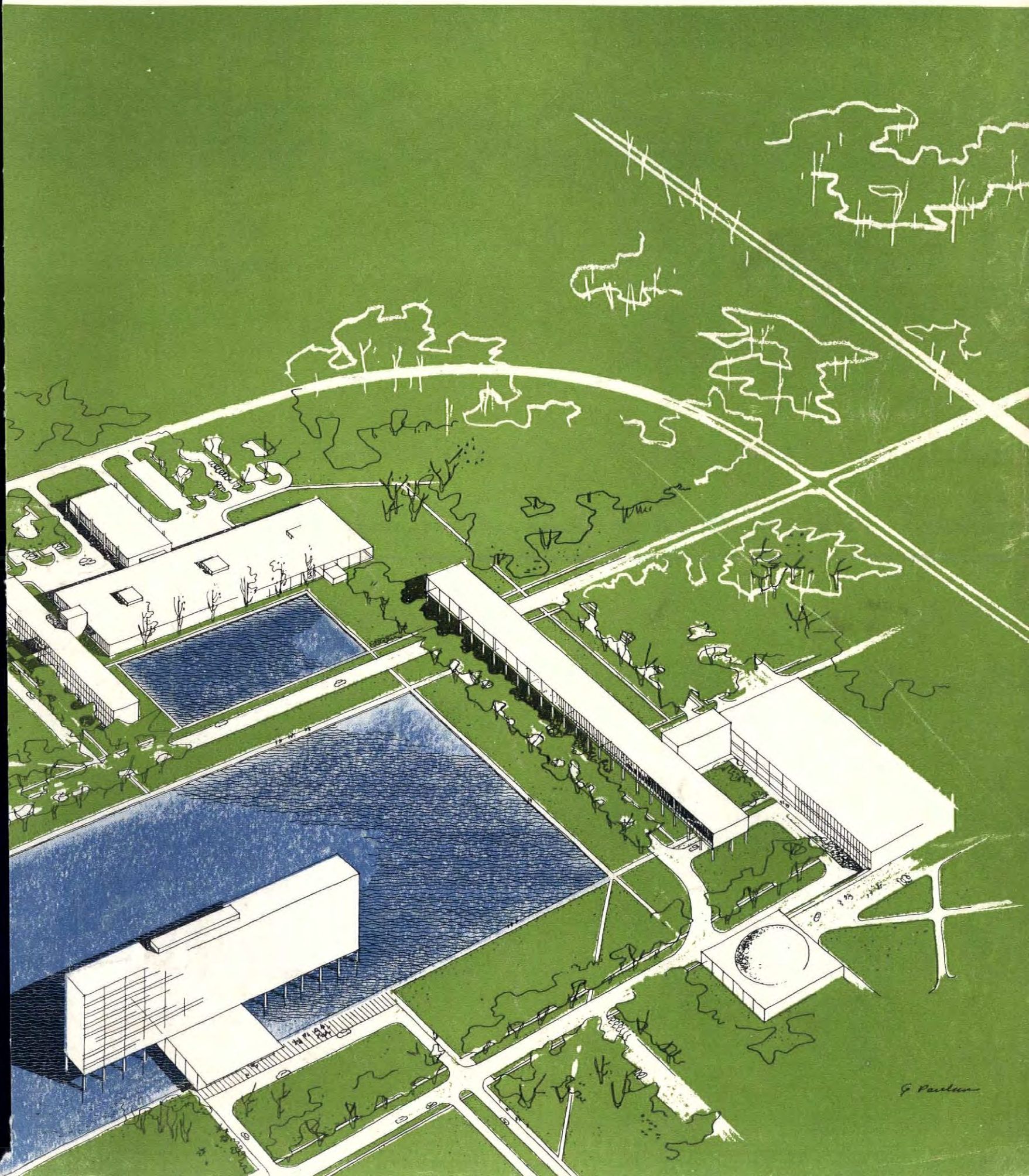


JULY 1949

ARCHITECTURAL

forum

MAGAZINE OF BUILDING



Ideal Choice for year-after-year living and working

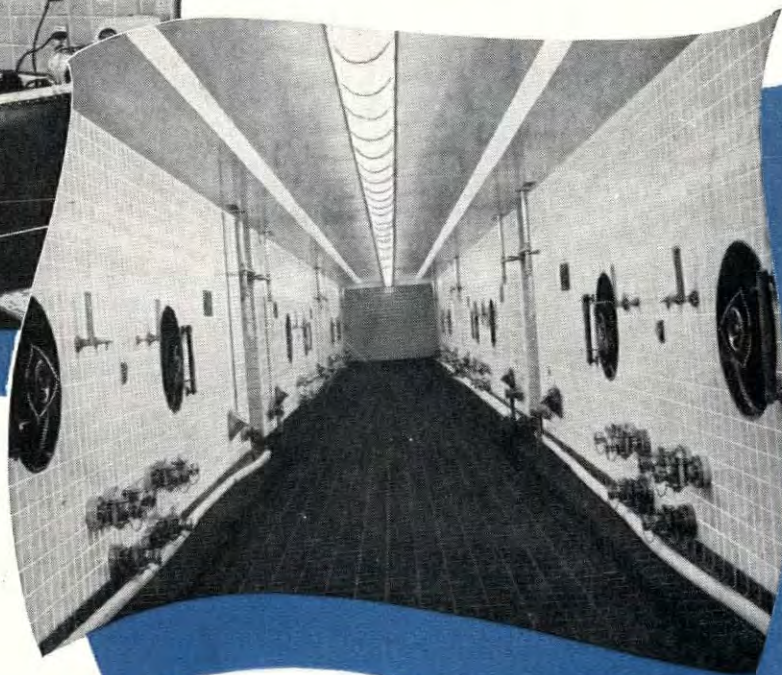
—COLOR-BALANCED

Suntile



FOR HOME easy to live with!

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IDEAL CHOICE FOR BEAUTY—

Year after year, Suntile's beauty will delight your clients! It's *built-in* beauty—color-balanced to permit wide freedom in the selection of pleasing, harmonious color blends.

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Year after year, Suntile will remain fresh and good-looking! Suntile is durable, real clay tile—resistant to marring, chipping and cracking.

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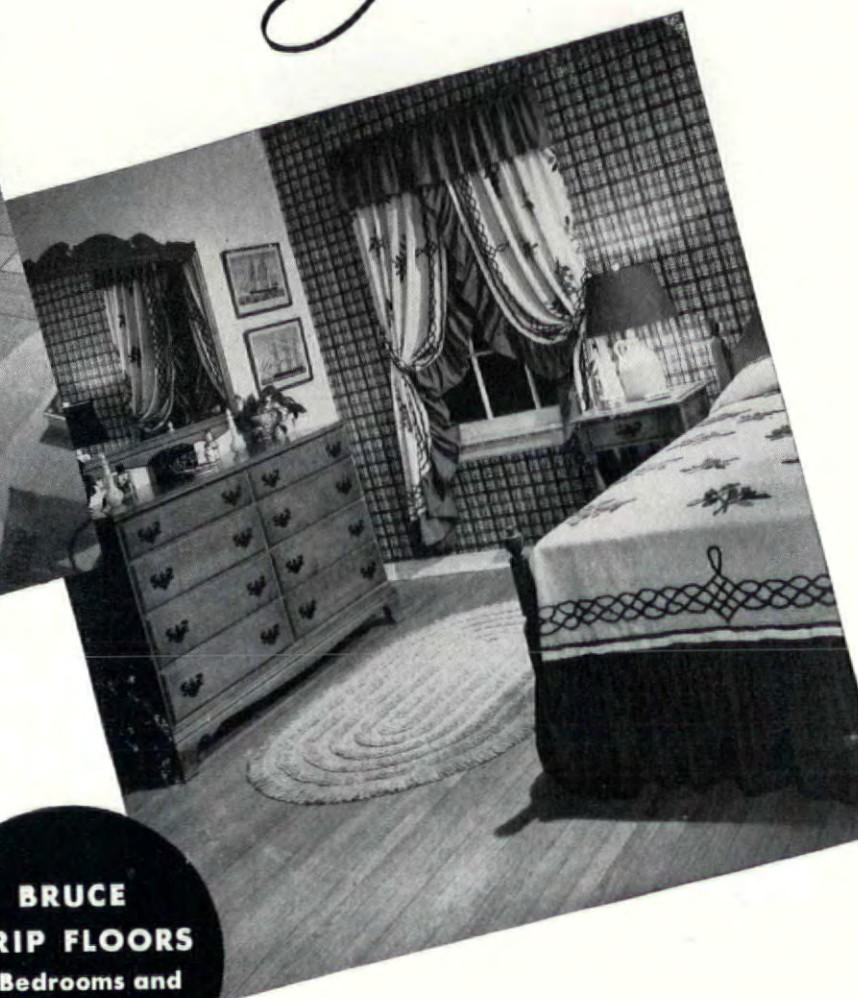
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Covered with Beauty*

INEXPENSIVE IDEA GIVES HOMES AND APARTMENTS

*That
"Luxury Look"*



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In Living and
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**BRUCE
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In Bedrooms and
Hallways

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Stop Back Syphonage—Protect Public Health

AT MANY FIXTURE OUTLETS a sudden drop in water pressure can result in dangerous pollution. Back syphonage, introducing tainted water or chemicals into a water line, can be the cause of an epidemic or even fatal poisoning.

Back Syphonage Impossible with SLOAN V-300-A Vacuum Breaker

On fixtures with small piping and low rates of flow, the SLOAN V-300-A VACUUM BREAKER will absolutely prevent back syphonage—on old installations as well as new—regardless of the degree of vacuum or how suddenly it develops.

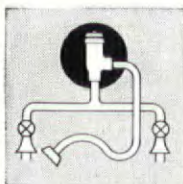
SIMPLE, PRACTICAL, POSITIVE

The V-300-A will not leak, even though the flow is only a trickle. And it will withstand any back pressure that the fixture may cause.

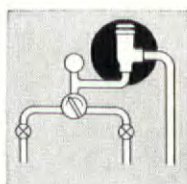
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A WORD TO PLUMBERS

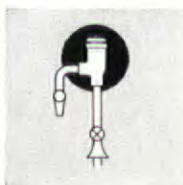
The V-300-A should be installed vertically on the discharge side of the control valve above the highest part of the discharge pipe and overflow line of the fixture—inlet at the bottom and outlet at the side as illustrated.



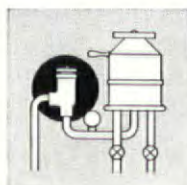
Hospital Fixtures



Shampoo Fixtures

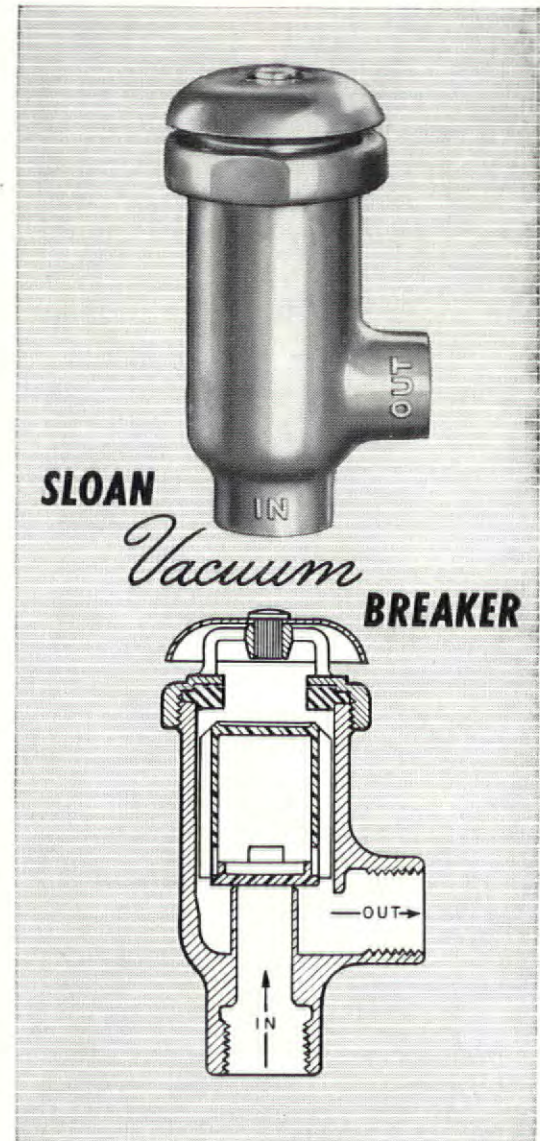


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Fixtures



Continuous
Flow Baths

Furnished in Chromium Plate, with inlet and outlet tapped $\frac{3}{8}$ ", $\frac{1}{2}$ " or $\frac{3}{4}$ " I.P. size as ordered.



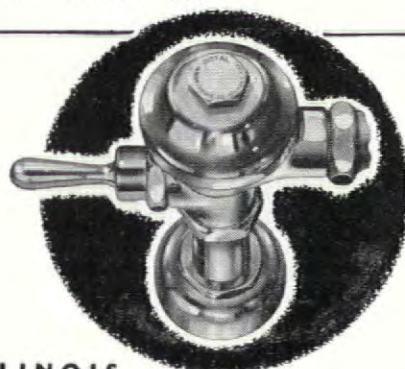
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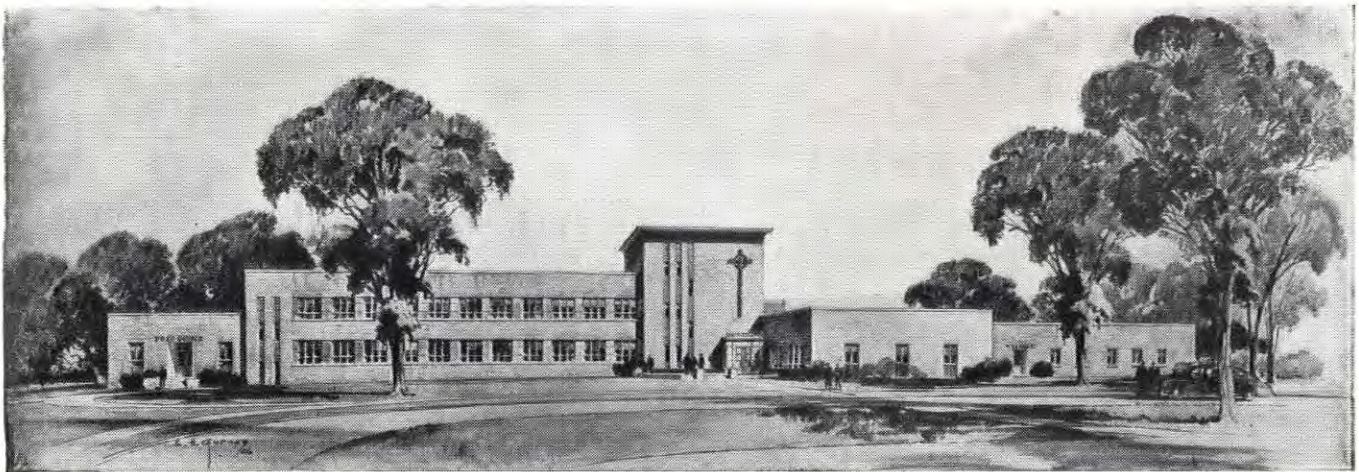
X-Ray Photo Tanks
Leg Baths
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Infant Baths
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Mortuary Tables
Continuous Flow Baths

Aspirators
Bidets
Service Sinks with Hose
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SLOAN Flush VALVES



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Boys Town, Nebraska, equipped with 2,621 Fenestra Windows in the Administration Building (above), High School, Trade School, Reception Hall, Dining Hall and Cottages. Architect: Leo A. Daly Co., Omaha. Contractor: Peter Kiewit Sons Co., Omaha.

Your first trip to Boys Town, Sir ?

Come in, won't you, and look around.

A famous and beautiful place, Boys Town. The warm, friendly feeling of gracious living you see in the rooms at your right means a lot to the boys who live here . . . a lot to the men who teach here.

At least a part of that feeling comes through the windows . . . Fenestra's* Fenecraft Intermediate Steel Windows. Daylight and controlled fresh air are literally built into each room.

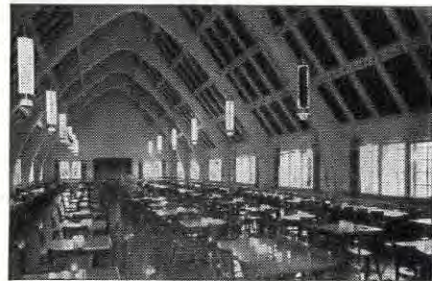
If you'd like to have the same qualities in your own buildings, here are some simple facts you'll want to know:

Fenestra's volume of production allows standardization of a *large variety* of windows—quality is high, cost stays low.

Beautiful Fenecraft Windows are made of casement sections of advanced design—fabricated into three popular and efficient types—Projected, Casement and Combination—in a wide range of sizes.

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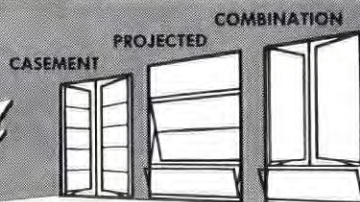


An office brightened by a bay of Fenecraft Combination Windows.



A cottage made light and gracious by graceful Fenestra Casement Windows.

Fenestra



FENCRAFT INTERMEDIATE STEEL WINDOWS

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Detroit 11, Michigan

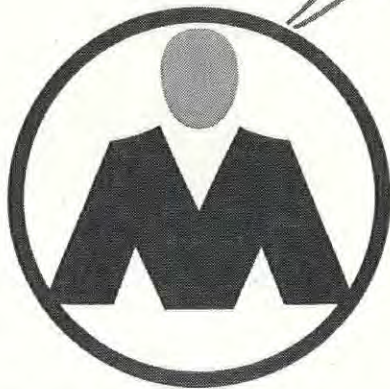
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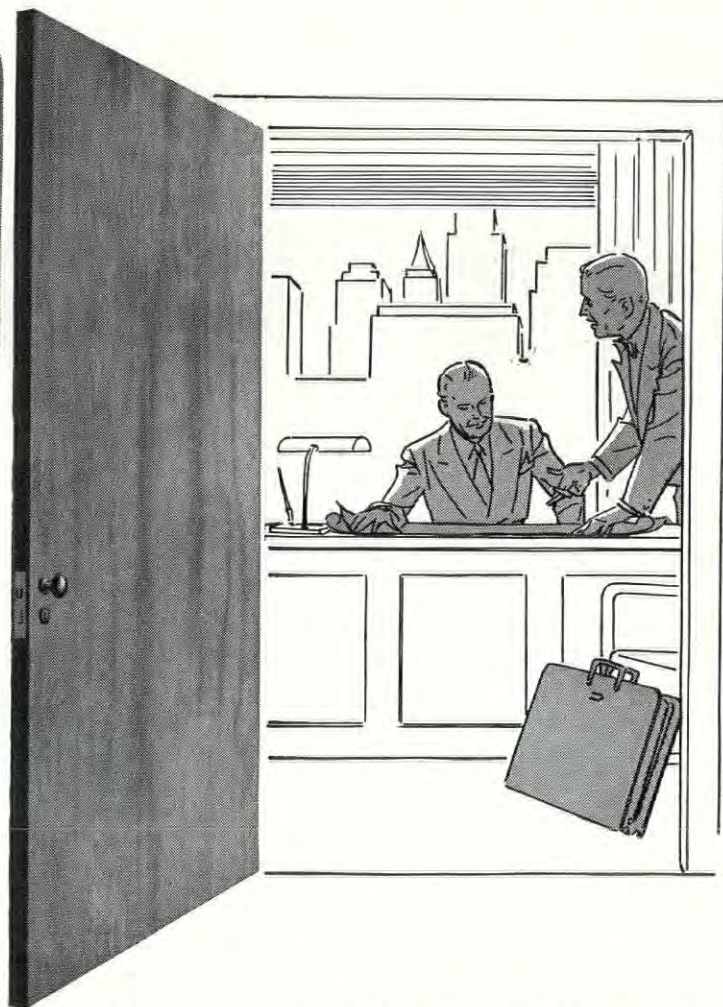
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MENGEL DOOR to
GREATER BEAUTY!
LESS SERVICING!**



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



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

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

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

Built Like Fine Furniture

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

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

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

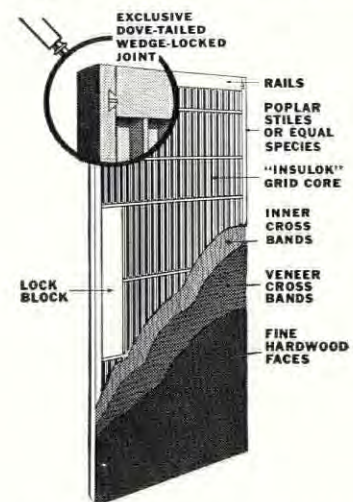
Mengel Flush Doors are now available faced with veneers of *Birch, Mahogany, Oak, Walnut, Gumwood*... other hardwoods to order.

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

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

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



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THE MENGEL COMPANY

Plywood Division, Dept. AF-2, Louisville 1, Ky.

Please send me complete information about the Mengel Flush Door.

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Company Name _____
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City _____ Zone _____ State _____



MENGEL Flush DOORS
THE FAMOUS FLUSH DOOR WITH THE PATENTED CORE



- Kwikset Locks look good...are good! That's why more than 4,000,000 are already in use.

Externally, they're cleanly designed and handsomely hand-finished in polished or satin brass, bronze or chrome. Inside, they're efficiently designed, too...and sturdily constructed of brass stampings or pressure-cast Zamak No. 5, the rugged, high-test alloy that stands up under years of heavy service.* They are *unconditionally guaranteed* against defective materials or workmanship!

And for economy, these Kwikset Locksets can't be topped! Engineered craftsmanship makes volume production practical,

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Specify Kwikset...for beauty, dependability, economy!

Authentic design for every traditional or modern residence. Available for all standard residential installations and in all popular U. S. finishes, with or without deadlatch. Write for file-size catalogue.

*Tensile strength, 45,400 lbs./sq. in.; compression strength, 87,000 lbs./sq. in.; impact strength, 18 ft. lb.

Manufactured by KWIKSET LOCKS, INC. Anaheim, California

Distributed by **PETKO INDUSTRIES, INC.**, 1107 East Eighth Street, Los Angeles 21, California

Kitchen plans amazingly *flexible* with **ONE-WIDTH KELVINATORS!**

Your client can choose from 6 new "Space-Saver" Refrigerators, 31 $\frac{1}{4}$ " wide . . . 4 New Ranges and Home Freezer, 39" wide!

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EXCLUSIVE! Architects and builders the country over are finding kitchen planning easier than ever—with one-width Kelvinators. It's insurance against costly changes—for whatever Kelvinator model is chosen, according to the client's budget—it fits the floor-plan exactly.

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NON-RESIDENTIAL BUILDING, paced by church and hospital construction is booming, will almost equal last year's record

In the first five months of this year the total dollar volume of new construction was 3 per cent ahead of last year and 43 per cent ahead of 1942. This encouraging trend has been paced by non-residential building, both private and public. In the private area, non-residential has continued at about the same rate as last year. Only utility construction (railroad, telephone, telegraph, power lines, pipe line, etc.), which was running more than 11 per cent above last year, showed greater strength. In the public area, non-residential building has registered greater gains than any other classification of governmental work.

Private non-residential building has showed a number of internal variations—reflections of the fact that construction is far from being one world. Industrial construction through May, consistent with the current curtailment of capital expenditures on a wide scale, was off 20 per cent compared with last year. Store, warehouse, and garage building as a group was off 16 per cent. In contrast, office build-

cial and recreational buildings (including movie theaters) were up by more than half, private educational buildings (libraries, school and university buildings) by almost 30 per cent, hospital and institutional buildings by more than a quarter.

Hospital boom. Public non-residential building has shown the most spectacular gains of the year. It has risen more than 91 per cent, far outdistancing the 15 per cent step-up in highway construction, the 33 per cent increase in sewer and water construction, the 40 per cent boost in conservation work, and the 50 per cent advance in public housing.

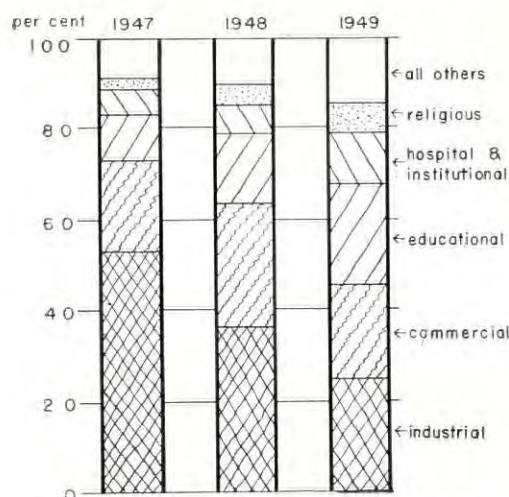
Within the public non-residential building category, hospital construction so completely led the procession (up 205 per cent) as to be in a class by itself. Here, the Veterans' Administration program was finally in full stride, and the federal aid program of the Public Health Service was proving to be an effective stimulus.

School boom. Racing with the ripening crop of war and postwar babies, school

building was running 79 per cent ahead of last year and represented the largest single component in the public area of non-residential building—probably more than half the total by the year's end. From metropolis to hamlet, school building was zooming, notable above all other types of building construction in the evenness of its distribution. Most of this, of course, was for primary schools—nearest to the crest of the impending flood.

Miscellany boom. Hospitals and schools aside, the miscellaneous group of what is ordinarily thought of as *public buildings* was running a good race. Up nearly 52 per cent from the volume at this time last year, it represented the release of funds for administration buildings, courts, post offices, prisons, recreational buildings (park structures, stadiums, auditoriums, etc.) as pressure eased in the private market. Most of this work has been initiated by state and local government bodies, which awarded contracts for 137 projects in the "administrative and general" non-residential field in the first four months of 1947, for 227 in the corresponding months of 1948, and for 321 in the same part of 1949. Federal activity of this type was held back purposely through 1948 awaiting a drop in cost and a weakening of demand.

The rate of the gains noted during the first five months is not expected to hold up throughout the year. Most observers predict that total new construction will end up the year 1 to 5 per cent behind the 1948 record.



BREAKDOWN of total non-residential building

ing construction was booming. Classed together with warehouses and loft buildings in the Commerce and Labor Department estimates, the increase so far in 1949 was better than 14 per cent.

Church boom. Greatest gain in the private market, however, was in the "other non-residential" classification. This includes religious, educational, recreational, hotel, hospital, and a number of lesser important types. Through May this diverse group was nearly 50 per cent ahead of last year. The prospect is that, for the entire year, this group will account for nearly 36 per cent of total non-residential construction, as compared with 26 per cent for 1948.

Within this group, a resurgence of church building is an outstanding feature of the current boom, carrying an expenditure increase of about 87 per cent over the first five months of last year. So-

WASHINGTON

PUBLIC HOUSING SQUABBLE features dirty fighting in the final round

As the hotly contested public housing bill at long last came out on the House floor late last month, the fighting took a dirty turn. Breaking a vow that he would never enter the ring to influence legislation, President Truman swung a 5,000-word haymaker at the bill's opponents, classed them all as members of "the real estate lobby . . . a little group of ruthless men" and peppered them with such jabs as "shocking," "false," "distortion," and "propaganda."

Industry spokesmen countered quickly. Said President Maenner of the National Assn. of Real Estate Boards, "There is no unsocialistic method by which you can socialize the ownership of 1,050,000 dwell-

ings." Another poke came from President Rodney Lockwood of the National Assn. of Home Builders: "If there is any lobby guilty of distortion and misrepresentation . . . it is the swarm of federal and local housing authority personnel . . . who have been pressuring the Congress to perpetuate their jobs."

As this went to press, public housing's proponents seemed to be winning the fight. To pick up votes, a caucus of House Democrats had voted to reduce their program from 1,050,000 dwelling units in seven years to 810,000 units in six—the exact dimensions of the program already approved by the Senate. In another vote-getting maneuver, they had also tacked on a popular resolution to extend FHA's Titles I and



ALVAR AALTO dormitory for M.I.T. is finished

M.I.T.'s new dormitory, designed by Finnish Architect Alvar Aalto, was completed and officially opened last month. The 247-room brick building will house 353 students. W-shaped, it contains no north bedrooms; all private bedrooms received direct sunlight for several hours daily, nearly all have views

overlooking the Charles River Basin. A continuous cantilevered stairway on the north side (shown above) increases the amount of lounge space on each floor above the main lobby. Perry, Shaw & Hepburn were consulting architects. (FORUM will soon present this unusual building in detail.)

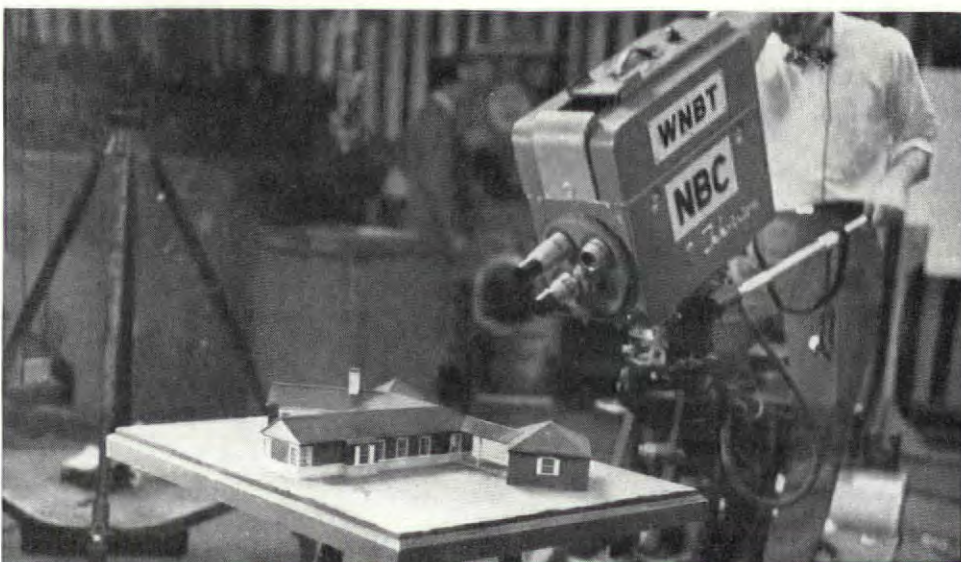


VENUS' BUST was a bit too big

Venus' bust, an object of veneration to artists for centuries, is about to be taxed by New York City. To polish off a building on upper Madison Avenue which is being put up for the Parke-Bernet Galleries by City Investing Co., its president, Robert Dowling, commissioned Sculptor Wheeler Williams to carve an entrance group which shows Venus bringing the spirit of artistic expression to Manhattan. In the completed sculpture, however, two points of the lady's anatomy protrude 18 in. beyond the city's maximum allowance for building projections (18 in.) To keep Venus complete (and Manhattan, whose knees and head also protrude), Dowling has applied for a franchise to rent the extra space. If granted, it will cost at least \$100 a year.

TELEVISION bait for house buyers

House sales were getting a boost from television. New York builder Carlo Paterno has found his weekly \$200 televue minute a good way to sell \$40,000 houses (see p. 108).



VI and boost its Title II insurance fund. (The Senate had voted such measures independently.) Consideration of the bill had been voted by the House. As debate continued, odds increased that the House would vote "aye" on public housing. Thus, the Government would start rolling the biggest political pork barrel in recent history and could give the country another big push towards socialization.

The Congress last month also:

►Approved a \$40 million shelf of public works projects. The money would go into the purchase of sites and preparation of plans for construction work which would be thrown on the market to counteract a slump. An additional \$30 million was earmarked for the improvement to existing public structures. (The President's Economic Council is not very enthusiastic about the old theory of expanding public works to combat unemployment, wants instead legislation authorizing the government to make incentive loans to business for new plant financing, and even build new facilities itself.)

►Received from the Secretary of Defense a request for \$623 million for housing and public works of all the armed forces during fiscal 1950. Family dwellings built in the U. S. will be limited to a cost of \$16,500, those overseas limited to \$33,000.

SENATE ECONOMY ends with request for new \$25 million home

The economy-minded Senate seemed serious in its desire to cut costs. It kept proving it all along—in the debates on public housing and aid to Europe, for instance. But the drive had to stop some place, and as good a place to stop as any was during consideration of the Senate's own home.

The Senate wanted a new office building. And it didn't want just any building. It wanted a *de-luxe*, \$25 million one with swimming pool and a \$5 million garage.

High priced dignity. Not only was the Senate's mind made up, but it had full moral justification: as one legislator expressed it, the taxpayers would not want to "sacrifice the dignity of the Senate."

It was not likely that any taxpayer would suggest that dignity might come a little cheaper than the \$51 per sq. ft. which the new Senate office building reportedly would cost (compared with the \$10 per sq. ft. of the average fireproof office building), or even that the Senators actually seem in less need of office space than other Washington officials (there are now 390 rooms for 96 Senators.)

Unrolled log. To get the building started, the Senate wants an immediate appropriation of \$10 million. The House, which took first action on the legislative appropriation bill for the next fiscal year, was supposed to start the log rolling. But the House last month removed the item from the bill entirely. If the Senate wants to spend that kind of money, it will have to take the initiative itself. Thinking the matter over, the Senate decided last month that it would wait a while longer.

* * * *

In sidestepping, for the time being, the comparatively hot issue of getting started on its new office building, the Senate stepped right into an issue which may prove to be a great deal warmer. The Senate has already bought the land it wants—a half block of the most notorious alley slums in Washington. So until the Senate displaces the tenants of dilapidated Negro shacks in the area, the government becomes the owner and operator of slums.

LAW

RENT DECONTROL voted by Nebraska, but tenants are protected against steep rises

Rent decontrol popped up on the agendas of state legislatures as soon as it was authorized by Congress. Nebraska was the first state to put it into law—over the veto of the governor and objections of the mayors of the only four cities which still clung to controls. More timid states, anxious to see how decontrol worked in Nebraska before initiating action of their own, would have to wait until November 1, however. Nebraska set that as the effective date of rent control's death.

Untimid states would do no waiting at all. Texas already had a decontrol bill up for its governor's approval.

Contrary to all the shrill warnings of rent control's proponents, no one forgot the tenants. T. H. Maenner, president of the National Assn. of Real Estate Boards, after congratulating Nebraska on its action, cautioned owners against steep rent hikes. The Texas Real Estate Assn. announced that it would take up the cause of any tenant treated "unjustly or severely" after Texas' decontrol. And, if any city's tenants do get it in the neck, the Federal Housing Expediter can always slap controls back on that city as he did in Americus, Ga. last month when the local advisory board told him that rents had increased 43 per cent since the town's decontrol.

GIVEAWAYS halted as FHA frowns on latest sales trick

One of the many builders offering free television sets, etc. as bonus equipment (not under a package mortgage) to accelerate their house sales hit a snag last month. The snag, as usual for builders bubbling with enthusiastic new ideas, was the FHA.

No packages. Developers of a subdivision of Los Angeles called Norwalk sold out all of their 389 homes at \$6,995 to \$7,995 when they offered purchasers their choice of two of a quartet of blessings: television set, wall-to-wall carpeting, gas range, refrigerator. But then the local FHA office, who had given a commitment for insurance to Spyros Ponty and Mark Taper, the developers, stepped in and froze individual applications for insurance. They would process them only if cost of the

giveaway features was deducted from the house price. (California is one of the few states not yet using package mortgages so the extras could not be gift wrapped in that manner.) The affair had originally come to a head when an applicant listed the giveaways as part of his assets on his credit statement to the mortgagee.

Looking East. Then everybody involved in the intricate affair stopped talking, and looked East to Washington. (Ponty looked West; he was visiting in Greece.) It appeared to be up to the thoughtful officials in that city to decide whether the developers were paying for the bonus attractions out of their own profit, or whether the original valuations of the houses without the giveaways had been too high. It was an awkward affair no matter how you looked at it, even from Greece.

MONEY

CUT IN RESERVE FUNDS means more bank money for home loans

It had been hard for the Administration to concede that inflation in postwar U. S. was really dead; it had conceded instead a kind of limited death. Little by little, over the last six months, Congress had whittled away at the powers of the Federal Reserve Board, gradually relaxing its control over consumer credit and bank reserves. Now it looked as if Congress might give inflation a decent burial, after all. Senate Banking Committee Maybank, after a series of hearings on the subject, said he thought Congress would let FRB's emergency powers expire June 30.

With the expiration of Regulation W will go the board's power to fix the down payment and purchase time on all consumer goods. Death of the board's authority to control the reserve requirements of its 7,000 member banks would permit the bank reserves to drop to the prewar level of 20 per cent (14 per cent for country banks), and would thus boost the amount of money available for mortgage loans.

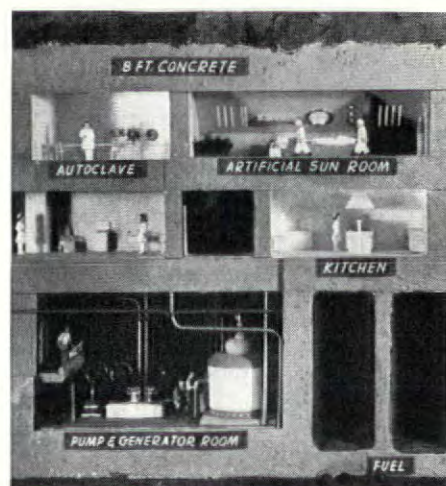
MORTGAGE MONEY continues ample, and bankers smile again on 4.5 return

Mortgage money is still piling up, and—mainly because of a lower demand for loans than had previously been foreseen—interest rates are still sagging.

In step with this trend, average yields on high grade corporate bond issues have

eased from 2.86 per cent in November to 2.70 per cent in April, high grade municipals from 2.46 in September to 2.20, and long-term Federal government bonds from 2.45 in October to 2.38. While these declines are not substantial (they leave present levels in all categories considerably above average yields in 1946 and 1947), they are sufficient to indicate that bankers' hopes for a continued increase in interest rates have been pricked and that the 1948 trend toward scarcity of funds has definitely shifted in the direction of easier money.

Attraction regained. Under these circumstances a 4½ per cent return on mortgages has regained much of the attraction it lost during the fore part of 1948. At least one canny insurance company, foreseeing this trend, went back into the mortgage market a few months ago while conditions were at their tightest and made commitments for a full year's business. As the change in the market brought other institutions to greater mortgage lending activity, premiums once more began to be paid for FHA mortgages. Currently premiums of 1 to 2 per cent on FHA Section 203 mortgages (one- to four-family houses) are common. Section 608 mortgages (rental housing) in many areas fell to a discount in the latter part of 1948. By last month these areas were few. Lenders were generally paying par or better, and in the Middle Atlantic region a premium of 2 per cent was reported to be about average.



ATOM BOMBPROOF HOSPITAL

Plans for the first U. S. hospital resistant to atomic bombing are being formulated in Long Beach, Calif. Seaside Hospital, a private institution, plans a new \$8 million structure with a three-level subterranean, fully equipped hospital insulated against radio activity and poison gas by earth, steel and concrete. The model above, constructed by Architect Jess J. Jones, shows the underground structure with decontamination chambers, power plant, oxygen wards and provision storage space. Seaside officials want the city to build the new hospital with oil revenues.

INTERIOR MODEL helps a bank plan its new office

Greenwich Savings Bank, opening a new branch in the heart of New York City's art center, had a few artistic ideas of its own. It commissioned Artist Julian Binford to paint seven murals for its banking room, then let him collaborate with the architect in the

selection of harmonious materials and finishes. Trapdoor through the bottom of a 4 ft. by 8 ft. model of the bank permits patrons to see how the murals, depicting simultaneous growth of the city and bank, will look when they are finished.

Gottschko-Schleisner



Further evidence of the easing of credit is seen in the fact that Federal National Mortgage Association is receiving an increasing number of requests for it to purchase FHA mortgages in bank's portfolios, and that deferment of such transactions is caused merely by FNMA's indecision as to how much premium to charge.

VA RULING dries up lifeblood of its home loan program

Because of the Veterans Administration's steadfast refusal to raise the interest rate on its mortgages from 4 per cent, the VA Home Loan program has been all but dead for several months. About the only stimulus which has kept it alive is 505-A, the joint FHA-VA mortgage arrangement through which lenders can get 4½ per cent on FHA's part of the loan (the first mortgage). Now VA has threatened to slow down even that part of its program.

Lenders must wait. In a ruling certain to strike caution into the hearts of lenders, VA decided last month that in the event of foreclosure on a 505-A, it has a year in which to redeem its interest. Thus, the lender cannot foreclose the first mortgage and turn over the property to FHA with a clear title; and FHA will not pay up its insurance commitment without a clear title. To the lender, the ruling means specifically that before he can collect on his insurance, he may have to wait a full year, during which time he will have the responsibility for the management of the property.

VA apparently was not worrying much over lenders' reactions to its ruling. It has never cared much for 505-A. (It believes the veteran is better off with a straight VA loan—even, presumably, when they do not exist—because of the interest he saves.) Anyway, last month VA was hearing reports from Capitol Hill that Congress might soon authorize direct loans to veterans who cannot get 4 per cent loans commercially.

Under the mounting pressure for a special credit facility for financing cooperative dwellings for "families of moderate income," some 15 bills have been introduced into the House on this subject, about equally divided among Democrats and Republicans; in the Senate, three Republicans sponsor a similar proposal.

All these bills are substantially alike. Their main features closely resemble HR 4458, a measure introduced by Represen-

tative Mitchell (D. Wash.). It would establish a system of direct Federal loans to cooperatives and other types of non-profit organizations which provide housing for rental or sale to their members. Thus "liveable" housing would be made available to families "who cannot afford to pay the rents or prices charged for privately financed housing" from a loan fund of \$6 million—at the rate of \$1 million a year. The fund would be obtained, not by appropriation, but by resort to a public debt operation, and would be administered by the Housing and Home Finance Agency.

ECONOMY

HOUSE PRODUCTION, up each month, is healthiest trend in nation's economy

If there was little in the figures of employment (see *Labor*) and materials prices to touch off wild demonstrations of enthusiasm, there was solid encouragement in the record of house starts. The Bureau of Labor Statistics reported 95,000 starts for May—a shade below the 100,000 starts for May, 1948, of course, but a healthy improvement over April's 86,000.

Second biggest year. No one was saying that 1949 would end up equaling 1948's all-time record, but some government economists were willing to estimate that the monthly volume of house starts might, some month soon, reach its level of a year before. There was yet no reason to alter the January forecast that 1949 would wind up as the *second* biggest housebuilding year in history. (The Federal Reserve Board brought out an amazing survey covering the first two months of the year which showed that as late as February one million consumers intended to buy new homes this year; the survey gave no indication as to how this attitude had been changed by economic factors which have developed since; FRB said it would take another poll soon to find out how much such change there has been.)

No market doubt. If there had ever been doubt about the builder's strongest market, it no longer existed: wherever a builder gave his public a good buy for under \$10,000, he had few worries. If he built for any bracket above that, he would at least have to paint a few "for sale" signs. About half of FRB's February home-hunters said they would pay no more than \$7,000. Columbus, Ohio, which economists like to think of as a typical U. S. city,

recently polled its builders and found that, whereas only 24 per cent of the houses completed by early spring were in the "under \$10,000" range, 83 per cent of those on planning boards at the start of summer were in that group.

FHA offered further evidence that

MATERIAL

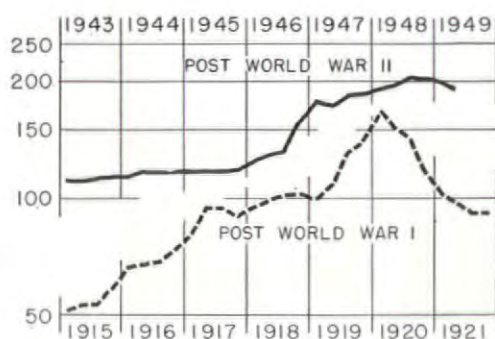
INDUSTRY CODE looms closer as code-makers and producers end quarrel

For two years the Producers Council had thrown objections in the way of the Building Officials Conference of America's attempt to formulate a nation-wide building code (FORUM, Apr. '49). Its antagonism was BOCA's chief stumbling block. Last month both groups set their shoulders to the block to remove it.

In a day-long, amicable meeting in Washington the materials producers met with BOCA and one of its affiliates, the Building Officials Foundation, and reviewed the work that BOCA has done so far.* They found, after two years of sparring, that their differences were relatively small. Although it did not actually endorse the code which BOCA had drawn up, the Council endorsed the objectives of the BOCA program and reached agreement on the structure of the BOCA-BOF relationship. (BOF would supply the technical services to put the code in operation.) Said one official: "It was an acknowledgment of BOCA's function."

At the meeting's end, the Producers Council took a copy of the minutes along to its own executive session. A week later it

* It has, in addition to preparing a basic building code which is almost finished, published a stripped-down version (the Abridged Building Code) for smaller cities.



WHOLESALE PRICES of all building materials (plotted in per cent of 1926 average) are compared in two post war periods. So far, the sharp dip of 1920 has not repeated itself. During War I prices rose further (from 50 to 168 per cent) than in War II (109 to 204 per cent), therefore had further to fall.

builders were getting their costs and selling prices down. It reported a steady decline in the amount of its average mortgage: in October, 1948, the average FHA mortgage was \$7,416; by January it had dropped to \$7,000; last April (latest available figures) it stood at \$6,876.

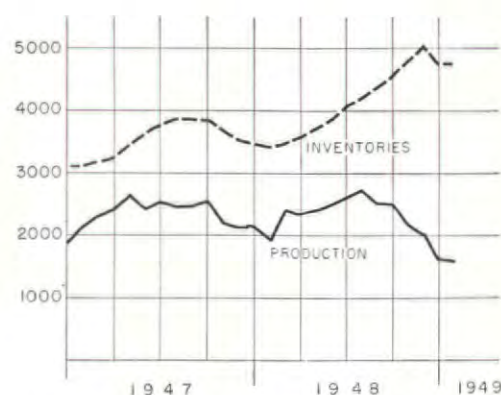
sent BOCA its approval. Thus, a building code sponsored by the entire industry was one step closer.

PRICE DROPS and cutbacks bring stockpiling and protection clauses

For building men, as for business generally, there was really but one big headline last month. It assumed different proportions from day to day. The figure it used changed, and so did the material it mentioned, but it had a constant sameness. It told, in brief, a steady story of price drops and production curtailment. (See charts.)

Douglas fir plywood in Tacoma, Wash., set the stage for a \$1 million advertising program to bolster sagging sales. At least three big steel companies announced operating cutbacks. Inventories in copper and zinc were stockpiling uncomfortably. Lead continued its 8½ cent price drop begun in March.

No one could do much but read the headline; it was difficult to interpret. And, as in any price break, the news was read with different reactions. Those caught with huge inventories were not doing much smiling. But a New York City apartment house builder happily reported that for the first time since the war, he was getting "de-escalator clause" contracts from almost all his suppliers, to protect him against price drops before delivery.



SOFTWOOD LUMBER'S story (in millions of board feet) is like that of many materials. As inventories rise, production is curtailed. (Source: Department of Commerce.)

PEOPLE

Frank Lloyd Wright covered a lot of ground last month, made headlines wherever he stopped.

In Washington he called on the President, proposed that the Capitol be moved out "along the Mississippi—among the prairies, the cradle of democracy." The present Capitol, he said, could be preserved as a "great historical museum." The President seemed to like the idea.

In San Francisco he offered his own scheme for the new Bay bridge, whose location Oakland and San Francisco are now hotly debating. A butterfly-wing, all concrete bridge, set on a series of squat

Dorsey & Peters



T-shaped piers could be built for \$100 million, Wright said—about half the cost of the causeway-and-tube crossing now planned by the state.

In Pittsburgh he advised Carnegie Tech architectural students to "leave the university; go home and make something of yourselves." He also said that architects might well take notice of Spanish Engineer Eduardo Torroja, who "has expressed the principles of organic construction better than any engineer I know."

Back home at Taliesin near Spring Green, Wis., he celebrated his 80th birthday and said "a creative life is a young one . . . what makes everyone think 80 is old?"

West Coast Banking Giant **A. P. Giannini** died in San Francisco at the age of 79. The 2,500 persons who turned out for his funeral included some of California's biggest names. The ten oldest employees of Giannini's Bank of America were pallbearers.

Pollster **George Gallup** turned his fact-finding facilities on housing and turned up the following discoveries: one-fifth of the sample families questioned would move

tomorrow if they could; another 13 per cent were dissatisfied with their present housing, but said it would do for another year. Greatest dissatisfaction with present accommodations showed up in the age group under 30; other dissatisfied customers lived in cities with populations of 500,000 or more.

Henry Dreyfuss, celebrating last month his 20th year as industrial designer for such clients as Bell Telephone, Statler Hotels and the New York Central Railroad, was contracted by the American Export Lines to design two forthcoming \$25 million luxury liners. The well-pleased officials said that the luxurious "4 Aces," which Dreyfuss designed for them after the war, had

been booked solid since their inaugural sailings during the fall of 1948.

Buford L. Perkins, head of Tulane's School of Architecture in New Orleans was irked at southern home builders who "eeny meeny miny mo with pictures in magazines." Lashing out at fellow Orleanians who pursue a "blind imitation of the damn yankee," he asked them to embrace a "regional" architecture, to build homes suitable to their climate.

G. A. Bryant, president of the Austin Co. of Cleveland turned up on the U. S. Treasury's annual list of top salaries. In 1947 (latest available list) he drew a salary of \$270,789.

LABOR

BUILDING EMPLOYMENT drops unseasonably; West Coast is hardest hit

As unemployment continued its alarming upward drive in most parts of the country, and economists seriously considered the possibility that the number of idle workers might reach five million this summer, the Department of Labor released disturbing news of construction employment: for the first time in four years, it had dropped below the corresponding level of the year before. Construction contractors had 2,010,000 employees on the job in May—42,000 less than in May, 1948. Employment drops were most serious on the West Coast, least serious in the lower Mississippi basin.

The substantial seasonal jump in the number of building workers between April and May was 73,000; during the same period last year it rose 119,000.

WAGE RATES RISE but are offset by increased labor productivity

At its February meeting in Chicago, the National Association of Home Builders, laying down the operating commandment that house prices must not rise, went on record flatly opposing a general round of wage increases in the building trades. Such increases, the economy-conscious Builders observed, would surely hike the cost of houses at a time when cost raises would be fatal for the industry.

Disturbed industry. Since then, Building Labor has pushed forward with its demands. Now at mid-year, wages of construction workers are on the upgrade in

nearly all major communities. (New York City, with half of its two-year stabilization agreement yet to run, is a notable exception.) Deeply disturbed, the NAHB last month repeated its warning.

Said NAHB President Rodney Lockwood, at a Board of Directors meeting in Washington: "The prices of new homes are due to go up if labor pushes through (its) demands." Not only increases in building trades wages, he predicted, but also in manufacturing industries and transportation will "go directly onto the final price of a home."

Grudging doubters. Surprisingly enough, not everyone agreed; some builders were forced to a grudging doubt that wage increases already granted had actually raised house costs. In Detroit, Lockwood's home town, where building trades workmen have received increases averaging 15 cents an hour, one builder admitted that the new wages had not hurt much because "contractors are getting a better day's work out of union labor."

This fact of labor's increased productivity was now a generally accepted truth. And if it did not completely offset the wage increases, there were at least two other factors which would help to do so: the disappearance of overtime and premium payments, and the steady reduction in building materials prices (see *Materials*).

No one, however—not even Building Labor—had yet argued that increased wages would result in a lower cost house. And a lower cost house was the industry's most desperate need.

BUILDING OWNERS CHAMPION ALL-OUT MODERNIZATION. Montreal convention seeks to avert glut of new office buildings, hopes to satisfy the customer through complete remodeling of old buildings



BOARD OF GOVERNORS of the National Association of Building Owners & Managers deferred decision on changing name to Building Owners & Managers of America.

NABOM PRESIDENT, J. Clydesdale Cushman of New York City, was reelected to serve another year.



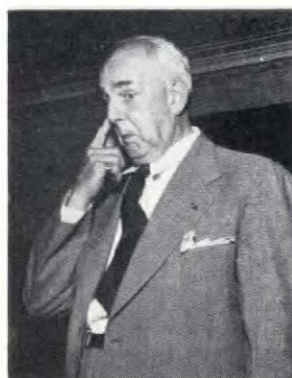
Photos: Dwight E. Dolan



MONTREAL MAYOR Camillien Houde told delegates at breakfast meeting: "You are the most important group I've ever met so early."



CONVENTION CHAIRMAN O. N. H. Owens, Montreal, welcomes J. Baker, manager of St. Louis' Railway Exchange Building.



A NABOM WHEELHORSE, Lee Thompson Smith is president of New York City Real Estate Board.

"I think," said Building Owner Fred B. Moore of Atlanta, "that all of us here are interested in keeping in a *status quo*."

The 600 delegates to the 42nd annual convention of the National Association of Building Owners & Managers in Montreal last month emphatically agreed. They devoted their five convention days to a pursuit of the effective ways of maintaining the *status quo*. Other members of the building industry might blanch a bit at the kind of *status quo* these delegates wanted, for it included a discouragement of new construction. Some new buildings, the delegates agreed, would be necessary. What they frowned on was "unnecessary" construction.

Few complaints. The men who own and operate the nation's office buildings have few complaints. They are well pleased with the high rate of occupancy of their buildings (98.3 per cent—only slightly below the 1947 all-time high, but still above the normal 90 per cent), with the relatively high rentals they command, and with the generally accepted prediction that demand for office space will continue high. But they are cautious.

Their buildings were full in the Twenties, too, and everyone had plenty of money. But it was precisely those two factors which sparked the belief then that the simple answer to high consumer demand was the uncontrolled construction of new buildings; in the fast and furious decade which followed, skyscrapers pushed through the soil of American cities like dandelions. And, as one convention delegate sadly put it, "bats were to fly through our office windows before our tenant lists were filled again."

Office bats and whitewash. The building owners and managers want no such repetition now. They want to keep the 1950's free of office bats and the crude "For Rent" signs which once were whitewashed over half the country's office windows. To prevent these things, they want, as NABOM President J. Clydesdale Cushman of New York pointed out, to "avoid the rash overbuilding which characterized the late Twenties."

The most effective way, and one which would throw the burden of effort on the delegates themselves, was outlined in detail by President Cushman: make the construction of new buildings unnecessary by modernizing the existing ones. Said Cushman: "We need fear no splurge of overbuilding unless we provide an added incentive by failing to give the business concerns

which occupy our structures the modern facilities they require and deserve." The modernization push he envisioned was not a mild one; he called for a program of complete rehabilitation from one end of the country to the other: "Steam cleaned facades and freshly painted corridors are well enough in their way—but they don't weigh enough to keep the competitive scales in balance. Nothing less than *complete* rehabilitation and modernization will do. New elevators . . . thoroughly modernized plumbing systems, with toilets for men and women on *each* floor; new main hall ceilings and floors, new streamlined corridors; new . . . lighting systems—and last but not least, nothing less than 100 per cent air-conditioning. . . ."

Modernization all over. Cushman's challenge threaded the convention with a constant theme. Building operators, already recognizing the need for improvement, had spent \$148 million on modernization in the past year. The year ahead, according to Executive Secretary Robert Beach, would be \$175 million. Philadelphia, where no new buildings are going up, is in the throes of a \$10 million modernization program. Building owners, according to Thomas Egan, secretary of NABOM's Philadelphia chapter, "keep the shell of the building, which is sound, and rip out the insides." Denver, said Andrew J. Konersmann, plans a \$5 million modernization program, covering about half of the city's office space. Victor Corrigan of Miami said that intense competition had resulted in the remodeling of 25 per cent of the older space. Other delegates told of modernization talk in Portland, Cincinnati, Chicago and Los Angeles.

NABOM's 1949 convention, sensing a disturbing similarity between the economic climate of this convention and that of 20 years ago, intended to spark and foster such talk in every city in the U. S.

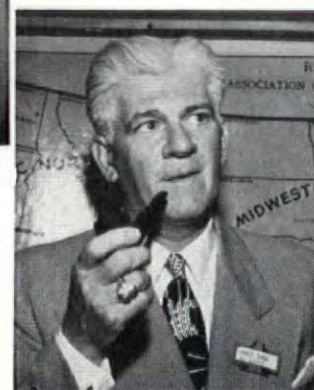


AT BUFFET SUPPER, Albert Grimstead, Montreal, spears a piece of ham (above). Mr. and Mrs. Clarence Turley, St. Louis, go through chow line with Stanley Buckingham, Cleveland (below). *



MONTREAL HOST, W. R. Abbott, greets Paul Thole, Louisville, and Victor Corrigan, Miami (above).

VICE PRESIDENT James F. Cook, Jr. (right), of St. Louis, was reelected. Also reelected: Secretary-Treasurer Charles M. Underhill, Columbus.



PIANIST Tom Imlay, Washington, D. C., entertains Miss Mary Ellen Gerrity, Toronto Building Manager J. E. O'Farrell, and J. Charles Bauer, Washington.



AT WORK TABLE, Association secretaries compare notes: Charles Kilgore, Portland, Margaret Wolfe, Pittsburgh, Arthur Cory, Memphis. Below right, Paul Gregg, Fresno, Calif., and George Beggs, Portland, investigate program.



NABOM'S PLANNING SERVICE helps avoid operating headaches in new buildings



Chairman Earle Shultz

One important function of NABOM is its Building Planning Service, which since 1923 has corrected many a mistake before it was built. It works this way: a prospective office builder sends the plans of his projected building to a Planning Service committee, composed of building operators familiar with the kind of building in question. The committee goes over the plans carefully with the owner and the architect, evaluating and criticising them from an operating standpoint.

Not always does the committee find operation faults in a building. On the other hand, committee advice to some 10 per cent of the Service's 125 customers over the last

25 years has been to junk the plans completely and start over afresh. One of the most common faults is the misplacing of elevators. Other items which get a lot of committee attention: lighting, heating, air-conditioning.

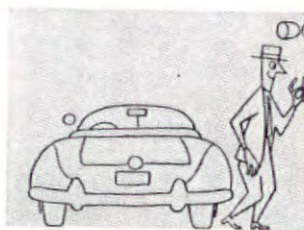
The Planning Service handled six assignments last year. Chairman Earle Shultz, who originated the service and has been with it ever since, estimates that it could take on 15 or 20 a year; it has a revolving "fund" of about 300 men qualified to help. Standard fee is \$1 per 1,000 cu. ft. up to 10 million cu. ft., and 50 cents per 1,000 after that, with a minimum charge of \$3,000 for any one building.

Light the path ahead

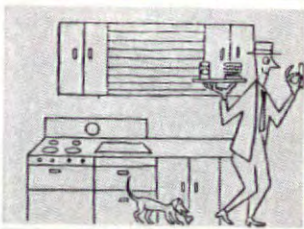
WITH SQUARE D's

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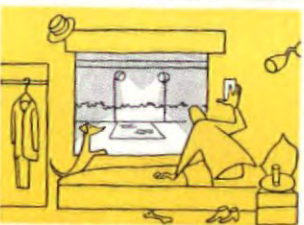
use this
Remote Control Relay System
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 . . . at very reasonable cost



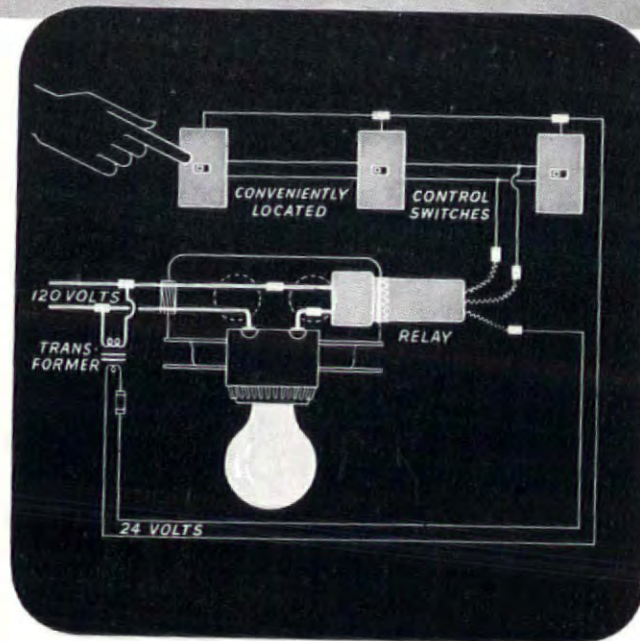
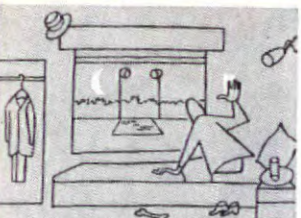
LIGHTS OFF IN GARAGE
 AND ON IN KITCHEN



LIGHTS OFF BEHIND
 AND ON AHEAD



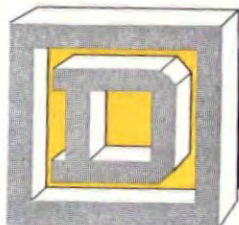
LIGHTS ON FOR A LOOK
 THEN OFF ALL OVER



• The above sketch shows how remote control relays are installed in knockouts of outlet boxes. The relays are controlled from any number of conveniently located switches operating on a 24 volt system. Only the load circuit wiring is at 120 volts.

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Yes, Hotpoint—America's leading manufacturer of electric water heaters—presents a new line made expressly for builders. Called "Builder's Specials," they combine Hotpoint's traditional quality with new manufacturing economies which in no way affect performance. The resulting savings mean *more profits for you!*

All nine "Builder's Special" models offer Hotpoint's famous "Magic Circle Heat" of pressurized Calrod® Units, automatic thermostat, heavy-duty tank, thick Fiberglas® insulation plus all the other features which have made Hotpoint America's largest-selling electric water heater. See your Hotpoint dealer for all the money-making details. Hotpoint Inc. (A General Electric Affiliate), 5600 West Taylor Street, Chicago 44, Illinois.

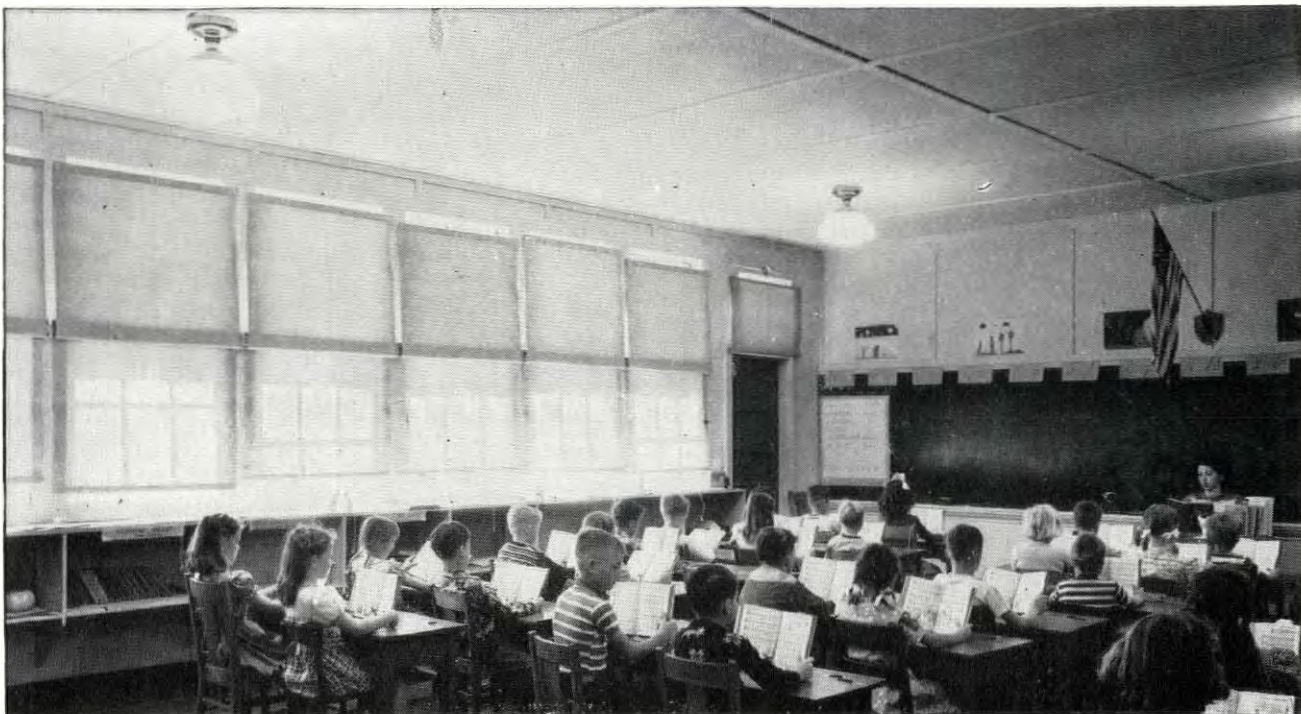


Everybody's Pointing To

Hotpoint

RANGES • REFRIGERATORS • WATER HEATERS • DISHWASHERS • DISPOSALS®
CLOTHES WASHERS • DRYERS • IRONERS • CABINETS & SINKS • FREEZERS

Before: With old-type fenestration, classroom in Cragmont School, Berkeley, California, looked like this. Shades are down, due to bright sun; at the same time, artificial lighting is needed to illuminate opposite side of room.



After: Insulux Glass Block permits best distribution of daylight. New prismatic block (No. 352) reduces panel brightness below the best previous performance, yet maintains a surprisingly high level of task brightness.



ARCHITECT: JOHN CARL WARNECKE, A. I. A., OAKLAND AND SAN FRANCISCO, CALIFORNIA

How Insulux solves the bright sun problem

NEW Insulux Glass Block No. 352 provides the lowest brightness ratio between fenestration and task yet achieved by a daylight transmitting medium.

The new performance for uni-directional light (severe sun exposure) is obtained by a combination of improvements. These include improved prism design at face two of the hollow glass block, a special glass fiber screen midway between the two inside faces and finally, a special prism design at face three. These three light control structures are designed to work as a team to provide more light at the task for a given panel brightness—higher service brightness in relation to tolerated brightness. (See p. 4 of "Daylight in School Classrooms" for principles of light control).

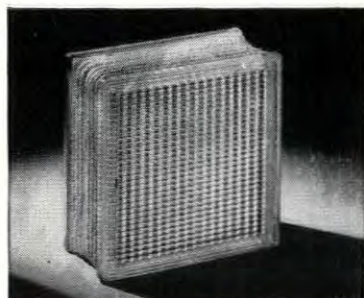
Actual photographs of test classrooms, Cragmont School, Berkeley, California (taken without

aid of artificial lighting), are shown above, illustrating the remarkable performance afforded by Insulux fenestration.

Either of the Insulux prismatic blocks (No. 352 for severe sun exposures, No. 351 for ordinary conditions) actually puts daylight where it is needed most—in the otherwise dark corners of the classroom.

Insulux Glass Block bends light rays, transmitting them to the ceiling, where they are reflected and spread evenly over desk surfaces below.

Get complete information on Insulux school fenestration. Write American Structural Products Company, Dept. F-18, P.O. Box 1035, Toledo 1, Ohio, for your copy of "Daylight in School Classrooms," the book that shows how to predict task brightness where Insulux Fenestration is used in school classrooms.



INSULUX

GLASS BLOCK®

AMERICAN STRUCTURAL PRODUCTS COMPANY

Subsidiary of
OWENS-ILLINOIS GLASS COMPANY

an entirely new concept of elevating



AUTOMATIC SUPERVISION throughout 6 traffic patterns

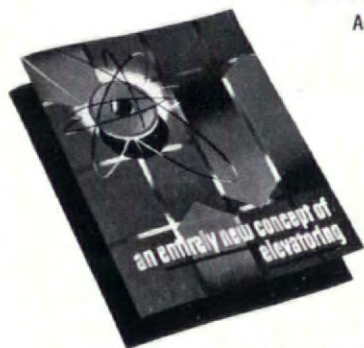
With AUTOTRONIC supervision, an elevator system automatically matches the dispatching and operation of the cars to surges and lulls in traffic . . . rebalances the cars when the traffic pattern is changed . . . rebalances the cars if an attendant leaves ahead of the dispatching signal . . . rebalances the cars when the number of cars in service is changed . . . and automatically measures and limits waiting passenger time.

All the starter has to do is set a traffic flow dial to one of 6 traffic patterns . . . place the proper number of cars in service . . . set the dispatching interval . . . then devote practically all of his time to doing a better job as a front line public relations man for the building!

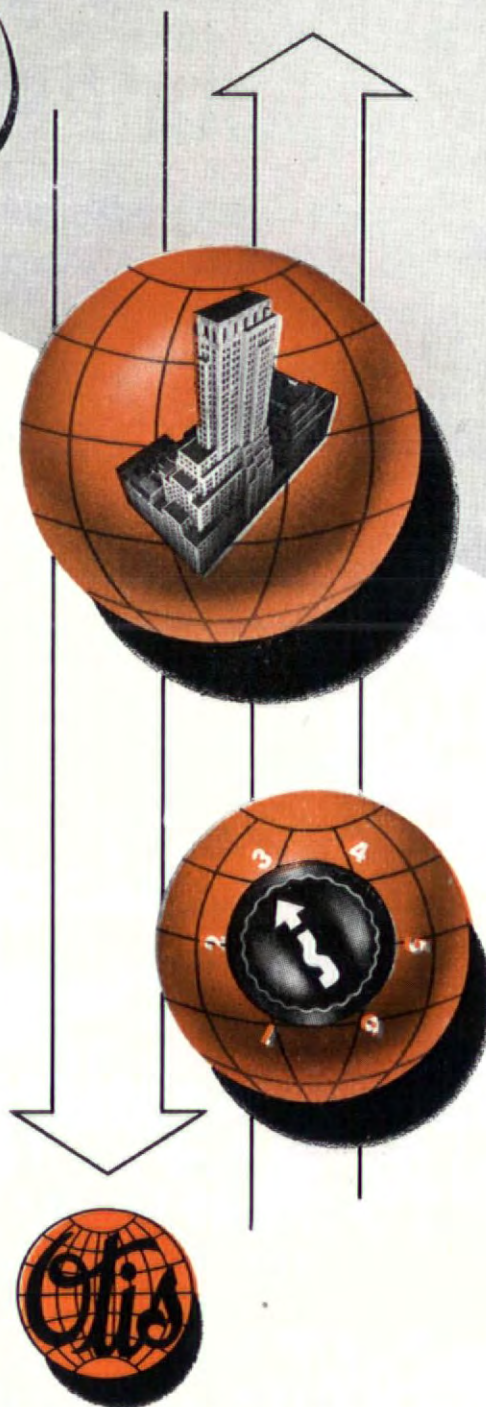
OTIS AUTOTRONIC Traffic-Timed ELEVATORING can be applied to NEW or EXISTING groups of elevators. It is the only elevating system that is timed to the 6 daily traffic patterns of busy office buildings, hotels, hospitals and department stores.

Otis Booklet B-721-A explains the details—interestingly.

Address: Otis Elevator Company, 260 11th Avenue,
New York 1, N. Y.



Otis...first with Electronic Signal Control...
again first with Traffic-Timed Elevating



OTIS AUTOTRONIC *Traffic
Timed* ELEVATORING

Here's *the inside story*
of the *Guarantee* behind

PAINÉ
REZO
T. M. REGISTERED
DOORS



You're looking at U. S.
Patent Number 1,887,814

... and the subject it registers means *trouble-free door service*. Only Paine Rezo doors can have this internal structure that provides dimensional stability — a stability that is everlasting because ventilating air channels through the interlocked cells produce constant air circulation — prevent swelling, shrinking, sagging, and warping.

It's this patented construction that makes valid the Paine Rezo guarantee of complete satisfaction — a guarantee proved more than three million times in buildings all over the country, and backed by the resources of America's oldest and largest exclusive producer of flush doors.

Equally significant to thoughtful architects, contractors and property owners is the fact that mass production methods have brought the price of this premium door so low that it costs no more to install than a common panel door. Refer to Sweet's File or write today for detailed information.

Manufactured by the
PAINÉ LUMBER CO., LTD. *Oshkosh, Wisconsin*
ESTABLISHED 1853

FLANDERS AND LUSTRON

Forum:

I have seen your most interesting (May) article on the Lustron plant and prospects.

One thing that disturbed me a bit in that article was that I am reported to have said, "If Lustron doesn't work, let us forever quit talking about the mass-produced house." I cannot imagine having said that.

It is a fact that I felt this was the most hopeful way to go about the production of high quality mass-produced houses, but it would have been most unwise for me to use those terms in speaking of the undertaking. I sincerely hope your authority was wrong and that I did not say so.

RALPH E. FLANDERS, Senator
Washington, D. C.

• FORUM obtained the quotation second-hand from a Lustron official, thus welcomes a first-hand clarification of the Vermont Senator's stand on prefabrication.—ED.

KUDOS

Forum:

The handling of the Los Angeles buildings in the May FORUM was magnificent.

WILLIAM ZECKENDORF, President
Webb & Knapp, Inc.
New York City

Forum:

What an interesting magazine!

I received the May issue, have taken it home and am still absorbed in reading it. . . . It is my unqualified opinion that the FORUM is the finest (industry) publication that has ever been printed. . . . In fact, it is so much better than anything else that there is no real second.

J. CLYDESDALE CUSHMAN, President
National Assn. of
Building Owners & Managers
New York City

SOUL TRAP

Forum:

Re: the Georgian Apartment Development of the Prudential Insurance Co. (FORUM, May '49, p. 122).

This thing cannot be lived in! It is not a collection of homes. It is a home—a home for the mentally deficient! I object only to that "outmoded 100 years ago." A thing like that would be unthinkable 100 years ago to a carpenter not just an "architect." The disposition of the rooms looks bad, as well as the fenestration. To my eye (admittedly untrained) the interiors are typical effeminized bourgeois soul-traps all ready for the radio blare, the tobacco fumes, and the "girls" chatting over the bridge table about how lovely it is. It

(Continued on page 26)

Automatic
REZNOR
gas fired unit heaters



SUSPENDED
OR
FLOOR TYPE

REZNORS TOP THE MARKET IN SALES VOLUME

Every Reznor gas-fired unit heater has a big, quiet fan whether it is a suspended or floor type. More Reznors are sold than any other and they are the nation's No. 1 favorite. You may buy a size for any need. Consult your telephone directory for the Reznor selling station near you or write for catalog.

FULLY AUTOMATIC

EXTRA LARGE FAN

SPECIAL HEAT EXCHANGER

STRONGER CONSTRUCTION

MORE ECONOMICAL

LOW COST INSTALLATION

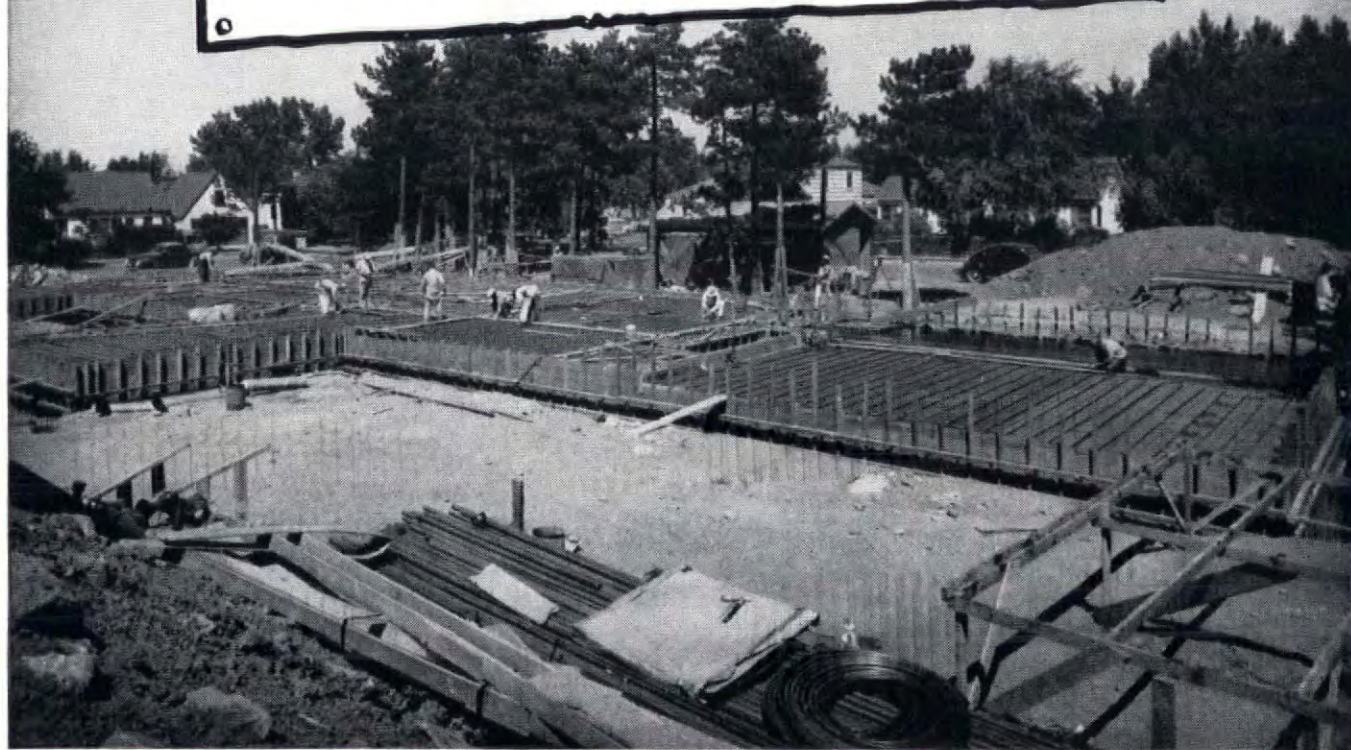
ALUMINIZED STEEL INTERIOR UNIT

REZNOR MANUFACTURING CO.

20 UNION ST. • MERCER, PENNA.

Gas Heaters Since 1888

NO GAMBLING WITH QUALITY...



11,000 feet of Revere Copper Water Tube were used in the radiant panel heating system. The building has 9 zones, with each room controlled by individual thermostats. Revere Copper Water Tube was also used for hot and cold water lines, and Revere Sheet Copper for roofing.

...as the Manager of Reno's famed Harold's Club Builds a Magnificent New Home

IT'S always a safe bet—for radiant panel heating as well as for hot and cold water lines—that Revere Copper Water Tube will provide many long years of continuous service. This tube guards against leaks, rusty tap water, inadequate flow and faulty circulation. Yet, completely installed it costs little or no more in the first place . . . and may be much less in the long run.

All Revere Copper Water Tube is stamped at regular intervals with the Revere name and the type. These marks are more than identification—they are your assurance of full wall thickness and the close dimensional tolerances so essential for tight soldered joints.

Other Revere products include: Copper Water Tube for use with soldered fittings for hot and cold water lines and heating lines; Red-Brass Pipe; Sheet Copper and Herculoy for tanks, pans, ducts and trays; Panel Sheets in architectural bronze, nickel silver and copper; Extruded Shapes in architectural bronze, nickel silver and

aluminum . . . and, of course, Sheet Copper for roofing, flashing and other sheet metal construction. They are handled by leading distributors in all parts of the country.

Raymond I. Smith residence, Reno, Nevada.

Architect: Gulling & Means; Plumbing, heating and sheet metal contractor: Charles Burke, Jr.; Revere Distributor: Acme Supply Co.—all of Reno, Nevada.

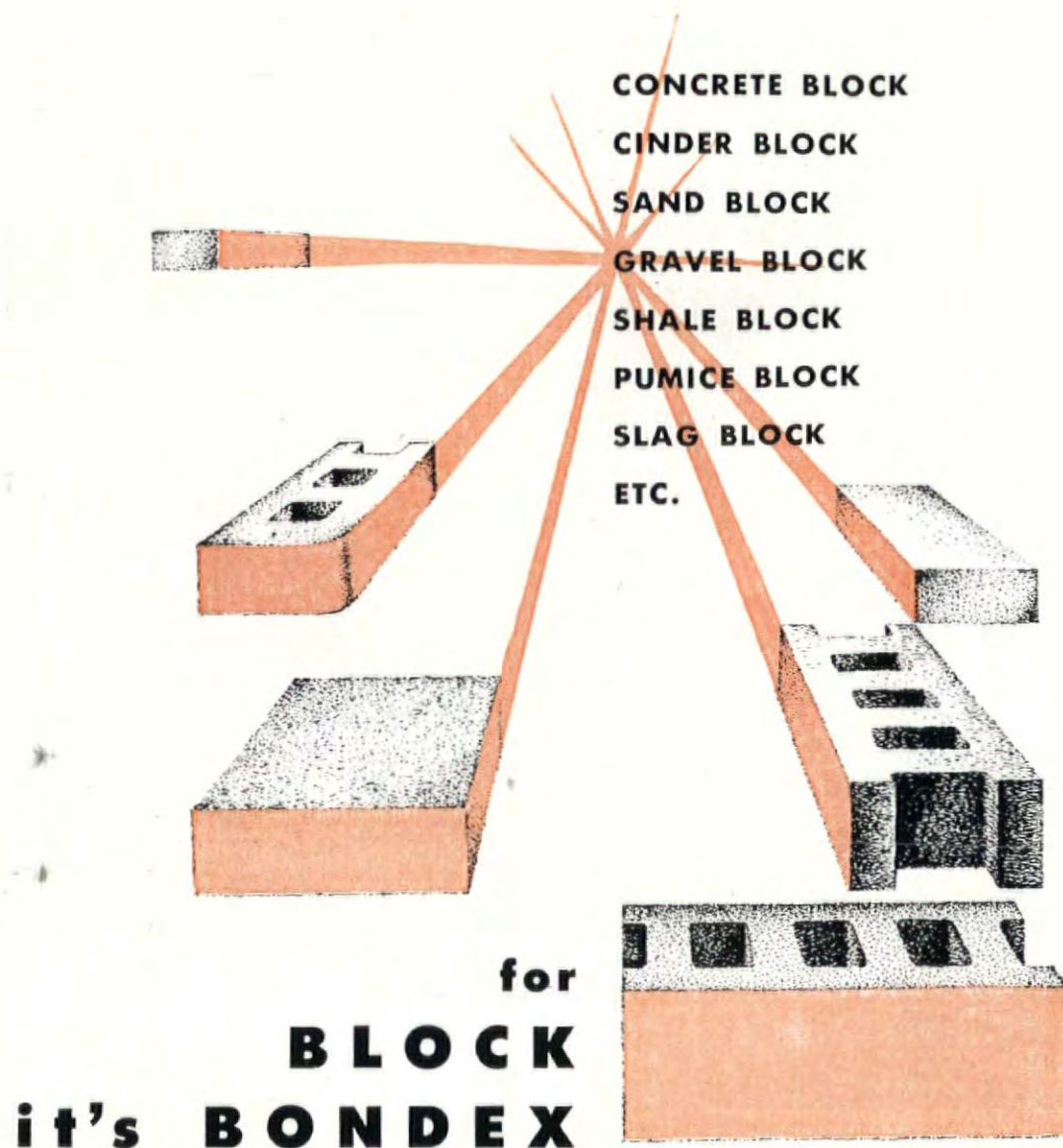
REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

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

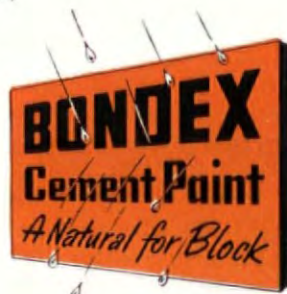


styles with color ! checks moisture !

Only Bondex Offers a Full Range
of 12 Attractive Colors

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Adobe • Antique Ivory
Carthage Cream •
Old Spanish White
Monastery Gray
Grotto Blue
Ivy Green
Brick Red
Pure White

Send for New
Color Chart



THE REARDON COMPANY



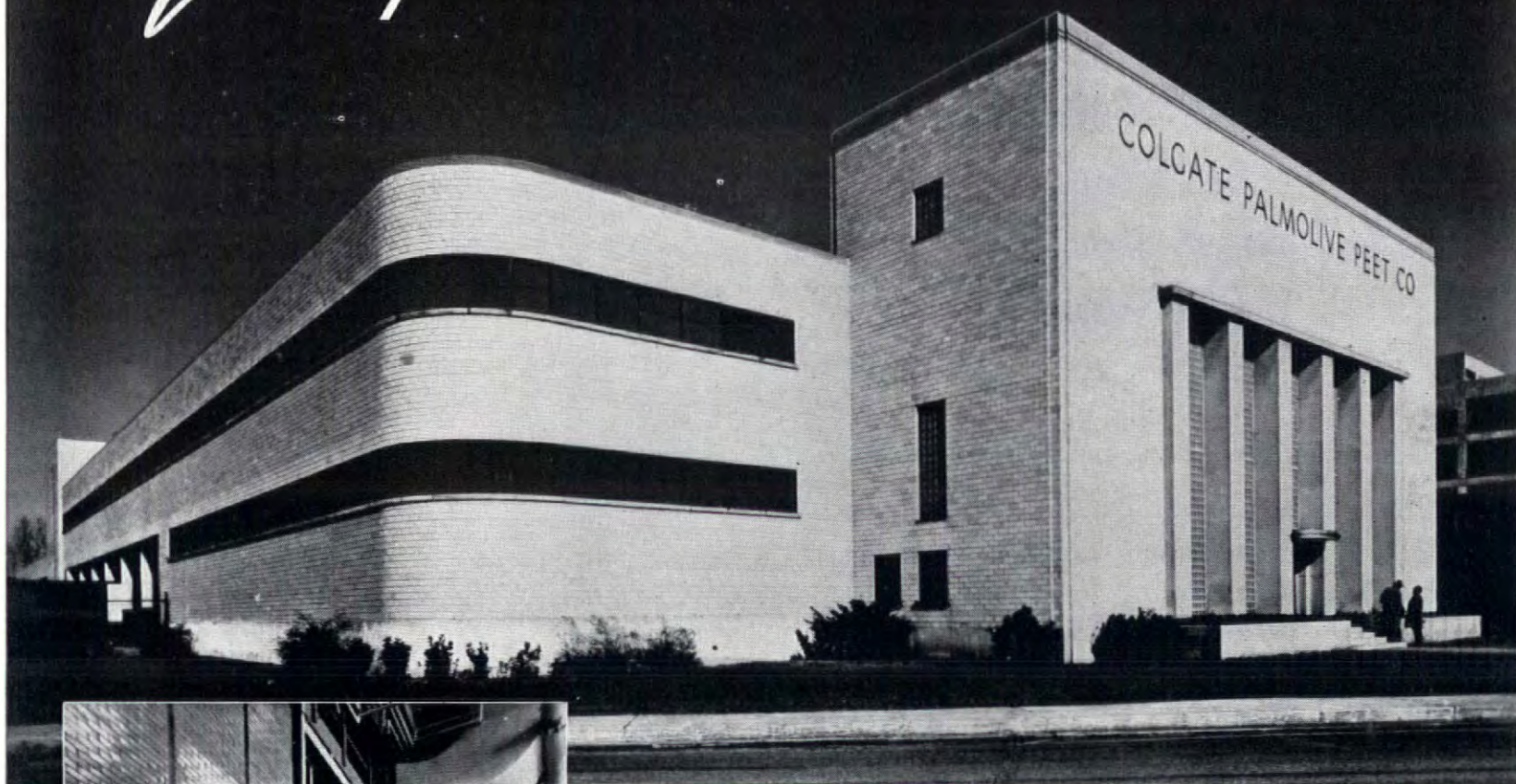
When you build with block — finish with Bondex Cement Paint. It's the low-cost way to protect the block surface and seal the pores against dampness. It also permits you to offer home-buyers a variety of color combinations.

Bondex and block naturally go together because the basic ingredients of both are compatible... that's why Bondex gives lasting beauty to block. The reputation and dependability of Bondex is an important good-will builder for you.

