

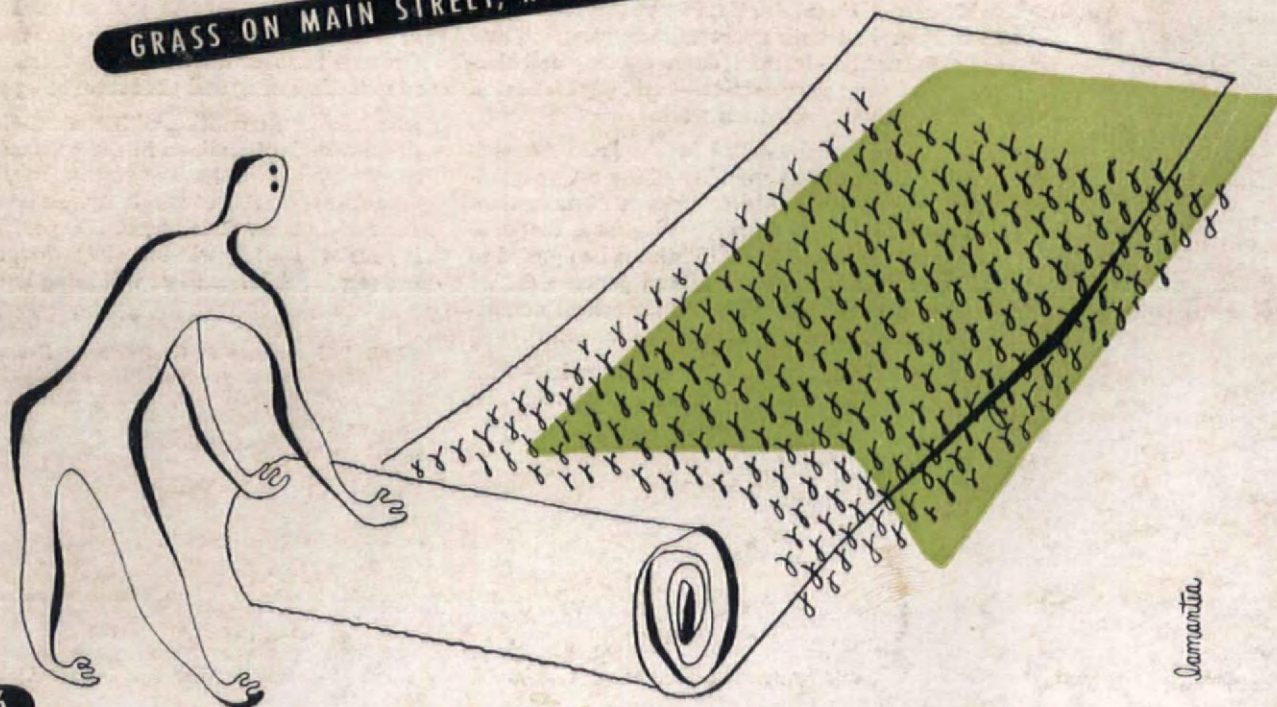
The Architectural

FORUM

Magazine of Building

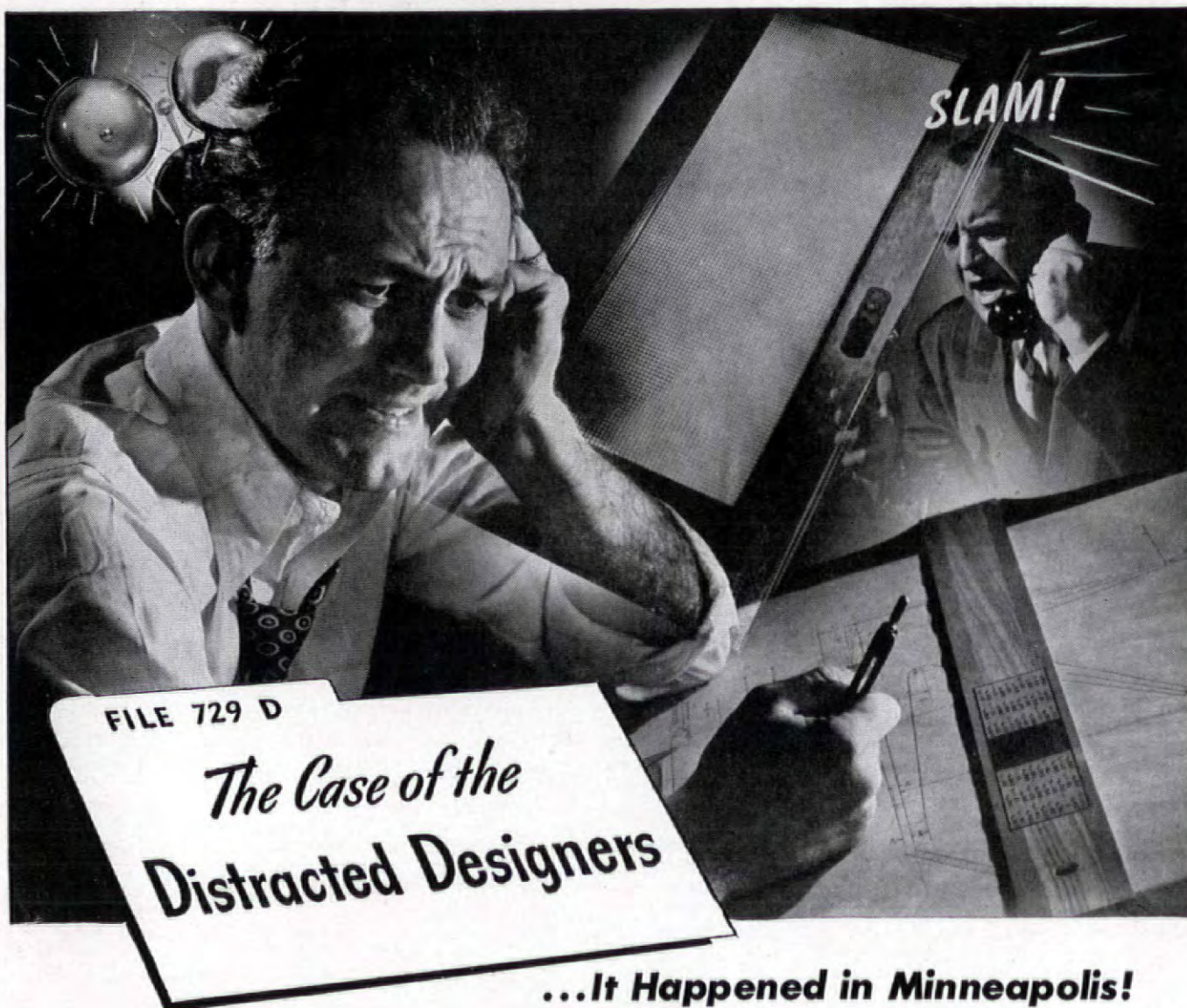


GRASS ON MAIN STREET, RYE, NEW YORK



August 1946

Samantha



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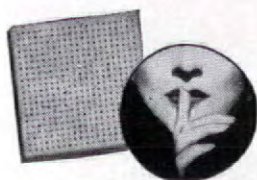
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The Architectural

FORUM

MAGAZINE OF BUILDING

AUGUST 1946

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VOLUME 85, NUMBER 2

NEWS	5
LETTERS	34
IN THE FORUM	58
AMSTER YARD	63
Reclaimed from a century of urban neglect, the heart of a city block is converted into a handsome garden surrounded by apartments and professional offices. Harold F. Sterner, architect.	
NEW ZEALAND APARTMENTS	69
State housing program sets a national standard unparalleled in any other country.	
SKATING RINK	73
Architect Joe Boaz reorganizes a skeptical clients' plan, saving space and materials, improving appearance.	
RYE SHOPPING CENTER	76
Radical revision of shopping center in Rye, N. Y., will solve parking and traffic problems, grow grass on Main Street.	
MR. O'MALLEY TURNS ARCHITECT	80
Cartoonist Crockett Johnson's famous pixie at last gets around to the housing problem.	
BERLA & ABEL PORTFOLIO	81
Architectural simplicity in brick and glass provide visual relief for Capitol sightseers, modern apartments for Washington tenants.	
FOUR NEW RESTAURANTS	97
Herman H. Seigel designs large theater district restaurant, and small steak house in New York . . . Large window and varied levels attract customers in Hertza & Knowles' San Francisco seafood restaurant . . . Curved glass bar for cafe in New York. George C. Rudolph, architect.	
ANNOUNCEMENTS	106
REVIEWS	122
Sculpture, Raymond Puchinelli . . . Arts of the South Seas . . . The Modern Small Hospital.	
G. I. JOBS	132
PRODUCTS & PRACTICE	137
French prefabs . . . Store windows lighting equipment . . . New strain gauges. Building Reporter.	
TECHNICAL LITERATURE	150
Design of Reinforced Concrete Structures, 2nd Edition . . . Steel Joists . . . Brickwork.	

Cover by James Lamantia

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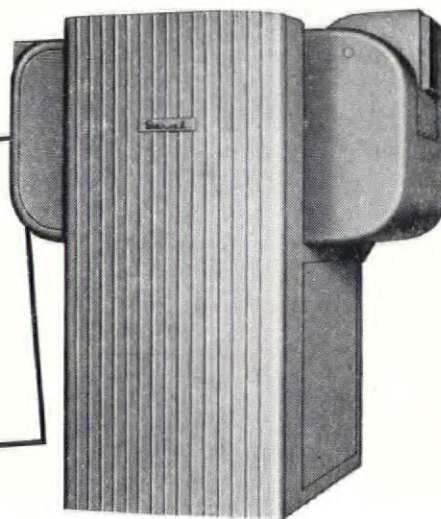
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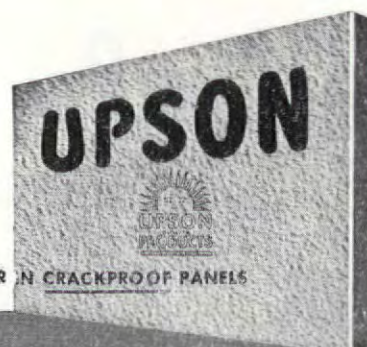
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NEWS

WASHINGTON

- Building legislation — passed and pending p. 6
- Housing program status p. 6
- Interim report on CPA's stop order p. 7

BUILDING MONEY

- Unfinished houses aim to improve equities p. 8

HOUSES

- Vacuum concrete apartments for UN families p. 9
- Prize winners spotlight Australian trends p. 9
- Slag concrete in the shape of clapboards p. 10

MARKET

- Vacancy survey p. 10

DESIGN

- Health centers and hospitals go abroad p. 10

CITIES

- Los Angeles rezones p. 12
- Paris views U. S. building techniques p. 12

PREFABRICATION

- Manufacturers diagnose their ailing program p. 14

MATERIAL

- Steel joist economies p. 16
- Production trends p. 18

BUILDING MONTH. "I am giving you one month's notice to vacate, get out — in other words, scram." Thus did a New Jersey landlord celebrate the demise of OPA. In Rochester, N. Y. a less articulate but equally belligerent owner merely produced a gun along with his demand for a 100 per cent rent increase. But these were the extremes.

In New York, the only state to anticipate the situation, an already voted state-wide rent control law was moved into action by Governor Dewey. Many a state, like Connecticut, New Jersey, Michigan, rushed emergency legislation through, and many a city, like Los Angeles, did likewise.

On the materials' front, two weeks was too short a time to produce any visible effects. Spokesmen for the industry insisted that only nominal price adjustments would be made and that any prices so upped would still be below the black market, which had hung demandingly over building all this year. But Housing Boss Wilson Wyatt and other government administrators remained skeptical. Rechecking his position, Wyatt found that with the OPA completely removed or greatly diluted, he would be faced with an even worse dilemma than before — how to produce, with high cost materials and equipment (not to mention skyrocketing land) housing which would not shut out 80 per cent of the veterans who cannot pay more than \$50 a month.

Few in the industry seemed yet to realize the potent political implications which continued to make housing, in general, and veteran housing, in particular, the No. 1 domestic issue. The Administration was irretrievably committed to get the veteran under a cheap roof. The industry was just as solidly on public record that, if controls came off, more houses would be built quickly and competition would force prices down to the veteran's purse. At month's end it became increasingly clear that for a vast and rapid increase the government would have to turn to prefabrication. So far this year, prefabers have produced only a minuscule 10,000 houses, much below their creditable war record. Established prefabricators joined conventional builders in denouncing the government program as more hindrance than help in speeding materials production. (See prefabrication, p. 14.) Dependent not only on plywood, but most of the other items which all builders use, the prefabers, to a man, insisted that shortages were keeping production lines almost stationary.

But the materials situation was improving, not nearly fast enough, but definitely improving. Lumber production had climbed 50 per cent during 1946; brick 30 per cent; soil pipe, 10 per cent.

Should the OPA disappear or be substantially emasculated in final form, another bitterly fought-for plank in the Housing Administrator's program would collapse — subsidy payments to manufacturers. Wyatt had insisted on subsidies as the only means of guaranteeing profits to producers without increasing the cost of the house to the veteran. Producers had long labeled this as an unworkable scheme and claimed that a free market would do more to stimulate production than government handouts. Neither the Administration nor the producers had budged from these positions. Soon, the answer would be known.

OPAILMENTS were not the Administra-

tion's only sore spots. The President's Reorganization Plan No. 1, which would have made NHA a permanent coordinating agency, was vetoed by Congress. A similar provision of the W-E-T bill might stick, might not.

And finally, the still unresolved OPA situation touched another front. If federal rent ceilings are eliminated, probability is that states and cities will produce their own legislation. Rents will be controlled differently in different sections of the country, just as they were last month. Michigan's authorized 15 per cent boost would make it a more attractive state for apartment buildings than neighboring Ohio. But most believed that the final federal bill, whatever else it lacked, would continue rent control.

As Wilson Wyatt last month looked down and saw the Hiroshima-like remains of his program, these were the tools on which he could still bank: 1) He could still fix sales ceilings on new GI homes, a power independent of OPA, fixed by the Veterans Housing Act. 2) He could still fix rents on new housing, unless lawyers determine that the collapse of OPA squashes that authority. 3) He could still use his subsidy fund to help the development of new materials, new techniques and mass-produced housing. 4) He could still hope to marshal veteran opinion and tackle Congress with an amended program when it reconvenes in January. The most dire prediction was that the situation would compel a special session of Congress called by the President for the single purpose of enacting a new emergency housing program with large-scale, direct government building. Even within the Administration, not many, including Mr. Wyatt, hoped to see that happen.

Another widely publicized event last month was the publication of a report by the Federal Reserve Board on family liquid savings. The net of this significant survey is that 50 per cent of the population have no liquid savings at all. Whatever their economic and social significance, building men had to read these figures, along side the report that U. S. employment was now at record peace-time levels, having last month reached the incredible figure of 96 per cent. With all veterans supplied by a grateful government with plenty of cash for down payments and with many builders willing to sell houses for no or little down payment, the Reserve Board findings were depressing at long range rather than immediately.

Still hovering under a gargantuan question mark is this year's status of nonresidential building. CPA followed its stop order with a too-generous expectation of materials production and has recently been

turning down more applications for permits than those approved. In a further effort to assist house builders, CPA last month brought under its microscope all Army and Navy construction projects.

That the housing situation and all other new construction still remained in conflict was obvious. But becoming equally obvious was the fact that if the over-all economy is to be maintained, production and distribution of thousands of products in demand cannot be throttled much longer. Wishful or not, opinion grew that before year's end some relaxation of CPA restrictions was inevitable. Pressure to get started on a burgeoning basket of projects was too great to be much longer denied.

As Building surveyed its chances for the second six months of 1946, as it counted 406,000 dwellings started through May, as it noted small but sure improvement in material supply, as it watched prices already high certain to go higher, as it listened to the hot appeals of frantic clients with frantic cash, it had to admit that winning a war was just the beginning of victory.

WASHINGTON

LEGISLATIVE ROUND-UP

Most Building bills pass, but Congress may kill W-E-T bill before quitting.

