S., the handsome models of prize-winning designs in *House & Garden's* 1945 architectural awards are likely to prove effective missionaries for modern design. All houses use large expanses of glass and solar heating. All have an open plan and make plenty of use of movable partitions. Each was designed to meet the needs of a specific family.

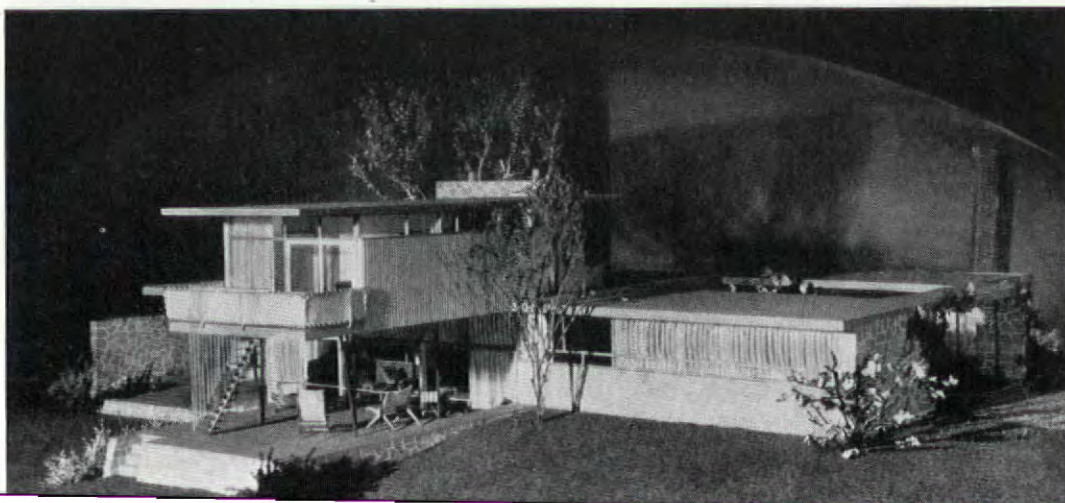
The four models (scaled $\frac{1}{2}$ in. to 1 ft.) are all exhibited under handblown bubbles of Plexiglas, just like those used for bomber noses. Back of each model a 7-foot curved panel tells the design story and reproduces the floor plan. A large display panel answers questions *House & Garden* thinks people usually ask about modern design and modern construction.

COMMUTER'S HOUSE by L. Morgan Yost, Kenilworth, Ill., is designed for a sloping suburban site which permits a split-level plan and plenty of sunlight, even in the basement, where there is a big work shop.



SOLAR HOUSE by Noerenberg & Cooling, Los Angeles, shows a front almost entirely of glass, is designed for a site on a small hill overlooking the San Fernando Valley. A breakfast balcony is interesting feature.

SELF-SERVICE HOUSE by Ralph Rapson, Chicago, won first prize in small house class. Large exterior glass walls (practical because of wooded hilltop site) give spacious feeling. Carport (raised off ground so snow will blow through instead of drifting), covered passageway and all downstairs rooms except living room surround an open court.



Small Investor Backing. Right now the nation's savings are at an all-time high and it is reasonable to expect a recurrence of this type of small investor backing. Small apartment house building can start quickly, without waiting for the mobilization of big capital and the complex planning required by large projects. If properly encouraged by federal priority and housing finance policies, small apartment house building could go far to meet the most urgent part of current housing need.

One good sample of this type of construction came last month from Los Angeles, where small investor Louis Mastopietro is building a four-unit building, which he will own and manage, holding one apartment for his own use. Notable for its handsome, functional plan (see page 7) prepared by architect Carl Maston, this building is going ahead under veterans' priorities at rents ranging from \$82.50 to \$37.50.

New Insurance Projects. A new and dominant factor in the present rental building picture are the big insurance companies, most of whom are now following Metropolitan's lead in making direct housing investments. This kind of financing means that apartments can be profitably developed at rent levels well within present federal requirements. Most of the insurance companies anticipate a prompt start on the projects they have announced. April brought these new additions to the lengthening list of such announcements:

► Prudential's purchase of a large site on Chicago's south side for construction of a \$9-\$10 million garden-type apartment development to house at least 1,500 families. Prudential is the first big insurance company to enter the Chicago field.

► Equitable Life's acquisition of an 8½ acre Bronx site to build housing for 1,500 families. Units are expected to be ready for occupancy by 1947.

► New York Life's project at Princeton, N. J., which may be ready for occupancy before the year's end.

Aside from the promising activities of the big insurance investors, few large apartment developments have been announced. Characteristically, Miami Beach boasted construction well along for a swank, 90-family \$750,000 building. Owners Jacob Entine and Jordan H. Davidson promised August occupancy, mentioned no rent levels.

Typical of the kind of apartment projects blocked by present building restrictions is the glamor (\$5 million) job for which plans were enrolled last month in Philadelphia by canny Mayer I. Blum. Blum already owns the best-known street address in Philadelphia—2601 Parkway, a de luxe 524-unit building overlooking the Schuylkill and downtown Philadelphia which has been an investment blue chip.

Although rents in Blum's new 458-unit venture were scheduled to average \$30 a month per room, this optimistic owner-builder predicted that steam shovels would

be wheeled onto the job site within a month. Blum counts on modification of the present building ban on over-\$80-a-month construction. "After all", he figures, "the people who move in will be vacating other facilities for those who need them."

When Mayer Blum ventures an opinion, Philadelphia real estate circles listen. Blum's prominence is based on the fact that even in the trough of the depression his properties made money. His formula: owner-planning, owner-building, owner-management. Says he: "Too many people think an apartment house is like an oil stock. They buy it and walk away from it. Let them 'tend to their business!'"

Whatever the fate of luxury projects like Blum's, the need for rental housing underlines the need for some consistent attention to this type of construction. Many a Building man though it was time for the federal planners who now set the building pace to go to work on a program that would give rental construction clearly preferential priority treatment and increased financing aids. Sample of where a boost is needed: loan limits set by the Patman bill for mortgage insurance under FHA's Title VI, Sec. 608 (rental projects) are too low, metropolitan builders said, to permit apartment construction in most cities.

INSECURE OWNERS

Do too many Americans own homes?

Home ownership in the U. S. is at an all-time high. But many owners, newcomers in crowded cities, were forced to buy by war housing shortage. Many of them will probably not be able to keep the houses they bought at the price peak of the war-boomed real estate market.

This is the conclusion of the Bureau of Labor Statistics which has been taking a measure of the shift from tenancy to owner-occupancy in 122 cities. Said the Bureau: "The forced purchase of homes by persons not yet ready financially to assume the long-term cost of home ownership or by persons whose residence in the community was only temporary has created for thousands an unstable and insecure type of home ownership."

Cities which showed the highest rates of increase in owner-occupancy are: Atlanta, Ga., 54.7 per cent; Ashland, Ky., 55.2 per cent; Winona, Miss., 53.5 per cent; Kansas City, Mo., 53.9 per cent; Wilmington, N. C., 50.2 per cent; Dallas, Texas, 51.2 per cent; Norfolk, Va., 54.4 per cent.

From the U. S. Census Bureau came the following history of U. S. nonfarm home ownership:

	Occupied Units	Owned %	Rented %
1944.....	30,756,000	47.4	52.6
1940.....	27,665,684	41.1	58.9
1930.....	23,235,982	46.0	54.0
1920.....	17,600,472	40.9	59.1
1910.....	14,131,945	38.4	61.6
1900.....	10,274,127	36.5	63.5
1890.....	7,922,973	36.9	63.1

HOLC'S PROFIT

One government agency makes money.

Oldest of the bevy of federal agencies which now have a finger in the U. S. housebuilding pie, the Home Owners Loan Corp. is also the first to be able to call its operations an unqualified success. HOLC has been long conceded a success at its main job: checking the mortgage panic of the depression. But HOLC is also a success by another yardstick. Not only has it failed to lose the billion dollars which Congressional critics predicted it would cost taxpayers, but it will finally wind up its operations in 1948 by returning its operating capital (\$200 million) to the U. S. Treasury plus a net profit of \$11 million.

This was the confident prediction of HOLC's dignified board chairman John Fahey, who last month offered figures to show how well the agency has done. Set up in 1933, when home owners were losing their homes at the rate of 1,000 a day and collapsing mortgage values threatened to bankrupt the whole U. S., the agency refinanced more than one million delinquent home loans over the next three years. Its credit rates were more liberal than had ever been offered: a 15 year term at 4½ per cent.



FAHEY: figures

Of HOLC's \$3½ billion portfolio, more than three-fourths of all loans have been paid off. Of its million borrowers, HOLC found only about 200,000 a bad risk, and has already sold all but 120 of the houses which it took over on foreclosed mortgages. Net loss of \$50 million to the end of 1945 is more than covered by income from other loans, Fahey said.

Although HOLC figures pointed to a final wind-up by 1948, American Legion Commander John Stelle touted a plan that might give this old agency a new lease on life. Stelle thought it might be a good idea for Congress to give HOLC the funds to make direct housebuilding loans to veterans at a low interest rate.

MARKET STILL BOOMING

No change in real estate weather ahead.

Last month the dean of U. S. business oracles offered a few prophetic words that fell pleasantly on the ears of real estate traders. According to elderly (71), goateed Roger W. Babson, who has been forecasting financial weather for thousands of subscribers since 1902, the real estate boom is not yet due to level off. In fact, it is gathering momentum.

Since 1929 Babson's forecasts have been accepted in business circles with all the reverence appropriate to the utterances of a man who not only foresaw, but marked the exact hour of the Great Stock Market Crash.

On the historic day of September 5, a few hours before stocks started their first tumble of 8 to 18 points, the Dow-Jones ticker carried Babson's prediction of an imminent and unparalleled crash. Although this was actually only one of the many sour estimates veteran forecaster Babson had



BABSON: forecast

been making of the Coolidge Bull Market since 1923, it was enough to establish him as a wizard of almost magical insight. As the market lunged downward during the following weeks, orders for Babson's forecasting service poured in by the thousands from business men utterly confused by the disappearance of all the old landmarks.

Babson is now optimistically convinced that "although real estate prices in many sections have risen considerably, there is no sign—except in previously war-inflated areas—of a turn downward." He said decisively: "I foresee no general decline for a few years."

Babson thinks the areas with the best real estate prospects are the Southeast, the Far West and the Southwest. He sees nothing to check the decline of New England, which he calls the "least favorable section from the standpoint of future prospects."

According to Babson, it is still very easy to make money in real estate. He offered this recipe:

"Perhaps the simplest and surest way to make money in real estate is to select a growing, well-located city with diversified industries and surrounded by good soil . . .

"After selecting your city, ascertain the best residential street leading out from the center of the city. Go out that street in the right direction for a few miles until you come to vacant land. Then stop and inquire the price. So long as the price is quoted per 'front foot' or per 'square foot' go along further until someone quotes you a price 'per acre'. Everything else being equal, buy at this location."

MORTGAGE INSURANCE TREND

Is Building giving FHA the brush-off?

Of all the government agencies courting Building, the Federal Housing Administration has been the most popular. Cold-shouldered at first, FHA soon established a respectable reputation and became self-supporting. But today a big part of the industry is giving FHA the brush-off. Said many a lender: despite her good behavior, FHA has seen her day.

Main reason for FHA's waning popularity is the presence of an attractive newcomer among the government agencies wooing Building—the Veterans' Administration. Under its amended Title III, VA guarantees home loans up to \$4,000 per veteran or insures them in bulk up to 15

per cent of the total made by the individual lender. This is enough to take most of the worry out of mortgage finance.

The VA guarantee may also be combined with FHA insurance. But under the straight VA guarantee program, veterans are able to obtain bigger loans (up to 100 per cent of valuation) at lower costs (4 per cent interest versus FHA's 5, including $\frac{1}{2}$ of 1 per cent insurance premium). Moreover, house buyers and lenders prefer VA's speedy processing of loan applications.

FHA Shut Out. In view of these VA advantages and the fact that a large proportion of today's home buyers are vets, an increasing number of lending institutions are writing conventional mortgages with a partial VA guarantee substituted for FHA insurance. By March 27, VA had already guaranteed 105,990 home loans totaling almost \$500 million. Last month the RFC took a step calculated to increase the already ample attractions of VA-backed loans. From now on, the RFC Mortgage Company will stand ready to purchase all such loans, if the original lenders want to sell them.

The trend away from FHA is led by savings and loan associations, followed by national and state banks. Bucking the trend are the insurance companies. In about half the states, including the two big insurance centers of New York and Connecticut, these companies have not yet obtained legislative authorization to make high percentage home loans without FHA insurance, and they are therefore completely out of the straight VA home loan program. Many of them are not sorry, for they look with disfavor upon VA's comparatively lenient policies, much prefer to work with FHA's conservative insurance men. Serving mainly as pick and shovel workers for insurance companies, the Mortgage Bankers Association likewise views with alarm FHA's forced bow to VA. Said one of the Midwest's major independent mortgage lenders last month: "As things now stand, FHA is virtually out of the picture insofar as insuring mortgages covering veterans' houses is concerned".

New Handicap. Further embarrassment is ahead of FHA, if the Wagner-Ellender-Taft bill is enacted as passed by the Senate last month. The Senate-approved requirement that prevailing wages be paid all labor involved in the construction of FHA-insured houses has caused builders to reach for another aspirin. If commercial building wage scales must be paid on small house projects to gain FHA mortgage insurance, most builders will be forced either to up the price of their already costly houses or to forsake FHA completely. Neither alternative augurs well for the industry, which is having trouble enough building houses which the public can afford, or for FHA, which, as one insurance company official predicts, "will become a mere

welfare agency for the administration of the W-E-T legislation".

Mindful of its recent loss of charm, FHA is trying hard to regain its prewar position by the restoration of some of its former attractive features. It has already revived Title I in an effort to stimulate the construction of minimum (\$3,000-and-under) houses. It has stumped for the W-E-T bill's more liberal credit for the \$5,000-and-under house (extension of the mortgage-to-value ratio to 95 per cent, stretching of the amortization period to 32 years, drop in interest rate to 4 per cent, exclusive of insurance premium).

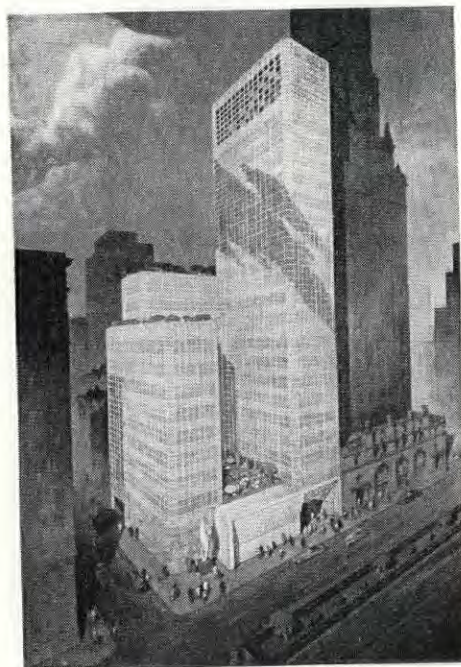
This legislative face-lifting should improve FHA's faltering position—particularly with respect to the more venturesome large scale builders. But still more surgery is indicated if FHA hopes to insure mortgages on the bulk of the houses built under the Wyatt program. In today's inflated market with building money more plentiful than ever before, a differential of even $\frac{1}{2}$ of 1 per cent between the cost of VA and FHA loans is an ugly blemish on FHA's face.

MATERIAL

ALUMINUM ON PARK AVENUE

Alcoa plans aluminum-faced building.

What may be the world's first aluminum-faced skyscraper office building is planned for a Park Avenue site by the Aluminum Company of America. Use of $\frac{1}{8}$ in. aluminum plate as a weather-skin will mean big construction savings, engineers say. Alcoa's lab-tested aluminum-faced curtain wall weighs only about 15 lb. per sq. ft. A typical office building masonry wall weighs about 100 lbs. per sq. ft. This differential means big savings in structural steel and footings. Hundreds of feet of masonry joining will be eliminated. The wall itself costs under \$2 sq. ft., compared with limestone



ALUMINUM FACED skyscraper

which costs more than \$3. Frank use of a curtain wall saves floor space. In the case of the Alcoa building, this will amount to 10,000 sq. ft. or a whole extra floor.

Prefabricated aluminum sections, 18 x 14 ft. will be connected by a sleeve-type joint to permit thermal expansion. The irregular U-shaped plan, with second story terrace, is by Harrison, Abramovitz and Wiggins, who helped to design Rockefeller Center.

Fairchild Press is also considering an aluminum facade for its new building in Manhattan's Greenwich Village section. Fairchild may beat Alcoa to the first aluminum facade in the world, since excavations are nearly finished at the site just off lower Fifth Avenue, while Alcoa may have trouble in demolishing the apartment building now occupying its site at Park Avenue and 58th Street (see below).

LUMBER THREAT

Black market is ruining forests.

From Boston came a warning that the booming lumber black market, which has raised havoc with builders' supplies, holds an even more serious threat for the future. Black market operations in logs and lumber are ruining the forests of New England, said Harris A. Reynolds, secretary of the New England Forestry Foundation.

Reynolds drew a frightening picture: Illegal operators are offering such high prices that owners are permitting woodlands to be razed without restrictions. Trees that should be saved for the future are being sacrificed by the destructive cutting. Logs and lumber are being hauled out of the region for premium prices, depriving local housebuilders.

Harrumphed forester Reynolds: "While OPA agents are poring over the books of old established lumber concerns to find a possible clerical error, the fly by night 'woodpecker mills' in isolated sections are conducting the dance of death for millions of young trees that should not be cut."

From Florida came a clue as to where some of the black market lumber is going. Trucks which haul fruits and vegetables from South Florida to northern markets are returning loaded with high-priced millwork and lumber, tipsters said. In Miami, OPA investigators began to stop trucks suspected of bootlegging lumber.

CITIES

DEMOLITION DILEMMA

OPA may halt all residential evictions.

All over the U. S. new building collided with the housing shortage. In downtown Manhattan, Syrian and Czech colonies who have lived undisturbed for half a century in the shadow of Wall Street skyscrapers got eviction notices. The city plans to tear down their tenement homes to make way for the Manhattan approach to the still uncompleted Brooklyn-Battery tunnel. Up town, residents of a high-rent Park Avenue

apartment building hired a lawyer to fight impending eviction as the Aluminum Company of America prepared to tear down the building, put up a 20-story aluminum-faced office building (see cut, page 10).

Pennsylvania's governor abruptly called off proposed widening of a Philadelphia street, which would have meant demolition of the homes of 1,000 families. In Milwaukee, home owners protested condemnation notices that announced the imminent extension of Billy Mitchell airport.

In less spectacular ways, most cities faced the question: in the midst of the housing crisis, should not demolition of residential buildings be halted? Biggest point in favor of emergency action that would interfere with property owners' rights: most demolition now going on is to clear sites for commercial buildings, which are banned under the federal building restriction order.

In mid-April, the New York Office of Price Administration took action that will delay demolition of at least 20 residential buildings throughout the city. Revoking eviction permits granted to an owner who wanted to tear down his apartment building, put up a motion picture theater, OPA said that no more eviction permits will be granted unless owners can show a certificate from the Civilian Production Administration approving the proposed new construction.

HOUSING AUTHORITY TROUBLES

Milwaukee's first project lags.

After ten years of hot debate, Milwaukee set up its first housing authority in 1944. For two years the housing authority contemplated its maiden project, finally went to work on plans for a 232-family job to rise on a shanty-covered hillside in the city's sixth ward. Last January negotiators started operations to acquire the 32 real estate parcels making up the two-block site. Excavations, the authority promised, would start the last week in April.

But last month it was suddenly clear that no shovel would turn on the long-awaited project before late summer. Even this was an optimistic estimate. Sniffed the *Milwaukee Journal*, which has been an earnest backer of the project: "The public housers, often willing to criticize the effort of private builders, have hardly set a remarkable pace."

To the general dismay, city fathers discovered in mid-April that the two-block site had not yet been assembled. Calling off the stumbling negotiations, they started condemnation proceedings.

At month's end, still another nagging delay showed. Architects Grassold & Johnson said plans were behind schedule because they could not find enough drafting help. They had tried to hire out-of-town draftsmen, but the draftsmen could find no housing. At this impasse, housing authority member Mrs. Walter P. Blount rose to

(Continued on page 12)



Sectional storage wall separates study area from main living room in this interior shown at Stockholm exhibit. Adjustable lounge chair has steel frame, is almost the only metal piece in exhibit.

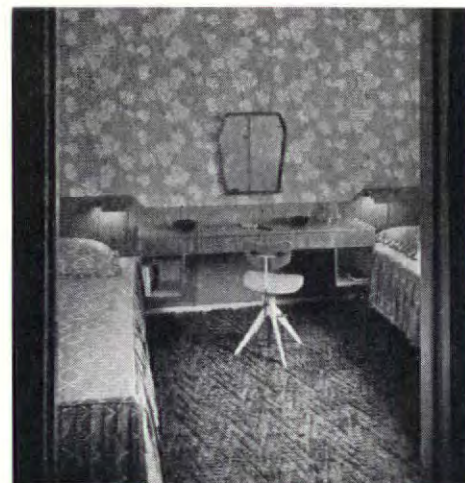


Photos: Nordiska Kompaniet

Unlike many U. S. modern furniture designers, Swedish craftsmen use almost no metal. The country's great abundance and variety of woods yield rich textures like the mahogany, birch and elm in the room above.



Handwoven rug and upholstery fabrics combine gracefully with simple, sturdy lines of furniture in this living room interior. Leaved table is of teak, bookshelves are elm.



STOCKHOLM EXHIBIT: 100 years of industrial design progress



View through living room to dining room corner shows pleasant blend of white-painted chairs with natural finish of table and cupboards. Cowhair runners are an unusual floor treatment.



The Swedish Art and Craft Society is about as old as the industrialization of Sweden. This in itself is a measure of the profound effect the Society has had upon the products of Swedish industry. In Sweden, where modern design has a firmer foothold than anywhere else in the world, there has from the very beginning of industrial production been a consistent attempt to develop an industrial art.

How solidly Sweden has forged the link between good design and machine production techniques was apparent in the Stockholm exhibit which celebrated the 100th anniversary of the Art and Craft Society. Part of the exhibit was the furniture and textiles shown here, produced by the famous Nordiska Kompaniet factories. This furniture is notable, not because it represents the radical new solutions of an *avant garde* designer, but because it is the kind of furniture that is manufactured by Swedish industry in great volume and purchased by the average Swedish customer. This is the kind of work that has made "Swedish modern" a household synonym for intelligent design.

offer a way out. She would be glad, she said, to take three out-of-town draftsmen into her own home to speed the city's first housing project.

In New York, first U. S. city to build publicly aided housing, the veteran Housing Authority was having troubles of a different order. So far, only one construction contract had been let for the city's bundle of projected new housing projects. This one—for John Lovejoy Elliott Houses—showed that construction will cost the city 71½ per cent more than it would have at 1940 costs levels.

The Authority had asked for bids on Elliott Houses last November, turned them all down because construction cost increase over 1940 showed at 68 per cent (FORUM, Dec., '45). By the time the authority had gotten adjusted to the new building facts-of-life, the cost index had bounced up an additional 3½ per cent.

Contracts for seven other low-rent projects now face two to three month delays, the Authority said. Reason: a new state law, just signed by Governor Dewey, requiring separation of public housing contracts into at least four parts, with separate bids and awards for plumbing, heating, electrical and general construction work.

Passed by the legislature in what some

thought was a misguided attempt to cut down construction costs, the new law was protested vigorously by housing authorities throughout the state and by many large contractors. The housers believed it would mean further costly delays, and a permanent increase in administrative overhead.

PREFAB BATTLE

Swank neighbors snub \$15,000 house.

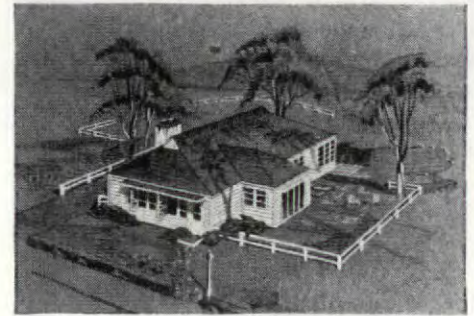
This is the story of a prefabricated house and the swanky suburban town of Larchmont, N. Y. It is also likely to be the story of a hundred other cities when prefab, boomed by the emergency housing program, begins to tangle with local building codes.

The trouble in Larchmont began when builder Harold J. Kennedy and realtor Cornelius Van Buren went to see the John A. Johnson prefab house show at Wanamaker's department store in New York City (FORUM, Feb., '46). Each one ordered the "Conway" house (see cut).

Kennedy bought a 20 x 110 ft. lot adjoining his Larchmont home, got the local building inspector to approve the plans for his seven-room prefab bungalow, prepared for its delivery. But when his Larchmont neighbors heard the news, there was a storm of protest. Proud of their fine homes

(some of which Kennedy had himself built), the neighbors claimed that the prefab house would depreciate property values. They appealed to the Mayor, the building inspector, and the Village Board of Trustees. The result: the Larchmont Village building code was amended to require lots of at least 10,000 sq. ft. (Kennedy's lot has 9,900 sq. ft.) and wall sheathing at least three-fourths of an inch thick (the new house was to have half-inch sheathing).

The Village Board denied that it was opposed to prefab, argued that the code changes were intended to prevent "cheap construction." Kennedy replied that the



PREFAB house banned by Larchmont

prefab bungalow, with all equipment installed, would cost nearly \$15,000. Suing for a permit to build, Kennedy was probably the only man in the U. S. last month who owned a house but could not build it.

Meanwhile realtor Van Buren, who lives just outside the corporate limits of Larchmont Village, was almost finished erecting the prefab bungalow on a lot adjoining his house. Just outside the Village code restrictions but in an equally high-brow section, Van Buren plans to put up several other prefab houses for sale to veterans.

While Larchmont muttered over prefab, the Building Officials Conference of America, Inc. announced the timely publication of basic building regulations covering prefab construction. By using this carefully composed performance code on which the Conference has worked for the last year, any city can test whether the many types of prefab houses which will soon be on the market meet health and safety standards.

DESIGN

COLLEGE PLANNING

Wheaton College drops modern.

Whether to stick to Collegiate Gothic or to adopt a contemporary solution to building needs is a question now agitating many a U. S. campus. With college enrollment swelling to an all-time high, with a backlog of war-deferred construction waiting, almost every educational plant has ambitious plans for expansion. An increasing number of the current plans call for a decisive

(Continued on page 14)



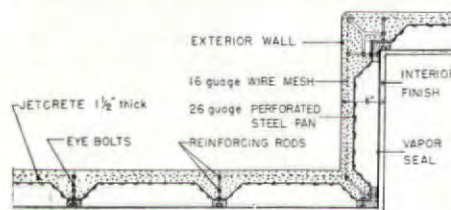
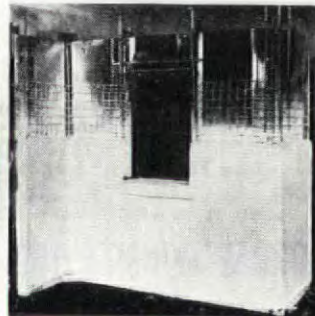
BUILDING BLOCKADE BROKEN

Chicago modifies building code for first time in decades.

First new construction system to run the blockade of Chicago's building code within the memory of the local building industry, 50 concrete-sprayed houses will soon be ready for occupancy. In an unprecedented gesture to the housing emergency, Chicago aldermen passed a special ordinance permitting the concrete wall to substitute for brick.

Builder N. W. Fisher says the concrete construction is stronger than 8 in. masonry and cheaper to build than conventional frame construction. He plans to sell row house units for \$6,800 and twin house units for \$7,200.

Houses are built according to the Colburn system, which calls for steel framing covered by several inches of concrete. Concrete is pneumatically shot from a Jetcrete gun, eliminating expensive forming. House plan is based on a modular system, to



WALL SECTION shows how Jetcrete is fixed to steel framing in Chicago houses just approved under city's rigid building code.

which steel framing and all other parts are sized.

Chicago's aldermen first cautiously asked that a test wall of sprayed concrete be put up, finally decided there was no time to waste on veterans' housing. Another recent and even more revolutionary change in Chicago's notoriously rigid building code is an emergency (and temporary) amendment which will permit frame house construction instead of the more expensive brick required heretofore in almost all of the city's area.



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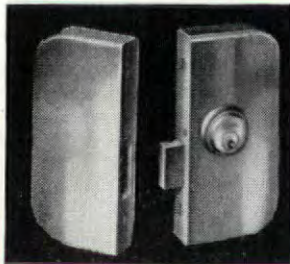
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SINCE 1839
RUSSWIN
DISTINCTIVE HARDWARE

break with faked traditional styles.

If some of the colleges are turning at last to contemporary design, credit as pace-setter goes to small, elderly (1834) Wheaton College at Norton, Mass. Wheaton was first in the U. S. to put up unabashedly "modern" buildings alongside the Colonial facades of the rest of its campus.

Since Wheaton chose architects Caleb Hornbostel and Richard Bennett to design its alumna house, science and library extensions (all actually built), the University of Oklahoma has prepared plans for a whole series of modern buildings, whose clean-cut lines are a striking departure from the crenellated Gothic of its older building (FORUM, Sept., '45). Antioch College at Yellow Springs, Ohio has enthusiastically approved a Saarinen and Swanson plan for a new women's dormitory, which will adjoin the towered Administration Building built by Horace Mann. Newest addition to the still slender ranks of academic realists is Smith College, which recently held a competition to choose an architect for three new dormitories. First prize went to young architects Benjamin Thompson, Norman C. Fletcher and his wife, Jean Bodman Fletcher, whose plan plainly showed that the designers believe in a frank expression of modern construction methods (see cut).

But Wheaton, first to endorse modern design, last month bowed out of its No. 1 place. Wheaton's complete reversal of architectural policy was marked by the appointment of traditionalists Perry, Shaw and Hepburn as college architects and by a furious campus row climaxed by the

resignation of Elizabeth Seaver, who for 16 years has been head of the art department.

Heart of the row is Wheaton's long-anticipated Art Center, whose plan was chosen by a 1938 competition sponsored jointly by the FORUM and by the Museum of Modern Art. Prize-winners Bennett and Hornbostel designed the new buildings erected by Wheaton just before the war, but their plans for the Art Center are still on the shelf—where it now seems likely they will stay.

Chiefly responsible for Wheaton's architectural switch-back is new president A. Howard Meneely, who has made no secret of his dislike for modern architecture. When Meneely appointed Perry, Shaw and Hepburn as college architects, art department head Seaver resigned, not only in protest against what she considered a violation of the college's contract with Hornbostel and Bennett but also against a policy which she believed to violate the college's job of preparing students for contemporary living.

Dave Robbins



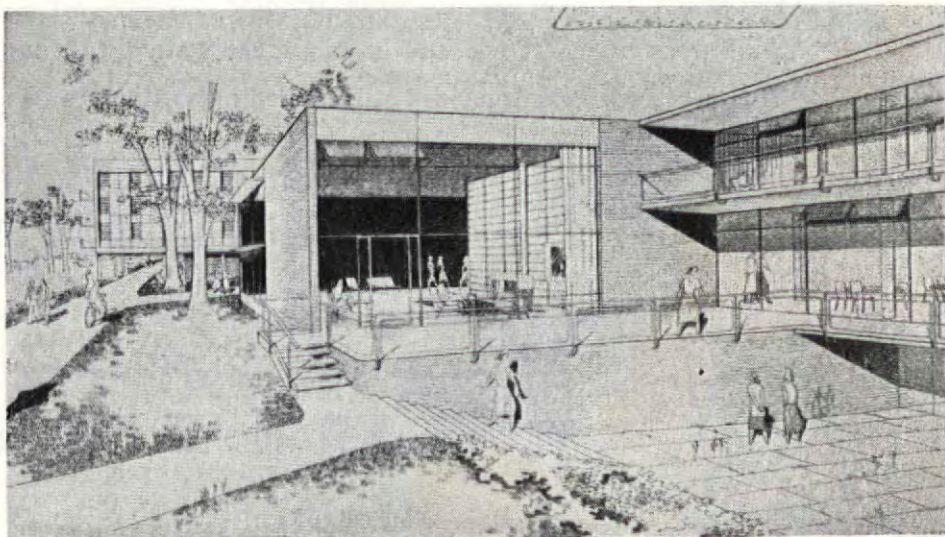
SEAVER resigned

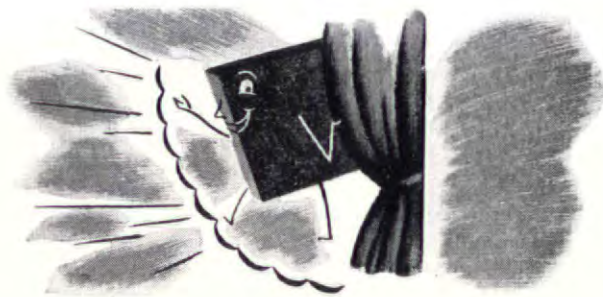
President Meneely promptly accepted the art teacher's resignation. Vigorous student criticism of the change in architectural policy (FORUM, Feb., '46) had, he complained, resulted in "unfortunate publicity for the college."

But last month Hornbostel and Bennett were summoned to a board of trustees meeting. The Board had taken a look at the matter of contract violation. The new college architects would not design the Art Center, the Board belatedly made clear. There was no intention of cancelling Wheaton's contract covering this building

(Continued on page 16)

SMITH COLLEGE gave first prize to this modern plan





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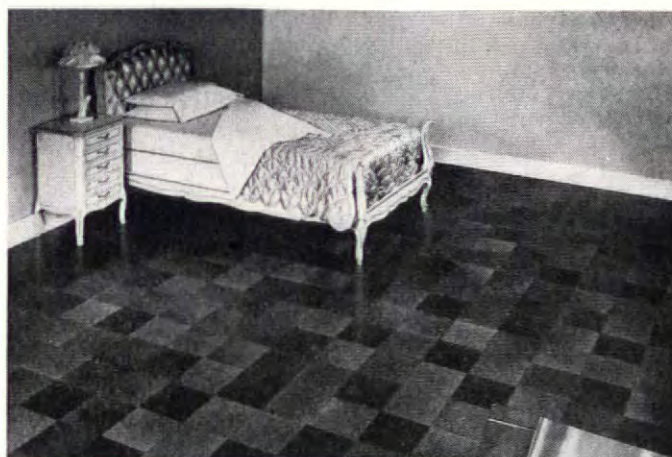
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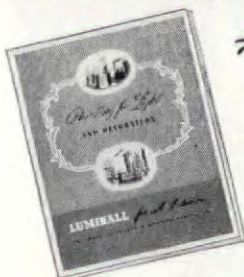
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—but there might, under the circumstances, be considerable delay in raising the money for construction. Could not Bennett and Hornbostel prepare other plans, more in keeping with the "prevailing style" of Wheaton's buildings?

Architect Bennett smiled, replied: by the time the money was raised, design for the Art Center would be even more modern than it now is.

UNITED NATIONS MOVE

Sperry plant will now house both world government and gyroscope assembly.

Like everybody else, the United Nations still had plenty of housing troubles. Deciding to abandon the Bronx, UN will go next to Long Island. Its new temporary home will be in two sections: a New York City World's Fair building in Flushing and the handsome block-long administration building of the Sperry Gyroscope Co. 13 miles away in Nassau County.

By September the colonnaded World's Fair building, now in use as a skating rink, will be ready for the General Assembly. For its remodeling Park Commissioner Robert Moses had promised the services of city engineers and the use of the city's checkbook up to \$600,000.

The air-conditioned, concrete and glass-brick Sperry building, which cost the Defense Plant Corp. about \$18 million, will be rented to UN by the U. S. government at a cost of \$200,000 annually. Three-stories high with full basement, penthouse and service wings, the Sperry building will require almost no alteration for UN office use. Adjoining Sperry plant space will be



GUGLER

converted for meeting rooms for the social and economic councils by architects Voorhees, Walker, Foley & Smith, who handled remodeling of the Hunter College quarters (FORUM, April, '46). Sperry will go on making gyroscopes in the plant buildings next door.

Plans were already underway for a housing project near the Sperry plant to take care of UN's personnel and their families, about 4,000 persons. Commissioner Moses' pet team of savings bank housing backers was reported ready to finance the development.

Hard at work plugging for an international competition for design of UN's eventual permanent home was an American Institute of Architects committee headed by Eric Gugler, New York.

(Continued on page 20)



Copperweld Wall Ties are made by our exclusive Molten-Welding process, whereby a thick protective covering of copper is permanently welded to an inner core of high-strength alloy steel. This provides a wall tie with the strength of steel and the long life of non-corroding copper—a tie that can be depended upon to function as a permanent bond throughout the life of the cavity wall. Send for specification bulletin.

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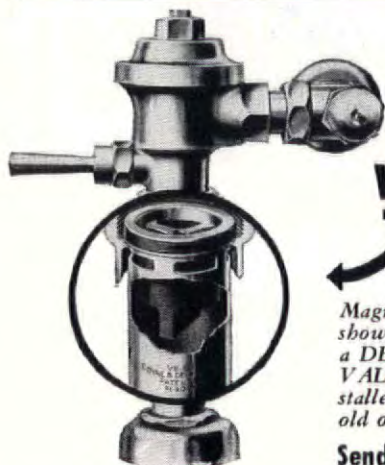
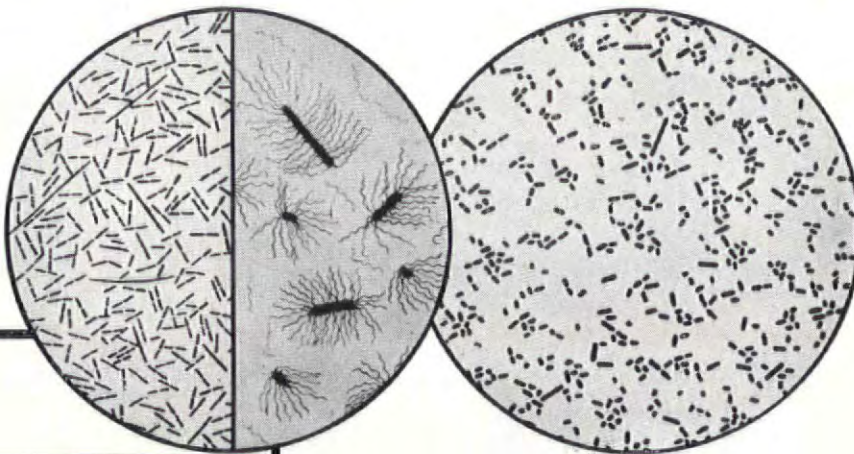
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Left, 24-hour growth of *B typhosus*.

Right, *Bacillus Typhosus*, the causative organism of Typhoid Fever.

Bacillus Dysenteriae Shiga. Causes human dysentery. 24-hour culture.



STOP THIS

WITH THIS

Magnified cutaway view shows No. 50 installed in a DELANY FLUSHBOY VALVE—it can be installed on ANY make of old or new flushometer.

Send for Valuable Facts

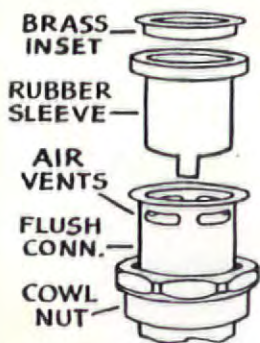
But You CAN'T MAGNIFY the DANGER from WATER-BORNE GERMS

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The No. 50 DELANY VACUUM BREAKER meets the requirements of U. S. Bureau of Standards, and is FULLY APPROVED by most States and Municipalities.

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EXCLUSIVE FEATURES OF THE DELANY NO. 50 VACUUM BREAKER



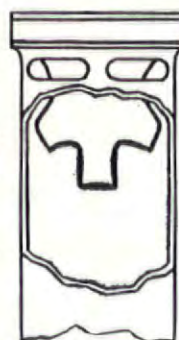
SIMPLEST ASSEMBLY—ONLY ONE MOVING PART

PRACTICALLY INVISIBLE WHEN INSTALLED

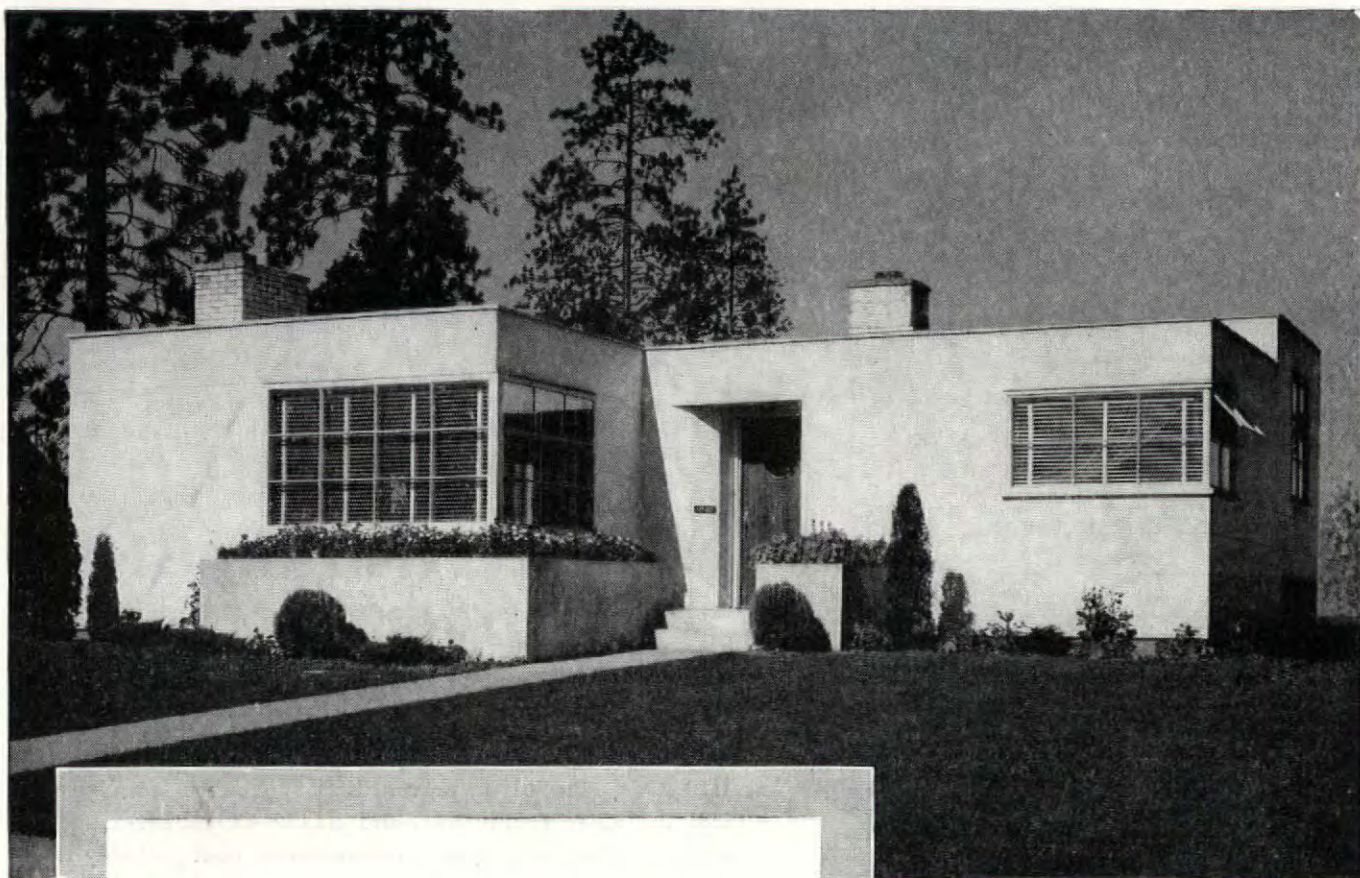


Drawings show cross section of the No. 50 in operation. The unit, upon application of flow, expands the rubber sleeve, seals off the air vents and permits the proper flushing of the fixture.

Under the weakest vacuum, the rubber sleeve of the No. 50 collapses inwardly, seals and breaks the vacuum. This instantly prevents the slightest back-syphonage.



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-To Meet the Urgent Needs of the Reconversion Housing Program

TODAY'S most urgent and immediate need is for housing—and the Douglas fir plywood industry pledges complete cooperation with the Reconversion Housing Program.

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As a result, the present supply situation for all other industrial and construction uses will be temporarily aggravated.

May we strongly urge you to anticipate your needs *far in advance*—and discuss your requirements with your regular sources of supply.

Even though today the supply situation in Douglas fir plywood is critically short, for many projects such as forming concrete surfaces, for signs and display work, for boat building, and for many other industrial and commercial uses, it is almost indispensable. In these cases it is well worth waiting for, as it will save time and labor and do a better job.



Douglas Fir Plywood Association
Tacoma 2, Washington



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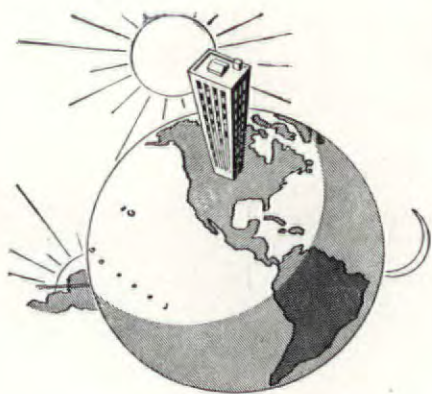
{ This advertisement appears
in The Saturday Evening
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PEOPLE

NEW JOB

Farrier joins Gunnison Homes.

One of the nation's top-notch housing technicians last month joined a top-flight prefabricator. Resigning as director of the National Housing Agency's technical division, Clarence W. Farrier arrived in New Albany, Ind. to take a hand in the booming



FARRIER

affairs of Gunnison Homes, Inc. With a new plant scheduled for completion by August, prefabricator Foster Gunnison expects to turn out one complete house for every hour of operation.

Onetime assistant coordinator of the Tennessee Valley Authority, Farrier was later television coordinator for the National Broadcasting Company. He directed NHA's technical division throughout the war years, working closely with private industry in developing new materials and methods.

HOUSES

BRITISH PROGRESS

Virtually socialized housebuilding makes less headway than promised.

In housebuilding Britain's Labor government has planted both feet firmly on the platform of socialization which it erected during the campaign. So far, this is true for no other British industry. Because of this and because of the severity of Britain's housing crisis, whether Labor keeps its political footing depends most of all on how fast British voters get a roof over their heads.

Right now this looks as if it will be a good deal less fast than the Laborites had promised. "We have waited eight months," Conservative back-benchers thundered, "and met with nothing but disappointment and disillusionment."

The first statistical report of housing progress showed only 1,450 new permanent houses built and only 12,000 temporaries. While these figures were indeed bitterly disappointing to several million underhoused families, they did not tell the whole story. An important part of it: some 112,000 families had been rehoused in repaired dwellings.

Private Builders Lead. Although the British government expects to do about four-fifths

(Continued on page 24)

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Water heaters for home and industry

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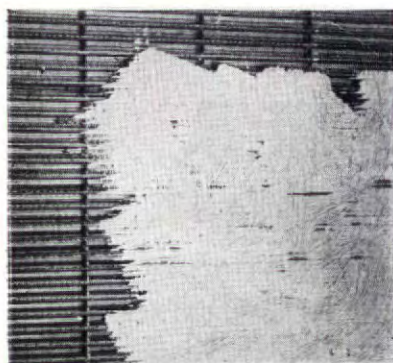
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specify walls
and ceilings of
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fire-safety . . . permanence . . . lasting beauty



• Above: The scratch coat is forced through Milcor Metal Lath so that it is keyed on both sides of the steel reinforcing.

• Below: Note how the back surface of plaster on Milcor Metal Lath becomes permanently "clamped" to the steel.



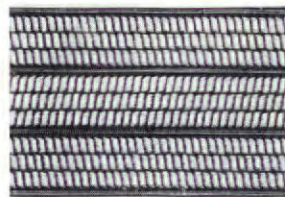
ON the drafting board, Milcor Metal Lath gives you unlimited freedom to develop structural forms and shapes.

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Milcor Specialmesh Metal Lath

tance of steel . . . and which have never equalled metal lath as a satisfactory plaster base.

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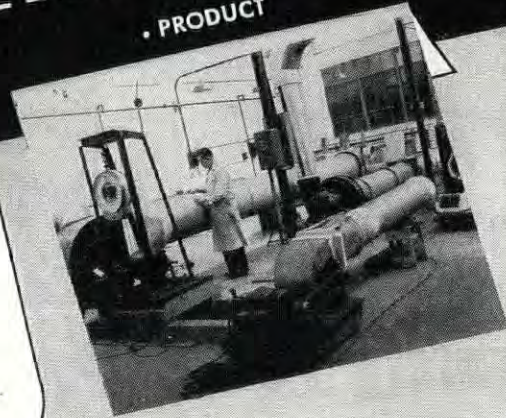
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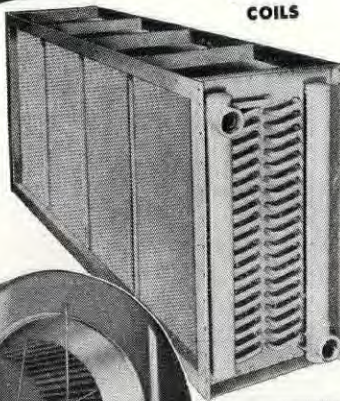
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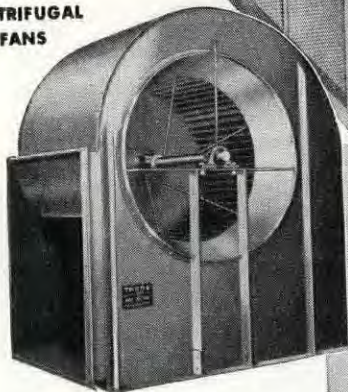


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COOLING
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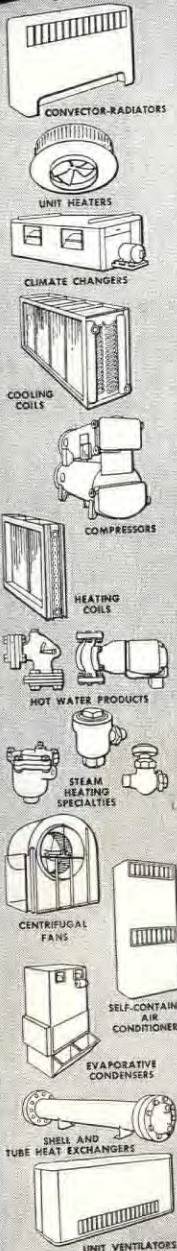
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Trane Cooling Coils and Centrifugal Fans perform all functions of cooling and air handling. The type OS Cooling Coil shown is a drainable tube coil for average quantities of clean chilled water. There are also Trane cooling coils for sedimented water, and for direct expansion refrigerants. The FC Centrifugal Fan shown is a forward curved multi-blade unit for large quantities of air. Other Trane fans are Trane backward curved non-overloading fans, and Trane Utility Fans.

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Watrous Flush Valve (piston type) being adjusted. Simply unscrew cap nut and turn adjusting screw to regulate length of flush to actual needs of fixture. No need to take the valve apart, or even shut off the water.

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While this is generally true, the full savings possible with flush valves are never realized unless attention is given to one simple fact.

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Fixtures vary in their water requirements and frequently as much as one gallon per flush can be saved by individual adjustment.

In a building with 200 flush valves, this saving would be 1,168,000 gallons per year—and that's real savings in dollars and cents. Figure your savings in the table below.

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This simple screw-driver adjustment, taking only a few seconds, is one of the reasons why the selection of Watrous Flush Valves is a source of constant satisfaction over the years to everyone concerned.

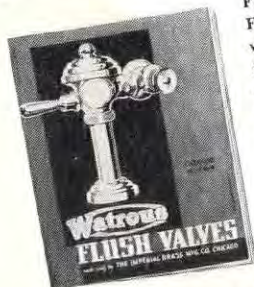
THE IMPERIAL BRASS MFG. CO. 1238 W. Harrison St., Chicago 7, Illinois

Estimated Annual Savings of Water Obtainable Through Proper Regulation of Flush Valve to Actual Water Needs of the Fixture.

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When average of 1/2 gal. saved per flush	292,000 gallons	1,460,000 gallons	2,920,000 gallons
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For complete information on Watrous Flush Valves see Sweet's Catalog or write for Catalog No. 448-A. Also ask for Bulletin No. 477 giving a summary of "Architects Views on Flush Valve Applications."

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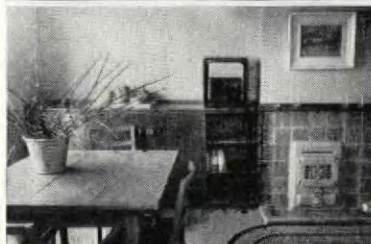
A 103-YEAR-OLD FAVORITE

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British Combine



PRIVATE ENTERPRISE in Britain shows what it is prepared to do to solve the housing problem by erecting 27 pairs of demonstration houses in various parts of country. These are first two pairs completed, built from plans selected in a House Building Industries Committee competition.

of all housebuilding under the present program, so far the government has produced only 350 permanent houses compared to a total of 1,100 built by private enterprise. The National Federation of Building Trade Employers was quick to claim that "the lesson" of these figures "is that the nation cannot afford to allow Mr. Bevan to go on discouraging private builders . . ." On its part, the government pointed to additional figures. Under construction are 16,000 government-built permanent houses as compared to 6,000 private builders' houses.

But, whatever the figures, last month the Laborites made it clear that they have no intention of climbing down from their election promise of virtually socialized housebuilding. This was plain in the House of Commons vote—in spite of heavy fire from the Opposition—to give the government almost complete control of the production and distribution of building materials and to authorize a 60-year subsidy for government-built houses.

The program for government control of building materials (given official approval and funds by the bill just passed by Commons but actually already put into operation under the government's war powers) is so extensive as to reduce the controversial Wyatt subsidy proposals to postage stamp size.

Government Sole Customer. Under the British plan, nobody but the government can purchase housebuilding materials. These go into the government-produced prefab and temporary houses and are re-sold by the Ministry of Supply to local authorities and to licensed private builders for use in conventional construction. As the sole customer for the output of the building materials industry, the government has tremendous power. It can fix prices, regulate

types and design of products, accelerate favored production processes (like the prefabrication of house parts) and set production schedules. This plan of semi-socialization is supplemented by a core of outright nationalization: 13 government-owned ordnance factories have been converted to the production of housebuilding materials and equipment.

Minister of Works George Tomlinson had summed up Labor's policy: "Let there be no misunderstanding, it is the intention of His Majesty's Government to go into business, both in the manufacture and in the distribution of building materials and components, in a big way."

Under contracts already in effect with producers, the government has been able to reduce the many types and sizes of building materials and fittings manufactured before the war to a small number of standard items. This standardization has been guided by a research program initiated by the Ministry of Works some years ago under the Coalition government. Reduction in variety of items produced has made it possible to put the emphasis on volume output.

Distributors Out of Business. Except in this respect, the government has so far not used its powers to make basic changes in production. Traditional patterns of distribution have suffered more. Although Laborite officials had declared their intention of using existing channels of distribution as much as possible, this has turned out—as many an unconverted Conservative had foretold—to be not especially possible. Bulk government purchase has led to distribution through government supply depot established at various points over the country.

(Continued on page 28)

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Selected for the new **TRIPLER GENERAL HOSPITAL**

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tion by weight was only 3.4%, there was no buckling, no warping, no opening of joints and the wet 8' x 8' panel withstood a load of 1,850 pounds with a lateral deflection of only 1.125 inch. Available in limited quantities. Ask your U-S-G salesman for test-it-yourself samples and merchandising helps, or write 309 West Adams Street, Chicago 6, Ill.

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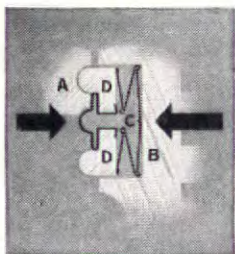
FIREPROOF. The gypsum makes these panels fireproof, helps protect all kinds of frame construction. No building paper needed.



CUTS SHEATHING COSTS 1/3 to 1/2. One man can handle the 1/2"x2'x8' panels, cutting and nailing right on the studs. You can use brick, wood, asbestos, stucco or stone exteriors.



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SELF-FITTING—

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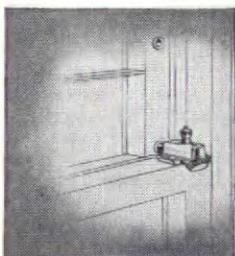
The new Silentite has "floating" weather-stripping. Illustration shows wood sliding bars which are seated on full-length bronze weather-strips and press tightly against moving parts of window. 20% less air infiltration than old Silentite.



SELF-FITTING—

For Easier Operation

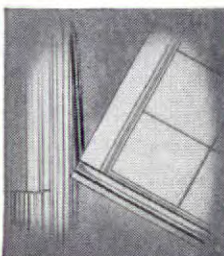
The "floating" weather-stripping forms a wood-to-wood contact with the sash. The new Silentite is easy to open and close at the outset, and continues to operate smoothly with use. And remember, Silentite has no weights, pulleys, or cords to get out of order.



SELF-FITTING—

For Locking Safety

The new Silentite locks in a closed or partly open position—new safety from intruders. New-style sash lock furnished with each unit—and you can get a new combination storm sash and screen, too!



SELF-FITTING—

For Simple Installation

The sash is installed with minimum effort—greatly lowering Silentite installation cost. Top and bottom sash may be removed from the inside by removal of one inside stop only.

BETTER windows—more weather-tight—easier to operate—easier to install! That's what home-building America wants today. And today, Curtis answers that need with a startling new window development—the *self-fitting* Silentite! Here's a window that represents as great an advance in window design as the original Silentite! Read about some of the new Silentite features shown on this page—then you'll know why Curtis again brings America more *window value* for its money!

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W. C. Edwards
& Co., Ltd.
Ottawa, Canada



CURTIS COMPANIES SERVICE BUREAU
Dept. AF-5S—Curtis Building
Clinton, Iowa
Gentlemen: Please send me full information on the new Silentite Window Line.

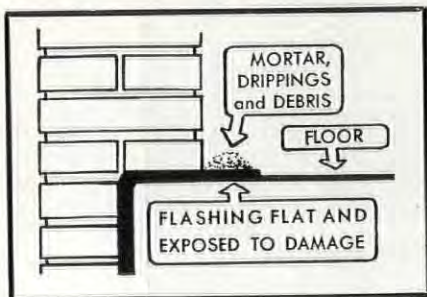
Name.....

Address.....

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

Remember, Silentite continues to give you "streamlined" beauty—operation without weights or pulleys—freedom from repairs—and many other features. Get all the facts about the new Silentite Self-fitting Window—and the new line of Curtis Stock Architectural Woodwork!

WRONG!



You're right! This is the wrong way of handling the flashing turn-up. It's wrong because it leaves the flashing exposed during construction to possible damage and to the collection of mortar drippings and other debris. It's wrong because the flashing has to be cleaned off before it is turned up. It's wrong because the flashing still has to be cemented. It's wrong, but it's the way almost all architects and builders are handling the flashing turn-up today.

RIGHT!

You're right! There is a right way—an amazingly practical and simple way that gives the flashing turn-up complete protection at all times, eliminates cementing and provides drainage for vapor condensation. You can find out all about this right way by sending for your complimentary copy of the "Improved Method of Handling the Flashing Turn-up", an ethical file-folder prepared by the Research and Engineering Department of the Wasco Flashing Company as a public-spirited service to architects and the building trades.

**SEND FOR
YOUR COMPLIMENTARY COPY
TODAY! And while you're at
it, FIND OUT ABOUT
WASCO**

AND RIGHT AGAIN!

You're right! Wasco is the right copper-fabric flashing! It's pure electro-sheet copper (available in 2, 3, 5 and 7 oz. copper weight per square foot), insulated and bonded between two layers of asphalt-impregnated fabric. Wasco bonds perfectly with mortar, is not affected by electrolysis, and is easily shaped and formed. Send for specifications, details and samples.

**WASCO FLASHING COMPANY
CAMBRIDGE, MASS.**

WASCO COPPER
FABRIC
FLASHING

Although U. S. housebuilders might carp at federal price ceilings as delaying production of building materials, their gripes were mild compared to the jeremiad of their British counterparts. The government was hogging scarce building materials for use in temporary and prefab houses, British builders claimed. Materials stacked up at supply depots to await government use, the outraged housebuilders said, while tried-and-tested private housebuilding waited.

Minister of Works Tomlinson denied that there were any big stalls in production of temporary and prefab houses. But the Opposition was ready to declare the whole prefab program a colossal failure. Alfred Bossom, an influential Conservative M. P. who practiced architecture for many years in the U. S., told Commons that the metal prefabs will become "grim monuments of a mistaken decision of the Minister which we shall have to look at for the next 50 years." Of the Opposition's many complaints, this much was a matter of record: the British prefabs had proved to cost as much—and sometimes more than conventional construction.

Houses-to-Rent. The government's first call on materials is only one part of a program in which public housebuilding takes overwhelming precedence over private enterprise. The Laborites had from the beginning insisted that five houses-to-rent must be built for every house-for-sale—since scarcely one out of five British families can afford to buy a house. This means that local authorities will do the vast majority of all housebuilding. Last month Commons approved a government subsidy (about \$90 annually for 60 years) for each house built by a local authority.

Private builders, of course, get no subsidy and must be licensed by local authorities for every house they build. This, the Federation of Registered Housebuilders claimed, means that private builders can do nothing to cut house costs and to reach volume production. "Firms who could develop sites of 1,000 houses receive a license to build four or eight and must run the gauntlet of an army of civil servants before they can obtain the necessary materials."

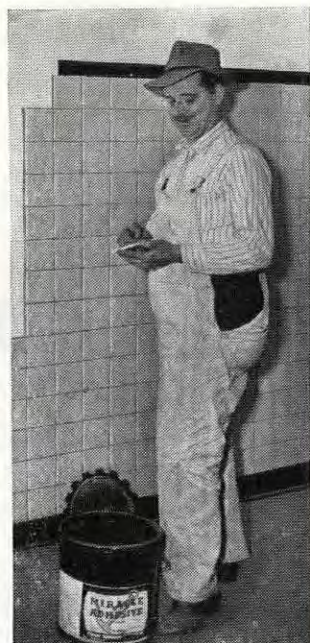
Ex-miner Aneurin Bevan, Minister of Health, pointed up the vast difference between the British government's attitude toward the housebuilding industry and U. S. public housing policy. Where the local authorities could absorb the whole of the building materials and labor available locally, Bevan said flatly, he hoped they would not license privately built houses at all. There had to be planning, and "speculative builders, by their very nature, are not planable instruments."

(Continued on page 32)

SAVE time, weight, costs USE MIRACLE!

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.

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Free Survey—For free survey and estimate, call nearest Chamberlin office or write factory. Chamberlin Metal Weather Strips pay for themselves in fuel saved. Ask for further information today.



See insert in
Sweet's Catalog

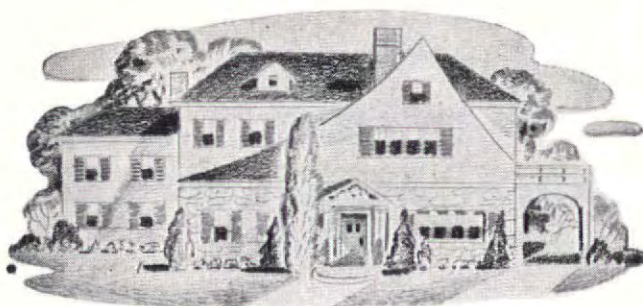
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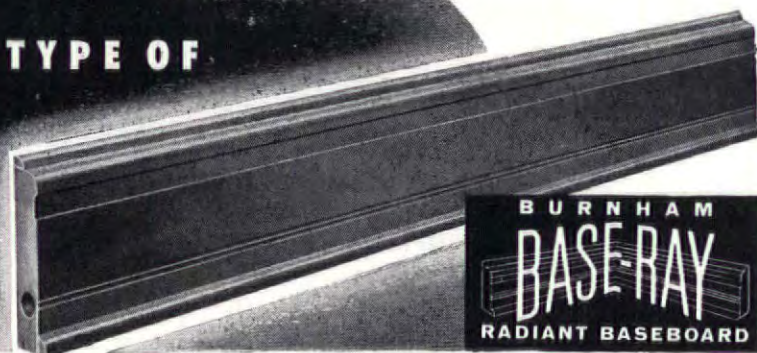


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To give your plans the truly modern touch, incorporate BASE-RAY. You achieve smartness, beauty, comfort and heating efficiency in one stroke. And this is important: Installation in new or old homes requires *no* structural changes, and specifications are simple. BASE-RAY cast-iron baseboards are installed on outside walls in place of the regular wood baseboard. Painted to match, they are practically indistinguishable from balance of trim. For any type hot water, 2-pipe steam or vapor system.

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of living*



Architect George Fred Keck combined insulation with insulation in this house. The roof extension bars hot summer sun, lets in the warm slanting rays of winter sun.

with large windows of *Thermopane*

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Most people love the outdoors—its feeling of freedom and bigness and airiness. So, the trend to larger windows—to bring these benefits indoors—is natural.

But, of course, people like comfort, too. How to provide both was a problem, until *Thermopane* was developed.

Thermopane is a transparent insulating unit composed of two or more panes of glass separated by sealed-in dehydrated air. It provides year-round insulation. The L·O·F Bondermetic Seal bonds the panes into a single unit to guard against dirt or moisture entering the air space. And the sealed-in air greatly reduces the possibility of condensation on the glass.

Manufacturers of both wood and metal windows make sash for *Thermopane*. For special sash, specify rabbeting wide enough to accommodate *Thermopane's* slightly greater thickness.

For more data on insulation values, sizes, thicknesses and types of glass than can be given here, write for a copy of our factual *Thermopane* book. Libbey·Owens·Ford Glass Company, 1656 Nicholas Bldg., Toledo 3, Ohio.



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The planning and decorating of hotel rooms are undergoing drastic changes. No longer is the traditional type of bedroom enough. Your post-war guests want a room that serves a dual purpose . . . one that is a charming sitting room by day, a comfortable bedroom at night. McCutcheon's has lots of new tricks up its sleeve to make this feasible and practical. For instance — our revolutionary new "Lounge-Bed"*. Here is a smart, comfortable sofa that's amazingly easy to transform into a luxurious bed. The guest simply raises the back by pulling a handle, whips off the mattress cover, and presto! there's the bed all made up and ready to use. It is a full 36" wide and 76" long and comes equipped with a fine innerspring or foam rubber mattress. It can be covered to harmonize with any type of decor. Write today for further details.

PLANNING SERVICE — We will gladly develop furnishing layouts for public rooms and bedrooms without obligation if you send us floor plans.

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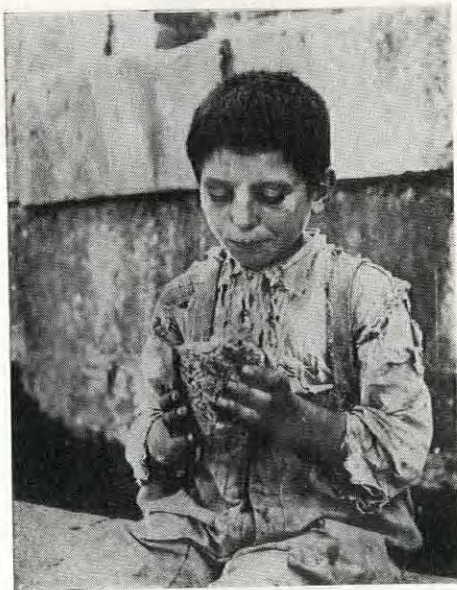
McCutcheon's



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*Patent applied for.

How long has it been since you've been hungry? REALLY HUNGRY? Starvation is hard to imagine, especially here in our rich land. But it does exist. Look at this photo.



This is not a posed photograph. This Italian child probably considers himself extremely fortunate to be enjoying such a feast.

At this moment a quarter of the world's population is actually facing death from starvation. The Emergency Food Collection, now underway throughout the United States (on behalf of UNRRA) is designed to save some from this fate. Food collection depots have been established in every community in the United States. Milk (condensed, evaporated or dried), meat, fish, peanut butter, baby foods, baked beans, stews, soups, fruits, vegetables—any metal-canned goods are sorely needed.

Those who wish to make cash contributions may do so through their local communities. Or checks and money orders may be sent to the National Headquarters. Address, Emergency Food Collection, 100 Maiden Lane, New York 7, N. Y.

LABOR

STRIKE THREAT

Denver tie-up averted by wage boost.

The building control order had been bad enough, but last month Denver contractors shook their heads over a new worry. Complete tie-up of all construction threatened as Denver's construction laborers and hod-carriers planned to go on strike.

The laborers said they would walk off the job unless Denver contractors agree to a 25-cent an hour wage increase. This would up common laborers from \$1 to \$1.25 an hour and hod carriers from \$1.25 to \$1.50. Builders claimed it would add another 15 per cent to the zooming cost of construction.

As the strike deadline loomed, union men prepared to put their shovels down. Finally the Denver Home Builders Association, which uses 70 per cent of the city's hod carriers, came to terms with the union. The agreement: to put the matter before the Wage Adjustment Board and to accept the Board's decision. Within a day the Denver Contractors Association had decided to sign the agreement. While the Wage Adjustment Board pondered the contested wage boosts, Denver building settled back to an uneasy peace.

PLUMBERS' PLAN

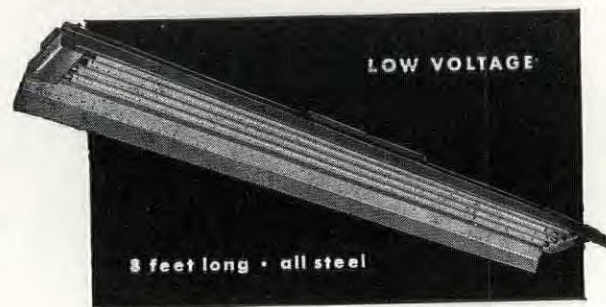
Contractor offers new repair service.

Milwaukee householders can now buy plumbing repair service for \$11 a year. "No longer need the fear of big budget-busting plumbing bills to take the joy out of life," plumbing contractor Herman Zien promised his customers. "No longer need you worry about labor charges at \$2.50 an hour."

Contractor Zien has already signed contracts with 150 householders. For a flat rate of \$11 a year, contract holders can be sure that drains will be kept unclogged, traps clean and all plumbing smoothly operating. A big part of Zien's sales talk is "preventative maintenance" which calls for two free inspection visits each year to each home under contract "to catch plumbing troubles before they happen." The annual contract fee does not cover cost of materials, but Zien says he is prepared to supply all items at prevailing prices. No matter how many labor hours are involved in a repair job, there is no charge beyond the annual fee.

Trying his plan out in an eastern Milwaukee neighborhood, plumber Zien plans to extend it to the whole city if he finds householders generally as enthusiastic as he is about plumbing service by the year.

*COLOVOLT COLD CATHODE INDUSTRIAL FIXTURES



Here is the new Colovolt industrial fixture, one of a complete line of industrial and commercial "packaged" units. Equipped with the standard 93" Colovolt 10,000 hour lamp, Colovolt fixtures may be used singly or in continuous line lighting in multiples of 8 feet. Instantaneous starting, no flickering, guaranteed for 1 year except for failure due to breakage are extra advantages of the Colovolt Cold Cathode low voltage fluorescent lamp. The long life expectancy of Colovolt lamps may be realized even when constantly turned on and off, and pre-scheduled re-lamping, with no loss of production or time, is now possible with Colovolt installations.

Contact your electrical wholesaler or jobber, or write us for full details and prices.

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HEAVY TRAFFIC floors

FOR LESS THAN
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Rubberlike, the modern composition floor runner, provides positive protection for heavy traffic areas at less than 6c per square foot—a fraction of what most matting costs. Its sturdy corrugations cushion and quiet footsteps. Skidproof even when wet, Rubberlike makes slippery floors safe to walk on. Hugs any surface without cementing—won't curl at edges. Cuts cleaning costs . . . lasts and lasts under tough treatment on floors in factories, offices, schools, hotels, institutions. In 25 yard rolls, 36" wide. Order from supply house or write for free sample to Bird & Son, Inc. Dept. 155, East Walpole, Mass.

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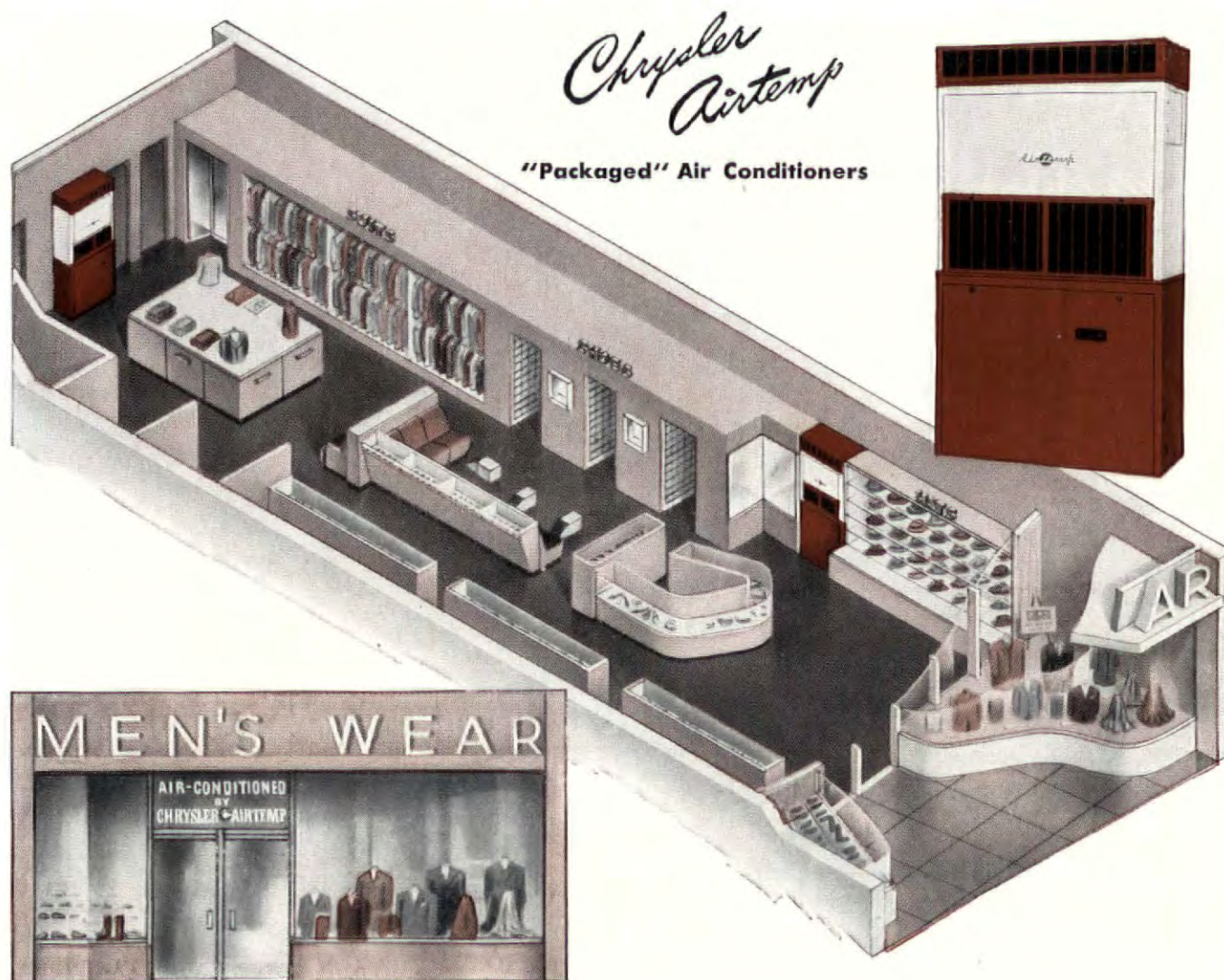
➔ For flexibility in color treatment, no surfacing material can compare with Formica. Whether you want brilliancy and contrast, or restraint and dignity, Formica offers everything—and a tight modern plastic surface that enhances the effect of color.

These colors are light-fast, perpetually bright and new. They do not stain because the material is non-porous and non-absorbent, and chemically inert. They are not spotted or charred by lighted cigarettes if the cigarette-proof grade is specified.

So the restaurant, lobby, terminal, ship or train in which surfaces are so protected can be depended on to maintain its original appearance without deterioration for years on end. Color charts and installation data on request.

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Simplified Air Conditioning for All Businesses

Air Conditioning is a potent builder of good will in men's stores. Patrons like to be cool and comfortable—they stay longer and buy more. "Packaged" Air Conditioners, pioneered by Chrysler Airtemp, provide cool shopping comfort—completely and economically.

"Packaged" Air Conditioners fit into plans for any business establishment. More and more, progressive architects are specifying this modern, simplified method of air conditioning. "Packaged" Air Conditioners are compact, easily moved, occupy less floor space and can be quickly and easily installed, singly or in multiple. They operate entirely automatically.

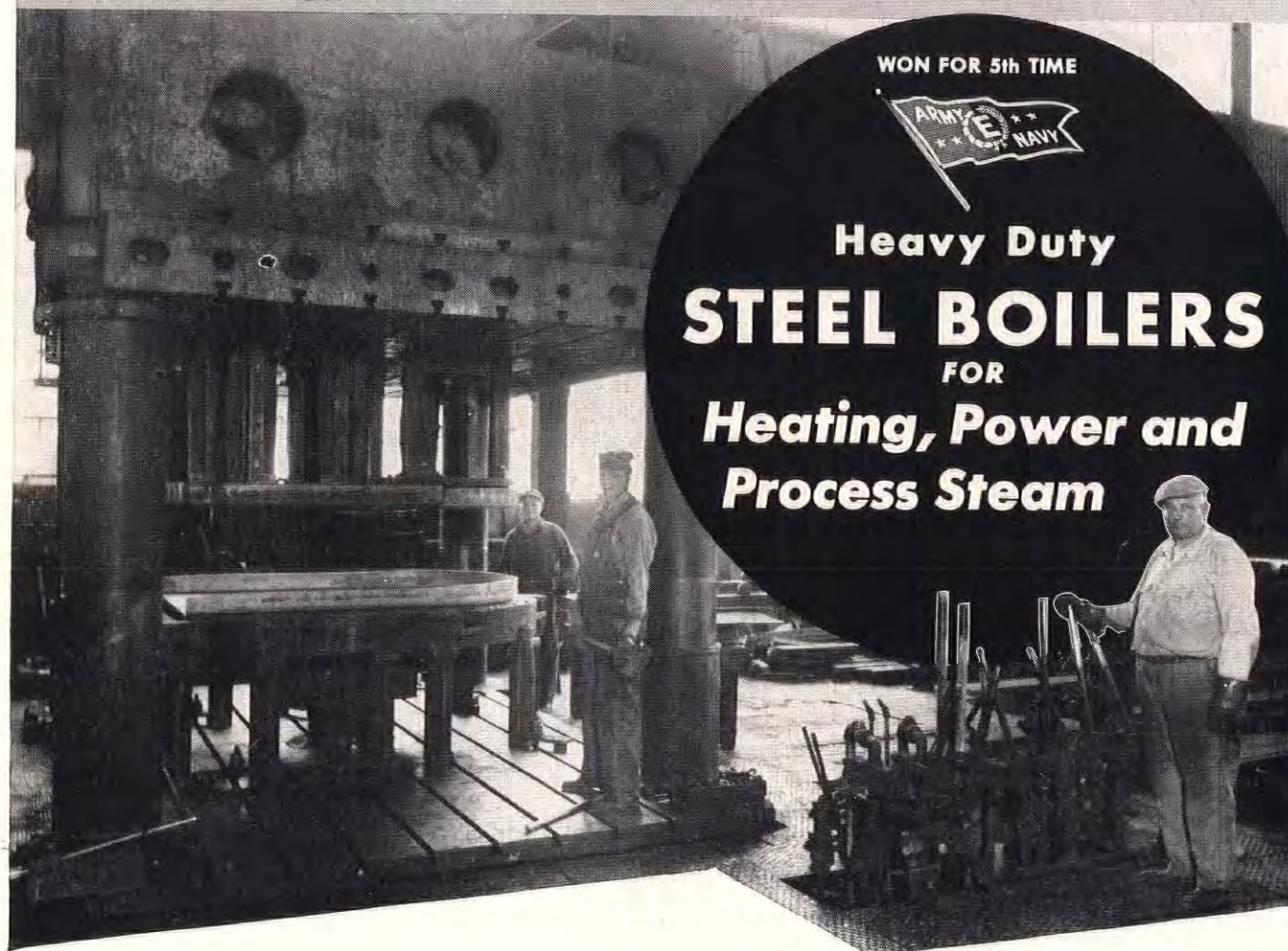
Merchants prefer "Packaged" Air Conditioners because they are engineered and manufactured for long life and perform effortlessly and quietly with little or no attention. They have made amazing performance records all over the country. Operating and up-keep costs are surprisingly low.

Behind these "Packaged" Air Conditioners stands Chrysler Corporation, famed for engineering and mass production skill—your assurance of high quality, dependability and low cost. • Airtemp Division of Chrysler Corporation, Dayton 1, Ohio. In Canada: Therm-O-Rite Products, Ltd., Toronto, Ontario.

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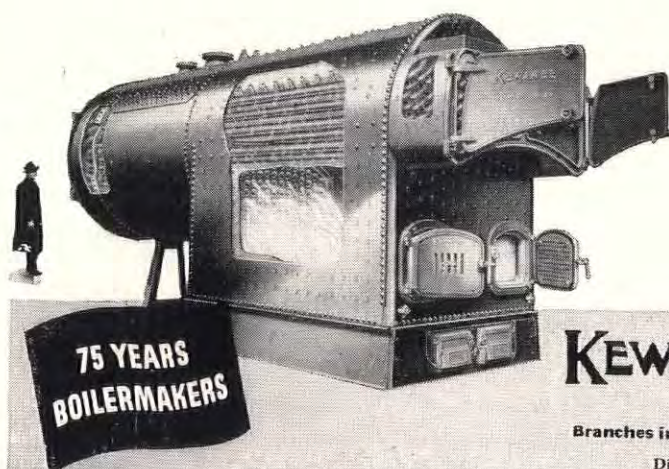


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STEEL BOILERS
FOR
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In heavy duty service... whether for power, process steam or heating... the extra strength built into Kewanee Hi-Pressure Boilers insures a longer term of dependable service. The shop photo shows a boiler head being formed into perfect shape under a hydraulic pressure of 1500 lbs. per square inch.

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NOW! Apartment Dwellers Can Enjoy Individual Comfort

YOU WON'T have to wait until new apartments are built to enjoy just the comfort temperature you prefer. For Minneapolis-Honeywell has developed a "Personalized" Heating Control System that can be installed in your present apartment. With a thermostat in every suite, you can select your own temperature just as you select your decorations. P. H. C. makes available to every apartment dweller the same unlimited comfort that Moduflow* brings to single-family dwellings.

* Moduflow is the name given to Honeywell's newest heating control system for homes. It means heat *modulated* to whatever temperature is required for comfort, with a uniform, continuous *flow*.

BUILDING OWNERS AND MANAGERS

Now you can install a P. H. C. System in your existing building without remodeling or even redecorating! By an ingenious method developed and used exclusively by Minneapolis-Honeywell, the work can be done in a matter of hours, without inconvenience to your tenants. See below how easily and inexpensively this can be done.

During the past 18 months, Honeywell P. H. C. Systems have been installed in 232 buildings (3,099 suites) in 28 different cities. They are not only greatly increasing tenant satisfaction (which means longer leases) but they are also saving fuel at an average rate of 20 per cent.



COMFORT UNLIMITED

Each tenant can have the comfort temperature he desires. Just set the thermostat—as simple as dialing in your favorite radio station.

CUTTING THE GROOVE

Special cutting tool, designed by Honeywell, cuts groove in wall to conceal wiring. Vacuum cleaner attachment removes plaster chips and dust.

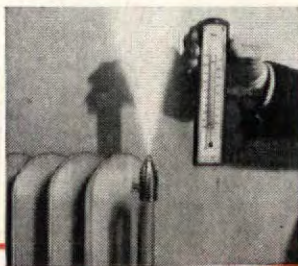


NO "MOVING DAY"

You won't have to face the terrors of moving day in order to enjoy the even, comfortable temperature that only apartments equipped with P. H. C. can offer.

COVERING HIS TRACKS

The flexible copper tubing is sealed in the groove with a specially prepared plastic cement. Then the groove is concealed with adhesive tape previously prepared to exactly match the wall color.



NO UNHEALTHFUL OVERHEATING

No more colds and sickness caused by overheated apartments or drafts from windows opened to get relief. And, precious fuel is saved for other useful purposes.

JOB FINISHED

Within an hour after he started, the service man has departed, leaving behind no mess or evidence of his work. Just as simple as installing a telephone.



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Honeywell
Personalized
HEATING CONTROL

IF YOU ARE PLANNING TO BUILD, you should get complete information about Honeywell P. H. C. Systems . . . Just mail the coupon or write to Minneapolis-Honeywell Regulator Company.

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Please send information about M-H Personalized Heating Control for:
Existing Buildings.....New Buildings.....

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

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WE'RE FOREVER BUSTING BUBBLES

That's the secret
of Gold Bond Macoustic—
the fireproof acoustical plaster!



● Macoustic is applied over a base of gypsum plaster and saves the cost of the usual lime putty coat. May be troweled comparatively smooth or floated.

● Microphoto showing the sound-trapping channels created by the bursting gas bubbles in the drying process. Magnified 32 times.



WHEN Gold Bond Macoustic is mixed with water, small gas bubbles form. After application, these bubbles burst, automatically creating millions of tiny sound-absorbing channels within the plaster which give this material its high acoustical efficiency.

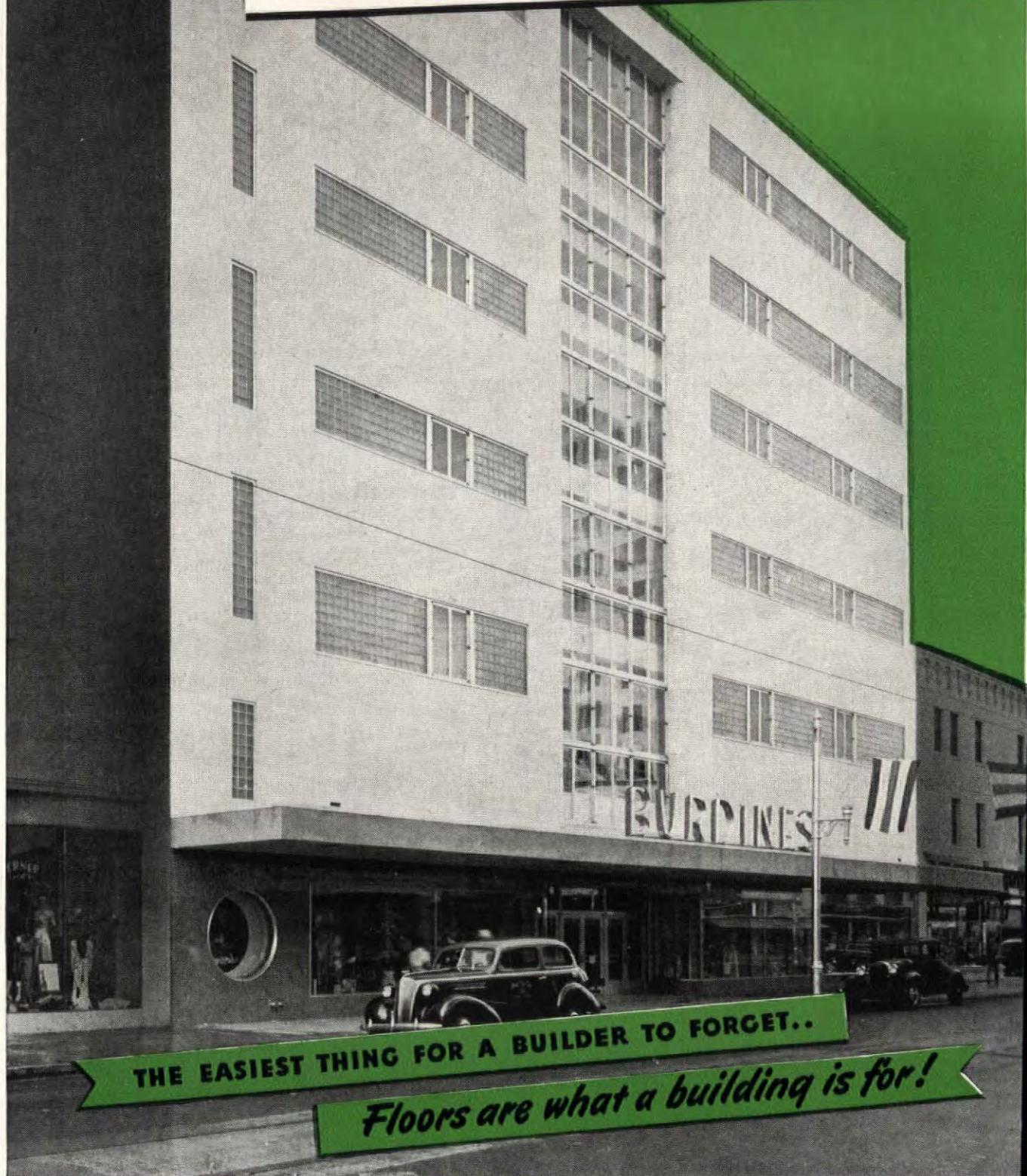
The pleasing finish of Macoustic harmonizes with practically any type of wall treatment. It imposes no limitations on design and may be used equally well over flat or irregular surfaces, coves, barrel or groined ceilings. Is applied by regular plasterers and adds so little to the cost that Macoustic sound conditioned ceilings may be included in even the most modest budgets.

Macoustic is supplied in oyster white, ivory, cream and buff. When redecoration is necessary, it may be spray-painted with Gold Bond Sunflex water-mixed paint without appreciable loss of sound absorption. For complete information, see Sweet's or write National Gypsum Company, Buffalo 2, New York.

You'll build or
remodel better with
Gold Bond

BURDINE'S *built with*

MIAMI, FLORIDA



THE EASIEST THING FOR A BUILDER TO FORGET..

Floors are what a building is for!

Q • FLOORS *because..*

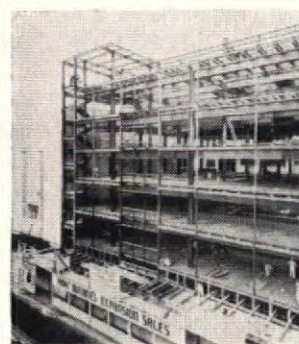
Q-Floors gave E. L. Robertson, Miami and John R. Weber, New York, architects,
freedom from all floor plan headaches.

You have no worry about change of floor plans, even in a building where frequent change is essential to the business, if you are working with Q-Floors.

Burdine's department store, for example, rolled back the rug display one night, tapped the Q-Floors for electrical outlets and set up the demonstration of sewing machines, pictured on the right, with each machine having an outlet.

An outlet takes literally only a few minutes to install on Q-Floors. A Q-Floor is steel cells crossed over by raceways in such a manner that any six inch area can be tapped for power. An electrician merely drills through a thin concrete fill. No trenches with their mess and muss. Think what this means in terms of flexible floor layout.

Over-all electrical availability protects any building you design from electrical obsolescence no matter what the future hatches out of electronics. From a purely professional point of view, you can save yourself a whale of a lot of grief by specifying Q-Floors. Your client can locate partitions and electrical fixtures *after* he moves in.



And for Rodney Miller, Miami contractor, Q-Floors formed a dry, clean, noncombustible platform for all trades

Faster construction with Q-Floors is easily translated into money saved by your client. Q-Floors reach the job cut to fit. Two men can lay 32 sq. ft. in 30 seconds. The floors go in as fast as frame goes up. No forms or shoring; no wet materials cause delay. This speeds all other trades along so that construction time is reduced

20 to 30%. Robertson has proved this on thousands of installations.

Q-Floors construction advantages and the over-the-years electrical advantage would justify premium costs. But—costs are right in line. You don't have to hedge one bit for cost. For complete information call a Robertson representative or write to

H. H. ROBERTSON COMPANY

2403 Farmers Bank Building
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Offices in 50 Principal Cities
World-Wide Building Service

Q • FLOORS

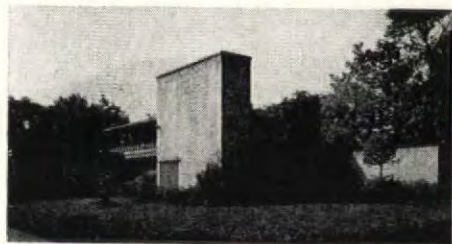
Gripes for Goldberg . . . Allen in demand . . . What the public wants . . . Architect's daughter speaks up.

ALUMINUM EXPRESSION

Forum:

While reading your March 1946 FORUM, I came across an article regarding a portfolio of work by Bertrand Goldberg, a very capable functional architect, and it left me in a slightly confused frame of mind as to what is good and bad architecture.

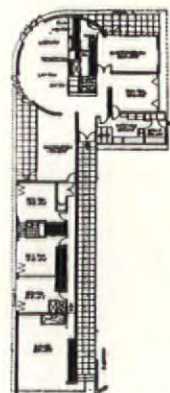
. . . On pages 112 and 113 regarding the Heimbach house, the fireplace tower to me has the appearance of the "Ever Normal Granary" the farmers use for grain storage,



Heimbach house

and is surely a fake. The second story portion of brick, supported by two small lally columns surely is a display of a heavy mass apparently supported by out of scale members. Is this good or bad?

. . . Regarding the Jacobs house, p. 114, there are several items that may have been dictated by the client, but are confusing to me. One item that seems just bad design is the detail of the curved wall intersection of the rear porch off the master bedroom. How does the client use this triangular



space on the porch? Had the curved wall been carried straight through and squared out the owner would have had more available space in the dressing room, a more livable porch, and the owner would have had less expense in building and maintenance costs. This detail is functional architecture at its worst and leaves me cold. The long walk from the garage to the front entry would be alright for your daily exercise (if you need it) but for the use of the average person it seems to me unnecessary. I suppose the long corridor from the recreation room through all the bedrooms to the garage would give the client a chance to take his daily walk inside on days when the weather is bad outside.

. . . Aluminum roof ties, exposed for "frank expression" of architecture in the

Ancell house (p. 111) are out of this world, and would make wonderful roosts for pigeons. Unless you have something better to suggest.

Back to the serious side. Does your editorial policy cover the program of publishing what's new (good or bad), or do you try to find good clean designs which Mr. Average Man can invest his money in, feeling that he has the best in progressive design?

Apologies to Mr. Bertrand Goldberg (not Rube) for these small but many gripes—but why not give the subscribers a break by showing us the best in architecture.

PETE SWICK

Lima, Ohio

The best in contemporary architecture—to which the FORUM is dedicated—is not necessarily the perfect.—Ed.

DYNAMIC MR. GIBBINGS

Forum:

Though I agree with Mr. Robjohn-Gibbings in his letter on Frank Lloyd Wright, I am completely amazed and baffled by it. When did he first become aware of "the horrors of Roman revivalism"? What is that table supported by Griffons that I seem to remember seeing somewhere, if it isn't Roman revivalism? Perhaps it is Greek. Sometimes I become confused. . . .

CRAIG MCCORMICK, Designer
Philadelphia, Pa.

CLAUQUE FOR ALLEN

Forum:

Not being a member of your inner circle, I should perhaps stay far away from your controversies, but frankly, I have been all of amused by, disgusted with, and irritated by the letters turning up in your columns, and I've held my small fire till the whites of the writers' eyes appear bloodshot due to my own brand of wrath!

We can always do with more Roger Allen-humor, and the debates being kicked around the last several months are interesting, but too often among the mail comes a complaint that really sends me spinning—the far-too-repetitious, "the people don't want modern houses, get wise to yourself, get back in a rut, FORUM." This hurts, and I could knock myself out over less, but approaching the subject from a not-so-emotional angle—

"Functional" and "dynamic" are strong, true keywords of our times. How any of us can expect architecture to remain static in this day of progress (however bewildering), is amazing. In February's issue a New England architect assumes that, because FORUM neglects the Colonial house, and he receives nothing but requests for Colonials, FORUM should get its nose out in the wind again. I cannot reach these same rather unreasonable conclusions. One small or relatively small locality, can hardly be considered a cross section of the country, nor can one locality's taste be regarded as indicative of the direction the future building trade designs will take. But if FORUM is fighting amid such an overwhelming mass of architectural drags and obstacles as we are led to believe, then I should say that we truly need its service as an impetus toward more universally-accepted useful design.