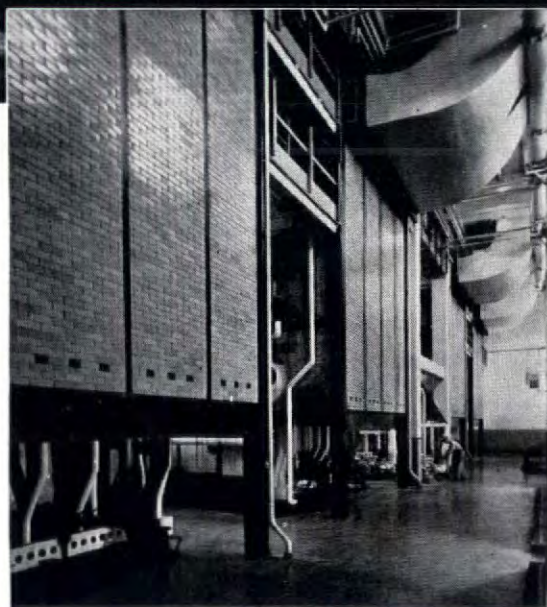
Bondex Outsell All Other Cement Paints Combined

St. Louis 6 • Chicago 9 • Los Angeles 21 • Bayonne, N. J. • Montreal 1

Two sides to this story about *Facing tile* for industrial buildings



Unglazed Facing Tile



Glazed Facing Tile

AUTHORITATIVE REFERENCE SOURCE

"Tile Engineering" is a handsomely bound, 450-page handbook of design, full of valuable information for the architect. It includes detailed data on properties, specifications, uses and construction techniques for Structural Clay Tile. Send \$2.50 with your name and address to Facing Tile Institute, Dept. AF-7.

FACING TILE INSTITUTE

1756 K Street, N. W., Washington 6, D. C.

Two sides to this story . . . and both good!

Take this inside story, for example.

The setting is a busy industrial interior built with Structural Clay Facing Tile. The walls are exposed to dirt, bacteria, steam, acids—all manner of hard wear. This goes on for years and the walls never get any more attention than an occasional soap and water cleaning! Yet the "finish" of the story is beautiful. That's because Facing Tile's surfaces are impervious, easily cleaned, *tough!* They never *need* costly maintenance!

The outside story might be set in a storm. Season after season grit-packed winds, rain, heat and cold take turns attacking a Facing Tile exterior. But the walls resist this extreme weather. They never crack, scratch or decay, never need refinishing or redecorating.

Inside or outside, Facing Tile provides a strong, fire-safe wall *and* finish that will serve a lifetime with a minimum of maintenance.

And—this is the big "plus"—Facing Tile adds *beauty* and *flexibility* to your plans! It makes imaginative design easy.

Facing Tile for interiors and exteriors is made in a variety of colors in efficient modular sizes, both glazed and unglazed.

Be sure you have the complete story on Facing Tile when planning future jobs. You can get detailed information from our Catalog 4d/5 in Sweet's, from Institute members, or from us, Dept. AF-7.

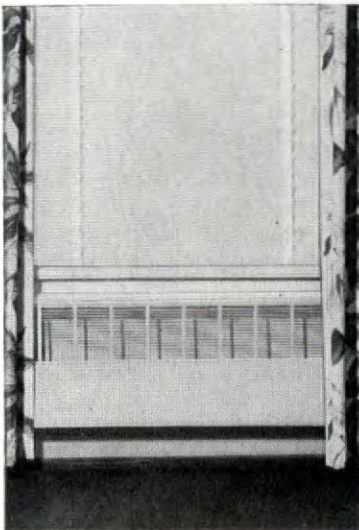
INSTITUTE MEMBERS Belden Brick Company, Canton, Ohio ★ Continental Clay Products Co., Kittanning, Pennsylvania ★ Charleston Clay Products Co., Charleston 22, West Virginia ★ Hanley Company, New York 17, N. Y. ★ Hydraulic Press Brick Co., Indianapolis, Indiana ★ Mapleton Clay Products Company, Canton, Ohio ★ Metropolitan Brick, Inc., Canton, Ohio ★ National Fireproofing Corporation, Pittsburgh 12, Pa. ★ Stark Brick Co., Canton, Ohio ★ West Virginia Brick Company, Charleston, West Virginia

AMERICA'S MOST COMPLETE LINE OF CONVECTOR- RADIATORS

NOW... Fedders makes Convector-Radiators in America's most *complete* range of types and sizes as follows:

Type F	Type SFB	Type RC
Type FE	Type W	Type RCB
Type FB	Type S	Type P
Type SF	Type R	Type PB
	Type RB	

QUICK RESPONSE



to manual and thermo-static control is an important reason for using Fedders Convector-Radiators. They are equipped with heating elements using copper tubes and aluminum fins,—the most efficient commercial heat transfer metals.

By reducing time lag, Fedders Convector-Radiators provide quick control and more uniform temperature, greater comfort and increased fuel economy.

Write for Complete Information

FEDDERS-QUIGAN CORPORATION
BUFFALO 7, N. Y.

A Great Name Since 1896

fedders

looks as if it will sprout plaster cracks and cockroaches. If it does, I'll be glad!

I really cannot express myself adequately. I have only a poignant feeling of disgust created by six years in the real-estate hell known for traditional reasons as Philadelphia.

I refuse to sign this outburst. If you won't print it, just take it as a letter of sympathy.

(UNSIGNED)

Philadelphia, Pa.

• FORUM normally refuses to print unsigned letters, but couldn't resist airing this anonymous outburst.—Ed.

Forum:

If the Prudential Insurance Co. is so sour on modern (domestic) architecture (FORUM, May '49, p. 118), then how do they account for that (modern) office building (same issue, p. 83)? Is it "much too good for the common people?" Or are the worlds of "living" and "working" so completely separated?

There's a curious similarity to that situation here in Philadelphia. A bank occupies an office building that is known throughout the world for its modern design (Philadelphia Saving Fund Society). Yet this same bank is, among architects, notorious for its hostility toward contemporary architecture for homes.

LEONARD N. ABRAMS
Philadelphia, Pa.

THE THINKER

Forum:

Re Marcel Breuer's house at Manhattan's Museum of Modern Art: "this house (which will be acclaimed by many for its fine design, but criticized by the unthinking as arty) . . ." (FORUM, May 1949).

What a shame that there are so few thinking people such as those on your staff and at the Museum of Modern Art. Unthinkingly,

JOHN R. BENCIVENGA
Brooklyn, N. Y.

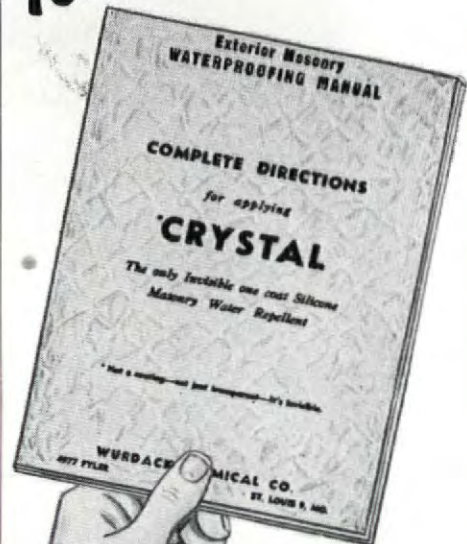
FAMILIES VS. HOUSES

Forum:

I was surprised at the graph in the May issue of the FORUM (p. 15) which compared family formation with the Bureau of Labor Statistics' residential building permits. The BLS says their series represents new units in new structures and does not allow for units provided by remodeling or a shift from farm to nonfarm use. In some years these account for a very high proportion of the total. I believe that the total number of units provided in '48 exceeds the

(Continued on page 30)

**A MUST
for ARCHITECTS**



**the
REAL FACTS
about
WATERPROOFING
—in one complete
MANUAL**

*Yours for
the asking*

Send this convenient coupon

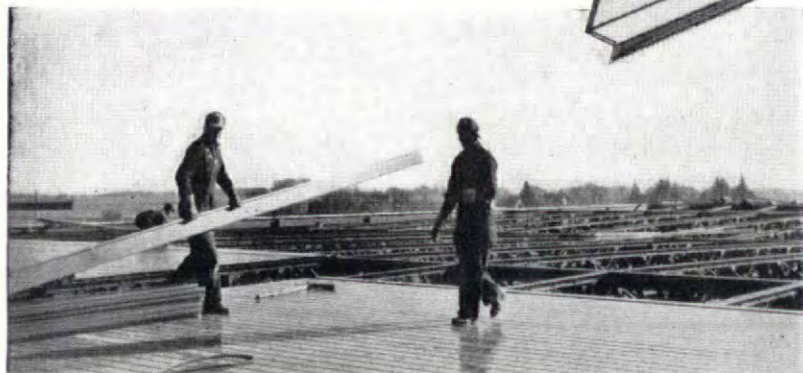
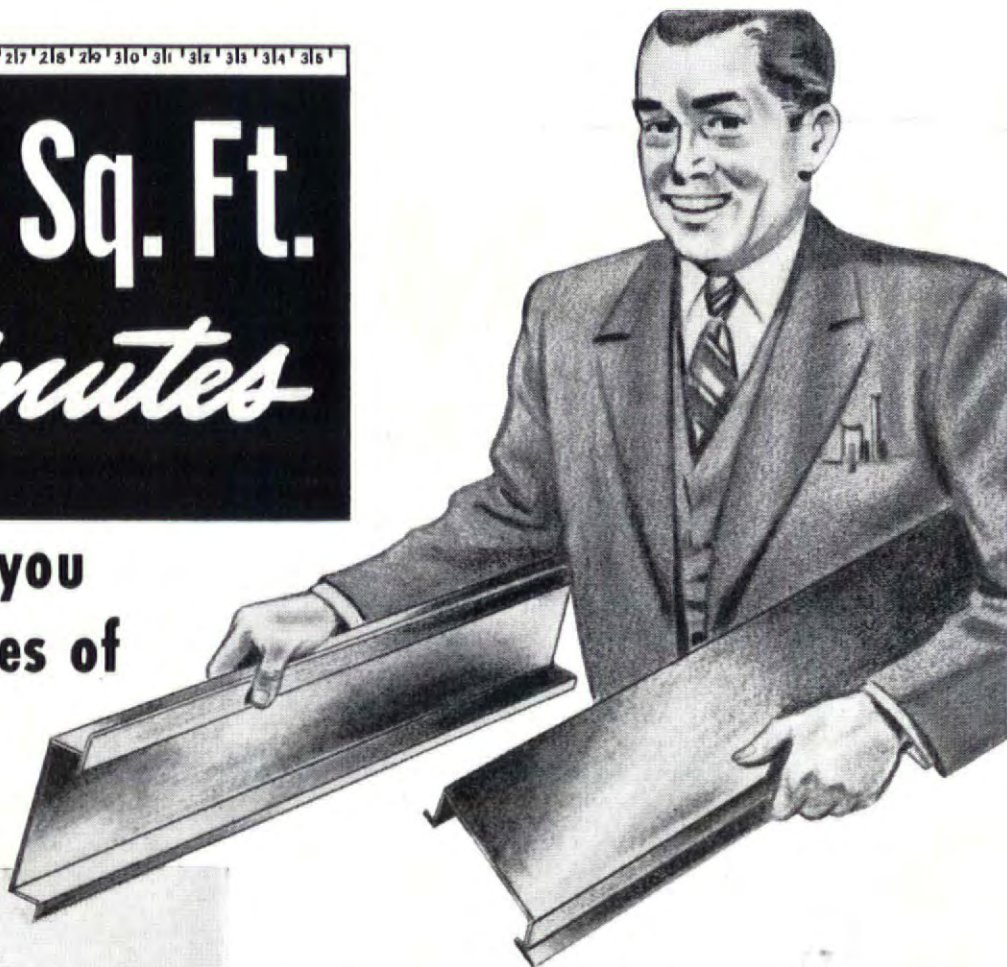
WURDACK CHEMICAL CO., 4951 Fyler Av., St. Louis, Mo.

Please send us our free copy of the
WATERPROOFING MANUAL.
29 Pages, Illustrated A.I.A. file No. 7

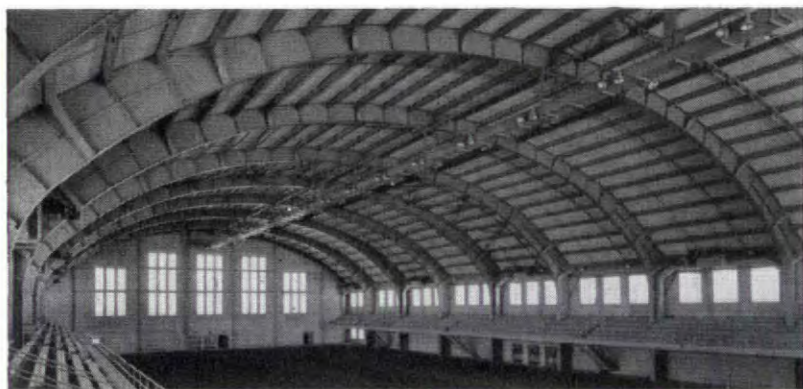
Name _____
Firm _____
Address _____
City _____
State _____ Zone _____

Lend us 2 Sq. Ft. for 20 minutes

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



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



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

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

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

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

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

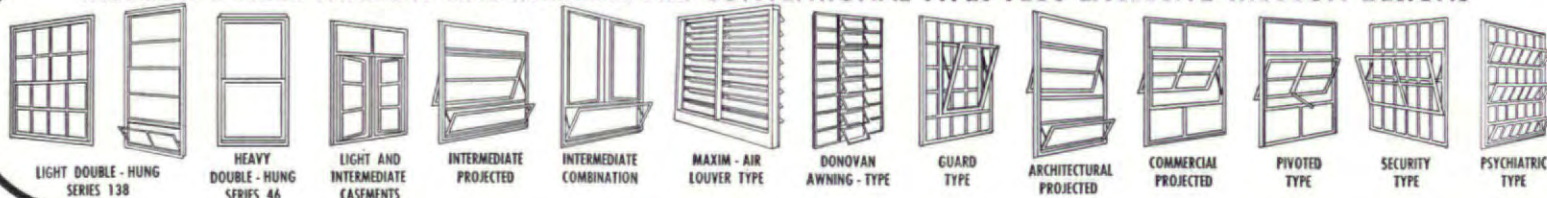
The Truscon Steel Company maintains branch offices in many of the large cities, and the services of Truscon engineers are available for assistance in the laying out of the steeldeck. We will be glad to cooperate with the local roofing company in the selection of the proper type of insulation and built-up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



Truscon Steel Company • Youngstown 1, Ohio

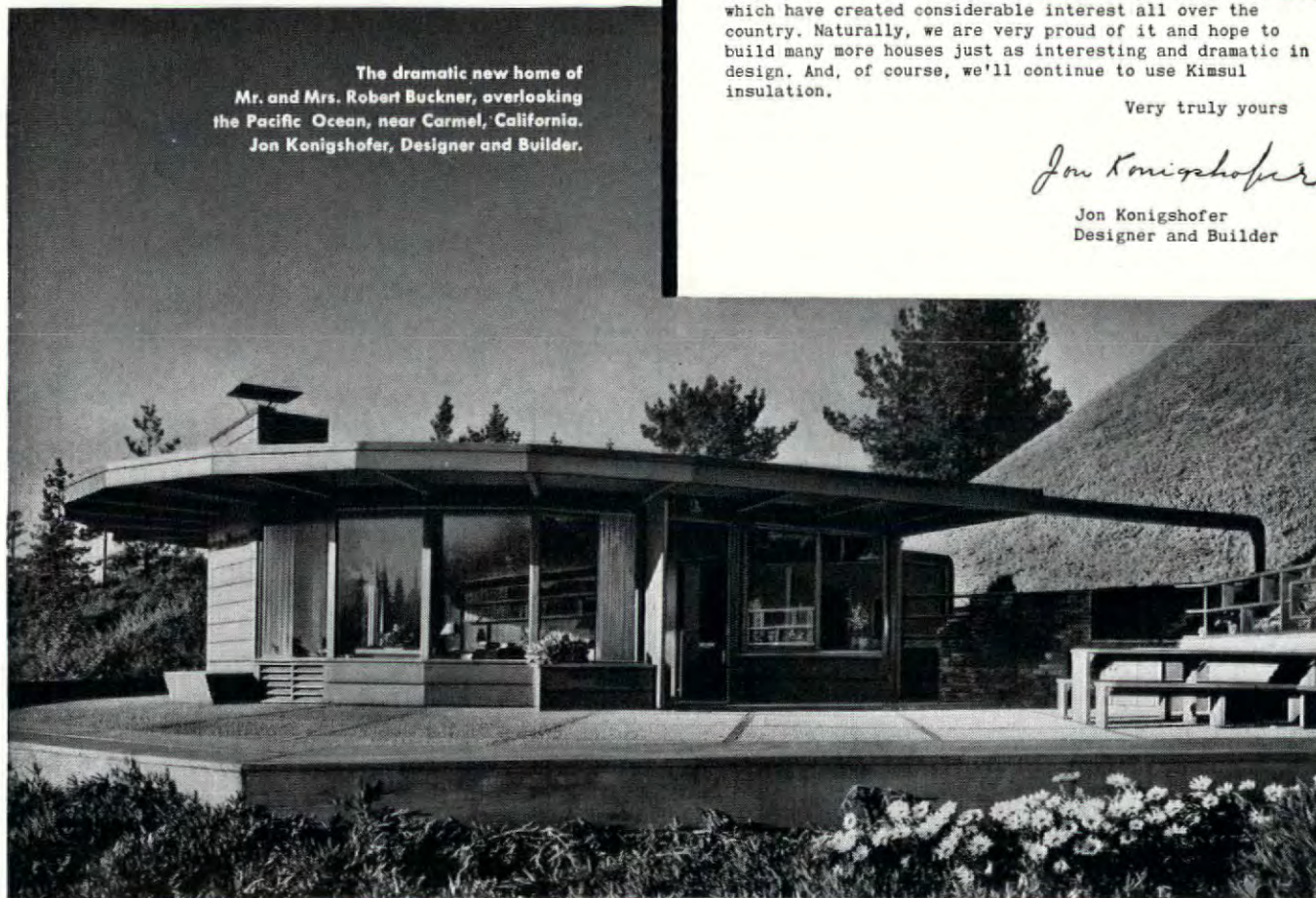
SUBSIDIARY OF REPUBLIC STEEL CORPORATION

TRUSCON'S STEEL WINDOW LINE INCLUDES ALL CONVENTIONAL TYPES PLUS EXCLUSIVE TRUSCON DESIGNS



Prominent architect selects KIMSUL* for low cost, high insulating efficiency

The dramatic new home of
Mr. and Mrs. Robert Buckner, overlooking
the Pacific Ocean, near Carmel, California.
Jon Konigshofer, Designer and Builder.



Designers and builders of every type home across the country are discovering that it pays *more* to insulate with KIMSUL. For KIMSUL offers an exceptional combination of low cost and high insulating efficiency (0.27).

KIMSUL is the only many-layer stitched blanket insulation, and provides an entirely different kind of

comfort. "KIMSUL comfort" means *uniform* temperatures throughout every room in the house! No thick spots — no thin spots where heat can leak out. KIMSUL comes in light, handy compressed rolls, so it's easier and more profitable to install. No need for skilled workmen or expensive machinery. And the fire-resistant PYROGARD*

cover is an exclusive feature of this fine insulation.

For further information and free technical literature, see your KIMSUL dealer. Or simply write to:

KIMBERLY-CLARK CORPORATION
KIMSUL Division • Neenah, Wisconsin

America's Finest New Homes
Are Insulated With KIMSUL!



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

December 20, 1948

Kimberly-Clark Corporation
Neenah, Wisconsin

Gentlemen:

Our experience with Kimsul insulation during the past few years has been most satisfactory. We found it particularly suitable for the Buckner house, a very special project of ours in Carmel, California.

In addition to fulfilling the wishes of our client, we wanted to prove that low-cost homes can be erected in a short period of time and still be attractively designed. We therefore selected Kimsul for its low cost and high insulating efficiency. As usual, it proved to be exceptionally easy to install, and helped to keep construction moving along rapidly.

As you can see, the Buckner house has many unusual features which have created considerable interest all over the country. Naturally, we are very proud of it and hope to build many more houses just as interesting and dramatic in design. And, of course, we'll continue to use Kimsul insulation.

Very truly yours

Jon Konigshofer

Jon Konigshofer
Designer and Builder

CONVENIENCE AND ECONOMY

Saving workmen's time is today's sure way of saving money. Nesbitt Model U (universal) Convectors cut way down on the time required for the heating installation in your homes, apartments, offices and commercial buildings. Besides giving you clean, modern, uniform heat by convection . . . and a more pleasing decor.



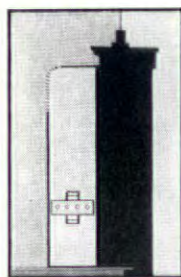
Nesbitt Model U Convectors are mass-produced to quality standards at low cost. The twenty stock sizes meet all normal needs. (Heights, 20" and 24"; lengths, 20" to 64"; capacities, 18.5 to 71 e.d.r.) Assembled; packaged; light to handle; easy to install.

The Nesbitt fin-and-tube heating element—for two-pipe steam or forced or gravity hot water—requires two simple connections which may be made without removing the element from the casing.

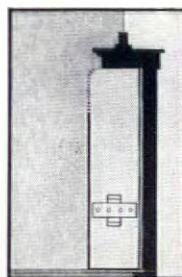
The metal cabinet—of classic design and finished in durable prime gray—may be installed free-standing or semi-recessed.

The curve-top grille is exclusive with Nesbitt. It gives more flue action, greater heating capacity. Damper supplied if desired.

The modern home deserves better than old-fashioned radiators, in performance as well as appearance. Nesbitt Convectors match both needs. Send for Publication 252. John J. Nesbitt, Inc., State Road and Rhawn Street, Philadelphia 36, Pa.



FREE - STANDING

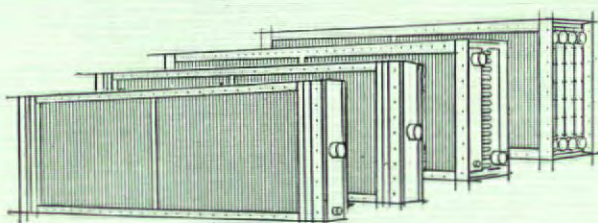


ONE CABINET

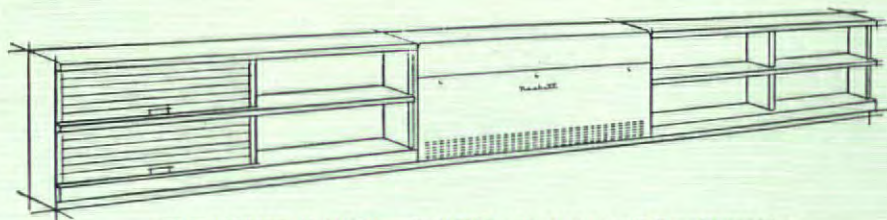
SEMI - RECESSED

Nesbitt Convectors are sold exclusively through Plumbing and Heating Wholesalers.

"MADE BY NESBITT"
Guarantee of Quality

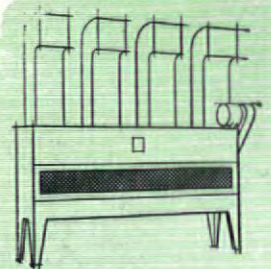


NESBITT HEATING AND COOLING SURFACES

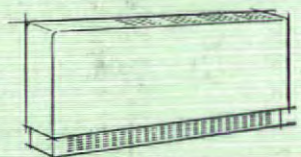


THE NESBITT PACKAGE — SYNCRETIZER AND STORAGE CABINETS

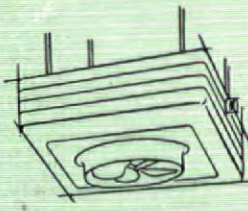
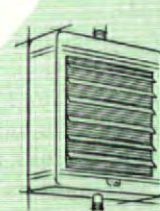
NESBITT Convectors PACKAGED UNITS FOR MODERN HEATING BY CONVECTION-RADIATION



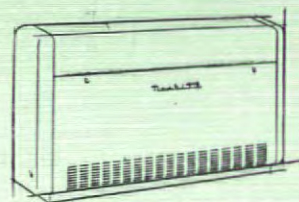
WEBSTER-NESBITT GIANT UNIT HEATER



WEBSTER-NESBITT SERIES R HEATERS

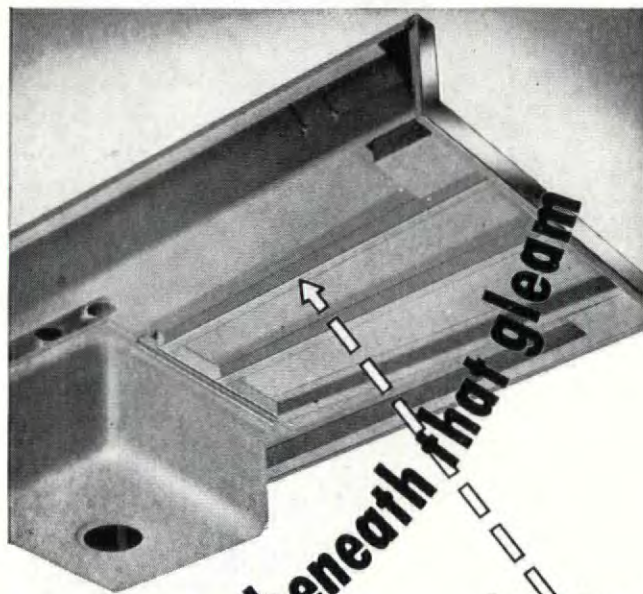


W-N STANDARD AND LITTLE GIANT UNIT HEATERS



NESBITT SYNCRETIZER UNIT VENTILATORS

LETTERS



let's look beneath that gleam

Lustertone is known for its superb satin-finish . . . for that rich quality appearance. Its superiority is obvious.

NOW—at a glance—you can see the structural superiority, too

Z-bars give strength and extra rigidity to ELKAY Lustertone sinks . . . added assurance of life-long client satisfaction when you specify Lustertone. Scientific sound-proofing wins "quiet approval"—subdues metallic sounds.

No wonder ELKAY can guarantee their sinks to *outlast* any home. 18-gauge stainless steel throughout . . . *one-piece bonded* construction means that bowls, drainboards and backsplash are electrically welded into one integral unit. There are no visible seams or mechanical joints to mar its beauty—weaken its structure.



This nameplate identifies the finest Stainless Steel Sinks

MAKE USE OF THIS SPECIAL SERVICE

Experienced Architects planning special kitchen layouts specify ELKAY Stainless Steel because it is the one best answer when continuous surfaces are desired—without seams, crevices or joints! Utilize this custom-built superiority in any size—any shape . . . around a corner, or around the room. And there are 14 standard size sinks. See 23 a/4 Sweet's Architectural File, or write direct for further information and estimates.

America's Oldest Manufacturer of Stainless Steel Sinks

ELKAY MANUFACTURING CO.

1894 S. 54th Avenue • Chicago 50, Ill.

total number of families added and that the same will be true in '49. The chart you have published gives the opposite impression and suggests that the housing market at current prices is still high. That is something I believe to be quite erroneous.

FRANK V. WATERS, *Economist*
Washington, D. C.

PIPE

Forum:

Do you suppose that this clipping from the *Denver Post* of Saturday, May 14, has

a typographical error? Shouldn't it have been spelled "Duncan Pye"?

CARL FEISS, *Director*
School of Architecture and Planning
University of Denver

WINDOW COSTS

Forum:

We have had considerable comment within our organization and from outside on the cost of double glazing units used in the Levitt house and mentioned on page 86 of the April FORUM . . . The cost shown, 25 cents a foot, is ridiculously low.

WALTER R. PACKMAN, *Manager*
Architectural Sales
Hobbs Glass, Ltd.
London, Ontario

• Ridiculous is right! FORUM's interpretation of Builder Levitt's statement about the relative cost of prefabricated double-glazing was incomplete. His estimate of 25 cents per square foot was based on costs before the war when he decided to use double-glazing in his postwar building program. Today, a single square foot of exterior wall costs Long Island's Levitts about 50 cents to build. An average square foot, including doors, windows, trim, etc., costs nearer \$1, which is comparable to Levitts' square foot cost of installed double-glazing. The Levitts contend that a "wall" of double glass costs them no more than a conventional wall containing two small windows.—Ed.

(Continued on page 34)

Are You
in this
GROUP?



Then you'll want to know today's facts about RAILWAY EXPRESS high-quality rail or air service, designed to meet your shipping needs—and why this complete service for one, all-inclusive charge offers the most value for your shipping dollar.

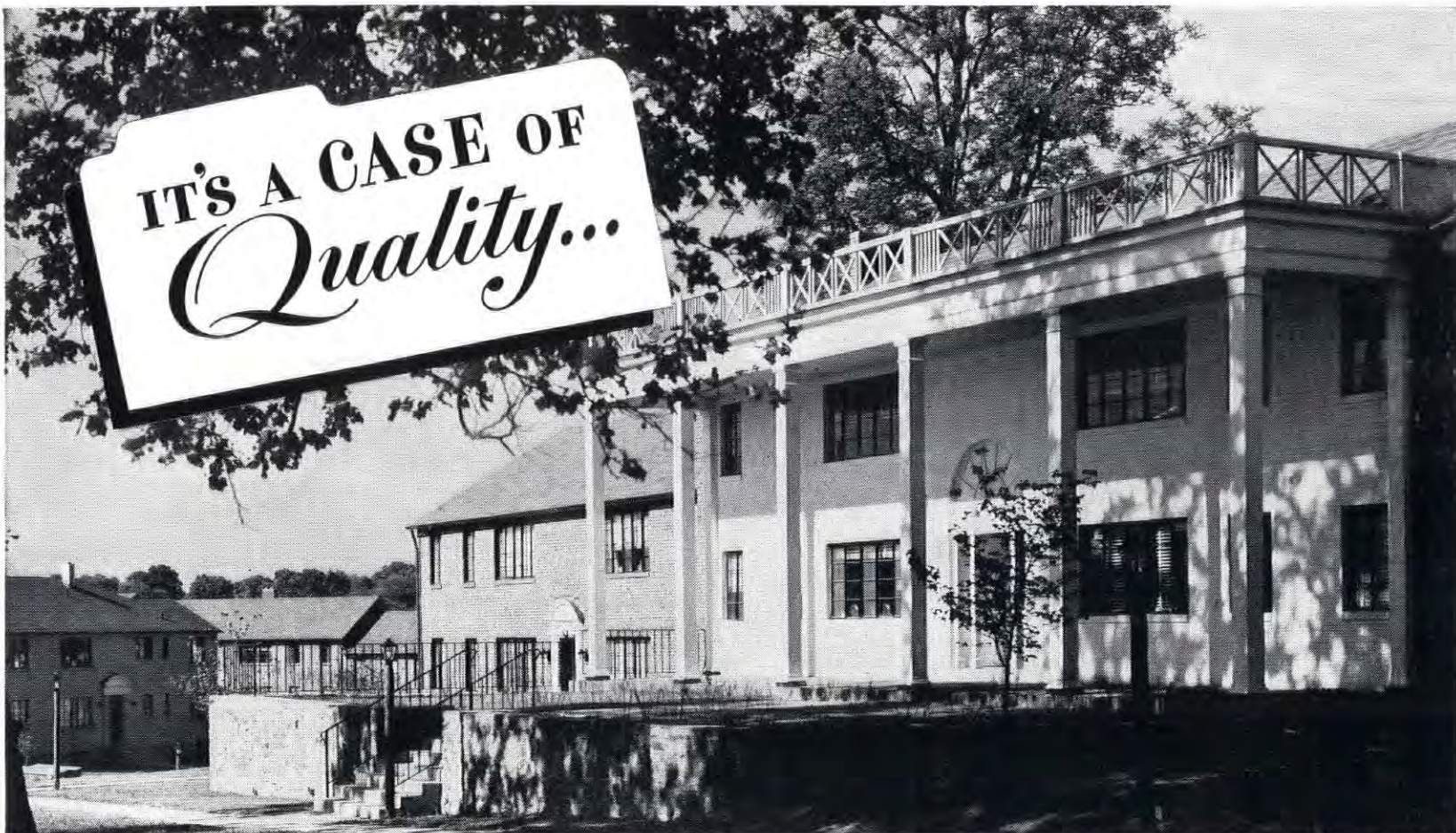
Write **FOR YOUR COPY**

of booklet "Complete Service for A Single Charge", please address: Railway Express Agency, Inc., Dept. 19 230 Park Avenue, New York 17, N. Y.



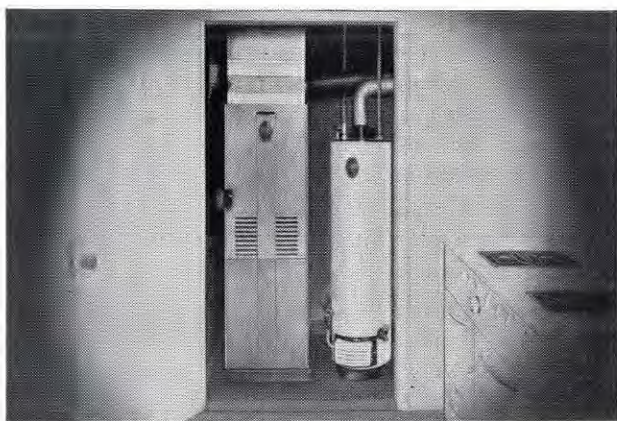
NATION-WIDE RAIL-AIR SERVICE

IT'S A CASE OF
Quality...



View of Drexelbrook, Drexel Hill, Pa. Architect: James G. Ludwig, West Chester, Pa. Builders: Daniel G. Kelly and Fred P. Meagher, both of Upper Darby, Pa.

...with 1,223 Personalized heating systems



1,223 APARTMENTS at Drexelbrook are equipped with Bryant Personalized Heating. Shown are the Bryant Model VS-304 Winter Air Conditioner and Bryant Red Seal Automatic Gas Water Heater in closet installation. 50 community laundries also are equipped with Bryant Water Heaters.



Let the pup be furnace man
... and water boy, too!

bryant

AUTOMATIC HEATING

BRYANT HEATER DIVISION
AFFILIATED GAS EQUIPMENT, INC.
Cleveland, Ohio • Tyler, Texas

New evidence of the ever-increasing acceptance of *Personalized Heating* for apartments comes from *Drexelbrook*, where the Bryant name plate appears more than two thousand times.

This 137-acre wonderland of garden-style apartments is one of the largest and most modern developments of its kind in the world. It is a product of far-sighted planning that provides unsurpassed comforts and conveniences for its occupants.

Bryant *Personalized Heating* stands high on the list of tenant advantages at *Drexelbrook*. Each family enjoys *independent, automatic control* of all heating in its own home. Living areas are never overheated, never underheated. There is always plenty of hot water on tap—at the temperature desired by the user; for each family has

its own *individual* hot water service.

Aside from its advantages for occupants of multi-family housing, Bryant *Personalized Heating* also provides these advantages for *management*:

Personalized Heating is maintained at *low cost*; large staffs of janitor-firemen or heating maintenance men are unnecessary and, in most cases, a single custodian is master of *allequipment*. Service or repair, if necessary, is entirely local, handled within a period of minutes and at *minimum cost*. Waste heat is virtually eliminated, and there are few, if any, tenant complaints.

These advantages of Bryant *Personalized Heating* benefit *all* who finance, invest in, build or manage multi-family housing. Ask the Bryant Distributor nearest you to tell you the complete story.

"AN AID TO CONSTRUCTION"

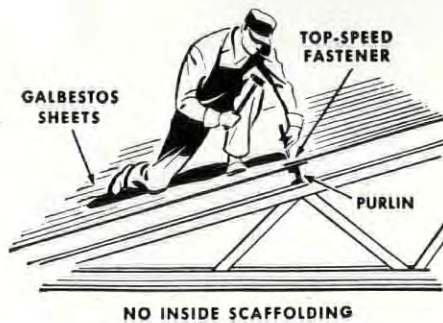
says the Drexelbrook construction team, DANIEL G. KELLY, Realtor, and FRED P. MEAGHER, Builder

"Bryant *Personalized Heating* aids construction by affording tremendous space savings. This outstanding equipment provides the same advantages in heating for apartment dwellers as those enjoyed by occupants of individual homes."



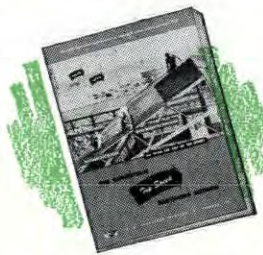
These New Construction Methods

help keep you within the budget

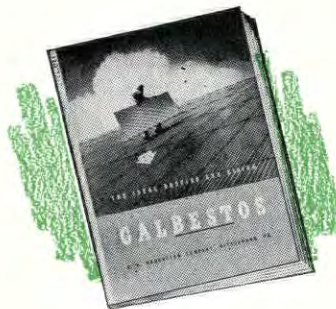


The only way to keep costs down in the face of rising materials and labor prices is to use timesaving methods and construction materials.

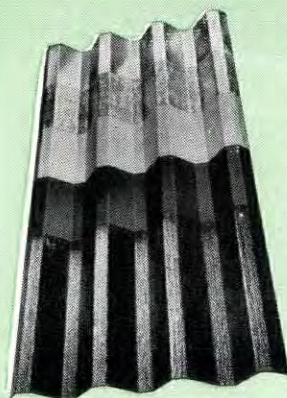
1 **TOP-SPEED FASTENING*** is a faster method of attaching roof and side to steel framework. It results from a new group of tools, Top-Speed Fasteners. *This system is so fast that the same number of men in the same time can apply twice as much material.* All work is done entirely from the top-side, eliminating all interior scaffolding. Write for the booklet that explains in detail the great saving of Top-Speed Fastening.



2 **GALBESTOS** is protected sheet steel. The details of its unique construction are explained in the box below. Please note here that you should familiarize yourself with Galbestos because its use reduces the number of purlins, reduces the amount of structural steel needed. Also, it requires no painting and is so durable that maintenance is virtually eliminated. The choice of colors and surfaces of Galbestos provides you a chance to get new design into industrial buildings. Write for the facts on how Galbestos reduces cost of roof and sides.



Galbestos is listed and classified by Underwriters' Laboratories and the Associated Factory Mutual Laboratories.



Lock your fingers like this picture. It will give you an idea of how asbestos fibers are locked into the very core metal of Galbestos. We call this bond the Galbestos Grip. It is a unique development of Robertson research.



So inseparable is the bond that Galbestos can be worked on ordinary sheet-metal shop equipment. By worked, we mean crimped, rolled, sheared, bent and riveted like unprotected metal.

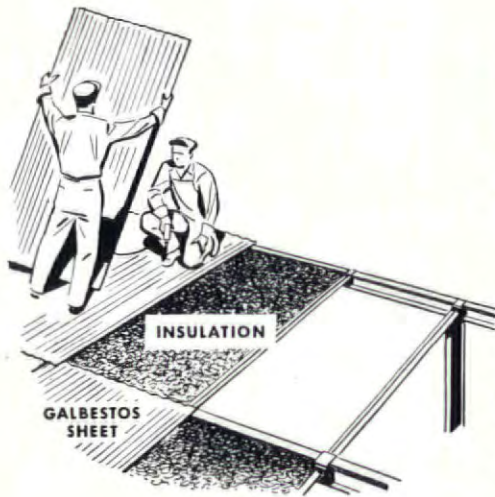


Asbestos is fused to sheet steel by a metallic alloy. The myriad rock-born fingers are literally imbedded in metal. The asbestos is impregnated with asphalt and waterproofed.



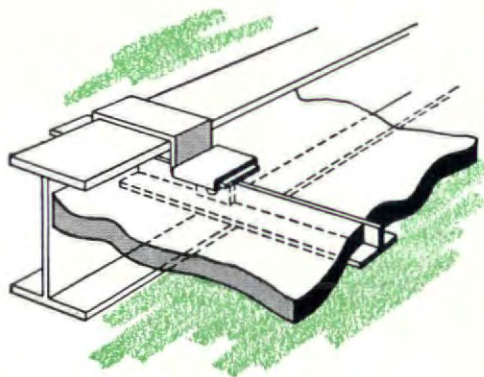
Galbestos comes in standard roofing and siding sheets up to 12 feet by 33 inches; maroon or black finishes; flat or in several corrugations; for use over steel skeleton framework. Would you like to see samples?

Lower Costs



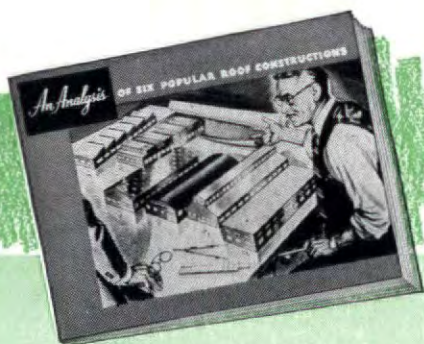
3

TOP-SPEED INSULATION* is a structural method developed by Robertson in which insulation can be applied entirely from the outside just before the roofing or siding is applied. Insulation is being required for industrial buildings as never before. Note this: if you build with Top-Speed Fastening and Top-Speed Insulating, you save so much labor cost that it pays for the labor of installing insulation. Therefore, you can insulate merely for the cost of the material. Robertson uses insulation which has good acoustical value. No straps or other fasteners mar the appearance. It can be painted but it makes such a good-looking, smooth job that many owners leave it unpainted. Write for the booklet on Top-Speed Insulation.



4

ROOF DESIGN can directly reduce cost. An independent engineering study performed on six roof designs has proved that some roofs reduce over-all building costs more than others. This study compiled figures on amount of steel required, labor, erection time, maintenance. It considered every factor: such details as alternate materials; maximum use of natural daylighting; maximum use of gravity ventilation. This complete study—an original contribution to construction knowledge—is now the exclusive possession of the Robertson Co. Write for your copy of the complete compiled work.



All figures are based upon the true and available costs of today. They will help you make estimates that stick. Write for your copy.

*Patent Pending

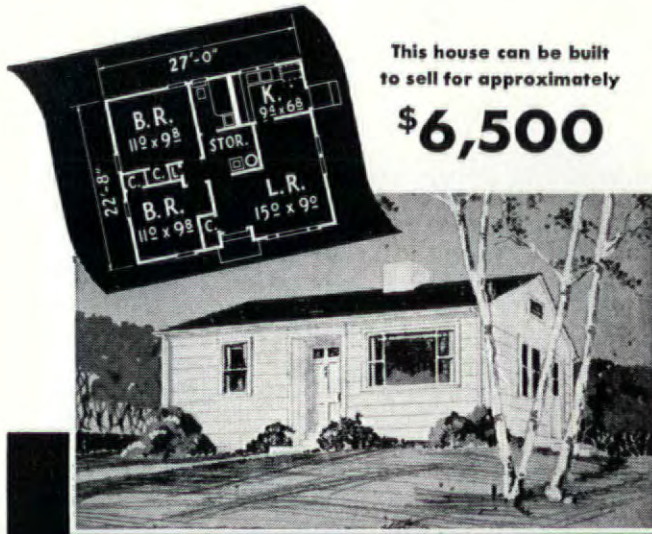
H. H. ROBERTSON CO.

2403 Farmers Bank Building
Pittsburgh 22, Pennsylvania



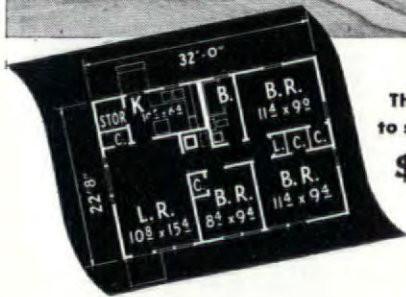
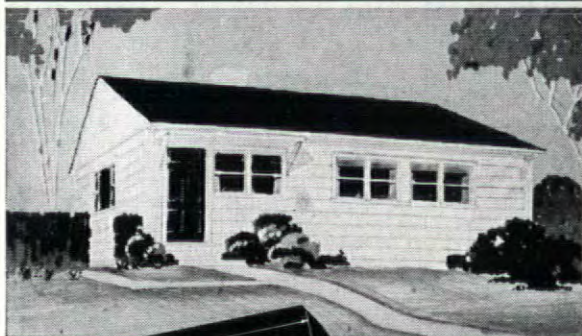
Offices in 50 Principal Cities
World-Wide Building Service

LETTERS



This house can be built
to sell for approximately
\$6,500

**THESE PLANS
ARE AVAILABLE
FOR YOUR USE**



This house can be built
to sell for approximately
\$7,800

These houses are among the results of a \$500,000 research program conducted by the Homasote Company over the past 12 years. Every detail of their construction has been fully proved. Houses of both types have been built and are being lived in. At unusually low selling prices for today's market, these houses exceed FHA minimum requirements. (Naturally, the building costs vary slightly according to local conditions.) . . . Homasote is happy to make details available to any interested architect or builder. The only charge is \$15 — for 7 complete sets of blueprints and specifications.



**... oldest and strongest
insulating and
building board
on the market**

HOMASOTE COMPANY
Trenton 3, New Jersey

ENTER HASKELL (Cont'd.)

• Following are excerpts from letters received by FORUM and Douglas Haskell on the occasion of his appointment as the FORUM's Architectural Editor.—Ed.

Forum:

Congratulations . . . the Architectural FORUM can certainly be the best in the business now.

We hope we can produce some things worthy of your magazine.

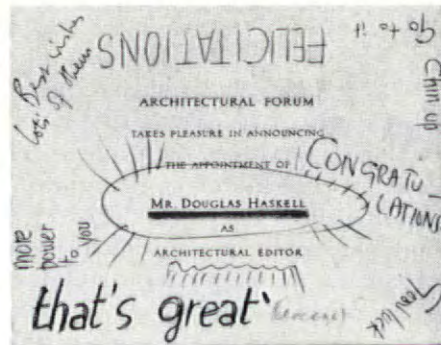
DONN EMMONS, Architect
Wurster, Bernardi & Emmons
San Francisco, Calif.

Forum:

I read with much pleasure the announcement. . .

J. A. WARES, Store Architect
Marshall Field & Co., Chicago

Forum:



WILLIAM LESCAZE, Architect
New York City

Forum:

. . . Exciting announcement . . . I say "exciting" advisedly, because I really felt excited about this change. Although I should not attempt to compare one architectural magazine as against another, it has always been the impression among us architects that the FORUM was the *ne plus ultra* in the architectural field.

MORRIS LAPIDUS, Architect
New York City

Forum:

Congratulations. . .

EERO SAARINEN, Architect
Saarinen, Saarinen & Associates
Bloomfield Hills, Mich.

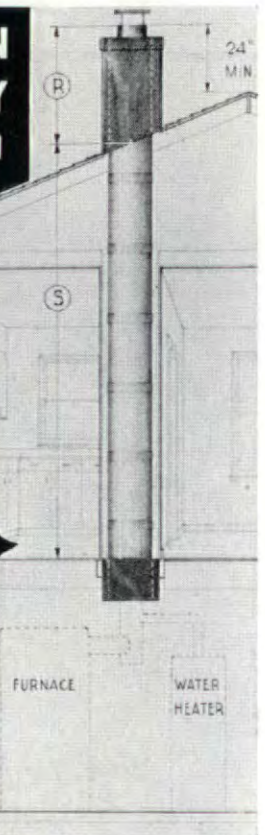
Forum:

. . . Congratulations and best wishes for a successful career with this splendid magazine.

ROYAL BARRY WILLS, Architect
Boston, Mass.
(Continued on page 38)

MODERN CHIMNEY for MODERN LIVING

- FHA and Underwriters approved
 - Included in National Building Code
 - Safer for all fuels oil, gas or coal
 - Ceiling or floor suspended over heater—saves floor space
 - 20% to 50% less than brick
- Shipped complete ready for immediate installation—3 to 4 man hours.



Write for complete architectural details.
VAN-PACKER CORPORATION
Room 1256, 137 South LaSalle St., Chicago 3

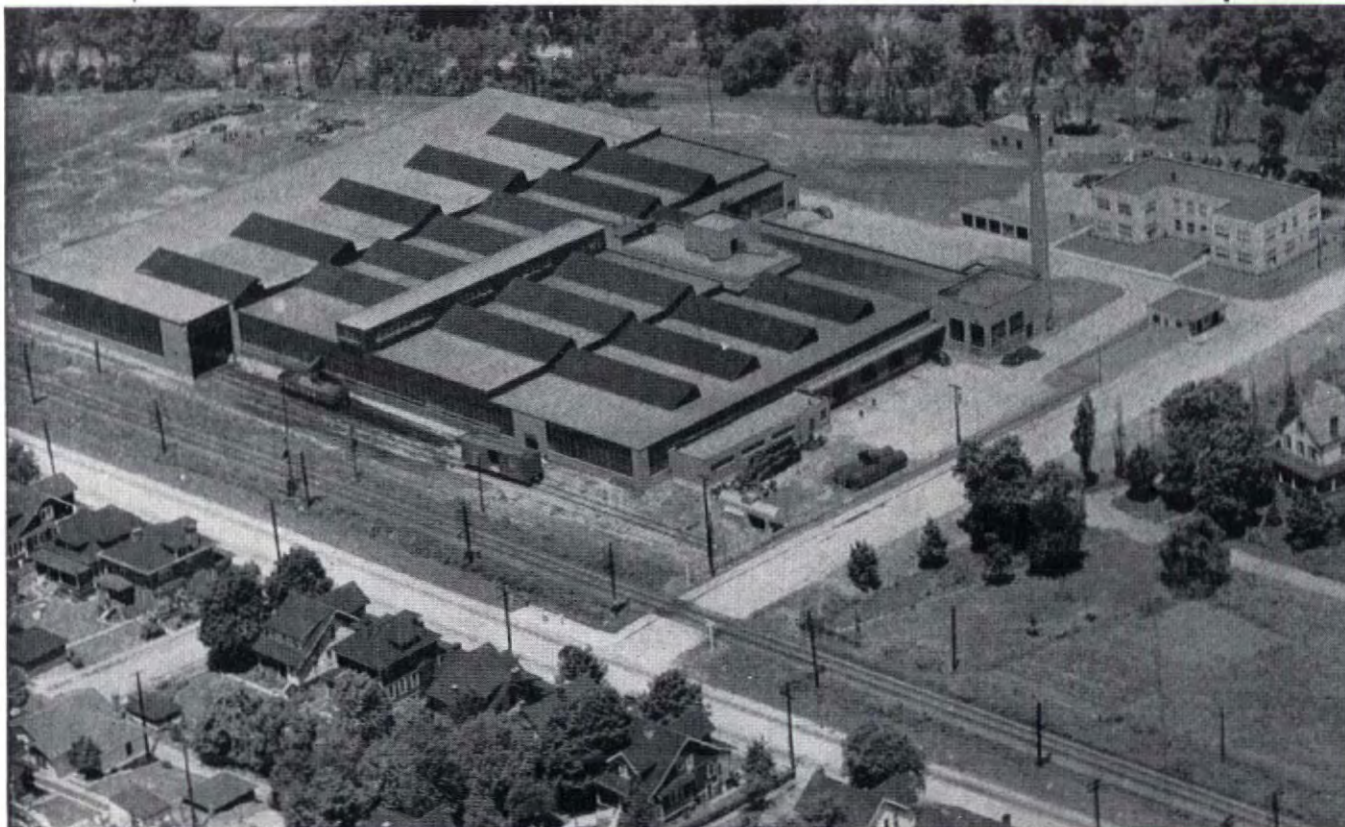
FOR THE PIPING YOU ARE PLANNING

**SPECIFY
CRANE
VALVES
AND
FITTINGS**

CRANE

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

This Modern Building is **TRULY MODERN**



New Wheeling Machine Products Co. plant, Pittsburgh, Pa. Engstrom & Wynn, Designers and General Contractors. E. S. Tower, Mechanical Engineer. Harry Daugherty & Sons, Plumbing and Heating Contractors.

... it has **SILBRAZ[®]** joints

Silbraz joints are silver brazed — not soldered or threaded — and when used with brass or copper pipe or Type B copper tubing form joints that are stronger than either the pipe or tubing. They are permanently leakproof and will not creep or pull apart under any condition which the pipe or tubing can withstand.

In the building shown above, Silbraz joints were used in the heating system — part of which is radiant heating.

Silbraz joints actually make the brass or copper pipe or tubing into "one-piece pipelines" that save you money by eliminating leaky connections, costly maintenance and repairs.

**Walseal[®] Valves and Fittings
for making Silbraz Joints**

The Walworth Company produces a complete line of Walseal Valves, Fittings, and Flanges for making Silbraz joints — the modern method of joining brass or copper piping. For further data, see your Walworth distributor, or write for Circular 84D.

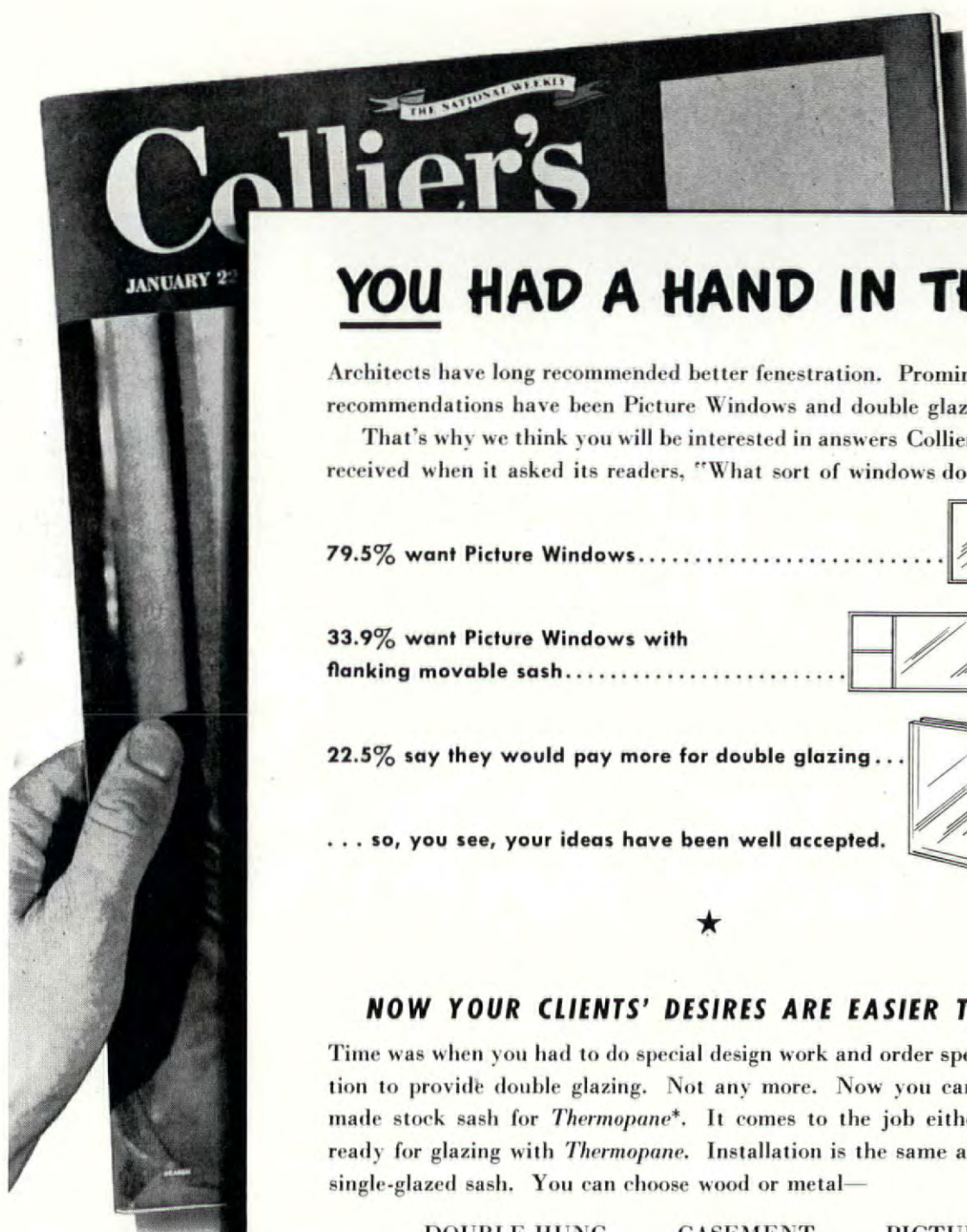
Make it a "one-piece pipeline"
with Walseal



WALWORTH
valves and fittings

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

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD



YOU HAD A HAND IN THIS!

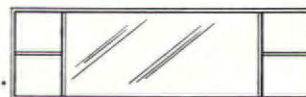
Architects have long recommended better fenestration. Prominent in those recommendations have been Picture Windows and double glazing.

That's why we think you will be interested in answers Collier's magazine received when it asked its readers, "What sort of windows do you want?"

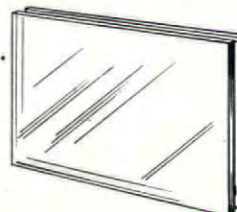
79.5% want Picture Windows.....



33.9% want Picture Windows with
flanking movable sash.....



22.5% say they would pay more for double glazing...



... so, you see, your ideas have been well accepted.



NOW YOUR CLIENTS' DESIRES ARE EASIER TO FILL

Time was when you had to do special design work and order special fabrication to provide double glazing. Not any more. Now you can get ready-made stock sash for *Thermopane**. It comes to the job either glazed or ready for glazing with *Thermopane*. Installation is the same as for regular single-glazed sash. You can choose wood or metal—

DOUBLE-HUNG CASEMENT PICTURE

... and other types of windows.

More than 60 manufacturers are now making standard sash for *Thermopane* in a wide range of stock sizes. Write us for a list of sash manufacturers.

*®

FOR BETTER VISION, SPECIFY THERMOPANE
MADE WITH POLISHED PLATE GLASS



Thermopane

made only by

LIBBEY-OWENS-FORD GLASS COMPANY

1779 Nicholas Building, Toledo 3, Ohio

Cutaway view of *Thermopane*



Merit Award with Distinction



MERIT AWARD WITH DISTINCTION. I.L.E. entry 330—(LEADER FIXTURES), H. E. Carney, Toledo-Edison Co., Toledo, Ohio. C. Hoke, Architect . . . Other LEADER MERIT AWARDS: Entries 163, 294, 381, 324 and 405.



LEADER Trofferlites

Precision engineered — snug-fitting—and available in a wide range of dimensions and models for any structural requirement . . . For use singly or in continuous rows. Housing and channel of 20 gauge steel—open, glass-enclosed (specialized lenses available) baffled, or louvered. Instant-start available. Ask for details on LEADER'S prize-winning Trofferlites and other styles of LEADER prize-winning fluorescent fixtures.

Multiple honors came to LEADER Fluorescent Lighting Fixtures in the 1949 I.L.E. competition. Small wonder: LEADER fixtures—soundly styled—lend themselves to ingenious lighting treatments—the sort that win judges' approval and the public's applause. But, in addition to their adaptability, LEADER fixtures are precision-made—durable. (LEADER destaticized moulded-plastic louvers are an example). Such durability is a LEADER plus-value that wins not only the blue ribbons of the moment, but those bestowed by Father Time!

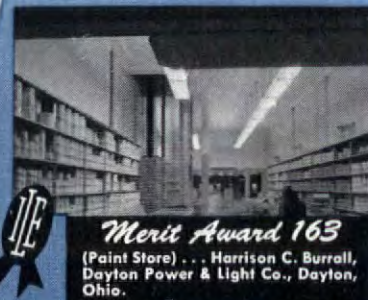
No matter what your particular interest in good lighting, it is good sense to follow the LEADER. Let LEADER illuminating engineers light the way.

LEADER Fixtures — Sold and installed only by the better electrical wholesalers and contractors.



LEADER ELECTRIC COMPANY

3500 N. KEDZIE AVENUE, CHICAGO 18, ILLINOIS
West Coast Factory: 2040 Livingston, Oakland 6, California



Merit Award 163

(Paint Store) . . . Harrison C. Burrall, Dayton Power & Light Co., Dayton, Ohio.



Merit Award 294

(Drug Store) . . . A. A. Aronson, Northern States Power Co., Minneapolis, Minn. B. Persson, Architect.



Merit Award 381

(Drug Store) . . . R. W. Gibb, Omaha Public Power Dist., Omaha, Neb.



Merit Award 324

(Office and Display Room) . . . George H. Seiler and Ronald Campbell, Cincinnati Gas & Electric Co., Cincinnati, Ohio.



Merit Award 405

(Bowling Alley) . . . Lucian T. Kight and E. J. Dunlap, Duquesne Light Co., Pittsburgh, Pa.

LETTERS

EASY TO INSTALL EASY TO CLEAN

TO INSTALL:—

Blo-Fan housing merely nails between standard ceiling joists. Requires only $3\frac{1}{2}$ " depth. Wire is run into knockout box and connected to a standard receptacle. Duct is standard $3\frac{1}{2}$ "x10" size. Time: 20 to 40 minutes.

After job is finished the Blo-Fan combination fan and blower motor unit is merely plugged into the receptacle. Three grease resistant neoprene feet hold unit in housing. No tools used for this operation. Time: one minute.

Grill is held in place by the center knob, which is screwed onto the spindle. No tools used for this operation. Time: 20 seconds.

TO CLEAN:—

Reverse operations 2 and 3 and each part is removed. No tools necessary. As easy as changing a light bulb.

Blo-Fan
ELECTRIC CEILING VENTILATOR

SPOT ventilation at the point of air pollution
For Kitchen, Bath, Game Room and Laundry

PRYNE & CO., INC. POMONA, CALIFORNIA
LOS ANGELES • SAN FRANCISCO • CHICAGO • NEW YORK

Forum:

... Surprised but pleased ... I shall read the FORUM with a great deal more interest...

A. OSBORNE WILLAUER
Architectural Consultant
New England Mutual Life Ins. Co.
Boston, Mass.

Forum:

... Congratulations...

WALTER GROPIUS
The Architects' Collaborative
Cambridge, Mass.

Forum:

I am sure that the publication will attain even greater heights.

J. Z. BURGE, Architect
Holabird & Root & Burgee
Chicago, Ill.

Forum:

Congratulations...

DOUGLAS ORR, Architect
New Haven, Conn.

Forum:

I am sure that this marks the beginning of a significant new era in the long and fruitful history of Architectural FORUM.

WALTER A. TAYLOR, Director
Department of Education & Research
The American Institute of Architects
Washington, D. C.

\$14,985,000,000 BONER

Forum:

Undoubtedly in today's world of big figures 15 billion dollars damage in the recent northwest earthquake may seem a bagatelle to you (FORUM, May '49, p. 12). Undoubtedly also the building industry would be favorably disposed to such a figure. But ... stop and reconsider!

HANS C. KAUFMANN
Seattle, Wash.

• FORUM has reconsidered, finds that its \$15,000,000,000 estimate was wrong by \$14,985,000,000. Two equally obvious typographical boners appeared in the June FORUM: three zeros were dropped off the \$18,750,000,000 estimate of total 1948 construction (p. 11), and the proposed public housing program was stated to be 800,000 units a year (p. 87) rather than 800,000 in six years.—Ed.

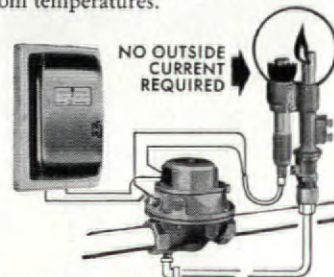
ERRATA

• In its May presentation of the Petroleum Building in Los Angeles, FORUM failed to note that Pittsburgh Steel Products Co.'s Steeltex served as reinforcing for the light-weight aggregate gunite; that the mechanical equipment penthouse was finished with Seaporcel Metals Inc.'s porcelain enameled iron pans.—Ed.

Control INDOOR CLIMATE AUTOMATICALLY

without Outside Current

The tiny pilot flame generates the electrical current to operate the control system. All three units scientifically designed to provide safe, remote control of room temperatures.



Automatic,
Safe, Silent and Self-Operated



Put GENERAL CONTROLS heating comfort in the plans. It's the easy, modern way and effects construction economies, too.

Request Free Descriptive Literature
on the B-60 "All-Gas" Control System

GENERAL CONTROLS

801 ALLEN AVENUE, GLENDALE 1, CALIF.
Manufacturers of Automatic
Pressure, Temperature, Level & Flow Controls
Factory Branches and Distributors in Principal Cities

NOW

Plywood fortified with

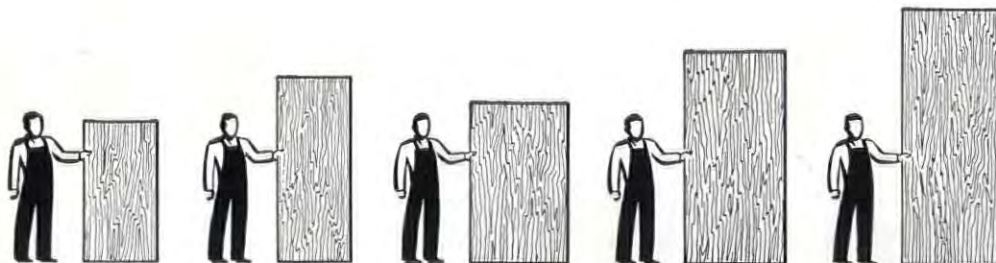
Kimpreg
REG. U.S. PAT. OFF.
PLASTIC SURFACING

Ideal for concrete forms.
Excellent for many general
industrial and residential
building uses.

...

Write for free booklet and names of
plywood manufacturers who can supply
Kimpreg surfaced plywood.

Kimberly-Clark Corporation
Plastics Division • Neenah, Wis.



Douglas Fir Plywood's STOCK SIZES★

permit more exact specification
...with full material utilization



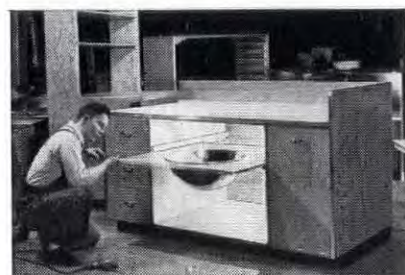
For lapped-siding, some stock sizes other than 4 x 8-foot are ideal. Eighteen inch siding, for example, cuts out of 3-foot wide panels exactly.



Cabinets, built-ins, storage-walls, sliding doors—whether shop-fabricated, built on-the-job, or constructed by the home owner—all can utilize stock plywood panel sizes.



Soffits, gable-ends, fascias, other architectural treatment—all can utilize varying stock sizes with economy and ease of application.



Sign shops and display men welcome plywood panels of varying lengths and widths—to plan their signs, displays, and fixtures more easily and economically.

BECAUSE big, rigid, durable 4 x 8-foot panels of Douglas fir plywood are so easy to use, so versatile and so perfectly suited to so many applications, this "modern miracle wood" ranks as one of America's preferred building materials.

Other stock sizes, too (see below) now mean even *greater* usefulness for remodeling and new construction alike.

For many applications, you'll find a stock size that will fit the need exactly—without cutting, without trimming—and with full utilization of the material. Many other needs will be

met with less sawing and fitting—a substantial saving of both on-the-job and mill-work costs.

Complete data on stock sizes, thicknesses and grades of Douglas fir plywood are detailed in Sweet's File, Architectural. Or you may write for the 1949 Basic Plywood Catalog (a reprint of Sweet's). Other ideas for using plywood's stock sizes are contained in "The Wood of 1,000 Uses." For your copy, address the Douglas Fir Plywood Association office nearest you: Tacoma Bldg., Tacoma 2, Wash.; 848 Daily News Bldg., Chicago 6; 1232 Shoreham Bldg., Washington 5, D. C.; The 500 Fifth Avenue Bldg., New York City 18.



STOCK
PLYWOOD
SIZES

LENGTHS:

60" 72" 84" 96" 108" 120" 144"

WIDTHS:

30" 36" 42" 48"

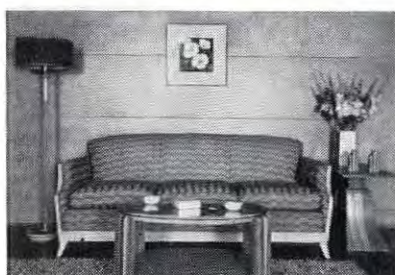
(Some grades limited to fewer sizes)



**Douglas Fir
PLYWOOD**

LARGE,
LIGHT,
STRONG

**Real
Wood
Panels**



Interesting wall panel treatment is made easier when planning with various wood stock sizes. Here again, the material can be fully utilized.



For scores of farm uses, stock sizes of varying length and width will meet many building needs exactly. Here again—Exterior should be used.

In Industrial Buildings . . .

HONEYWELL

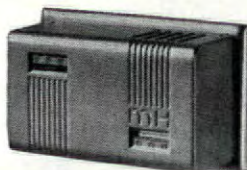


. . . begins with the *Blueprint*

IN offices and factories throughout the nation, the health, comfort and productivity of workers is greatly increased by the installation of modern heating, ventilating and air conditioning equipment.

Whether you specialize in industrial or commercial buildings, schools or hospitals, hotels, apartments or homes—the time to specify the proper automatic controls is when the building is in the blueprint stage. And remember, no heating and venti-

lating or air conditioning system can be better than the controls that regulate it.



ROOM THERMOSTAT
The Symbol of Modern
Temperature Control

Since 1885, Minneapolis-Honeywell has pioneered in the development of automatic controls for industrial, commercial and residential use. Honeywell engineers are available for consultation on any automatic control problem.

Just contact the Honeywell branch office in or near your city or write to Minneapolis-Honeywell, Minneapolis 8, Minnesota.

AUTOMATIC AND ELECTRONIC CONTROLS:

FOR HOME HEATING • FOR HOTELS AND APARTMENTS • FOR
SCHOOLS AND HOSPITALS • FOR COMMERCIAL HEATING AND AIR
CONDITIONING • FOR REFRIGERATION • FOR INDUSTRIAL PROCESS •
FOR AVIATION • FOR RAIL, HIGHWAY AND WATER TRANSPORTATION

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS

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

RUST-PROOF CONSTRUCTION

means **DEPENDABLE
OPERATION**

OF *Penberthy*
**AUTOMATIC ELECTRIC
SUMP PUMPS**

A sump pump always works in a damp location. Many of its parts are alternately submerged in water and exposed to air. Conditions are perfect to promote rust and corrosion that interfere with dependable operation.

Dependable operation demands rust-proof construction. Penberthy Automatic Electric Sump Pumps are made of copper and bronze throughout . . . they are immune to corrosion.

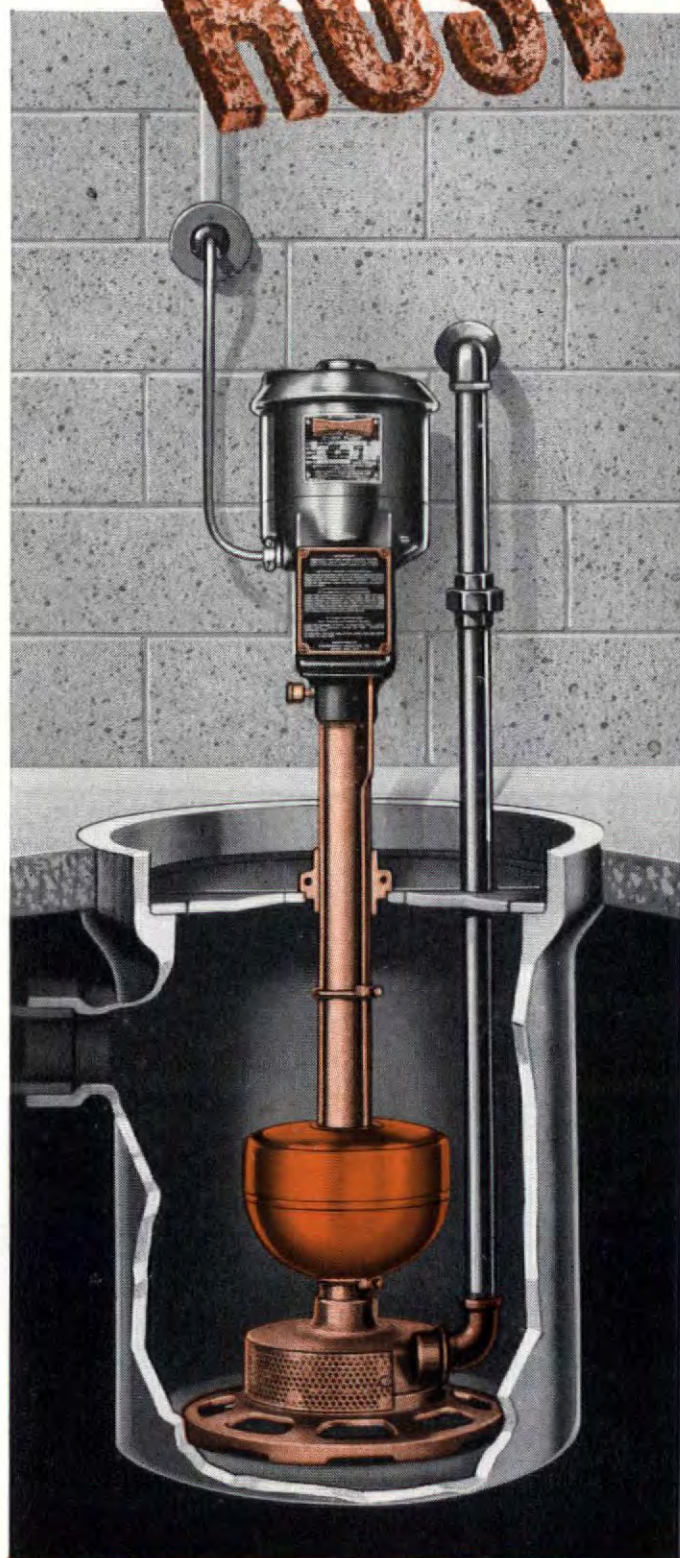
There are many other features that contribute to the outstanding performance and dependability of these Penberthy Pumps. Among them are: motor specially impregnated to resist moisture, built-in overload protection, mercury switch, and scientifically balanced impeller. Penberthy Automatic Electric Sump Pumps are carried in stock by jobbers everywhere.



Penberthy Injector Company
DETROIT 2, MICHIGAN

Established 1886

Canadian Plant: Windsor, Ontario



**PENBERTHY AUTOMATIC
ELECTRIC SUMP PUMPS**

*Constructed of Copper and
Bronze Throughout*
MADE IN SEVEN MODELS AND SIZES

HOW TO SELL with the General Electric

● General Electric's Home-Builder Advertising Plan gets you . . .



ATTENTION!

Quick as a flash, hard-hitting ads like these tell a story every home hunter is deeply interested in—a story that builds desire for an all-electric kitchen!

YOU CAN HAVE A "G-E Dream Kitchen Package" IN YOUR NEW HOME

Luxurious electrical living is yours for only a few extra dollars a month with the "packaged mortgage" plan. So sit on your home mortgage each month to get that General Electric Way of Living—next time you're looking!

FOR ONLY
\$0.00*
EXTRA
EACH
MONTH

You can be the boss in your new "dream home"—and let electricity do all the work! Especially when it costs only a few dollars extra on your home mortgage each month to get that General Electric Way of Living—next time you're looking!

You can really live right when you choose the General Electric Way of Living. Just look at all these outstanding labor-saving appliances—

- **Speed Cooking**—Wonderful meals with less work with a General Electric "Speed Cooking" Range. Quicker. Cleaner. Safer. Cuts down kitchen scrub-up time. Many other amazing features!
- **Automatic Dishwashing**—General Electric Automatic Dishwasher automatically washes dishes. You never touch water or wet dishes!
- **Garbage Disposal**—Goodbye to messy garbage, as food waste is automatically shredded and flushed down the drain.
- **1/2 more refrigerated food space**—Your G.E. Refrigerator gives you third more refrigerated food capacity than older models in the same kitchen floor space!

And beautiful, gleaming white steel cabinets! And plenty of roomy work surfaces! And General

INSIST ON A HOME WITH THE G-E WAY OF LIVING!
GENERAL ELECTRIC

WHICH HOUSE IS THE BETTER BUY FOR YOU?

This "striped-down" house has no kitchen equipment except sink and stove—costs \$10 a month!

The same house with General Electric "Dream Kitchen Package" and modern conveniences—only \$0.00 a month.

\$0.00 a month makes the amazing difference between these two houses!

So think carefully before you start looking for a new home. For just a few dollars extra a month, you too can enjoy a home that is really modern—a new, easy way of living that comes with a General Electric "Dream Kitchen Package!"

Why settle for the "striped-down" house when you can get—

- **Speed Cooking**—Wonderful meals with less work with a G.E. "Speed Cooking" Range. Quicker. Cleaner. Safer. Cuts down kitchen scrub-up time. Many other amazing features!
- **Automatic Dishwashing**—G.E. Automatic Dishwasher automatically washes dishes. You never touch water or wet dishes!
- **Garbage Disposal**—Goodbye to messy garbage, as food waste is automatically shredded and flushed down the drain.
- **1/2 more refrigerated food space**—Your G.E. Refrigerator gives you third more refrigerated food capacity than older models in the same kitchen floor space!

INSIST ON A HOME WITH THE G-E WAY OF LIVING!
GENERAL ELECTRIC

How to get this G-E "Dream Kitchen Package" in your new home for only **\$0.00*** extra EACH MONTH!

Next time you go home hunting, look for a house complete with a modern General Electric Kitchen. That's home living at its best—the G-E Way of Living!

It costs only a few dollars extra each month to enjoy all the time-saving, money-saving, drudgery-saving conveniences of this General Electric "Dream Kitchen Package!"

Look what wonderful advantages you can get—

- **Speed Cooking**—Wonderful meals with less work with a G.E. "Speed Cooking" Range. Quicker. Cleaner. Safer. Cuts down kitchen scrub-up time. Many other amazing features!
- **Automatic Dishwashing**—G.E. Automatic Dishwasher automatically washes dishes. You never touch water or wet dishes!
- **Garbage Disposal**—Goodbye to messy garbage, as food waste is automatically shredded and flushed down the drain.
- **1/2 More refrigerated food space**—Your G.E. Refrigerator gives you third more refrigerated food capacity than older models in the same kitchen floor space!

LUS beautiful steel cabinets with plenty of storage space, and convenient work surfaces. A G-E Kitchen serves you thousands of extra steps, thanks to General Electric "work center" kitchen planning. That's home living at its best—the G-E Way of Living!

So easy under the "packaged mortgage" plan!

You can buy your dream home the easy way under the "packaged mortgage" plan. Your G-E Kitchen is part of the price—included in the mortgage! That means it costs only a few dollars extra each month. So much more convenient than short-term installment payments! And no installation costs either!

And General Electric Appliances will serve you right—there's no dependable, no economical to make up the extra monthly cost!

Get set for a new, breezy way of living in your new home of tomorrow. Ask your neighbor—your new home of tomorrow with General Electric's "Dream Kitchen Package!" Or phone us today—G.E. "Dream Kitchen Package!"

* when included in regular mortgage payments. For a full list of features, see "G.E. Refrigerator, G.E. Automatic Dishwasher, G.E. Range, and G.E. Garbage Disposal." General Electric's registered trade mark for its food waste disposal appliance.

INSIST ON A HOME WITH THE G-E WAY OF LIVING!
GENERAL ELECTRIC

YOUR HOMES FASTER— "Complete Kitchen Package"!



DESIRE!

For better living—all-electric living in a G-E equipped home. Thousands of new homeowners are enjoying this leisurely, modern way of living now—and millions more are learning about it through General Electric advertising, insisting on it when they build or buy new homes!

Of course, your prospect wants a complete General Electric Kitchen—but can he afford it? That's where the G-E Home-Builder Advertising Plan completes the selling job by adding the conviction of the "packaged mortgage."



CONVICTION!

Under this easy-paying mortgage plan, the price of the G-E "Complete Kitchen Package" is part of the price of the house

—adding only a few extra dollars (usually averaging \$4.80) each month to the regular mortgage payments.*

"Packaged mortgages" make it so much easier for the prospect to buy—so much easier for you to sell your homes! Look at these sales-clinching arguments—

Small payments over the years instead of big short-term installment payments! No installation costs! A complete kitchen right from the start—ready to live in!

And best of all—the homeowner often saves enough on his economical G-E appliances to make up the slight extra monthly cost of his G-E "Complete Kitchen Package"!

So put this merchandising program to work—quick! Get together with your G-E distributor in planning and merchandising G-E equipped homes. He has complete information on the Home-Builder Advertising Plan for you that will do a lot to help sell homes faster.



ACTION!

Call your distributor today. If not listed in local telephone directory, write to Home Bureau, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Conn.

GENERAL ELECTRIC HOME BUREAU SUCCESS STORY OF THE MONTH

Better living comes first in homes by W. C. and A. N. Miller Development Company of Washington, D. C. Their latest single-family home development, "Sumner," won first prize in a nationwide contest.

"We have incorporated General Electric Kitchens—including Refrigerator, Range,

Dishwasher and Disposall.** We firmly believe these items are necessities—and also help sell our homes!"

Make your next project a fast-selling, prestige-building success! Let your G-E distributor help you in planning and merchandising G-E equipped homes.

*When equipment is included in a long-term mortgage.

**General Electric's registered trade-mark for its food-waste disposal appliance.



You can put your confidence in—

GENERAL  ELECTRIC

IT'S EASY TO PUT SPARKLING NEW BEAUTY IN BATHROOMS



TOWEL BAR
NO. 192

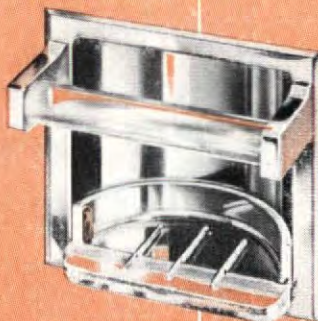
HALL-MACK
*TRADE MARK REG. U. S. PAT. OFF.

Crystallchrome

With its tasteful designs that combine lustrous chrome on solid brass with clear, sparkling crystal, Hall-Mack Crystallchrome adds a dramatic new touch to bathroom styling. It is fast becoming the choice of more and more architects, builders and contractors for fine bathroom accessories...accessories that are *new* in appearance, *new* in design, yet made for a lifetime of practical daily use.

Crystallchrome Accessories are available for all bathroom needs, from towel bars, soap dishes and paper holders to shelves, robe hooks, and toothbrush holders—and in regular wall and recessed types. If you have not received your copy of the new Crystallchrome Catalog, write today.

Crystallchrome Accessories are a part of the complete Hall-Mack line. Standardize on Hall-Mack—and know that in *one* line you can find accessories and cabinets that meet your most exacting requirements whether you're planning a millionaire's mansion or a low-cost housing project.



SOAP AND GRAB
NO. 165



ROBE HOOK
NO. 181



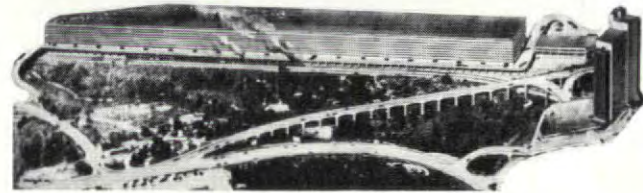
TUMBLER AND
TOOTHBRUSH HOLDER
NO. 130

HALL-MACK COMPANY

1344 WEST WASHINGTON BOULEVARD, LOS ANGELES 7, CALIFORNIA
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

TEXAS INDUSTRIAL BUILDING will be nation's biggest

The \$50,000,000 warehouse and office building planned for downtown Houston adds another to the Texas "biggest" list. Twenty-three acres (the present site of the Missouri, Kansas & Texas Railroad terminal) will be covered by a huge railroad center, industrial building, skyscraper and network of ramp approaches. There will be three entrance levels, or as its sponsors, the Katy Park Industrial Development Corp., more picturesquely put it—"three ground floors." These are de-



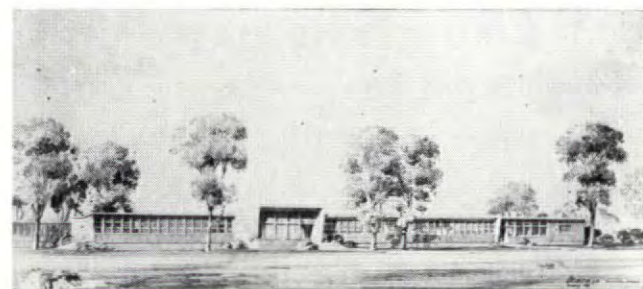
voted to railroad traffic—both passenger and freight. Passenger trains enter on the lowest level; above that is a large central concourse; this leads in turn to entrances on the highest level. Connecting the three floors and regulating the heavy internal traffic is a system of moving stairs which vies for complexity with that used in New York City's latest bus terminal (FORUM, May '49). Freight platforms—for both trains and trucks—run along the north and south sides of the building on all three levels.

Above this terminal the warehouse proper rises—ten-stories high, each floor 200 x 2,000 ft.—containing over 3,000,000 sq. ft. of usable space. The warehouse will be provided with special dehumidification, as well as air-conditioning, equipment. The 25-story office building (at right in sketch above) is of steel and heat-resistant glass with aluminum fins to cut down glare and summer heat-load.

Architect-engineer for the whole group is Wyatt Hedrick, designer of Houston's new and much publicized Shamrock Hotel. The building contract is already awarded to the O'Rourke Construction Co.—it will not, however, get under-way for a year or two.

MODERN HEALTH CENTER goes up in lumber town

The Health Center at Crossett, Ark. by William Lescaze is designed not only to serve this small lumber town but a 50-mile radius of rural countryside. At a cost of little over \$600,000 (about \$15 a sq. ft. in contrast to the current average



of \$18) this well-integrated one-story building will provide not only examination rooms, dental clinics, pharmacy and facilities for out-patients but full surgical equipment and a hospital wing containing 52 beds. Not even the dictates of modern functionalism, however, have been able to break down the local habit of segregated patient care. With concrete floor and piers, the Center will use local wood for siding and trim. Contractor is William Peterson of Little Rock.

(Continued on page 50)



Foiled--

It's Perfectly Matched Roddiscraft Hardwood Plywood

"No two thumbprints have identical whorls," says the sleuth. No two trees have identical grains either. That's why Roddiscraft careful cutting, classifying and matching of flitches is so important to architects who seek round-the-room continuity of grain and color.

Roddiscraft performance measures up to the promise of the sample. When you insist on Roddiscraft Hardwood Plywood for your job — that's one less worry for you. Roddiscraft Hardwood Plywood panels may be obtained in any design made to your specifications in any wood — domestic or foreign — selected for color, figure and continuity.

Ask your Roddiscraft representative to show you samples — he is always ready to give you full cooperation on any installation problem.

Roddiscraft warehouses throughout the nation can supply matched panels in many woods from stock.

Quality • Economy Roddiscraft Dependable Service

Cambridge 39, Mass.	229 Vassar St.
Charlotte, N. C.	123 E. 27th St.
Chicago 32, Ill.	3865 W. 41st St.
Cincinnati 2, Ohio	457 E. Sixth St.
Dallas 10, Texas	2800 Madill St.
Detroit 14, Mich.	11855 E. Jefferson St.
Kansas City 3, Kan.	35-53 Southwest Blvd.
L. I. City, N. Y.	Review & Greenpoint Ave.
Los Angeles 11, Calif.	2860 E. 54th St.
Louisville 10, Ky.	1201-5 S. 15th St.
Marshfield, Wis.	115 S. Palmetto St.
Milwaukee 8, Wis.	4601 W. State St.
New York 55, N. Y.	920 E. 149th St.
Philadelphia, Pa.	Pier 5, N. Delaware Ave.
Port Newark 5, N. J.	103 Marsh St.
St. Louis, Mo.	4453 Duncan Ave.
San Antonio, Texas	727 N. Cherry St.
San Francisco 24, Calif.	345 Williams Ave.