With the Washington sun getting hotter and fall elections getting closer, Congress last month was working eagerly toward adjournment and the vacations and campaigning which will follow. When it does adjourn, all incomplete legislation will automatically be scrapped, for next January a new congress convenes to start clean. Herewith, a review of the Building legislation which has come from Congress and of those bills which fortnight ago were still in the hopper.

Passed and enacted was the Patman bill authorizing the Veterans' Emergency Housing Program, the Mead-Lanham bill authorizing FPHA to foot the cost (\$400 million) of moving and converting temporary war housing and military barracks into living accommodations for veterans at colleges and schools, and a bill continuing FHA's authority to insure mortgages on existing construction. Passed with less fanfare and recently signed by the President was an airport bill which promises to do for aviation what the government highway program has done for motoring. Federal grants-in-aid, totaling as much as \$500 million over a seven year period, are to be made on a matching basis to state and local governments. Applicable to the construction of administration buildings as well as to airport development, the funds will probably not produce results before next spring, for much surveying and planning is yet to be done. Field offices of the Civil Aeronautics Administration are now receiving the applications of project sponsors.

Likely to pass before congress adjourns is an amendment to the Lanham Act which would make \$100 million available to the Federal Works Agency for the conversion of surplus war structures into additional classrooms and laboratories at colleges bulging with veterans. Also favored is the Burtin-Hill bill calling for \$100 million of Federal assistance for hospital construction during the 1947 fiscal year and recommending additional funds for subsequent years.

Likely to die with congressional adjournment is the controversial Wagner-Ellender-Taft (W-E-T) bill, an omnibus measure which, among other things, would unify the Washington housing agencies, put public housing on a more permanent basis, liberalize the terms of mortgage insurance and require that prevailing (union) wages be paid for the construction of all FHA-insured housing. Never before has any building legislation been so heatedly defended and attacked—defended by labor in general, administration spokesmen and public housers; attacked by bankers, builders, realtors and most every other branch of the industry. Administration forces, joined by bill-sponsor Taft, were trying to bring the bill out of Committee to a vote. But, the opposition resorted to seldom-used legislative tricks to bury the bill. More than ever housing had become politics.

Dead was the President's Reorganization Plan No. 1 which would have made the emergency National Housing Agency a permanent body coordinating all Government housing (just as the W-E-T bill would). Death of the plan came in mid-July by Senatorial veto (45-31); death of NHA thus remains scheduled for six months after war's official end.

HOUSEBUILDING STATUS

Wyatt counts 470,000 "starts," but industry talks in terms of "stops."

If houses are being built as easily and often as government officials turn out optimistic statistics and comments, the housing program is going better than most people believe. Using glossy comparisons with wartime production and the records of the booming mid-Twenties, Housing Expediter Wyatt month ago announced that 406,000 new dwelling units had been started during 1946's first five months, and a horseback estimate of the June rate boosted the half-year total close to 470,000. The official five-month figure compares with 350,000 units started during the same period of the peak year, 1925, and with 416,000 units started in the entire two-year period 1944-5.

Wyatt's five-month total is not quite what it seems; only 278,000 of the starts (68 per cent) involve new permanent housing, including 10,000 prefabs. The remainder is temporary, made up of 32,000 units of transplanted and converted war housing and barracks, 12,000 trailers, the "re-use" of 37,000 dwellings on present sites, and 47,000 conversions. Wyatt's statisticians

document the upward trend of privately financed conventional houses with this month-by-month record: 35,000 starts in January, 42,000 in February, 60,000 in March, 65,000 in April, 66,000 in May and 60,000 to 70,000 in June.

During the same period, priorities for new construction totalled 531,000 of which 400,000 or 75 per cent are expected to result in actual construction. About 28 per cent of the total were scheduled for rent and four out of ten of these are due to rent for less than \$50 per month. Of those to be built for sale, only 35 per cent will be tagged with prices below \$6,500; about the same proportion will be priced above \$8,500.

Based on the overall record of the first five months, which shows 34 per cent of the year's quota of housing started in 42 per cent of the year's time, Wyatt believes that if Federal price control is reinstated, "The likelihood (is) strong for starting the rest of the 1,200,000 units scheduled for 1946." More meaningful than Wyatt's "starts" are completed houses. According to qualified government statisticians, 200,000 permanent units were completed in the first half year and by year-end between 600,000 and 700,000 permanent conventional and prefabricated dwellings units will have been sufficiently completed to be habitable. (All time record: 937,000 units in 1925.) This same source predicts that 850,000 starts will have been made in this field alone, exclusive of reconversions, trailers and other temporary dwelling units.

Rightfully arguing that building permit statistics (on which government estimates of starts and completions are based) are more shaky than ever before, the industry spokesman put little faith in the official records and prognostications. Instead, they cite the high mortality among permits before they are tacked upon construction shacks, the unpredictable periods between permit issuance, ground breaking and completion and the vast number of starts which are stopped for want of one or more critical materials. Commented executive vice President Frank Cortright of the National Association of Home Builders: "The program is dangerously bogging down through government's failure to break bottlenecks in the supply of building materials. Today there are immeasurably more 'stops' than 'starts'."

The fact remains, however, that house production, like materials production is improving, and government predictions and goals may be more nearly fulfilled than the industry expects. According to F. W. Dodge Corp., residential building contracts during May totalled \$463.6 million for the 37 states east of the Rockies, up 25 per cent from April and ten times as big as the May 1945 total. (Excluded from the total, the Pacific States are estimated to be doing more than 20 per cent of all U. S. house building.) Moreover house building has yet to feel the beneficial im-

part of FHA's revived Title VI program (right), the gradual increase in materials production (p. 18), the channeling of surplus government materials into private markets, and the curtailment of non-residential building by the Civilian Production Administration (below).

CPA'S RECORD

Two projects approved for every one vetoed, but trend is changing.

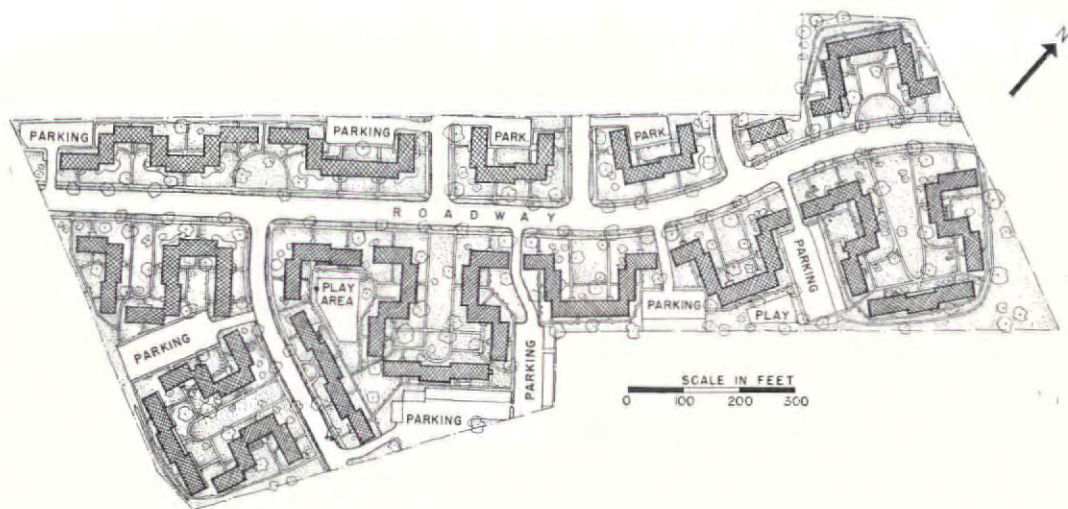
Ever since March 26 when the Civilian Production Administration began curtailing nonresidential construction, the industry has wondered how effectively the limitations were being administered and how much longer they would remain in effect. While the latter question could still be answered only with guesses, CPA Administrator John D. Small last month answered the first with an interim report.

During the stop-order's first 13 weeks, CPA's ten regional construction offices reviewed a total of 49,775 applications for nonresidential projects valued at \$2,146 million. Of this total, 33,170 projects valued at \$1,423 million had been approved for construction, while 16,605 valued at \$723 million had been turned down. On both a numerical and valuation basis, the score was 66 per cent approved, 34 per cent vetoed. However, these statistics do not reflect the flood of projects, estimated at about 500,000, which were submitted to CPA verbally but never reached the application stage—CPA simply told the would-be applicants that these projects had no chance of approval.

Peak of CPA's OK's came during the week ended April 25 when \$230 million of construction was authorized. Most of these were hardship cases in which the applicants had already invested large sums in the preparation of proposed projects. Although approvals fell off steadily from the April high point, the rate was not low enough to affect greatly the supply of critical materials for housing. On May 29 CPA ordered a two-thirds cut in authorizations for the next 45 days.

This action brought approvals down to a weekly level of about \$50 million and reversed the ratio between approvals and denials. Month ago the weekly dollar value of denials outweighed approvals by almost two to one.

Most of the projects approved by CPA during the first half year will not draw seriously on the building materials market until the last quarter of 1946 and hence have no immediate effect on housing. Similarly most of the projects being approved today will not affect house construction before next year. By that time, it is hoped, the production of materials will have increased sufficiently to absorb this impact of non-residential construction. Many observers predict that by year's end CPA's stop order will have served its purpose and many types of construction will get the green light.

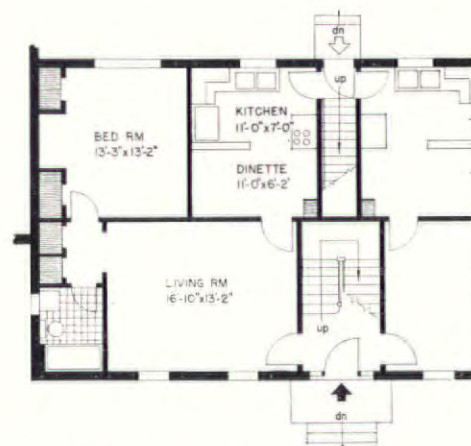


GARDEN APARTMENTS in New Jersey are first under FHA's revived Title VI

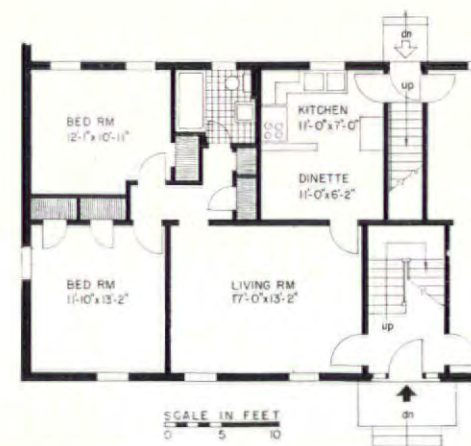
At the end of May FHA was given a \$1 billion increase in its mortgage insurance authorization and permitted to use a big chunk of it to revive its Title VI program which lapsed last September. Month ago FHA announced approval of the first large-scale rental housing project to be built with the aid of these revived emergency powers. Called Stuyvesant Town (not to be confused with Met. Life's vast Manhattan project), the 352 family project is being sponsored and constructed in Union, N. J. by Builders George and Maurice Levine. The \$2,115,000 mortgage is being written by Hudson Trust Co.

FHA's Title VI rental housing laws limit the amount of mortgage per room to \$1,500 except in high cost areas where the figure may go as high as \$1,800. For the New Jersey project FHA Commissioner Foley split the difference, set the mortgage per room at \$1,649. The loan will be amortized over a 29 year period and carry an interest rate of $3\frac{1}{2}$ per cent, exclusive of FHA's insurance premium of $\frac{1}{2}$ of 1 per cent. Total cost of the project, for which ground was broken last month, is estimated at \$2.4 million, including land; thus the mortgage will cover 88 per cent of valuation.

Although set prior to the lapse of OPA, the original rent schedule has not been boosted; the 148 three-room units will rent for \$60 per month; the 204 four-room units, for \$70.



TYPICAL 3-ROOM UNIT



TYPICAL 4-ROOM UNIT



TYPICAL ELEVATION of one of the 21 buildings in Stuyvesant Town illustrates the project's Colonial detailing. Walls are of brick; roofs are finished with slate; sash and trim are white-painted wood. Preliminary estimates indicate that the project will cost about \$6,800 per dwelling unit, including land. Architect: W. E. Lehman.

BUILDING MONEY

SWEAT-EQUITY HOUSING

Owner completion protects vets and mortgagees, simplifies builders' role.

In two widely separated parts of the country, a banker and a builder have announced plans to build unfinished houses for veterans. Although both schemes accomplish roughly the same results, their stated purposes are quite different.

Banker's plan. When the Cleveland Trust Co. acts, Bankers prick up their ears. Last month the bank's vice-president H. R. Templeton described a new type of veterans housing project which his organization is sponsoring in Painesville, Ohio. Worried about the inflated cost of building and the probability that veterans and bankers alike will lose at least the sleeves of their shirts in the inevitable market decline, Banker Templeton has launched a housing project which promises to protect veterans and the financial institutions. In essence, this protection is a little work by the house buyer in the completion of his house. "The best equity we can have," says Templeton, "is a little perspiration of the buyers. . . . The work he performs in completing the home would probably never be construed by him as part of the purchase price and, therefore, future declines in value would be placed against the original purchase price. . . . I question that values will decline on these houses lower than that price."

Measured in dollars, this buyer perspiration will probably amount to \$700 or \$800 per house, including the labor and materials required to finish each of the houses which Cleveland Trust is financing. But, there is more than buyer-perspiration behind the promise of the project; there is also a lot of industrial cooperation. Four local leaders in the building industry have teamed up to produce veterans' houses at minimum costs and for minimum compensation. Realtor

Hunter Studio for Banking



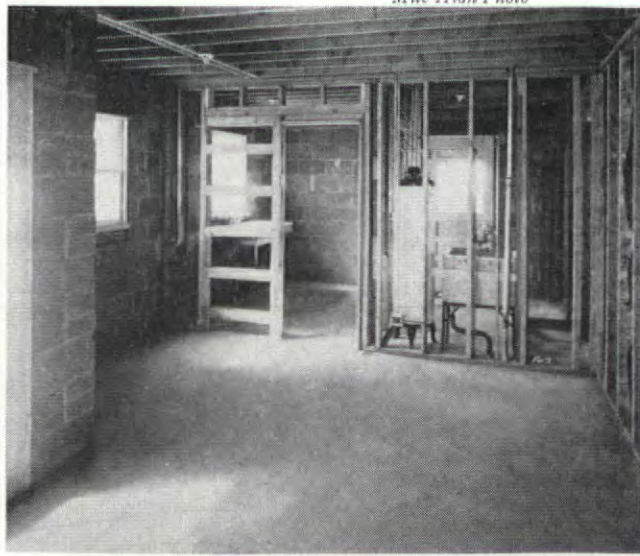
PAINESVILLE SPONSORS break ground for the Cleveland Trust project. Left to right: Architect Green, Realtor Ludwig, Builder Payne and Bankers Templeton and Tame.

Milton Ludwig, a former Cleveland Trust officer, will handle the paperwork for a flat fee of \$50 per unit; Architect J. Wallace Green has designed the houses for a nominal charge of \$10 per house; Banker A. G. Tame, manager of the Cleveland Trust's Painesville Bank, will handle the financing of the project at cost; and Builder George B. Payne will construct the houses at cost plus 10 per cent.

Located on 60 x 200 ft. lots the houses will measure 26 x 26 ft. and contain a living room, a kitchen-dining room, two bedrooms, a bath and a 14 x 20 ft. attached garage which includes space for a laundry and utility room. The shell of the frame house will be completed and equipped, but much of the finishing will be left to buyers. Thus, the radiant heated concrete floor will be left in its unfinished state for covering later with asphalt tile or plywood and carpeting. Dry-built walls will be neither painted nor papered. Coat and linen closets will be merely located on the blueprints. No closet doors will be provided. Other items to be installed by the buyers: gutters, downspouts and sidewalks.