But perhaps I too am prejudiced, for here on the coast we are the lucky possessors of several of the top modern designers in the country—Neutra, Soriano, Laszlo and Thiry, to name only four. We not only have a corner on many of these "architectural pragmatists" who place functionalism above all else, but we also have fewer 19th-century-diehards, thus a much happier proving ground for plain smooth surfaces, glass panels, and other structures in harmony with their surroundings. Away with superfluities, gilt cattails, and sentimentality!

VIRGINIA E. MORELAND

Alhambra, Calif.

At last count, our inner circle numbered 40,000, and there's always room for one more.—Ed.

Forum:

To me the greatest architect in America is Roger Allen of Grand Rapids, Mich. Not Frank Lloyd Wright even with a single 'I'. Not Cram or Goodhue or Louis Skidmore or even the direct Albert Kahn, whose definition of an architect was "any man with a client."

The reason that I go for Roger Allen is that he has a vast sense of the incongruous which is humor. And a sense of humor is the salt of all good thinking. The happy humility of being able to laugh at yourself as well as others is a great sign of progress.

I know nothing about Allen's architecture as such. But I shall forever delight in his approach to it. Most of us have done a lot of things to meet the Wrench Men when they come to turn off our gas and threaten us with a primitive existence. Perhaps Roger Allen has also. I do not know. But I will bet you that Allen met the Wrench Men with a style.

(Continued on page 40)

LATEST NEWS on SOUND INSULATION

Balsam-Wool data sheets!



• Insulating to prevent sound transmission is only one of the many subjects covered by these Balsam-Wool Data Sheets. For here is a storehouse of latest information on correct insulation practice—which embodies months of research, years of experience. The complete file of thirty-two Balsam-Wool Data Sheets is yours for the asking—just mail the coupon for your set!

Balsam-Wool APPLICATION DATA SHEET No. 2

BALSAM-WOOL SOUND INSULATION SYSTEM—FLOOR APPLICATION

THE Balsam-Wool Sound Insulation System is an efficient and economical method of reducing sound transmission through floor construction. The System consists merely of Standard Balsam-Wool Insulating Blanket, Balsam-Wool Sound Insulation Clips, and wood strips.

Standard Balsam-Wool, preferably in a 33" width, is first placed over the entire subfloor, lapping edges about 3" and turning blanket up on all walls to plaster grounds. If pipes or conduits are laid on top of subfloor, cover with Balsam-Wool. Cut 1" x 3" or 2" x 2" wood sleepers or nailing strips to length, slightly shorter than required, since the ends must not contact the wall. Balsam-Wool Sound Insulation Clips are nailed firmly to underside of sleepers on approximately 24" centers, using the special barbed nails provided. After clips are attached to the sleeper, it is turned over so the clips are on the bottom. If conduit pipes are at right angles to the nailing strips, notch the strips to accommodate, without compressing the Balsam-Wool.



the plug nail with felt washer attached in the hole and drive in place immediately after drilling.

In this method of sound insulating floors the Balsam-Wool Blanket absorbs sound and cushions the finished floor, giving it a desirable feeling of resilience. The Balsam-Wool Sound Insulation Clips are designed to allow spring action, which permits vertical movement of the floor but restrains movement or creeping in a horizontal direction. The felt washers prevent any direct contact between the nail and the steel clip. Since the finish floor and sleepers are not nailed directly to the subfloor, the moving load on the floor places no tension on the nails, thus one common



Balsam-Wool APPLICATION DATA SHEET No. 1

PRINCIPLES OF SOUND TRANSMISSION

THE problem of insulating wall, floor or ceiling construction to prevent the passing of sound from one room to another is entirely different from quieting noise and correcting acoustics within the room. When sound waves strike a wall, floor or ceiling, the construction is set into vibration, which generates sound waves on the opposite side. This type of transmission is called "air-borne" and differs from "impact transmission" caused by direct mechanical impact on the surface such as by footsteps.

The sound insulating efficiency of a wall or floor construction is called its transmission loss and is measured in decibels (db). The decibel has the same relation to a scale of loudness as the degree has to a thermometer. The lowest point on a scale of loudness is a sound hardest to detect—which is usually spoken of as the "threshold of audibility." At the top of the scale is a painfully loud sound of approximately 120 decibels, called the "threshold of feeling." Between these two limits we find the range of ordinary sound.

A heavy concrete slab is highly effective against air-borne sound but readily transmits impacts made on the bare surface. Laying a carpet on the floor will greatly reduce the impact transmission but will have no measurable effect on the air-borne transmission. High efficiency against impact transmission is principally a matter of either absorbing the impact before it can get into the floor structure, by means of a resilient floor covering, or of breaking the rigid connection between the top and bottom surfaces of the floor structure. This may be done by providing a floating floor surface mounted on resilient supports, such as the Balsam-Wool Sound Insulation System. See Data Sheet G, No. 2.

LOUDNESS OF SOUND IN DECIBELS		THRESHOLD OF FEELING	
Intensity	Sound	Intensity	Sound
0	Threshold of Audibility	120	Threshold of Feeling
10	Whispering	110	Normal Conversation
20	Normal Conversation	100	Loud Conversation
30	Normal Conversation	90	Loud Conversation
40	Normal Conversation	80	Loud Conversation
50	Normal Conversation	70	Loud Conversation
60	Normal Conversation	60	Loud Conversation
70	Normal Conversation	50	Loud Conversation
80	Normal Conversation	40	Loud Conversation
90	Normal Conversation	30	Loud Conversation
100	Normal Conversation	20	Loud Conversation
110	Normal Conversation	10	Loud Conversation
120	Normal Conversation	0	Threshold of Audibility

The transmission loss is simply the amount of sound stopped or the number of decibels a sound loses as it travels through the construction. If a sound of 10 decibels intensity passes through a partition having a transmission loss value of 30 decibels, it will emerge on the opposite side with an intensity level of 40 decibels. Thus the loudness of sound heard through a wall depends both on original loudness and on transmission loss of a wall.

The sound insulating efficiency of single walls and floors depends on their ability to resist vibration, which in turn depends chiefly on their weight and rigidity. High efficiency without excessive weight may be obtained by the use of double construction. The efficiency in this case depends partly on the weight and rigidity of the individual members and, to a large extent, on the degree of structural isolation between them. The two sides of the double construction should have no rigid contact between them at any point except at the edges.

The transmission of air-borne sound through floors is governed by the same general principles, but impact transmission involves a few exceptions. For example,

The use of acoustical material in the room where the sound originates reduces the loudness of sound in that room, therefore less sound is transmitted through the wall, floor and ceiling construction to the other side. This indirect reduction in transmission, however, is seldom sufficient to produce satisfactory results. This is understandable in view of the fact that sound transmission takes place by vibration of the construction as a whole and that the addition of a comparatively light acoustical material will not increase the weight or rigidity enough to resist this vibration.

The efficiency of a sound insulated wall or floor construction may be greatly nullified by lack of careful workmanship and scrupulous attention to detail. A surprising amount of sound, for instance, will leak through even a small opening in a wall, such as a crack under a door or an enlarged hole around a pipe. All masonry and plaster work should be free of cracks and flaws. Electric outlet boxes should be caulked tight and should not be placed back to back. If rooms are connected by a common ventilating duct it should be properly lined with sound absorbing material. In double construction exceptional care must be taken to avoid bridging the air space solidly with nails, extruded mortar, etc.

The overall efficiency of a good wall can be ruined by a poor floor. For satisfactory results, doors must have the same efficiency as walls.

ers are supported continuously by blanket and not bridged here is no tendency for the pads.

ureau of Standards on the test system, as used for agency. The construction as average air-borne sound 40.3 decibels and a tapping. By comparison, a normal action with an insulating air-borne reduction of 40.2 action of only 5.1 decibels.

on the Balsam-Wool Sound Insulation System, Form 805.

Form No. 805-1-41

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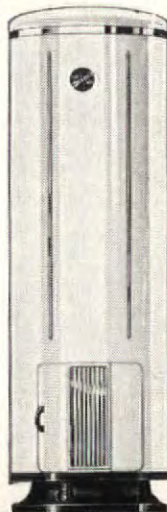
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The grim thing about all these architectural spark-plugs to our national professional anaemia is that they are totally devoid of raucous humor. Even sly humor is lacking in their attack. This is understandable but not excusable.

A wise and gentle handling of the incongruous is what our profession needs. Roger Allen sees this and does a good job of restoring the tang of Will Rogers to our American scene.

Basically, we are as architects, a race apart. We do not deal in emotional crises as do the lawyers and doctors. Our clients are cold and possessed of calm faculties. We often make the mistake of identifying ourselves with distress professions, but Roger Allen catches the fact that we are merchants of the incongruous and therefore dedicated to sound realization of that fact.

Fewer photographs of bad plans and more editorialized breeze such as Roger Allen writes would be very exciting.

A. FAGAN, *Architect*

Mishawaka, Ind.

DECOY

Forum:

... Enclosed you will find some local color emanating from Denver, Colo. . . . The nearby filling station attendant revealed that the "dramatic solution" is some form



Denver view

of prefabrication. Whether the frame in the background is part of the drama or just a decoy for termites I do not know.

AMNON RUBINSTEIN

Denver, Colo.

ARE WE READ?

Forum:

After a look at the development houses that have gone up since the war ended I'm convinced that the average builder and real estate man (especially here in the Philadelphia area) never reads the FORUM, doesn't design what the public wants, doesn't know a good floor plan when he sees one (especially modern floor plans), never heard of a one story solar house, uses outdated methods of building, never heard that a first floor laundry is handy, never heard of closets and built-in drawers, large rooms, dining areas in living rooms, floor panel or

(Continued on page 44)

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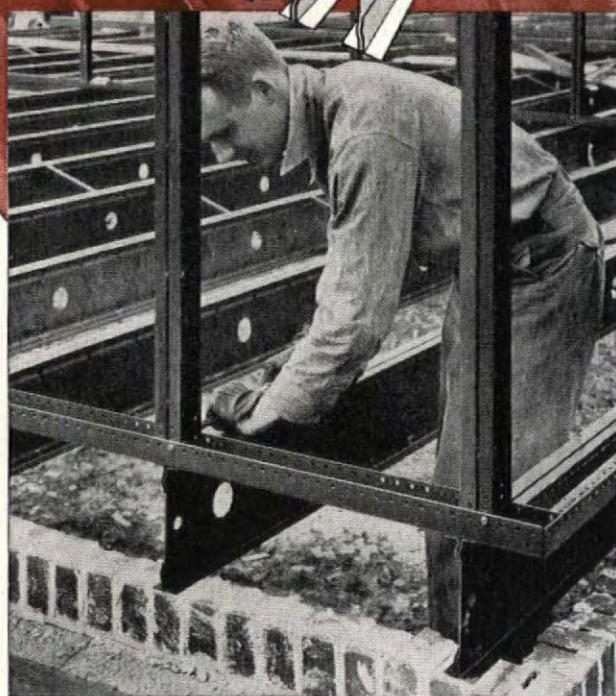
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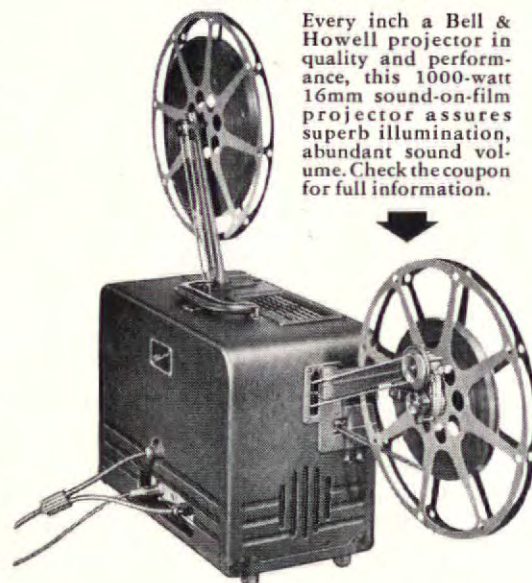
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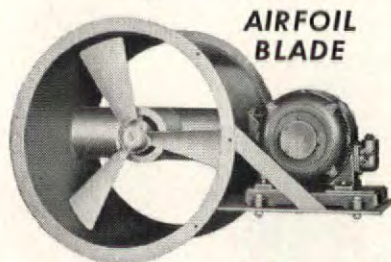
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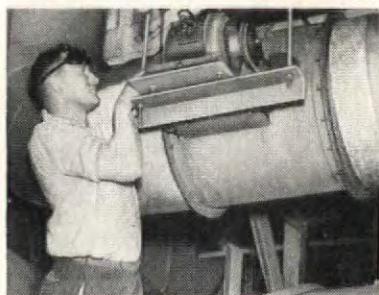
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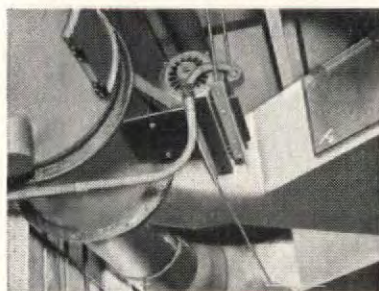
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baseboard heat. He still seems to think the public likes: center hall colonial, plan "A", tiny rooms, houses all alike on too small lots, or worse yet, row houses complete with back alley. He forgets (or doesn't give a hoot) that the public has been educated to better houses; he apparently hasn't been educated to build them. After he erects all this jerry-built junk, he has the nerve to ask ridiculous prices for them. He then hollers his head off when the government is forced to consider putting a ceiling price on houses. The AIA ought to get busy and take to task members of the building field who are foisting outdated houses on the public. Operational builders especially have the great chance to give the public good houses with good floor plans and decent sized lots. Many prize winning small house plans that have been published in the last few years are just what the public is hungry for.

I want to buy a new house. I want to buy a good house. I do not intend to get soaked for it, nor do I intend to go overboard and spend more than I think I can afford. I doubt if I will buy from an operational builder because I have yet to see any houses built by them that offer up-to-date heating systems, plans or methods. If they offered what I wished to buy I would no doubt buy from them rather than go to the headaches of building a custom built house. I eye with deep interest and respect the efforts of the prefabrication industry, because they have hired good architects and offer all the latest floor plans, building methods and heating systems.

I also offer a big basket of brickbats to the allied unions and trades of the building industry, who through their restrictive practices and old fashioned hand methods have done so much to add to the cost of the house.

If the good influences in the building industry can't do their own policing, it's time a big man with a big stick stepped in and did so. Instead of yammering against such policing, show us that you are responsible enough to give us a good product at a fair price.

E. M. THOMPSON

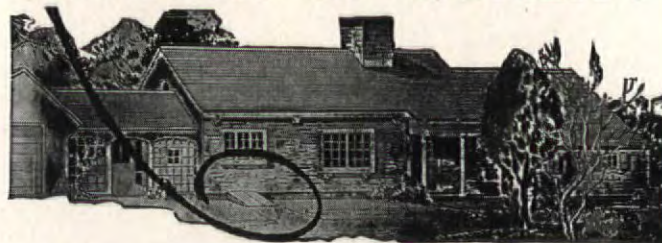
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(Continued on page 48)

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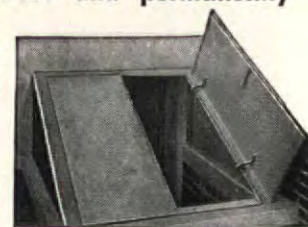
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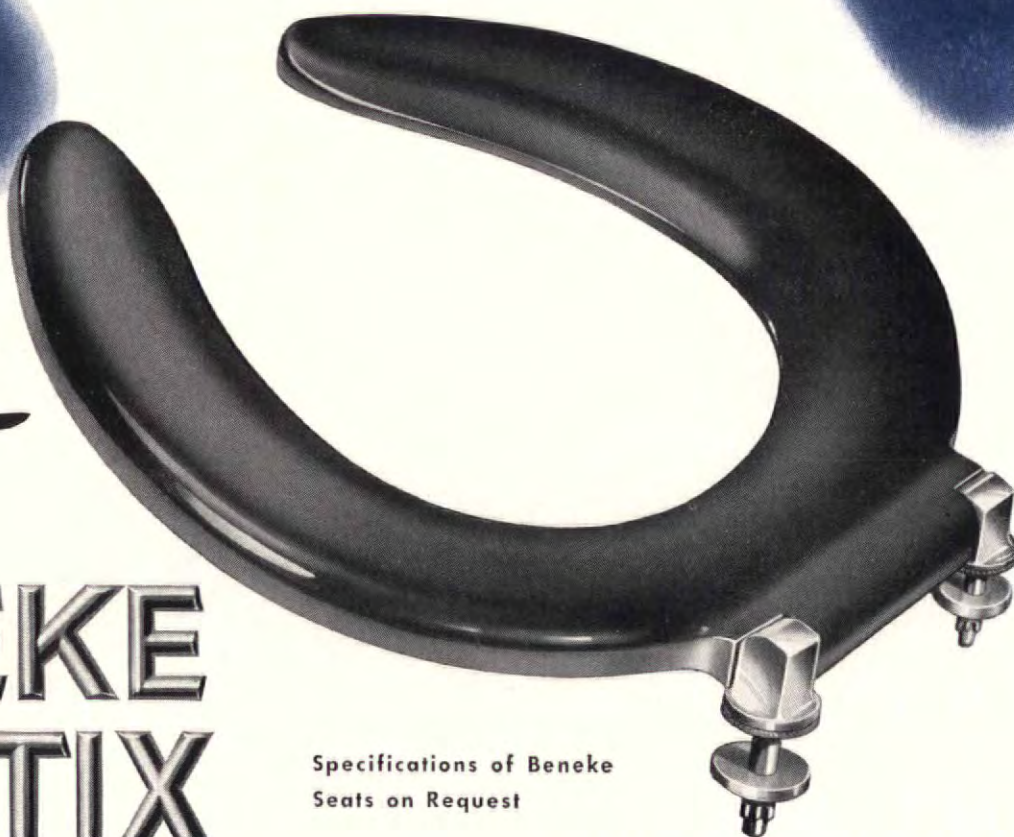


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PREPARING OLD SUBFLOORING FOR RESILIENT FLOORING

Today a higher than normal percentage of the architects' work deals with modernization projects, and even this type of activity is subject to many restrictions. Because of the necessity to utilize as much of the existing construction as possible, resilient flooring materials such as linoleum, asphalt tile, Linotile,* and rubber tile are being widely considered because they are readily adaptable to modernization projects.

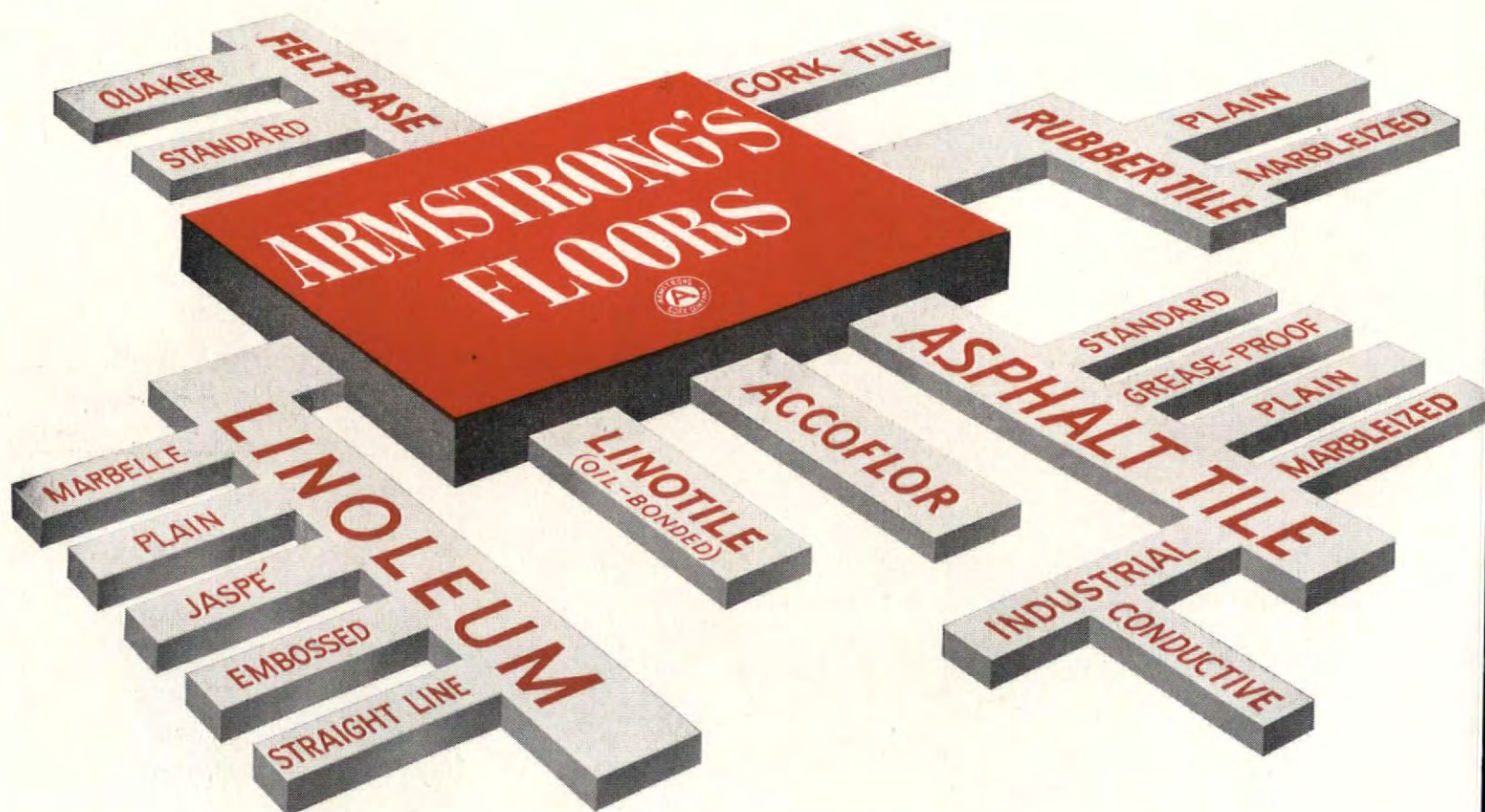
The application of resilient floors in an old structure usually involves the conversion of what was once a wearing floor into what will be a subfloor. In almost every instance, there are certain conditions to be met before a completely successful application of any resilient floor can be made over the base provided by the old floor. These problems fall into two categories. First, since all resilient floorings are applied with adhesives, the old floor must be so prepared as to provide a satisfactory bonding surface for the adhesive. Second, since resilient flooring materials are all somewhat thermoplastic and tend to mold themselves to

irregularities of the surface over which they are installed, it is necessary to have a relatively smooth-surfaced subfloor.

Wood Floors—The problem of bonding resilient floors to wood is easy except in those instances where some type of surface treatment has previously been applied, such as paint or oil. All resilient floor adhesives depend upon penetration into the wood for their bonding strength. Paint, oil, and similar surface treatments prevent this penetration and must be removed.

While the holding power of an adhesive demands that it penetrate the wood surface, too great a penetration of the moisture from the adhesive will cause the wood to swell or warp. Consequently, when the pores of any wood floor have been opened by heavy sanding, they should be immediately closed with a sealing compound such as Armstrong's Wall Size.

The second subfloor problem, that of securing a smooth base surface, is frequently encountered with old wood



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ies, Ice Cream, Hairdressing shops,

SAEYD MOHAMMED REZA TABATABAI

Iraq

dad correspondent will doubtless be
ear from those who can help him.—Ed.

FINCE

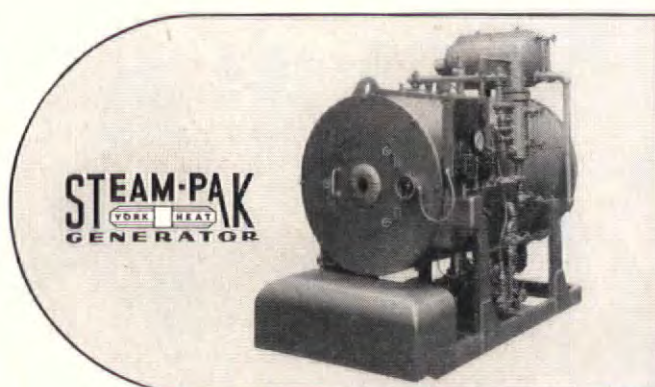
daughter of an architect—and con-
y a reader (or should I be truthful
peruser?) of FORUM for lo these
ars, I should like to point out that
aps less fortunate Miss Helen D.
es a lot upon her shoulders when
s unqualified statements as to what
ic wants, thinks, and feels regard-
ern architecture. I am one of that
nd I think she is—to be polite—

se it might seem that my enviable
as an architect's daughter would
my being "indoctrinated" in the
ol. This was not true. Along with
c I grew up on Colonial and
Provincial and loved them. In fact,
n the public, had I been building
house ten years ago, I should cer-
e built it in one of those "tradi-
es.

meantime, however, progress
e caught up with me, and not
ding FORUM either! Until
n't seen it for a period of at
s, during which time I have
ern—lock, stock, and barrel.
e result of being browbeaten
or any magazine. It was the
evitable outcome of a great
many fields—art, education,
s, costume design, music—
osely perhaps but each re-
e trends and truths in the

can see, the building of Col-
ch Provincial or any other
ditional" style today is archi-
social sophistry. But unfor-
am afraid that you won't per-
public, along with Miss Helen
joy and feel "at home" in modern
ture until the Victorian, Colonial,
nch Provincial cobwebs have been
way from the rest of their thinking
as from their architectural ideas.

entire architectural profession has
o prone in the past to disregard
elds of endeavor as not having any
on decisions and taste in its own
realm. This is a fallacy. It takes
(Continued on page 52)



NO WONDER AMERICA IS GETTING STEAMED UP ABOUT STEAM-PAK!

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floors. Much can be accomplished in smoothing rough floors by machine sanding, planing, and the replacement of an occasional damaged board. However, if floor surfaces are too rough, or are so badly damaged that these repair methods will not assure a smooth surface, it is essential that a new surface be applied. One method is an underlayment of plywood or hardboard such as Armstrong's Temwood*. Another recommended method is to overlay the subfloor with a cold mastic floor fill such as Armstrong's Flormastic*. This floor fill, an emulsion of asphalt in water, can be troweled over the wood floor and dries to a hard, smooth surface.

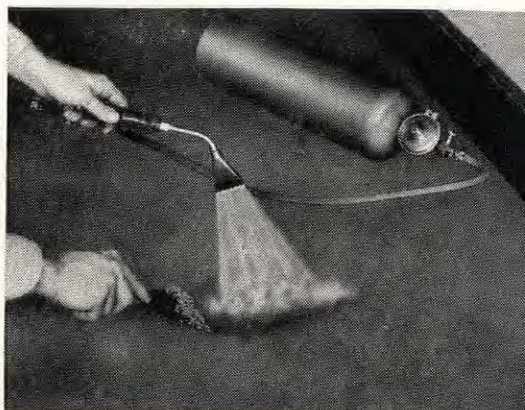
Cement Floors—Problems of securing proper adhesion to concrete subfloors usually arise from having chalky, dusty, or flaky concrete surfaces. This difficulty can usually be overcome by a thorough sweeping with a wire brush to remove all loose particles, followed by a sealing treatment of Armstrong's Wall Size. All cracks, minor holes and crevices should be filled with Armstrong's Crack Filler or a filler of equal quality before any resilient flooring installation is started. If concrete floors are too badly damaged to be repaired by crack fillers, the entire floor may be resurfaced with Armstrong's Flormastic or a concrete topping. It is important that concrete topping and new concrete floors be fully cured before installing resilient floors.

Special Conditions—These comments cover the most common conditions encountered in dealing with subfloors of wood and concrete. Other types of subfloors such as metal, terrazzo, and magnesite require special treatment which is so dependent upon individual circumstances that it is impracticable to lay down general recommendations. In such cases, Armstrong will be glad to give you assistance by phone or by letter and, when the occasion demands it, will send a special representative to study the subfloor condition and offer suggestions on proper methods of preparation.

The wide knowledge gained by many years investigating and experimenting with subfloor preparation and methods of installing resilient floors makes it possible for Armstrong to offer sound and unbiased recommendations. For assistance in any flooring problem, phone or write any Armstrong office, or write directly to the Armstrong Cork Company, 2305 State St., Lancaster, Pa.



*REG. U. S. PAT. OFF.



To insure a proper bond for the adhesive, all paint must be removed. Because of the speed with which paint can be removed from large areas, the acetylene paint burner is often preferred for this type of work. However, machine sanding and chemical paint removers also do the job quickly and well.



Surface defects in the old floor often damage or otherwise mar the finished resilient floor. This can be prevented by carefully renailing loose boards and sanding or planing warped areas to floor level. All badly damaged floor boards should be replaced. Sanded areas should be treated with a sealing compound to prevent warping.



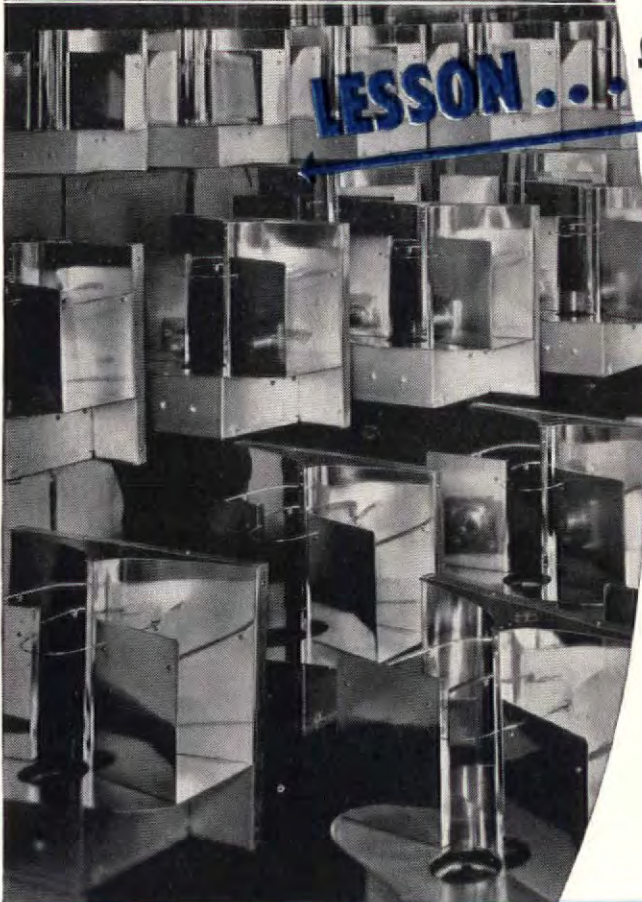
Another method of resurfacing damaged wood and concrete subfloors is the use of a cold mastic floor fill. It can be laid directly over the old floor. To prevent cracking or other damage caused by floor movement, it is advisable to use a reinforcing wire mesh as a bonding agent. Cold mastic fills will not adhere to subfloors coated with oil or grease.

NEWS... for Lighting Men in 1940



When New York's Belt Parkway blazed into brilliance in 1940, it made lighting news. Here was the longest stretch of sodium-lighted highway in America—a full 33 miles of it! The light of 2200 sodium lamps, developed by G.E., being reflected by Alzak* Aluminum Reflectors, with a brilliance that gave night drivers on this famous highway the high visibility shown at left

LESSON... for Lighting Men in 1946



1940's news has become a lesson for 1946. For the Belt Parkway skirts a lot of salt water. Smoke and fumes are ever-present. Yet five years' exposure has made no appreciable difference in the efficiency of these reflectors.

The advantages of Alcoa Aluminum reflector sheet in Alzak and other finishes are musts for your data book. Easy formability—unshackled design. High efficiency—for incandescent, fluorescent or radiant applications. All the durability that characterizes corrosion-resistant Alcoa Aluminum, and the special finishes Alcoa has pioneered. Suggest Alzak finish or other Alcoa finishes to your reflector manufacturer. Consult our nearest sales office, or write ALUMINUM COMPANY OF AMERICA, 1944 Gulf Building, Pittsburgh 19, Pennsylvania.

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an understanding and appreciation of the honest and forthright and modern in all fields to win the understanding and appreciation and devotion of modern in building design.

To date, the architectural profession has made some start in the direction of "a Good Neighbor" policy with other arts and professions which are striving for new and better solutions to their age-old problems. Perhaps the public and Miss Ince would do well to follow its example.

BARBARA J. BORHEK

San Francisco, Calif.

Forum:

You always maintain that you prefer to have the FORUM criticised constructively rather than to have it praised. And it is far better to take that attitude. Honestly, though, are the Baldwin letters, and the Helen Ince one, bona fide? If you say so, I'll believe you, but really, the latter's railings stretch my belief. To me they constitute the humor column of the FORUM, and it might be an idea, along with the introduction of Steinberg's marvelous stuff, to further emphasize humor in architecture.

The 1946 FORUM can't elicit anything from me except praise, disappointing though this may be to you. Your Building Reporter section, the scoop on Borg-Warner with its beautiful presentation, the clever binding you're using, Meek's article, one thing after another make a most useful amount of material—a huge amount and good. Shows an extremely well directed, intelligent, hard working staff.

I spent practically all of Sunday afternoon on the February issue looking for constructive criticism and this is all you get!

ROBERT BENJAMIN FRANTZ, *Architect*
Saginaw, Mich.

UN-AMERICAN

Forum:

We note with dismay an advertisement under G. I. Jobs in the February FORUM which specifies the religion of the person concerned. We presume that acceptance of this advertisement was an oversight on the part of the editors, and would welcome your assurances that there will be no recurrence of such un-American copy.

GEORGE NEMENY
ROY JOHNSON
JOHN VAN HORNE
AUDREY JUPP
ABRAHAM W. GELLER
RICHARD G. STEIN

New York, N. Y.

A not-to-be-repeated, atrocious oversight.—Ed.

(Continued on page 56)



Advertisements in national magazines have already told the amazing story of Cotton Insulation to more than 7,000,000 home owners and prospective builders this year. Cotton Insulation is ready now—ready for you to sell now!

The 38-page booklet "Cotton Insulation" tells why home owners by the thousands are specifying this flame-proof, lighter, more efficient insulation. Write for your copy now. Address National Cotton Council, Box 18, Dept. F, Memphis 1, Tennessee.

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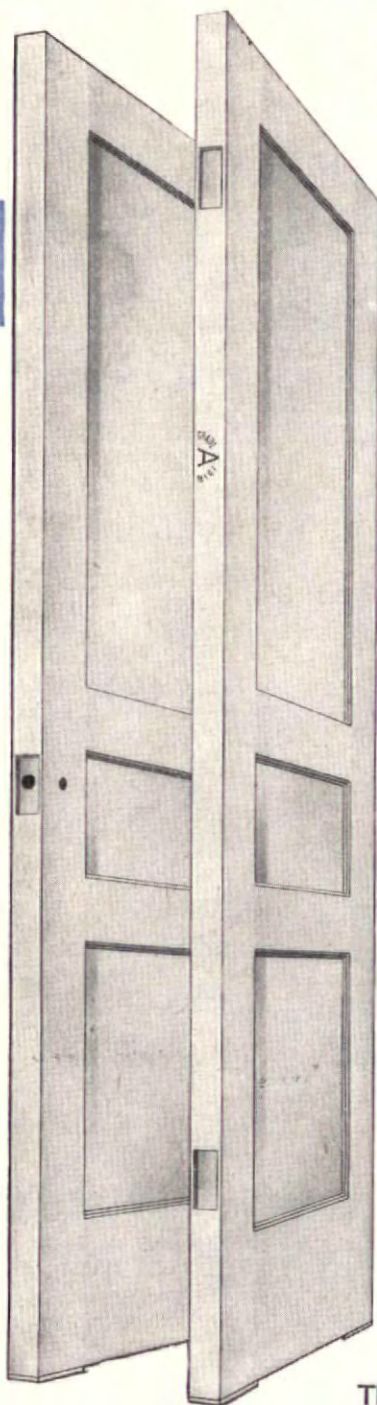


A "find" for the ARCHITECT! This comprehensive Color Guide (pages 9" x 15") displays 150 beautiful colors ranging from pastels to deep shades. Formulas are given on the reverse of each color sheet to show how the shade can be quickly made. Price, \$5.00 . . . delivered anywhere in the U. S. A. Write for your copy.

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

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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.

FACTRI-FITTING

Douglas fir doors will be available completely machined on order — pre-fit, gained for hinges and mortised or bored for locks.

Doors will be grade-marked, of course—for ease in specification and ordering. Scuff-strips will protect the precision-cut corners during handling and shipping. They will be better doors in every way!

Pre-fit and Factri-Fit Douglas fir doors are being produced in increasing quantities for the Reconversion Housing Program now that raw material shortages and other bottlenecks are being solved. Doors for GI Housing will be available.

So that doors for the housing program can be shipped when needed, there may be further delays in filling orders for non-housing uses or for housing that does not come under the Reconversion Housing Program. Under these circumstances wholesalers, distributors and dealers will be delayed in building up inventories to pre-war levels. This may mean that for some months difficulty may be encountered in buying the exact design or type of door that you may want.

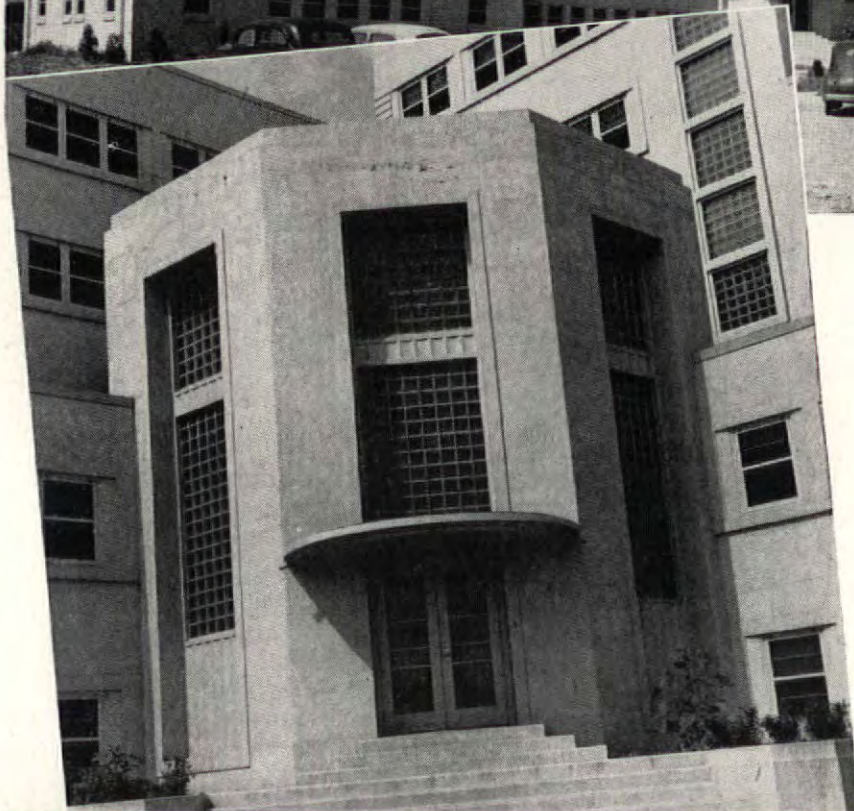
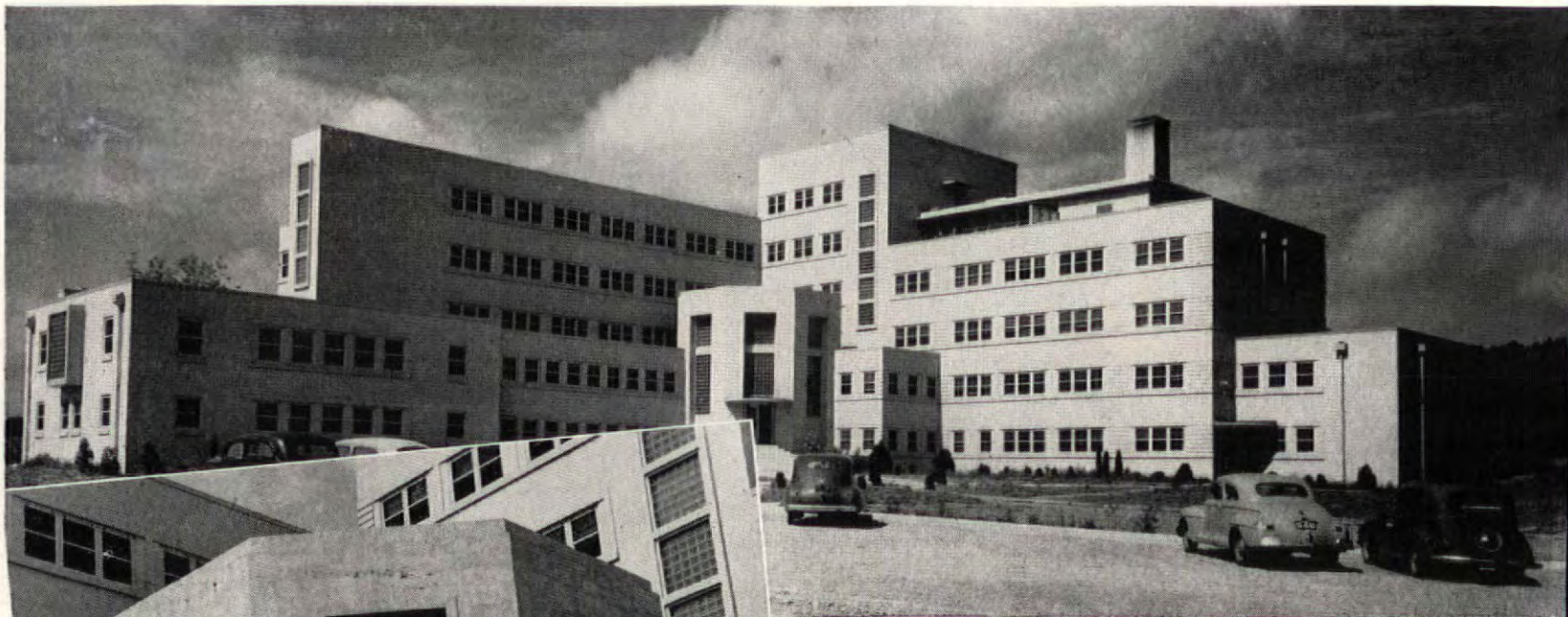
However, as production of Douglas fir Doors moves to pre-war levels, and higher, it should be ample to meet the huge demand for these fine, precision-made doors.

Douglas Fir DOORS

FIR DOOR INSTITUTE
Tacoma 2, Wash.



The National Association of Fir Door Manufacturers



- The modern, 100-bed hospital at Sylacauga, Ala., was designed in architectural concrete by Charles H. McCauley, A.I.A. of Birmingham. General contractor was Algernon Blair of Montgomery.
- The main entrance of the Sylacauga Hospital is in an angle of the T-shaped building.
- Solariums in the Sylacauga Hospital insure sunshine practically all day. Cantilevered canopies provide shade for southern exposure rooms.

ARCHITECTURAL CONCRETE

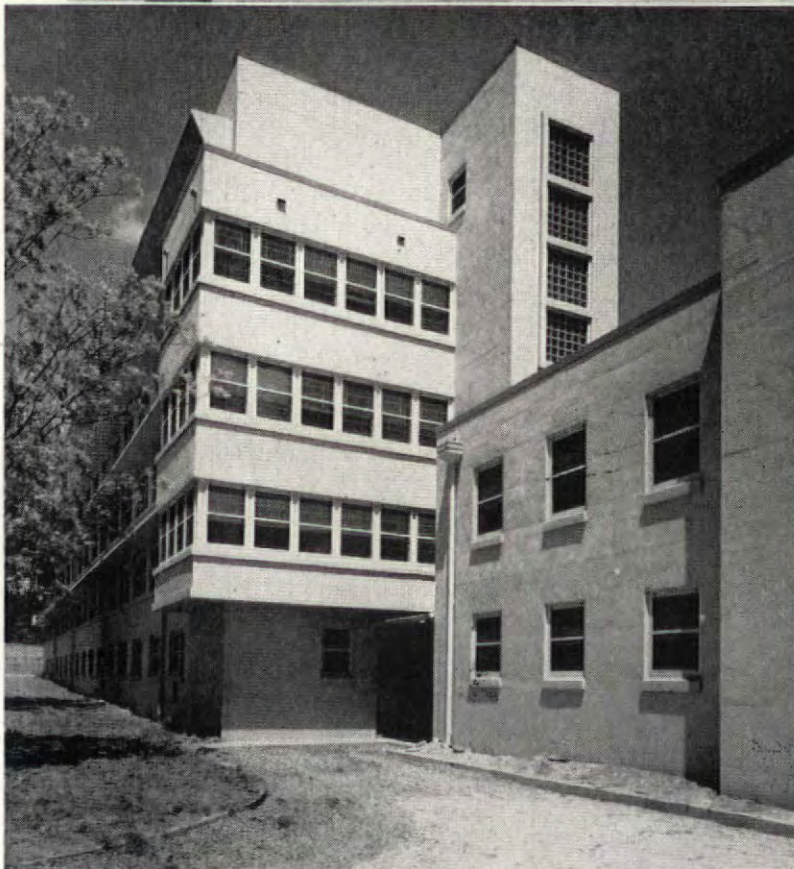
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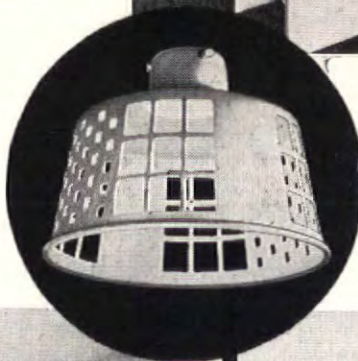
Professor's study adjacent to stack area constructed of Snead Type SF steel Mobilwalls.



Snead Book Conveyor stack room station equipped with receiving bag, pneumatic tube terminal, and inter-tier communicating phone. Comb in upright position indicates that conveyor is arranged for dispatching books to main station. Note safety cord near top of shaft opening.



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Special Snead Study Unit combining study carrel desk, book shelves, and deep folio shelves. Carrels are portable.



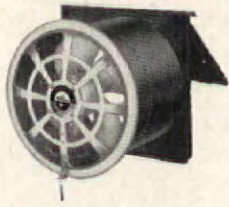
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TOMORROW'S CLIENTS

With a kind of paternal pride in the enthusiastic public response to Tomorrow's House, co-authored by managing editor Henry Wright and consultant George Nelson, the FORUM prints this sampling of the more than 3,000 letters which have already come to the authors. The letters should make cheering reading for progressive architects. If they are a fair index of the current house market, they mean that architects will have well-informed and enthusiastic clients to work with. Most of all, they add up to an impressive fact: what a large and articulate sector of the public wants seems to be not what the housebuilding industry has been giving them for the last 20 years—but what contemporary architects are now prepared to offer.

Sirs:

Like untold thousands of other homeless, displaced veterans your book *Tomorrow's*

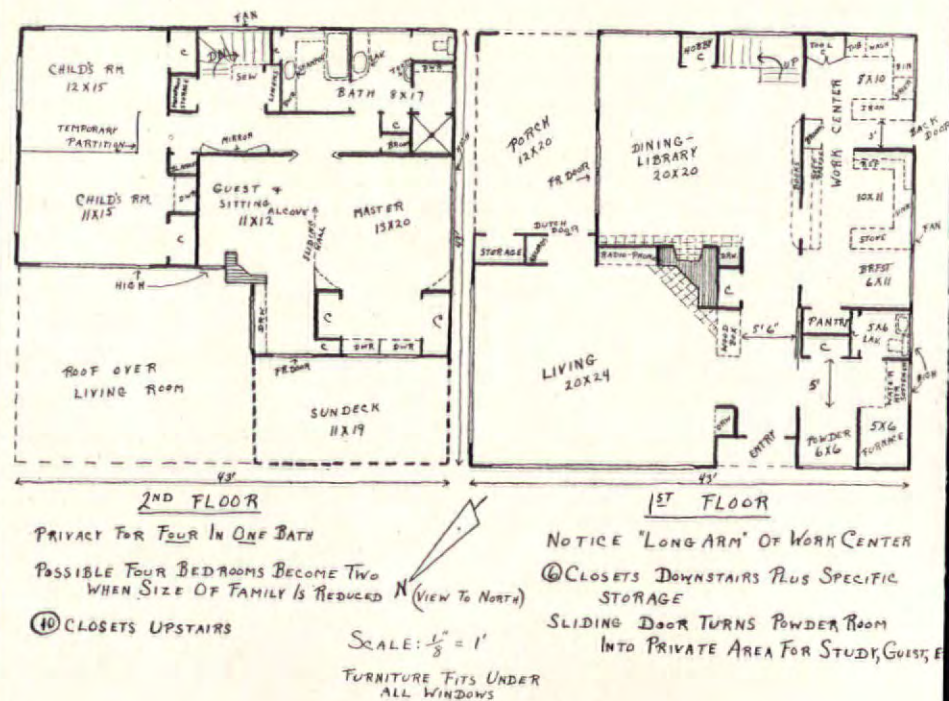
Do you know of a manufacturer selling prefabricated units like the one Keck, Chicago, designed for Green's Ready Built Homes, \$6,500-\$8,000 range? Or just what would you suggest?

LT. COL. HOWARD J. MORRIS, JR.
Montgomery, Ala.

Sirs:

Tomorrow's House and its stand on the principle that good interior design in a large measure produces a pleasing and individual exterior, prompts a note of thanks for your inspiration. All women who believe that the tiniest nook of storage space has a share in their families' success or failure will hope that your influence may be far-reaching.

On page 204 you say that "no layman can possibly visualize, etc." Please be kind enough to look over the attached sketches (See cut). I have made them for a hillside lot in California with our own family of



House is come to bring hope where there was despair. A man who could design a storage wall to bring peace, security and order into the home must surely have a mission on this earth.

Our Montgomery is known as the Cradle of the Confederacy. It has gently rocked its 100,000 inhabitants in a century-old sleep. Those of us displaced in the service of our country for the past five years find ourselves returned to a contemporary world with very contemporary needs, namely a roof overhead.

Can we help it if reading your book unfits us for local architecture?

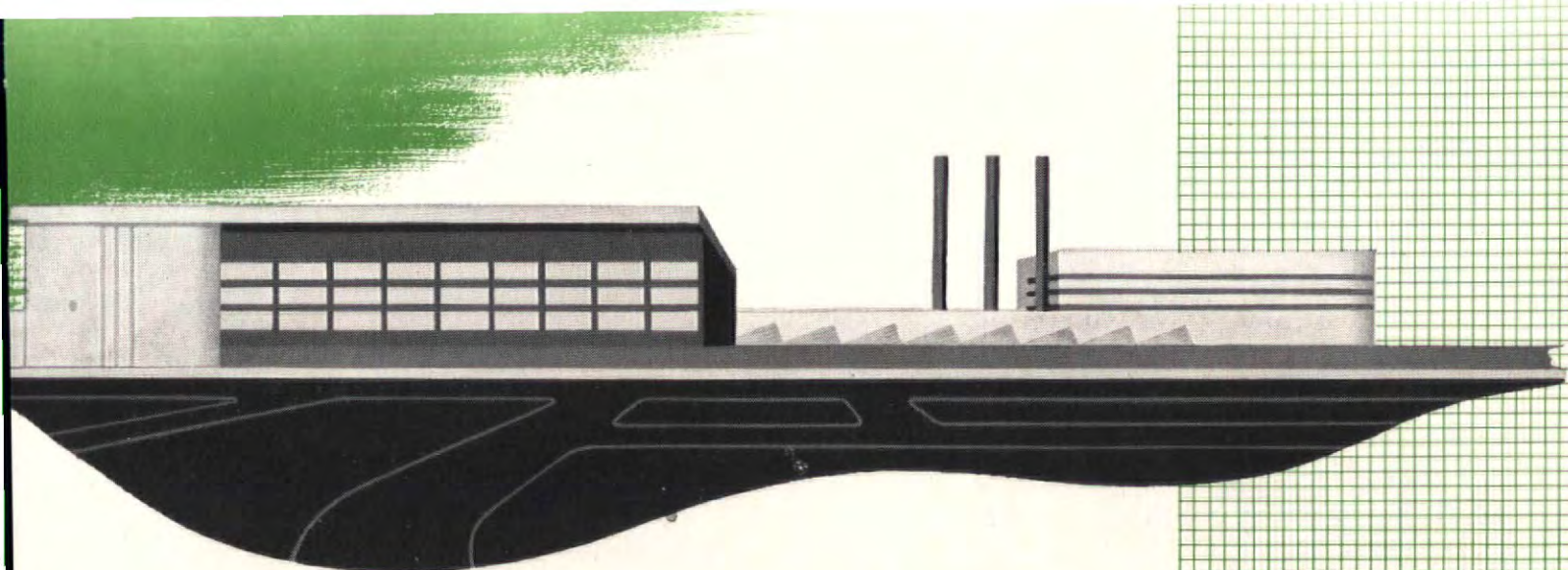
four in mind. Since I am a layman of the lowest order, housewife, I hope for your encouragement and have many more drawings to send you if you show the slightest spark of interest.

DOROTHY RUP
Glendora, Calif.

Sirs:

My wife and I have just completed your thought-provoking book. We were very pleased with the technical details as materials, lighting, and space brought for

(Continued on page 60)



design for lasting appreciation with Dow plastics

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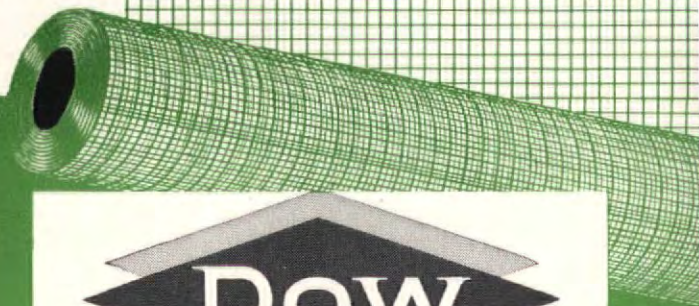
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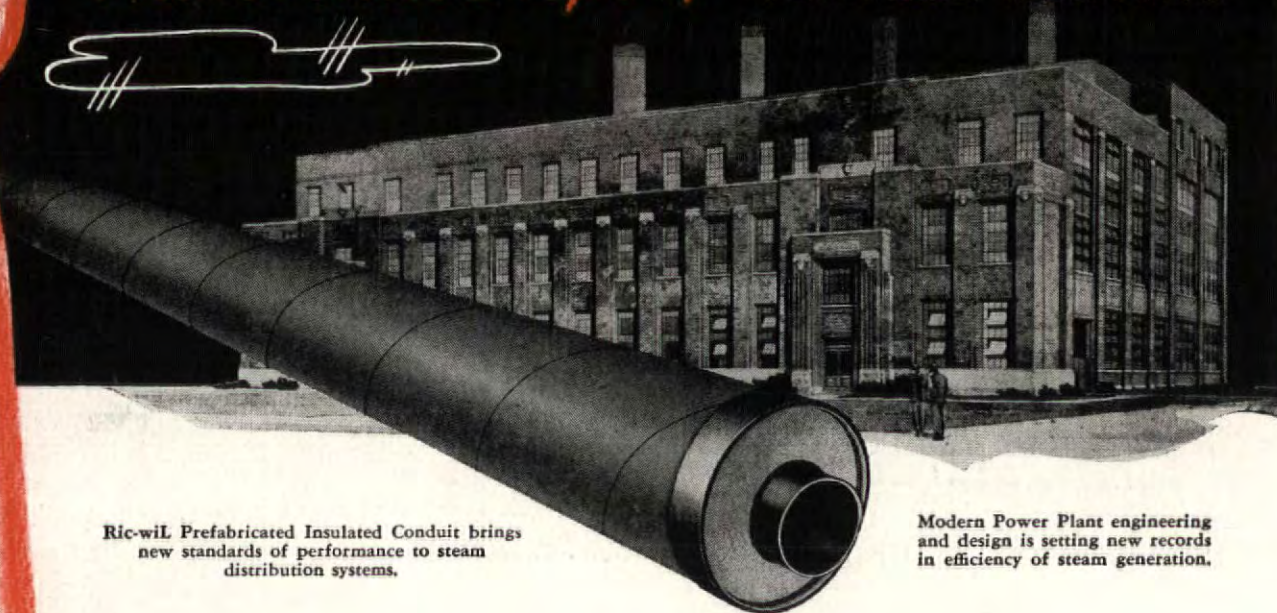
Dow makes no finished building materials. It produces these basic plastics which are becoming increasingly useful in construction: SARAN for long-life screen cloth; plumbing parts and equipment; name plates; wire coating; paint brush handles. STYRON for brilliant lighting fixtures; escutcheons; decorative objects and trim; insulators; food-handling equipment. ETHOCEL for modern window blinds; special extruded shapes for kitchen trim; rods, tubes and bars.



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The Modern steam plant is a marvel of technological development. Automatic controls and other devices for efficient fuel feeding and consumption extract every possible B.T.U. from the coal burned. Smoke abatement equipment helps efficiency and minimizes air pollution. Induced draft chimneys make it possible to forego high stacks. Architectural design makes the plant an attractive addition to any community.

Modern systems of steam distribution now pipe steam longer distances with lower heat losses than ever before. Our job at Ric-wiL is the manufacture of such systems. It has been our constant aim to improve our product to keep pace with improvements in steam generation. Our research and development departments are engaged in a continuing search for better construction methods, greater efficiencies, lower costs.

Ric-wiL Prefabricated Insulated Pipe Systems are now actually being installed *with steam pressure at 650 PSI with superheat*. Higher pressures are possible, thus opening up a vast new field of applications for Central Heating.

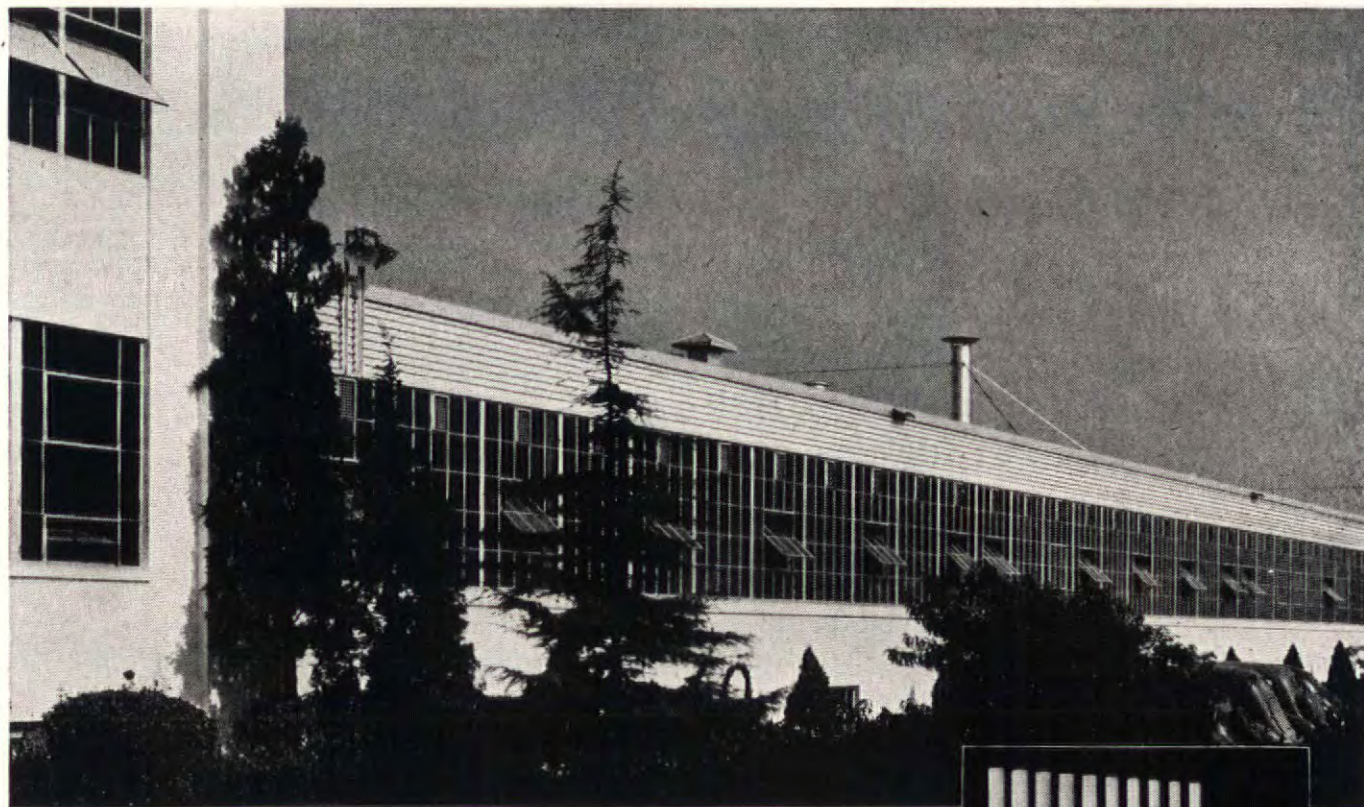
A combination of built-in features is responsible for this achievement. Full-welded and reinforced construction means pressure-tight conduit, assuring highest thermal efficiency by maintaining completely dry insulation. Conduit is permanently protected against ground conditions by double coating of high melting point asphalt, reinforced with asbestos felt.

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For more facts, send for brochure. Johns-Manville, Dept. AF-5 P. O. Box 290, New York 16, N. Y.



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☐ CONTRACTOR OR BUILDER

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in *Tomorrow's House*, but were most impressed by the philosophy of living which you set forth. It was a good job, well done, for which we want to express our appreciation. . . .

WILLIAM BURKE

Tempe, Ariz.

Sirs:

I think your book *Tomorrow's House* is swell. My wife does too. I bought it as a Christmas present to myself, read it

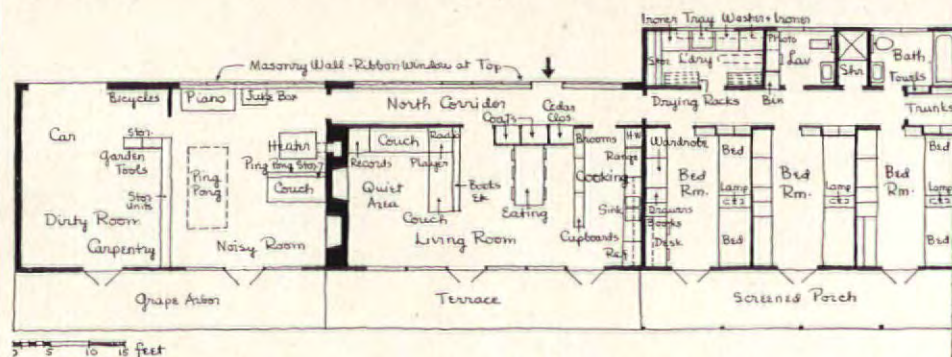
shall probably call upon someone like Ernst Payer of our city, to help me.

BEN WILCOX

Bedford, Ohio

Sirs:

It is my fervent hope that your book *Tomorrow's House* will have an overwhelmingly tremendous sale: to spread your gospel on houses and to give some reward (financial?) in return for your work and for your warm humanity evidenced in your writing. Have just finished



Reader's plan

greedily, and as soon as I can get it back from my friends, I intend to read it again, more slowly. I cannot imagine a more comprehensive, lucid and beautifully written synthesis of all the good ideas that have been developed in house planning.

I observe that you carefully avoid showing any plans, but having expounded theory, leave the reader (or his architect) to make his own composition. I have been trying my hand at a plan, and I am sending you a copy of it (as of the present moment), with the pious hope that it may be of some interest to you (see cut). I am not an architect, and have had no architectural training; I thought you might like to see the effect of your book on an ordinary guy who likes houses.

My plan is not very original, of course. It looks something like Keck's prefabricated house, but with improved bathroom facilities (per your suggestion in the FORUM, I believe), and expanded living space. The position of the laundry is my wife's idea—I cannot recall at the moment whether you had a similar suggestion in your book—and a very good one. The laundry certainly ought to be located as near as possible to the source of the washing, to facilitate collection and distribution. The laundry arrangement in the conventional house just about doubles what is already the heaviest part of a woman's work week.

. . . I might add that I am not looking for free architectural advice. My present plan is purely a theoretical exercise. If ever I approach the point of realizing it, I

reading the book, and my regret is that I didn't have the book or the ideas before building my house here some sixteen years ago—one of the grandest views in the U. S. the great expanse and height of the Blue Ridge, thirty to forty miles away. I wonder whether it would be feasible to install a glass wall in a house that has the customary 2 x 4 studs and framework. . . .

ROBERT L. MOREHOUSE

Oakwoods, N. C.

Sirs:

As loud-mouthed praise-singers of your masterwork, *Tomorrow's House*, (we have personally purchased six copies to date scattering them in the places where they do the most good; have forced the local book store to stock and display it in large quantities, have hounded the library into purchasing it and shamed an influential real estate company into distributing it hither and yon among their land purchasers), we feel that we can bring our little problem home to roost on the upper floor of the Time & Life Building. Hah! You didn't know the power of the prose you were slinging around!

You put into lovely, authentic, authoritative words the very things we've been screaming about all these years! There is—page after page of our own glorious thoughts, all the way from the livable kitchen to the built-in wood bin, from the sitting bedroom with room for the typewriter far from the madding family to the airy john, from ceiling-track drapes to rooms which forget to differentiate between outdoors and in. It's there—every blessed

(Continued on page 64)

now...

*Velon** **TINTED SCREENING**

adds new Beauty to every home Design



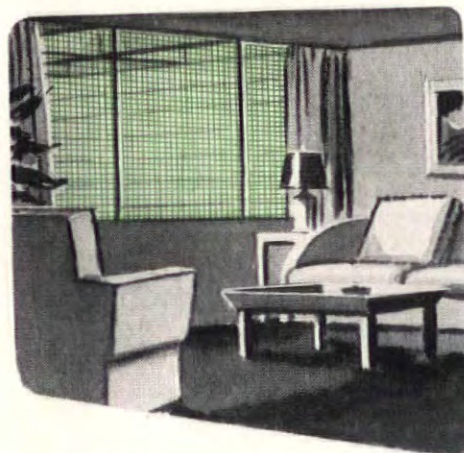
VELON SCREENS, tinted scientifically, blend with the doors and windows of the home. They fit so well into the general interior and exterior scheme, they virtually disappear through color harmony.

Gone are ugly "screen bleed" stains down the front of the house. *Velon* screens can't corrode, can't rust. They've proved it in steaming tropic jungles, exposed to sun, rain, salt spray through long war years.

They've proved it, too, in twenty thousand home installations made before the war. And test after test has shown *Velon* screening resists

up to six times more impact, without denting or bulging. No wonder—*Velon* filament has a tensile strength of fifty thousand pounds per square inch. Yet *Velon* is actually one-fifth the weight of metal screencloth of the same gauge and correspondingly more manageable.

Screencloth made of Firestone's amazing material of a hundred forms and uses will be available in standard widths and gauges. Plan on *Velon* screening — specify it, watch for it. Look for the distinctive orange and blue selvage. Write Firestone, Akron, for full details.



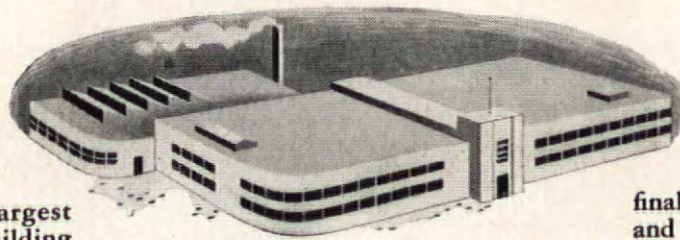
Listen to the Voice of Firestone
Monday Evenings Over NBC

*Velon** tinted screening by **Firestone** *Trade Mark



HERE'S YOUR CATALOG OF TRUSCON

Steel Building Products



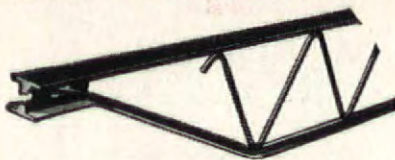
Truscon is the world's largest manufacturer of steel building products. From no other single source can you secure such a wide range of essential, heavy-duty structural units—each one a scientifically designed, well-made product that has been proved by many years of service in industrial structures.

At the present time these building products are not immediately available. However, our production plans are

finally being molded into shape, and we are bending every effort to reach maximum output with the least possible delay. In the meantime, design Truscon Steel Building Products into the industrial structures you now are planning.

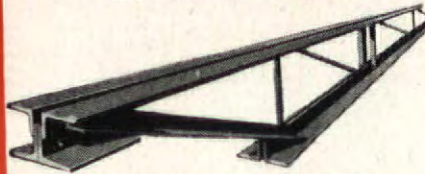
Concentrate on Truscon as the major source of your steel building products—for dependability, for responsibility, and for designing, engineering and delivery service, no matter where you or your job may be.

OPEN TRUSS STEEL JOISTS



Truscon developed the open truss steel joists to meet the demand for economical, light weight, fire-resistant floors in schools, hospitals, apartments and other light-occupancy buildings. They are easy to install. Completely shop fabricated, they reach the job ready for placing.

CLEARSPAN JOISTS



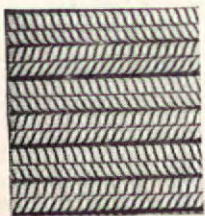
Truscon "Clearspan" Joists meet all clear span requirements up to 64 feet. They eliminate undesirable columns and provide greater unobstructed floor areas.

FERROBORD STEEL DECK ROOFS



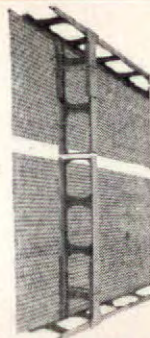
Truscon Ferrobord provides a fire-resistant, economical roof deck for all new construction or replacements. Covered with insulation and waterproofing, it weighs approximately 5 pounds per square foot.

DOUBLEMESH HERRINGBONE LATH



A plaster saving lath, designed for a perfect mechanical bond. Sheets are unusually rigid, allowing wider spacing of supports. A complete line of corner beads and other accessories will also be available.

HOLLOW PARTITION STUDS



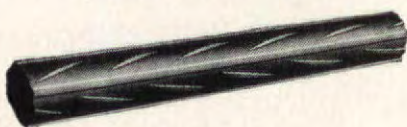
Truscon hollow partition studs assure permanence, rigidity and economy. They are fire-resistant, provide excellent heat insulation, and sound resistance, are rodent and termite proof. They will not swell or warp and will resist impact, vibration or plaster cracking.

CURB BARS



Protect exposed corners of concrete curbs, walls, steps, etc. Designed to give positive anchorage into the concrete. Plate surrounds and protects the corner without splitting concrete into two portions.

CONCRETE BARS

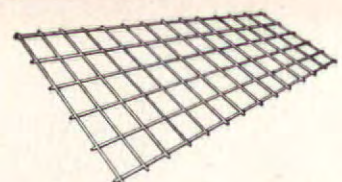


A special rolled section of high grade steel, with a series of longitudinal and diagonal ribs, so designed to provide the maximum bond with the enclosing concrete.

PRESSED STEEL INSERTS



Truscon Slotted Inserts are attached to the forms and are completely imbedded in the concrete. Bolt can be moved along slot to any location, allowing wide variation in position. Used in ceilings, slabs, beams or columns.

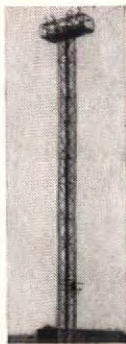


WELDED STEEL FABRIC

Truscon Welded Steel Fabric is made in various sizes for concrete reinforcing in all types of structures, and highways. Each joint is electrically welded for permanence.

FLOODLIGHT TOWERS

Made in a wide selection of heights, they offer a firm, long-lasting floodlight tower for railroad sidings, airports, factory yards, etc.



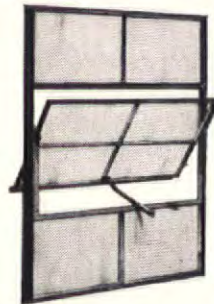
PIPE LINE SUPPORTS

Weltrus Pole sections provide ideal pipe line supports. Correct as to engineering, neat in appearance, economical, permanent and efficient in operation.



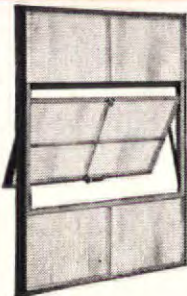
PIVOTED WINDOWS

Adaptable to all types of industrial and commercial buildings. Easy to open and close. Come in a wide range of sizes.



COMMERCIAL PROJECTED WINDOWS

Used widely in buildings where appearance, shading and screening convenience and low cost are required.



DOUBLE-HUNG WINDOWS

Electro-Galvanized steel, bonderized and finished with baked-on priming coat of paint, guaranteed spring balances, factory installed weatherstripping, and attractive hardware. Shipped completely assembled ready for installation.



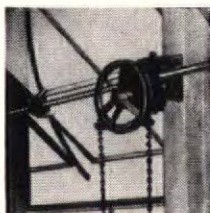
CONTINUOUS WINDOWS

Continuous windows provide large glass areas for admitting daylight and controlled ventilation. Used with properly designed mechanical operators, it is possible to open and close all the windows in each bay or several adjacent bays through one control.



MECHANICAL OPERATORS

Lever Arm or Rack and Pinion Types for operating long runs of Pivoted or Projected Windows.



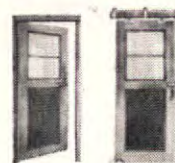
CRANE DOORS

Frequently the cost of this type door can be saved in a single season due to increased efficiency of workmen and fuel savings. Door leaf can be completely filled with sash to permit maximum transmission of daylight. Doors open and close quickly. Usual electric operating speed is 45 feet per minute.



SWING AND SLIDE DOORS

Truscon swing and slide doors are adaptable for use in basements, rear entrances, boiler rooms, fire exits and similar places in residences, hotels, apartments, schools, churches, shops, warehouses, factories, filling stations and stores. They are durably made for heavy usage.



VERTICAL LIFT DOOR

Consists of two leaves, each approximately one-half the opening height, sliding vertically upward. The meeting rail-joint between the two leaves is effectively weathered. Rubber weathering can also be applied at the top and to the bottom rail.



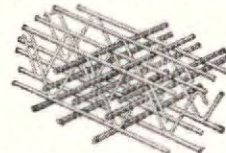
TWO SECTION TURNOVER DOOR

Designed for rapid operation, they are effective barriers to infiltration of cold air and resultant heat loss in industrial buildings of all types. An important advantage of this type door is the reduced clearance required inside the building for opening and closing these doors.



BANK VAULT REINFORCING

Truscon Welded Bank Vault Reinforcing consists of welded steel units placed parallel to each other with their chord members forming a barrier of steel near the inner and outer faces of the walls, floor and ceiling slabs. The web members of the welded units provide reinforcement through the thickness of the concrete.

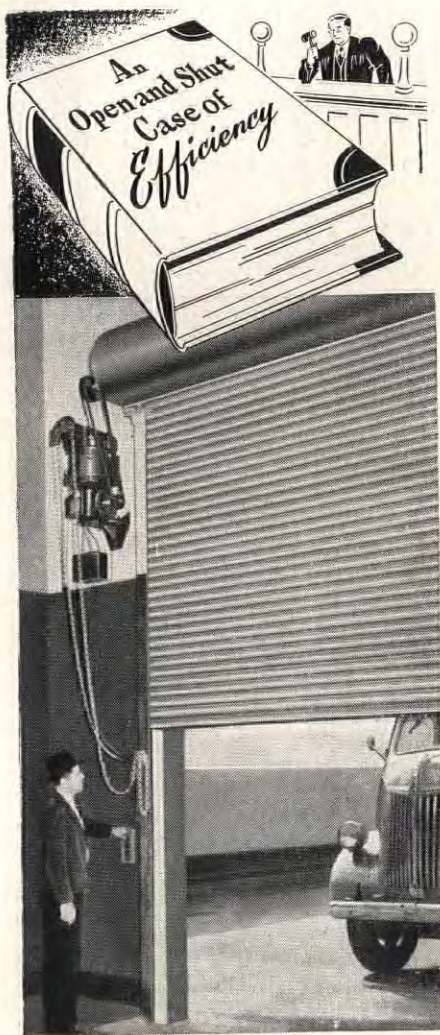


TRUSCON STEEL COMPANY

YOUNGSTOWN 1, OHIO • Subsidiary of Republic Steel Corporation

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

LETTERS



KINNEAR Rolling Doors

Time-tested KINNEAR Rolling Doors offer positive "open-and-shut" proof of resilient strength, long life, and efficient operation in installations of any type and size. Witness the smooth, quick, spring-counterbalanced, *coiling upward action* of the interlocking-slat steel curtain! It rolls into a small area above the lintel, clear of plant traffic. Permits full use of all adjoining space. Resists weather, wear, and fire. Always ready for instant use. Motor operation and push-button remote control are available for extra advantages of convenience and economy to KINNEAR Rolling Doors. For complete facts in this case, write today!

THE KINNEAR MFG. CO.

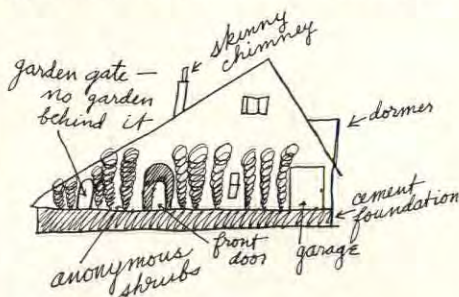


Factories: 1540-60 Fields Ave., Columbus 16, Ohio
1742 Yosemite Ave., San Francisco 24, California
Offices and Agents in Principal Cities

lively, sensible, beautiful idea for living, every innovation which turns a shelter-over-the-head into a living accoutrement so perfect it may even keep the bobby-soxers out of juke joints!

But you have failed us in one respect: how in hell do people like us who live in Bellingham, where they sell Bag-Balm on the main street and where the chicken houses far surpass the homes in liveability, acquire such houses? . . .

In addition to the revered farmhouse, or don't-you-dare-knock-on-the-door-vicious-dog style, we have the "swank modern" sections, two in number. Edgemoor, as absurdly pretentious as the name, features the harsher aspects of Colonial in all versions from the eaveless Cape Cod, or GI haircut house, to the manse of large proportions and severe, unfriendly demeanor. The second better-class-citizen area suffers from an architectural rash of such sinister portent that the "prettiest" house, in the minds of the citizens, is this: (I draw it looking out



my window—I'm not making this up to touch your sympathies.) . . .

Bellingham, Wash. DOLLY CONNELLY

Sirs:

. . . The wife and I have done the slave business of grinding all our lives, have raised a family of four children who are married and are now on their own. I am going to be out of a job on a very moderate pension soon. We want to build a home for ourselves, and to care some for folks coming and going, including grandchildren now numbering six.

. . . We want neither basement nor attic. We want walls and built in furniture as you suggest, a flat roof, windows table height to ceiling, with appropriate lighting, and the privilege of having meals any place except in the kitchen, bathroom and bedroom. We favor the floor heating but are concerned about warmth for just morning and evening chill.

. . . The architect problem has us worried for it takes some creative head work, and for a moderate priced home, say not over \$7,000, it is not very remunerative, and we wonder if such type of service is likely to be available. . . .

Chicago, Ill.

ERNEST B. COLLETTE

EVOLUTIONARY IN ENGINEERING
COOLSTREAM CONSTRUCTION COUNTS
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COOLSTREAM
ELECTRIC WATER COOLERS

SPECIFICATIONS:
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THE **COOLSTREAM** CORPORATION
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Majestic UNDERGROUND GARBAGE RECEIVER

Solves the Garbage Problem

And it features the popular Majestic Formed Steel Construction

This foolproof, "built-in" solution to the garbage problem wins lasting approval from owners or occupants of any home or apartment. Rugged **formed steel** construction makes it more durable and breakproof than ever. *Top and body carry a 10-year guarantee against breaking or rusting out.* You can install a Majestic Underground Garbage Receiver as close to the service entrance as you wish—the neat, close-fitting, foot-operated lid seals odors inside, keeps dogs, rats, flies, freezing cold and fermenting heat outside. Proved by years of satisfaction among thousands of users! Write!

The Majestic Company
1072 Erie St., Huntington, Ind.

Nationally Known and Advertised for 40 Years

NO MORE OF THIS

Another Majestic item featuring the rugged **formed steel construction** that packed so much extra strength and durability into products built by Majestic for vital war needs!



● Neutral walls seem to give increased space to this dining room. Pale Green of ceiling and niche complements colors of furniture and floor.



● Restrained colors of this reception room provide a pleasing foil for the focal window which frames a view of the nursery beyond.

Color Dynamics

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



● Rose-Tan is pleasing to the occupants of this stenographic department. Window wall is in a lighter tint.

Now . . . Get the Benefits of the ENERGY IN COLOR!

Paint RIGHT with COLOR DYNAMICS Paint BEST with PITTSBURGH PAINTS!

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

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

WATERSPAR ENAMEL—for woodwork, furniture, metal trim. Gives a china-like gloss which resists marring and abrasion.

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

STUDENTS of human behavior have established beyond dispute the fact that color has a marked influence upon the physical, mental and nervous systems of people of all ages. Tests have shown that some colors stimulate, others are restful, still others depress—even cause irritation and discomfort!

● Pittsburgh uses the principles of this *energy in color* as the basis of COLOR DYNAMICS.

● By this method of painting it is possible to utilize color for functional as well as decorative purposes.

● There is no longer any reason for the drab, depressing monotones so often found in offices, hotels, restaurants and hospitals. With COLOR DYNAMICS you can specify color arrangements and combinations that will retard

eye fatigue, help people to relax and feel more cheerful, improve their well-being, increase their efficiency, add to their safety, raise their morale.

● Rooms can be made to seem more spacious or intimate, longer or wider, higher or lower. Halls and stairways can be made brighter and safer. Even the visual height of exteriors can be made more attractive and inviting.

● What can be done by choosing colors with the head as well as with the eye is fully explained in our new book, "Color Dynamics for Office Buildings, Hotels and Restaurants." Write for your FREE copy. Pittsburgh Plate Glass Company, Paint Division, AF-5, Pittsburgh 22, Pennsylvania.



PITTSBURGH PAINTS

PITTSBURGH PLATE GLASS COMPANY, PITTSBURGH, PA.

PITTSBURGH STANDS FOR QUALITY PAINT AND GLASS



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Research Laboratory, Har-
marville, Pa.



Armour and Com-
pany, Chicago, Ill.



Bell Telephone Labora-
tories, Murray Hill, N. J.

Silbraz joints are particularly suited for use on hot and cold water circulating lines, boiler feed lines, steam return lines, condensate lines, high and low pressure air piping systems, industrial gas piping, and many other types of installations where brass pipe or Type B copper tube is used.

Silbraz joints are threadless, leakproof, corrosion resistant, and vibration proof. They are silver brazed—not soft soldered—joints, and when properly installed, actually make the line a "one-piece" pipe line. They practically eliminate maintenance and repairs.

Walworth Company, manufacturers of valves and pipe fittings since 1842, offers a line of Walseal valves, fittings, and flanges for making Silbraz joints—the modern method of joining brass pipe or Type B copper tube. Some of the large commercial buildings in which Walseal valves, fittings, and flanges have been installed are pictured here.

SILBRAZ* JOINTS

Assure Leak Proof Piping

IN COMMERCIAL BUILDINGS

For further information regarding Walseal valves, fittings, and flanges for making Silbraz joints, write for Circular 84.

*Patented—Reg. U. S. Patent Office.

MAKE IT A "ONE-PIECE PIPE LINE" WITH WALSEAL



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

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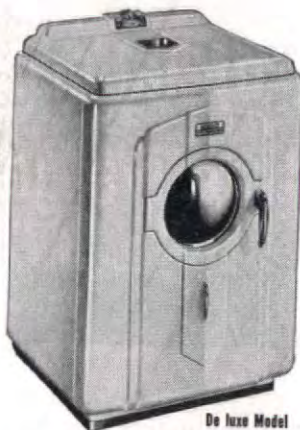
In Better Home Plans, *Everywhere* -BENDIX^{automatic} Home Appliances!

You can plan a better home laundry center with the famous Bendix automatic Home Laundry, Ironer, and Dryer! And thousands of new home owners will be satisfied with nothing less.

Modern housewives are keenly alive to their greater beauty, utility and convenience. They know, too, how easily and perfectly they install in laundry, bath, kitchen, basement, or utility room.

The Bendix "washer" takes but 4 square feet of floor space—fits anywhere! It washes, rinses, damp-dries, cleans and shuts itself off *automatically*! The new Bendix Ironer, and Dryer, equally outstanding in their advantages, will be available later on in the year.

See your Bendix distributor. He will gladly give you complete information. Or, if you prefer, write us direct.



De Luxe Model

BENDIX^{automatic} Home Laundry

BENDIX HOME APPLIANCES, INC., SOUTH BEND, INDIANA - PIONEERS AND PERFECTORS OF THE AUTOMATIC "WASHER"

WHY PROMINENT BUILDERS USE YOUNGSTOWN KITCHENS



One of the dozens of Braun-built homes in Oak Park. The well arranged Youngstown Kitchen is shown at the left.

MARTIN H. BRAUN, well-known architect and builder in one of Chicago's most attractive suburbs, Oak Park. Every Braun home built before the war had a Youngstown Kitchen.



**"Save many hours of labor . . .
make a more attractive job"**

—**MARTIN H. BRAUN**, Oak Park, Ill.

"WE HAVE used Youngstown equipment exclusively in all our homes," Mr. Braun writes. "The simplicity of installation has saved us many hours of labor, and the attractive finished kitchen substantially helps our sales.

"With equipment such as this, private enterprise can handle the tremendous job of supplying much needed housing, and realize the chief aim of the National Association of Home Builders—providing better homes wherever they are needed, at lower cost."

Your own homes will have greater appeal for buyers, and cost you less to build, if you install Youngstown Kitchens. All the facts are ready for you, in an interesting booklet, "The Builder's Kitchen." Your request will bring a copy.

MULLINS MANUFACTURING CORPORATION
Warren, Ohio

Porcelain Enameled Products—Large Pressed Metal Parts
Design Engineering Service



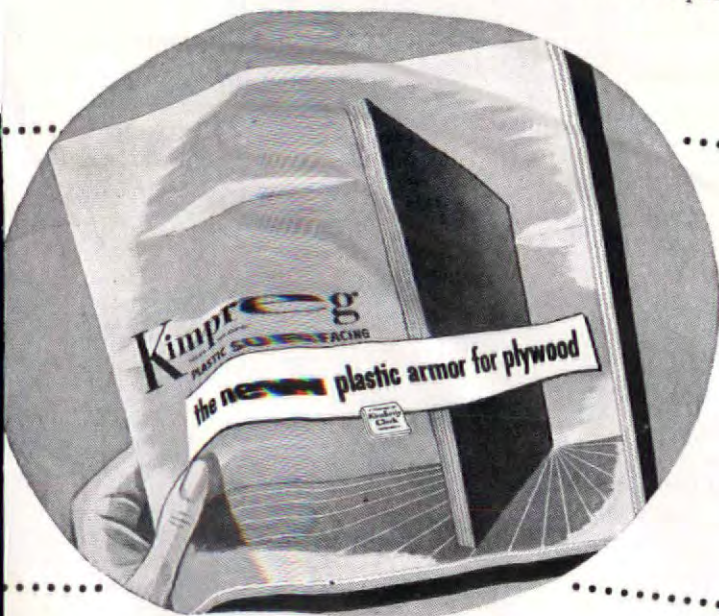
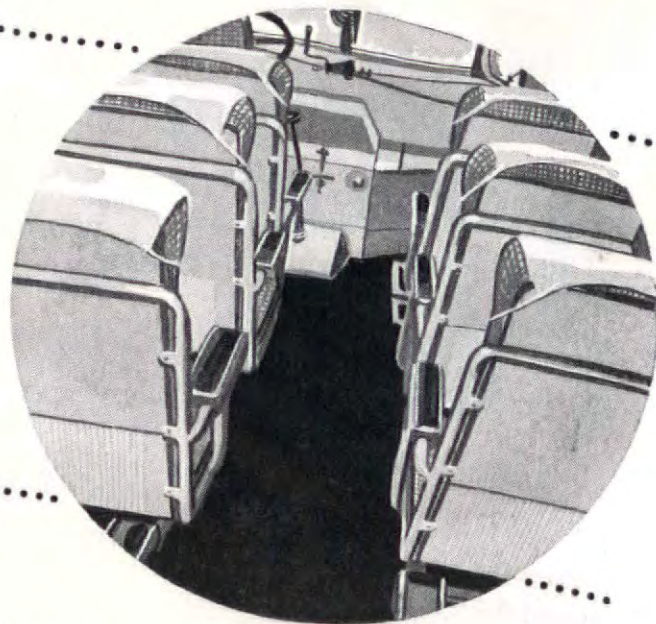
Youngstown Kitchens
BY MULLINS

How Kimpreg* gives plywood the character of plastic



IMPROVES BEAUTY—Now plywood gets a beauty treatment that's *functional*, too. Kimpreg*, fused to plywood, creates a beautiful plastic finish. Kimpreg can retain or cover natural grain, has fused-in color but may be painted like wood. It will not stain or fade and is easily washable.

INCREASES DURABILITY—Kimpreg plastic armor multiplies the service years of plywood. It defies weather, water, fungus, termites and rot. And it increases abrasion resistance. A bus floor of Kimpreg showed little sign of wear after 76,000 foot passages over it.



NEW KIMPREG OPPORTUNITY BOOK—See what new and profitable possibilities Kimpreg offers in your business. Get the colorful, illustrated new Kimpreg book . . . full of information, specifications, applications. Mail the coupon for your free copy today.

Kimpreg
REG. U.S. PAT. OFF.
PLASTIC SURFACING

Kimberly-Clark Corp., Neenah, Wis.



Please send me the new free Kimpreg Book and names of manufacturers making plywood surfaced with Kimpreg. AF-546

Name _____
Firm _____
Type of Business _____
Address _____
City _____
Zone _____ State _____



for Better PLASTERED WALLS AND CEILINGS

There are no finer finishing limes than the original Ohio White Finish and its famous twin, Hawk Spread. Both are scientifically processed from rock quarried from the heart of the world's purest deposit of dolomitic limestone . . . Both are always fresh, work cool, spread far.

- For your protection both brands are always packed marked with distinctive Red Zig Zag Stripes.



A LETTER FROM THE PUBLISHER

Dear Reader:

As everyone knows, Frank Wright's Arizona camp snugs to the base of a mountain a dozen miles from Phoenix. It is about as easy to describe the camp in words as to show it in pictures (which the FORUM will presently do). Frank adds a fourth dimension to his work which defies language and lens. After seeing many of his buildings, it becomes clear that more than any other architect of his or earlier times, Wright works with nature. In form, construction, materials, color, space and plan Taliesin West belongs to the desert as inevitably as a sentinel cactus. The drafting room has never been busier and the buildings emerging on paper continue to show the hand of the master innovator. As one architect visitor to the camp put it, "I know I am inspired, but I'm also a little discouraged. I'm going back home, tear up a lot of stuff and start all over again."

* * *

Flying from the East to the West Coast, one is impressed with how much better a job nature does than man. Looking down over mountains, valleys and desert wherever natural beauty has



been left untouched, each scene is in itself majestic. Then a little town or a city comes into view and with it, invariably, ugliness. Night falls and man's efforts are supplanted by necklaces of light suggesting once again that the way to see most of our buildings best is after dark. Unhappily, even this proves wish-ful as the plane lands and the tourist is treated to an eyeful of fluorescent from-age. It would seem that in an age when we know how to do it well, and given the clean start which our cities and our aviation industry had, the public might have earned a better break. Once again we have muffed a chance, and if something is not done immediately to change the trend, our aviation terminals will



continue the hopeless tradition which has for so long marked the railroad and bus terminals. If there is a more incongruous sight than a magnificent Constellation on a concrete apron with the typical airport building as a backdrop, it has escaped our notice. Architects, government officials, politicians and all transportation men are invited to reread the article in the January FORUM. A glint in the eye is indicated.

* * *

Phoenix may not be typical, but it is far from the exception to prove the rule. Not only are veterans coming home in droves but three or four times as many more veterans who have been living in less favored areas are pouring into Arizona. The four thousand houses now abuilding here won't commence to meet the demand. With somewhat less area than Texas, Arizonians are commencing to ask, "Where will we put the people?" And this is not explained by counting the asthmatic, the arthritic and the sinus sufferers. Sunshine, a dry climate and real outdoor living seem to magnetize the city clerk and the farm boy. And, of course, what is happening in Arizona is only a patch on the situation on the Pacific coast.

That spirit hovering over the East and smiling a little grimly appears to have, embroidered on the handkerchief pocket of his smock, a large H. G.*

Maybe it's time for the boys back East to start planting trees and grass and opening up our cities.

* * *

That man in the Washington hotel elevator, rumored to have been Mr. Wyatt, was heard to say, "Be it ever so humble, there's no place . . ."

H. M.

* Apparently H. M. is referring to the famous founder of The New York Tribune.

G.I. JOBS

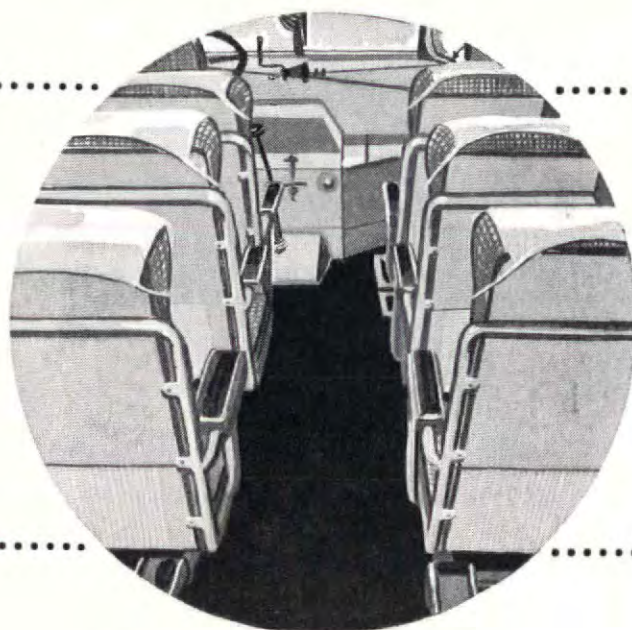
FORUM'S FREE PLACEMENT SERVICE FOR
DISCHARGED VETERANS see pages 174, 176

How Kimpreg* gives plywood the character of plastic



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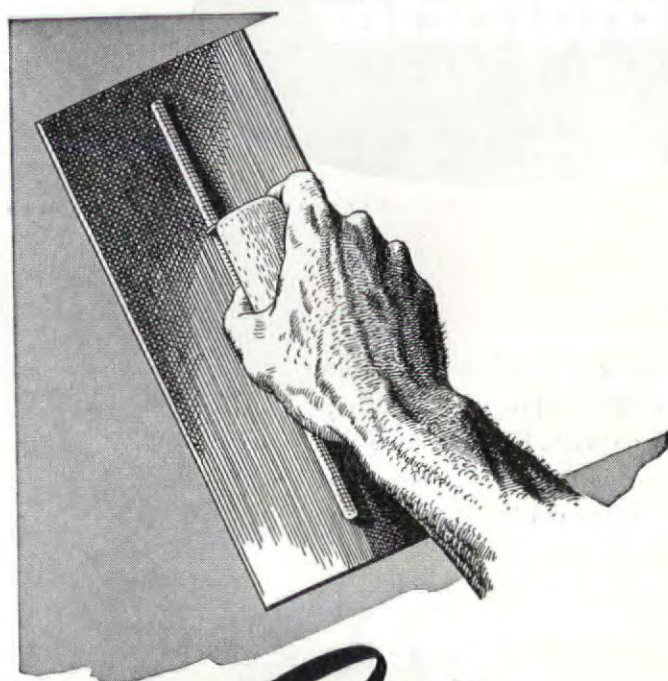
Kimberly-Clark Corp., Neenah, Wis.