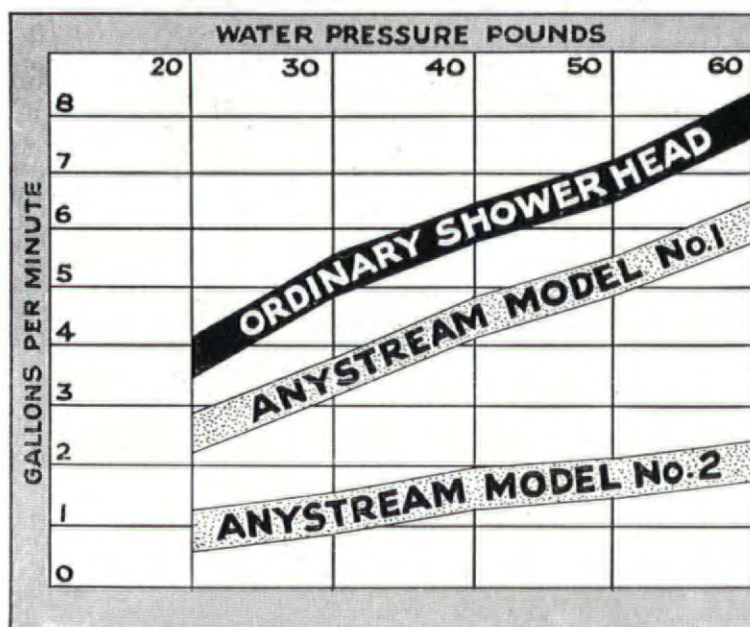
Warehouses from Coast to Coast

Roddiscraft

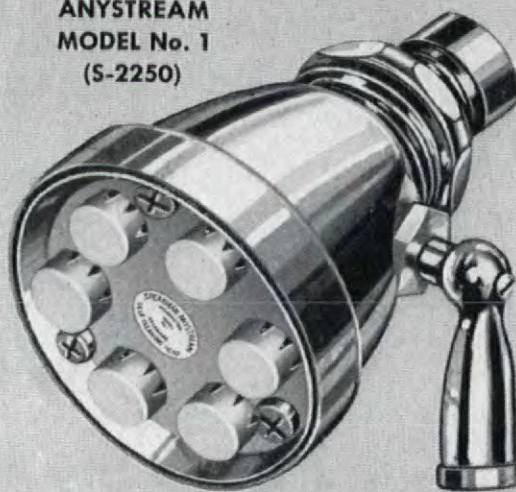
RODDIS PLYWOOD CORPORATION

MARSHFIELD • WISCONSIN

REDUCE WATER COSTS with SPEAKMAN ANYSTREAM SHOWER HEADS



ANYSTREAM
MODEL No. 1
(S-2250)



ANYSTREAM
MODEL No. 2
(S-2250)



SPEAKMAN ANYSTREAM SHOWER HEADS reduce water consumption—hot water usage—water bills by as much as 58% over ordinary shower heads.

SPEAKMAN ANYSTREAM SHOWER HEADS give the world's best showers . . . full-pattern, free-flowing, completely adjustable spray at all times—even at low pressures.

Maintenance costs are important, too! SPEAKMAN ANYSTREAM SHOWER HEADS are built to give years of trouble-free service. There's nothing to get out of order—no tiny, pin-point holes that can become clogged. They are completely self-cleaning! No SPEAKMAN Showers or Fixtures will ever become obsolete. Repair parts, if needed, will always be available.

Write today for our booklet S-54 that contains specifications and illustrations of SPEAKMAN Showers and Fixtures.



A turn of the lever
gives Needle Spray
for stimulation



Normal Spray
for Relaxation

In Our Eightieth Year
SPEAKMAN
SHOWERS AND FIXTURES

SPEAKMAN COMPANY, WILMINGTON, DELAWARE

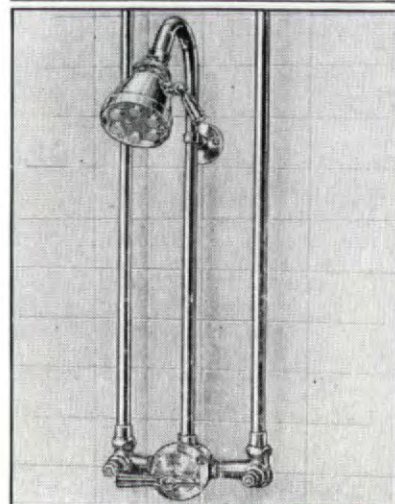
SEE OUR
CATALOG
in
SWEET'S FILE
ARCHITECTURAL



Flood Spray for
non-splash rinse

EXPOSED SENTINEL SHOWER
(S-1720)

with Anystream Shower Head
and Sentinel Balanced Pressure
Shower Mixing Valve.





10 more reasons— why customers are saying "make mine Marlite!"

Remarkable is the word for these exciting new Marlite plastic-finished wall panels. Here's all the rich warmth of fine woods, the stately grandeur of rare, imported marbles . . . faithfully reproduced and permanently retained in Marlite's exclusive *sealed-in* surface. And matching mouldings, in wood and marble patterns, complete the effect.

Think of the distinctive new interiors you can offer your clients

with these authentic patterns—in offices, stores, banks, hotels, institutions, homes, and a host of other interesting installations. And builders will tell you that famous Marlite is easy to work and handle . . . goes up fast over old walls or new . . . covers wide areas quickly and at surprisingly low cost. Marlite is perfect for either new construction or remodeling. Marsh Wall Products, Inc., Subsidiary of Masonite Corp.

Mahogany Wood Pattern Marlite used in the new offices of the Calumet Brewery, East Chicago, Ind.



Ideas for Architects!



Marsh Wall Products, Inc. Dept. 701 Dover, Ohio

- ☐ Please send my FREE copy of your new 4-color idea stimulating folder on the 10 new Marlite Wood and Marble-Patterns.
- ☐ I can also use other descriptive literature on the complete Marlite line.

NAME _____

FIRM _____

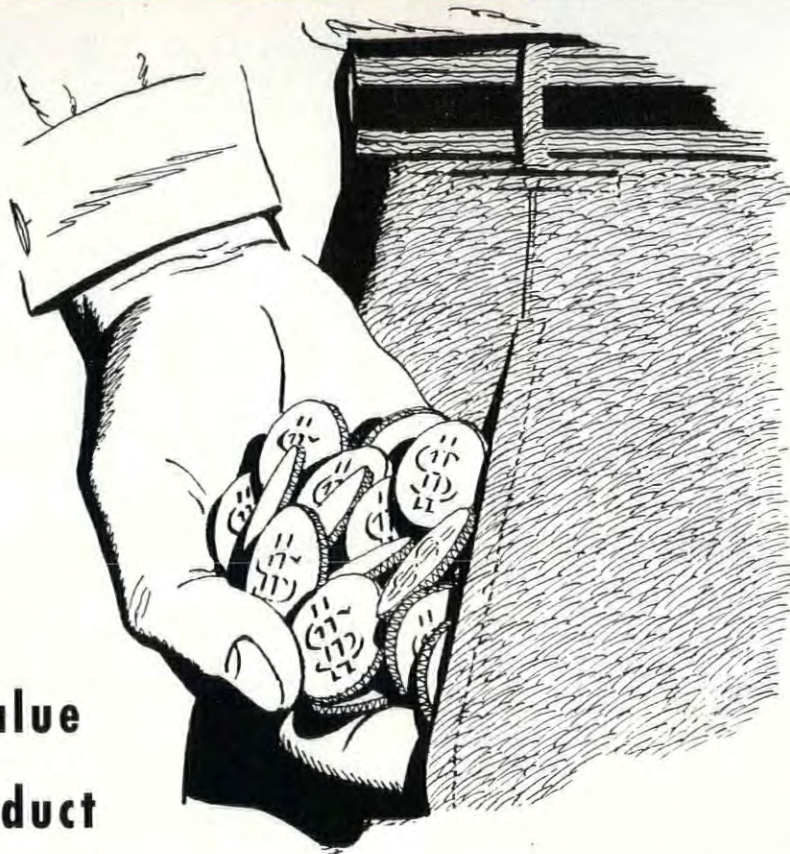
ADDRESS _____

CITY _____ ZONE _____ STATE _____

demand **DETROIT CERTIFIED CONTROLS**

**Extra value
in the product**

means extra profits in your pocket



You get the advantages of a lot of extras when you use **DETROIT** Certified Controls. Extra ease and flexibility in ordering — **DETROIT** has a complete line of controls and nationwide distribution through heating wholesalers. Extra reliability for every installation — **DETROIT** Certified Controls are designed and built to deliver years of top performance.

All this means satisfied customers — and that's good business. In addition, **DETROIT** backs you up by certifying every control — extra protection for you, your work and your reputation. On your next job get all of these extras; install **DETROIT** Certified Controls.

No. 411-CH THERMOSTAT

A sensitive and accurate "timed cycling" thermostat for all types of heating systems. Provides extremely close control of room temperature. Compensating heater in parallel with control circuit eliminates changing of heaters—one heater for all jobs. Attractively styled, easily installed and adjusted. Write for Bulletin No. 193.



DETROIT

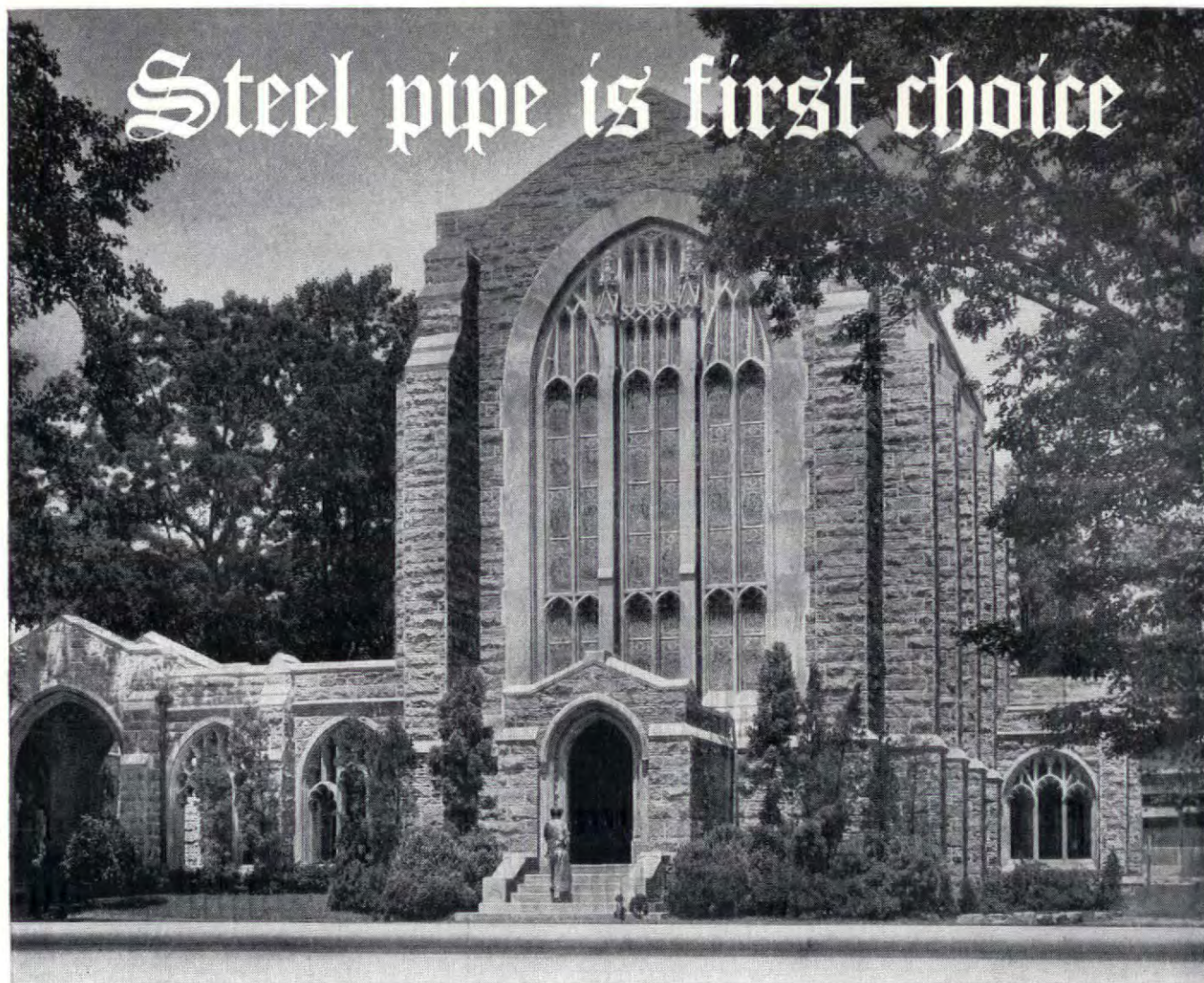
LUBRICATOR COMPANY

5900 TRUMBULL AVE., DETROIT 8, MICHIGAN
Division of **AMERICAN RADIATOR & Standard Sanitary Corporation**
CANADIAN REPRESENTATIVES: RAILWAY & ENGINEERING
SPECIALTIES, LTD. — MONTREAL, TORONTO, WINNIPEG



DETROIT HEATING AND REFRIGERATION CONTROLS •
ENGINE SAFETY CONTROLS • FLOAT VALVES AND OIL
BURNER EQUIPMENT • DETROIT EXPANSION VALVES
AND REFRIGERATION ACCESSORIES • STATIONARY
AND LOCOMOTIVE LUBRICATORS

Serving home and industry AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILER • ROSS HEATER • TONAWANDA IRON



for the churches of America

There are 253,762 churches in continental United States with nearly 74 million members. Their presence in every city and town, and in hamlet and countryside across the nation, is a tribute to the essential morality of Americans.

Into these temples of worship we have poured the richness of the architectural inspiration of the past and present, so that today the white spire of a country church or the majesty of a gothic cathedral represents the finest creative efforts of the men who build.

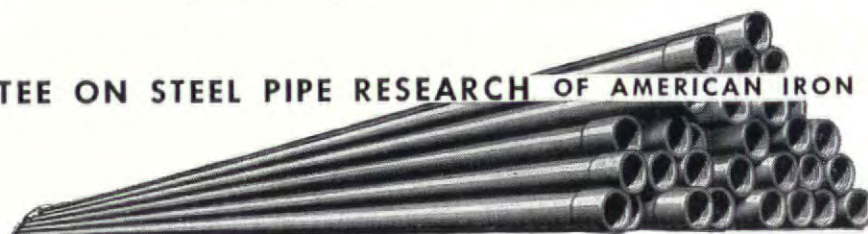
Beyond the structural elements of steel and concrete, brick and stone, attainment approaching perfection has been assured by today's high standards

of materials. Not the least of these is *steel pipe*, helping to make each church a comfortable place in which to worship, through adequate heating, plumbing, lighting, and ventilation. For these services *steel pipe* has a dominant place because *steel pipe* is durable, adaptable, serviceable, and economical.

In fact, of all pipe used for plumbing and heating purposes in all types of structures, steel pipe predominates by a wide margin. Yes, *steel pipe is first choice!*

*Ask for your copy of the interesting story
"Pipe in American Life."*

COMMITTEE ON STEEL PIPE RESEARCH OF AMERICAN IRON AND STEEL INSTITUTE



350 Fifth Avenue
New York 7, N. Y.



You can't feed Penicillin any old Whey!

Whey—a once worthless by-product of the cheese industry—is recognized today as a topnotch diet for penicillin mold.

But it must be carefully processed. To make it suitable for the finicky mold's appetite, lactose crystals must be developed in the whey. And for this, controlled heat and controlled cooling are essential.

So a Wisconsin whey-maker brought Trane equipment into the picture.

Result? A Trane Compressor chills water which is circulated around the processing vats for the proper cooling. Then reliable Trane Heating Coils provide the accurate heat necessary to dry the delicate crystals properly...

... Which makes it possible for billions of units of needed penicillin to wax hearty and hale. Score another for Trane equipment—the same equipment that makes air more usable, more comfortable, more efficient, in thousands of stores, offices, plants.

Perhaps you, too, have an air problem. If so, it will pay you to remember Trane. Trane engineers know air. How to heat it, cool it, dry it, humidify it, clean it, or move it. Your local Trane office will be glad to work with your own architect, engineer or contractor.

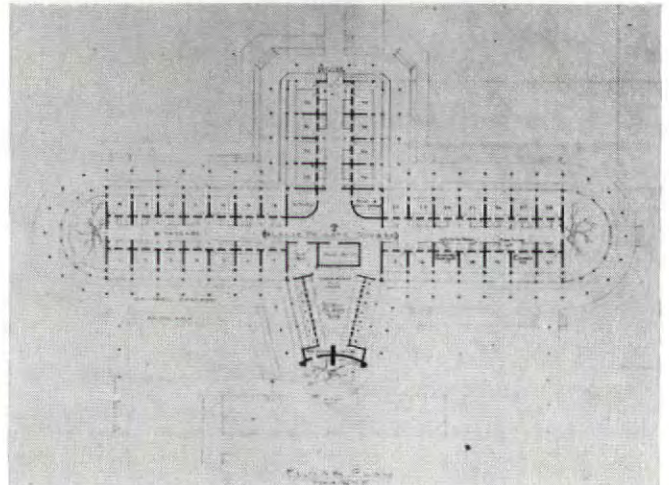
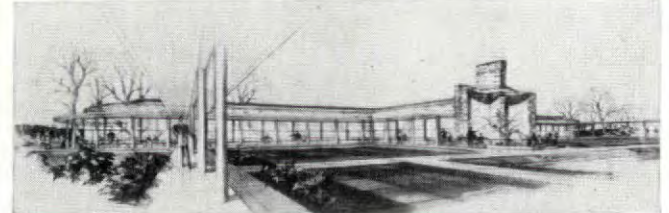
THE TRANE COMPANY • LA CROSSE, WISCONSIN
TRANE COMPANY OF CANADA LTD., TORONTO



MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT • OFFICES IN 75 CITIES

TEXAS MONKEYHOUSE discovers a mild functionalism

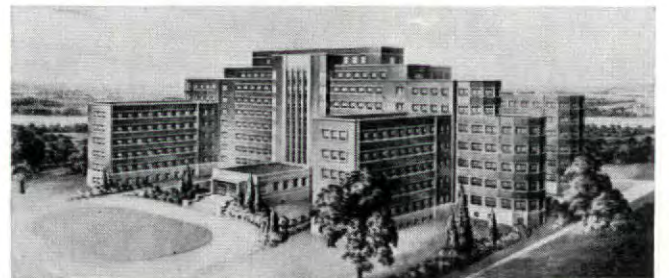
The new Primate House at Hermann Park, Texas, uses a labor-saving cross-plan with central service section. Its cages, unlike the conventional zoo, do not have rigid indoor and



outdoor areas—double-hung aluminum sash gives enough protection against the mild winters, is raised in summer. A covered passage around the building exterior improves visibility into cages and provides shelter for watchers. In addition to indoor monkey cages, there will be a moated "monkey island" where smaller primates can gambol in full view. Irving R. Klein & Associates are architects and engineers.

LARGE HOSPITAL expands N. Y. facilities for mental care

For mental patients who also need medical or surgical treatment, the new \$8,000,000 unit of New York's Hudson River



State Institution will provide a fully-equipped 960-bed hospital. Cornelius White, State architect, designed the nine-story building which will use steel frame, concrete floor slabs, and brick exterior. Merrith, Chapman & Scott Corp. will start construction this summer.

WESTINGHOUSE STUDY CENTER goes up near Pittsburgh

The three-story educational center designed by Architects Hoffman & Crumpton for Wilksburg, Pa. will house a yearly student body of 950 men—trainee and evening study groups sponsored by Westinghouse Electric Corp. and nearby University of Pittsburgh. (Continued on page 54)

THIS SEAL means:

- ➡ quality materials
- ➡ strong sections
- ➡ sound construction
- ➡ low air infiltration

IT'S THE SEAL OF

Quality Approved **ALUMINUM WINDOWS**

Today, scores of manufacturers are trying to meet the ever-increasing demand for aluminum windows.

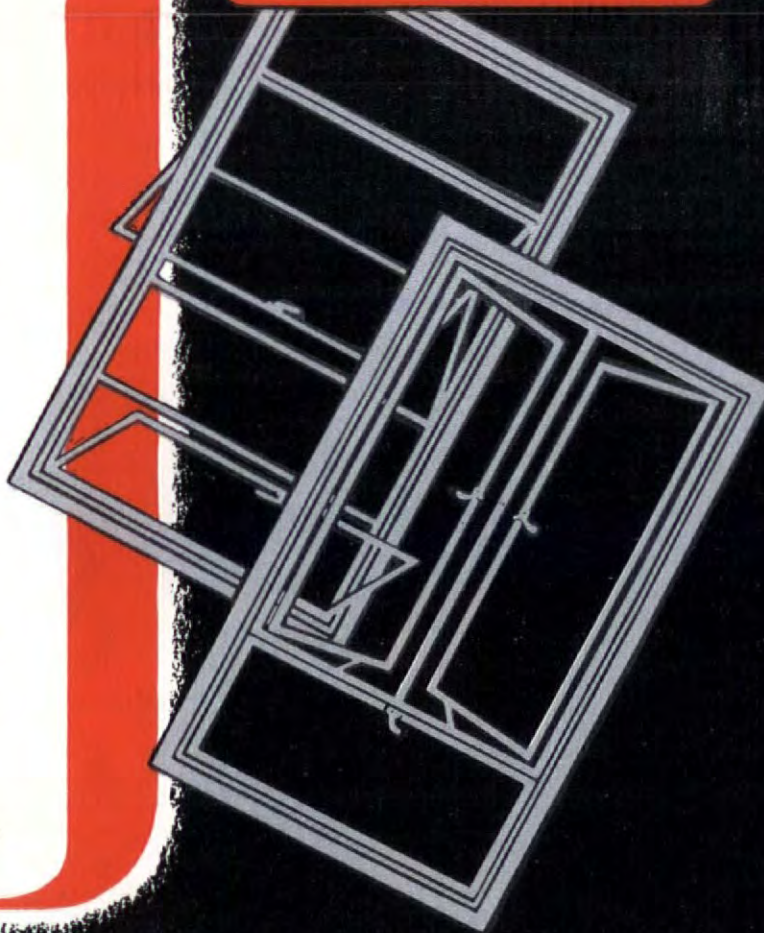
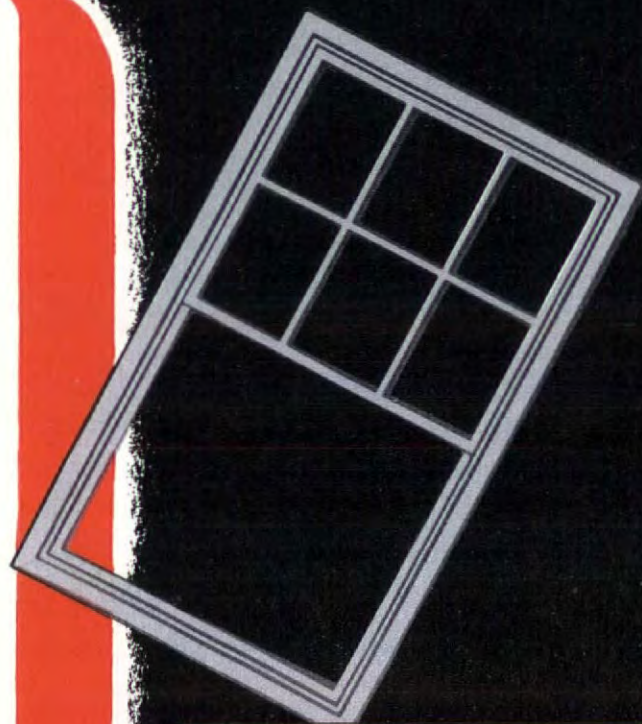
How can you—as an architect, contractor or owner—make sure of getting the finest quality when you specify or buy?

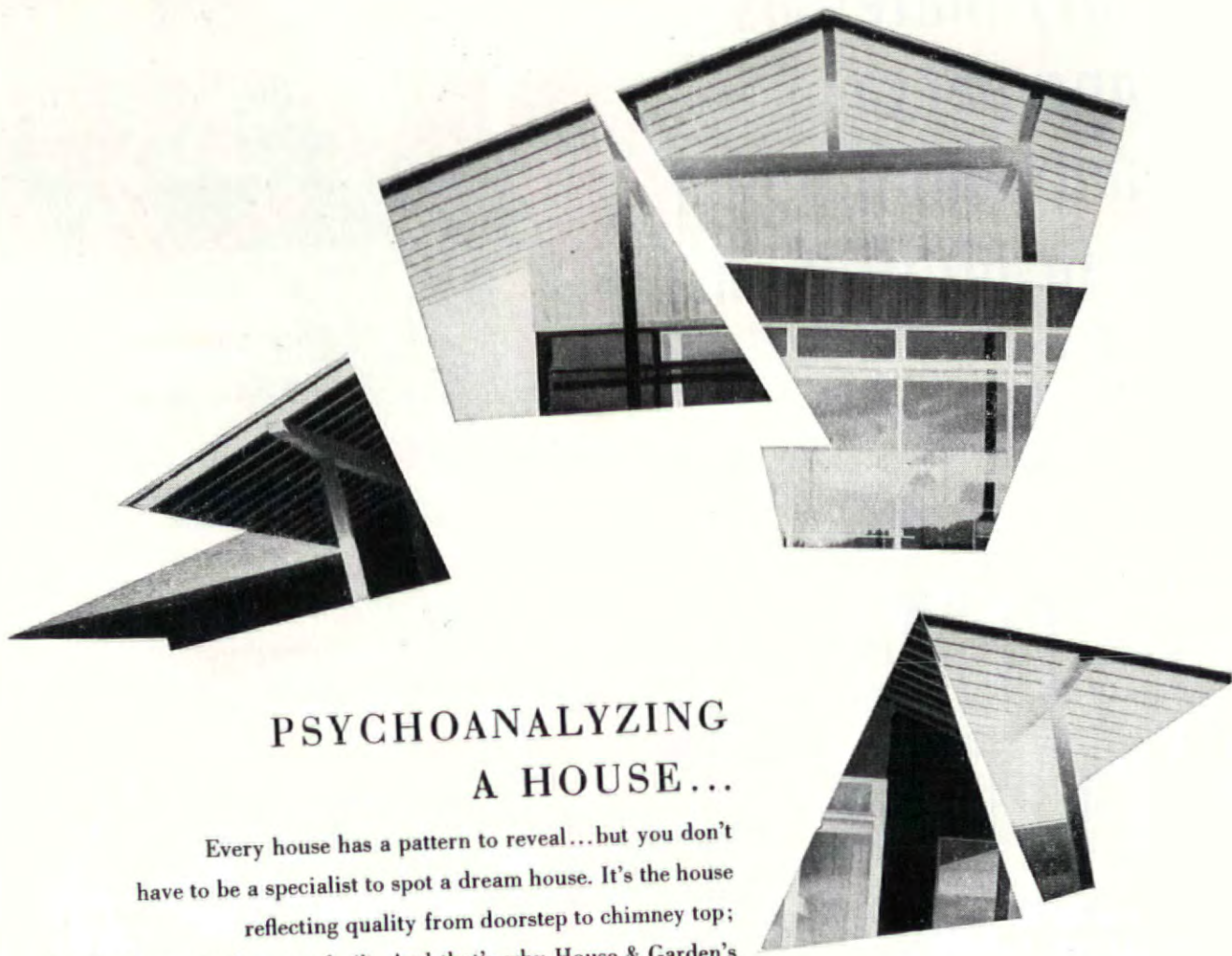
This "Quality-Approved" Seal is your assurance. The manufacturers permitted to use this seal supply aluminum windows that meet the highest standards for quality materials, strength of sections, sound construction, and minimum air infiltration.

Tested by the independent Pittsburgh Testing Laboratory, aluminum windows bearing this seal are good-looking, easy-to-operate . . . won't stick or rattle . . . never need painting . . . give years of trouble-free service.

For your protection, specify and buy aluminum windows with the "Quality-Approved" Seal. Consult Sweet's (Section 16/a) for complete specifications or write for names of manufacturers who can supply you with "Quality-Approved" aluminum windows. Address your request to Dept. F-7.

Aluminum Window Manufacturers Association
209 CEDAR AVE., TAKOMA PARK, WASHINGTON 12, D. C.





PSYCHOANALYZING A HOUSE...

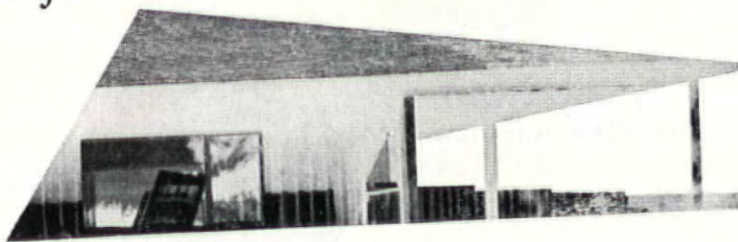
Every house has a pattern to reveal...but you don't have to be a specialist to spot a dream house. It's the house reflecting quality from doorstep to chimney top; it's the house that's owner-built. And that's why House & Garden's high percentage of owner-builders* is of such importance in building circles.

Owner-builders demand the best materials, insist on fine equipment from cellar to ceiling and have the power to specify your products. Reach them through House & Garden, their authority on building, your showcase for building products.

*43% of House & Garden's families plan to build a new home:
House & Garden's current circulation: over 400,000

House & Garden

...for the Owner-Builder market



NOW THE NEW *Anthra-Flo* FOR NEW HOMES



LOW COST

—competitively priced . . . meets all requirements for low cost housing.

BURNS CHEAPER SIZES OF ANTHRACITE

—pays for itself in fuel savings. Built-in tankless coil supplies low cost hot water.



FULLY AUTOMATIC

—coal feeds direct from bin . . . ashes discharge by gravity into container within unit.

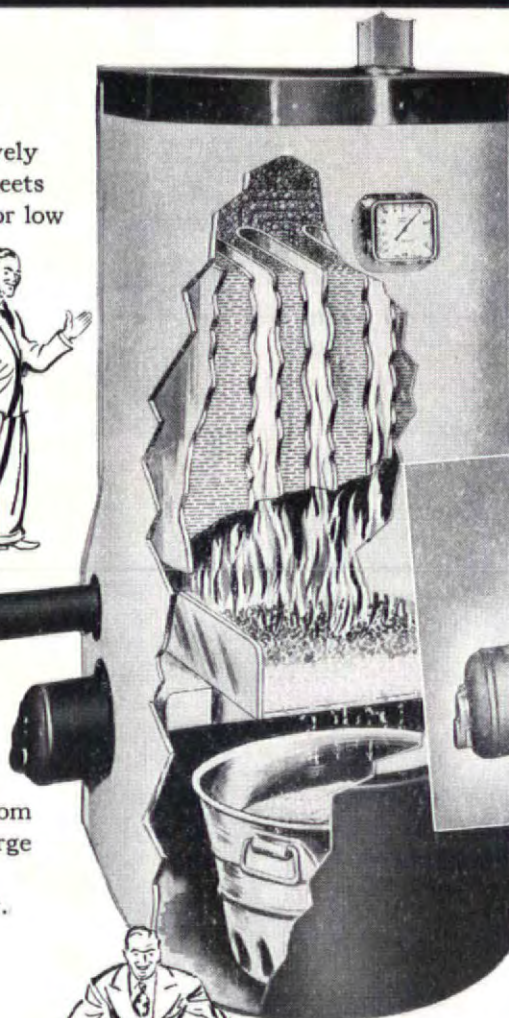
RATINGS

—Model C-1, Steam 325 sq. ft.
Hot Water 515 sq. ft.
Model C-2, Steam 550 sq. ft.,
Hot Water 880 sq. ft.

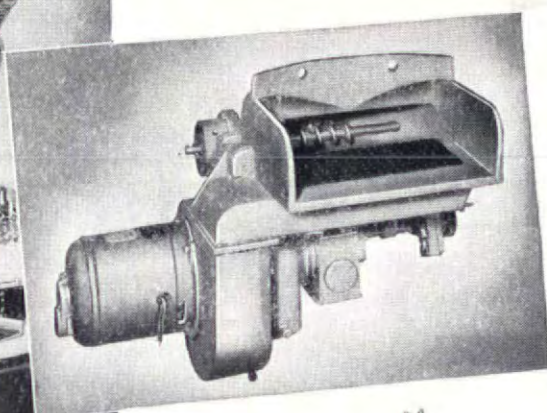


ATTRACTIVE APPEARANCE

—jacket finished gleaming white and red enamel on steel.

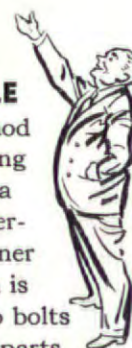


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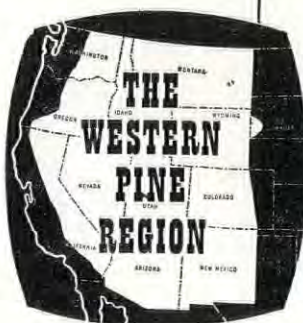
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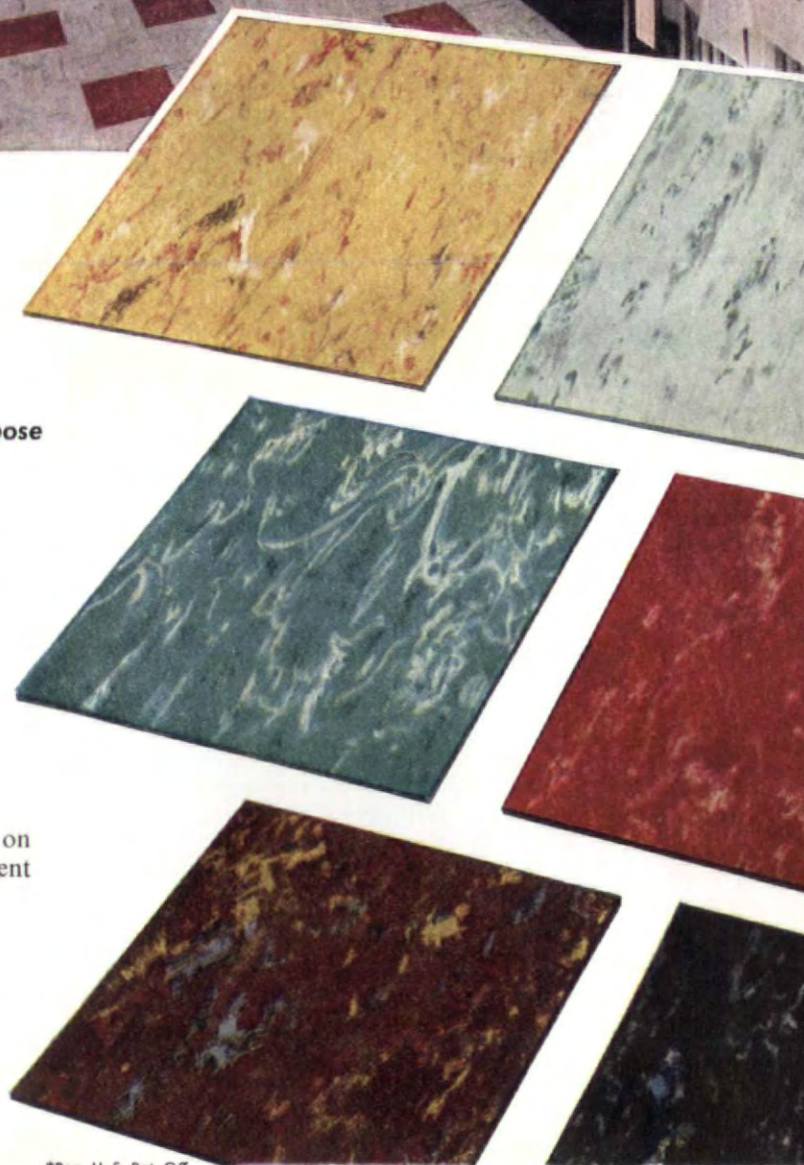
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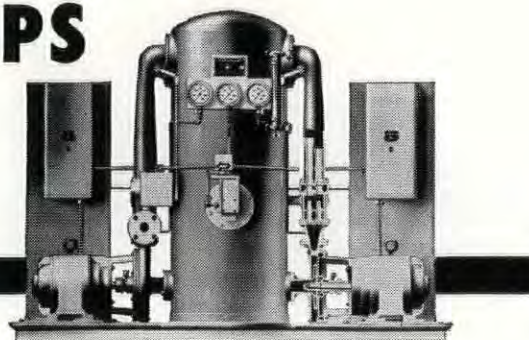
Johns-Manville



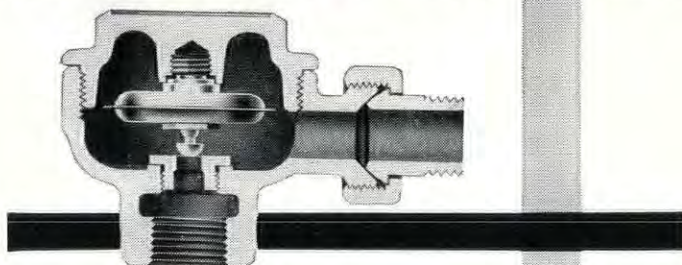
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When **J. WOOLSON BROOKS**, of Brooks & Borg, Architects, found himself with an art commission requiring the very highest design standards, he turned to A.I.A. Gold Medalist **ELIEL SAARINEN**, famed designer of the Cranbrook Museum and Library and the Kleinhaus Music Hall, as architect for the Des Moines Art Center design. (p. 65) Work was begun under two associated architectural firms: Saarinen & Swanson, and Brooks & Borg. By the end of the assignment, Saarinen's firm had become Saarinen, Saarinen & Associates.

The elder Saarinen, apple-cheeked, Finnish-born design maestro, came to the U. S. in 1923, to Cranbrook in 1925, has made almost a quarter of a century of design history from that quiet spot.



EERO SAARINEN, successful son of a famous father, was born in Kirkkonummi, Finland, spent the first years of his life under father Eliel's drafting table, was transplanted to America at the age of 13 when his father immigrated here in 1923. He has studied architecture at Yale and abroad and has collaborated with his father on many a Saarinen sketch, including those for the widely-published Berkshire Music Center. The impressive General Motors Research Center (p. 70) is Eero's design.



Merchant builder **GY WILLIAMS** is a tall, hulking, 38 year old M.I.T. graduate who bowed into the building business in 1933 as carpenter's helper for a Brooklyn construction company. He rose to superintendent in two short years, quit to start his own housebuilding operation on suburban Long Island. A prewar devotee of colonial, complete with hitching posts and split-rail fences, Williams' postwar output has featured modern design, and more recently, prefabricated construction (p. 90). He had his first fling at prefabs during the war when he erected some for the Washington (D.C.) Alley Housing Authority.



Architect **BURNHAM HOYT** has lived most of his 62 years studying and practicing architecture, alternately, in New York and Denver. Educated at the conservative Beaux Arts Institute, he spent two years in pioneer Bertram Goodhue's workshop, and 13 more in other New York design offices. Hoyt's Denver years are divided neatly into three phases: early school days, then 15 years later a post World War I partnership with his architect brother, and the present period since 1933, in practice under his own name (p. 98), designing, among other things, the much heralded Red Rocks Amphitheater.



WILLIAM F. CODY is a westerner, as was his fabulous namesake, Buffalo Bill, and an architect, unlike the famous Indian scout. A 1942 graduate of the University of Southern California, Designer Cody worked for several architects before entering college, and for ranch house builder Cliff May and school architects Marsh, Smith & Powell in the four years between graduation and the establishment of his own practice. From his drafting board since 1946 has come a steady stream of houses, hotels, schools and churches. Recent sample: the Del Marcos Hotel (p. 94).



VICTOR N. JONES was born in eastern Canada, went to school in Victoria, British Columbia, and has never since been able to cast off the spell of the northwest. With degrees from the Universities of Washington and Pennsylvania, he entered the architectural office of McLelland & Pinne in Seattle in 1928. By 1930 the firm was McLelland & Jones, and in 1945, the present organization, Victor N. Jones & Associates was formed, with offices in Seattle and Boise, Idaho. The rustic Shore Club Lodge design (p. 102) emanated largely from the Boise office, headed by Lloyd J. Lovegren.

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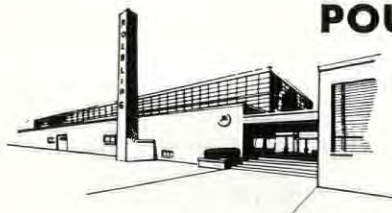


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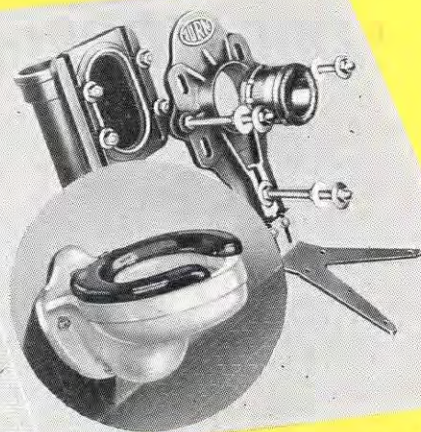
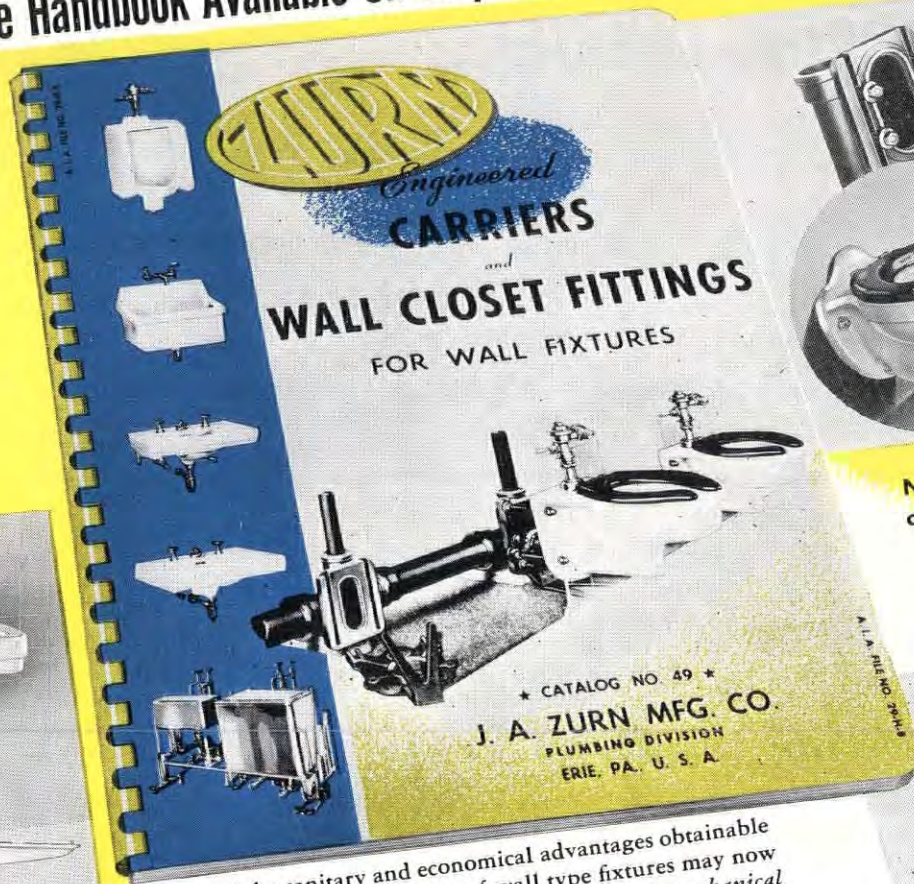
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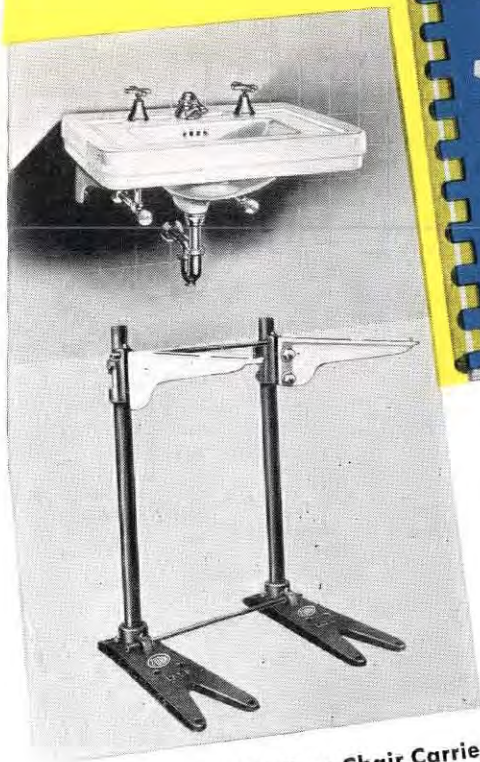
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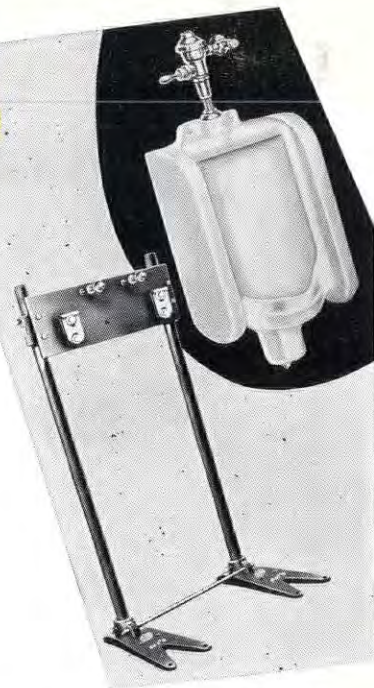


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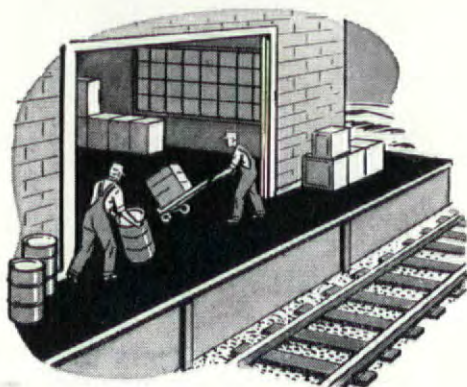
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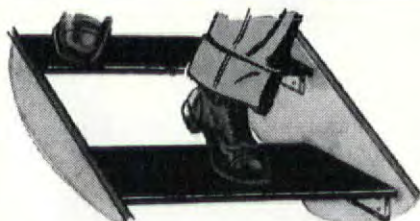
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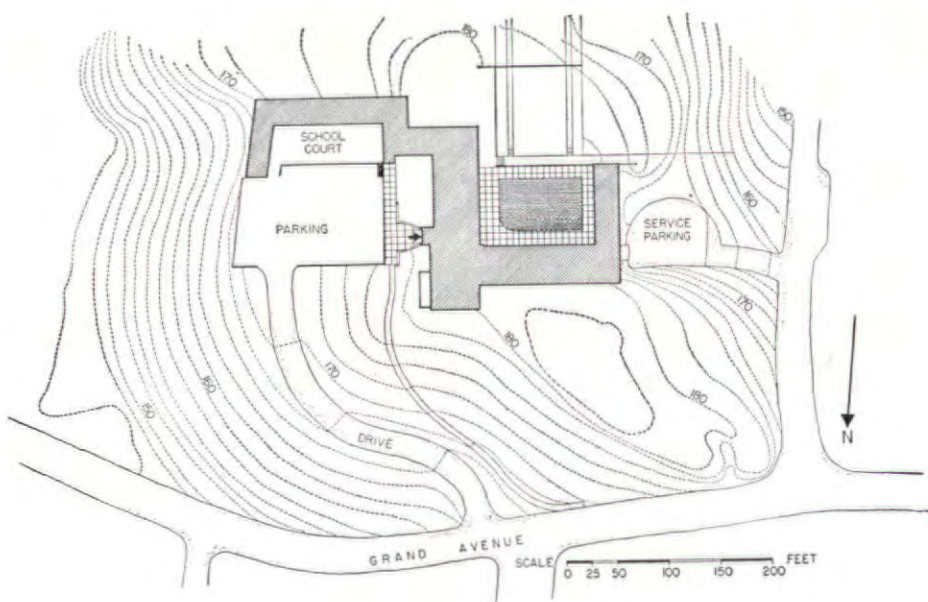
STAIRWAY
IN DES MOINES,
NEW ART CENTER





ART CENTER in Iowa. With the help of Eliel Saarinen, Des Moines houses its art collections and art school in a home instead of an institution

ELIEL SAARINEN, ROBERT F. SWANSON, Architects
JOHN BROOKS, ELMER BORG, Architects
NEUMANN & BROTHERS, General Contractors



Immediately discernable on the approach to the Art Center, above left, is the touch of its architect. The view of the long horizontal lines, emphasized by shadows of the overhang, is from an avenue skirting the park. Below left is closer view of the entrance from the parking space.

Architect Saarinen has given Des Moines an art center which has fast become a source of great pride to its citizens. Located in a park near the center of the town, the new building reveals in its design and setting many changes in the concept of the community art home in this country. One of these might even be the name—the word *museum* is avoided. And this change in attitude is even more evident in the design of the building, which strives for simplicity in background for displays and pleasantness in environment. It is a newly emphasized axiom that people will not like art if their feet hurt, or if they are made to feel like school children on a tour. If there is some place to sit, their feet may feel better, even if they don't sit down. If there are pleasant vistas to enjoy, they may well approach the objects displayed in the Center with greater friendliness.

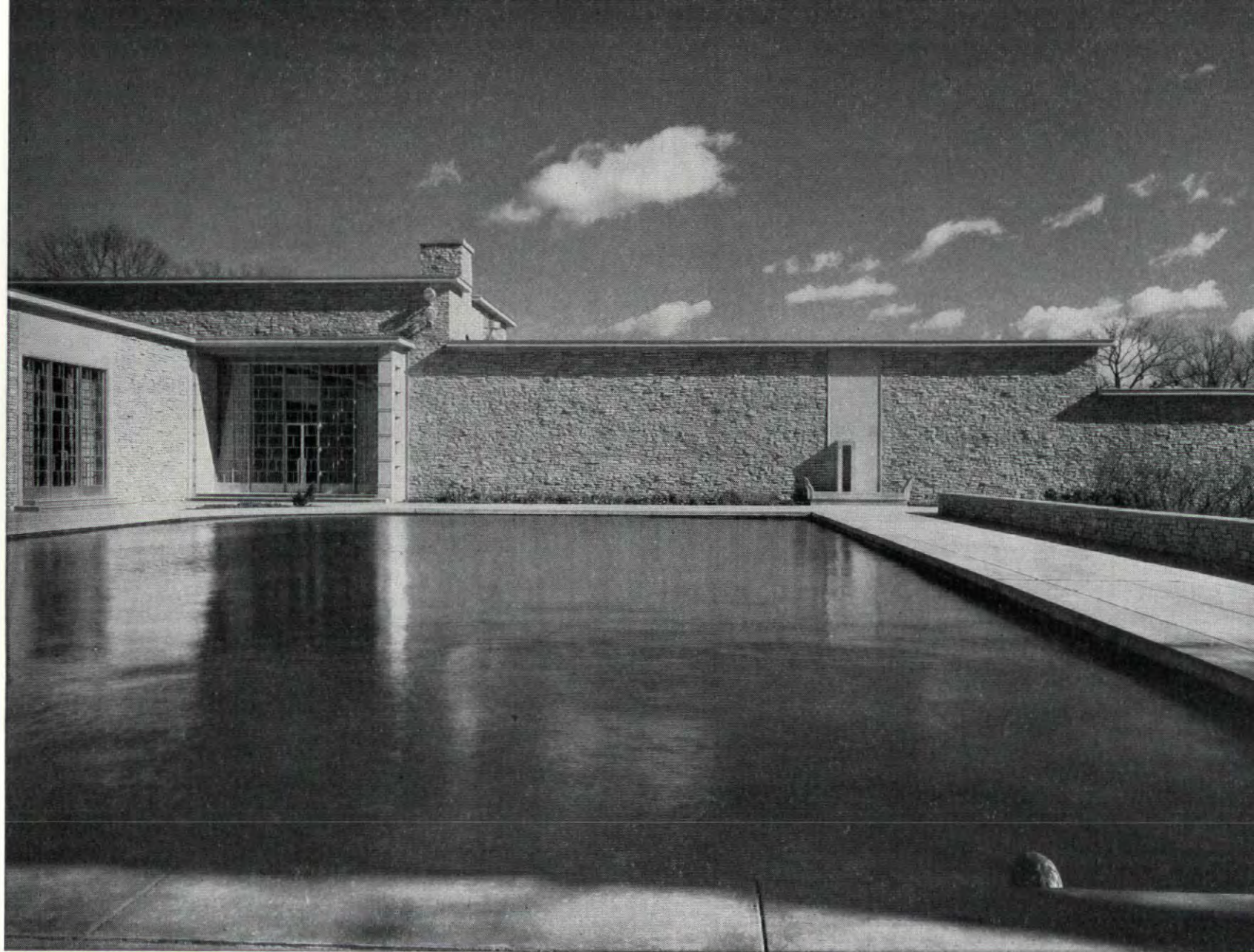
The nature of art itself in America has changed, along with the people's attitude toward art. Intimidation was a main maker of respect for art and art houses in the near neoclassic past. Today intimidation breeds only resentment, and participation and enjoyment have replaced the old stiffness in display. A large portion of the building budget for this Art Center was put into a wing which houses an art school, intended not only for art students and professionals, but for children, housewives, and hobbyists as well. Eliel Saarinen, parent of the designing firm, who is himself primarily responsible for the design of the Des Moines Art Center, expresses as the aim of the art school, "To build up an atmosphere of art creation about the whole Art Center and to create a place of interest for all the strata of the population, old and young—through the young."

Early in its planning, there was much discussion of the basic problem: whether this center should be a monumentally formal and conspicuous structure in the urban organism or whether it should be an informal home institution for art activities, imbedded in the verdure of the park. The decision is obvious in these pictures. There is nothing forceful about the horizontal lines of the long elevations and walls—which residents, now loud in praise, first objected to as being too "like a penitentiary." The design is as cool and placid, as dignified and pleasant as the big pool in the back court—without the sternness and pomposity which once had the American people so well bored with museums.

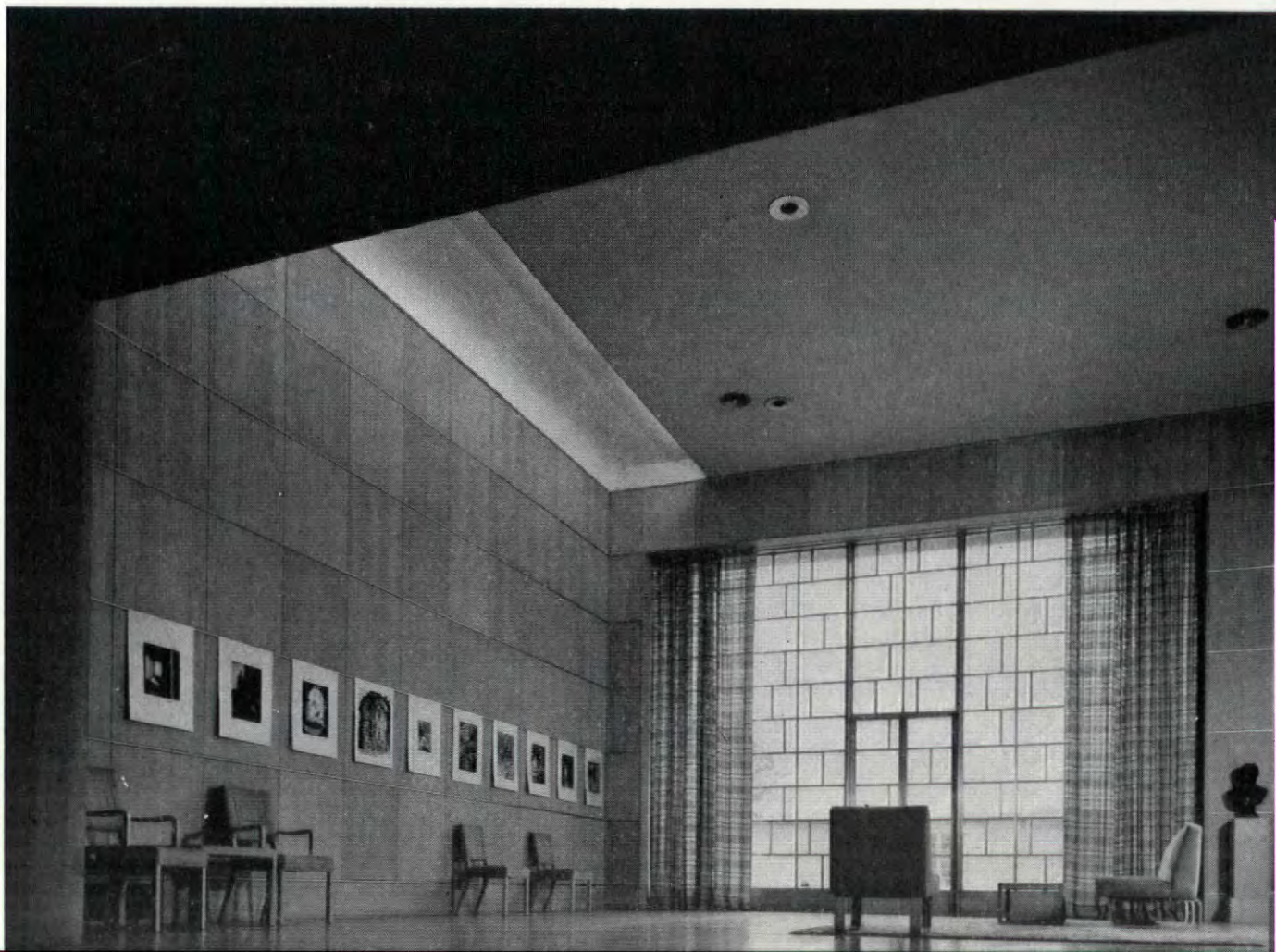
Photos: Hedrick-Blessing, Ltd.



View just within entrance looking back past main doors and along print gallery which extends down exterior wall toward the school wing.



Sculpture by Carl Milles will be based in pool, viewed above from promenade toward rear of main exhibition wing. Aluminum framed glass section of wall, with door, is shown in photo to right. View is from just inside the main entrance across one end of the exhibition area.

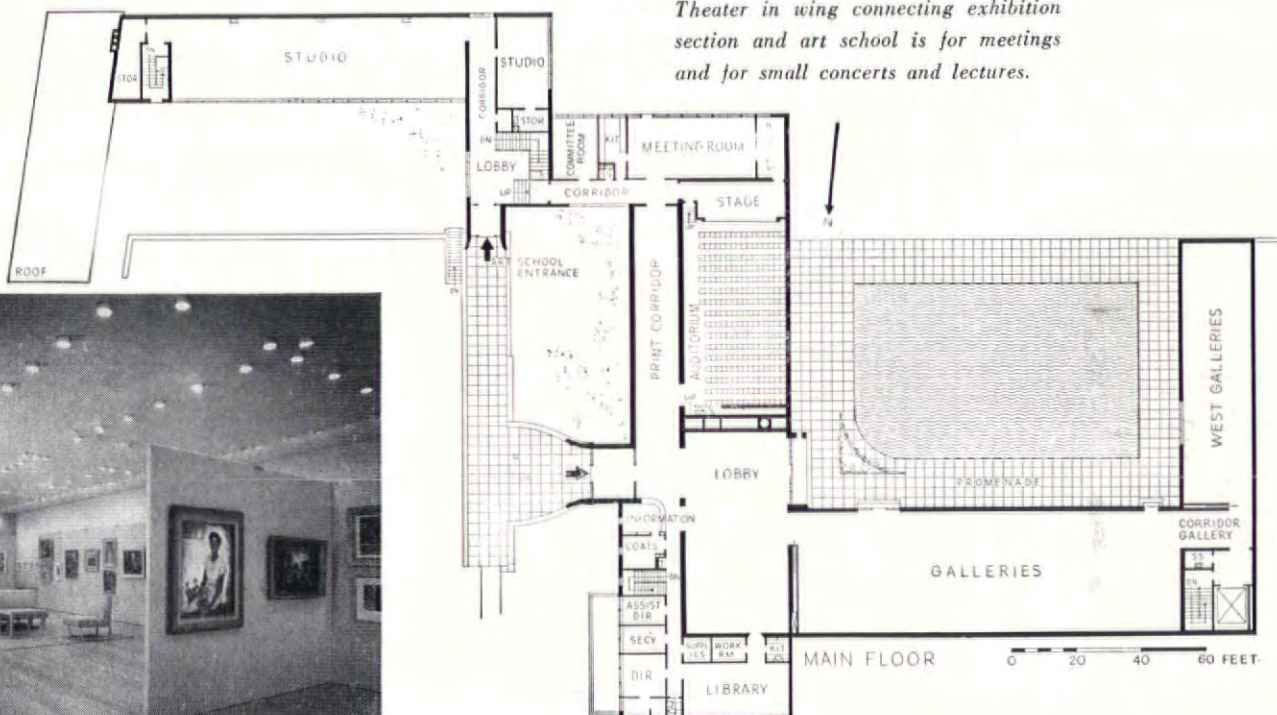


Enthusiasm for this project rose high in the city early in its development. The Art Association, later dissolved, had 2,000 paid-up members at \$5 dues per year before the building's doors were opened. Friction arose early between this volunteer group and the trustees over matters of policy and purchases, and there is now no longer an Art Association. The Art Center itself, however, has more than 1,600 dues-paying members for the coming year. Funds for the building were left in an endowment by a Des Moines native who died in 1927, an investment banker named James D. Edmundson. Final cost of the building was about \$675,000 on city-donated land.

Main exhibition wing of the Art Center is set to make use of a large formal garden which was already in existence in the park. These halls are planned for changes and activity, with predominantly traveling exhibitions. Most interior wall coverings throughout the wings are rift grain oak, plaster, monks cloth, or concrete block. Exterior walls are Lannon stone—Wisconsin dolomite—and the masons did well, building a fine texture. Behind the 4 in. of stone are back-up walls of brick.

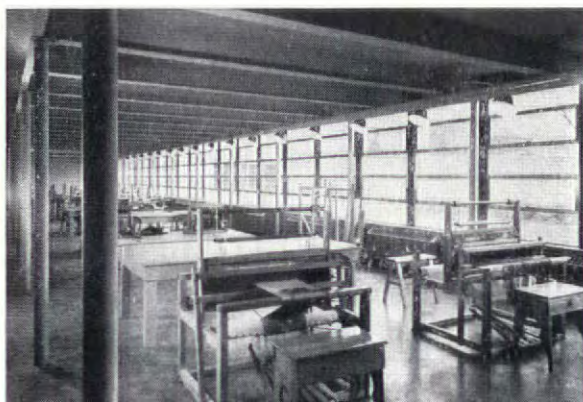
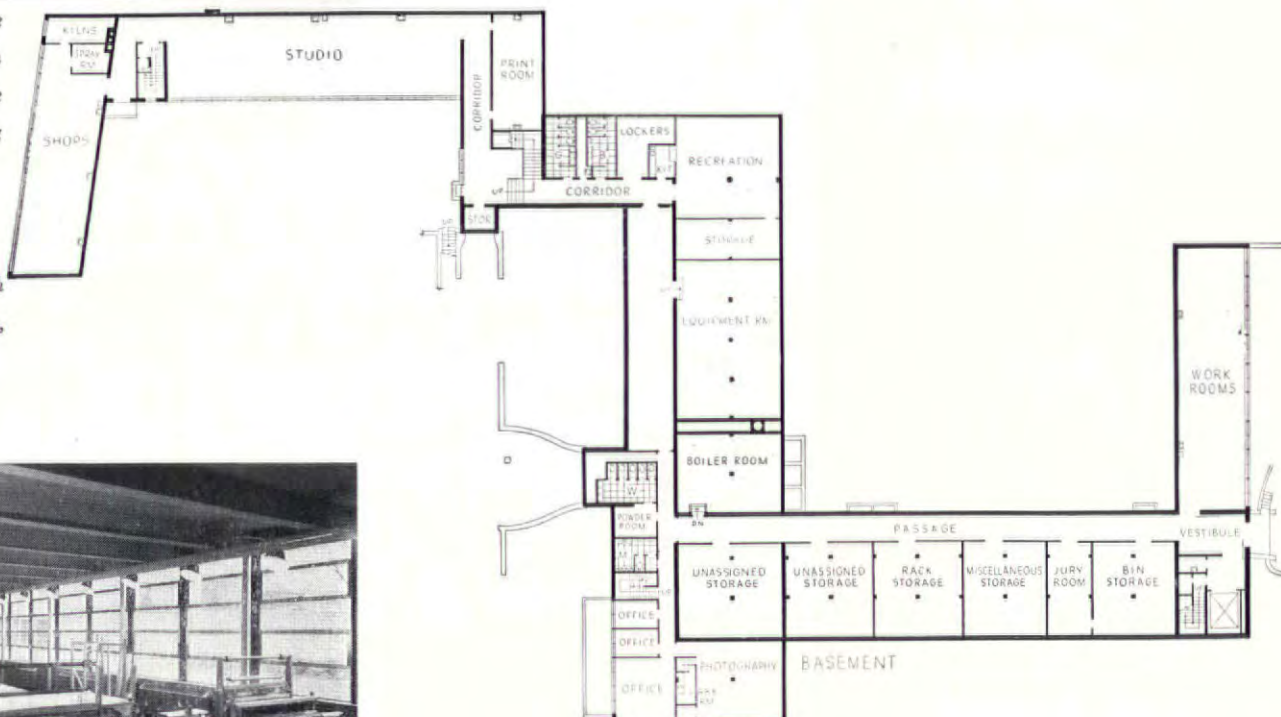


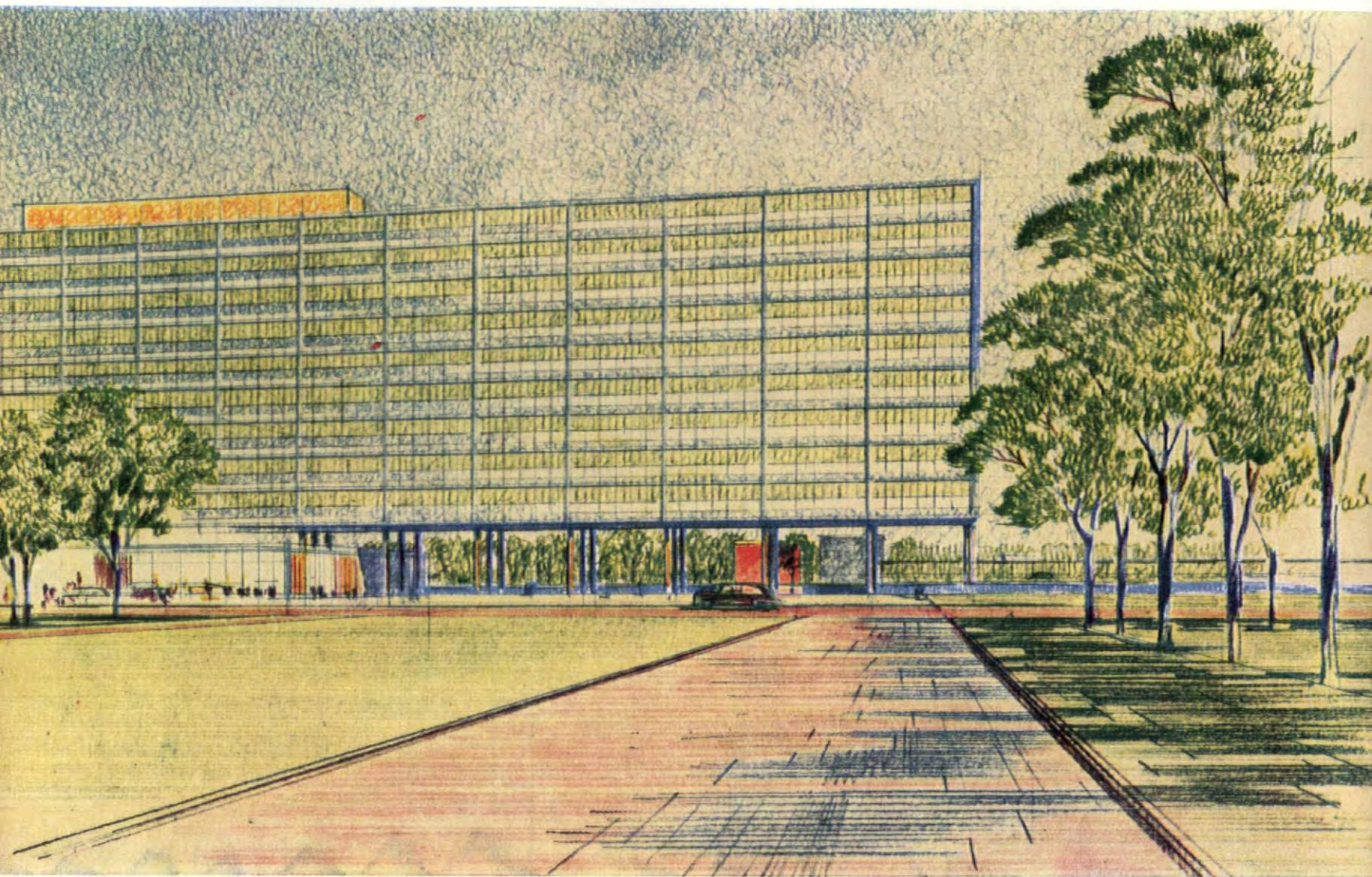
Theater in wing connecting exhibition section and art school is for meetings and for small concerts and lectures.



Lighting of main exhibition area above will be changed from incandescents in cans to a combination of cold cathode in coves and incandescent down lighting as in use in other sections.

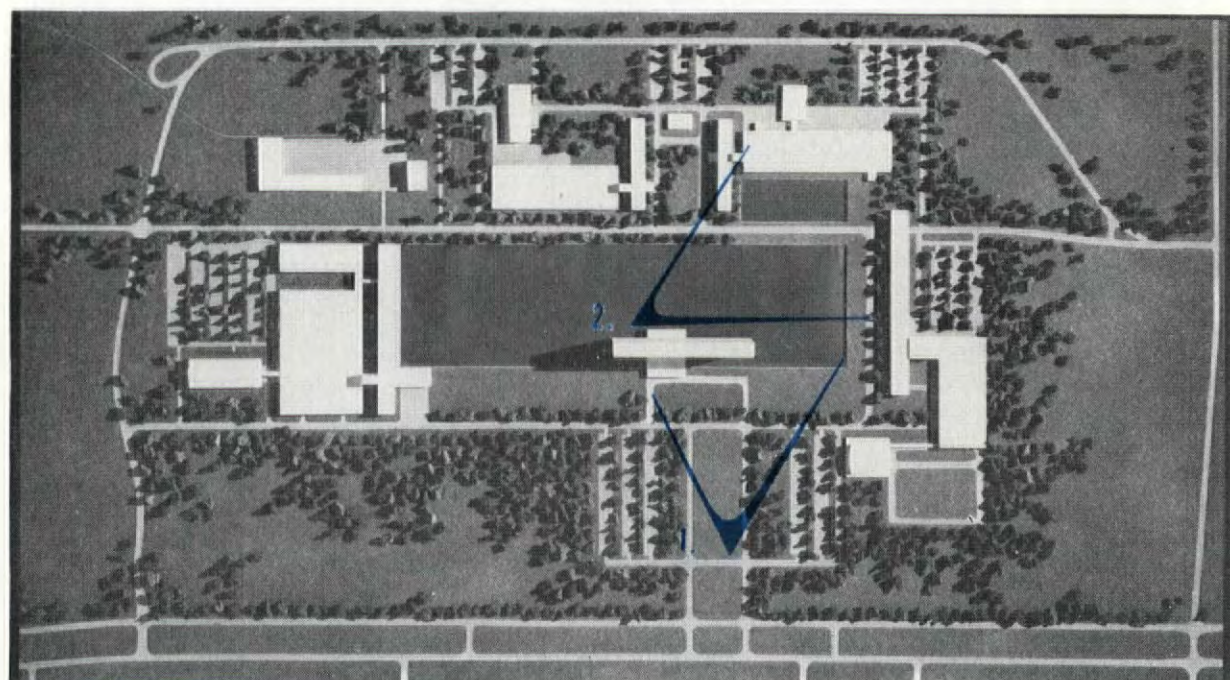
In the school wing are studios with equipment for such crafts as weaving, and facilities for classes in art.





1.

Rendering: J. Henderson Barr



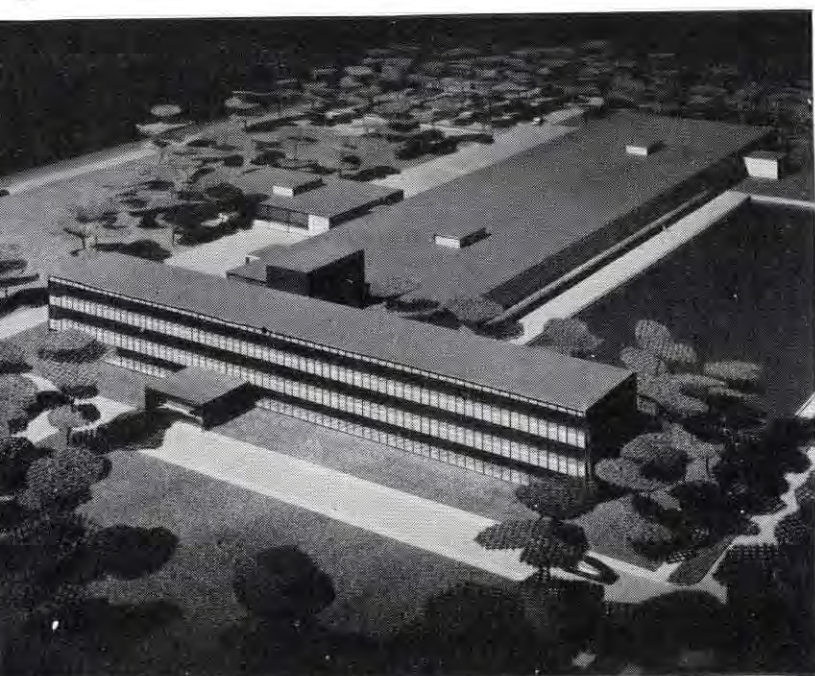
G. M. TECHNICAL CENTER

A major institution gives architecture
a realistic opportunity with the
common industrial building in large groupings

SAARINEN, SAARINEN & ASSOCIATES, Architects
SMITH, HINCHMAN & GRYLLS, Architect-Engineers
THOMAS D. CHURCH, Landscape Architect

Color rendering, opposite page, gives an impression of the future administration building, the only office building in America to be planned for so dramatic a position out over an artificial seven acre lake. Below is seen the Advanced Engineering group ready for immediate construction.

2.



That architecture here takes a forward leap is due to no straining toward the special or spectacular. General Motors and their architects have managed to translate everyday ordinary industrial buildings—no trimmings, no special shapes—into architectural eloquence. Here is an object lesson in what architecture can do on realistic grounds. The achievement is one of thoughtfulness instead of expenditure, of analysis instead of fancy.

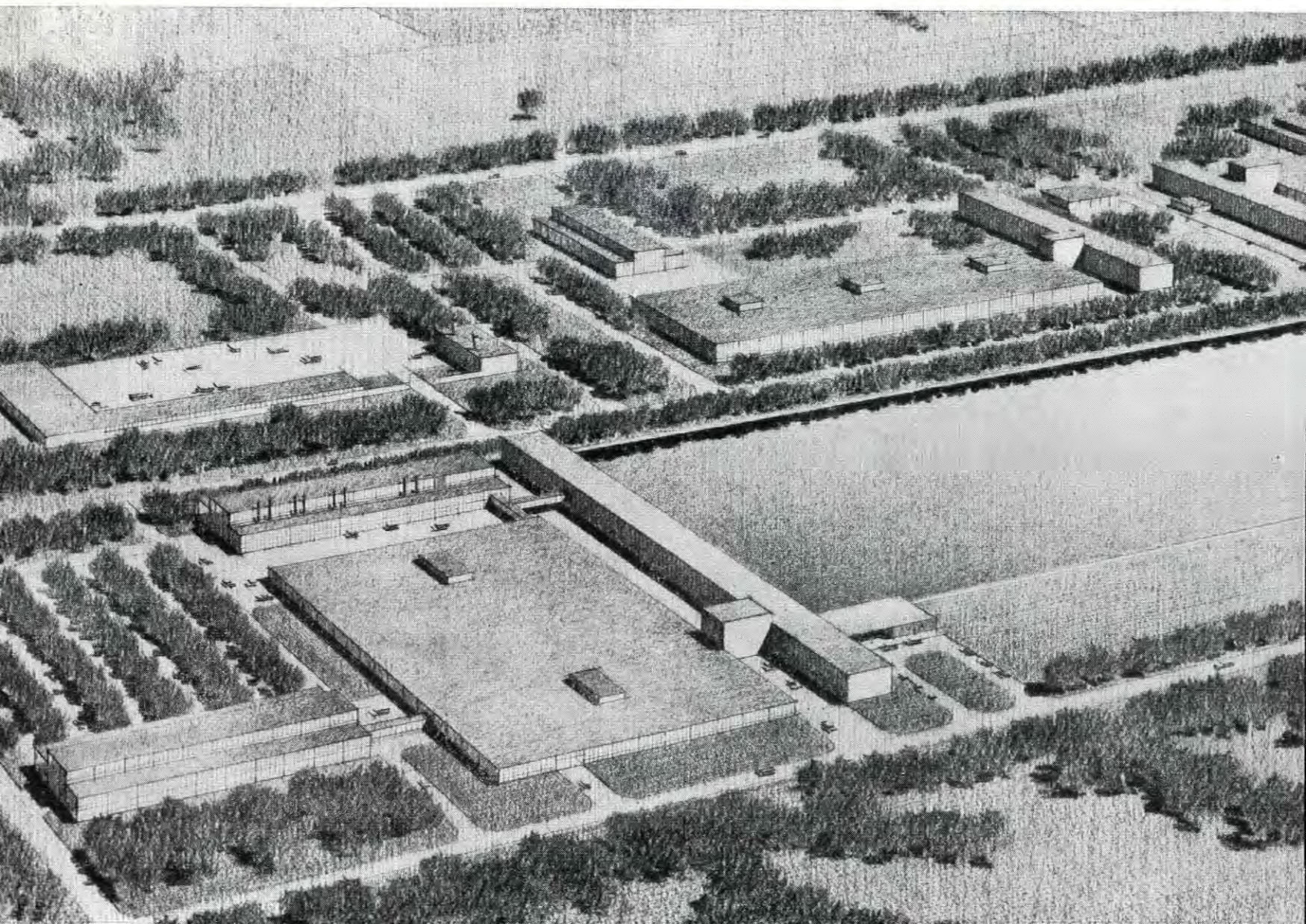
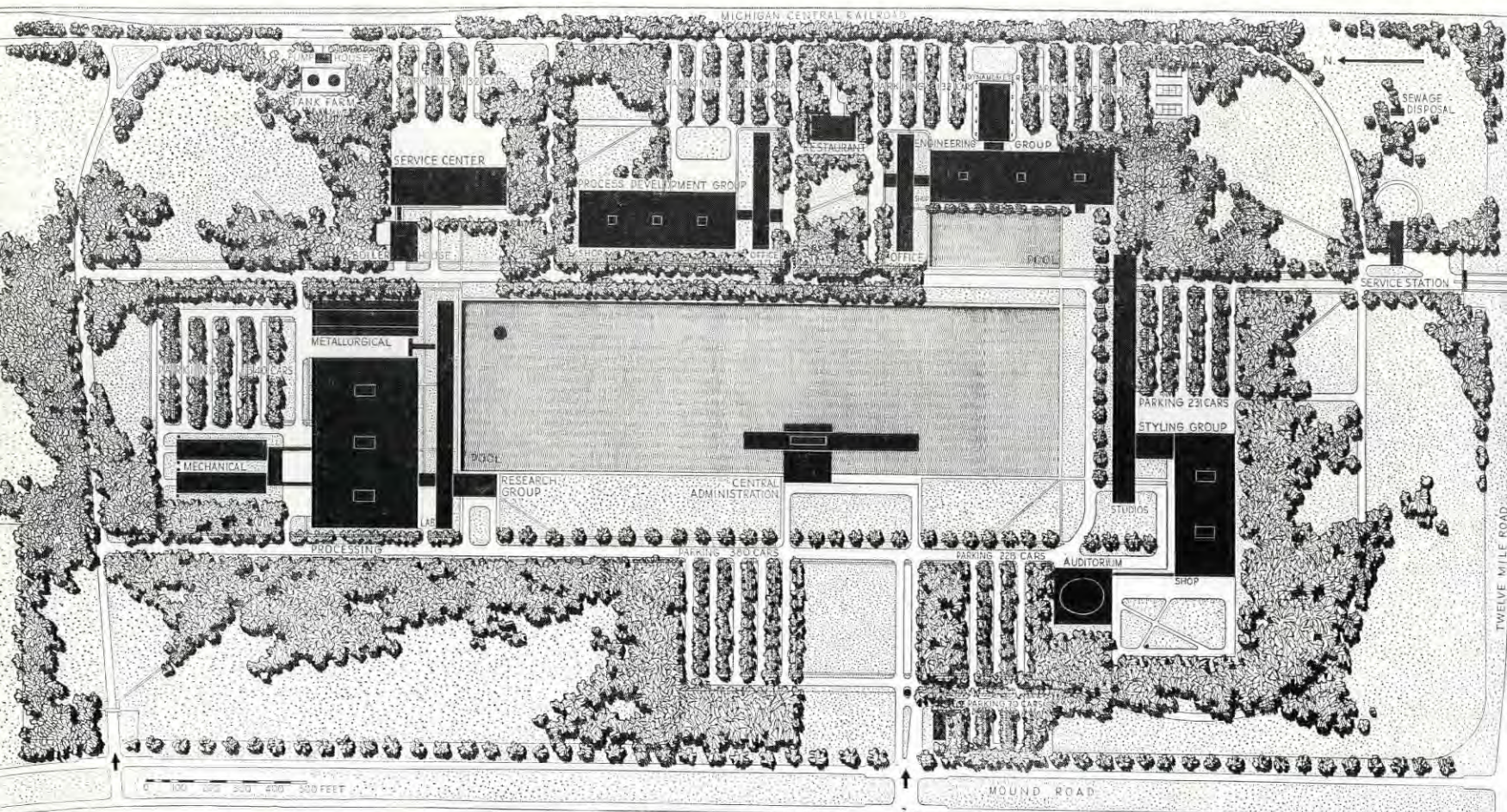
What General Motors needed was a dignified headquarters for research performed by its various independent and autonomous branches. As the problem was developed, it became more and more evident to the architects (and especially to Eero Saarinen who was with it from the beginning) that the basic need was for radical flexibility and provision for expansion. There was another problem beyond that. Most projects which are designed for later expansion spend most of their period of existence in a state of unfinished and disagreeable unbalance. The great trick would be to keep the effect of finish at every stage: the child, though he is not yet a man, must be a complete child.

To implement their new ideal of radical expandability held in constant balance, the architects began by creating uniform and interchangeable standards wherever possible. First, all the desired space was boiled down to just three types: (1) shop space; (2) drafting-office-laboratory space; (3) special use space (such as Dynamometer Building). Then all the construction, with insignificant exceptions, was reduced to a single 5 ft. module. The exterior covering of all buildings was held to two kinds: blue-green glass and metal walls (all alike in color); brick walls (varying in color).

Contrary to common opinion, these big uniformities, far from producing monotony, will tend instead to give full value to every change of pace and change of shape as the visitor threads his car through the wooded, lake-shore compound.

In designing the individual units, Saarinen reached for integrated engineering to make them efficient, habitable. A new construction system in the office buildings is based on tubular posts, long-span three-sided trusses, a revolutionary high-velocity air-conditioning system which has been tested by Saarinen's associates (Smith, Hinchman & Grylls) in telephone exchange buildings, and a new mode of lighting which combines with acoustical controls and a dozen other things in an amazing new integrated ceiling. All these, and their astonishing integration in the design, will be described.

Yet the General Motors Technical Center will serve as a standing refutation to those who conceive so highly industrialized an operation as being in its nature "purely mechanical" and "anti-human." In all essentials it depends on qualities of perception, of insight, of human spirit. Thus the height of the windows in the office buildings was determined not by a standard of "foot-candles at desk level" but by the desire that the innermost draftsman be aware of the leaves of trees. And though fenestration and air-conditioning incorporate the most advanced technology, both are also designed to take advantage of these trees—nature's *brise-soleil*, man's earliest source of coolness and pleasant shade.



A big central pool and a fringe of densely planted trees give the ever changing vistas a serene unity

Biggest difference between the final scheme (left) for G.M.'s Technical Center and earlier schemes is found in the treatment of parking space, here arranged under trees instead of underground. Traffic plan, for which Lloyd B. Reid was consulting engineer, provides for an inner circle and an outer service circle. Lanes either 12, 24, or at most 36 ft. wide discourage speeding.

The Technical Center site is at Mound Road and Twelve Mile Road, a 35 minute drive from the General Motors Building in Detroit. The Center serves as a decentralized facility, to help the divisions, all strongly independent, with their advanced problems. Hence; four entirely separate organizations and four separate building groups.

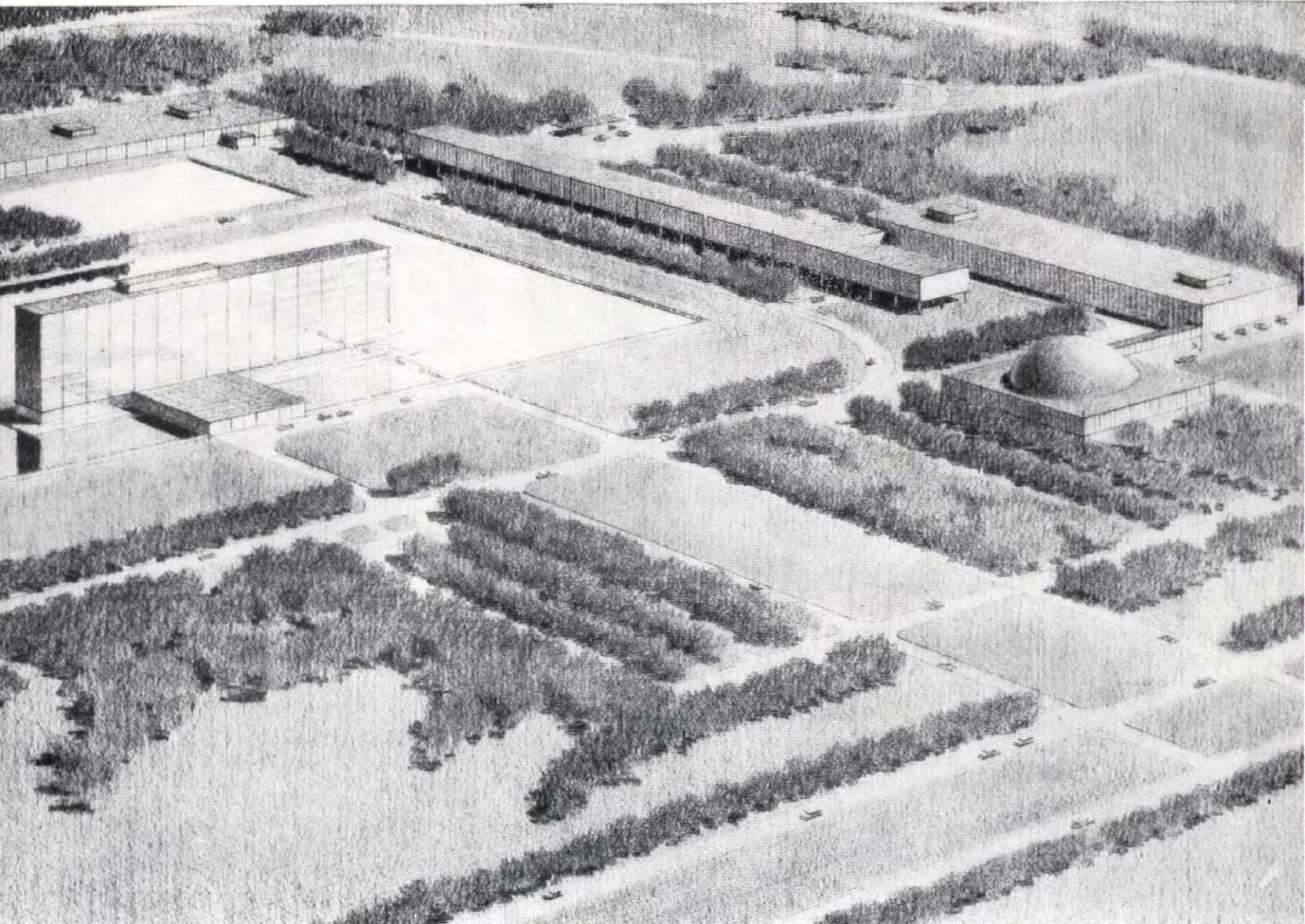
Building will be spread out over many years, with Engineering going forward now; next, Research and Service Center, Styling, Process Center, in that order. The big Administration Building is not yet definite.