As arranged by Cleveland Trust, financing of the project is simple and economical. The principals have organized a corporation capitalized at \$500 which has taken title to the property. In return for a note secured by the corporation's stock, Cleveland Trust has put up sufficient money at 3 per cent for acquisition of the land, for the corporation's share of cost of installing city water and for construction of the houses. The note will be liquidated as the properties are sold and covered by individual 4 per cent mortgages. While the houses are now being sold for \$6,000, buyers will receive a rebate equal to the difference between this figure and the actual construction cost plus the fees and profits mentioned above. Templeton has bet the builder "\$10 to a bottle of Scotch" that the purchasers will get a rebate of about \$500.

Mile High Photo



DENVER HOUSE interior shows extent of work done by Builder Burns. Finishing is done by buyer. Partition framing separates living-dining space from kitchen and utility room.

Behind Cleveland Trust's unusual project and lending procedure is its successful prewar experience with Title I Class III loans issued by FHA. Under this section of the FHA program, banks were permitted to lend up to \$2,500 to almost anyone who would sign a certificate of intent to build and a note for that amount. Cleveland Trust made almost 500 such loans and to date has suffered only one default. Says Templeton: "The secret of this success was, of course, the fact that the \$2,500 we loaned created shelter only, and it was necessary for the owner to put in some real effort to complete the shelter into a home."

Only two problems worry the sponsors of the Painesville's budding project; 1) how to determine just which of the many veteran applicants shall be permitted to buy the 50 houses in the project, and 2) how the Templeton plan for veterans housing can be duplicated throughout the country in the face of the Government's recent ruling that all subsequent houses to be built with the aid of HH priorities must conform to FHA's minimum requirements. Last month as the Painesville project got under way Sponsor Templeton petitioned Housing Expediter Wyatt to reconsider this government proclamation which would preclude the erection of minimum shelter and thus block nation-wide acceptance of "sweat-equity" housing.

Builder's Plan. In Denver, Builder Frank L. Burns came up with a plan similar to Banker Templeton's but requiring more work, less money from the buyers. Burns' houses will be sold at the three-quarter mark, finished by the buyer at his leisure. For a down-payment of \$153.75, a veteran could get to work on a two-bedroom house that was already sufficiently under way for immediate occupancy. Of waterproofed and painted cinder block with wood trim, the house contained kitchen and bathroom plumbing, (but no tub); gas heating units; stud partitions set in place, (no lath or plaster on partitions, inner wall surfaces or ceiling joists), and a trowelled concrete mat ready for asphalt tile flooring. In addition, the seller would rough-grade the property, lay the sidewalk from curb to front porch, install doors and electric outlets.

House plus lot was tagged at \$3,950, and completing the job would probably cost the buyer another \$1,300. Burns Realty and Trust Co. would transfer its priority for critical materials to the purchasing veteran.

Builder Burns saw advantages all along the line in such a scheme, planned a development of 100 homes. To the buyer it meant immediate possession of at least a literal roof overhead. To the builder, the extraordinary pleasure of a job shorn of its most annoying phase—detail finishing. In addition, it was Burns' belief: "The individual can obtain materials in small quantities for one house, while we are unable to obtain the same type of materials for a large number of houses."

Local FHA and VA officials took a

friendly look at a dozen Burns houses already going up. The Denver National Bank planned to issue Title I loans to purchasers, expected go-ahead on a 90 per cent guarantee. VA agreed to a GI loan provided the builder enclosed the bath and installed a tub. Allied Building Credits offered to finance the buyer with enough funds to complete his work-in-progress.

Like Templeton's plan, the future of Burns' is clouded by NHA's recent ruling regarding construction standards for HH priorities.

HOUSES

VACUUM CONCRETE

Project of 675 units for UN is to have precast roofs and floors.

Reported by the FORUM as one of the most available, economical construction methods for today's house (ARCH FORUM, July '46, p. 112), the vacuum concrete system will be used by the George A. Fuller Co. in the construction of 110 apartment buildings for the United Nations personnel in Jamaica, Long Island. Roof and floors will be comprised of large precast concrete slabs, poured in wooden molds, vibrated, vacuumized (to remove water from the concrete) and lifted into place the next morning by means of vacuum hoisting equipment. Walls will be of cinder concrete block faced with brick or siding to produce a "modernized Colonial" effect.

Decision to use the vacuum concrete system, developed by Philadelphia's K. P. Billner, was made in the interests of economy and speed of construction and to eliminate the need for critically short lumber. Designed by Architects Leonard Shultze & Associates, the 675-unit project will cost an estimated \$8.6 million, including the \$700,000 site, and will be financed by a group of 131 mutual savings banks in New York State.

FLIP-FLOP

Pittsburgher quits housing authority to build for veterans' co-op.

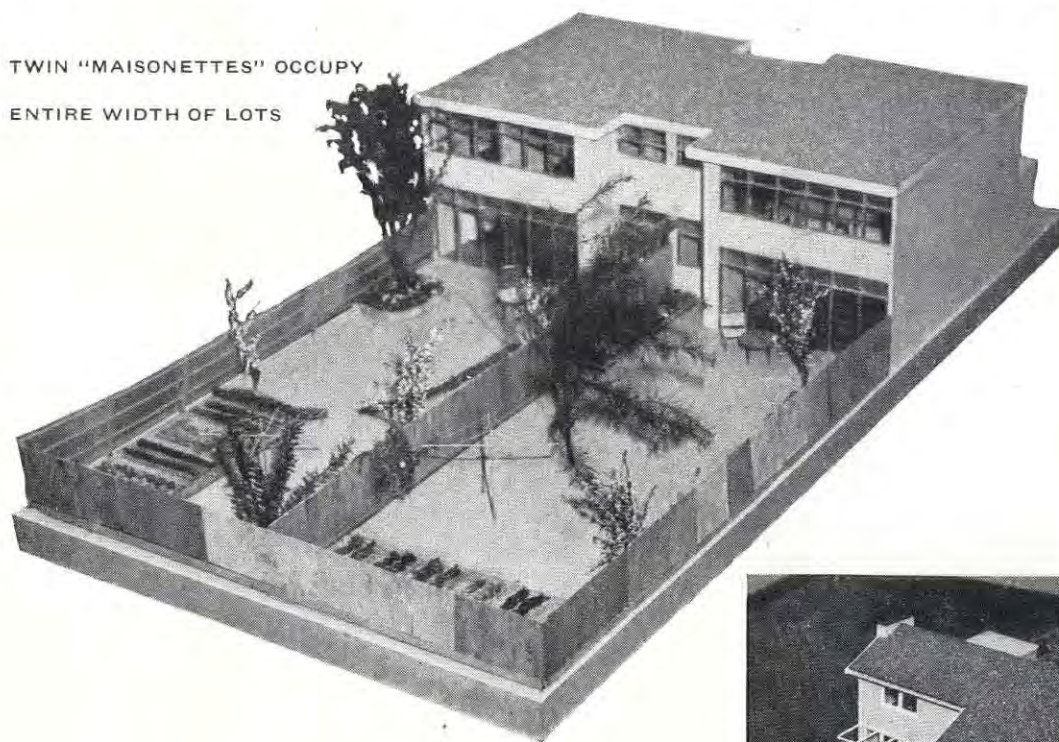
In his letter of resignation as the \$7,000-a-year executive director of Pittsburgh's Allegheny County Housing Authority, Builder Frank L. Palmer penned this farewell note: "Returning veterans by the thousands are living in shameful circumstances . . . This is not a public housing job, but a private housing job."

When next heard from, Mr. Palmer spoke as executive director of the Pittsburgh Veterans Cooperative Assn. and head of a new building firm called Construction Inc. In the latter capacity he offered to build three-story apartment buildings anywhere in the Pittsburgh area for the benefit of the cooperative.

When one of the projects is almost complete, it will be turned over to the co-op for disposition to its members. Initial cost to

Prize Australian houses show design trend moving toward U. S.

TWIN "MAISONNETTES" OCCUPY
ENTIRE WIDTH OF LOTS

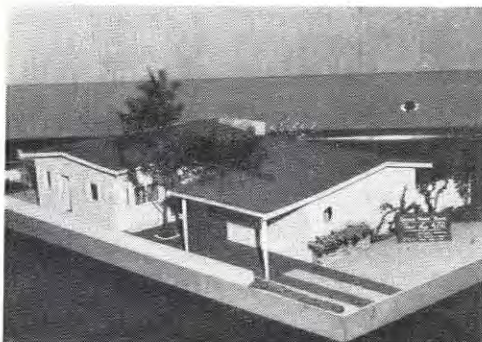
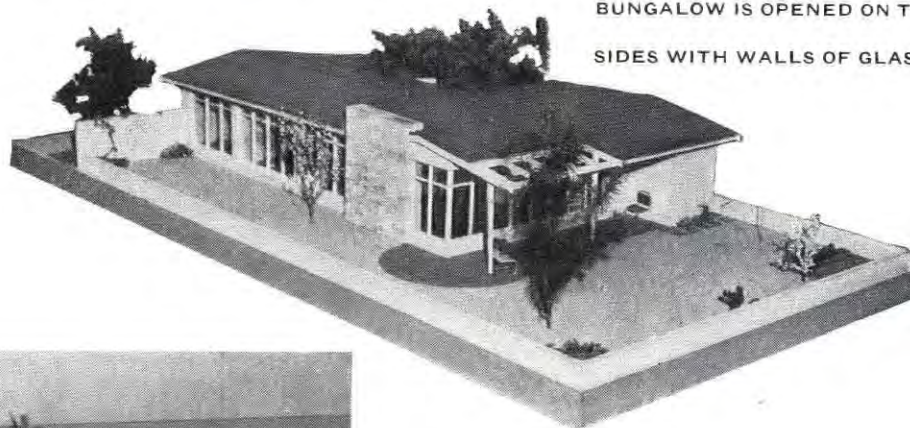


TWO-STORY WINNER FEATURES
GARDEN TERRACE

How the other half of the world lives—or how some of them plan to live—may be seen in the accompanying pictures of Australian prize winning house models. Picked from nearly 1,000 entries in a competition sponsored by a Melbourne newspaper, the winning designs indicate, more than anything else, that Australians live about the same way Americans do. Each of the three designs has many features in common with houses of contemporary design in California and the southern states whose sunshine and temperate climate are comparable with Australia's: large windows, low pitched roofs and areas for outdoor living.

Each house was judged best in its section of the three-way contest: one-story houses, two-story houses and twin "maisonnettes." All were required to suit families of moderate incomes, to fit lots 50 ft. wide, to cost no more than £2,000 (\$6,500) in brick construction. Like the U. S., Australia lost no houses during the war, neither did it build many. And, like the U. S., it is suffering a "considerable" shortage.

BUNGALOW IS OPENED ON TWO
SIDES WITH WALLS OF GLASS



CARPORT OF BUNGALOW DOUBLES
AS CHILDREN'S PLAY SPACE

occupants will be about \$150 per room which will provide the operating co-op with sufficient equity to purchase the building and arrange for its permanent financing. From then on tenants will make monthly payments sufficient to cover operating costs and debt service. It is estimated that the economies in the cooperative will reduce operating costs by as much as 11 per cent. Not the least of these is income tax exemption.

COLONIAL IN CONCRETE

Steel forms give a new type of concrete an old appearance.

Widely and rightly publicized as an economical substitute for critical materials, concrete was poured last month in a new form and a new shape which may further boost its use. Architect B. H. Whinston and Engineer A. J. O'Brien have developed a 26 x 33 ft. five-room concrete house which is being built in New Brunswick, N. J., for about \$1,200 per room, a figure which the sponsors claim is \$400 below the local cost of comparable frame houses. But, since the public seems to favor the appearance (if not the price) of traditional clapboard construction, the concrete houses will simulate clapboards.

Four aspects of the O'Brien construction system set it apart from usual concrete practices: 1) Wall and partition forms manufactured by the Irvington Tank and Form Co. are steel panels affixed to steel channels. Assembled in standardized sections, they permit considerable flexibility in the shape of the house and its interior subdivision. And, their horizontal corrugations produce the clapboard effect—see cut. 2) Concrete is poured mechanically by means of power equipment and vibrated to minimize surface imperfections and efflorescence. 3) Aggregate for the concrete is expanded blast furnace slag treated chemically to produce a lightweight cellular material which boasts better insulating and moisture resistant qualities than ordinary concrete. 4) Floors and roofs are framed with light steel channel beams appropriately spaced to receive precast con-

crete joists and slabs. Interior wall finish is composition board applied to furring strips. Floor and roof finishes are nailed to the nailable concrete slabs or secured to them with an adhesive. The clapboard-like exterior is coated with Portland cement paint.

In addition to its capitalization on generally available materials, the O'Brien system of construction requires a minimum number of laborers and skilled mechanics.

MARKET

HOUSING CENSUS

Belated release of vacancy statistics throws light on housing shortage.

According to cold statistics, existing unoccupied housing could more than accommodate the 2,700,000 families whom government has said must have new housing during the next two years. Prepared eight months ago by the Bureau of the Census but released only recently by government housing experts who did not like the looks of the figures, the latest census of housing reveals that there were 2,981,000 vacant dwelling units in the U. S. last November when the present housing program was being born. But the cold statistics are not as heartening when examined in the warm light of reality. Only 2,321,000 units were considered habitable; only 2,099,000 of these were located in urban and rural non farm areas. Of the 470,000 habitable units in urban areas almost half had been sold or rented but were not yet occupied at the time of the census, and 117,000 more were not available for rent or sale. Only 252,000 urban units were looking for occupants. In rural non-farm areas, 1,077,000 of the 1,629,000 vacant habitable units were not on the market, and 88,000 more were already rented or sold, leaving only 464,000 available for occupancy. Net supply: 622,000 habitable units available for rent and 94,000 more offered for sale in urban and rural areas—a shade more than two per cent of the total number of non-farm dwellings in the entire U. S. (A 4 per cent vacancy ratio is considered normal.)

Considering all rural and urban vacancies, the average unit was comprised of 3.6 rooms and was offered for rent at \$27 per month in urban localities, \$10 in rural non-farm areas.

Although the census was based on a broad sampling covering 20,000 households in more than 68 counties in 42 states and the District of Columbia and is considered to be an extremely accurate national estimate, the house-seeking public will find it difficult to believe. If nothing else, the census underlines the fact that the present housing shortage is caused in large part by the wartime migration of families to urban areas and their apparent desire to stay put.

HEALTH CENTERS FOR GREECE come from

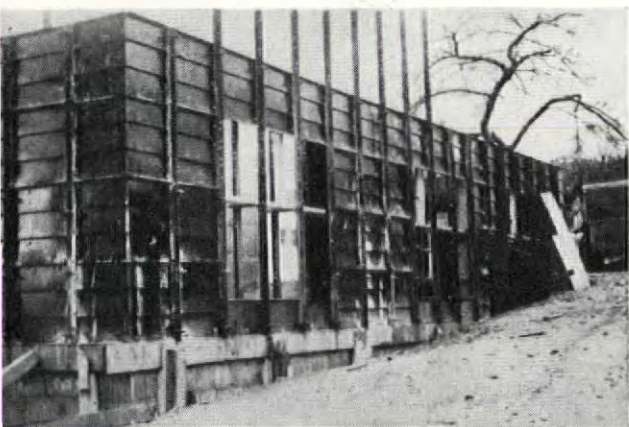
To the long list of staples being shipped daily to war-devastated countries, the Greek War Relief Assn. last month added blueprints and building materials for small health centers. Need for these items springs from the fact that, while there are adequate hospital facilities in the cities of Athens and Salonica, there are almost no health facilities for the 5½ million Greeks who live in rural areas. More than 500,000 people in the country, including three out of every four children, are suffering from active tuberculosis. Today, only 4,400 TB beds are available in all Greece.