Please send me the new free Kimpreg Book and names of manufacturers making plywood surfaced with Kimpreg. AF-546

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A LETTER FROM THE PUBLISHER

Dear Reader:

As everyone knows, Frank Wright's Arizona camp snugs to the base of a mountain a dozen miles from Phoenix. It is about as easy to describe the camp in words as to show it in pictures (which the FORUM will presently do). Frank adds a fourth dimension to his work which defies language and lens. After seeing many of his buildings, it becomes clear that more than any other architect of his or earlier times, Wright works *with* nature. In form, construction, materials, color, space and plan Taliesin West belongs to the desert as inevitably as a sentinel cactus. The drafting room has never been busier and the buildings emerging on paper continue to show the hand of the master innovator. As one architect visitor to the camp put it, "I know I am inspired, but I'm also a little discouraged. I'm going back home, tear up a lot of stuff and start all over again."

* * *

Flying from the East to the West Coast, one is impressed with how much better a job nature does than man. Looking down over mountains, valleys and desert wherever natural beauty has



been left untouched, each scene is in itself majestic. Then a little town or a city comes into view and with it, invariably, ugliness. Night falls and man's efforts are supplanted by necklaces of light suggesting once again that the way to see most of our buildings best is after dark. Unhappily, even this proves wishful as the plane lands and the tourist is treated to an eyeful of fluorescent from-age. It would seem that in an age when we know how to do it well, and given the clean start which our cities and our aviation industry had, the public might have earned a better break. Once again we have muffed a chance, and if something is not done immediately to change the trend, our aviation terminals will



continue the hopeless tradition which has for so long marked the railroads and bus terminals. If there is a more incongruous sight than a magnificent Constellation on a concrete apron with the typical airport building as a backdrop, it has escaped our notice. Architects, government officials, politicians and all transportation men are invited to reread the article in the January FORUM. A glint in the eye is indicated.

* * *

Phoenix may not be typical, but it is far from the exception to prove the rule. Not only are veterans coming home in droves but three or four times as many more veterans who have been living in less favored areas are pouring into Arizona. The four thousand houses now abuilding here won't commence to meet the demand. With somewhat less area than Texas, Arizonians are commencing to ask, "Where will we put the people?" And this is not explained by counting the asthmatic, the arthritic and the sinus sufferers. Sunshine, a dry climate and real outdoor living seem to magnetize the city clerk and the farm boy. And, of course, what is happening in Arizona is only a patch on the situation on the Pacific coast.

That spirit hovering over the East and smiling a little grimly appears to have, embroidered on the handkerchief pocket of his smock, a large H. G.*

Maybe it's time for the boys back East to start planting trees and grass and opening up our cities.

* * *

That man in the Washington hotel elevator, rumored to have been Mr. Wyatt, was heard to say, "Be it ever so humble, there's no place . . ."

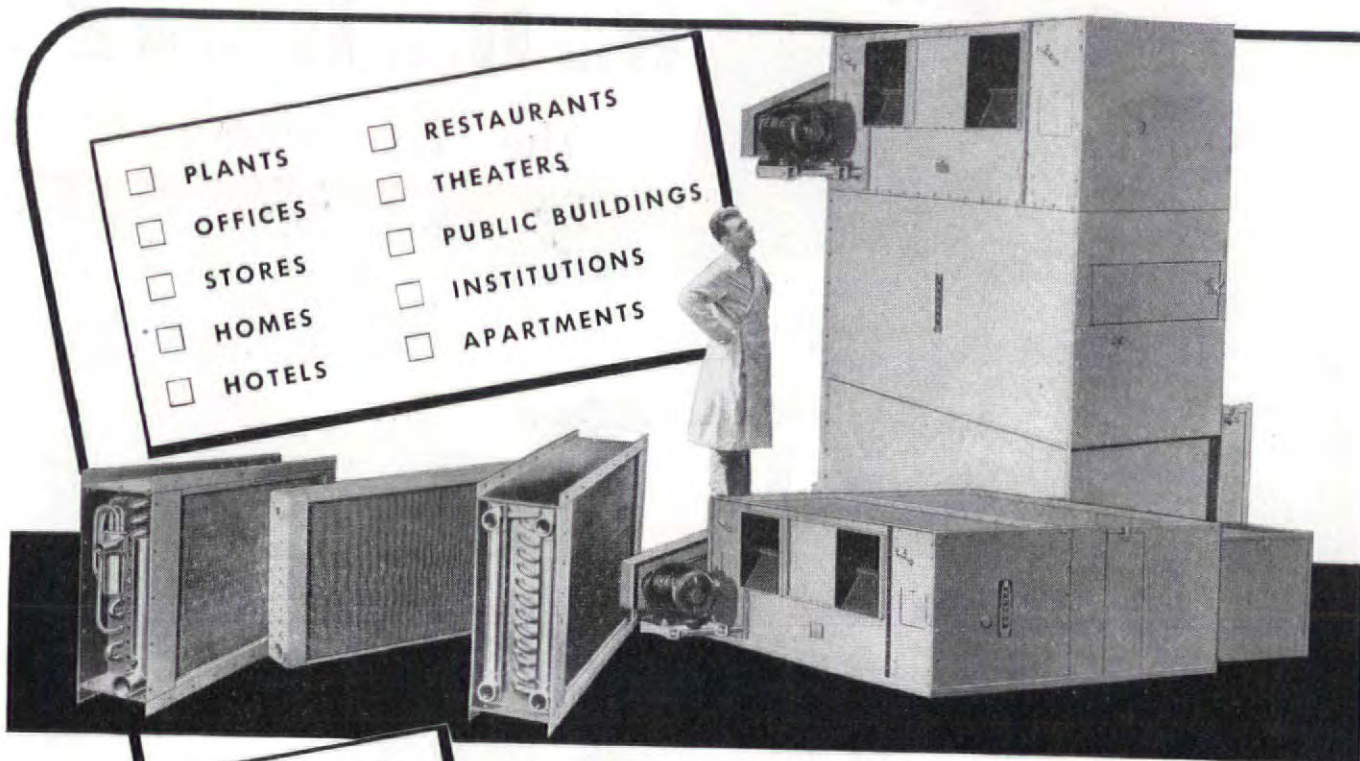
H. M.

* Apparently H. M. is referring to the famous founder of *The New York Tribune*.

G.I. JOBS

FORUM'S FREE PLACEMENT SERVICE FOR
DISCHARGED VETERANS see pages 174, 176

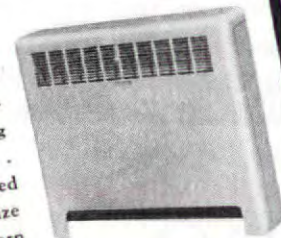
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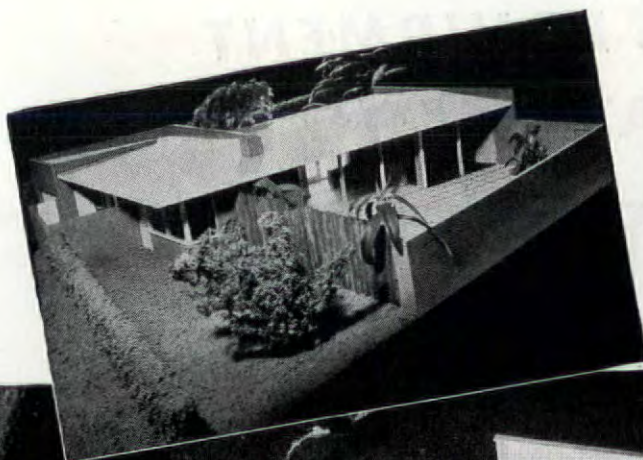
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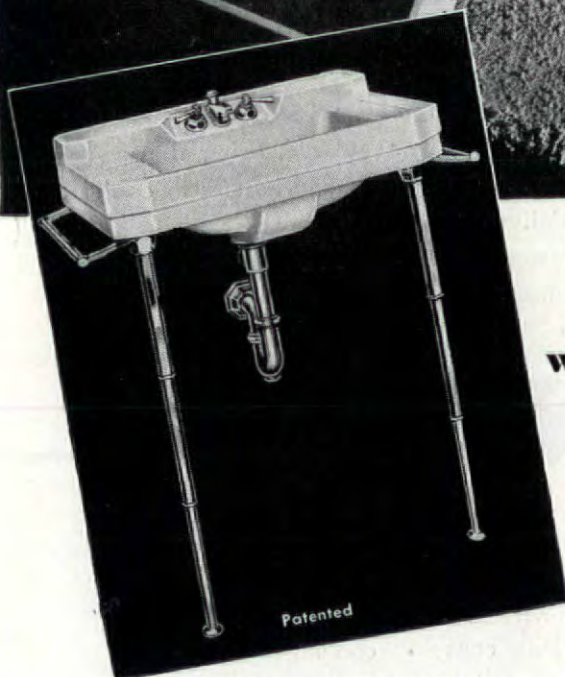


Case Study House #11

the "GI" model



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J. R. DAVIDSON, Architect



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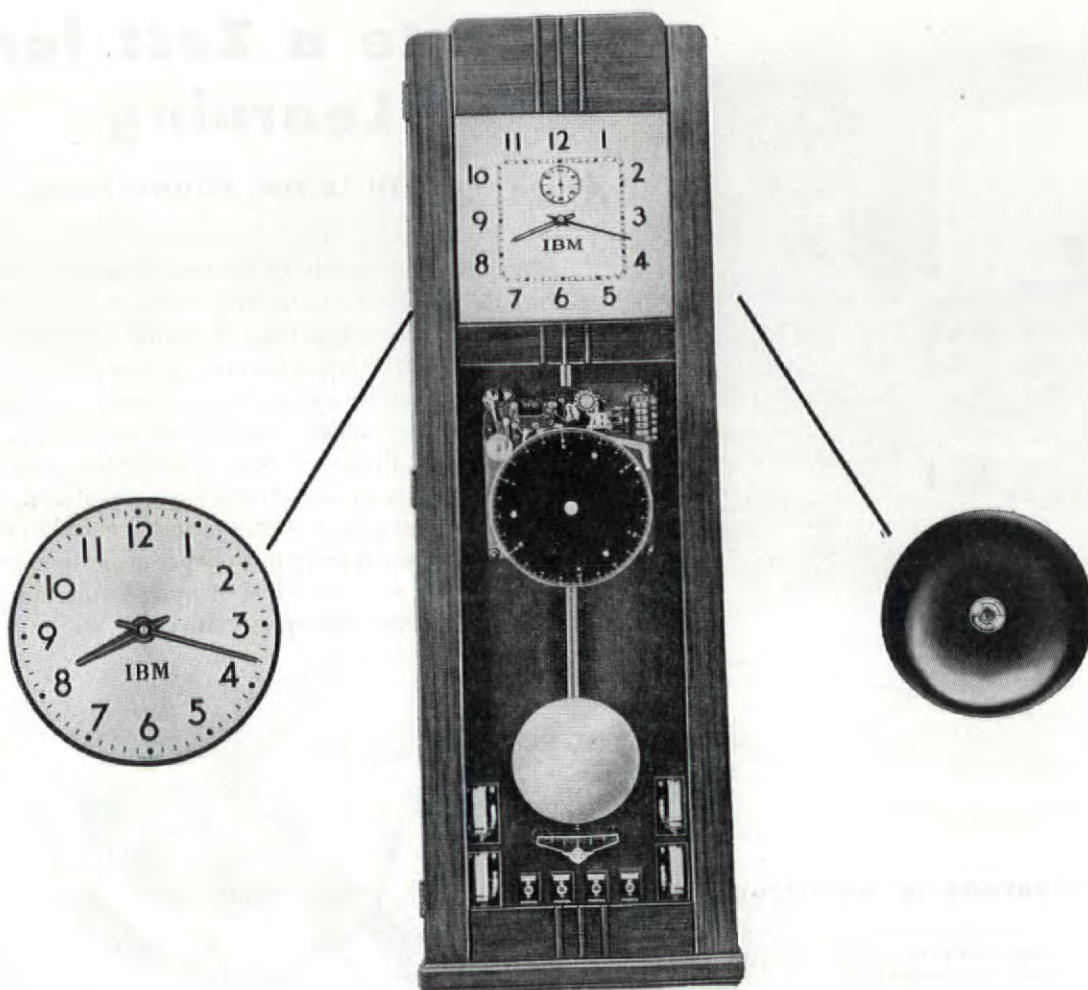


The Army-Navy E has been awarded to Ampro for excellence in the production of 16 mm. motion picture projectors.

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sound-on-film... 16 mm. arc
projectors... accessories

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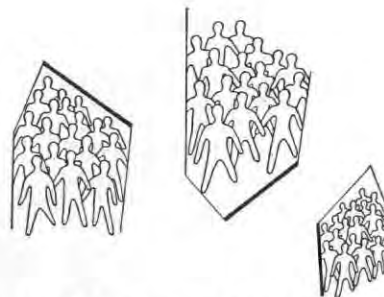
TIME RECORDERS AND ELECTRIC TIME SYSTEMS

Electric Punched Card Accounting Machines—Electromatic Typewriters

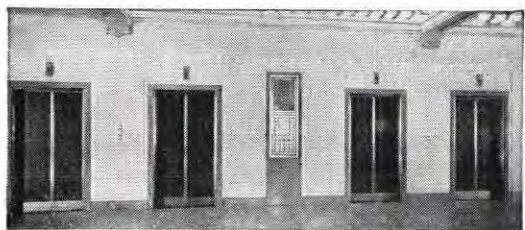
International Business Machines Corporation, World Headquarters Building, 590 Madison Avenue, New York 22, N.Y.



Wells Building, Milwaukee, Wisc.

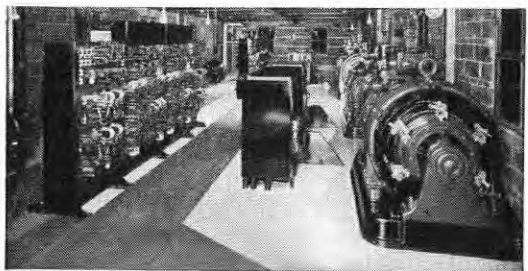


***Increased occupancy..
Fewer elevators...
Better service***



▲ *View of lobby showing elevator entrances and dispatching panel which indicates position and direction of travel of cars and location of waiting passengers.*

▼ *Penthouse machine room after Otis modernization.*



↓ The experience of the Wells Building typifies the increased operating efficiency and the reduced operating costs made possible by Otis elevator modernization.

↓ Formerly, this building, with an occupancy rate of 85%, was served by 6 hydraulic-plunger elevators. These were replaced with 4 modern, high speed gearless Otis elevators with Peak Period Control. Although the building is now 100% occupied, tenants are receiving better service even in peak periods. With 4 elevators doing the work of 6, the building has made substantial savings in operating costs.

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Self-Storage makes Rusco ideal for large buildings as well as private homes. You can specify Rusco for old buildings or new. For specifications see Sweet's 18a-12, or write for free book and name of nearest distributor. The F. C. Russell Co., 1836-AF Euclid Ave., Cleveland 15, Ohio.

RUSCO Self Storing
ALL-METAL
COMBINATION WINDOWS



Berla and Abel, Washington partnership whose latest design is a "chinchilla ranch" (p. 94) is a smooth-meshing office team which disagrees after work. Mr. Berla is a healthy, wholesome man who plants little things in his garden, goes to bed early and is undoubtedly cheerful before breakfast. From our prejudiced perch on a Third Avenue bar stool, we incline ever so slightly to the latter partner. Mr. Abel is rarely seen without a cigarette drooping from the corner of his mouth, is apt to look a bit drawn in the mornings and has but one ambition: to get out of mowing the lawn.

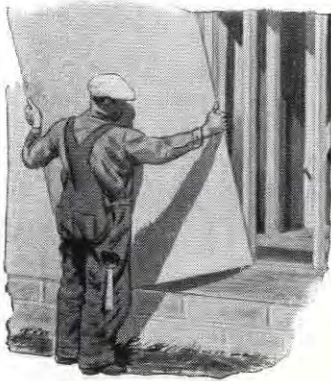
Rene d'Harnoncourt, whose exhibition *Art of the South Seas* is currently on display at the Museum of Modern Art (p. 97), has not always had his present propensity for the primitive. Ever since 1925, when he left Vienna for Mexico, he has been preoccupied with folk art, a pursuit which led him to become an illustrator (*The Painted Pig*, a children's book), an educator (art history at Sarah Lawrence), and a bureaucrat (Arts and Crafts Board, U. S. Dept. of Interior). With such an artistic career behind him, it comes as something of a shock to discover that d'Harnoncourt started out to be a chemist and that his first published work was a snappy little treatise called: *Creosote Content of the Soft Coal of Southern Yugoslavia*.



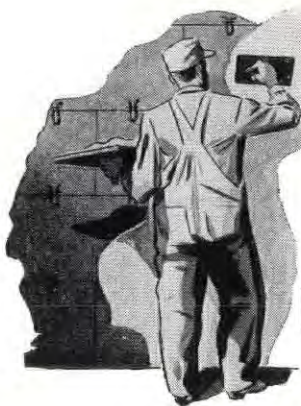
When Simon Breines designed the National Maritime Union Headquarters (p. 122), his acoustical calculations ran afoul of factor X—bull-voiced Joseph H. Curran, union president. The labor boss's barn-like office was transposed via acoustical treatment into a tranquil room where secretaries padded about and noises were absorbed almost before being made. Asked how he liked his new quarters, Curran replied that he didn't, adding wistfully, like a small boy whose sling-shot has been taken away: "You see, nobody hears me bellow any more!"

Jules Korchein, like Breines, has designed a number of union headquarters (p. 125), a practice which neatly dovetails his vocation (architecture) with his avocation (union activity). An ardent worker in PAC during the last Presidential election, he has now taken over the chairmanship of New York's CIO Housing Committee. However, a certain sense of strain developed between Korchein's official and unofficial loves when he designed quarters for the United Electrical Workers and American Communications Association. Fast talking won over hesitant union officials to modern design—except for one lone dissenter. This rebel gave away the modern furniture ordered for him, set up a stronghold of lushly carved, fumed oak in the midst of Korchein's chaste severity.

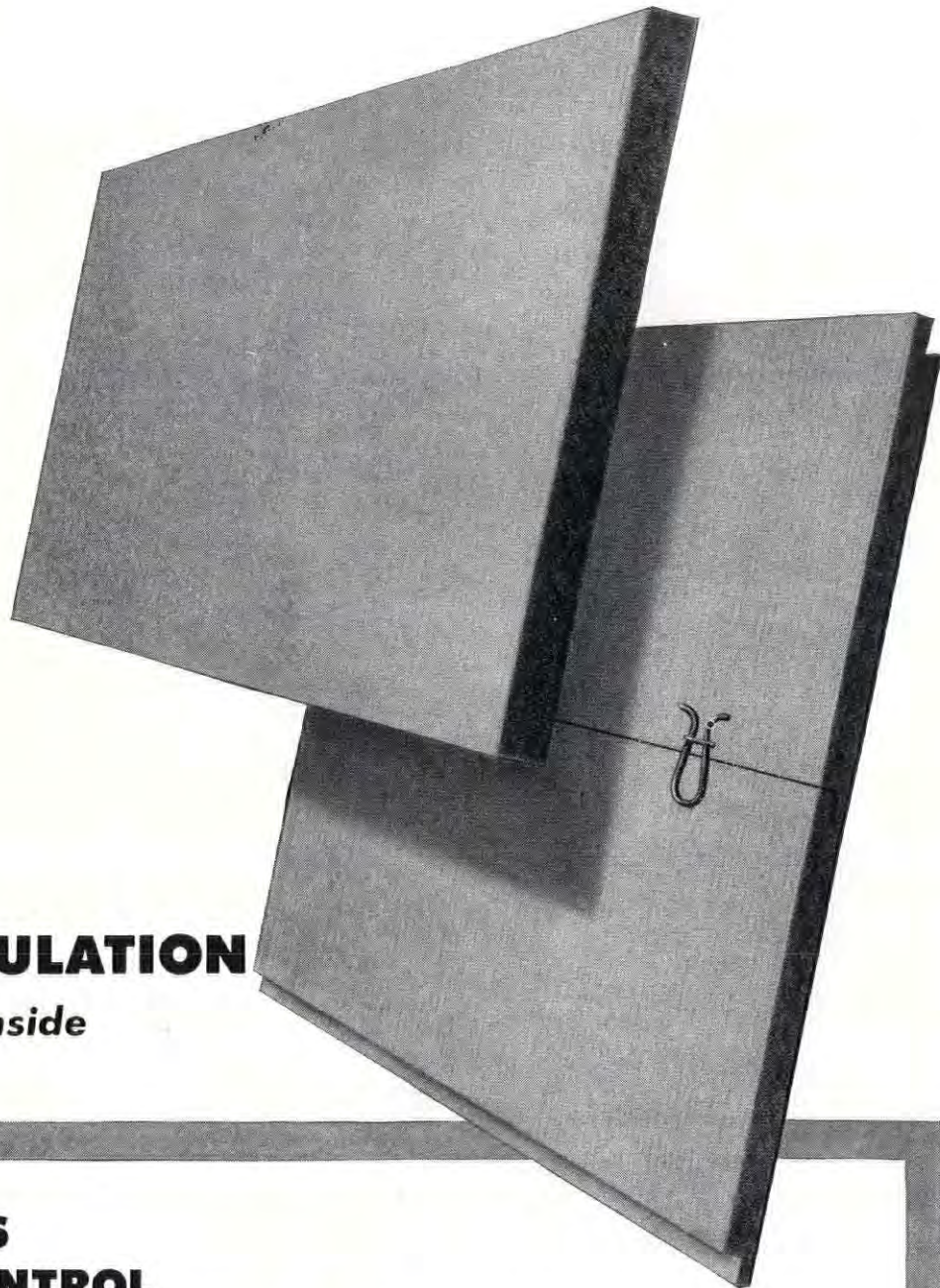




INSULATION *Outside*

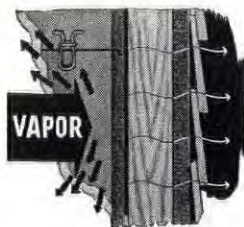


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Refer to Sweet's File — Architectural Section 10 a/9



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FORUM

OFFICE MEMORANDUM

To The FORUM Staff
From Henry Wright - Managing Editor

New York Office

Date 15 April 1946

In July, FORUM readers will receive a special dividend - an issue in the form of a Low Cost Housing Manual. Designed to give the building industry a complete and up-to-the-minute guide to all phases of emergency low cost housing, the July issue will cover all of the practical problems of building under the Wyatt Veterans' Housing Program.

Based on an extensive survey of materials manufacturers, architects and builders, it will include sections on the following subjects:

- 1) Land and Utilities, including subdivision, street and lot layout
- 2) Financing, including rental housing
- 3) Foundations
- 4) Structure
- 5) Fabricating Techniques, including shop & site fabrication
- 6) Finishes, inside and out
- 7) Equipment and Appliances
- 8) Furniture, (built-in)
- 9) Landscaping
- 10) Design

Hundreds of new ideas and developments worked out in war construction and since V-J Day will be shown, all directly applicable to the job ahead. In addition, the issue will include outstanding examples of builders' housing, incorporating advanced construction techniques, substitute materials, and a series of project houses developed especially for The FORUM by leading architects.

MEMO TO THE BUILDING INDUSTRY

Whether you are a manufacturer, architect, builder, contractor, engineer, lender, dealer or public official, your organization probably has an idea, development or product which merits consideration for this July issue. If so, we will appreciate your sending a detailed description along with photographs or drawings of its application. The major requirement is that the item be particularly useful in low-cost residential building for one or more of the following reasons: 1) it reduces costs, 2) it increases the speed of construction, 3) it serves as a substitute for items which are difficult to obtain. Write direct to Joseph Hazen, The Architectural Forum, 350 Fifth Ave., New York 1, N. Y.



Builder Brown was Baffled

BUT ONLY FOR A MOMENT

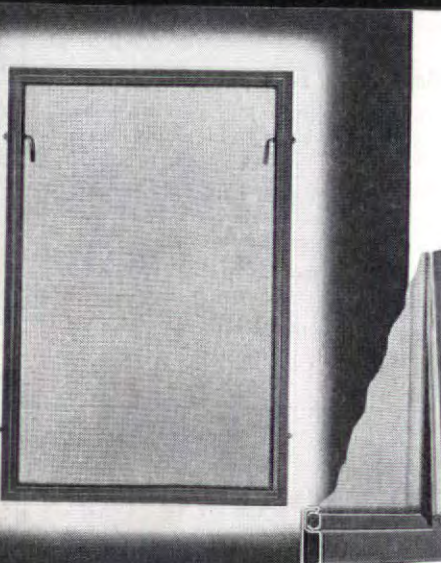
With the architect and contractor, he turned to Ceco . . . Together they solved the problem

Builder Brown was constructing a plant which called for special types of metal screens. But these required special rolling equipment and dies that were not available. It looked tough—until he turned to Ceco. Out of their engineering know-how, they suggested certain changes using standard Ceco construction. The contractor and architect approved. Better results were achieved—40% of cost was saved—and the job was completed ahead of schedule.

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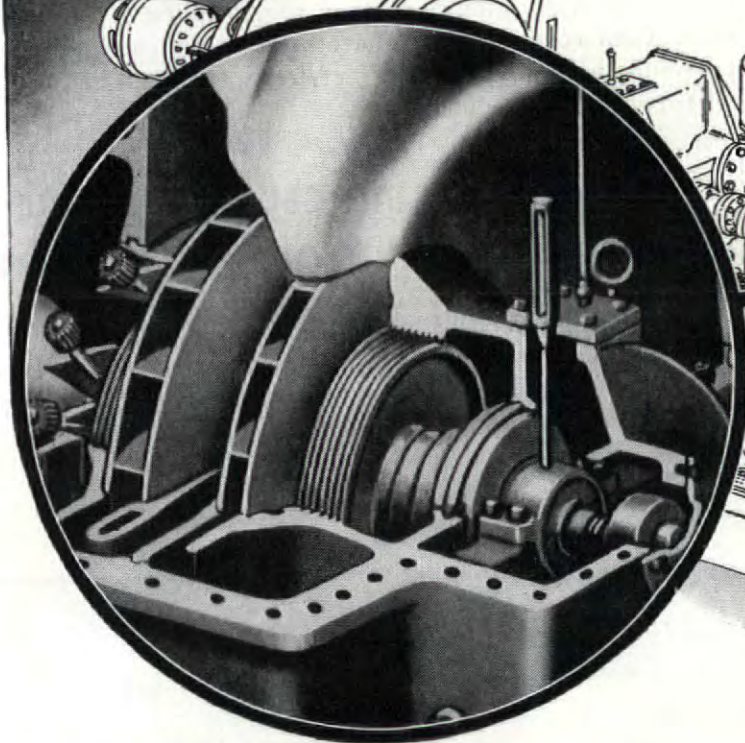
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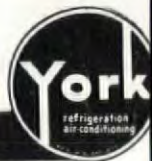
Balance disc equalizes unbalanced shaft thrust caused by unequal gas pressures on opposite faces of each wheel caused by lower pressure at wheel inlet area. The region behind the balance disc is connected by a passage to the inlet and, therefore, is subject to suction pressure. The opposite face is subject to discharge pressure. The York balance disc eliminates the need for heavy duty thrust bearing with attendant higher friction losses. York Corporation, York, Pennsylvania.

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remodeling or remuddling ?

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House & Garden



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The Architectural **FORUM**

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SLIDING DOORS AND
CONTINUOUS GLASS WALLS
OPEN ON BRICK TERRACE

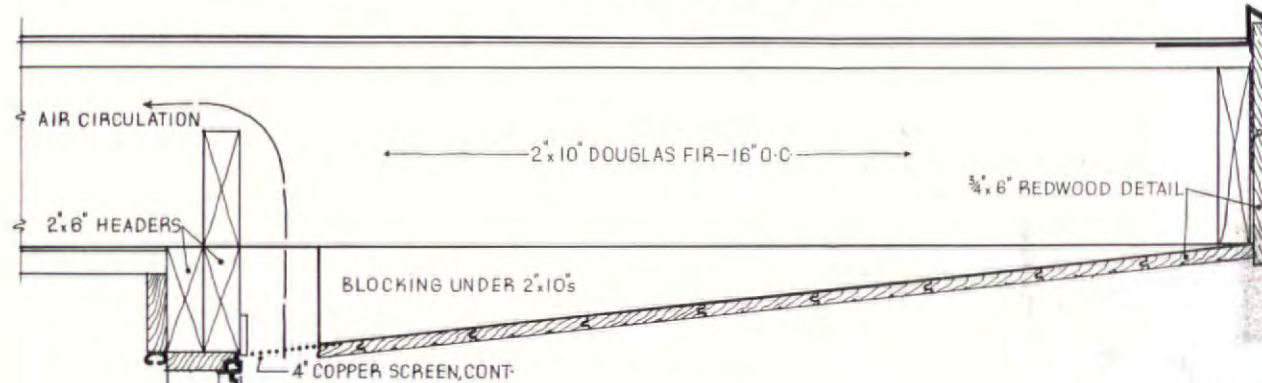
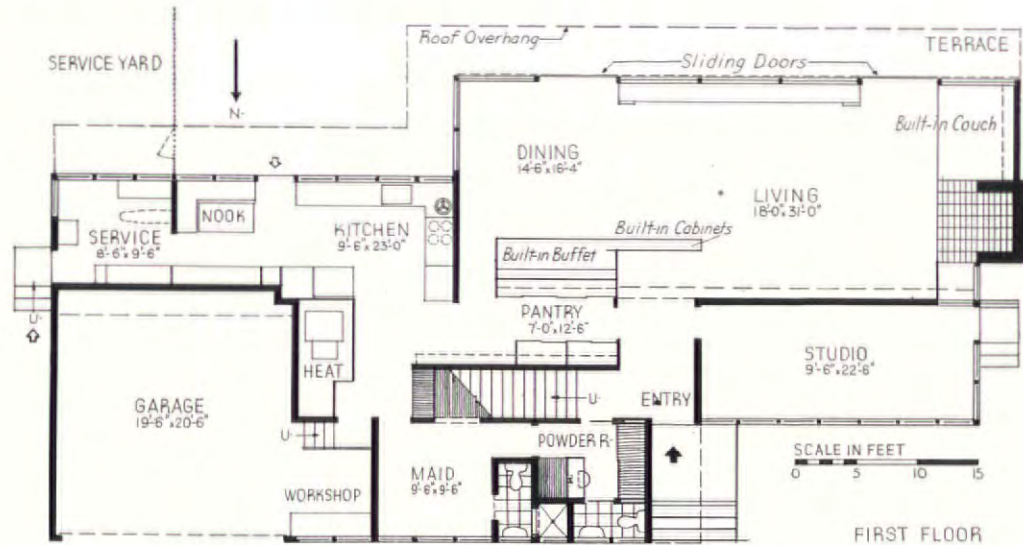


FACING SOUTH AND GLASS-WALLED, A LIVING-DINING AREA OF SOME 800 SQ. FT. GIVES ONTO A TERRACE 70 FT. LONG BY 40 FT. WIDE—

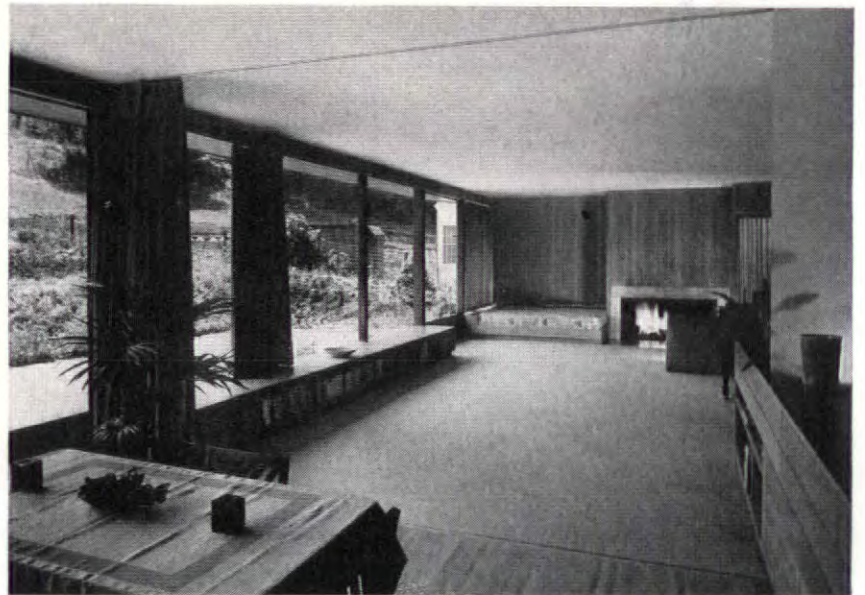
The owners of this new house in the hills above Hollywood, Calif., are frankly biased in its favor—they find it “impossible to understand why anyone would build anything except modern.” There is obviously a basis for their enthusiasm. Beginning with a lot whose outlook happily coincides with its southern exposure, Mr. Soriano has done a simple and effective piece of site and house planning. Garage, maid’s room and service facilities occupy most of the street front; the remainder is devoted to a studio for the wife, while the garage has special provisions for the cabinet-making hobby of the husband. This leaves the entire garden front available for a large living and dining room and a big sunny kitchen, all opening onto a terrace. The same pattern has been followed on the second floor (see p. 84).

The severe simplicity of the principal rooms is somewhat offset by a low key of the color scheme: the living area is carpeted in beige, dining room in woven straw. Curtains are a chartreuse casement cloth. All wood is in natural finish mahogany. Ceiling is painted off-white. Illumination is indirect. The house is entirely of wood, sheathed with $\frac{3}{4}$ in. redwood over felt on the exterior and largely surfaced with African mahogany plywood inside; all ceilings are smooth plaster; floors are hardwood except in kitchen and child’s room where linoleum has been used. Much of the principal furniture—also in mahogany—was built in place by the owner. The flat roof (which does double duty as sun-deck for second floor bedrooms) is framed for internal ventilation through a continuous, copper-screened opening in the wide overhanging eaves.

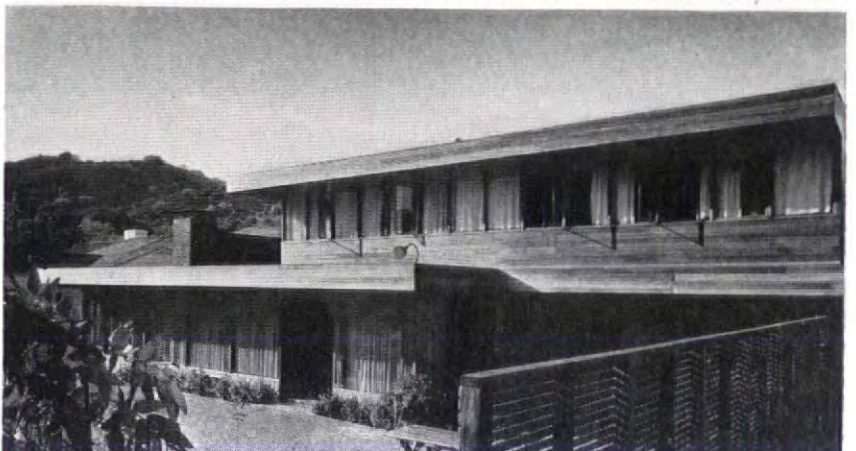
COUNTRY HOUSE IN CALIFORNIA makes adroit use of a limited exposure and outlook. Raphael S. Soriano, Designer.



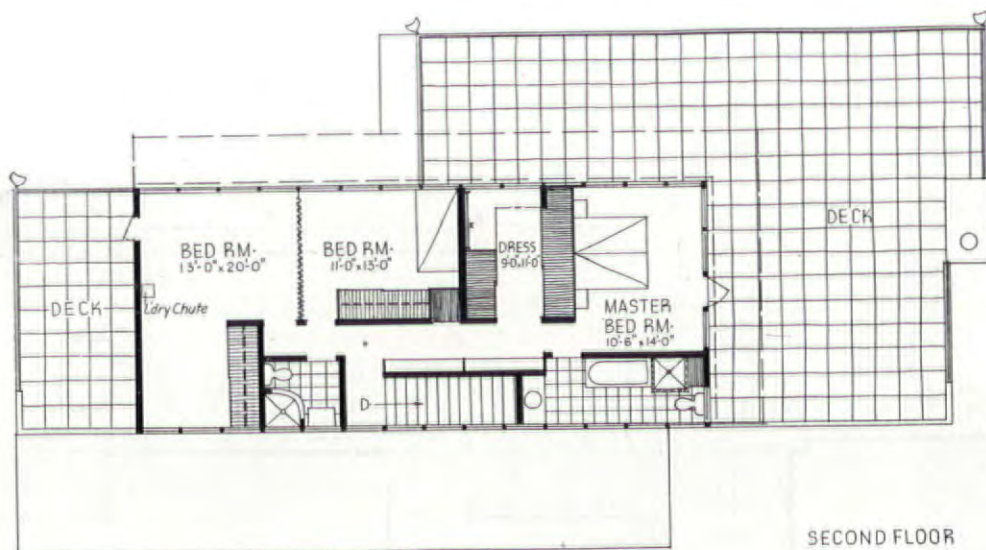
BEIGE, CHARTREUSE AND MAHOGANY IN SEVERELY SIMPLE LIVING AREA



CONTINUOUS SOUTHERN WINDOWS ARE PROTECTED BY DEEP SUNSHADES



EA FOR A HOUSE OF THIS SIZE



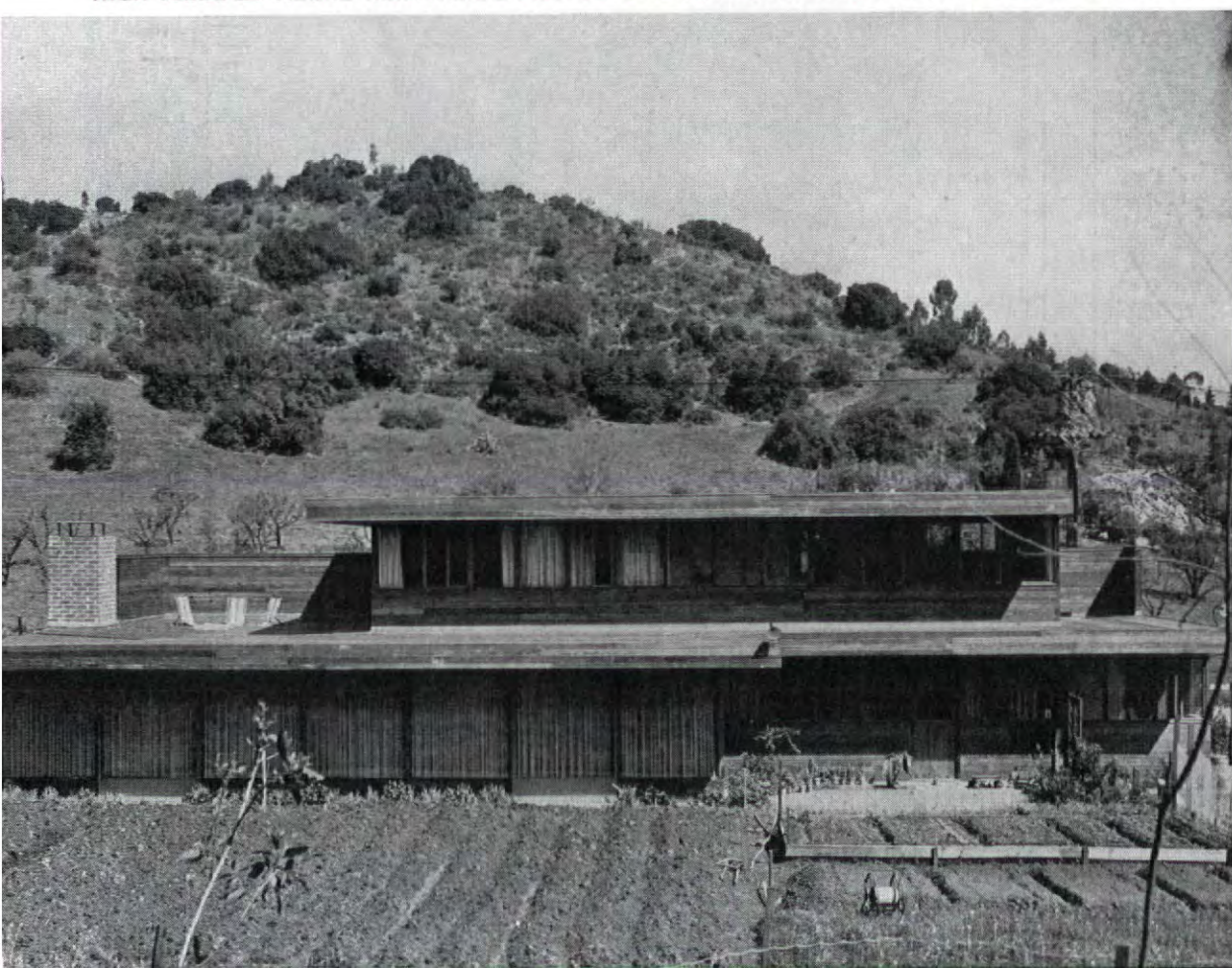
SECOND FLOOR

BEDROOM FLOOR provides unusually roomy accommodations for a family of three with the further possibility of subdividing the child's room into two bedrooms if desired.



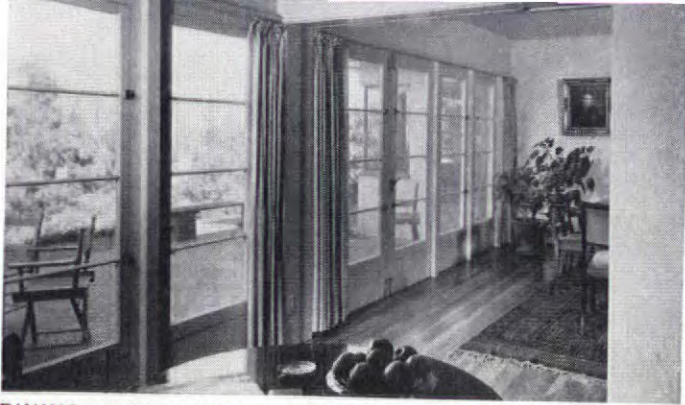
BEDROOMS HAVE CONTINUOUS RIBBON WINDOWS ALONG GARDEN FRONT PROTECTED BY OVERHANG

HIGH PARAPET ALONG NORTH SIDE PROTECTS TERRACES FROM NORTH AS WELL AS FROM PUBLIC

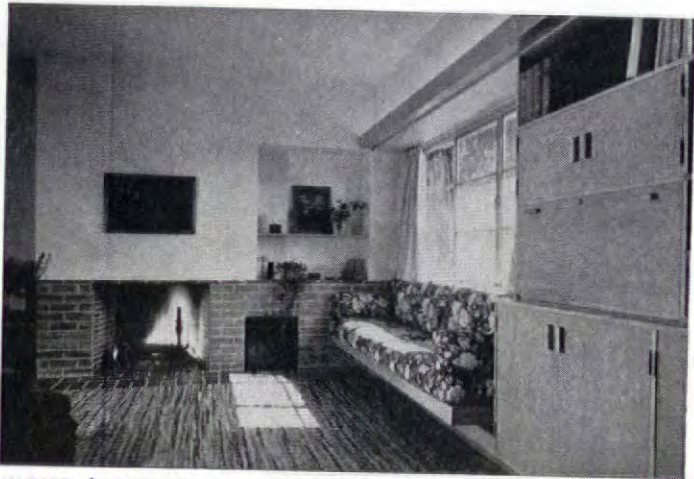


CONSTRUCTION OUTLINE

FOUNDATION—concrete. **STRUCTURE**: Exterior walls—redwood over 15 lb. felt, redwood posts, steel sash and plate glass; inside—plywood over Flintkote Co. insulating paper. Floors—plywood. **ROOF**—15 lb. asphalt felt, asbestos cap sheet, Johns-Manville. **FIREPLACE**: Damper—Superior Fireplace Co. **SHEET METAL WORK**—Armco, American Rolling Mill Co. **WINDOWS**: Sash—steel casement, Druwhit Metal Products Co. Glass—Factrolite, Mississippi Glass Co. **FLOOR COVERINGS**: Main rooms—carpet. Kitchen, bathrooms and child's bedroom—linoleum, Armstrong Cork Co. **PAINTS**—National Chemical Co. and W. P. Fuller. **WOODWORK**—California Panel & Veneer Corp. **GARAGE DOORS**—Tower Door Co. **HARDWARE**—Schlage Lock Co. **ELECTRICAL INSTALLATION**—General Electric Co. Fixtures—C. W. Cole Co. **KITCHEN EQUIPMENT**: Range—Wedge wood, James Graham Mfg. Co. Refrigerator—Cold Spot, Sears-Roebuck & Co. Fan—Pryne & Co. **LAUNDRY EQUIPMENT**: Washing machine—Bendix Home Appliances, Inc. **BATHROOM EQUIPMENT**—Crane Co. **HEATING**—forced warm air system, filtering and humidifying, Race Furnace Co. Regulator—Minneapolis Honeywell Regulator Co.



DINING AREAS MAY BE SEPARATED BY SLIDING DOOR



LIVING ROOM FEATURES BUILT-IN SOFA AND CABINETS

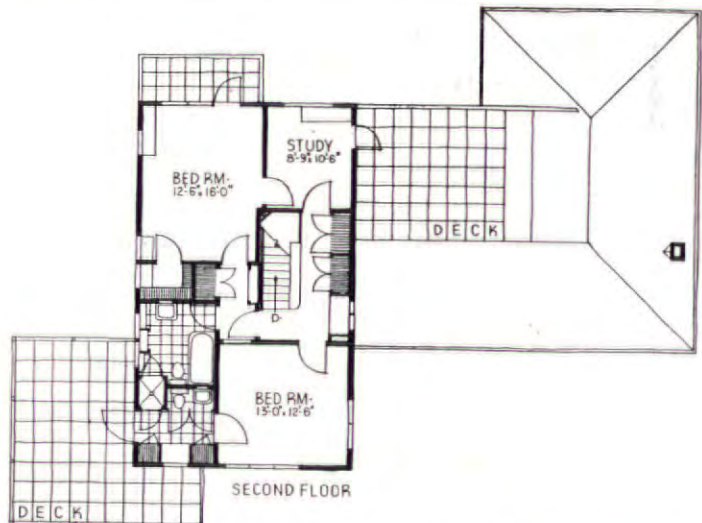
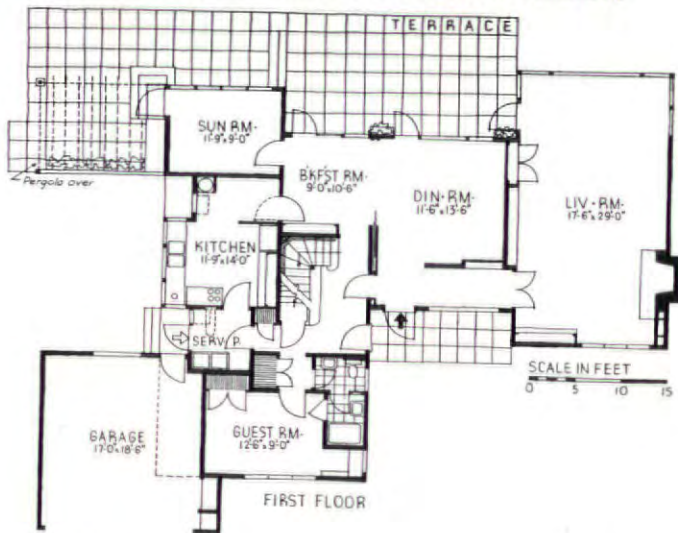
SUBURBAN HOUSE, Santa Monica, Calif.

LIANE ZIMBLER, Designer

MANKIN BLDG. & CONTRACTING CO., General Contractor

The two most important factors influencing the design of this residence were the orientation of the 75 ft. by 190 ft. lot and the fact that the building was to serve as the office of the composer-owner. Commanding splendid views of the ocean to the south and mountains to the north, the house was opened up in both directions by the provision of large windows at front and rear. Side walls are relatively free of fenestration. Since the living room was designed as a private study for the owner, it is separated from the rest of the house by a dining room and long hall which serve as sound buffers. An entrance on this hall is used by the composer's business callers; a separate entrance to the stair hall serves the rest of the family and their guests. Isolation of the living-work room is further assured by the location of an auxiliary living room at the opposite end of the building and by provision of additional living space upstairs. The apparent superfluity of doors and small halls is explained by the owner's requirement that all rooms, including baths, be mutually accessible. Built at a prewar cost of \$11,000, exclusive of the \$2,500 lot, the house was financed with an FHA mortgage covering 82 per cent of its value.

CONSTRUCTION OUTLINE: FOUNDATION—concrete. STRUCTURE—wood frame and stucco; inside—stucco. ROOF—red cedar shingles. INSULATION—rockwool. WINDOWS: Sash—steel, Steel Window Corp. FLOOR COVERINGS: Main rooms—hardwood. Kitchen and bathrooms—linoleum. WALL COVERINGS: Kitchen and bathrooms—tile. GARAGE DOOR—Overhead Door Corp. HARDWARE—Schlage Lock Co. ELECTRICAL FIXTURES—Leo Dorner Co. BATHROOM FIXTURES—Crane Co. HEATING—unit heaters.



OWNER'S STUDY IS OPENED TO REAR VIEW

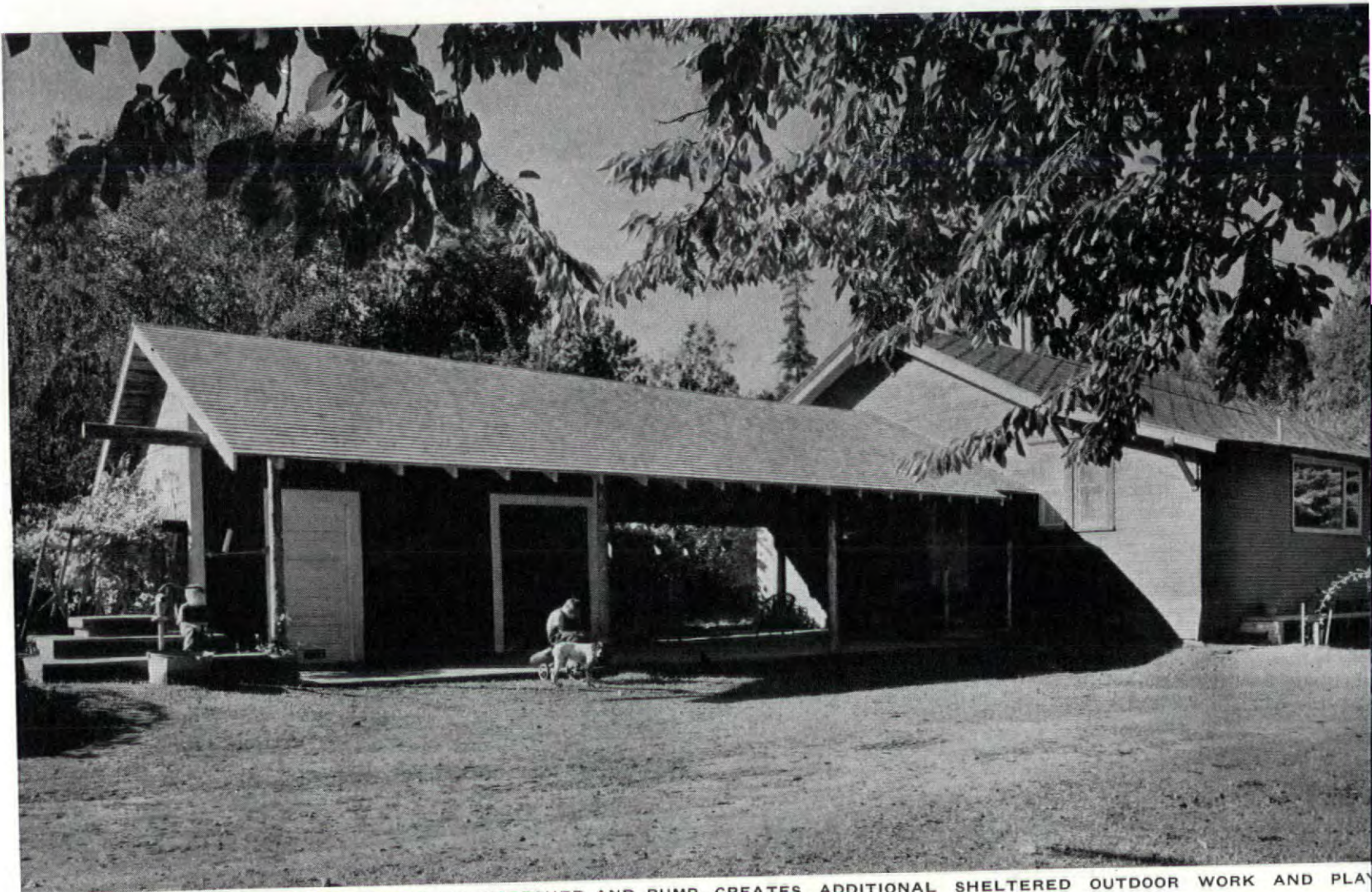
PLAIN EXTERIOR DESIGN BELIES RATHER COMPLICATED PLAN OF THE HOUSE



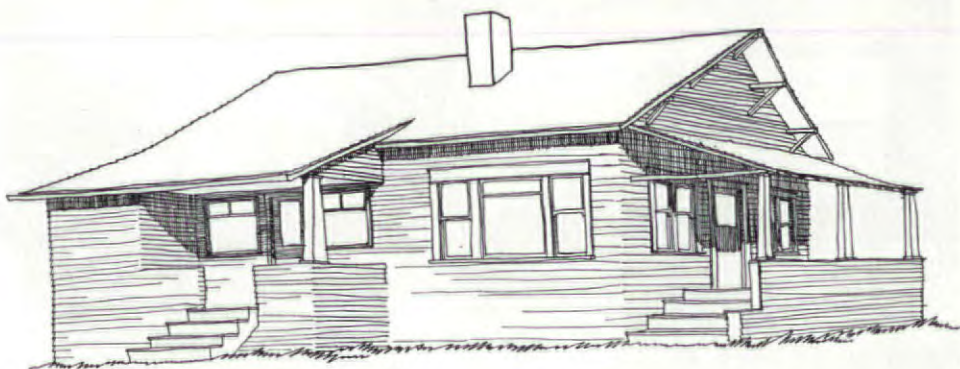
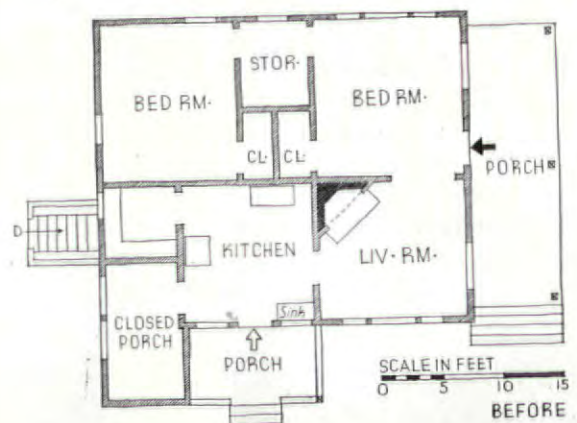
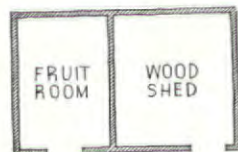
PICTURE WINDOW DOMINATES LIVING WING



Photos: Julius Shulman



COVERED LOGGIA GIVES BETTER ACCESS TO WOODSHED AND PUMP, CREATES ADDITIONAL SHELTERED OUTDOOR WORK AND PLAY



Architect Pietro Belluschi solves a priority and scarcity problem in Oregon.

Photos: P. A. Dearborn

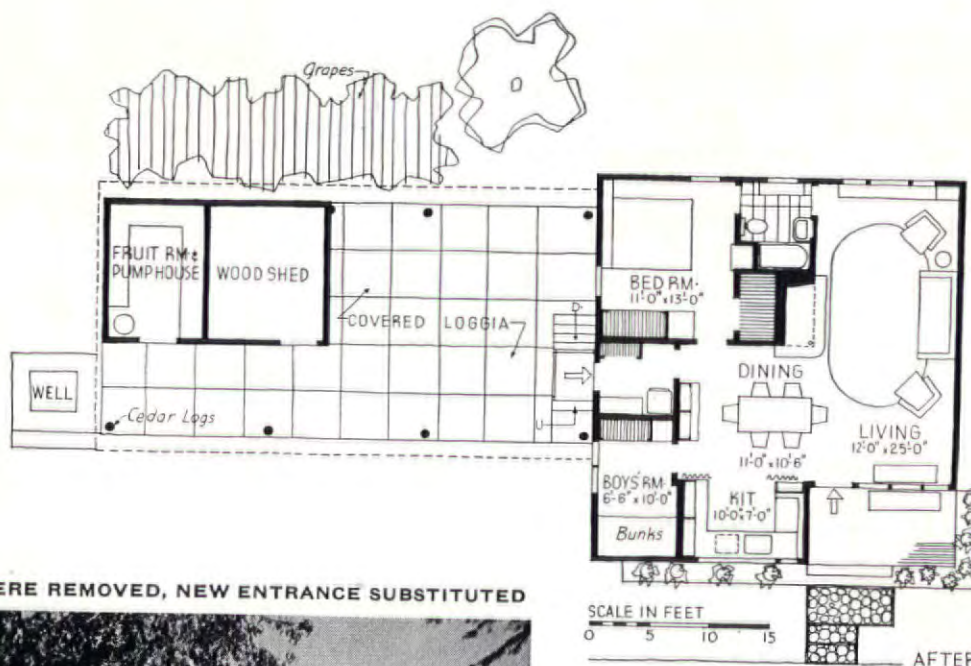


UNUSUAL HOODED FIREPLACE DOMINATES LIVING-DINING AREA

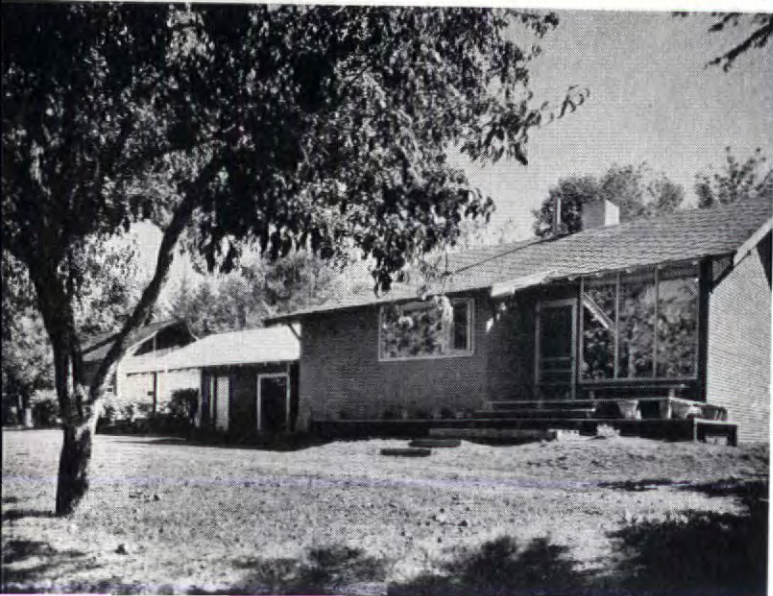
Oregon abounds with wooden farm-bungalows, all of comparatively modern vintage and nondescript design. And with many returning GI's bringing back a war-nurtured dream of living in a small place on the land, this particular example of a converted farmhouse near Portland is of special interest now as a practical solution of a pressing problem.

The architect says, "I don't know whether or not the sketch of the original farmhouse before remodeling (see opposite page) carries all the nice feeling of a country slum which the place had when I purchased it. I will add in my defense that what I bought was the orchard, which is filled with all kinds of wonderful fruit trees, rather than the house. Since it was not possible to obtain priority for a new house, I had to do the best I could with the existing building. As a matter of fact, now that a large porch connects the house with the utility building, it has become so livable and free of architectural pretense, that I am becoming quite attached to it."

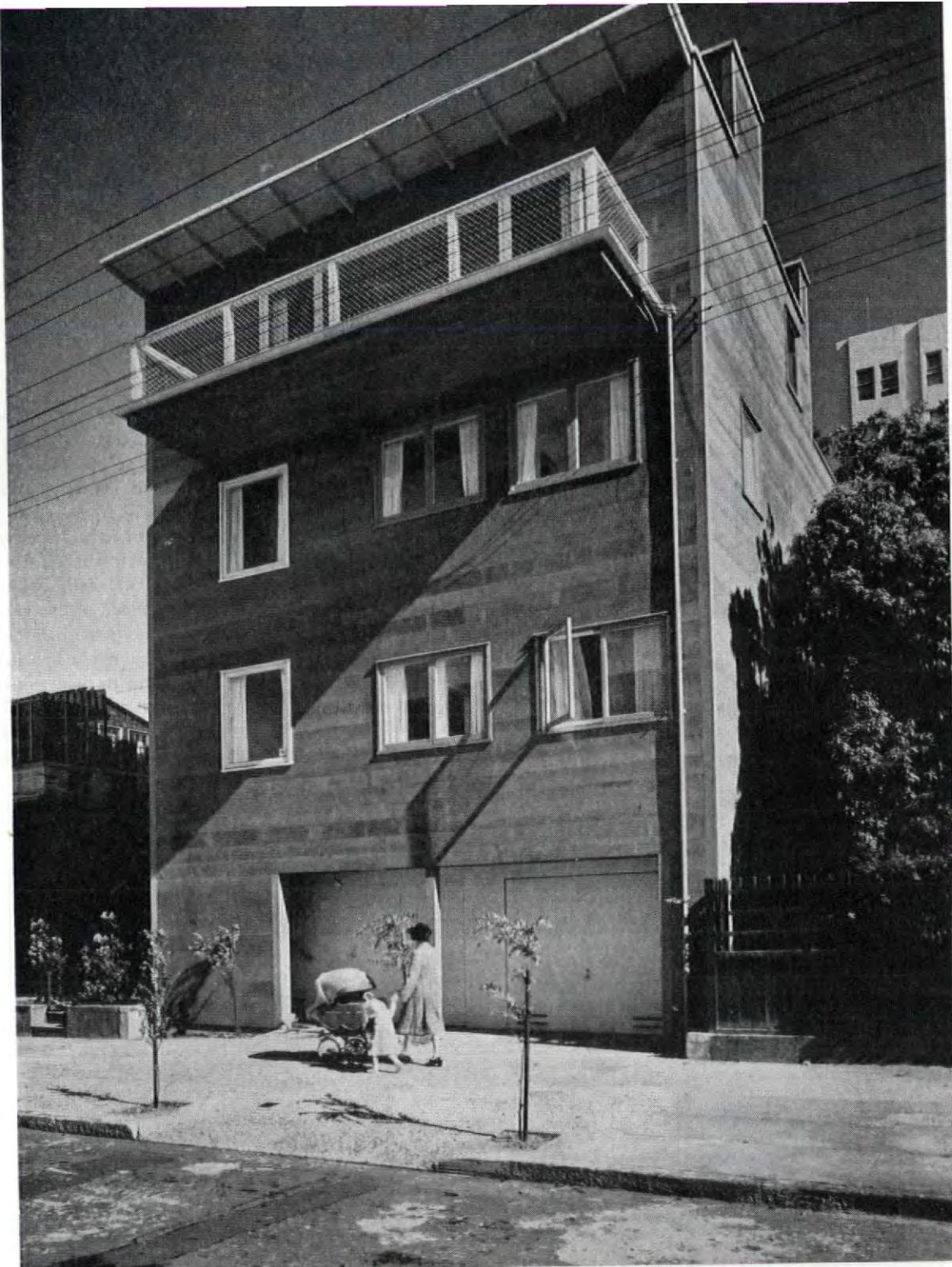
In addition to connecting the existing woodshed (a very necessary adjunct in Oregon where wood is the chief fuel and where rain and damp get at that wood most of the season) with the house, Mr. Belluschi has introduced other comforts to country living. He has added a rear entry to the house from this covered porch. He has ripped out the old walls separating kitchen and living room and bedroom, making a spacious living-and-dining combination grouped around a tremendous modern fireplace. He has put in a bath where there was a storage closet. And a particular innovation is that between the living room and corner porch with its new front entrance, he has installed a three-section double-glazed window to catch solar heat. Finally, the interior of the house has been given considerable style by the adroit use of native woods which form wall and ceiling finishes throughout.



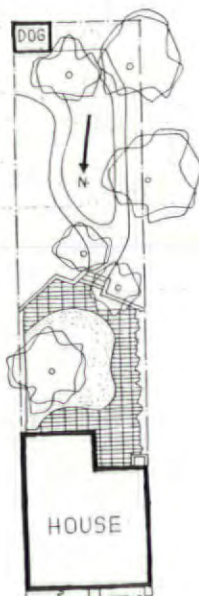
OLD PORCHES WERE REMOVED, NEW ENTRANCE SUBSTITUTED



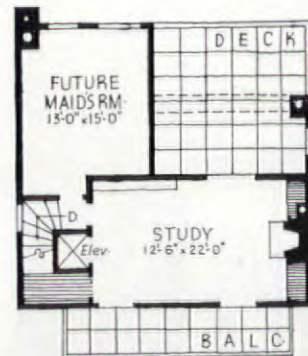
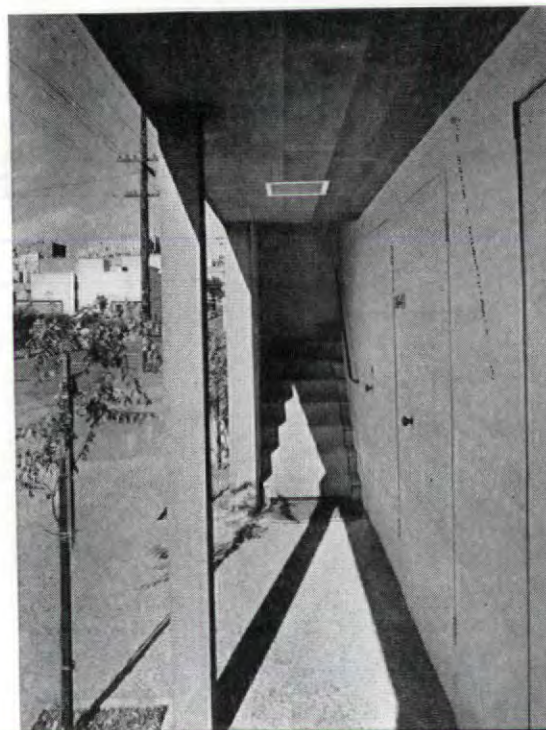
TWO HILLSIDE



ENTRANCE TO THIS COMPACT, FOUR-STORY HOUSE IS THROUGH THE BASEMENT AT STREET LEVEL



Photos: Roger Sturtevant



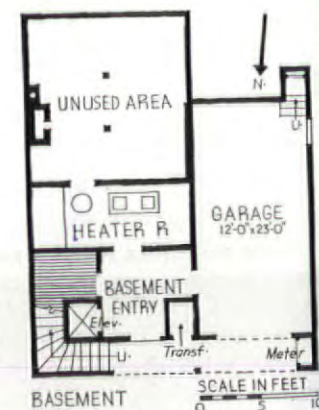
THIRD FLOOR



SECOND FLOOR



FIRST FLOOR



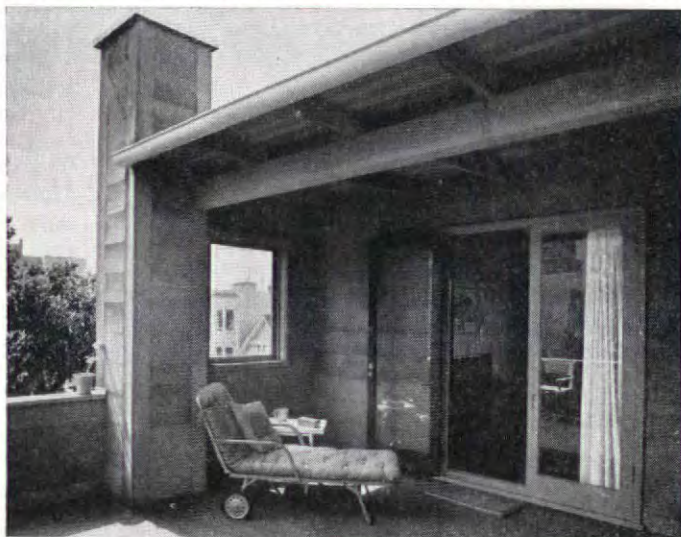
BASEMENT

HOUSES for opposite lot conditions by Wurster, Bernardi & Emmons, Architects.

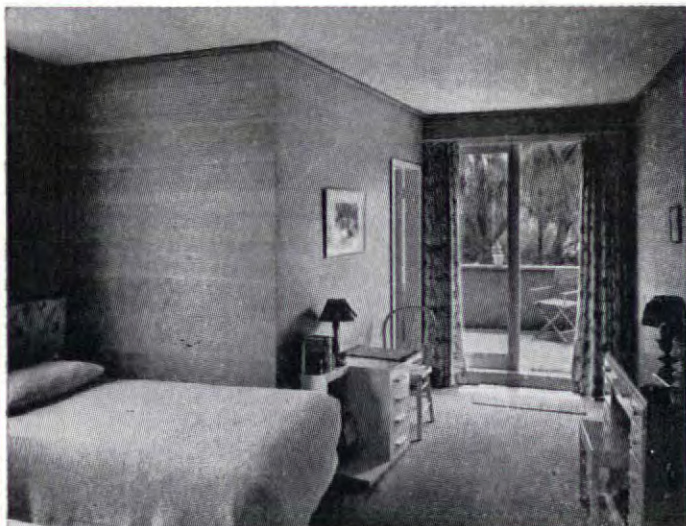
THOMAS D. CHURCH, Landscape Architect

A. F. MATTOCK CO., General Contractor

TOP FLOOR LIKE THE OTHERS HAS DECK TO THE SOUTH



WOOD FINISHES ARE USED INSIDE AS WELL AS OUT



LIVING ROOM LEADS TO LONG NARROW GARDEN IN REAR



Modern houses are enthusiastically accepted in San Francisco, where hillside sites and magnificent views preclude the usual traditional approach. This house and the one on the next page represent similar solutions of the same problem—an ample town house squeezed onto a narrow lot in the Russian Hill neighborhood. The chief difference between them is that one house is entered from below, the other from above; the first is on a rising lot at the south side of the street, the second on a lot north of the street. Both have been oriented for maximum sun on the south and southeast terraces and gardens.

This house is on a shallower slope, with a 100-foot garden sloping gently upward towards the rear and the southern sun. The house is high, but an elevator shaft makes it practicable to convert the third floor into an apartment if it becomes necessary to do so; meanwhile, the room there commanding the best view is used as study and library. The second floor has owner's and guest bedrooms. The main or first floor has living room and dining room away from the street facing the south garden. The street or basement floor contains utility rooms, unused storage area, and the garage.

The owners say the house "suits our taste for simplicity of line. The only alteration we would make if building again would be to allow just a little more room for a washer, and possibly a small stairway leading from garage to garden."

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—vertical grain, Douglas fir, building paper, sheathing, wood studs. Floors—oak. ROOF—tar and gravel. Decks—mineral cap sheet. FIREPLACE—Superior Fireplace Co. Kitchen and bathrooms—linoleum. PAINTS—Samuel Cabot, Inc. BATHROOM EQUIPMENT—Kohler Co. Cabinets—Hallscheid & McDonald. HEATING—gas fired warm air, Aladdin Heating Corp. Water heater—Ruud Mfg. Co.

WINDOW EXPANSES AND SUN DECKS OPEN TO THE SOUTH GARDEN



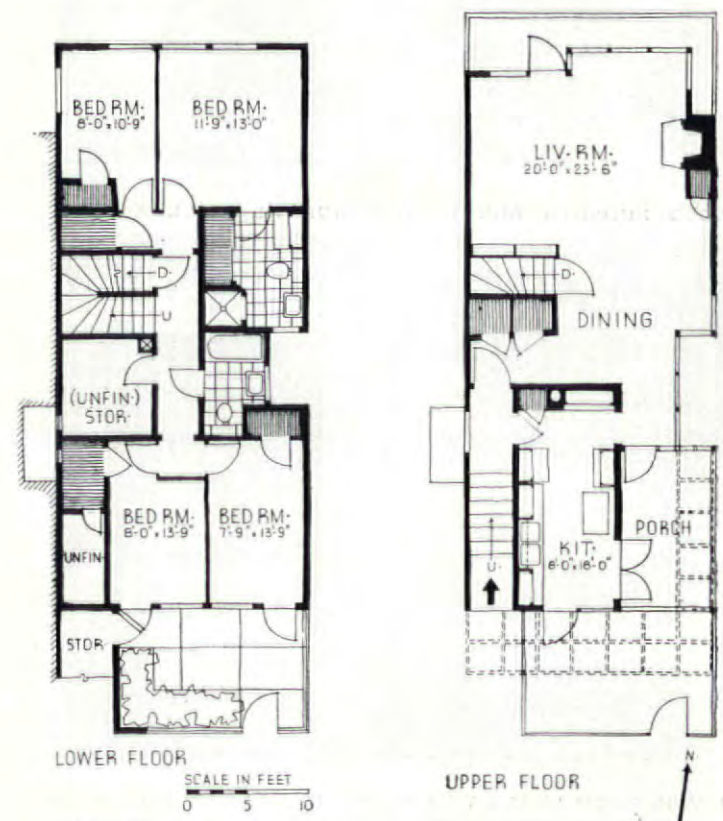
Designed for a steep north slope, this house was built "upside down".

The same architects who designed the house on the preceding page built this one on a smaller, steeper lot. Here they were more restricted as to size, and had a different lot problem. The living room is placed on the upper floor, with big windows and balcony at the north to make the most of the panoramic view in that direction; and there is a southeast outdoor porch for dining, opening off the indoor dining area and kitchen. On the lower floor are four small bedrooms (there are two children in the family) and a small outdoor garden space to catch the southeast sun.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—redwood shiplap, building paper, Douglas fir sheathing, wood studs; inside—plaster. Floors—oak. **ROOF and DECK**—tar and gravel. **FLOOR COVERINGS:** Kitchen and bathrooms—linoleum, Armstrong Cork Co. **ELECTRICAL EQUIPMENT**—General Electric Co. **LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliance, Inc. **PLUMBING EQUIPMENT**—American Radiator-Standard Sanitary Corp. Cabinets—Hallenscheid & McDonald. **HEATING**—gas fired forced warm air, Aladdin Heating Corp.

D. B. GLADSTONE, General Contractor



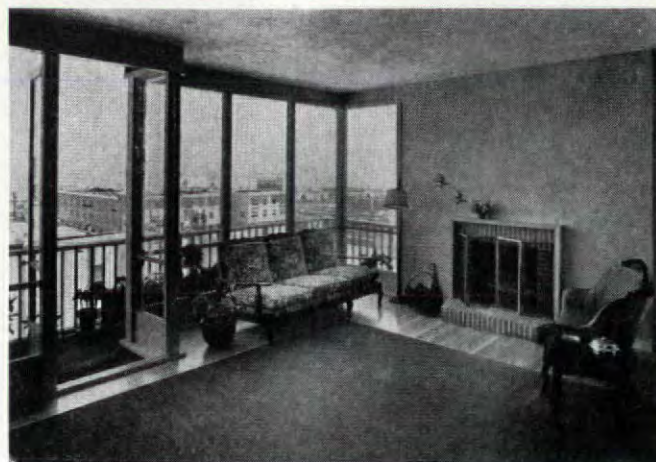
ENTRANCE WALK AND STEPS LEAD TO BOTH UPPER AND LOWER FLOORS

NORTH OF HOUSE IS AT STEEPEST SLOPE



Photos: Roger Sturtevant

UPPER FLOOR LIVING ROOM HAS VIEW OF BAY, AS DOES ADJACENT DINING PORCH



50. POSTWAR SKYSCRAPER

BUILDING PREVIEWS

A new office building will tower over the block of low brownstones adjoining Rockefeller Center on the north.

THE HASWIN CORP., Owner; STANDARD OIL CO. of N. J., Tenant

CARSON & LUNDIN, Architects; WALLACE K. HARRISON, Consulting Architect





CARSON & LUNDIN, Architects

W. K. HARRISON, Consulting Architect

JOHN W. HARRIS ASSOC., INC., Builder

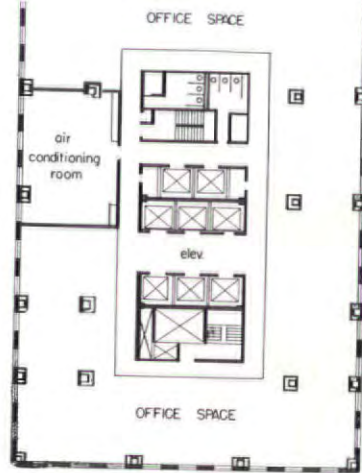
One of the first postwar skyscrapers which will go up in midtown Manhattan under the new zoning laws is the 33-story Esso building, designed to house and consolidate the metropolitan offices of Standard Oil Company of New Jersey. Fronting on Rockefeller Center, this new structure will occupy a sizable portion of the block between 51st and 52nd Streets—a space formerly earmarked by Center planners for a mid-block through street. However, the building's spacious lobbies which extend through the block will form, in effect, the northern gateway to Rockefeller Center.

The architects, for many years associated with the Center, have designed this new building in harmony with existing construction in the group. Uninterrupted vertical piers, similar to those on Center buildings, accentuate the tower which is the central element of the design. Flanking the tower on 52nd Street, but extending only partially through the block, are two ten-story wings which consolidate the lower floors into a T-shaped plan. Roof gardens which top the two-story entranceways on both 51st and 52nd Streets tie in with the Rockefeller gardens, further linking the new building to its progenitors.

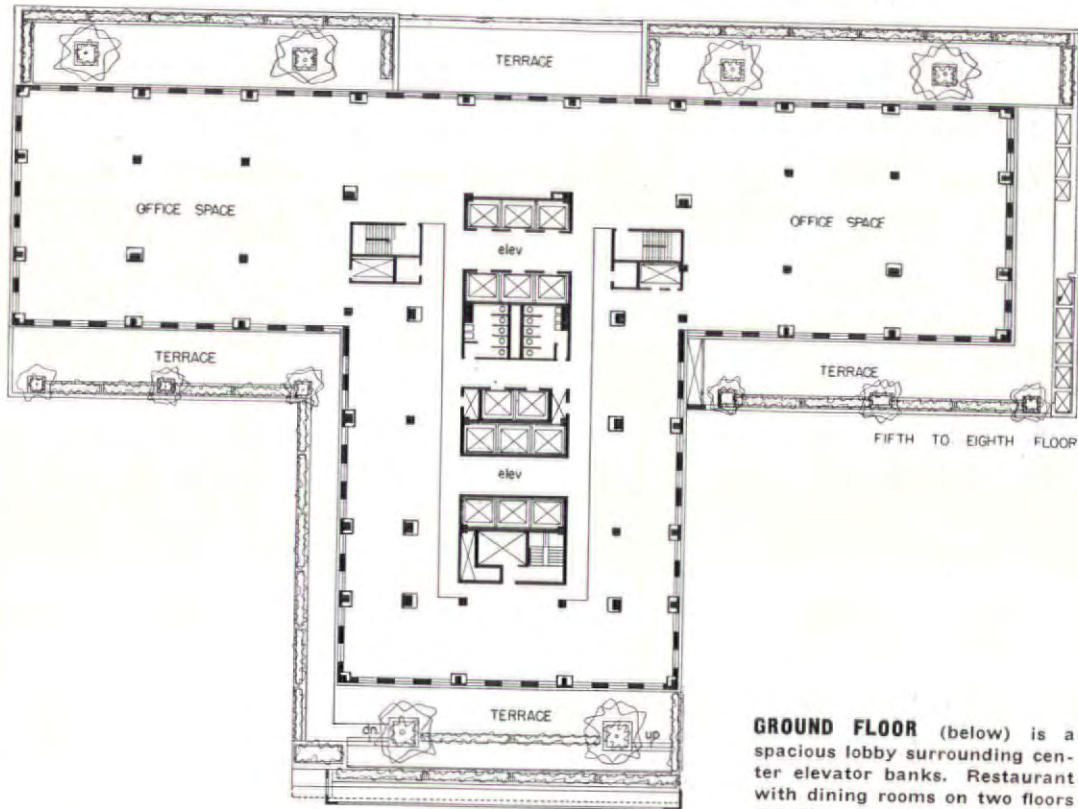
Novel features of the design are largely the result of recently instituted zoning laws. Unlike former buildings in this area, the new building can occupy only 65 per cent of the land area above the second floor, a ruling which has resulted in the setbacks utilized for roof planting. Total land coverage on the ground floor necessitates an off-street basement parking area—also part of the new law, but something of an innovation in Manhattan commercial design.

The projected structure is also the tallest New York office building to be completely air-conditioned—not merely air-cooled. Provision has been made for year-round cleaning of the air and for humidification or dehumidification according to season, plus standard cooling and heating. The enormous amount of heat-exchange equipment involved in such a scheme has influenced the entire design. Floors are spaced farther apart than is customary and the design of the steel frame is also affected. Every third floor is equipped with an air-conditioning room from which ducts lead to floors above and below. This is done to keep duct sizes at a minimum and to eliminate vertical shafts. Machinery and cooling towers, placed at the top of the building are so arranged that a setback is unnecessary and a smooth, squared-off roofline becomes the logical solution.

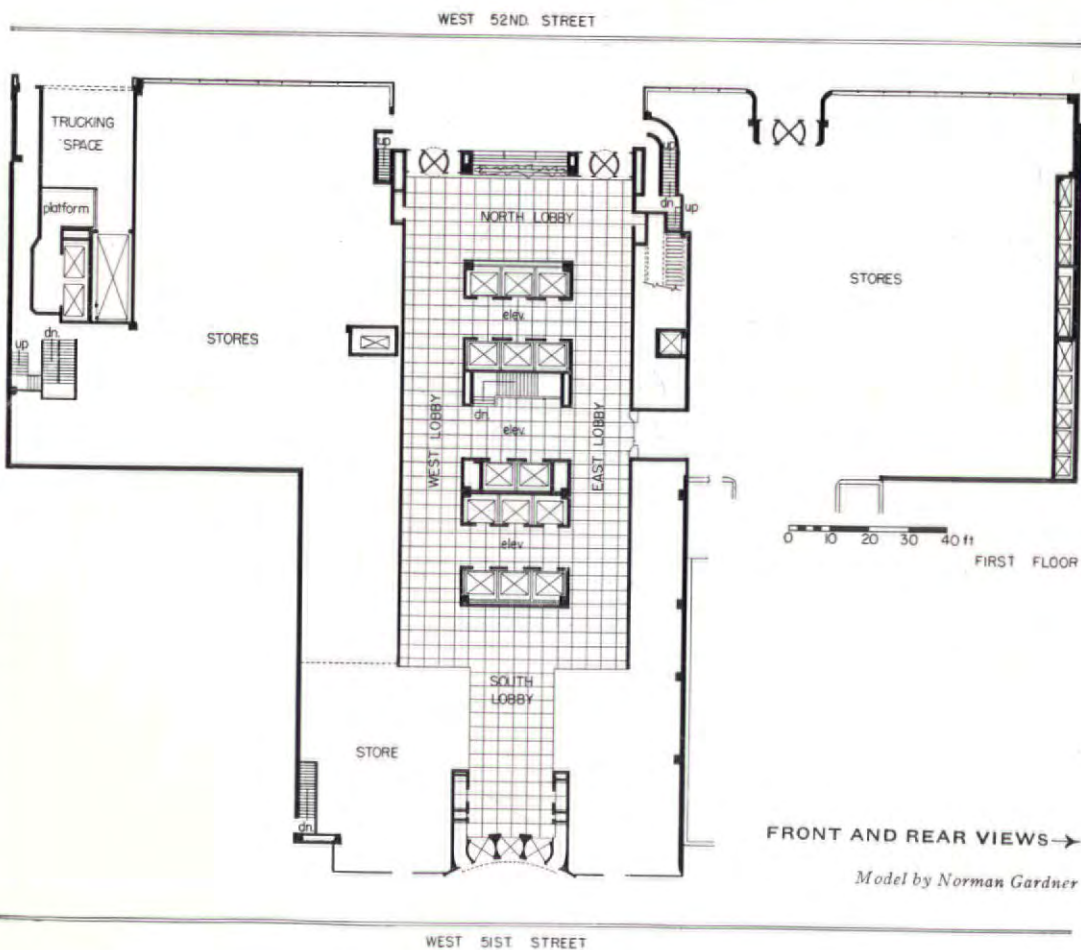
RENDERING SHOWS THE RELATIONSHIP
OF THE ESSO BUILDING TO EXISTING CONSTRUCTION



TOWER FLOOR PLAN (left) shows position of air-conditioning room. A typical lower-story plan (below) reveals roof gardens at second floor level.

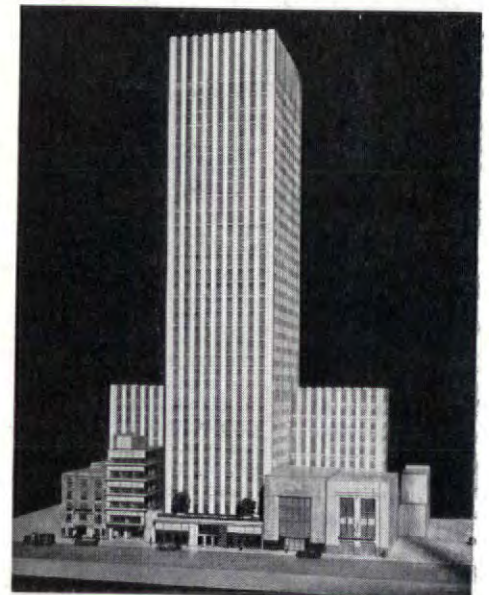


GROUND FLOOR (below) is a spacious lobby surrounding center elevator banks. Restaurant with dining rooms on two floors occupies west side.



FRONT AND REAR VIEWS →

Model by Norman Gardner



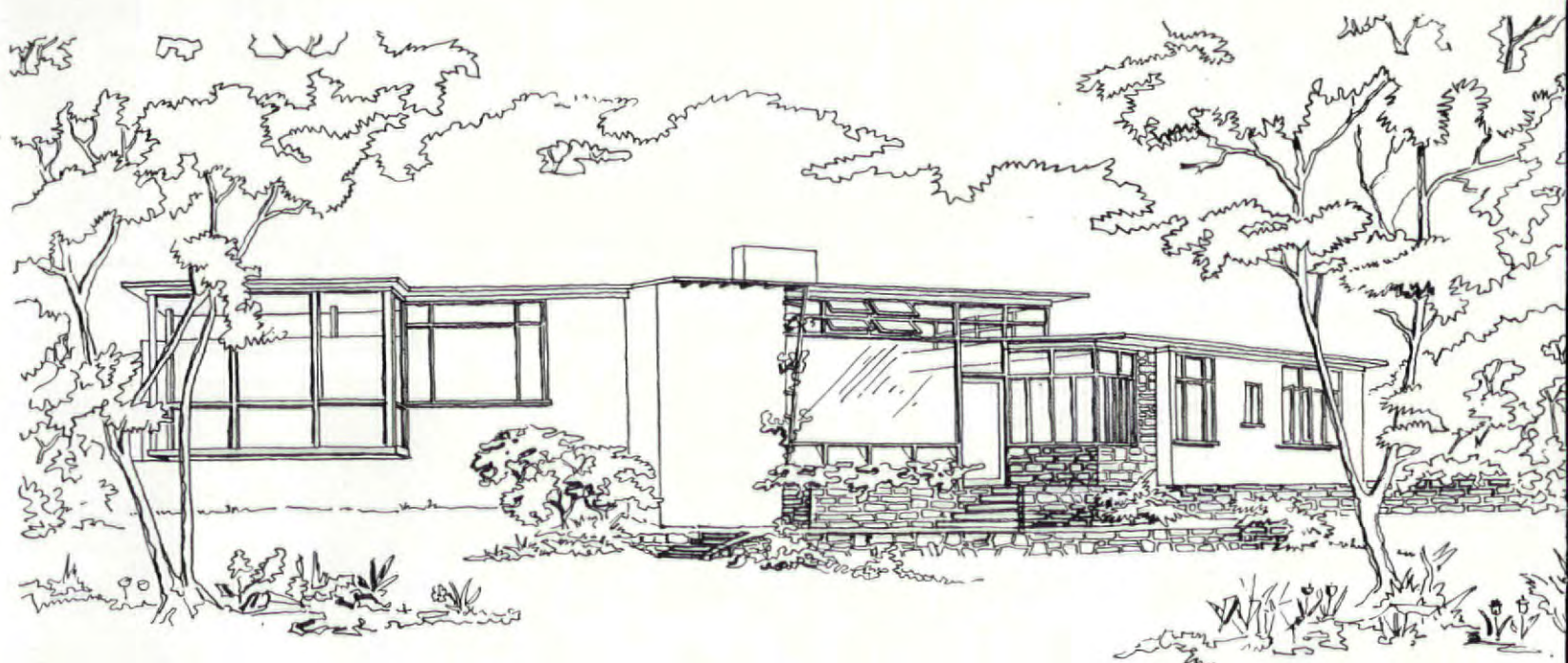
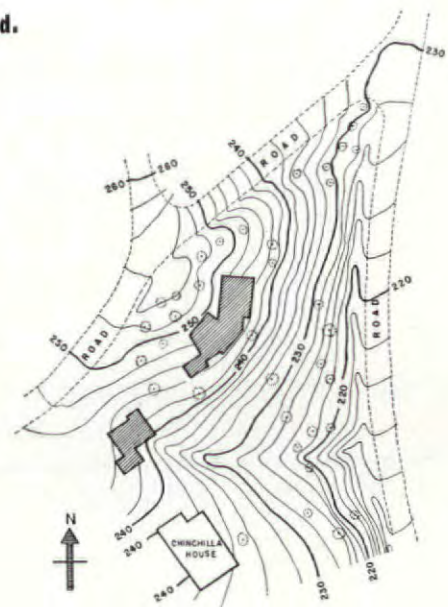
51. CHINCHILLA FARM

An enterprising veteran sets up a small estate for raising chinchilla rabbits in Glen Echo Heights, Md.

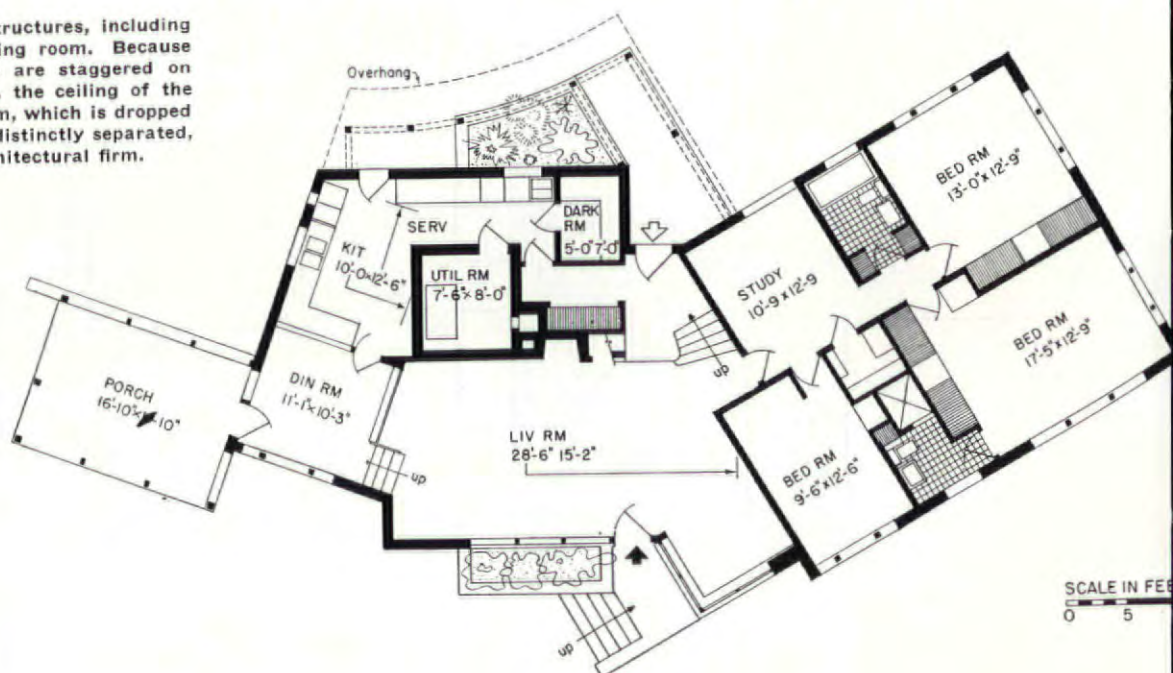
BERLA & ABEL, Architects

STANLEY W. PANGBORN, Owner

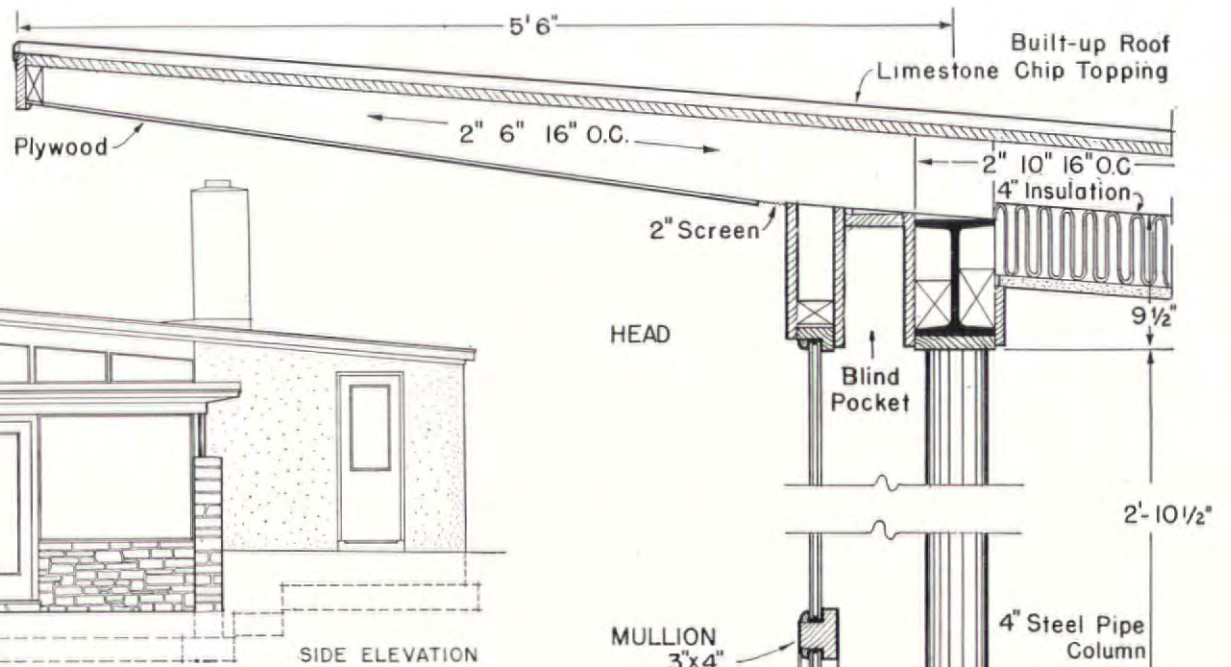
This small "ranch" near Washington represents the plan of one G.I. to own his own business and his own home. Designs include a house for the veteran, another for his parents and two air-conditioned concrete structures (not shown) which will provide a regulated environment for the chinchillas. Despite the materials shortage which has virtually stopped all building in the vicinity, construction is already underway on the owner's living quarters. This is due in large part to the ingenuity of the owner, a former painting contractor, who picked up scarce building items through sharp-nosed shopping and substituted available materials for those specified, but unobtainable. The building crisis also influenced the owner's choice of design, leading him to demand houses which required a minimum of lumber. To comply, the architects worked out designs for masonry structures with large glass areas throughout. Walls are stone and waterproof cement over cinder block, inner partitions are masonry and floors are concrete covered with parquet (one of the few places where wood was used). As usual, FHA balked at the modern character of the houses, labelling them "too unusual", and refusing to grant the full mortgage requested. The loan was large enough, however, to enable the owner to make up the remainder.