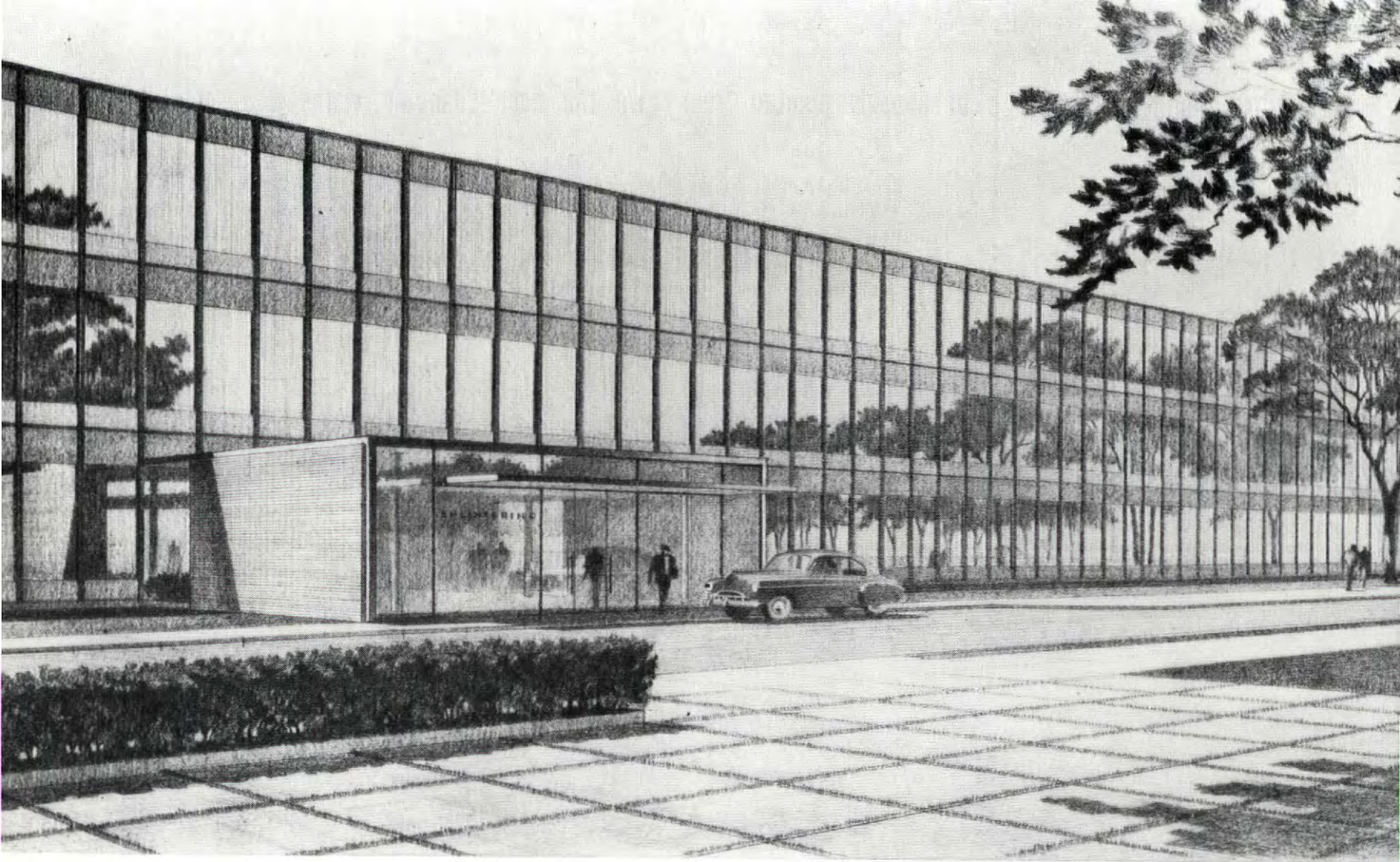
Driving to the Center, the guest will most frequently arrive from the south (top right corner of the drawing below). Passing the gate, the driver finds his view framed by the office of the Styling Center, lifted up on stilts. Passing under it, he is on a causeway, the larger reservoir to his left, a smaller one to his right, mirroring reflections of the buildings and the alleys of trees. He may follow the inner drive, or the outer service road, or may park under tree shade in between. He

will note the unifying effect of a device such as the great central pool, not only because of its big flat shape but because of the hard architectural outline and the strengthening of vertical lines in the buildings by reflection. He will note also the unity conferred by surrounding tree groves, the buildings having the effect of being placed at the edge of a large glen. He will note the rhythm of higher and lower buildings, of glass walls and brick walls, of buildings behind trees and buildings open to the square. If he is sharp-eyed, he may note how completely every shape is self-contained, carrying whatever effect it has all the way through, all this contributing to a feeling of vigor and serenity in the ensemble.

Toward the northeast corner of the pool there will ultimately be a water tank worth special notice. In Father Eliel Saarinen's work (see page 68) nothing is more typical than a Milles statue in the water pool. Son Eero writes, on the other hand, that "water tanks can be very handsome. We shall make a feature of this tank instead of trying to hide it."

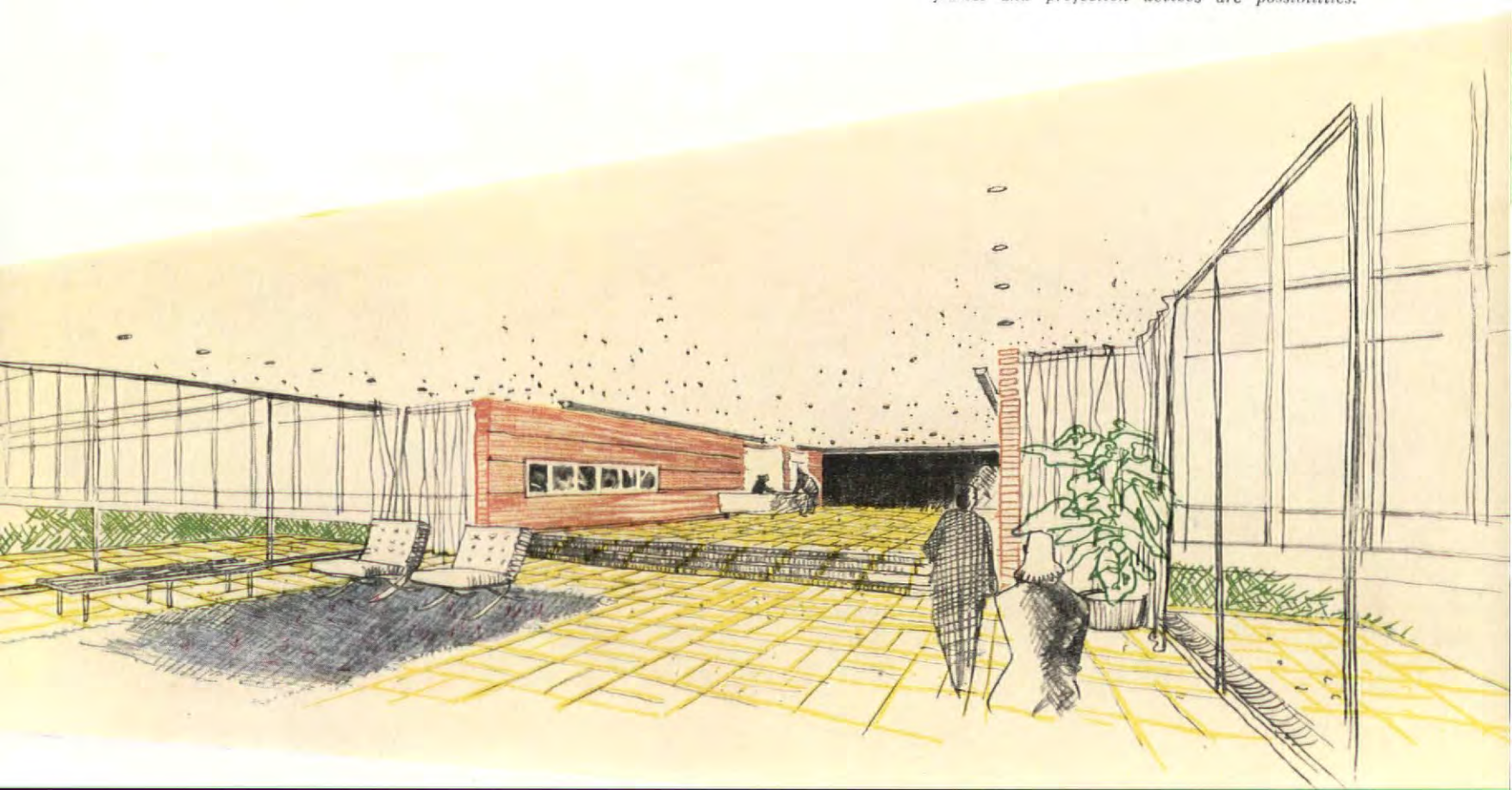
Rendering: J. Henderson Barr



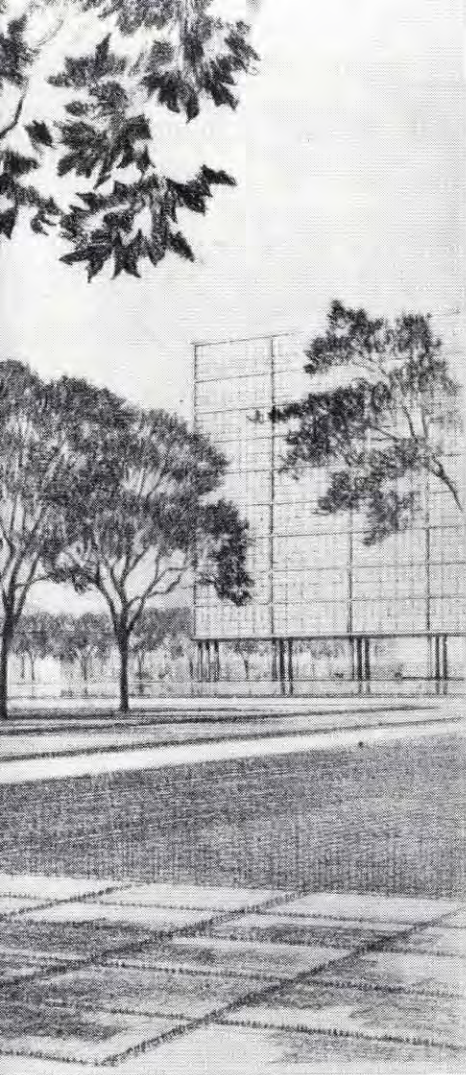


Exterior pattern of the office building for the Engineering Section is a quiet, even repetition of standard bays, alike in their blue-green glass and in color of steel-faced mullions. Brick end walls may differ from one another in color.

Lobby will be used for display as well as for social purposes. This is an early sketch. The furniture that is suggested has the same serenity and simplicity as the buildings. Large illuminated display frames and projection devices are possibilities.



Engineering Center, ready to be built, shows handsome effect of modular design



First unit scheduled for immediate construction is the Advanced Engineering Section of which the office building is shown on these pages.

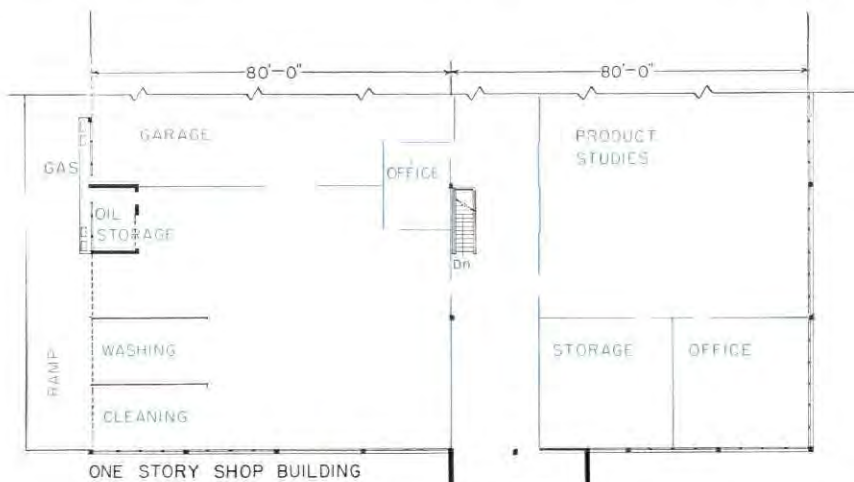
It displays the effect on the exterior of the ever-repeated 5 ft. 2 in. module. Glass is to be a special type of double plate sandwich with dehydrated air between. In this case, for the first time on record, the outer sheet is to be of heat-absorbing blue-green glass. Detailed studies of tree shading for Technical Center Buildings showed that trees would be effective cooling devices for eastern and western exposures, but not for southern ones such as this. The type of manufactured shading equipment to be used is still under debate, includes the possibility of three position locked Venetian blinds.

Spandrels are to be some kind of a one-piece sandwich, probably rubber-filled metal, incorporating weather protection, insulation, and interior finish in a single unit.

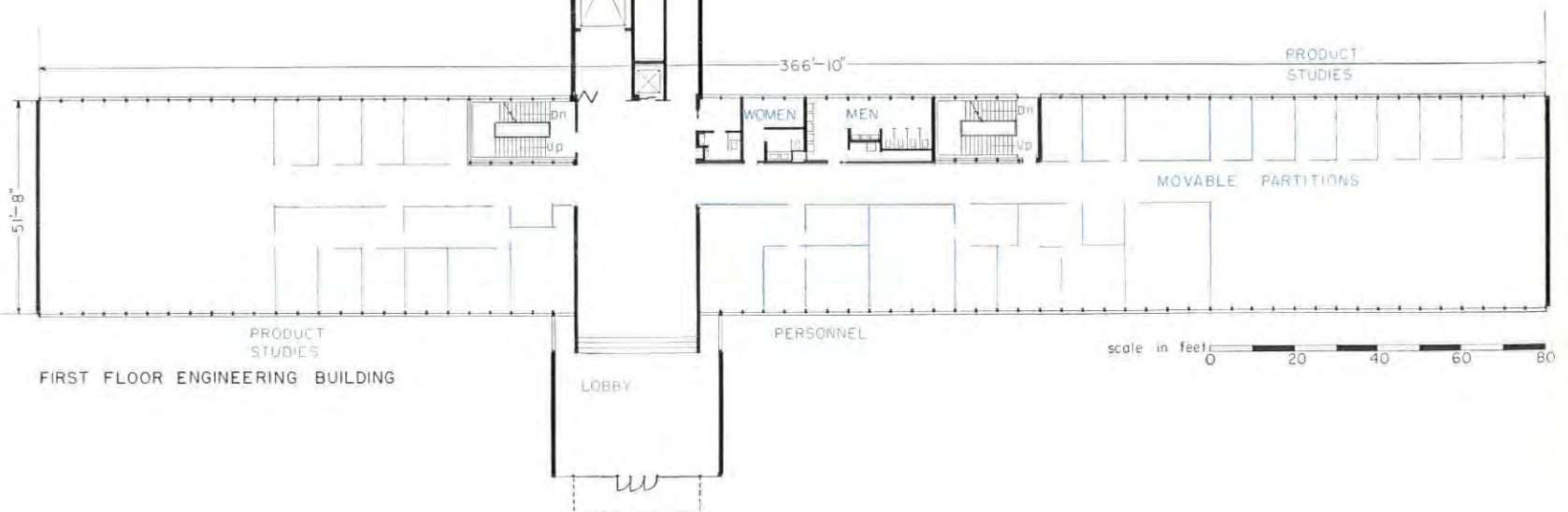
In the general composition of the office

building, the architects' ideal was to create a separate building block, if possible, for every different major function: a block for the drafting and office space, another entirely separate but adjoining block for elevators and toilets, and so on. This kind of clean "articulation" greatly simplifies intersections of walls and roofs and tends to make for straight runs in any particular unit rather than the complex interlocking elements and multiple corners of traditional design. Out of practical necessity for shorter distances, however, the toilets and stairs have been incorporated in the main wing instead of the elevator house. Being of the same depth as the smaller offices, they produce no bends in corridors.

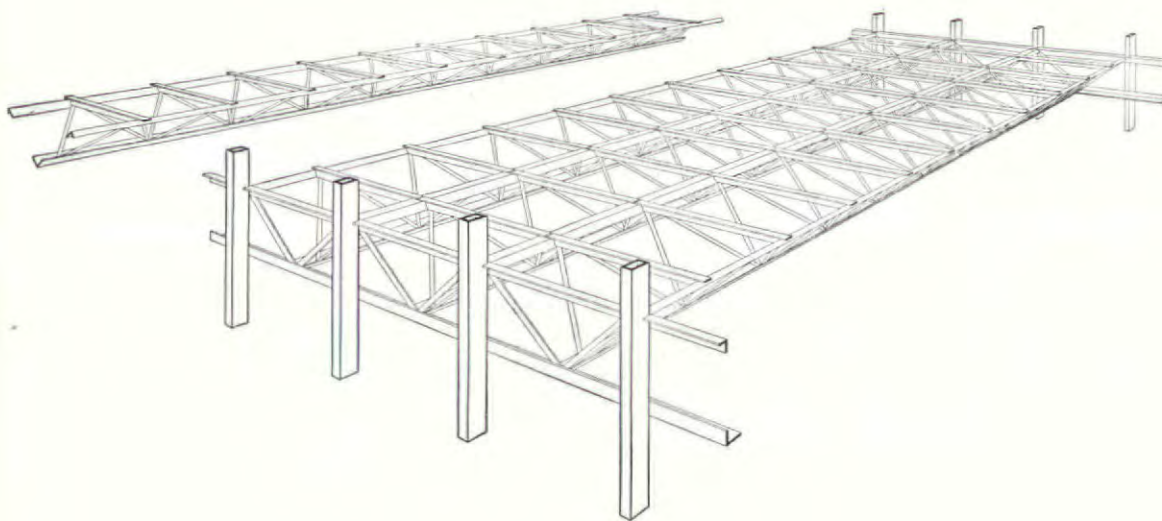
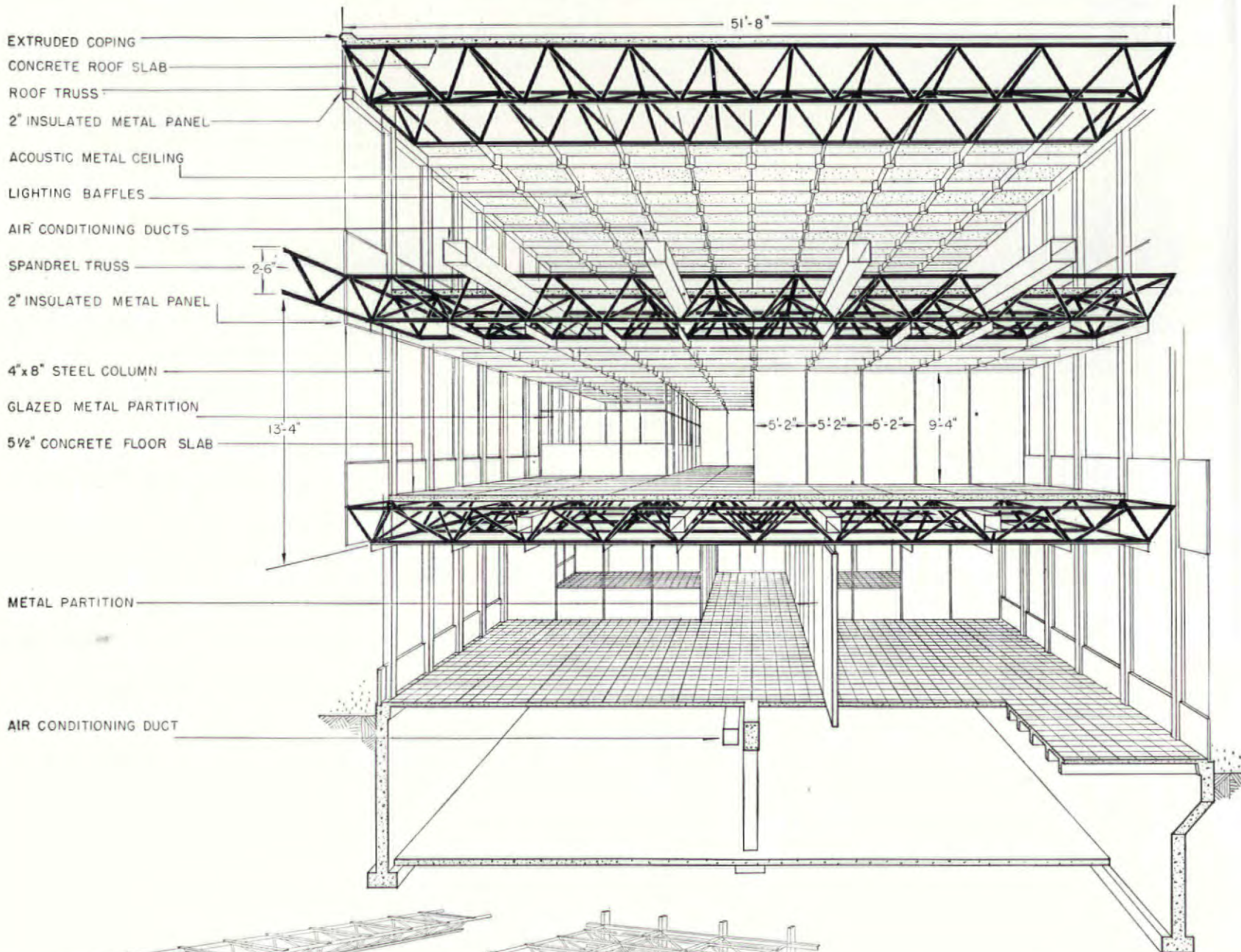
Width of the main wing was set by the conviction of G.M. that 50 ft. is the ideal width for a drafting room. This results in offices which would be generous by the minimal standards of many organizations but not by the generous standards habitual at G.M. The module makes the smallest office 10 x 15 ft.



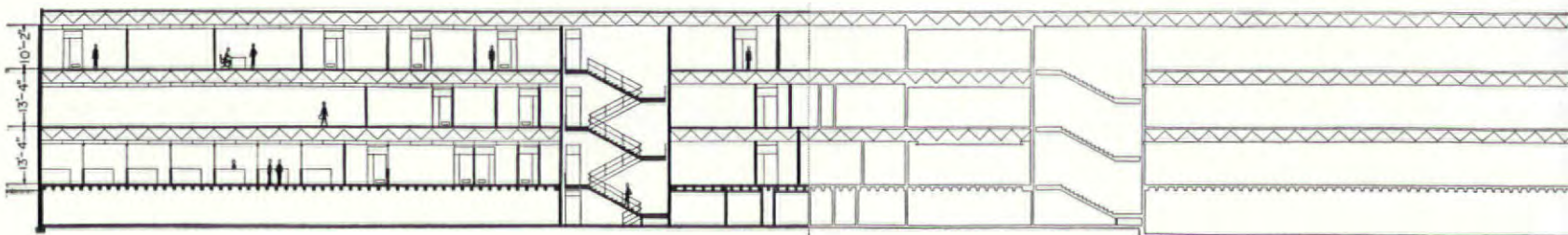
Partitions shown in color on the plan are those which are temporary only and can later be moved at will. In the office space the intersections of the 5 ft. 2 in. module network are attachment points for partitions designed in 5 ft. 2 in. sections.



Structural, mechanical, electric systems are advanced, set record in integration



Vertical cross-section and longitudinal section show how the unusual trusses, of prismatic or triangular section, give lateral stability in two directions. Note also (left) how lower chords avoid columns, leaving the column lines free, across the building, for all kinds of connections. Air-conditioning ducts are indicated schematically only—actually there are three pairs—but the drawing makes it obvious that they are easily passed through the truss, require no extra building height. Columns of tubular section are more efficient, will be protected by mere insulated cover plates on the exterior; fireproofing is not required.



STRUCTURE

A dual purpose ruled design of all structural, mechanical, electrical systems: they must perform well on their own and also fit well in design integration with one another.

For the 50 ft. transverse span, structural engineers on the job evolved an original truss of triangular cross-section (see perspective drawing, opposite page). In cost it was even-steven with rolled beams; but there were three advantages for the truss in design integration: (1) air-conditioning ducts could easily be passed through; (2) bottom chords were out of the way, leaving room for all kinds of outlets in line with columns; (3) lateral stability was gained in two directions and springiness decreased in floors through the frequent "stitching" of the slab to its support.

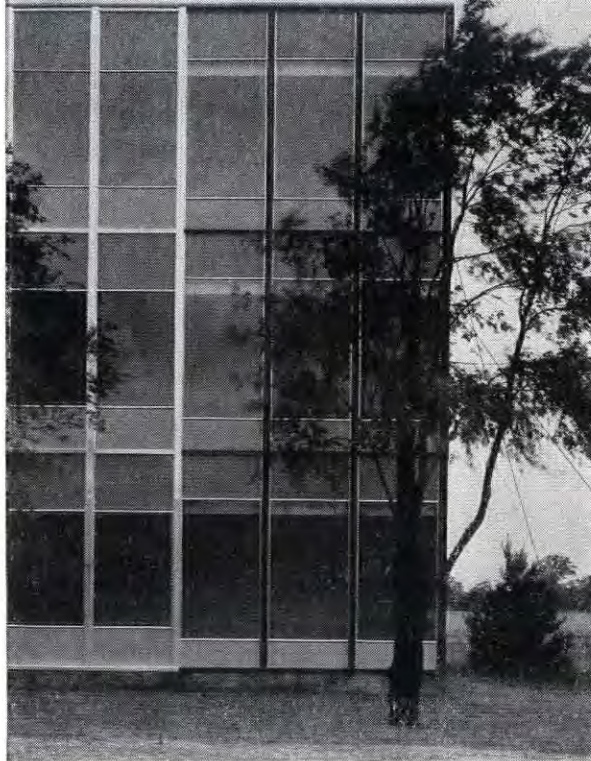
AIR-CONDITIONING

The revolutionary "Caldwell" system proposed for the building is described more fully overleaf. Tested by Smith Hinchman engineers earlier in telephone buildings, it grew out of inventor Caldwell's airplane experience, his skill in aerodynamics. It distributes air through small ducts (largest, 12 x 12 in.) at very high velocity (up to 6,000 or 8,000 f.p.m.), cut down to 800-1,000 f.p.m. by expansion and silencer units just ahead of nozzles in the ceiling. These are of spiral pattern and throw air across the ceiling, *above the heads of occupants*. (A controlled throw of 30-40 ft., is possible, but the G. M. design is for 400 sq. ft. per nozzle.) A muffler is said to reduce noise to acceptable levels. The great advantage is that window areas can be "washed" in winter with warm air, obviating the need for convectors or supplementary air at cold windows.

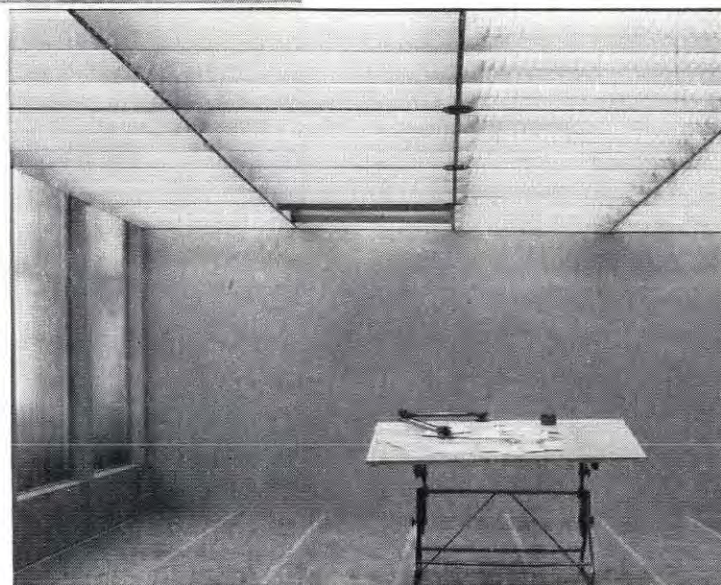
But the greatest advantage is in design integration. Nozzle necks require only 6 in. diameter of ceiling space. It has therefore been possible, at the nodes of the 5 ft. modular network, to design a 6 in. ring which can serve at will to hold either an air-conditioning nozzle, or a sprinkler head, or an electric outlet, or a partition connection (see drawing at right). This creates a truly remarkable ceiling.

LIGHTING

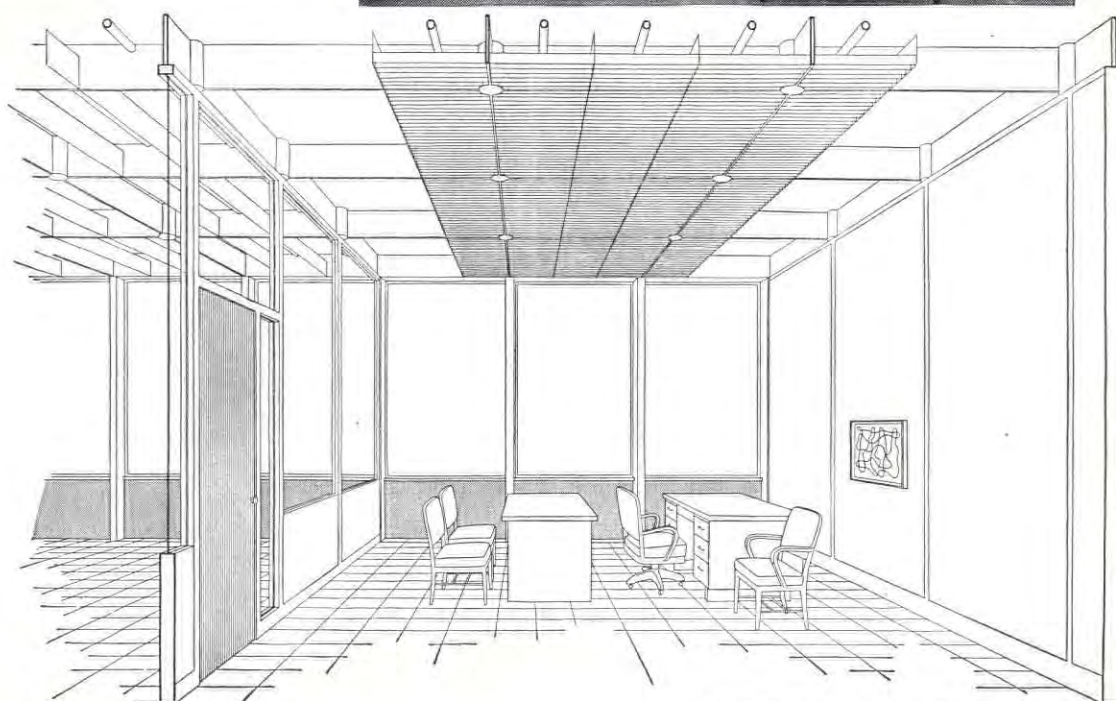
The ceiling pattern of 5 ft. 2 in. squares was really dictated by the length required for installation of the new fluorescent tubes with surface brightness of only 930 foot-lamberts (standard 4 ft. tube = 2,300 f.l.). As seen in the drawing at right, tubes can run one, two, or three in a square, and in either direction; they are calculated to deliver 90 foot-candles at desk level. Baffles at module lines serve as cut-offs; experiments are progressing with additional small louvers of debatable worth. Engineers brought forth extensive figures to prove the system most economical.



Full-sized mockup of exterior wall section, complete with trees, was set up at the G.M. proving grounds to test various materials and proportions in the metal-clad dry wall.



Two full-sized rooms were set up to test the integrated lighting, acoustical, and air-conditioning system. Main black lines in ceiling are edges of 10 in. deep baffles on 5 ft. 2 in. centers. Black circles are 6 in. sleeves to hold either air-conditioning nozzles or sprinkler heads or electrical outlets or partition connections, according to desire.



Especially interesting in this drawing is the revised metal partition system. The architects believe that the 5 ft. 2 in. module produces much better proportions in the sections than the usual 4 ft.

New high velocity air-conditioning system saves space, improves control

Some description of the "Caldwell" air-conditioning distribution system has been given on the previous page. The system as a whole has many other interesting features. The air washer for both fresh and return air is centrifugal, and air is pulled through by a "pressure vane" or paddle wheel fan of remarkably high efficiency (80 per cent) but only half the size of conventional blowers. The apparatus requires approximately half the machine room space necessary for the conventional low velocity system, though the ceiling must be 12 ft. 6 in. high.

The distribution ducts have already been described. At the high velocities it is said that air behaves more like a liquid, easily passes bends. Though small in diameter, the ducts are heavier, are insulated, are about equal to conventional ducts in total cost. Ducts are run in pairs, one warmer and one cooler, so temperature is controlled by mixing, as water is mixed in a shower. In winter, one duct might supply air at about 80° and the other at about 120-170°; in summer one at about 50° and the other slightly higher.

As mentioned earlier, the nozzles throw the conditioned air across the room above people's heads. There are no down drafts, but a considerable kinetic energy is developed in the air of the room. A slight over pressure is maintained, so that return air is forced out through door louvers at about 300 to 400 f.p.m. Return air dampers are thermostatically controlled.

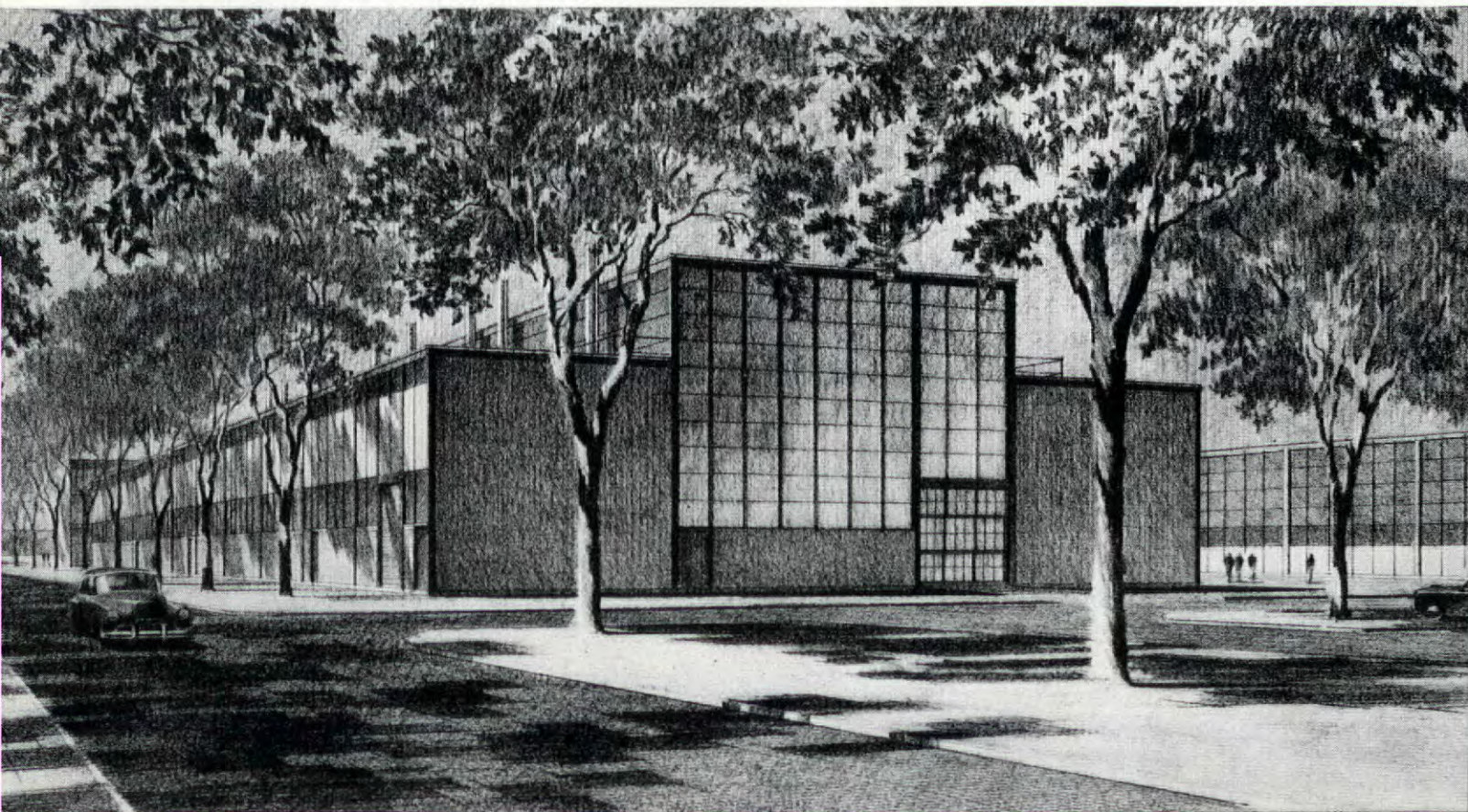
Perhaps the most striking result observed by heating engineers in existing telephone building installations made during the past three years is the remarkable evenness of temperatures obtained; these did not vary over 2° in any part of the room.

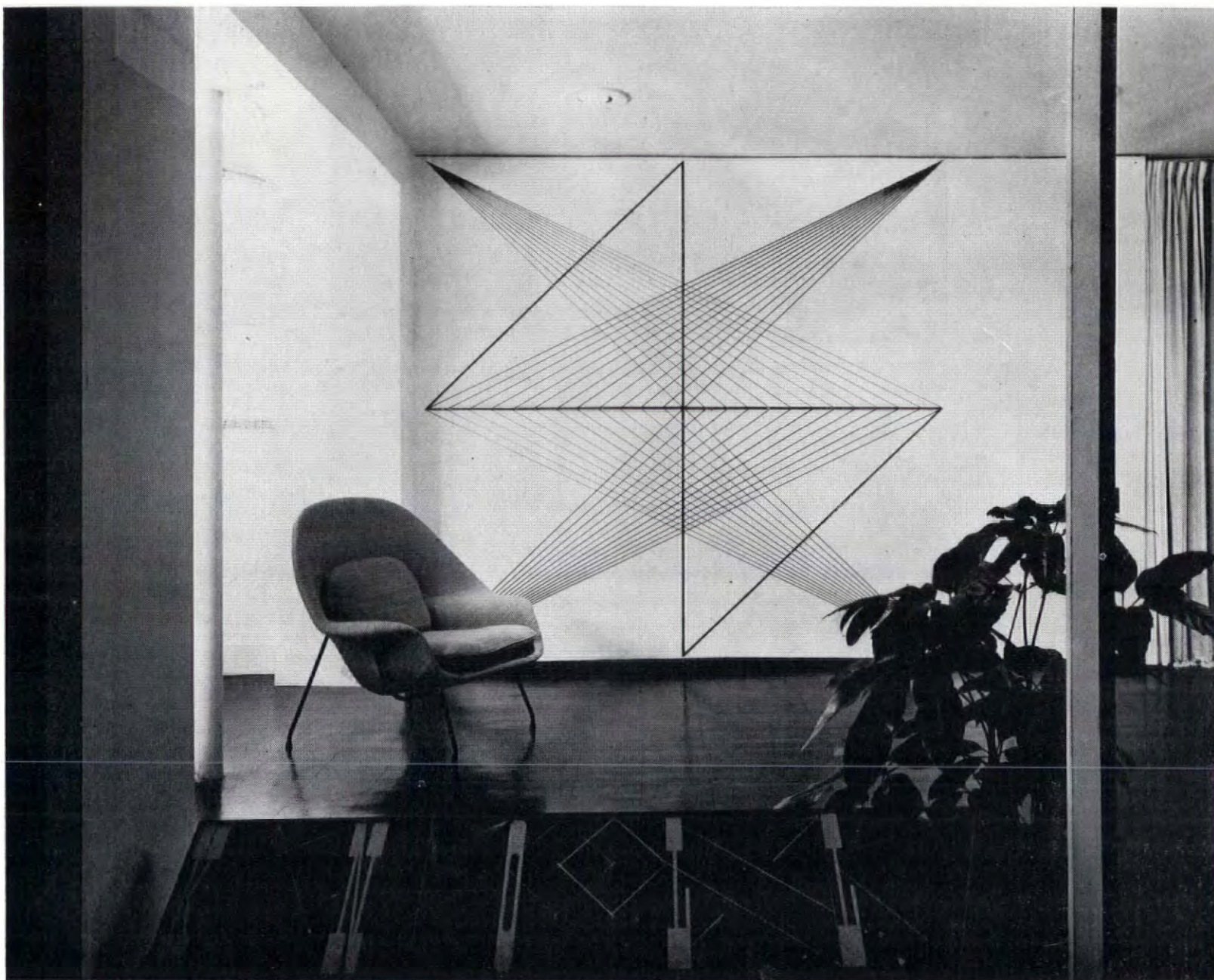
Because of the continued turbulence in the air, the system can carry high humidities, in the range of 30 to 40 per cent. At high humidities, beads of water may be observed forming and dissipating themselves on aluminum window trim without drip.

In three years of experience, Smith Hinchman & Grylls' engineers have found themselves well satisfied with the system, have ascribed any shortcomings in performance to faulty proportioning of the system by the local designing engineer, not to intrinsic faults of the system. The item of sound control is the one that remains most experimental. The system promises well as a single-system method of taking care of those very different kinds of condition which arise for workers in the interior of the building and those other workers doing their jobs near windows.

Metallurgical building, to be erected at a later date, is seen next to one of the shop buildings.

There has been remarked some influence by Mies van der Rohe; but the scope of the integration, bringing in all the environmental controls into the equation, is the Saarinen's own big contribution, as is the individual flavor of the design.





Idaka

FURNITURE SHOWROOM

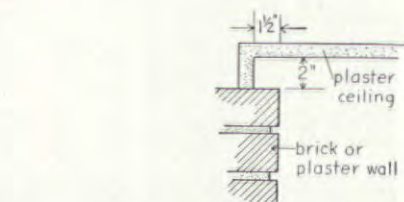
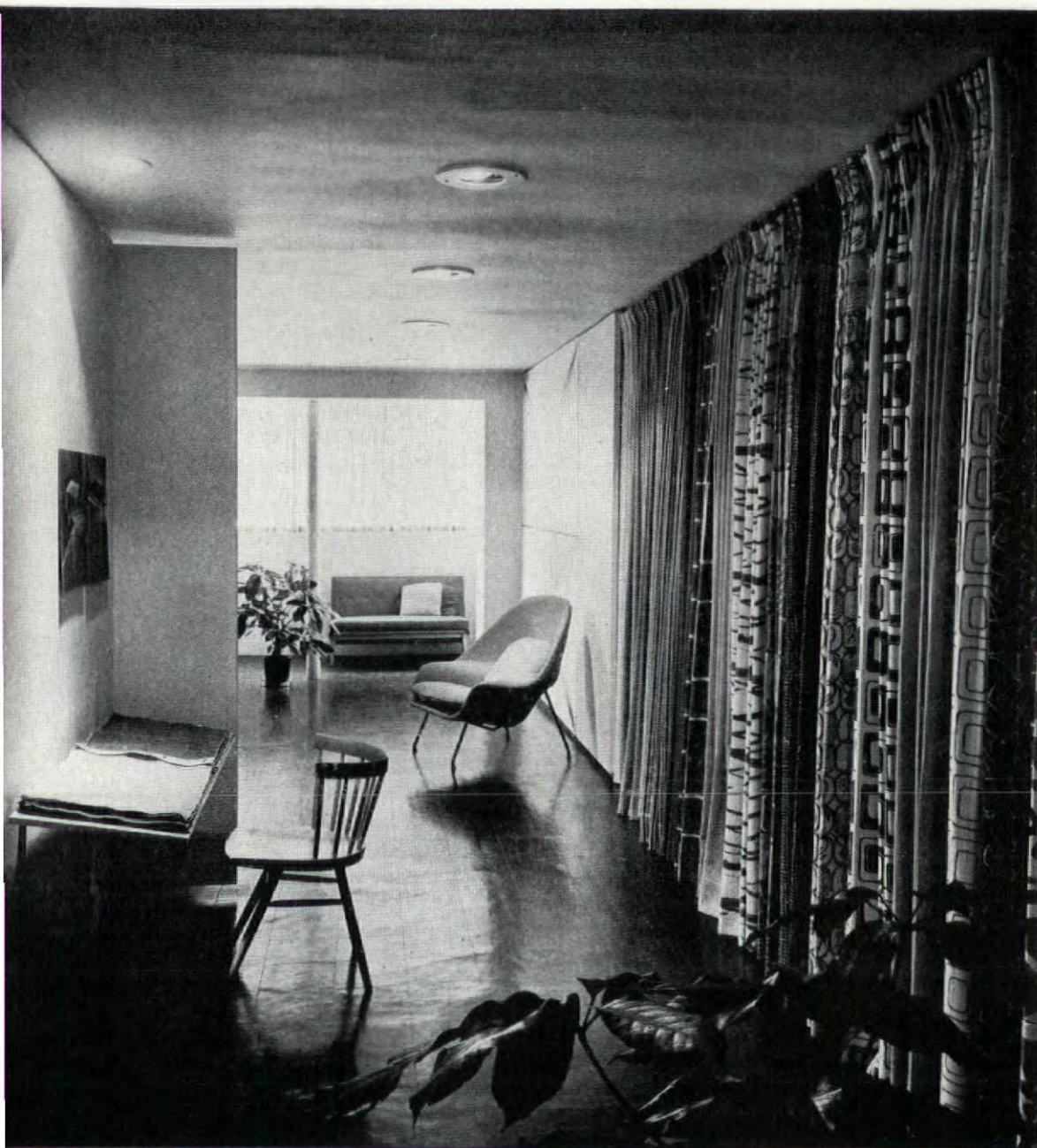
Chicago brownstone basement remodeled into an effective black and white backdrop for display of colorful furnishings

KNOLL ASSOCIATES, INC., Owners
KNOLL PLANNING UNIT, Designers

The new Chicago showroom for Hans Knoll Associates seems effortless in providing just what such a showroom should provide—a varied, integrated background for the wares of this well-known firm of contemporary furniture designers. As an analysis of the plan shows, however, this pleasant and effective solution was achieved by very simple means—mainly by white paint, black floor tile and judiciously placed screens.

The showroom is located in the basement of a remodeled brownstone house—an area notoriously narrow and ill-lighted, if left to itself. An extension at the back, needed to amplify floor space, further complicated the design problem. Moreover, existing walls were cut up by projections.

Herbert Matter's photomural at the entrance (above) sets a dramatic keynote—it also hides an unwanted fireplace.



2.

A crisp shadow-line adds interest above the white-painted brick back drop for living room furniture—it is formed by a slight cove left between the wall and ceiling.

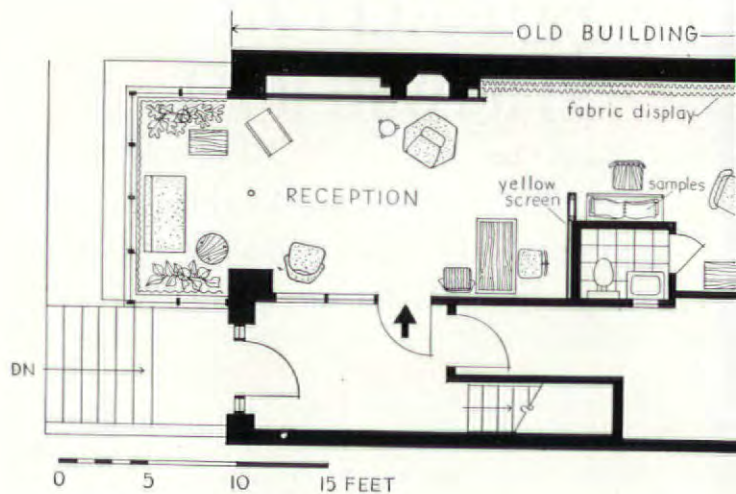
Fabric racks carry a full-length display of textiles, also conceal an existing break in the wall line.

1.

In order to avoid color clashes with displayed furniture, the showroom was designed as a black and white shell—white walls and ceilings, black floor of asphalt tile. Against this neutral but dramatic setting the bright clear colors of draperies and furniture are outstanding and the pieces can be easily changed and regrouped. The various textures of the walls and hangings (plaster, brick, bamboo and fabric) avoid monotony.

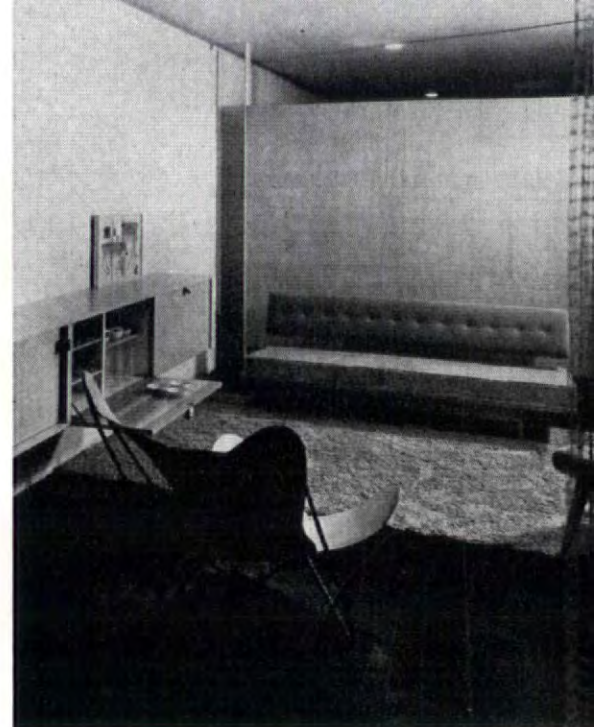
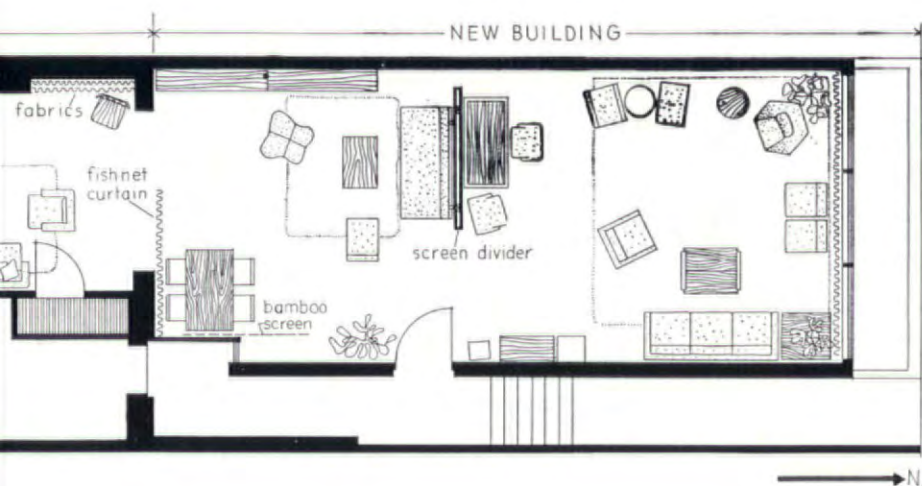
The narrow area behind the reception room (photo, above) is brightened by full-length drapery displays which are set into wall breaks of the original building. Beyond this area, extends a series of vari-sized furniture arrangements—the major section of the showroom.

In setting up these groups, two common mistakes were avoided—the creation of a long, narrow alley or of abrupt, overcrowded “rooms.” Hangings of fish net and screens which allow the light to cover over, under and around them succeed in dividing up this section visually while preserving its essential continuity.





3.



4.

Pandanus screen supported by two T-channels provides added wall-space for placement of large pieces of furniture.

Fish net hangings create an illusion of privacy, yet give visitors a glimpse into display areas beyond.

A bamboo screen, which adds texture to the wall of the dining area, also conceals the heater behind it.



5.

*Photos: 1, 3, 5 Idaka
2, 4 Carl Ullrich*

GENERAL CONTRACTOR: Bernard & Feinstein



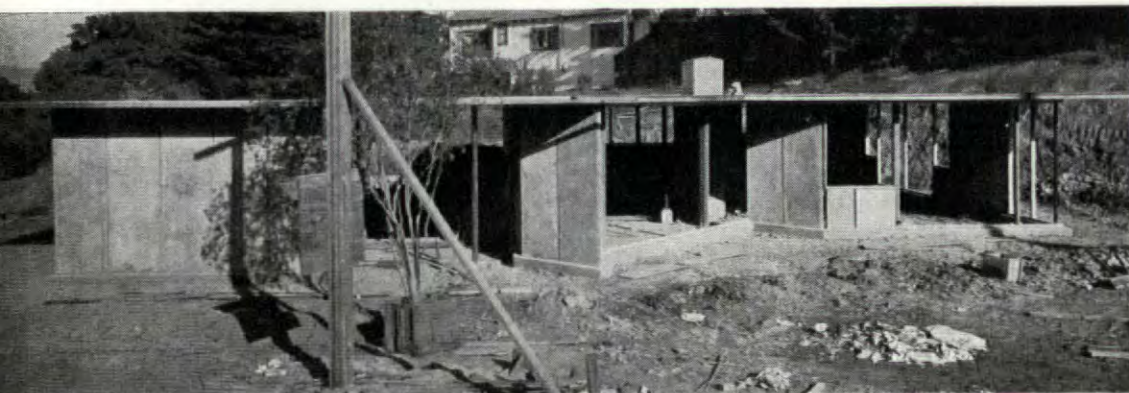
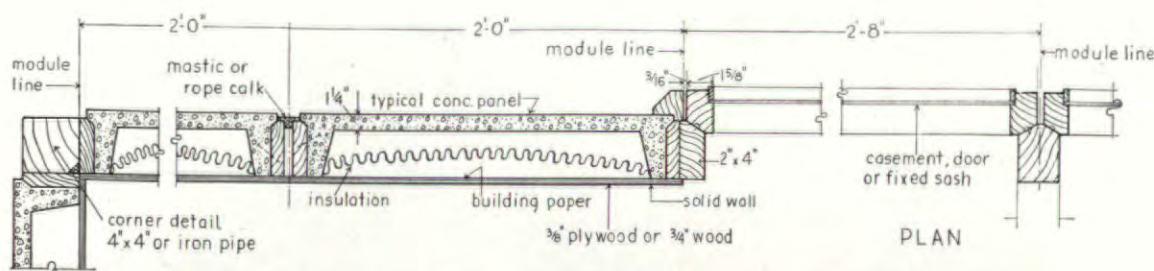


Photos: M. Halberstadt

Architect Stein's own house shows that a low-cost, standard-panel construction method need not interfere with a very free layout. The striking diagonal that goes across the plan to form the central corridor produces efficient variations in room shapes. The big tri-cornered living room holds a dining alcove in one corner, and forms two smaller triangular areas for kitchen and laundry. The kitchen in particular benefits by borrowing some of the angled corridor space. The patio or garden outside, sheltered from the street by planting, is a further elaboration of the angled pattern of the house.

The rationalization that has gone into the modular structure is scarcely revealed in the light and airy plan, nor is the degree to which the architect has experimented with an interesting new system requiring the minimum of time, equipment and labor. Even the heating system (see following page) partakes of the economy of construction.

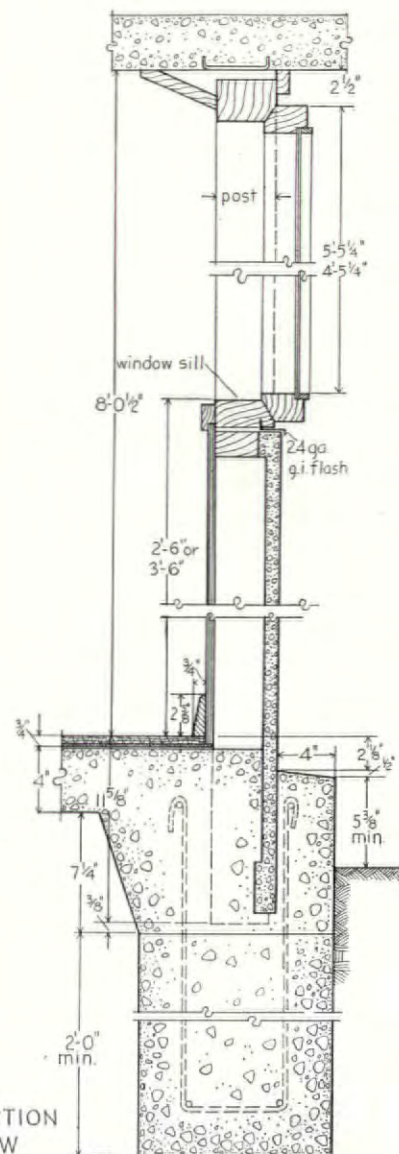




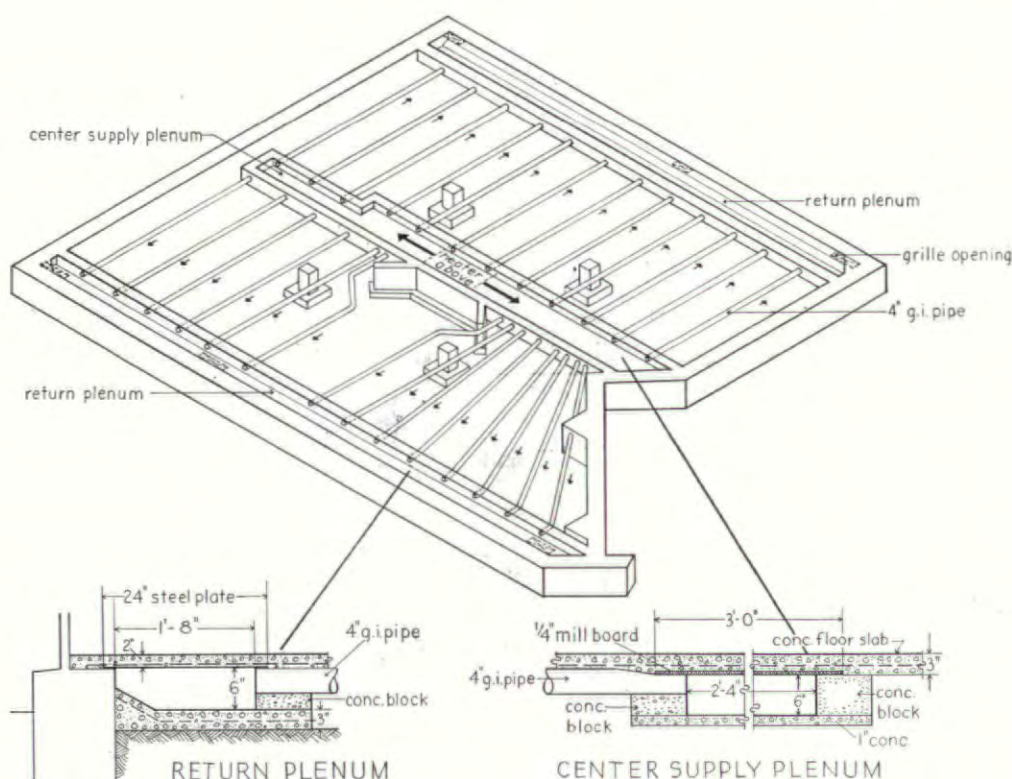
Major tools: a wheelbarrow and a 4 ft. concrete mixer

Precast concrete panels were locked in place by setting them on a footing and pouring the foundation wall and concrete slab around their bases. The roof slab locks the projecting reinforcing steel. Panels, therefore, require no means of attachment to one another. Dry-wall interior finishes were nailed to the wood sideboards of the panels.

It took only three man-hours per panel for fabrication, four men one day for erection, ten men one day to pour the roof. Panels cost 35 cents per sq. ft. unassembled, the roof slab 32 cents, the total job \$7.50—\$8.



Heating: A combination radiant and convection heating system



The concrete floor slab and hot air radiant heating system (see diagram) also saved money. Warm air is forced through central supply duct into small sheet-metal pipes which are imbedded in the concrete slab. It is then collected in lateral trenches and discharged into the rooms beneath the windows. The air enters the ducts at 170°, discharging into the rooms at 80°, and the system will raise the temperature 10° in 10-15 minutes. Operating costs are \$7-\$15 per month during the heating season.

STRUCTURAL ENGINEER: Edwin A. Verner

MECHANICAL ENGINEER: A. B. Charles

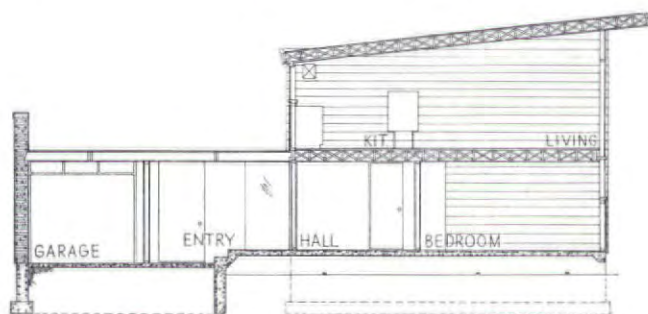
ELECTRICAL ENGINEER: Charles von Bergen

CONSTRUCTION OUTLINE: Exterior walls—concrete. Ceilings—Johns-Manville Corp. ROOFING—tar and gravel, Pioneer Flintkote Co. INSULATION: Roof—The Zonolite Co. WINDOWS: Sash—Douglas fir. Glass—plate and crystal, Pittsburgh Plate Glass Co. WALL COVERINGS: Living room and kitchen—plywood, U. S. Plywood Corp. Remainder—Sheetrock, U. S. Gypsum Co. PAINTS—Walter N. Boysen Co. and Samuel Cabot, Inc. HARDWARE—H. B. Ives Co. KITCHEN EQUIPMENT: Range and refrigerator—Norge Div., Borg-Warner Corp. Fan—Pryne & Co., Inc. Washing machine—Bendix Home Appliances, Inc. BATHROOM EQUIPMENT—Sears Roebuck and American Radiator-Standard Sanitary Corp. HEATING—hot air radiant floor system. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—Rheem Mfg. Co.



Photos: Ezra Stoller: Pictor, Courtesy of Ladies' Home Journal

Beach house is lifted up and reversed for the sake of the view



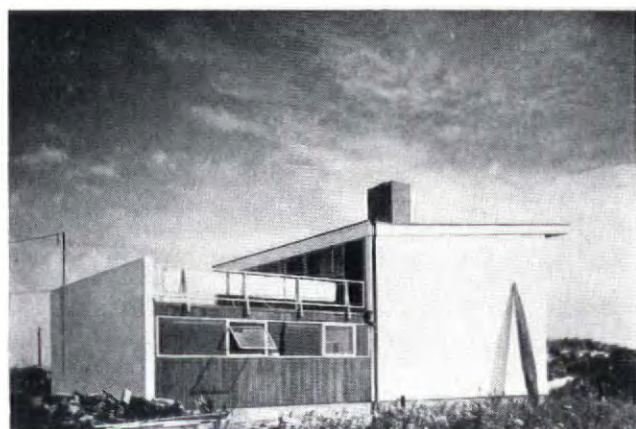
LOCATION: Lido Beach, Long Island

ARCHITECT: Stanley Sharp, of Ketchum, Gina & Sharp

GENERAL CONTRACTOR: Murphy Brinkworth

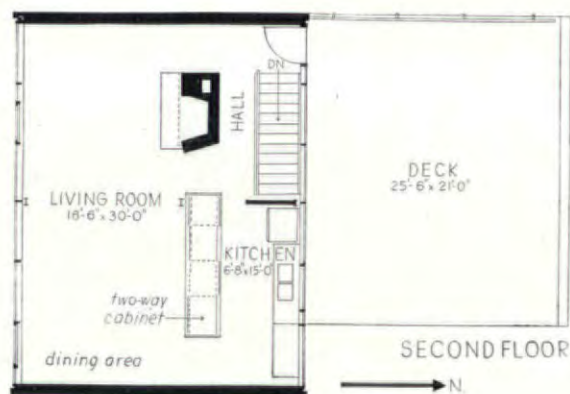
This architect has reversed the plan of his own beach house both vertically and horizontally: lifted the living room and kitchen upstairs above the bedrooms, placed the terrace in back away from the ocean view. "I did not particularly want to look from the living room at a desolate deck in winter (he uses the house weekends year round), or across a clutter of deck chairs in summer."

As the house is set in a community of pitched roofs and restrictions, he went to particular pains in preparing a convincing preliminary presentation to prove to the community fathers that flat and shed roofs have often been used even in traditional house design. But some of the features of modern architecture are becoming so standard—flat roofs, large glass areas, open plan—that the local authorities never said a word about the roof-pitch.



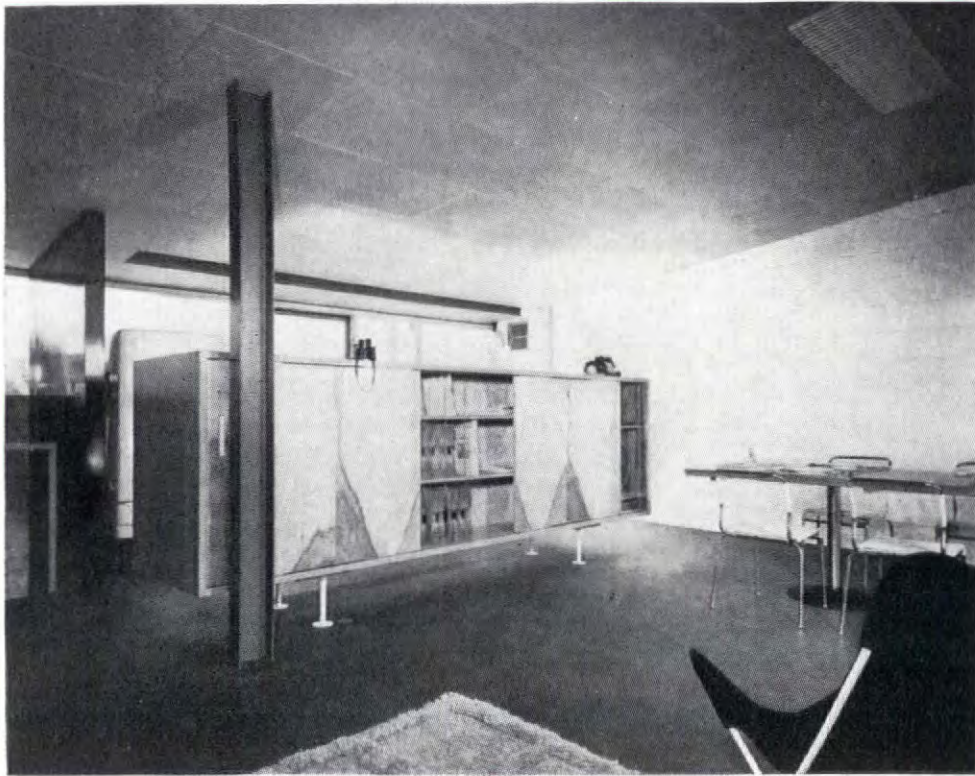
Simplicity of structure and of finish is a special virtue in so small and economical a house, where every complication that is left out of the structure helps in creating an effect of space. Upstairs, only the uncovered light-weight steel columns, the unadorned fireplace-wall, carry through the room to the 30 x 30 ft. sweep of ceiling surface. The fact that the front is nothing but a glass screen, permitting an unobstructed view of the ocean from the living, dining and kitchen areas, "gives you a terrific feeling of space" (to quote the architect). Shades that roll up from the floor control the sun without seriously conflicting with the view.

The house was in the whole designed for minimum construction cost, but uses fine finishes. The main wing is carried on three continuous parallel foundation walls set at right angles to the beach and left open similar to a bridge, so the water can pass right under the house if the waves ever flow in over the sand dunes. The lower floor is a 6 in. reinforced concrete slab spanning the foundation walls. The living room floor and roof are framed with 2 x 10 in. wood joists from the masonry wall to a central steel girder at the column line. Throughout the house much of the special furniture has been designed by the architect-owner. Construction cost: \$9.67 per sq. ft. for 1,293 sq. ft. Furniture, finishes and equipment raised the unit cost to \$15.40.



The living room is one continuous rubber and cork terrazzo surfacing; the ceiling consists of perforated asbestos panels with a 1½ in. semi-rigid glass mat above for thermal acoustic insulation.



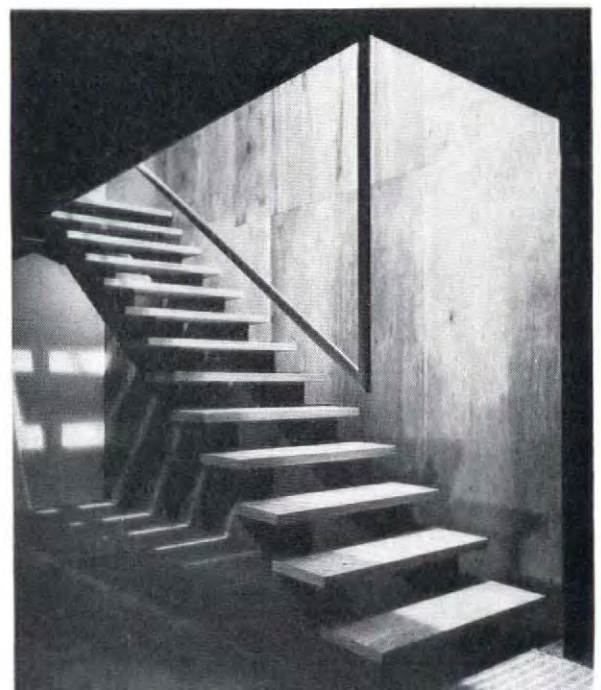
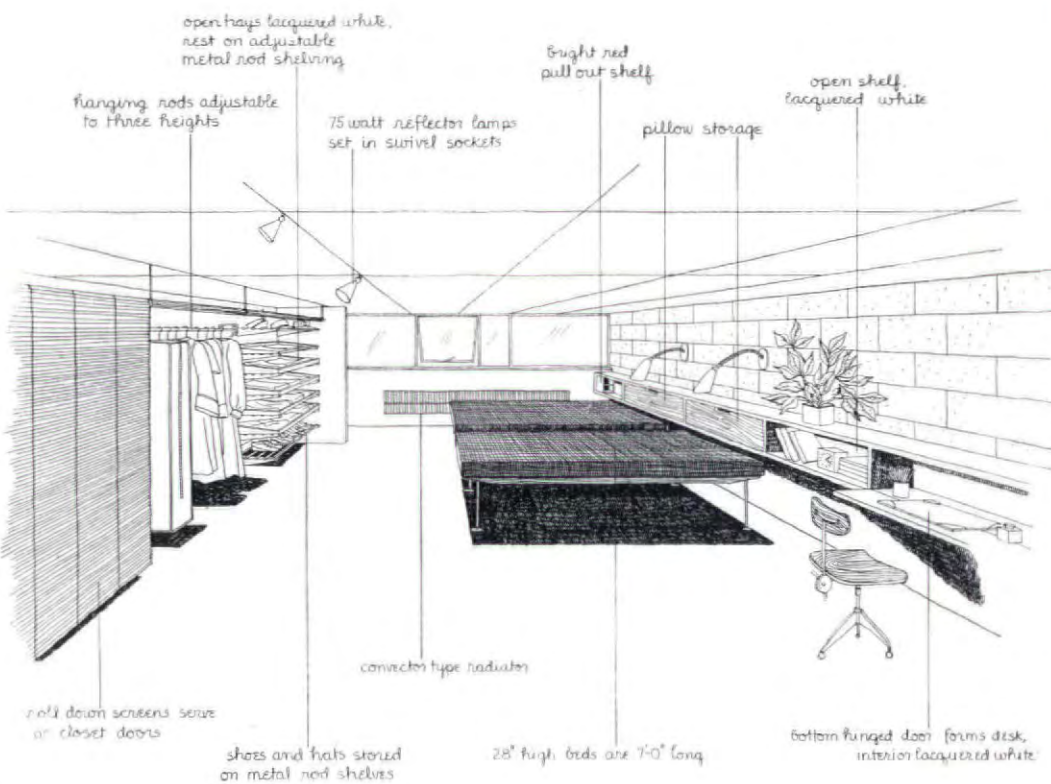


Separating dining area from kitchen beyond, this specially designed cabinet is low enough so the housewife can join in conversation and look across to the view of the ocean; stair leading to bedrooms on lower floor is cleanly detailed.

CONSTRUCTION OUTLINE: Foundation—reinforced concrete. Exterior walls—cinder concrete block, Aquella finish inside and out, Prima Products, Inc., redwood siding, building paper, wood sheathing and plywood, U. S. Plywood Co. Floors—reinforced concrete or plywood, Dextex finish, Crossfield Products Co. ROOFING—5-ply built-up. Deck—Traffic Top finish, Celotex Corp. FIRE-PLACE: Damper—Heatilator Co. WINDOWS: Sash—aluminum projecting, J. S. Thorn Co. Glass—plate, Pittsburgh Plate Glass Co. HARDWARE—Schlage Lock Co. ELECTRICAL FIXTURES—Neo-Ray fluorescent, Neo-Ray Products, Inc. KITCHEN EQUIPMENT: Range—Magic Chef, American Stove Co. Refrigerator—Hotpoint, Inc. Fan—Ilg Electric Ventilating Co. Sink and cabinets—Tracy Mfg. Co. LAUNDRY EQUIPMENT: Washing machine—Frigidaire Div., General Motors Corp. BATH-ROOM FIXTURES—Kohler Co., American Radiator-Standard Sanitary Corp. Shower—Speakman Co. PLUMBING: Water pipes—copper, Revere Copper & Brass Co., Inc. HEATING—hot water system. Boiler—The H. B. Smith Co., Inc. Radiators—Vulcan Mfg. Co. Valves—Bell & Gossett Co. Regulator—Minneapolis-Honeywell Regulator Co.



Downstairs in one of the bedrooms (see sketch) the owner is planning a partition with adjustable shelves and semi-transparent screen; a 16 ft. wall unit with built-in headboard cabinet for pillow storage.



A two-story square house is relieved of boxiness by careful,

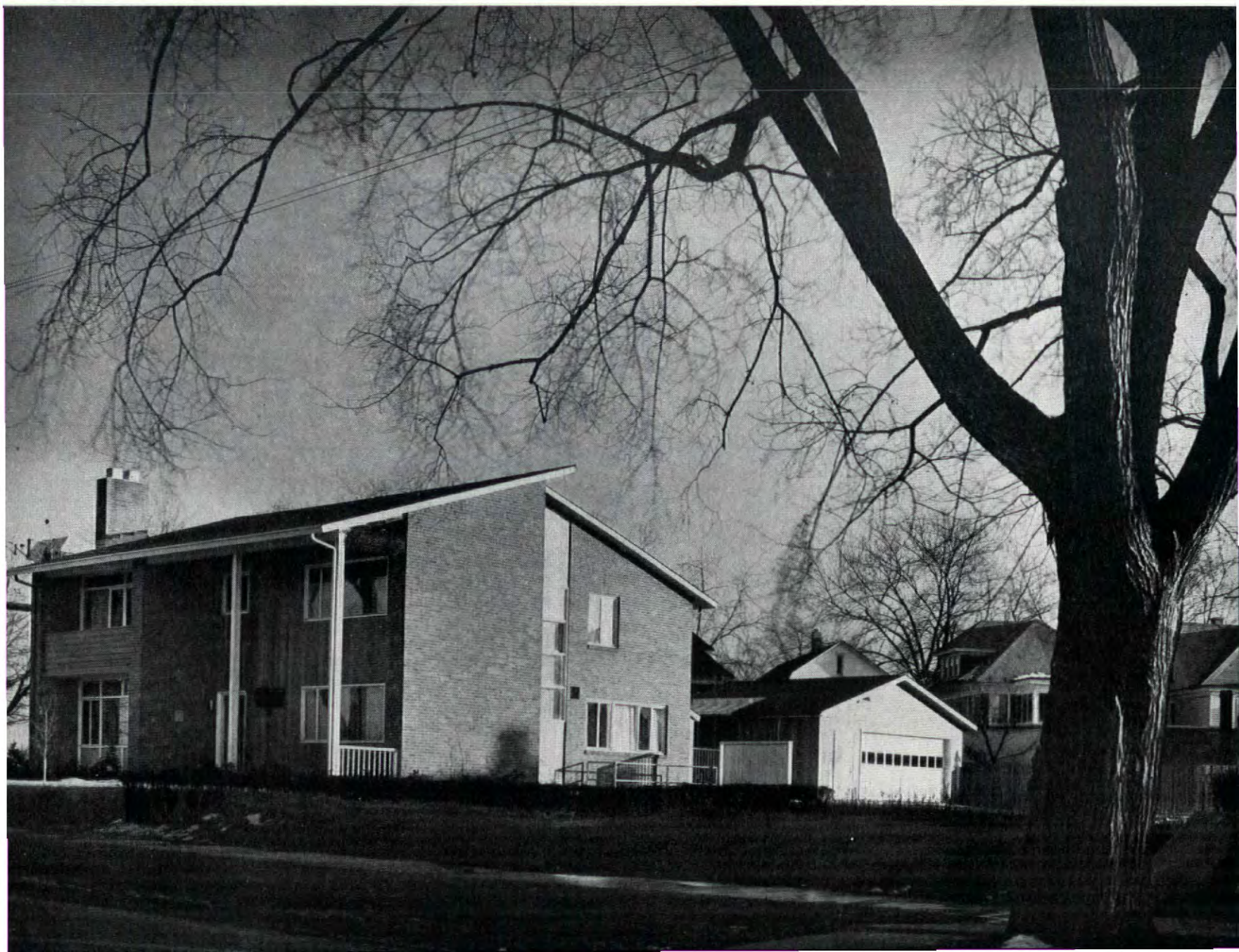
In tackling the difficult problem of the square two-story house for a narrow lot the architect has come up with a new look which gives the front of the house an impression of length and melts away that chubbiness of appearance that so often detracts from the wonderful commodiousness of the traditional square plan. He began by keeping the direction of his windows horizontal. Then he pulled the right front end of his building 6 ft. out beyond the square and at the same time notched the front of the house for a recessed porch. The combined effect makes this right front end look like a rather narrow wing. The roof ridge takes the same direction parallel with the street, helping the appearance of length. The odd way in which the roof extension is so-to-speak sawed off above the wing keeps the two brick panels of the sidewall simple and unfussed in shape and the construction economical. (Cost: \$12.25 per sq. ft.) In striking contrast with the horizontality of front and back treatment is the vertical treatment of both sides, which minimizes the depth of the house just as the horizontal emphasize its length.

The vertical treatment is still further accented in the stair well windows set into the wooden panel of the sidewall; the chimney on the north side repeating the line more conventionally. All in all,

the architect has demonstrated quite subtly how to beguile the eye with new variations of an old comfortable basic shape.

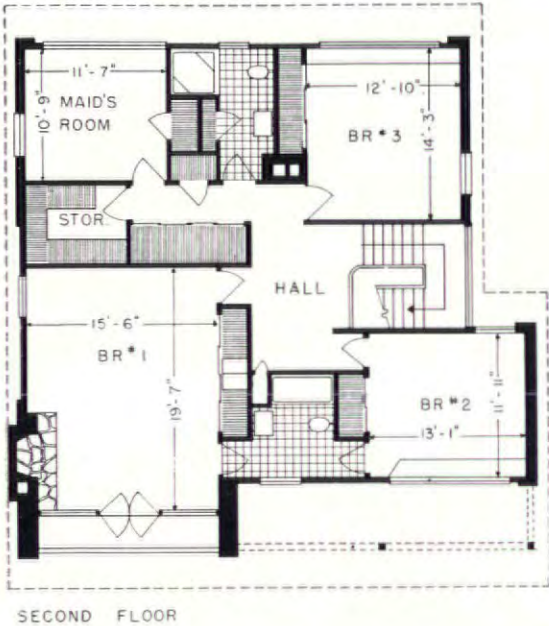
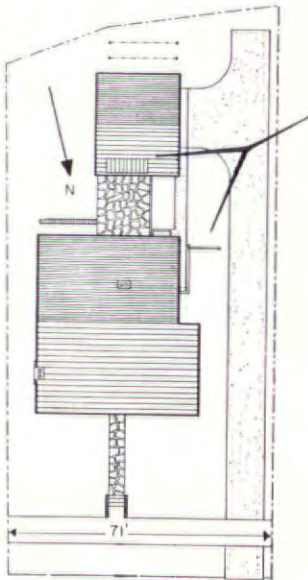
The neat dodge of placing a louvered fence-section near the back yard garage sets off a section of the small plot for family use outdoors, away from the service walk between back door and garage.

CONSTRUCTION OUTLINE: Exterior walls—balloon framing, sheathing, building paper, redwood siding and brick veneer; inside—insulation, Rocklath, U. S. Gypsum Co., and plaster. **ROOFING**—slate, Bangor Slate Co. **INSULATION**—Owens-Corning Fiberglas Corp. **FIREPLACE:** Damper—H. W. Covert Co. **WINDOWS:** Sash—steel casement, Hope's Windows, Inc. Glass—"Twindow," Pittsburgh Plate Glass Co.; other, Libbey-Owens-Ford Glass Co. **FLOOR COVERINGS:** Kitchen—linoleum, Armstrong Cork Co. Bathrooms—tile, American Franklin Olean Co. **WALL COVERINGS:** Main rooms—plaster and plywood, U. S. Plywood Corp. **PAINTS**—Monroe, Lederer & Taussig and MacCloskey Varnish Co. **GARAGE DOORS**—Crawford Door Co. **HARDWARE**—Schlage Lock Co. **ELECTRICAL INSTALLATION:** Wiring—Hazard Insulated Wire Works Div., The Okonite Co. Switches—Arrow, Hart & Hegeman Electric Co. Fixtures—Ledlin Light Corp. **KITCHEN EQUIPMENT:** Range and dishwasher—Hotpoint, Inc. Refrigerator—Admiral Corp. Fan—Hunter Mfg. Co. **BATHROOM FIXTURES**—Crane Co. Cabinets—G. M. Ketchum Mfg. Co. and Miami Cabinet Div., Philip Carey Co. **HEATING**—hot water radiant panel system. Boiler—Kewanee Boiler Corp. Radiators—Chase Brass & Copper Co., Inc. Regulator—Minneapolis-Honeywell Regulator Co.

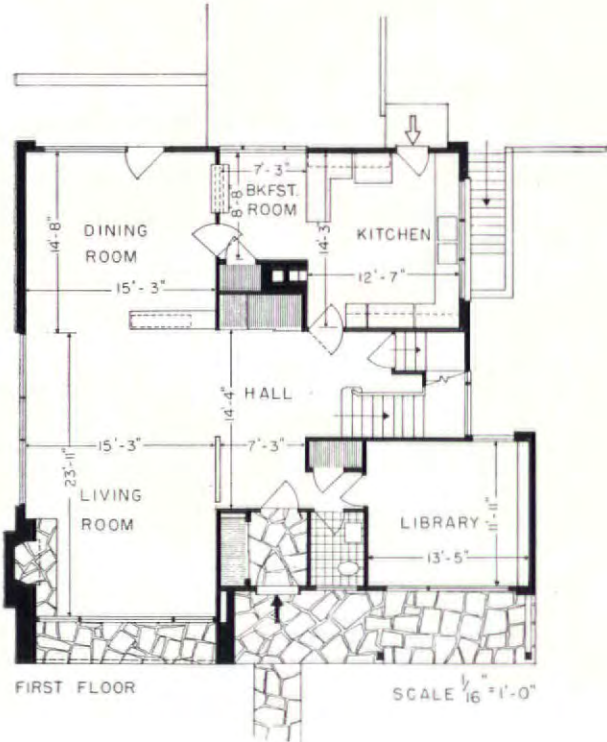


conservative design

LOCATION: Wilkes-Barre, Pa.
 ARCHITECT: Lawrence J. Israel
 GENERAL CONTRACTOR: Curtis-Pethick Co.

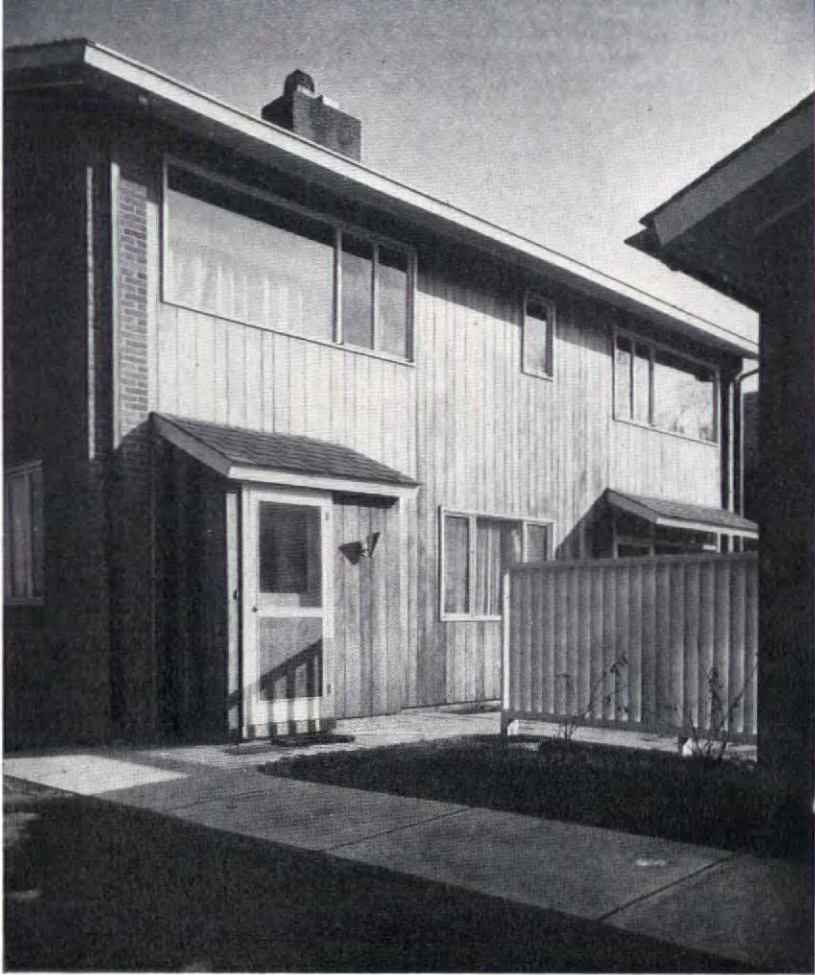


SECOND FLOOR

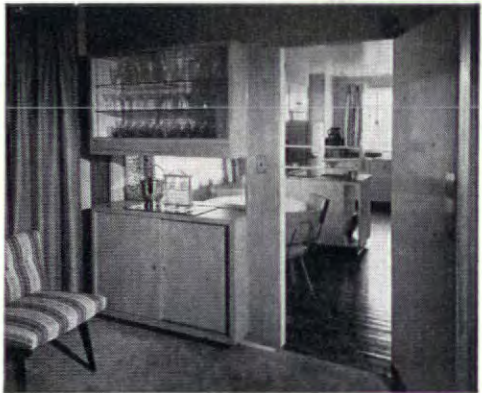


FIRST FLOOR

SCALE 1/16" = 1'-0"



Louvered screen in back yard separates living room terrace from service entry and clothes drying area.