Designing health centers for unknown sites and foreign clients thousands of miles away presented unusual problems to the U. S. architects selected for the job: Kokkins & Lyras of New York. Advised by Architect K. Biris of the Technical Division of the Greek Ministry of Health and by Greek doctors flown here for consultation, the architects designed the project as three individual buildings (two of which are connected by a corridor) so that it may be easily adapted to sites of various shapes and contours. The detached section (not shown in the plans to the right) is the resident doctor's six-room house; the smaller of the attached sections is a hospital unit which provides for the treatment of emergency cases with its operating room and ward for six to twelve patients; the main section is the health center proper, serving both as an out-patient clinic and source of preventive medicine. On the second floor of the connecting corridor and ambulance port is a four-room residence for three nurses. The basement contains storage facilities and a battery of public showers.

Following Greek practice, exterior walls will be 1½ ft. of rubble masonry. Remainder of the shell will be reinforced concrete with the roof finished with built-up composition materials. The latter, as well as most of the equipment and furnishings, will be manufactured in this country. Self-sufficient as far as utilities are concerned, the basement boiler room will generate electricity as well as heat. Cost of each health center is estimated at \$60,000.

While the ultimate goal of the program is 150 units, this year's quota is 20. Sites for these 20 have already been donated by Greek communities, and U. S. architects and construction engineers will soon depart for Greece to supervise and expedite the construction of these initial units. The number of units to be built next year depends on the generosity of the American people, particularly the 800,000 Greek-Americans who have footed most of the bills thus far.

Meanwhile, the Greek War Relief Assn. with other relief agencies is sponsoring a large hospital for Greece.

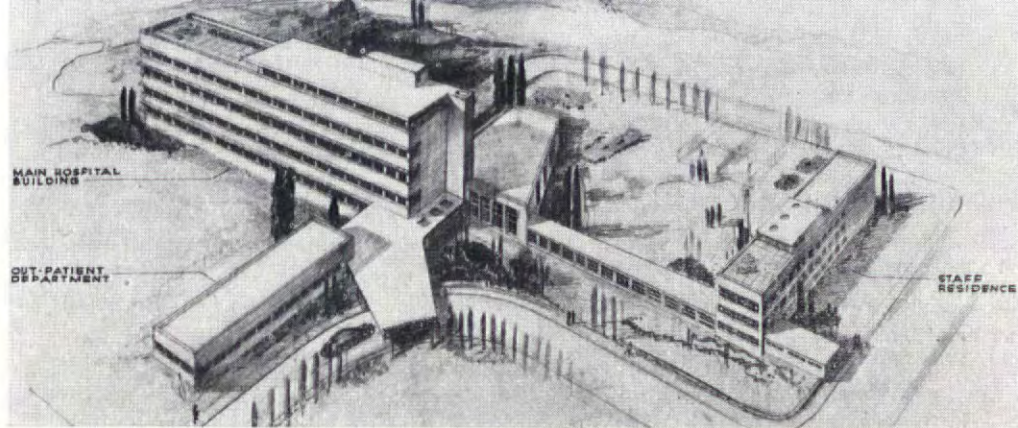


STEEL FORMS contain slag concrete, create beveled appearance like clapboards.

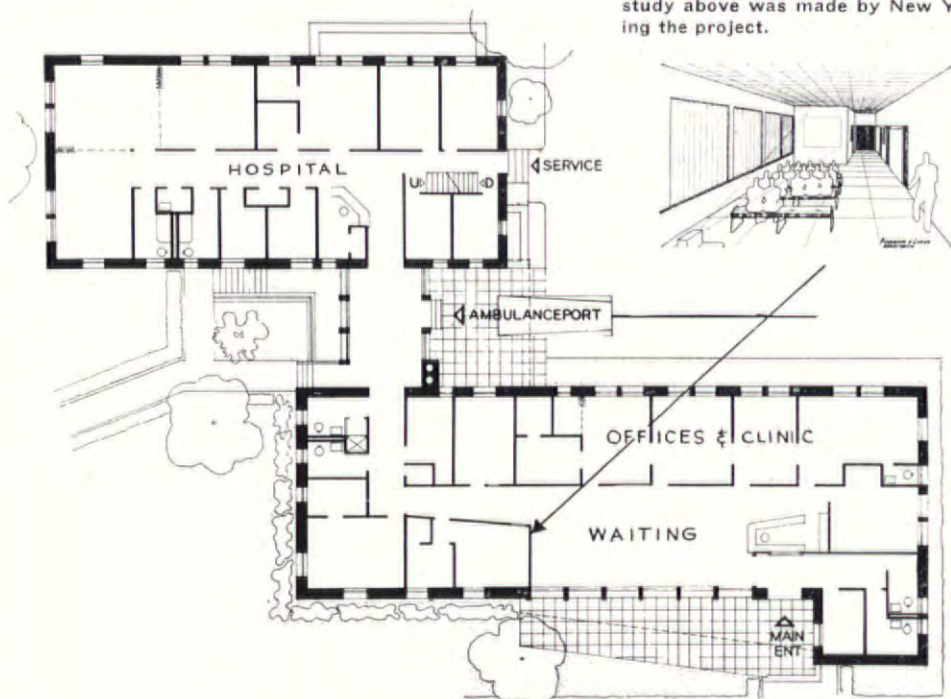
S. drafting boards and pocketbooks. Architects Kokkins

& Lyras design a standard unit to be repeated

150 times, supplement it with a hospital.

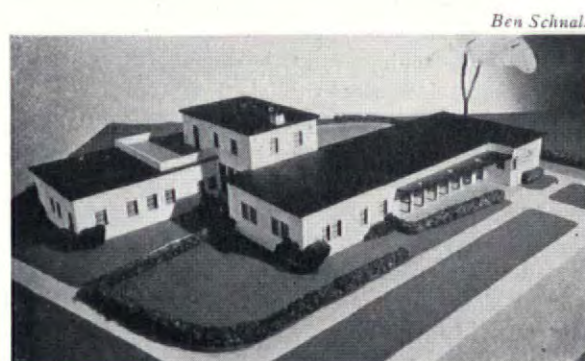


PAN AMERICAN HOSPITAL to be erected in Tripolis, will serve as the focal point of Greece's new health program, handle cases too complex for the small health centers (below). The preliminary study above was made by New York Architects Kokkins & Lyras for the U. S. relief agencies sponsoring the project.



HEALTH CENTER plan is divided in two parts to facilitate its adaptation to any site. The smaller wing is an emergency hospital; the larger, an out-patient clinic. Above the ambulance port are nurses' quarters. Reception room of the clinic may be converted into small theater for showing educational films.

FIRST FLOOR

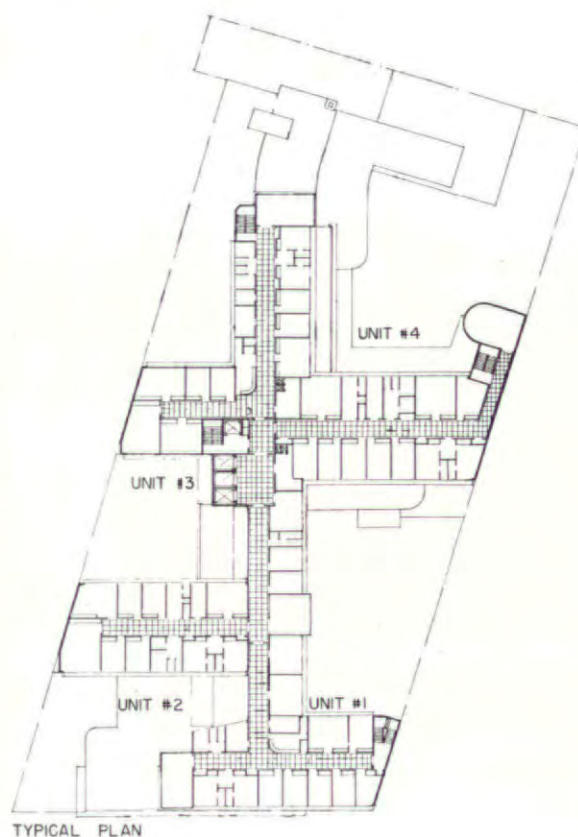


HOSPITAL FOR SHANGHAI, designed by native architects, will be built with U. S. materials.

This 500-bed hospital will rise in the heart of Shanghai as soon as its architects and the shipload of materials they are buying arrive in China. The designers are W. P. Lei and D. Su whose firm name, Hsing Yieh, means "Architects Promoting Industry" and is known by every architecturally-minded Chinese. After spending four months in the U. S. "polishing up" after so many years of isolation," Lei and

Su designed the hospital in a two-week period.

Financed by a private owner who has donated 7 million U. S. dollars for the project, the building will be constructed of steel or reinforced concrete. Since the Japanese wrecked most of the Chinese cement plants and since steel is not available in Shanghai, most of the building materials as well as all the equipment have been ordered in the U. S.



CITIES

NEW ZONING ORDINANCE

Los Angeles adopts an all-inclusive law worth study by other cities.

To the long list of wonders, both natural and man-made, of which Los Angeles may properly be proud, was recently added another—the most comprehensive zoning ordinance in the country. Having grown from a town of 43 sq. miles and 102,000 population at the turn of the century to booming city of 452 sq. miles and 1,773,000 people, Los Angeles long ago outgrew the thirteen separate sets of regulations which governed its expansion. Small wonder, then, that the new zoning ordinance which covers in a single document every phase of land use from off-street parking to the agricultural problems of the San Fernando Valley won almost unanimous approval of the City Council.

One of the most significant innovations of the ordinance is the zoning of the City's agricultural lands, comprising about 35 per cent of the City's total area. Existing urban areas in the agricultural Valley have been comprehensively planned by the

Planning Commission and generous provision has been made for their expansion. The remainder of the Valley has been divided into three classifications, two of which are called "agricultural" and carry minimum lot area requirements of five and two acres, while the third, classed as "suburban", permits lots as small as 20,000 sq. ft.

In addition to the three classifications in the San Fernando Valley, the city proper is blanketed with 13 different types of urban zones briefly described as one-family, two-family, multiple dwelling (three types), limited commercial, unlimited commercial (three types), central business and limited, light and heavy industrial. In most of the various dwelling zones, so-called "home occupations" are prohibited except as transitional uses, and the location of schools and churches must be approved by the City Planning Commission. While the obsolete ordinances made little effort to control population densities, definite maxima have now been set; they range from two-and-one-half acres per family in the agricultural areas to 400-800 sq. ft. per family in the multiple dwelling or apartment house sections. The biggest apartment buildings are al-

lowed to go to the maximum height authorized by the city charter (150 ft. or 13 stories), but their side yards are required to be at least 19½ ft. each.

One of the first zoning ordinances to make a serious effort at solving the automobile parking problem, the new law requires that inside parking space for one car be provided for each dwelling unit in all residential zones, and that off-street parking and loading facilities be provided by all non-residential buildings.

On the handling of non-conforming uses, the new ordinance also makes significant headway. In the first place, distinction is made between "non-conforming buildings" and "non-conforming uses." Aside from the customary provisions limiting restoration, vacancies, change in use, etc., the new law contains some of the most equitable methods yet devised for the removal of non-conforming buildings and uses. Expansion of non-conforming uses is prohibited, and, once terminated, such uses cannot be resumed. Moreover, non-conforming uses in conforming buildings must be discontinued within five years. The same applies to the non-conforming use of land and advertising media such as signs and billboards. On the other hand, non-conforming buildings in residential zones must be removed or converted as soon after 1966 as they become of age, and the ages are set at 20 to 40 years.

As new as the Los Angeles' zoning law is the unique method by which it will be administered and enforced. These responsibilities are vested in a single Zoning Administrator.

Commenting upon the wide range of expert advice on which the new law is based, Planning Consultant Earl O. Mills, recently elected president of the American Institute of Planners, concluded: "Not only has the Los Angeles Planning Commission succeeded in securing the adoption of perhaps the most comprehensive and progressive zoning ordinance in the Nation, but it has also demonstrated a 'human engineering' technique that might well be emulated in other communities."

Paris views an exhibition of American housing techniques



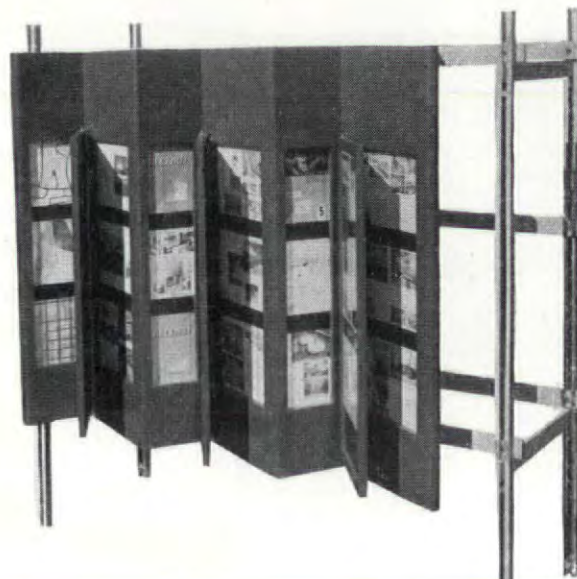
Town of prefabricated U. S. houses is the hit of the show staged in the Grand Palais.

U. S. Ambassador Caffery and French Minister of Reconstruction Billoux inspect a prefab.



International News Photos

Designed by Robert Pontalry and Stamo Papadaki, displays are mounted on light weight wooden frames which facilitated shipment. The entire exhibition was built in the U. S. by Display Studios.



BAS RELIEF BATTLE

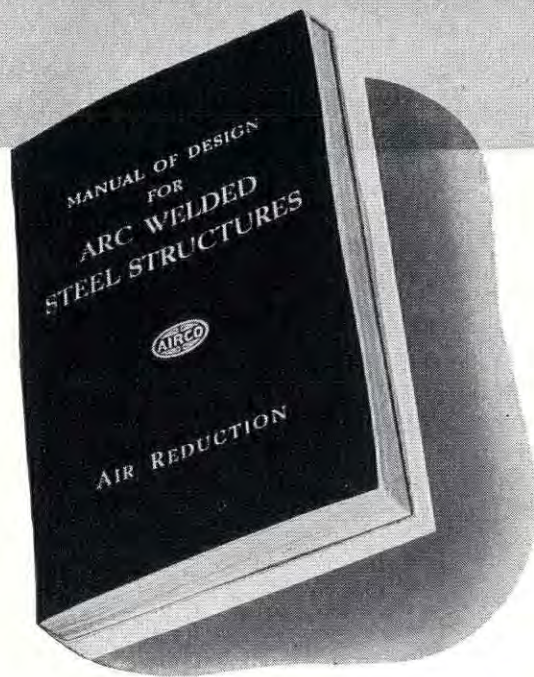
St. Louis comes up fighting in round 2 with Sculptor Schnitmann.

St. Louis, which takes its art more seriously than some cities take their politics, was enjoying an artistic brawl once more. Center of the row was an heroic terra cotta bas relief called "The Force of Modern Architecture."

As the veteran of an earlier municipal rough-and-tumble, sculptor Sacha Schnitmann was well prepared for the fight. "I have never been involved in as many conflicts as I have experienced during the past six years of practice in St. Louis," he steamed.

Like Carl Milles' famed "Marriage of the
(Continued on page 14)

YOU are invited to examine this book *Free!*



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

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

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IF A DOOR COULD MAKE A LAST REQUEST BEFORE BEING

HUNG—



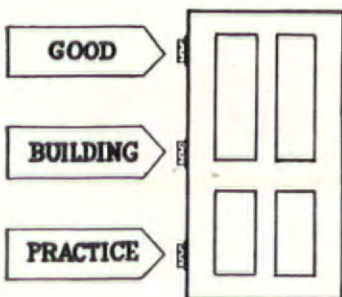
It would say . . . "GIVE ME THREE HINGES"

"Then I will be a credit to the home . . . a permanent, satisfactory moving part. I will be hung efficiently, swing silently and smoothly . . . and serve faithfully as long as the building stands.

"Three hinges will cost only a few cents more but they will keep me out of trouble for life.

"Three hinges will prevent me from sagging, sticking, warping. They will prevent my latches and locks from getting out of alignment.

"Three hinges will support me as I should be supported and I will cause no inconvenience, nor repairs, nor replacement expenses to my owner."