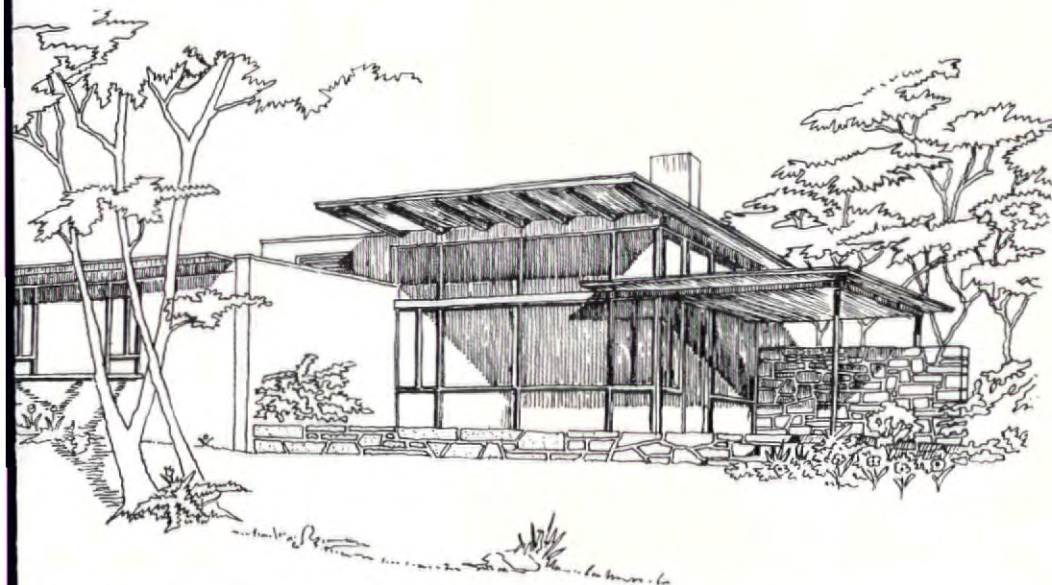
PARENT'S HOME is the larger of the two structures, including three bedrooms, living room, study and dining room. Because it is designed for a steep site, the floors are staggered on several levels. To give a feeling of height, the ceiling of the service area goes through over the living room, which is dropped a few steps. Sleeping and living space are distinctly separated, a typical feature of most houses by this architectural firm.



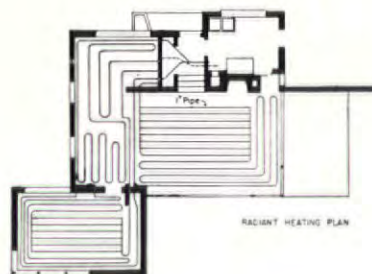
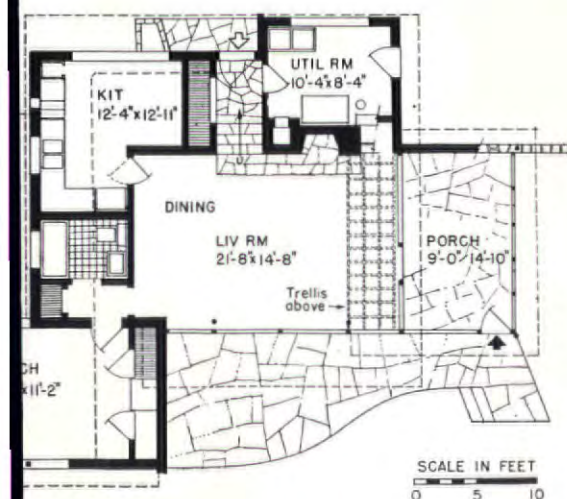
SCALE IN FEET
0 5



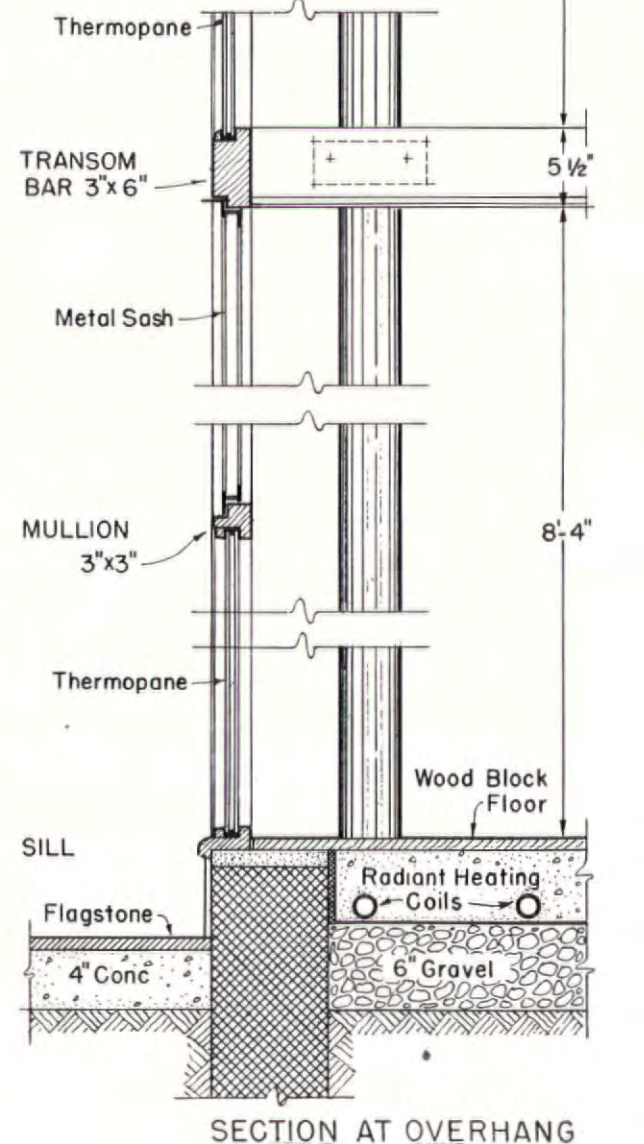
VETERAN'S HOME is designed with a combination of roof levels which add interest to an otherwise simple mass. Living room window wall is broken by the porch roof, doorway, and low masonry construction, thus gaining a pleasant variety of textures. The informality and range of pace found in both this house and the larger one at left are an interesting expression of their structural systems.



PLAN reveals a large living room also used for dining, and an enclosed porch which provides sleeping accommodations. Open, but sheltered, porch at the front of the house makes a spacious and pleasant outdoor living area. Flagstone used for the floor of this porch and for the windbreak is repeated in the interior by means of a back entrance walk which continues outside and connects with the fireplace, forming its hearth.



RADIANT HEATING is supplied by coils placed under the concrete floor. Plan shows arrangement of coils in each room connecting near the utility area.



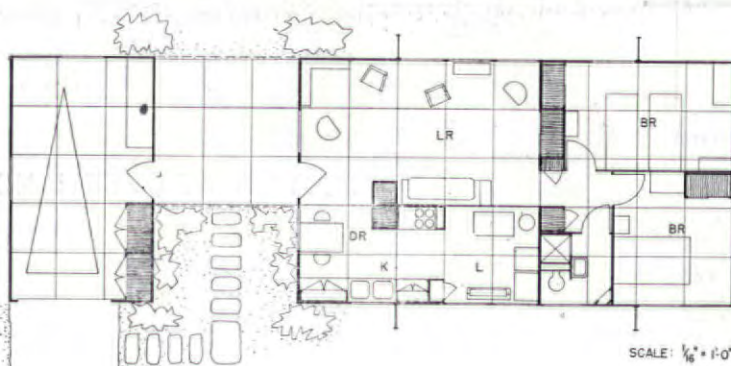
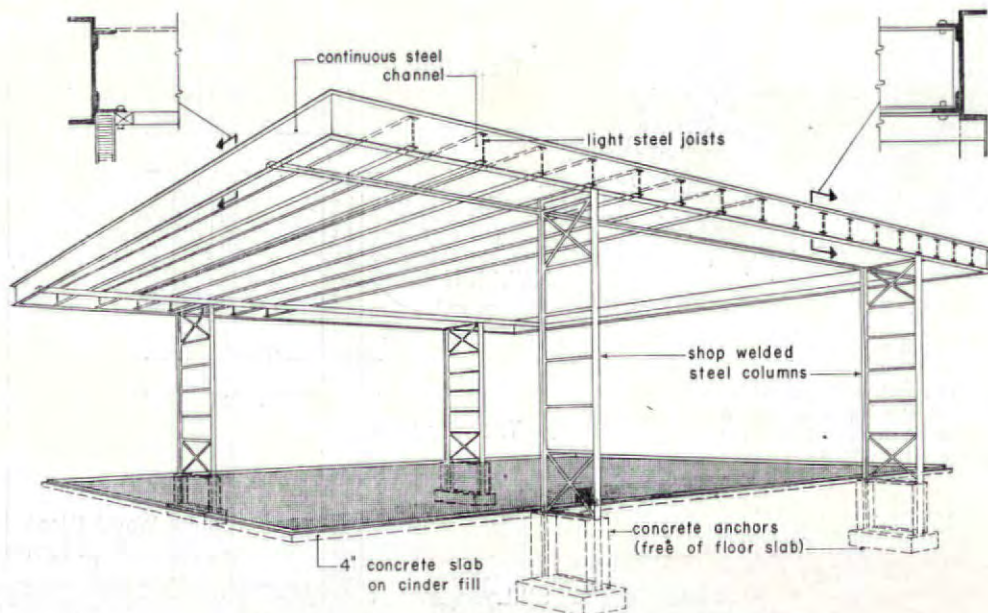
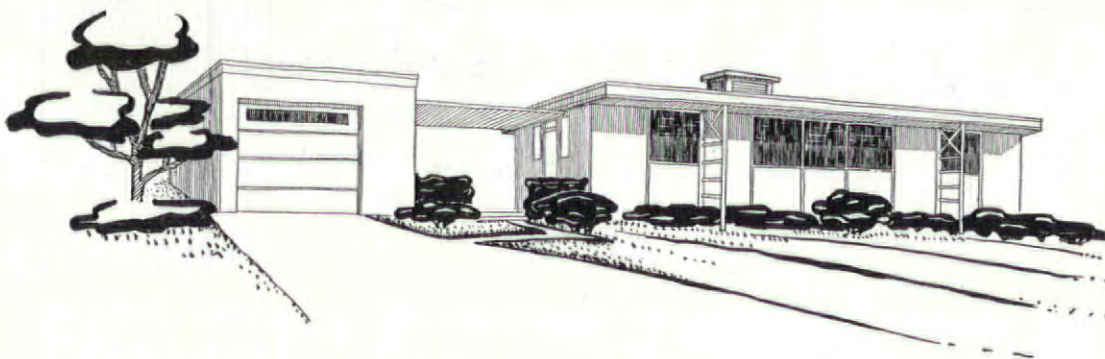
SECTION AT OVERHANG

52. STEEL HOUSE

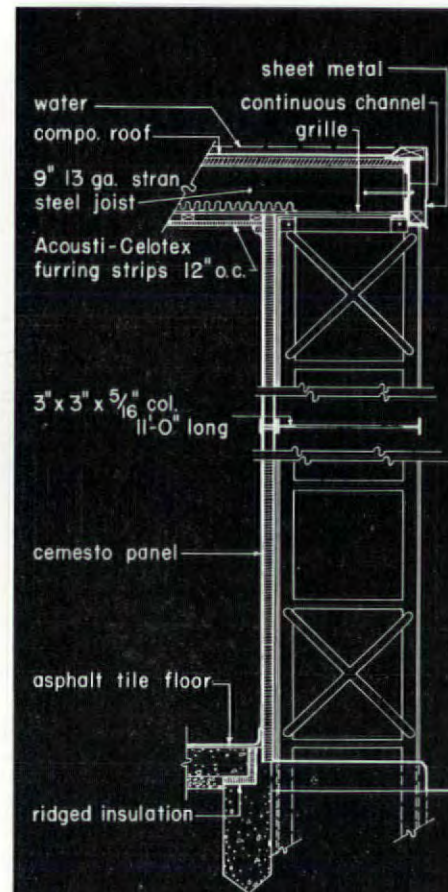
Independent steel roof system shelters space enclosed by unit panels.

T. Y. HEWLETT, Architect

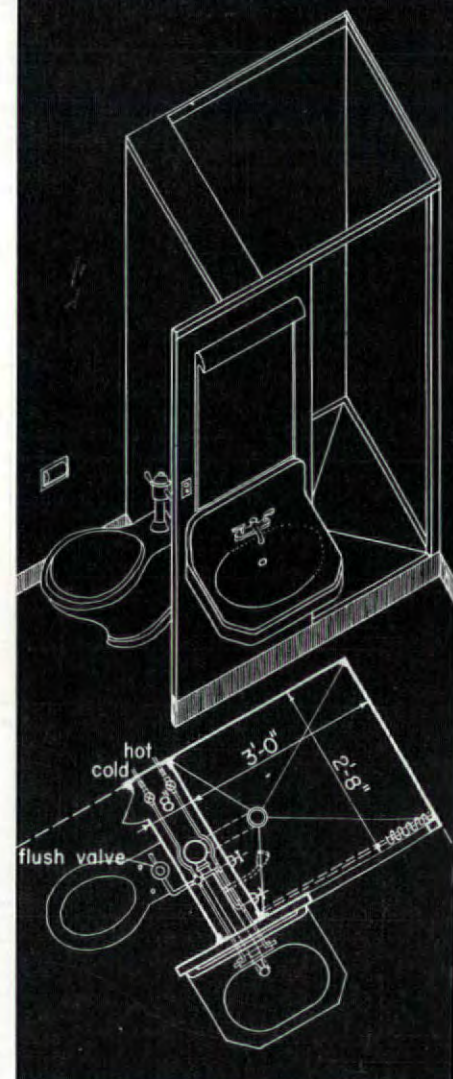
A suggestion for prefabrication is presented in this compact design stressing a new combination of familiar materials and construction processes. Chief feature is the roof. A built-up slab consisting of light steel joists bolted to a 12 in. channel running continuously about the perimeter is supported by four open-work steel columns imbedded in concrete footings independent of the floor slab. Wall panels of unit width, composed of Cemesto sheets or wood frames for doors and sliding glass windows, may be combined to create a variety of interior arrangements. The layout shown here achieves an unusual amount of space and convenience. Garage drive and entrance walk are combined, and the roof between garage and house serves as protection for doorways in winter and as family porch in summer. The living room is oriented away from the street for greater privacy, and the single entrance is well placed in relation to the service rooms. Storage facilities shown will all be needed in this home without attic and cellar.

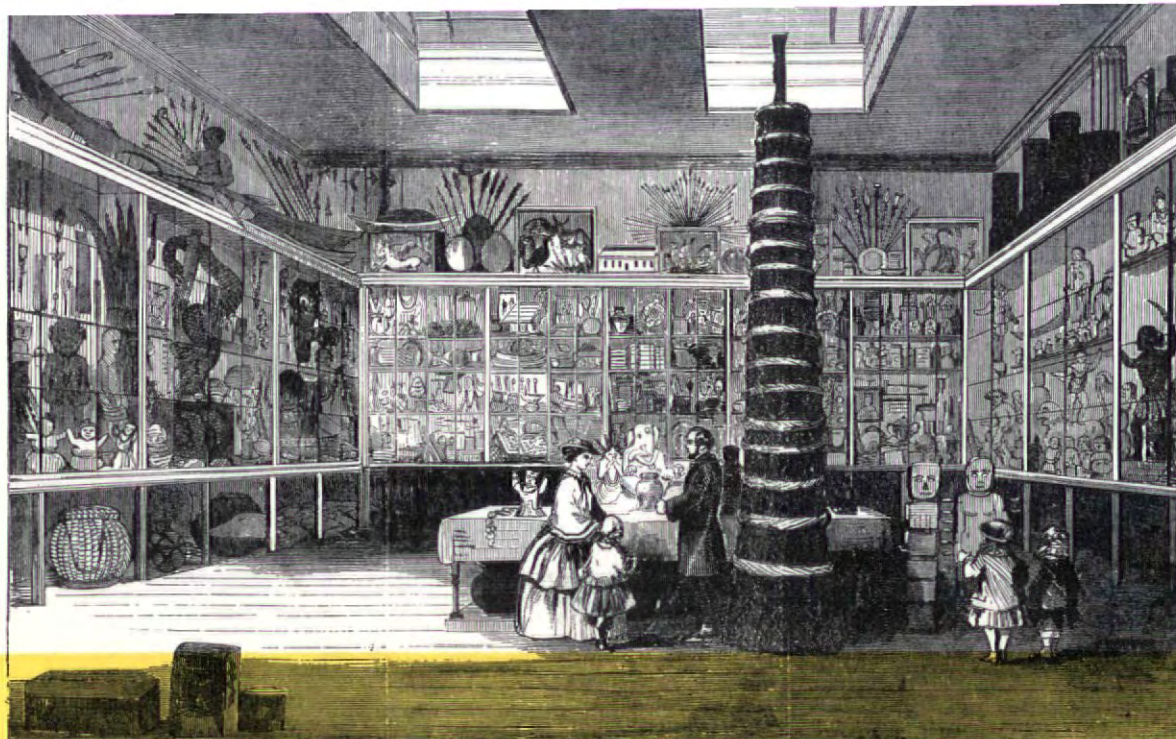


PLUMBING UNIT. A shower stall is used as a core to which a standard toilet and wash basin are attached. One of the walls is thickened to carry the required piping for toilet, basin and shower. The unit as a whole will be prefabricated, and only service connections will be required on the job. Floor of shower is raised to permit draining into soil pipe.



SECTION OF EXTERIOR WALL

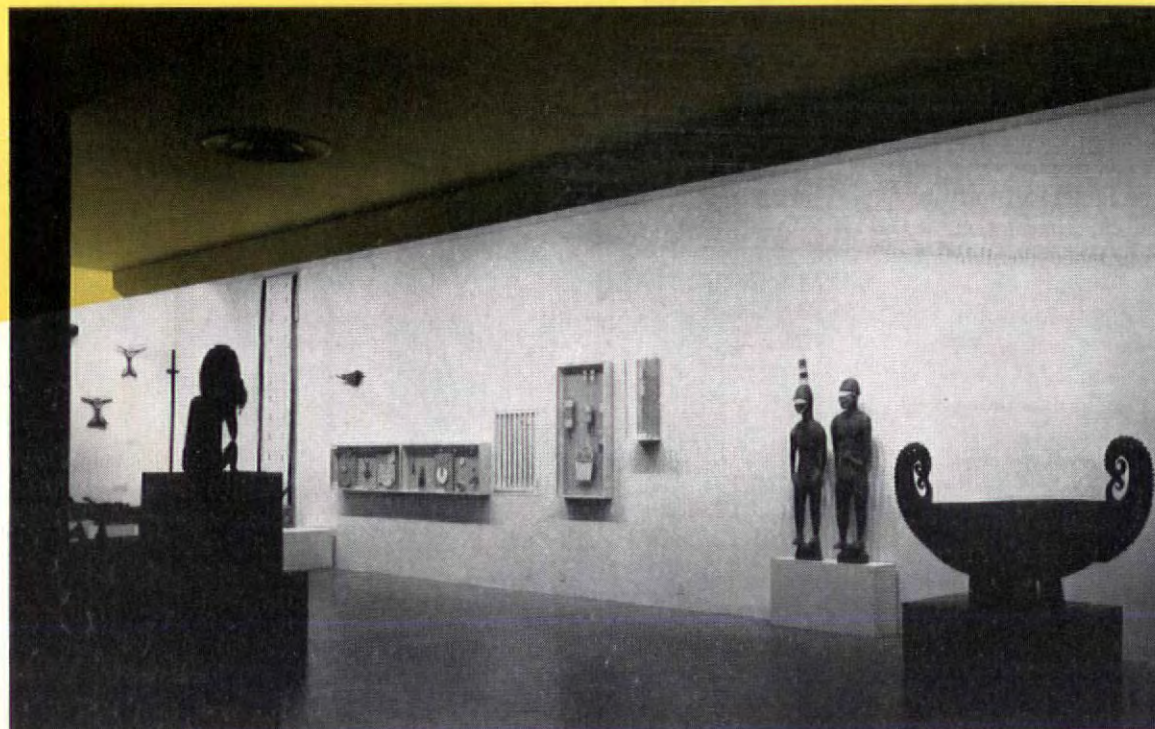




THE MUSEUM OF THE LONDON MISSIONARY SOCIETY.

ART OF THE SOUTH SEAS

Adroit planning and subtle application of color in a recent experimental museum installation suggests native environment of primitive art, stresses inter-relationship of articles and cultures. Designer, Rene d'Harnoncourt. Fundamentals of its organization can be applied to a variety of exhibit problems.



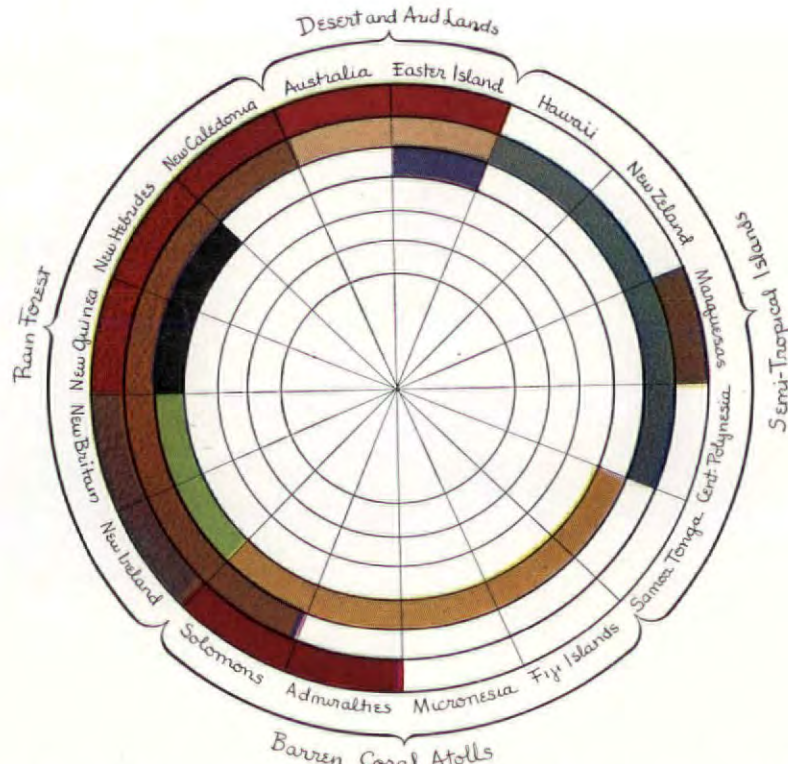
Photos: Ezra Stoller

It is only within recent years that the staging of museum exhibitions has been recognized as an art in its own right. First among U. S. institutions to drive home this fact was New York's Museum of Modern Art which, from its inception, has offered the public a consistently superior type of installation. With one of its more recent exhibitions, *Arts of the South Seas*, a new theory of staging has been introduced. Instead of conventional grouping according to subject matter, locale or circa, the objects in this show are not segregated but arranged to emphasize their relationship to one another as specimens of craft and as cultural expressions. The breakdown of material into these two categories, loose though they may be, is the key to the design of the installation. The first is a physical classification, the second, an abstract one. It goes without saying that the two overlap. To present them clearly and simultaneously is a serious challenge, but at the Modern Museum one sees it handsomely met. The exhibition is important because it presents each object at its best advantage and at the same time, through subtle focusing, lighting and use of color, imbues the spectator with the historic, geographic, climatic and social conditions of its origin. With imagination and logical modification, this formula should be applicable to a wide variety of problems since environment is invariably a key influence in creative effort.

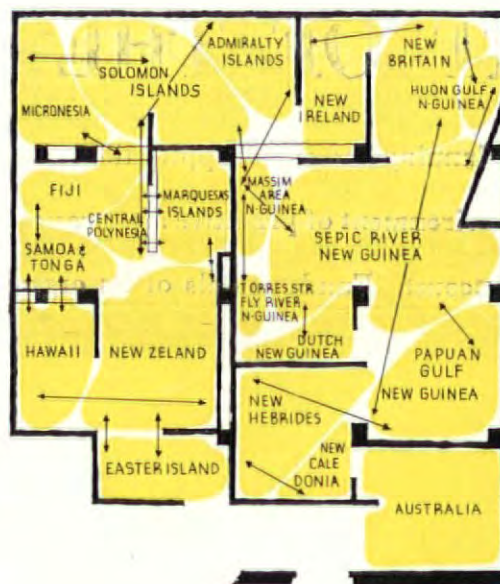
The plan of the South Seas exhibition, which got under way almost a year before the opening, was developed by Rene d'Harnoncourt, Director of the Modern Museum's Department of Manual Industry, Dr. Ralph Linton, Professor of Anthropology, and Mr. Paul S. Wingert, Instructor in History of Art, both of Columbia University. The chief problem was to organize an exhibition where it was possible to see from one geographic grouping into as many others as are artistically or culturally related to it while defining circulation clearly enough to prevent confusion. Fortunately, the construction of the Museum itself is a flexible one. Built within a series of piers, all partitions are removable and interchangeable. Where long vistas were required between major groupings, low platforms were used as barriers, opening views, yet controlling the path of the spectator.

As shown in the chart at the right, color augmented by skillful lighting contributes a sensory guide to climate and vegetation which is far more pleasant and convincing than explanatory signs tacked up on the wall. Kinship of objects, the other integrating factor of the design, hangs on the strategic location of specific objects seen from several angles, seen also with related objects in other groupings. Though no single important feature is common to all the islands represented, taken as a whole the various arts constitute a network of related cultures. While in some sections clearly defined races have lived side by side for centuries without losing their cultural characteristics, others have merged and blended to form new civilizations. Diversification is further explained by varying weather conditions and natural resources on the various islands. Nevertheless, in reality and in this exhibition, unexpected trends crop up at seemingly unrelated points despite distance and barriers of language. Where unique local styles have been developed, self-contained display units are introduced.

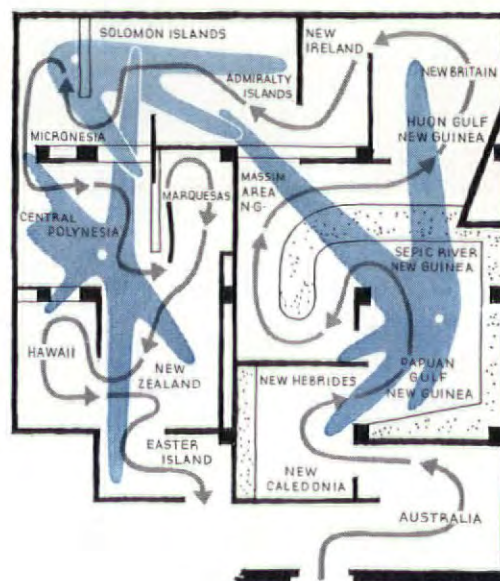
While the exhaustive research, study and experimentation required by this method of installation was made possible through a grant from the Rockefeller Foundation, the Museum deserves great credit for sponsoring it. As Mr. d'Harnoncourt points out in the introduction to the forthcoming book which bears the same title as the exhibition, the South Seas show is also important because it represents close collaboration between scientists and artists in presenting to the public a little known art whose esthetics can best be appreciated if seen against the cultural background of the native artists. And he adds with complete candor that this approach to museum installation makes it impossible for the planner to design a show where the spectator does nothing but walk in a straight line and stare at the wall.



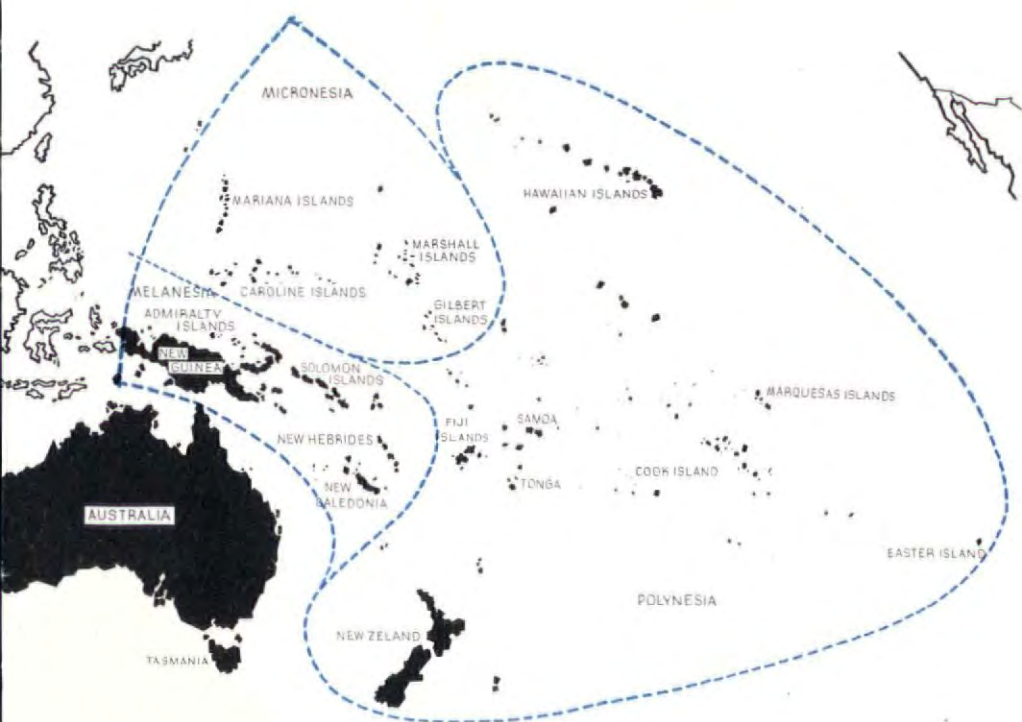
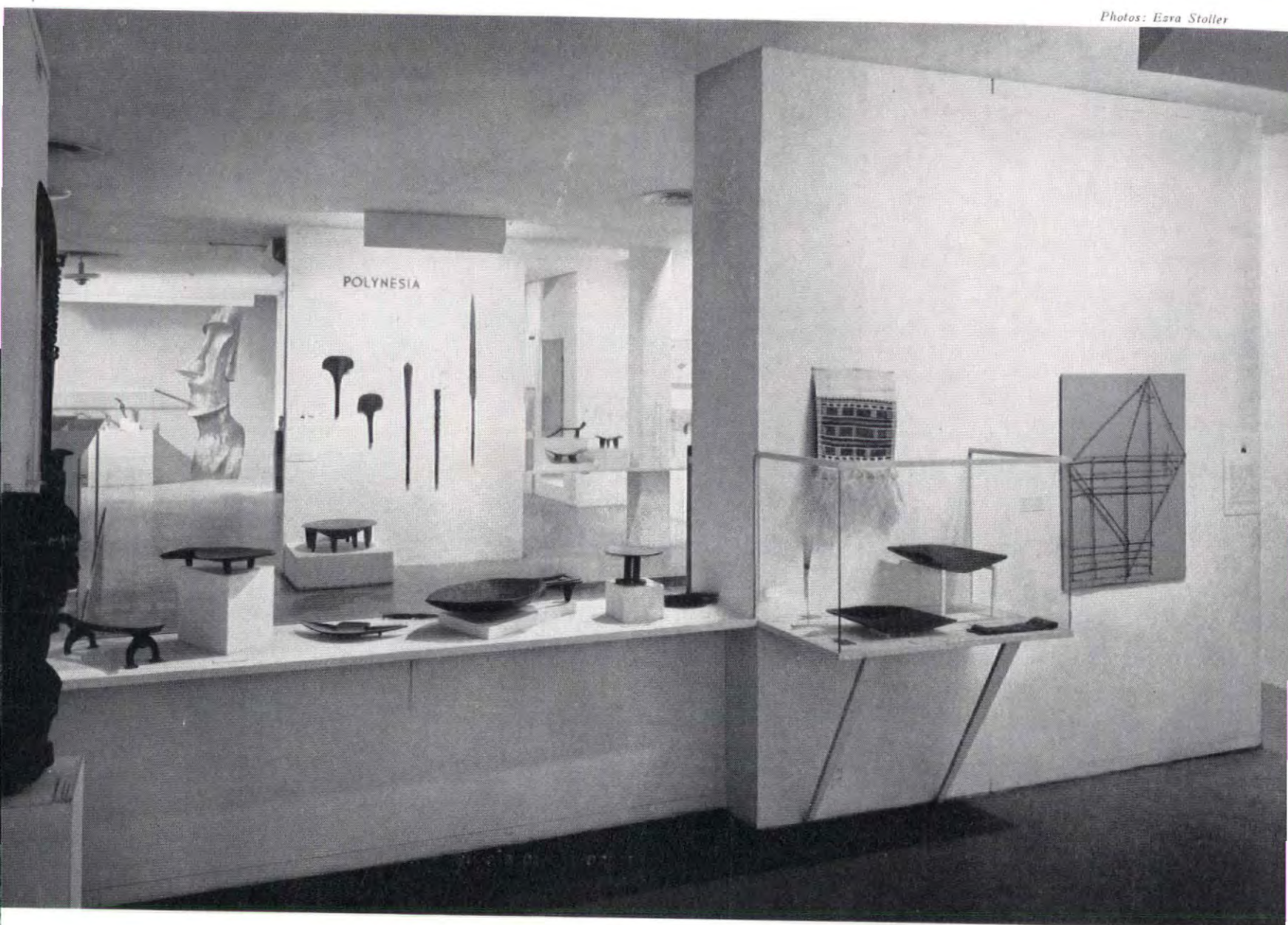
Color chart indicating surroundings of various exhibits has heavy values at left, representing rain tropics; desert land at top; temperate zones, upper right; sand-baked coral beaches, bottom. The graded rings represent background colors of ceilings, walls and fixtures.



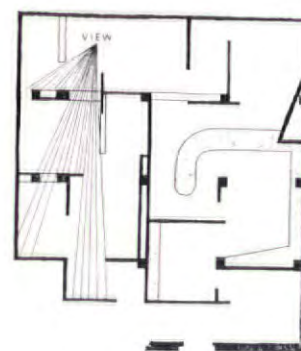
Arrows indicate specific objects. The connecting lines are open views stressing artistic affinities.

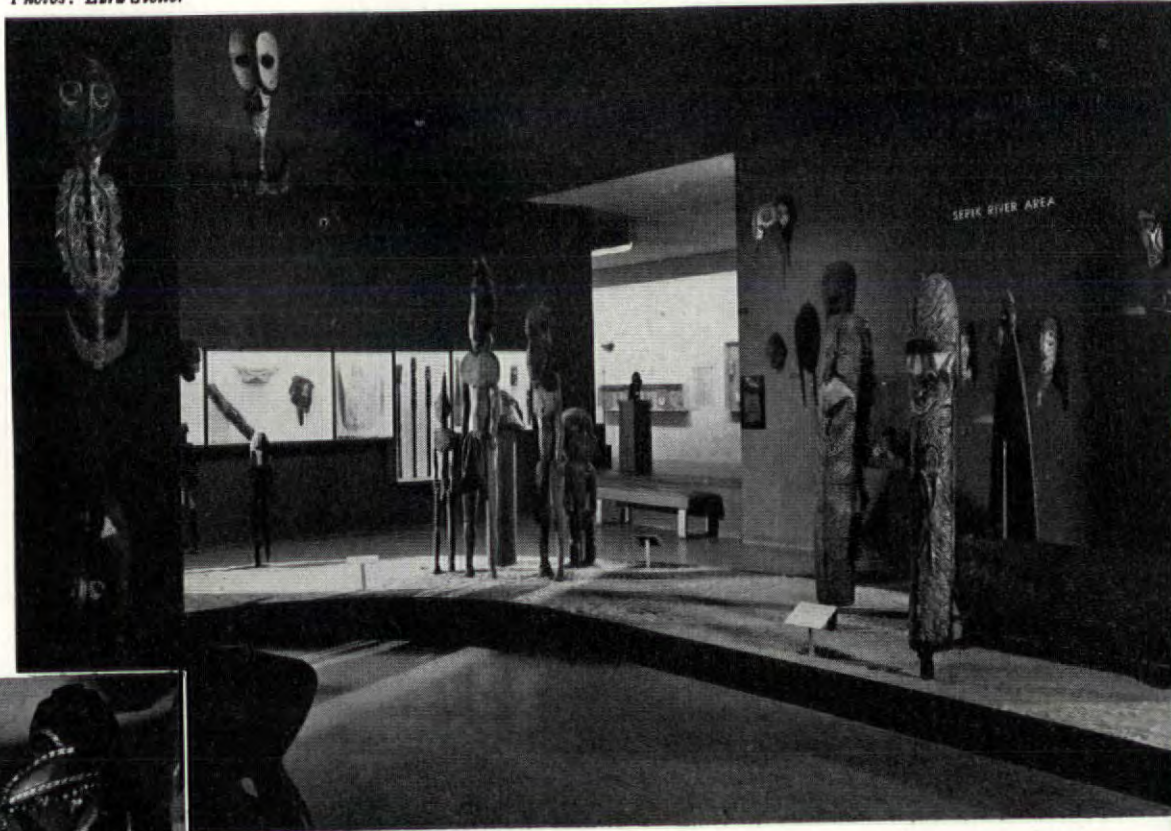


Circulation diagram shows open settings for areas of wide influence, enclosures for isolated spots.



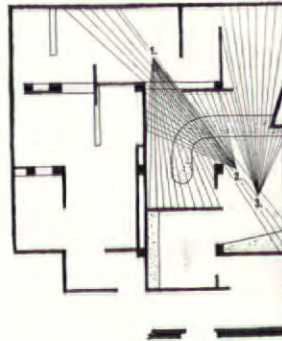
View from Solomon Islands section illustrates effectiveness of interrelated exhibits. Note ease with which eye picks up display of wood bowls, follows related displays through various sections.





2.

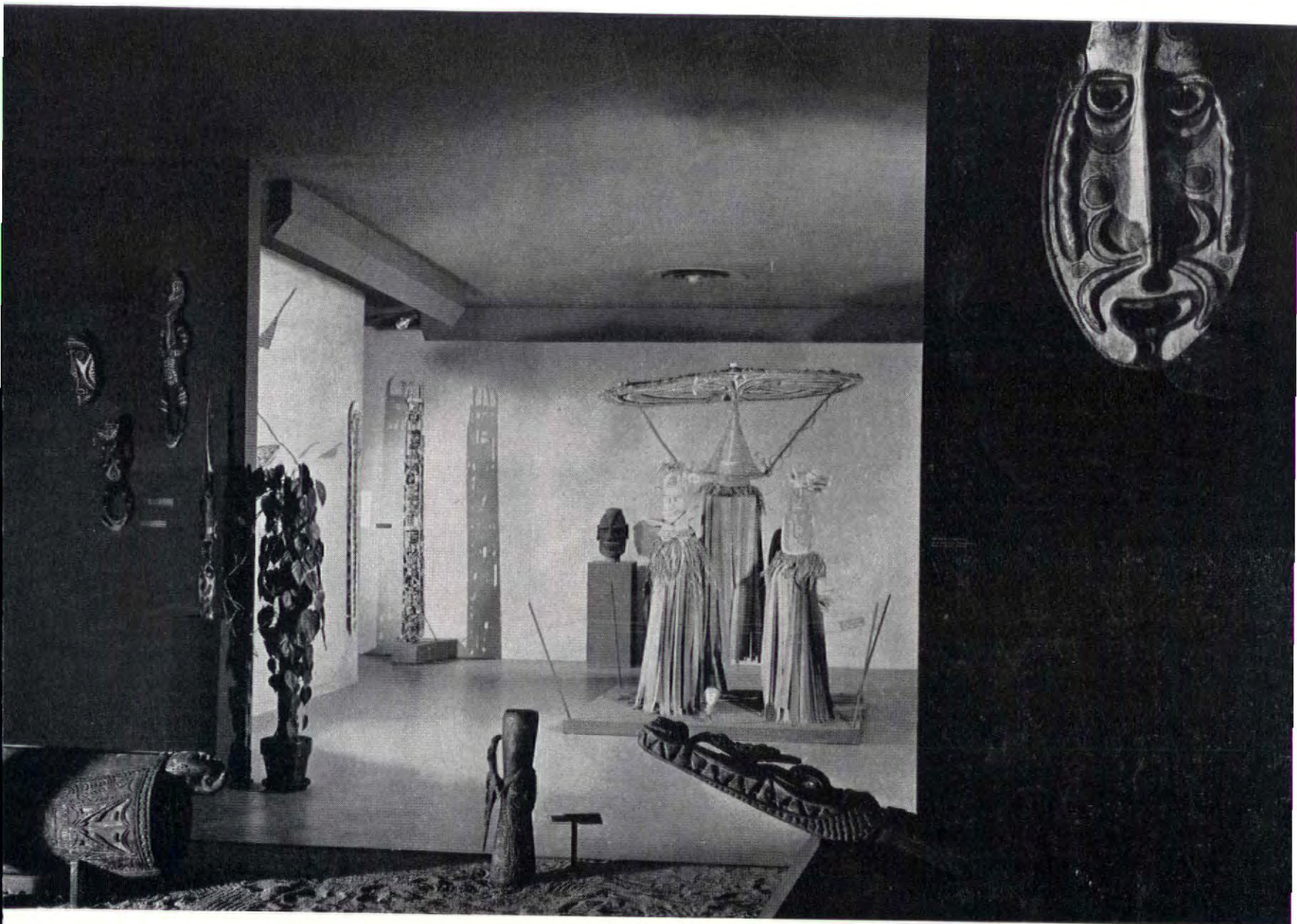
Carved figures carry out vertical lines of native weapons in wall cases. In exhibit kinship of these objects and seated figure in room beyond is clear. Low, curved platform is sand covered.



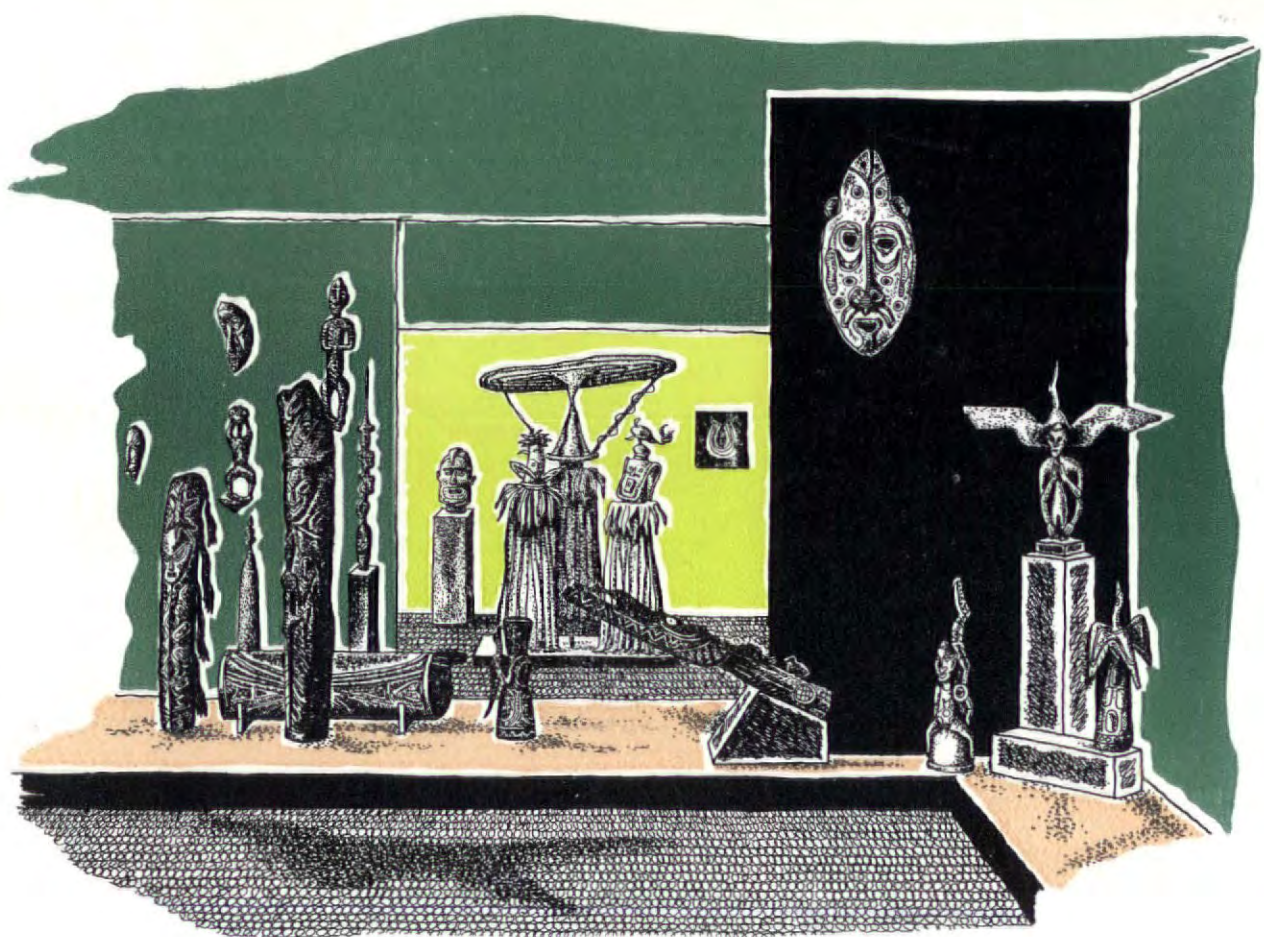
1.

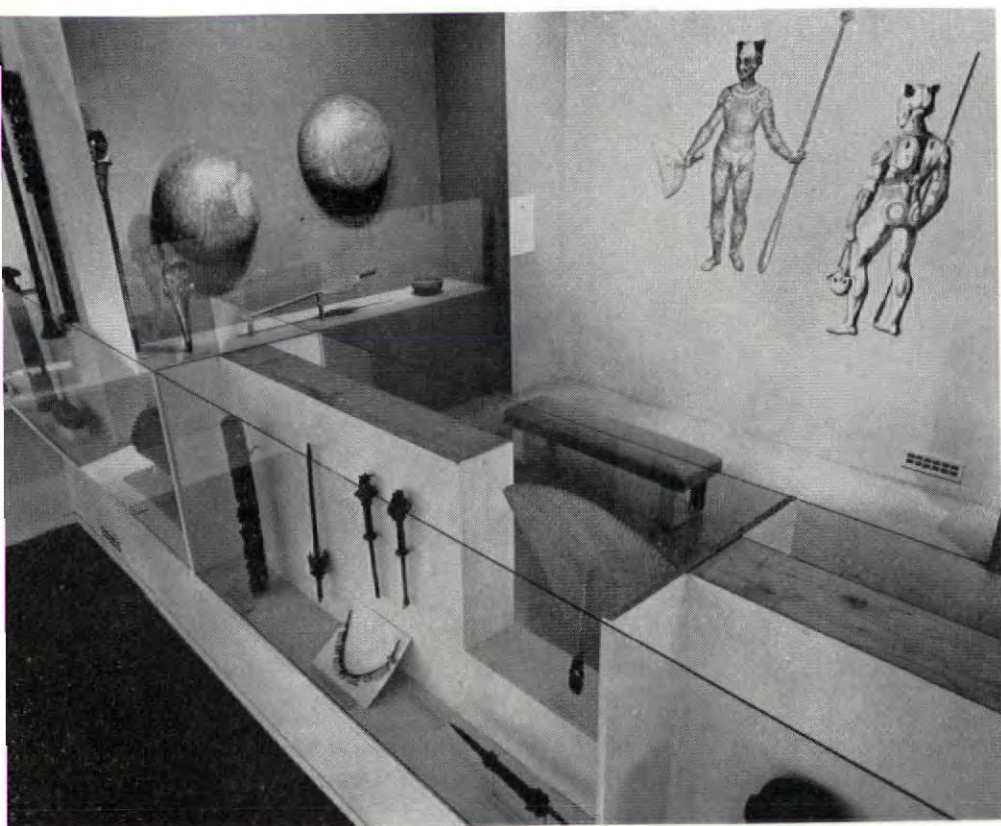
From the center of the largest exhibition area, that of New Guinea, two brighter rooms, suggesting sunnier climates, are open to view. Art from rainy jungle sections such as this one where nature's colors are sultry and light scarce, is characterized by highly luminiscent decoration: dead white, bright ochre. Wherever blue and green are used, every effort is made to get these colors as strong as possible, a natural tendency for native craftsmen working in dim jungle light. In the South Seas exhibition, their art is presented in a nearly dark room with objects spot-lit. A rich green ceiling and dark, receding background color suggest dense overhead foliage of the deep tropics. Since many of the objects that belong in this darkened atmosphere are so small that they require cases and diffused light to be clearly seen, shallow wall cases were installed at carefully studied intervals. For instance, several cases at the right side of the plan were deliberately placed at an angle so that they are noticed only on leaving the New Guinea section. As strips of diffused background light, these cases add rather than detract from the shadowy atmosphere of the principal display area with its ghostly upright figures. In working out the lighting, existing channels were used augmented by occasional spotlights which the designer focused and shifted as the installation progressed. Most objects were lent by American museums; only about 25 came from private collections.





From New Britain, only slightly influenced
products of the New Guinea area, occupies
the position, is visible from only a small
part of that section.

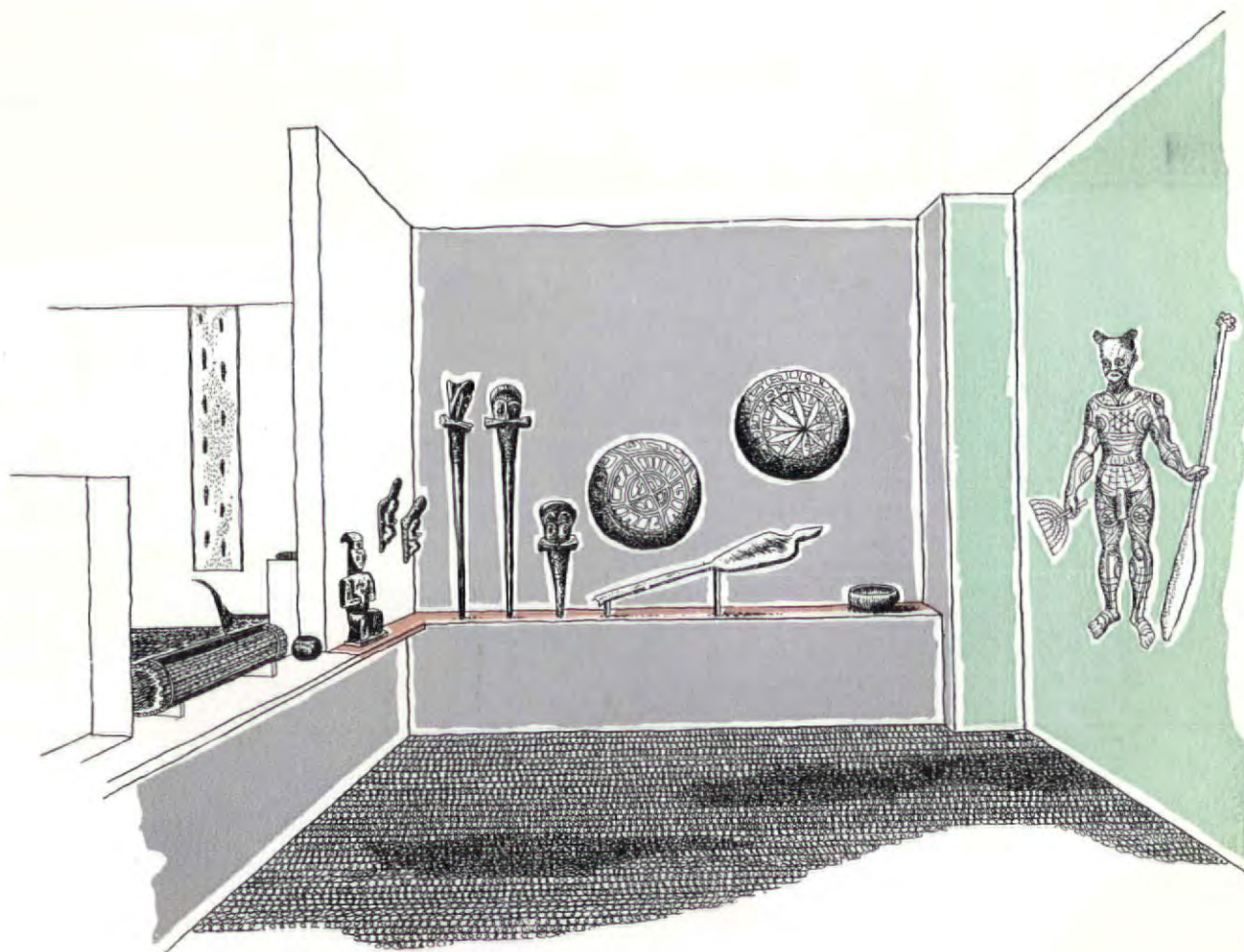


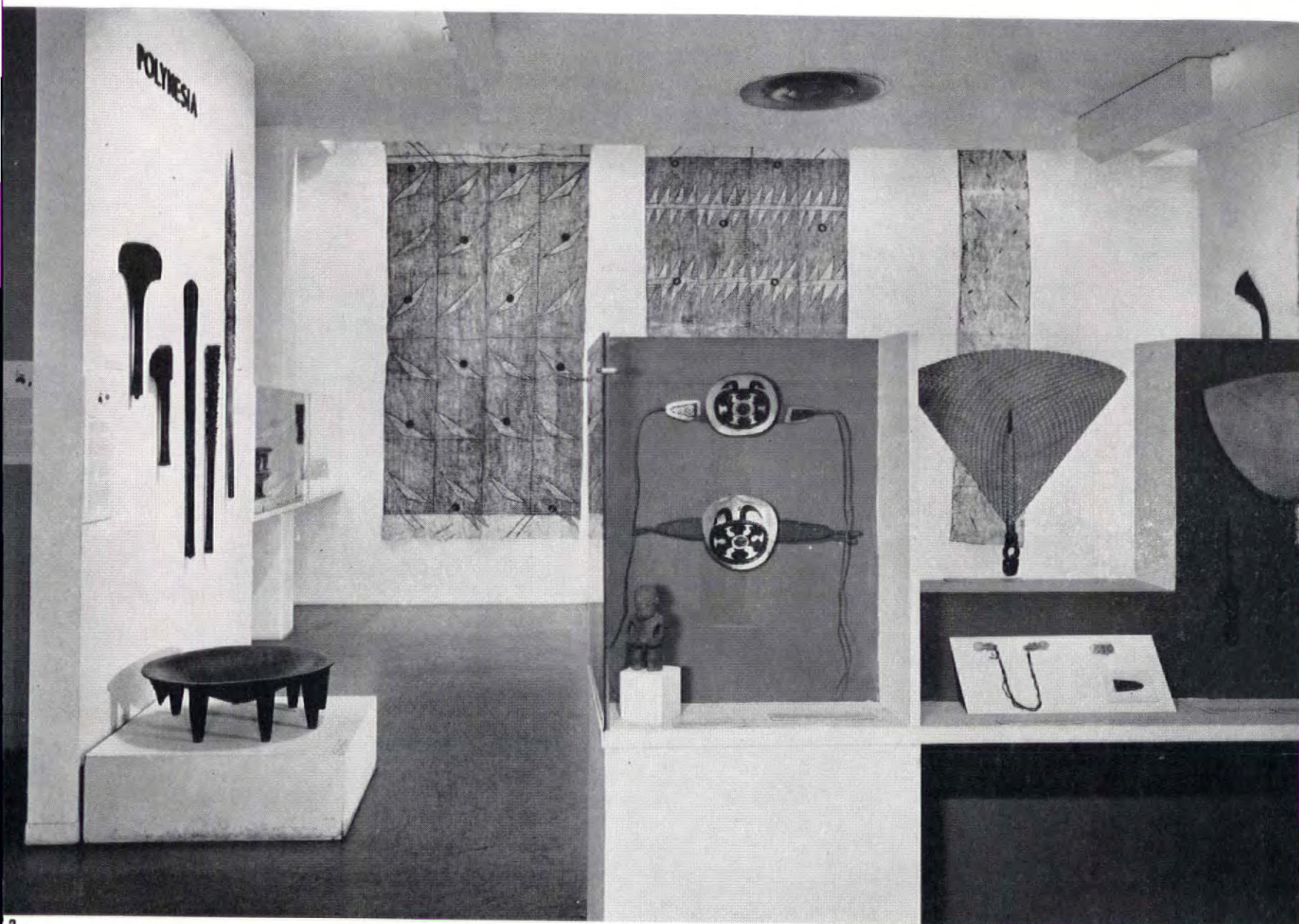


2.



Unlike the rest of exhibition, wall of Marquesas group is decorated with reproductions of native art depicting elaborately tattooed islanders.



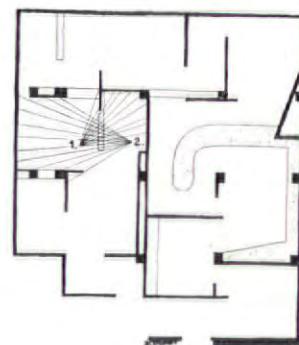


2.

In each group light and color are keyed to the climate and geography of the native land. Art from the coral islands is displayed in very bright diffused light against a predominantly white background. Articles from these locations are rarely painted but are usually of beautifully finished natural material. Characteristic ornamentation of extraordinary fineness befits an origin of bright sun and clear skies. This group, including Central Polynesia, Fiji and the Micronesia, is staged in a light, open manner. Blue accents represent Polynesia's temperate climate, yellow in the Fiji group recalls the island's barren coral formation. The fan in a counter-height case which separates this room from the Marquesas unit ties in with both displays. Though it is definitely a Fiji product, from the other side of the case it can be compared with fans made in the Marquesas Islands.

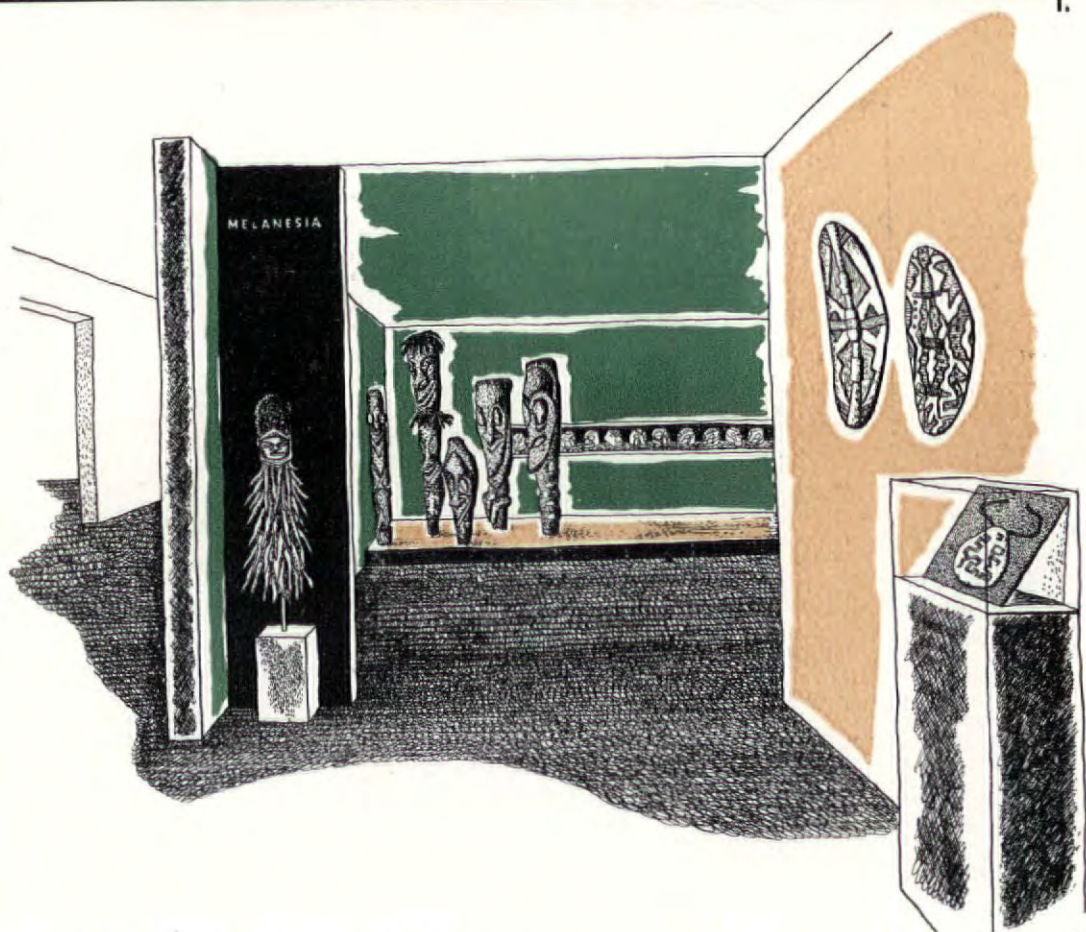
The color sketches accompanying the photographs, prepared for the FORUM from original studies by Rene d'Harnoncourt by Madeline Thatcher, are keyed to the geographic color wheel on page 98. While only the more important of the eleven colors used appear in the sketches, they give a good impression of the atmospheric effects achieved, and careful study of the photographs in conjunction with the more comprehensive color wheel should yield an equally accurate picture of the balance of the exhibition. In preparing the installation, d'Harnoncourt filled several notebooks with similar studies.

Representing localities of warm, sunny atmosphere, products of Central Polynesia, Fiji and Marquesas Islands are lighter and gayer than art from jungle areas.

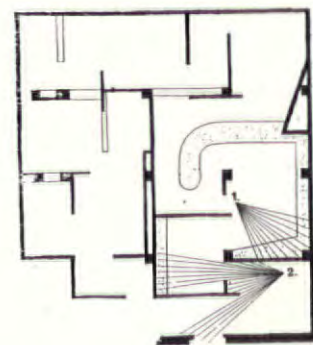




One of the few staging artifices to be used is this installation of bamboo poles on which are hung memorial tablets. Object is to achieve easy individual or group appraisal.



The atmosphere deepens abruptly on entering Melanesian display from Australian unit. Feathered mask in the foreground leads into Caledonian room.



AIRLINES OFFICE

The interior of Western Airlines' new ticket office is designed as a showcase, capitalizes on existing structural columns.

H. ROY KELLEY, Architect

WILLIAM O. GOODWIN and BURWELL HAMRICK, Assoc.

PAUL E. JEFFERS, Consulting Structural Eng'r

RALPH E. PHILLIPS, Mechanical and Electrical Eng'r

C. L. HESS, General Contractor

Part of a projected "transportation row" in downtown Los Angeles, this new airlines ticket office represents some of the more advanced design ideas yet to be translated into glass and steel. Its most important architectural feature is the double-sloping glazed front which reduces reflections to a minimum by capturing them within a non-reflecting area. This trick handling of glass is the result of a decision to eliminate exterior advertising and instead to open up the whole interior as a dramatic display for selling air travel. Visibility, therefore, was of first importance. The three standard treatments of large glazed areas—vertical glass and glass sloping either outward or inward—all act as mirrors, catching reflections of buildings, automobiles, pedestrians or sky according to their angle, and obscuring a clear view of the interior. A two-way slope solved the problem, but made the joining of glass to round structural columns somewhat awkward (see below).

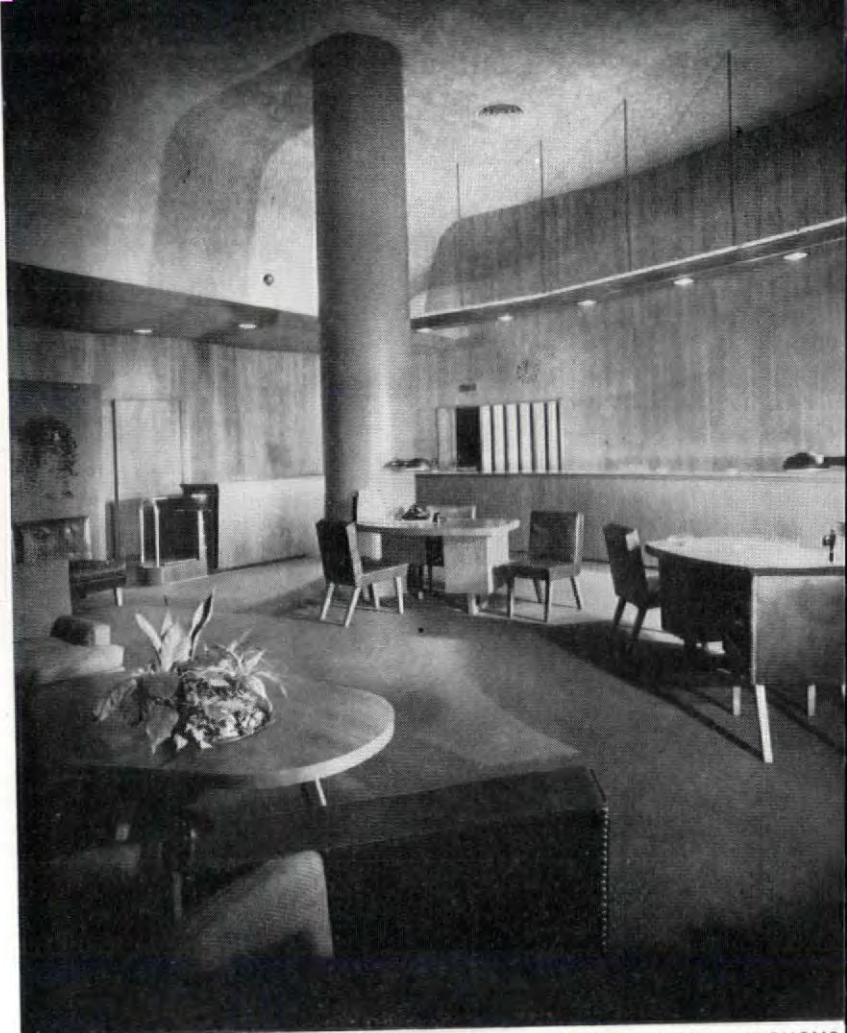
GLAZED EXTERIOR IS SHIELDED FROM SUN BY A PROJECTING CANOPY WITH CORRUGATED BAKED ENAMEL SUPERSTRUCTURE



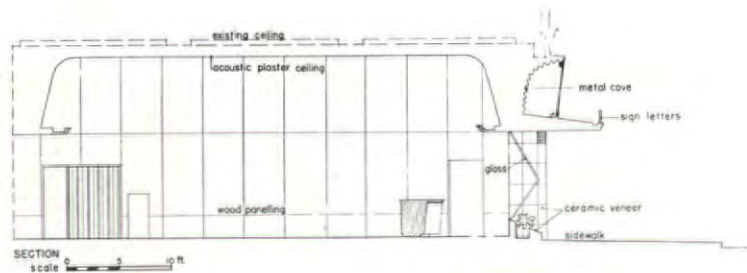
Photos: Maynard L. Parker

The elimination of advertising signs, posters, maps etc. which contributed to the excellent front treatment also influenced the interior design. On the theory that maps and murals had been done to death in previous airlines offices, the new design made its bid for prominence by ignoring pictorial display and investing the money saved in fine quality wall surfacing materials, floor coverings and furnishings. The offices thereby gained a rich yet simple and dignified atmosphere. Walnut paneling was used for counters, walls and cabinet work. Furniture was specially designed and adds a color accent with its red leather upholstery. The acoustical ceiling and interior structural columns were painted blue and exterior columns covered with sheets of ribbed stainless steel. Considerable thought was given to this exterior treatment, since the material selected had to be extremely durable, yet one which would encase the existing concrete columns without conspicuous joints. The ribbed, interlocking sheets finally chosen give maximum structural value and, in addition, break up the surface so that slight imperfections or scratches are not apparent.

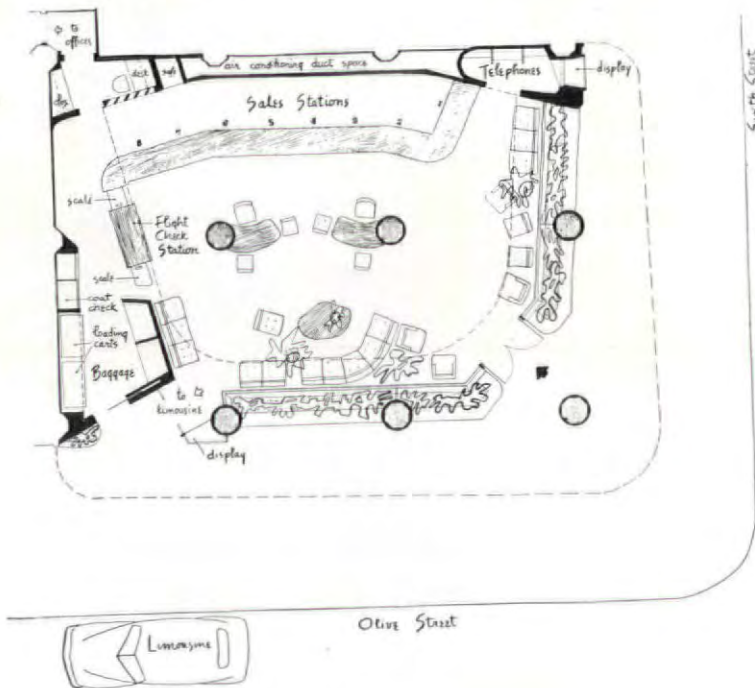
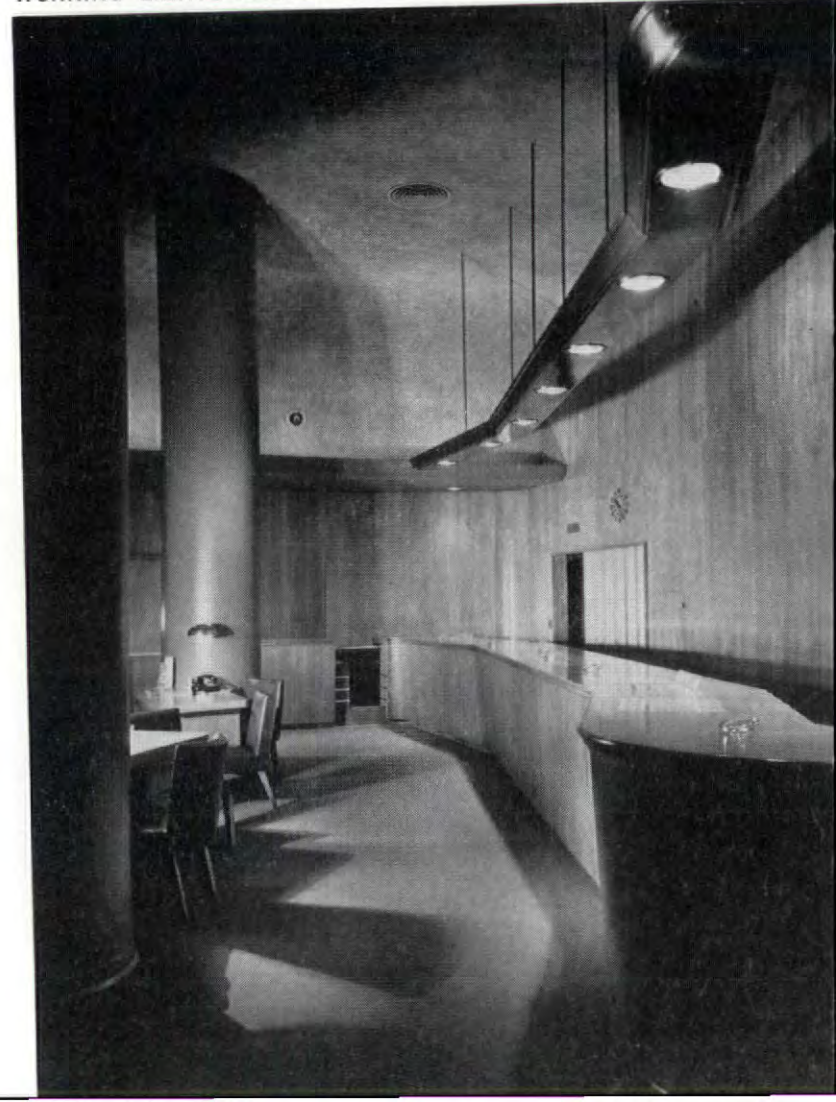
A common airlines problem which has been solved by the new design is that of handling baggage. To screen unsightly stacks of suitcases from public view, a wood partition was introduced in front of the baggage-handling space. Another feature is a specially designed baggage cart made of duralumin tubing, three tiers high and mounted on rubber-tired wheels for noiseless operation. These carts, placed near the weighing scales, are each loaded for a specific flight, wheeled directly to the limousine and carried along to the airport. This eliminates time-consuming re-handling of baggage. Wardrobes with sliding panel doors have been provided at the rear of the office enabling attendants to move luggage through a special side exit without congesting the main waiting room. Spacious cabinets for storing baggage are also included in this rear area.

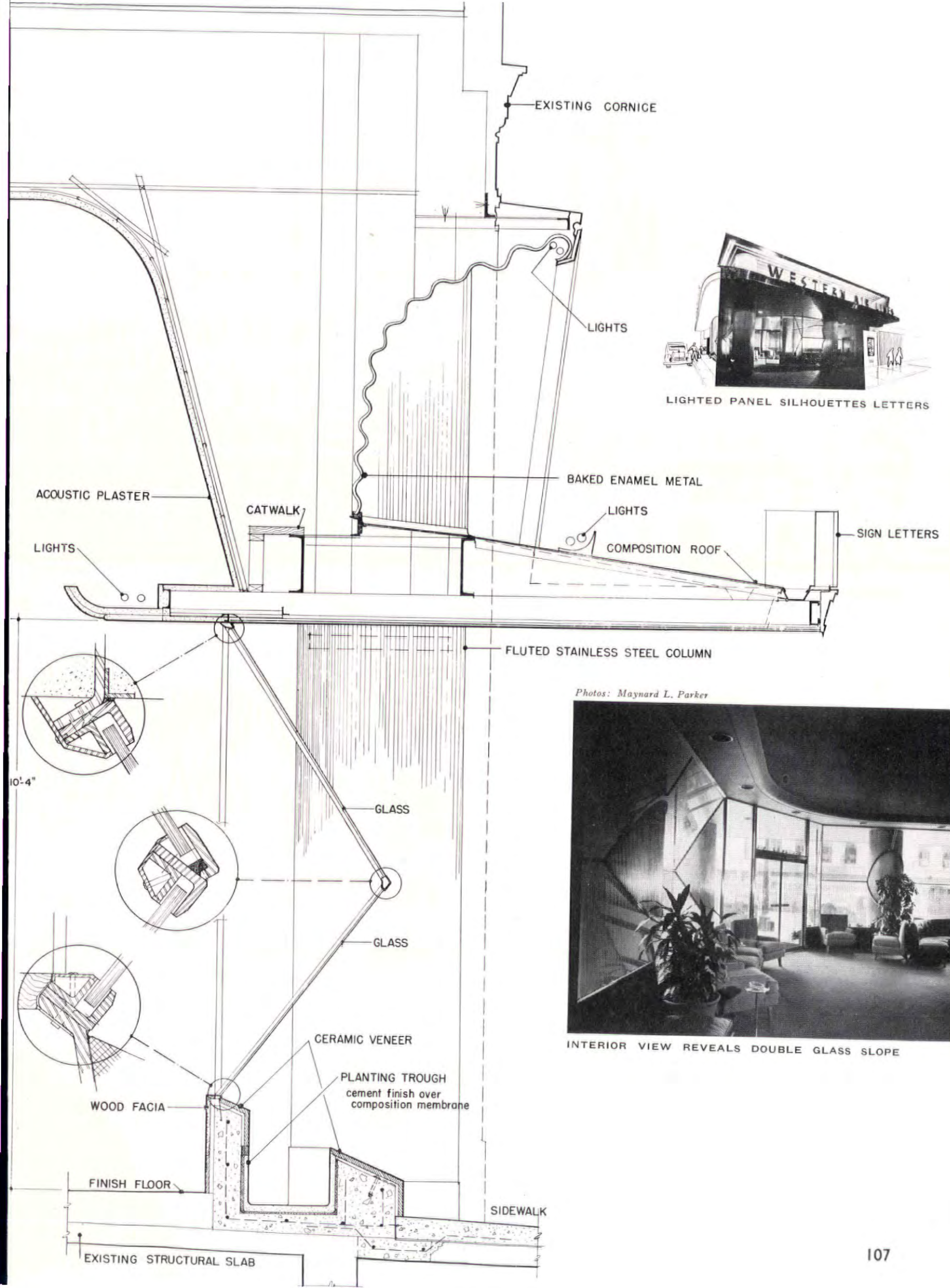


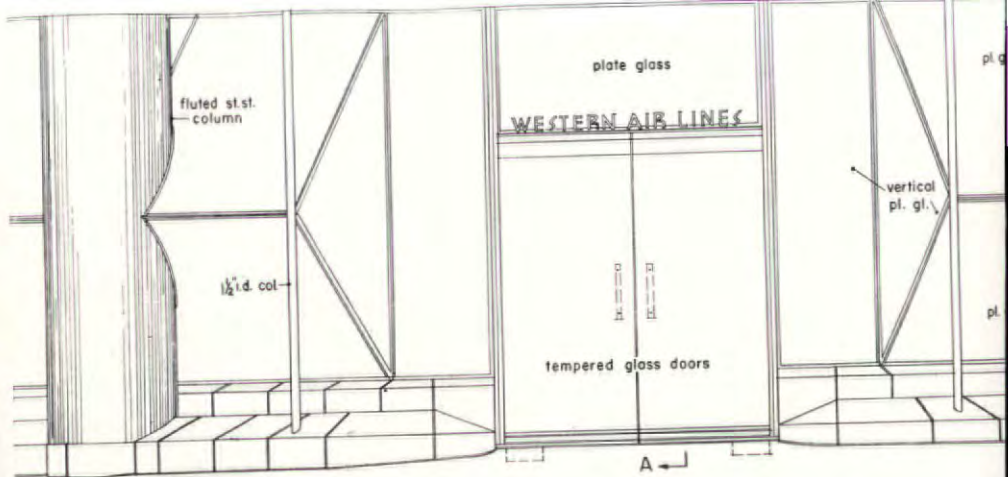
GENERAL ILLUMINATION IS REFLECTED UP FROM WALL TROUGHS



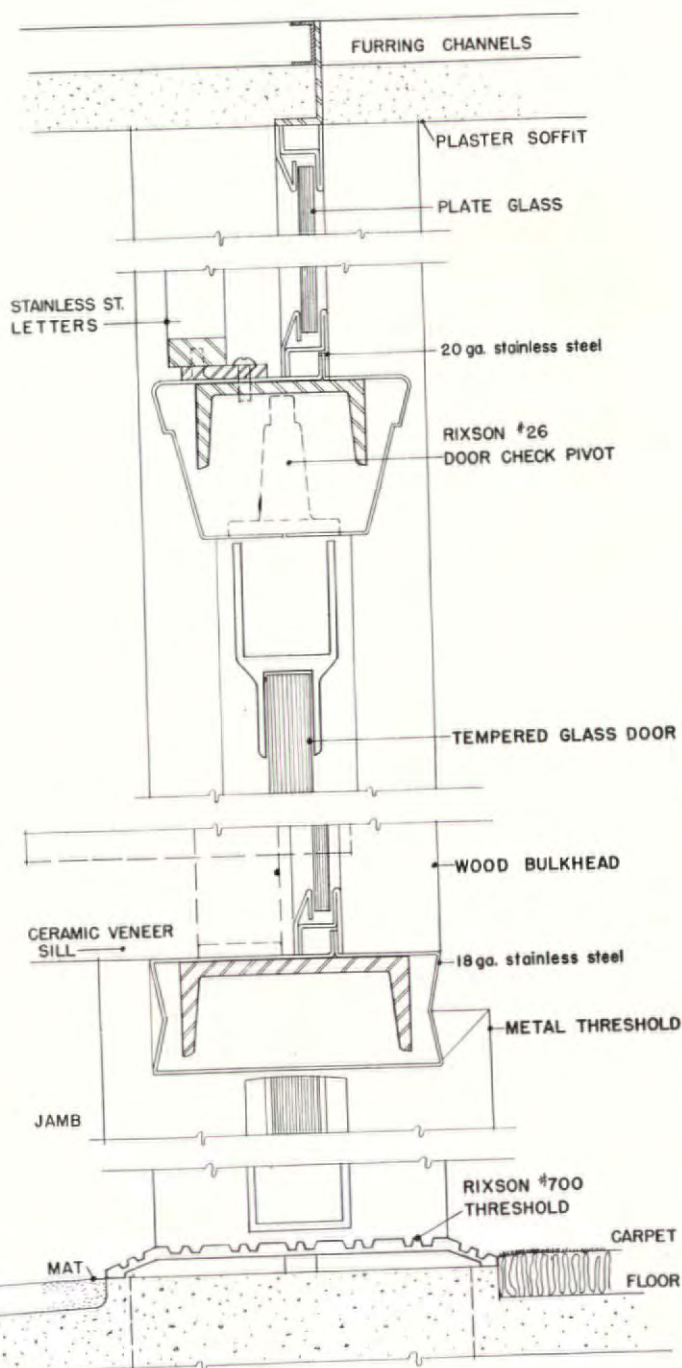
WORKING LIGHTS ABOVE COUNTERS ARE DIRECT LOUVERED TYPE







ENTRANCE is placed at the corner of the ticket office and slanted back from the glazed front partition. This permits a broad, uninterrupted view of the interior from the sidewalk and facilitates finding the door—sometimes a problem when glass is used in large areas. Sash of doors and windows is special metal construction.



SECTION A-A





DOUBLE SECRETARY AREA SERVES OFFICES AT EITHER END OF CURVED WALL

ALVIN LUSTIG *designs offices for:*

REPORTER PUBLICATIONS

These handsome offices, designed for a small publishing firm, are a compact yet polished answer to the problem of fitting an over-sized staff into undersized work space. The area available for office quarters of both editorial and advertising employees—twenty-two persons in all—was only 40 ft. by 40 ft., a size comparable to a single doctor's suite. Such tightness of space was counterbalanced only by the willingness of the publisher to try an unorthodox solution. In order to use every inch of area without giving the staff claustrophobia, one basic design formula was used throughout, i.e., dissolving solidity wherever possible while still retaining some sense of privacy. Thus, as seen on the plan, doors are completely omitted and work areas defined only by intersecting and curving screen walls. Glazed partitions are used extensively, giving the eye long and transparent vistas which heighten the sense of space.

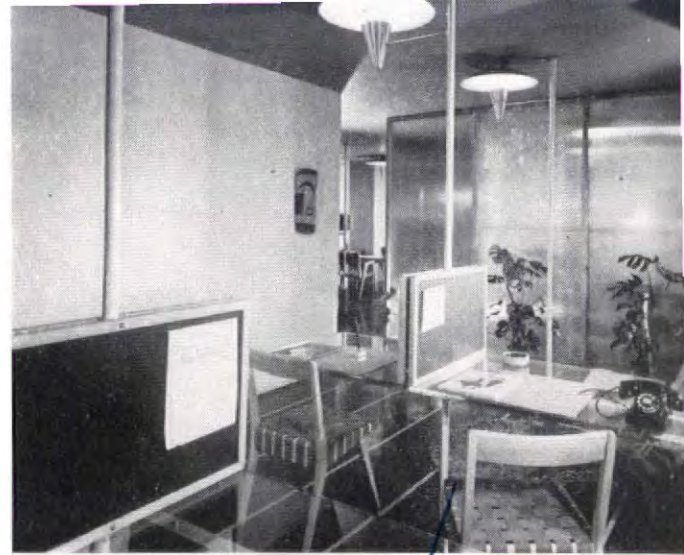
VIEW FROM RECEPTION ROOM THROUGH SALESMEN'S AREA



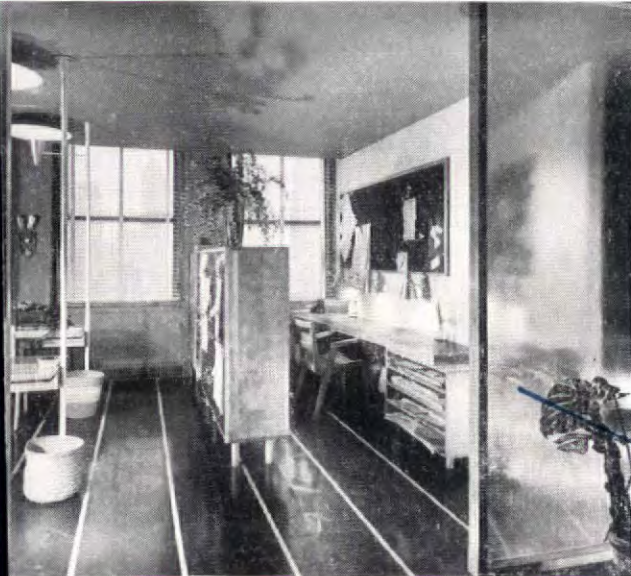
One of the most successful features of the design is its system of lighting—actually a combination of direct and indirect illumination. Architect-designed fixtures, somewhat resembling mushroom rooms, are composed of metal cones topped by reflecting disks. Although light is bounced from these upper reflecting surfaces it is directed to a specific area, the desk below. The resulting quality of illumination possesses the best aspects of both direct and indirect lighting without the glare of the former or the foggiess of the latter. In three areas where direct light is necessary, the cones are inverted and fastened to the wall.



EDITOR'S OFFICE BOASTS ONLY WOOD DESK IN ENTIRE PLAN



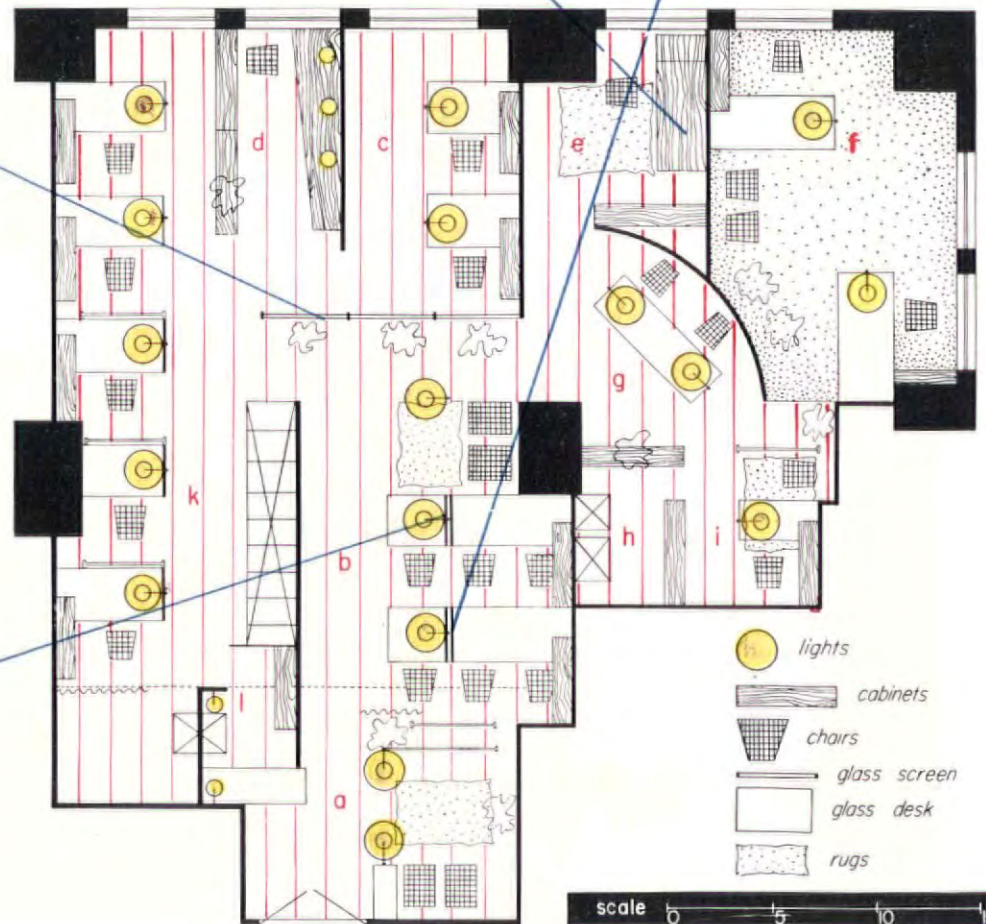
GLASS WALL DIVIDES SALES FROM ADVERTISING



STORAGE UNITS SEPARATE WRITERS FROM ARTISTS



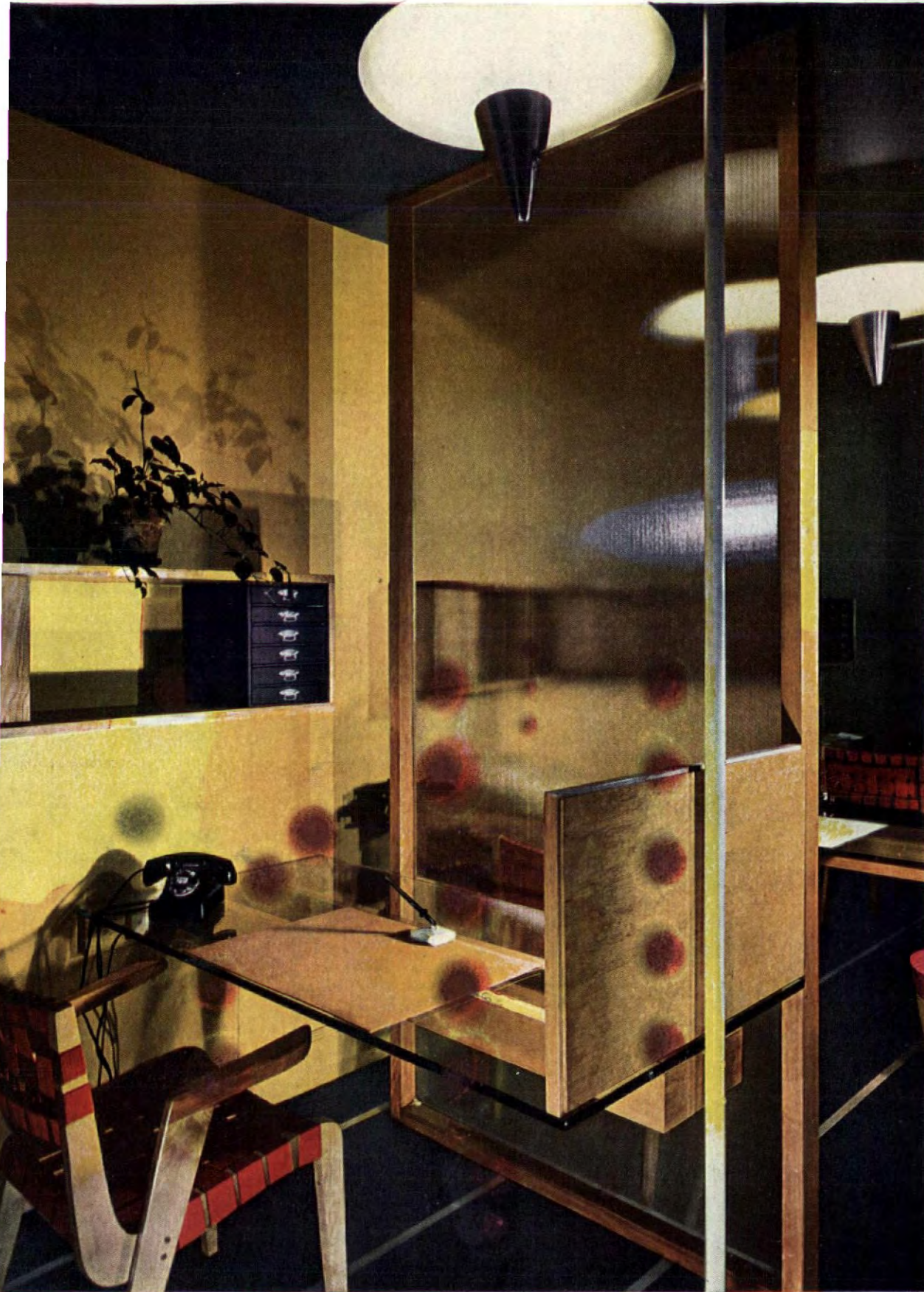
APPROACH TO EXECUTIVE OFFICES FROM SALES AREA



- lights
- cabinets
- chairs
- glass screen
- glass desk
- rugs

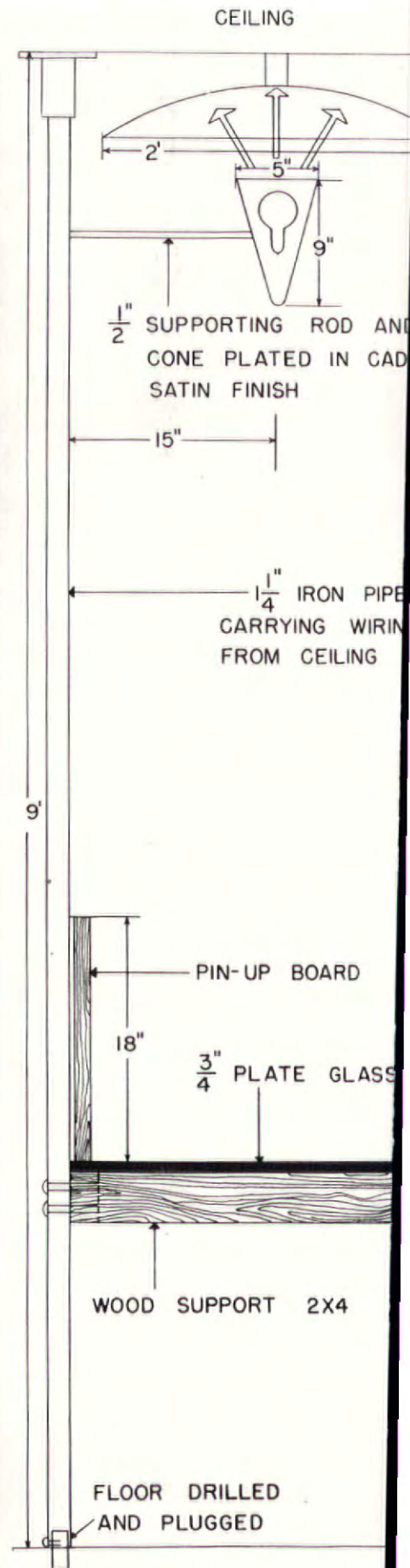
scale 0 5 10 15 feet

- a reception
- b salesman
- c advertising
- d artist
- e managing editor
- f president
- g secretaries
- h water cooler
- i specialty writer
- k writers
- l receptionist



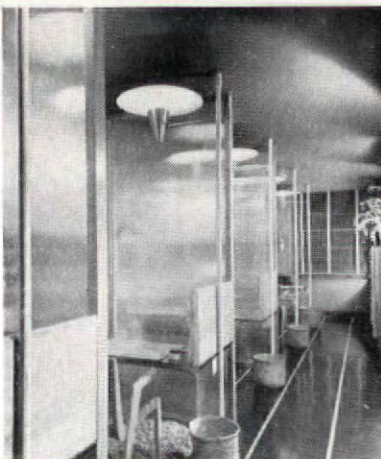
WRITER CUBICLE IS A COMPACT BUT UNCROWDED WORK AREA

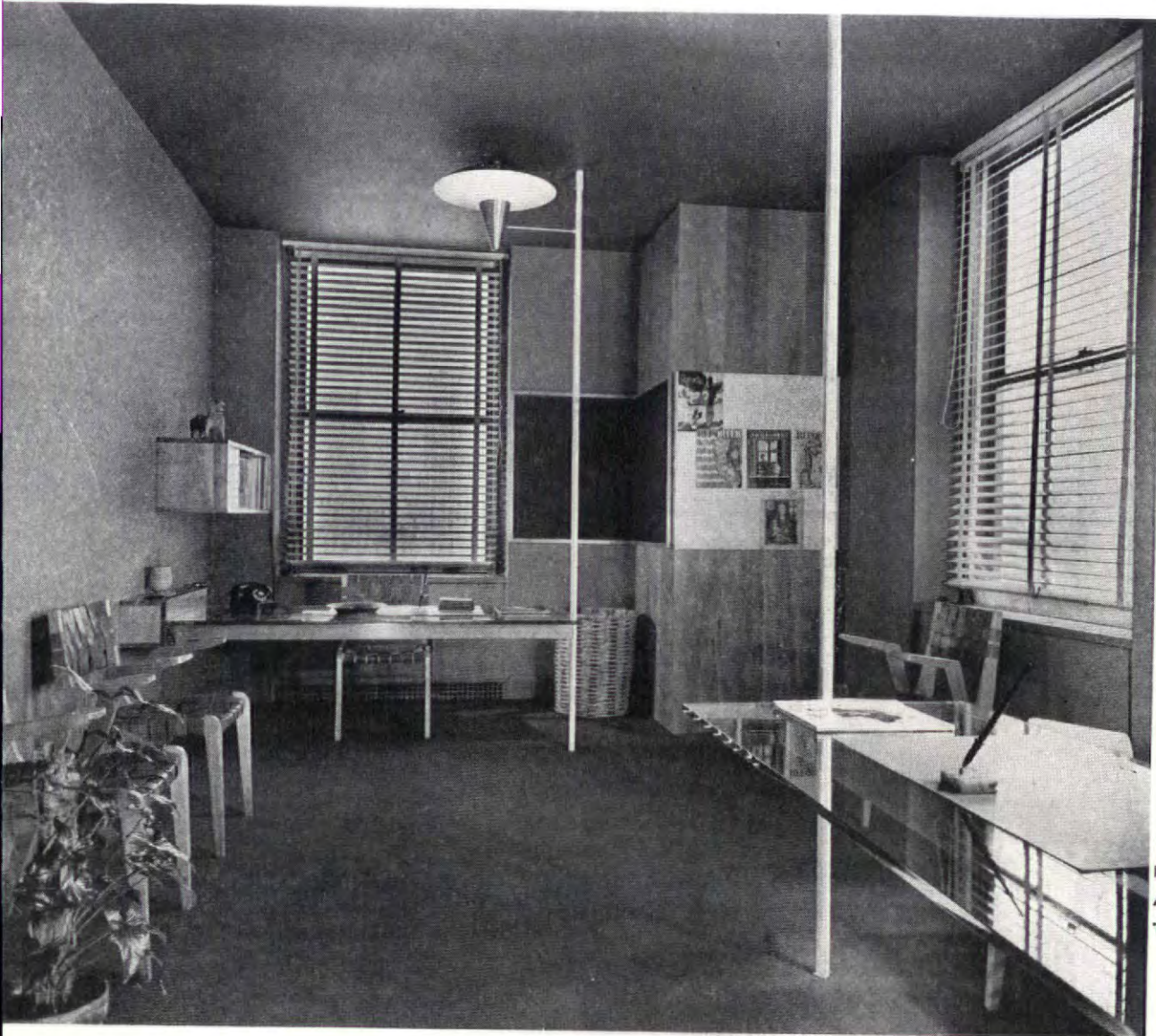
A bizarre desk design— $\frac{3}{4}$ in. sheets of plate glass hung from the wall and ceiling—met only momentarily with raised eyebrows from the staff. This scheme was adopted to carry through the principle of avoiding solid mass, and was acceptable because of the publisher's distaste for desks with drawers. Individual "pin-up" boards at the outer edge of each glass sheet lend privacy to the working cubicles, and an adjacent hanging wall cabinet provides convenient storage space. The actual work area of each desk is equipped with a leather pad to interrupt the occupant's view of his own feet.