For large parties a pass-through from the breakfast alcove may be used to supplement kitchen service, or it can be set up as a bar.

Only a stylized glass-shelved partition separates the big living room from the small dining room. Total length is just under 40 ft.



THE NEW LOOK IN BUILDER HOUSES,

a new heating system and a new idea in prefabrication
sell out four subdivisions in a week

BUILDER: Cy Williams

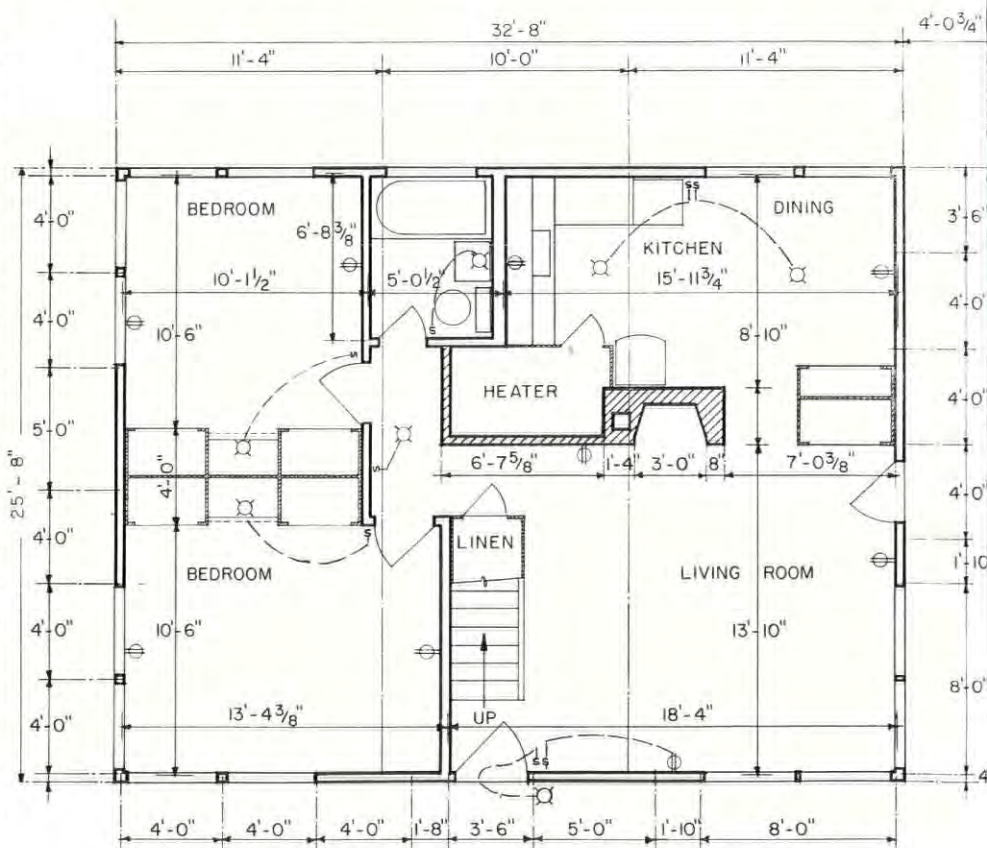
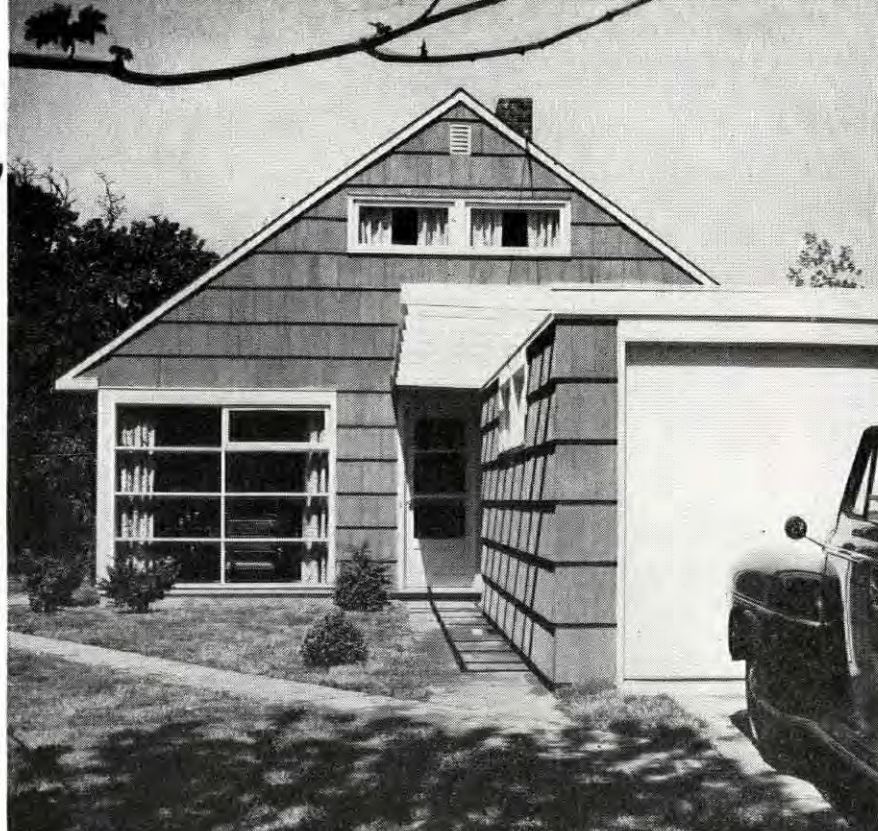
ARCHITECT: James Scovil

Long Island house builders this spring introduced a new fashion which features a tight but open plan, a large window and a low-eaved, steeply pitched roof accommodating an expansion attic. The "Sun Ranch" houses of Prefabricator-Builder Cy Williams wear this new look better than most. And, Williams' houses are more than fashionable: They demonstrate a warm-air radiant heating system, which may force the hot water advocates to sharpen their pencils, and a method of roof construction which brings the economies of trussed rafters to the expansion attic (details, opposite).

More than that, Builder Williams is pioneering a new approach to prefabrication. Two years ago he began making panels for a small group of builders (including himself) who took his houses one at a time and erected them on individual buyer's lots. After producing 180 houses in this manner he abandoned the system this year because: 1) Site costs were almost impossible to estimate and control—some exceeded estimates by as much as 15 per cent. 2) Eight variations in Williams' basic house were just enough to make his lady customers want more; constant changes in plans or specifications boosted the basic \$12,000 sales price for his 1,000 sq. ft. model to as much as \$18,000. 3) Hand-to-mouth orders made William's shop operations difficult to schedule.

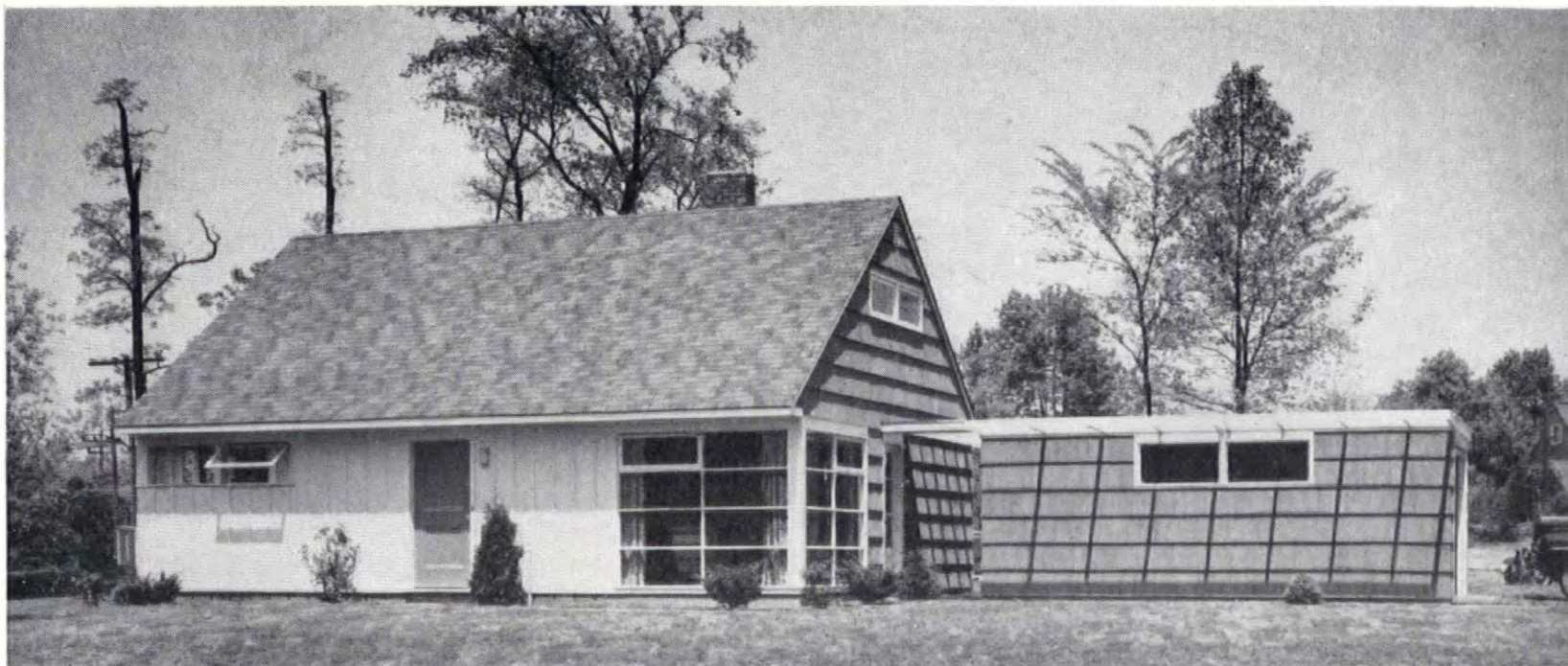
The 1949 operation is based on more promising principles: 1) a small (840 sq. ft.) house to meet a tighter market and simplify his credit problems, 2) a single model with two minor variations—garage location and roof pitch, 3) distribution limited to dealers who will erect 50 or more units in single subdivision—and, of course, to himself, serving as the exclusive agent for Long Island and as a hedge against the time when orders from other customers may taper off.

The new plan is paying off. Williams' dealers in Mt. Kisco, N. Y., (79 units), Teaneck, N. J. (100), and Red Bank, N. J. (50), are taking houses as fast as they can get them, and the factory crew of 30 men is stepping up production from one to four houses a day. Like Williams' own 120-lot development at Port Washington, L. I., each dealer's subdivision was sold out on a single Sunday with the aid of a model house and one big newspaper ad, paid for by Williams, but featuring all four developments. At \$10,985, including a 65 x 100 ft. lot, the typical house is financed with an FHA-insured mortgage for \$8,985, or 82 per cent, and for veterans a VA-guaranteed loan covers the balance.

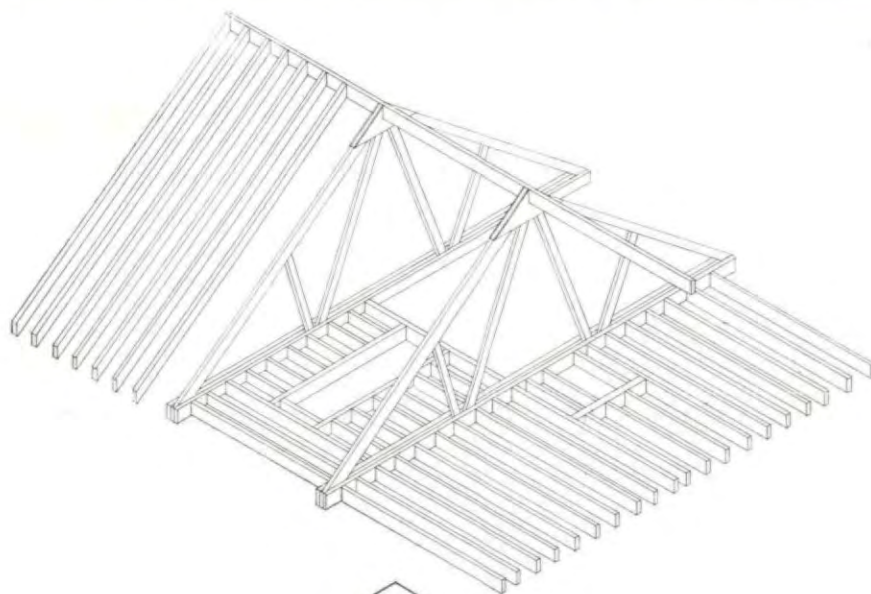
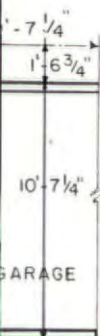


FLOOR PLAN of Williams' \$10,895 house is a minimum rectangle containing 840 sq. ft. However, apparent room sizes (see interior photos, page 92) are increased by using large windows overlooking the lawn, by including the staircase in the living room, by providing dining space in the kitchen, by only suggesting a division between dining and living areas (a combination coat-dish cabinet serves this purpose) and by building dressing tables for each bedroom into the storage partition.

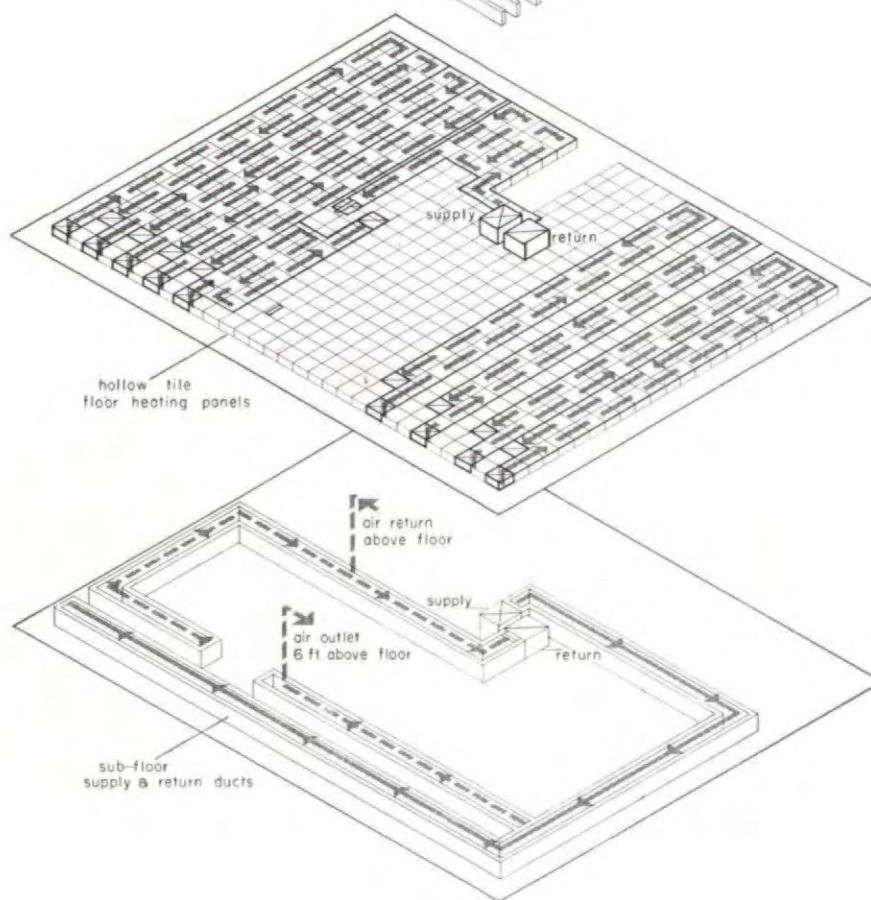




Photos: Ben Schnall



PREFABRICATED TRUSSES, two per house, carry the roof load near the center of the plan, make bearing partitions unnecessary. (Thus, walls and ceiling may be finished with plaster board before partitions are set in place.) Truss construction also reduces field labor and permits use of light roof framing members. Although trussed construction is frequently used in low-pitched roofs, Cy Williams is one of the first to experiment with it in an expansion attic house. Note that truss members are arranged to provide headroom under the ridge pole.



HEATED FLOOR is built up of 1) gravel fill in which are imbedded warm air supply and return ducts of U-shaped concrete "blocks," 2) a honeycomb of ordinary three-cell clay partition tile, 3) a layer of 2 1/2 in. of concrete, and 4) an asphalt tile finish. Tiles are arranged to create heating panels, one of which exhausts into the living room, 6 ft. 8 in. up in the bedroom partition. Through this outlet the furnace delivers warm air in less than 15 minutes, offsetting the two-hour lag in the floor panels. A return grille is located near the floor in the bedroom hall close by the heating plant. (Note that the bathroom is "superheated" with a floor panel of its own, fed directly from the furnace.) Biggest advantage of this heating system, developed by Engineer John D. Dillon, is that its construction requires only common labor. Six laborers can do the job in a single day, and labor and materials amount to only \$725 for footings, concrete ducts, tile work and slab. (The latter includes the garage floor.) Williams boasts that his new floor costs him no more than other builders spend for a 4 or 5 in. slab without radiant heating.



CY WILLIAMS' HOUSE has one big corner window. Attic stairs, separated from living room by open grille, lead to a 375 sq. ft. expansion attic.

Fireplace brickwork is extended to enclose the furnace room.

Coat closet between living and dining areas is a prefabricated cabinet which accommodates china on its reverse side.



COST BREAKDOWN

Site preparation	\$ 56
Footings, slab and floor ..	725
Prefabricated units	2,600
Roofing, exterior siding & interior plaster board ..	433
Total carpenter labor	875
Brickwork	370
Electrical work	220
Heating unit	300
Plumbing	500
Painting and decoration ..	360
Weatherstripping (doors) ..	17
Interior floor finish (materials only)	60
Bathroom walls, floor, etc.	100
Kitchen equipment	600
Exterior work (planting, seeding, walks & drive	300
Contingencies	120
Permits and surveys	53
TOTAL, excluding land, utilities, sales and administrative expenses and overhead and profit.	\$7,689

CONSTRUCTION OUTLINE: Foundations—concrete. Exterior walls—panel construction, 4 ft. sections plywood sheathing, Cy Williams Fabricators. Interior partitions and ceilings—Sheetrock, U. S. Gypsum Co. ROOFING—asphalt shingles. INSULATION: Walls—metal foil, Reynolds Metals Co. Ceiling 2 in. mineral wool, Johns-Manville Corp. WINDOWS: Sash—wood. Glass—quality B, Pittsburgh Plate Glass Co. FLOOR FINISH—asphalt tile. PAINTS—Breinig Bros. HARDWARE—Schlage Lock Co. ELECTRICAL FIXTURES—Lightolier Co. Switches—Bakelite Corp. KITCHEN EQUIPMENT: Range—electric. Refrigerators—Kelvinator Corp. Ventilating fan—Fasco Industries, Inc. Washing machines—Bendix Home Appliances, Inc. BATHROOM EQUIPMENT—Kohler Co. and American Radiator-Standard Sanitary Corp. Cabinets—G. M. Ketcham Mfg. Co. HEATING—hot air radiant system, Quaker Mfg. Co. Water heater—Bryant Heater Co.

HOSPITAL ROOM streamlined to cut construction costs and nurses' work

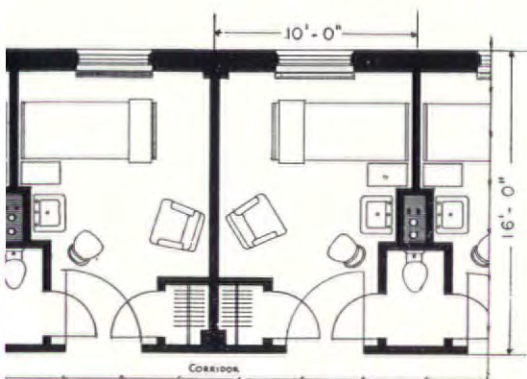
Hospital building hasn't kept pace with demand, nor has the nation's supply of nurses. In Boston, two industrial designers, Frederick E. Markus and Paul F. Nocka, have developed a way to cut both the cost of building hospitals and the cost of operating them. This is a minimal private room intended to provide middle-price hospital care for the middle-income group. The room saves 30 per cent in floor space over the standard private room now in use and 37 per cent in corridor space. Even more important, all equipment is designed and located so that the patient can take care of his needs without leaving his bed and without calling his nurse. Seven of these rooms are being built into the Peter Bent Brigham Hospital, and the new equipment is being installed in 25 existing rooms.

The designers started their impressive space-saving by grouping all mechanical services—oxygen, suction, electrical conduits, telephone outlets and plumbing for the building as a whole—in a single pipe shaft back of the toilet. This enabled them to specify 2 in. solid plaster walls instead of the usual 5½ in. hollow walls required to house miscellaneous piping. Their next space-saving step was to eliminate the usual corner closet and provide space for hanging the patient's clothes back of the toilet door. By mounting the room-length window glass flush with the outside wall, they salvaged additional space for interior use and supplied a sill for flowers, etc. which widens at both ends to form storage compartments.

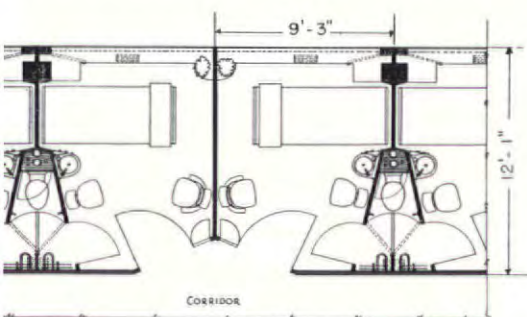
They cut 3 ft. out of standard corridor width by slanting the room doors to provide bed clearance. Because the usual 48 in. door takes up too much room space in its swing, they cut the entrance door into two leaves. One, the 12 in. "inactive" leaf, is bolted at the top and opened only when a bed is taken in or out. The other leaf is a 36 in. active door.

In his bed, the patient is within easy reach of a lavatory placed on the room side of the plumbing stack. The cabinet below holds bedpan, urinal, emesis basin, wastebasket. On the other side of the bed is the bedside table and two-way speaker to the nurse.

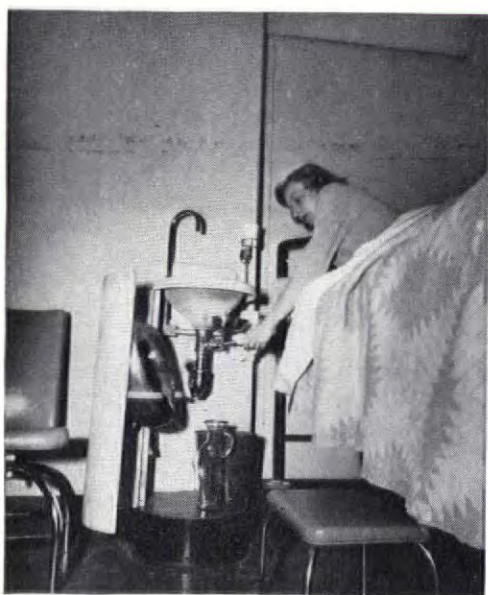
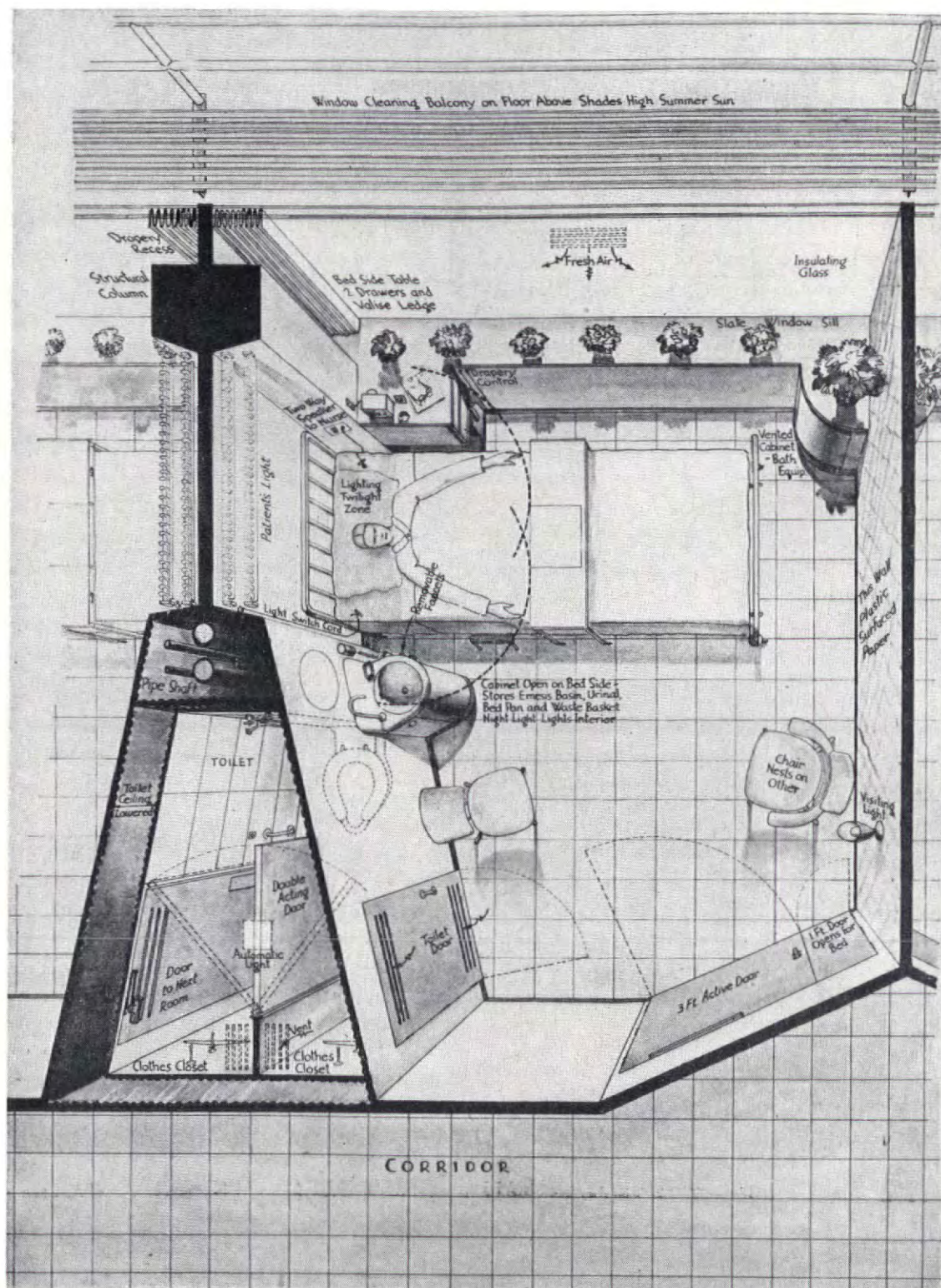
To give this minimal room maximal visual spaciousness, the designers employed the wall-to-wall sheet of fixed insulating glass and finished the wall at the foot of the bed in a plastic wallpaper of leafy pattern. Fixed glass meant forced ventilation, but—since the interior toilets required mechanized exhausts anyway—the designers claim that savings in maintenance and housekeeping costs over movable sash and screens will pay for it.



STANDARD PRIVATE ROOM now in use takes 160 sq. ft. of floor space and is served by an 8 ft. wide corridor. Clothes closet and swing of wide entrance door take a big bite out of useable space.



MINIMAL PRIVATE ROOM is condensed into 112 sq. ft. and served by a 5 ft. corridor. But useable space is enlarged by stowing closet back of toilet partition and by built-in-fixture.



BEDSIDE LAVATORY has hot and cold water valves and waste handle facing patient. Photos show mock-up room.

Photos: 1, 2, Wide World; 3, Sylvania Electric Products Co.



3.



BEDSIDE TABLE holds radio. Cord in patient's hand controls draperies which shade room-length fixed glass window.

REDESIGNED DOORS are important space-saving devices. Entrance door is cut into two leaves and set at angle for bed clearance. Double-acting toilet door is intended to keep patients from inadvertently locking each other out. It is located so that patient, seated or standing, can easily hold it with hand or knee against neighboring closet wall.

RESORT HOTELS: New models trade salt water taffy and balustrades for cocktails, contemporary design, and a private view

America's newest resort hotels are departing drastically from an old familiar pattern. In place of massive shore-front buildings with stone balustrades, boardwalks, and hyphenated names, the postwar resort is considerably smaller, somewhat more comfortable, and a great deal better looking. Where its predecessors advertised bingo, dancing, and other formal social activities, the new resort boasts of privacy and the intimate sociability of a bar. With all the antiseptic virtues of the modern hotel (sterilized toilet seats, cellophane-wrapped drinking glasses, air-conditioning), it has fewer pretensions to elegance for its own sake. It almost invariably includes a swimming pool, and may provide a buffet breakfast on the terrace. No more expensive to patronize than most high class resorts, the postwar model nevertheless has a better chance of making money.

The stakes, moreover, are worthwhile. The U. S. traveling public spends an estimated \$10 to \$12 billions annually in a frenetic search for rest, recreation, and romance. By catering largely to the convertible-borne of this cruising army of vacation seekers, resort hotels collect some \$750,000,000 as their share of the take. Until recently, almost all of this went to the large resorts (Atlantic City, Miami Beach), the exclusive spas, and the summer camps, with their mass produced rusticity. (See *Summer Resorts*, FORUM, Mar. '48).

Possibly because they spent years in the service, many a postwar vacationist wants to swim, fish, and relax in smaller groups. FORUM herewith presents a portfolio of four new resort hotels, plus a swimming pool addition to an older hotel, designed with this type of traveler in mind. These examples typify not only a new approach to the merchandizing of luxury vacations, but for the hotel owner they also offer the prospect of breaking through the economic *cul-de-sac* which the industry has reached in a period of fantastically high construction and operating costs. As against a prewar average building cost of \$5,000 to \$6,000 a room, today's scale is around \$12,000, and soared to \$21,000 in the case of Miami Beach's only postwar hotel, the Saxony. Few hotel men believe that the future of the resort business justifies these prices. Operating costs, moreover, have gone up to a point where the break-even now requires longer seasons and a higher rate of occupancy.

By keeping their buildings small and horizontal, and by building away from locations where land is expensive and taxes high, owners have been able to put up hotels for as little as \$8,000 a room, relying upon the mobility of the vacationist to make up for the outpost location. Designed frequently as glorified motor courts for the Cadillac trade, these hotels have also been able to lower the staggering service overhead of most summer resorts; elevators are not needed; the guest parks his own car and often handles his own luggage,

and is otherwise unencumbered by unnecessary help. One dining room, highly patronized, takes the place of three or four that seldom run at capacity. Housekeeping rooms are usually available. Week end and off-season vacations are encouraged, and rate of occupancy is high. All this means economical operating costs.

Architecturally, the new resorts are contemporary and straight forward. Gone is the front porch with its rocking chair brigade; gone, too, the wicker furniture, chintz curtains, and spittoons in the lobby. Bedrooms are functionally convertible into sitting rooms, and vice versa. Design is purposefully related to natural surroundings. Guests are exposed to nature but not inconvenienced by it.

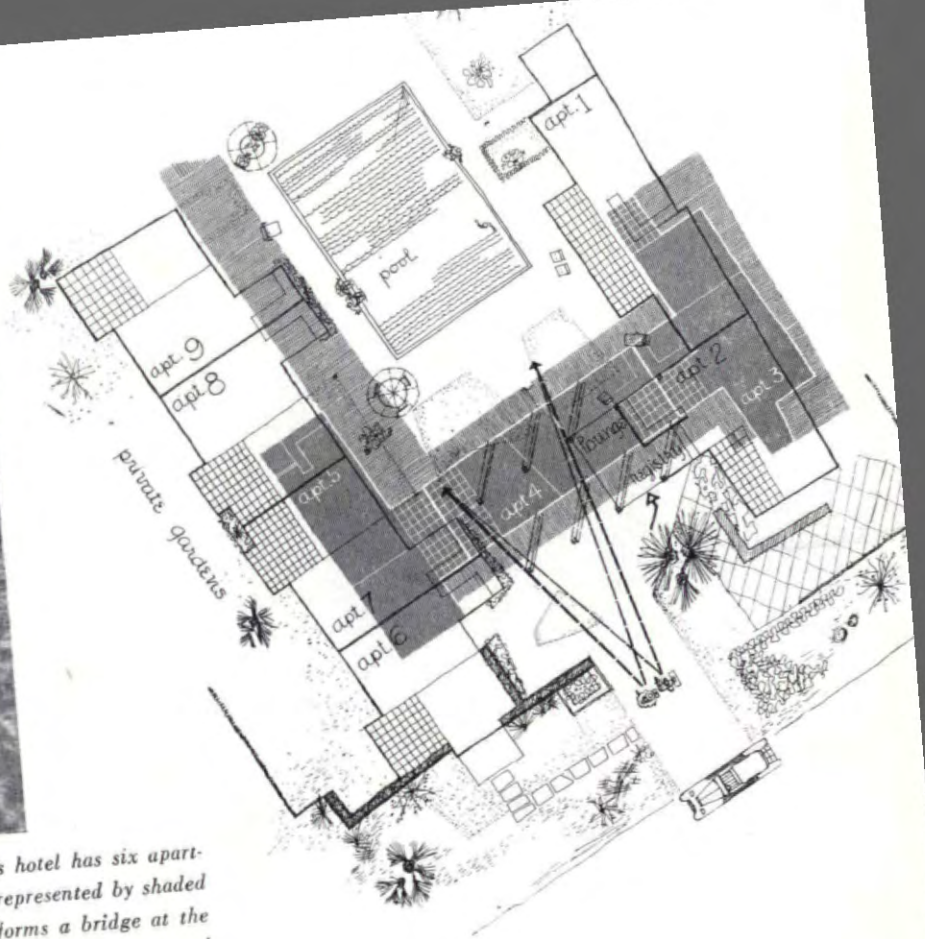
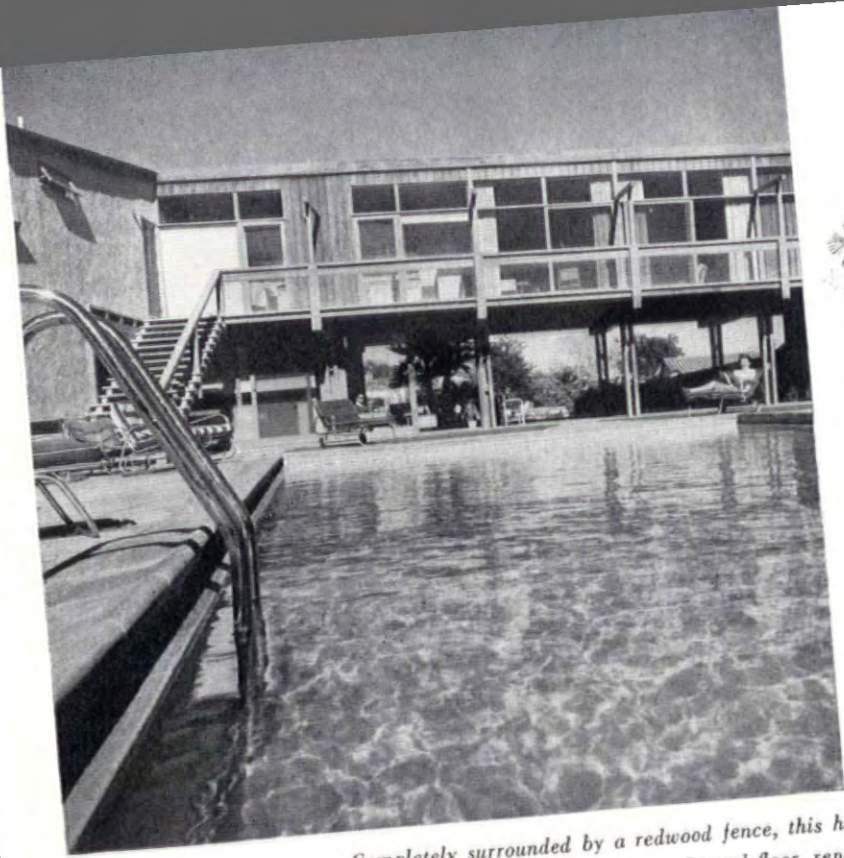
The result of all this is that for the well-to-do, at least, vacations can be taken in more intimate surroundings and without getting oneself involved in the traditional folkways of summer resorts—the fireworks displays, birdwalks, and mineral water baths. What appears to be a safe investment for the owner, promises also to be a sane vacation for the discriminating guest.

1. Small hotel disguises its two-story height with a sweeping roof, displays elegant simplicity of design

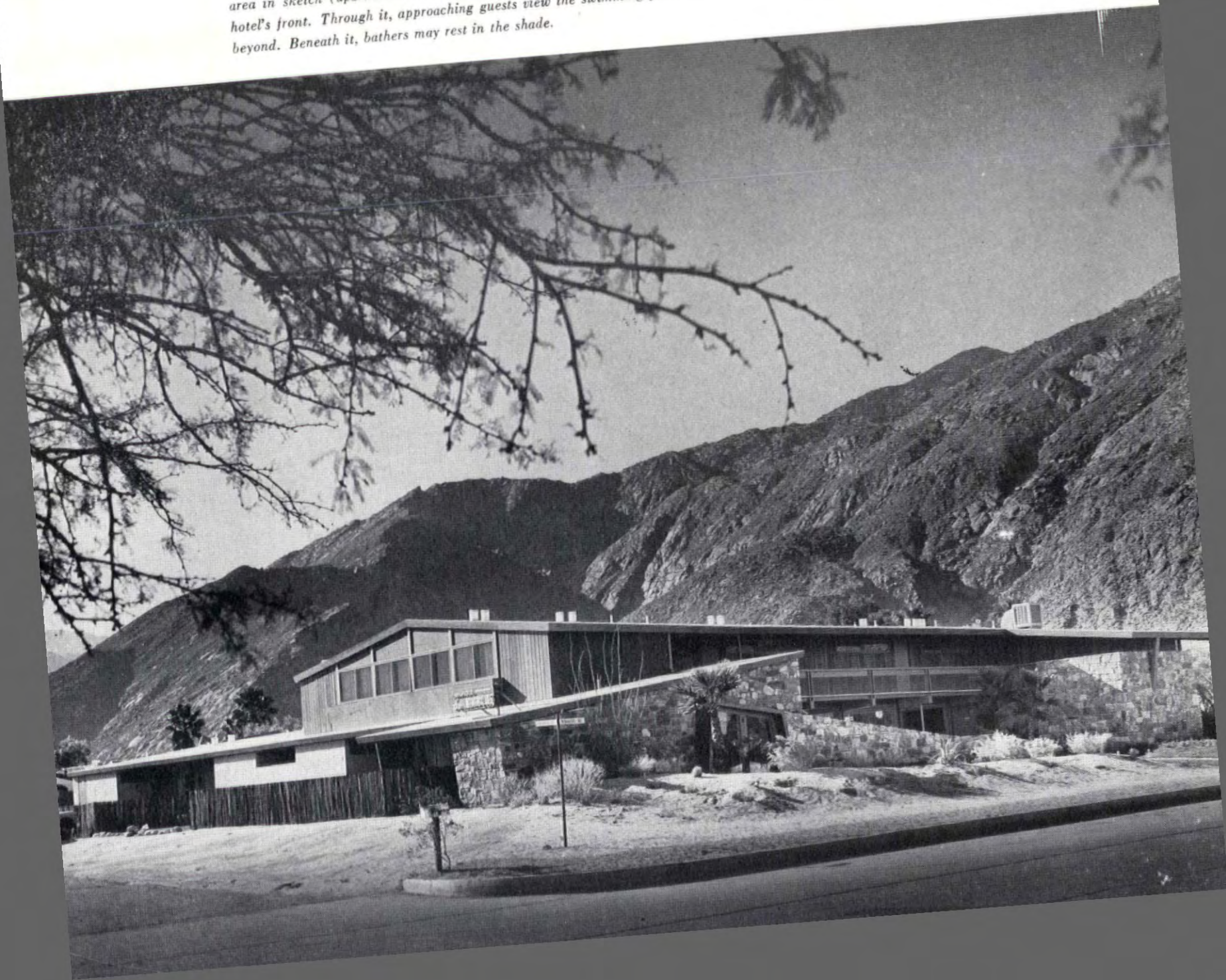
DEL MARCOS HOTEL, Palm Springs, Colo.
WILLIAM F. CODY, Architect

Photos: Julius Shulman





Completely surrounded by a redwood fence, this hotel has six apartments in its two first-floor wings. Second floor, represented by shaded area in sketch (apartments 3, 4 and 5, right) forms a bridge at the hotel's front. Through it, approaching guests view the swimming pool beyond. Beneath it, bathers may rest in the shade.



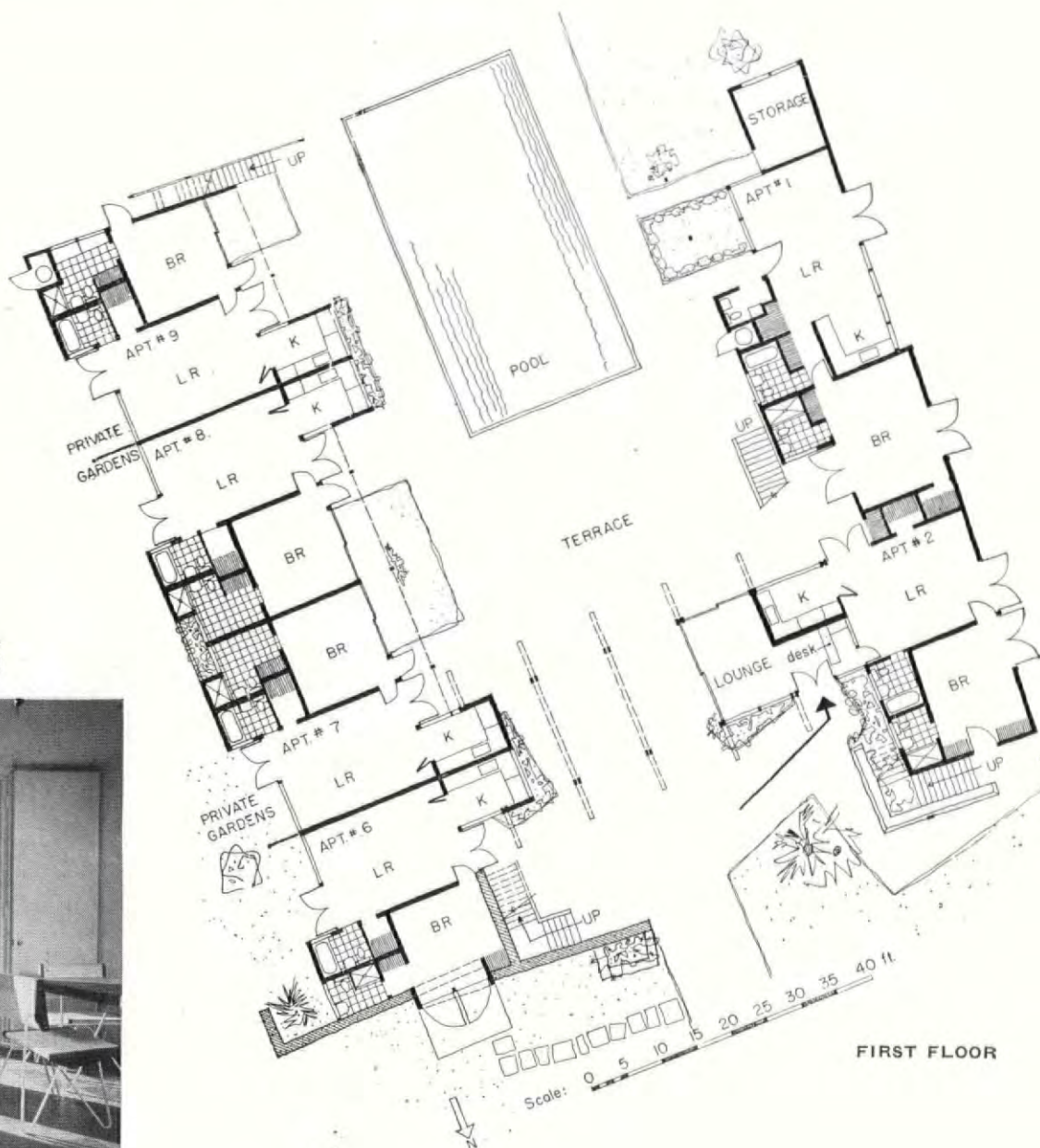


By the use of sweeping lines and a strikingly simple employment of natural materials (redwood and stone), the architect has designed a resort hotel which avoids any reaching for period rusticity yet is thoroughly at home in the primitiveness of its desert setting. What makes it doubly pleasing is the elegance with which Interior Designer Emily Lawser has matched the architect's good taste. Her problem was to furnish a resort hotel that could meet Palm Springs' standards of ultra luxuriousness without loading on the plush. As the room at the lower right illustrates, she handled it by using custom-designed furniture that is richly decorative, yet cleanly executed and comfortable.

Accommodating but 48 guests, the Del Marcos project is an example of the way in which resort hotel owners are trimming their sails to fit a somewhat declining market. At \$15-\$17 a day for rooms, and \$22.50-\$25 for housekeeping apartments, it provides convenient parking, backdoor swimming, and private patios. Rooms are air-conditioned, have large sliding plate glass windows, and double doors between for soundproofing.

Like many of the hotels in this series, the Del Marcos depends on a heated and filtered pool as the main outdoor attraction. Landscaped seating space at the sides, and shaded areas beneath a balcony, encourage lounging. A redwood stake fence surrounds the entire structure, which occupies a corner lot 150 ft. sq. Occupancy is 100 per cent in winter months, 80-90 per cent during summer.

Housekeeping apartments have full sized kitchens, convertible sitting-bedrooms, direct access to swimming pool



FIRST FLOOR



SECOND FLOOR

Del Marcos Hotel is two-stories high. All rooms overlook the pool and enjoy a view of the San Jacinto mountains, which shelter the resort from constantly blowing desert winds.

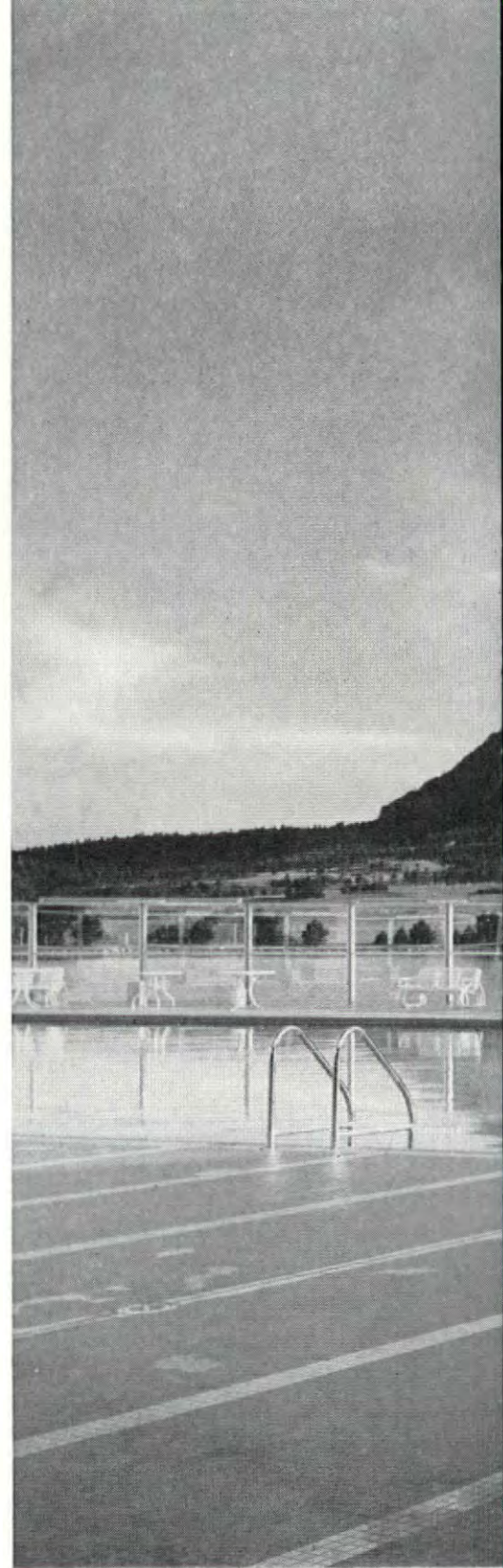
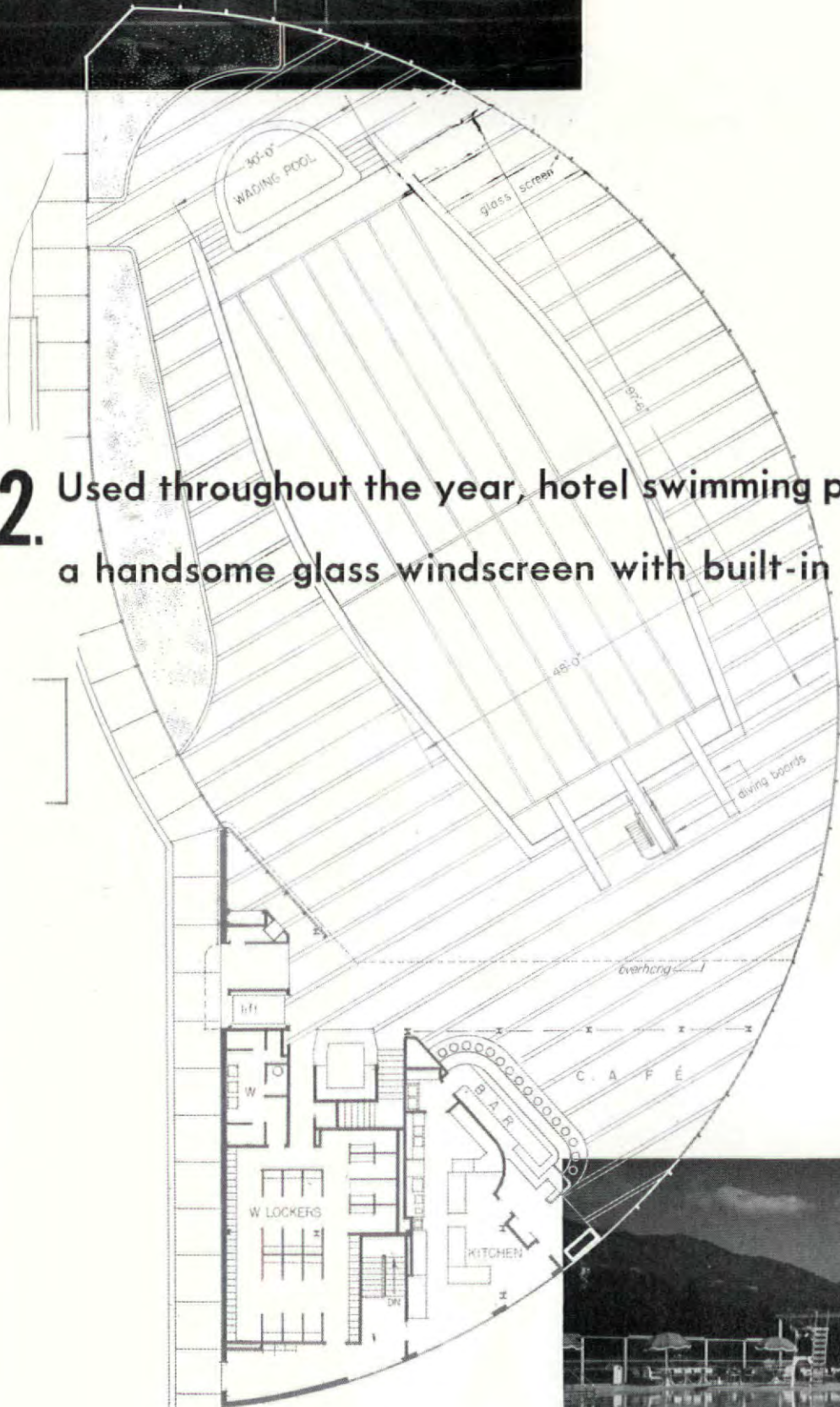


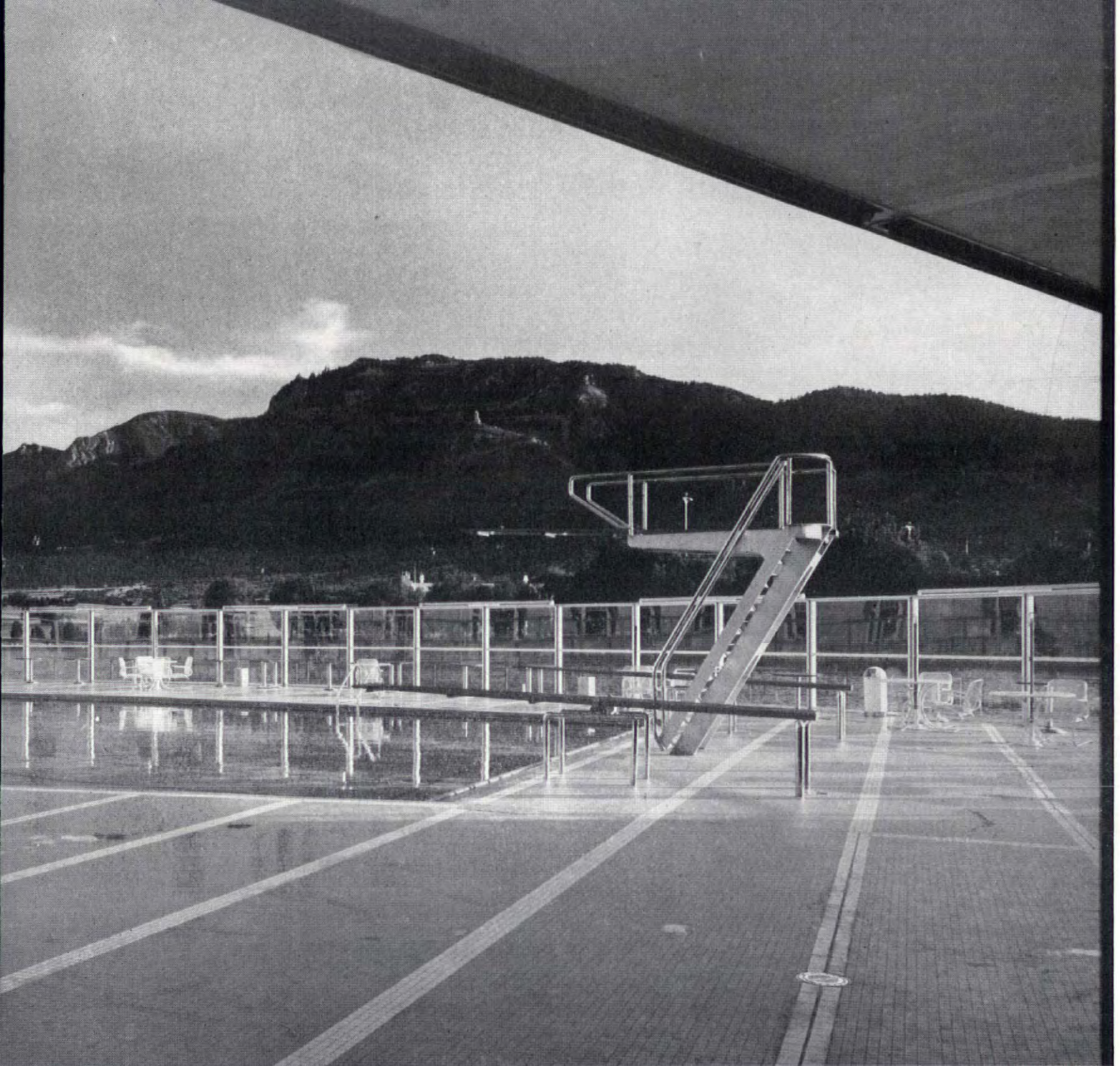
CONSTRUCTION OUTLINE: Foundation—concrete. Exterior walls—stone, exposed both sides, or wood studs and plaster or redwood. **ROOFING**—built-up. **INSULATION:** Walls and roof—rockwool, Johns-Manville Corp. **WINDOWS:** Sash—wood sliding. Glass—Libbey-Owens-Ford Glass Co. and Mississippi Glass Co. **FINISH FLOORINGS**—David Kennedy, Inc. and Armstrong Cork Co. **DOORS**—Paine Lumber Co., Ltd. **HARDWARE**—Barrows Lock Works, Div. Yale & Towne Mfg. Co., Knap & Vogt and Richards-Wilcox Mfg. Co. **PAINTS**—National Lead Co., Samuel Cabot, Inc., Crossfield Products Corp. **ELECTRICAL INSTALLATION:** Wiring—Safecate cable, General Cable Co. Switches—Bryant Electric Co. Fixtures—General Lighting Co. and Crouse Hinds Co. **PLUMBING FIXTURES**—Crane Co. **HEATING**—vented gas heaters; electric heaters in baths, Thermador Electric Mfg. Co. Water heater—Rheem Mfg. Co.



BROADMOOR HOTEL, Colorado Springs, Colo.
BURNHAM HOYT, Architect
PLATT ROGERS, INC., General Contractor

2. Used throughout the year, hotel swimming pool has a handsome glass windscreen with built-in lighting



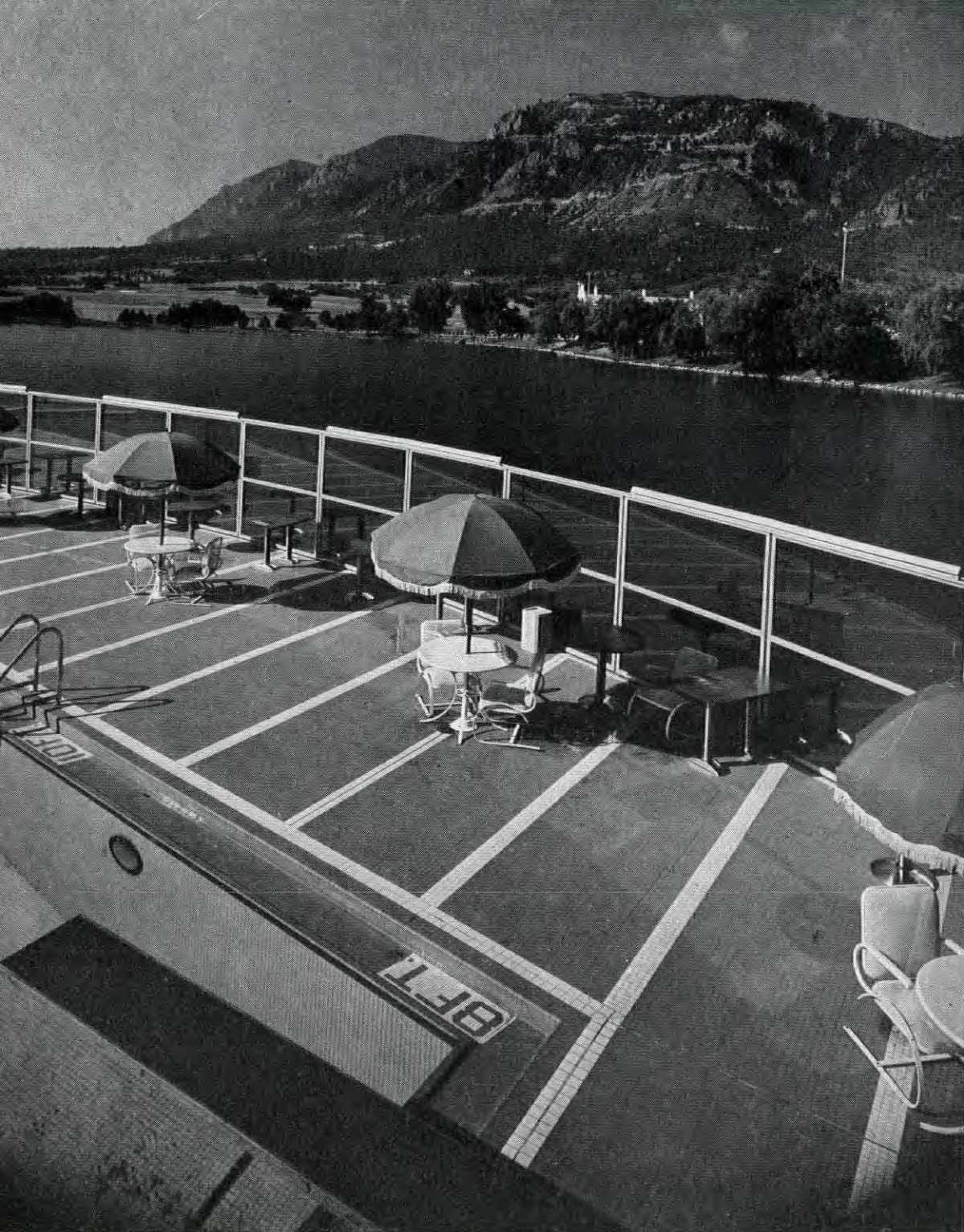


Photos: Phil Fein

This swimming pool is designed with nature as the architect's chief collaborator. Outdoor areas are converted into an architectural environment with a minimum use of structure; walls and roof are kept in the background and utilized only where necessary. The glass windbreak makes possible year-round swimming, despite Colorado Springs' mountainous altitude (5,900 ft.). In less imaginative hands, it might have been a solid parapet. Instead, it is a daring—and successful—attempt to use the concept of transparency to unite the needed enclosure with its environment. The total effect is a spaciousness which reflects the mountains and the sky and suggests the power of architecture to make nature available to the spectator while, in a sense, shielding him from it.

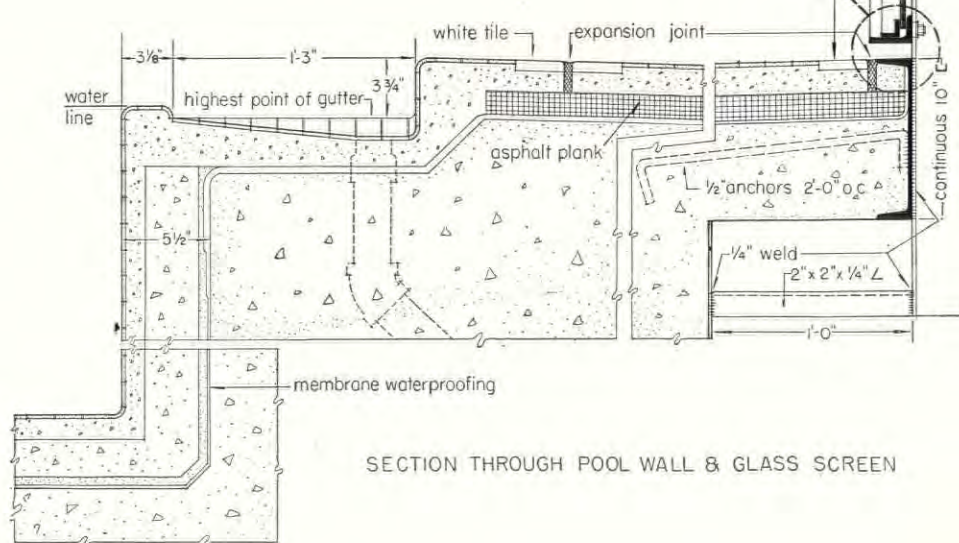
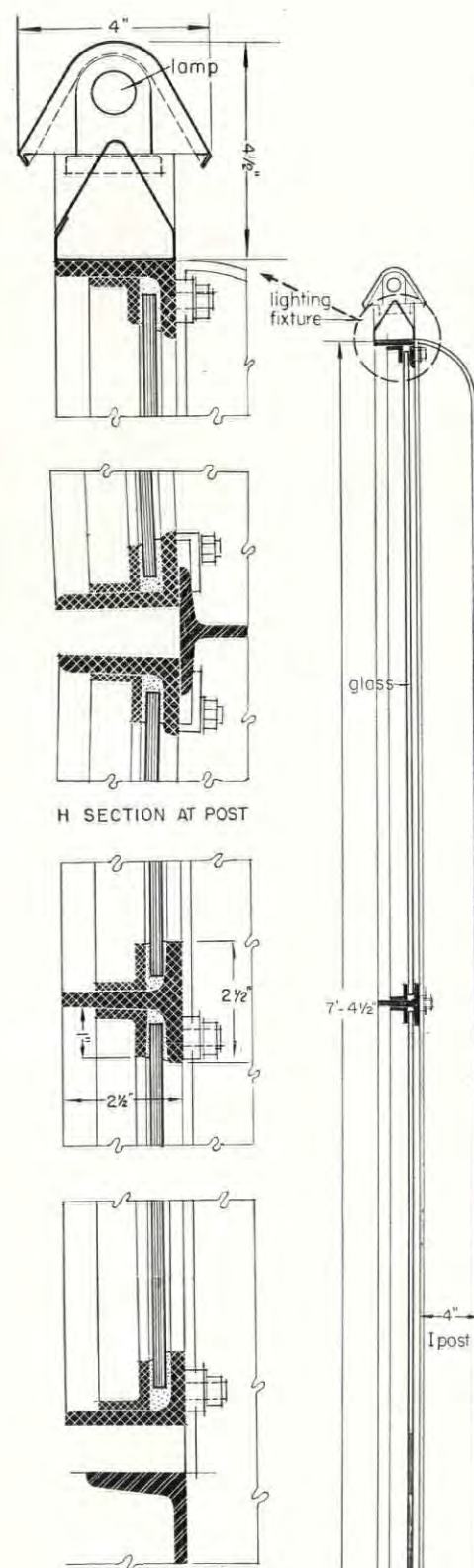
Hoyt's basic idea was to bend his design to the landscape. The sweeping contour of the lake shoreline is carried through by "baying" the sides of the pool and further elaborated in the curved lines of the refreshment areas. Any temptation to carry out the design motif of the hotel—an older building—was shrewdly resisted. Actually, since the pool and its facilities are an integrated unit in themselves, there is no real dissonance of styles.

The furnishings, moreover, are thoroughly at home in their marine surroundings. In a harmony that depends on so few physical elements—a few posts, sheets of glass, chairs and tables—the fine effect depends strongly on details such as better-than-usual tubular chairs, the clean sharp lines of the diving tower.

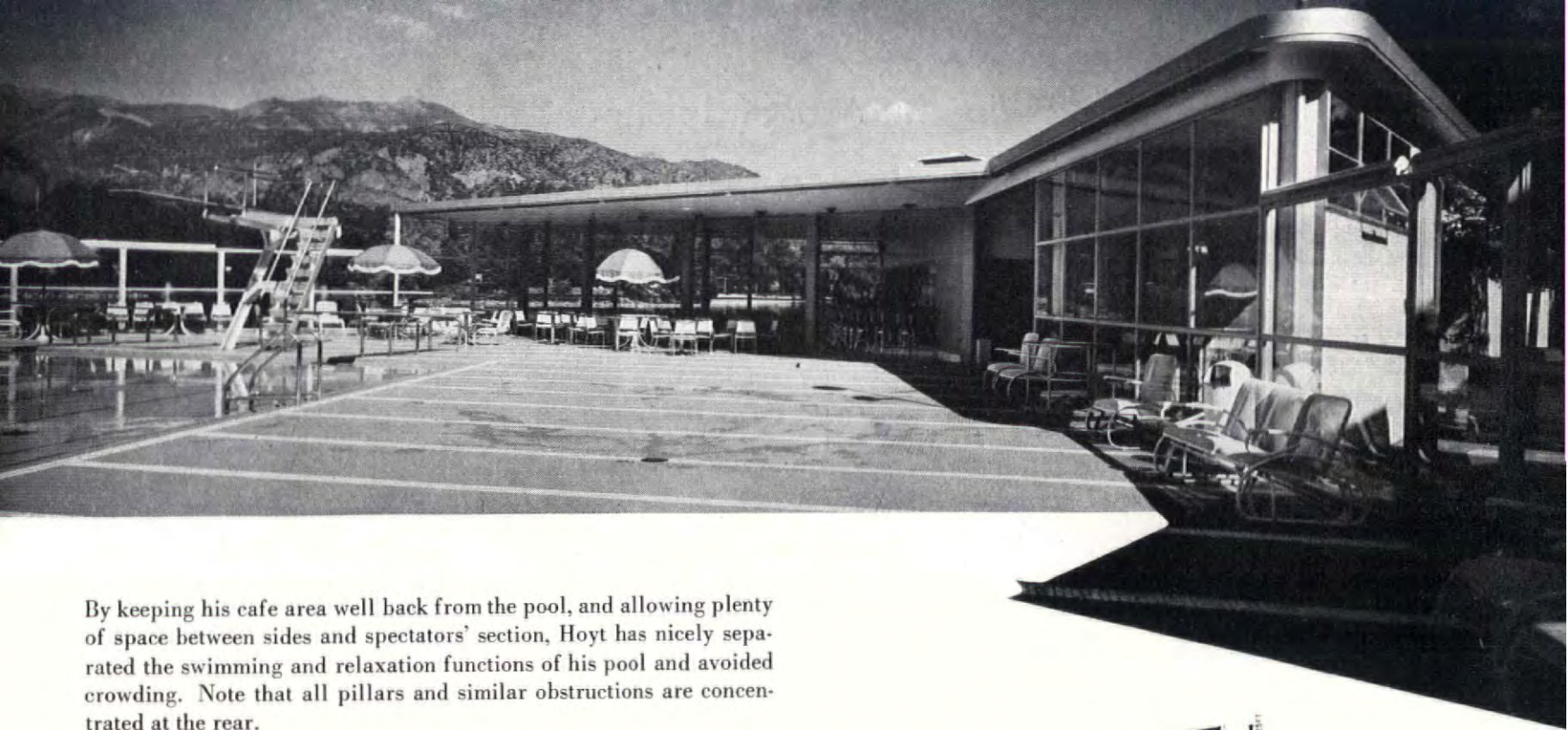


Detail drawing of pool, terrace and windscreen shows solution of drainage problem as well as design of profile. Fluorescent lighting built into top of screen carries through linear motif of general design and avoids need for overhead lamps.

Water for pool is heated to about 78° when weather is cold, less as it warms up, is permitted to lose not more than 2 or 3° of temperature before being reheated. In March, 1949, the hotel made a check on the first year's use of the pool, counted up 287 days of swimming. (Glass screen is about 8 feet high.)

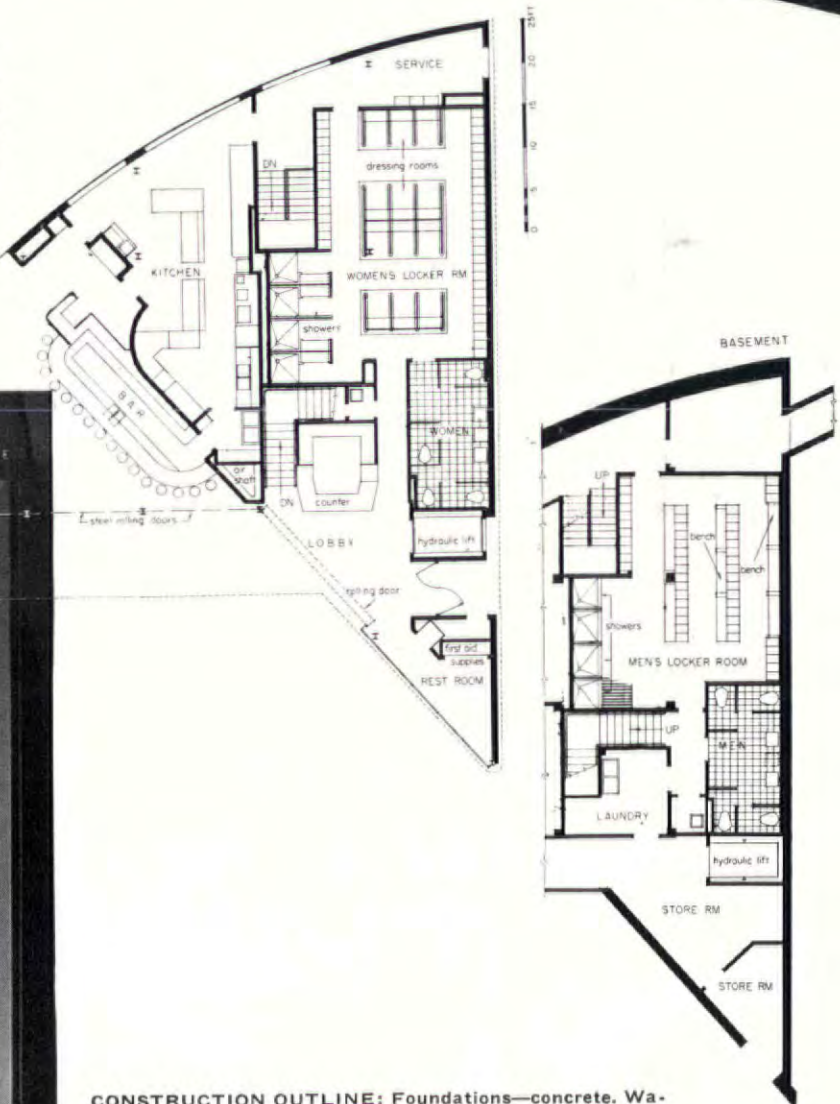
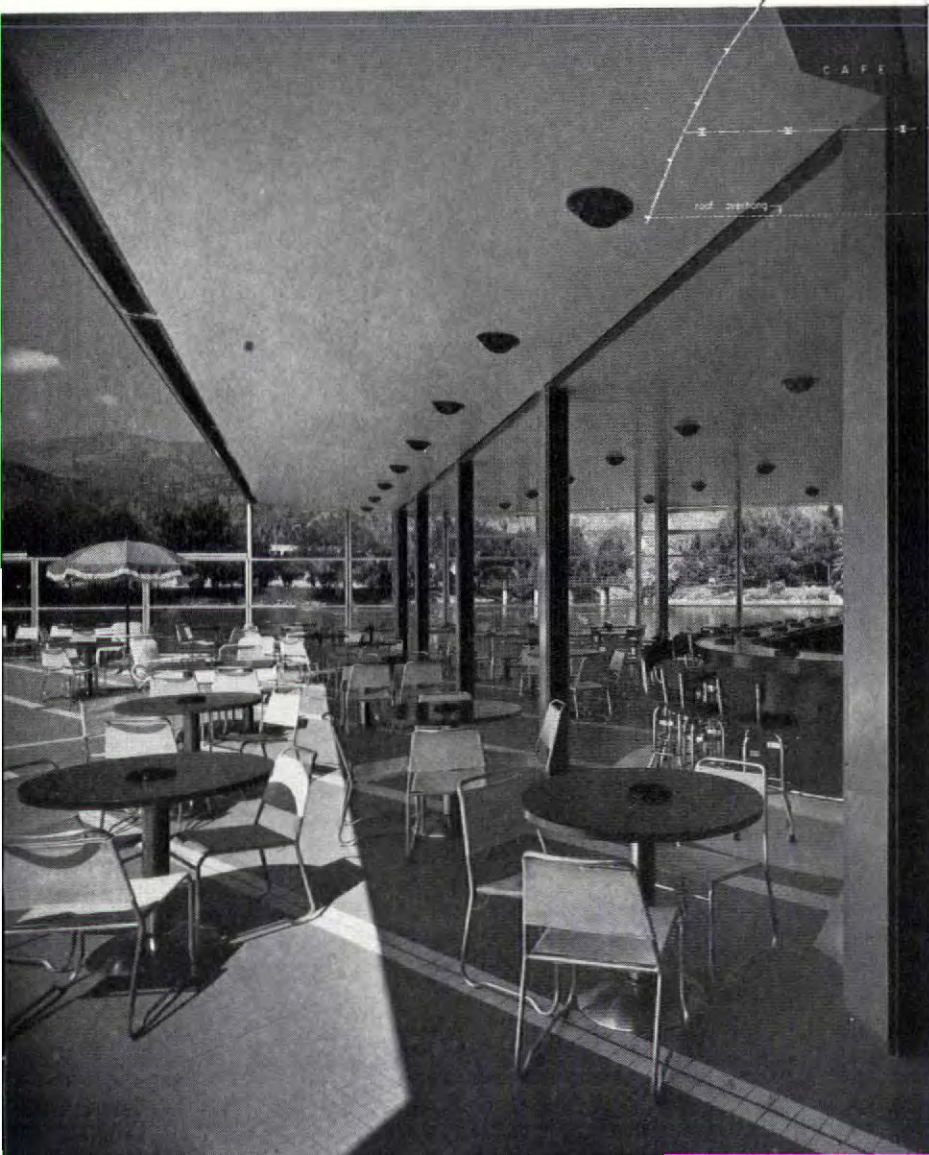


SECTION THROUGH POOL WALL & GLASS SCREEN



By keeping his cafe area well back from the pool, and allowing plenty of space between sides and spectators' section, Hoyt has nicely separated the swimming and relaxation functions of his pool and avoided crowding. Note that all pillars and similar obstructions are concentrated at the rear.

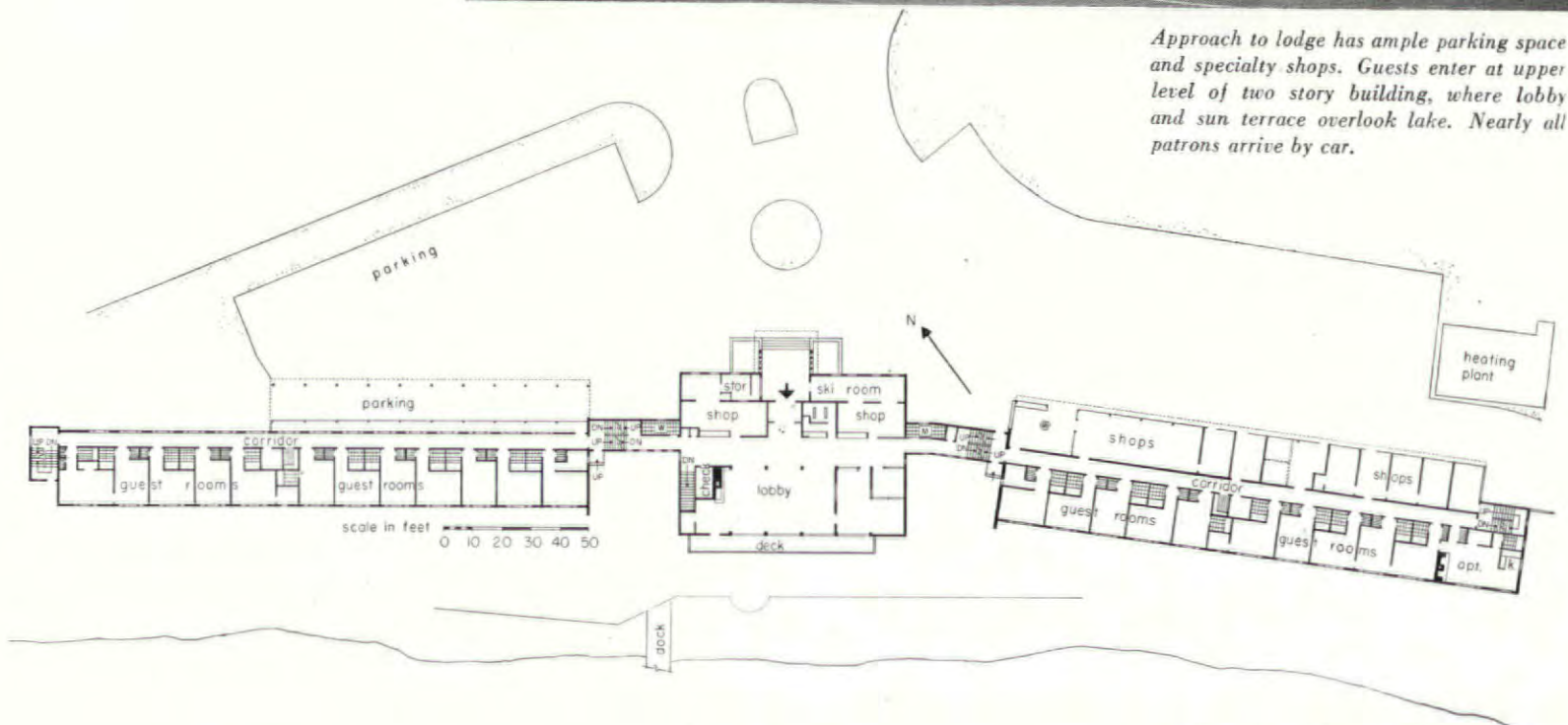
Cost of the pool was \$310,000, plus \$20,000 for equipment. According to Broadmoor's president, Charles L. Tutt, it not only earns on its investment but draws added patronage to the hotel. Water is heated, and mountain sun combines with the wind screen to make winter swimming enjoyable. The result is that an ordinarily seasonal sport in Colorado has been extended here to 12 months.



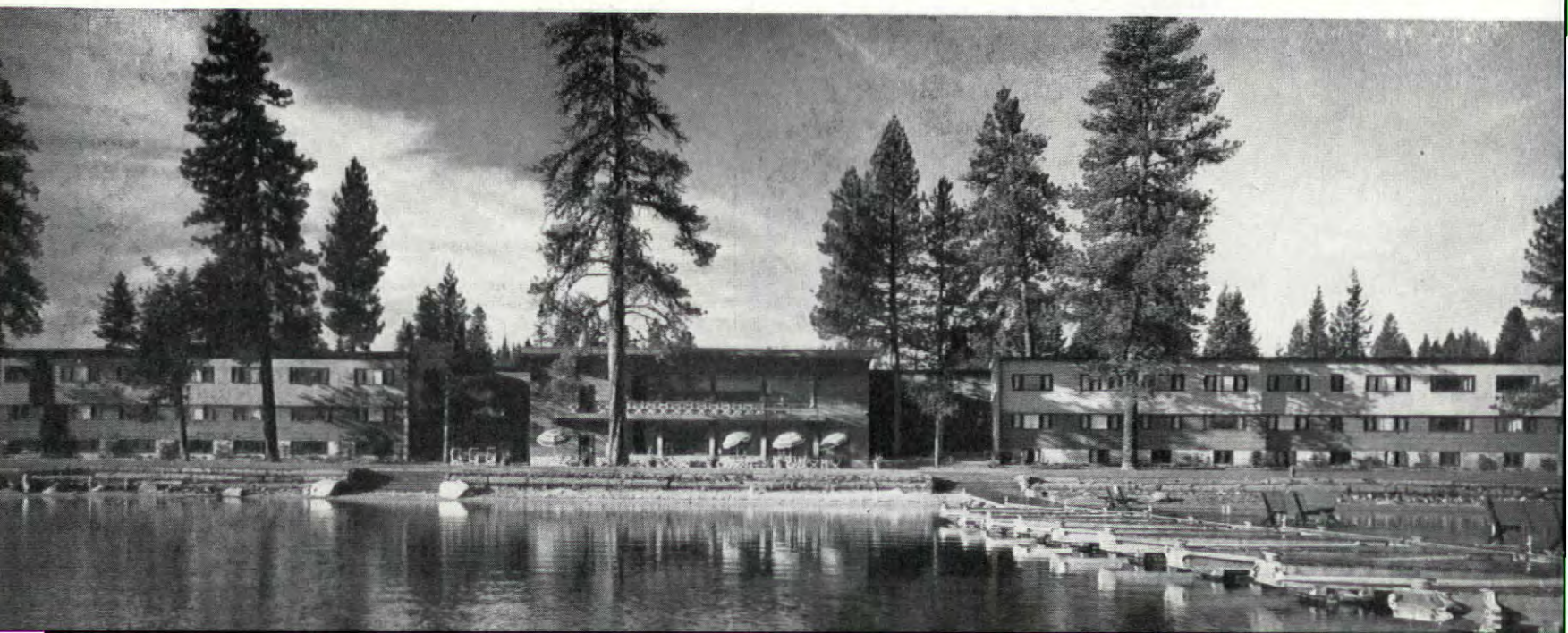
CONSTRUCTION OUTLINE: Foundations—concrete. Waterproofing—membrane. Exterior walls—clay tile, stucco exterior; glazed tile interior. Floors—tile. All tile for walls, floors and swimming pool etc.—Olean Tile Co., Mosaic Tile Co. and U. S. Quarry Tile Co. ROOFING—tar and gravel. WINDOWS: Sash—aluminum fixed, The Kawneer Co. Glass (including swimming pool screen)—Libbey-Owens-Ford Glass Co. BAR, SHOWCASE AND COUNTER TOPS—Formica, The Formica Co. HARDWARE—Russell & Erwin Mfg. Co. and Oscar C. Rixson Co. PLUMBING FIXTURES—American Radiator-Standard Sanitary Corp. Soil pipes—cast iron. Water pipes—galvanized wrought iron. HEATING—unit heaters and Simms No. 255 pool heater. Grilles—Tuttle & Bailey. Regulators—Minneapolis-Honeywell Regulator Co.

3. Serving hunters and fishermen, lakeside lodge substitutes

SHORE CLUB LODGE,
Fayette Lakes, McCall, Id.
VICTOR N. JONES & ASSOCIATES,
Architects



Orientation of lodge buildings keeps guests gazing lakewards most of the time. All rooms, as well as lounge, dining room and terrace face the water.



convenience for stuffed elks' heads

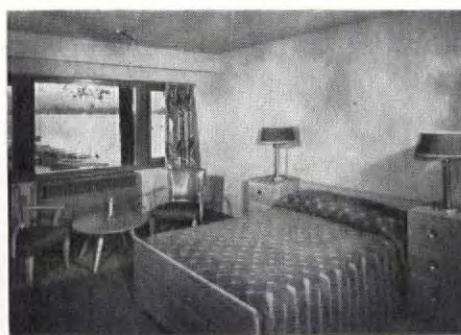
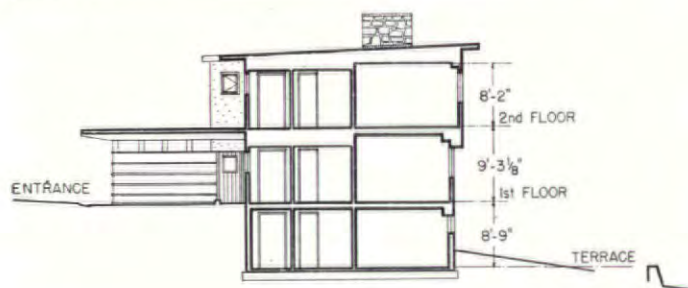
Dearborn-Massar



This resort in the Northwest is an example of how an honest-to-goodness hunting and fishing lodge can be designed with virtually no rustic folderol. An absence of knotty pine paneling, but plenty of plate glass and sturdy, simply designed furnishings help guests enjoy their rugged surroundings in urban comfort. The architect slipped only once—in designing the dining room pillars (left, below). A cross between a totem pole and a ship's figurehead, these columns are not only inappropriate to their concrete construction, but at odds with the general design, which in other respects is well ahead of what might be called park service baroque.

The architect has done well by the lodgers in other respects. Circulation—always a problem where activities are divided between indoors and out—was handled by concentrating the lounge, sun terrace and dining room in one central building. Separate stairways from living quarters to the outside by-pass the lounge and keep the fishing rods out of the bridge games. Sleeping rooms are spacious, and include family quarters consisting of a double room and a large "closet" with bunk beds for children. Currently earning about 15 per cent on its investment, the lodge will be doubled in capacity next year.

CONSTRUCTION OUTLINE: Exterior walls—stucco and horizontal wood siding; interior—studs, lath and plaster, **ROOFING**—The Philip Carey Co. **INSULATION**—Armstrong Cork Co., Fir-Tex Insulating Board Co. and Kimberly-Clark Corp. **WINDOWS:** Glass—Twindow and quality B, Pittsburgh Plate Glass Co. **FLOOR COVERINGS**—Armstrong Cork Co., Gladding-McBean Co. Fire doors—R. C. Mahon Co. **HARDWARE**—Sargent & Co., Oscar C. Rixson Co. and Vincent Whitney Co. **PAINTS**—A. C. Horn and Parker Point Co. **KITCHEN EQUIPMENT**—Intermountain Food Equipment Co. **HEATING**—steam system; radiant heating in lobby and dining room. Oil burner—Ray Oil Burner Corp. Valves—Sarcotherm Co. Bar—Nesbitt Syncretizer, John J. Nesbitt Co., Inc. **FIRE HOSE AND RACKS**—American Rubber Mfg. Co.