Specify "three hinges to a door" and you will be giving your client the best construction he can get—satisfactory, substantial, permanent. He will recognize and appreciate your good judgment the longer he lives in his home.

McKINNEY

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PITTSBURGH 12, PENNSYLVANIA



MODERN ARCHITECTURE

Waters" (but for different reasons), Schnitmann's first (1942) contribution to the city's art resources narrowly escaped a civic ban. Indignant citizens had protested the Milles work as "full of nude figures, right in front of the Union Station." But they liked Schnitmann's chaste granite pylon, commemorating the founding of the American Legion, no better. A vocal minority on the Municipal Art Commission almost succeeded in ousting this monument from its proposed site in the middle of Memorial Plaza.

Schnitmann's newest challenge to the city's divided artistic sensibilities is a bas relief decorating a small building designed by architect Meyer Loomstein for his own office and also housing the Architectural Guild (see cut). The sculptured figure in high relief is shown, the artist says "in the strenuous physical movement of forcing open the symbolical calipers representing the hoped-for movement of a greater public and professional surge toward modern architectural progress."

St. Louis citizens were not impressed. They flooded sculptor Schnitmann with irate letters. Some thought the bas relief "vulgar", others merely ugly.

But owner-architect Loomstein, unabashed by the flood of public opinion, showed no sign of relinquishing "The Force of Modern Architecture." Sculptor Schnitmann prepared to go to work on two 22½ ft. high bronze figures symbolizing the architecture of the past and the architecture of the future, planned for an adjacent tall building.

PREFABRICATION

PROGRESS REPORT

Contracts are readied for an unready industry.

Prefabrication, Building's white hope, was a tattle-tale gray last month. Only about 10,000 housing units had been shipped out



... by Loomstein

... by Schnitmann

of factories so far this year, according to chagrined Wilson Wyatt. Prefabs had been expected to furnish over a fifth of the government's goal of 1,200,000 by year-end.

No one quite agreed, though, on the exact deterrents. Wyatt, in his first report to the nation, assayed returns from producers obtaining priority assistance: "Nearly all manufacturers are making wood and plywood houses exclusively and are severely limited by the shortage of plywood. A preliminary estimate of the amount of plywood available for prefabrication is at a level sufficient to produce only 30,000 wood and plywood houses in the third quarter." But Lawrence Ottinger, president of U. S. Plywood, was quick to counter: "As far as the prefabricated housing program is concerned, plywood demands are being fully met—lack of other essential materials such as electric fixtures, plumbing, and flooring, is holding back plywood shipments."

Whatever the reasons, the facts were plain—prefab was still inching up at the foot of the hill, stalled by shortages, if not of one thing, than of another. A FORUM survey of the principle manufacturers of factory-made homes revealed an industry with sweat on its brow and anguish in its heart. Its complaints against government were various, but Wyatt's figure of 10,000 units was conceded to be generous.

Typical replies to the FORUM query:

► Precision-Built Homes: 200 houses since V-J day. "Hold up in production due to materials situation and low ceiling prices set by NHA."

► Ivan R. Ford: 100 houses since V-J day. "Effects of strikes and OPA regulations still prevail."

► Wingfoot Homes: 150 houses since V-J day. "Failure to obtain veterans housing priorities for material to date has delayed further production."

► John A. Johnson Co.: 500 units. "Production slowed by materials shortage."

(Continued on page 16)

MODULAR BRICK AND TILE ready for essential building



Yesterday's promise a fact today

Not too many months ago, the Brick and Tile Industry promised to produce brick and tile of coordinated dimensions for Architects and Builders.

The Industry realized this contribution to simplification and economy in building would save architects endless hours of drafting and detailing—would provide even greater flexibility and versatility in design. These manufacturers knew this progressive step would help builders simplify estimating, develop a uniform building practice and lower the cost of site erection.

Today that promise has become a fact. The Brick and Tile Industry—the first industry to accept the 4-inch module—is now ready to serve you with modular-designed brick and tile.

Now, as you use coordinated dimensions in planning homes, hospitals, schools, apartment houses

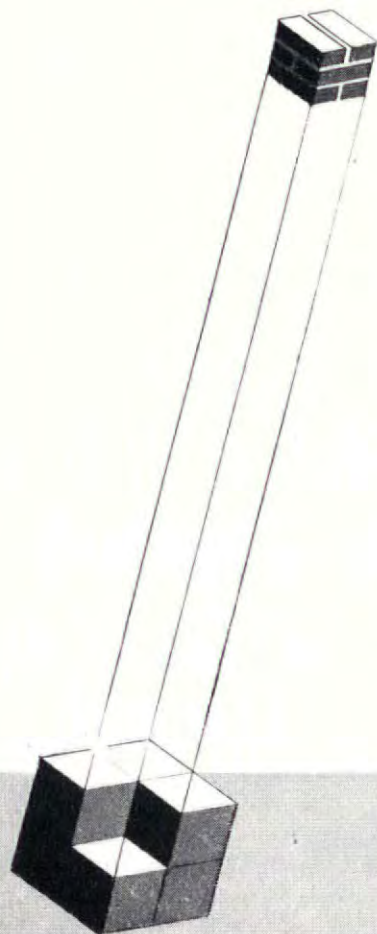
and other buildings considered essential, you can enhance them with the beauty and dignity for which brick and tile long have been famed.

For not only has the Industry converted its production to modular sizes according to specifications of the American Standard Association, but it has solved its production problems, too. Enough brick and tile is now being produced to meet all building permitted by the government.

Two free booklets are available: one, "The ABC of Modular Masonry," for those interested in the development of coordinated dimensions, and the other, "Modular Sizes of Brick and Tile," for those desiring to employ these sizes in current design. For either or both write the Structural Clay Products Institute, 1756 K Street, N. W., Washington 6, D. C.

SCDI
STRUCTURAL CLAY PRODUCTS INSTITUTE
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NOW IT WILL BE BUILT WITH MODULAR-DESIGNED
BRICK AND TILE



8

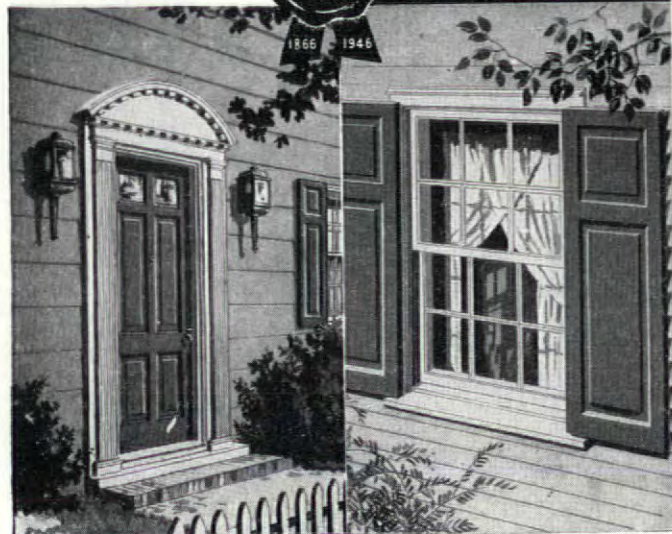
decades
of woodworking

"know how"

Throughout the 80 years of America's greatest progress—in war and in peace—Bilt-Well has played a major part in a most important industry.

Today, as we stand on the threshold of a new era in building, we glance back at our woodworking accomplishments of yesterday; then stride forward with determination to continue production of the best in woodwork.

Carr, Adams & Collier Co.
DUBUQUE, IOWA



► Anchorage Homes: "Non existence of materials of proper quality has precluded manufacture of any houses since the end of the war."

► Tovell Construction Co.: 150 houses since end of war. "Production holdups due to materials."

► Pease Woodwork Co.: 500 houses since August, 1945. "We should and could be making eight to ten houses a day, one shift, if incoming materials could be scheduled for regular shipments."

► Bush Prefabricated Structures. "We won't go into production until we have a full inventory. Now we don't have enough nails or doors and not one house is coming off our production line."

► General Houses, Inc.: "We'd rather not go into production again with the kind of materials now on the market."

Faced with such reports as these, Wyatt hurried to tune up his guaranteed-market plan for aid to prefabricators and new materials-makers who agreed to contract with the government for increased output. NHA got a newly-instituted Prefabrication Production Branch, headed by veteran prefabricator James L. Pease (see cut). Wyatt announced that applications for underwriting contracts would now be accepted.

The industry was not rejoiced. Almost to a man they rejected the guaranteed contract offer. It was, said one, a "Greek gift." Comments took a wide range of expression but had a common meaning: the established prefabrication industry was not going to take Wyatt's offer up. Said Foster Gunnison: "I feel that the greatest aid that the government can give is to expedite the flow of quality materials to experienced and established concerns who are equipped to step up production immediately." Anchorage Homes was less conciliatory: "Wyatt purchase contract is unnecessary if houses are of appearance and quality the public will accept. Only manufacturers of freaks

or shacks will want purchase contract with further government domination." With the exception of the John A. Johnson Co. reporting warily that it was "looking into Wyatt's plan," not a single one of the larger prefabbers wanted to secure a contract.

Wyatt's program probably held most promise to the industry's newcomers, still popping into the picture with a somewhat slackened velocity. One thing seemed certain, however: conventional building would still have to do the lion's share of new house-building for a while longer.

MATERIAL

STEEL VS. WOOD JOISTS

Irked by cost claims, the steel industry gets architects to prove its pudding.

While many a builder has been pondering the advisability of substituting steel for critically short lumber in the framing of his houses, the steel industry has been preparing an elaborate argument for replacing wood joists with steel—not as an emergency measure but as a means of building better, more economical apartment buildings. Released last month, the report uses well documented facts to show that steel joists help reduce the cost per rentable room and increase the project's rental income.

The argument began in 1945 with the introduction in the New York State Legislature of the Desmond Bill which would lower the permissible height of non-fire-resistive apartment buildings comprised of masonry and wood joists from six to three stories. (The lower limit is recommended by national fire protection standards and is enforced in many other cities throughout the nation.) Opponents of the bill rightly claim that three-story buildings are uneconomical in most metropolitan areas. They

(Continued on page 18)

Reni News photo



NHA'S PREFAB EXPERTS (left to right) are Warren B. Shipway, Director of Materials Division; Robert J. Carmody, assistant to the Director; James L. Pease, Director of NHA's Prefabricative Production Branch; Carroll A. Towne, Director of Qualification Division; William J. Renn, Jr., Director of Production Division.

do wiring questions stump you



*what to specify?
is it suitable?
easy to install?
what types available?
where to get facts?*



Is everything smooth sailing when you discuss building plans with your clients... until they ask about adequate wiring systems? Many of them do, you know, and it doesn't build up their confidence in you if you don't have the answers at your finger tips.

Take building wire, for instance. Did you know that General Electric makes small diameter thermoplastic building wire for all types of new wiring, rewiring, and maintenance wiring? The thermoplastic insulation is flame retarding, resistant to oils, acids, alkalies, and moisture. The insulation is color coded, too, to cut installation time, and its extra long service life means increased value to the user. Type T is used for most applications, Type TW for permanently wet locations.

What about cables? There's PVX*, the new, non-metallic sheathed cable with Type T thermoplastic-insulated conductors for use in homes, farm buildings, stores, and other small buildings. This flame- and moisture-resistant cable has smaller over-all diameter which facilitates handling and installation, saves your client money in the long run because it outlasts ordinary cables on the job.

Information on other G-E cables should be in your "working acquaintance" file. BraidX*, used for new construction or rewiring, and especially suited for farm buildings; BX*, the best-known and most widely used armored cable made; service entrance cable for use from entrance cap to meter equipment; and many other types to answer every wiring need.

1. G-E thermoplastic building wire
(Sizes No. 14 to 2,000,000 cm; Types T and TW)
2. PVX
(Sizes No. 14 to 4; 2 or 3 conductors)
3. BraidX
(Sizes No. 14 to 4; 2, 3 or 4 conductors)
4. Service entrance and service drop cables
(Sizes No. 12 to 2; 2 or 3 conductors)

All we ask is that you know the good points of G-E wiring materials... how they compare with others, what the facts are. And the easiest way to know is to write for complete information to Section W7-826, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.

*Trade-mark Reg. U. S. Pat. Off.

GENERAL  ELECTRIC

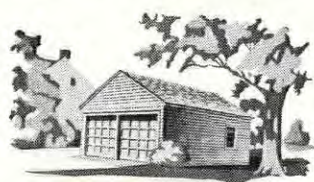
BIG SHEETS up to 8' x 14'

Weatherproof
HOMASOTE

.....PROVED BY
30 YEARS OF SERVICE

Millions of feet of this all-purpose building board have been used for new construction and modernization during the past 30 years. This steady popularity, through good times and bad, is based on Homasote's ability to turn in a first-class performance under all conditions. We are continuing to emphasize quality in all steps of manufacture—in order to maintain top structural strength with great insulating value.

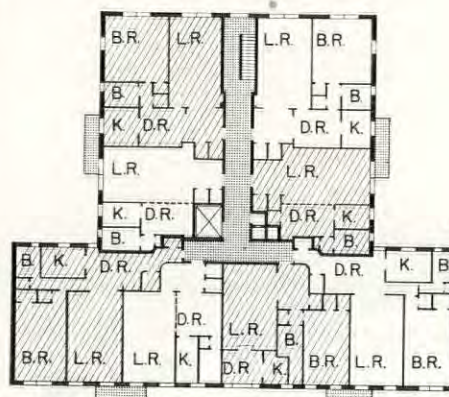
Unfortunately, it has been impossible to keep up with the ever-growing demand for our product, even though our production capacity is being constantly increased. Every foot of Homasote we make, for the balance of this year, is already under allocation.



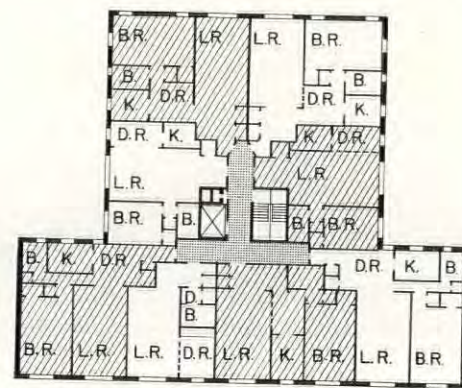
When this situation eases, we hope you will ask for Homasote again. We hope you will remember that it is weatherproof and permanently crackproof—for exterior use, for sheathing, for interior finish. Homasote's big sheets (up to 8' by 14') eliminate unnecessary wall joints and batten strips, form an ideal base for paper or paint, help to keep buildings dry and free from mildew.

We invite architects and builders to send for a copy of our new booklet describing some of the many uses for *weatherproof* Homasote. The book gives physical characteristics, performance charts, specification data and application instructions. Write for your copy today.

HOMASOTE COMPANY, Trenton 3, N. J.



0 5 10 15 FT.
NON-FIRE-RESISTIVE PLAN



0 5 10 15 FT.
FIRE-RESISTIVE PLAN

also claim (wrongly, as proved by the steel industry's study) that to make a six-story building fire-resistive would up its cost from 30 to 40 per cent.

To refute this damaging argument, three institutes representing the steel industry (American Iron and Steel Institute, American Institute of Steel Construction, and Steel Joist Institute) commissioned two New York architects to determine the dollars-and-cents benefits of fire-resistive steel joist construction in the multiple dwelling field. (To be considered fire-resistive the upper floors and roof of a building must have a 1½ hour fire resistance rating and interior columns must be protected to achieve a 2 hour rating.)