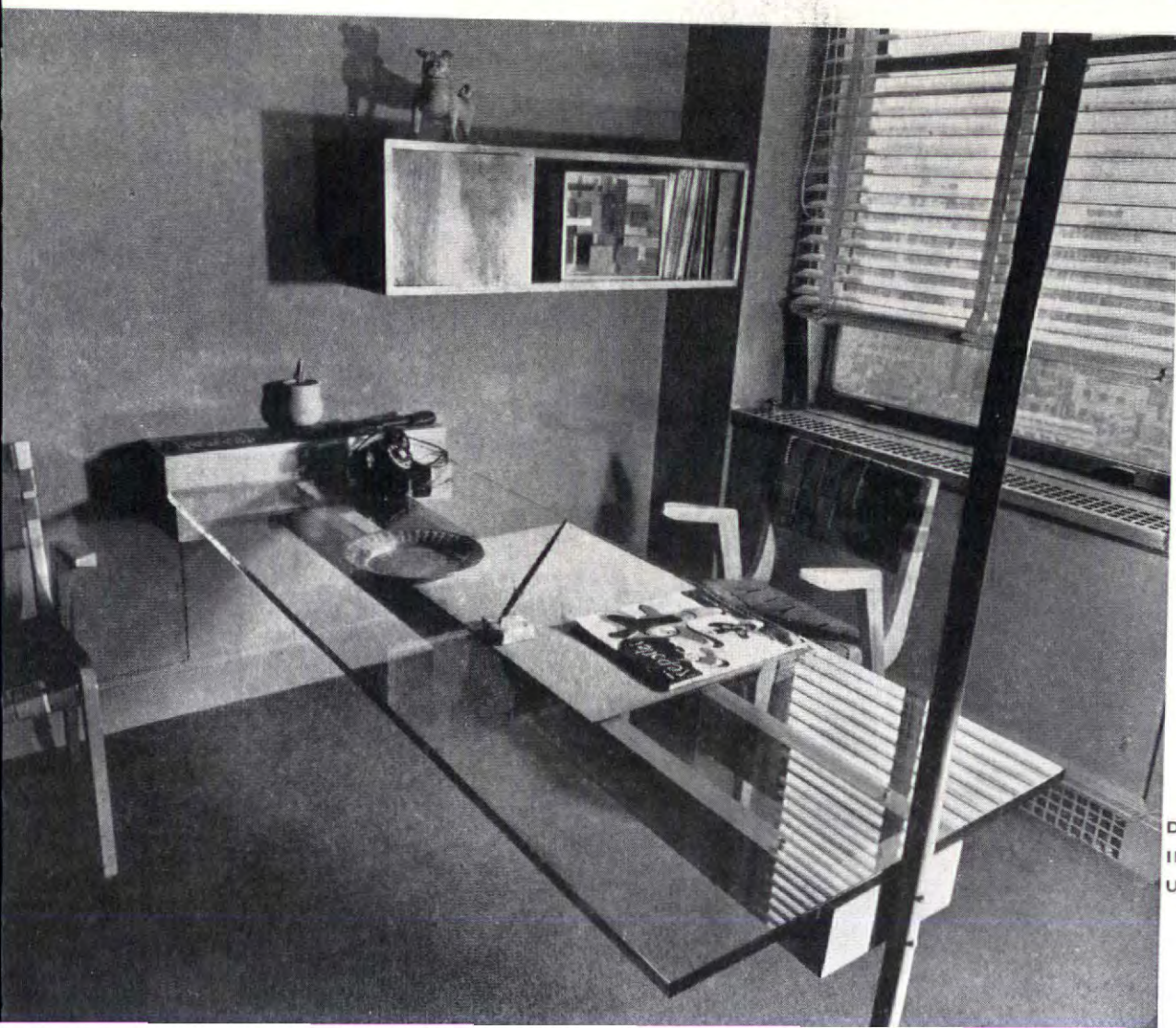
DETAIL OF LIGHT AND DESK

ROW OF WRITERS CUBICLES EXTENDS ENTIRE LENGTH OF ONE WALL FOR MAXIMUM USE OF SPACE





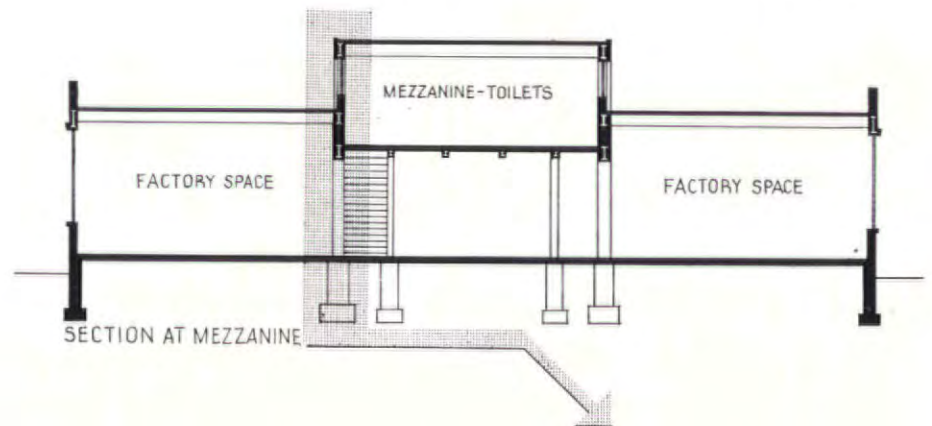
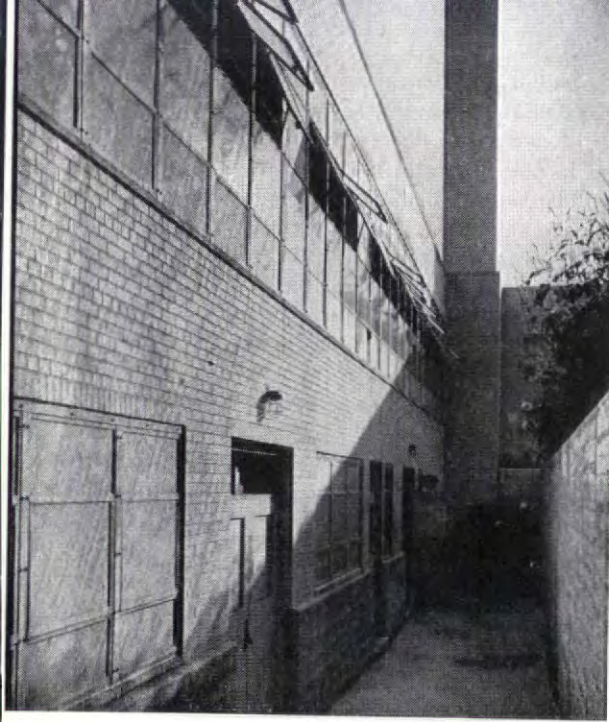
MAIN EXECUTIVE OFFICES
ARE SLIGHTLY MORE SPACIOUS
THAN OTHER WORK AREAS



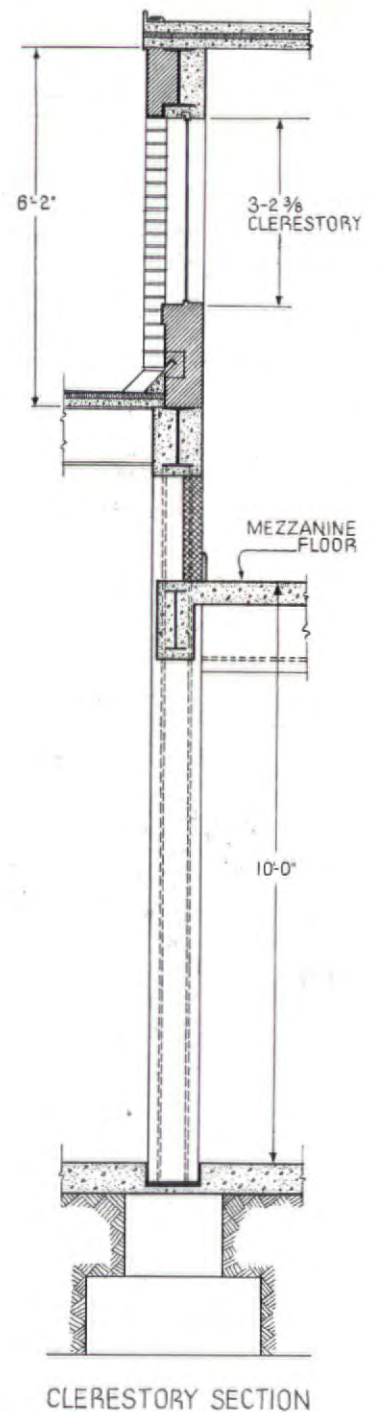
DESK DETAIL REVEALS
INGENIOUS CONSTRUCTION
USED THROUGHOUT

WATCH CASE FACTORY

Reclamation of precious metals lost in manufacturing process leads to novel arrangements in new plant. John Matthews Hatton, Architect.



CONTINUOUS MONITORS AND WINDOWS GIVE MAXIMUM DAYLIGHT FOR DELICATE PRECISION WORK



Photos: Fischer

The I. D. Watch Case Company of Jamaica, Long Island, is a medium-sized manufacturer of cases for popular-priced Swiss and American watch movements. Its new building houses its entire operation—management, design, and production—in a straightforward and well-articulated plan. Two special problems of watch case manufacture played an important part in determining its layout: the control of precious metals and the need for maximum daylight in the factory section.

The flow of platinum, gold and silver through the plant has been controlled at every point and led to some novel provisions to minimize waste or loss. The metal is delivered to the plant in the form of thin, narrow strips which are rolled. It is taken directly to the vault on the first floor where it is checked and weighed. From this vault it is issued directly to the craftsmen on the factory floor. The largest loss comes in the fabrication process, where minute but valuable particles of metal cling to the workers' skin, clothes and shoes. Such losses are large enough to warrant the following measures: all workmen are issued special uniforms by the company. These are laundered in washing machines in the basement whose drains—like those from the washbasins in the locker rooms—are

connected with special filters for metal recovery. All waste from the plant is burned in a special incinerator, so designed that metals will not escape in the soot. A portion of the plant is floored with a soft, gummed linoleum designed to pull all metal particles off shoe soles. Ultimately the whole plant will be so floored, and the linoleum ripped up periodically and sent to a refinery for recovery.* According to the owners, there is not sufficient airborne metal dust to warrant electronic air filters, although some of the workers wear masks for health reasons.

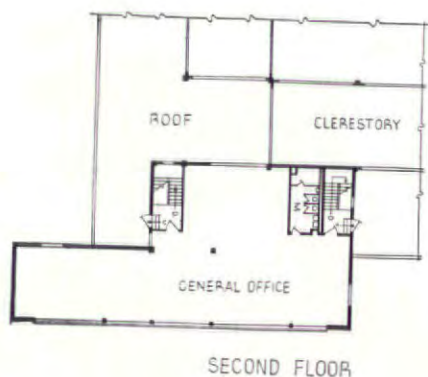
The L-shaped factory area has continuous monitors and standard windows to afford maximum daylighting. Men's and women's restrooms are suspended in these monitors in the two wings of the factory space. Locker rooms are located in the basement, as is the recreation room, near the employees' entrance.

In addition to offices, the main body of the building contains space for development of handmade case models and an engineering room where new manufacturing processes are set up.

* A fountain pen manufacturer once ripped up its wooden factory floor and sent it off to a refinery. \$27,000 worth of gold was recovered!

RECEPTION ROOM AND OFFICES ARE IN TWO STORY BLOCK AT LEFT. ENTRANCE TO FACTORY WING IS TWO STEPS BELOW GRADE AT RIGHT

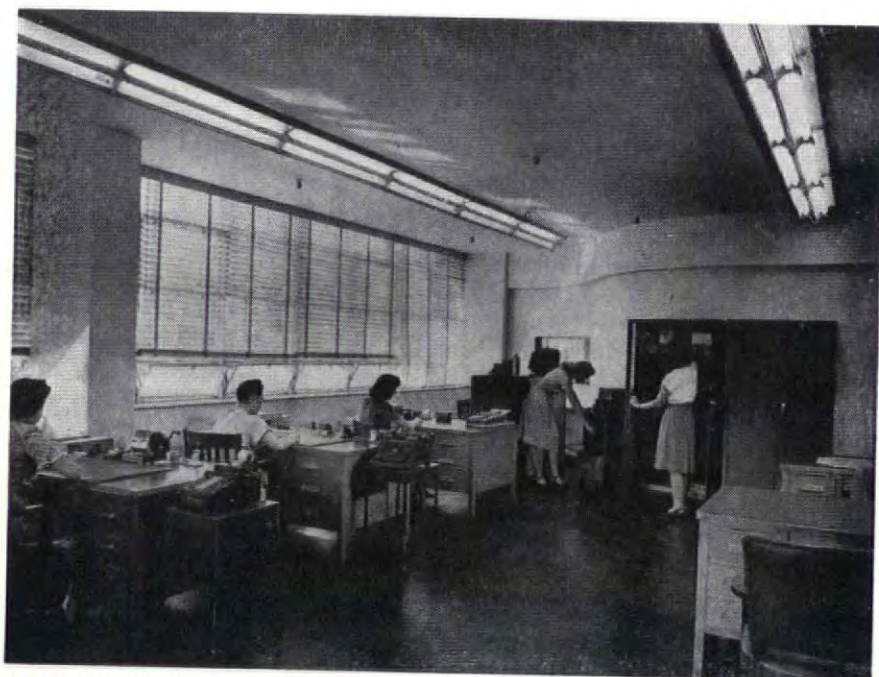




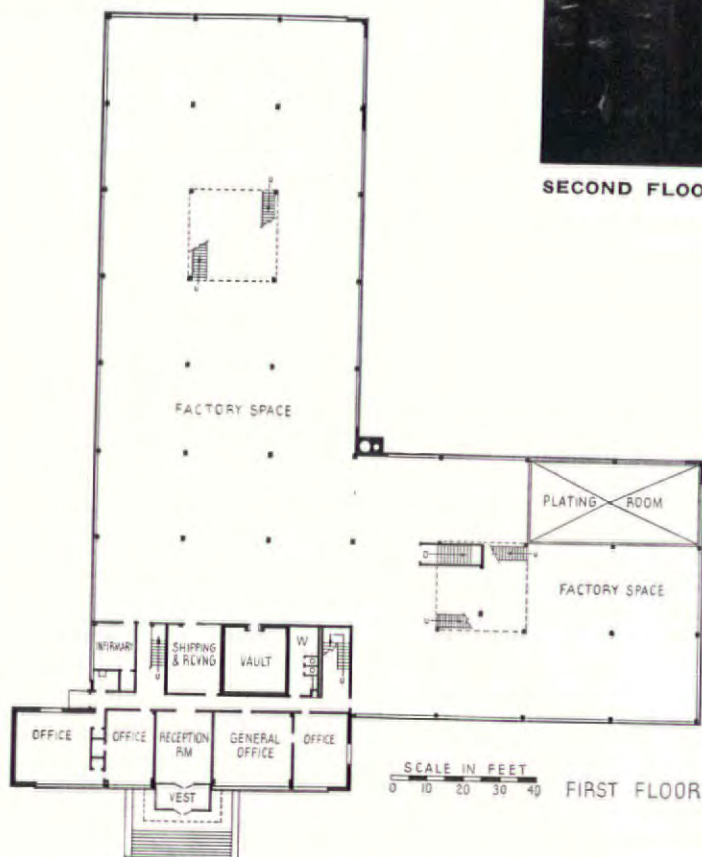
SECOND FLOOR

J. HATTON, Architect

A. LUTZ CO., INC., Contractor



SECOND FLOOR GENERAL OFFICE HAS STRIP WINDOWS, STRIP LIGHTING

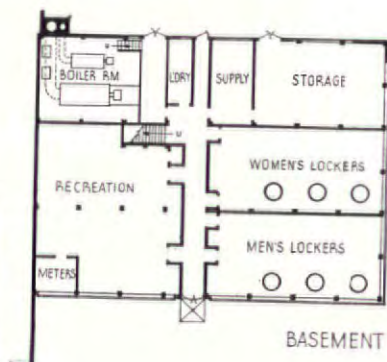
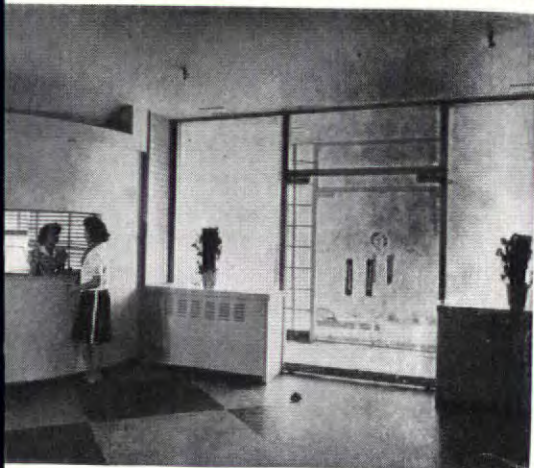


FIRST FLOOR



ONE OF THE TWO CONNECTING PRIVATE OFFICES

LIGHTED BY GLASS AND GLASS BLOCK ENTRY



BASEMENT

CONSTRUCTION OUTLINE

FOUNDATIONS—concrete. **STRUCTURE:** Exterior walls—face brick, Hanley Brick Co.; cast stone trim—General Cast Stone Co. Interior partitions—cinder and concrete block, National Brick Co.; offices—plaster. Floors—reinforced concrete. **ROOF**—concrete plank, Concrete Plank Co.; 20-year bonded roofing, The Barrett Co. **INSULATION:** Roofs—1 in. Celotex, The Celotex Co. **WINDOWS:** Sash—steel, Bogert & Carrough. Glass—glare-reducing Pentecor, Mississippi Glass Co. Glass blocks—Owens-Illinois Glass Co. **STAIRS**—steel; treads—Safe Tread Co., Inc. **FLOOR COVERINGS**—asphalt tile, David E. Kennedy, Inc.; Mastipave, Cott-A-Lapp Co. **DOORS**—flush hollow metal and wood; Herculite doors—Pittsburgh Plate Glass Co. **HARDWARE**—P. & F. Corbin. **ELECTRICAL INSTALLATION:** Wiring—3-phase 4-wire 120-208 volts. Switches—Standard Switchboard Co. Fixtures—Holophane Co. Special equipment—busduct, Bulldog Electric Products Co. **PLUMBING:** Fixtures—American Radiator-Standard Sanitary Corp. Wash basins—Bradley Wash-fountain Co. Pipes—Central Foundry Co. and A. M. Byers Co. **HEATING**—two-pipe vacuum system. Oil burner—Todd Combustion Equipment Co. Radiators—National Radiator Co. Unit heaters—C. A. Dunham Mfg. Co. Regulators—Minneapolis-Honeywell Regulator Co. Valves—Fairbanks-Morse & Co.

MR. BLANDINGS BUILDS HIS CASTLE

by Eric Hodgins

ILLUSTRATIONS BY WILLIAM STEIG

This is the sad, sad, story of an innocent homebuyer trapped in the baffling complexities of getting himself a home. Although a light and lambent satire, it is all too typical of the maddening inconsistencies of the Building Industry as viewed through the dark glasses of a disillusioned consumer. Mr. Blandings' castle was very expensive, but his shattering experiences vary only with the amount of money down the drain, and are common to the owner-built house whether cottage or country estate. In this tale of chaos in Connecticut reprinted from the April issue of FORTUNE, the building professional can take an uncompromising look at himself from the other side of the T-square and trowel.

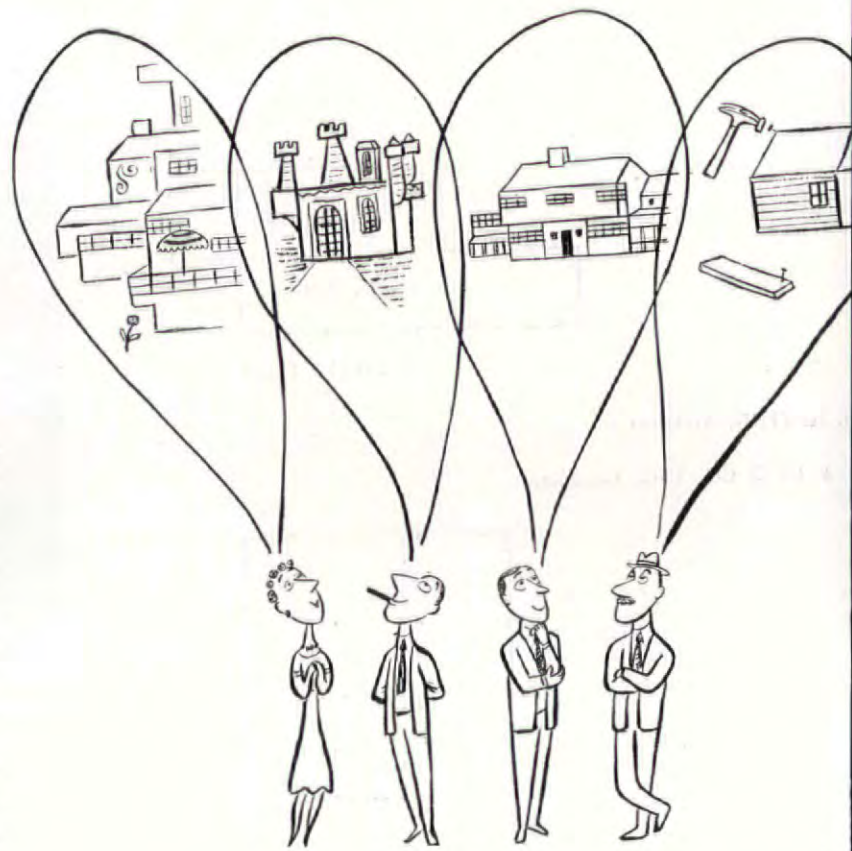
THE sweet old farmhouse burrowed into the upward slope of the land so that you could enter either its bottom or middle floor at ground level. Its window trim was delicate and the lights in its sash were a bubbly amethyst. Its roofline seemed to sway a little against the sky, and the massive chimney that rose out of it tilted a little to the south. Where the white paint was flecking off on the siding, there showed the blush of what must once have been a coat of rich, dense red.

In front of it, rising and spreading along the whole length of the house, was the vastest lilac tree that Mr. and Mrs. Blandings had ever seen. When the house was new, the lilac must have been a shrub planted in the door-yard—and house and shrub had gone on together, side by side since then. That was a hundred and seventy years ago this April.

Using a penknife as a key, the real-estate man unlocked a lower door. As it swung back, the top hinge gave way and splashed in a red powder on the floor. The door lurched against Mr. Blandings and gave him a sharp crack on the forehead, but the damage was repaired in an instant and Mr. Blandings, a handkerchief at his temple and his wife by his side, stood looking through one of the misty amethyst windowlights at an arc of beauty that made them both cry out. The land rushed downward to the river valley a mile away; then it rose again, layer after layer, plane after plane of hills and higher hills lighter beyond them. The air was luminous and there were twenty shades of browns and greens in the plowed and wooded and folded earth.

"On a clear day you can see the Catskills," said the real-estate man.

Mr. and Mrs. Blandings were not such fools as to exclaim at this revelation. Mrs. Blandings flicked a glove in which a cobweb and spider had become entangled; Mr. Blandings, his lips pursed and his eyes half-closed, was a picture of controlled reserve. By the way the two of them said "Uh-hum?" with a rising inflection in perfect unison, the real-estate man knew that his sale was made. Not today, of course; the offer might not come for a fortnight. But it would come; it would come with all the certainty of the equinox. He computed 5 per cent



SPOUSE • OWNER • ARCHITECT • BUILDER

"A Simple \$15,000 House"

or, Oil for the Seven Lamps of Architecture in Four Acts

of \$10,275 rapidly in his head and turned to the chimney footing.

"You'd have to do a little pointing up here," he said, indicating a compact but disorderly pile of stone, in which a blackened hollow suggested a fireplace that had been in good working order at the time of the Treaty of Ghent. Mrs. Blandings, looking at the rubble, saw instead the kitchen of the Wayside Inn: a distaff plump with flax lying idly on the polished hearth; a tempered scale of copper pans and skillets near the oven wall; a bootjack in the corner; a shoat glistening on the spit.

What Mr. Blandings saw broke through into speech: "With flagstone floor in here it would be a nice place for a beer party on Saturday night. You'd put the keg right in that corner."

"You could at that," said the real-estate man, as if he had just heard a brilliant revision of atomic theory. He quickly did 5 per cent of \$11,550 in his head; aloud, he said: "Let's go upstairs and then take a look at your orchard. There's a very interesting story connected with..."

The effect of the plural possessive pronoun was as a fiery liquefaction in Mr. and Mrs. Blandings' veins.

THUS it came about that Mr. and Mrs. Blandings bought—for \$11,550—the old Halleck place, the old house and the gorgeous acres surrounding it. But it would be a year, at least, before the Blandings' would "build." Mr. Blandings had stated, unequivocally, that you wouldn't catch him building until prices were "right." The forces that were to make prices right in the residential-construction industry were not known to Mr. Blandings, but he did not know that he did not know them. Mr. Blandings' eventual cost of building when prices were right was somewhat in excess, by a percentage only an astrologer could calculate, of what it would have been had he built when they were not so right. But the excess percentage was removed from Mr. Blandings at a later time, when he was numb from shock and scarcely felt a thing.

"Let's say your land'll cost you \$10,000, round numbers," the real-estate man had said in the days before it had actually cost

\$11,550. "And let's say it'll cost you \$10,000 to restore that farmhouse. So you've made a \$20,000 investment that'll stand you all the rest of your life, to say nothing of having a home to live in, and the benefit of what your friend Mr. Grover calls 'the indescribable charm' of the place." This lyric passage had served the Blandings' in lieu of thought for several months until, one evening, Mrs. Blandings had looked up from her mending.

"Do you suppose it's worth our while to remodel that old house?" she had asked in a faraway voice.

If she had flatly announced the illegitimacy of the two Blandings children she could scarcely have had a more thunderous effect upon her husband.

"I only mean," she went on in an effort to silence him, "that maybe someone should look at it besides Mr. Funkhauser."

Mr. Funkhauser was a young architect to whom Mr. Blandings had taken a shine. Working mostly from photographs, plus some measurements taken one rainy day on Bald Mountain, he had been covering reams of sketch tissue with the graceful swashes of a 6-B pencil, and making of the old Halleck farmhouse something quite else again. The Blandings' had found the results enchanting.

"What's the matter with Funkhauser?" asked Mr. Blandings.

"I only mean," said Mrs. Blandings, "that he's so enthusiastic about everything that sometimes I think he gets carried away. I'd like to have some other sort of person look at the old house before we get too far along—an engineer, or somebody."

Eventually Mr. Blandings came to believe that he himself had had this prudent idea. He asked his lawyer friend Bill Cole to dig him up an engineer—a good practical fellow who wouldn't be carried away by anything. As a result, Mr. Giobatta Appolonio, engineer, did indeed visit the old Halleck place with Mr. and Mrs. Blandings some days later. In his black shoes, dark business suit, and derby he made an odd picture among the roaming hills, particularly compared with Mr. Blandings in his slightly aggressive rural weeds.

Mrs. Blandings had expected Mr. Appolonio to bring a bag of instruments along like a physician, and perhaps to practice the physician's rites of auscultation or palpation on her dwelling. But Mr. Appolonio's only instrument was a foot rule, and far from palpating her house, he did not even seem to want to go near it. He merely stood looking at it for five minutes from about a hundred feet away. He then went up to it and kicked it on one corner. Mr. and Mrs. Blandings winced in unison when something unidentified fell off. Mr. Appolonio returned to his clients and spoke to them in a soft voice.

"You should ought to tear it down," said he.

"WHAT stinking roughneck has simply no feeling for antiquity," said Mr. Blandings, taking a spastic gulp out of his glass.

"I wish you wouldn't drink when you're upset," said Mrs. Blandings. She and her husband were back in their city apartment. The trip home with Mr. Appolonio had been very trying. Once home, Mr. Blandings had written out a check for his \$50 fee and mailed it to him instantly with a curt, correct note. But now Mr. Blandings was alone with God and Mrs. Blandings, and there was no concealing from her one that Mr. Blandings had paid a considerable sum, above and beyond, for a structure that he had now been advised (for \$50 more) to destroy. In Mr. Blandings' view, his wife was an accessory before the fact, and God stood convicted of the grossest sort of contributory negligence—but condemn them as he might, he could see no recourse from either of them, or from the real-estate man, or from nemus W. Halleck.



"Sometimes Mr. Funkhauser gets carried away..."

There remained, however, the luckless Mr. Funkhauser, still doodling happily on his sketch tissue, dreaming towers and battlements, spires and turrets, onto a lousy old wreck of a farmhouse that had neither sills nor chimney to support its present crumbling weight. Him Mr. Blandings fired with a vicious suddenness that left, as one residue, a folder in the files of the American Institute of Architects, labeled "Funkhauser-Blandings Grievance Case." After an eventual chilly interchange, Mr. Blandings paid Mr. Funkhauser's bill of \$635 for "Preliminary Plans of Restored Blandings Residence," and received the blueprints thereof. They were cold comfort. So was the report of Mr. Joe Perlasky, a local house wrecker and junk-yard proprietor. Mr. Blandings had consulted him on the sly, in the hope of presenting to Mrs. Blandings the happy news that they could realize perhaps \$2,000 out of the materials salvaged from the razing of the structure that was to have been the home of their children's children. Mr. Perlasky had figured for fifteen minutes and then announced that he would take the house down, leaving everything neat and clean around the foundation, and not charge Mr. Blandings a penny more than \$850. "Charge?" cried Mr. Blandings. "Atsa right," said Mr. Perlasky, explaining his modest figure by saying that he might just possibly be able to use some of the beams on another job.

It was at this point that Mr. Blandings' stout heart failed him. After a painful discussion, the entire Blandings' Building Project was put by to await a new and happier time. In calculation one evening, Mr. Blandings came face to face with the figure that in land cost, surveys, Mr. Appolonio's fee, legal expenses (so far), Mr. Funkhauser's blueprints, demolition estimates, and a dozen other items all small in themselves, he had so far spent or obligated himself to a total of \$13,881.34, and not the rasp of one saw or the blow of one hammer had yet been heard on Bald Mountain.

"Don't act surprised when the children grow up to be guttersnipes, hearing words like that in their own living room," said Mrs. Blandings.

"WE can fix up that old house," said Mr. Simms, the new architect. "Of course we can. But it'll cost you as much as building a new house, or more, and you won't have what you want. My advice, if you'll let me be frank, is to start afresh."

Starting afresh sounded to Mr. and Mrs. Blandings like what they wanted most in all the world to do.

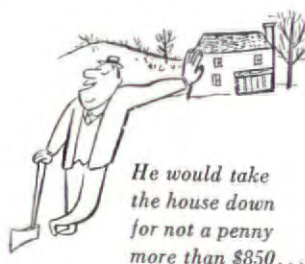
The Blandings' had begun their home-building career with the assumption that they had \$20,000 to spend. When the real-estate man had pointed out to them that \$10,000 for land and the old house, plus \$10,000 for "restoration" came to this precise figure, the logic and arithmetic had seemed very simple indeed. It was somewhat more clouded now, but not hopelessly so—not hopelessly so by a long shot, Mr. Blandings kept saying to himself. Manifestly, with some \$14,000 invested so far, you couldn't skimp on the building by putting up a mere \$6,000 bungalow. No—the house the Blandings' would have to build was that

\$10,000 house they had in mind from the beginning. Prices were somewhat higher now, of course, so an adjusted figure would probably be something nearer \$12,500. That was the figure to shoot at anyway; it might come out a little on the high side, but still . . . And suppose it even turned out to be \$15,000, when you included everything, as of course it wouldn't . . .

The Blandings' began to spend their weekends in a rented cottage not far from their mountaintop, and Mr. Simms used to drop in on



Mr. Blandings fired him with a vicious suddenness...



He would take the house down for not a penny more than \$850...

them almost every Saturday or Sunday afternoon. He developed the really charming habit of bringing his drawing board, T square, and triangles along with him, and in the sweet vernal afternoons he and the Blandings' would confer and plan together. Things went swimmingly. Mr. Blandings had only one complaint. "Simms makes things too small," he said. "I think he's got wonderfully ingenious ideas, but my God, if there's one thing I don't want in the country, it's to feel cramped."

To this criticism Mr. Simms replied that he was watching the cubage. The Blandings' had never heard of cubage before; it was,



"It's getting to look more like an \$18,000 house every day..."

the cubage, good fault though it was. Mr. Simms sighed a little. "It's getting to look more like an \$18,000 house every day," he said to the Blandings', who made noises of mild deprecation but did not pause for long.

What the Blandings' wanted was simple enough: a two-story house in quiet, modern good taste; frame and whitewashed brick veneer, to blend with the older architectural examples that dotted the hills about them. They wanted a good-sized living room, a dining room, and kitchen on the first floor; four bedrooms and accompanying baths on the second; a roomy cellar, a good attic, plenty of closets, and a couple of nice porches. And that was all.

The Blandings' soon discovered they had overlooked the servant problem. With thirty-one acres to look after, they'd have to have "a couple"—he to do the outdoor work, she to cook. To get them space for a small living room, bedroom, and bath off the kitchen called for some ingenuity, but Mr. Simms supplied it after adding twelve more feet to the house's long dimension. Mrs. Blandings' closet proposal (on which she would not retreat one inch) called for two per bedroom, one in every hallway, plus one broom closet, three kitchen closets, one closet for outdoor clothes, one linen closet, one storage closet for wood, one storage closet for card tables, etc. Mr. Blandings specified a liquor closet, with spring lock. It all added up to twenty-four closets, and Mrs. Blandings would brook no counterproposals. (The closets alone were to account for just a little under 2,000 cubic feet on Mr. Simms's conscientious plans.)

The Blandings' watched their house grow on the drawing board with warmth and pride. A study for Mr. Blandings became necessary the instant an opportunity for it opened up. Mrs. Blandings put in for a small cubicle, off the master bedroom, which she referred to as a "sulking room"—something that could serve her either as a dressing room or tiny study. And it would be awfully nice to have a little place with a sink and shelves for vases to do her flower arranging, she thought. Mr. Blandings got the notion that a built-in bar off the living-room hall, scarcely larger than a closet and piped for cold water only, would add immeasurably to the house's whole feeling of hospitality—and who was Mr. Simms, who liked a snort himself now and again, to dispute him? One day Mr. Simms said, "It's beginning to look more like a \$22,000 house than anything else," and for the first time the word "mansion" was used in conversation—facetiously, of course. The plans progressed; the house grew.

Mr. Simms explained, merely the over-all cubic contents that the walls and roof enclosed, and a rough rule of thumb was to figure that the sort of house the Blandings' wanted would cost about 45 to 50 cents a cubic foot. This sounded dirt cheap to Mr. and Mrs. Blandings, neither of whom were conscious of the traps held for the unwary by an exponential equation of no higher than the third power. Mr. Simms, they felt (and told him), was holding a little too tight a rein on

MR. John Tesavis, well driller, appeared one summer day on the Blandings' acres with his rig, under contract to drill a deep ("artesian," in the usage of the community) well at \$4 per foot for the first 300 feet, and \$6 a foot thereafter, if necessary. Mr. Blandings was momentarily dismayed by the empiricism of selecting a well site ("I sinks she might as good go here as anywhere," Mr. Tesavis had said, indicating a wide area that seemed no different from any other half acre on Bald Mountain), but once the work was in progress he would sit on the bank for hours in fascination as the rig lifted the 500-pound steel drill-bit up three feet, let it down with a shattering slam, and instantly repeated its cycle. By the time Mr. Tesavis had gone down thirty feet the Blandings' could tell when the rig was working even when they were three miles away: a faint concussion would shake the ground under their feet every time the drill took its pulverizing bite. Mr. Tesavis was drilling through elemental rock.

"There ought to be some better way," Mr. Blandings moaned one night after Mr. Tesavis had announced that he was down 201 feet and his "string" was struck. Mrs. Blandings voiced regret that her husband had refused the services of a neighborhood dowser who had offered to pick an infallible well site by means of his forked applewood stick, on payment of \$25. Mr. Blandings had summarily rejected this suggestion and was now wondering if it might not have been worth \$25 merely to have Mr. Blandings on the defensive instead of, as was again the miserable case, vice versa. But his spirit rebounded next day on the news that Mr. Tesavis had been able to free his string and had also encountered liquids; somewhere in the bowels of geology the drill had struck a fissure through which a half gallon of water per minute was now flowing into the Blandings' bore. This was far from the twenty gallons a minute that Mr. Blandings had always thought of as a desirable supply, but at least it kept down the cloud of pulverized rock in which Mr. Tesavis, unshaken as the Duke of Wellington at his nerve-racking task, had hitherto been working.

The quest for water



IT was apparent at last that the plans would soon be finished. Mr. Blandings, having missed several sessions between his wife and Mr. Simms, had fallen seriously behind the process and had the uneasy feeling that his house was now beyond his control. He would discover his wife and his architect discussing in familiar terms the breezeway, of which he had never heard. Matters of cabinets, shelving, random-width floor boards, gutters, dry wells, olive-knuckle butts, flues, muntins, mullions, trusses, shakes, ranges, pitches, and reveals came at him in unexpected ways and from unanticipated angles.

There was a bathroom on the second floor right over the front entrance to the house, and although Mr. Blandings was willing to accept this as part of the same cosmic plan that had put the rock under Mr. Tesavis, Mrs. Blandings fought it like a tiger and more than once embarrassed Mr. Blandings by the vividness with which she embodied her objections. Eventually, Mr. Blandings got the bathroom established in the rear, but if Mrs. Blandings had won a battle, history might still assess that here she had lost the war: the house length grew by four feet.

"I sometimes wonder if you people know what you're hearing into," Mr. Simms said one night as he packed up to go home, but he and the Blandings' were in a relaxed mood, with the balls in their hands. It was a bad evening for warnings, however: a little earlier, Mr. Tesavis had run crash into eight gallons of water at 297 feet and had telephoned the joyful news.

"When we build, let us think that we build for ever," Ruskin once wrote. Mr. Blandings held a similar view. The curse of America was jerry-building, he was eloquent in saying, and the Blandings house bore out the philosophies of quality and permanence. The floors were to be oak, the waterline brass; the plumbing fixtures did not bear the tradename S.

for nothing; the incombustible shingles were the same as those developed to meet Mr. Rockefeller's wishes for the restoration of Williamsburg; the hardware was to be supplied by the nearest thing to Benvenuto Cellini in Connecticut.

When Mr. Simms, after going into a monastic seclusion for three weeks, emerged again, it was with a set of drawings and specifications that floored the Blandings' flat: the simple plans and elevations that they had seen grow on the drafting board were superseded now by section drawings, framing plans, wiring diagrams, and detail sheets; everything had become so dense with dimensions as to be undecipherable except to experts. There was also a set of specifications the thickness of a Chicago telephone directory. It was time to ask for bids.

Mr. Blandings now felt it appropriate to consult Mr. Anson Dolliver, the President of the local First National Bank, about borrowing some money. Mr. Blandings had had the foresight, a year earlier, to open a checking account in Mr. Dolliver's bank and to keep his balance at a level he was sure a country bank would consider opulent. Mr. Dolliver had been cordiality itself. "If we can ever help you out, up there on the hill," he had said, "just let us know." Now that at last Mr. Blandings was ready to apply for some mortgage money at Mr. Dolliver's bank, he envisioned cordiality in the extreme, the proffer of a fine cigar, the suggestion of a leisurely lunch at the tavern on the Green, and an open line of credit at a nominal rate.

What he encountered was nothing like that at all. As Mr. Blandings stated his readiness to contract a loan, Mr. Dolliver bit off the end of a cigar for himself and spat daintily in Mr. Blandings' direction but proffered nothing. "Why, great grief," he said, as if he had been asked to do somebody's laundry, "we're loaned full up to our legal limit right now. Love to help you out, but . . ." He left the sentence unfinished. Then he added, listlessly, "My brother's the President of the savings bank across the hall. He might be able to do something for you, although of course I couldn't know for sure. . ."

Mr. Blandings had three separate conversations with the savings-bank brother, at the end of which the second-string Dolliver admitted that there might be circumstances under which he would make Mr. Blandings a \$10,000 mortgage loan at 6 per cent. Feeling like Lord Keynes at the end of a tough mission, Mr. Blandings said that he had hoped for more money at less rate, and Mr. Dolliver responded with a concise lecture on the risks of rural real estate that Mr. Blandings wished he had been able to think up by himself a year ago. So Mr. Blandings contented himself by wondering aloud how soon he might have Mr. Dolliver's accommodation, since his bids were almost due and he hoped to begin breaking ground very soon.

Mr. Dolliver snapped forward in his chair. "You want this money or construction?" he asked, in a tone that made Mr. Blandings feel that he had sought a criminal abortion from an archbishop. Mr. Blandings said he did. He tried to make his voice firm, but in spite of his strongest efforts a tremulous harmonic crept into it.

"You've had me at a misapprehension," said Mr. Dolliver. "This bank never makes construction loans. If that's your situation and you have some government bonds, I think my brother in the commercial bank across the hall could work out something very satisfactory for you."

Mr. Blandings at this point discontinued negotiations with both Dolliver brothers and closed out his checking account. It had not been pleasant to deal with the Dollivers and their banks, but Mr. Blandings was at least able to congratulate himself that here was one episode in his building experience that had not cost him any money. He merely did not have his loan.

Mr. Simms arrived on a Saturday morning, looking a little constricted about the mouth, but brisk. "We've got all our bids," he said. "I've summarized them on the top sheet."



"We've got all our bids. . ."

ESTIMATES	BLANDINGS' JOB	BALD MOUNTAIN
Antonio Doloroso, Builders.....		\$32,117.00
Caries & Plumline.....		34,265.00
Julius Akimbo & Co.....		37,500.00
Zack, Tophet & Payne.....		28,920.50
John Retch & Sons.....		30,852.00

"There are a couple of things to be noted from this," said Mr. Simms, speaking in an even, level, slightly rapid voice. "In the first place, Julius Akimbo obviously doesn't want the job or he wouldn't have put in any round-figured bid that size. As for that bid from Zack, Tophet & Payne I wouldn't touch it with a ten-foot pole. They have a reputation for bidding low and then loading on the extras. That sort of gives us three to choose between. They're all good builders; John Retch is as good as any, and with that low figure I don't think you'll go wrong on him. Even so, we'll have to cut some costs."

This, Mr. Blandings thought in a blurred way, was putting it mildly. The cost-cutting job began then and there. What Mr. Blandings now discovered was that you could cut the cost of a \$31,000 house somewhat, but there is no way on earth of cutting a \$31,000 house to \$21,000, to say nothing of anything lower. There were some things that were irremediable; it was no longer possible to shrink the house even by the process of restoring the fatal bathroom to its flaunting position over the front door. Too much else had altered in the meanwhile, and you could no more reverse the growth process of the house than you could shrink an adolescent back into last year's clothes by denying him food.

But there were, of course, some things to be done. The house could not be abandoned. Although Mr. Simms had never spoken of money and seemed wholly content to go on helping the Blandings' build their house forever, Mr. Blandings was aware that the standard architect's fee, according to the procedures of the American Institute of Architects, to which Mr. Simms belonged, was 10 per cent of the cost of the house—and God knows that if anyone had ever earned \$3,100, it was Mr. Simms. With that obligation outstanding there was simply no turning back: the house must be built. As the deflation progressed, bronze casement windows changed to steel of the lightest cross section made. Red brass piping became galvanized iron. A whole flagged terrace disappeared. The roofing specifications came down in the world. The house would now be insulated only to the eaves—and to hell with having a cool attic in summer. The plumbing fixtures became notably less Pompeian.

Even so, it was slow, dispiriting work. It depressed Mr. Blandings deeply to observe that the elimination of the big flagged terrace, on which he had already, in anticipation, had a few delicious drinks, saved him, on Mr. Retch's figures, only \$172.50.

"If I was adding the terrace it wouldn't cost me a cent less than \$700,"



He could not find the villain because everyone was a villain. . .

(Continued on page 130)

SIX UNION PROJECTS

illustrate requirements of Building's newest client.

In recent years the trade union has become an increasingly important client of the building industry. Spot-lighted by the six union buildings presented on these pages, this trend is inspired by three factors: 1) war-time expansion of employment has swelled union membership and bank rolls, created a need for larger office space and provided a means of paying for it. 2) Metamorphosis of the trade union from a mere protective agency to a combination business-social organization and its realization of the benefits of good public relations have called for recreational facilities in union headquarters as well as the usual office space. 3) High rents have prompted unions to cancel their leases in favor of the purchase and modernization of larger quarters or the construction of new buildings.

The old-line union headquarters is merely the seat of the higher union officials. As the scale of officialdom goes up, the headquarters becomes more luxurious in the traditional sense, but the space remains small and off-limits for the rank and file. On the other hand, the newer, more socially progressive unions, most of them affiliates of the CIO, cater more to the dues payers. While they too appreciate the importance of providing their officials with attractive offices wherein to impress the business men with whom they negotiate, they have also found it good business to provide their members with attractive meeting places, educational facilities and recreational equipment. These unions look upon their headquarters as something more than an inner sanctum with a hole in the wall for the payment of dues. And, needless to say, the dues payers approve.

Seemingly modern, this conception of a union headquarters is actually new only to the U.S.—most European cities have large trade union halls which house the business offices of all local unions and serve as club houses for their constituents. In broad outline, this European pattern seems to be the goal toward which U.S. unions are moving. Thus, after a detailed survey of the quarters and habits of its affiliates, the CIO's Industrial Council of New York City has concluded that its many locals could save much on separate office rentals and the frequent rental of various meeting halls if provided with a central building or groups of buildings with sufficient facilities to meet all their requirements. For this purpose the Council plans to construct at least one such trade union center—perhaps three, one each for Manhattan, Brooklyn and the Bronx.

Similar plans on a correspondingly smaller scale are afoot in other cities. The National Maritime Union, whose New York City building is presented on these pages, proposes to build similar projects in every major U. S. sea, river and lake port—some 40 cities.

Chances are that when these plans crystallize, the buildings will be of contemporary design. Progressive unions favor up-to-date design. Moreover, as long as unions must devote most of their funds to organizational campaigns and their fight for permanent establishment, their limited building budgets will permit the construction of only simple functional buildings.



1936

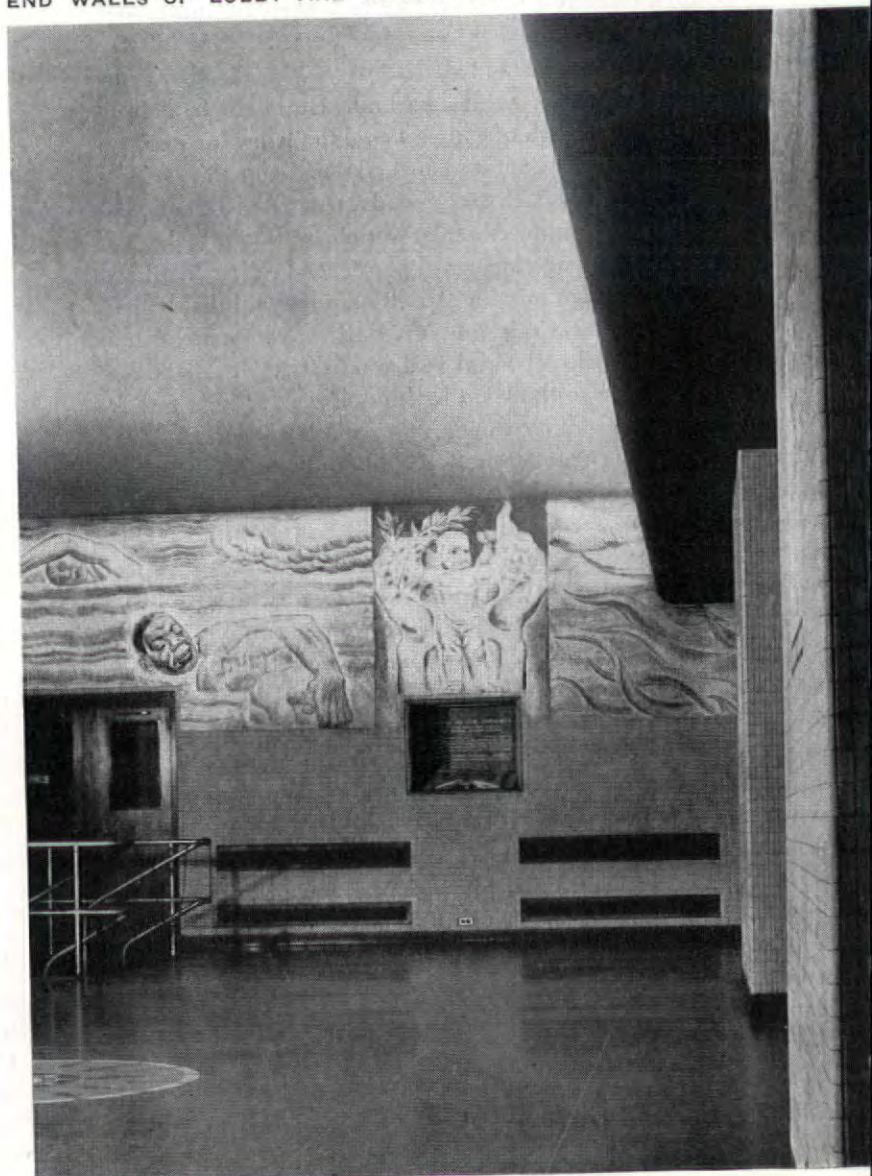


1939



1944

END WALLS OF LOBBY ARE DECORATED WITH SYMBOLIC MARINE F



Photos: P. A. Dearborn

MARITIME UNION remodels group of derelict buildings into efficient national and local headquarters.

POMERANCE & BREINES, Architects

I. HELLERMAN, Structural Engineer

SHEPPARD POLLAK, General Contractor

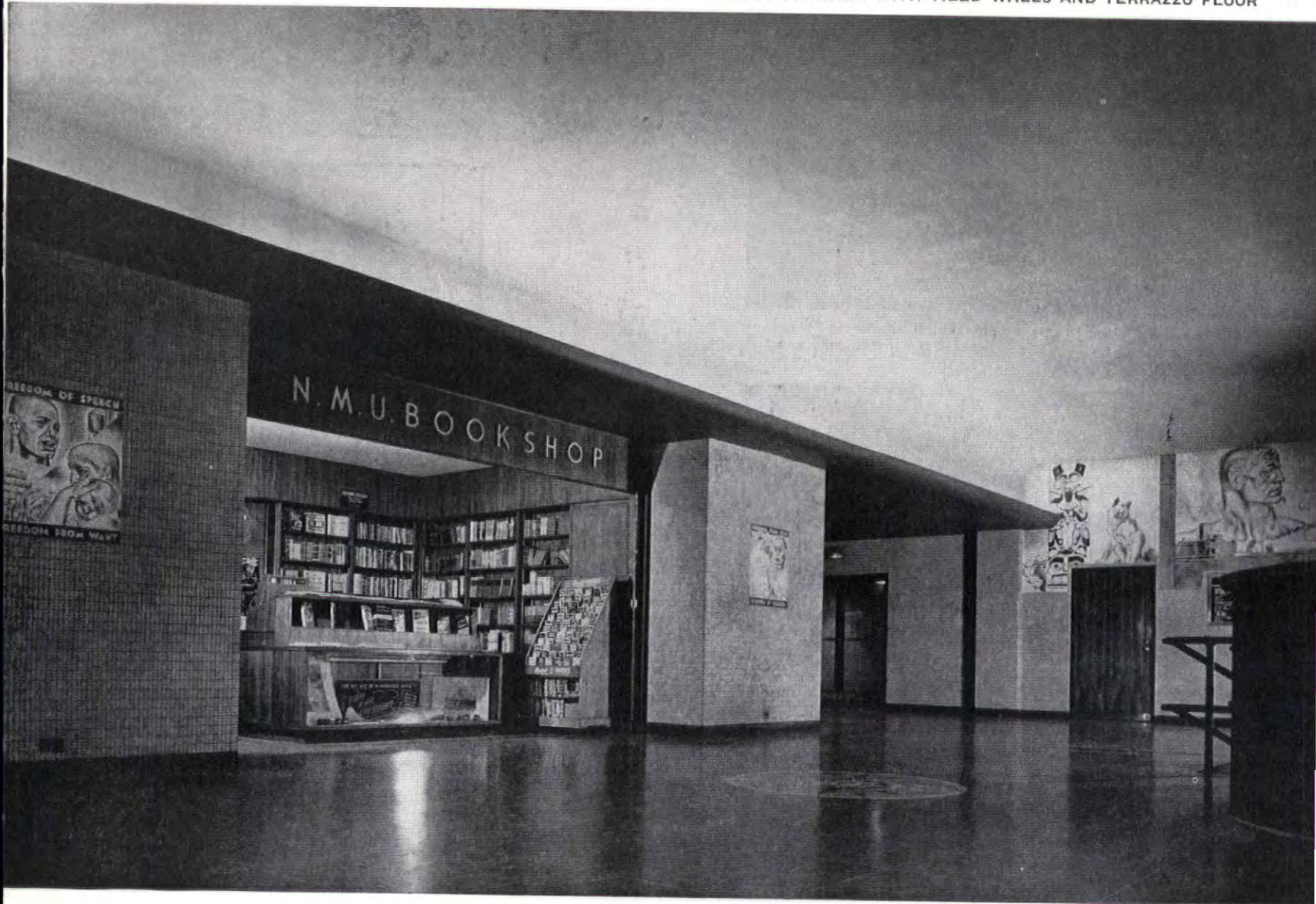
HUGO GELLERT, Lobby Murals

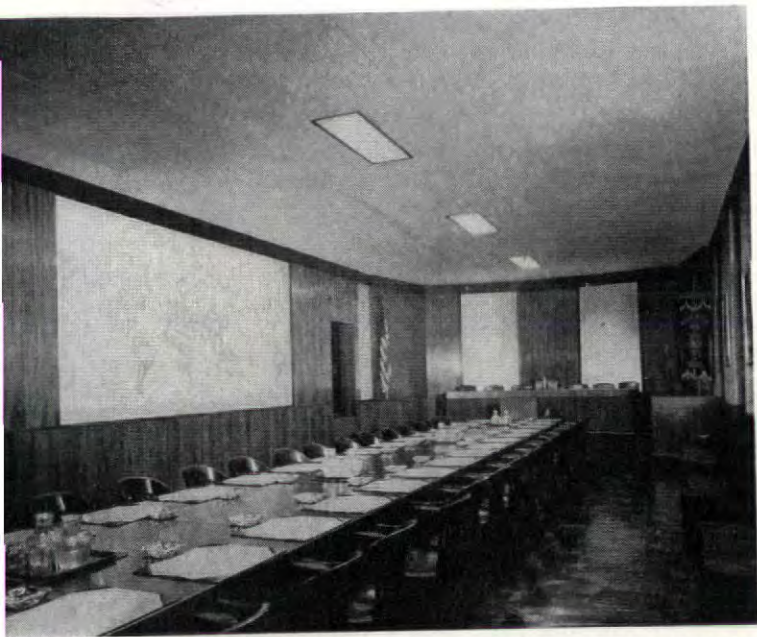


Wartime expansion of the Merchant Marine demanded that the National Maritime Union also expand its facilities in the country's largest port, New York City. Increased space was required for the hiring and shipping of seamen and for the provision of recreational and welfare activities for seamen temporarily "on the beach". Coupled with the urgency of the need, wartime building and material restrictions forced NMU to remodel rather than build. For this purpose the union acquired an old six-story telephone exchange building, the adjacent two-story garage and several old tenements. The architects were given a program whose major requirements were that walls and floors be finished to withstand severe use, that there be strict economies in materials and costs and that consolidation and modernization of the buildings be completed with utmost speed. These limitations are reflected in the minimum refurbishing of exterior surfaces (left) and the simplicity of the lobby (below).

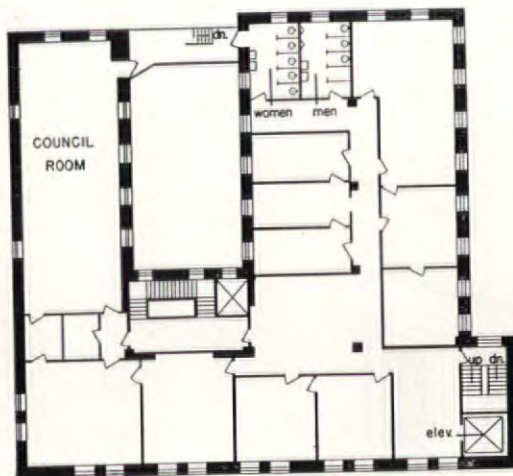
Headquarters of NMU's national organization as well as the New York City local, the project provides for varied activities, as indicated by the plans and photographs on the following page. Biggest room is the shipping-board hall where available jobs are posted on a huge chart and announced over a loud speaker system. Capable of handling 3,000 seamen per day, the hall is equipped as a lounge where men may relax and listen to music between loud speaker announcements. Other recreational facilities include game rooms, bar, small stage, library, book shop, class rooms and provision for art exhibitions. The top floor provides executives' offices and a council room.

HANDSOME LOBBY IS INDIRECTLY LIGHTED FROM CEILING TROUGH AND DURABLY FINISHED WITH TILED WALLS AND TERRAZZO FLOOR





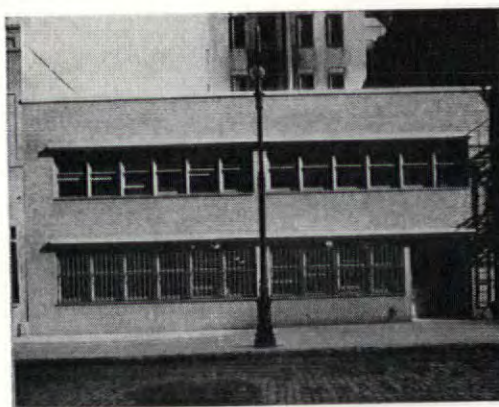
COUNCIL ROOM on sixth floor is simply but impressively finished with plywood walls, suspended acoustical tile ceiling.



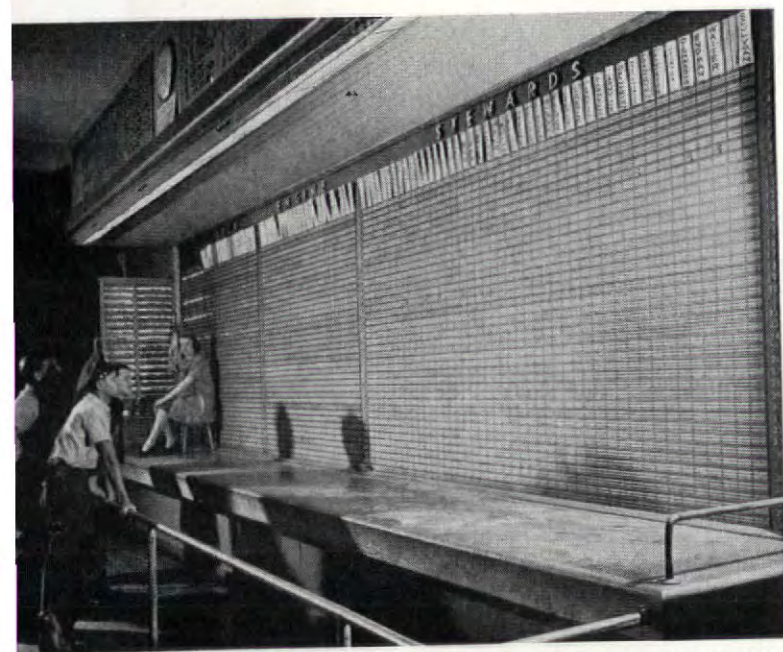
SIXTH FLOOR PLAN — OFFICES



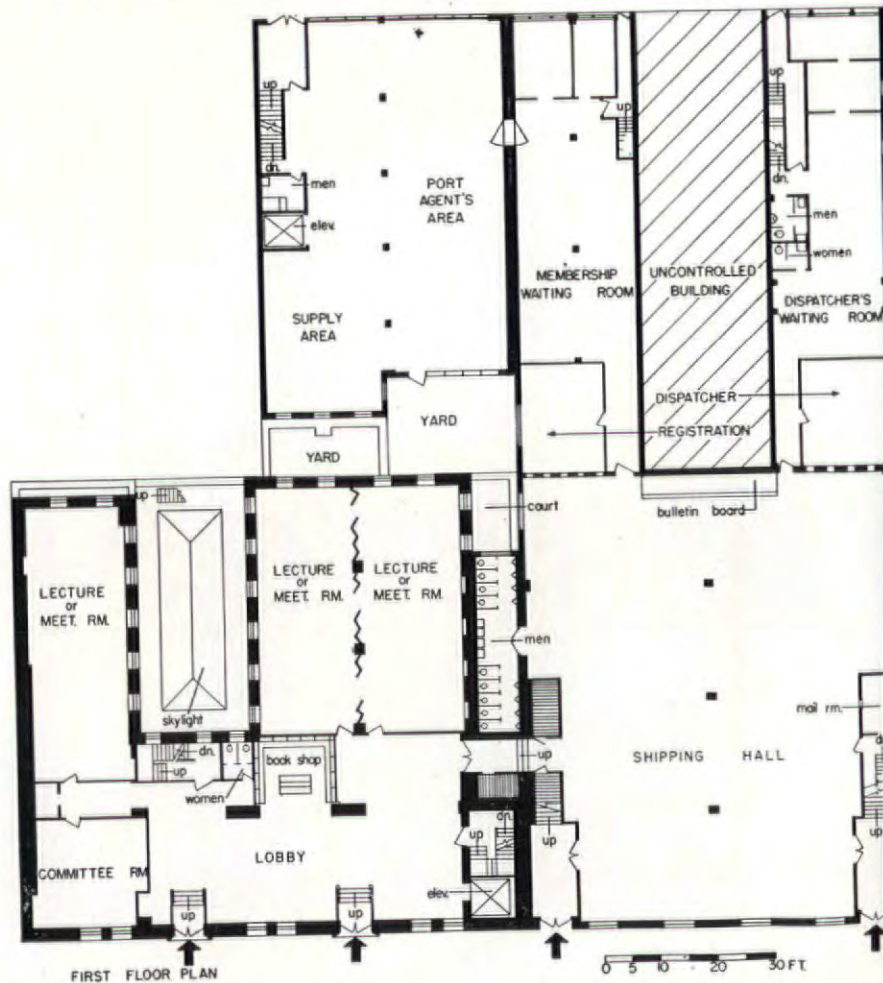
RECREATION ROOM displays photomural depicting Maritime Union's history. Bulletin board beneath it exhibits sailors' art.



NEW BUILDING at rear of NMU project provides space for the activities of the port agent, for storage and for the handling of the union's large volume of mail.



SHIPPING HALL in remodeled garage features huge help-wanted board where jobs are posted for benefit of waiting seamen.



FIRST FLOOR PLAN

0 5 10 20 30 FT

ELECTRICAL UNION

rearranges a mansion, preserves its elegance.

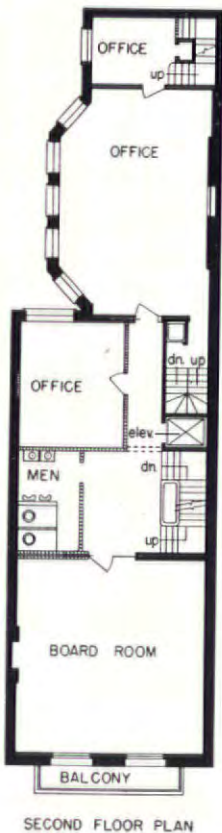
Tired of paying rent, the United Electrical, Radio and Machine Workers acquired an ornate old mansion on New York City's 51st St. for their national headquarters. To save money and to preserve the mansion's elaborate atmosphere, union officials decided to remodel the building rather than modernize it. Thus, the architect's requirements were merely to convert the palatial residence into a building which would provide office space where top union officials could direct the activities of its 600,000 membership and a board room where delegations from locals or business management could assemble with union officials.

First floor alterations were limited to rearrangement of the stairs to the rear office. Upstairs, gypsum block and plaster partitions were used to create a lavatory and office in the center of the building. Existing materials were used to the utmost; wood paneling was shifted from one room to another, and a mirror and a marble mantel were moved from the first floor rear office to the second floor board room (photograph, right). Office ceilings were sound-conditioned with acoustical tile. Floors which were in poor condition were refinished in asphalt tile over a one-half inch layer of mastic. Although the elaborate moldings were removed from some of the walls, the rich ornamentation of the board room was left intact. The entrance lobby was not touched, and the ponderous marble staircase was left to remind the building's occupants of the mansion it used to be.

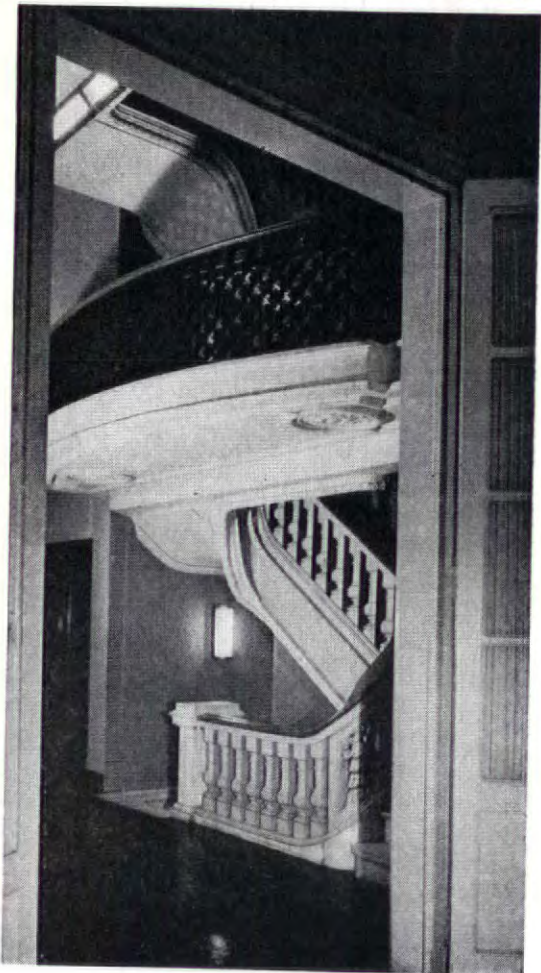
ULES KORCHEIN, Architect
ELCO BUILDERS, General Contractor



BOARD ROOM'S ORIGINAL ORNAMENTATION CONTRASTS WITH NEW FURNITURE



SECOND FLOOR STAIRCASE TYPIFIES STATE OF ORIGINAL BUILDING



BOILERMAKERS

build "Marble Palace" around structure of commercial eyesore.

Referred to locally as the "Marble Palace", this expertly remodeled building is the home of AFL's Brotherhood of Boilermakers, Iron Ship Builders and Helpers, Subordinate Lodge No. 72. It was completed in 1943 when the Portland, Ore. organization was reported to be one of the largest and wealthiest locals in the country—60,000 members and \$1½ million in the bank. Reflecting the latter statistic is the fact that no restrictions were placed on the architect in his use of materials. Maple, marble and glass finish the interior, and a curtain of granite, marble and glass was hung on the building's original structure on the street facade. Since the building is completely air conditioned, there is no need for movable sash. A glass block wall lights the first floor, and the fixed two-story windows of opaque glass light the second floor auditorium and the balcony above it.

Major structural change was the replacement of the wood posts in the basement with pipe columns which now flank the three pairs of attractively designed bowling alleys. Projecting under the sidewalk, the basement also provides space for bleachers, wash rooms, lockers, a soda fountain.

Circulation within the building is controlled by its two front entrances and the numerous staircases. The main entrance leads to a lobby where dues are paid at bank-like cages. Under the same canopy is a separate stairway entrance to the second floor hall or auditorium. Less prominent, the right-hand entrance provides access to the first floor meeting hall and, via stairs, to the bowling alleys below and to the auditorium above.

Including \$45,000 for the original building, the project is reported to have cost a total of \$269,000.



ORIGINAL BUILDING WAS COMPRISED OF STORES AND LOFTS

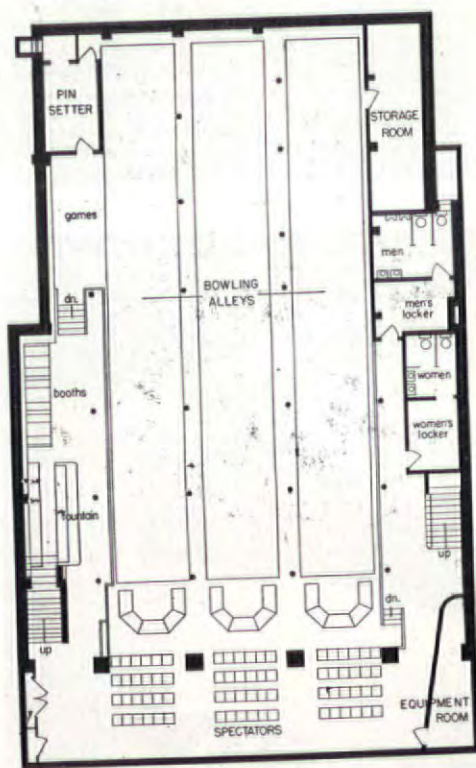
PIETRO BELLUSCHI, Architect

MILES K. COOPER, Consulting Mechanical Engineer

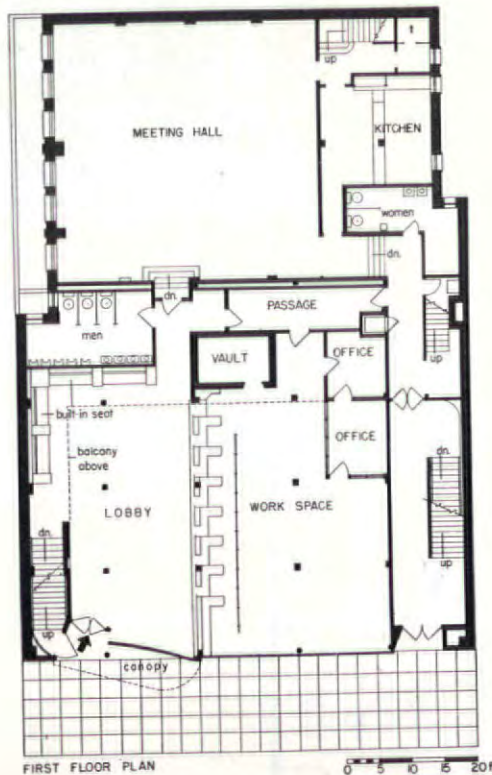
J. DONALD KROEKER, Consulting Heating and Ventilating Engineer

GEORGE PETTINGELL, Consulting Electrical Engineer

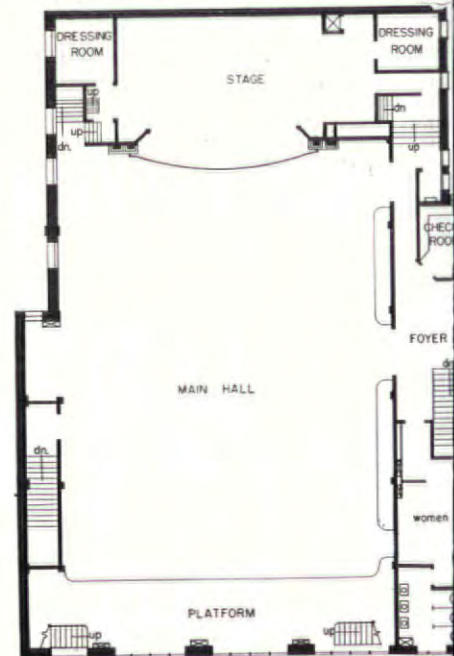
JOSEPH H. ANDERSON, General Contractor



BASEMENT PLAN

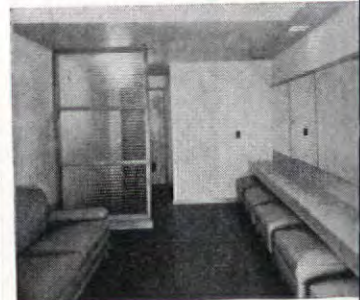
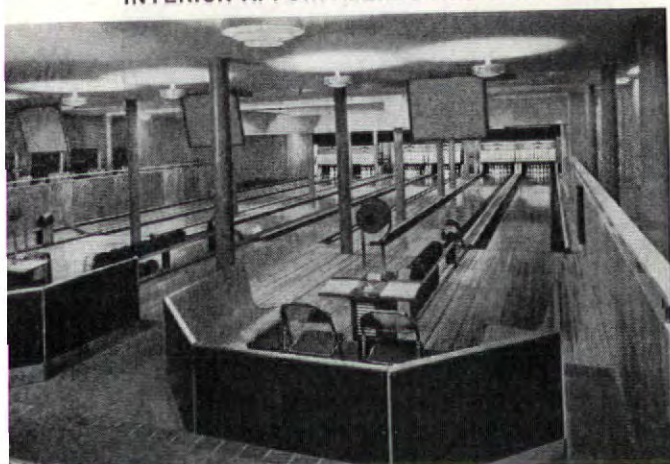


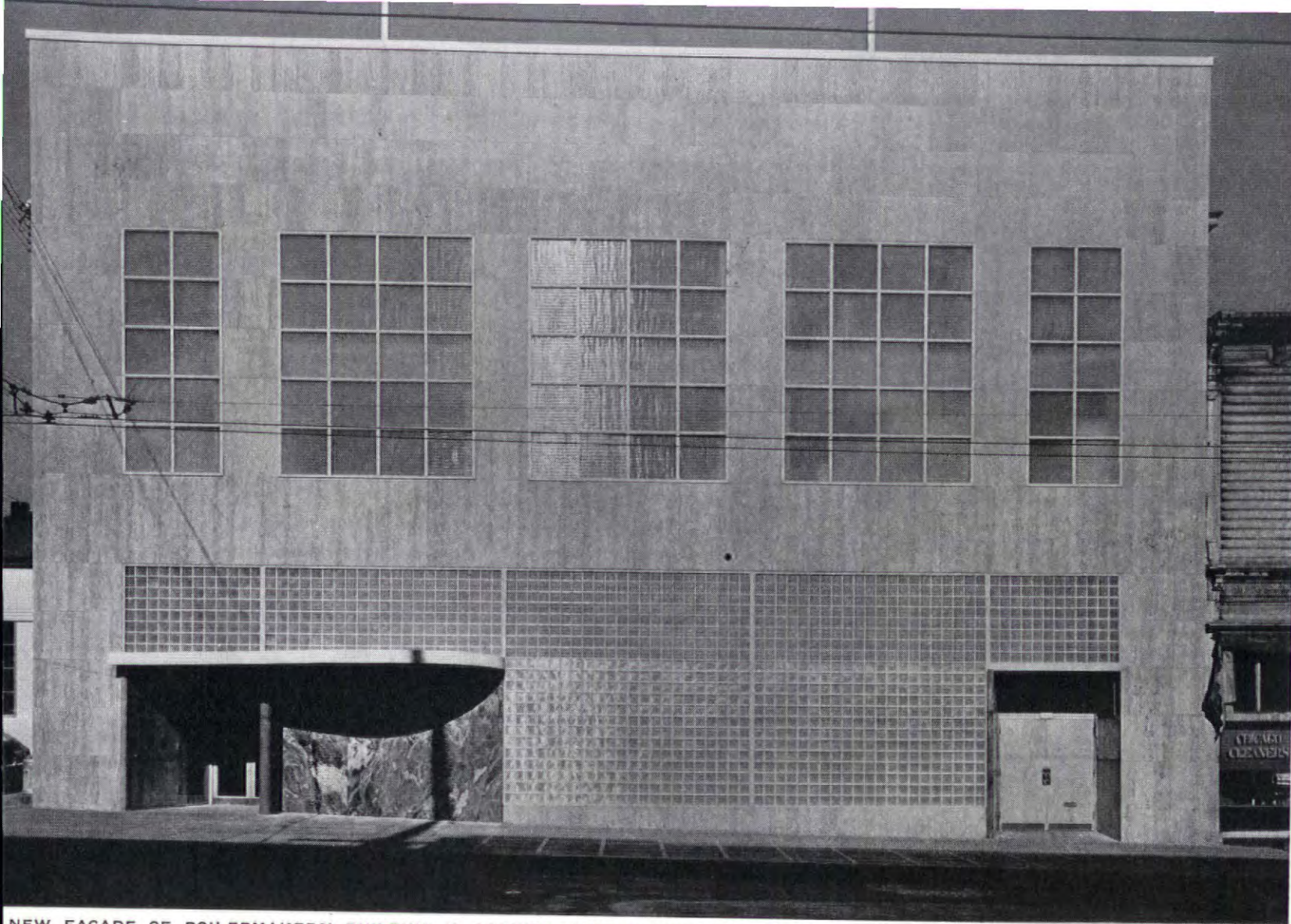
FIRST FLOOR PLAN



SECOND FLOOR PLAN

INTERIOR APPOINTMENTS ARE EXEMPLIFIED BY BASEMENT BOWLING ALLEYS, MEZZANINE BARROOM AND BASEMENT WOMEN'S LOUNGE





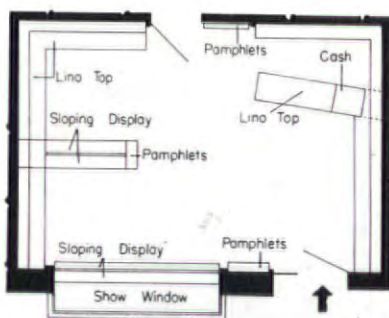
NEW FACADE OF BOILERMAKERS' BUILDING IS GRANITE VENEER AND GLASS WITH MARBLE WALL ACCENTUATING MAIN ENTRANCE

OFFICE WORKERS add bookshop to headquarters.

P. A. Dearborn

This new book shop has been built into the New York City headquarters of the CIO's United Office and Professional Workers of America and is an example of the growing trend toward the provision of recreational and educational space in union buildings. Located at the front of the building's first floor, the shop is accessible to the street and the union's assembly room. Its purpose is to provide an opportunity for rank and file members to avail themselves of the latest reading material on union activities and progressive affairs as well as current and classic literature. It also makes the building more than a place for union meetings and the payment of dues. Like the building, the book shop is union-owned.

Layout of the furniture is such that an unobstructed view of all parts of the shop is obtained from the cashier's corner. Shelves are plywood; exposed vertical surfaces are limed oak. Counter tops are gray linoleum. Sloping displays are provided for pamphlets, newspapers and other items which are too thin to stand vertically on shelves.

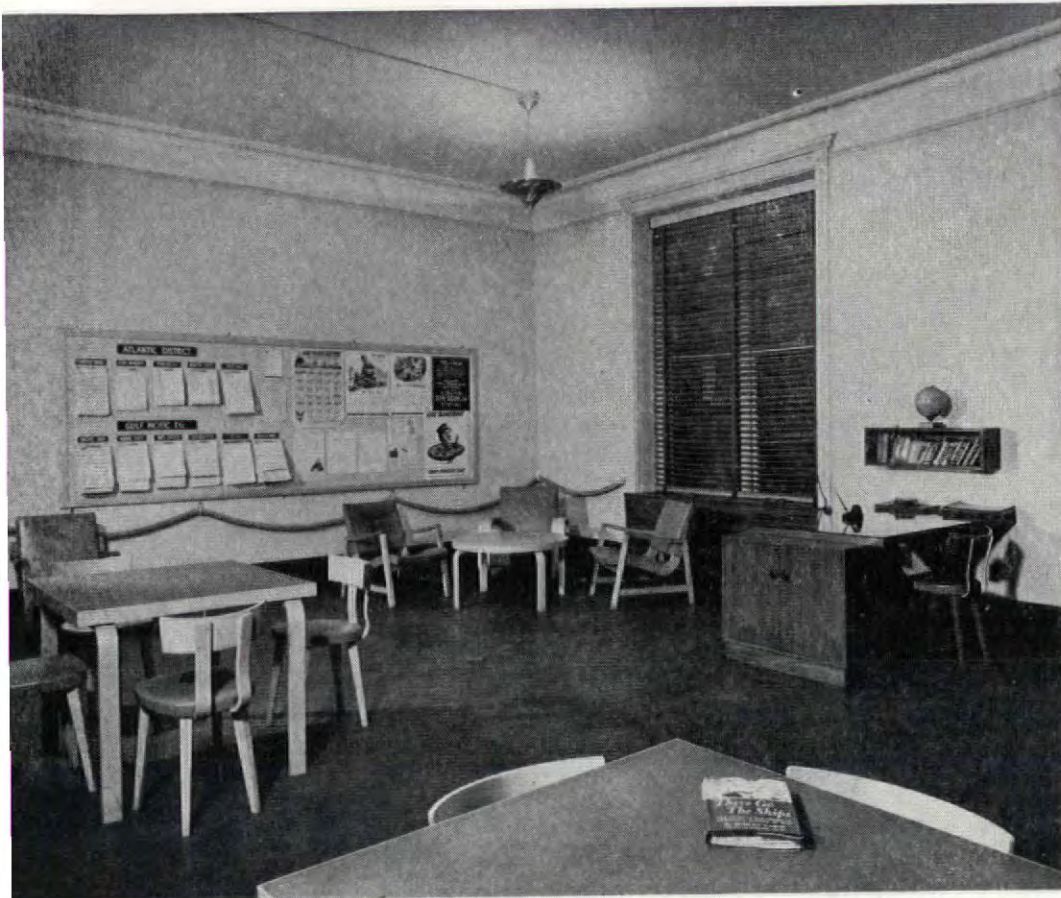


JULES KORCHIEN, Architect

GUILD BOOK CENTER FOR OFFICE WORKERS IS LAID OUT FOR ONE-MAN CONTROL

RADIO OPERATORS convert drab assembly room into comfortable lounge.

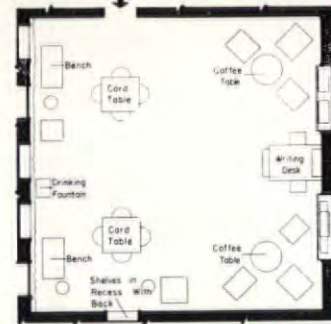
P. A. Dearborn, photos



COMMUNICATIONS WORKERS' REDECORATED LOUNGE IS BRIGHT, COMFORTABLE



BEFORE REMODELING ROOM WAS CHEERLESS

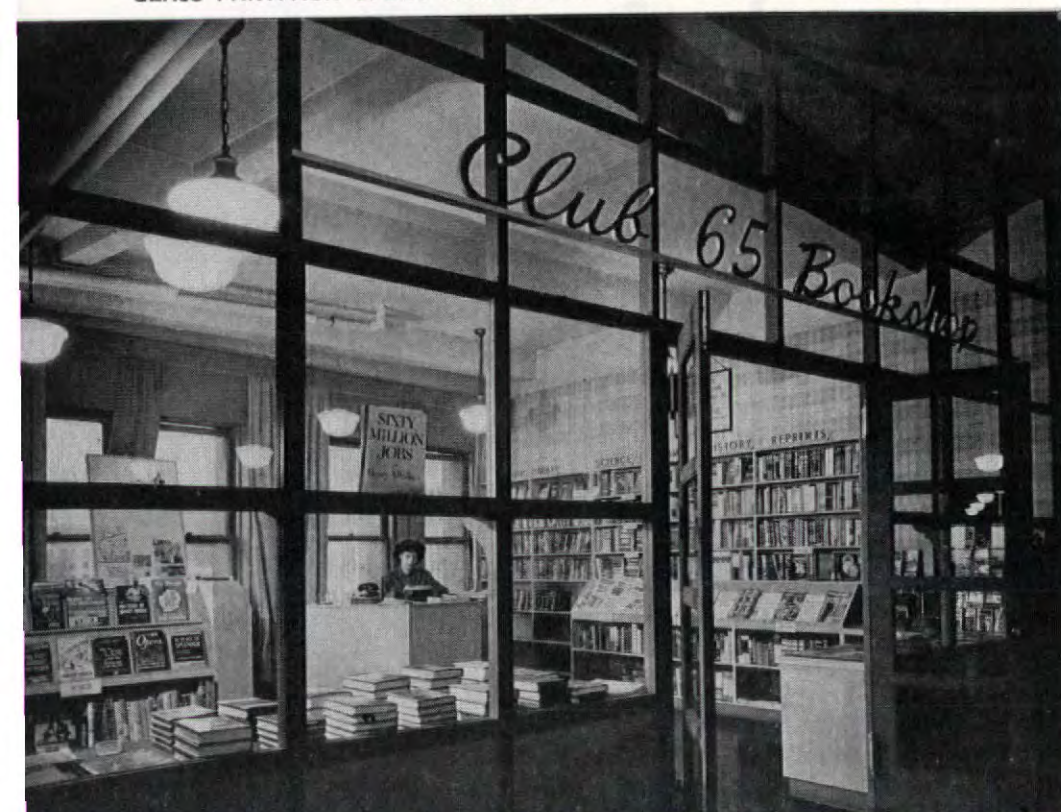


This room is a lounge where members of the New York City Marine Division of the American Communication Assn. may spend their time while awaiting telephone advice as to available new assignments. The architect's requirement was primarily one of redecoration. New construction was limited to built-in walnut furniture, the application of flame-proofed red and blue bands of burlap to one wall and the substitution of a 2 inch rope for the old chair rail. Furniture is of birch; chairs are covered with leather.

JULES KORCHIEN, Architect

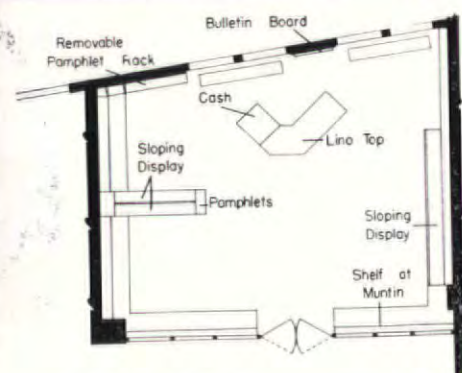
WAREHOUSE WORKERS expand educational facilities with an inside bookshop.

GLASS PARTITION OPENS WAREHOUSE UNION BOOKSHOP TO ASSEMBLY AREA



Named for Local No. 65 of the Warehouse Workers Union whose offices are located in the same building with those of several other unions, Club 65 Bookshop is entered from the building's assembly floor, is not accessible from the street. A large partition with pine framing and glazed doors opens the shop to the inside and permits it to be closed off and locked when not attended. Above the level of the door tops, the partition is comprised of an open frame painted green. Furniture is finished in limed oak; counter tops are yellow linoleum.

JULES KORCHIEN, Architect



Photos: P. A. Dearborn


ALWAYS *Right* ALL *Ways*

Ro-Way OVERHEAD-TYPE DOORS

DESIGNED *Right*

BUILT *Right*

PRICED *Right*



Ask the men who know—architects, builders, owners—what they think of Ro-Way Overhead Type Doors. They'll tell you, as they've told us in dozens of enthusiastic, unsolicited letters, that Ro-Way Doors are . . .

★ **DESIGNED *Right*.** The only doors designed to give you all 5 of these extra-quality features that insure extra-long, trouble-free service:

1. FRICTION-REDUCING TRACK
2. "DOUBLE-THICK-TREAD" BALL BEARING TRACK ROLLERS
3. "TAILOR-MADE" POWER SPRINGS
4. "CROW'S-FOOT" OUTER BEARING SUPPORT
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★ **BUILT *Right*.** From door panels to springs. Built right in Ro-Way's own plant. Built right—for rugged service.

★ **PRICED *Right*.** Ro-Way's efficient "production line" method of construction gives all these extra values without extra cost.

Dependable Ro-Way sales and installation service available all over America

SEE OUR CATALOG IN SWEET'S

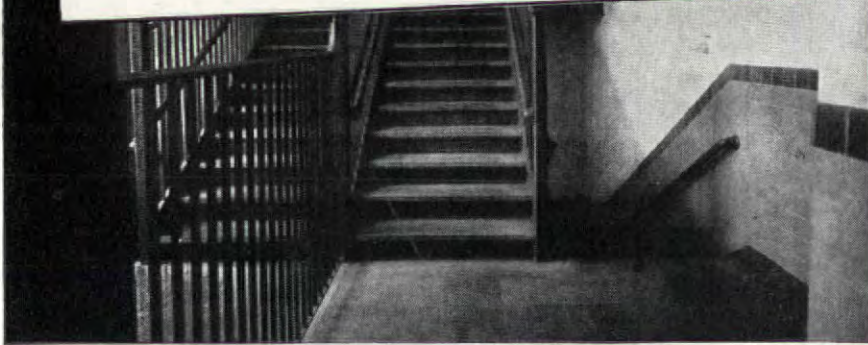
**THE MODERN DOOR
FOR THIS MODERN AGE**

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There's a Ro-Way for every Door way!

A SAFE FOOTING FOR HURRYING FEET...



Alberene Stone Treads and Landings, Woodrow Wilson High School, Washington, D. C., Nathan Wyeth, Architect.

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The regular grade Alberene Stone is equally popular for toilet and shower compartments. Tongue-and-groove interlocking construction produces liquid-tight joints. Its light, blue-gray color is harmonious and the stone is close-grained and practically non-absorbent and non-staining. For complete data and samples please address Alberene Stone Corporation of Virginia, 419 — 4th Ave., New York 16, N. Y. Quarries and Mills at Schuyler, Virginia. Sales Offices in principal cities.

ALBERENE STONE

THE NATURAL STONE OF DIVERSIFIED UTILITY

said Mr. Blandings savagely. But he said it to himself, for he no longer had anyone to talk to. He was being cheated, he was being bilked, he was being made a fool of, but he could not find the villain because everyone was a villain—his wife, Mr. Simms, the local bank, John Retch and his burly, ugly, insolent sons, Mr. Funkhauser, Mr. Appolonio, Ephemus Halleck, and the real-estate man—all, all had made him the butt and victim of a huge conspiracy, clever and cruel.

"There!" he heard Mrs. Blandings saying to Mr. Simms a fortnight later. "We've got Mr. Retch's figures down to \$26,991.17. That's more like it."

"What's more like *what*?" snarled Mr. Blandings.

"I think we've pared it down as far as it will go," said Mr. Simms tactfully. "It's more money than you started out to spend, but you're getting a fine house. Retch is an honest builder, and that's about what your house will cost you if you don't start getting into extras with him."

With one voice Mr. and Mrs. Blandings assured Mr. Simms that there would be *no* extras. Far, far off in outer space, the Gods of Residential Construction offered a chirruping laugh.

MR. Blandings' ego, scarred by forces too vast to identify, was powerfully restored a week later on his visit to the big, impressive savings bank in the industrial city of Seagate. Thither Mr. Blandings and his friend and attorney Bill Cole had gone to seek the mortgage that had come to naught with the local banks. In no more than an hour's conversation the bank agreed to advance Mr. Blandings \$18,000 at 5 per cent the loan to be amortized over twenty years, anticipation of repayments permitted. (That left plenty for Mr. Blandings to raise by other means, but he knew where he could hock the stock he held in his own company.) And, of course, it would be a construction loan; Mr. Blandings could have a wad of cash as soon as the bank's title attorneys completed their search on the old Halleck property.

This last puzzled Mr. Blandings but did not disturb him. "I thought we'd done that," he said to Bill Cole as they left the bank together. "What did I pay old Judge Quondam \$12 for when I bought the property from Halleck originally?"

Bill Cole explained that that had been a title search, a right. "It would have satisfied the local bank if you'd been able to do business with them," he said. "But Seagate-Proletarian has \$5 million out in mortgages in a hundred communities besides yours, and they have to have their own guarantees and satisfactions, naturally. It won't amount to much. Their title attorneys are Barratry, Lynch & Replevin; they soak you \$200 but it'll be worth it to have their stamp of approval. Mostly they'll just send a man up to check old Judge Quondam and his county records."

"Old Judge Quondam died last spring," said Mr. Blandings. "The whole town closed down the afternoon of his funeral."

"Oh," said Bill, and then, after a pause, "Well, he didn't take his records with him, I guess."

ON a crisp autumn morning the steam shovel arrived. Mr. and Mrs. Blandings, Mr. Simms, and John Retch himself were present for the ground breaking, and Mrs. Blandings was delighted with the rugged honesty and great good humor of Mr. Retch—"A rough diamond with a heart."

(Continued on page 13)

HISTORY'S GREATEST NEW-HOME MARKET IS OPEN



and here's why **KIMSUL***
INSULATION has an important
place in your building plans



Fits the Custom Built Picture

Whether you plan custom-built or prefabricated housing, you can provide a better, quicker insulation job by specifying KIMSUL. For KIMSUL is a scientifically designed, many-layer blanket, pre-stitched to a tough, water-proof cover . . . made to assure simple installation, permanent satisfaction. Delivered compressed to 1/5th its installed bulk, KIMSUL minimizes handling. Expanded on the job, it quickly provides thorough, positive insulation coverage of uniform density and thickness.