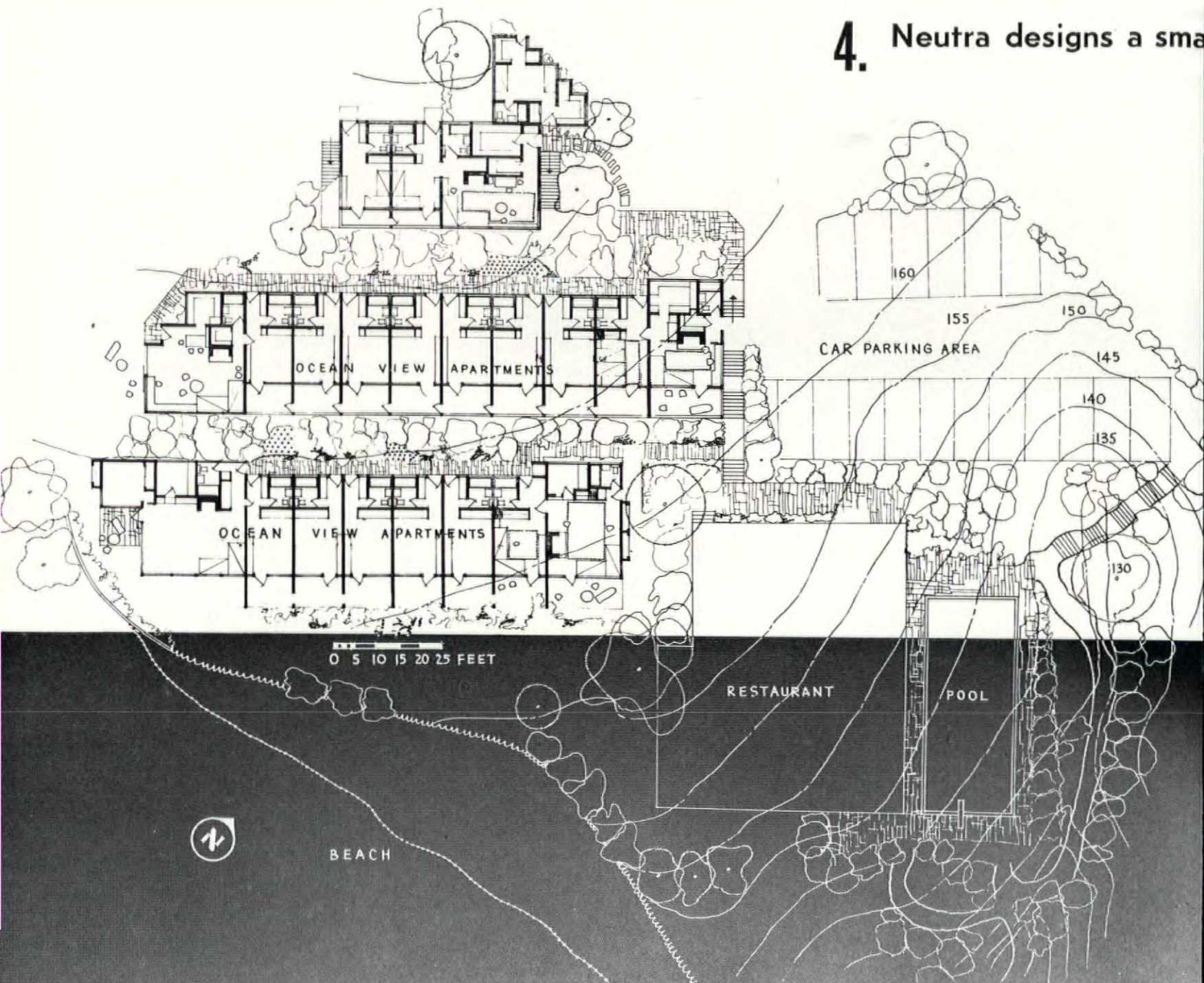
Room plans (right) alternate between square (studio type) and rectangular (twin beds) by dovetailing of baths and closets. Prices are \$10 per day for two persons, \$15 for family rooms (European plan).



Lounge (upper left) is built around huge fireplace and oriented toward picture window facing lake. Dining room (lower left) is on floor below and opens upon a lake-side dining terrace.



4. Neutra designs a small



simple, but deluxe hotel with a grandstand view of ocean beach

HOLIDAY HOUSE, Escondido Beach, Calif.

RICHARD J. NEUTRA, Architect

DUDLEY C. MURPHY, Owner-builder



Corner apartments have fireplaces, small kitchens, bars, and separate sleeping quarters. All rooms have glass front walls and private, out-sitting patios shielded by overhang.

Privacy is the key to this hotel, which is approached from the rear, where guests park their cars. Rooms face away from entrance, but overlook the terrace and beach.

In this small, swankily furnished resort, the owner, a film director, caters successfully to Hollywood notables and provides "quickie" vacations complete with swimming, cabanas, barbecues, *prix fixe* dinners, Continental breakfasts and built-in bars. Holiday House, 35 minutes from Beverley Hills, is a resort that is satisfied to keep its vacation guests no more than a week or two, and depends upon overnight transients for half its occupancy. Current occupancy is 85 per cent in season, 70 per cent in winter. The project returns about 25 per cent on its investment.

The architect designed this hotel in one of his warmer, less puristic moods. Even so, it is stringently contemporary in its relation to a primitive landscape. By logical use of site (the bluff dips 35 ft. from brow to bay) he has dispersed his buildings in a series of levels, allowing each group its own unobstructed view of the Pacific. Space is still available for a planned second group of apartments. Thus far, only the eight-unit building nearest the beach has been completed.



Photos: Julius Saubman

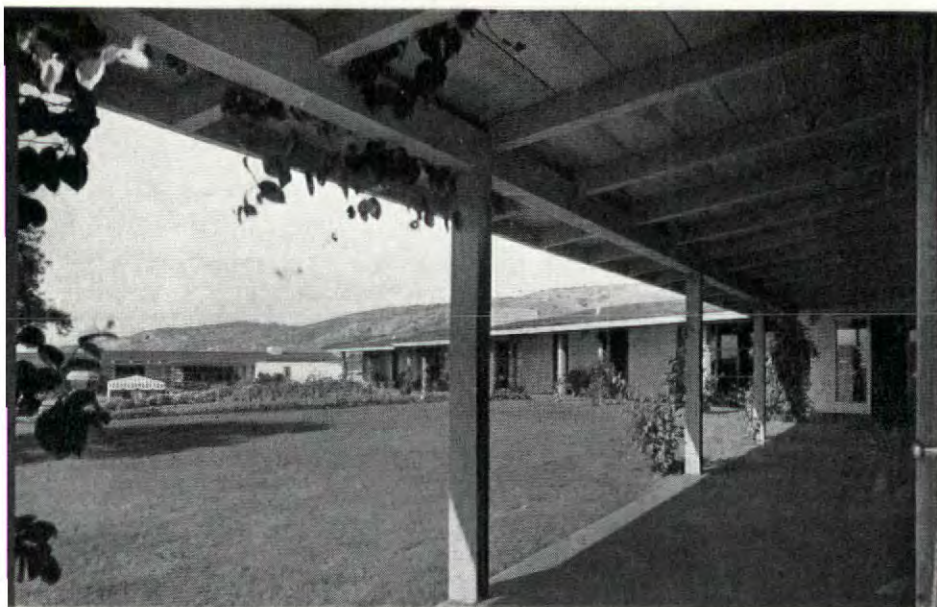
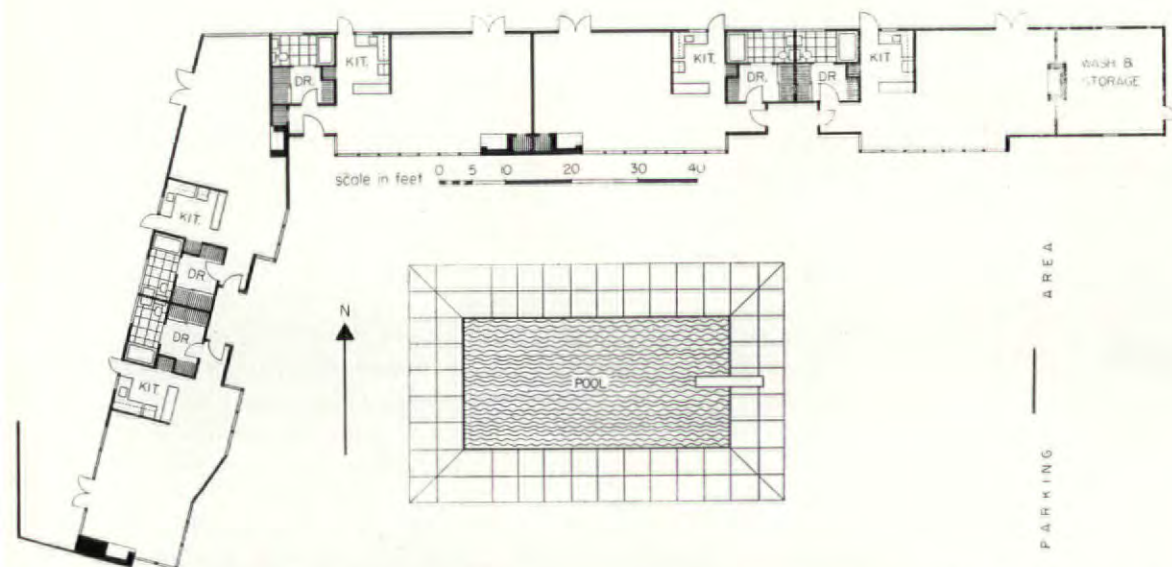


CONSTRUCTION OUTLINE: Foundations—reinforced concrete. Waterproofing—Anti-Hydro Waterproofing Co. Exterior walls—frame finished in plywood, redwood T. & G. siding, asphalt tile and brick masonry. Floors—concrete slab. ROOFING—4-ply composition. SHEET METAL—26 gauge crimped galvanized iron. INSULATION—4 in. mineral wool. WINDOWS: Sash—aluminum. Glass—double strength and crystal plate. FLOOR COVERINGS—asphalt tile. FURNISHINGS—special architect's design and Van Keppel Green. TRIM—Milcor metal bullnoses, Inland Steel Products Co. HARDWARE—Schlage Lock Co. ELECTRICAL INSTALLATION: Switches—Square D Co. Timing device for outside illumination—Tork Clock Co., Inc. PLUMBING FIXTURES—American Radiator-Standard Sanitary Corp. Pipes—copper, American Brass Co. Kitchen equipment—Hotpoint, Inc. HEATING—Thermador electrical heaters, Thermadore Electric Mfg. Co.

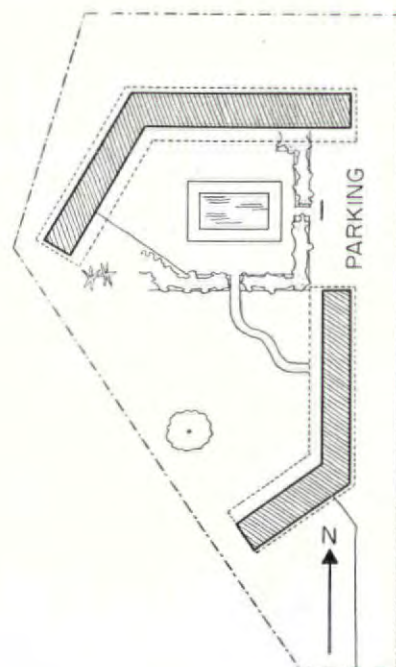
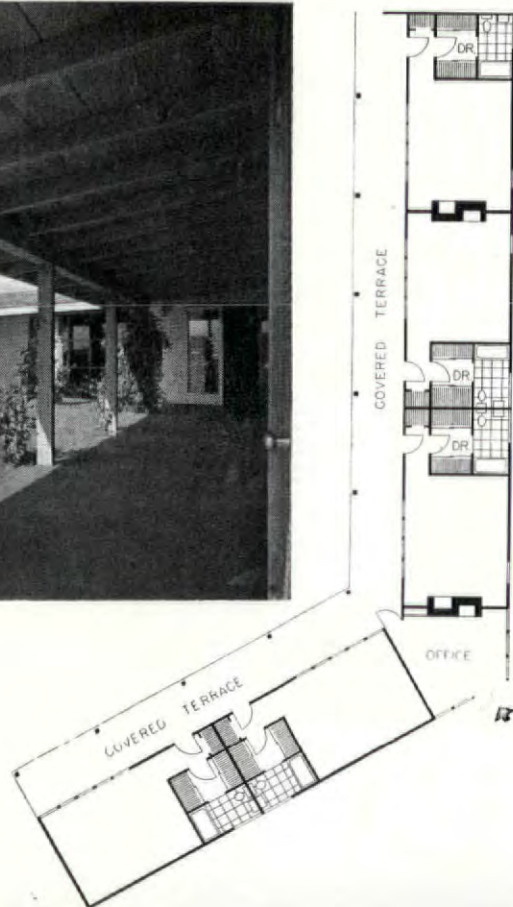
5. A rambling resort, this ten-room hotel looks like a ranch home

THE SUMMER HOUSE, La Jolla, Calif.
WILLIAM P. KESLING, Designer

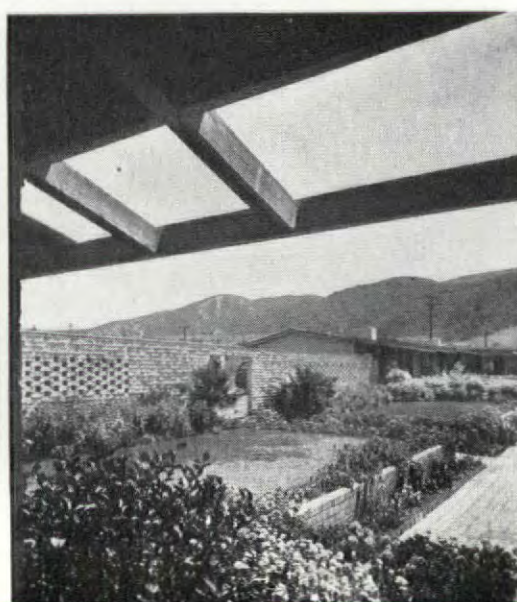
Like the public's idea of all good ranch-houses, this resort for tourists is spacious and rambling. Enclosing a swimming pool, flower garden, and well tended lawn, the ranch home which is suggested architecturally, however, was never like this. Guests have fires laid for them in the morning, are supplied with fresh flowers daily and a bowl of fruit upon arrival. By dispersing his buildings in the form of two opposing hockey sticks, the architect has successfully utilized an odd shaped plot of land and landscaped it to give the hotel its own local scenic view. Design, although pleasantly contemporary, is compromised by a mixture of furnishings which fail to match the standards of the architect's convenient straightforward approach.



Inside walls (lower left) of vertical wood paneling and white brick give the rooms a warm and deceptively aged appearance. Beams add to illusion of height. Glass front walls give maximum daytime lighting.



Robert C. Cleveland, Modern Photography



HOW TO SELL HOUSES

—for a new kind of market, a new kind of salesmanship. A catalogue of sales tools

In the brisk air of the competitive market, housebuilders are reaching for a skill which for most of the past decade has been all but forgotten—salesmanship. From coast to coast they are attending sales clinics, swapping ideas, and training sales forces. But their statements at these clinics show clearly how much the industry has changed since the old days of high-pressure and razzle-dazzle. The housebuilders show that they know salesmanship covers a lot of ground—starting with the land under the house and working straight up through design and construction.

The impact of the buyer's market can this summer be seen on the front page of almost every Sunday real estate section. The Cape Cod house of depression days and minimum war housing has been replaced by the photograph of something that may be called a "ranch house" but bears an unmistakable family resemblance to the work of the best modern architects. (In an increasing number of cases it is actually the handiwork of a professional architect.) This is only the outward sign of the revolution in housebuilding design and construction which has taken place over the last decade. The return of healthy competition in housebuilding means that the increments of this revolution are now being distributed to the mass market. This is the great U. S. pattern.

Harry Dooley who builds houses in Des Plaines, Ill. spoke for many a builder: "No matter how good a salesman you have on the job, he is going to have difficulty in selling a house built in a poor location, with a design which people don't want and constructed by uneconomic methods. With these things properly planned and accomplished, the biggest half of the sale is made."

But the builders are out to miss no tricks on the second, if smaller, half of the sale, either. They are all working hard on customer financing; they know that every \$10 whittled off the down payment opens up a new part of the market; they know that the "packaged mortgage," enabling the buyer to pay for complete equipment under long-term mortgage credit, is a sales implement of first importance. And they know that competition demands that all of these improvements in today's housing product be made plain to the customer. This, as they see it, is their selling job. Here are some of the ways they are doing it, as abstracted from typical sales clinics recently conducted by the National Association of Home Builders and its chapters coast to coast.

The Model House

By now a merchant builder without a model house is almost as hard to find as a Fuller man without a brush. The day when houses could be sold from a nice water color sketch or maybe a blueprint seems gone forever, and the proper presentation of the model house has become almost as detailed and exacting an operation as the construction job itself. In the first place, builders emphasize, the model house must be meticulously clean—as sparkling as a Tiffany window.

Next in importance is a complete furnishing and expert decorating job. In most areas, this has become a competitive necessity. Only the fellow who can boast an impressive price bargain seems to be able to get by without furnishing his model house. Most make use of decorating services offered by local department stores. The smartly decorated model house has, in fact, become so standard that now builders are looking for variations on this theme. Paul Trousdale in Los Angeles, for example, recently furnished a model house with second-hand furniture and advertised the fact that the complete furnishing job could be done for \$1,000.

Fritz Burns, Los Angeles, believes it's important for the buyer to know exactly what he's getting and shows one completely furnished house, one unfurnished. Burns and other builders back up their model house by showing customers houses under construction, have a salesman at hand to explain the quality construction features not visible in the finished house.

Sidney Dwyer, Milwaukee, utilizes the basement space in his model houses as a place to do the selling job. The basement walls, white-painted, display photos of other Dwyer-built houses, and desks and plenty of chairs are provided. Customers are lured down to the basement by the invitation to deposit a chance on an electric blanket. These slips are filled out with the customer's name, address and telephone number and constitute an excellent follow-up list for Dwyer salesmen.

The Sales Organization

The trend seems clearly to be away from commission sales through independent brokers and toward the establishment of integral sales departments. Many builders feel that the problem of sales is now too crucial to be intrusted to anybody without a thorough background in the builder's own organization and special preparation

for the job. Says V. E. Troxel, Battle Creek, Mich.: "To sell a house, the salesman himself must be 'sold' on it. He should be well versed in its many advantageous features and confident of his claims in talking about such things as the heating system, the weight and durability of castings, the capacity of the furnace in Btus etc. He should be able to explain the savings realized by proper insulation, the weather resistance of the type of roofing used, the advantages of the house plan."

One Philadelphia builder dramatizes his independence

TELEVISION, that glittering new wand in the advertising fist, gave some promise of making the house sale as effortless as the vending of bubble gum. Compared to other producers who display their wares in centralized shopping centers, the housebuilder has had no easy time getting product and customer together. Now television is bringing the house, almost as real-as-life, right into the customer's living room. While this kind of advertising is still expensive and experimental, about a dozen housebuilders over the U. S. are already using it. So far these presentations have been limited to photographs and models, but several are now making movies for future programs.

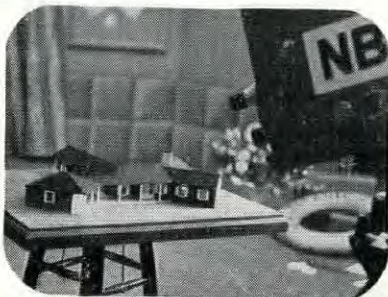
In New York Carlo Paterno is selling his swank Windmill Farms development by a weekly one-minute teleview which costs him \$200. Paterno's minute is spotted after "homey" music by a song team. Hooper says it reaches 6 per cent of New York's 400,000 televiewers. Although 89 per cent of these can't afford Paterno's cheapest house (\$30,000), he has traced one sale to television. Sample shots:

Photo-Associates

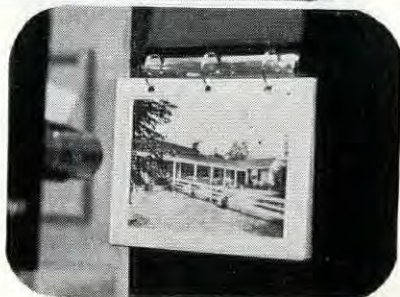


John: Margo, have you seen Windmill Farm about two miles from Armonk?

Margo: Say, that's an unusual architectural design.



John: Each building site consists of one acre. There's space for gardens and real outdoor living.



John: I know many of our listeners would like to receive this beautifully illustrated booklet. All you do is send a penny postcard.



of commission brokers in this manner: He advertises houses at \$10,000 and offers them through his own agent. The agent collects a 5 per cent seller's fee, or \$500. He then returns it to the buyer, cutting the price to \$9,500 and pointing out that this is a saving made by buying direct from the builder.

A Utah builder reports an interesting way of adding special salesmen on Saturdays and Sundays to take care of the heavier weekend crowd. He selects from his craftsmen the most intelligent and able carpenter, plumber, mason. After proper training, they circulate at the model house, making it clear to visitors that they are craftsmen working on that particular job. They not only answer questions about construction but also volunteer information as to why the specific method of construction is superior. They turn interested prospects over to salesmen for final closing of the sale. This builder reports that the craftsman's personal interest gives him an enthusiastic point of view which carries over to the prospects, while the prospects are impressed by an opportunity to get first-hand information on construction from the fellow who has done the work. As the craftsman becomes sales conscious, he is likely to have many good sales ideas. Moreover, he takes more interest in the quality of the construction work and is usually able to transmit this interest to other workers on the job.

Practically all builders employing full or part-time salesmen are now budgeting their time to allow for plenty of sales training and supervision. The recent switch from order taking to salesmanship has found many a sales staff inadequately prepared for the new and tougher job. One builder, inspired by attending a sales clinic, checked up on his salesmen and was horrified to discover that one of them was unaware that mortgage interest payments are deductible from income tax (for a \$7,000 loan, this might amount to a reduction of the monthly payment by as much as \$10 during the first year.) Few builders nowadays put much faith in "personality boys" as salesmen; they seem to believe that a mastery of the facts which make sales and the ability to be of genuine service to the customer are more important.

With most builders, service to the customer starts by arranging the most favorable financing possible and relieving the customer of as much paper work in connection with his mortgage application as possible. Usually this and many other special services are performed by the sales department. Says G. W. Maguire, Amarillo, Texas: "We help the new owners get telephones (we always have a friend at the telephone office). We order garbage cans for them and charge them 50 cents for a barrel that usually costs \$3.50. We order Venetian blinds for them on a special contract at a reduced price. We file their deeds for them, we aid them in rendering their property for taxes, we argue with the utility companies about turning the gas on this Saturday afternoon

(Continued on page 114)

PRODUCTS AND PRACTICE

BRITISH PREFAB SYSTEM uses bolted aluminum panels to build permanent school additions and complete schools

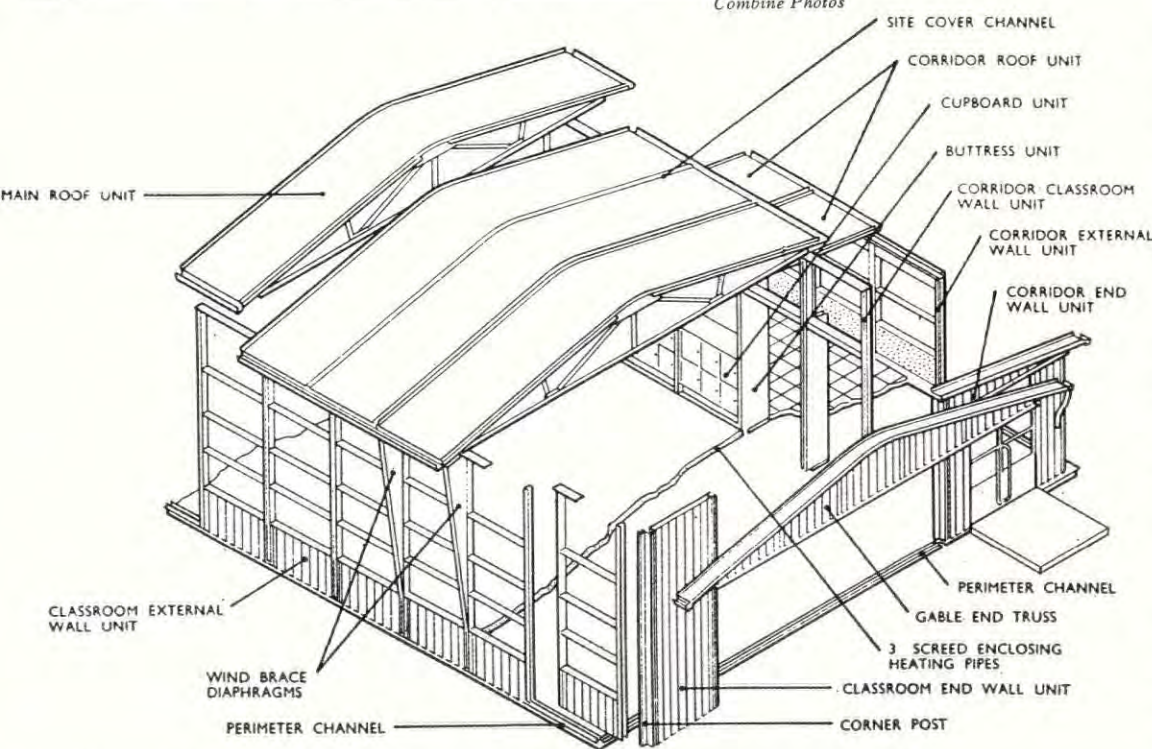
The British airplane industry has started producing prefabricated aluminum schools for two big reasons. The first is the immediate need for new school buildings in England, both replacement and on new sites, caused by an increase in the number of students and a lengthening of the term of schooling for many of them. The second reason is that of industrial conversion; a good part of the airplane factories have had to beat their bomber frames into buildings to stay in production.

A result has been these completely prefabricated, permanent school buildings, the first of which was erected in Lockleaze, Bristol, by the Bristol Aeroplane Co. in March 1949. In this system the attempt had been made to reduce to utmost simplicity not only the structure of the finished buildings, but also the off-site production of the component parts. Photographs and drawings here illustrate the considerable degree of success attained in both these directions. And in the school at Lockleaze, whose architects were J. Nelson Meridith, F.R.I.B.A., and R. A. Agascar, A.R.I.B.A., the prefabricated sections have also been assembled into a respectable solution with regard to principles of contemporary school planning. Light, airy classrooms are provided in a sprawling plan, whose narrow wings and long perimeter are the logical result of building with walls which can be assembled so quickly and easily. This structural system was designed for additions as well as for new buildings. A good deal of flexibility is allowed the architect who uses this system; he can vary the shape and cubage of the wing easily, and wall sections are built so that the glass area also can be varied vertically by insertion of a solid panel. No particularly difficult production problem is caused by

British Information Service

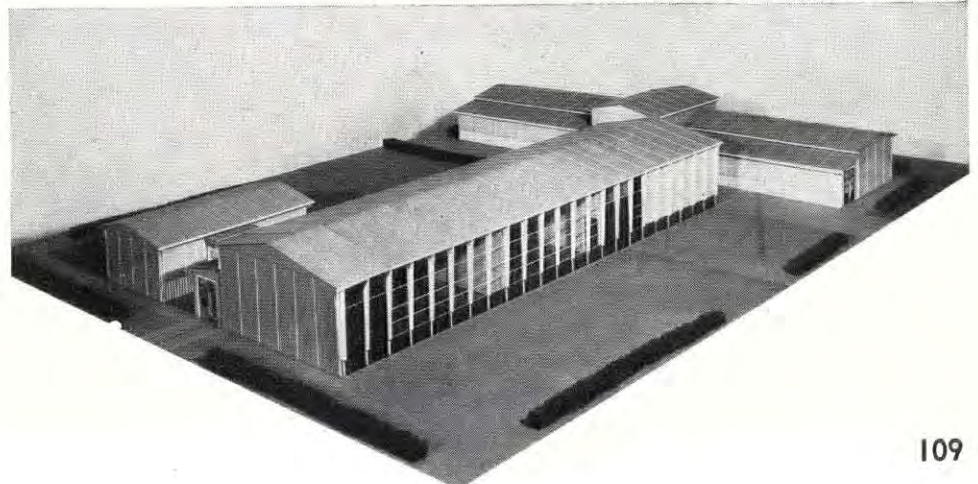


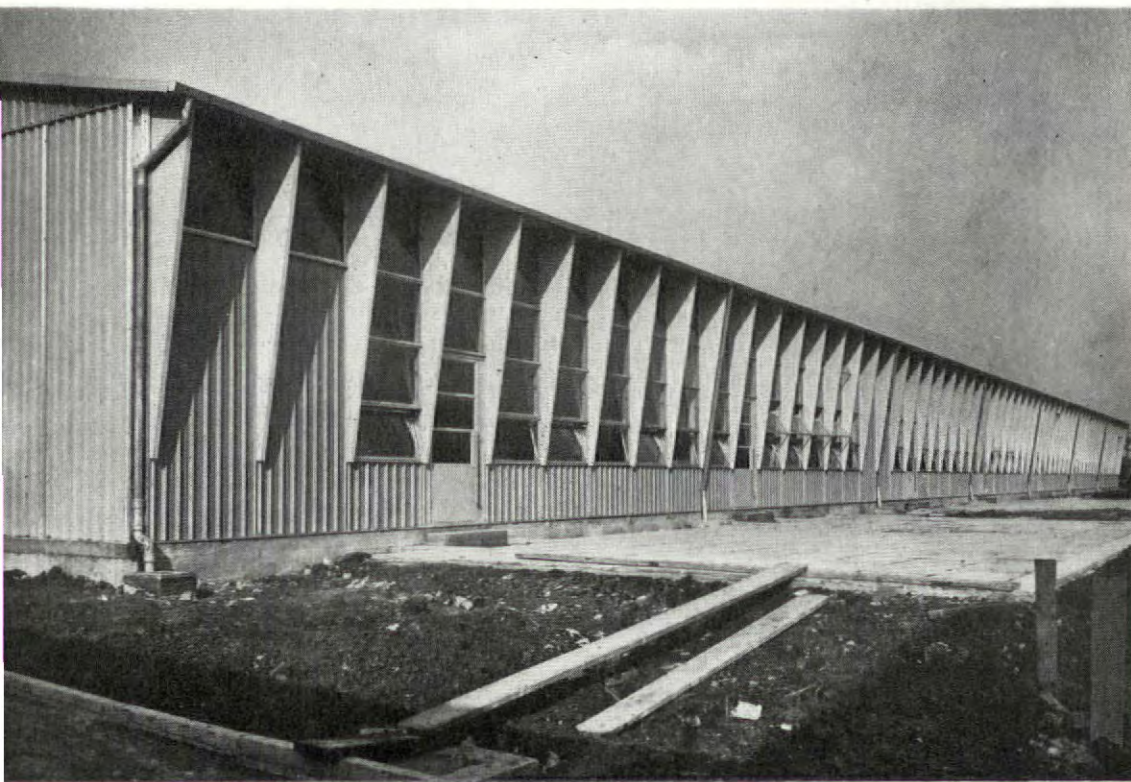
Combine Photos



WALL PANELS are bolted together at mullions to form structural frame of building and subframe to windows. Base panels are bolted to perimeter channel. Top panels bolt to roof.

MODEL of school built with new prefab method. Building is not inexpensive, but goes up fast, and is saving of critical materials in England. Roof units, see photo top of page, are light enough to be handled by two workmen with the proper tackle.

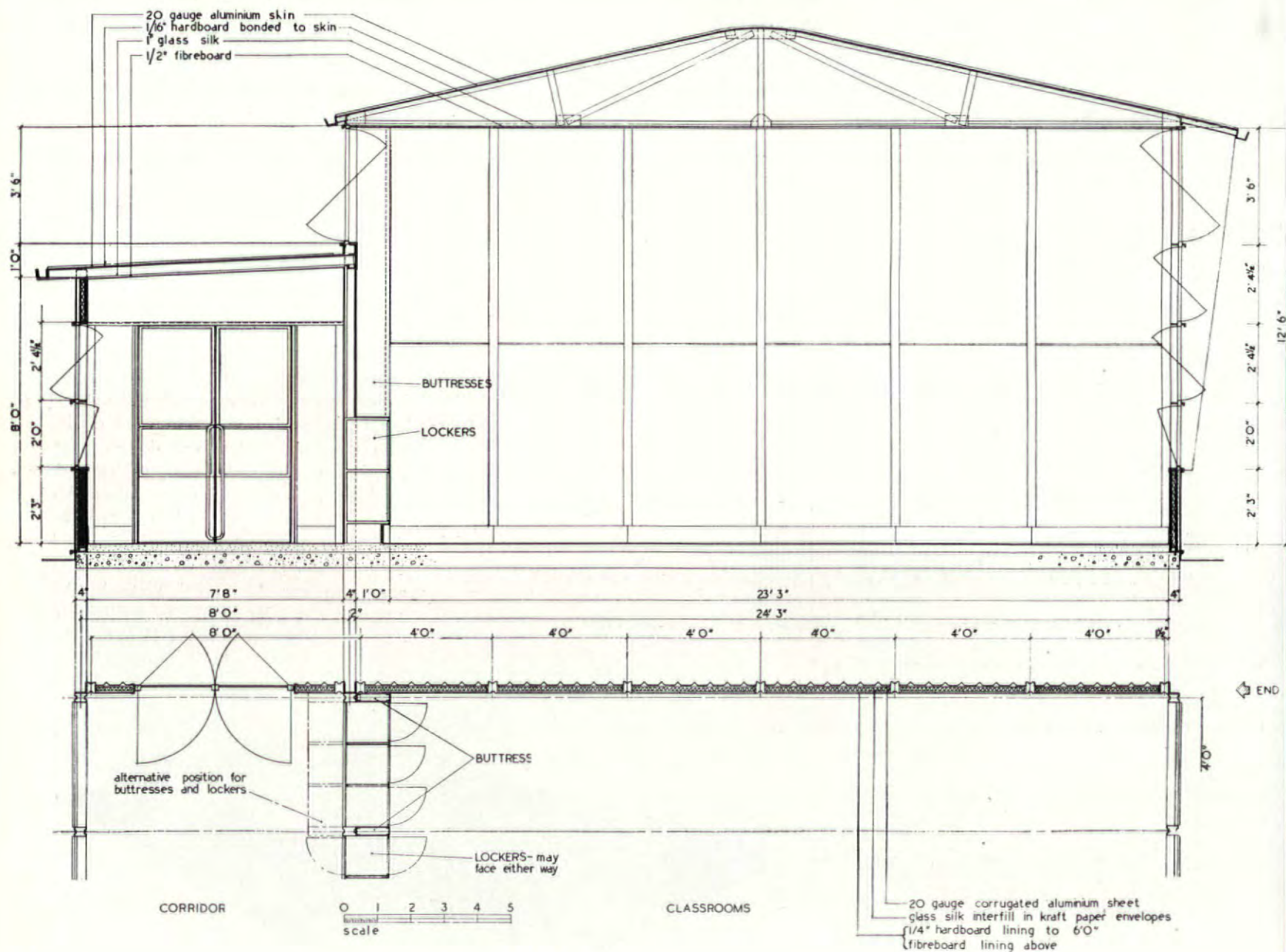




Photos: Combine Photos

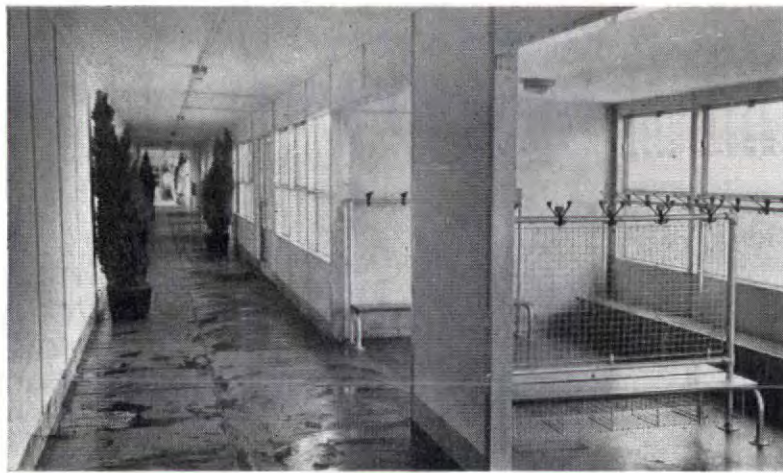
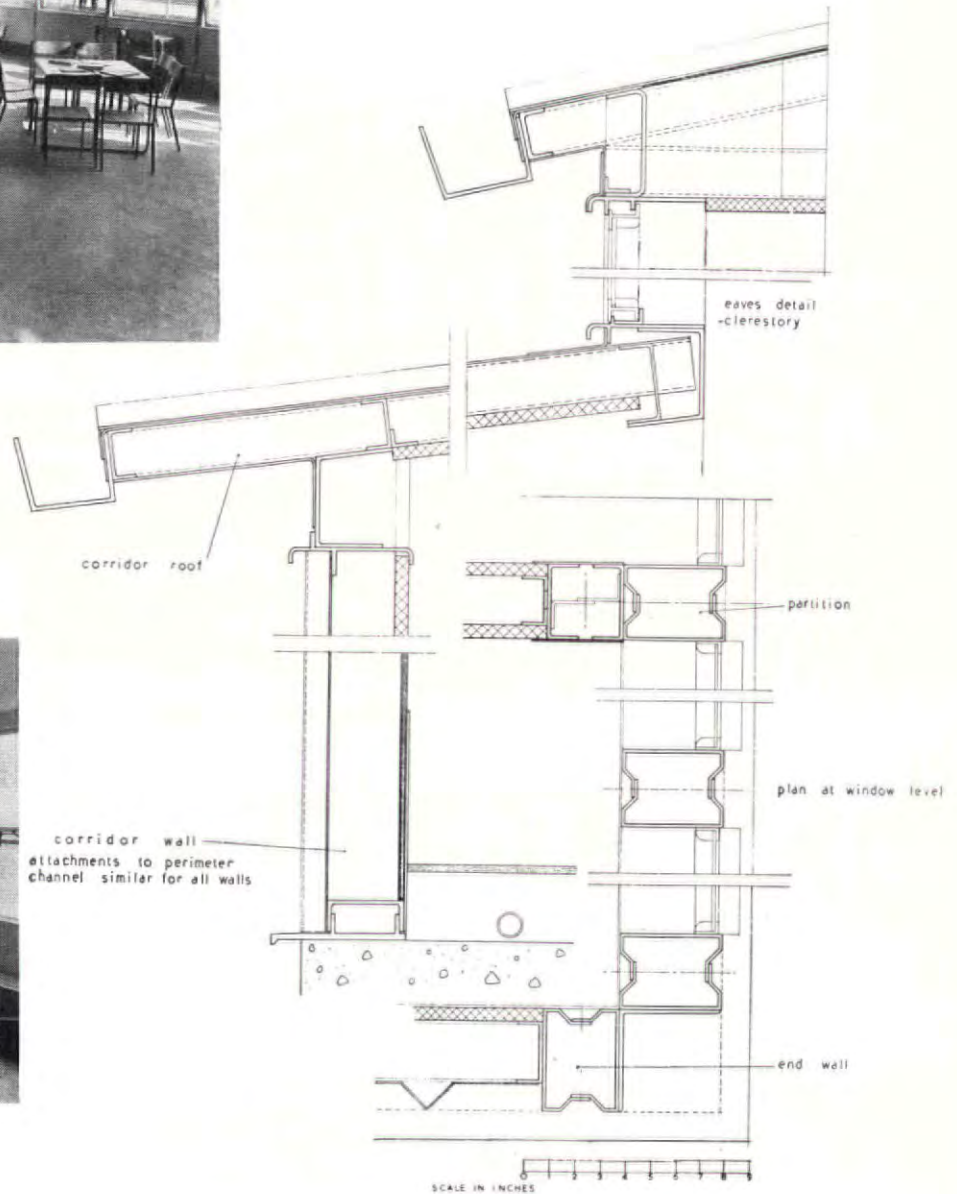
RESISTANCE TO WIND LOAD on side of building where classrooms can be completely glazed is the job of triangular bracing diaphragms attached to the outside walls. These fins are the characteristic visual feature of the structure, a strong link between the building of airplanes and walls. Aluminum panels easily replace glass between stiffeners.

STIFFENING OF THE BUILDING on the circulation side (see section below) is concentrated in the bracing between corridor and classrooms. Aluminum units are delivered from the factory complete with internal and external finishing, ready for erection after the floor slab has been poured. One variation in design has coat and storage room built on far side of hall.





DETAILS OF STRUCTURAL CONNECTIONS (to right) Indicate directness of construction. Interior photographs, above and below, show simple interior-finish. Ever-present problem of color in aluminum construction is handled in usual way—with small areas of bright color on windbraces and doors, to contrast with natural aluminum finish, which gradually will darken.



the choice of glazed or opaque walls—although many American school architects might think there was too much glass in the Lockleaze School, even considering differences in climate between their locales and Bristol.

Apart from service areas, all walls here are of the prefabricated aluminum unit construction. The units are a standard 4 ft. width, varied in height according to pattern. Roof sections incorporate structural frame, weatherproof external skin, internal ceiling and acoustic and thermal insulation. Each section is formed of 20 gauge aluminum sheet, to which a layer of mill-board is secured and riveted in the factory to aluminum purlins, which in turn are riveted to two light trusses at 4 ft. centers. Under these is hung the finished ceiling, consisting of insulating board overlaid with a glass silk quilt to give the necessary thermal and acoustic insulation. Eaves are fairly deep to help kill glare.

End walls are formed from corrugated sheeting in framed panels filled with glass wool, where these aluminum classroom wings are not butted into masonry.



RADIANT HEATED SWIMMING POOLS maintain even temperature throughout depth

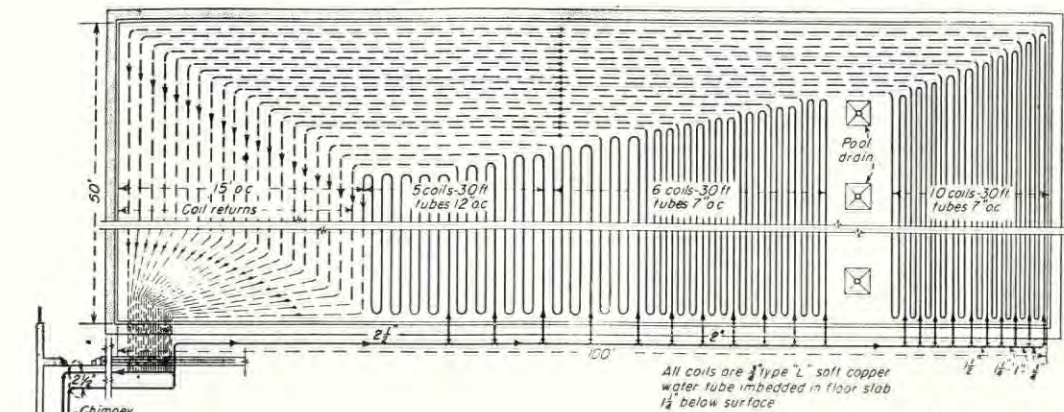
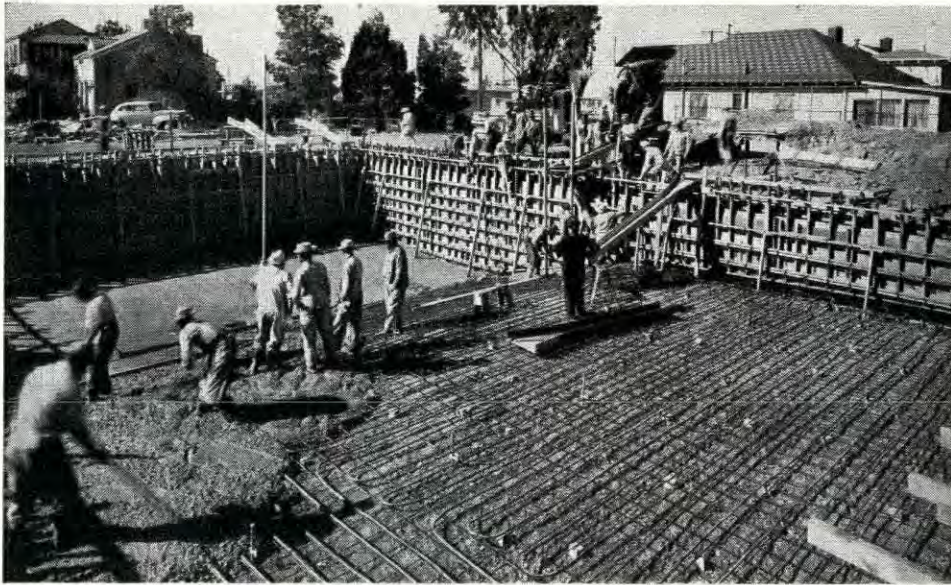
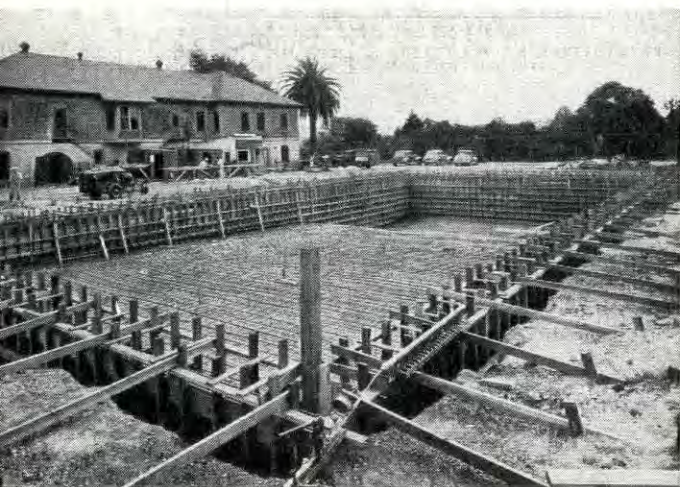


DIAGRAM OF COIL ARRANGEMENT and mechanical design of swimming pool. Note closer occurrence of heating coils at the deeper end of the pool.



SWIMMING POOL at Oakland High School during concrete pour. Coils are attached to the reinforcing steel, and the steel is supported on concrete saddles. At left coils are pressure tested before pouring.

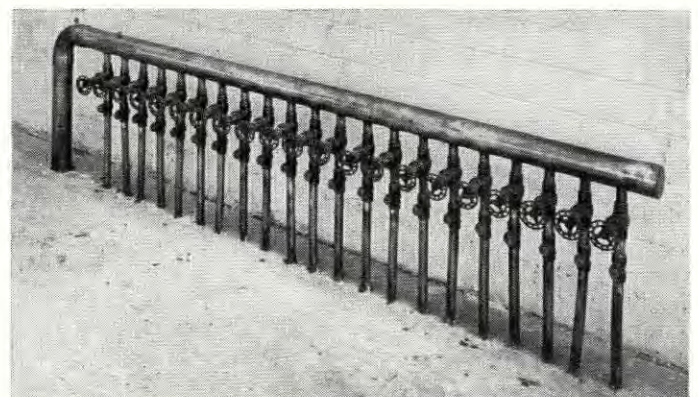


Hamlin Studio

COMPLETED POOL, photographed at opposite corner from that of photo above. Water temperature can be held within one degree variation at all depths. Comfort point is 74°F.

Five large swimming pools constructed recently for the city of Oakland, Calif. have hot water radiant heating panel systems built into their bottom slabs. Engineers Robert Bruen & Son, who built them, and who have experimented with the heating method on smaller pools, describe three advantages of the system: 1) the water is evenly warmed, without the usual foot deep layer of warm water stratified on the surface; 2) there is considerable operating economy (sometimes as much as 40 per cent in fuel costs) because the surface water is more nearly the same temperature as the deep water, and so loses less system heat than conventional systems; 3) there is less wear on the heating system itself. Explanation for the last point is that in conventional systems, which circulate the chemically purified highly corrosive pool water outside the pool to warm it, there is great wear on the boiler. In the radiant system only the relatively harmless coil water must be circulated through the boiler—pool water itself is merely filtered, treated, and returned to the pool.

The Oakland pools measure 50 x 100 ft., and when full each contains 230,800 gal. of water. The heating systems were designed to warm the pool at the rate of approximately 1° F. per hour, in average spring, summer, and fall weather in Oakland. To accomplish this, approximately 7,000 lin. ft. of $\frac{3}{4}$ in. flexible copper water tubing was laid on the floor of each pool in sinuous curves, on varying centers from 7 in. to 12 in., each coil containing approximately 250 ft. of tubing. When the concrete floor slabs were poured the coils were lifted up and positioned approximately 2 in. beneath the surface of the 8 in. slabs. Water at 180° F. is circulated through the coils.



RETURN MANIFOLD for the set of heating panels is located under one of the front windows of the equipment room shown in photograph to left. Pool custodian regulates temperature with electric switch.

"Open . . . for Business!"



Full clearance on all four sides

Any one of the thousands of busy industrial plants now equipped with Ro-Way Doors will tell you that when they are opened, they are really "*open for business.*"

No other type of door gives so much clearance on all four sides of the door opening. Big loads . . . wide loads . . . high loads roll in and out of Ro-Way equipped plants freely . . . easily . . . and safely.

Time is saved . . . tempers are spared . . . operating costs are lower all because Ro-Way Doors are designed and built completely in Ro-Way's own plant to serve industry faster . . . better . . . and longer.

For name of Ro-Way authorized distributor near you consult the yellow pages of your telephone directory, or write us.

ROWE MANUFACTURING COMPANY
953 Holton Street
Galesburg, Illinois, U.S.A.



There's a RoWay for every Doorway!

WHAT WINDOW IS:

... EASIEST TO SELL?

... SAFEST TO RECOMMEND?

Why,

The REMOVABLE Window
of course—R.O.W!

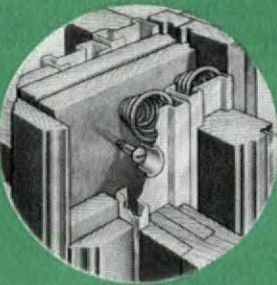
REMOVABLE

She Washes Both Sides IN-DOORS! She moves the lower sash up, the upper sash down, presses the left side of each, and removes. No weights, no cords, no pulleys.



OPENS EASILY

Never sticks, never rattles. Metal side-jamb is spring cushioned. Compensates for expansion and contraction. Wood-against-metal sliding surface means easy opening and closing.



WEATHERSTRIPPED

Infiltration, 22.1% less than government requirements. R.O.W. Windows can be shipped to your job complete; no assembling on-the-job.



The R.O.W. Window is nationally advertised, nationally accepted. Over four million in use. There are 47 R.O.W. Distributors—one near you. For his name, write R.O.W. Sales Co., Dept. A8, Royal Oak, Mich.

instead of next Monday, we assume a multitude of responsibilities that are usually borne by the purchaser and it pays big dividends."

The Prospect List

Most builders spend considerable time in spreading the net which brings in a steady stream of customers. The famed J. C. Nichols Co. of Kansas City, which is both a real estate broker and a neighborhood developer, emphasizes the continuous building up and cultivation of prospect lists. Nichols' salesmen keep a record of every person to whom they have sold and keep in touch with them by greeting cards, special firm brochures, letters, etc. This serves as a regular reminder to these satisfied customers to recommend the Nichols firm to their friends. Salesmen make a special effort to keep in touch with owners for whom they have sold houses and who have moved away from town. This out-of-town mailing list is supplemented by all out-of-town personal acquaintances of the salesmen. Says Nichols: "At least 1,500 persons throughout the U. S. will think of one of our salesmen when they hear of a family moving to Kansas City."

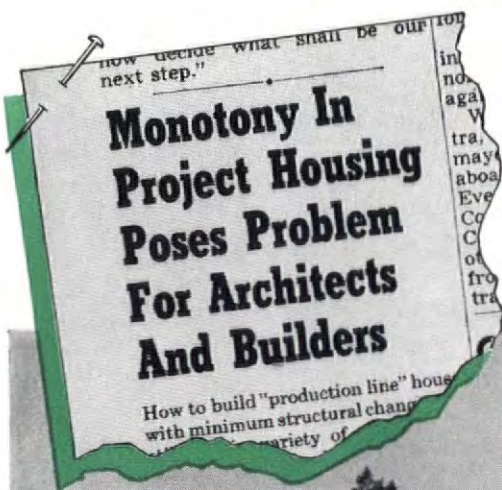
Nichols is also a past master of the principle that people like to live near people they know and like. If a house is up for sale, the first step is to call on ten adjoining neighbors for suggestions as to prospects. When a house is sold to a member of a business firm, the salesman keeps in regular touch with the original buyer for other prospects in the same company. Nichols recently discovered that 39 TWA employees had been sold houses in one of his subdivisions. To work this apparently rich lode even further, he prepared a map of the subdivision and marked the location of each TWA buyer, giving his name, new address and TWA position. This map was distributed throughout the company. Similar intensive campaigns are sometimes carried on in apartment houses from which a buyer has been lured.

Some housebuilders give cash bonuses to buyers who put them on the trail of other buyers. Fritz Burns, well-known for his "psychological equity" scheme of persuading the buyer to do his own landscaping by providing him with the plants, has a characteristic variation. He sends all buyers a card with space for listing 10 possible prospects on one side; on the other is a list of shrubs and plants—the owner checks his choice and receives one shrub for every prospect suggestion.

Advertising

Although the display ad is still the first device that comes to the housebuilder's mind when he seeks to connect house and customer, a large number of builders are employing radio advertising, many make use of regular direct mail campaigns, and a few are using that brand new medium—television. Whatever the size of the advertising budget, most housebuilders agree that careful planning is the way to get the most for their money and a sizeable number are now employing advertising agencies to plan their advertising expenditures.

(Continued on page 116)



STAINED SHINGLES & SHAKES GIVE PROJECT HOMES VARIETY IN COLOR, STYLE, DESIGN...



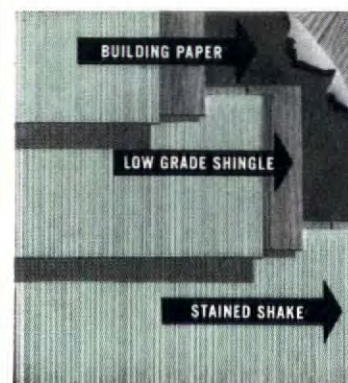
The application of Stained Shingles alternated with Stained Shake walls can be specified so that no two adjacent homes of a project are alike in color, weather exposure or surface texture. Variety of Stained Shingle roof colors adds further distinction to each home. The table below recommends a typical set of roof and wall modifications out of hundreds of practical combinations.

<p>1</p> <p>ROOF: Shingles [Green] WALLS: Shakes [16"] Exposure [12"] Color [Green]</p>	<p>2</p> <p>ROOF: Shingles [Red] WALLS: Shingles [16"] Exposure [8"] Color [White]</p>	<p>3</p> <p>ROOF: Shingles [Oiled] WALLS: Shakes [16"] Exposure [12"] Color [Brown]</p>
<p>4</p> <p>ROOF: Shingles [Brown] WALLS: Shingles [18"] Exposure [14"] Color [Tan]</p>	<p>5</p> <p>ROOF: Shingles [Red] WALLS: Shakes [24"] Exposure [18"] Color [White]</p>	<p>6</p> <p>ROOF: Shingles [Blue] WALLS: Shingles [24"] Exposure 18" Color [Grey]</p>

VARIATIONS are virtually limitless, as walls may be applied at any desired exposure between 6½" and 16". Application details are available in Sweet's File 8b 7a.

ECONOMICAL because both Shingles and Shakes are available in a wide variety of colors and pre-staining greatly reduces cost of color application after construction.

EASY APPLICATION is important in project construction. For exposures greater than 8", double-coursing application is simple and economical. Combines use of Stained Shakes over inexpensive grade of cedar shingles as shown below. Details in Sweet's File 8b 7a.



STAINED SHINGLE & SHAKE ASSOCIATION

835 CENTRAL BUILDING, SEATTLE 4, WASHINGTON

**EXPERIENCED ENGINEERING
DEVELOPS NEW, QUICK-ACTING
FIRE EXTINGUISHER**

tests

TESTS

and more

TESTS!

Now ready!



**C-O-TWO
DRY CHEMICAL TYPE
FIRE EXTINGUISHER**

Test after test, changes, improvements, simplifications . . . now the new C-O-TWO Dry Chemical Type Fire Extinguisher is ready, having features that make it one of the most efficient, fool-proof, easy-to-use fire extinguishers known.

SELF-CONTAINED UNIT...no extra gadgets protruding or complicated operating instructions . . . a real down-to-earth fire extinguisher that does a highly efficient job.

C-O-TWO DRY CHEMICAL IS FREE FLOWING . . . no syphon tubes or valves within the cylinder to become clogged or inoperative . . . special dry chemical formula developed to ensure proper flow . . . discharge hose and nozzle remain empty until fire extinguisher is actuated.

TWO CONVENIENT SIZES to fit your fire fighting needs...20 pound capacity and 30 pound capacity . . . both engineered for fast, positive action the instant fire strikes.

APPROVED . . . Underwriters' Laboratories, Inc. rating is B-1, C-1. C-O-TWO Dry Chemical is non-conducting, non-corrosive, non-freezing and non-toxic . . . highly effective on flammable liquid and electrical fires.

ON-THE-SPOT RECHARGING...no special tools needed...C-O-TWO Dry Chemical for recharging is sold in handy pre-measured 20 and 30 pound sizes as well as in a 50 pound bulk size . . . all sizes packed in durable moisture proof containers.

Act now for complete free information on our newest contribution to modern fire fighting . . . just clip this advertisement to your letterhead or calling card and mail today . . . no obligation.



C-O-TWO FIRE EQUIPMENT COMPANY
NEWARK 1 • NEW JERSEY

Sales and Service in the Principal Cities of United States and Canada
AFFILIATED WITH PYRENE MANUFACTURING COMPANY

While not everybody would want to go as far as the lumber dealer named Green who wears green ties, hats, socks and writes in green ink on green paper to help people remember him, most builders recognize the importance of a slogan or trademark for easy identification. Such a slogan is prominent in the display sign in front of the house, the builder's stationery and cards, lettered on the sides of trucks, prominent in the display ad, and a part of every radio broadcast. The most successful of these are simple statements, usually incorporating the firm name. Frederick Gerhardy of Detroit says: "Our signs carry no other notation but that the house is 'Gerhardy Built' and that 'Quality Goes Clear Thru.' We have noticed frequently that purchasers reselling our homes have advertised in the classified sections that their home was 'Gerhardy Built.' Our whole sales argument has been based upon the premise that we are building a superior home."

L. E. Gardner of Wichita, Kan. stamps every house he builds with the "Diamond Bar" brand used years ago by his father on a Kansas ranch. By consistent advertising, Gardner has established this brand as the mark of quality in design, materials and workmanship.

Radio advertising is a favored expenditure with the firm of Stockton, Whetley, Davin in Jacksonville. This company stars the first buyer in each new neighborhood on a radio interview. The whole family appears and answers questions about the house; their replies are enthusiastic and the program pulls in excellent response from listeners. N. J. Bowman of Salt Lake City uses mobile units for on-the-spot broadcasts which are picked up by Sunday drivers on car radios.

Beyond the long-term advertising job of establishing a company's reputation and of making customers want to buy a specific house, many progressive builders now see a special advertising necessity arising out of the current market situation. This is the job of bringing prosperous but cautious customers into the building market. It means advertising to prove the fact that a house is a good buy now. Some builders have found that moving their newspaper advertising out of the real estate pages into display space in the main news section is a good way to attract customers.

One extremely simple advertising device in which builders put a great deal of faith is the final "Sold" sign. Nothing begets sales like sales, the builders say, and putting up "Sold" signs as fast as buyers appear is one of the best ways to move a development.

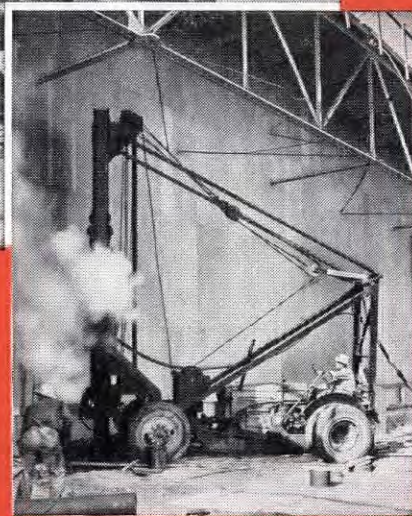
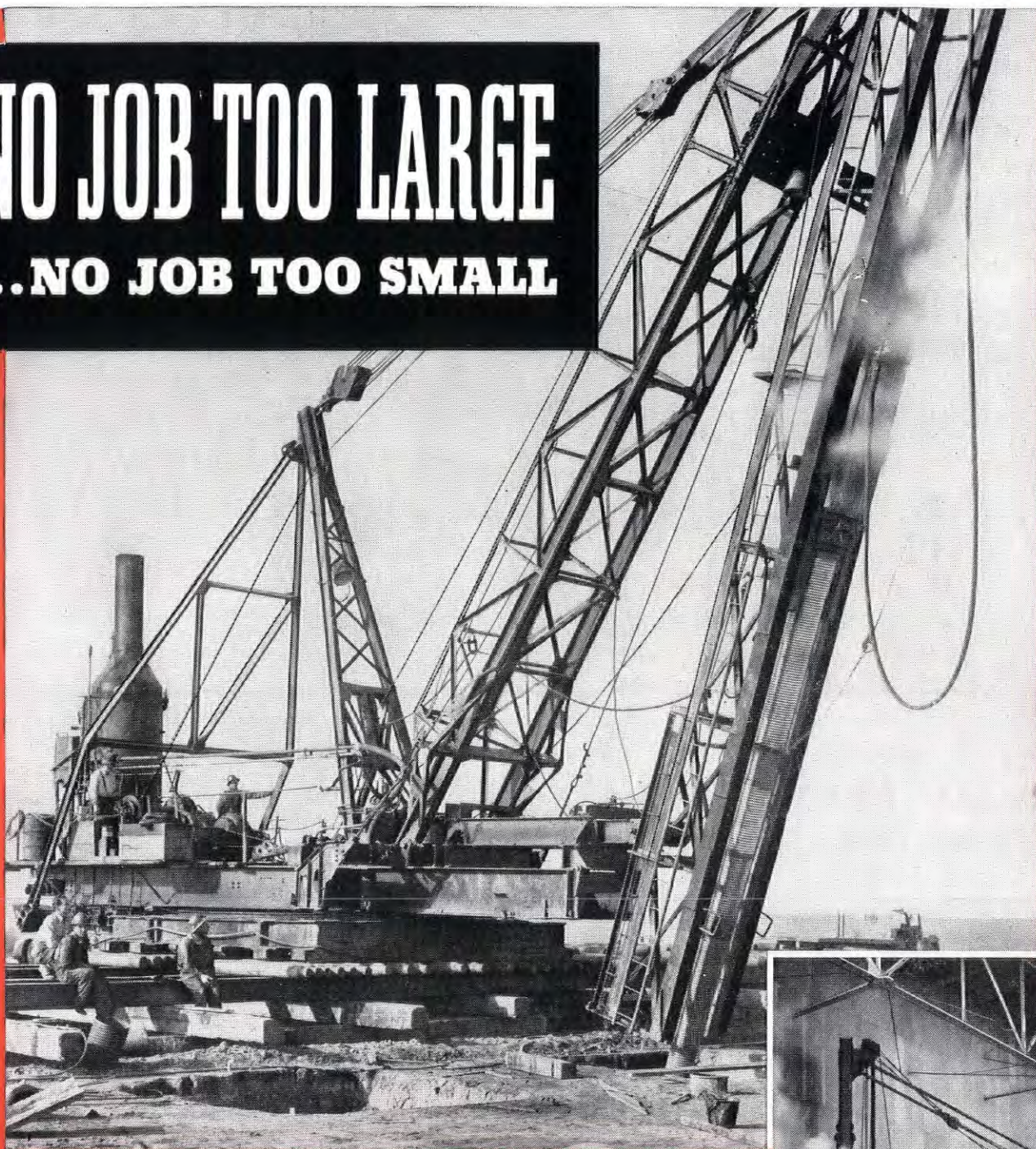
Public Relations

Housebuilders who have thought through the matter of public relations seem to have reached the conclusion that the public to which they hope to relate cannot be found in a neat package labeled "Buyers." The builder's public includes bankers, suppliers, local planning and building officials, subcontractors and employees as well as customers. Each of these segments of the builder's public can,

(Continued on page 118)

NO JOB TOO LARGE

...NO JOB TOO SMALL



From a job of a few piles to one requiring many thousand piles, from a single caisson to a skyscraper foundation, from a simple soil investigation to a complete port development—no job is too large or too small for the Raymond organization. Specialized equipment, broad experience and highly trained personnel are your assurance of dependable work at minimum cost.

Your inquiry will receive prompt attention.

52 YEARS

FOUNDED
1897

OF PROGRESS

RAYMOND CONCRETE PILE CO.

140 CEDAR STREET • NEW YORK 6, N. Y.

Branch Offices in Principal Cities of
United States and Latin America

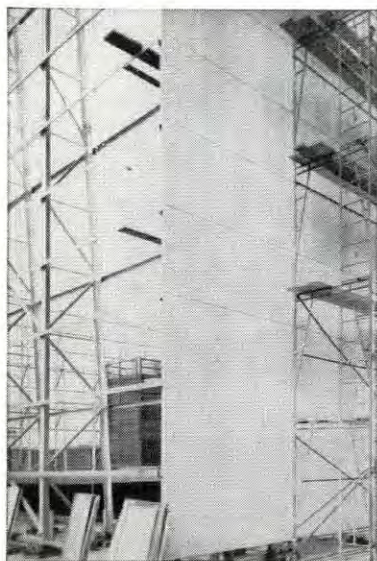
SCOPE OF RAYMOND'S ACTIVITIES includes every recognized type of foundation construction—concrete, composite, precast, steel, pipe and wood piles. Also caissons, underpinning, construction involving shore protection, shipbuilding facilities, harbor and river improvements and borings for soil investigation.



GENERAL PETROLEUM BUILDING, LOS ANGELES, CALIFORNIA

for an Harmonious Blend

SEAPORCEL PORCELAIN ENAMEL WAS SELECTED



Topping this new magnificent building is an installation of over 24,500 square feet of Seaporcel Porcelain Enamel . . . yes, virtually 30 tons of this mechanically fastened material of permanence and beauty.

Matching the varied shades and textures of this structure's terra cotta exterior, lightweight Seaporcel Porcelain Enamel completes in perfect harmony the impressive dignity of this distinctive new building.

Holes to accept letters and Pegasus figures were burned in by gas torch on the job after porcelain enamel was erected.

**FOR JOBS LARGE OR SMALL
SEAPORCEL IS PRACTICAL • EASILY CLEANED
DURABLE • ECONOMICAL • FIRE RESISTANT**

Write today for catalogue showing application and current jobs.

SEAPORCEL METALS, INC.

Formerly Porcelain Metals, Inc.

28-14 BORDEN AVENUE, LONG ISLAND CITY 1, N. Y.

Complete A. F. of L.-Metal Fabricating & Enameling Shop

West Coast Representative: McFarland & Co., 1206 West 7th Street, Long Beach 13, Calif.



*Reg. U. S. Pat. Off.

Seaporcel

Member Porcelain Enamel Institute, Inc.

by their attitude toward him and his work, make the difference between profit and loss on a building job. The banker's liberality on construction financing, for example, will be in direct relationship to his confidence in the builder's performance. And since the banker has a multitude of influential contracts with the buying public, he will be an important source of customers for the builder in whom he has that confidence. While housebuilders know a little hoopla can do a lot to attract the public eye, they also understand that solid accomplishment and an honest sense of responsibility to the community are the indispensable basis of successful public relations.

Unlike the large corporations which over the last 20 years have developed the science of "public relations," the housebuilder has never been remote from his market. Perhaps that is why he seems to have a sure and almost intuitive grasp of the essentials of winning and holding public approval. The builder's approach to his market—and to the factors in his community which influence his market—has none of the formalized, institutional character of the activities sometimes prescribed by the high priests of public relations. The housebuilder would no more think of consulting the professional for a public relations prescription than the average housewife would go to Dale Carnegie for advice on how to get along with the people next door. The builder's public—whether they are bankers or buyers—are, after all, his neighbors. Thus it comes natural for Bill Atkinson in Oklahoma City to buy Shetland ponies and boost the kids up for rides when their parents come to look at his ranch development. It is equally natural for David Bohannon in San Francisco to serve on civic committees, on the city planning and park commission, in the Chamber of Commerce.

This report on public relations from A. J. Alexander, Akron, reflects a typical attitude: "We started some years ago to throw our cost records and construction data open to all banks, loan companies and interested builders. This proved to be one of the best public relations jobs we have ever done, and has paid off in the size loans we are able to get from local building-and-loans without the aid of FHA insurance.

"With the beginning of the war these people came to us for all kinds of information on what they could do about building. They also sent a lot of their clients to us and we have made it a rule, regardless of how much time it took, to answer these questions. This has built up until now the Better Business Bureau, the Board of Trade and the Chamber of Commerce are referring people who ask for information to us. We find that it has paid off exceptionally well.

"On our construction jobs, we cultivate the neighbors and the side-walk superintendents. We start with the digging of the basement and all those connected with our work, even the mechanics, are instructed to answer all questions asked them in a friendly manner. We point out the good points of our construction as it progresses to these spectators, with the result that invariably we have a large force of free salesmen in the neighborhood."

(Continued on page 120)

SCIENCE'S GREATEST ACHIEVEMENT IN ELEVATOR TRANSPORTATION

Selectomatic...

THE FIRST ELEVATOR SYSTEM
WITH THE "INTELLIGENCE" TO
SOLVE ANY PASSENGER
SERVICE PROBLEM . . .
AUTOMATICALLY

Science has found the answer to a long-standing challenge . . . how to control the operation of an entire bank of elevators so that every passenger on every floor gets uniformly fast service . . . fully automatically.

Selectomatic is a proved elevator system that, by means of a unique electric brain, instantly and continuously senses changes in elevator demand—then automatically times and regulates the entire bank to answer each call quickly.

An exclusive Westinghouse development, Selectomatic is the result of 25 years of leadership in vertical transportation engineering. Write for your copy of book B-3597. Westinghouse Electric Corporation, Elevator Division, Jersey City 4, N. J.



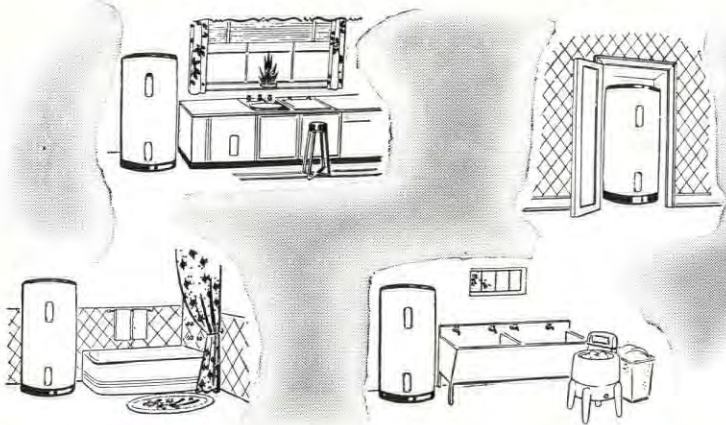
CHECK . . . AND
YOU'LL SELECT

Selectomatic Elevators

YOU CAN BE **SURE**...IF IT'S
Westinghouse

Purr-r-ing along!

The demand for Electric Water Heaters is purring along in high. Sales and survey figures both show that more people want this modern type of water heater than ever before. The only way to satisfy them is to install in the homes you build the kind of water heater that will satisfy your customers both now and years from now, and—
OF COURSE, IT'S ELECTRIC!



How to reduce construction costs and add customer features...

Electric Water Heaters can save you money on construction costs. Installation can be made anywhere—in the kitchen, in the bathroom, or the utility room—even in a closet. This keeps hot water lines short, cuts piping cost.

Customers like Electric Water Heaters because they are: (1) AUTO-

MATIC (continuous hot water, no attention); (2) CLEAN (smokeless, sootless); (3) DEPENDABLE AND TROUBLE-FREE (as electric light); (4) ECONOMICAL (fully insulated storage, short hot water lines); (5) SAFE (all electric, dependable temperature control); (6) FLEXIBLE (can be installed anywhere, even in living quarters; no flue or vent).

ELECTRIC WATER HEATER SECTION, National Electrical Manufacturers Association
155 East 44th Street, New York 17, N. Y.

BAUER • BRADFORD • FAIRBANKS-MORSE • FOWLER • FRIGIDAIRE • GENERAL ELECTRIC • HOTPOINT
HOTSTREAM • JOHN WOOD • KELVINATOR • LAWSON • MERTLAND • MONARCH • NORGE • PEMCO
REX • RHEEM • SELECTRIC • SEPSCO • SMITHWAY • THERMOGRAY • TOASTMASTER
UNIVERSAL • WESIX • WESTINGHOUSE

IT'S EASY TO INSTALL an electric WATER HEATER!

... in a house wired for an Electric Range!

In Tacoma, Wash. housebuilders have joined together to conduct round-table meetings with veterans' groups and others interested in housing. Says Edward Miller: "We have been able to present our views on the housing problem as well as listen to theirs, and attempt to arrive at some mutually satisfactory solutions."

Housebuilders recognize clearly that the relationship with buyers does not stop when the sale has been made. Intelligent and careful handling of this continuing relationship is the best kind of business sense. Says Troy Jones, Amarillo: "Seventy-five per cent of the houses I have built since the war have been sold by my customers to their friends."

Many builders now dramatize the home purchase with devices such as a deed handsomely printed on parchment, golden "keys of happiness," etc. Some send flowers after the housewife moves in, some send owners a plant every Christmas. Along with these friendly gestures, builders are now doing valuable work in educating the owner in home maintenance. Fritz Burns has been putting out a booklet on proper care and maintenance of the house for several years. "The current one is called *Keeping up with the Jones* and is illustrated with cartoons," he says. "We cover such topics as how to take care of the lawn, the landscaping, how to adjust the garage door, how to clean glass mirrors and woodwork, how to handle the fuse box or circuit breaker, how to fix the furnace, fix electrical cords and plugs and broken windows, doors that stick, how to take care of the cedar shingles, etc. I have always felt that people were perfectly willing to take care of the little things about a house, but they don't know what to do so they call you up and want you to come and see it. But you have to be specific. It isn't enough to tell somebody how to light the pilot by merely saying that you touch a match to it. People know that, but they are afraid they might touch the match to the wrong place and get blown through the roof."

Practically all builders seem to be assuming responsibility for any construction defects and believe that a prompt response to the owner's complaints is an important part of their job. An example is V. F. Buchek, who says: "For one year after completion of a house our maintenance men make periodic checks for required repairs. This is paid for out of a maintenance fund accumulated by setting aside a nominal amount from each sale. By handling the maintenance fund in this manner the money is spent cheerfully and creates good will, which sells more houses." There is a growing trend to formalize the builder's responsibility for construction by a written guarantee, which has great appeal for customers. Joe Driskell in Fort Worth, Tex. specifies a standard of construction and guarantees it for two years against defective workmanship and materials. All expenses on this guarantee are charged to advertising. Says John B. Goodwin, Memphis: "We make our sales with a one-year guarantee of free service on all mechanical defects and, of course, any defective materials are removed as long as three or four years after sale of the houses."

(Continued on page 122)

**HOME
BUYERS
CAN
GET
THEIR
BACKS
UP, TOO!**



...of course, it's Electric!

When customers are about to sign the contract, they can "get their backs up" if you don't offer them the kind of cooking equipment more people want—modern Electric Ranges!

The trend to Electric Cooking is proved by the fact that another million American families switched to it last year. Conservative estimates indicate that the same thing will happen again this year.

So build houses that are modern today and will stay modern for years to come. During construction, include wiring for an Electric Range, leading to a range outlet in the kitchen. An Electric Range, like electricity itself, is now a "must" in every modern home!

ELECTRIC RANGE SECTION, National Electrical Manufacturers Association, 155 E. 44th Street, New York 17, N. Y.

ADMIRAL • COOLERATOR • CROSLEY • FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOTPOINT
KELVINATOR • LEDO • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE

*Follow
the trend...*

WIRE YOUR HOUSES
FOR ELECTRIC RANGES

Another 1,000,000 American families switched to Electric Cooking last year



SEARING FLAMES RAZE BUILDING

but fail to destroy

WRIGHT RUBBER TILE



Interior of a Racine building destroyed by fire. Wood subfloor was a total loss, yet most Wright Rubber Tile was used again.

Severely damaged by fire—that was the fate of this Racine building. But the Wright Rubber Tile, after being wiped off with a damp cloth was unharmed—still gleaming bright and color perfect! In fact, this same tile was later taken up and relaid in a new building where it is still giving excellent service.

A miracle? No—just the kind of proof we get from owners of fire-gutted buildings—proof that Wright Rubber Tile positively *will not support combustion*.

Fire resistance is one of the big reasons why Wright Rubber Tile is being specified in thousands of homes, hospitals, offices and public buildings throughout the country.

Other advantages are over-all economy, comfort, durability, ease of cleaning, and beauty. Ask your dealer about Wright Rubber Tile today.

Wright Manufacturing Company, the world's oldest and most respected manufacturer of rubber tile flooring makes all three of these famous products:

WRIGHTEX soft rubber tile
WRIGHTFLOR hard surface rubber tile
WRIGHT-ON-TOP Compression Cove Base
 (in black and colors)

A note on your company letterhead will bring you full information plus free samples of Wright Rubber Tile, the world's finest floor covering. Simply send your request to the Wright Manufacturing Co., 5203 Post Oak Road, Houston 5, Texas.

WRIGHT RUBBER TILE

FLOORS OF DISTINCTION

Because a guarantee is hard to define and because no builder can assume unlimited liability for what happens to his construction, a new and alternative method of re-assuring the buyer is now being discussed by members of the Home Builders Institute of Nassau County. A set of guaranteed specifications and blueprints would be given to each buyer. The blueprints would be useful if future repairs or remodeling were undertaken by some one other than the original builder. In presenting the specifications, the builder would certify that construction and materials were used as specified and would give trade names to show the buyer that he is getting quality products.

Extras

Whether they are building \$40,000 houses for the luxury market or \$6,000 houses for the economy market, all builders are now concentrating on giving more for the money than they did last year. This may take the form of trying to build three bedrooms for the price of two or it may be simply adding a barbecue pit in the back yard. They are also trying to give the maximum in quality materials and equipment and are plugging brand names to make sure the buyer knows he is getting quality.

Perhaps the most elaborate "extra" was reported by Paul Trousdale, who added a community center—with clubhouse, swimming pool, baseball diamond—to a Los Angeles development on which sales had been lagging. Trousdale says the addition of this community center, at a cost of about \$100 per house, enabled him to sell 400 houses in 60 days. This seems to work in smaller ways, too. G. S. McCreless, San Antonio, reported that he had three houses priced around \$12,000 which he couldn't seem to move. He put in radio controlled garage doors, added their cost to the price of the house and sold all houses within a week.

Typical extras now being added by builders are:

Many more appliances (especially electric dishwashers and garbage disposal units), all sold under the "packaged mortgage;" wall-to-wall carpeting, also included in the mortgage; larger glass areas and double-glazed windows; storage walls and better closet spaces; folding doors for room divisions and for closets; small kitchen radios; cooling and ventilating fans; more color; rounded corners for easy cleaning; free decorating service; free supervision in children's playgrounds at certain hours; small wading pools for children.

It is interesting to note that the extras which builders mention most frequently have little to do with "gadgets"—an accusation frequently directed at the merchant house-builder. Although gadgets still have their place (witness McCreless' garage doors), builders know that it takes more than a cute door knocker to sell a badly planned house. For the design revolution, only yesterday the exclusive domain of the professionals and the cognoscenti, has by now a firm hold on the popular imagination. Nowadays even the \$8,000 house customer wants the best possible planning, construction and equipment. And the housebuilder, as U. S. producers always have, is seeing that he gets what he wants.

Still Another Major Builder Selects *American* KITCHENS STYLED IN STEEL



One of 270 luxury homes built by Newell and Daniel in the exclusive Lake Success region of Long Island. Architects and builders specializing in low-cost homes are also large users of American Kitchens. For, despite their custom appearance, American Kitchens actually cost less than good-grade wood cabinets!

A corner of the American Kitchen of the handsome ranch house pictured above. Note the absence of dirt-catching handles on drawers and wall cabinet doors and the efficient beauty of the curved back-splash and front edge of counter. These are just two of many plus-features found in these famed Raymond Loewy-designed units.



American Kitchens Are the Favorite of Architects and Builders the Country Over!

More houses in the recent Chicagoland Home Festival were equipped with American Kitchens than any other kind, wood or steel! And they're the first choice of architects and builders in every other section of the country, too—for the simple reason that American Kitchens are *demonstrably* superior. All other so-called

"modern" kitchens are *old-fashioned* by comparison. And none other has American Kitchens' many easy-to-see added conveniences. Yet, experience has proved time and again that American Kitchens are really more economical than quality wood cabinets! See our catalog in Sweet's for illustrations and specifications on all units.

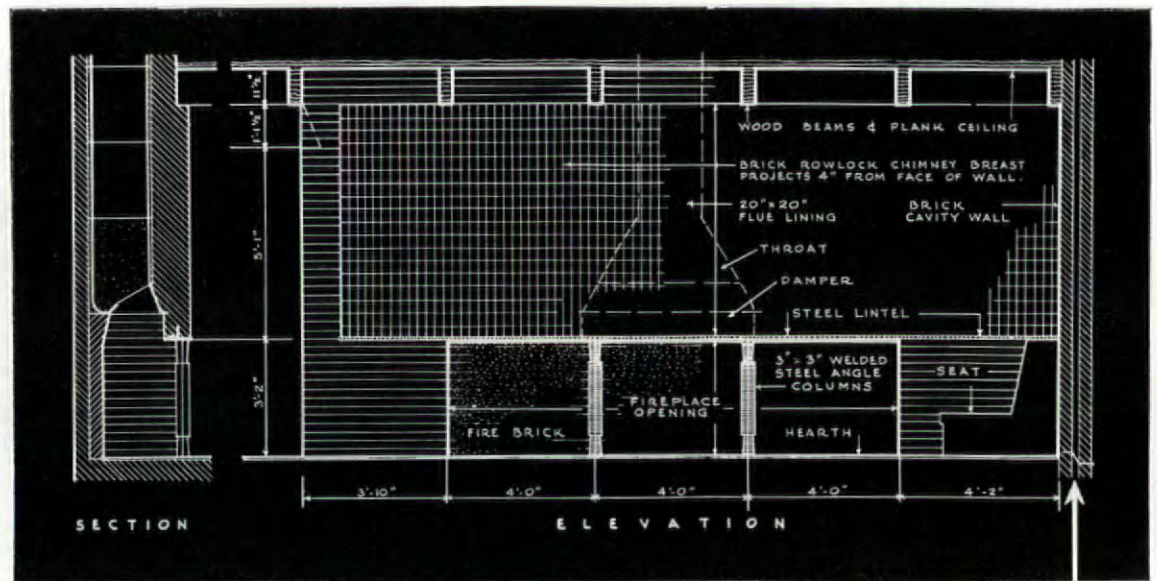
FREE: Architects-Builders File—gives complete specifications and roughing-in diagrams of all units. Ask your nearest American Kitchens supplier. If you don't know his name, write direct.

American
KITCHENS
STYLED IN STEEL



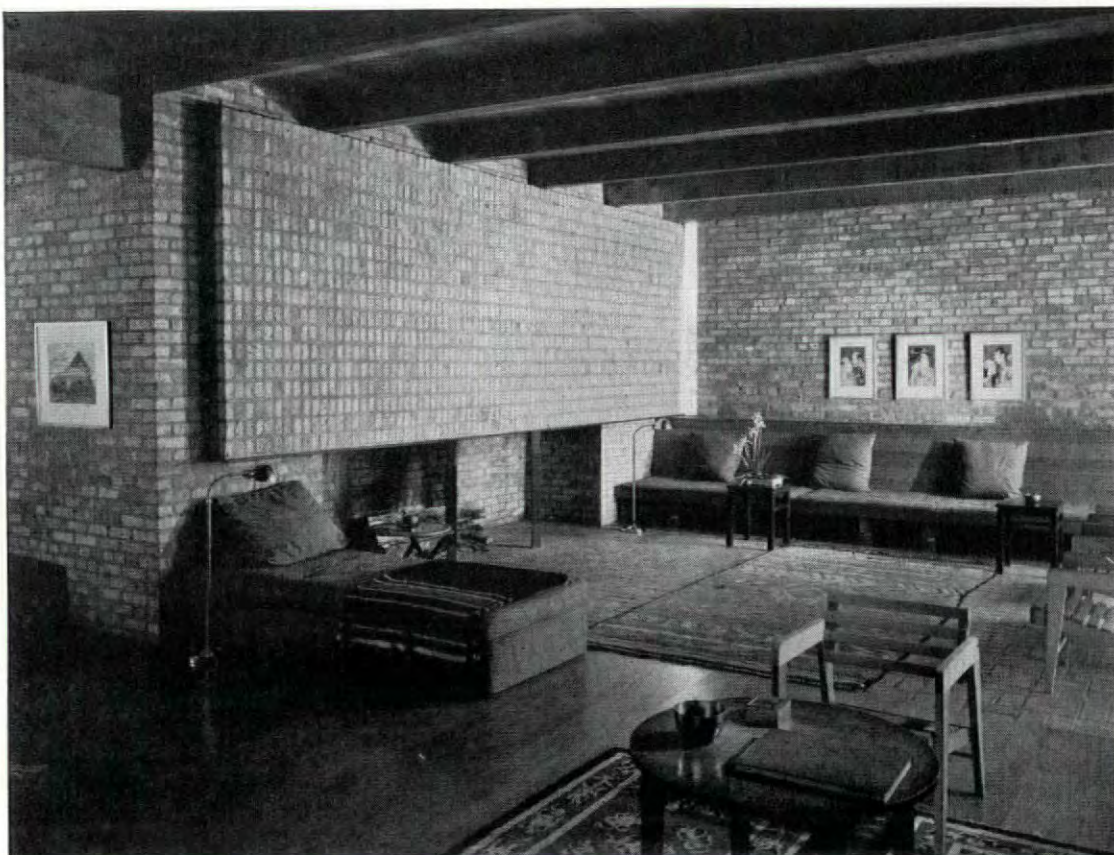
AMERICAN CENTRAL DIVISION  CONNERSVILLE, INDIANA

see
how
easily
brick
creates
this
modern
interior



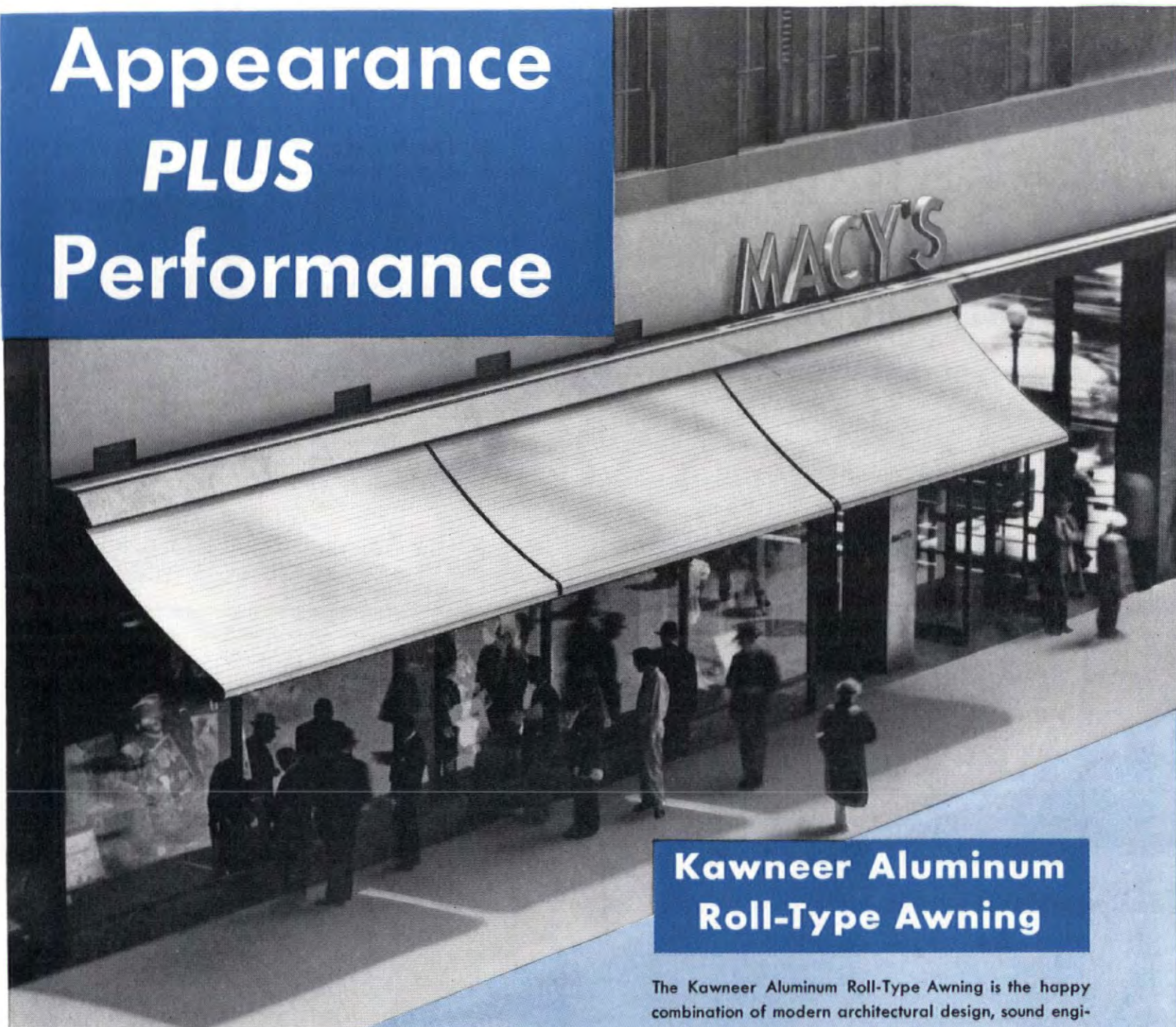
Note cavity wall construction which completely protects exposed brick interior from moisture penetration.