Architects H. I. Feldman and Andrew Thomas were selected for the job. After studying 105 relatively new apartment projects built in New York, they designed fire-resistive and non-fire-resistive six-story buildings to suit typical lots and typical rental markets in each borough. The accompanying plans illustrate the two buildings designed by Feldman for Manhattan's typical 100 by 100 ft. lot and the type of economies which the use of steel joists permit. Principal savings result from fewer fire wall subdivisions, thinner partitions, elimination of fire escapes, use of interior bathrooms and kitchens, interior location of halls and stairs and the increased space (1½ rental rooms were added to each floor) and flexibility of room arrangement which these changes create. Based on 1939 costs, Mr. Feldman's fire-resistive building cost \$171,389, about \$6,000 more than its non-fire-resistive counterpart, but each rentable room, due to the increased number, cost only \$1,308, better than a \$50 saving over the per-room cost of the unprotected building. According to two of New York City's top-notch real estate management firms, the rental income of the fire-safe building would be \$40,800 per year, an increase of \$2,805 or 7.4 per cent over the structure of conventional design.

Summarizing the findings of their four comparative design studies, Architects Feldman and Thomas conclude (1) that the cost per rentable room for a six-story fire-resistive apartment building is generally lower than for an unprotected building—by amounts ranging up to 6.3 per cent, (2) that the gain in rentable rooms averages 8.6 per cent, (3) that this addition in rentable rooms involves an average extra cost of 5.1 per cent, and (4) that an average of 7.1 per cent more income is obtained from the increased space—sufficient to pay for the increased construction cost in the first five years of operation.

MATERIALS OUTPUT UP

But steel scrap shortage looms ahead.

Due to government's economic tinkering or despite it, production of building materials and equipment is gradually increasing. It weathered the wave of work stoppages surprisingly well; only brick, gypsum and insulating board, asphalt roofing and bathtubs suffered production dips during the month of May. But, at the half year mark, production of almost all critical items was regaining lost ground and registering sizable gains over January rates. Lumber output was up more than 50 per cent; softwood plywood up 17 per cent; brick and structural clay tile up 30 per cent; cast iron soil pipe, gypsum and other building board up 10 per cent; asphalt roofing up 5 per cent; cast iron radiation up 55 per cent; warm air furnaces up 12 per cent; bathtubs up 35 per cent. Production of clay sewer pipe alone registered a decrease (10 per cent), and all of it occurred during February which has been followed by small consecutive increases.

Although the steel industry which supplies Building with countless parts from nails to lally columns was operating at 87 per cent of capacity at mid-July and work-

(Continued on page 22)

Facts you should know about FIBERGLAS ROOFING MAT...

HELPS MAKE BETTER INDUSTRIAL ROOFS.

Fiberglas Roofing Mat, used as a carrying and reinforcing agent for bitumen in roofing applications, is composed of a jack-straw arrangement of fine glass fibers bonded into a uniform felted sheet. It is furnished in 18" and 36" widths, with nominal thickness of 15 one-thousandths of an inch. Minimum length of rolls is 288 feet. It is extremely light in weight—about one pound per 108 square feet.

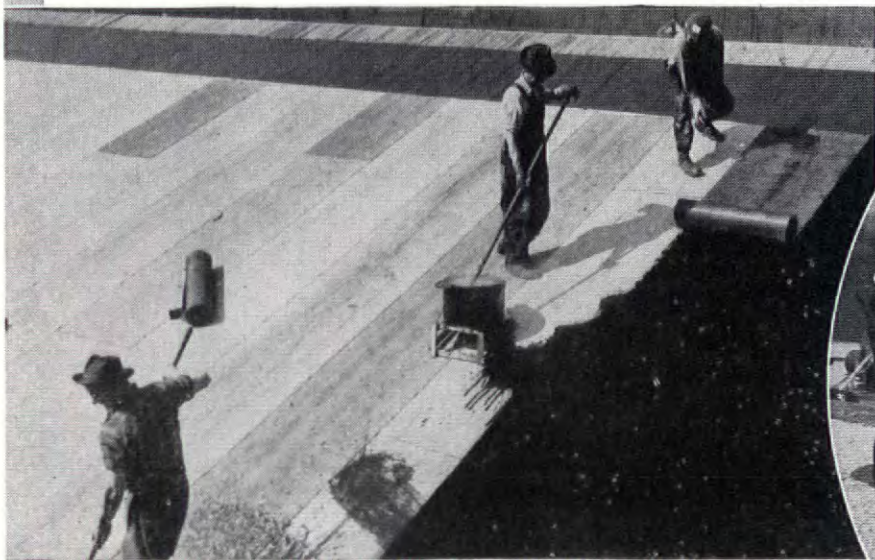
Being glass, the fibers have an unusual combination of characteristics which provide significant application and structural advantages. Complete information about Fiberglas Roofing Mat will be furnished on request. Write: Owens-Corning Fiberglas Corporation, Dept. 830, Toledo 1, Ohio. Branches in principal cities.

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



LIGHTWEIGHT, EASY TO HANDLE—A single roll of Fiberglas Roofing Mat weighing only 8½ to 9 pounds contains more than 864 square feet. Guide lines are ruled parallel to the running length of 36-inch rolls, in accordance with standard practice.

POROSITY PERMITS ESCAPE OF AIR—The asphalt or pitch penetrates the highly porous mat sufficiently to produce an excellent reinforced waterproofing membrane. And because of its porosity, entrapped air escapes more easily. The possibility of air pockets is reduced to a minimum.



APPLICATION ADVANTAGES—The light weight of the rolls, the porosity and other properties of Fiberglas Roofing Mat, are definite advantages in applying covering to all types of pitched or flat roofs on industrial buildings.



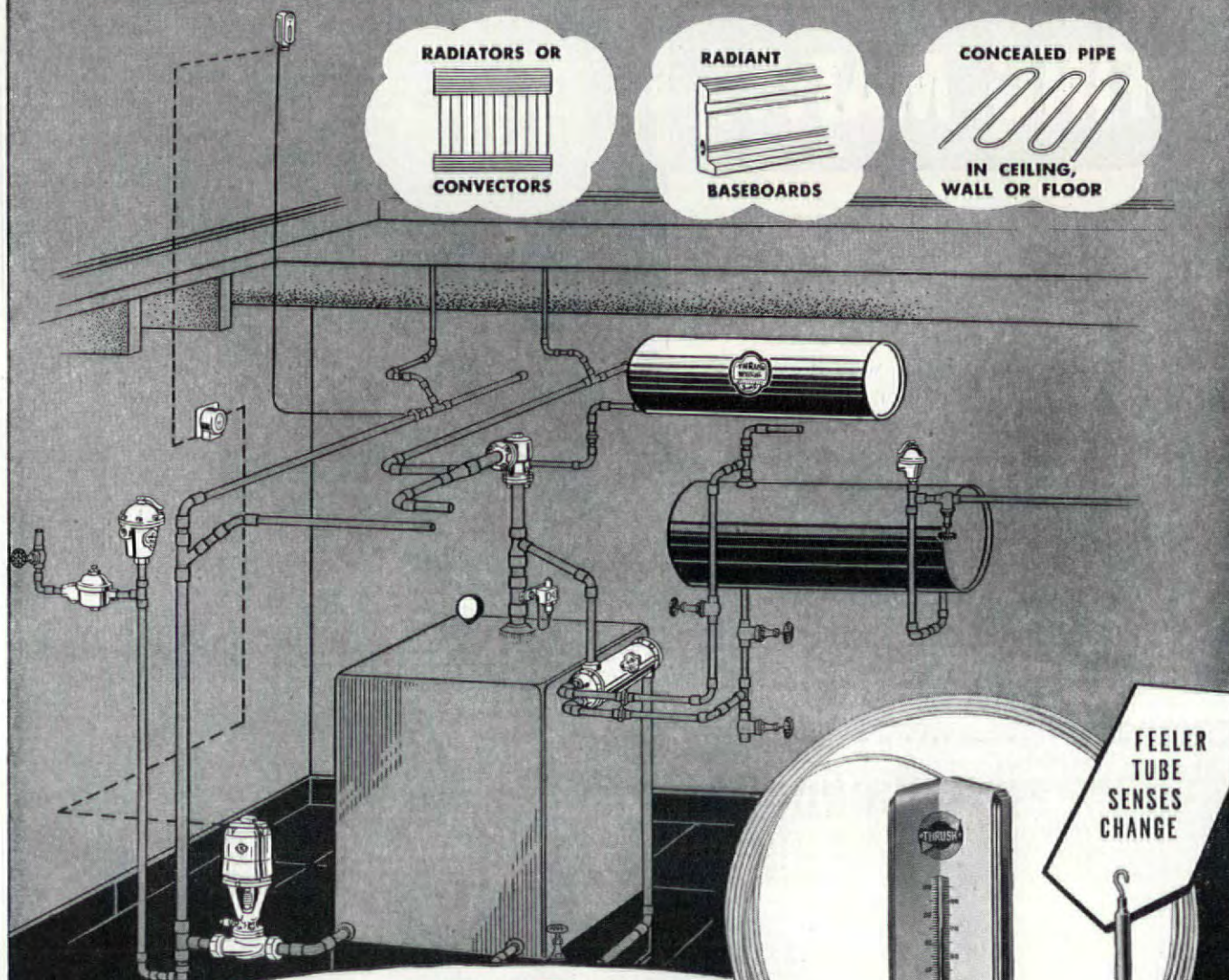
INORGANIC—WILL NOT CHAR, ROT OR DECAY—Note the complete penetration of the asphalt through the Fiberglas Roofing Mat. Being glass, the noncellular fibers will not rot or decay and are unaffected by high-temperature applications of bitumen. The wicking action of organic fibers, which carries moisture into the bitumen, is eliminated. The tensile strength of Fiberglas Mat is preserved through a wide range of temperatures.



OWENS-CORNING
FIBERGLAS
TM. REG. U.S. PAT. OFF.

Fiberglas is the trade name for these roofing mats and many other products made by Owens-Corning Fiberglas Corporation of, or with light, strong, pliable heat—and moisture-resistant, ageless glass fibers.

THE MOST ECONOMICAL AUTOMATIC CONTROL FOR ANY SYSTEM



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Radiant Heat FOR
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WHETHER radiators, convectors, radiant baseboards or piping concealed in ceiling, walls, or floors are used . . . Thrush Flow Control System of Warm Water Heating provides the most economical and satisfactory method of assuring continuous radiant heat. Heating comfort is automatically maintained without continuous Circulator operation. Thrush Radiant Heat Control, operating on a fraction of one degree, prevents fluctuation in room temperature—shortens running time of firing unit. For more information, write Dept. H-8, or ask your wholesaler.

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RADIANT HEAT CONTROL

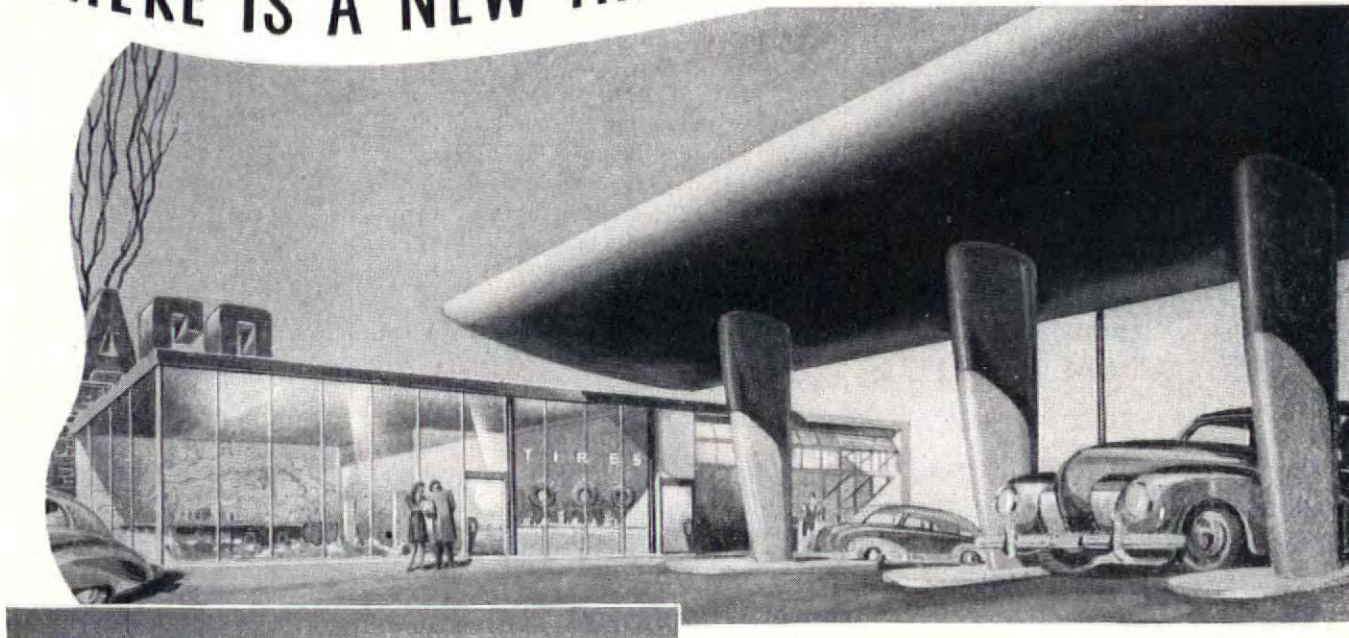
No. 198
Relay
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Patented
and
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THRUSH WATER
CIRCULATOR

H. A. THRUSH & COMPANY + PERU, INDIANA

THERE IS A NEW TREND IN STORE DESIGN



Robert Alan Jacobs' conception of a Service Station

• "The attempt here is to put all cars under cover, with covered access for the passengers to the rest room and covered access for service station attendants from the lubritorium or sales office to the car itself.

"The idea of the snack bar is to encourage the motorist to relax en route rather than to dash in and out. This will reflect favorably on sales.

"The powerful motive of the 'airplane wing' supported on hollow metal piers could become the trade-mark of the particular oil company which operates the chain of service stations. It could be easily prefabricated and shipped, as could the station itself. It does definitely do two things: it stands out obviously as a shelter for automobiles and gives direction to the station itself.

"In the lubritorium, stock garage doors are used, with glass instead of plywood panels. Plate Glass is used in the rest room and sales room. The rear wall of the rest room is in wine Carrara Glass. Through the sales room and other walls of the rest room, different color Carrara or paint may be used. The exterior of short side of the lubritorium is of Carrara Glass, with free standing letters showing the name of the company on the upper left hand corner."

Ely Jacques Kahn
Robert Allan Jacobs
Architects

THE adaptability of Pittsburgh Glass and Pitco Store Front Metal to a wide variety of designs—and the consistently high quality of these products—make them preferred, by architects all over America, for store front and interior work.

In 23 leading retail magazines, Pittsburgh Plate Glass Company advertising is telling merchants about these products, is urging retailers to consult their architects about modernizing their stores.

You are assured of prompt, helpful service by a nationwide system of "Pittsburgh" branches and dealers.



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

"PITTSBURGH" STORE FRONTS and INTERIORS



"PITTSBURGH" stands for Quality Glass and Paint

PITTSBURGH PLATE GLASS COMPANY

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Please send me, without obligation, a free copy of the book, "How Eye-Appeal—Inside and Out—Increases Retail Sales".

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LIGNOPHOL

**Keeps Floors Looking
Their Best Longer!**

Wood floors stay beautiful longer . . . and floor maintenance is reduced . . . when you apply LIGNOPHOL—the one-application wood preservative and finish.

LIGNOPHOL is more than a surface treatment. It virtually becomes part of the wood itself, strengthening the fibres exposed to traffic. That's why it's so much better for heavy service floors. In addition to sealing the surface, LIGNOPHOL serves to an appreciable extent as a dampproof . . . resists deterioration . . . retards shrinkage, warping, cracking, curling and splintering . . . preserves, restores original appearance by highlighting natural beauty of the wood.

Economical LIGNOPHOL is applied in one easy application . . . and with proper care adds many years to floor life. Will not mar, chip or peel. For heavy service, standardize on LIGNOPHOL Penetrating Finish. And remember LIGNOPHOL Quick-Drying or LIGNOPHOL Wax Finish for floors subject to normal service.

See SWEET'S for further information, and for descriptive literature write Dept. A8

EASY MAINTENANCE

Keep wood floors (linoleum, too) in spotless condition with FLOORLIFE CLEANER. "It waxes as it cleans". For high-gloss finish, specify SONOSHEEN Waxes — either self-polishing or buffing (liquid or paste) type.