Check these points of KIMSUL superiority

1. *Efficient*: "K" factor—0.27. Average coefficient of sound absorption for Double Thick KIMSUL—0.67.
2. *Resistant to fire, moisture, fungus and vermin. Termite-proof.*



Fits the Prefabrication Picture

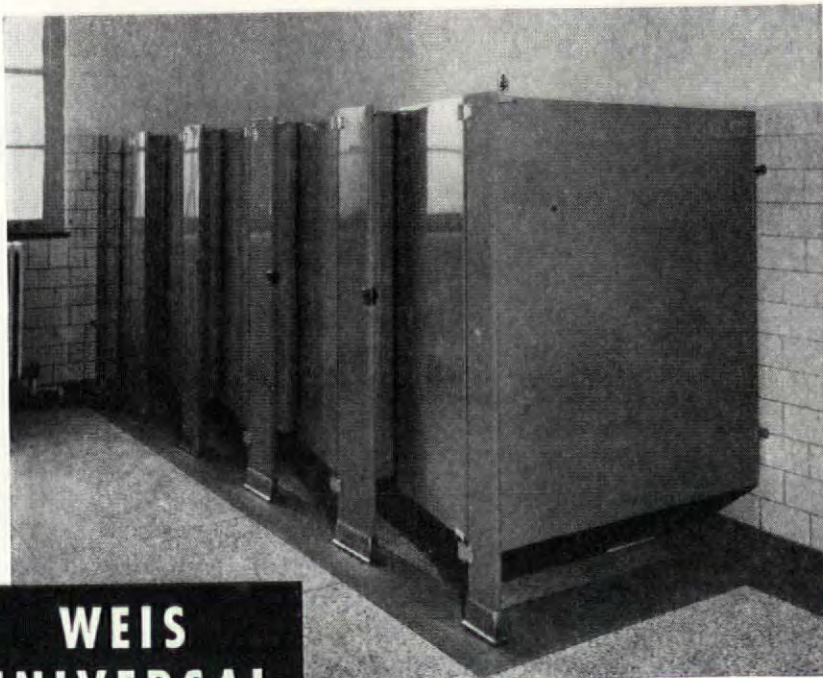
3. *Permanent insulation*—won't sag, shift or settle.
4. *Flexible*, easy to fit around pipes or obstructions. No waste—trimmed-off pieces may be used for caulking.
5. *Standard widths* to fit between joists, studs or rafters, and in giant widths for prefabrication. Three thicknesses: Commercial Thick (about 1/2"), Standard Thick (about 1") and Double Thick (about 2").
6. *Light in weight.*
7. *Clean, non-irritating, odorless.*
8. *Tops in quality and performance, low in cost.*

For complete technical data
on KIMSUL Insulation, refer to Sweet's 1946 Catalog or
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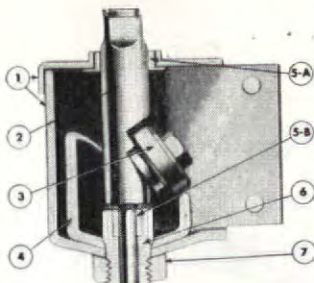
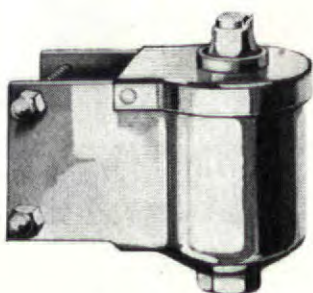
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WEIS UNIVERSAL HINGES

ELIMINATE SIDE THRUST AND WEAR



Doors of Weisart flush compartments swing dependably—year in, year out—on Weis Universal Gravity hinges. Examine the photographs at the left and you'll see the principle of construction which removes the cause of trouble, insuring lasting satisfactory service.

The ball bearing roller is so mounted on the pintle that in operation geometrical continuity of contact is maintained between the roller and its race; thus side thrusts and wear are eliminated. Ball bearing roller and race are of case hardened steel. These, with the pintle, are cadmium plated. All interior working parts are available in stainless steel, optional, at an extra charge.

Developed by Weis, this hinge is standard equipment on Weisart—the flush compartments which meet the highest standards of structural quality, sanitation and fine modern appearance. Write for details and specifications, without obligation.

1. Case
2. Pintle
3. Ball bearing roller assembly
4. Race or Cam

- 5a.-5b. Bronze oil-impregnated roller bushing
6. Adjusting connector
7. Adjusting nut

HENRY WEIS MANUFACTURING CO., INC.

502 WEISART BUILDING, ELKHART, INDIANA

gold," she said afterward. Mrs. Blandings was also happy that Mr. Blandings seemed himself again, as indeed he was. Any man who can raise \$18,000 in an hour's conversation with one of the biggest savings banks in the East has certainly no call to be so jumpy about finances as Mr. Blandings could now see, looking back on it all, he had permitted himself to become. The \$10,000-odd he would have to borrow on his company stock was just about the net of his burden—that was one way of looking at it. Everything else had been cash he would have spent on something else if it hadn't been for the house: something silly, probably, and certainly not with all the solid permanence of a home for his wife and children, forever. As for the mortgage, that was the bank's worry, not his; they were going to get 5 per cent for their worrying, and if they were satisfied, so was he. Interest would be \$900 the first year, but it would go down as he amortized his loan, and that was pretty piffling when you considered it as the rent on a twelve-room house . . .

"I wonder why the steam shovel isn't working," said Mrs. Blandings. It had been over an hour now since they had last heard its snortings come drifting down the hill.

"He's been at it five hours," said Mr. Blandings, speaking of the villianous-looking man who had turned out to be the excavating subcontractor. "Let's see what things look like."

Hand in hand, the Blandings', like happy children, climbed the hill—their hill, as Mrs. Blandings put it. On the summit Mr. Attilio Campobasso's steam shovel rested unevenly on its treads. From the south portion of the staked-out ground it had dug a hole, gratifyingly sharp, that went down six feet at the edges. Toward the north end the excavation was ragged and uneven, and while the shovel operator sat in his cab and smoked, three men with hand shovels were at work with the earth. The noise that came forth from their instruments was the same sort of noise you heard in the morning when a light fall of snow was being scraped from the city pavement. As they worked, Mr. and Mrs. Blandings could see growing the outlines of what appeared to be a mammoth, ossified whale.

"Looka that," said Mr. Campobasso, in disgusted elation.

"Boulder?" asked Mr. Blandings.

"Boulder!" said Campobasso, uttering an unmusical laugh. "Atsa no boulder. Atsa ledge. We go home now, come back next week, start blasting, keep on blasting plenty, yes sir. One thing you never got to worry your house settle any, sitting on granite, no sir."

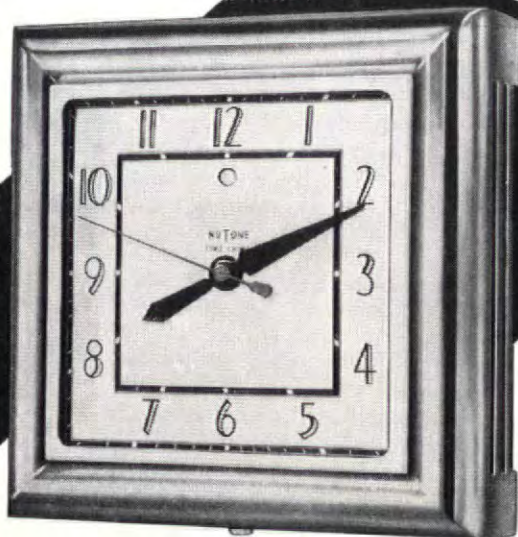
When he got back to his fireside, Mr. Blandings looked up Mr. Retch's estimates on excavation. The job was to be done for \$500 flat, except for the proviso, "If rock is encountered, removal by blasting at \$0.24 per cubic foot." It had not seemed much, but the nature of cubic equations had once before eluded Mr. Blandings. This time he put pencil to paper to discover that an excavation sixty feet long, twenty-eight feet wide, and six feet deep contains 10,080 cubic feet.

Mr. Blandings was just beginning to wonder what sizable fraction of this figure should be multiplied by \$0.24 when the phone rang. With a leaden hand Mr. Blandings placed the receiver at an ear that did not wish to hear. Bill Cole's voice greeted him with what Mr. Blandings instantly knew to be false cheer.

"I don't want you to fly off the handle, Jim," Bill's voice said, "but there's a little hitch."

"What kind of hitch?" Mr. Blandings heard himself ask.

(Continued on page 134)



The TIME-CHIME

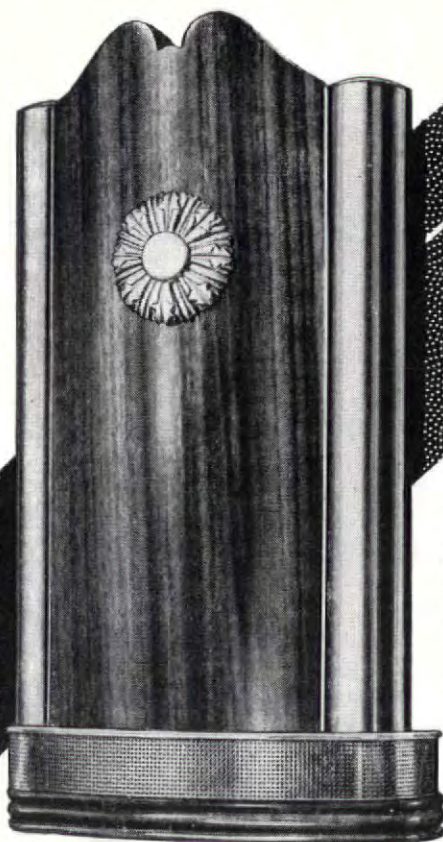
Combination *Telechron* electric kitchen clock and 2-door NuTone Chime. 9-inch-square, all-chrome cover. List (approx.) \$12.95.



The JEWEL

Magnificent all-brass Colonial chime—with a touch of the modern. Two tones, front door—one tone, rear. 7 inches wide, 9 inches high. With matching push button, (approx.) \$8.95, list.

It pays to specify the
door chimes most people want



The SYMPHONIC

New! The *only* compact (14 3/4 inches high) *eight-tone* Westminster door chime! Unequalled in beauty and tone... never approached in price, (approx.) \$24.95, list.

Easier to recommend. You never need "sell" NuTone Chimes to your clients. They are *preferred*—a preference that has made NuTone the world's largest maker of door chimes.

A complete line. NuTone offers a wide range of models to suit every need and purse. From compact kitchen chimes listing at \$3.50 to luxuriant hall-clock, door-chime combinations at \$49.95.

Easier to work with. You can choose from a variety of styles that match any type of interior construction and finish—from sleek ultra-modern to classic period designs.

More dependable. You avoid embarrassing failures. NuTone Chimes are precision built... with dust-protected, lifetime working parts and durable plastic, brass, and steel exteriors.

Easy to install. Even easier if you provide for chime wiring during construction. A *removable* power unit on most NuTone models makes servicing a cinch.

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USE WOLMANIZED LUMBER*

Why? Because this lumber, impregnated with Wolman Salts* preservative by pressure treatment, will give you more years of service in places where rot-producing moisture is present.

It is recommended for use in structures exposed to:

- 1 Moisture in artificially humidified buildings.
- 2 Steam and vapor from industrial processes.
- 3 Condensed water vapor in walls, floors and ceilings of refrigerated buildings.
- 4 Soil moisture and rainwater, held in joints, etc., of outdoor structures.
- 5 Moisture condensed by concrete or masonry.

When you buy treated lumber, remember to specify **pressure-treated** . . . it's the only dependable kind!

**AMERICAN LUMBER
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TREATING COMPANY**

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WOLMANIZING

FLAMEPROOFING

CREOSOTING

1647 McCORMICK BUILDING, CHICAGO 4, ILLINOIS

"I've just been talking to Barratry, Lynch's man, Joe Pugh, who's doing your legal job for the bank," said Bill Cole, becoming almost aggressively hearty.

"And so what?" said Mr. Blandings.

"There's a flaw in the title," said Mr. Blandings' attorney.

EXCERPTS FROM MRS. BLANDINGS' DIARY:

October 7

Jim's cold not any better. He has spent a miserable three days in bed, with more hot toddies than I think warranted. Mr. Campobasso's blasting foreman wanted to know if we had liability insurance: a sharp piece of rock apparently fell on one of old Mr. Lange's chickens half a mile down the road, and he was very nasty about it. Blasting probably to go on another two weeks, at least. Mr. C.'s foreman says the way the ledge is tilted (right?) almost straight up makes it impossible to get rock out even with picks and shovels even after the blast has gone off. Nervous headache.



Liability
Insurance?

October 10

I don't understand trouble over the title, and I don't think Bill Cole does either. The title lawyers say they have nothing to show them that Mr. Halleck was entitled to act as the administrator of his father's estate, from which it seems was bought, not from Mr. Halleck himself. Mr. Dolliver at First National Bank was gleeful when he bumped into me this morning, said anybody but a dumb city bank would know that of course Ephesus was his father's administrator, and has always "been so accepted" since the old man died in 1922. It would all never have happened if we'd done business with him, he said. Blatherskite! The law firm wants Mr. Halleck to post a \$10,000 bond to guarantee his "performance as administrator," before we get our loan, but he won't. He doesn't speak to us any more when we meet him, I don't know why.

October 22

Mr. Retch asked for some money today, and I guess he's entitled to it. He got Campobasso to compromise his blasting bill at a flat \$1,900! A nasty man, if I ever saw one. Jim put up most of his Amalgamated stock to borrow \$15,000 to tide us over until the bank loan comes through. We have to get something called a "waiver of lien" from every one of Mr. Retch's subcontractors before the bank gives us a penny, and there must be at least twenty of them! The subcontractors have to promise the bank they won't sue us if we don't pay their bills. Silly! Why shouldn't they?

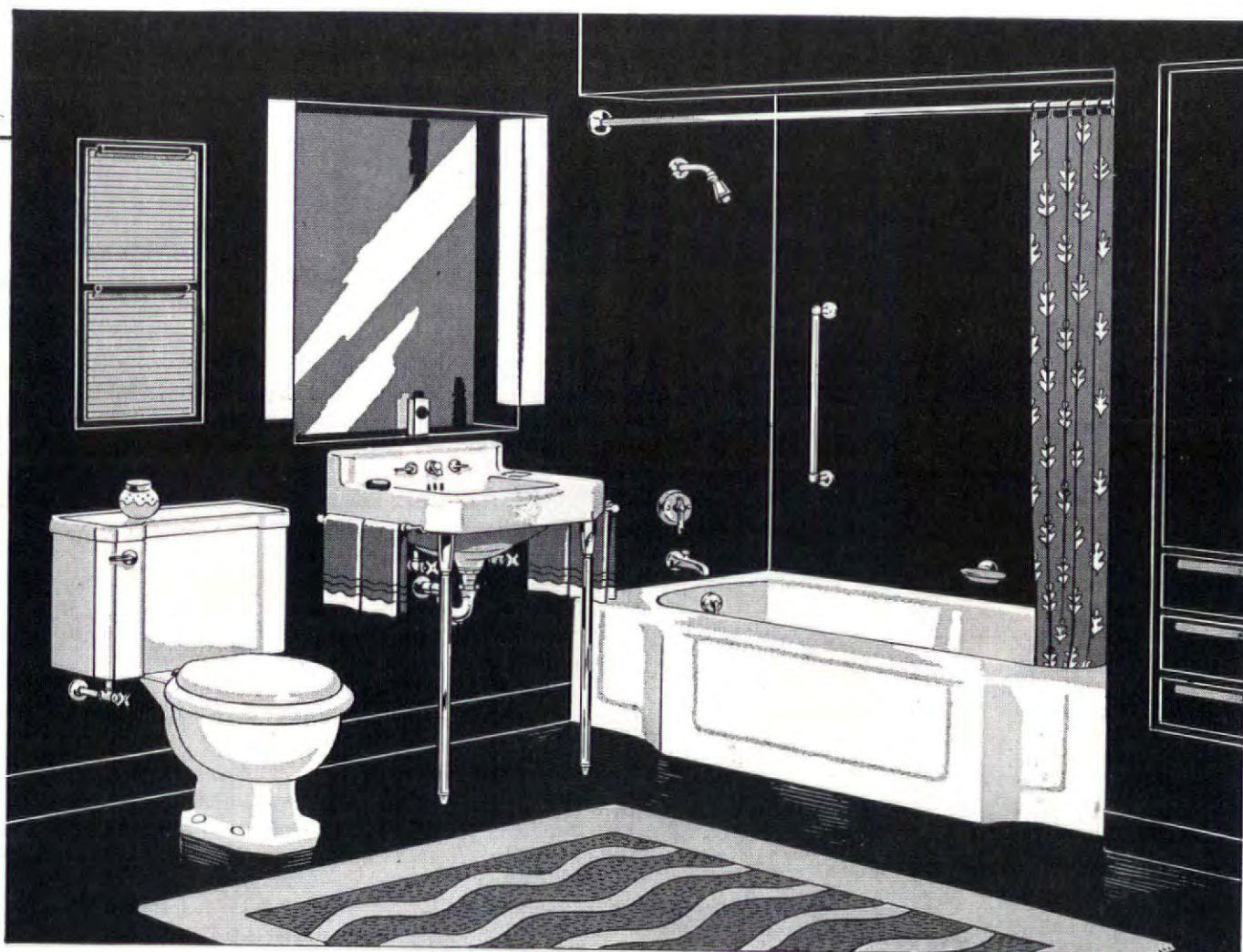
November 4

It would freeze in November so hard the concrete men can't pour any forms for the cellar walls! No work on the house the last eight days at all, but a man came around and wanted to sell us a tennis court this afternoon. There were also three tree salesmen on the premises. I didn't know trees had salesmen.

November 9

The men started pouring concrete for the cellar walls today, but when Mr. Simms saw what they were doing he stopped them and tried to get Mr. Retch on the phone. T

(Continued on page 1)



Reproduced from the Kohler Exhibit at the National Builders Exposition

A satisfaction to home-owners...

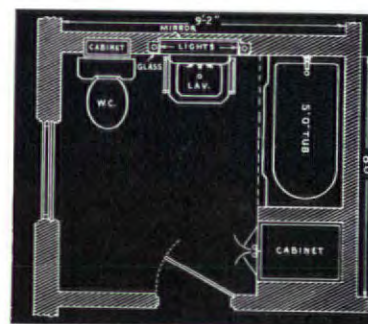
KOHLER quality in the bathroom

HOME-OWNERS are aware of the importance of excellence in their plumbing facilities—as a sanitary safeguard and a sound investment. The recognized quality of Kohler fixtures and fittings inspires their confidence. Kohler quality includes the beauty of clean-cut lines and proportions; the reliability of strong, precision-made working parts; and the lasting serviceability assured by fine workmanship and materials. Kohler plumbing is a satisfaction to those who buy or rent, as well as those who build or remodel.

The arrangement shown above in-

cludes the Cosmopolitan Bench Bath made of rigid, durable enameled cast iron, with the Triton shower mixer; the Hampton enameled cast iron shelf lavatory with built-in fittings; and the close-coupled Wellworth closet, with smooth quiet action.

The high quality which the name Kohler has signified for 73 years is safeguarded by the unity of supervision which is made possible by concentrating Kohler production in one great plant. Write for whatever information you need on Kohler products now available. Kohler Co., Dept. 5-AF, Kohler, Wisconsin. Established 1873.

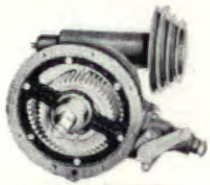
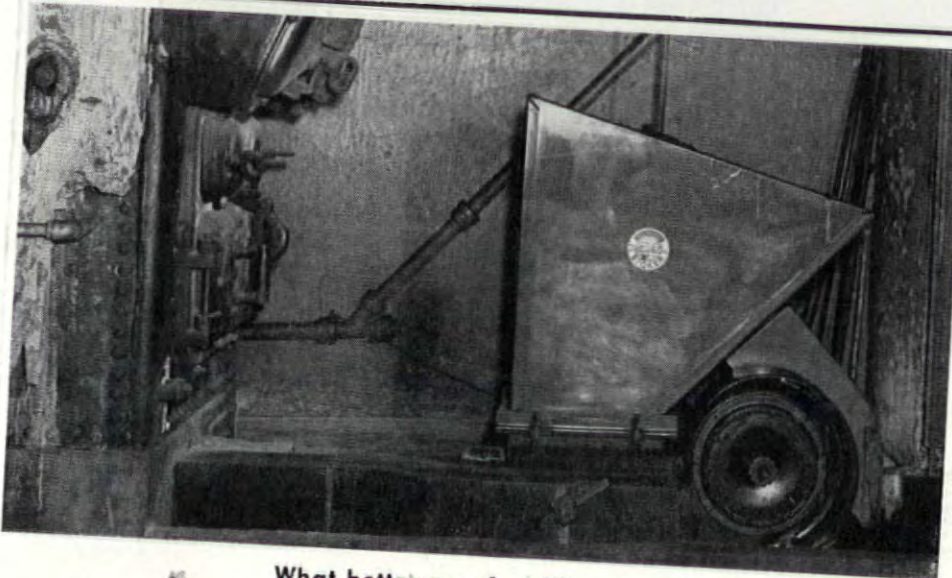


FLOOR PLAN for the bathroom illustrated above—showing an arrangement of Kohler fixtures that combines economical spacing, freedom of movement, and roomy, easily accessible storage facilities.

KOHLER OF KOHLER

PLUMBING FIXTURES AND FITTINGS • HEATING EQUIPMENT • ELECTRIC PLANTS

THIS WINKLER PAYS 42% ON THE INVESTMENT



The famous Winkler fully automatic "Inter-Plan" Drive typifies the advanced engineering and rugged construction of the entire stoker.



What better proof of Winkler Stoker economy and dependability could be offered than the following letter from an actual user:

"The Model 20 Winkler Stoker installed in 1943 has almost paid for itself in the first two years of operation. Our records show that this stoker is saving one ton of coal every 8 days. This means a yearly saving of 45 tons of coal. At current prices this represents a return of around \$365.00 per year, or a return of 42% on our investment in the stoker. "Naturally such a record is extremely gratifying to us and it is evident that the unusually efficient operation of the Winkler is responsible for this fine showing. We were very much surprised that the stoker would make this saving possible inasmuch as it replaced another make of stoker. "We have not had a bit of trouble with the Winkler and this is certainly a relief after our troubles with the other unit. Sheared pins and transmission breakdowns no longer hamper our work. We have the highest regard for your stoker and for the excellent installation work."

Sincerely yours, Aug. H. Berling (signed)

This is but one of many letters in our files which show that Winkler Stokers are making similar economy and performance records in buildings of every character, whether residential, commercial, institutional or industrial.

SEE THIS EXTRA POWER DEMONSTRATION

When you see a 2x4 chewed into fragments by the Winkler feed screw, you'll know why a Winkler can't be stopped by ordinary obstructions in the coal. This extra power comes from a fully automatic Transmission of exclusive design, which develops a smooth, continuous flow of extraordinary energy. Full protection against extreme overload is given by the Automatic Safety Release—there is no shear pin in a Winkler!



Send today for this descriptive booklet

WINKLER

fully automatic STOKERS

U. S. MACHINE CORPORATION, Dept. P-13, Lebanon, Indiana

were putting hardly any cement in with the sand and gravel at all—a fine situation! Suppose Mr. Simms hadn't just happened to come around. Mr. Retch was in Maryland on another job. A load of shingles came today but they're not the right kind. We won't need any shingles until spring, anyway at this rate, if then.

November 15

What are we going to do with all the rock that Campobasso man excavated for the cellar? Nobody will take any responsibility for it; even Mr. Simms just shrugs his shoulders and changes the subject. But there it is, a mountain of it, right in front of where the front door is supposed to be. I insist it be carted away. Mr. Retch says there is nothing about it in the contract, and I must say I couldn't find anything myself.

November 20

The woodwork is going up! I guess that's the wrong word for it, but there are a lot of square poles sticking up in the air from the concrete, and I never heard so much sawing and hammering. There must have been ten men working all around everything today.

November 25

I'm just sick about the whole house! The framing (right word!) is finished for the wing and it is all miles too high! I thought we were getting a sweet modest house that hugged the hills close in its arms, and here instead is something that looks like a skyscraper! It just goes up and up. Mr. Simms was very short when I telephoned him about it and ended up by suggesting that I "take a pill or something." I just know that somebody is making a terrible mistake. Jim very sullen

November 27

Glory be! Bill Cole says the bank and its lawyers are ready for "the closing." This means now we get our money at last. All Jim has to do is give the law firm \$500 "in escrow" in case anything should go wrong with those wretched "waivers of lien" from those filthy subcontractors. Jim turned purple at the idea of giving Barratry, Lynch another \$500, but he wrote out a check just the same. Five toilets arrived today and they're lying all around the field. It looks unspeakably vulgar!

November 28

I must admit I was wrong about the wing framing being too high. Now that all the framing is up, it all looks very nice. Mr. Retch was a changed man today, after he got a check. He swears he will get the house "closed in" before the snow flies, and that everything is going to go "like clockwork" from now on.

November 29

The men nailed a little tree to the top of the roof this noon. Then they knocked off and came down to our cottage and stood around until one of them hinted that when the evergreen went up on the ridgepole, it was up to the owner to stand round of drinks for all the workmen. Jim didn't seem to think much of this idea at first, but it's remarkable how well he fell in with it after the first twenty minutes. To bed very late.

THE winter was slowly closing in on Bald Mountain. The house as it stood now reminded Mr. Blandings of a flayed elephant: the brick veneer ended in different courses at different places; above it, the diagonal sheathing of yellow pine crusty with resin and punctured with knotholes, rose to the eaves. The roof was a wavy expanse of tar paper, dotted with

(Continued on page 13)

ARCHITECT:
FRED VAN WAGENINGEN
NEW YORK, N. Y.

Take this one sensible step to give your home a Bonus Basement



Now is the time—before you build or remodel your home—to decide on the kind of basement recreation room you want. And if you want that room furnished and paid for on mighty attractive terms, the sensible thing to do is to plan on heating your home with Bituminous Coal. Then you'll get a "Bonus Basement"—paid for in just a few years' time out of the savings that come from using this most economical, most dependable of all home-heating fuels.

What's more, the heating supplied by Bituminous Coal is steady—uniform—

healthful. And, when you install a modern stoker, coal becomes an "automatic" fuel—even to the point of ash removal. Clean, quiet, odorless, smokeless. That's one reason why more than 4 out of every 7 homes in the United States heat with coal.

Get your "Bonus Basement" on this bargain basis. And, to get help in planning it, take advantage of the special offer at the right. Then talk it over with your architect or builder.

BITUMINOUS COAL INSTITUTE
60 East 42nd Street, New York 17, N. Y.

SPECIAL OFFER! The "Bonus Basement" shown above was modeled from one of 20 architects' plans for an ideal basement of a modest home. All 20 designs—showing basement and upper floor plans—have been reproduced in a helpful and informative book. While the edition lasts, we will send you a copy for only 10¢ postpaid. Mail your request to the address printed below.

A WORD TO THE WISE! Most houses are now designed to permit the use of Bituminous Coal. Be sure *you* can have the advantages of this low-cost, dependable fuel in your new home. A little care in planning for coal storage and a chimney flue of adequate size for Bituminous Coal will assure that you can enjoy the health, comfort and dependability that only modern coal heat can give you. And it will also assure you of *economical* heating for the life of your house, because this country's 3,000-year coal supply makes certain that shrinking reserves will not force coal prices upward.

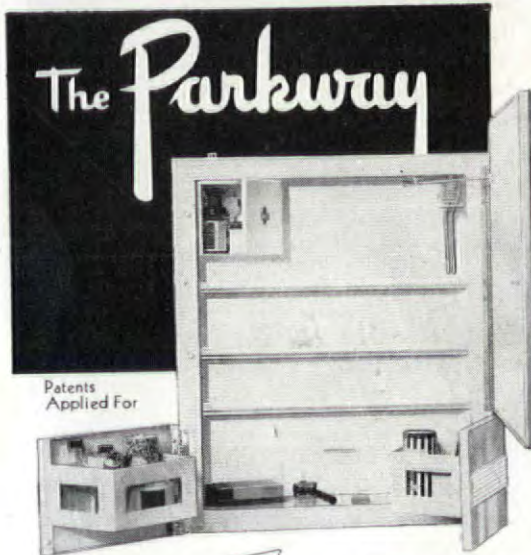
FOR ECONOMY, DEPENDABILITY, AND HEALTHFUL HEAT... YOU CAN'T BEAT BITUMINOUS COAL

(This is one of a series of advertisements now appearing in home-makers' magazines)



**A Smart Line
to Suit Every
Taste and Purse**

Bathroom Cabinets



Specify Faries Cabinets in the new homes you design or build this year, and be sure of customer satisfaction. Their sparkling beauty, modern design and unusual new special features appeal to all prospective home-owners.

The PARKWAY has more new and exclusive features than any other cabinet. There are two Personal Compartments for everyday needs; a "Safe-T" Compartment at top for poison drugs and adult items; Utility Shelf; Adjustable Tooth Brush Holder inside cabinet; Razor Blade Disposal; adjustable glass shelves; piano hinges; No. 1 Polished Plate Mirror.

COMING...
A complete new line
of chrome bathroom
accessories.



No. 1 For the budget buyer. Beautiful mirror and finish. High quality.

Heavy plate mirror. Incandescent light. Beautifully trimmed.

No. 80

No. 2 Moderately priced, well-made, long life mirror.

Heavy plate mirror. Chrome metal bound. Durable finish.

No. 30

No. 380 New fluorescent lights. Ready to install. Heavy plate mirror.

Popular priced yet has many features of higher priced models.

No. 8

All cabinets white baked-enamel finish, chrome trimmed.

WRITE FOR
COMPLETE DESCRIPTION
AND PRICES

Faries Manufacturing Company
DECATUR, ILLINOIS

shiny metal disks. The house's appearance was the nakedness of muscle, stripped of skin and fat.

Mr. Blandings did not like the looks of the sheathing lumber; he felt that he could either speak of it and make a fool of himself or stay silent and be bilked. He chose the latter course, not as the least painful but merely as the least conspicuous. He was dismayed by the ragged lopsidedness of the holes where some day windows were supposed to be. But the worst thing, the thing so bad that neither Mr. nor Mrs. Blandings dared speak of such a matter as blame, was the microscopic size of the rooms—of the spaces, that is, where studding indicated some sort of partition in the future. There were five times as many spaces as the Blandings' could in any way account for, but even the largest, in the Blandings' eyes, was a cubicle. "Is this the living room?" Mrs. Blandings had wailed from amidst a rectangular grove of two-by-fours. Mr. Blandings merely sat down on a nail keg and stared through a hole in the wall. He no longer had enough energy to appear dejected. "I guess so," he said. "Mr. Simms says a room always looks like this before the partitions go up and the furniture goes in."

"Where would we have space for any furniture?" sobbed Mrs. Blandings.

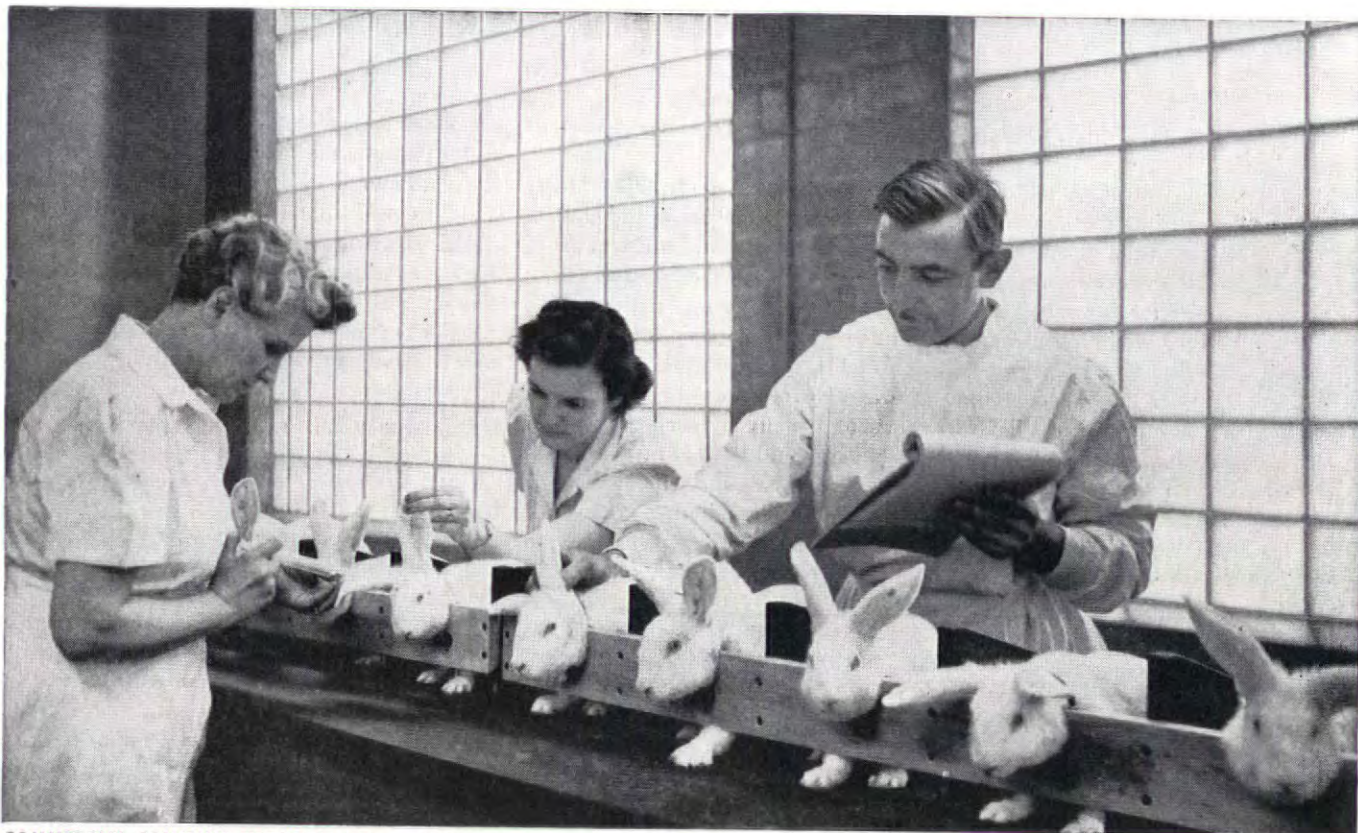
"Where would we have money for any furniture?" asked Mr. Blandings.

ALL work on the house had now come to a stop. The window casements had not come.

The truck had left the factory and would be on the site tomorrow. No, the truck had not left, but that was immaterial: the windows had been shipped by freight, and the car must have been lost by some negligent waybill clerk. No, the windows would be shipped by truck when they were ready, which would not be for another three weeks. No, the windows must be there and mislaid by the contractor. No, an order for the windows had never been received, but "we would give you valued custom promptest attention should we be so favored."

Mr. Blandings actually felt a sense of triumph when, after a while, roughly half of the windows arrived and the truckmen dumped them in a disorderly pile in the roadway. Several days later two window installers arrived, very drunk, looked at the windows, and roamed away again, never to return. Mr. Blandings ventured to inquire of Mr. Retch why some work could not go forward, even in the absence of the remaining windows or any crew to install them. This inquiry struck Mr. Retch as in the most flagrant bad taste. Mr. Retch was himself in a pet. The window company, as the price of signing its waiver of lien, had stuck Mr. Retch for cash on the barrel head and was now letting him whistle. In coarse tones he explained to Mr. Blandings that (a) the mason subcontractor was stalled since he could not complete his brick course around the missing frames, all of which were for the first floor; (b) the heating subcontractor could make no further progress until the house was closed in; (c) the tiler hired for the bathrooms could affix no tile; (d) not even the subfloor could be laid when the house was still open to rain and snow; (e) it was manifest that plastering could never be started until spring, if at all, and (f) the electrical subcontractor workmen refused to run any more BX cable around wet joists and columns. He ended by confidently predicting that the whole house would shortly burn down from one of the half-dozen temporary oilstoves the workmen insisted on using to keep their hands warm enough to hold a hammer, and who would fault would the whole blinking business be then?

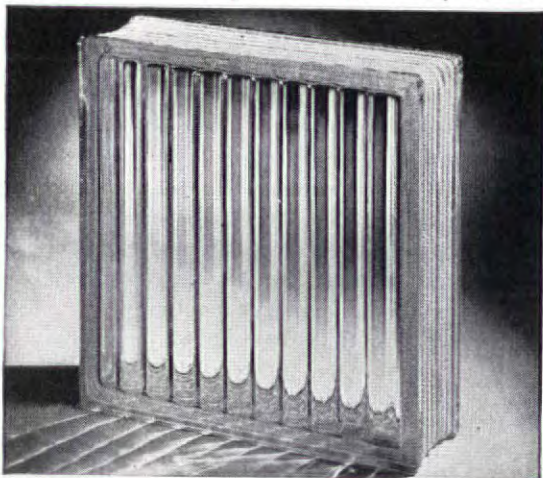
(Continued on page 14)



COMMERCIAL SOLVENTS CORPORATION, penicillin plant, Terre Haute, Indiana. Diffused natural daylight floods areas where laboratory workers conduct experiments with white rabbits. Insulux has high insulating properties which reduce cost of air conditioning and heating.



SPERRY GYROSCOPE COMPANY, precision manufacturing, Long Island, New York. Insulux panels bring light to stairways and other dark corners in factories or homes. Insulux transmits and diffuses light better than ordinary windows.



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

Controlled Daylight ... and more ... with Insulux

ARCHITECTS are making increased use of Insulux Glass Block because it is a functional building material with unique characteristics and because it adds to the appearance of most buildings.

Panels of Insulux transmit and diffuse natural daylight better than ordinary windows. Besides *controlling* light they seal out dirt and dust—insure privacy. High insulating value reduces the cost of heating and air conditioning.

Insulux resists vapor and fumes—painting is not required. It is easy to clean and keep clean.

In laboratories, factories, public buildings, stores, theaters, offices and homes if there is a problem in light control there is usually a spot for the advantageous use of Insulux Glass Block.

Investigate the almost unlimited architectural possibilities of this modern building material.

5 REASONS WHY

- 1 **SAVE FUEL**—Better insulation means less fuel loss.
- 2 **SAVE UPKEEP CHARGES**—Easy to clean—and to keep clean. No painting required.
- 3 **SAVE MAN HOURS**—Better light control insures better working conditions.
- 4 **SAVE SPOILAGE LOSSES**—No infiltration of dust or dirt.
- 5 **SAVE REPLACEMENT COSTS**—Panels of Insulux do not rot, rust or corrode.

OWENS - ILLINOIS

INSULUX

GLASS BLOCK

For technical data, specifications, and installation details, see our section in Sweet's Architectural Catalog, or write: Dept. C-17, Owens-Illinois Glass Co., Toledo 1, Ohio.

MR. BLANDINGS' CASTLE

Suddenly, enough windows arrived to build a biscuit factory.

Out of an infinite variety of rectangular steel shapes Mr. Retch selected those frames that seemed to accord roughly with the dimensions on Mr. Simms's plans, and sought to get the window company to send back a crew of window installers, preferably sober enough to put the windows into the sheathing holes right side up. The window company called Mr. Blandings to say that his contractor had been grossly abusive over the telephone, that in twenty years' experience they had never been treated with such inhumanity by such a tin-pot contractor, and that Mr. Blandings would be held responsible for the fact that the contractor had given the window company a bad check for \$1,407.56. When Mr. Blandings relayed this intelligence to Mr. Retch, Mr. Retch produced a canceled check to the order of the window company and told Mr.

Blandings that in thirty years' experience in the construction trades this was the first time an owner had ever accused him of fraud, and if he'd like to take his glasses off they could settle it outside, and if Mr. Retch lost he would build the rest of Mr. Blandings' house at his own expense. Mrs. Blandings' diary for the year ended with a notation, dated December 27, that she was taking the children to Sarasota for the winter, and did not mention the house at all. Of Mr. Blandings she merely recorded that he was "better."

LETTER FROM MR. J. H. BLANDINGS TO MR. JOHN RETCH

February 5

Dear Retch:

It is some time since my wife or I have visited the house and I can only hope that the work is progressing as fast as the receipt of money requisitions from you seems to indicate. We will hope to see things again as soon as the weather moderates.

Meanwhile, I am considerably disturbed by the number of "extras" that are accumulating on your bills. So far as my wife and I are aware, we have authorized only two changes from the original plans: the depth of the reveal at the front door was altered by Mr. Simms with our approval, and we also authorized relocation and redesign of the concrete cellar steps after Mrs. Blandings fell down them. Except for these items which seem to total \$577.60, God knows why, I am at a loss to understand the multitude of other matters being billed to me, or in most cases what the items specified refer to at all. I herewith quote and comment on the following from your latest requisition:



"Redesign of doors No. 102, 107, 108, 112... \$120.00"

(Mr. Simms tells me that there was no redesign on any doors on the job whatsoever.)

"New installation of well casing \$96.50"

(If, according to your own explanation, the well casing installed by Mr. John Tesavis on his contract with me was cracked by the blasting done by your excavating subcontractor, I fail to see why I should bear replacement cost.)

"Substitution of 220-volt main switch panel in cellar. \$139.89"

(What is the meaning of this? It is the eighth major extra so far on the electrical subcontract. Why was a 220-volt switch panel "substituted" for something else?)

"Furring down ceiling for kitchen cabinets..... \$102.00"

(Insofar as I understand this charge, I consider it outrageous. You must have known the dimensions of the kitchen cabinets from the beginning; if you did not, then either you or Mr. Simms appear guilty of negligence. But you bill me just the same.)

"Mortising five butts..... \$16.00"

(This refers to something I do not understand and the charge is small—but apparently whenever a carpenter picks up an extra chisel it costs me extra money.)

"Furnishing and installing one Zuz-Zuz Water Soft-N-R \$365.00"

(Continued on page 14)



Monarch is the name to remember when you specify weatherstrips. With Monarch, you eliminate "Cold Zones" around windows and doors ... make sure of even temperatures, less soot, less dirt and lower fuel costs. With Monarch, windows and doors operate easily. Write for information about Monarch's latest designs, types, materials.



MONARCH
METAL WEATHERSTRIP CORP.

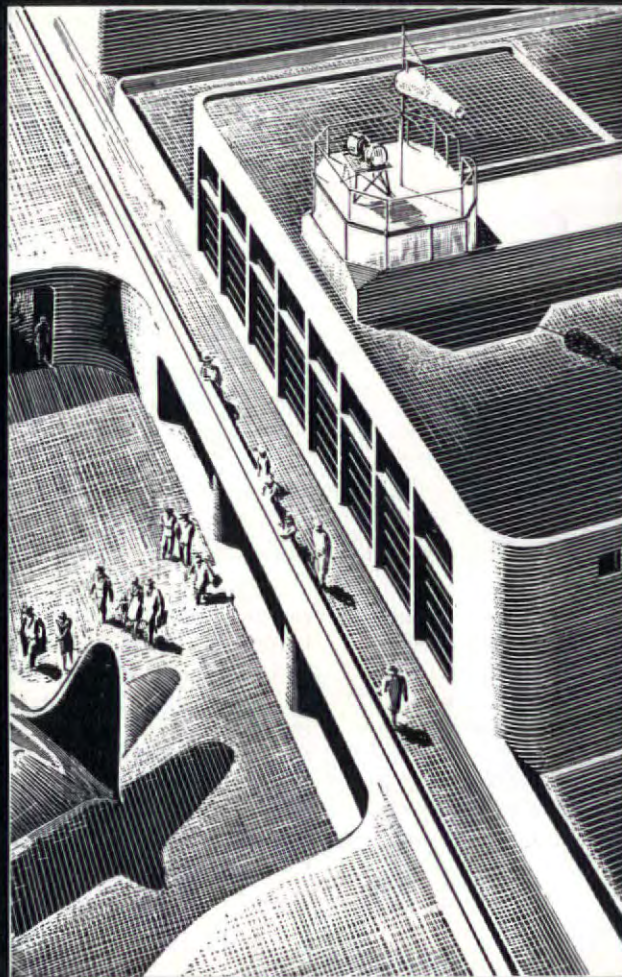
6331 Etzel Avenue

St. Louis 14, Mo.

The Perfect Team

FOR MODERN CONSTRUCTION

CONCRETE REINFORCED
with
CF&I WELDED WIRE FABRIC



The Colorado Fuel and Iron Corporation

General Offices: Denver, Colorado

Steel Works: Pueblo, Colorado

MR. BLANDINGS' CASTLE

(I will not have any such piece of equipment in my house. Who authorized it? I will not pay this charge, nor any subsequent extra for "Removal of Zuz-Zuz Water Soft-N-R.")

"Time and overtime relocating oil burner. \$215.00"

(The oil burner was never relocated; it is supposed to be where it is marked on the plans. If your heating contractor thought it would be a good idea to relocate it in the living room, I have no doubt I will have to endure it there, but the cost of this change should be borne by whomever it gave pleasure to make it.)

All this totals to \$1,040.57—a not inconsiderable expenditure. I shall expect to hear from you directly.

FROM MR. JOHN RETCH TO MR. J. H. BLANDINGS:

"... only time in our experience when an owner has taken any such position. We have passed up many extra items with-

out bill, because we have wanted you to be satisfied all along the line. Pardon our suggestion that you and Mrs. Blandings ought to get together, but furring of kitchen ceiling was discussed with her and she said cabinets must fit exactly 'at all costs.' We could have left in the smaller electrical switch panel specified by the architect against advice of electrician and leave resulting fire hazard up to you, but preferred to take the honest course and bill you in the open. The Zuz-Zuz people make a fine water softener, and we were looking out for your interests in not letting the unusually corrosive water from your well ruin your fine boilers and water lines. We discussed this with Mr. Simms when we could not get ahold of you and he said he would explain, which it appears he has not. As to the oil burner..."

FROM MR. J. H. BLANDINGS TO MR. JOHN RETCH:

"... and I enclose a check for \$1,040.57 but will positively not be responsible for any further..."

Still
looking
at the
water
in this
light?



Too many builders of "modern" structures overlook the quality of the water supply. Yet hard water is as old-fashioned today—for homes, hospitals, industrial plants—as the kerosene lamp and as unnecessary.

With Permutit* Water Conditioning equipment you provide soft water from every faucet. And better operation of all water-using home appliances!

Investigate the quality of the water before you build on the property. If, as is likely, it's hard, then you'll want to include Permutit Water Conditioning in the building plans. For full particulars on Permutit equipment for home and industry, write to Dept. AF-5, Permutit Company, 330 West 42nd Street, New York 18, N. Y. or Permutit Co. of Canada, Ltd., Montreal.

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

FOR MORE THAN
30 YEARS

It's good business to begin
with Good Water

PERMUTIT

WATER CONDITIONING HEADQUARTERS



WHEN Mr. and Mrs. Blandings resumed their visits to Bald Mountain it was in the flowering Spring. They saw the house; and a cry escaped them. It was a cry of joy. There it stood in its gleaming whiteness, more lovely than the fairest drawings that ever Mr. Simms had drawn. The house seemed to wait them as a girl would wait with downcast eyes for her lover's first shy kiss.

The entrance to the citadel was not accomplished with ease; the house appeared, on closer examination, to be more like a full-rigged ship floating placidly on a sea of mud where the new grading had been liquefied by the warm rains. But once across this ten-foot moat, the Blandings' removed their ruined shoes and stood with reverence upon their gleaming oaken floors...

Of course, there were little misfortunes here and there. The fireplace molding was nothing like what Mrs. Blandings had had in her mind's eye all along, from somewhere. The elaborate and "very advanced" fluorescent lighting in the dining room was later discovered to turn a healthy roast of beef into a purple mass of putrescence on the dining table and the hum of the ballasts hidden in the lighting cove was so distracting to conversation that the whole installation was eventually removed and replaced by the more conventional type of lamp invented by Thomas Alva Edison in 1879. "We have never recommended fluorescent equipment for rooms of low noise-level," the Nadir Electric Supply Co. wrote tartly in answer to Mr. Blandings' protest. For the thousandth time Mr. Blandings moaned his refrain: "Why didn't anybody tell me?"

One major boner by the otherwise flawless Mr. Simms was also upsetting: in changing the location of the electric hot water heater on the plans one hot summer night he had relocated the waterlines but forgotten to specify electrical connections to the new position, and neither owner, architect, builder, plumber, electrical subcontractor, nor any other mortal soul, had discovered the oversight until the day the Blandings' moved in and turned on their first tap. Most of the cellar wiring had to be ripped out to permit the new stretch of heavy power cable to run from the main busses to the heater, and Mr. Simms had insisted on paying the \$27 for this item himself. There was, too, the window hardware which would not work, and one bathroom floor to which the linoleum would not adhere even under Gestapo-like methods of attack. All the doors stuck except those that would not latch at all.

(Continued on page 14)

SUPERIOR EXTERIOR with

Windowalls



WHILE Andersen Windowalls are known more for their view-framing and insulating characteristics, they are also the favorite of architects who are seeking exterior beauty for the homes they design.

In this riverside home, Architect Magnus Jemne has used three large Andersen Horizontal Gliding Window Units in a wide Windowall

that is an attractive point of interest. Divided light sash are consistent with the ranch-house style of the home.

In summer, any degree of ventilation from 1% to 100% is possible. In winter, the weatherstripped units are weathertight, like a wall. And all year long there is superb window beauty.

TO SPECIFY, LIST THREE ANDERSEN HORIZONTAL GLIDING WINDOW UNITS NUMBER 5256. FURTHER DETAILS IN SWEET'S FILE.

Andersen Corporation • BAYPORT • MINNESOTA

Look what happens when the public cries

"MORE!"



NEW HOME OF **Lumite** THE MODERN PLASTIC SCREEN CLOTH

• No doubt about it! In the lives of America's homeowners, *Lumite*[®] Window Screen is here to stay!

This amazing plastic screen that can't rust, corrode or stain... that can't dent or bulge... is enjoying a "boom" that will last our lifetime and yours.

So... to meet this insistent, increasing demand for LUMITE, we have built a plant that is not only modern in every respect *today*... but is also planned to cope with the inevitable production-expansion which many years of *tomorrows* will bring.

All plant equipment is up-to-the-minute... our looms the most modern to be had. Our craftsmen know their jobs from A to Z...

*REG. U. S. PAT. OFF.

and our Research and Testing Laboratory staff experiments endlessly to produce new uses for better merchandise.

This is the *only* plant in America built for the sole purpose of manufacturing plastic screen and fabric. On 300 acres of rolling Georgia countryside, this new plant will fill the ever-growing demand for LUMITE, giving you speedy and efficient service.

Write *today* for full information and samples of LUMITE Plastic Screen.

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A DOW CHEMICAL CO. PRODUCT

WHY LUMITE IS A BEST-SELLER:

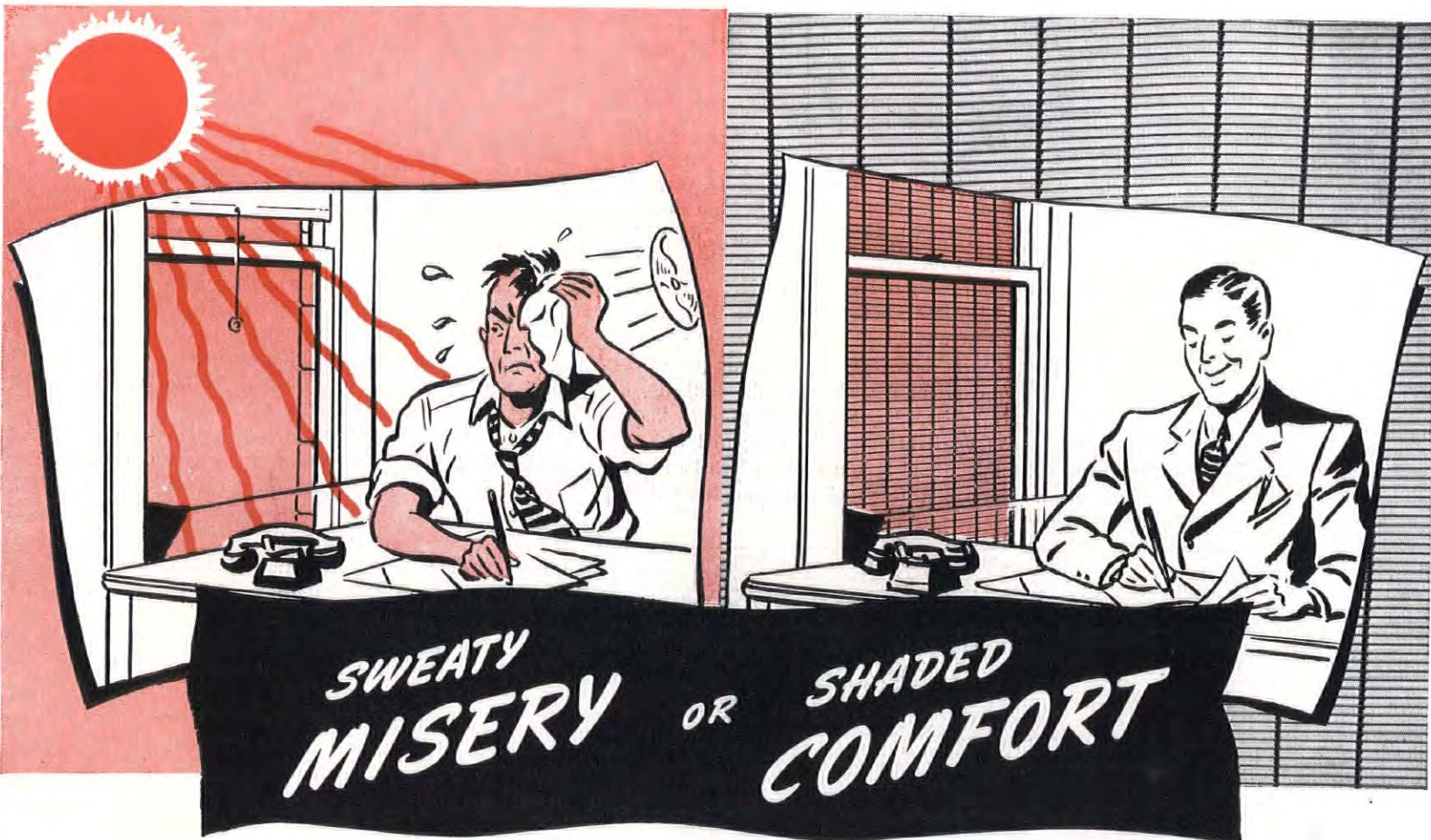
- RUSTPROOF
- WON'T BULGE
- CAN'T STAIN
- NO PAINTING[®]
- CLEANS EASILY
- EASY TO HANDLE
- EASY TO FRAME
- NON-INFLAMMABLE
- TESTED COLOR
- LASTS LONGER
- AND STRONGER — Lumite is woven of heavy plastic filament (0.015" diameter)



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47 Worth Street, New York 13, N. Y.

World's largest maker of Plastic Screen Cloth



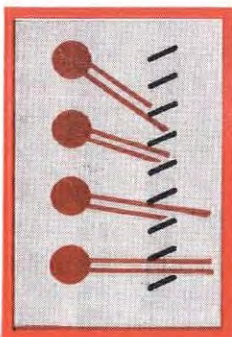
SWEATY MISERY OR SHADED COMFORT

Specify **KOOLSHADE^{*} SUN SCREEN** For Cooler Comfort in Every Sun-Exposed Room!



WHAT IT IS

KoolShade is—in effect—an outside miniature venetian blind. The paper thin bronze "slats" are permanently set at a 17 degree slant. Light rays flood in . . . you can see out clearly . . . but the sun's heat rays are stopped *outside*.



WHAT IT PREVENTS

Sun heat rays pouring through windows cause up to 75% of room heat. Glass does not stop them . . . it does resist radiated heat. Heat rays pour in . . . accumulate. Result . . . a sweaty miserable heat trap.

WHAT IT DOES

KoolShade blocks, reflects, absorbs and radiates up to 90 per cent of the sun's heat rays . . . outside the window. Keeps the temperature as much as 15 degrees cooler.



FITS MODERN DESIGN

KoolShade fits neatly and smoothly into modern architectural design, giving shaded comfort to sun-exposed rooms. There are no ungainly protrusions . . . no breaking of smooth streamlined effects, when you specify KoolShade Sun Screen.



ECONOMICAL INSTALLATION AND UPKEEP

KoolShade installs as easily and inexpensively as common insect screen . . . upkeep is negligible because it will not rust, rot or rattle. This bronze screen gives long, trouble-free service.

EXTRA PLUS VALUES

- + Permanently adjusted for greatest efficiency.
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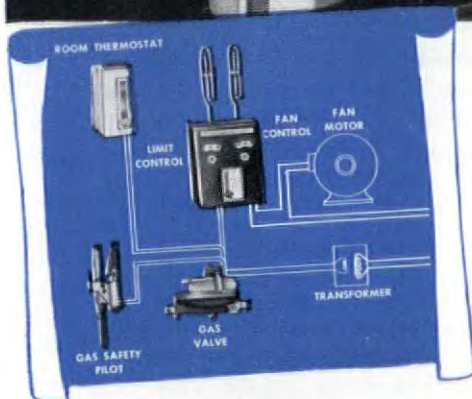
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State

MR. BLANDINGS' CASTLE

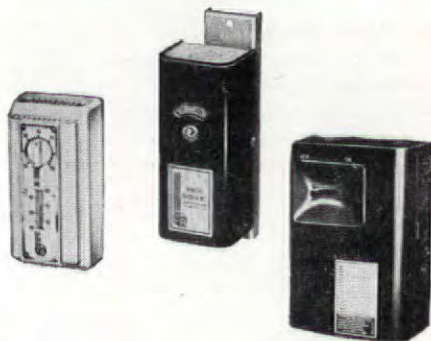
But the Blandings' had built a good house—a very fine house indeed. Its process of morphology might, for a moment, be noted. The ovum had been the farmhouse on which \$10,000 was to be spent for "restoration." The larva was the \$15,000 house that Mr. Simms began to design. The pupal stage was reached when Mr. Retch began to build something for a contract price of \$26,991.17. The eventually emerged home, in full adult form, bore (as in all organic processes) little resemblance to its embryo, either to the aesthete's or to the cost accountant's eye. Only Mr. Blandings *really* knows how much he spent on Bald Mountain, compared with the \$20,000 concept for land and building with which he began, but no one would go wrong if he took something like \$51,000 as a basic figure.



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THE Christmas House Number of *House & Home* (Combined with *The Home Lovely*) lay before Mr. Savington Funkhauser, A.I.A., who was wondering why, at the end of a hard day at the drafting board, he had opened it at all. "Our problem was to create a modern home in a community dominated by fine old colonial farmhouses that had stood the test of revolutionary days and before," he read, "and to achieve a youthful spirit without doing violence to the tradition of those stout forebears of ours whose indomitable strivings have been the heritage of..."

"Spittle," said Mr. Funkhauser in a toneless voice, aloud. He looked for a title at the top of the page to tell him what he was reading. In thin swash lettering he saw "*Home Lovely's* December House-of-the-Month is Tribute to Taste and Ingenuity with Materials Old and New." There seemed here no conveyance of information whatsoever, and Mr. Funkhauser would have tossed the magazine aside but could not rouse himself enough.

"It was a challenge to our ingenuity," he read on in a sort of mild hypnosis, "but my husband and I tackled the difficulties with a will, and out of a combination of budgeted planning, a determination to keep our primary objectives ever before us, and the closest and most friendly three-way cooperation between architect, owner, and builder, we were able to achieve our aims with a minimum of misunderstandings and additional items of expense that occasionally mar the joys of building that *sine qua non* of all normal couples' ambitions, the Home of One's Own."

"Whose bilge is this?" Mr. Funkhauser asked of the fireplace. On the instant, a picture caption answered him: "Mrs. J. Holocoup Blandings, whose delightful mountain dwelling is this month's *Home Lovely* choice as..."

Mr. Funkhauser's right arm moved suddenly, and the Christmas House Number described a graceful arc, disappearing into the chromium-bound cylinder of Nutasote that served Mr. Funkhauser as a waste receiver. A moment later the young architect fished it out again, and turned back to the assistant editor's interview with "the chic and attractive Mrs. Blandings, mistress of 'Surrogate Acres.'" For some five wordless minutes he studied the dim halftones and spidery line cuts arranged ingeniously askew on the chalky paper. Suddenly he came on something familiar, and a flush darkened his face. He muttered for a moment and then, taking pen and paper, he commenced a letter:

"Dear Mr. Blandings," he wrote. "In the December issue of *House & Home* I notice, in the midst of the display of your new residence and in an interview that purports to be with your wife, a reference that says, 'Once the impracticalities of an earlier designer had been discarded as wholly unsuitable...' I would scarcely have credited this to be a reference to myself and some work I did for you from which I later withdrew, were it not that on the following page an illustration labeled 'Discarded Study' is a manifest caricature of a rendering I submitted to you on June 3, 1938. Taken in conjunction, the sentence and drawing offer to my professional standing an affront and damage that I cannot afford to let pass unnoticed. I am instructing my attorneys, Messrs. Barratry, Lynch & Replevin, to communicate with you regarding possible steps toward redress which..."

MILES away, on Bald Mountain, in the midst of Surrogate Acres, beneath an uninsulated composition roof that creaked slightly under the growing snow load of an early winter storm, Mr. Blandings stirred uneasily in his sleep. He was dreaming that his house was on fire.

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one that stays plastic longest will be the one having the highest water-retention. Try this with Brixment mortar!

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Water-retaining capacity is the ability of a mortar to retain its moisture, and hence its plasticity, when spread out on porous brick. ● High water-retaining capacity is of *extreme importance* in mortar. If the mortar does not have high water-retaining capacity, it is too quickly sucked dry by the brick; the mortar stiffens too soon, the brick cannot be properly bedded, and a good bond cannot be obtained.

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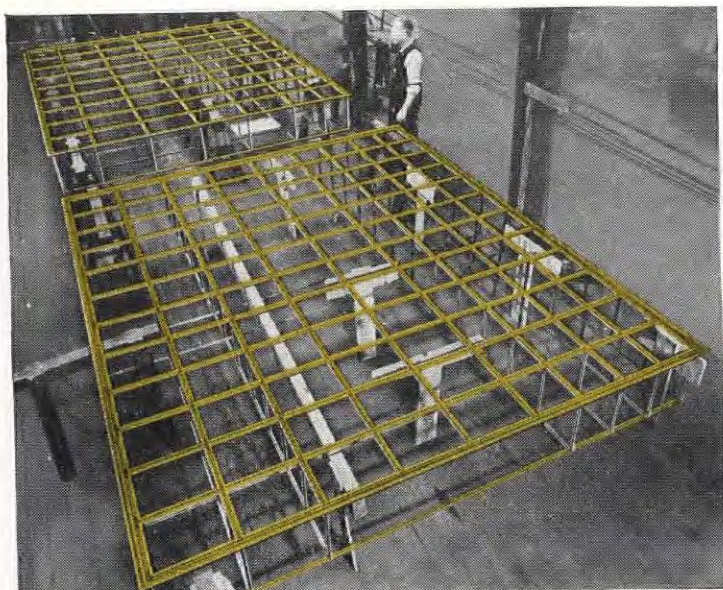


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"Everything that man can do to create eternal peace and protection for the beloved that lie asleep... has been done at Woodlawn."

"Architect and engineer have wrought with skill... a structure that defies the centuries."



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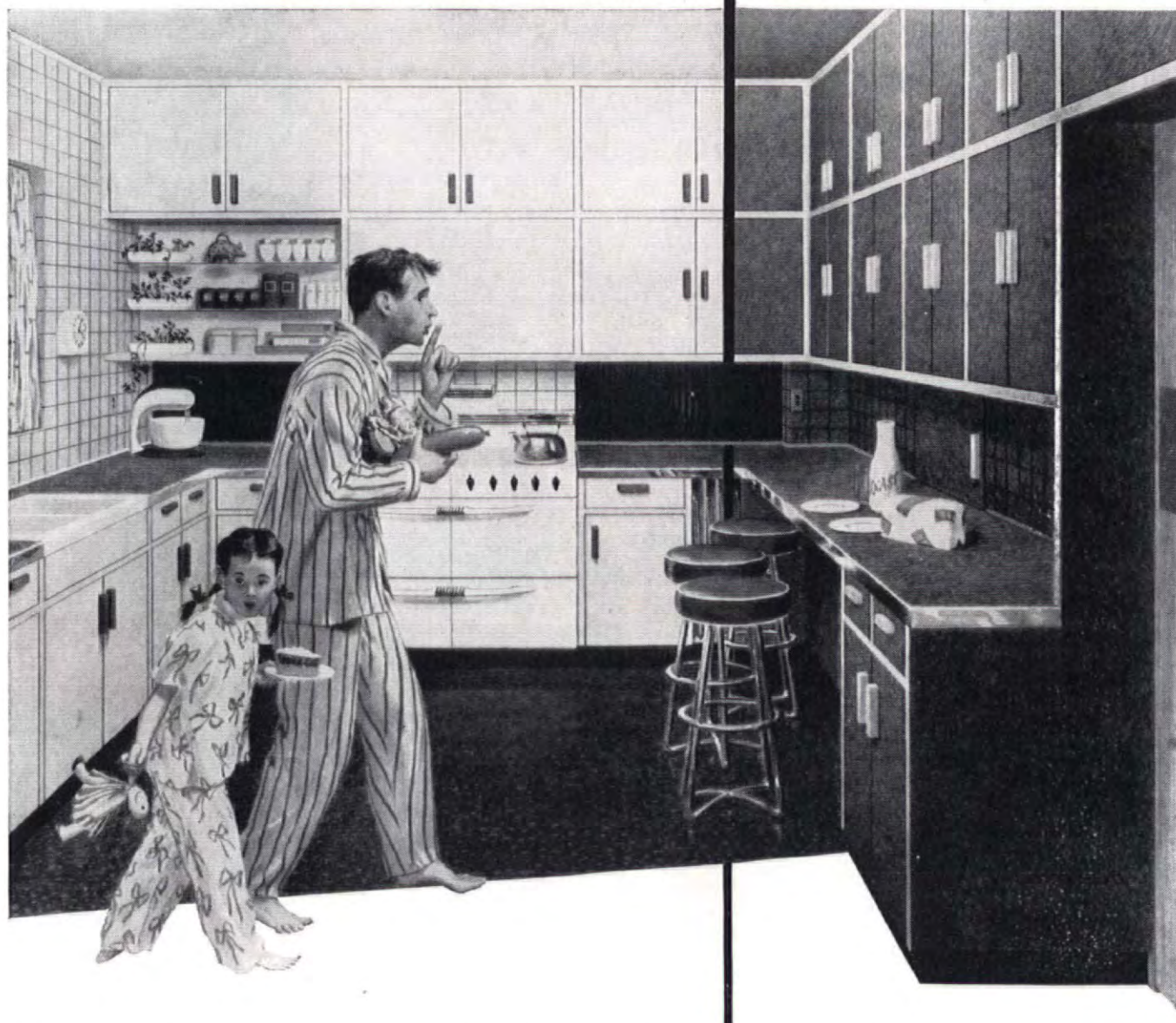
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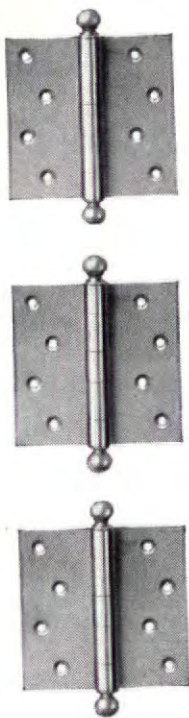
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You know that three hinges on a door help prevent warping — keep doors swinging free and true — and assure perfect fit of latch and lock. You also realize it may cost more to repair a single warped door than to put a third hinge on every door in the house.

Remember—"hinge-pennies" spent for a third hinge on a door are pennies that create a visible mark of good construction — pennies that create greater customer satisfaction . . . Triple hinge your doors. It's good business! The Stanley Works, New Britain.

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TRADE MARK

REMEMBER THREE HINGES TO A DOOR

REVIEWS

Photos: Courtesy the Metropolitan Museum of Art



EXHIBITS

The Metropolitan Museum of Art in New York has just opened an ancient, mouldy exhibit: their Egyptian collection, consisting of some incredibly good material, some that is mediocre—all incredibly badly housed.

There may be many excuses for this discouraging presentation—shortage of labor, shortage of materials for new cases and backgrounds, shortage of imagination in organizing a plethora of riches. The Met's collection of Egyptian arts and crafts is wonderful beyond compare; but one must be an archeologist to seek out the good pieces amidst the swaddling smothering mass of indifferent pieces. If only a careful selection had been made, a much more forceful exhibition might have been built around fewer pieces. One cannot help comparing the South Seas exhibition at the Modern Museum (FORUM, page 97), now on view, the Brooklyn Museum's arrangement of its early American and Peruvian materials or any number of other collections where there is less material but more educational impact due to careful selection organization and emphasis—not to mention artful spacing.

At the Met there is now a strange medley of the large and small irrelevantly placed: massively built-up life-size stone work tombs (which give no impression of the world of the ancient Egyptians), and hastily crowded cases filled with row on row of pots and seals and bits of broken shards. The attempt at continuity in the many rooms housing the collection seems to be based on chronology, sub-divided according to types of material. Mummy cases stand, one after another in close sardinelike arrangement. Perhaps this sub-division by types is accountable for grievous offense to the architectural eye, but the greatest opportunity that seems to have been missed is creating a replica of the surroundings in which some of these beautiful pieces were used and seen. The Met knows how to do this: their American wing, some of their French period rooms, the Cloisters uptown, have done an excellent job of this kind. With this overwhelming wealth of Egyptian material to choose from, a dramatic room for instance could be reproduced to display that exquisite enameled gold head dress seen in the 9th Egyptian Room, the gold mirror in a nearby case, the lovely pottery, perhaps against one of the painted friezes from an adjacent room—all coordinated into a setting such as might have occurred at the time. The Metropolitan is to be congratulated for assembling this vast archeological treasure chest. Treasures become common, however, when jammed hit-and-miss into overcrowded cases. *E.B.*

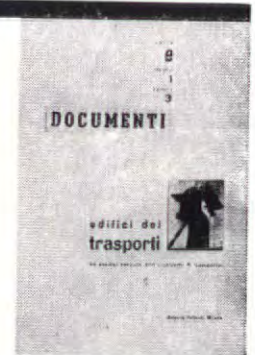
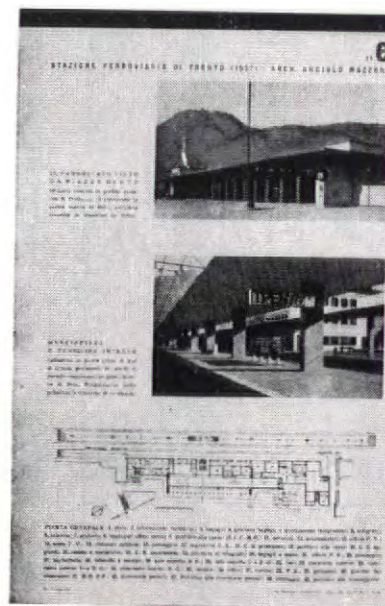
If This Be Not I, Philip Guston



The 5th Annual Exhibition of American Painting held during February and March at the City Art Museum in St. Louis made one aware that the American artist has not only come into his own but has done so with such vehemence that he must be hard put to keep up with the demand of his borrowers if not of his purchasers. A glance at the seventy odd paintings many of which are familiar, lead one to conclude that with the Whitney Annual, the Carnegie, the Chicago (to say nothing of the Pepsi Cola Co.) all clamoring for fresh new painting each year, few of the artists chosen have sent recent canvasses to St. Louis. However, the citizens of St. Louis have seen a well rounded view of art in America. The artists invited were for the most part well established ones, although a special Jury of Selection chose a group of six paintings by Missouri artists for inclusion in the show. Art in America has certainly been enriched by the wartime influx of painters from abroad, which possibly accounts for the renewed interest in the abstractionists. *M.T.*

RECENT FOREIGN PERIODICALS... New Italian publication reviews European architecture and engineering of the thirties.

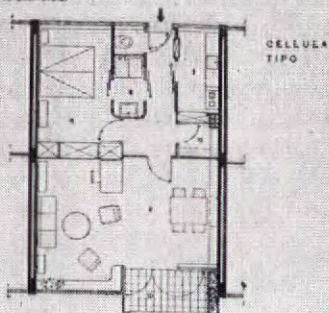
The reappearance of once-familiar European architectural publications on the American market is welcomed by the profession. With them has arrived a newcomer, *Documenti di Architettura Composizione e Tecnica Moderne*, published by Antonio Vallardi of Milan, Italy. Since the publishers anticipate only thirteen issues, three of which are now available, it cannot be considered a magazine in the strict sense of the word. The trio on hand covers 1) transportation buildings, 2) housing, 3) doorways. Each volume is handsomely presented as a looseleaf portfolio to facilitate filing. Due to the widespread destruction of public and private libraries in Europe and current difficulties in securing back issues, the editors were prompted to compile this series as a general review of European architecture from about 1929 through 1940. The selection is a careful one representing almost all the western countries of the continent as well as Great Britain and the Scandinavian nations. As might be expected, foreign selections are outnumbered two to one by Italian examples though this in no way detracts from the value of the contents. Floor plans (and in the case of the volume on doorways, details) accompany the photographs. Those who can read the text will find it succinct and informative without being too technical. For its compact and representative coverage, this series should be a great asset to any architectural library.



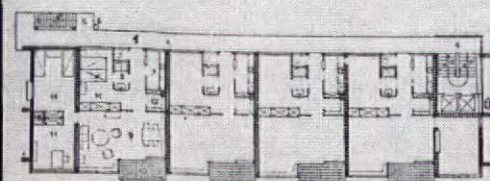
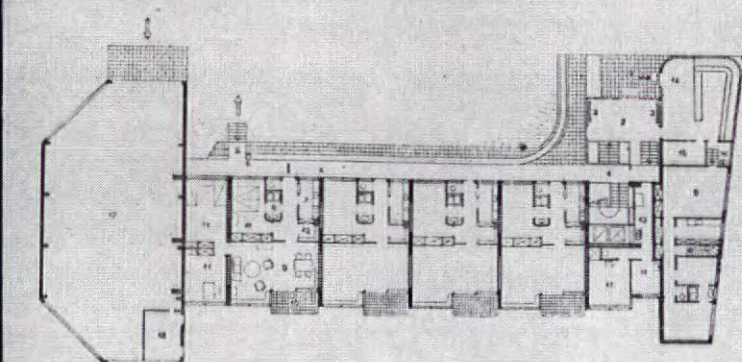
a.4 CASA IN LINEA A ROTTERDAM (1937-38) - ARCH. W. VAN TIJEN & H. MAASKANT



La cellula-tipo principale ha la stessa misura di quella del fabbricato Bergolder. La cellula con 2 locali aggiunti accessibili dal locale di soggiorno misura metri 9,30 x 8,20 (mq. 76) e - col ballatoio - mq. 88. Datto l'insieme sembra in verità eccessivo per le caratteristiche semisigillate del quartiere gli alloggi ne si sono se ne degli inconvenienti che nascono dal collegamento a ballatoio. Notare la silhouette e porte anomale.

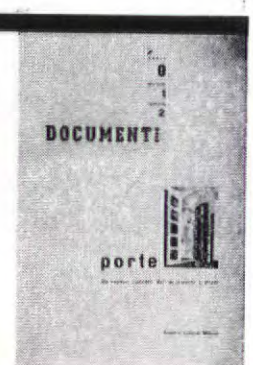
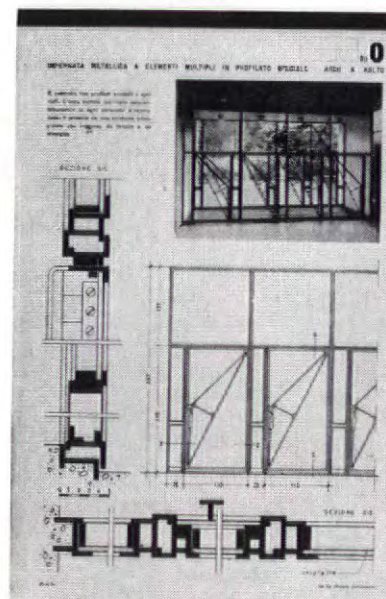
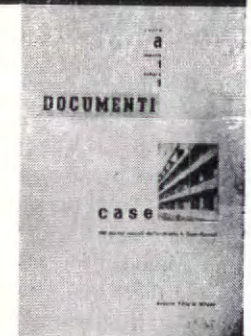
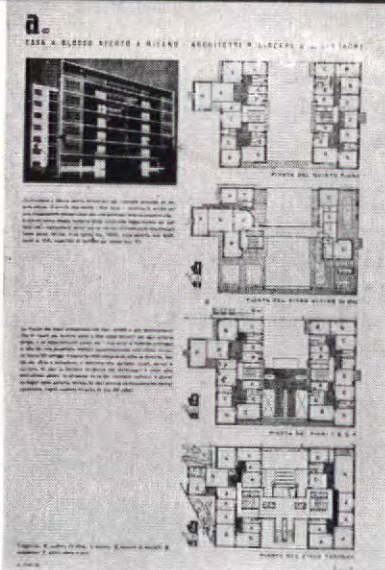


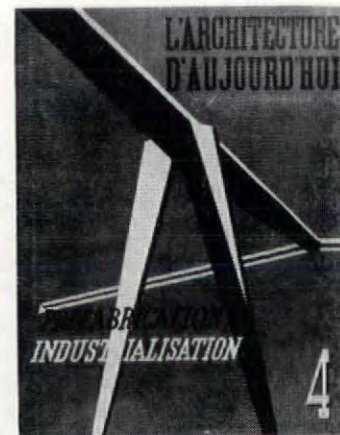
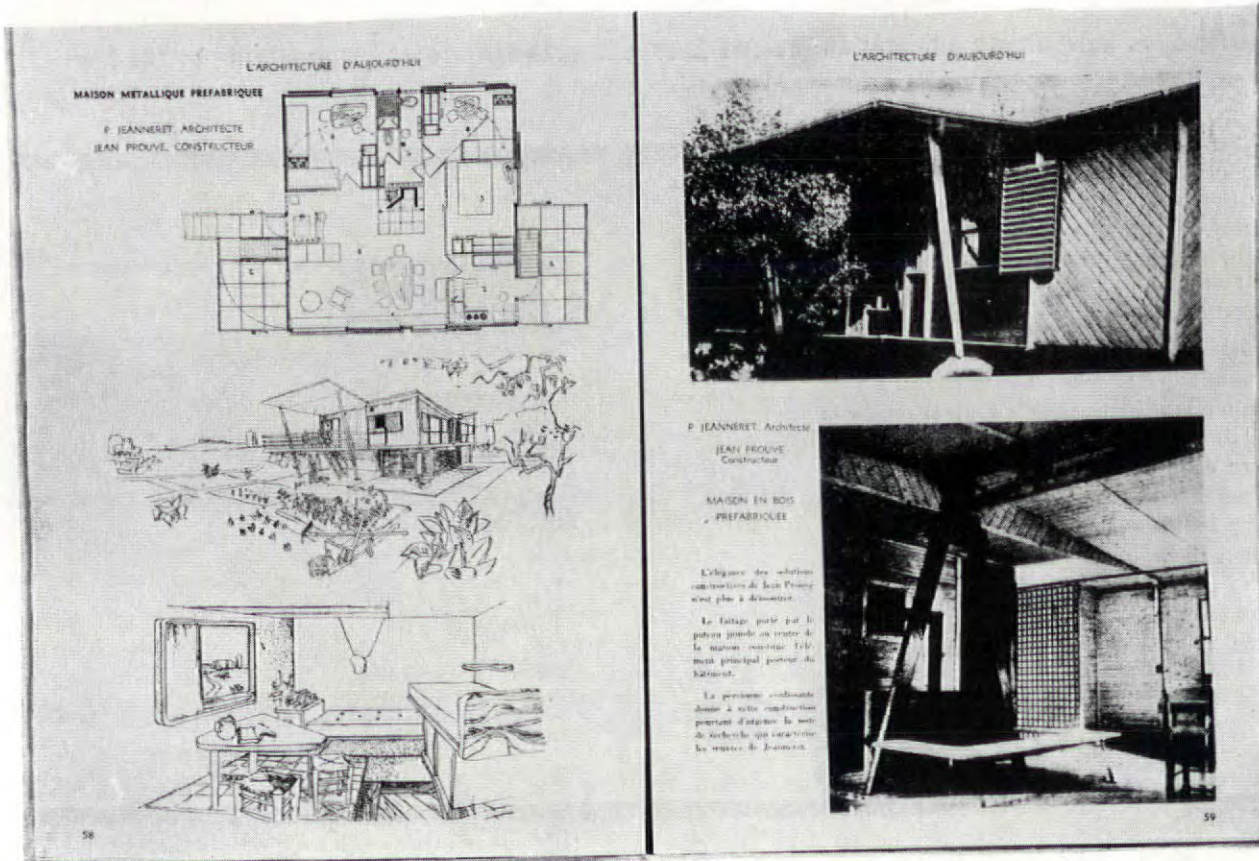
Il fabbricato Pisseloni, analogo al Bergolder della schola S., sorge in margine ad un grande parco e ne sfrutta le visuali in un quartiere residenziale medio-ignobile. Giustifica pertanto un maggior costo e una maggiore varietà di finiture, l'ingrandimento di metà delle cellule tipo con una e due ulteriori camere da letto (11), il doppio ascensore. Il minor sviluppo planimetrico ha portato a 10 piani (alt. m. 2,58) e un piano di terrazze sovrapposte coperte in legno. Anche qui due ascensori di disegno - arretrati a quota media tra piano e piano - e due scale, di cui una di emergenza (8) con vi cina colonna di immondizie (8). Lungo le fasce sono corpi più bassi, paralleli al tracciato stradale, contenenti (r. punta immediatamente sottostante) un appartamento di 2 locali (2), un magazzino di vendita (14) e un portiere che ha il suo appartamento in (8) e elogia ingressi (5) e cassette postali (2).



Cubatura del fabbricato mt. 12.100. Struttura in c.a. con pilastri a spina di larghezza col censo della trave) minima costante di cm. 30 e profondità (nascosta nei diversi tra appartamenti) variabile da m. 0,30 (ultimo piano) a m. 1. La struttura in c.a. fu consigliata dalla non perfetta riuscita sotto i riguardi acustici dell'esperimento in acciaio del quartiere Bergolder. Perimenti in legno peggiori ex correnti lesati dalla soletta con 3 spessori sovrapposti di calcestruzzo. Rivestimenti esterni in vetro-cemento.

In. 100. Architectura Novae.

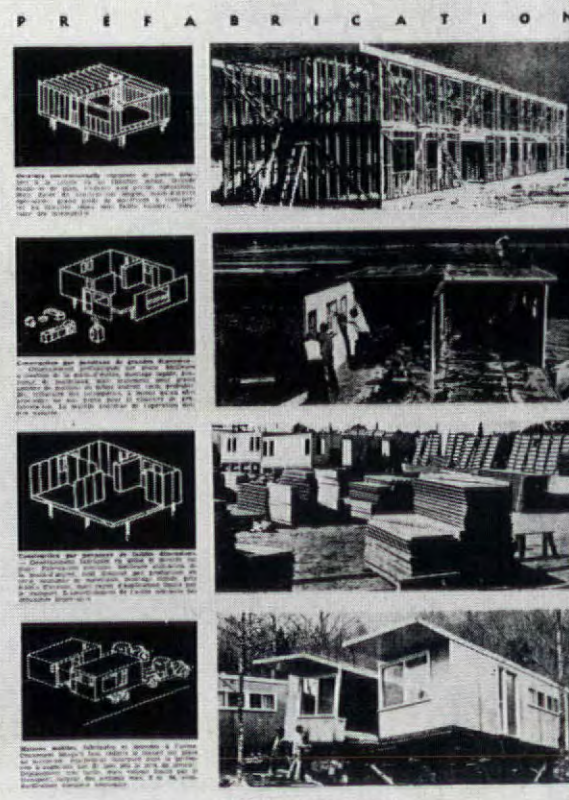
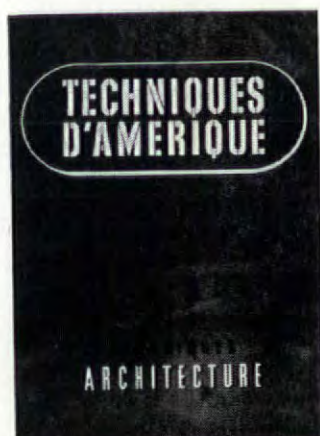




Due to supply and printing difficulties, the well known French magazine, *L'Architecture d'aujourd'hui* now appears only on alternate months. The January issue is entirely devoted to prefabrication and industrialized building. From the contents it is evident that France is much preoccupied with prefab, has recently developed a number of systems. Metal appears to be more favored there than in this country. Also included is a somewhat fragmentary review of foreign prefabrication. Five American examples are cited, three of which are not yet in production.

To see ourselves as others see us is usually a good lesson about what not to do. Mirrored in the recent USA issue of *Techniques d'Architecture* published by G. Masse, Paris, France, we're not doing badly. The over-all presentation is an excellent one covering evolution and trends, materials, construction methods, prefabrication, etc. The only whimsical note is struck by a cut of Frank Lloyd Wright's famous columns in the Johnson Wax Factory, inadvertently run upside down. In each issue a loose, supplementary cut is furnished with a note of apology from the editors.

(Continued on page 156)



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PC FOAMGLAS INSULATION

helps control temperature, humidity and condensation—
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ONE of the commonest complaints lodged against many insulating materials is this: that they lose insulating efficiency with the passage of time.

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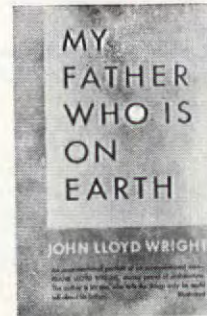
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REVIEWS

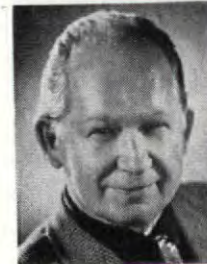
BOOKS



Review this page

MY FATHER WHO IS ON EARTH. By John Lloyd Wright. G. P. Putnam & Sons, New York, 195 pp. Illus. 6 1/2 in. by 8 in. \$3.50.

To have been born the son of Frank Lloyd Wright would be enough to discourage any young man from taking even a stab at architecture, but not son John (or his brother Lloyd). He furthermore deserves credit for having successfully extricated himself from the bog of reflected glory and established



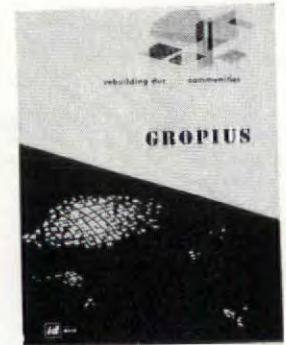
John Lloyd Wright

personality of his own. Along with large hunk of the population, he idolizes his father. Idolize is a strong word but in this case, accurate. In his writing John Lloyd Wright shows considerable preoccupation with the metaphysical (inherited, perhaps, from his uncle Jenkin Lloyd Jones, who founded the Unity movement) and sometimes seems to get his deities mixed. He also has a disturbing trick of paraphrasing reference to the Holy Trinity "the Architect in the Father, the Father in the Architect".

one that would give anyone, except possibly the hero of the tale, goose pimples. *My Father Who is on Earth* is not a full-fledged biography but rather a collection of random reminiscences which point up minor but entertaining lights on an already overhauled life. The net effect is somewhat confusing and to maintain balance a previous perusal of one of the more conventional portraits is suggested. Wright fills, to make his point of acquaintance, is forced into quite a bit of autobiography and here appears the first sign of the fly in the ointment. A first-rate father complex causes the author to snort and bellow pseudo-filial defiance while on every other page wistful adoration trickles into the margins. Carefully analyzed, the portrait of the father painted by his son is far from complete, but the who have brushed words or temperaments with FLLW will smile at many familiar little characteristics—an about-face one heel, the twirl of the omnipresent cane. Actually, father and son relationship is the most interesting part of the book, as well as the most revealing. Though its author makes conscientious sporadic attempts at objective comment and criticism, in almost every case he is hopelessly defeated by his vested interest in protecting and preserving the name of his father and family. Then again, childhood wounds from the acid tongue of the patriarch appear still to smart. As a result, *My Father Who is on Earth*, is neither tribute, condemnation nor exposé, but since no one has ever felt much about FLLW, one way or the other, the intimacy of the narrative will fan the flames of love or hate.

To compensate for the book's inadequacies, it must be admitted that John Lloyd Wright, probably unconsciously, reveals himself to be essentially a good and reverent man. The Heaven knows, could never be said of Wright père who was essentially naughty and as a

(Continued on page



Review page 152

FIAT

NEW Skipper SHOWER

An Aristocrat in the Low Priced Field...

Although the Skipper definitely is a low-cost shower designed for small homes with a limited budget, the material used in its construction is of the best quality. Walls are Bonderized Galvanized Steel with baked-on synthetic enamel finish, the same as used in higher priced Fiat showers. The essential qualities of long life construction developed by Fiat over many years of shower cabinet building are incorporated in the Skipper.

One feature of this shower of particular interest to plumbers and builders is the ease and speed of erection on the job. The walls are partly assembled at the factory. Side walls and stiles are made in one piece—tension locking joints for the rear corners are formed as an integral part of the back wall panel—this pre-fabrication gives the erector a shower body complete in three pieces with only two corner tension locking joints to slip into place.

SPECIFICATIONS — SIZE 32 x 32 x 76



WALLS—BONDERIZED, GALVANIZED STEEL. Finished inside and out with white baked-on synthetic enamel.

RECEPTOR—Semi-flat standard type Stonetex; slip-proof, leakproof, non-absorbent. Brass

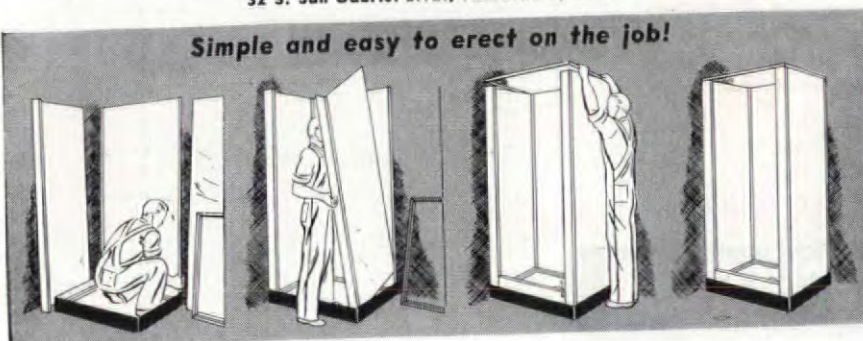
drain for 2" waste connection cast integral with receptor.

VALVES—Combination hot and cold compression valves with shower head and arm.

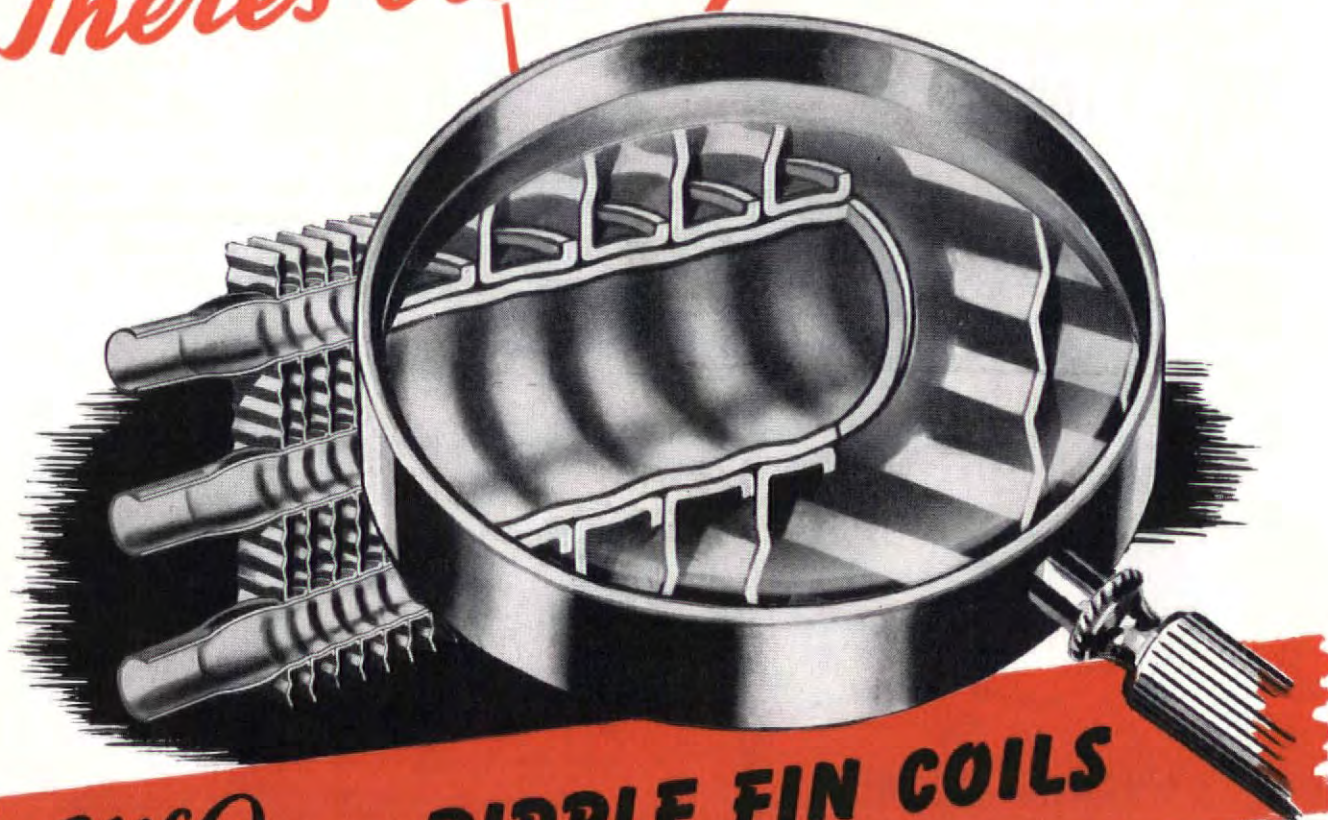
ACCESSORIES—Curtain rod and curtain.

FIAT METAL MANUFACTURING COMPANY
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32 S. San Gabriel Blvd., Pasadena 8, Calif.

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ONLY PERFORMANCE can establish preference. And the performance record of Ripple Fin coil construction—demonstrated under severe conditions on all types of jobs—one of the reasons why McQuay products are preferred. Ripple Fin coils are an exclusive McQuay feature. Look at these important McQuay advantages:

- Higher flexible strength with less air friction and cleaner operation.
- Hydraulic expansion of all tubes into fins having wide collars provides permanent mechanical bond.
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- Copper headers have strongest construction because of inherent flexibility to accommodate unequal contraction and expansion.

McQuay coils are available in a wide variety of styles and sizes, both standard and special coils for steam, hot water, cold water, brine, direct expansion and other applications. For complete information about Ripple Fin coils write McQuay, Inc., 1609 Broadway Street N.E., Minneapolis 13, Minnesota. Representatives in all principal cities.

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ESPECIALLY DESIGNED
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HOW WOULD YOU
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WHAT IS THE BEST
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If you want completely automatic control of room temperatures; operating and maintenance economy, simplicity and heating adequacy for all requirements—the answer is, “the Dunham Differential Vacuum Heating System”. It provides continuous balanced heating throughout the building under variables in service and occupancy—meets instantly the variable demand for more or less heat caused by weather changes. For the complete answer—write for bulletin No. 632. C. A. Dunham Co., 450 East Ohio St., Chicago 11, Illinois.

5-46

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DIFFERENTIAL HEATING
MEANS BETTER HEATING

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consequence his son's characterization only dilutes a strong brew. Nevertheless, only a son would dare call Frank Lloyd Wright “Papa”. *M.S.*

REBUILDING OUR COMMUNITIES by Walter Gropius. Paul Theobald, Chicago, 1945. 8½ in. by 11 in., 61 pp. \$1.75.

The astringent influence of Walter Gropius tightened the lines of the first “modern” buildings. Popularly, his work (and that of the famous Bauhaus school with which it is identified) has meant a denuded adequacy, “functionalism” in the barest sense. Actually, as he himself has declared, service to the human function obligates the builder to all man's varied needs—his need for grace and his need for social happiness among them. “Gropius' life”, writes L. Moholy-Nagy “proves that a man, through the continuous perfection of his craft, may come—in spite of his original background—to revolutionary concepts. An architect of humanistic departure, a master in the aesthetics of expression, a builder of houses of isolated beauty for a rich clientele, he changed to a planner of happy and organic cities . . .”