It's easy to design and build in brick
and the effect is beautiful, modern and unique.
Many architects and builders capitalize on this.
They use brick as a building unit
in massive structure and in fine detail as well...
arches, copings, fireplaces and walls, for example.
With brick, more than with any other material,
they are able to design imaginatively...and build faithfully;



A file-size copy of the drawing above is yours free on request. "Brick Engineering", a valuable 430-page handbook of design is available for \$2.50. Send order, with your name and address, to Dept. AF-7B, Structural Clay Products Institute, 1756 K Street, N.W., Washington 6, D. C.

Appearance *PLUS* Performance

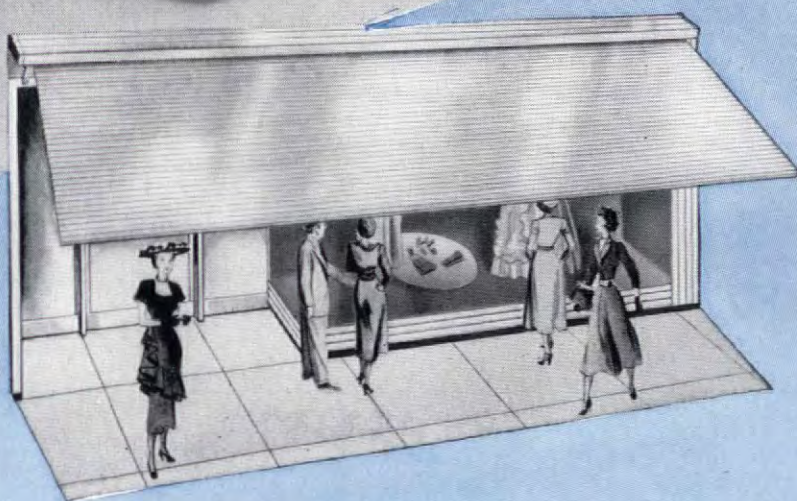


Kawneer Aluminum Roll-Type Awning

The Kawneer Aluminum Roll-Type Awning is the happy combination of modern architectural design, sound engineering and precision manufacture.

Providing more than just awning protection, the Kawneer Awning is ALL METAL—designed for distinction—built for year-after-year awning economy.

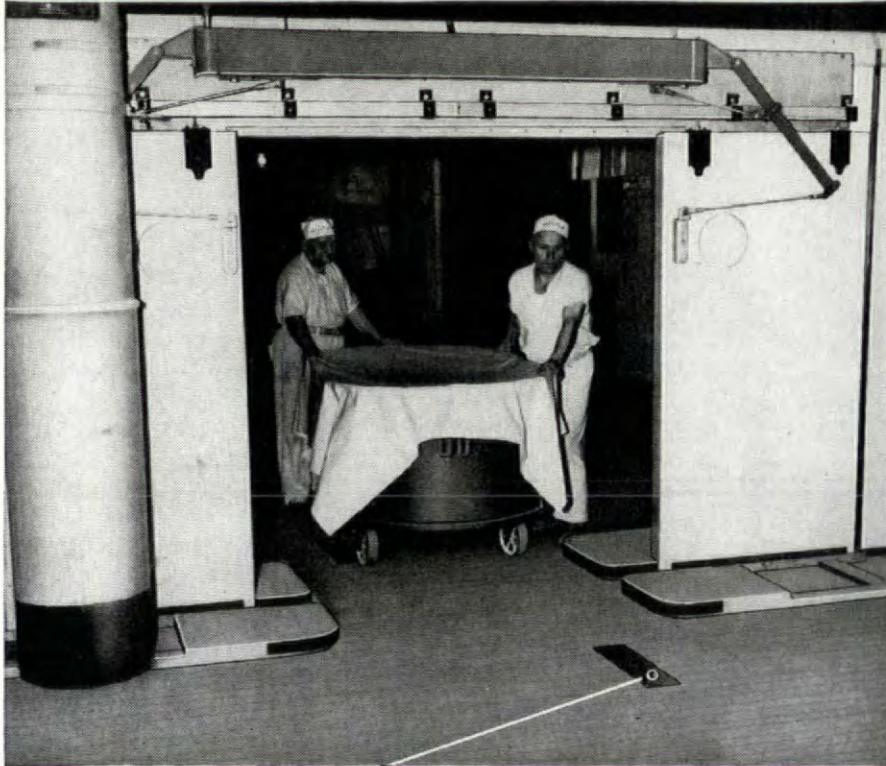
Assembled as packaged units, Kawneer Awnings are ready for immediate installation in concealed awning boxes, or under a hood for surface applications. Widths up to 18 feet are available, and roof sizes up to 8 feet. Multiple units are easily used for widths beyond 18 feet. Write for Details—239 N. Front St., Niles, Mich.; 2539 8th St., Berkeley, Cal.



THE
Kawneer
COMPANY

Store Front Metals • Modern Entrances
Facing Materials • Aluminum Louvered Ceilings
Aluminum Roll-Type Awnings

See how **NABISCO** cuts production costs with **STANLEY DOOR CONTROLS!**



(PHOTO, COURTESY, NATIONAL BISCUIT CO., NEW YORK CITY)

● Stanley Door Controls—Magic Doors—play an important part in efficient operation at National Biscuit Company, New York City.

Actuated by a photo-electric "eye", Magic Doors open automatically on approach—stay open till all traffic passes through—then close quickly and silently.

Magic Doors save time wasted in opening and closing doors by hand—save heating and air conditioning costs—eliminate damage to products, trucks and doors. In fact, Magic Doors cut production costs so materially they pay for themselves *faster*, more *efficiently* than any other door control system, manual or automatic.

National Biscuit Co. is just one example of what Stanley Door Controls can do in almost any type of industrial, commercial or institutional building you may design. For detailed information and drawings, mail this coupon now.

STANLEY The Magic Door
Reg. U.S. Pat. Off.

HARDWARE • HAND TOOLS • ELECTRIC TOOLS • STEEL STRAPPING

The Stanley Works, Magic Door Division, 229 Lake St., New Britain, Conn.
Please send me full information on Stanley Magic Doors.

Name.....

Firm.....

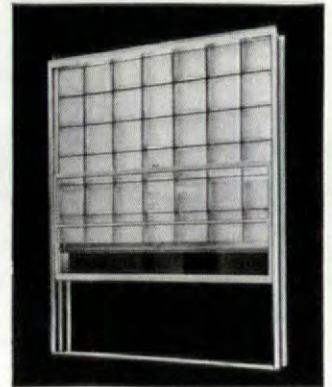
Street.....

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

☐ Check if you would like a representative to call.

ALUMINUM WINDOW FRAMES CONTAINING GLASS BLOCK are good for residential, commercial and institutional use.

Vampco windows are specially designed aluminum units consisting of glass block upper panels and transparent ventilating or vision sash at the bottom. Attractive, weather-tight and durable, they combine the advantages of glass block and conventional window framing in a single unit and provide directional lighting as well as ventilation. The complete Vampco unit can be specified much the same as a conventional window in single, multiple or continuous groupings and is particularly adaptable to schools, office and institutional buildings. Constructed of extruded aluminum sections in sizes to fit standard glass block unit dimensions, the frames come completely assembled ready for glazing and installation of the glass blocks. The flanged head section, an integral part of the frame, is strong enough to function as a lintel and carry the load of blocks above. The single hung window's sliding sash permits cleaning of the whole window by window-washers in the same manner as any conventional double-hung window. In multiple unit openings, where the jambs act as mullions eliminating the need for additional intermediate structural members, window cleaner bolts may be attached to the frame or mullions. Vampco single hung windows are available in various sizes with over-all width limited to 4 ft. 8 in. and over-all height of sash and block limited to 10 ft. 2 in. White bronze lock is furnished with the unit. The manufacturer reports that the cost of this new window runs somewhat above the cost of average fenestration, or about \$3.50 to \$4 a sq. ft. for a completed opening with window installed, block set and glazing completed.



Manufacturer: Valley Metal Products Co., Plainwell, Mich.

AWNING TYPE ALUMINUM WINDOW with unusually tight closure is suitable for use in all climates.

Featuring new weatherstripping and special hardware, the new Auto-Lok aluminum window is described as the first awning type unit suitable for use in any climate. Constructed with specially designed extruded aluminum sections and mechanical joints, it utilizes patented Auto-Lok hardware which is said to lock the window automatically, tight enough for effective



weathering even in frigid climates. When the vents reach closed position the locking device automatically engages and pulls the units tight against the window frame without any stress on pivotal points or pressure on the operating bar. Another feature of the unit is its "cross-over" weatherstripping. A complete air- and water-tight seal is said to be effected

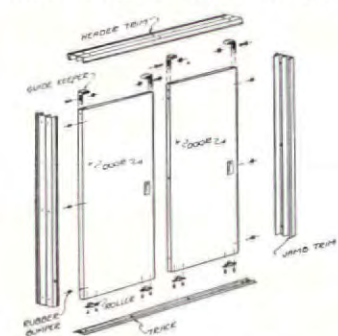
(Continued on page 127)

around the window's perimeter by the use of a specially designed section of elastic meric vinyl bonded to the perimeter. Vents automatically assume their normal position with easy turning of the standard window operator. When opening, the window has a delayed action which permits the bottom vent to be cracked without disturbing the upper vents, or allows operation of the window from a slight crack to a full opening of all vents. Only five and a half turns are required to raise the window from locked to open position. When opened, the top vent is dropped down, which permits washing of the unit from inside. A removable screen arrangement also allows the window to be opened without screen removal.

Manufacturer: Ludman Corp., 21 N. W. 21st St., Miami, Fla.

LOW COST SLIDING STEEL CLOSET DOOR saves valuable room space.

Shipped knocked-down in package form, KD sliding metal closet door units offer the usual space saving and accessibility features of sliding doors, at a cost of only \$18.50 f.o.b. Warren, Ohio. Each package consists of two prime coated steel door panels complete with hardware installed, metal head and jamb sections and an aluminum sill plate with integral roll-formed tracks for door panels. All frame sections are



punched for easy installation and are furnished with necessary hardware. Standard KD units are available in 4 ft. and 5 ft. widths; 3 ft. and 6 ft. wide units can be supplied on special order. The door panels are rigidly constructed of reinforced steel. Two ball bearing rollers are fitted in the bottom of each to insure

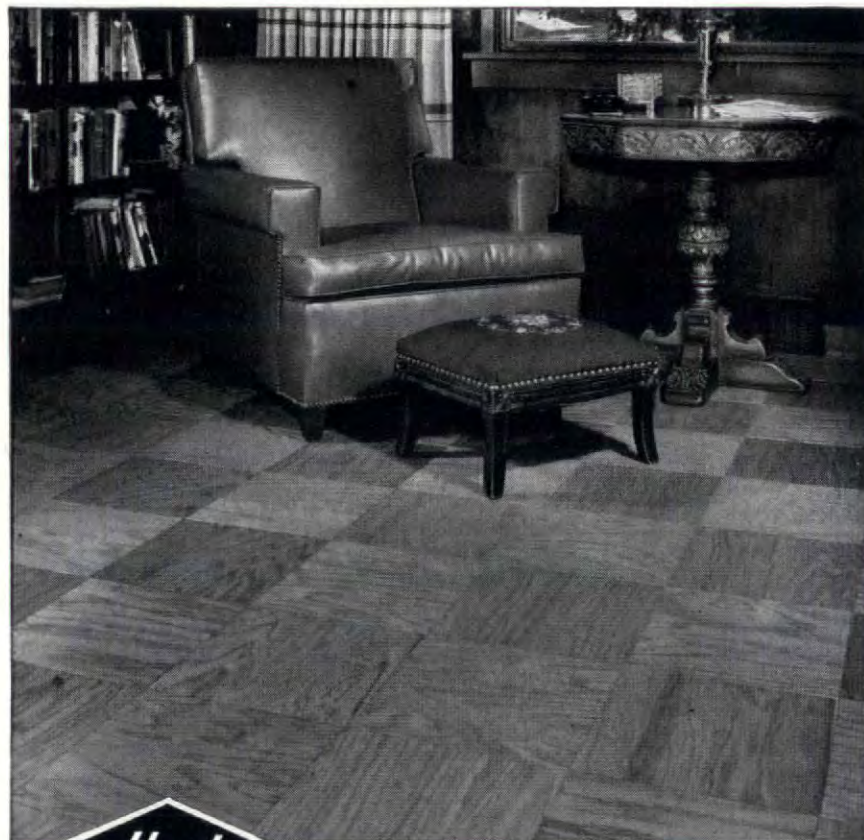
free, smooth, quiet operation. Rubber bumpers are also provided for each sliding panel. The new units may be installed with or without a wood frame; for facing wood trim is used.

Manufacturer: American Steel Door Co., 8825 Grinnell Ave., Detroit 13, Mich.

DOUBLE HUNG WOOD WINDOW with removable sash features easy installation and weathertightness.

After seven years of extensive testing, Andersen Corp. is in production on a new complete double hung wood window unit for use in all types of wall construction. Trademarked the "Pressure-Seal," this new unit incorporates several noteworthy features, namely, completeness for easy installation, removable sash for quick, safe painting and washing, and a new weatherstripping principle for exceptional weathertightness. The key to the new window's operation is hidden in the sash stiles. The concealed sash-holding and crack-sealing mechanism is a pressure strip which is attached to the sash stile and is activated by a simple thumb lever. When the levers controlling the pressure strips are not depressed, the tempered Presdwood strips tightly wedge the sash against the parting stop. With the levers depressed, the sash is completely free in the sash runs for easy raising and lowering. The manufacturer reports that sash operation is exceptionally simple, yet when wedged open at any desired height, sash

(Continued on page 130)---



THE HARDWOOD BLOCK FLOOR

that has *Everything* builders want

BEAUTY—The rich brilliance and natural beauty of fine northern oak provides, in Hasko block floors, a fitting setting for modern or period furnishings. 12-inch square Hasko Blocks create a floor with fewer joints. Each block has a smooth, unbroken surface — no unsanitary dirt-catching crevices. The blocks, laid with their grains running in alternate directions create an unusually attractive patterned effect. Hasko Floors are available in golden oak or the new dark oak . . . the two finishes may be combined to make a unique checkerboard pattern.

PERMANENCE—Each Hasko block is laminated of three plies of veneer permanently bonded with phenolic resins . . . they are guaranteed not to delaminate. There are no butt joints in a Hasko floor. Instead, Hasko's exclusive tongue-and-groove feature interlocks each block with adjacent blocks. This assures floor flatness, prevents buckling, and forms a tight seam that eliminates the danger of mastic extrusion. Hasko blocks are factory finished with an exclusive process which impregnates the wood fiber with varnish, forming a scratch and mar resistant surface. They are thoroughly waxed and polished before shipment.



LOW-COST INSTALLATION—Factory-finished Hasko blocks are designed for laying with a minimum of labor, waste and cost. They may be set in Mastic over concrete without the use of costly screeds or wood subfloors. Over old wood floors or new subfloors they may be blind nailed in the conventional manner. They are ready for use as soon as laid since all sanding, sealing, varnishing and waxing is done at the factory.

For full information regarding Hasko block flooring write for complete bulletin or see Sweet's Architectural File.

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MANUFACTURING CORPORATION

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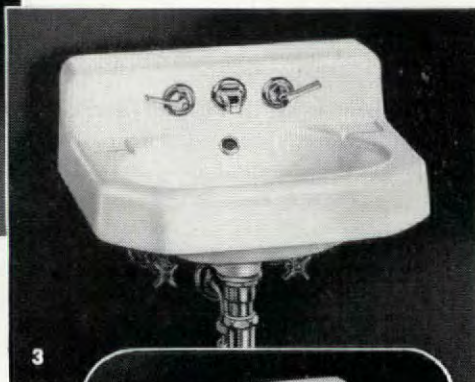
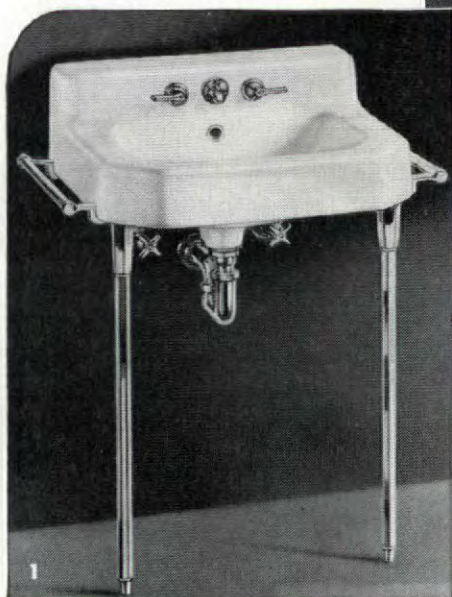
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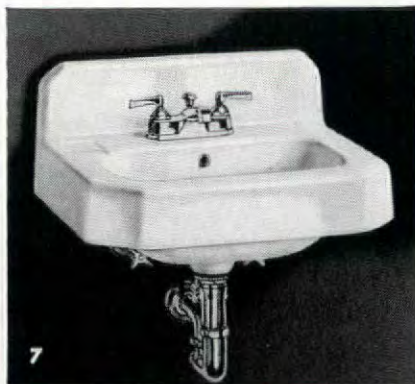
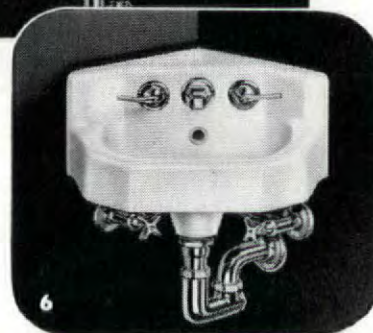
1. HAMPTON: K-2710-A. 19 x 17", 22 x 19". Available without legs or towel bars.
2. TAUNTON: K-2740-A. 16 x 14", 20 x 14", 24 x 14".
3. DELTON: K-2745-A. 18 x 15".
4. TRAVELER: K-2750-A. 13 x 13".

► KOHLER

Enameled Iron LAVATORIES in types and sizes to meet every need

DOES your customer wish a modern lavatory for a home bathroom or washroom? Whatever the need—you can win approval with one of these eight lavatories. All have practical features that satisfy important requirements—and the name "Kohler" assures a sound investment in first quality.

These lavatories have surfaces of lustrous, durable, glass-hard, easy-to-clean Kohler enamel which resists cracking or crazing because it is applied to iron cast for rigidity. The chromium plated brass fittings are engineered to provide highest efficiency. Kohler Co., Dept. 10-H, Kohler, Wisconsin.



5. MARSTON: K-2760-A. 16 x 16", (sides).
6. MARFIELD: K-2770-A. 11 x 11", (sides).
7. HUDSON: K-2825-C. 20 x 18", 22 x 19".
8. WESTCHESTER: K-2790-C. 24 x 20".

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS

**FORMED FROM TRANSLUCENT
PLEXIGLAS**

**FABRICATED FROM CORRUGATED
Super-size PLEXIGLAS**

**IT'S LIGHT...
IT'S LIGHTABLE...
IT'S PLEXIGLAS!**

Now Stores Can Put Up a Better Front with PLEXIGLAS Super-Sheets

Wherever a job calls for the *unusual*—in size, lightness, permanence, eye-appeal—specify PLEXIGLAS and cut your costs. Super-size PLEXIGLAS (100" x 120") is more than twice the size of any other plastic sheets. Weight is 52% less than that of glass. Brilliance is lasting—even after years of exposure to sun and weather. And PLEXIGLAS is completely lightable!

Because of its amazing lightness, you can fabricate and erect PLEXIGLAS in much less time—with far less support than conventional materials. Because of its strength and shatter-resistance, it takes hard blows and heavy loads without buckling or breaking—cuts maintenance costs to a fraction. And because of its easy workability, wide range of brilliant colors, optical

clarity or translucence, and ability to "pipe" light, PLEXIGLAS lends itself to an astonishing variety of construction and display applications.

Merchandisers use PLEXIGLAS in huge signs and spectacles, wall and counter displays, recessed transparent storage shelves, and mammoth multi-curved display cases. And in the field of architecture, PLEXIGLAS is rapidly gaining popularity as curved glazing, wall tile, partitions, facades, radiant walls and lighting fixtures. For full details of PLEXIGLAS—in super-sheets or standard sizes—write us today. We'll be glad to send complete information, and advise you concerning any specific application—without obligation.

CHEMICALS



FOR INDUSTRY

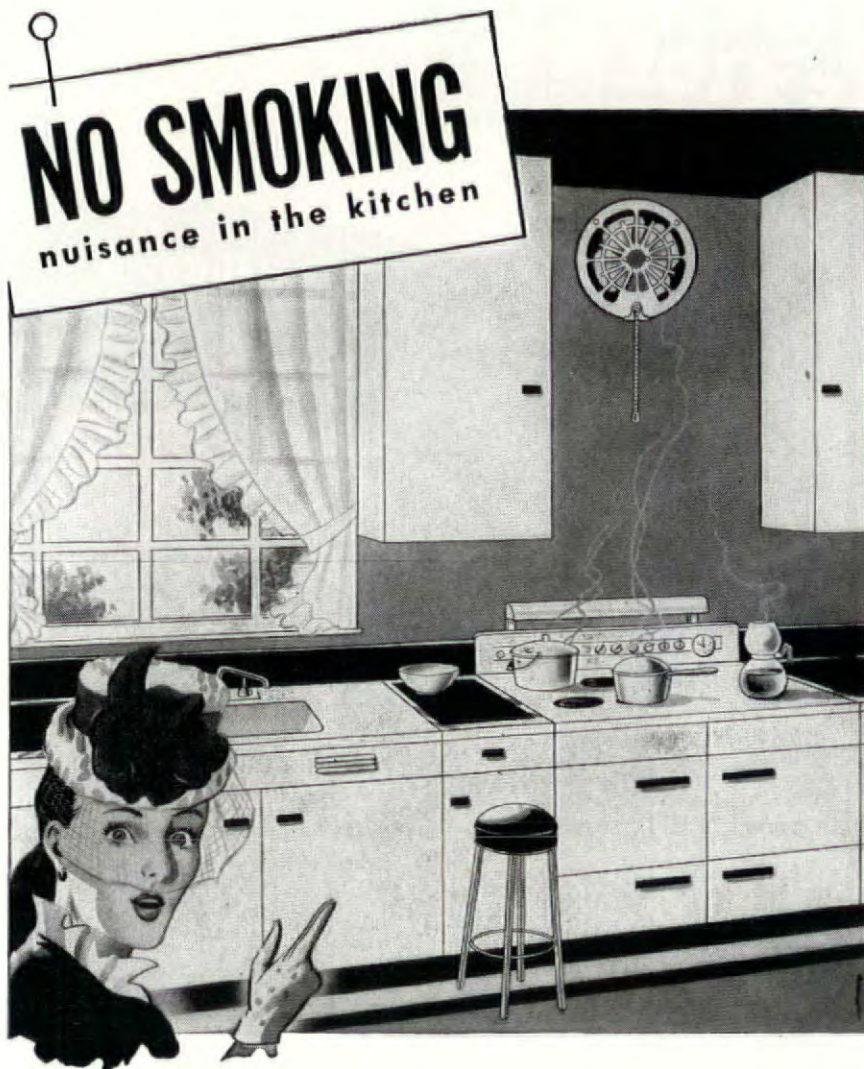
**ROHM & HAAS
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

Fourteen large panels of yellow translucent PLEXIGLAS form the entire upper facade of this new Food Basket super-market in Phillipsburg, N. J. Deep "V" corrugations give extreme rigidity and pleasing appearance. Three-foot letters mounted on background are formed of translucent red PLEXIGLAS to a 3/4" depth. Gold-colored neon tubes inside letters provide extremely effective lighting. Installation by Lehigh Advertising Company, Allentown, Pa. Letters formed by Amplex Mfg. Co., Philadelphia.

PLEXIGLAS is a trade-mark, Reg. U. S. Pat. Off.



EMERSON-ELECTRIC KITCHEN FAN

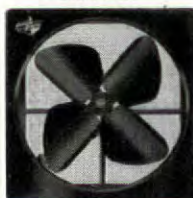
*... to her it's a sign
of a modern kitchen*

She doesn't need that sign! To every kitchen-conscious client of yours, the mere glimpse of an Emerson-Electric Kitchen Ventilating Fan is a sign... of thorough, modern kitchen planning. Don't underestimate *her* influence... or the premium she places on comfort and efficiency in the kitchen. You'll please more clients, make quicker sales, if you plan to include an Emerson-Electric Kitchen Fan in every new home or remodeling job. Economically priced, easy to install in any construction, these sturdy fans whisk out heat and cooking odors... prevent spread of greasy vapors to walls and furnishings. Available for either wall or ceiling installation. For complete data, refer to Emerson-Electric Catalog in 1949 Sweet's Architectural File, or write for free Folder No. B-48.

THE EMERSON ELECTRIC MFG. CO.
St. Louis 21, Mo.



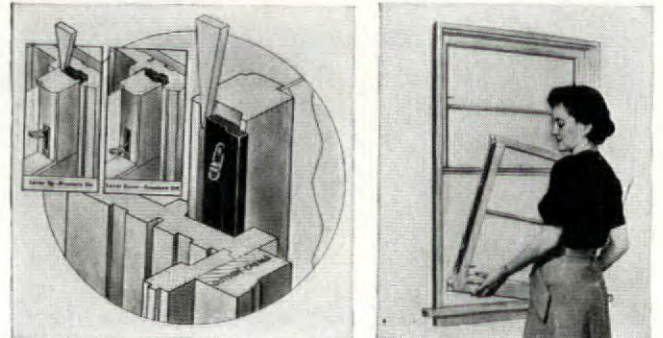
Wall-type fan is adjustable to wall thickness. Ceiling-type also available.



Emerson-Electric Attic Fans provide "sleeping-porch comfort" for the whole house! Available in 24- to 48-inch blade sizes, designed to meet any requirements. Write for Folder No. B-48.

EMERSON *EMERSON ELECTRIC* **ELECTRIC**
MOTORS • FANS APPLIANCES

will not rattle. Each sash is a complete operating unit with its own pressure strips and thumb lever mechanisms, and is quickly removable as there are no cords, balances or springs. To facilitate installation, inside stops are included as a part



of the jamb; conventional stops are not required. The frame is merely nailed in the rough opening, plumbed and blocked. Sash are then slipped into place to complete the job. There is no separate weatherstripping or operating mechanism to install and sash can be more easily painted outside the opening. The new Pressure-Seal unit is being manufactured in the commonly used modular sizes in widths ranging from 2 ft. to 3 ft. 4 in. and heights from 3 ft. 2 in. to 5 ft. 2 in.

Manufacturer: Andersen Corp., Bayport, Minn.

CALDER GARAGE DOORS are now available in any size, in aluminum or wood.

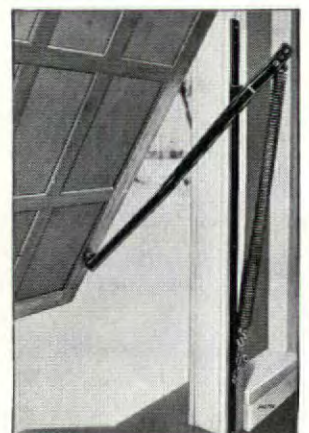
In addition to its regular line of "Wedge-Tight" overhead sectional garage doors, Calder Mfg. Co. is now offering made-to-order overhead doors in any size. All Calder doors are available in aluminum as well as wood.

Manufacturer: Calder Mfg. Co., 630 North Prince St., Lancaster, Pa.

NEW PLYWOOD GARAGE DOOR UNIT, complete with weatherstripping and hardware, is offered for \$46.50.

Frantz Mfg. Co., is now in production on a new No. 77 "Over-the-Top" garage door which fits openings 8 ft. wide by 6 ft. high and requires only 2 in. headroom. This 24 panel plywood door is pre-fitted and pre-bored at the factory for quick, easy installation, and retails for only \$46.50. It is water-repellent and toxic treated to resist rot, and contains all necessary hardware, including steel weatherstripping. An automobile-type lock is furnished at a slight additional cost.

Manufacturer: Frantz Mfg. Co., Sterling, Ill.



ETCHED PLYWOOD is new inexpensive decorative material.

A new maintenance-free, decorative wall-material, Plytex is plywood that has been burnished until it has a sculptured or etched appearance. The inexpensive 4 x 8 ft. panels have the grain characteristics of Douglas Fir, Califor-

(Continued on page 132)

SCHLAGE...first name in cylindrical locks

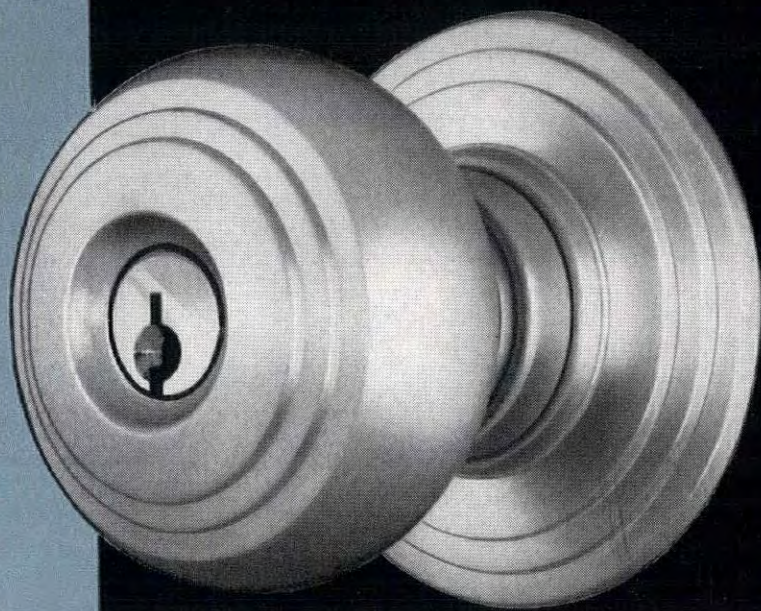
The Schlage Lock illustrated is

Novo Design

**Philadelphia's . . . Smith, Kline
and French Pharmaceutical
Laboratories,**

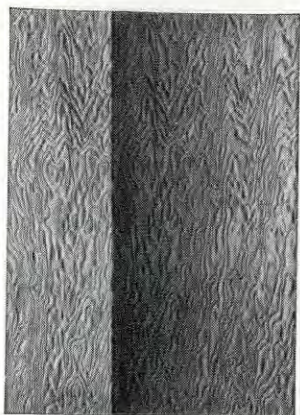
a Schlage installation of heavy duty
cylindrical locks.

Architects: The Ballinger Company



SCHLAGE

SCHLAGE LOCK COMPANY
SAN FRANCISCO • NEW YORK



nia redwood and Southern pine, the plywoods from which they are made, and they can be furnished in a variety of hues and tones. Or if desired, they may be finished with clear lacquer. The new panels have no dust-catching crevices or sharp edges to splinter and only an occasional brushing or wiping is required to maintain them after an annual waxing. The manufacturer guarantees the panels for the life of the house where they are used.

Manufacturer: Triwood, Inc., Napanee, Ind.

DECORATIVE ASBESTOS CEMENT BOARD is again available for kitchen and bathroom use.

Unavailable in recent years, J-M Decorative Flexboard is again being produced in four attractive colors: gray, green,

buff and rose. The $\frac{1}{8}$ in. thick, 4 x 8 ft., asbestos-cement sheets have a pleasing mottled appearance with a soft gloss finish and are supplied with either a smooth or tile scored surface. (Scored sheets, with a 4 in. square pattern, come in 4 x 4 ft. panels only.) Like J-M Standard asbestos Flexboard, the new integrally colored material is immune to moisture and highly resistant to fire; can be worked with ordinary carpenter tools and applied by nailing or cementing.

Manufacturer: Johns-Manville, 22 E. 40th St., New York, N. Y.

NEW PAINT LINE is introduced for interior and exterior use.

Eagle-Picher has recently begun large scale manufacture of a complete new line of quality paints for both interior and exterior use. Heading the line is an all-purpose, single coat, interior paint suitable for nearly all interior painting needs. With this oil base paint no undercoat or primer is necessary and one coat reportedly forms a long wearing, washable finish on ceilings, walls or woodwork. This paint is supplied in flat, gloss and semi-gloss finishes, in ten light-tone, harmonizing colors. Other mixed paints in the line include a quality house paint in ten colors (with four additional trim colors); a quick drying, all-purpose enamel and porch and floor paints for inside and outside floors including concrete surfaces. Still other paints put into production are farm implement enamel, varnishes, penetrating oil stains and varnish stains; an enamel undercoater; and a pigmented primer and sealer for flat walls.

Manufacturer: Eagle-Picher Sales Co., American Building, Cincinnati 1, Ohio.

INTERIOR PAINT can be spot washed indefinitely without losing its color or sheen.

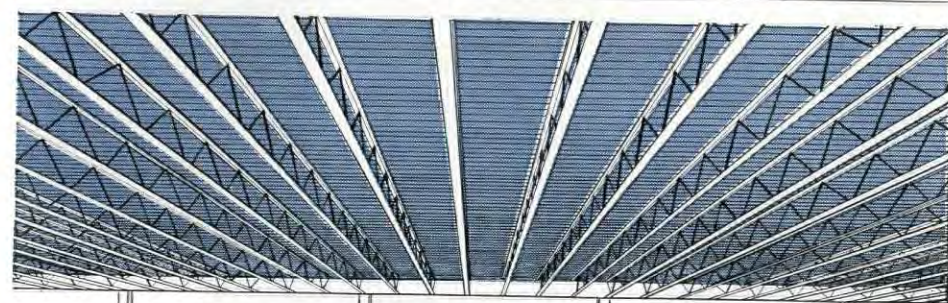
Washability without loss of color or sheen is the main feature of Glidden's new interior paint, Spred-Satin. The manufacturer is issuing with each purchase a money-back guarantee and service policy on the product's washability. Spots on a Spred-Satin painted surface can be washed indefinitely with mild soaps or, when desired, may be repainted without showing joining marks. The new, practically odorless, fadeproof paint can be applied to any interior wall surface. It brushes on easily and dries in about 20 minutes to produce a smooth finish that has a flat appearance when viewed head-on and a sheen when observed from an angle. Spred-Satin's formula is a secret but the manufacturer reports it is a new formulation incorporating postwar advances in titanium dioxide pigments. The paint is being produced in 14 colors.

Manufacturer: The Glidden Co., 11001 Madison Ave., Cleveland, Ohio.

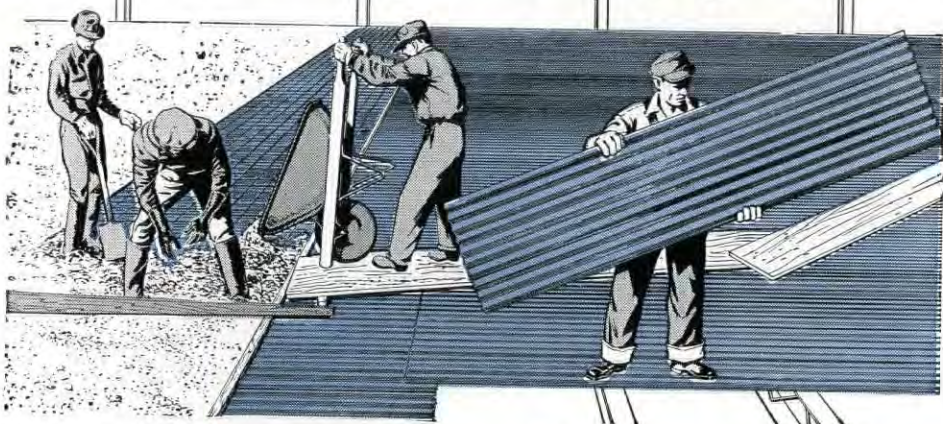
MOTH REPELLENT COMPOUND supplies inexpensive means of constructing cedar closets.

When mixed with water, Cedacote, a compound of crushed genuine red cedar with binder added, can be easily applied to closet walls and ceiling to provide a moth repellent cedar closet at $\frac{1}{10}$ to $\frac{1}{2}$ the cost of a regular panelled cedar closet. The thick paste will adhere to wood, rough or finish plaster, wallpaper and other wall covering materials, and dries in 24 hrs. to give closets and attic store rooms a pink-tint, protective finish. The $\frac{1}{16}$ in. thick, brushed or troweled-on coating can be nailed into without chipping or cracking and, according to the manufacturer, absolutely will not rub off. Cedacote is available in 10 and 50 lb. bags at a list price of

(Continued on page 134)



the concrete you save pays for...



Corruform

tough-temper corrugated steel base
for concrete in joist floors and roofs

Corruform pays for itself with the concrete it saves. That's because Corruform is tough-tempered to spring back under construction abuse and carries concrete over joists without sag, stretch, bend or leakage. Tough-temper, high strength Corruform, made by processes patented by Granite City Steel Company, is nearly twice as strong as conventional steel of the same shape and weight.

Furnished uncoated, mill-primed for painted exposed joists, or galvanized...with clips to fit all standard joist construction. Send for AIA file today.

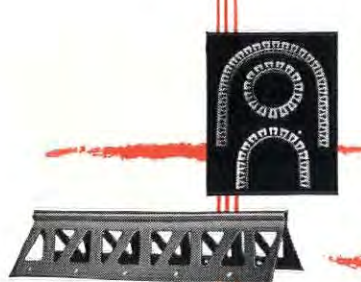
GRANITE CITY STEEL COMPANY



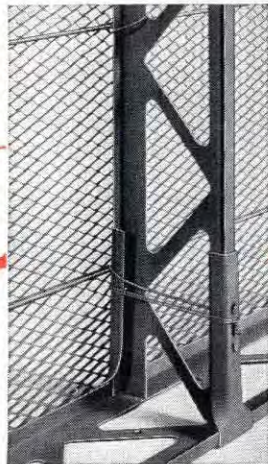
Granite City,
Illinois

FOR LASTING SATISFACTION

- turn to Wheeling!

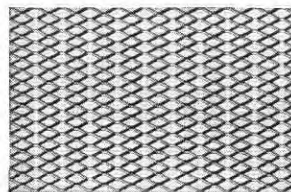
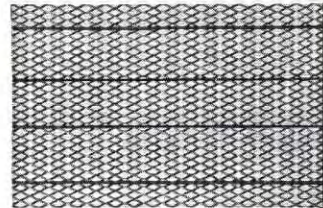


WHEELING FLEXBEAD
A flexible corner plaster support that readily adapts itself to curves and arches. Use Wheeling Flat Apron Corner Bead for protecting exposed plastered corners.

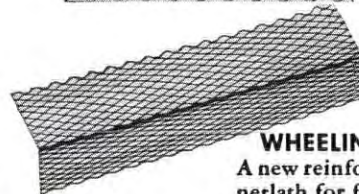


WHEELING BAR-Z PARTITIONS
Its few unit parts quickly assemble into non-bearing hollow plastered steel stud and metal lath partitions, or free-standing wall furring.

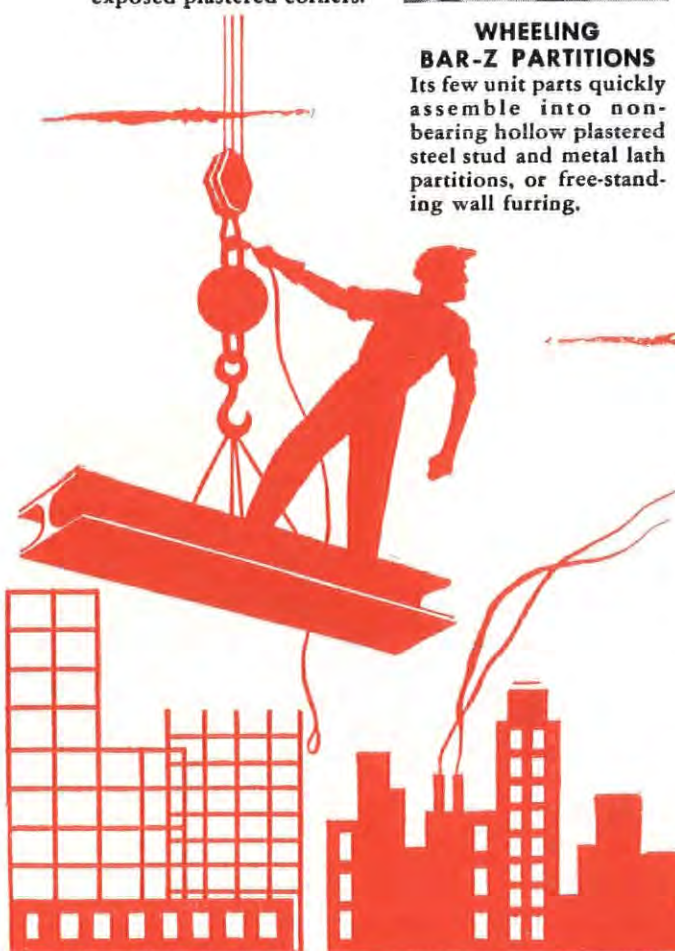
WHEELING BAR-X-LATH
Stands stiff to the trowel, handles easier, faster, needs no stretching. Four pairs of No. 11 rods are welded through the mesh for reinforcement.



WHEELING DIAMOND LATH
Flat, perfectly straight with parallel sides, it is easy and fast to install. Stiffest lath of its type. Impervious to rust.



WHEELING CORNERLATH
A new reinforced selva edge cornerlath for fully plastered exposed corners and inside corner work.



WHEELING TRI-RIB ROOF DECK
Assembles quickly at low cost, in continuous lengths up to 22' 6" over 4 supports. Cop-R-Loy steel resists rust and corrosion.

WHEELING CORRUGATING COMPANY
WHEELING, WEST VIRGINIA

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Louisville • Minneapolis • New Orleans • New York • Philadelphia • Richmond • St. Louis





\$8.50 and \$25 respectively. Coverage is approximately 8 sq. ft. per lb. The manufacturer reports that Cedacote possesses four times the potency needed to create a moth repellent and that its aroma lasts indefinitely. However, an annual spraying with Cedoil, a sister product, is recommended to maintain the original moth preventive value.

Manufacturer: Ahmco Products, 678 Massachusetts Ave., Cambridge, Mass.

TRANSPARENT PLASTIC COATING gives floors, walls and furniture a rugged, protective finish.

Phenoplast is a new brush-on plastic coating that provides wood, metal, tile, steel, masonite and other composition materials with an abuse-resistant finish similar to a baked-on

coating. Made of tough phenolic resin and chemically cured by the addition of a catalyst, it not only coats the surface but penetrates to become an integral part of the material to which it is applied. Treated surfaces will resist abrasion, scratching and scuffing and are protected from practically everything—water, alcohol, exposure to flame, penetration of ink, alkalis and most acids. Also the lustrous finish will not peel or chip. Phenoplast withstands temperatures from far below zero to above the boiling point and is usable on ships as well as in homes as it is unaffected by sun, salt spray or strong brine, according to the manufacturer. Many uses are envisioned for the new finish. As a protective coating it is especially recommended for treating wood or asphalt tile floors, wallpaper and furniture. Even non-porous surfaces can be Phenoplast-finished when primed with a companion undercoat. Another use for the new finish is as a glue. Tests indicate that it will laminate wood to metal or fabric to any reasonably firm surface so that the pieces will remain welded through changes in weather and temperature or almost any amount of wear or tear. Phenoplast can be brushed, sprayed or dip-applied, dries track-free in 3 to 4 hrs., or hard enough to walk on in 24 hrs. It retails at \$2.50 per pt., \$12.50 per gal., covers approximately 600 sq. ft. per gal.

Distributor: L. Sonneborn Sons, Inc., 80 Eighth Ave., New York 11, N. Y.

NON-TOXIC FIRE RETARDANT PAINT resists 2,000° F. flame for 30 minutes.

Designed to protect both lives and property, Flame-Seal is a new washable, non-toxic fire retardant paint for consumer and industrial use. Tests have proved that wood surfaces treated with the new material will withstand a 2,000° F. blow torch for 30 minutes without flame spread. Also noteworthy is the fact that coated surfaces exposed to fire do not generate smoke or toxic gases. When attacked by fire the new paint undergoes a complete physical transformation. According to the manufacturer, it forms a hard protective wall at least eight times the thickness of the original coating. Charring results, but Flame-Seal will not support combustion. The new oyster white flat finish paint comes ready for applying by brush or spray. It can be used on all interior raw wood surfaces and will not craze, chip, peel or crack. Moisture and termite proof, it is particularly recommended for painting wood walls and ceilings, and for basements, attics, kitchens, barns, churches and schools. Flame-Seal is supplied in qt., 2 gal., 5 gal. and 55 gal. containers.

Manufacturer: Stallton Chemical Corp., 8-14 37th Ave., Long Island City 1, N. Y.

HEAVY DUTY ALUMINUM ANTI-RUST PAINT has greater aluminum content for brighter, longer life.

Rustrem "Super" Aluminum, Speco's new heavy duty aluminum anti-rust paint, features a new aluminum base which is reputed to be brighter and longer lasting than that ordinarily employed in paint manufacture. The new paint's aluminum content is approximately double that of most aluminum paints. It is guaranteed to "leaf" on all surfaces and reportedly will not turn brown under the most adverse weather conditions. Super Aluminum, like other Rustrem paints, can be applied over rust without wire brushing or scraping. Penetrating and sealing the surface, it prevents further rust action. The new paint is suitable for both interior and exterior use and is furnished in consistencies for either brush or spray application.

Manufacturer: Speco, Inc., 3142 Superior Ave., Cleveland, Ohio.

(Continued on page 136)



MURPHY-CABRANETTE KITCHENS

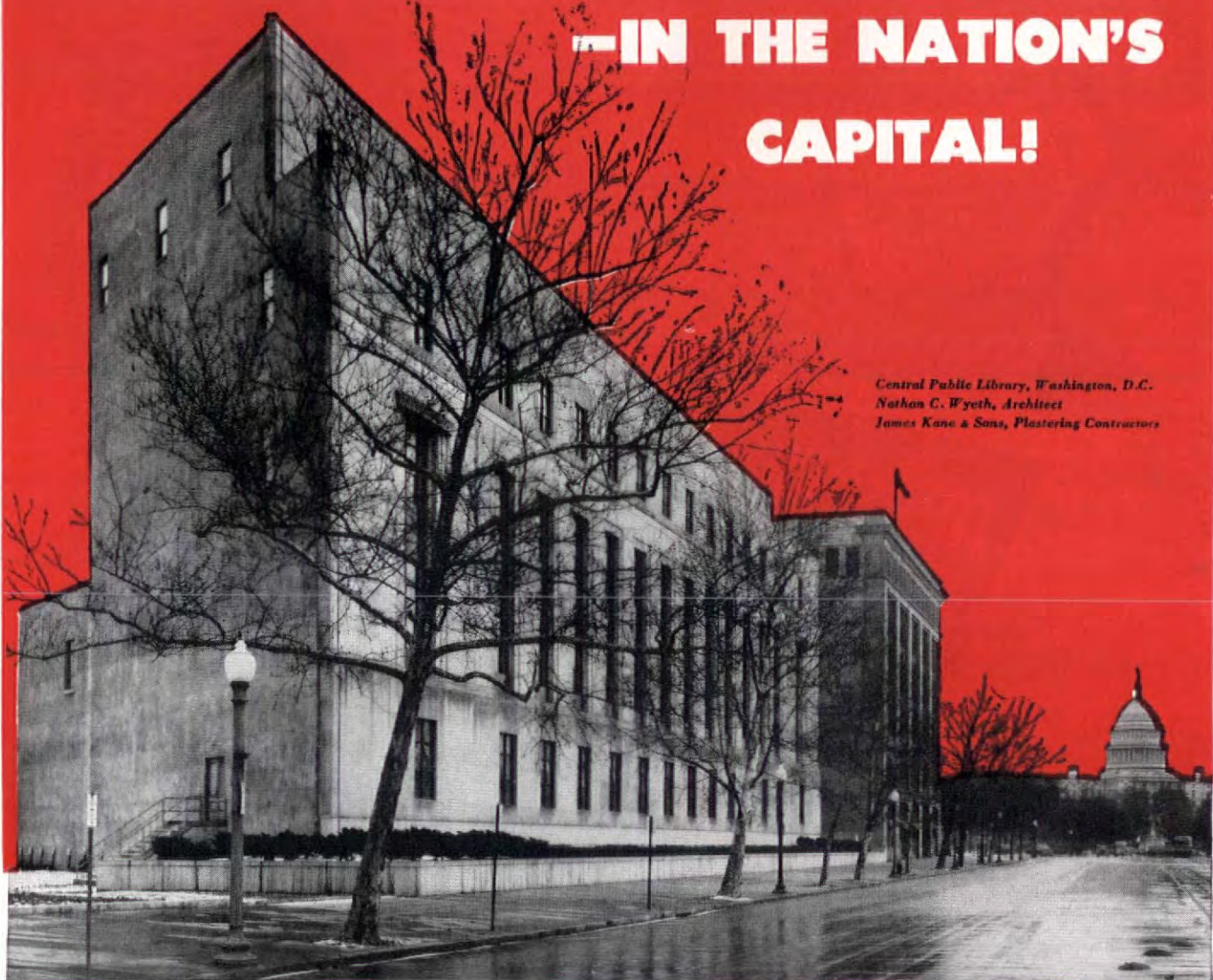
Series 60—Model C

Never before has so much capacity... so much convenience... been offered in a 5-foot kitchen. No single facility has been featured... no requirement has been skimped. Cooking, refrigeration, storage and work space... all are ample and in balance. Minimum maintenance costs proven in more than 25 years of trouble-free operation in rental properties. Other models available 39 to 69 inches wide.

New...
larger refrigerator
with stainless steel
frozen food locker

DWYER PRODUCTS CORPORATION
Dept. F7 — MICHIGAN CITY, INDIANA

BRIXMENT FOR **STUCCO** —IN THE NATION'S **CAPITAL!**



*Central Public Library, Washington, D.C.
Nathan C. Wyeth, Architect
James Kane & Sons, Plastering Contractors*

Everybody in the building industry knows about Brixment for masonry. But do you know that Brixment also makes a very superior stucco?

When the new Central Public Library was built in Washington, D. C., stucco was specified for each of the building's tremendous ends (96' high by 120' and 140' wide). Materials and workmanship of the highest quality were of course required.

After due consideration and experimentation, Brixment was selected for the stucco. James Kane & Sons, Inc., the plastering contractors, report that the job is entirely satisfactory, that

they have now used Brixment stucco with equally good results on several other jobs, and that they "do not hesitate to recommend Brixment as a completely satisfactory stucco mortar."

Brixment stucco is mixed and used exactly like portland cement stucco, except that no lime is required. It makes *better* stucco, however, because it is more plastic, has a more convenient hardening time, resists moisture and is less liable to hair-checking and crazing. And Brixment stucco *costs less* than any comparable mix of portland cement and lime. *Ask your dealer for "Brixment for Stucco and Plaster"—or write us direct.*

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

BUILDING REPORTER



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MA-TI-CO
ASPHALT TILE
FLOORING

Today's lowest price long-lasting floor

Shop . . . compare—see for yourself if MA-TI-CO isn't your best buy! Factory-waxed and made to Federal specifications, MA-TI-CO must be right! And, it is proving its rugged endurance in close to 200 million sq. ft. of installations. MA-TI-CO is safe, sanitary, odorless. You save on low initial cost. Easy to clean—you save in maintenance. Easy to replace—you save in the event new tiles must be inserted or a floor expanded. 27 beautiful colors, plain and marbled, offer limitless design possibilities.

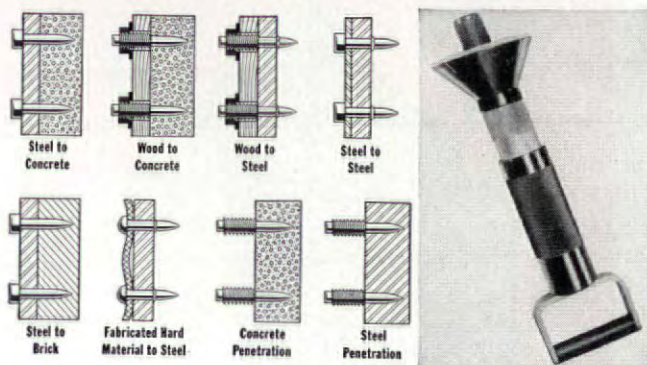
Write for full-color literature showing complete sample line and design patterns to:
MASTIC TILE SALES CORP., Dept. No. O,
153 West 57th St., New York 19, N. Y.

MASTIC TILE
Corporation OF AMERICA

FACTORIES: NEWBURGH, N. Y. • LONG BEACH, CALIF.

IMPROVED FASTENING TOOL effects economies.

The Ramset Fastening System, consisting of an improved powder actuated fastening tool and a varied line of steel fasteners and powder charges is now being marketed by Stemco Corp. in place of its former Tempotool. The new implement is actuated by a powder charge of several different strengths. It features extensive improvements over the former tool, especially in safety devices and in more effective control of



fastener penetration. Only 30 seconds are required for both loading the tool and setting the fastener in place. In operation the powdered charge is exploded within the tool to force steel studs or pins into steel, concrete, masonry and other hard materials. Replacing conventional drilling and plugging, the Ramset System can be used for installing electric equipment, conduit, automatic sprinklers, lighting, piping, heating, air-conditioning, plastering, flooring, siding and roofing. Its application, the manufacturer claims, effects both time and cost economies. Two size Ramset tools are being manufac-

(Continued on page 138)

HOW DOES YOUR LIVING ROOM GROW?



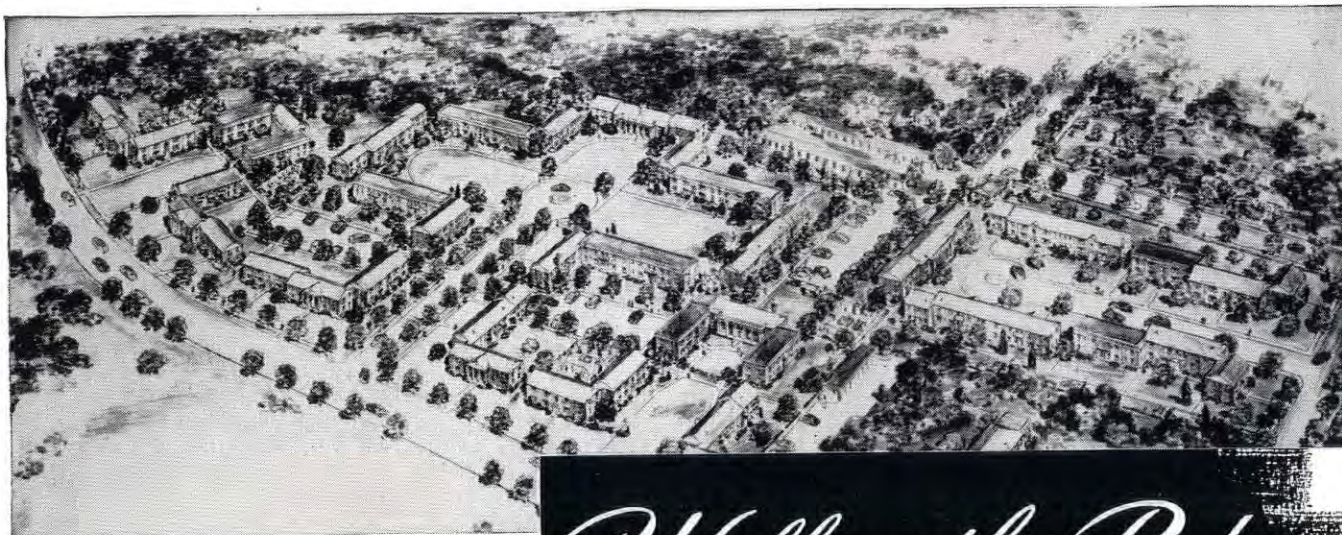
With Modernfold Doors, of course! These handsome accordion-type doors are ideal for dividing combination living and dining rooms. Then, when living needs dictate a larger living room, simply fold these accordion-like doors to the wall. Consider Modernfold, too, wherever interior doors are needed—for closets, bedrooms, bathrooms, kitchens, etc. Remember, they're fabric-covered for beauty—metal-framed for rigidity and strength. Write us.

See Sweet's Architectural File for the full Modernfold Story, complete with architectural details.

modernfold
DOORS

NEW CASTLE PRODUCTS

New Castle Indiana
In Canada: Raymond Mfg. Co., Ltd., Montreal
Consult your local telephone book
for the names of our Installing Distributors



Owner:
Wallworth Park Apartments, Inc.
Architects and Engineers:
Edwards & Green, Camden, N. J.
Builder:
Equitable Building Corp.
Heating Contractor:
Herman Goldner Co., Inc., Philadelphia, Pa.

Wallworth Park Apartments

Haddonfield, New Jersey

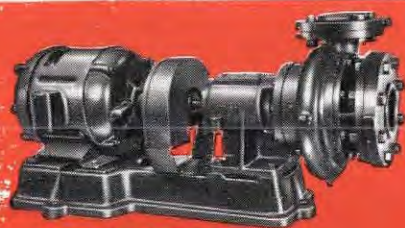
Another B & G *Hydro-Flo* HEATING Installation

Two hundred and eight families find a more pleasant way of living in these spacious garden apartments—particularly since the heating is with a B & G *Hydro-Flo* Forced Hot Water System. The comforts of controlled heating, plus amazing operating economy, keep both tenants and management happy.

The buildings are divided into six groups, each served by a central boiler room. Trunk supply and return mains run the entire length of each group, with branch mains leading to individual buildings.

Copper tubing is used throughout, with copper B & G MonoFlo Fittings at both the supply and return risers to the convectors. The domestic hot water supply is circulated with bronze-bodied B & G Boosters.

Here is a notable example of better heating for better building.



12 B & G Universal Pumps



14 B & G Flo-Control Valves



19 B & G Simplex Relief Valves



3100 B & G Copper MonoFlo Fittings

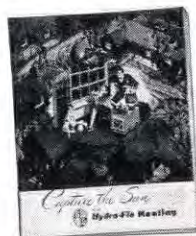


6 B & G Bronze-bodied Boosters



19 B & G Compression Tanks

The B & G equipment listed above is installed in the Wallworth Park apartments. Another proof of the preference for B & G *Hydro-Flo* Products.



Write today for
full information

"Capture the Sun with B & G *Hydro-Flo* Heating" presents the colorful story of this forced hot water system... the B & G Catalog gives you complete product data. Send for your copies.



BELL & GOSSETT

Dept. BB-10, Morton Grove, Illinois

*Reg. U. S. Pat. Off.

BUILDING REPORTER



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PROTECTED

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R.I.W. SINCE 1848

DAMP-PROOFING
WATER-PROOFING
FLOOR TREATMENTS
PROTECTIVE COATINGS
TECHNICAL PAINTS

As important as the design and construction of a building, are the materials used to protect it. Good reason for top-ranking architects and builders to prefer Toch Bros.' R.I.W. paints and protective products. Since 1848 the R.I.W. line has been recognized for the superior quality of its ingredients and its ability to safeguard all types of surfaces against adverse elements that cause wear and deterioration. Follow the lead of well-known builders and contractors. Order R.I.W., made by Toch Bros., for your very next job.

* The buildings shown are only two of the many outstanding structures which comprise Toch City. Numerous such buildings have been protected through the years by R.I.W. products.

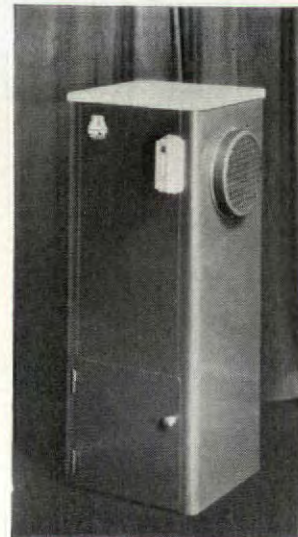
TOCH BROTHERS, INC.
NEW YORK CHICAGO

tured to suit different types of work. The smaller tool, costing about \$70, weighs less than 5 lbs. The larger tool, weighing about 10 lbs., sells for \$140.

Manufacturer: Stemco Corp., Rocky River, Ohio.

DEHUMIDIFIER reduces moisture, mold and mildew in industrial buildings and homes.

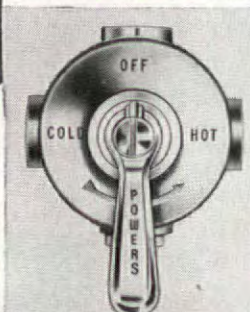
When plugged into a conventional electric outlet the new Niagara Sahara dehumidifier will handle 4,000 cu. ft. of air per hr. to remove excess moisture from a 20 x 30 ft. room. Air is drawn into the unit from the side by a motor driven axial flow fan. After circulating through beds of calcium chloride crystals, dehumidified air is forced out the opposite side of the unit. Extracted moisture is drained off into a 2½ gal. container. The Sahara can be used to reduce moisture, mold and mildew in stock rooms, storage closets, furniture warehouses, art museums, home basements, etc. According to the manufacturer, it will lower the relative humidity in a 75° F. room from 75 per cent to 71 per cent in 2 hrs., and to 66 per cent in 10 hrs. Cost of current consumption for the unit is approximately the same as for a 40 w. lamp



(Continued on page 140)



ONLY ONE MOVING PART



Safer Showers

For new installations or when modernizing obsolete showers play safe, use Powers mixers.

Write for
Circular H-48

For real shower comfort

and safety, use Powers shower mixers. Being *thermostatic* they hold shower temperature constant wherever set regardless of pressure or temperature changes in water supply lines. No danger of scalding or jumpy shower temperatures. THE POWERS REGULATOR CO., 2720 Greenview Ave., Chicago 14, Ill.—Offices in 50 cities. (HM2)

POWERS
THERMOSTATIC SHOWER MIXERS

SHARONSTEEL

Walls of Steel

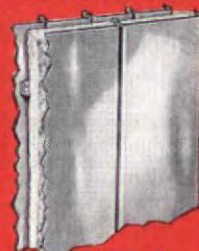
FIREPROOF • WEATHERPROOF • RUST RESISTING • INEXPENSIVE



Commercial and Industrial Doors



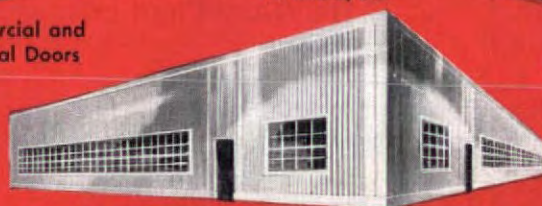
Industrial Tunnels



Sidewalls, Partitions, etc.



Garage Doors



Industrial and Commercial Buildings

for faster, easier, lower cost, better construction
inside or out!

Where low cost, sturdy, enduring walls, are desirable, more and more leading architects and designers are specifying and planning in terms of STEEL.

One of the big reasons for this trend

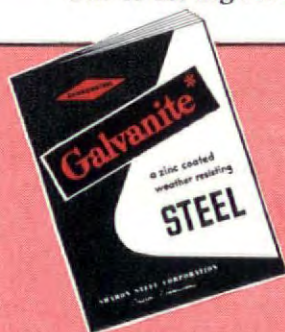
is *GALVANITE, a rust and corrosion resisting, high quality, zinc coated steel.

Wall tile, doors and door frames, decking, exterior walls—in fact, entire buildings are being fabricated

of this inexpensive steel.

See for yourself the many advantages found in products made of Galvanite.

*GALVANITE—inexpensive, rust resistant, zinc coated steel manufactured by the SHARON STEEL CORPORATION.



Send for the latest GALVANITE handbook.

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PRODUCTS OF SHARON STEEL CORPORATION AND SUBSIDIARIES: THE NILES ROLLING MILL COMPANY, NILES, OHIO; DETROIT TUBE AND STEEL DIVISION, DETROIT, MICHIGAN; BRAINARD STEEL COMPANY, WARREN, OHIO; SHARON-STEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRELL, PENNSYLVANIA; CARPENTERTOWN COAL & COKE COMPANY, MT. PLEASANT, PENNSYLVANIA; FAIRMONT COKE WORKS, FAIRMONT, WEST VIRGINIA; MORGANTOWN COKE WORKS, MORGANTOWN, WEST VIRGINIA; JOANNE COAL COMPANY, RACHEL, W. VA. HOT AND COLD ROLLED STAINLESS STRIP STEEL—ALLOY STRIP STEEL—HIGH CARBON STRIP STEEL—GALVANITE SPECIAL COATED PRODUCTS—COOPERAGE HOOP—ELECTRICAL STEEL SHEETS—HOT ROLLED ANNEALED AND DEOXIDIZED SHEETS—GALVANIZED SHEETS—ENAMELING GRADE STEEL—WELDED TUBING—GALVANIZED AND FABRICATED STEEL STRIP—STEEL STRAPPING, TOOLS AND ACCESSORIES.

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**for recognized SANITATION
and proved LABOR SAVINGS**



In RESTAURANT Planning

Salvajor

★ **SCRAPPING & PRE-WASH
MACHINES**

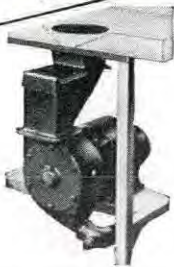
★ **WasteXit Food Disposer**

Your plans for the famous Salvajor mean faster dishwashing, less operating cost, no silverware loss, better dishwashing machine operation. "WasteXit" solves the food waste disposal problem, eliminates refrigerated garbage rooms, prevents fly and rat problems.

**Write
for Detailed Specifications**

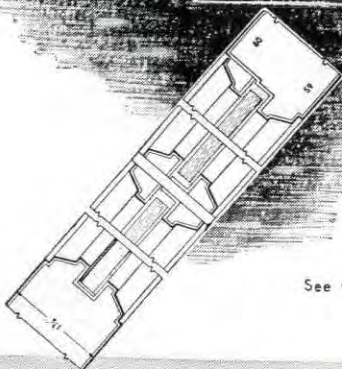
The SALVAJOR CO.
118 Southwest Blvd., Dept. AF
Kansas City, Mo.

(above)
The Scrapping and
Pre-Wash Machine
(below)
The "WasteXit"



Hollow

Metal



See Our Catalog in Sweet's

**JAMESTOWN METAL
CORPORATION**

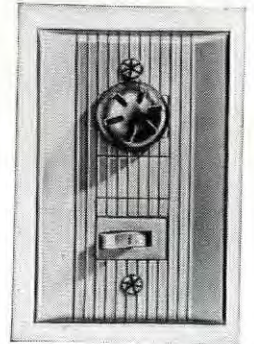
104 BLACKSTONE AVENUE JAMESTOWN, N. Y.

bulb. As optional equipment the Sahara may be equipped with a humidistat for completely automatic operation. List price of the unit is \$89.50. Humidistat is \$20 extra.

Manufacturer: Niagara Industrial Corp., 20 Vesey St., New York, N. Y.

LIGHT SWITCH, OUTLET and PILOT LIGHT COMBINATIONS feature simplicity and easy installation.

This new, inexpensive plastic line combines on one switch plate various combinations of four devices: 3-way switch, single-pole switch, outlet and pilot light. For easy installation the devices are factory-assembled on the plate, and the complete unit is mounted with only two screws. Switches are "T" rated at 5 amp.-250 v., 10 amp.-125 v.; outlet with double wipe contacts is rated at 10 amp.-250 v.; pilot light (6 w. lamp), at 75 w.-125 v. The line, designed to do away with two and three gang plates, is available in brown and white.

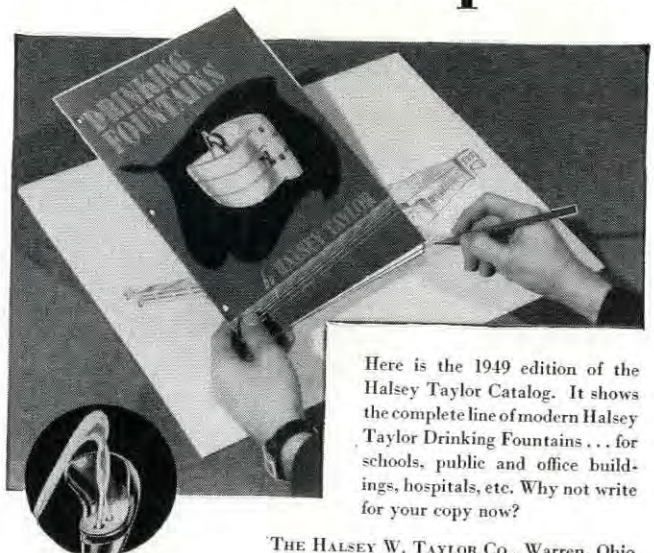


Manufacturer: Monowatt Inc., 95 Hathaway St., Providence, R. I.

DOUBLE SIZE ELECTRIC WALL SWITCH PLATES protect walls from soiling, harmonize with color decorations.

Supplied in colorful Alumilite processed basic shades, Sianor wall switch plates are large enough to protect walls from soil and finger marks. The new plates contain more than
(Continued on page 142)

Now off the press



Here is the 1949 edition of the Halsey Taylor Catalog. It shows the complete line of modern Halsey Taylor Drinking Fountains... for schools, public and office buildings, hospitals, etc. Why not write for your copy now?

THE HALSEY W. TAYLOR CO., Warren, Ohio

Halsey Taylor

DRINKING FOUNTAINS

A-3

MORE NEWS ABOUT ALCOA **EC** on the job Today **ALUMINUM**

Lighter weight, lower cost

Size AWG. or MCM.	Single Conductor in Free Air type of insulation				Not More Than Three Conductors in Conduit type of insulation			
	R Copper	R Aluminum	RH Copper	RH Aluminum	R Copper	R Aluminum	RH Copper	RH Aluminum
14					15			
12	20		20		20			
10	25		25		30			
8	40	21	40	21	40	17	15	
6	55	34	65	34	55	25	20	
4	80	46	95	55	70	34	30	17
3	105	67	125	80	80	46	45	25
2	120	88	145	105	95	59	65	38
1	140	101	170	122	110	67	85	55
0		118		143	125	80	100	71
00	165	139	195	164	145	92	115	84
000	195	164	230	193	165	105	130	97
0000	225	189	265	223	195	122	150	109
250	260	218	310	260	215	139	175	126
300		252			240	164	200	147
350	300	285	360	302	260	181	230	168
400	340	315	405	340	280	202	255	193
500	420	353	445	374	320	218	285	214
600			505	424	355	235	310	239
700	455	382	545	458	385	269	335	260
	515	432	620	521	400	298	380	281
750	575	483	690	580	410	323	420	319
800	630	529	755	634	435	336	460	353
900					455	344	475	386
1000	655	550			495	365	490	399
	680	571	785		520	382	520	412
	720				545	416	545	437
					560	437	590	458
						458	625	496
						470	650	525
							665	546
								559

Q
A

Can I replace copper with **ALUMINUM**, size for size?

In many cases, **YES**.

Tables courtesy Factory Management and Maintenance; based on tables 1 and 2, National Electrical Code.

Check the current ratings! You'll see that wire and cable with Alcoa E.C.* Aluminum conductor with type RH Insulation can replace copper with type R Insulation. This gives you superior insulation plus aluminum's lighter weight and low cost.

Mechanical, soldered or welded joints are used. Fittings are supplied by reliable manufacturers.

Alcoa makes light, strong, conductive E.C. Aluminum; leading wire manufacturers draw, strand and insulate it, and sell it under their own trademarks. Investigate the savings it can yield on a single job!

Ask your wire supplier, or write **ALUMINUM COMPANY OF AMERICA**, 1475G Gulf Building, Pittsburgh 19, Penna.

*E.C.: Electrical Conductor Aluminum


Insulated and sold by leading wire manufacturers



ALCOA EC ALUMINUM




FOR ELECTRIC WIRE AND CABLE



BAKER

AIR CONDITIONING
AND REFRIGERATION

BAKER EQUIPMENT
for
Air Conditioning



BAKER REFRIGERATION CORPORATION
(Formerly BAKER ICE MACHINE CO., INC.)
General Offices: South Windham, Maine
Factories at Omaha, Neb. and So. Windham, Me.



MicroRold®

CUTS PRICES!

Light Gauge Stainless Steel Sheet
Cost Reduced Up To 26%

Now you pay less for those super-accurate MicroRold Stainless Steel Sheets in gauges from 27 to 36. Effective May 23, the Washington Steel Corporation made substantial reductions on all extras in sheets of those gauges. The result is a saving to steel purchasers ranging from 11 to 26 per cent.

Washington Steel is able to make these price cuts because of the efficiency and economy of its cold rolling operations of the famous Sendzimir Mill. You continue to get the remarkable uniformity of gauge, the superior surface excellence, but you pay less for it.

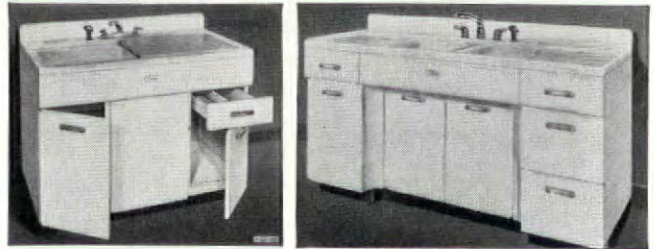
WASHINGTON STEEL CORPORATION
116 WOODLAND AVENUE
WASHINGTON, PENNSYLVANIA



26 sq. in., twice the size of conventional units. Permanent and easy to keep clean, they are perforated for simple installation on single tumbler light switches. At present they are available in scratch-proof, stainless steel and in aluminum. *Manufacturer: The Sianor Co., 3746 Kelly Ave., Cleveland 14, Ohio.*

TWO PORCELAIN SINK UNITS are added to Tracy line.

To its line of deluxe porcelain kitchen fixtures Tracy has recently added a 66 in. double bowl sink and cabinet unit and a 48 in. sink and laundry tray combination. The larger fixture



with its double bowls and acid resisting, porcelain enamel, double drainboard sink top comes equipped with crumb cup strainers, faucet and spray attachment. Below, it has an enamel finished Tracy steel undersink cabinet with insulated doors and drawers, concealed ventilation and extra large storage area. The 48 in. long sink and laundry tray combination has one shallow bowl for regular kitchen use and one deep bowl suitable for laundry purposes. It also features a faucet with spray attachment, a removable, sliding drainboard and a matching Tracy undersink cabinet.

Manufacturer: Tracy Mfg. Co., Pittsburgh, Pa.

(Technical Literature, page 144)

ELEVATOR & DUMBWAITER

Planning!

FREE
to architects,
contractors &
engineers



For the first time, here you have all the authoritative data in one book needed in figuring dumbwaiter and elevator service for the buildings you plan. Included are up-to-date details on Geared and Gearless Traction Elevators; Hydraulic Elevators and Lifts for passenger and freight service; Elevators for residences; and Dumbwaiters for commercial, industrial, institutional and residential service. Use your letterhead to request a free copy of this invaluable reference manual today. Address Dept. A.

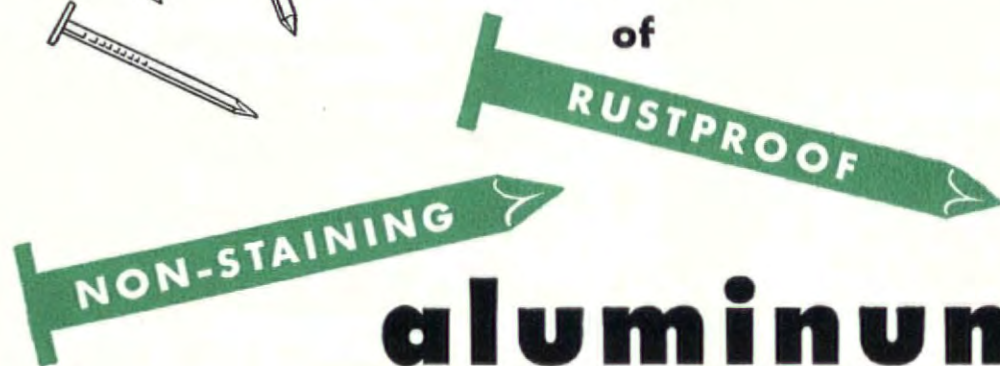
Representatives in Principal Cities

THE **SHEPARD** ELEVATOR COMPANY
CINCINNATI 14, OHIO

Builders of Finest Office, Hotel & Hospital Elevators



let these
Lifetime
nails point
the story
of



aluminum

Take a look at recently built homes... see how many show ugly stains below every nail in the siding. There is no excuse for this. There is not even any need for deep-setting and puttying to prevent nail stains. *The trouble is in the nails...* in rustable steel nails... in galvanized nails that lose their protective coating under hammer blows.

Specify aluminum nails for all exposed uses. They drive well. They cannot stain by rusting at the head. They

cannot loosen by rusting in the wood. And Reynolds *Lifetime* Aluminum Nails are available in a full range of sizes and types.

Let the nail point the further story of aluminum. Rustproof gutters and downspouts at about half the price of other rustproof materials... non-staining, too! Rustproof windows that need no painting, cannot rot, swell or warp. Roofing and siding that practically eliminates maintenance. And a versatility

in design that is best evidenced by Reynolds Architectural shapes.

Write or call for descriptive literature in A.I.A. File Form... offices in 32 principal cities.

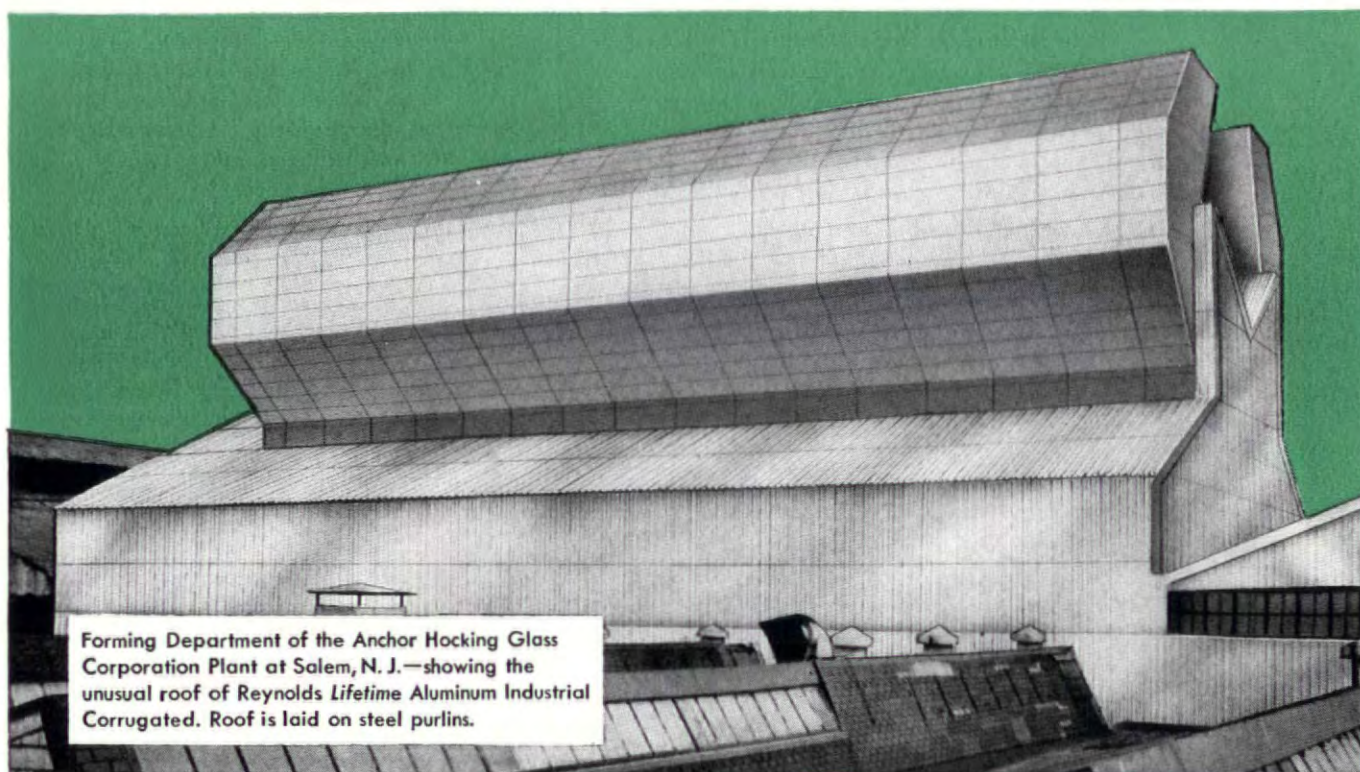
Write for free sample packet of Aluminum Nails. Reynolds Metals Company, Building Products Division, 2030 So. Ninth St., Louisville 1, Ky.

REYNOLDS *Lifetime* ALUMINUM

IF YOU SEE RUST
YOU KNOW IT'S NOT
ALUMINUM

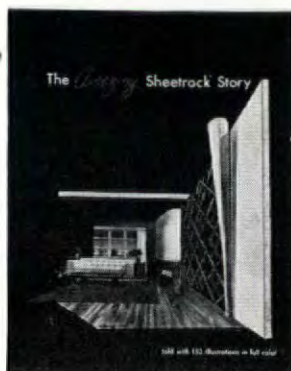


REYNOLDS
Lifetime ALUMINUM
BUILDING PRODUCTS



Forming Department of the Anchor Hocking Glass Corporation Plant at Salem, N. J.—showing the unusual roof of Reynolds *Lifetime* Aluminum Industrial Corrugated. Roof is laid on steel purlins.

TECHNICAL LITERATURE



WALLBOARD. The Amazing Sheetrock Story. U. S. Gypsum Co., 300 West Adams, Chicago, Ill. 48 pp. 9½ x 12½ in.

Attractive and informative, this booklet contains many color photographs of practical applications of Sheetrock wallboard. Solutions to various construction and remodeling problems, structural techniques and a brief note on the composition and manufacture of this fireproof gypsum wall and ceiling material are included.

INSULATION. Fiberglas Aerocor. Owens-Corning Fiberglas Corp., Toledo 1, Ohio. 8 pp. 8½ x 11 in.

The multifold thermal and acoustical uses of this material—made of superfine glass fibers—are described in this publication. Sections on the physical properties and specifications

are included as well as many photographs illustrating practical applications of Fiberglas.

PLASTER AGGREGATE. Permalite—The New Insulating Plaster Aggregate. Great Lakes Carbon Corp., 18 E. 48th St., New York, N. Y. 6 pp. 8½ x 11 in.

The properties, advantages and uses of Permalite, a light-weight plaster aggregate, are presented adequately in this folder. Specifications, technical data including results of tests, instructions for use and other helpful facts are fully covered.

PROTECTIVE COATINGS. Prufcoat Proof Packet. Prufcoat Laboratories, Inc., 50 East 42nd St., New York, N. Y. 7 pieces. 11¾ x 9 in.

The Prufcoat Proof Packet is designed to give purchasing agents, superintendents, maintenance engineers and architects an easy-to-file folder of essential information on the use and specification of Prufcoat protective coatings. The packet includes actual case histories, Prufcoat Protectograph Plan for analyzing painting maintenance costs, price list, and catalog information. It should be of particular interest to those who encounter painting problems involving acids, alkalies, oil and water.

WINDOWS. Windalume Corp. Dept. C. 323 56 Street, West New York, N. J. 6 pp. 8½ x 11 in.

Specifications and details for installing Windalume aluminum windows are presented in this pamphlet. Among the features cited for this product is the construction of extruded architectural aluminum, heat-treated for strength and coated with clear lacquer for extra protection.

WINDOWS AND DOORS. Fenestra Stock Products. Detroit Steel Products Co. 3111 Griffin Street, Detroit 11, Mich. 28 pp. 8½ x 11 in.

Steel windows and doors complete with hardware carried in stock by local dealers are itemized and their uses depicted in this booklet. Installation details are given for residence steel casements, for projected windows designed for commercial and industrial buildings, and for swing and slide door units.

ROLLING DOORS, GRILLES, MOVING STAIRWAY COVERS. Cornell Iron Works, Inc., 36th Ave. & 13th St., Long Island City, N. Y. 8 pp. 8½ x 11 in.

Rolling steel doors and shutters, sliding and rolling grilles, bi-fold, canopy and vertical lift doors are a few of the products reviewed in this concise folder. Besides general data on uses, operation and locking, the publication contains descriptions, details and specifications for most of the doors. A relatively new rolling unit—an automatic fireproof cover for moving stairways—is also described briefly.

FOLDING WALL. Modernfold Doors. New Castle Products, New Castle, Ind. 26 pp. 8½ x 11 in.