Floor Treatments • Waxes • Paints and
Protective Coatings • Concrete and Mor-
tar Admixtures • Waterproofing and
Dampproofing • Caulking Compounds
Roof Coatings

IF IT'S
WORTH BUILDING
IT'S
WORTH SAVING

Building Products Division, **L. SONNEBORN SONS, INC.**, New York 16, N. Y.
In the Southwest: Sonneborn Bros., Dallas 1, Texas

ing steadily upward, the American Iron and Steel Institute threw cold water on over-optimism by predicting a "grave shortage of scrap." Supplies of scrap at steel mills are little better than in 1942 when many an open hearth furnace was idle for lack of this basic ingredient. Battlefield scrap has not come back to the U. S. to the extent anticipated, and auto graveyards are using scrap to patch up the nation's limping jalopies. Best solution to the problem is suggested in the Institute's invitation: "Everyone who wants to obtain steel can help himself to get it by immediately starting scrap into the channels that serve steel mills."

Encouraging for the long pull but promising no assistance for Building during 1946 is the string of new building materials plants announced last month. The biggest: a \$1 million asbestos cement products plant to be built for the Paraffine Companies Inc. in Redwood City, Calif., the first such West Coast plant.

While the picture of building materials production gets a little brighter each month, progress is slow, and manufacturers' and dealers' stocks are still practically nil. Not before next spring is a semblance of normalcy expected in the relationship between supply and demand.

PEOPLE

NHA TECHNICIAN

Hauf heads technical branch, will set up prefab standards.

Key control valve of NHA's guaranteed market plan, will be the newly reorganized Technical Branch, charged with establishing standards for new products and construction methods.

Reni News Photo



Hauf

Last month Expediter Wyatt appointed Harold O. Hauf, on leave as Associate Professor of Architectural Engineering at Yale, to head the section. Hauf, who oversaw the design of all Navy hospital and personnel structures during the war, is 41, a graduate of the technical schools of Michigan and Yale. In the Bureau of Yards and Docks, he was right hand to Admiral Kirby Smith, now NHA's Deputy General Expediter.

(Continued on page 26)

FREE!

*for the return
of the coupon . . .*



**A BOOK THAT ANSWERS
THE PROBLEMS OF THE
CHURCH ORGAN
COMMITTEE**

This is not a "piece of advertising". It is the most comprehensive collection of information ever compiled between two covers on the subject of planning for, selecting and installing a new church organ. It is written in non-technical language, but from the architectural and engineering viewpoint. Until—soon—you can see and hear the new Wurlitzer Organ, this book will answer your most perplexing problems and enable you to plan intelligently and scientifically. Yours for the return of the coupon at the bottom.

Organ Division
The Rudolph Wurlitzer Co.
North Tonawanda, N. Y. Dept. AF-8

Your
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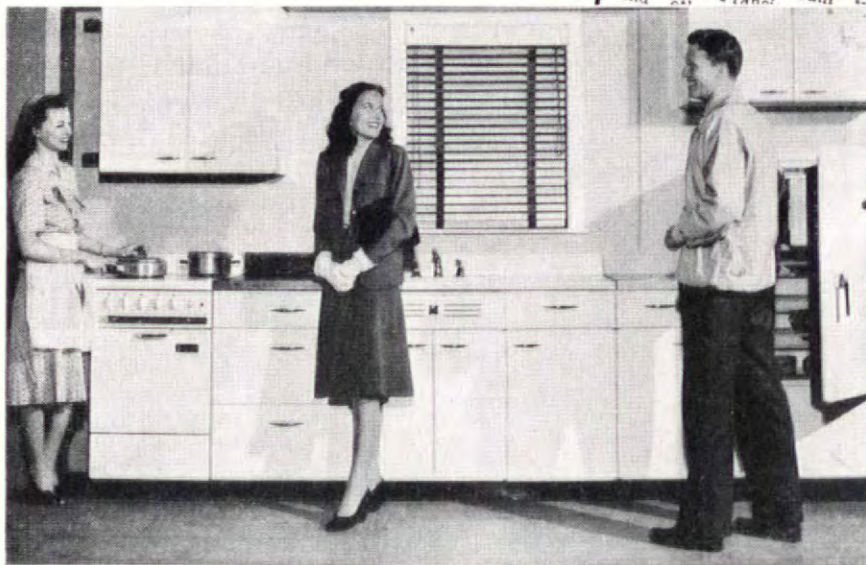
Your
Church

Your
Address

Builders Benefit from Hotpoint Plan

*Nation's Press Gives Major Space to Stories
on G.I. Electric Kitchen Allocation*

NEWSPAPER editors from coast-to-coast are giving big space to Hotpoint's HERE TODAY KITCHEN program. The widespread interest in the allocation of complete Hotpoint electric kitchens to builders for G. I. homes is evidence of Hotpoint leadership in the appliance field. Sharing benefits with the prospective G. I. home owners are the builders selected by Hotpoint to participate in this public-spirited program. Hotpoint quality kitchens plus personal publicity, national and local, benefit them... enhance their reputation... and help to secure their place in the home building future of America.



(PHOTO IN CHICAGO DAILY NEWS)

(THE NEW YORK TIMES)
**Veterans Will Get First Electric Kitchens
In Allocation Starting on June 15**

CHICAGO, June 10—Edison General Electric Appliance Company announced today its first 1,000 all-electric kitchens will be allocated to war veterans building new homes. The units, including a stove, refrigerator, sink and five matched base and wall cabinets, will be allocated between June 15 and Aug. 15.

This equipment comprises what the company describes as a "basic kitchen," and will cost approximately \$450 to \$500. The veteran also will have the privilege of buying additional items of the company's line, including a water heater, clothes washer, ironer, dryer, dishwasher and garbage disposal unit.

The basic units will be distributed on a country-wide basis with New York getting approximately 150, Chicago will be allotted 150, Los Angeles, Calif., 150, and San Francisco, Calif., 150.

Ward R. Schafer, vice president in charge of sales, said the program has three objectives: Promote the company's products, promote the "package or ensemble kitchen idea," and "break the stalemate cause needed completed houses become unavailable."

He said electrical appliance production has been disappointing and companies will introduce identical or similar merchandising programs. The package unit plan will be carried out in accordance with the company's previously announced policy. These include adherence to 1942 price levels or less with a few minor exceptions and uniform national prices to protect buyers from unauthorized increases for taxes or shipping costs.

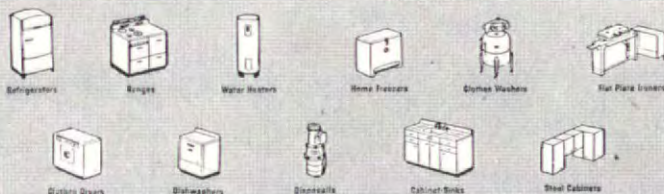
HOTPOINT REGIONAL SALES OFFICES

570 Lexington Ave., New York City 22, Plaza 3-9333.
304 Red Rock Building, Atlanta 3, Walnut 2959.
1456 Merchandise Mart, Chicago 54, Superior 1174.
Western Merchandise Mart, 1355 Market Street,
San Francisco 3, Underhill 2727.

In most states, all Hotpoint kitchen equipment can be included in F. H. A. insured mortgages.

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Hotpoint
ELECTRIC KITCHENS
DEPENDABILITY ASSURED BY
40 YEARS EXPERIENCE



INSULATE AS YOU BUILD



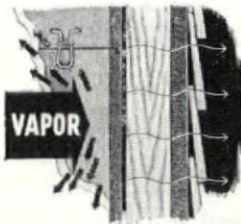
... Insulation Outside:

Insulite sheathing builds a strong, weather-tight, windproofed wall ... providing effective insulation.



... Insulation Inside:

Insulite Sealed Lok-Joint Lath provides a strong, rigid plastering surface ... plus a second wall of insulation.



Vapor Control

Insulite Lok-Joint Lath, with asphalt barrier against the studs, retards vapor travel. And Insulite sheathing, being permeable to vapor, permits what little vapor that escapes the barrier to pass on toward the outside.

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

INSULITE

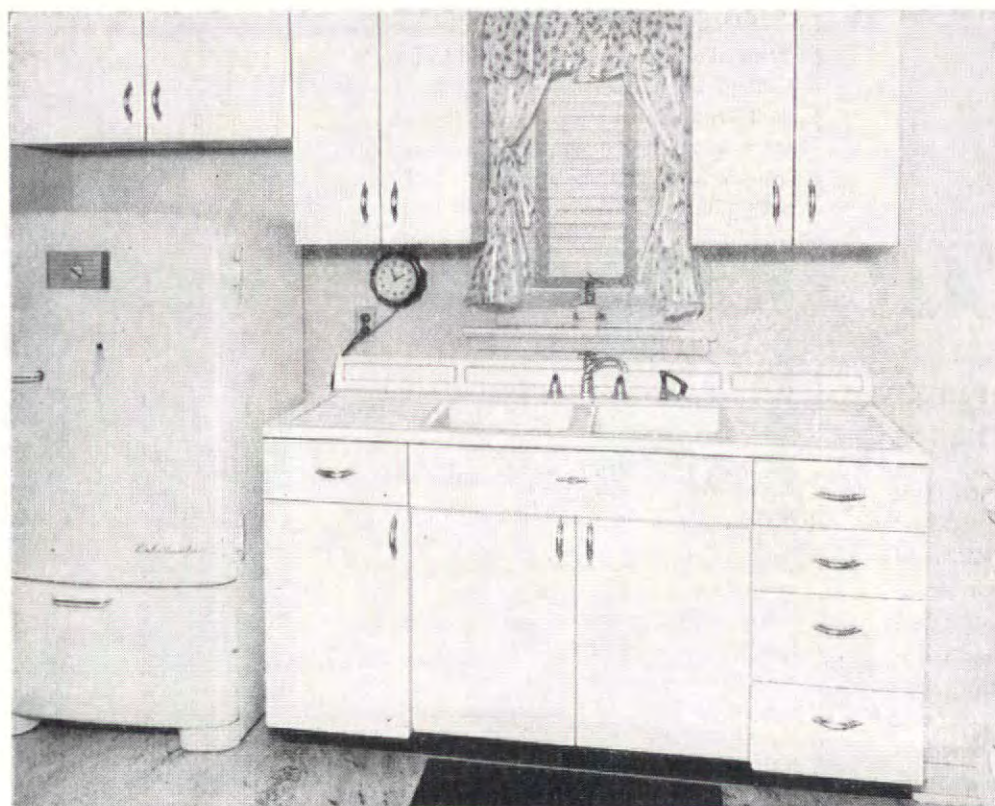
Insulates as you build

INSULITE
Minneapolis 2,
Minn.



The Original and Best* Wood Fibre Structural Insulating Board
*As Determined by Leading Testing Authorities.

WHY PROMINENT BUILDERS USE YOUNGSTOWN KITCHENS



This is typical of many Dvorak-built homes and housing units. The compact, good looking Youngstown Kitchen is shown at the left.

ROBERT E. DVORAK and his son, who have built and sold hundreds of attractive low-cost homes in the Cleveland area.



**"Attractive, well-planned . . .
buyers like them"**

ROBERT E. DVORAK, Cleveland, Ohio

THE modern appearance of Youngstown steel kitchens, their efficient use of space, and their durability, are a distinct contribution to the sale of our homes," says Mr. Dvorak. "We consider them indispensable to our merchandising program.

"In addition, their all around economy ties in perfectly with our constant aim to cooperate with the National Association of Home Builders, in their campaign to provide better homes for less money. Equipment like this makes it far easier for private enterprise to take care of all the nation's housing needs."

Mr. Dvorak is only one of many large-scale builders who know from experience the many advantages of Youngstown Kitchens. You should have complete information on this modern steel equipment that makes homes easier to sell. Let us send you the booklet, "The Builder's Kitchen," that gives all the facts.

MULLINS MANUFACTURING CORPORATION
Warren, Ohio

Porcelain Enameled Products • Large Pressed Metal Parts
Design Engineering Service



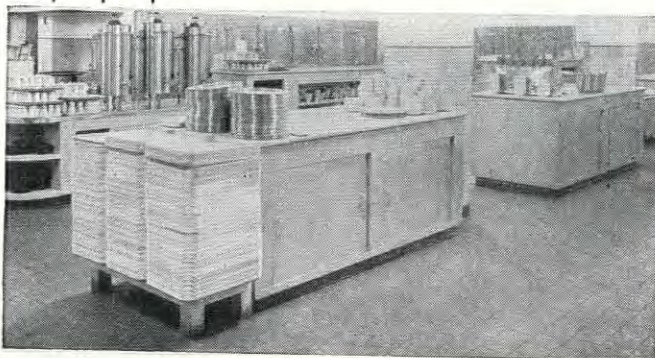
Youngstown Kitchens

BY MULLINS

ORDERLY! EFFICIENT! ECONOMICAL!

FOOD SERVICE EQUIPMENT THAT MEETS YOUR NEEDS

• Efficiency in the preparation and serving of food is the product of sound thinking. The factors of space, equipment and maintenance can be carefully integrated to produce a unit effective in design and operation. Polhemus representatives have a knack for thinking in terms of a sound working plan. Jobs that not only "look well, but work well."



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POLHEMUS

representatives are prepared to assist you in problems of:

LAYOUT & PLANNING MANUFACTURE & INSTALLATION

Modern up to the minute ideas are employed against a background of half a century's experience in the kitchen equipment field. Consult us in your planning of commercial and institutional food serving facilities.

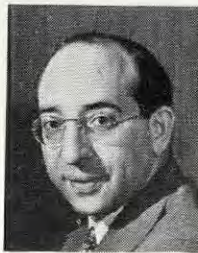
P. B. POLHEMUS CO., INC.
ROSELLE, NEW JERSEY

11 Park Place New York 7, N. Y.

FPHA CHIEF

Klutznick resigns; Krooth pinch-hits.

With the resignation of able Philip M. Klutznick as Commissioner of FPFA, President Truman had a vacancy in his top housing command. Klutznick, the hardworking Omaha lawyer who came down to Washington to lend housing a hand in 1941, was



Krooth

finished with being the nation's biggest landlord. Despite Presidential urging, last month found him back in the quiet of his private law office. "My ambition," he had said more than a year ago,

"was and is to be a reasonably good lawyer and take excellent care of my family." To the empty post — many thought it a hot seat — went David L. Krooth, the agency's chief counsel, as acting Commissioner. Dave Krooth, a Washington trooper for thirteen years, has been FPFA's chief lawyer since 1942. In 1933 he was appointed counsel to the Federal Emergency Administration of Public Works and upon establishment of the U. S. Housing Authority in 1936, became that agency's legal director.

Krooth's temporary job may stretch into months, pending the W-E-T bill's fate.

LABOR

LOGGER LOGIC

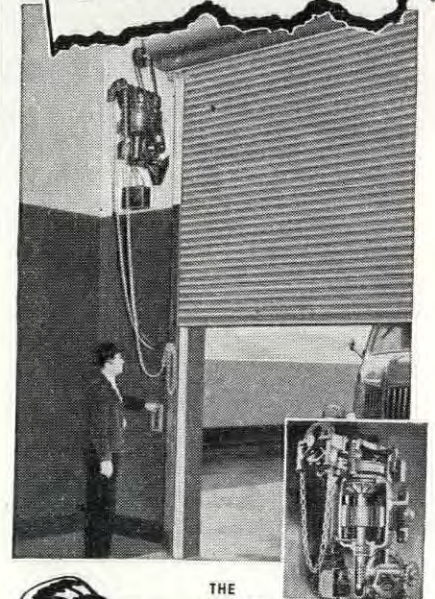
Use of wasted timber recommended to relieve lumber shortage.

Now that price controls were down, the lumber industry could take its shoulder from the door. The break-through in prices seemed to promise that mill-hoarded boards would soon be out of hiding. But would the flow of new timber to the mills also rise as promised? West coast lumber workers, the strapping, scrapping men who start Douglas fir and redwood on their journey into the building market, spoke up scornfully: "The shortage will continue because most of the operators are a damned sight more interested in high prices than in production. You do not produce logs and lumber with profits, but with efficiency and labor".