In this lecture made at the Chicago Institute of Design, Gropius restates the indivisibility of structural soundness and social responsibility. “The end of this war,” he says, “will offer a challenge to replan society, to coordinate the achievements of the specialists, and embrace all phases of life.”

To this end there must be designs. Designs great and little. The designs of whole communities; the designs of tools for the small kitchen. Among the major recommendations made here are: a twenty year payment plan for homes endowing the owner of a dwelling with a bond sufficient to replace the old home by a new one—and,

(Continued on page 160)



Architect David J. Abrahams, Boston

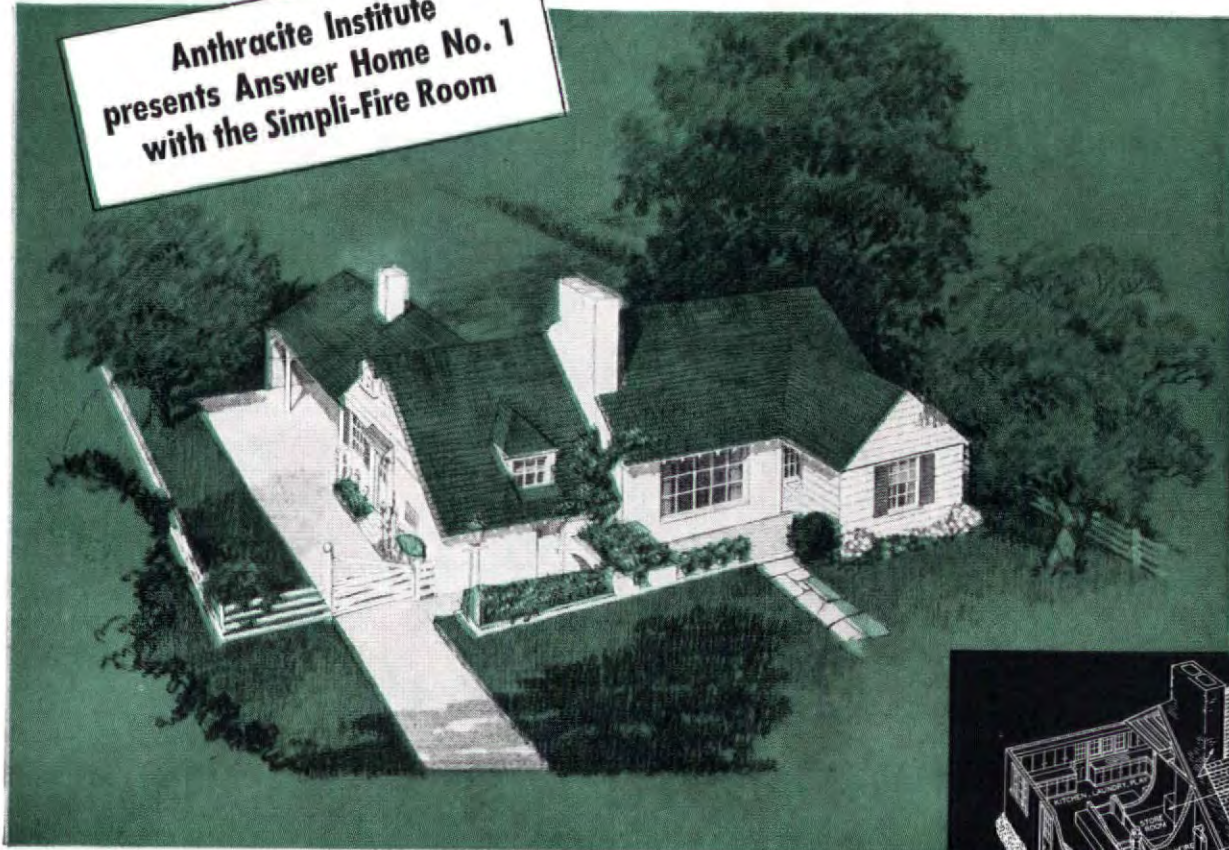
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These fine stains actually bring out the natural loveliness of wood . . . add charm to a building's fine design! Cabot's Stains are quick and easy to apply . . . won't peel or blister even on green lumber . . . give maximum protection* at minimum cost. A variety of colors . . . from clear, brilliant hues to effective weathering grays and browns! *Contain from 60% to 90% creosote — the best wood preservative known.

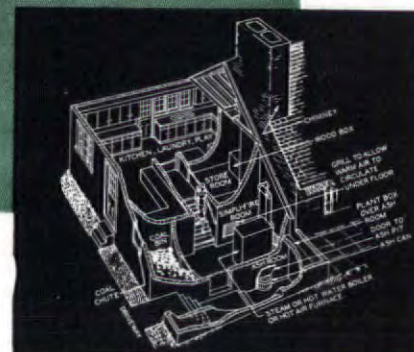
FREE BOOKLET — “Stained Houses” — contains illustrations and complete information plus color card! Address Samuel Cabot, Inc., 1269 Oliver Bldg., Boston 9, Mass.

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**Anthracite Institute
presents Answer Home No. 1
with the Simpli-Fire Room**



Anthracite Simpli-Fire Room provides more house, more heat, for less money



SIMPLI-FIRE ROOM . . . heart of the Answer Home. Note its compact simplicity. See how simple it is to feed the heater...how ash shoveling is eliminated.

AS AN ARCHITECT how can you help prospective home owners meet today's rising costs? Must you offer them less and less house . . . fewer, smaller rooms . . . inadequate heating?

Anthracite Institute tackled this problem on the basis that heat is a necessity only part of the year; that money could be saved on a scientifically engineered heating arrangement, and used to buy more house.

The result is the Answer Home with the *Simpli-Fire Room*, one of the most far-reaching developments in years.

1. Conveniently located, a few steps down from the kitchen, the *Simpli-Fire Room* eliminates all need for the costly, old-fashioned cellar, saves construction time, *reduces overall cost*.

2. Heating costs, too, are lower, since

the *Simpli-Fire Room* is designed for anthracite, the economy quality fuel.

3. Thanks to the *Simpli-Fire Room*, the use of anthracite becomes easier than anyone ever dreamed. The storage bin is within easy shovel reach of the heater. Ashes fall into a light metal basket, which is removed *outside the house*. Ash shoveling is a thing of the past—along with dust and dirt!

4. Type of heating is optional . . . steam, hot water, or warm air . . . with

specifications bearing the Seal of Approval of the Anthracite Institute available for each system. Plenty of heat is assured with warm, healthful floors.

Answer Home No. 1 featured above is beautifully planned—the type of home families dream of owning—*some-time*. Thanks to the *Simpli-Fire Room* it is a home thousands can own—*soon*.

Architects are invited to write for definitive drawings together with details of plan of co-operation.

For **FREE Plans** of this
Answer Home—and others—
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Please send free of charge handsome 16-page color brochure showing Answer Homes Nos. 1, 2, and 3 with floor plans; also details of Simpli-Fire Room.

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GEO. D. ROPER CORPORATION, Rockford, Illinois
Offices and warehouses in principal distribution centers.

of course, prefabrication, in which Gropius is presently both architect and entrepreneur. Gropius points out that people will always rebel against over-mechanization of their way of life—against the die-cut row-house or the beehive "project" of high density in which the individual life is confined by a factory-turned formula. More and more, he believes, the tendency will develop, to precision manufacture of the component parts of buildings. Then the designer and builder will have at his disposal something like a box of blocks—panels, functional units, window, floor and roof sections, capable of infinite and interchangeable arrangement.

It is not "standardization" that threatens the ineffable qualities of homes, he argues. The machine is an antagonist only when architecture becomes an enclosed aesthetic, losing touch with community life. Characterizing the last generation of architects, Gropius says, "The external embellishments of a building were designed to rival those of the neighboring building . . . the emphasis (was) on being different instead of reaching for a common denominator. . . ."

Gropius has the wisdom of an artist to whom prescriptions have never been confinement. He believes that the designer's function can be enlarged rather than diminished by the machine. But only if his imagination goes to work at community patterns, at the articulation of house to house, and houses to streets, community buildings, offices, plants, terminals.

It is not enough to fashion the literal "home". We must, this architect urges, fashion our total environment with the same knowledge of beauty and usefulness inextricably joined. We must make it possible to build spaciousness and ease into our social life. A job, as Moholy-Nagy observes, "for all of us". M.B.

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3-Way Bond

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CHENEY INDUSTRIES, Trenton, N. J.

CHENEY FLASHING is again being made by the original inventor who pioneered the art of thru-wall flashing eighteen years ago.

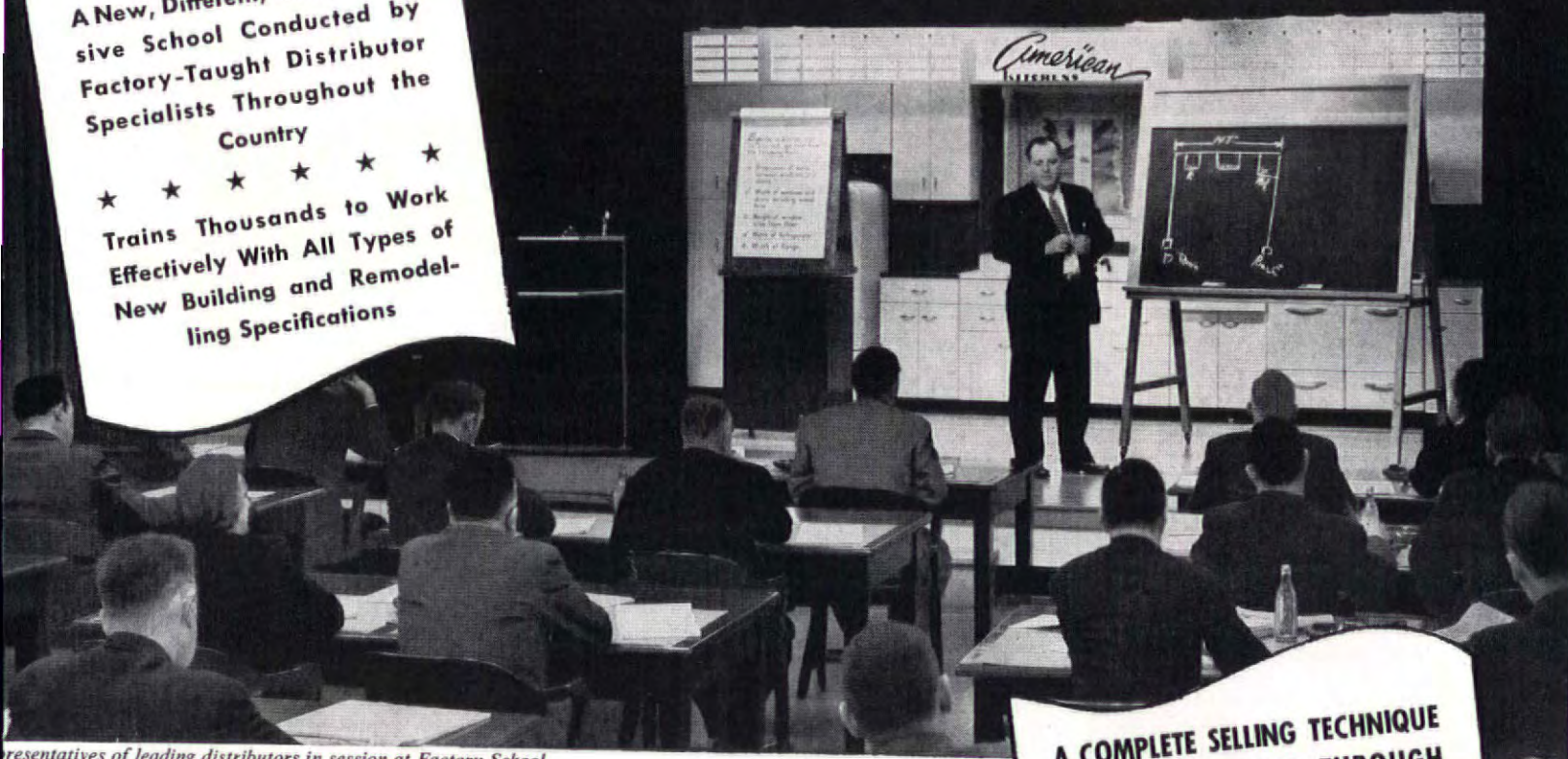
No thru-wall flashing can operate successfully unless it has the two very important features that are found in CHENEY FLASHING—proven weep-hole drainage and the three-way bond, vertical as well as longitudinal and lateral.

Remember, the inferior two-way flashings, crimped copper and membranes, have neither the vertical bond nor do they drain moisture from the wall fast enough. Furthermore, their first cost advantage has disappeared because today Cheney Flashing is no longer a specialty—it's a standard commodity.

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... or a
Complete
Kitchen

When you plan a playroom...

When the guests have gathered and the games are on, nobody likes to hike upstairs to answer the telephone or make a call. Naturally, the alert architect realizes this and plans for a telephone outlet in the playroom as well as in other convenient locations.

Built-in conduit to carry telephone wires within the walls, with telephone

outlets at all handy locations, are a mark of good planning and sensible construction. Prospects will expect these features — in small homes as well as large ones. The cost is small for the extra convenience and room beauty.

Your Bell Telephone Company will be glad to help you plan for them. Just call your Telephone Business Office.



Room planned by George Daub, Philadelphia, Architect

BELL TELEPHONE SYSTEM



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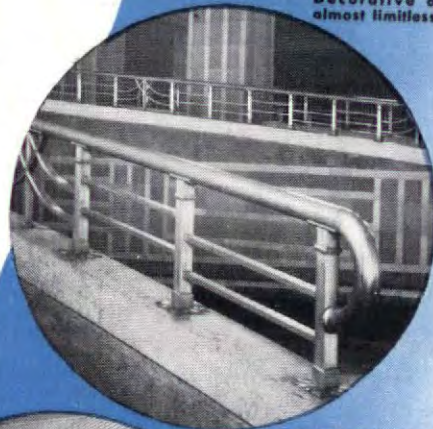
Surprising but true—Alcoa Aluminum is the most versatile of all building materials. What you can do with other metals you can often do better with aluminum—plus the fact—it can often replace nonmetallic materials.

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Guard rails of aluminum are maintenance-free. They never rust—never need painting.



These spandrels improve the appearance of this building and will never rust or stain the masonry.



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Low upkeep goes in with aluminum windows. They can't rot, rust or warp. And no paint is needed.



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Ventilators



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ALCOA FIRST IN ALUMINUM



NDMA serves YOU in these 6 ways

The National Door Manufacturers Association provides an efficient test for measuring the effectiveness of toxic preservatives for woodwork such as windows, screens, doors and frames. This test, developed after many years of research, resulted in the establishment of definite minimum standards for toxic treatment.

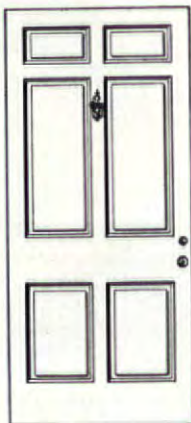
These minimum standards establish a definite yardstick for wood-treating which supplements the natural lasting qualities of wood products, adding still further to the durability which wood has demonstrated in the homes of America.

The NDMA seal, stamped on wood products, provides positive evidence of sound practice in toxic preservative treatment. This seal is available by license to all manufacturers and distributors who conform to the toxic preservative standards of the NDMA.

NDMA takes a further step in extending its protection through periodical mill inspection of treating equipment and practices. This inspection is made by NDMA technicians.

In addition, NDMA makes laboratory check tests of preservative solutions in order to assure absolute conformity to NDMA standards.

NDMA consistently carries on an educational program in the public interest in order to spread knowledge of its scientific research. This effort is of benefit to architects, builders and homeowners alike.



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THE ARCHITECTS' COMMITTEE on the United Nations Center has announced the following architects as members of the group: David Allison, Richard Bennett, James Edmunds, Jr., Moise Goldstein, W. K. Harrison, B. Hoyt, Louis LaBeaume, E. D. Litchfield, T. H. Locraft, C. D. Maginnis, Roi Morin, R. T. Pancoast, E. R. Purves, E. Saarinen, Alfred Shaw, H. L. Shay, R. Walker and W. W. Wurster.

The Joint Advisory Committee is made up of: A.S.C.E.—H. M. Lewis, J. W. Pfau and Malcolm Pirnie; A. I. P.—F. J. Adams, C. M. Norton and P. Opperman; A. S. L. A.—A. F. Brinckerhoff, R. E. Griswold and C. E. Morrow; A. I. A.—Eric Gugler, W. K. Harrison and Ralph Walker. Mr. Gugler is chairman for both committees.

THE AMERICAN INSTITUTE OF DECORATORS at their recent fifteenth annual meeting in Philadelphia chose officers for the coming year. Re-elected to the two top positions were Joseph Mullen, president, and Marc Nielsen, chairman of the Board of Governors.

TEACHERS COLLEGE, Columbia University, announces a survey of school building needs of rural America—a building field which the U. S. Office of Education estimates will demand an annual minimum construction allotment of 2 billion dollars during the next five years. Research resulting in a portfolio of suggestions adaptable to specific communities will be undertaken by Professors Frank Cyr and Henry Linn of Teachers College, assisted by John Marshall, school building specialist, and Kenneth Bailey, New York city school architect. The committee will be glad to criticize proposed school plans, placing emphasis on the workability of internal arrangement—classroom layout, furniture, cafeterias, special shops, etc.

(Continued on page 166)



Schools have learned the lesson of health-safety. Architects and school officials know there is one solution to the problem, insofar as drinking water is concerned... Halsey Taylor Drinking Fountains.

There is a type for every need, each with the original patented automatic stream control and two-stream projector. Write for catalog illustrating and describing the complete Halsey Taylor line for school installations.

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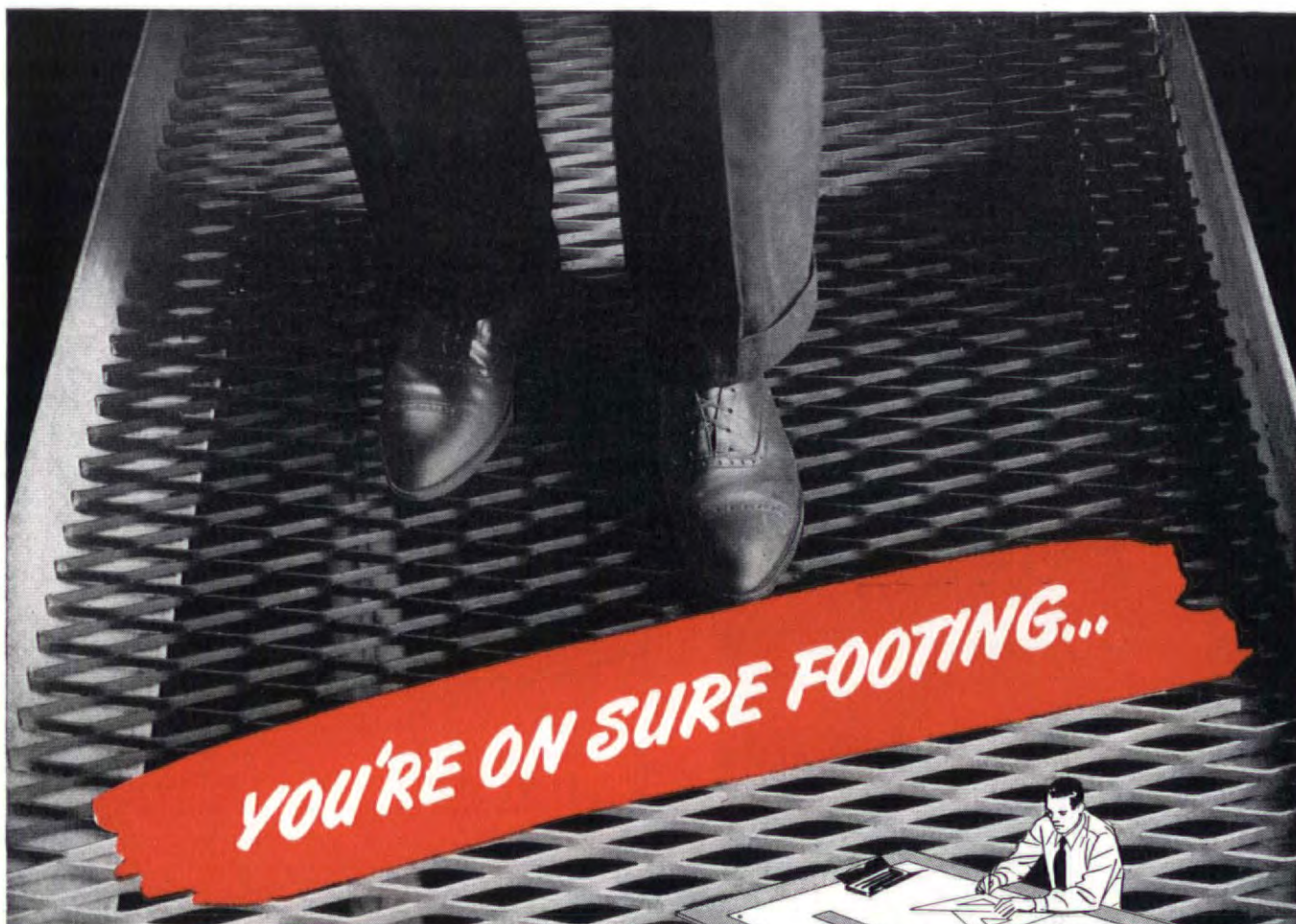


**HALSEY
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DRINKING FOUNTAINS



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Expanded Metal Walkway and Skywalk Mesh is simple to install, even the most complicated layout. A natural anti-slip material, it permits visibility, ventilation, and it stays clean.

Thanks to its diamond pattern, concentrated loads are distributed in all directions, combining maximum strength with a minimum of steel.

In this, as on many other architectural problems, Wheeling Expanded Metal offers advantages in meeting many different requirements.

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Steel Floor and Roof Decks
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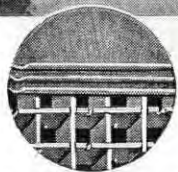
BOSTON
NEW YORK
BUFFALO
CLEVELAND

PITTSBURGH
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DETROIT
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KANSAS CITY
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ANNOUNCEMENTS



U.S. Pat. 1,887,814—The exclusive inter-locking grid core within the Rezo door allows constant air circulation, adds extra strength and provides greater rigidity.

PAINE REZO DOORS

THE beauty of Paine Rezo doors is visual. You can see instantly the "lift" they give to interiors . . . how they make small rooms appear lighter and more spacious. Yet unseen are the basic factors that make Paine Rezo America's largest selling flush door. Beneath the matchless surface of this 1 3/4 inch door is a patented, inter-locking air-cell core that checks shrinking and warping, while it adds great strength to light weight. In addition, this best engineered door is pre-fitted, cut to size, easily hung and quickly finished. Its installed cost is no more than that of an ordinary door. No wonder more than one million are in service today in every type of building everywhere.

Manufactured by the
PAINE LUMBER CO., Ltd. Oshkosh Wisconsin
ESTABLISHED 1853

AMERICAN DESIGNERS INSTITUTE announces election of officers for the next year: Alexander Kostellow, president; Ernest Swartz, vice president; Kem Weber, vice president for the West Coast; Henry Glass, secretary; Belle Kogan, treasurer.

THE ALBERT KAHN MEMORIAL SCHOLARSHIP, established by Mrs. Albert Kahn, her daughters and son in the Department of Architecture of the University of Pennsylvania, provides \$1,100 to be awarded by the Scholarship Committee of the University to a student of outstanding merit.

MUSEUM OF MODERN ART \$1,000 PHOTOGRAPHY FELLOWSHIP AWARD has been won by Helen Levitt of New York City. Much of her best work has been done in Harlem where her miniature camera tries "to record those apparently accidental disarrangements that . . . provide a more intense apperception of reality".

EXHIBITS

THE MID-AMERICA EXPOSITION to be held in Cleveland from May 23rd to June 2nd will spotlight mid-American industries, skills, research, advertising and distribution facilities.

PRODUCTS OF TOMORROW EXPOSITION, scheduled to open at the Chicago Coliseum April 27th, has been indefinitely postponed due to the uncertainty of products and delivery schedules.

A CENTRAL MEETING PLACE where advertisers, publishers and manufacturers may see the works of 27 recognized modern artists has been set up by Troeger-Phillips, Inc., 67 W. 44th St., New York, with an eye to incorporating this increasingly successful medium in commercial campaigns. Stephan Lion acts as the artists' business representative in handling design commissions.

(Continued on page 168)

BACK AGAIN!

Pure Copper Home Protection
at 1/5 the Normal Cost

SAVE TIME . . .
SAVE MONEY
Here's the Modern
low cost way to
put lasting pure
copper protection
into even inex-
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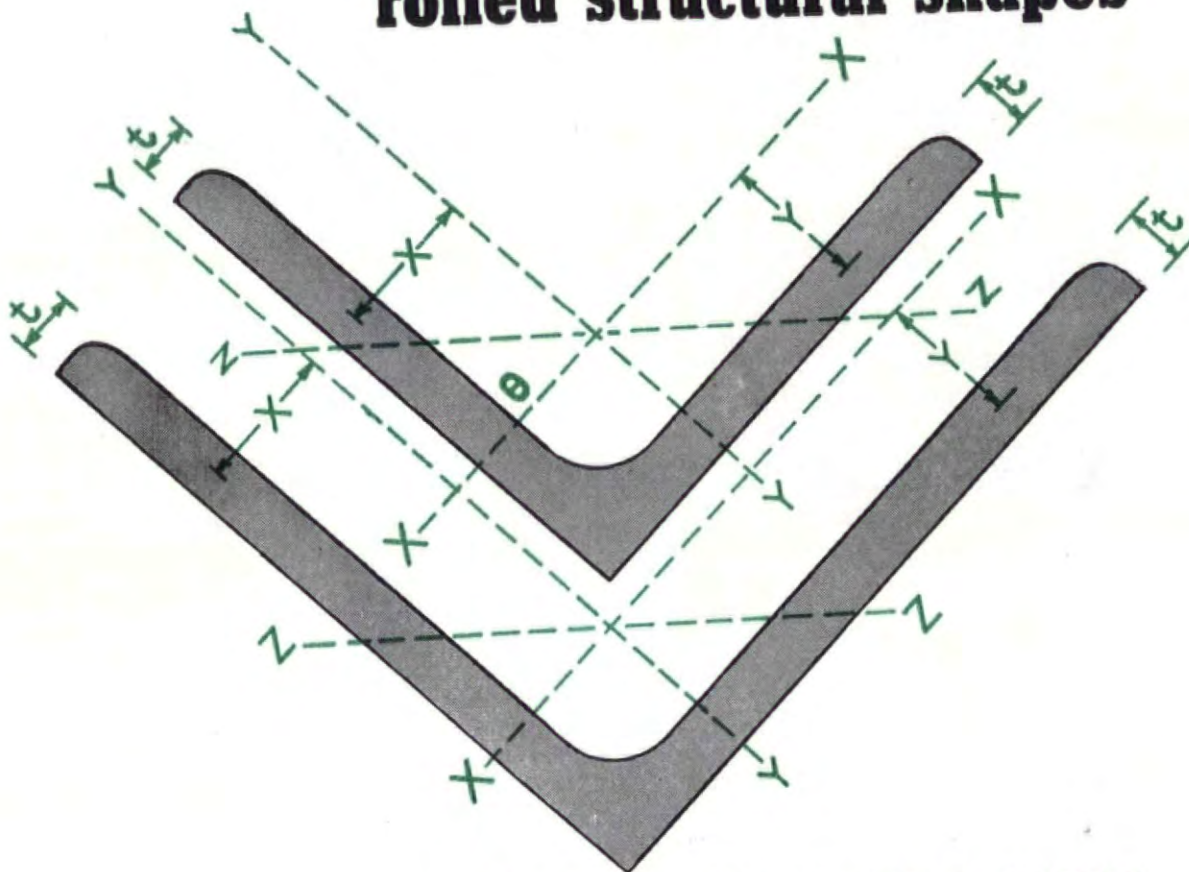


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Symbol of Sisalkraft
Products — guardian
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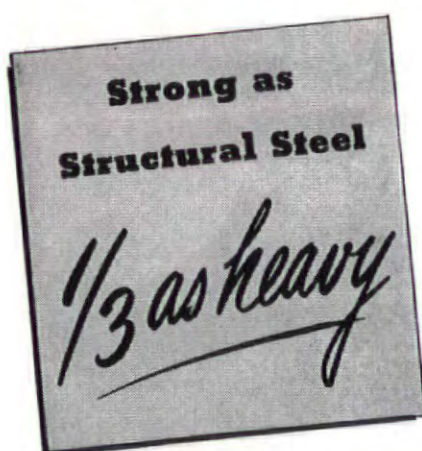
YES, it's here again—the same fine Copper Armored Sisalkraft you specified before the war—now ready for new home building! Ideal for all concealed flashing and foundation damp coursing, easy-to-use as paper—will not kink, break or tear, gives all homes enduring copper protection impermeable to the elements. Write for folder and your free sample!

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strong Reynolds Aluminum alloy rolled structural shapes



FOR EARLY DELIVERY



HERE'S WELCOME NEWS for every architect or engineer, particularly those concerned with the immediate problems where lightness must be combined with strength.

Reynolds Aluminum structural shapes are now available in various light-weight, high-strength alloys. Ready to save construction time and money . . . give a better, longer-lasting job.

1. Time is saved. Orders now for rolled structural shapes mean early delivery.
2. Money is saved. Prices on Reynolds Rolled Structural Shapes are based on economical capacity production. Shipping costs, too, are lower.

3. Fabricating and erecting are faster, less expensive. Shapes are rolled to exact specifications, are easily handled, may be readily cut or joined. Sections are easily placed in position and secured. In fact, larger units may be designed than is feasible with other materials.

Consider Aluminum . . . Consult Reynolds. See Reynolds Catalog in Sweet's or write for Catalog 104A "Reynolds Aluminum: Its Important Role in Architecture." Reynolds technicians are ready to work with you. Offices in principal cities. Phone nearest office for complete information . . . or write Reynolds Metals Company, Aluminum Division, 2528 South Third St., Louisville 1, Ky.



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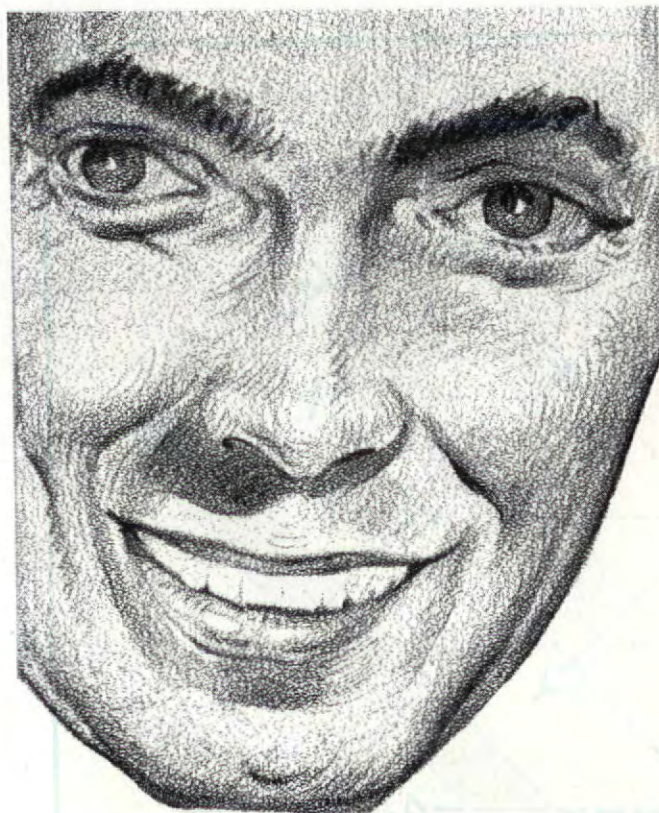
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ANNOUNCEMENTS



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SASH BALANCE

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The old law of supply and demand plus high wages and other costs make time a most important factor in any installation job. The Grand Rapids Invisible is a time and money saver because it is by far the easiest of all sash balances to install. If you, too, are interested in cutting off time at this end, make a date with the Grand Rapids Invisible. You'll be impressed with its durability, ease of adjustment and the fact that it is actually invisible — no exposed tubes — tapes and cables entirely eliminated. And, too, only 10 sizes meet 95% of all residential requirements.

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which contains complete information on sash balance sizes, directions for installing, etc. All fully illustrated.

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

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NEW OFFICES

GARRETT ECKBO, ROBERT ROYSTON and EDWARD WILLIAMS announce their association as Eckbo, Royston & Williams, planning consultants, landscape architects, site and recreation planners, with offices at 21 Columbus Ave., San Francisco and 624 South Carondelet, Los Angeles, Calif.

VICTORINE and SAMUEL HOMSEY, architects, announce the re-opening of their office at 917 Gilpin Ave., Wilmington, Del. Theodore Fletcher will be associated with them in practice.

JAMES C. ROSE, with CHRISTOPHER TUNNARD as consultant, has opened an office of modern landscape design at 19 W. 44th St., New York, N. Y. This office will render complete service including site choice and analysis, integration of building and space, planting and supervision of planning programs.

GEORGE RUSSELL and EDUARDO SAMANIEGO are forming a partnership for the practice of architecture. Mr. Samaniego served as chief architect with the U. S. Engineers in London and Paris; and both he and Mr. Russell worked on war projects in Great Britain. The firm, Russell and Samaniego, will have offices at 3275 Wilshire Boulevard, Los Angeles, Calif.

HINGHAM CONSTRUCTION & SUPPLY Co., disbanded during the war years, announced the reopening of its office at the address. Box #53, Hingham, Mass.

COMPETITIONS

AN INTERNATIONAL WALLPAPER DESIGN COMPETITION, offering \$7,500 in prizes will be conducted by United Wallpaper, Inc. between April 1 and August 31. Wallpaper design will be divided into six classifications: (Continued on page 170)

O'BRIEN
PAINTS

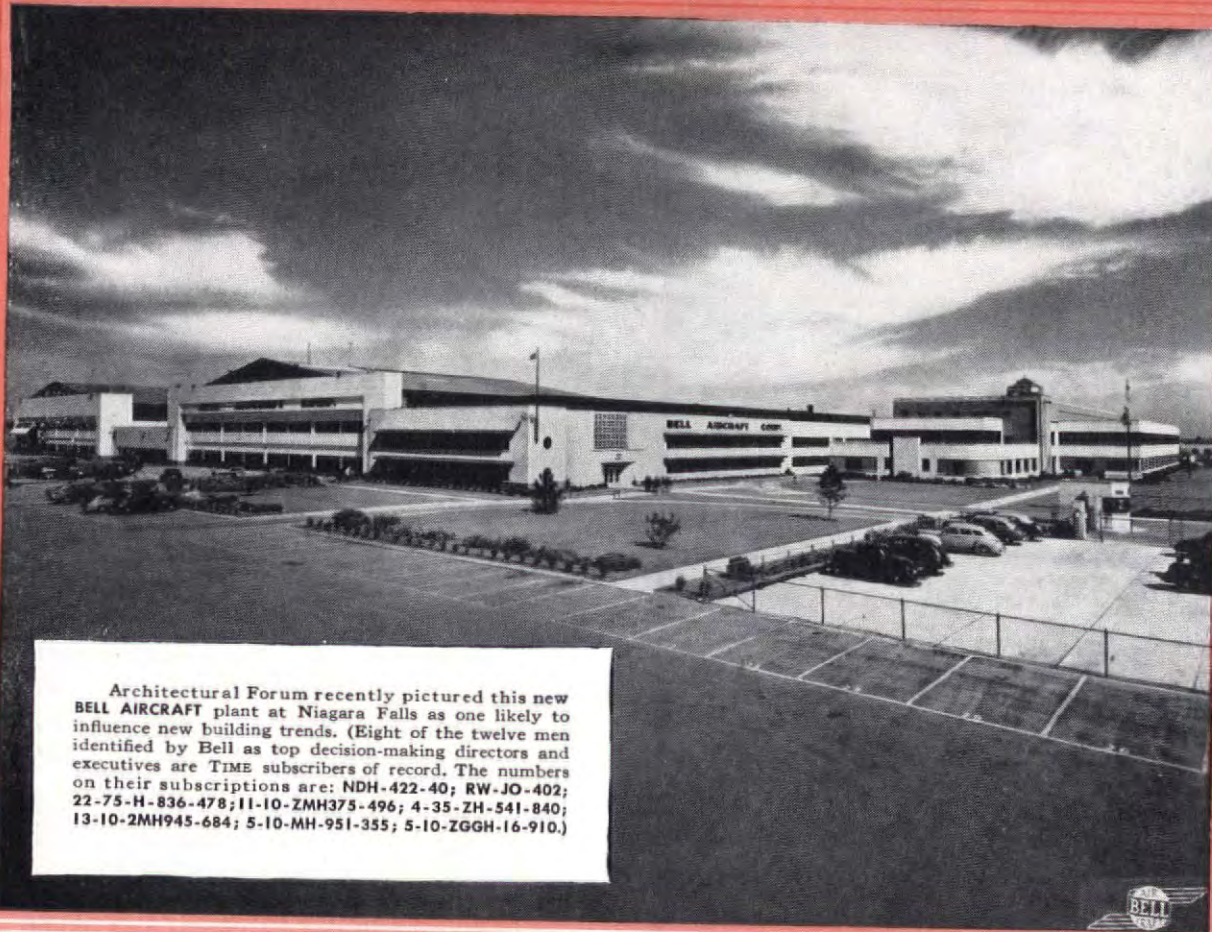
for every purpose—for
those who want the best.

THEY LOOK BETTER LONGER

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O'BRIEN VARNISH COMPANY
SOUTH BEND 21, INDIANA
SINCE 1875

Who are the Men who'll **OK** the Plans for the GREAT NEW PLANTS of Tomorrow?



Architectural Forum recently pictured this new BELL AIRCRAFT plant at Niagara Falls as one likely to influence new building trends. (Eight of the twelve men identified by Bell as top decision-making directors and executives are TIME subscribers of record. The numbers on their subscriptions are: NDH-422-40; RW-JO-402; 22-75-H-836-478; 11-10-ZMH375-496; 4-35-ZH-541-840; 13-10-2MH945-684; 5-10-MH-951-355; 5-10-ZGGH-16-910.)

Today, a sales story for building products or equipment must run a gauntlet of *many* keen, and questioning minds—must collect OK's from not one but *several* specialized higher-ups.

That's one reason why, in the first six months of 1945, industrial building advertisers spent more dollars in TIME than in any other magazine—to tell their sales story to *more* officers,

managers, directors, key men all through the levels of executive responsibility.

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**In fact, survey after survey among top people everywhere show that time and time again it's TIME and TIME again!*



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ANNOUNCEMENTS

living room, dining room, hall, bedroom, kitchen and bathroom. A prize of \$1,000 will be awarded for the best design in each classification, plus a grand prize of \$1,500 to the winner whose design is judged best in the competition. Complete information may be obtained from International Design Competition, United Wallpaper Inc., 3330 W. Fillmore St., Chicago, Ill.

A FABRIC DESIGN CONTEST sponsored by the Department of Industrial Design of the Museum of Modern Art will close June 1, 1946. \$2,000 will be offered in prizes: \$500 for the best design, and the rest to be awarded at the discretion of the jury—with no prize less than \$50. Several prize-winning designs will be reproduced and sold in leading stores. The exhibit will be circulated throughout the country after its preliminary showing at the Museum early in 1947. For further information, address: Mr. Eliot Noyes, Museum of Modern Art, 11 W. 53rd St., New York.

DIED

CLYDE R. PLACE, consulting engineer, aged 68 in St. Clare's Hospital, New York. Mr. Place, former director of the N. Y. Building Congress and specialist in engineering design, had acted as consultant for Rockefeller Center, Grand Central Terminal, National Gallery of Art in Washington, Peking University, the British Museum, Thomas Jefferson Memorial and many other buildings.

CORRECTION

We regret that on page 115 of our February issue we failed to give credit to the students of Housing and City Planning, Columbia University School of Architecture, who, under Leopold Arnaud, Dean, constructed the model labeled "North End of Redevelopment"—Riverview Housing #2.

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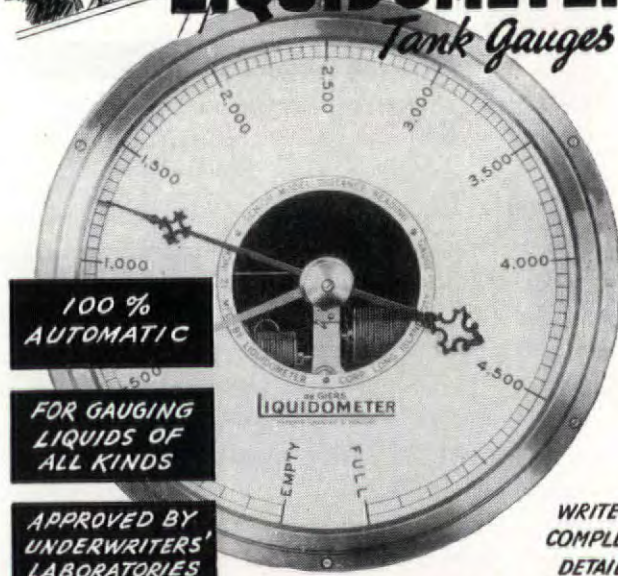
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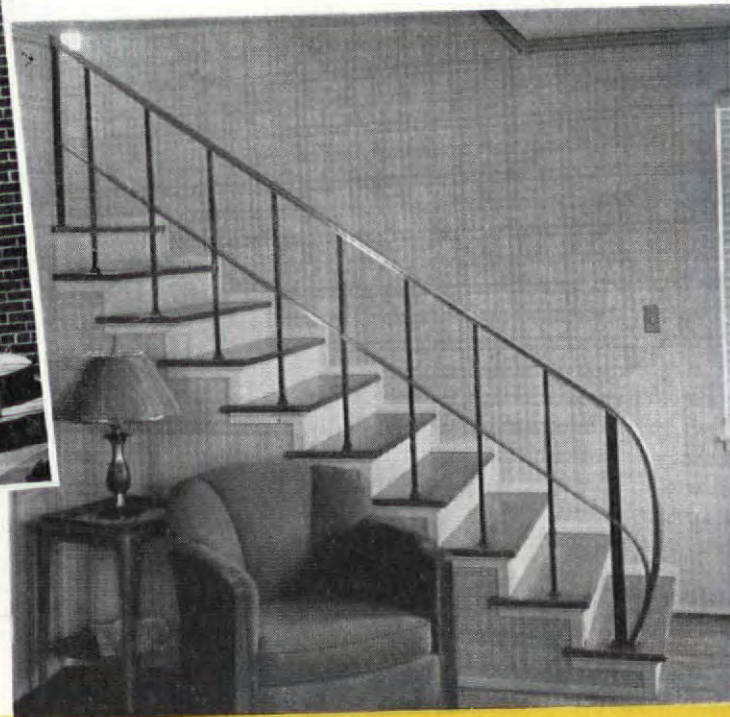
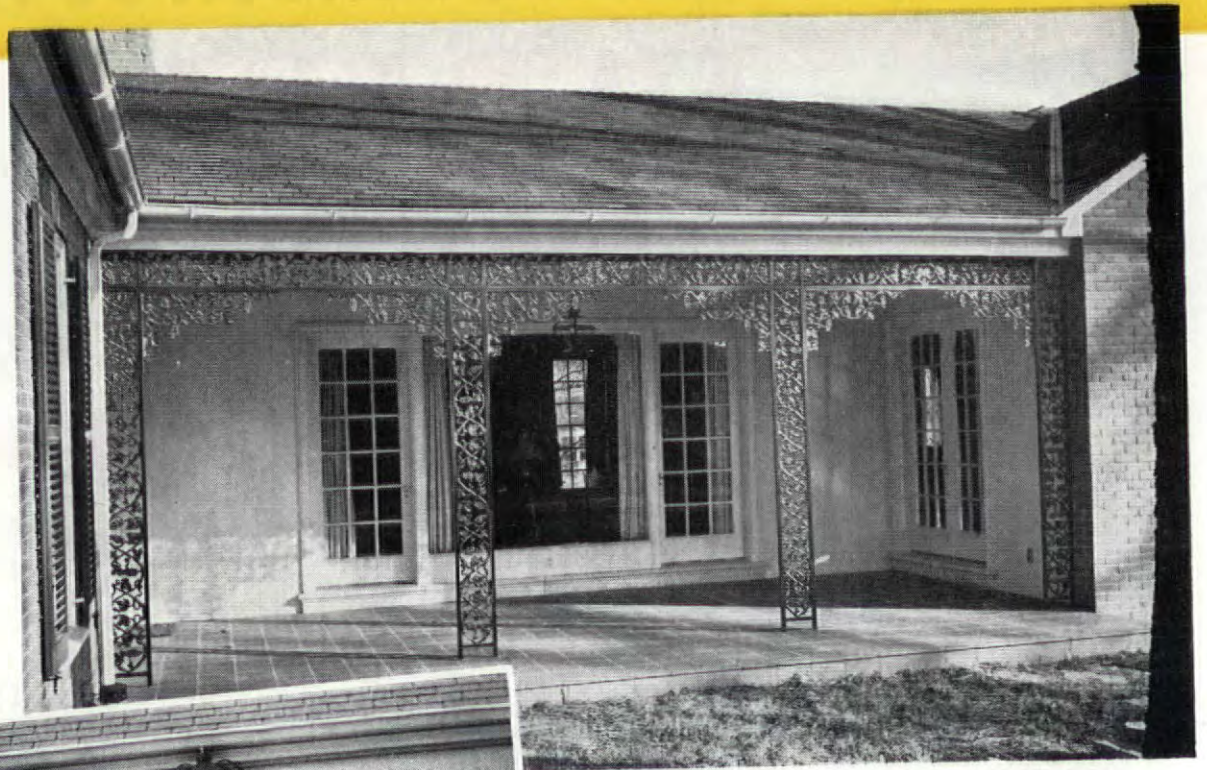
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STAIRS



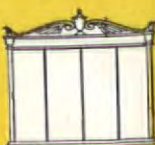
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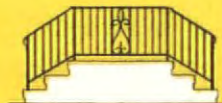
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CIVIL ENGINEER—interested in soils work and foundation engineering. Experience in designing of structural steel, concrete and wood projects. B.S.C.E. from Purdue University. Would like a position with a good future in a progressive organization, preferably in or near Phoenix, Tucson or Los Angeles. 28 years old, married. Box E-241.

HOSPITAL ENGINEER—44 mos. Post Engineer largest Army General Hospital (multi-storied). Pre-service exper. 10 years management diversified income properties. Available after May 15 for consultation on hospital constr. and remodeling; or operation of large hospital center. Box E-242.

INDUSTRIAL DESIGNER—Fully acceptable qualifications in product designing, styling, industrial illustration, patent drawing. Education and exper. of high calibre. Age 30, married, combat AAF vet. Properly qualified in ability and background. Box E-243.

INDUSTRIAL & COMMERCIAL MODELER—Exper. arch. and engr. draftsman desires commissions to build accurate scale models of residences, hotels, restaurants, public bldgs. and any and all types of bldgs. from your plans, no job too large or small, satisfaction guaranteed. 14 yrs. exper. in scale model bldg. Pictures of recent projects upon request. J. L. Browne, 229 S.W. 9th St., Miami, Fla.

INDUSTRIAL DESIGNER—Age 30, married; B.A. Industrial Design, Univ. of Cincinnati; desires creative design connection with industrial designer or firm. 4 years diversified experience. References. Box E-244.

ACCOUNTANT—Desires position as accountant—cashier—assistant treasurer—with future in construction or engineering firm. 15 yrs. accounting experience, licensed broker, 3 years USN Disbursing. Age 38. Box E-245.

ARCHITECT—34, licensed, degree in arch. Desires position leading to partnership in architect's office or bldg. development. 12 yrs. varied exper. in residential, industrial, public & institutional bldgs. Capable of running an office. Competent designer, draftsman and renderer. Business minded. Box E-246.

ATTENTION: CONTRACTORS, ARCHITECTS, HOME BUILDERS—Complete engineering services. Studies, investigations, design and construction surveys for your water supply, sanitary or housing project. New York and vicinity. Box E-247.

CIVIL ENGINEER—28, Jr. ASCE, Lt. Corps of Engineers, 2½ yrs. Army service, 1½ yrs. surveying and drafting air base construction, 1½ yrs. Engr. Corps NYCRR, 2 yrs. general constr. Desires position in constr., engineering, or allied industry, where advancement is determined by merit. E-248.

ARCHITECTURAL DRAFTSMAN—USNR "Seabees" Ex-Navy officer desires contact with architect or builder as draftsman or supervisor of constr. Had exper. as draftsman with arch. & engr. firms. Will accept work as representative or exec. for large material mfrs. Location New York, South or Calif. Box E-249.

CIVIL ENGR.—Recently released Army Major, 5 yrs. with Corps of Engrs., several yrs. as Staff Officer, Plans and

Operations. Planned and superv. all types of army constr., including all types of prefab huts. 8 yrs. pre-war exper. in bldg. constr. 3 yrs. C.E. at Missouri U. Desires pos. with bldg. concern. Box E-250.

SALES ENGINEER—37, Army officer on terminal leave, 13 yrs. exper. structural and civil design and heavy construction. Desires pos. on East or West Coast in sales or promotion of arch. or engr. equipment lines. Willing to travel. Box E-181.

JR. DRAFTSMAN—Ex-Naval off., 25, 3 yrs. pre-war exper. in constr. and arch. drafting. Attending architectural school at night. Keenly interested in small home development. Prefer affiliation with Westchester or southern Conn. architects. Box E-251.

MUNICIPAL ENGINEER—Exper. in utilities project lay-out, constr., operation, and maintenance, including: refrigeration, air conditioning and steam heating. Water purification and sanitation license, licensed professional civil engr., Texas. Age 39, good physical condition. Prefer Southwest or Pacific Coast states. Write, wire or phone, R. C. MacLain, 214 W. Lincoln, Harlingen, Tex.

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ARCHITECTURAL DRAFTSMAN—5 yrs. schooling and 5 yrs. experience. Desires part-time work in New York City. Box E-255.

LANDSCAPE ARCHITECT—Married, 27, B. S. in L. Arch., Iowa State College. 1 year exper. as city planner. Also has exper. as site planner and civil engineer. Prefers East or Middle West. Box E-256.

CONSTRUCTION AND DESIGN MANAGER—Ex-Commander, Civil Engineer Corps, USNR. Commanded construction battalions (Seabees) Atlantic and Pacific areas. Age 35. Licensed professional engineer. Resident officer, 000,000 design contract. 17 yrs. train and exper. design and constr. management large scale projects. Box E-257.

ARCHITECT—Lt. Comdr. USNR, 30 years old, now on terminal leave, returning to Calif. Desires connection with Calif. architect leading to association partnership. Licensed New York N. Carolina. 18 years experience types residential and commercial work. Box E-258.

ARCHITECT—Registered. Grad. Univ. of Illinois, age 43, married children. Recently disch. as a Civil Engineer with 2 yrs. in Italy, having broad arch. exper. in all types of construction, also well based in structural engineering, mech. engineering, and specification work desires a position with an estab. arch. firm on the West Coast in the East on partnership basis. Consider overseas assign. Box E-259.

ARCHITECT—Navy off. vet. Age 30, married. 10 yrs. general arch. experience. Licensed in N. J. Desires position leading to partnership. New area preferred. Box E-234.

ENGINEER—Navy Lt. (jg) disch. 15. Has B.S. in Ae. Engr. (plant major), Univ. of Michigan. United Aircraft design dept., duty in Navy 2 yrs. Desires Midwest East Coast engr. production or sales. Box E-235.

ARCHITECTURAL DRAFTSMAN—DESIGNER—Navy Lt., on terminal leave, desires position with progressive firm with opportunity to utilize ability. B. of Arch., Univ. of Dame, limited general practice experience. Wide service experience in personnel and administration. Meets pref. Box E-236.

DRAFTING APPRENTICE—Young married man desires to work as an apprentice in architectural or engineering. Is at present studying mechanical drafting at Pratt Institute evenings. Box E-237.

ARCHITECTURAL DRAFTSMAN—vet. 12 yrs. experience in commercial and industrial work, and housing. civil engineer. Desires position architectural or structural drafting. No location preference. Box E-238.

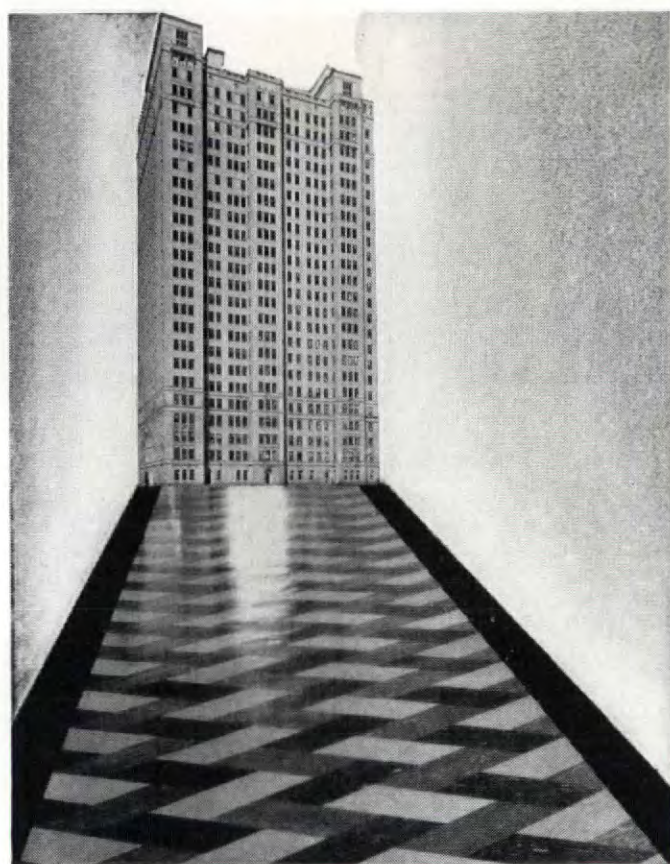
ARCHITECTURAL DRAFTSMAN—vet. 27, married. B. S. in Architectural Engineering, Iowa State College. 1941. 2 yrs experience as hull man; 1 year varied drafting, surveying and design. Desires permanent position in West or Middle West. Robert Nings, 120 Roosevelt Drive, Waukegan, Iowa.

VETERAN desires an opportunity learn drafting. 28 years old, married and has 6 months schooling in drafting. Starting salary no objection there is a chance to learn thoroughly and opportunity for advancement. Box E-239.

ARCHITECT—28, Lt., USNR, discharged in April. AB and Arch. with distinction. 3 yrs. practical and varied experience, including & govt. work. Desires permanent connection with arch. firm doing modern

Box E-231.

(Continued on page 17)

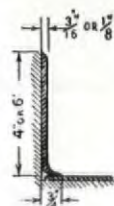


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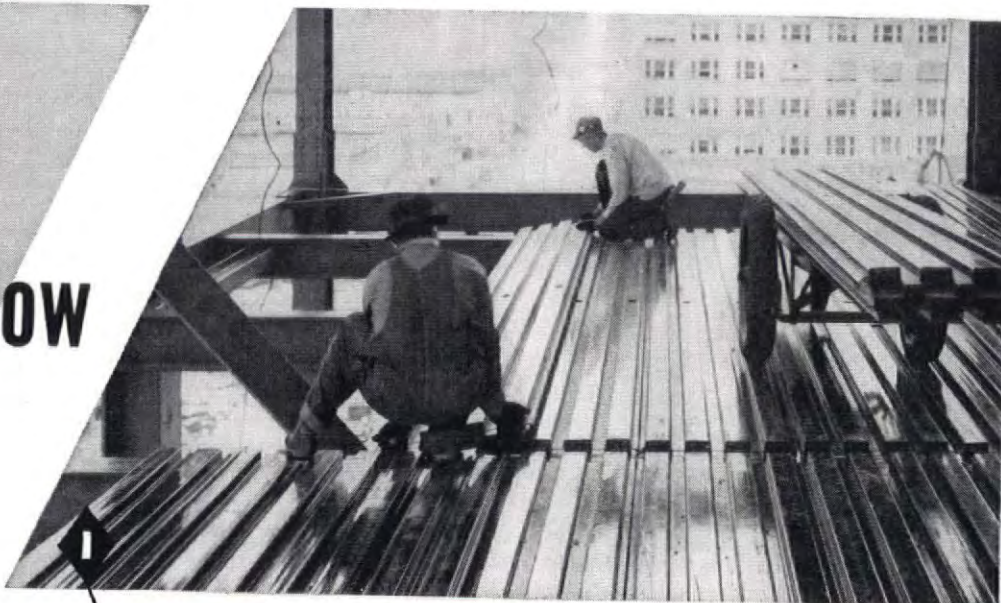
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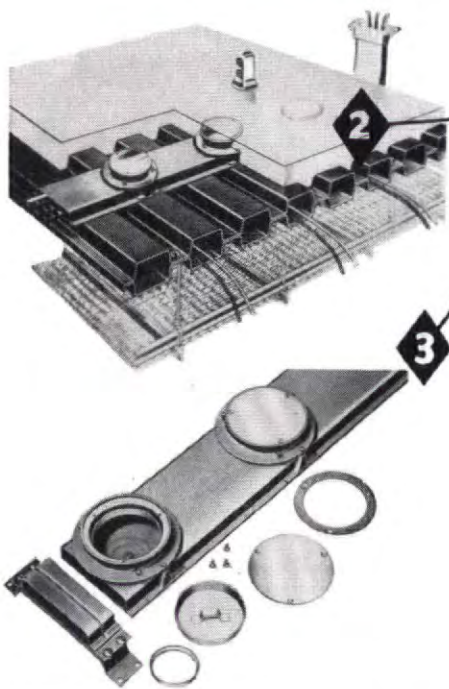
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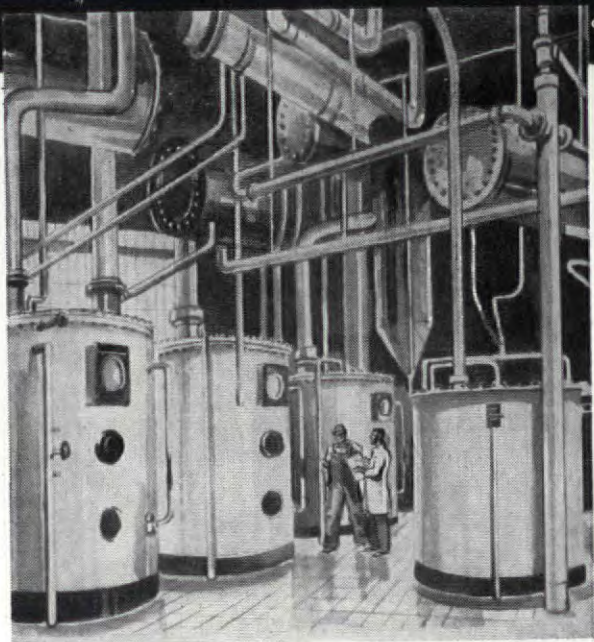
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ARCHITECTURAL DRAFTSMAN—Wanted in Charlotte, N. C., architect's office, capable of producing complete working drawings and details from the sketch stage. State sal. desired and complete information. Pleasant working conditions in an office that has a wide general prac. R-222.

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PRINCIPAL PLANNER—Pos. avail. in City Planning office in Canada carrying on devel. of comprehensive plan for metro. urban area for indiv. with trng. and preferably exper. in the planning field, with abil. to superv. drafting room and initiate schemes. Advise exper., qualifications and sal. desired. Reply Metropolitan Plan, Greater Winnipeg, 605 Time Bldg., Winnipeg, Canada.

DRAFTSMAN—required for city planning office. Good delineator, interested in devel. drafting technique in the planning field, pref. with arch. or allied trng. Reply stating exper. and qualifications, to Metropolitan Plan, Greater Winnipeg, 605 Time Bldg., Winnipeg, Canada.

EXPER. ARCHITECT—man with railroad service preferred, to design, detail and supervise constr. of all types of railroad bldgs. Conditions of employment good, location Texas. Give full outline of qualifications, educ., exper. and sal. expected. Box R-223.

ARCHITECT—We wish to employ a young architect in a consulting pos. for the purpose of assisting home owners and bldg. contractors in elec. home installations, particularly adequate wiring, new kitchens and laundry equip. Should have the qualifications of being a regis. arch. in Ohio, and also be of type who is sales conscious as well as an architect and engineer. Box R-224.

SENIOR DETAILERS—must have a complete knowl. of detailing and able to detail the most complicated kind of work; make cutting lists and mill orders; do any routine in connection with detailing. Under gen. supervision. Salary, \$1.55 to \$1.70 per hour. Box R-225.

CHIEF DRAFTSMAN—for reinforcing bar fabrication. Broad exper. in detailing bars for all types of struc. required. Must be capable of scheduling work and handling men. Sal. open. In reply, pls. give exper., sal., and when avail. Box R-226.

CHECKERS—must be an exper. detailer, who can assume the respons. for everything being correct and properly done by the detailer. Must be accurately and completely informed in every phase of turning out shop detail drawings. Sal., \$1.70 to \$1.85 per hour. Box R-227.

GRADUATE ARCHITECT—Young, wanted by consulting engr. firm. Must be capable of rendering drawings of municipal and indus. bldgs. and homes. Excel. opportunity. Submit resume and salary expected to Waldo L. Scott, Consulting Engr., Box 312, Watertown, So. Dakota.

DESIGNER OR EXPER. DRAFTSMAN—interested in creative modern design for stores and commercial bldgs. Good salary based on abil. and excel. future. Lester C. Tichy, 369 Lexington Ave., N. Y. C.

ARCHITECT—interested in product design and store design wanted as associate by industrial designer in San Francisco. Box R-228.

ARCHITECTURAL DRAFTSMAN—also first asst. arch., or possibly will associate. Can make right man excel. prop. Small office estab. 25 yrs. Extensive prac. several states. City 50,000 pop., elevation 2,000 ft. in mts. Perfect climate. Theatre and hosp. exper. pref. Send comp. personal and job history with fairly recent photo. Ronald Greene, Arch., 809 Jackson Bldg., Asheville, N. C.

EXPER. ARCH. DESIGNER AND DRAFTSMAN—Wanted by architects' office with large practice in South. Excel. salary; unlimited oppor. for qualified men. Dreyfous and Seiferth, Audubon Bldg., New Orleans 16, La.

CIVIL ENGINEER (P-2)—Wanted by War Dept. in Texas to compile and analyze physical data for watersheds or project studies, such as delineation of drainage areas, area-capacity computations for reservoirs prep. of working profiles and maps and assembly of data for drafting exhibits for reports. Tabulate and check field notes to be used in plotting work maps and exhibit drawings of river profiles showing stream bed, average banks and high water profiles as well as the location of tributary streams, bridge crossings and other improvements. Box R-229.

CIVIL ENGINEER (P-1)—Wanted by War Dept. in Texas to make delineations of watershed divides including subdrainage areas by determining the location of divides on contoured topographic maps, aerial mosaics, and other maps. Compute the area of watersheds and subdrainage areas by use of planimeter. Compute river mileages and location of bridges and other structures by use of dividers, compile survey data correlate traverse and cross section data to correspond to river mileages. Box R-230.

ARCHITECTURAL DRAFTSMAN—Wanted by food concern in Southwestern Pa. Capable of assisting in the design of industrial buildings, making plant layouts, writing specifications, and when necessary, inspecting construction work. Prefer man in early thirties, and a graduate from a recognized school of architecture. Salary open, commensurate with man's qualifications. Box R-231.

CIVIL ENGINEER—Wanted by food concern in Southwestern Pa. Prefer graduate who has had some experience in the designing and erecting of structural steel and, if possible, some experience in supervising construction. Prefer man in early thirties. Box R-232.

ARCHITECT—Wanted by long established building contractor in Phila., must be thoroughly experienced in gen-

eral layout and detailing for new alteration work both residential and commercial. Regis. preferred but not necessary. Box R-233.

ENGINEER—Large industrial concern planning plant facility and factory expansion. Interested in man with industrial, architectural and plant layout experience. Age 30 to 40. Position permanent. Box R-208.

ARCHITECT OR ARCH. DESIGNER—Chance for ambitious young man to get into the housing field, and work with large housing authority in the Midwest where new and progressive ideas are welcomed. Box R-209.

DRAFTSMAN—for architectural and interior work. Knowledge of furniture and interior woodwork essential. Beginner with short experience acceptable. Box R-210.

ARCHITECTURAL DRAFTSMAN—Experienced in planning and design modern store interiors—able to assume full responsibility developing complete working drawings. Progressive office in N. Y. C. Excellent possibilities advancement. Permanent. Box R-211.

ARCHITECT OR ARCH. ENGINEER—graduate wanted by major airline for functional designing work on airport terminals, and hangars. Applicant should have initiative and ability to develop designs both preliminary and details from outline requirements. Industrial building experience desirable. Location middle-West. Reply give age, education, general qualifications and salary desired. Box R-234.

ARCHITECTURAL DRAFTSMEN—men capable of producing sketches complete working drawings for commercial, residential, public, schools, churches. We specialize in commercial architectural and construction supervisory service. Salary according to ability to produce. Box R-214.

CIVIL ENGINEERS—Univ. graduate 4-5 yrs. experience including project chief. Registered as engineer and surveyor, preferably national. Box R-215.

ARCHITECT—National or top registration. University graduate. yrs. diversified experience; some report design desirable. Box R-218.

FURNITURE DRAFTSMAN—Experienced. Must know wood construction contemporary furniture. Steady employment. New York area. Write for pointment. Box R-219.

ARCHITECTURAL DRAFTSMAN—Wanted by long established architectural firm in Ohio. Must be experienced and capable. State age, experience, education. Ideal working conditions. Public building bulk of work. Medium size city. Box R-213.

ARCHITECTURAL DEPARTMENT HEAD & ASST.—Progressive lumber company, Denver, wants man to arch. design production dept. small homes work. Need not be an architect. Also require two young with some drafting and general exper. Will train. All should be able to handle customer contacts. Box R-217.

ARCHITECTURAL DRAFTSMEN—work in architect's office in Fla. Should be familiar with preliminary layouts and working drawings on apartments, hotels and commercial structures. Will pay good salaries to familiar with tropical arch. Box R-216.

SALES ENGINEERS—Architectural civil. Large manufacturer of building materials has need for three men, yrs. of age, good personality, to contact leading architects, building engineers, etc. Locations Chicago, New York and Atlanta. Permanent positions and opportunities for advancement. Box R-201.

for the first time . . .



The Cleanable *Electro-CELL*

Sectional-type Electronic air filter with removable collector plate assemblies. This feature eliminates need for providing water, oil, compressed air and sewer connections at each installation. Spare collector plate assemblies can be set into place and service continued uninterrupted while dirty plates are being cleaned. Send for Bulletin No. 252.



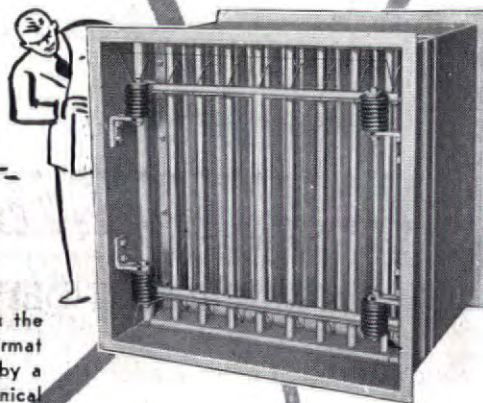
Self-Cleaning *Electro-MATIC*

The completely automatic operation of this Electronic filter answers both the problem of removing the dust and smoke from the air, as well as the secondary problem of disposing of collected material. A continuous curtain of collector plates passes intermittently down the front of the filter and thru a viscous cleaning bath at the bottom. Send for Bulletin No. 250.



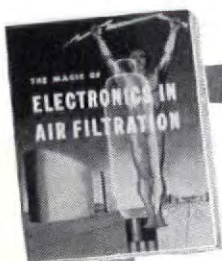
Renewable Media *Electro-AIRMAT*

This is the only Electronic dry filter on the market. Uses sheets of "charged" airmat paper which are renewed manually or by a mechanical loader. Combines mechanical filtration with Electronic cleaning providing continuous service even thru a period of power failure should it occur. Send for Bulletin No. 253.



a complete line of *Electronic* air filters

• AAF offers, for the first time, high efficiency air cleaning in three types of Electronic filters to meet any requirement, either commercial or industrial, for super-clean air. For the interesting story behind the development of these filters which are the result of 10 years of research and experimentation send for the helpful booklet shown below.



THE MAGIC OF ELECTRONICS IN AIR FILTRATION will be sent free on request. Write for your copy today, there's no obligation.



AMERICAN AIR FILTER COMPANY, INC.

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FOR EVERY COMMERCIAL AND INDUSTRIAL AIR CLEANING PROBLEM



ANYSTREAM SELF-CLEANING SHOWER HEAD

NOW AVAILABLE

FOR PROMPT DELIVERY

In new construction or in modernizing, no shower is at its best unless it has a Speakman Anystream Shower Head. Here's a shower that's built for years of unmatched service. With a turn of the adjustment handle the user may adjust the spray at will.

There are no annoying "hollow spots" in the Anystream spray. Nor will an Anystream become a "squirter" producing a scattered spray pattern—the self-cleaning feature keeps it from clogging.

Use Anystream Self-Cleaning Shower Heads to keep new installations up-to-date . . . and to rejuvenate old shower baths. For homes, hotels, apartments, schools, hospitals and institutions.

*Speakman Showers and Fixtures are distributed nationally
through plumbing wholesale supply dealers
and plumbing contractors.*

A condensed catalog of Speakman Showers and Fixtures is listed in Sweet's Architectural File.

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SHOWERS AND FIXTURES

"The best in brass since 1869"

SPEAKMAN COMPANY, WILMINGTON 99, DELAWARE

3 SHOWERS IN 1



1 REGULAR SPRAY
Relaxing, soft, satisfying.



2 NEEDLE SPRAY
Just turn the adjusting handle a quarter-turn and you have a tingling, invigorating needle spray.



3 FLOOD SPRAY
Another quarter-turn and you get a no-splash rinse.



NEVER THIS—No squirt, no dribble with an Anystream Head. The self-cleaning feature keeps the spray full-flowing and free of "hollows" and "dry spots."

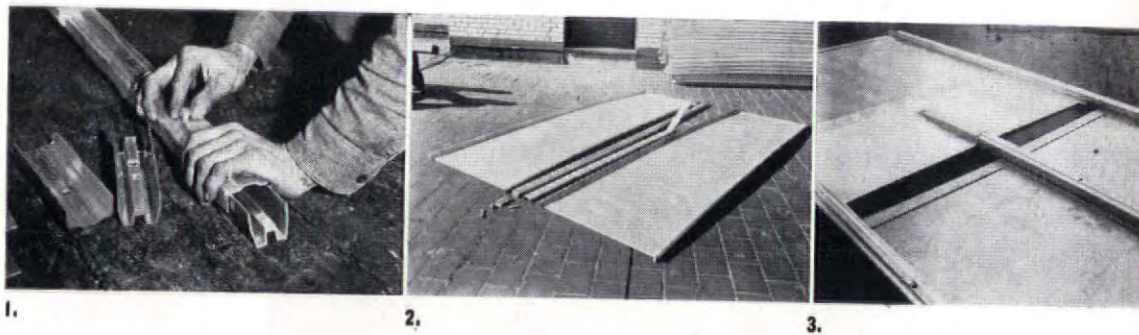
PRODUCTS AND PRACTICE

PREFORMED ALUMINUM ROOF

is slipped on to concrete dome of Cincinnati's Union Terminal without a hitch. Weighing one-twentieth of its predecessor, and designed for a high expansion-contraction factor, it promises low maintenance and long life.

A prefabricated aluminum roof has recently been installed on the reinforced concrete half-dome and barrel vault of Cincinnati's thirteen year old Union Terminal. Weighing only one-twentieth as much as the ceramic facing it replaces, the new installation is interesting not only for its size—32,000 sq. ft. of roofing was involved—but also for the fabrication and installation methods employed. A total of 1,123 sections of 14 gauge aluminum sheet was fabricated by the Overly Manufacturing Co. at their Greensburg, Pa., plant. These sections had to be tapered in plan and curved in both directions to correspond exactly to the dome and barrel. Extruded battens and caps had also to conform to the curve of dome and barrel. And to handle the problem of expansion and contraction, which is considerable in a roof of this size and type, all joints were staggered. Thus the entire job had to be laid out full-size at the plant and all pieces numbered as they were produced.

Prior to the actual installation of the new surfacing, the old roof was removed and the concrete dome and barrel prepared. The existing 30 lb. felt layer was left in place, being repaired where necessary. On top of this a 1 in. layer of Armstrong cork was mopped on, followed by another layer of 30 lb. felt. This was topped by a 15 lb. asbestos felt whose upper surface was dry. On this foundation, the prefabricated aluminum sections were laid. Dome was topped by prefabricated crown caps of special design, welded in place.



PARTS The Terminal roof employs the so-called Goodwin batten system. It consists of three basic elements: the battens and batten caps 1, and the curved and tapered sheets 2. Preformed to exact curvature of dome, these sheets are also tapered: in the upper third of the dome, every other batten is received by a specially-formed overlapping sheet 3.

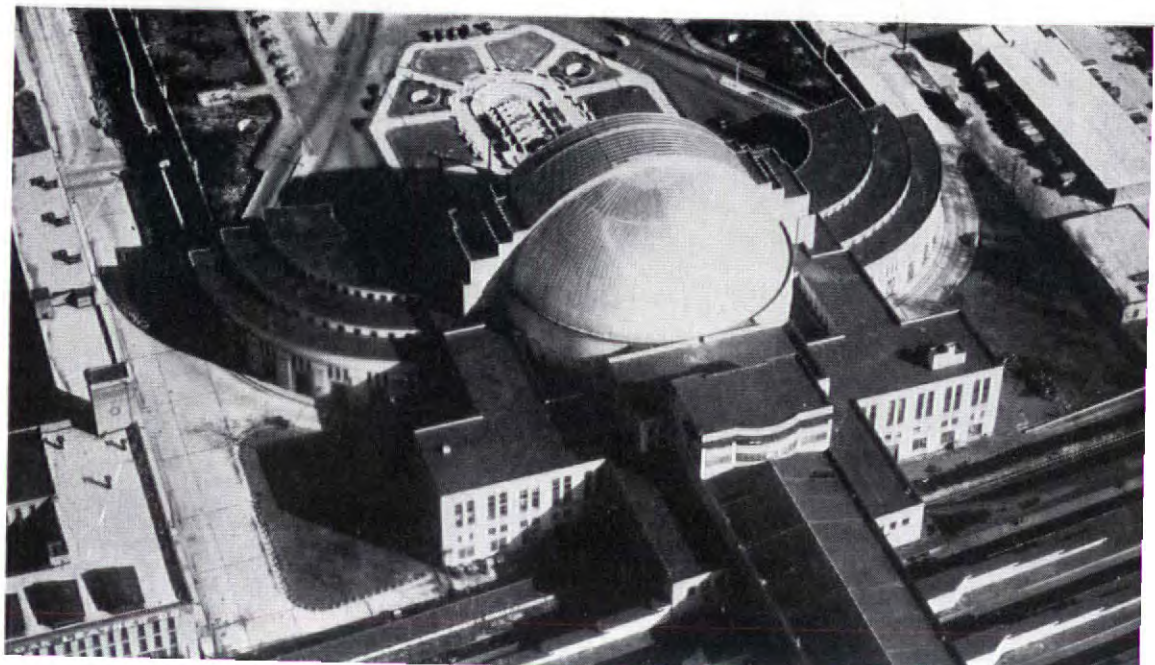


INSTALLATION After removal of the old roofing, the felt was repaired, cork sheets and asbestos felt mopped down 1. Subsurface complete, battens were installed 2. To secure these in place, holes were drilled through felt, cork and 1½ in. into concrete. After expansion shields and caulking compound were placed, anchor bolts were inserted in holes. Final step involved slipping roof sections over battens and then bolting weatherproof batten caps into place 3.



PROGRESS of the job over three and one half months is apparent in construction views above. Work proceeded both laterally and vertically, though each segment was begun from the base and developed upward. Special mobile scaffolding increased safety and speed of job.

FINISHED ROOF presents compact network of interlocking, sliding aluminum elements capable of withstanding expansion and contraction while remaining weatherproof. All parts of roof are readily accessible for any emergency repairs.

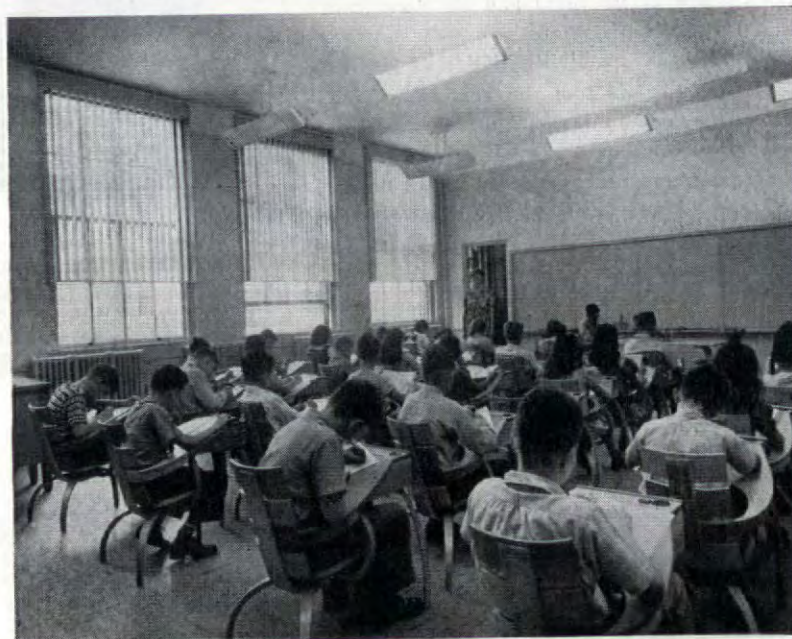
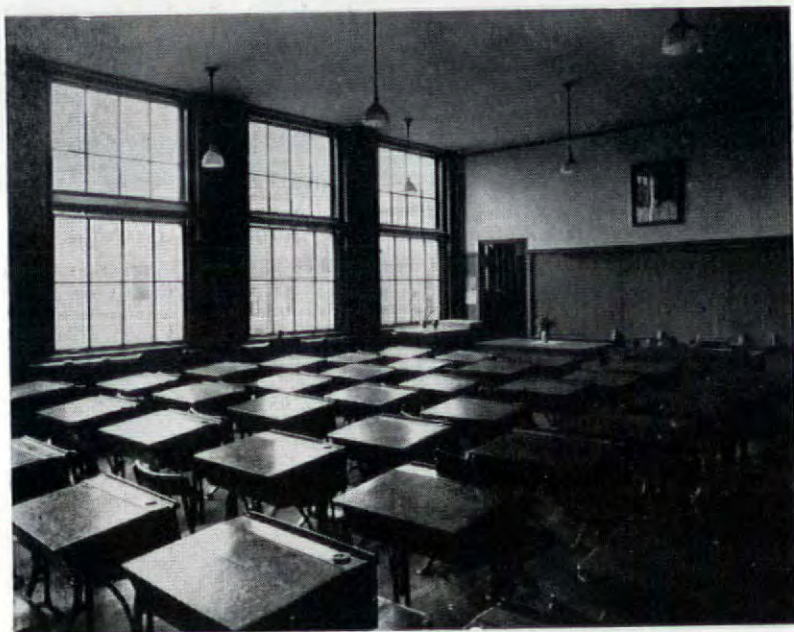


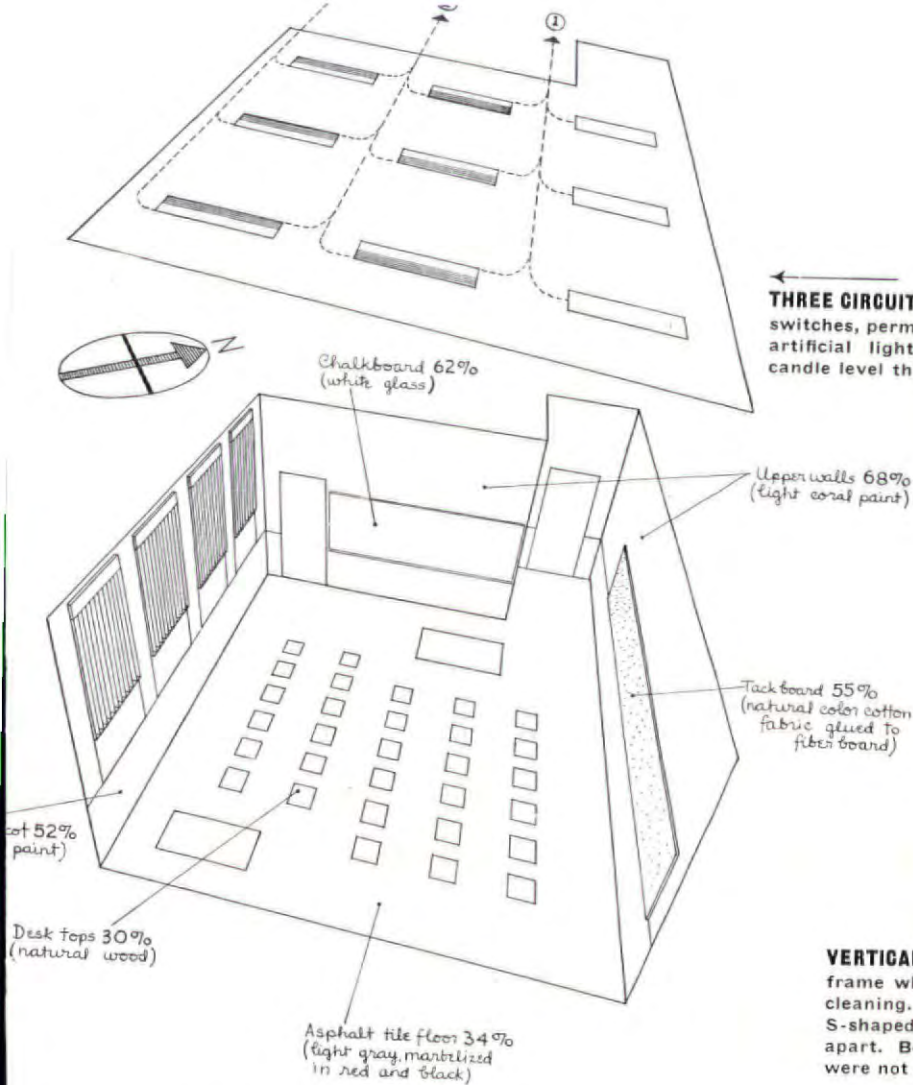
It is not often that such dramatic changes are wrought by such simple means as those used in this remodeled classroom in the Bowditch School at Salem, Mass. A standard lighting fixture, a new chair, vertically-louvered blinds and ordinary paint combined to produce a startling increase in the efficiency and pleas-

antness of a 30-year-old classroom. But if the means were simple, the analysis of the problem was unusually imaginative and complete and the solution was anything but routine. The entire project was designed and financed by the General Engineering Department of Sylvania Electric Products, Inc., in cooperation

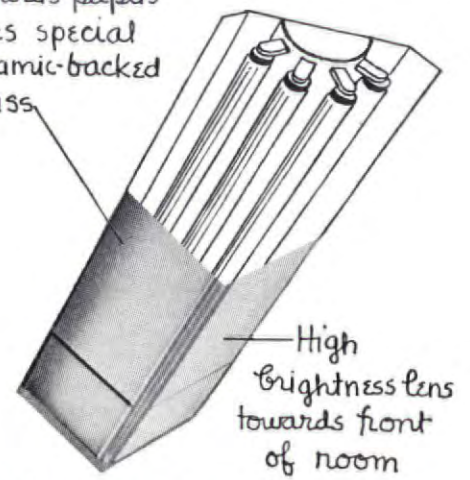
with the Salem School Department. The room was selected because it was typical of thousands like it across the country. The problem was to provide the best possible visual environment without major changes. How well this was accomplished is apparent in the paired pictures below of conditions before and after.

BEFORE





towards pupils
uses special
ceramic-backed
glass



STANDARD HANGING FIXTURES were hung 2 ft. below ceiling from existing outlets. Asymmetric brightness was achieved by different glasses on opposite sides of fixture.



VERTICAL METAL LOUVERS are fixed in frame which is hinged at top for window cleaning. Louvers are 4 in. wide, slightly S-shaped in section and spaced 3 1/2 in. apart. Because of nearby buildings, blinds were not needed on lower third of window.

HIGH ILLUMINATION, even light distribution, low brightness contrasts and reduction of glare yield new standards of student comfort.

Before Sylvania's engineers made any changes in the Bowditch classroom, they measured its visual environment. Conditions were pretty bad. Even with the lights on, desks along the inner wall seldom got more than two or three foot-candles. Brightness contrasts were appalling: contrast between the window and the surrounding wall was on the order of 150:1, while the spread between window and front wall was 55:1. The glare on the desk tops was severe; and the brightness of the sky at the forward angles of the children's field of vision was excessive. When finished, the general illumination level of the room had been raised to 17 foot-candles *without lights* (and without louvers) along the inner row of desks, and to above 40 foot-candles with lights. The brightness ratios mentioned above had been reduced to 7:1 and 2 1/3:1, respectively; glare had been greatly reduced and sky-brightness eliminated from the children's field of vision. A dark and shabby room had become a bright, attractive one which students and teacher both like.

Color and light reflectivity

It is typical of advances in illumination that Sylvania engineers began their redesign of the visual environment with the room rather than the lamps. First step was to alter completely the light reflecting properties of every surface in the room—ceilings, walls, floor and furniture. Wall and ceiling colors were selected only after careful consideration of those in use elsewhere. The engineers found "much theo-

rizing about warm or cold, advancing or receding colors." But they decided that cool colors were of no great importance to a room so little used in hot weather while warm colors had the advantage of looking very much the same under daylight as under white fluorescents. Hence the colors finally selected were warm, coral tones. The upper walls were lighter (Munsell Color No. 50YR 9/2) while those of the wainscot were the same but darker (Munsell Color No. 50YR 8/4). The ceilings were painted in white with a trace of wall color. The new venetian blinds were painted wainscot color.

The huge light-absorptive area of the old blackboards was replaced with off-white glass chalkboards (backpainted with ceiling color) across the front of the room; elsewhere blackboards were replaced with tackboards. These were made of natural color cotton crash pasted like wallpaper onto fiberboard panels.

The dark wood floors were covered with a light gray asphalt tile, marbelized in red and black. The new chairs and desk (see page 182) have a light natural wood finish.

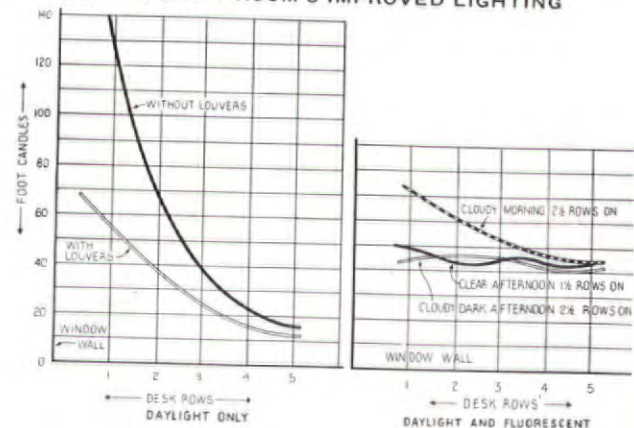
Thus redecorated, the classroom yielded the following reflection factors:

Surface	Reflection in per cent
Ceiling	82
Upper walls	68
Chalkboards	62
Tackboards	55
Lower walls	52
Desk tops	30
Floor	34

Control of natural and artificial light

The Bowditch classroom employs two very simple fixtures for control of natural and artificial light. The first of these are the specially-designed and fabricated venetian blinds (see above). Vertically-louvered, these are an effective answer to several daylighting problems. They eliminate excessive sky-brightness from the child's field of vision when facing forward; yet they permit him to see out by turning to one side. They allow as much daylight as possible to reach the inner side of the room. They require no adjustment—pulling down the roller shade behind them excludes direct sunlight. A small theoretical gain in efficiency could have been made by having movable louvers which could be adjusted to different

CHARTS SHOW ROOM'S IMPROVED LIGHTING

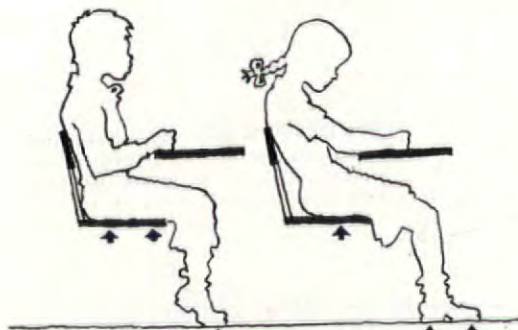


New seating is important aspect of pupil comfort in renovated classroom at Bowditch School.

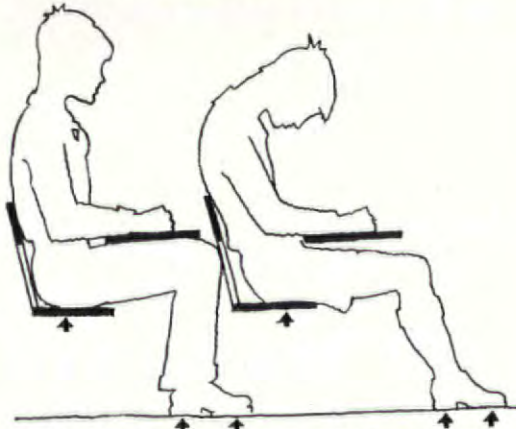


The seating used by Sylvania engineers was designed by the Boston architects Markus and Nocka, and is manufactured by the Hagerty Co. of Cohasset, Mass. Based on extensive research, the new laminated chair incorporates new concepts of posture and comfort. Principal feature is an automatically adjustable seat. A special hinge permits the seat to pivot horizontally from front to back (but without any movement from side to side) and a spring keeps the action from being too abrupt. The contour of the seat is also a composite of many tests.

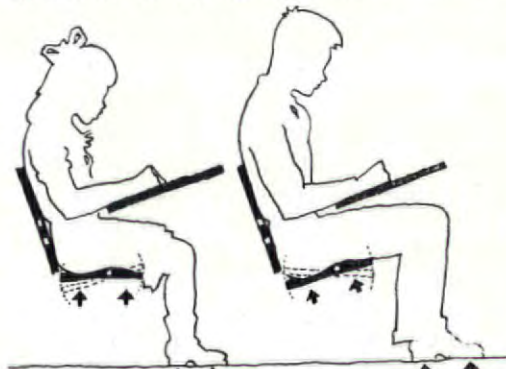
The combined chair arm and desk was sloped to 18.5° from the horizontal for visual purposes (the chair back is sloped 18.5° from the vertical) and is designed to fit the body much more closely than the conventional school desk. Although the unit as a whole was found to be satisfactory from the standpoint of vision and posture, the children found it difficult to get in and out. The designers are now working on a free-standing desk unit, a mock-up of which is shown below.



SHORT PUPILS slouch forward in order to place their feet on the floor since—sitting erect—their feet may be as much as 2 in. off floor.



TALL PUPILS in conventional seating must slouch forward in order to use desk top for writing.



ALL PUPILS in Marcus-Nocka seating have their weight evenly distributed between pivoted seat and floor. Note that short pupil is raised, tall pupil lowered toward the same writing plane.



NEW DESK EMPLOYS REVERSIBLE TRIANGULAR WRITING AND DRAWING BLOCK

daylight conditions. But it was felt that this gain would be more than offset by the risk of the louvers being left at the wrong angle.

Nine standard fluorescent fixtures were hung from new outlets near the former ones, the bottom of the fixture being 2 ft. from ceiling. The only modification was the use—on the side toward the back of the room—of a glass of greater density having a ceramic coating on the inner side. This reduced the brightness on the student's side to approximately 1/2 of the forward side. The engineers felt, however, that further reductions in brightness were desirable: "a reasonable goal seems to be one candle-power per sq. in. which is the general brightness of the room." Experiments along this line are continuing.

These fixtures are organized into three independent circuits (see wiring diagram p. 181). Switch No. 1 controls all lamps in inside row and upper two lamps in center row of fixtures. This circuit is kept on at all times; otherwise no desk in a room of this width, with windows along only one wall, would get the 40 foot-candles of daylight deemed necessary. The second switch controls half the lamps in the middle row of fixtures and half in the outside row. This switch is operated by a student monitor who has a light meter on her desk. When the illumination level falls below 40 foot-candles, she turns No. 2 circuit on. Switch No. 3 controls the remaining half of the lamps in the outer row: these are used only on very cloudy days.

Operating in the redecorated classroom, with its greatly increased reflectivity, the new lighting fixtures and blinds yield an even distribution of light (see charts p. 181). Regardless of weather or sky conditions, this illumination level can be held at 40 foot-candles, and can be raised even higher if desired. But although the general brightness value of the new room is some twenty times that of the old one, brightness contrasts have been even more dramatically reduced. As seen from the rear of the room, using a combination of day and artificial light, principal brightness ratios were measured as follows:

	Ratio
Luminaire to brightest part of ceiling	6:1
Brightest to darkest part of ceiling	4 1/2:1
Ceiling, brightest area, to upper front wall	4:1
Upper front wall to chalkboard	1 1/2:1
Chalkboard to dado	1 1/2:1
Upper side wall to tackboard	2 1/2:1
Tackboard to dado	1 1/2:1
Dado to floor	1 1/3:1
White paper to desk top	2 1/2:1
Desk top to floor	1 1/8:1

The new Bowditch classroom thus affords the children a truly comfortable visual environment, achieved with relatively simple means. The light fixtures are themselves standard. The louvered blinds, if placed in quantity production, should cost less than venetian blinds. Other changes involve no great novelty or expense. White chalkboards should cost no more than black, light colors no more than dark, functional seating no more than conventional. And the children's posture, eyesight and general well-being cannot but be improved.

What the teacher thinks

Miss Alice Nelson of Salem, Mass., is the teacher of the 5th grade class which assembles in the remodeled classroom. Miss Nelson has taught the same grade in this same classroom since 1928; she is thus qualified to judge the effect of the remodeled room on the student's work and on her own work. Says she: "The room is much more pleasant than before. With the old lighting system, the room was either very dull or very bright because it was impossible to control the light.

"It's a little too early to judge whether there has been any improvement in the children's posture since they have been in the room for less than one full school year so far." (Sylvania began work on the room last summer and had it ready for the term starting Sept. 1945.)

Miss Nelson finds the color scheme very satisfactory because "now there is not so much difference between the color of the paper on which the children work and the color of the walls with which they are surrounded.

"As to the chalkboards, I like their appearance but find them harder to work on than the old blackboards." (A plastic chalkboard has been suggested by Sylvania engineers working on this project, but to their knowledge no plastic company has yet developed such a board.)



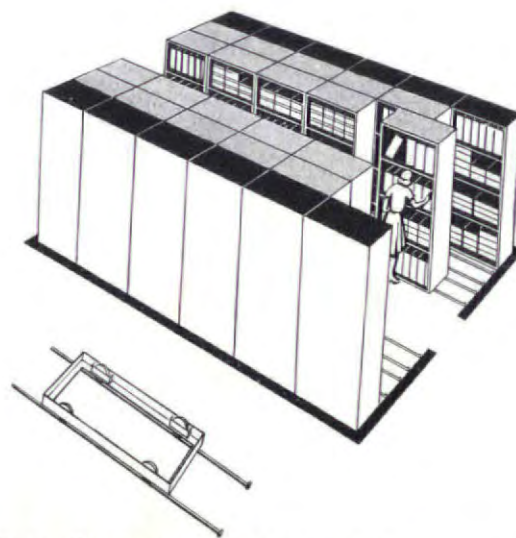
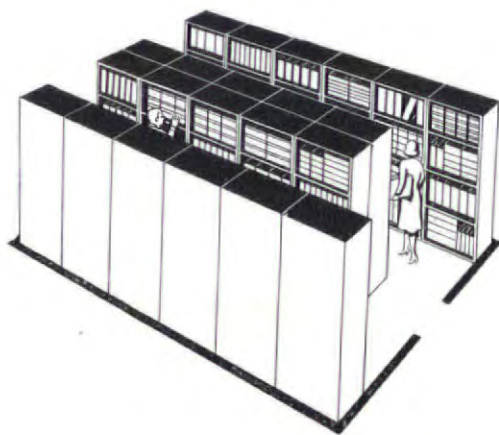
CHILD CAN USE SIMPLE LIGHT METER

"All the children want to work the light meter. If the monitor is out of the room, some other child will always tell me if the light has changed. Before the room was remodeled and relighted, there were always some children complaining that they couldn't see what was written on the board. Since the new lighting has been installed there have been no complaints of this kind and no difficulty in seeing the board from any part of the room.