Efficiency and attractiveness are the two features of Modernfold doors stressed in this publication. Photographs and diagrams for installation reveal the versatility of rooms equipped with these accordion-like doors, which are com-

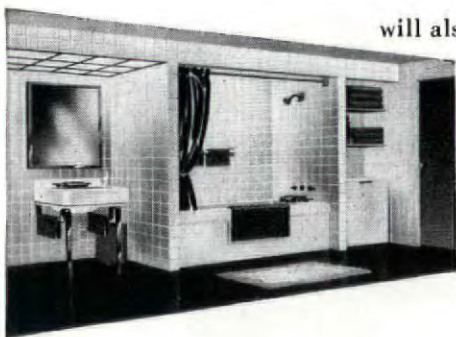
(Continued on page 146)

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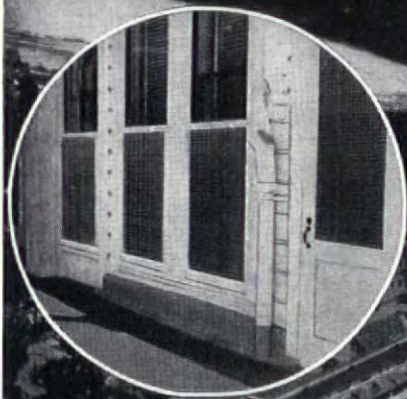
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TECHNICAL LITERATURE

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pletely prefabricated and available in 21 different colors of vinyl coated fabrics. The folio lists specifications of this New Castle product and gives examples of its use in schools, stores, libraries, churches and residences.

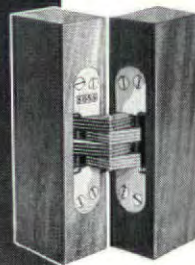
OUTDOOR FIREPLACES. Outdoor Cook-Nook. The Majestic Co., Huntington, Ind. 52 pp. 6 x 9 in. Price 25 cents.

Handy, digest-sized, this book contains sketches of 11 fireplaces and instructions for building outdoor fireplaces of any size or style—from the simplest chimney-less, masonry and grill cookstove to the finest counterpart of a living-room fireplace complete with cooking facilities. References are made to commercially available metal fireplace units and parts. These standard items plus a broad choice of masonry materials enable the professional or amateur builder to construct a considerable variety of efficient fireplaces. The book also goes on to offer menu and recipe suggestions for planning outdoor meals.

HEATING. Dependable Heating Equipment. Burnham Corp., Boiler Div., Irvington, N. Y. 28 pp. 8½ x 11 in.

A newly revised edition, Catalogue No. 81 fully illustrates this manufacturer's products, including boilers, radiators, radiant radiators and base-ray radiant baseboards, and contains ratings and other information which heating contractors and architects need for writing specifications. An addition to the Burnham line, the Pacemaker oil-burning boiler is shown in the catalogue. According to the manufacturer this home heating unit, designed for oil firing exclusively, offers high efficiency heat exchange and has new features which cut installation time.

(Continued on page 150)



equipped with . . .

SOSS INVISIBLE HINGES

"the hinge that hides itself"

THE ULTRA-MODERN HOME OF THE NORTH
AMERICAN LIFE AND CASUALTY COMPANY

—Minneapolis 4, Minnesota

THE ARCHITECTS: LANG & RAUGLAND
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Lang & Raugland, Minneapolis Architects, by using SOSS INVISIBLE HINGES, succeeded in creating modernistic interior effects in this building that could never have been realized with old style, butt type hinges!

These remarkable SOSS HINGES have NO UGLY, BULKY, PROTRUDING hinge butts to mar the graceful lines of modern design. They're the only hinge that absolutely assures the architect of the soft, smooth, streamlined, harmonious interiors that are so very necessary to really modern architecture. There's a weight-rated SOSS HINGE, operating on hardened steel links and roller bearings, for every type of installation.

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AMERICAN-Standard

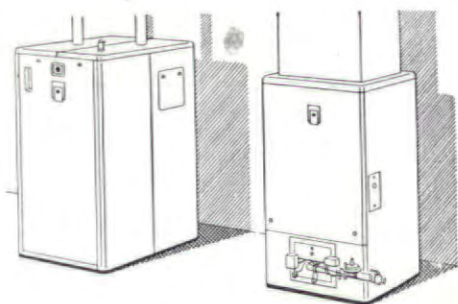
First in heating . . . first in plumbing



All the charming features and luxuries of the private bath and dressing room are incorporated in this space-saving room. The bath is the luxurious **NEO-ANGLE**. Companion fixtures are the attractive **ROXBURY** Lavatory and the quiet **MASTER ONE-PIECE** Water Closet. All three are available in white and harmonizing colors.

Beauty that's more than skin deep...

■ American-Standard products are styled to stand out in any setting. But their good looks go a lot deeper than their trim lines, smooth finishes and striking colors. It's the beautiful way they perform and stand up in actual installations—the efficient, trouble-free service they give in the home—that make them the finest heating equipment and plumbing fixtures that money can buy. For information about the complete line, contact your Heating and Plumbing Contractor. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pa.



Two of the many modern heating units made by American-Standard. Left—The oil fired **OAK-MONT** Boiler. Right—The gas fired **SHAWNEE** Warm Air Furnace. The complete line covers equipment for every type of heating . . . and for every kind of fuel.

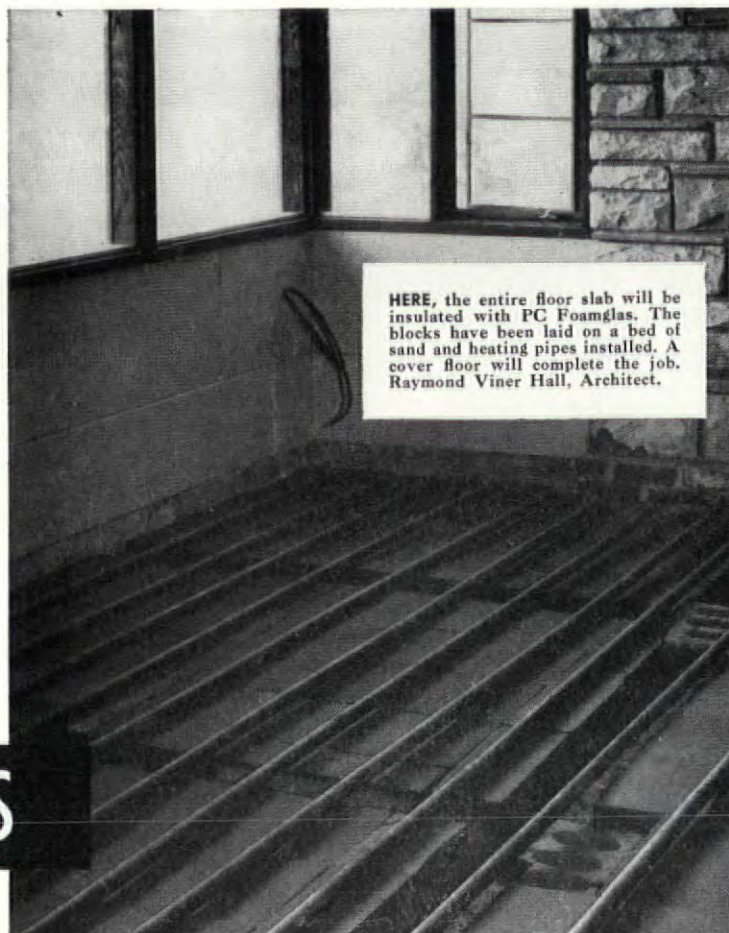
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permanent residential
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PC FOAMGLAS

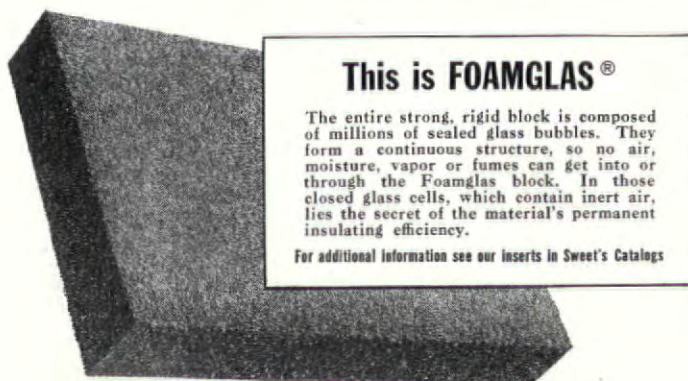


HERE, the entire floor slab will be insulated with PC Foamglas. The blocks have been laid on a bed of sand and heating pipes installed. A cover floor will complete the job. Raymond Viner Hall, Architect.

● PC Foamglas is a cellular glass material, (see cut and description) therefore has exceptional insulating properties. Being glass, it is moistureproof, fireproof, verminproof. The big, rigid blocks of Foamglas will not warp, check, pack down, rot, swell or shrink, when installed in walls, roofs and floors of all sorts of homes.

Over the years, PC Foamglas has proved its ability to help maintain desired temperatures, to minimize condensation, to withstand humidity—in commercial, industrial and public buildings. Therefore you can be sure that, when properly installed in dwellings, PC Foamglas will retain its original insulating efficiency *permanently*.

Our insulation specialists will be glad to consult with you, to determine where and how you can specify PC Foamglas to your clients' best advantage. Meanwhile, why not send for our new book, which tells in detail the advantages of including PC Foamglas Insulation in specifications for homes of all sizes?



This is FOAMGLAS®

The entire strong, rigid block is composed of millions of sealed glass bubbles. They form a continuous structure, so no air, moisture, vapor or fumes can get into or through the Foamglas block. In those closed glass cells, which contain inert air, lies the secret of the material's permanent insulating efficiency.

For additional information see our inserts in Sweet's Catalogs

GET THIS FREE BOOK This fact packed new book on home insulation tells why PC Foamglas is the most effective, most economical insulating material for roofs, walls, floors, foundations. It contains detail drawings and specifications for the use of PC Foamglas in homes of all sizes. Just mail the convenient coupon and your *free* copy will be forwarded promptly.



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Dept. B-79, 307 Fourth Avenue
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Specify Frigidaire — and you specify America's No.1 Refrigerator

11 million refrigerating units have been built by Frigidaire!

That's *proof*—proof no one can match or challenge—that Frigidaire is America's No. 1 Refrigerator. And it's the best possible reason for specifying Frigidaire for new kitchens or old.

The reasons for this popularity are many. Frigidaire Dealers offer more models to choose from—14 in all. There are three *types* of Frigidaire Refrigerators—sizes from 4 to 17 cubic feet—choice of right or left hand doors—some with Lifetime Porcelain exterior finishes—a wide range of prices. Whatever your requirements, there's almost sure to be a Frigidaire to meet them.

Frigidaire Cold-Wall Imperial Refrigerators are the finest that money can buy. They have the built-in Locker-Top Freezer that holds up to 70 pounds of food—has its own separate door and

freezing system. In the big Cold-Wall food compartment foods need not be covered—because cooling coils in the walls keep air still and moist. This compartment never needs defrosting.

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Frigidaire Master Models have a big Super-Freezer that holds 15 pounds of frozen foods—from 11½ to 22½ sq. ft. of shelf space—and all the basic Frigidaire quality features. Yet they cost amazingly little.

See your dependable **Frigidaire Dealer**. Or write Frigidaire Division of General Motors Corporation, Dayton 1, Ohio. In Canada, Leaside 12, Ontario.



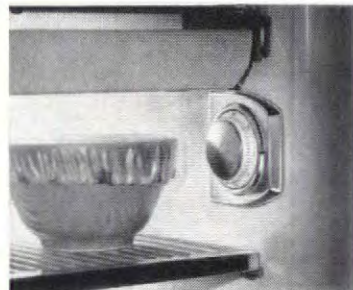
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Frigidaire "firsts" that your clients want



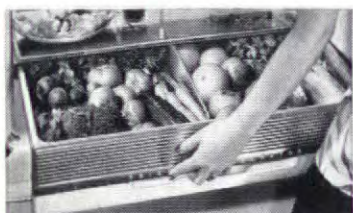
Automatic Cold-Control—the "brain" that maintains desired *safe* temperature—from top to bottom. Remember, in a refrigerator, it's temperature that counts.



The **Famous Meter-Miser** is now improved—is even quieter, more compact, more efficient. And it's precision-built like the finest watches, is the simplest of all refrigerating mechanisms, is sealed-for-life against dirt, air and moisture.



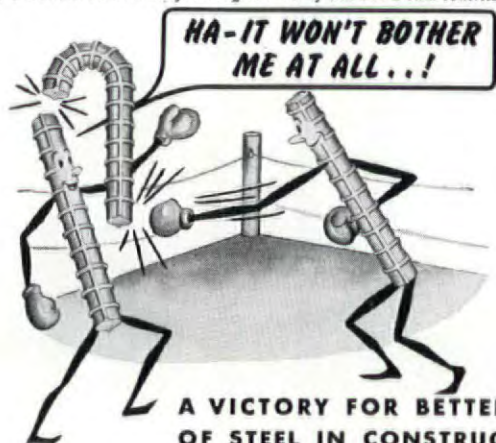
Quickcube Ice Trays come free *instantly*—pop ice cubes out whole and unmelted at a lever-touch—freeze cubes *quickly* because these trays are all-aluminum. Never any messy sink-splashing. No prying, no chipping. Nothing else like them!



Full-width, two-compartment Hydrator keeps fruits and vegetables—¾ bushel of them—fresh and moist longer. Entire Hydrator slides out smoothly on quiet roller bearings even when packed full of food. Glass top gives full visibility.

TECHNICAL LITERATURE

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Industry-wide acceptance of ASTM Specification A 305 deals a knock-out blow to waste in steel. Hooked ends are no longer recognized as an added anchorage factor with adequately deformed bars.

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Include these specifications in your construction and have all the advantages of strength, safety and steel conservation with Laclede Multi-Rib Bars.



Write us about specifying Laclede Multi-Rib bars on your jobs.

LACLEDE STEEL COMPANY

St. Louis, Mo.

HEATING. Honeymoon Cottage or Luxurious Home. Surface Combustion Corp., 2375 Door St., Toledo, Ohio. 10 pp. 8½ x 11 in.

This booklet illustrates pictorially how the Janitrol Triple Service System, a single unit, meets all residential heating and hot water requirements. The one unit supplies warm water for either convector or radiant panel heat plus hot water at different temperatures for other household functions such as kitchen, laundry and bathroom. The booklet illustrates Janitrol Triple Service installations in luxurious homes as well as in low cost housing developments where both convector and radiant heating or a combination of both are installed. Specifications and engineering data on the Janitrol unit are also included.

TOILET COMPARTMENTS. Sanymetal Toilet Compartments and Toilet Room Environments. The Sanymetal Products Co., Inc., 1701 Urbana Road, Cleveland, Ohio. 20 pp. 8½ x 11 in.

In addition to describing the five types of Sanymetal toilet compartments available, this new 1949 catalogue features 21 color chips to illustrate the wide variety of colors in which the compartments may be had. It also discusses the three types of materials used for compartment construction: Porcelain, Tenac and Baked-on Paint Enamel. Each of the five compartment types is presented fully with construction details, specifications, data on hardware and complete specifying information. They include: Academy type (overhead braced), Century type (ceiling hung), Normandie type (floor supported), standard flush and standard panel types. In the closing pages of the book, Sanymetal's hospital cubicles, shower cabinets and stalls and dressing room compartments are catalogued.

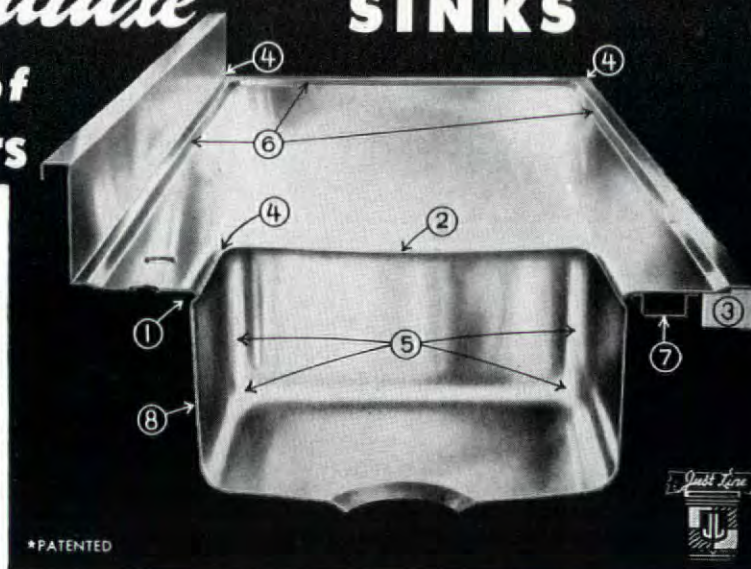
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Just Line Radiiluxe
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STAINLESS STEEL
SINKS

- 1 *Patented Anti-splash Rim around entire perimeter of the bowl at point where bowl joins the drainboards, seamless welded and polished.
- 2 *Patented Double Pitched Drainboards, gradually sloping lengthwise to the bowl and sidewise to center of drainboard.
- 3 Wood Frame around front and ends, facilitates fastening to the cabinets.
- 4 Seamless Construction, all joints welded and polished.
- 5 Radius corners in bowl—vertical radius 1½" at top tapering to 15/16" at bottom, all bottom horizontal radii are 15/16".
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- 7 U-type structural channel extending the full length of the drainboard.
- 8 Sound Deadened on the underside to prevent undesirable metallic sound.

Radiiluxe Sinks can be supplied in any size and shape and with either one, two, or more sink bowls—to meet individual requirements.



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KINGSTON HOTEL SWIMMING POOL
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MOST ECONOMICAL AND WEATHER RESISTING PROTECTION KNOWN FOR STRUCTURAL
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ARCHITECT, ROBERT LAW WEED, MIAMI, FLORIDA.

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Florida Southern College, one of the country's largest Methodist Institutions of higher learning, overlooking Lakeland's most beautiful body of water, Lake Hollingsworth, is noted for striking and unique architecture. A second multi-million dollar building program designed by world-famous architect, Frank Lloyd Wright, is now underway on the campus and THOROSEAL will form an important part of this building program.

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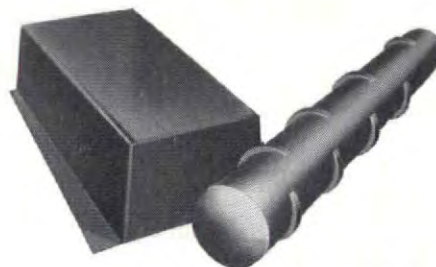
Ceko literature is full of installation tips and product data. It is FREE to all building men. Fill out coupon and mail today. Also see Ceko literature in Sweet's Architectural and Builders Files.

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CONCRETE JOIST CONSTRUCTION

Building costs are cut with Concrete Joist Construction. Concrete is kept to a minimum for any span or live load. Removable Meyer Steelforms permit using the forms again and again. Above is pictured a Meyer Steelform and Reinforcing Bar.



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Full line—monumental, industrial and residential. Steel windows are economical. They cannot stick, warp or swell. They afford ample view, admit more daylight . . . are fire-resistive, provide means of escape in emergency.



STEEL JOISTS

Ceko Open-Web Steel Joists offer the most economical method of building. They assure fire and sound resistive structures. They're light, easy to install and self-centering. Ducts, wiring and piping can be concealed.

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A Shower Cabinet designed
especially for...

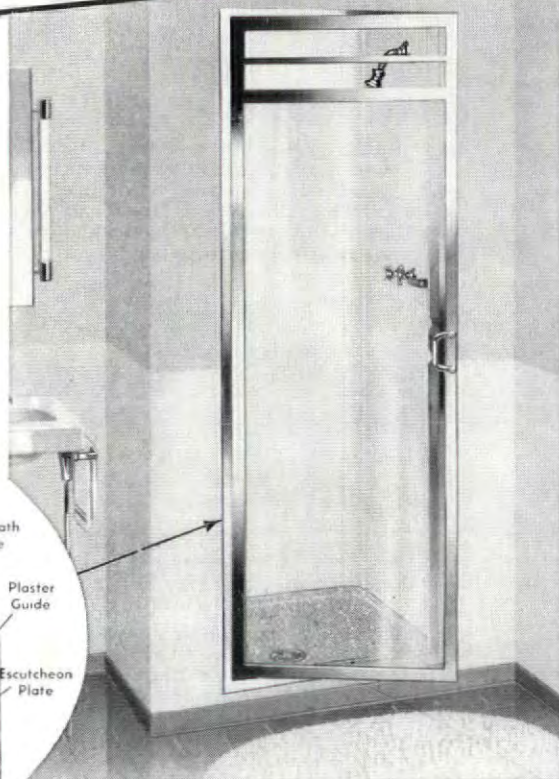
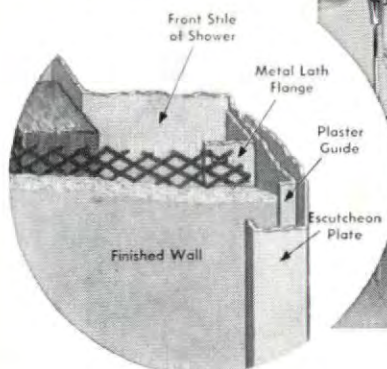
bathrooms



FIAT

Cadet Built-in Model
No. 19-B

Below, view showing
lath and plaster con-
struction of door
opening.



Here is a moderate cost shower cabinet that is perfectly suited for bathroom installation. The Built-in Cadet shower is completely recessed behind the wall material of the bathroom. Joint around the door opening is covered by the Fiat escutcheon that frames the door and gives a smart trim finish.

Installed cost is considerably less than a built-up tile shower and is considered by many builders as superior in appearance. It makes a permanent water tight installation, will not crack and develop leaks with settling of the building, as often occurs when mortar joints are depended upon for watertightness.

Standard equipment includes metal top and chromium plated dome light.

An important feature is the reversible side panels, valves can be installed on either side without special drilling.



GIVE THE BUILT-IN CADET SPECIAL CONSIDERATION FOR YOUR NEXT HOUSE; IT CAN BE MADE A STRONG SALES FEATURE.

FIAT METAL MANUFACTURING COMPANY
Chicago 13, Ill. Long Island City 1, N. Y. Los Angeles 33, Calif.

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

EUROPEAN FURNITURE is shown at Architectural



Denmark contributed two
armchairs (above) by Finn
Juhl; drapery by Marie
Gudme Leth.

Among chairs from Norway
were those at right by Alf
Sture. Those below, also
from Norway, are an arm-
chair of teakwood with
black plastic sides by
Bjørn Engø and one up-
holstered in wool by Rae-
stad & Rolling.



Photos: N. Y. Times Studio



League in New York City

During the past few years while American furniture has been refilling the showrooms with almost prewar plenty and variety, European work has hardly been seen here except in the handsome but unsatisfactory form of photographs. In an attempt to show U. S. designers what their fellow-craftsmen are doing across the Atlantic, the New York Architectural League prepared an exhibit—*European Furniture and Fabrics: 1949*. Eight countries participated in this display which appeared in June, providing a three-dimensional glimpse of a broad if thin slice of European design.

Stand-out of the show was a beautiful group of armchairs designed by Denmark's Finn Juhl and executed by Niels Vodder (whose woodworking merits special mention). Norway's contribution was the most generous of all—a half-dozen handsome chairs and a tall cabinet. All these Norwegian pieces made use of rich woods—mahogany, teak and oak. Finland's birch chairs and stacking stools proved trim and serviceable if not exciting. Sweden had obviously been promptest in setting up export outlets—its best pieces (by Elias Svedberg and Bruno Mathsson) have already been available in U. S. stores for some time. This was also true of the only Swiss entry—Hans Belmann's nesting tables. Britain limited itself to the prize-winning laminated chair by Basil Spence. Greatest disappointment was Italy's default—not one of the designs so handsomely and exotically pictured in *Domus* was on hand.—S.K. (Continued on page 158)



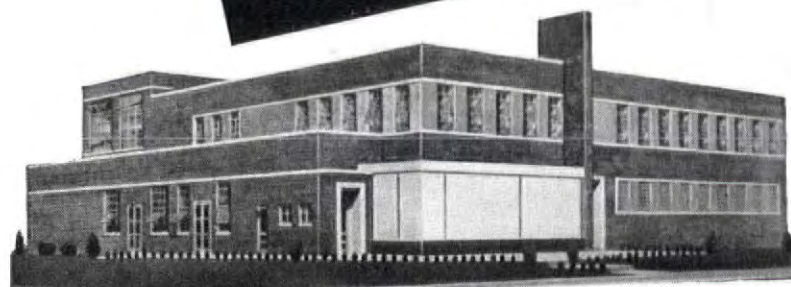
Basil Spence's prim laminated chair came from England; makes interesting use of varicolored wood layers.

Finnish armchair and stacking stools are by Ilmari Tapiovaara; hanging fabric by Joy Silander.



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*Modern dairy plant in Richmond, Virginia.
Architects: Ballou & Justice*

In this attractive, modern plant, it's *mullions* by Alberene — because Alberene mullions match so well the shadow effect of the windows . . . blend so perfectly with the exterior of the building as a whole.

And . . . it's Alberene Stone, too, for modern-looking, durable, maintenance-free spandrels . . . sills . . . stools . . . trim.

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- **Esthetically**, Alberene soapstone is *right* for giving a building — institutional or industrial — the modern touch. *Because . . .* its natural greenish-blue color harmonizes with any decorative pattern. *And* its moisture-proof surface does not chip, scale, or split — it *always* looks good!

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NEW, NEW, NEW! A complete line of *vitreous china* lavatories by Briggs to add to the already outstanding line of Briggs Beautyware plumbing fixtures and brass fittings!

SMART, SMART, SMART! A wide variety of fixtures and fittings to harmonize with any decorative scheme for new homes or modernization work! **DIFFERENT, DIFFERENT, DIFFERENT!**

Yes . . . full of design features you'll find in no other lavatories! **COLOR,**

COLOR, COLOR! Sandstone . . . sky blue . . . sea green . . . ivory. **FOUR** exciting colors, plus white, moderately priced to fit every building budget.



The new Briggs Beautyware lavatories are:

- 1 THE WHITTIER** (B-3210 HT), 19" x 17", shelf back, wall pattern, with chromium towel bars. Also available with chromium plated legs.
- 2 THE WHITMAN** (B-3310 HT), 20" x 18", ledge back, wall pattern, with chromium towel bars and soap depression. Also available with chromium plated legs.

- 3 THE LONGFELLOW** (B-3280 H), 22" x 14", shelf back, wall pattern, with soap depression. A great space saver due to its narrow front-to-back dimensions.
- 4 THE WHITMAN** (B-3370 H), 24" x 20", ledge back, with chromium legs and towel bars, soap depression.
- 5 THE WHITTIER** (B-3270 HT), 22" x 18", shelf back, chromium legs and towel bars, soap depression.

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Beautyware CHINA LAVATORIES *Low Prices!*

Points of superiority in Briggs Beautyware vitreous china lavatories:

- Ample shelf space—"beaded ends and back"—prevent side soiling.
- Double front corner concealed overflows with smooth underbowl front—no unsightly bulge—installation made easier—no cramped quarters.
- Deep anti-splash rim—non-splash with valves open.
- Deep bowl—greater water capacity.
- Special safety-wall-locking feature—"fixture cannot come off hangers".
- No-slip hexagonal towel bars—attached to lavatory, front and back.
- Special easy-fastening methods for towel bars and legs.
- Attractive fittings—hug the back—black index supply handles—quick opening valves.
- Priced right—smaller premium for color.



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BRIGGS *Beautyware*

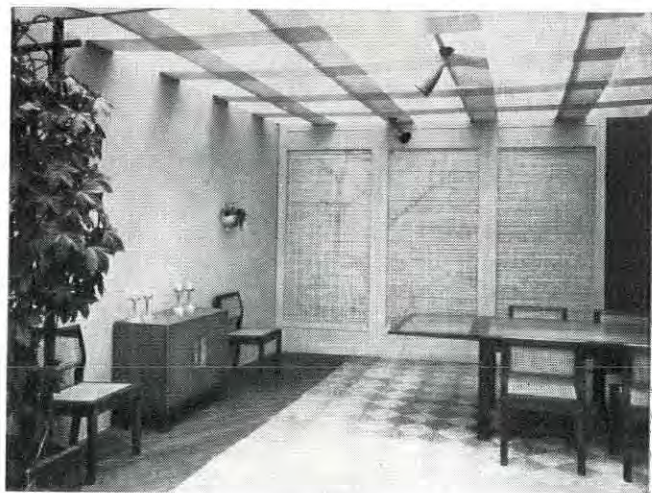


The well-defined living-dining area above is designed by Herb Raynaud with furniture by Eleanor Forbes. The dining room (below at right) is by Margery Hoffman Smith with rattan hangings by Dorothy Liebes.

REVIEWS

DESIGN FORTY-NINERS ARE NOT PIONEERS

California designers are celebrating the centenary of their state by a large exhibit of recent work—Design in '49—at the De Young Memorial Museum in San Francisco during June and July. There is no doubt that the 12 sleek room interiors in the show demonstrate a vast improvement over the local interior decoration of a 100 years ago. They retain, too, some of the spaciousness and fine woodwork which distinguish the best Californian architecture. Nor is meagerness one of the exhibit's drawbacks. Individual furniture groups, as well as whole sections of ceramics, textiles and bric-a-brac, round out the complete room arrangements. But the pioneering spirit has, somewhere along the line, evaporated—California design is copying California design.



HAWAII LOOKS AT OUTDOOR LIVING

Hawaii—as a melting pot of civilizations—may soon outrank New York. This was evidenced by the recent show at the Honolulu Academy of Arts presenting five versions of the lanai, or outdoor living room. Around this most comfortable and convenient room of the Hawaiian house, all population groups have converged. Americans and Europeans approached it gingerly by way of gradually widening porches. Orientals found it immediately congenial, brought to it traditional garden and living arrangements.

The fine idea of the exhibit was spoiled to a large extent, however, by the fact that no truly representative examples—native Hawaiian, Americo-European, Chinese, Japanese, and the less-pervasive Indian—were used. Instead groups of architects (all Occidental to judge by their names) set up quite heavy-handed “adaptations”. The one pictured below by Merrill, Sims & Roehrig is the most open and least artificial.—S.K.

(Continued on page 162)

Raymond M. Sato



AZPHLEX ASPHALT TILE

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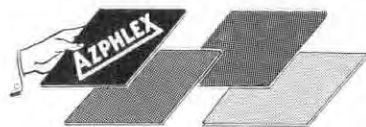
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AZPHLEX colors are through-and-through — a wide range of clear, sharp colors that offers an unusual selection of color and pattern combinations. It will take a very high polish — and keep it for an exceptionally long time.

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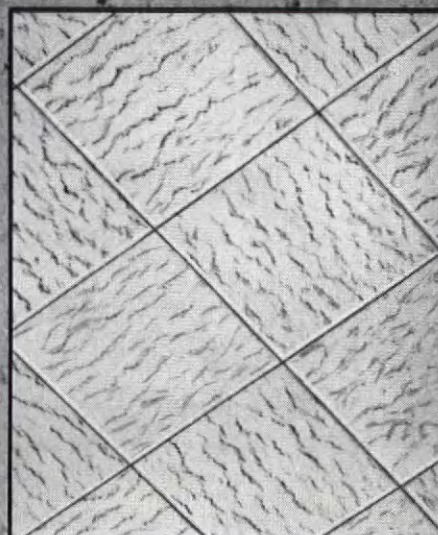
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GREAT

Sylvania's New Flexi-Module Lighting System Illuminates Herpolsheimer's—Modern Allied Store

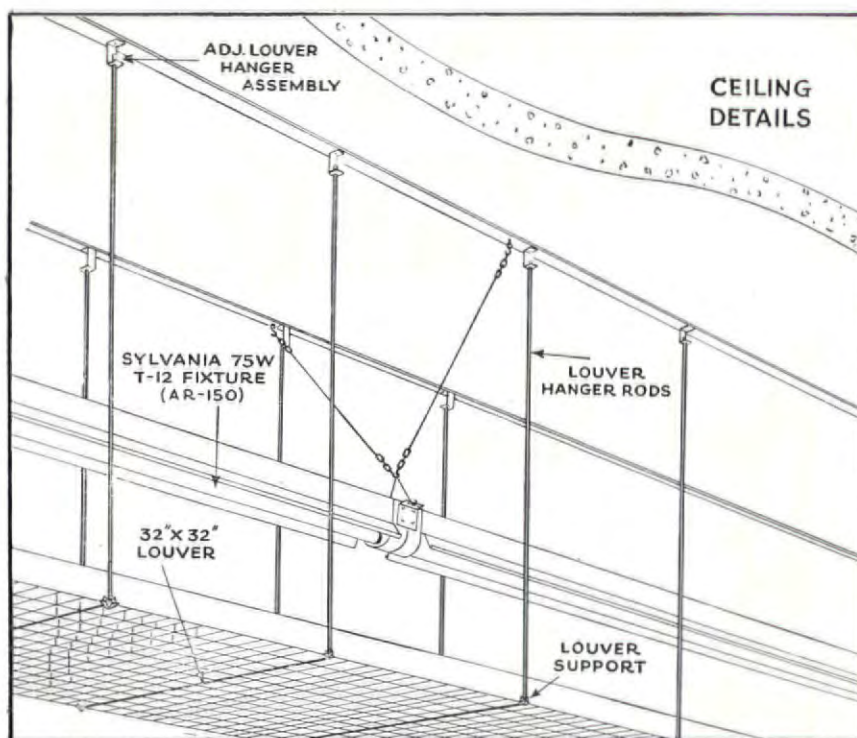


"A store lighting system is satisfactory only when it adapts itself to modern merchandising practice. In the new Herpolsheimer store, the combined engineering skills of Allied Stores and Sylvania have made such a system possible!" — George L. Ely, store designer.

Herpolsheimer's, 95,000 square feet of ultra-modern store in Grand Rapids, Michigan, has the most advanced merchandising lighting devised—a flexi-module ceiling conceived and designed by George L. Ely—and executed with specially designed fluorescent fixtures by Sylvania Electric!

Briefly, this form of lighting was designed to give great flexibility, with the accent on *selling*, and eliminate any distracting influence on the shopper. Soft, glarefree, yet plentiful light is supplied by Sylvania's new 75-watt, T-12, 8-foot, *instant start* Warmtone fluorescent lamps. Mounted in tandem 18" above the louvers on 32" centers, these fixtures depend on a plug-in duct wiring system for their power.

The louvers that form the flexi-module ceiling consist of cells 3" high x 3" wide x 3" long. They are made up into panels 32" x 32". The lighting fixtures behind them can be quickly moved for whatever concentrations or effects of light desired. Directional and decorative lighting is more readily adapted to this system than any other.



Flexi-Module Ceiling Details

The flexi-module ceiling needs no sub-frame of channels, complicated hanging arrangements involving hinging or other costly devices. Hangers of required length are attached to existing ceiling or slab, 32" on centers. Upper end of hanging rod has device which may be attached to various types of ceilings in various ways to meet requirements. For maintenance or changing, panels are lifted from hangers and slid over to adjacent ceiling!

★ ★ ★

NAMES

make Great Stores

The Sylvania flexi-module arrangement is a definite factor in reducing building costs! It hides air-conditioning ducts and vents, sprinkler and electrical systems, and all the other built-in utilities required to operate today's super stores. Maintenance is greatly reduced! Repainting is eliminated, since the louver panels are of treated aluminum.

Couple all these desirable features with the fact that the cost of buying, installing and maintaining this lighting system compares favorably with conventional lighting in plaster ceilings, and is lower than other types of systems on the market... and you have a truly worthwhile *flexible* lighting method!

Send for full information on Flexi-Module Ceiling and Sylvania Lighting Products.



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Gentlemen: Forward Flexi-Module details with full information on Sylvania Lighting Products.

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REVIEWS



Along with new cane and plywood chairs Pascoe offers a handsome screen, faced on one side with birch, on the other with walnut.



PASCOE CHAIRS COMBINE CANE AND PLYWOOD

This year's most promising furniture contribution by the firm of Pascoe-New York Inc. is a light, graceful and professedly very strong group of chairs and couches using plywood frames with cane seats and backs. Cane has the added advantage of being the cheapest webbing material except cotton. The armchair is an especially striking example of frame lamination—arm, back and leg base are firmly and almost imperceptibly interlocked. The lounge bed with cane sides and nylon underwebbing is more generous than usual in sleeping space—the sloping back is adjustable.

Pascoe's group of upholstered chairs has also been expanded. New models have zippered covers over foam rubber cushions. During cleaning periods, the frames can be used as comfortable web chairs.—S.K.

Photos: Lionel Freedman; Pictor



TODAY'S HOUSE PRESENTS COMPLETE NEW LINE OF FURNITURE BY ALLAN GOULD

One of the most striking chairs presented last year was of plywood strung with plastic cord and designed by Allan Gould for Functional Furniture Manufacturers, New York (FORUM, Sept. '48). This year the same firm is putting out a complete line of furniture by Gould at a new store designed by him—Today's House, New York City. Although none of the new pieces lives up to last year's promise, they are on the whole a solid, simple and attractive lot, making good use of combined light and dark woods—birch with walnut and mahogany. Sample retail prices: stacking stool, \$12.50; small table, \$40; upholstered sofa, \$209. The single bed below is \$79.90 without spring. Its shelf can be used to hold blankets during bed-making as well as to provide a rather out-of-the-way breakfast table.—S.K.

(Continued on page 166)

Hans van Nes



Do you need technical help on *waterproofing* a building?

Your Sonneborn Man can help you. Here are some of the ways he might do it.

Suppose, for instance, you were worried about damp masonry walls above grade. He might tell you about a transparent coating that not only repels water, but helps retain the building's original clean look, too. It's called Hydrocide Colorless. You simply brush or spray it on the exterior . . . it has lasted for years.

Or, if the situation called for it, he might attack the problem from inside, with still another Hydrocide. This is a mastic, that stops water and acts as a base for plaster or concrete. You apply it inside, of course.

Then again, you may need help with below-grade water-proofing. Here, he may recommend a single troweled coat of another Hydrocide. It's as efficient as expensive conventional systems that call for as many as five layers of material.

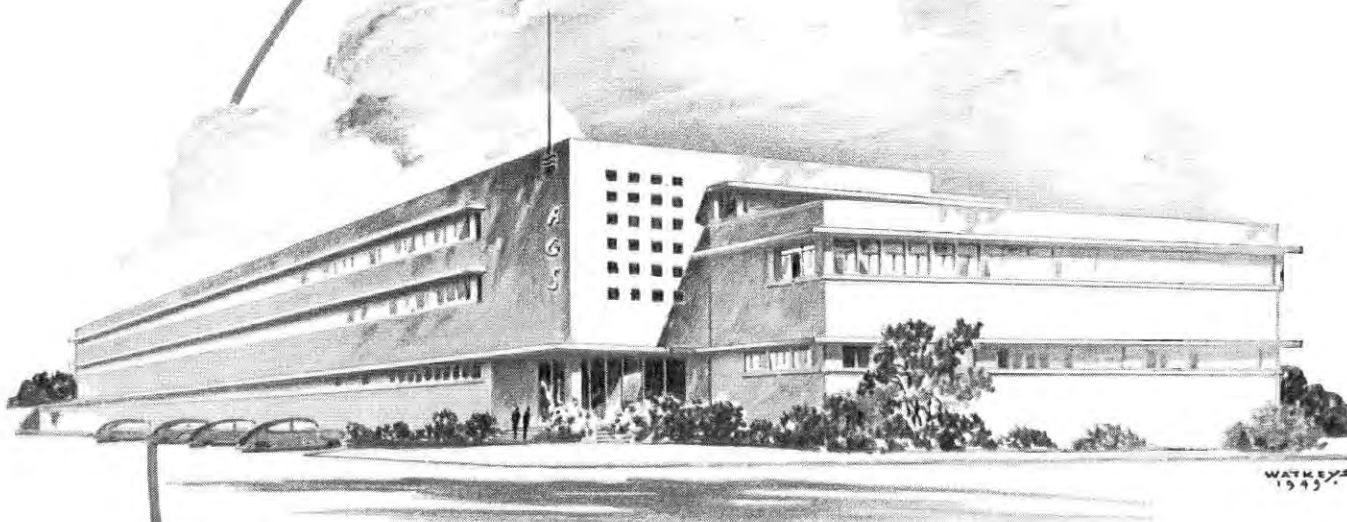
Your Sonneborn Man can help you with problems in other fields, too. If you have a tough problem involving protective painting or concrete treatment, call him in. If you don't have his name, write us your problem direct.

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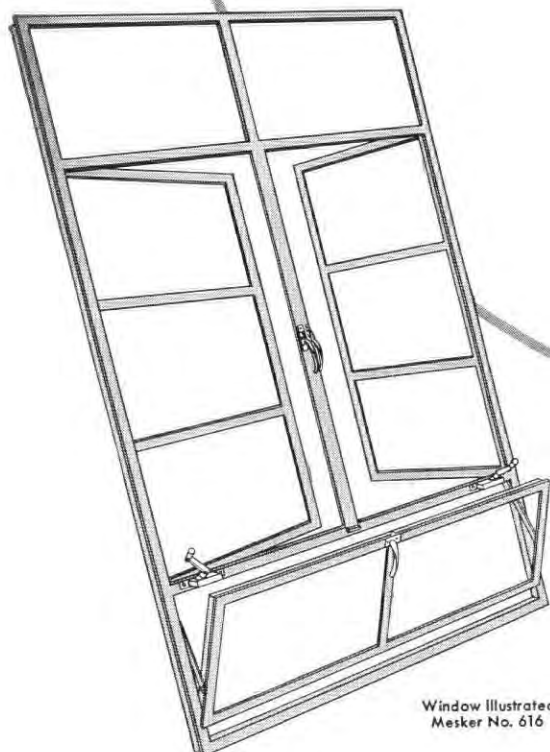
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Window Illustrated
Mesker No. 616

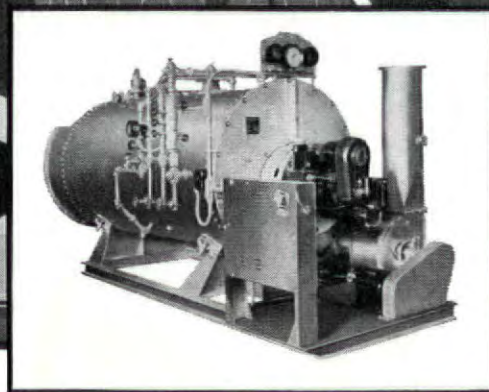
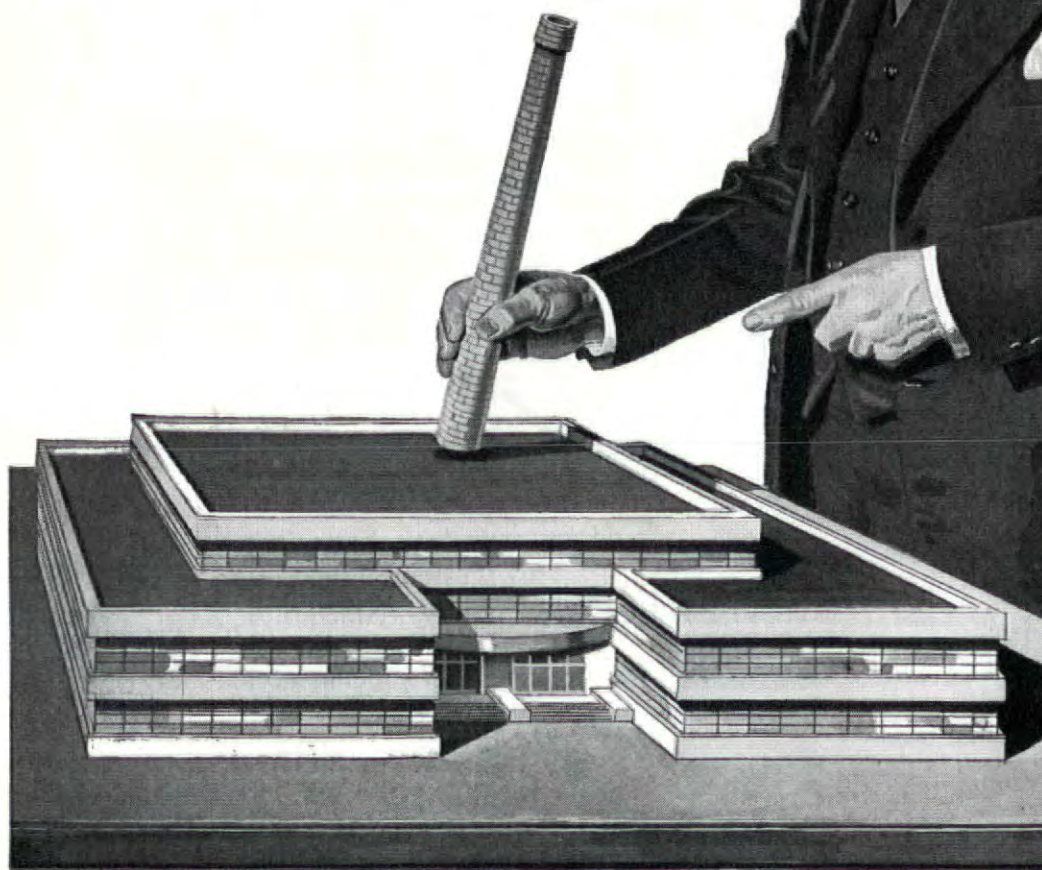
When you specify MESKER Steel Windows, what you're really saying is: "I want Mesker's heavier steel, stronger joints, greater rigidity—*extra* quality. I want Mesker's wider contact surfaces, better weathertightness . . . Mesker's close-set hinge and its better appearance. I want Mesker's improved design for better hardware clearance, trouble-free operation, more fly-tight screening. I want *Mesker*—the window I'd insist on were I the owner as well as the architect!" Get the whole story of Mesker Steel Window quality from your Mesker Sales Engineer. You'll find you pay no more—and frequently, less—for the *finest* in windows!

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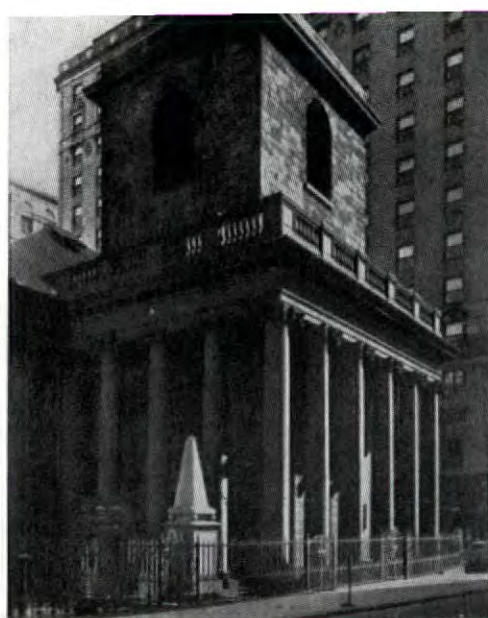
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Christ Church in Boston, 1758
(left) by Peter Harrison (above)
boasts a Greek facade.

REVIEWS

PETER HARRISON, FIRST AMERICAN ARCHITECT by Carl Bridenbaugh. University of North Carolina Press, Chapel Hill, N. C. (for the Institute of Early American History and Culture at Williamsburg, Va.). 195 pp. 7 1/2 x 10. Illus. \$6.50.

In 1748, when Thomas Jefferson, future high priest of the Greek revival, was only five years old, an ambitious young sea captain planned a library for Newport, R. I., in the almost pure form of a Doric temple. During the 25 years between that time and the beginning of the Revolutionary War, this sailor-turned-gentleman, Peter Harrison, continued to plan knowingly classic designs for churches in both Cambridge and Boston (perhaps one in North Carolina) and for a synagogue and market place, as well as the library, in his native Newport. All were actually built and stand to this day, 200 years later—a unique body of work from the hand of one identifiable colonial architect. The subtitle of Carl Bridenbaugh's account of his work "First American Architect" is bound to provoke argument—there were competent American architects before Harrison—but the implied exaggeration is minor. A distinctive, completely-ignored figure has been added to our architectural annals.

It slowed down his recognition that Peter Harrison had the misfortune to be active on the Tory side in the American revolution. He was forced to flee to England, leaving behind him all his papers and drawings. These were later burned by a mob. His solidly planned and constructed buildings remained, but linked to no rising political or economic movement they did not attract attention from historians or textbook writers. This omission seems the more understandable when we see in Mr. Bridenbaugh's *Preface* the difficulties he had to overcome to effect this belated resurrection. Even Hamlin's *Greek Revival Architecture in America*, an extensive survey of the movement anticipated by Harrison, does not so much as mention his name.

(Continued on page 170)

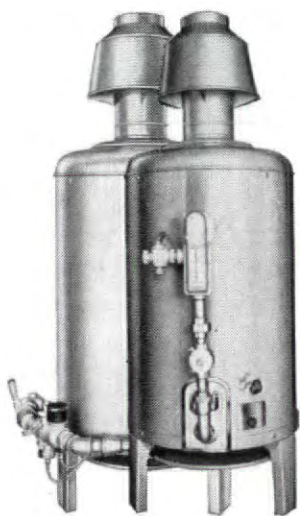


Redwood Library, 1748
(left) and the Public
Market in Newport,
1772 (below) made
Rhode Island the first of
the 13 colonies to show
signs of the 18th cen-
tury classic revival in
Europe.



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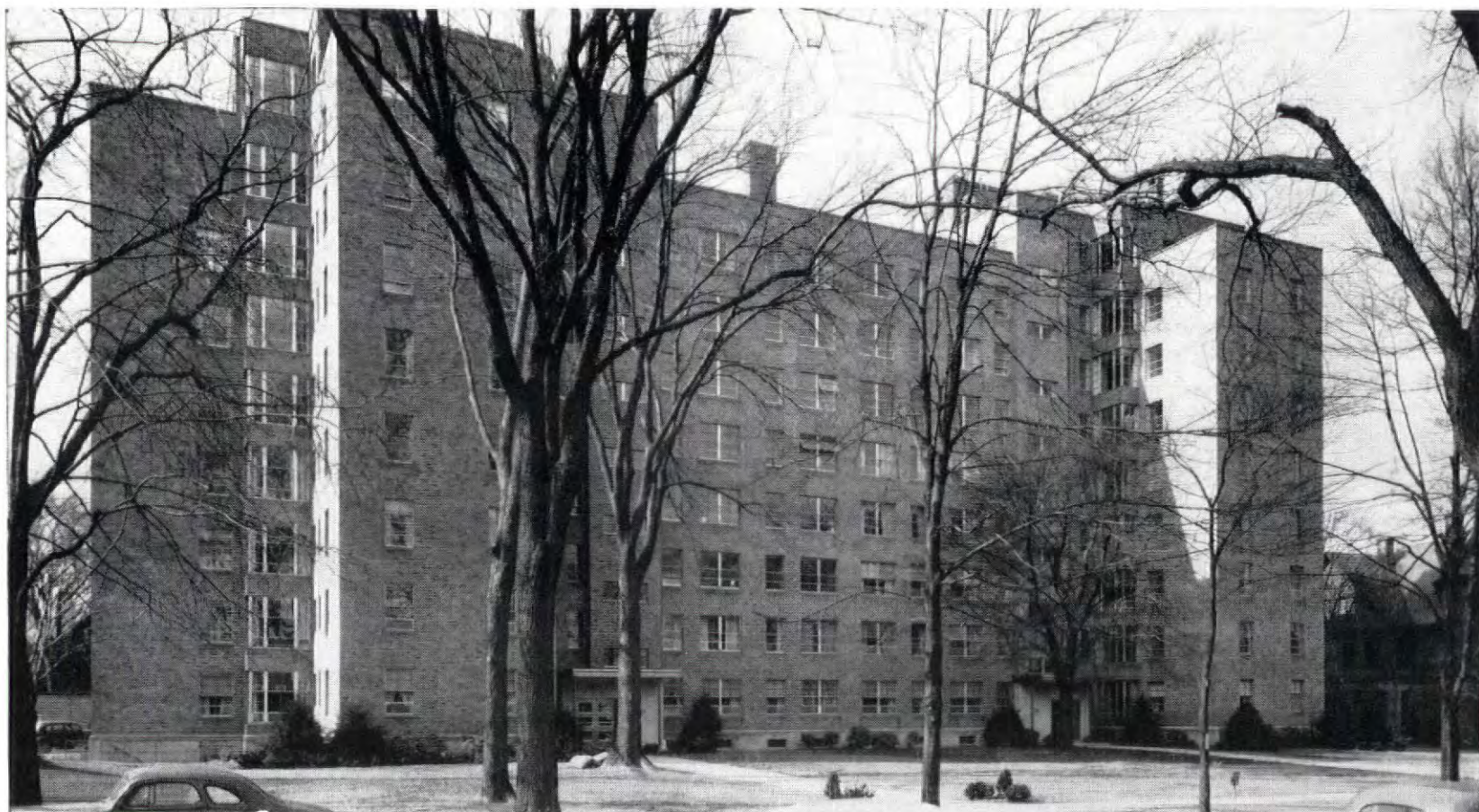
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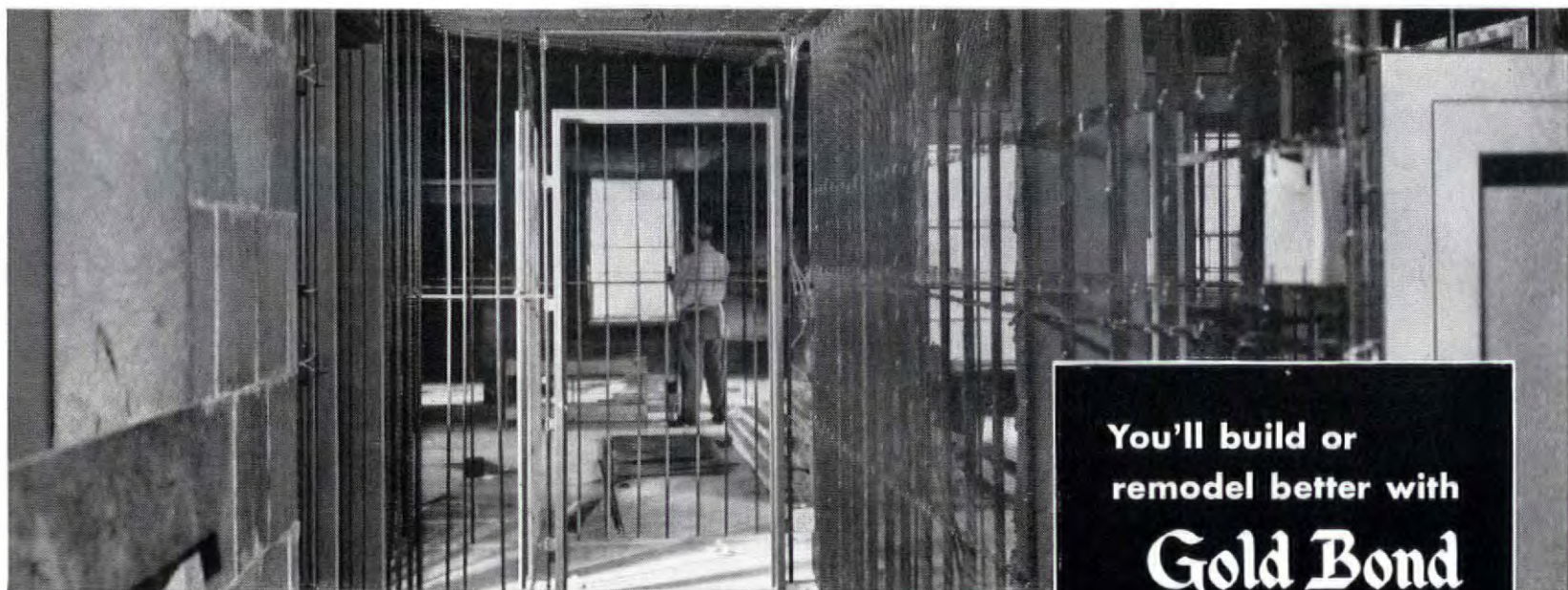
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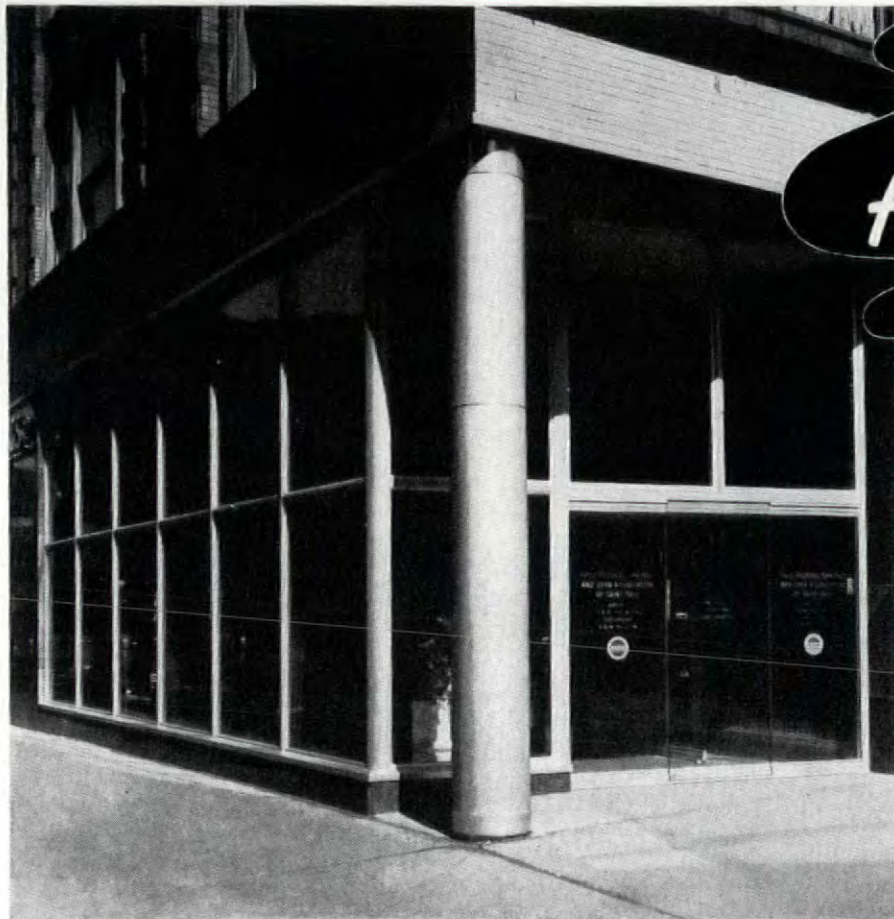


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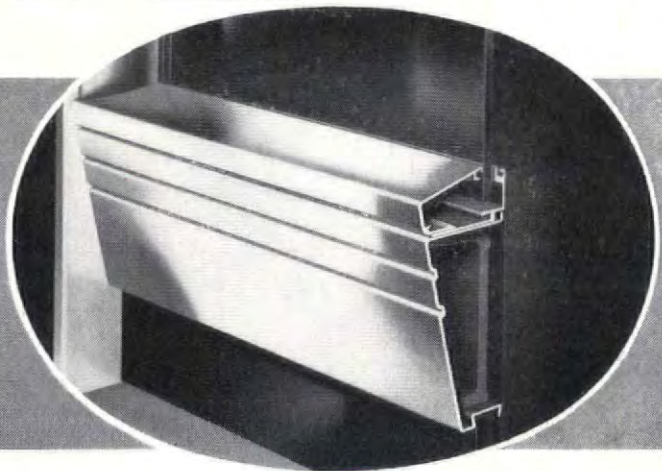
MODERN HOMEOWNERS want mirrors such as this. Every modern home needs them. While the full-length door mirror tops the popularity list, other practical applications are: over living room mantels...in kitchens and entrance halls for quick spruce-ups. "Pittsburgh" Mirrors not only increase the appeal of your homes, but help increase your profits as well.



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Peter Harrison's life story—a complicated web of struggles and prejudices in both the old world and new, of wars and insurrections on land and sea, of a love affair rather tardily sanctioned by law, of enviable and varied success, of later tragedy and final triumph—is the meaty stuff of which best sellers are concocted. As served up, however, in Mr. Bridenbaugh's mincing style, it manages to combine two flavors as seemingly incompatible as *The Fountainhead* and *The Late George Apley*. Harrison, forerunner of the Boston Brahmins, would however certainly have relished this author's epitaph—"When colony, community or church called, Peter Harrison gladly responded with his best effort. Remuneration or public acclaim he neither asked nor expected—and rarely received. It mattered not. For him there was infinite satisfaction in devoting his very real talents to the public weal during his hard-earned leisure."—S.K.



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THE ARCHITECTURE OF DENMARK. Architectural Press, 9-13 Queen Anne's Gate, London, S. W., England. 9 3/4 x 12 1/4. Illus. 60 pp. 12s. 6d.

"Hygge"—an air of comfort, of being at ease—is the quality that the Danish people most prize in their architecture and design. This quality also makes their work a unique and salient touchstone for countries who have achieved greater mechanical skill but suffer the lack of a native tradition. *The Architecture of Denmark* (originally published as a special issue of the *Architectural Review*) analyzes the reasons why this small country has made such a distinctive, suave contribution to world design.

Limited in materials but located in the center of cultural movements from all corners of Europe, Denmark early learned to make the most of its two structural materials—wood and clay. Almost every citizen in its small span is both producer and consumer—one reason why Danish design has never lost its grip on reality. Another fortunate result of its limitation is the fact that "the industrial revolution did not bring with it the hopeless slums and depressed areas to be found in other countries... every patch of ground is put to use... in scale it is human."

Generously (if rather foggily) illustrated, *The Architecture of Denmark* gives a satisfactory insight into the growth of local religious, public and domestic architecture, as well as into recent advances in city planning, garden design, and everyday arts.—S.K.

PLANNING 1948. Proceedings of the Annual National Planning Conference held in New York City, October 1948. American Society of Planning Officials, 1313 E. 60th St., Chicago, Ill. 198 pp. 6 1/4 x 8 1/4.

HOW THE GREEKS BUILT CITIES by R. E. Wycherley. MacMillan & Co., New York, N. Y., 228 pp. Illus. 6 x 8 3/4. \$4.50.

The meeting of U. S. Planners last October was a down-to-earth affair as *Planning 1948*, a summary of its speeches and discussions, re-emphasizes. Gordon Stephenson from England and a handful of Middle and South American representatives showed that planning matters were also back on a treadmill basis there. Only once, in the introductory speech of Lewis Mumford, did any sign of the old-time planning fire break out. The sole important question, he reiterated, was "What should a city be—what must a city be—in order to further the utmost development of the human personality?" He attacked planners who looked for expedients, especially in these war-fearing times, with a vigor of expression that has often marked him for quotation (and misquotation): "If we had to spend the rest of our lives cowering in air raid shelters, we might as well cut our throats immediately."

As if perversely designed to outface Mr. Mumford, a book called *How the Greeks Built their Cities* appeared soon afterwards. Here among items of archaeological rather than architectural interest, Author Wycherley revealed that the great Greek civilization far from placing the human personality first "before every institution, every vested interest" subordinated everything to survival. Its acropolis was chosen not as a handsome site for buildings but as an easily fortified refuge. Desirable harbors were shunned for fear of pirates. Valleys and plains, congenial to such an agricultural people, proved too open to land attack. After survival, church, state and trading interests rated consideration—individual houses were huddled between the more important centers without space, order or cleanliness. Even after the Persian War,

(Continued on page 174)

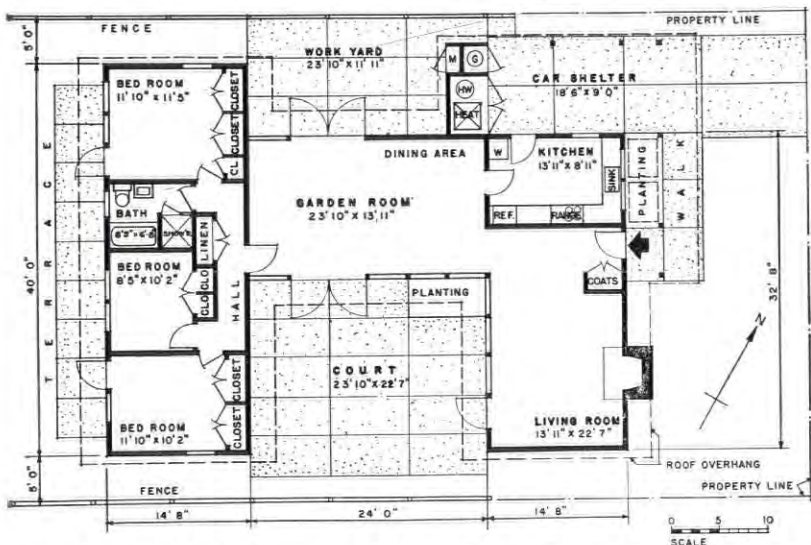
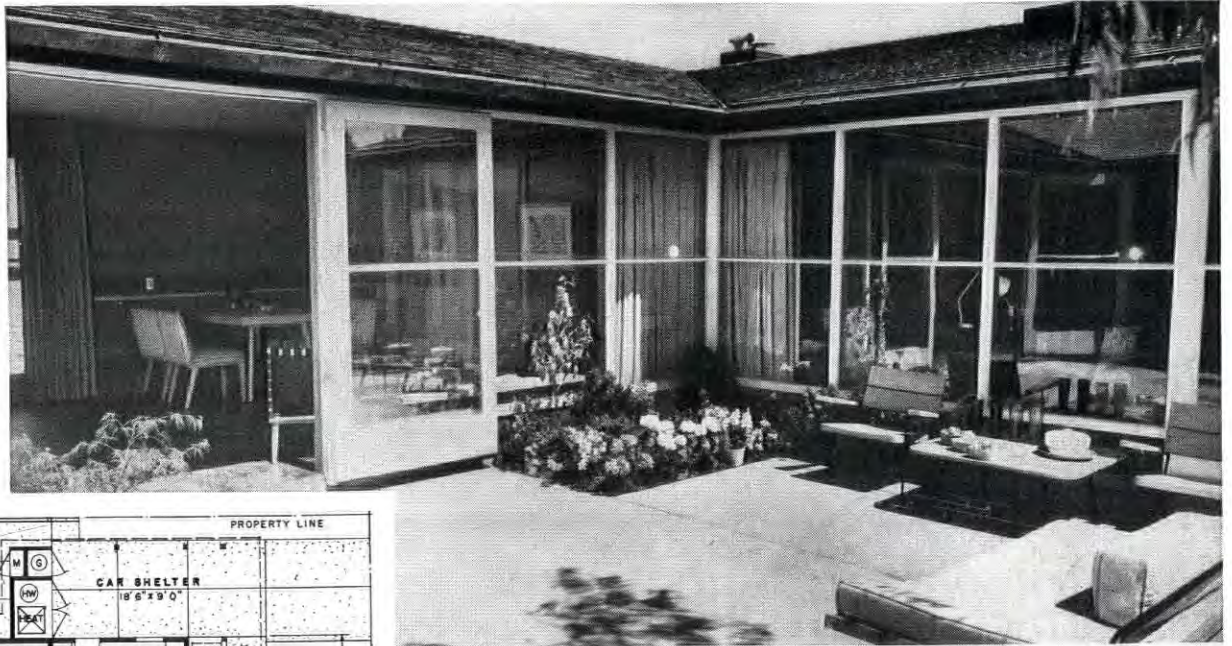
BASIC CONSIDERATIONS OF THE REVERE QUALITY HOUSE

IN SAN FRANCISCO, CALIF.



by Joseph Esherick, A. I. A.
San Francisco, Calif.

• Several things were taken as basic conditions to begin with; I wanted a house that would really satisfy the demands of family living; I assumed there would definitely be children; and I accepted the 50 x 100 foot lot as standard. I wanted a simple conventional construction system, thoroughly worked out and economical, using as



many stock items as possible, and I wanted no compromise with durability or quality of materials. In addition, I wanted just plain space, not space with a lot of philosophical connotations, but simply area, area that is readily accessible and usable. This obviously meant, on a 50 x 100 foot lot, that every bit of the lot had to be used, and I didn't want any sacrifice of privacy.

The house was brought forward on the lot as far as possible with no windows except for those in the Kitchen looking out on the street. Behind the barrier of the front wall of the house I tried to open everything up to the full width of 50 feet. Beyond this, the wall to the Bedrooms is again a barrier for privacy in the Bedroom Wing, and then the Bedrooms in turn open out on to their own private garden. I wanted enough space inside and out so that there would be room enough for different members of the family to do what they wanted without interfering with one another. At the same time I wanted enough flexibility in the general arrangement so that the family could make up their own minds on how to use this available space.

The Kitchen is admittedly small, but I think it works fairly well. The Bedrooms are also small and intended to be just that—Bedrooms. I feel that this is justifiable in view of the private Bedroom Garden beyond and the ample space in the rest of the house.

We wanted to get a pleasant refreshing atmosphere and a sense of openness without loss of privacy. I tried to make the proportions of openings and of rooms such that there would be a pleasing and gay effect. I wanted to use materials as directly as possible and exploit their inherent virtues. I chose the Redwood for the interior for the Living Room and Garden Room because of its warmth and interest. I wanted everything to be as durable and as free of maintenance as possible; thus copper waterpiping, gutters, downspouts and flashing are used throughout; painting maintenance is reduced to a minimum by use of natural finished materials; the floor is asphalt tile

on concrete slab, etc. No attempt was made to invent any new structural system which would almost certainly entail expensive and special construction equipment and organization. The plan was, therefore, laid out on the standard 16" module with a simply framed roof and a single plate height within the house. The wings are all exactly the same width, thus permitting precutting of the entire roof and ceiling system.



Considerable flexibility is gained by the fact that the three main units of the house can be raised or lowered in relation to one another in order to adjust economically to changes in grade; for example, if the lot slopes up from the front, the Bedroom Wing can be raised a few steps above the Garden Wing unit, which in turn could be raised a few steps above the Living Room. In addition, the house can be adapted to larger lot sizes by re-

arranging the three elements in different basic shapes. The present plan is more or less an H; U shaped or Z shaped plans could be worked out very easily.

Smaller plans are possible by omitting the Living Room entirely and entering directly into the Garden Room. In this case the pitch of the roof over the Kitchen and Car Port would be reversed and the overhang along the court side of the Garden Room would be extended to form an Entrance Porch. The Garden Room could be eliminated entirely by pushing the Living Room-Kitchen Wing against the Bedroom Wing. This would, of course, necessitate moving the Living Room fireplace to the opposite wall and putting the Living Room windows on the street side. Naturally, a single gable roof would be used over the entire house, and it would definitely be preferable to make a private court on the front by building a fence along the side walls. Variations in the orientation of the house as built are also possible; although the present orientation is undoubtedly the best for this area. The court facing South receives ample sun and is protected from the prevailing Westerly wind. The Bedrooms running North and South on the West side have thus ample cross ventilation. Unless this peculiar local condition were duplicated elsewhere, it would probably not be desirable to have Bedrooms facing the hot Western sun.



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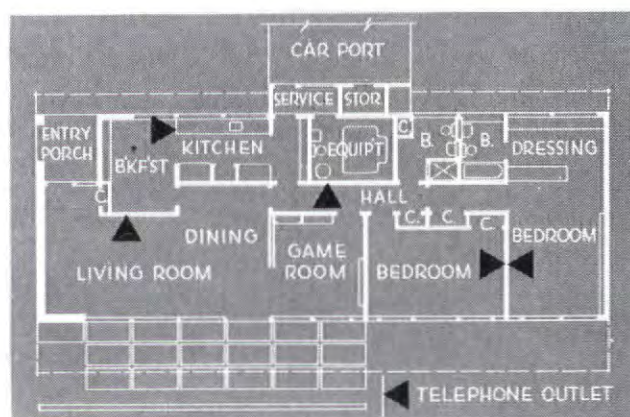
Samuel G. Wiener and William B. Wiener, Architects

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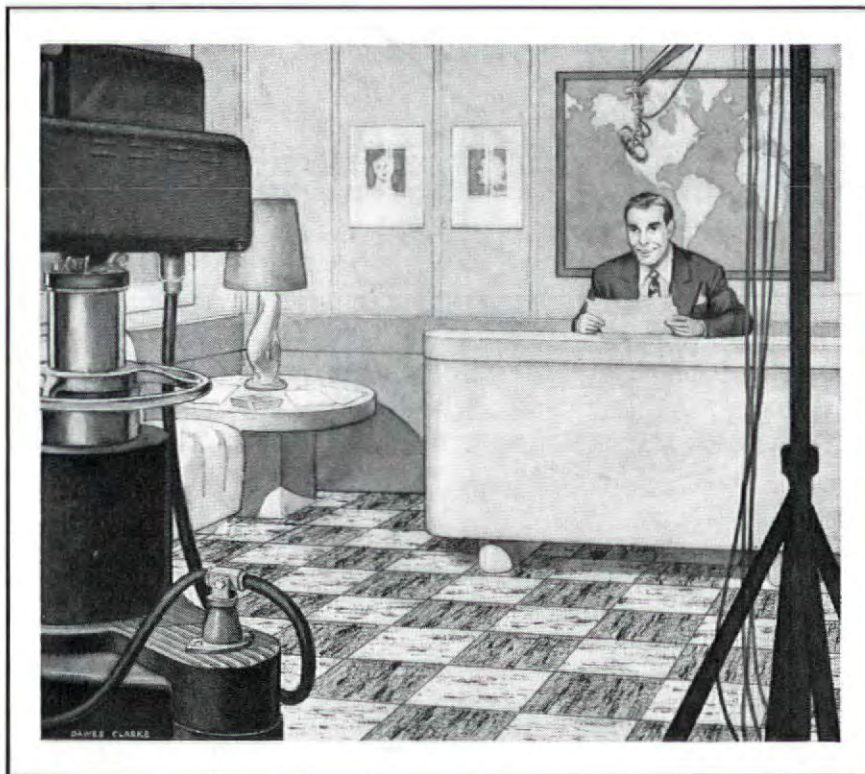


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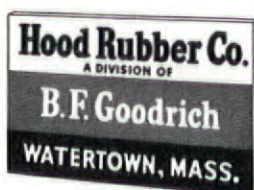
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when the improved "grid" plan was introduced, such a humanist as Aristotle urged its modification—only on survival grounds—"A city will be more secure against enemy penetration if certain parts deviate from the regular." Modern planners may also derive sad consolation from noting that after the Athenians returned to a completely destroyed city—they built it up just the way it was before, twisty unsanitary streets and all.—S.K.

FAMILY HOUSING by Deane G. Carter and Keith H. Hinchcliff. John Wiley & Sons, Inc., N. Y. 266 pp. Illus. 5 1/2 x 8 1/2. \$4.00.

GET YOUR OWN HOME THE COOPERATIVE WAY by Elsie Danenberg. Greenberg, New York. 182 pp. Illus. 5 1/2 x 8 1/2. \$2.50.

HOW TO BUILD YOUR OWN HOUSE—for less than \$5,000 by Douglas Tuomey. Grosset & Dunlap, New York. Illus. 7 1/4 x 10 1/4. \$2.95.

If the problems, possibilities and pitfalls that confront the would-be home builder are not thoroughly explored in text—the fault is not that of the U. S. publisher. As supplement to the earlier spate of "dream-house" volumes, there now come three books on more down-to-earth aspects of building the small house.

Family Housing is a construction and planning primer intended as a college text for those interested in the economic aspects of the minimum house. It provides a rule-of-thumb for sizing up practical value in design and materials, gives sound if rather rudimentary advice on remodeling and financing. Design judgments are shaky, however, and photographs rather haphazardly chosen.

Get your Own Home the Cooperative Way provides a history and analysis of the wide variety of cooperative enterprises in housing. From groups in Iowa and North Carolina that rent at \$17.50 a month, to the handsome medium-priced Bryn Gweled in Pennsylvania (\$7,500-13,500) and the utopian Mutual Housing Association in California (\$8,500-25,000)—this book makes a rousing case for the money-saving and service-gaining advantages of cooperative buying and operation. Thorough breakdowns of costs and possible risks make it far more than a dreamer's handbook. It follows its hard-headed premise—"Cooperation is not a sentiment. It is an economic necessity."

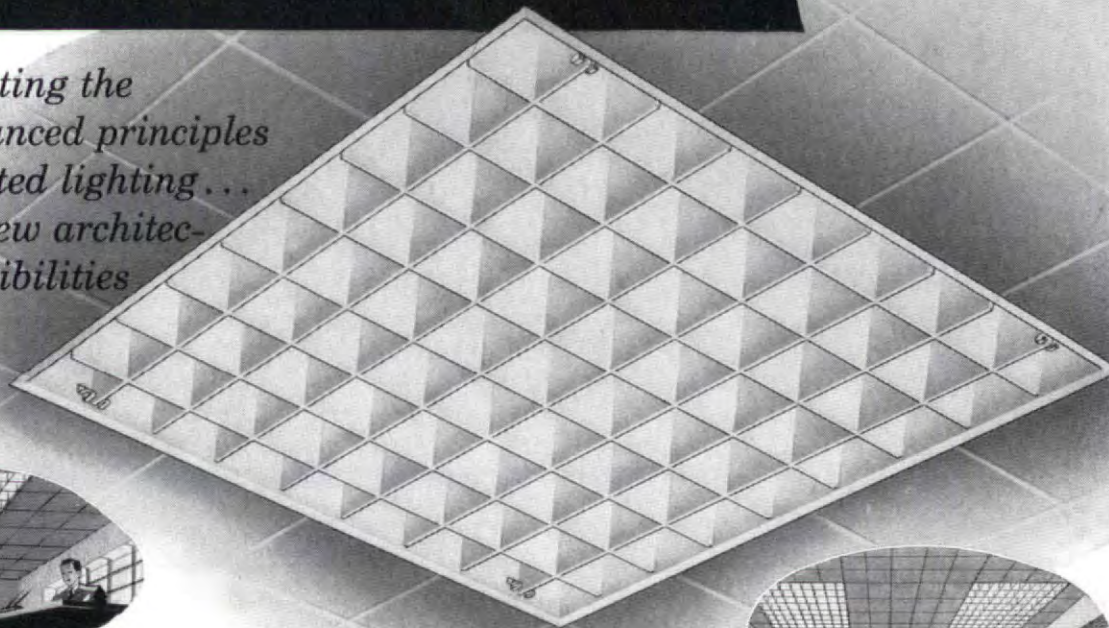
How to Build Your Own House for Less than \$5,000 records a possible triumph of hard work and honesty on a scale to vie with Horatio Alger. It does describe very competently the various steps taken between staking out the first building lines and the final day when the reader-builder turns to the chapter—"How to make lawns, walks and driveways." But the book slights unduly the amount of practical knowhow necessary to keep such a complicated task from becoming an expensive nightmare. Its treatment of interiors is limited to the use of building board. Electricity, plumbing and heating—all are commended to professional assistance. Only three of the eight designs set kitchen and bathroom plumbing back-to-back—a major item in time, trouble and cost saving. An orange light must be hung up for this one—proceed with caution.—S.K.

ARCHITECTS OF PUBLIC PROJECTS—Selection and Compensation, by the Council of State Governments, 1313 W. 60th St., Chicago 37, Ill. 8 x 11. Mimeographed. \$.75. 28 pp.

This pamphlet provides a "what's what" of positions open in public architecture: the straight dope on methods of selection in the 32 states which have set up ground rules; salaries offered and requirements laid down; sample contracts for first-hand inspection.

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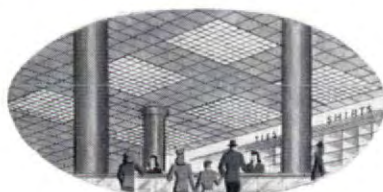
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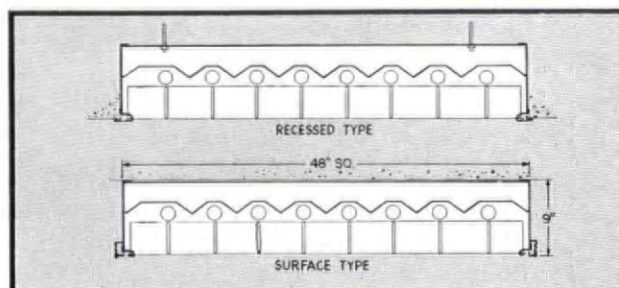


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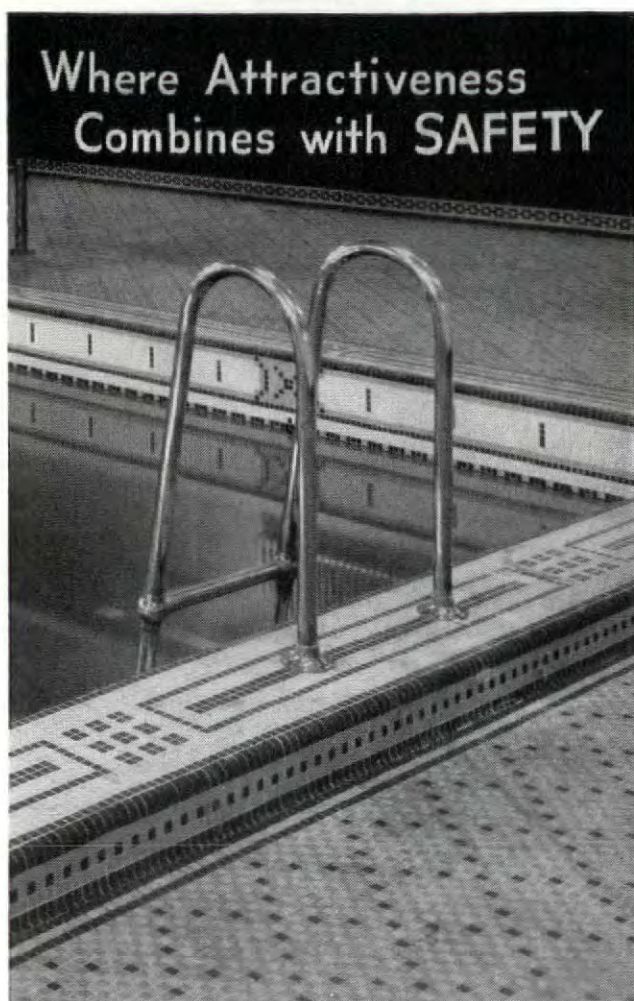
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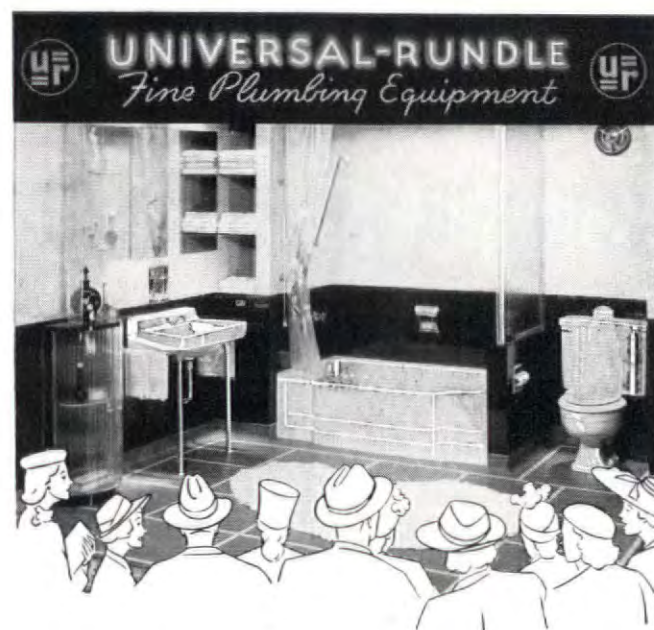
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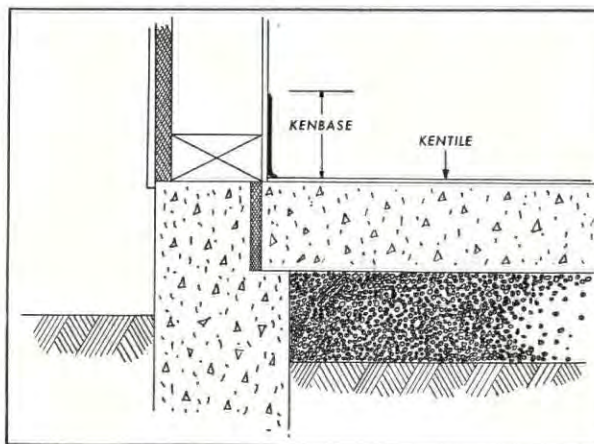
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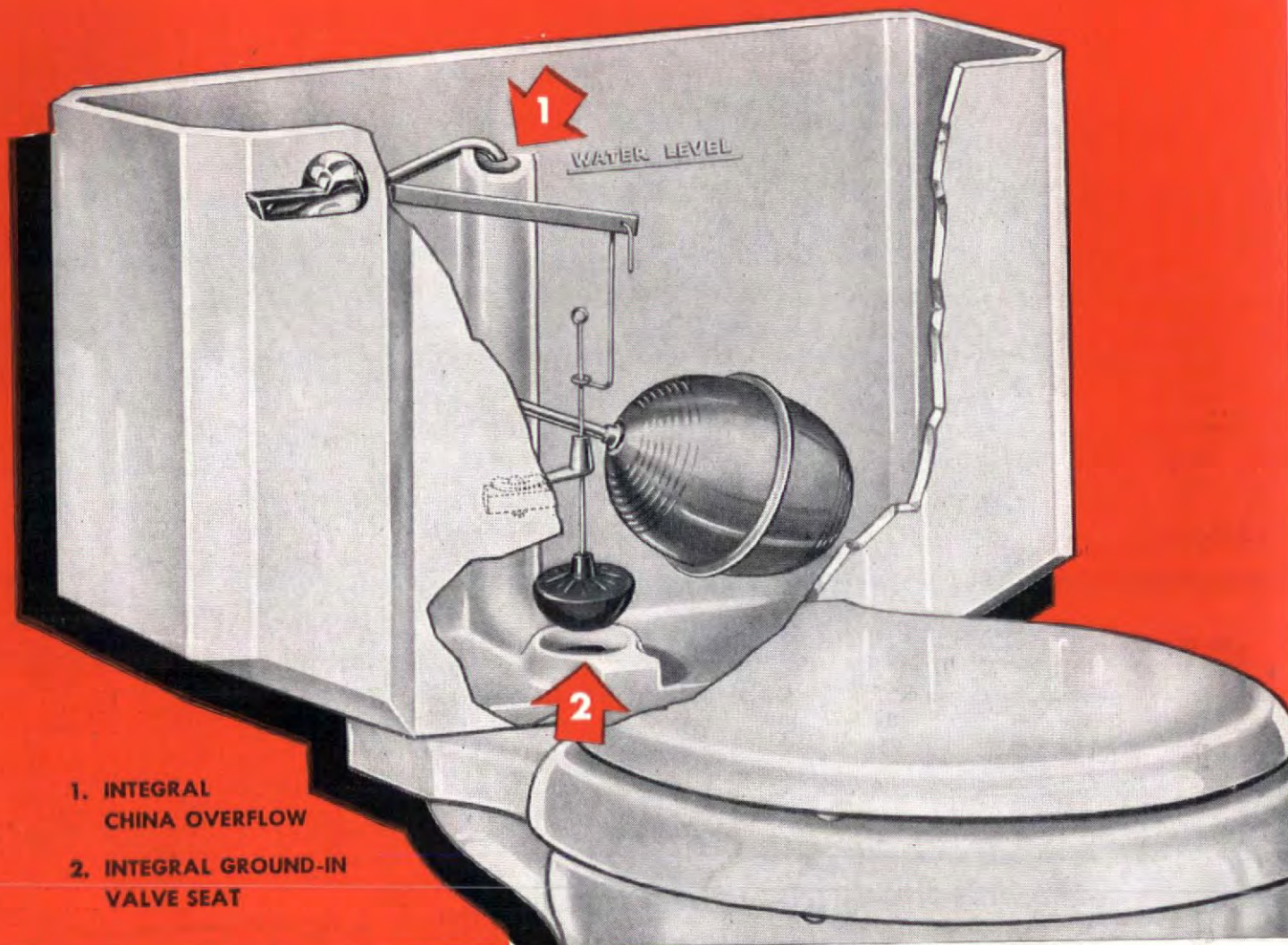
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