"The new bulletin board looks well and gives me a place to put so many things I had to keep in the drawers of my desk before . . . Nowadays, we are encouraged to use visual aids as much as possible, and the bulletin boards allow much more room to display such items.

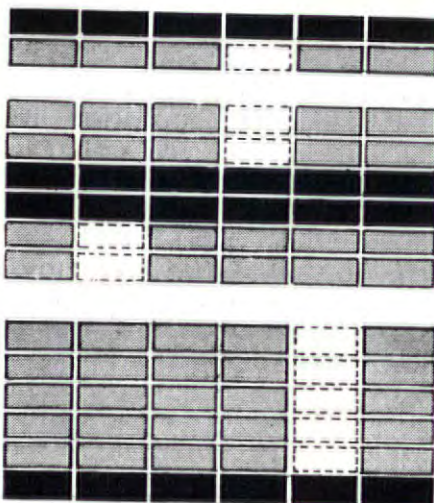
"The children take better care of the room now than they did of the old-style room," Miss Nelson says. "They like to clean it and keep it clean.

Miss Nelson likes her new base of operations: "I hope I don't have to go back to the old-style room," she says.



STORMOR MOBILE UNITS operating on tracks (right) make possible the servicing of six rows of storage units by one aisle, while conventional storage layout (left) requires one aisle for every two rows. Space savings vary according to plant layout, but savings are great as most corridors are eliminated. Diagram (lower right) shows method of mounting mobile units.

MOBILE STORAGE SYSTEM—operating on tracks—achieve space savings of 30 to 40 per cent.



LAYOUTS show adaptability of the Stormor system. Almost any number of movable units (shaded) can be operated in front of a row of fixed units (black).

COMMERCIAL INSTALLATION (below) shows application of four tiers of storage units. Rails may be countersunk where desired.



Stormor mobile storage system is a new method of arranging rows of storage units on wheels to achieve space savings of 30 to 40 per cent. Adaptable to industrial, commercial, office or home storage problems, it provides banks, three or four deep, of movable storage units operating on rails, thus eliminating the many corridors necessary with stationary storage units. A small space in each row left vacant provides maneuverability of units into any position and entrance to the rear units.

Stormor was invented by T. E. Foulkes of England and was used extensively by the British government and many large British industrial concerns during the war. Rating a priority for its importance to the war effort, it was further used in trucks to supply added storage space for mobile libraries and repair trucks used in the African campaign. Patents on this mobile storage system have been taken out in 60 countries, and an American Stormor Co., New York, is in process of organization.

The crux of the Stormor system is a steel frame which has four steel wheels, sized according to the weight it has to support. Racks, storage bins, file cabinets, or containers of almost any description can be mounted on the wheeled units and placed on the rails. They move easily enough that several may be pushed at one time, and rubber bumpers mounted on the top of the storage units provide safety for the fingers. Usual layout of a system calls for several rows of movable units placed in front of a row of fixed units, with a space equal to one cabinet left vacant in each movable row. The flexible arrangement of the front lines of cabinets makes possible quick accessibility of any item stored in any of the rows. Where formerly one corridor served only two stationary rows of storage units, one corridor will service six or more mobile storage rows.

Different types of Stormor units will be available for new installations. Also, systems may be engineered to existing installations where no additional storage units are required.



KITCHEN MAID'S new cabinet line is designed to harmonize with modern kitchen appliances. It incorporates many convenience features such as 1 spice racks, 2 metal lined bread boxes, and 3 ventilated metal vegetable bins.

SIMPLIFIED cabinet design complements kitchen appliances.



1.

2.

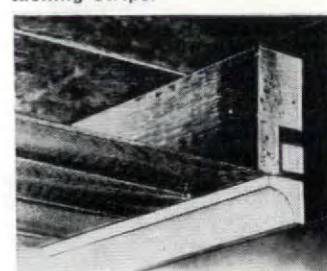
3.

A new "appliance styled" cabinet line, simplified and streamlined to harmonize with modern ranges, refrigerators and other kitchen appliances, has been announced by Kitchen Maid Corp., Andrews, Ind. Doors and drawer faces on the units have been widened to cover the frame, and edges have been rounded to provide a trim appearance. Related drawers are combined vertically as single design units and hardware is plain and unobtrusive. The solid, tight-jointed cabinets are made primarily of wood, factory finished in durable enamel. Other materials, however, have been incorporated where they have proved superior. Metal drawers with wood faces and hardwood oil-impregnated guides, open and close noiselessly at finger touch. Doors of fiber composition stay flat and have no grain. The line includes many convenient features such as cleaning material receptacles, flour containers, vegetable storage bins, bread boxes, cutlery drawer inserts and tray storage compartments.

ACOUSTICAL CEILING TREATMENT employs simple installation of Fiberglas.

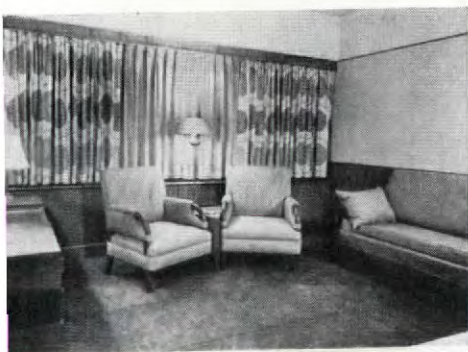
This acoustical treatment, using two types of Fiberglas material, employs a simple method of installing blanket insulation on the ceiling and covering it with decorative Fiberglas fabric. Adaptable to various types of construction, it is a comparatively easy method of achieving sound reduction. John Hand and Sons, Inc., New York, pioneers of the development, have installed this prototype in their office where the ceiling condition was typical of a concrete office building with through beams and exposed pipes and conduits. Two anchor rails, notched at the bottom, were applied to the long walls of the room 8 in. below the ceiling. A Fiberglas cord was stretched back and forth across the room from nails in the top of the anchor rails to form a network. This supported the Fiberglas blanket. Lengths of the decorative fabric, slightly longer than the width of the room were then pleated and stapled around three sides of wooden nailing strips. These strips, measuring $\frac{3}{4}$ in. by $\frac{3}{4}$ in. and corresponding in length to the width of the pleated Fiberglas, had holes bored 12 in. on centers. The fabric and nailing strips lifted into the notches of the anchor rails, were held by screws through the nailing strips. As these were tightened, the material was drawn taut. A molding applied below the anchor strip hid the notches and completed the installation.

ANCHOR RAIL supports Fiberglas blanket. Decorative fabric is held taut by adjustable tacking strips.



BUILDING REPORTER

LOUNGE BEDS for hotels provide more liveable rooms by day, comfortable beds at night



UPHOLSTERED LOUNGES transform the average hotel room into a comfortable sitting room. By raising the back of the lounge and removing the slip cover, a ready-made bed is provided.



Attractive, upholstered lounges which can be easily converted into comfortable ready-made beds, have been designed to overcome the commercial appearance of the average hotel room. Equipped with box springs and a choice of a latex or inner spring mattress, two models, both 77 in. long and 36 in. wide, will be available. In one style the back, in which the sleeping pillows are stored during the day, raises out of the way by releasing a knob near the arm. This transforms the lounge into a ready-made bed when the slip cover is removed. In the other model the back section contains the spring mattress and bed clothes. This pulls down to form the bed. The units move smoothly on rollers, and can be moved away from or against the wall.

Manufacturer: James McCutcheon Co., 49th St. & 5th Ave. New York.

(Continued on page 19)



*Better your home... better your Living

HOME . . . really now, what's there to it?

Shelter from rain, protection from sun and snow, shield from prying eyes? A place in which to sleep, to change clothes, to take a bath? A spot to go to when you want to be alone — away from everybody, everything?

But it can be, oh, so much, much more — if only you'll let it! It can say to a husband, "Welcome home, darling — here's your slumber chair, and your pipe and your slippers."

It can say to a wife, "Relax, sweetheart — take it easy — here's that dream world of mechanical housekeeping to bring you new leisure."

It can say to those swell children, "Why not bring your school-mates over — here's your new rumpus room, your own special play spot, full of your own things."

It can say to your friends, "Come in, join our fun — this is our hearthside, our haven, our home . . . the most wonderful thing that ever happened to anybody!"

All these things it can say. All these things it can be. All these things it can do for you — if you'll only do a little for it!

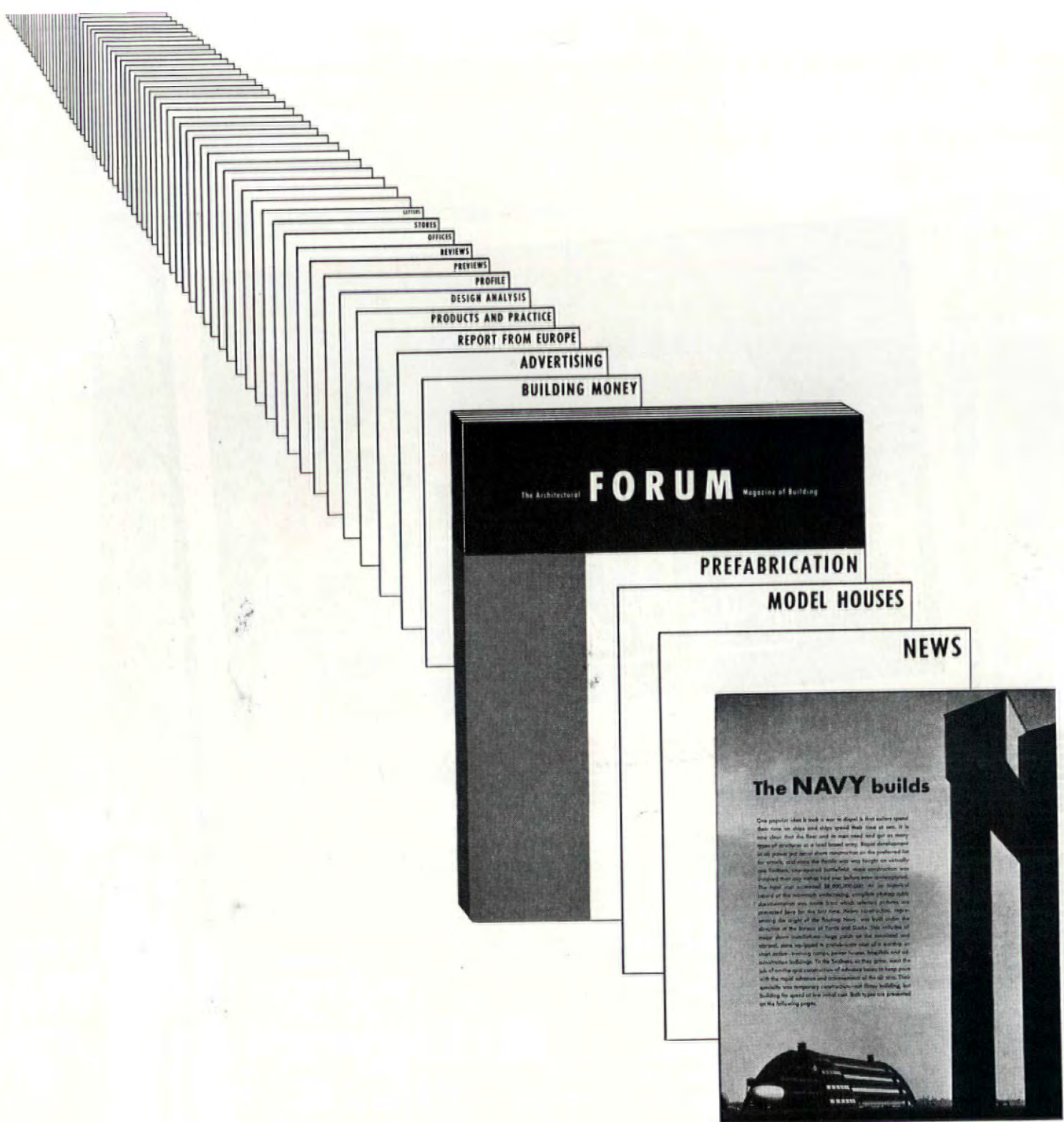
And you'd better begin right now. Begin by getting yourself a "home" magazine and studying its pages . . . by dreaming and planning and figuring budgets. Then walk into the nearest good store, look at their model rooms and the home wares on display . . . let your dreams take a deep breath of reality, take a present to your home — if only a new picture or a door mat. Do that instead of dribbling away dollars on unessentials.

Other people know — and you must never forget — that good people come from good homes.



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...the ideas which will rebuild the U. S. pass through
the covers of The FORUM to the men who will do the job

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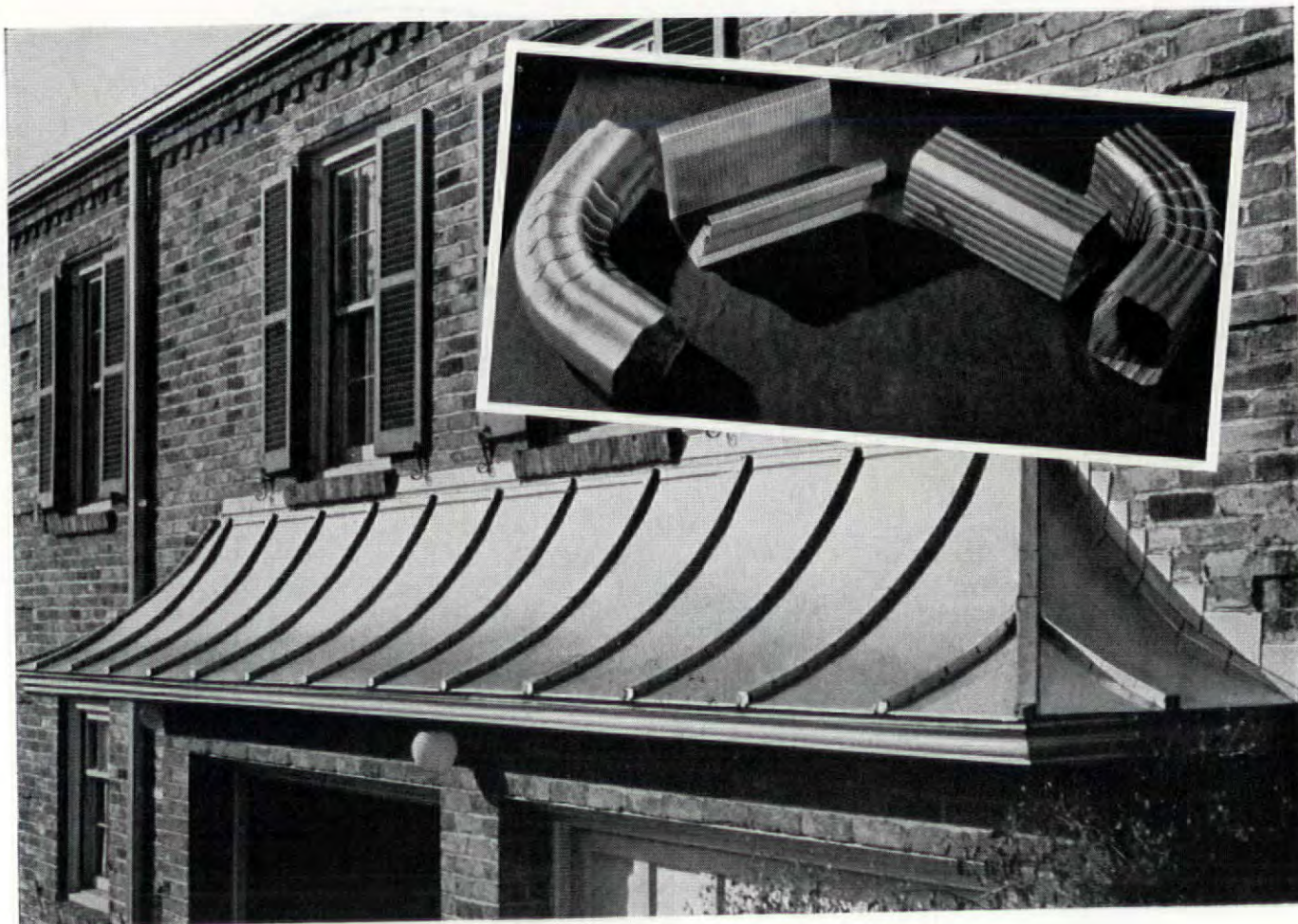
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ALSO WINDOW MAKERS TO THE TRANSPORTATION INDUSTRY

ESTABLISHED 1857

ELKHART, INDIANA

NEW YORK • CHICAGO



HERE'S A ROOF DRAINAGE METAL THAT'S DURABLE AND DISTINCTIVE

Stainless Steel is more than a strong, extra-durable metal that assures long life for gutters and downspouts, canopies and related construction. Its soft, neutral color lends distinction to better homes.

But most important, there is no maintenance problem when you specify ARMCO Stainless Steel for roof drainage systems. While initially more costly than inferior metals, this rustless steel more than makes up the difference in

decidedly longer and trouble-free service.

ARMCO Stainless Steel has many other applications in building construction and equipment. Its use in window frames puts an end to troublesome rust and jamming. For shop-fronts and theater marquees, stainless provides high visibility and attraction. In kitchen and serving equipment, stainless steel has long been accepted for its ease of cleaning, sanitary surface and permanence.

When you specify stainless steel, your clients get a lifetime metal that serves long and well. And when it carries the Armco label they get the extra assurance of Armco experience in developing and producing special-purpose sheet steels. They recognize the familiar Armco triangle as a mark of special quality. . . . The American Rolling Mill Company, 681 Curtis St., Middletown, Ohio. Export: The Armco International Corporation.

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

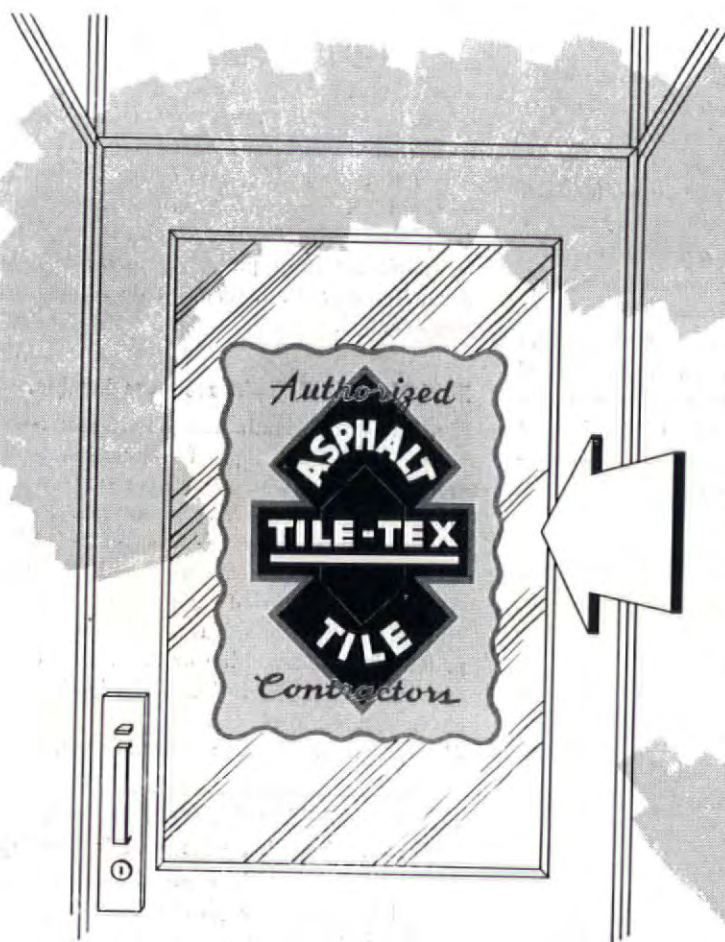
Galvanized ARMCO Ingot Iron

ARMCO Galvanized PAINTGRIP Steel
(also available with ARMCO Ingot Iron or copper steel base)

ARMCO Stainless Steel

THE AMERICAN ROLLING MILL COMPANY
Special-Purpose Sheet Steels





a Sign of
Responsible
Craftsmanship

Two factors are necessary to produce a fine asphalt tile installation—first, the best asphalt tile that can be made and second, top-notch application "know-how" by a responsible asphalt tile contractor.

The floor contractor who handles Tile-Tex products is carefully chosen by The Tile-Tex Company. His selection is not by happenstance. He must know a good deal about the problems involved in installing all kinds of resilient floors and a great deal about applying asphalt tile. He must be generally familiar with all phases of building construction and, above all, he must be a conscientious craftsman and financially responsible.

We have exerted our best efforts, over the years, to improve the standards of installation practice in the asphalt tile field. We shall continue to do so as improvements in the quality of Tile-Tex Asphalt Tile make possible corresponding improvements in installation technique. We know that you and your clients buy the Tile-Tex system—(1) good Tile-Tex products provided by a pioneering manufacturer and (2) good workmanship provided by the flooring contractor.

All of this means that when you specify Tile-Tex Asphalt Tile you also have available the services of a nation-wide organization of floor specialists. When you see the sign above on the door of a floor contractor's office, you know that here is a flooring man of ability and integrity who is qualified to install the best in asphalt tile—Tile-Tex.



THE TILE-TEX COMPANY, Inc.

Asphalt Tile Mfr. Subsidiary of The Flintkote Company
Chicago Heights, Illinois • 220 E. 42nd Street, New York City



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



LIGHTWEIGHT PLASTIC CORE MATERIAL for bonding to metal, wood or plastic sheets.

Lighter than cork, CCA is a new foamed plastic which combines insulation properties and high structural strength when bonded between sheets of metal, wood or plastic. Its thermal insulation properties are similar to those of cork, balsa wood and other rigid insulating materials. However, due to its light weight, an equal weight of the new material forms a more effective thermal barrier. Cellular cellulose acetate, or CCA for short, is manufactured by heating a mixture of cellulose acetate and other materials under pressure. Release of the pressure foams the material into a mass of bubbles of pin point size. As the mass comes out of the machine and cools, it becomes hard and rigid. CCA has uniform density, excellent compressive strength and heat resistance which allows the use of thermosetting resins for its lamination. It

is not brittle, will not break down under vibration, and may be tooled with any woodworking machinery. A core of CCA effectively supports thin sheets of metal, wood or plastic, which by themselves would bend under load. Experimental quantities of the plastic are now being manufactured in strips 3.5 in. wide, $\frac{5}{8}$ in. thick and of any desired length. It will be available in four ranges of density: 4 to 5 lbs. per cu. ft., 6 to 7 lbs. per cu. ft., 7 to 8 lbs. per cu. ft. and 8 to 9 lbs. per cu. ft. The manufacturer envisions many applications for the plastic used as core material in airplane flooring panels, prefabricated house parts, luggage, furniture, boats and toys. *Manufacturer:* E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.

NEW PLASTIC PANELS are more durable.

A more durable laminated plastic panel which may be used for walls, displays, tops of counters or bars, or for any purpose where a smooth decorative surface is required, is now available due to wartime production techniques. Made by fusing together many thin sheets of plastic impregnated materials under extreme heat and pressure, the panels are chip-proof, stain-proof and heat resistant. They have a smooth, non-porous surface which is decorated with a linen pattern in red, tan, blue or gray. Three sizes of panels are available: 25 in. by 40 in., 30 in. by 42 in., and 42 in. by 60 in., in $\frac{1}{8}$ in. thickness.

Manufacturer: Daystrom Corp., Olean, N. Y.

STEEL DOOR FRAMES, available through local lumber dealers, can be quickly installed in any type or size wall.

Aetna one-piece, hollow metal door frames including trim, welded hinges, strike plate cut-out and prime coat of paint, can be installed by a carpenter in less than 15 minutes. Hinges, welded to the frame, are spaced to fit prefabricated wood door cut-outs, and the strike plate cut-out will take any standard residential hardware. The frames are designed to fit 2 in., 3 in. and 4 in. walls, and any usual type of wall conditions—stud, masonry, tile or steel stud construction. Three height frames are available. Formerly steel door frames were used almost entirely in large building projects, being figured and ordered direct from the blue prints. Aetna has now standardized approximately 100 stock sizes, and simplified installation by welding on hardware and prime coating the frame at the factory. Local building material dealers will stock these steel frames, thus their convenience and economy will be available for small home construction.

Manufacturer: Aetna Steel Products Corp., Pottsville, Pa.

WATERPROOFING CEMENT for pointing up brick, stucco and stone buildings.

Brix-Fix is a prepared waterproofing pointing cement that can be easily used by the homeowner to fill cracks, holes and voids in brick, cement, stucco, limestone, foundations and sidewalks. Packaged in dry powder form, it is mixed with water to a putty consistency for use. It seals cracks almost immediately, and dries the color of ordinary brick mortar, leaving no defacing effects on the repaired section. To repair a wall using Brix-Fix, all loose cement is removed. The wall is then wetted down with water and the putty thick material is pressed tightly into the holes or cracks. Brix-Fix can be thinned to a paint consistency if a waterproof cement wash is desired. It is available in light and dark gray, and is packaged in gallon containers which retail for \$2.98.

Manufacturer: Greater New York Waterproofing Co., 195-7 Throop Ave., Brooklyn, N. Y. (Continued on page 192)

To Architects, Builders and Officials Interested in Jail & Prison Equipment

THE STEWART IRON WORKS COMPANY,
INCORPORATED
CINCINNATI

Stewart has been designing and building jail and prison equipment since 1886, and numbers among its installations some of the largest penal institutions in this country. One of the most recent is the Criminal Courts Building and City Jail, Borough of Manhattan, New York, N. Y.

Stewart products include Grating and Plate Cells; Doors; Lock and Locking Devices; Bunks; Tables; Seats; Iron Stairways, and all modern jail equipment for a federal penitentiary or a village lockup.

Our engineers will be glad to give architects, builders and prison officials the benefit of many years' experience. Without cost or obligation we will submit layouts, estimates and complete information for entirely new construction, remodeling, or the rehabilitation of existing equipment.

You are cordially invited to avail yourself of the technical facilities offered by the Stewart jail and prison engineers. Address The Stewart Iron Works Co., Inc., 1365 Stewart Block, Cincinnati 1, Ohio.

Designers and Builders of
Jail and Prison Equipment Since 1886

Stewart



THE NEW YORK HISTORICAL SOCIETY building on Central Park West, New York, was opened in 1908. Monel roofing was installed in 1938, when two Monel-roofed wings were completed. Architects: Walker and Gillette.



ON THE ROOF. Section of Monel standing seam roofing and Monel skylight caps and trim installed on The New York Historical Society by J. J. Fisher, Brooklyn, N. Y.

Banish the possibility of expensive roofing repairs in buildings you design.

Specify Monel for gutters, flashing, downspouts, skylight frames, ventilators and other vital sheet metal work.*

Your clients will benefit from lower maintenance costs. We say that not just because Monel is rust-proof. Or because it's stronger and tougher than structural steel. Many other factors contribute to Monel's ability to serve long and dependably.

Monel resists corrosion from the fumes and soot and grime of urban areas, the salt air of coastal cities, and the chemical-laden atmosphere of industrial towns.

The abrasive, wearing action of ice and snow has little effect on this hardy nickel alloy. And because of its low coefficient of expansion, extremes of heat and cold needn't cause building operators

to worry about what's happening on a Monel roof. Monel stands firm against strain and flexure... doesn't creep and buckle as many other roofing materials do.

You'd almost expect a metal as strong and tough as this to be a headache for roofing contractors. But it isn't. They know Monel as a metal that is readily formed, even to irregular contours of ventilators, downspouts, cornices, gutters and skylight frames. They'll tell you that Monel can be readily applied for flat seam, batten seam or standing seam construction.

Where appearance is important, another characteristic of Monel is worth noting: weathering imparts a neutral tone which blends attractively with the building's architectural features.

Everything considered, Monel is the material to specify for roofs that last... and last economically.

*Reg. U. S. Pat. Off.

MONEL

THE INTERNATIONAL NICKEL COMPANY, INC., 67 Wall Street, New York 5, N. Y.

ALUMINUM PAINT for canvas awnings reflects heat without causing glare.

Setfast Aluminum Canvas Paint contains the heat reflecting values of other aluminum paints and provides substantial protection from heat. In addition, it dries to a silvery gray tone which does not create the glare commonly associated with aluminum surfaces. Water repellant, sun resistant and containing an active fungicide which protects the canvas from rot and mildew, it will not crack or stiffen the fabric. It is specially recommended for store awnings where protection to window displays are of importance, and it is applicable to new or old awnings. One coat usually provides satisfactory coverage of the canvas, one quart covering approximately 70 sq. ft. Ready-mixed, this new paint needs only to be stirred before application.

Manufacturer: Interchemical Corp., Fair Lawn, N. J.

READY-MIXED, STABILIZED CHROME PAINT for wide variety of applications.

Chromatone incorporates a patented stabilizer in its manufacture, which, according to its producer, gives package stability and prevents the paint from darkening in the can even after opening. Chromatone is claimed by its manufacturer to be the nearest approach to a natural chrome silver finish in ready-mixed paints. Ready for instant use, it eliminates the mixing of paste or powder. It holds full brilliance and color at all times and indicates less tendency to tarnish after application. It may be used on metal, wood, glass and other hard surfaces, for indoor or outdoor application. Rust and heat resistant, Chromatone may be used on heaters, plumbing, interior and exterior fixtures. Good drying and lasting qualities are other features. Chromatone can be applied by brush or spray gun without leaving marks or laps. It sets in 20 minutes and dries in from 2 to 4 hours.

Manufacturer: Alumatone Corp., 1523 Grande Vista, Los Angeles 23, Calif.

FLOOR VARNISH dries in four hours to provide a hard, smooth, wear-resistant surface.

Marble Floor Varnish is easily applied, dries in 4 hours and provides a surface that withstands severe wear and heavy traffic. One hour after application the surface is dust free. When dry it gives a hard, marble-smooth surface that is not affected by severe scrubbing with hot or cold soapy water, fruit acids, or solutions of alcohol such as perfumes, toilet waters or beverages. A quality protective coating, it may be used either indoors or out as it withstands extreme temperature changes. Marble Floor Varnish is pale in color, and brushes on easily.

Manufacturer: Devco & Reynolds Co., Inc., 44th St. & First Ave., New York 17, N. Y.

PLASTIC UPHOLSTERY MATERIAL is suitable for indoor and outdoor furniture.

Upholstery fabrics made of Plexon yarn are waterproof, fade-proof, heat resistant, and immune to oil, grease, mild acids and practically all forms of dirt. All they require to keep them fresh is an occasional sponging with a damp cloth. Plexon, according to its manufacturer, is stable and keeps its shape indefinitely; upholstery material woven from it will not sag or stretch. The material is applicable to either interior or exterior furniture, and is pliable and easily worked. Webbing of 2 in. width is being made in brown, yellow, red, dark and light green. Fabrics 36 in. wide are available in a number of patterns and colors.

Manufacturer: Merlang Manufacturing Co., 19 W. 34th St., New York, N. Y.

SYNTHETIC RUBBER FLOOR MAT for theaters, hotel lobbies, etc.

Matching the qualities of prewar floor mats made of natural rubber, a new synthetic rubber mat will be produced in black, maroon, red, white, green, blue, yellow and salmon. It will be available with conventional corrugated or pyramid surface, with or without perforations, and may be imprinted with monograms or patterns to blend with decorative schemes.

Manufacturer: United States Rubber Co., Rockefeller Center, New York, N. Y.

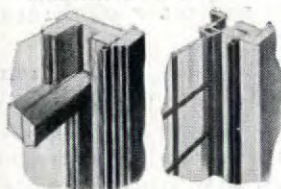


NOW AVAILABLE

the original inside screens that roll up and down like a window shade

ROLSCREENS in a house are a "trademark" of good planning. They are a year 'round advertisement for the architect who specifies them. They help to keep a house up-to-date and protect its salability over the years. A big part of your business is selling CONVENIENCE. ROLSCREENS help you to do it like no other window appurtenance.

EASY TO INSTALL ON ALL TYPES OLD AND NEW WINDOWS



Double-Hung Application Casement Application

No special mill work, no special fitting or cutting required. Installation made to either of the above windows quickly and easily . . . thanks to new type guide channels.

GOOD DELIVERIES — ROLSCREEN orders are being filled and shipped with reasonable promptness. Materials are back to prewar quality standards. On your next new or remodeling job, include ROLSCREENS. Write for interesting FREE literature and planning information — or see ROLSCREEN Data in Sweet's. Write 756 Main Street.

CONVENIENCE of ROLSCREENS SELLS ON SIGHT

Once in place . . . always in place. That's Rolscreens! No putting up! No taking down! No storing! No painting! No seasonal repairs! Installed and operated on the inside. Inconspicuous. They preserve the beauty of clear, sparkling glass. For all types of windows — both old and new construction.

10 YEAR GUARANTEE

This is your assurance that your clients will be satisfied and enthusiastic about ROLSCREENS over the years.

BUILDING SPECIALTY DEALERS A number of choice ROLSCREEN territories are open. Write for details if interested.

☆ **Pella ROLSCREENS** ☆
ROLSCREEN COMPANY • PELLA, IOWA

Made by Makers of Famous Pella Venetian Blinds and Casement Windows

Wait!...



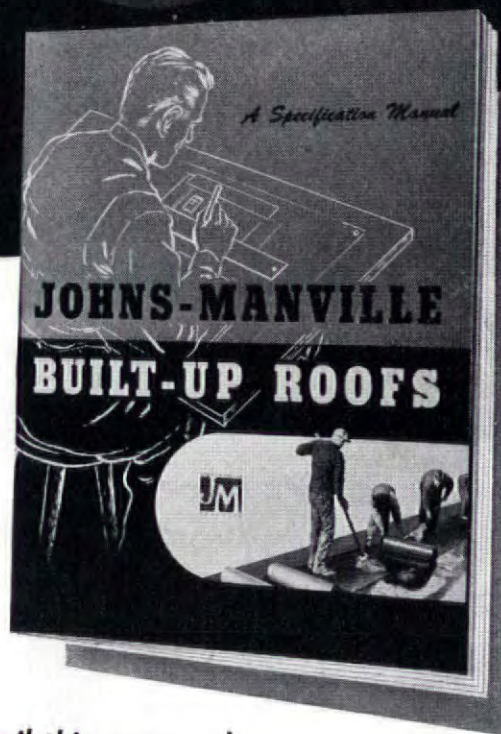
**... the roofing "specs" you need
are in this New, Simplified Book**

Now, when you want any type of built-up roofing specification . . . smooth-surfaced or gravel-surfaced . . . you can simply copy it from the new, revised Johns-Manville Specification Manual.

Clear, concise, and up-to-date, based on Johns-Manville's 88 years of roofing experience, this Manual is organized to give you in the quickest possible way a complete roofing specification for any type of deck—wood, steel, concrete, or gypsum.

In addition, the book gives complete flashing specifications and detailed drawings of various flashing methods. It specifies how roof insulation should be applied. *It tells why a J-M Flexstone Roof made of asbestos felts—fireproof, rotproof, smooth-surfaced and unaffected by the sun—deserves the architect's careful consideration.*

We cordially invite you to send for your copy. There's no obligation, of course.



Mail this coupon ↓

JOHNS-MANVILLE

Dept. AF-5, P. O. Box 290, New York 16, N.Y.

Without obligation, please send me a copy of the J-M Specification Manual on Built-Up Roofs.

Name

Address

City and State

Johns-Manville Built-Up ROOFS



FLOODLIGHT has sealed-in silver reflector lining.

A pure-silver reflector lining hermetically sealed inside the new Wabash Birdseye Reflector Floodlite keeps the bulb at top reflecting efficiency throughout its life. Any loss of illumination due to tarnishing of the reflecting surface is eliminated.



The filament of the new lamp is precision mounted at the proper focal point to project a flood of light exactly where aimed. Designed primarily for floodlighting, supplementary commercial lighting, store interior and display lighting, the bulb can be used in any standard socket or ceiling recessed fixture. It is available in 100 w., 150 w., 200 w., and 300 w. with an average burning life of 1,000 hrs. It measures 5 in. in diameter at

the widest point and is 6½ in. over-all in length.

Manufacturer: Wabash Appliance Corp., 335 Carroll St., Brooklyn, N. Y.

AIR DIFFUSER incorporates tamper-proof cap on damper control screw.

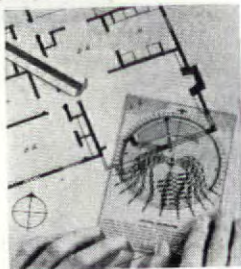
A tamper-proof screw cap on the damper control screw of the Standard Type K, Kno-Draft Diffuser, allows the damper to be set for the required amount of air without danger of a subsequent change which might upset the balance of the system. The new cap must be removed with a Phillips Head screw driver to provide access to the damper screw. An adjustable lower cone, common to all Kno-Draft diffusers, can be raised or lowered to vary the angle of air discharge, thus insuring uniform performance for different ceiling heights. It also enables the unit to diffuse chilled air parallel to the ceiling during the cooling season, and heated air downward during the heating period.



Manufacturer: W. B. Connor Engineering Corp., 114 E. 32d St., New York 16, N. Y.

SOLAR HEAT CALCULATOR determines sun angles.

Solarmeters, calibrated for all localities in the northern hemisphere at any longitude, are separately designed for each 2½° band of latitude. Nine variations, each about 175 miles wide and extending around the world, are available. Each instrument is accurate to within approximately 3° for the specified area, and is accurate within 1½° for most days and hours. Made of two transparent plastic discs mounted one above the other, center of the disc represents the position of the observer. Heavy curved lines on the bottom sheet are hour lines and small circles on the top disc represent dates. To use, the arrow on the bottom sheet is pointed to true north. The top disc is turned until the circle representing the selected date coincides with one of the small circles lying along the line representing the selected hour. Arrows on top disc are then pointing in the direction of the sun's rays on the date and at the hour selected, and the figure within the small coinciding circles will show in degrees the angle which the sun's rays make with the observer's horizontal plane at that same moment. Solarmeters, calibrated for each particular band are priced at \$3.00, a complete set of nine variations is \$22.50.

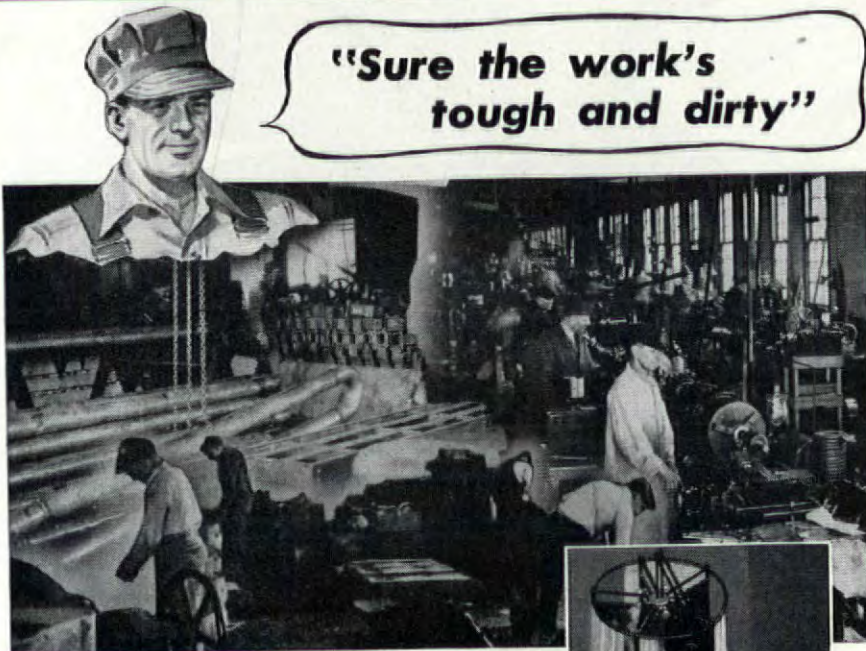


Manufacturer: R. W. Justice, Belvedere, Marin County Calif.

BATHTUB has multiplicity of uses.

Designed for use as a shower receptor, child's bath, foot or sponge bathing, a seat shower or conventional bathtub, L. Homa is a vitreous glazed Duracloy recess receptor bath with corner seat. The integral seat is a convenience, and the 12 in. height from the floor to the rim assures ease and safety in stepping into or out of the tub. The hard-grip rim affords the bather a grip surface and provides a splash lip. A tilting ledge raised ½ in. at the back and ends prevents seepage of water behind walls. The hard, (Continued on page 196)

"Sure the work's tough and dirty"

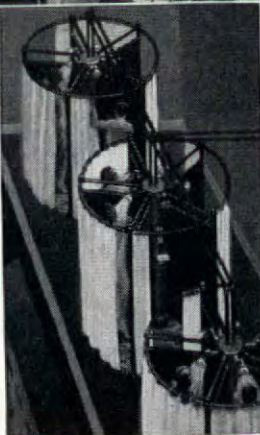


"But when the shift's over, we relax with a shower"

Industrial work isn't easy. There is bound to be dirt, grit, and grease present. These are frequently the reasons why employee turnover in some plants adds up to considerable expense in money as well as retarded production schedules.

The standard and accepted answer to this problem is Bradley Multi-Stall Showers. Installation of Bradleys has invariably resulted in greater employee satisfaction, more efficiency, and better morale.

In addition to these valuable advantages, Bradley Showers cost less to operate and maintain. They save on water, heating expense, plumbing connections and their regular use reduces lost man-hours due to sickness. BRADLEY WASHFOUNTAIN CO., 2235 West Michigan Street, Milwaukee 1, Wisconsin.

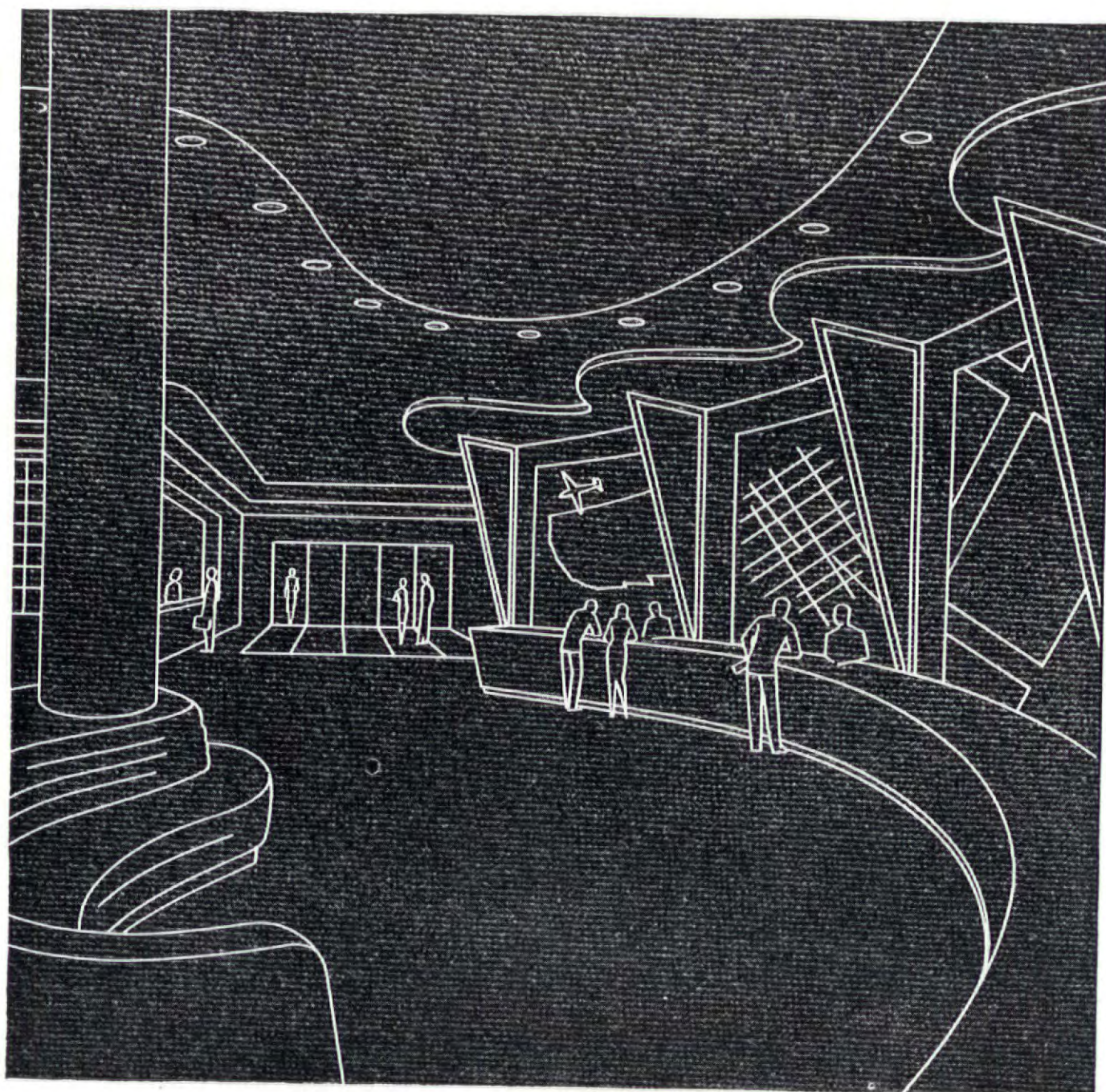


The 5-Stall type Showers illustrated above are equipped with Receptors and can be quickly installed on any floor including wood. Also made in 3-Stall units.

BRADLEY
Multi-stall showers

For additional information and floor layout plans, refer to latest Catalog 4308.





Plans for the future call for **CARPETS BY BIGELOW**

If your future plans call for the design or redesign of interiors, then the choice of the right carpet becomes a lively issue.

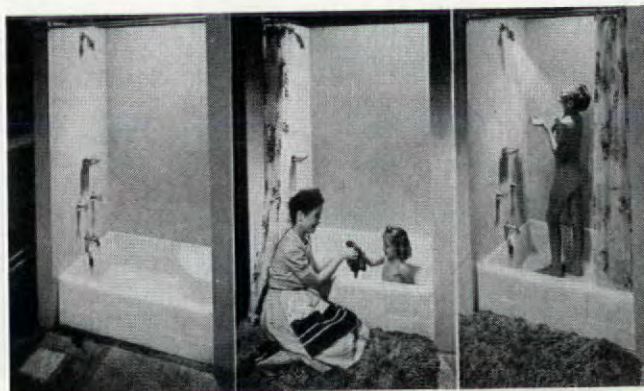
Bigelow puts expert advice and years of experience at your service. See the large selection of patterns and colors, earmarked for weaving

during 1946 and 1947. Let a Bigelow contract specialist assist you to choose the right carpet for the right spaces.

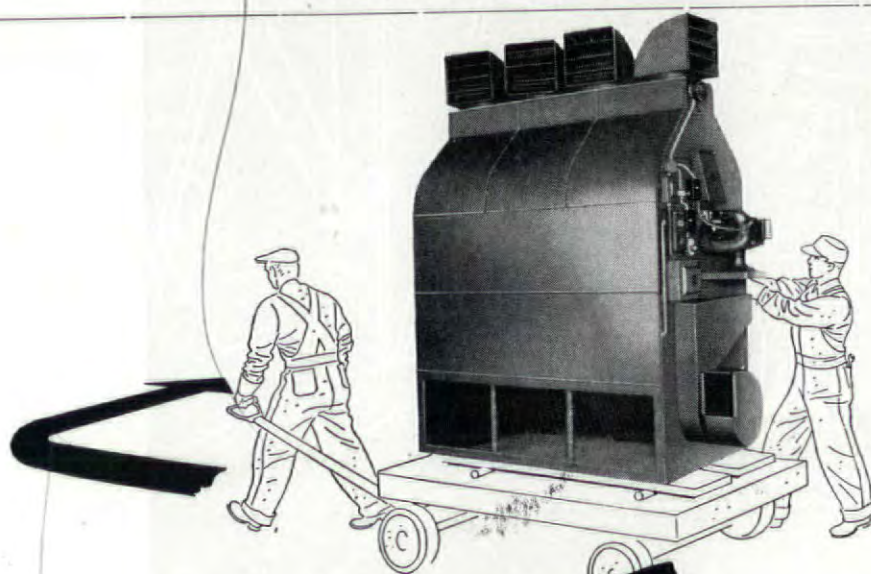
You may have to wait for the carpet you want, but Bigelow can help you with your special planning requirements now.



BIGELOW-SANFORD CARPET CO., INC. • 140 Madison Ave., New York 16, N. Y.



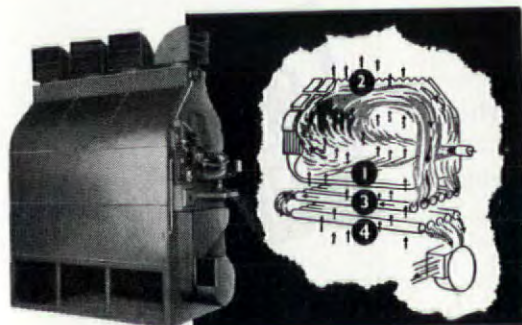
highly scratch resistant surface remains glossy and smooth for long service, and acids, sulphur or iron deposits in water



HEAT THAT CORNER NOW

"Cold Spots" do occur - no matter how carefully a plant heating system is laid out. Dravo Direct Fired Heaters offer a simple quick solution that requires no alteration in the existing heating system. Simply truck in a Dravo Heater, connect it to an oil or gas fuel pipe and a power line and your "cold spot" is made comfortable with economical heat! Dravo heaters are shipped to you

complete, ready to connect and operate. Oil or gas fired heaters regularly yield 80-85% efficiency. There's nothing to freeze up, so no "stand by" loss is required. No specialized attendant is needed. Maintenance is negligible. Bulletin 514 - "Direct Fired Efficiency" is yours for the asking. - Address Dravo Corporation, Heater Department, 300 Penn Avenue, Pittsburgh 22, Pa.



DRAVO FOUR PASS combustion chamber design—Flame and gases of combustion flow internally four times across the path of the high velocity air stream being heated. Fins and deflectors on the outside of the chamber materially increase heat transfer. These features contribute to a high efficiency from the fuel consumed—more usable Btu's per barrel of oil or cubic foot of gas.

300,000 TO 1,650,000 B.T.U. CAPACITY.
MULTIPLE UNITS COMBINE FOR ANY OUTPUT



will not stain it. La Homa, made with left hand outlet only, is 42 in. long and 31 in. wide.

Manufacturer: Crane Co., 836 S. Michigan Ave., Chicago 5, Ill.

ALUMINUM GARAGE DOOR is easily installed and operated

Constructed of heavy gauge aluminum and featuring all-welded construction, the Wilson E-Z Lift, overhead type garage door can be installed by two men in an hour. It has fully enclosed, dual lifting mechanisms with Oilite and sealed-in ball bearings providing lifetime lubrication. According to the manufacturer, it can be operated with only light pressure of the fingers. E-Z Lift is manufactured in one-piece to fit all standard 8 ft. by 7 ft. door frames, and is designed to operate entirely with-

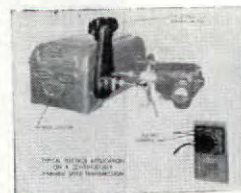


in the frame. Heavy U-shaped bracing struts are provided for maximum structural strength, and the aluminum finish is corrosion and rust proof. The door requires no painting, but it can be finished to blend with any color scheme.

Manufacturer: Wilson Foundry & Machine Co., Pontiac 11, Michigan.

REMOTE CONTROL provides speed control for all equipment having motor operated adjustment.

Flectrol is a new remote control which provides finger-tight control of motor operated valves, machine tools, printing presses, conveyors, etc. Its dial can be set to any desired speed and the speed changer will follow as fast as the electric servo motor can drive the speed adjusting screw. Any speed within the range of the changer can be selected with an accuracy of better than 2 per cent. Flectrol's dial may be calibrated in r.p.m., feet per minute, gallons per hr., etc. Flectrol controls the rotation

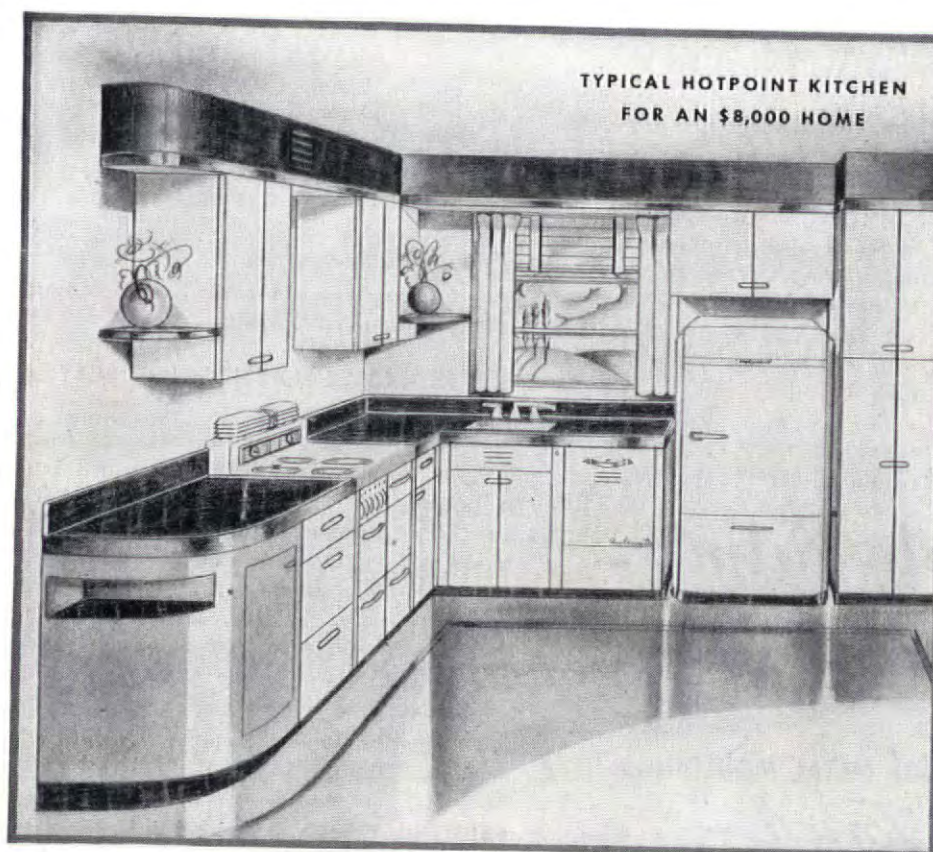


of the small motor used to adjust the pulleys or gears of the speed changer. Rotation of the speed selector dial causes the motor to drive the adjusting screw until the output speed of the controlled device corresponds to the speed selected on the dial. The remote control is simple, rugged and compact and may be used on new or existing equipment of any type. Manufacturer: Yardeny Laboratories, Inc., 105 Chambers St. New York 7, N. Y.

DRY CHEMICAL fire extinguisher is efficient.

The new All-Out Dry Chemical Fire Extinguisher ejects a full stream of All-Out dry chemical, under high pressure, to separate the flame from the burning material. It instantly forms a dense, fire smothering cloud over a flaming area up to distance of 18 ft. and creates an insulating barrier between the operator and the flame. All-Out performs effectively under all climatic conditions, in wind or drafts, and can be easily refilled without use of any special equipment. The chemical does not deteriorate or cake, form toxic gases, or hurt finished surfaces. A squeeze grip nozzle on a 24 in. hose guarantees control of the unit and maneuverability of the chemical stream. All-Out is lightweight and meets the requirements of Associated Factory Mutual Laboratories and Underwriters Laboratories.

Manufacturer: All-Out Fire Extinguisher Div., Pressurelu Inc., 609 W. 134th St., New York, N. Y. (Continued on page 1)



TYPICAL HOTPOINT KITCHEN
FOR AN \$8,000 HOME

RECOMMENDED EQUIPMENT			
ITEM	QTY.	DESCRIPTION	CAT. NO.
1	1	RANGE	39"
2	1	REFRIGERATOR	6 cu. ft.
3		DISHWASHER-SINK	
4	1	DISHWASHER	24" WIDE
5		DISPOSAL	
6		CABINET SINK	
7	1	SINK CABINET	21" "
8			
9	1	BASE CABINET	24"
10			
11			
12			
13			
14	1	COR. BASE CABINET	43" "
15	1	UTILITY CABINET	84" x 24"
16	1	WALL CABINET	24" "
17	1	"	30" "
18	1	"	18" x 36" "
19			
20			
21		COR. WALL CABINET	
22	1	FILLER	BMF 34"
23	1		USF 34"

Hotpoint KITCHEN PLANNING SERVICE
COMMERCIAL ENGINEERING DIVISION
DRAWN *Amie T. Long*
APPROVED *S. J. Gotsch*
DWG. NO. AKL 5445 DATE 7-21-45
EDISON GENERAL ELECTRIC APPLIANCE CO., INC.
8600 WEST TAYLOR STREET CHICAGO, ILLINOIS

Plan an ALL-ELECTRIC KITCHEN for the completely modern home!

POPULARITY of the all-electric kitchen is rapidly growing. The boom in ultra-modern bathrooms after the last war has been surpassed by the prominence of the planned, functional kitchen in this postwar period — an important factor for architects and builders to consider in home designing. With this in mind, Hotpoint has prepared a *Portfolio of Personalized Kitchen Plans* that is a valuable guide in designing kitchens for all income brackets. For your copy of this interesting *Portfolio*, attach the coupon at right to your letterhead and mail to us today.

ELECTRIC KITCHEN POPULARITY IS ASSURED

Powerful advertising backs this growing trend and strong promotions will continue. Hotpoint has spent over a million and a half dollars in national advertising to intensify interest in electric kitchens. Leading magazines and newspapers have featured articles that focused attention on the place of the all-electric kitchen in the completely modern home. Over two million prospects have been given the booklet "Your Next Kitchen" by Hotpoint to consider before building or remodeling.

HOTPOINT REGIONAL SALES OFFICES. EASTERN: 570 Lexington Ave., New York City 22, Plaza 3-9333. SOUTHERN: 304 Red Rock Bldg., Atlanta 3, Walnut 2959. CENTRAL: 1456 Merchandise Mart, Chicago 54, Superior 1174. WESTERN: Western Merchandise Mart, 1355 Market Street, San Francisco 3, Underhill 2727.

In most states, all Hotpoint kitchen equipment can be included in F.H.A. insured mortgages.

PLAN KITCHENS FOR THE 77%
"More than seven out of ten modern homes will cost \$3,000 or over," predicts the United States Chamber of Commerce. That means 7 out of 10 builders can afford, and will probably demand, an all-electric kitchen.

The Hotpoint Institute

5651 West Taylor Street, Chicago 44, Illinois

Without obligation, please send me your *Portfolio of Hotpoint Personalized Kitchen Plans*. This offer available in United States, Territory of Hawaii and Alaska.

Name _____

Firm Name _____

Address _____

City _____ State _____

Copy, 1946 Edison General Electric Appliance Co., Inc., Chicago

Hotpoint
ELECTRIC KITCHENS
DEPENDABILITY ASSURED BY
40 YEARS EXPERIENCE



Refrigerators



Ranges



Water Heaters



Range Hoods



Dishwashers



Flat Plate Irons



Clothes Dryers



Dishwashers



Disposals



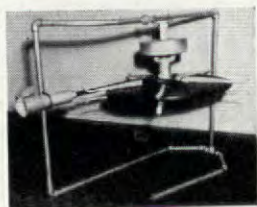
Cabinet Sinks



Shelf Cabinets

HOSE REEL permanently installed in the house, automatically turns water on or off and rewinds the hose.

This automatic hose reel permanently installed in the house or garage, connects to the hot and cold water line in such a way as to automatically turn the water on or off with operation of the reel. Securely held in either a vertical or horizontal position by two bolts, a metal tube inserted through



the nearest outside wall provides the opening for the hose nozzle to the outside. To use a hose wound on and connected to the reel, a metal flap on the outside tube is raised and the nozzle pulled out. Action of the water is controlled by the reel, thus water pours forth when the nozzle is pulled out. To shut the water

off, the hose is drawn out a few inches to release a spring. The hose then quickly and automatically rewinds itself out of sight. Made of aluminum, the reel holds 75 ft. of heavy duty or 5/8 in. hose. Forks are interchangeable for use with 100 ft. The reel is easily installed in new or existing construction, and can be used with any type of sprinkler. Its use eliminates handling of mud-soaked hose, the danger of tripping over hose in the yard as well as protecting the hose from continuous exposure.

Manufacturer: The Automatic Hose Reel Corp., 16909 Livermore Ave., Detroit 21, Mich.

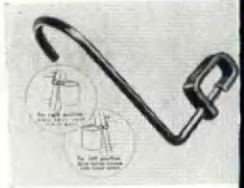
NON-BREAKABLE PLASTIC TOILET SEAT easily raises and lowers without slamming.

Sperzel Model 50, a conventional open front toilet seat, is made of durable phenolic plastic which is moisture proof, shatterproof and fireproof. It is easy to keep clean and sanitary, and is not affected by cleaning chemicals or compounds. Model 50 is equipped with the Sperzel Self-Sustaining hinge which allows the seat to be raised to any degree, and remain in that position. The seat cannot be slammed up or down, thus breakage of seats and damage to bowls or tanks is eliminated. Seats are made in black and white finish, to fit all standard bowls either regular or elongated.

Manufacturer: Sperzel Company, 911 Hennepin Ave., Minneapolis 3, Minn.

PAINT HOOK holds any size paint can on any size ladder.

Simple adjustment of the new Persson Paint Hook permits the painter to hang his paint container exactly where it is needed for easy painting. It frees both of his hands for rapid painting, and proper positioning of the can minimizes damage to the floor, trim, etc. To hang a can on the right of the ladder, the hook is slipped over top of the rung. For hanging on the left side, the hook goes under and over the rung. A quarter turn on the clamp holds the paint can in an upright position. Suitable for use with most any receptacle, hooks retail at \$2. **Manufacturer:** T. G. Persson Co., 224 Glenwood Ave., Bloomfield, N. J.



DRILL-DRIVER designed for drilling between studs and joists or restricted spaces in buildings.

The new Liberty Ratchet Drill-Driver, using any standard wood bit, allows centering of holes within 1 1/4 in. of the nearest obstruction. It gives positive feed of the drill bit and the thrust of the lead screw is carried directly to the drill shank by a solid shaft. Wearing surfaces hardened to a depth of .010 in. insure long service under severe conditions. The ratchet is enclosed in a strong, semi-circular head, providing protection against dirt. A long lead screw with 1 in., 2 in. and 8 in. extensions allows use of the tool over a wide range of dimensions. In use, holes up to 3/4 in. diameter have been drilled. Although the new Drill Driver is intended primarily for use on wood members, steel plates or beams can be drilled by reducing the feed. This is done by revolving the lead nut in the same direction as the drill. **Manufacturer:** Techtman Industries, 714 West Wisconsin Ave., Milwaukee 1, Wis. (Technical Literature, page 2)



Create More Visible Value...



with KIN-TRIM Essential METAL MOULDINGS "The Finishing Touch"

KINTRIM affords you greater freedom in modern, sweeping design . . . and gains recognition for your creativeness by adding "visible value" to your interiors. For KINTRIM—the lustrous metal mouldings of enduring beauty—has the structural precision you need and want for more attractive, practical use of colorful, serviceable coverings. Indeed, wherever you install linoleum, wall- and floor-coverings, KINTRIM smartly enriches

and accents the beauty of your design.

As experienced, leading contractors recognize—KINTRIM Stainless Steel and KINTRIM Alumilited Aluminum sections surpass ordinary metal mouldings in protective service. They're precision-made, in a complete range of gauges, to fit specific weights of covering materials. And, to protect hands and clothes against snagging, every KINTRIM Stainless section embodies Kinkead's special Safety Rolled-Edge.

FACING for Counter and Table-Tops, Shelves, Cabinets, Sinks



CAP and COVE for Counters, Sinks, Wall-Coverings



Let KINTRIM beauty and utility serve you as the finishing touch that adds more "visible value." Address us, Dept. 5A, for reprint of KINTRIM section, Architects' File, 1946 Sweet's Catalog.

kintrim
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INCORPORATED

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**Standard Construction of Standard Sizes
Speeds Production — Meets Customers' Needs**



RODDIS for over half a century has enjoyed a reputation for giving customers what they want. Customers now want above everything else — products, doors and plywood to meet critical construction needs.

Today Roddis is making only standard size doors and plywood panels, according to Roddis' standard construction specifications. As a result, production has been multiplied and we are giving more customers — more of what they want — more doors, more plywood panels, more door units.

By pacing its production policy to meet today's requirements, we believe we are doing the greatest good for the greatest number of customers and maintaining our half century reputation for meeting customers' needs.

Roddiscraft

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2729 Southwest Blvd.
LOUISVILLE 10, KENTUCKY,
1201-S S. 15th St.

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MARSHFIELD, WISCONSIN
MILWAUKEE 8, WIS., 4601 W. State St.
NEW YORK CITY 18, NEW YORK,
515 W. 36th St.
SAN ANTONIO, TEXAS, 727 N. Cherry St.
DEALERS IN ALL PRINCIPAL CITIES

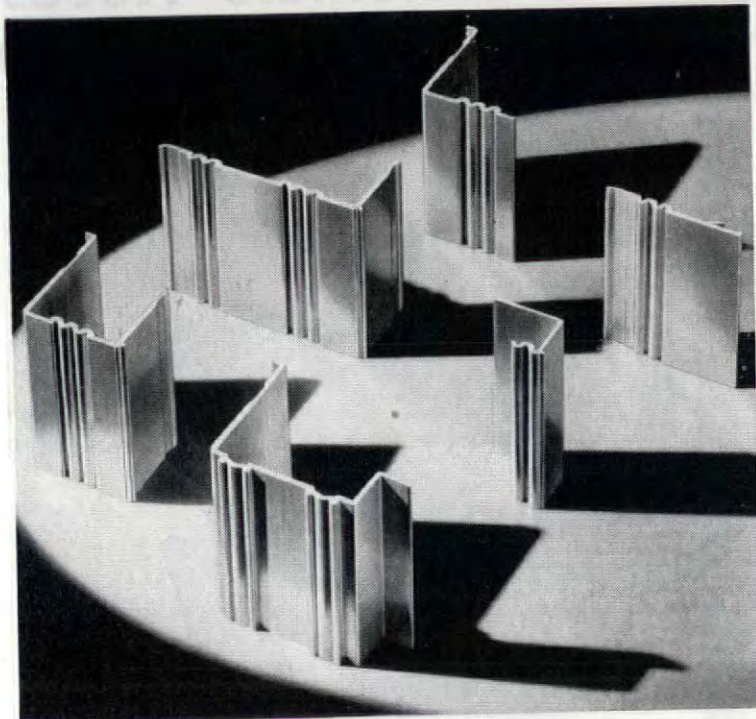
Consult Your Local Millwork and Fixture Manufacturers — and Lumber Dealers



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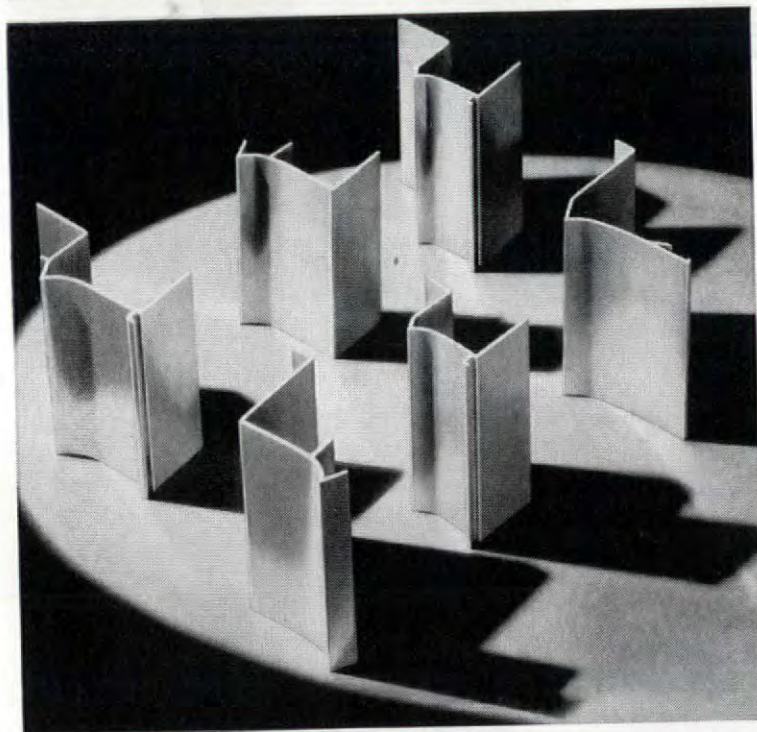
**RODDIS LUMBER
& VENEER CO.**
MARSHFIELD, WISCONSIN

There are *two* lines of Pittco Metal — each distinctively styled



PITTCO **DE LUXE**

Since its introduction several years ago, the Pittco De Luxe line of store front metal has won a hearty endorsement from architects. Careful planning of the line as a whole, all at one time, resulted in unusual unity of design—a harmonious relationship between each Pittco De Luxe unit and all the other members in the line. And the extruded method of manufacture assures rugged strength, clean, sharp profiles, lasting color and perfect finish. This unrivalled combination of characteristics accounts for the continued popularity of Pittco De Luxe. It is first choice with architects whose clients demand sales-winning store fronts which reflect high quality.



PITTCO **PREMIER**

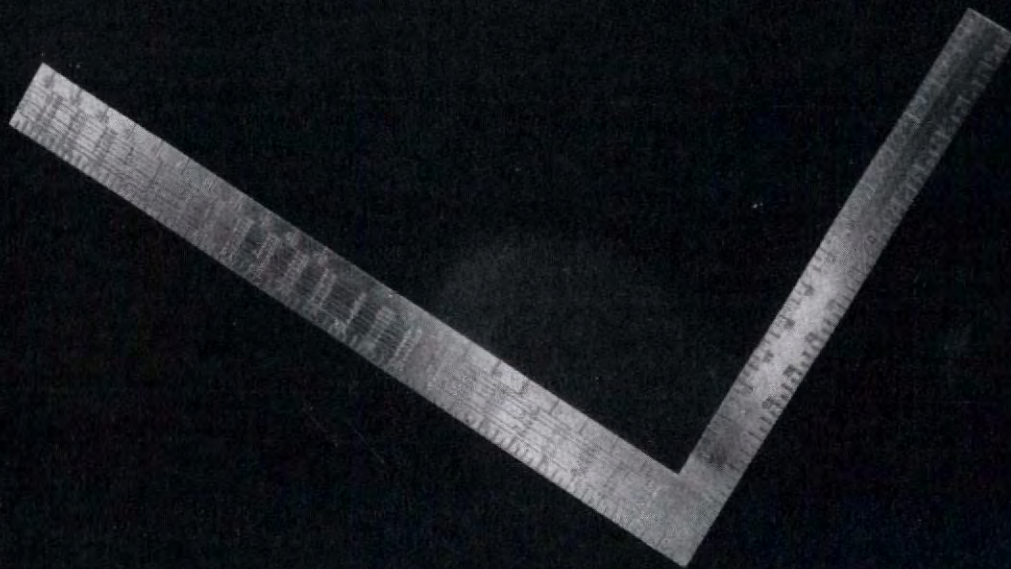
Recently, Pittco Premier was introduced to satisfy the need for a lightweight, moderately priced line of store front metal. The same careful planning and harmonious styling which have made Pittco De Luxe so popular are evident in the Premier line. Pittco Premier also was designed as a unit . . . each piece styled to complement and heighten the beauty of the other members with which it is used. Pittco Premier can be set easily and quickly from the outside, effecting a substantial savings in setting time. And the self-adjusting clip always maintains a firm grip on the glass, no matter what its thickness. These practical advantages plus the high degree of architectural beauty in the Premier line promise success comparable to that already attained by Pittco De Luxe.



PITTCO STORE FRONT METAL
PITTSBURGH PLATE GLASS COMPANY

"PITTSBURGH" stands for Quality Glass and Paint

Like a steel square...



The Royal never needs adjustment



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FLUSH VALVES**

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The ROYAL is the *only* Flush Valve which has no adjustment or regulation. Its simplicity of engineering design, *plus* precision manufacture, insure accurate and lasting performance.

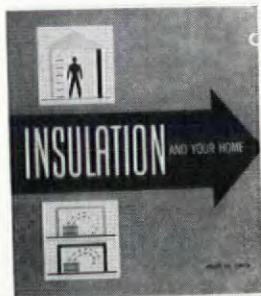
More than 4 million ROYAL Flush Valves are in daily service—including thousands of the first ROYALS installed over 36 years ago.

The ROYAL is "standard equipment" with discriminating builders and owners throughout the country. In fact, entire school systems, hotel chains, hospitals, industrial institutions, etc., use ROYALS exclusively.

For the best in Flush Valves specify Sloan—remember, there are more Sloan Flush Valves sold than all other makes combined.

SLOAN VALVE COMPANY

4300 WEST LAKE STREET, CHICAGO 24, ILLINOIS



INSULATION. *Insulation and Your Home.* National Mineral Wool Assoc., 1270 6th Ave., New York, N. Y. 24 pp., 8½ in. by 10 in. Price \$.25.

This handbook is designed to give a practical understanding of mineral wool insulation, its characteristics and features. It includes information on its uses, forms, methods of installation, heat and fire resistance properties, endurance and other advantages. It provides yardsticks to determine relative comfort and economy ratings, and savings in fuel costs achieved by various thicknesses of insulation. Illustrated charts show how home insulation gives winter comfort and economy, and additional relief from summer discomforts. Many descriptive drawings clarify the text. *Insulation and Your Home* is available free of charge to engineers, architects, draftsmen, builders and contractors.



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**More Efficient Condensing
of Refrigerants PLUS Big
Water Savings . . .**

The evaporative condenser is a "packaged" unit in that it incorporates all the desirable features of the conventional shell and tube condenser, water cooling tower and water pump in a single, compact piece of equipment.

Savings up to 95% in water costs are possible with the use of evaporative condensers for refrigeration or air conditioning applications. They also eliminate waste water disposal problems, and pumping costs are much lower than those of a conventional cooling tower installation.

usAIRco Evaporative Condensers are designed for maximum economy and efficiency in operation. Complete design and engineering information may be had on usAIRco Evaporative Condensers by requesting a copy of special bulletin.



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United States Air Conditioning Corporation

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MINNEAPOLIS 14, MINNESOTA



BUILDING CODE. *Uniform Building Code, 1946 Edition.* Coling Publishing Co., 124 West Fourth St., Los Angeles 13, Calif. 312 pp., 5½ in. by 7¾ in. Price \$3.00 cloth, \$2.50 paper.

The 1946 Uniform Building Code has been revised to include recognition of new materials and new uses of established materials. Sponsored by the Pacific Coast Building Officials Conference and already adopted by some 400 American communities, the code is based on 25 years experience in this field. It provides minimum safety standards by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures. Chapters on heavy timber construction, masonry stairs and exits, chimneys, vents, fireplaces, motion picture projection rooms and heating appliances have been rewritten and amplified. A chapter on prefabricated construction has been incorporated in the code as well as new sections on the regulation of glued construction. Tests for glues, for interior and exterior use and construction methods, are specified and allowable stresses and methods of design are regulated.

PAINT COLORS. *Colors of the Year.* O'Brien Varnish Co. South Bend, Ind. 16 pp., 9 in. by 12 in.

Eighty home color schemes using 240 actual paint chips are presented in this paint color sample book. It offers several color schemes for each room of the house, including pair colors for ceilings, walls and accents. These are keyed to particular rug or floor covering color, and are grouped for particular room exposures—north, south, east and west. Full color illustrations of various rooms and rug colors combine with actual paint chips make this booklet useful to those selecting color schemes. Copies of *Color of the Year* are available to architects, painters and dealers when requested on their letterhead.

MOTION PICTURES FOR SCHOOLS. *Architects' Visual Equipment Handbook.* Bell & Howell, 7100 McCormick Road, Chicago 45, Ill. 30 pp., 6 in. by 9 in.

This bulletin, one of a series to provide effective use of motion picture equipment, includes information on planning projection and sound equipment in schools, and correct acoustic treatment of auditoriums. Seating arrangements, screen size and type, equipment location, electrical specifications, projector and loud speaker support, illumination and acoustics in classrooms and conference rooms are discussed in the first section. Recommendations on acoustics, position of equipment, projector booth, etc. for the school auditorium are included. A second section covers the fundamental principles of acoustic treatment for auditoriums. Discussions of the amplifying system, correct positioning of the loud speaker and improving sound distribution are included along with suggestions for auditorium treatment. Many charts and diagrams illustrate projection layouts, equipment mounting, screen sizes and other subjects.

WATER SOFTENERS. *Elgin Zeolite Water Softeners and Other Water Conditioning Equipment, Bulletin 607.* Elgin Zeolite Softener Corp., Elgin, Ill. 20 pp., 8½ in. by 11 in.

Discussing the benefits and economies of soft water, this bulletin describes Elgin water softeners and water conditioning equipment. It covers features of Elgin's "double che design which according to the manufacturer gives up 44 per cent more soft water than conventional designs. Text and illustrations explain simplified operation, typical applications, types of Zeolite and general information on how Elgin water softeners turn hard water soft. Information on various other Elgin products, and how existing water softeners can be modernized, are included. (Continued on page 203)

S E R V I N G T H R O U G H S C I E N C E



*Comfort Engineered
for Sitting and Sleeping*

COOL

Because it's Porous!

Can you imagine blowing smoke through an ordinary sofa cushion or mattress!

But you can with Koylon Foam...as the pictures here prove. Yes, all it takes is a puff of smoke to give you an idea how *air* circulates through Koylon Foam.

Actually, Koylon Foam "breathes"... absorbs air in millions of tiny, inter-connecting cells of resilient rubber latex—releases it on contact with the body. This constant re-circulation "air-conditions" Koylon Foam... keeps it cool when the thermometer blows its top! And what a boon that proves when people have to sit around—or try to sleep—in hot weather.

This "air-circulating" feature is another *plus* that goes along with Koylon Foam's *matchless comfort*. And it's another reason why we say: If you sell "seats"—or "sleep"—better plan to sell Koylon Foam!



"U.S." KOYLON FOAM DIVISION • MISHAWAKA, INDIANA

UNITED STATES RUBBER COMPANY

LIGHTING FIXTURES. A Most Illuminating 50 Years. Edw'd F. Caldwell & Co., Inc., 101 Park Ave., New York, N. Y. 24 pp., 8 1/4 in. by 10 7/8 in.

This booklet is devoted to Caldwell's half century in the lighting field. It traces the company's growth, the study, science and research responsible for its success. The laboratory study, manufacturing processes, standard fixture line and special design service available are explained with text. Unusual fixtures and lighting installations are illustrated.

WINDOWS. More Than a Window. Baer American Window Co., 2123 East 9th St., Cleveland, Ohio. 4 pp., 8 1/2 in. by 11 in.

Six outstanding features of Venti-Kleen windows are briefly described in this explanatory folder. The unit has two panes which pivot horizontally and independently so that both sides of the window may be cleaned from the inside. Details and photographs illustrate installation, operation and cleaning.

at last a simplified spring

Its structural simplicity and compact power bring unsurpassed seating comfort to the trim design of the modern chair

Tempered in a perfect circle it stretches to a slender span of enduring resiliency



Here is an engineering innovation as basic as the steel column . . . and as essential to better design and better living.

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21590 Hoover Road, Detroit, Michigan

distributors
KAY MFG. CORP.
Ft. of Warren St., B'klyn, N.Y.

REQUESTS FOR INFORMATION

R. A. BUSBY, industrial designer, Industrial & Engineering Div. ESS., APO 500, Tokyo, Japan desires data on home, office and institutional lighting equipment.

BYGGNADSSPECIALITETER, manufacturers' distributor, Jörgenspalatset, Helsingborg, Sweden, would like to contact American manufacturers of flooring, insulation, household appliances, and building products interested in export to Scandinavian countries.

WILLIAM E. CARNEY Co., plumbing & heating engineers, Philmont, N. Y. would like information on log cabin type lumber.

CITY AND COUNTY SAVINGS BANK, 100 State St., Albany 1, N. Y. would like data on house construction materials for reference.

W. R. FLEURY, ESQ., I. S. E. Under Secretary to Government of Orissa, Public Works Dept., Cuttack, Ind. would like literature of design of and appliances for cool buildings in the tropics.

WALTER H. GAGE, JR., engineering contractor, 1761 El Sereno Ave. Pasadena 3, Calif. desires information and literature on construction materials and equipment for residences, stores, prefabricated houses, and small industrial plants.

RICHARD A. GILMAN, 1311 Fort Stevens Drive, N. W., Washington, D. C. requests information on modern home construction.

WARREN HAMILTON, 248 Clovelly Rd., Clovelly, Sidney, Australia, desires literatures on home construction, design and equipment.

HINGHAM CONSTRUCTION & SUPPLY CO., P. O. Box 53, Hingham, Mass. desires information on prefabricated partitions, internal wall framing, equipment units and other prefabricated parts.

A. L. KNIGHTON, architect, Fabric Office, The University, Leeds, England would like literature on equipment for laboratories, kitchens, bathrooms, heating, lighting, and building materials.

E. W. LAWRENCE, 11341 Collins St., North Hollywood, Calif. desires catalogs on residential and restaurant equipment.

LIGNUM AUSTRALIAN TIMBER CO., timber merchants and hardware agents, 20-22 Yambula St., Clifton Hill, N. 8, Melbourne, Australia would like to contact U. S. manufacturers of kitchen and bathroom equipment, wallboards and other building materials.

FRANK N. MCNETT AND CO., architects-engineers, Clinic Building, Grand Island, Neb., would like to receive catalogs on hospital, church and school equipment.

LOUIS RISMAN, builder, 205 Ocean St., Lynn, Mass. would like to receive information on electrical and electronic equipment.

PETER TURCHON, President, Homes, Inc., 50 Hunt St., Newton, Mass. would like to receive catalogs covering all phases of home construction and remodeling.

REQUESTS FOR LITERATURE

GEORGE W. BREITMEIR, 2834 North A St., Philadelphia, Pa.

DANIEL C. BRYANT, architect, 509 1/2 Water St., Port Huron, Mich.

H. D. BYLES, architectural student, 3800 S. Vermont Ave., Los Angeles, Calif.

ALLAN K. CHOY, architectural student, 203 1/2 W. 46th St., Los Angeles 37, Calif.

ROBERT DELSON, Florida Design Academy, Tallahassee, Fla.

DIAL & THOMAS, architects, Columbia, S. C.

WILLIAM J. FOX, JR., Wilma Building, Missoula, Mont.

JACK GELLMAN, builder, 5502 14th Ave., Brooklyn 19, N. Y.

R. J. HARLA, 2429 S. Albany Ave., Chicago 23, Ill.

R. E. HURT, architectural student, 122 Sterry St., Playa Del Rey, Calif.

AUG. M. KLEEMANN, architect, 55 Courter Ave., Maplewood, N. J.

STEPHEN MCCORMICK, designer, commercial and domestic interiors, 5409 Overbrook Ave., Philadelphia, Pa.

H. J. MCKEAN, builder, 401 Dooley Bldg., Salt Lake City, Utah.

ANN RIDGEWAY, student, 2423 Locke Lane, Houston 6, Tex.

LEE PERRY, architect, 419 North Ave., New Rochelle, N. Y.

SEATTLE PUBLIC LIBRARY, ART DEPT., Seattle 4, Wash.

FREDERICK A. SETTLE, architect, 426 Cedar Lane, Teaneck, N. J.

SMITH, HEGNER & MOORE, architects, 538 Railway Exchange Bldg., Denver 2, Colo.

A. D. STANCLIFF, JR., civil engineer-industrial designer, 4735 Canal St., New Orleans, La.

MINOR PLUM THOLLE, architect, Klubbacken 16, Malarhojden, Stockholm, Sweden.

UNION ARCHITECTURAL SERVICE, Foochow, China.

BERNARD A. WEBB, JR., architect, 704 Bankers Insurance Building, Macon, Ga.

J. C. WEBB, manager, State Park, Big Spring, Tex.

PAUL P. WIAIT, architect-engineer, 169 Yuen Ming Yuen Road, Shanghai, China.

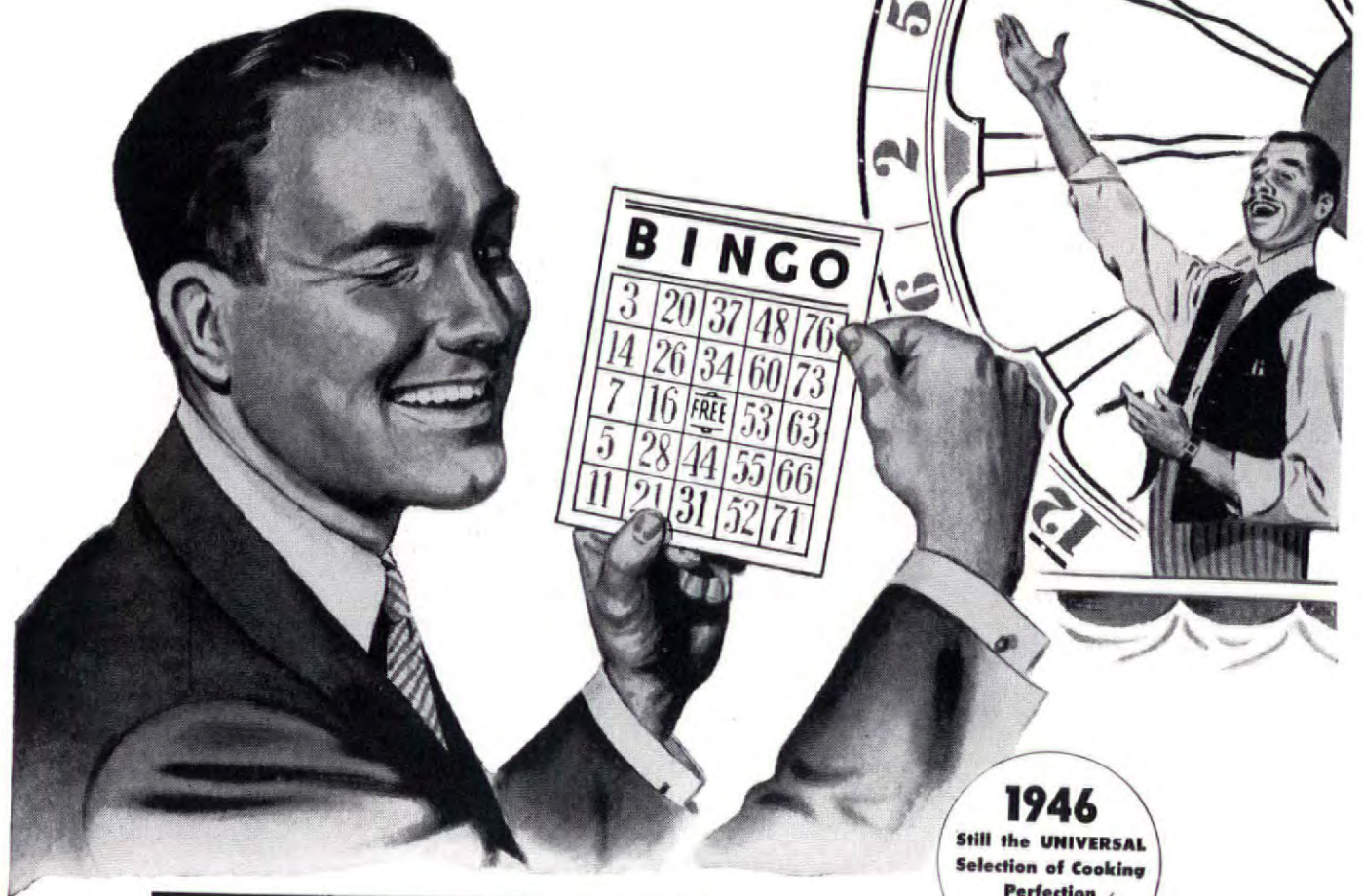
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TOMORROW — THE LEADER:
UNIVERSAL GAS RANGES!



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700 N. SACRAMENTO BLVD. CHICAGO 12, ILLINOIS

1946
Still the **UNIVERSAL**
Selection of Cooking
Perfection



SPECIFICATION AND BUYING INDEX

The advertising pages of FORUM are the recognized market place for those engaged in building. A house or any building could be built completely of products advertised in THE FORUM. While it is not possible to certify building products, it is possible to open these pages only to those manufacturers whose reputation merits confidence. This FORUM does.

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Stran-Steel Division (Great Lakes Steel Corporation).....	1
Taylor, Halsey W., Co., The.....	53
Taylor Manufacturing Co.....	1
Tile-Tex Company, The.....	1
Time.....	1
Tomlinson.....	Opp. 32
Trane Company, The.....	62
Truscon Steel Company.....	1
United States Air Conditioning Corp.....	1
United States Gypsum Co.....	1
United States Rubber Company.....	1
United Wallpaper, Inc.....	1
Upson Company, The.....	1
U. S. Machine Corp.....	1
Victor Electric Products, Inc.....	1
Wakefield, F. W. Brass Co., The.....	Opp. 32
Walworth Company.....	Opp. 32
Wasco Flashing Company.....	1
Webster, Warren & Co.....	1
Weiss, Henry, Mfg. Co., Inc.....	1
Wheeling Corrugating Co.....	1
White-Rodgers Electric Co.....	1
Wood Conversion Company.....	1
York Corporation.....	1
York Shipley, Inc.....	1
Young Radiator Co.....	1
Youngstown Kitchens (Mullins Manufacturing Corporation).....	1

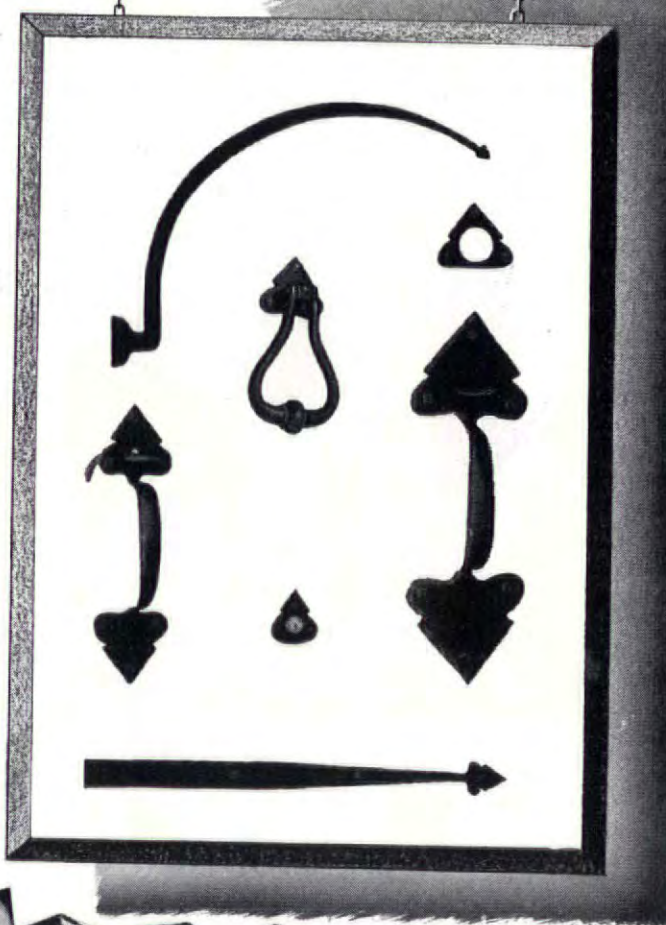
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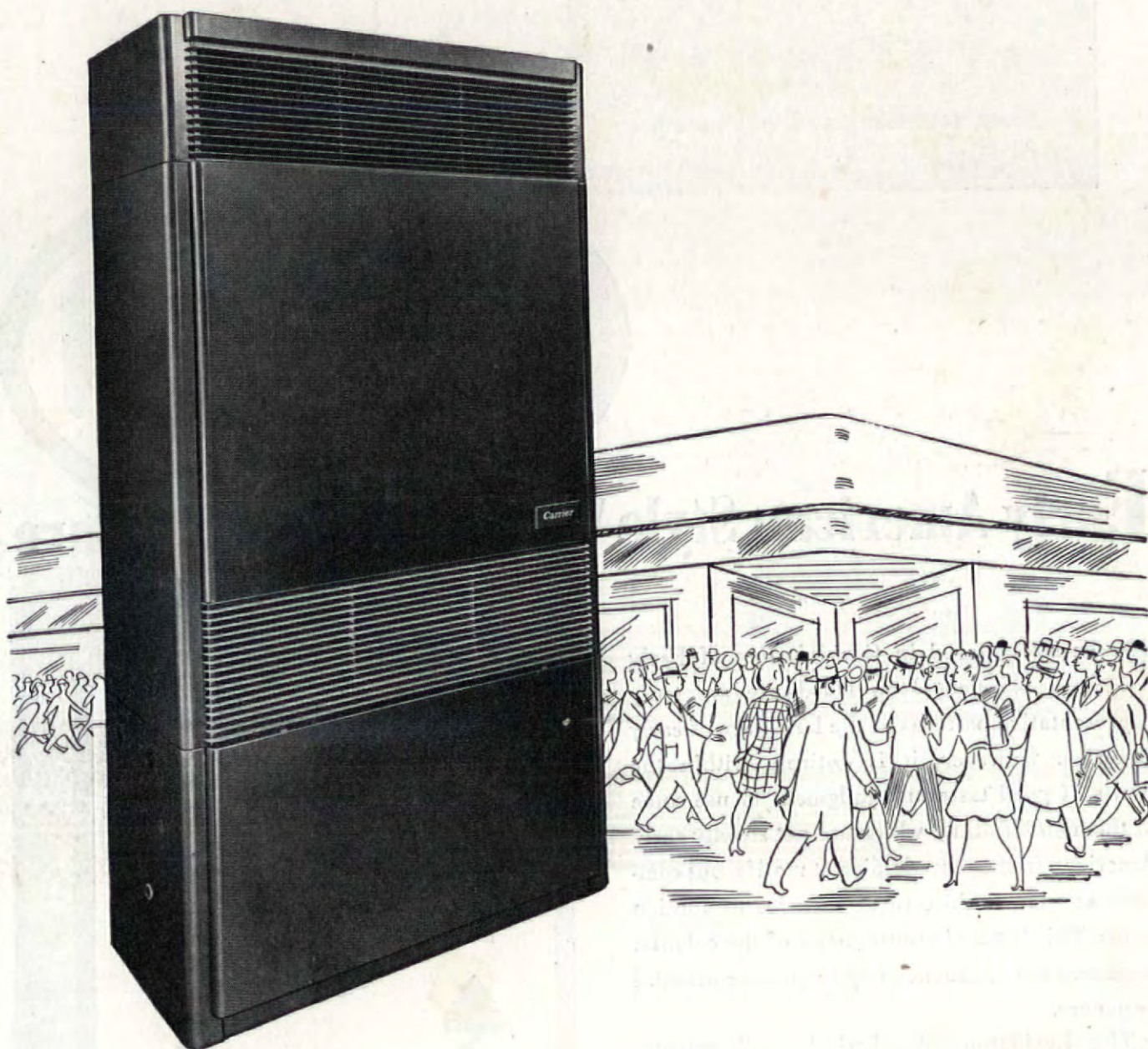
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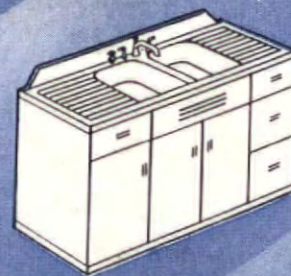
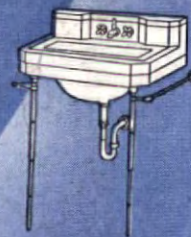
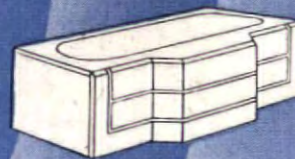
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