The harumphing voice was that of James Edgar Fadling, president of the 40,000-man International Woodworkers of America. The tone was familiar—lumber operators and their employees had, long been calling each other names in true logging-camp tradition.

(Continued on page 30)

Getting down to
Brass Tacks on
DOOR NEEDS



THE KINNEAR MOTOR OPERATOR

**HERE ARE
THE
FACTS!**

RESILIENT STRENGTH — a key feature of the time-proved Kinnear interlocking steel-slat construction. These doors resist weather, wear, and fire; withstand extra years of constant use.

SMOOTH OPERATION. The coiling upward action of Kinnear Rolling Doors is quick, smooth, and easy. Every installation is individually engineered.

SPACE-SAVING. The steel-slat curtain rolls upward and out of the way, never impedes traffic or plant activity. All surrounding space is fully usable.

ECONOMICAL. Durable space-saving Kinnear Rolling Doors increase plant efficiency, save time, manpower, and maintenance costs.

MOTOR OPERATION. Motor-operated Kinnear Rolling Doors offer extra time-saving convenience, and promote prompt door closure that cuts heating and air-conditioning costs. Push-button controls can be placed at any number of convenient points, and any number of doors may be centrally operated. (Kinnear Motor Operators may be added to any Kinnear Rolling Door.)

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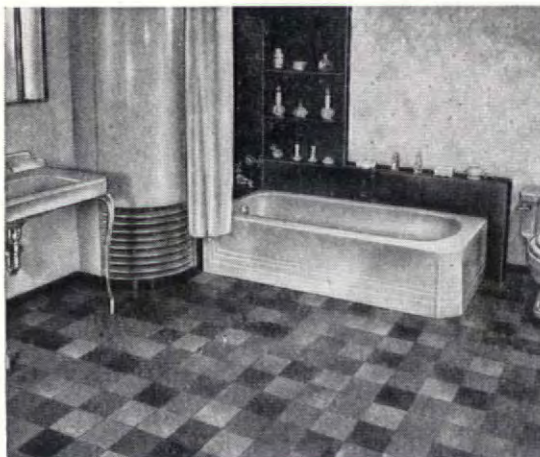
Since 1899 Kencork's been the tested—the preferred—cork flooring for museums, libraries, offices. And it still holds the lead in that field. But now, forward-looking imaginative decorators and architects are putting Kencork in the home—in bedrooms, baths, nurseries and living rooms. And folks love the idea. So much so, that we're telling readers of *House & Garden* and *American Home* all about Kencork—in full-color, full-page ads.

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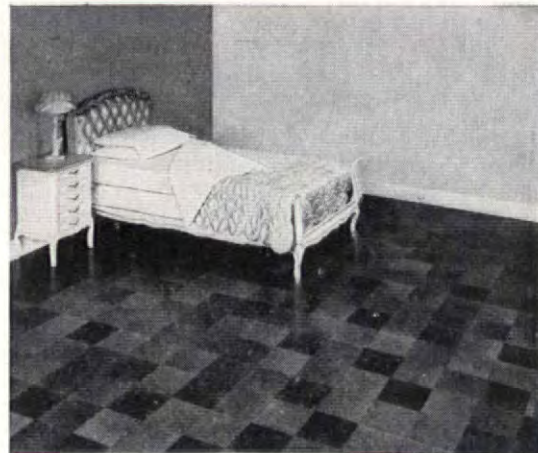
You'll want to be prepared for the inquiries that will come your way. So read all the facts about this wonderful, practical floor covering in our full-color folder. We'll send it free. David E. Kennedy, Inc., 69 Second Avenue, Brooklyn 15, N. Y.



Consider KENCORK for Living Rooms . . . its rich tones of tans and browns mean smartness underfoot . . . and it shrugs off stains, stands up under steady use.



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the friendly floor
(Trade Mark Reg.)

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EVEN BETTER COLD PROCESS ROOFS WITH SPRAY APPLICATION!



Designed especially for Spray Application, Flintkote's Nu-Static* and Fibrex* II are new and improved versions of Flintkote's famous Cold Process Static* roof coating and Fibrex* adhesive.

Cooperative tests between Flintkote and the Alemite Corporation, maker of fine lubrication pumping equipment for over 25 years, have proved the efficiency of spray application. Alemite now makes available to roofers a "Package Unit" of spray equipment—equipment designed especially to handle fibrated roofing materials.

*Trademark

FIRST to bring practical Cold Process Built-up Roofs to the industry, now Flintkote pioneers again... with *Spray Application*. A "mechanical" method of assembling this "factory pre-fabricated" roof.

In addition to retaining all the advantages of the now-famous Flint-

kote Cold Process Roof, Spray Application speeds up new construction or roof maintenance to an amazing degree...with proportionate savings in labor costs!

And there are these other advantages:

- Improves workmanship on the job by enabling the application of more uniform coatings. Eliminates high and low spots, streaks and bare spots.
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The next time a roofing job is under consideration... specify Flintkote Cold Process materials—applied by spray. We'll be glad to send you full details. Just mail the coupon. The Flintkote Company, 30 Rockefeller Plaza, New York 20, N. Y. Offices in principal cities.

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The average layman senses rather than completely understands quality construction in a house or building. And such externals as fixtures and appliances can help create most favorable impressions. Thus accepted products — of reputable manufacturers — aid the architect by dramatizing his building's quality of construction.

In the field of home refrigeration, no name is better known, or more respected, than the name Frigidaire. The more than 7,000,000 Frigidaire Refrigerators that have been built and sold testify as to the popularity of Frigidaire with the public. And

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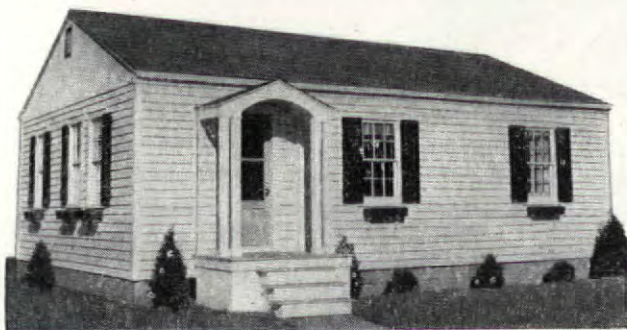
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AVAILABLE Limited Number Distributor Franchises For PREFAB Homes



AQUISITION of the Arthur A. Johnson-Bosert-Baily Mills at Patchogue, Long Island, New York, consisting of an 8½ acre tract and 19 buildings with 143,500 square feet of floor space, enables us to greatly expand our production of Cape Cod Prefabricated Homes, Log Cabins, Camp Cottages, Barracks, Tool Houses, Play Houses, etc.

The new facilities will expand the production of the four present manufacturing plants to a combined output of over 4,000 homes a year.

We now have 58 established retail distributors representing the company on an exclusive franchise basis at strategic points in the East. The Distributors Division will now be enhanced by the appointment of at least 50 additional retail distributors and dealers in territories not yet assigned.

Each local distributor will have a trained sales force to provide veterans and other worthy families all possible assistance in obtaining suitable homes within their means, in compliance with government regulations as well as erection and installation of utilities.

Respective dealers and distributors interested should contact us promptly regarding open local exclusive territories—and for full details about our homes, exclusive franchise and excellent opportunities our program offers alert merchandisers.

United States Prefab Corp.

Affiliates: Adirondack Log Cabin Co.—Prefab Housing

143 E. 45th Street, New York City

Note: Manufacturers of lumber, millwork, plywood and various building products are invited to contact our Purchasing Department. We'll be buying regularly, on contract, large quantities of such materials.

But Fadling, a red-head with something of the look of fellow CIO-chief Walter Reuther, went on from there. Last month he offered the industry some sharp and plausible advice. There were no strings attached; the IWA, having just gained a five cent boost in hourly pay, was "not contemplating any wage demands at this time".

The IWA recommendation—forwarded to much-advised Wilson Wyatt—stressed one obvious, but unpublicized way to break the lumber shortage—re-logging. In dragline operations by large lumber-cutters, only the top grade logs are generally removed since in most logging contracts the company pays only for the logs removed from the land. As a result there are thousands of acres of logged-over land covered with downed timber—much of it excellent—left behind to rot when the operator moves on to the next stand.

Fadling suggested that small lumber firms, aided by government subsidies, go into these areas to salvage the fallen lumber. Small-operator resale crews, he said, could move in with equipment costing under \$3,000 apiece—a "cat" with an arch crane, and a portable mill.

Fadling, who has felled and bucked and rigged timber since he was 21, said it was impossible to estimate the amount of lumber that could be brought into the market by this means—but the quantity was huge.

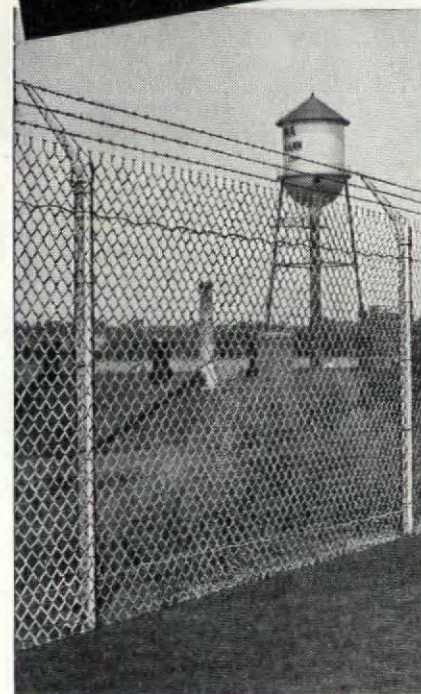
NO STRIKE PLEDGE

Union leaders trade work agreement for voice in Wyatt's policy making.

As it does in every housing emergency, building labor last month signed an agreement with government pledging maximum cooperation and a virtual moratorium on jurisdictional disputes and any work stoppages which would hamper the emergency housing program. In return, labor won the appointment by Wilson Wyatt of a Construction Labor Advisory Committee. Chairmanned by Richard J. Gray of the Bricklayers, Masons and Plasterers International Union, the Committee will advise Wyatt on "labor policies and procedures relating to construction and construction standards".

The only question left unanswered in the government-labor negotiations was whether or not labor's agreement will produce more results than have previous pacts containing similar promises. Would labor, for instance, recognize that prefabrication must play a big part in the housing program and help rather than hobble the prefabricated house program? In Champaign, Ill., last month the answer was apparently "No," for there union labor refused to assemble the prefabricated houses which National Homes Corp. had delivered to accommodate veterans at the University of Illinois.

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... THE BENDIX AUTOMATIC HOME LAUNDRY COMPLETES THE PLAN

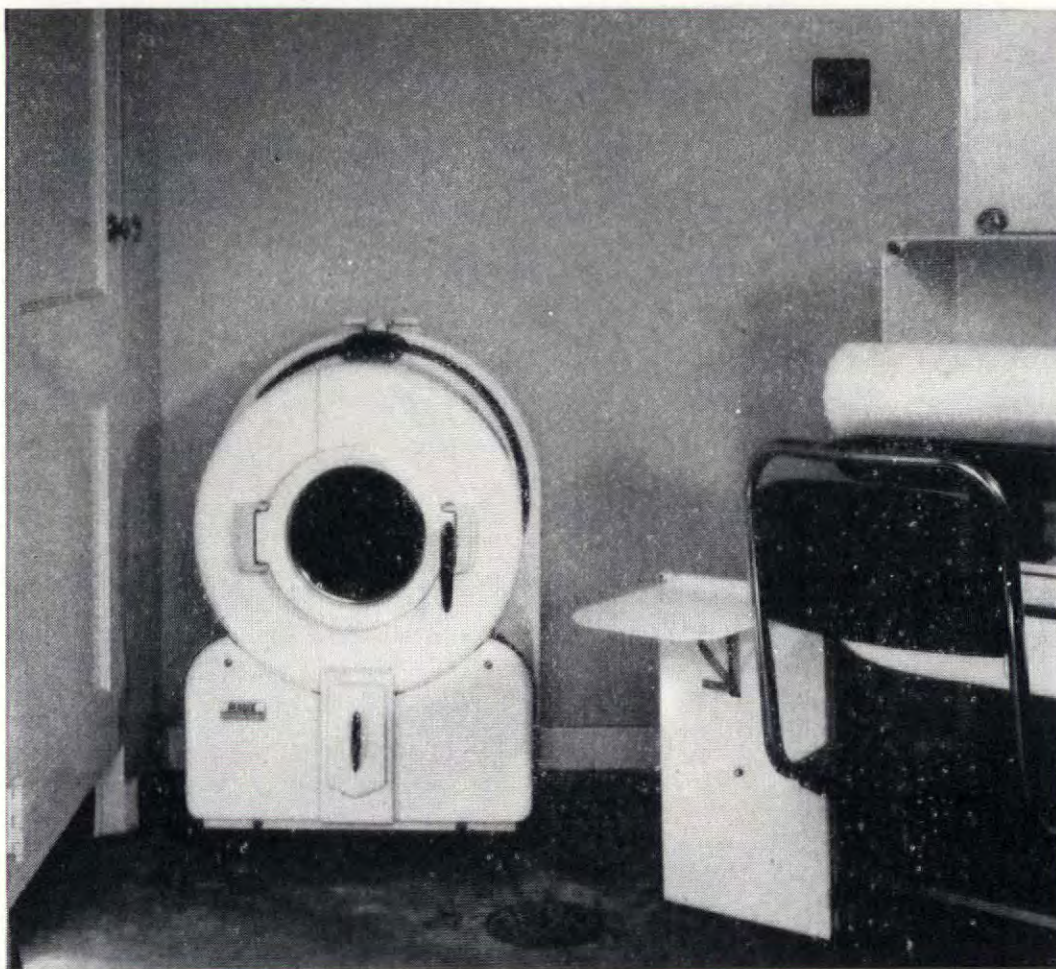
In last month's Architectural Forum you read of these houses, built to limitations of space and budget, yet planned for full house-keeping efficiency. That's why each house has its separate laundry room—in which only the BENDIX can fully complete the plan.

Here's tangible, concrete evidence that modern builders recognize the sales appeal of a home with a laundry built around the BENDIX. For this machine with its compact efficiency, means workless washing, no set tubs, no slopped floor.

The modern woman realizes that washing is as much a part of her housekeeping routine as cooking. She does her cooking in a planned kitchen, wants workless washing in a planned laundry. And buys the house that offers her those conveniences.



Designed and built to the tempo of modern living . . . planned for workfree washings with a BENDIX!



Here is the only automatic washer that for nine years has proved its ability to wash, triple-rinse, damp-dry, clean itself, drain itself, and shut itself off—without any attention. No wonder women want it!

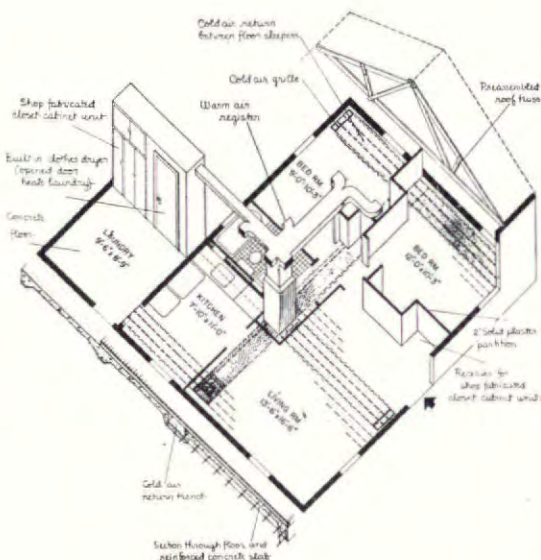
And no wonder women are deeply interested in the house whose plans include

provision for the BENDIX in its own laundry room. (In most States, the BENDIX can be financed with the house under FHA.)

Your house plans too can provide for such a laundry room with a BENDIX, though space is scanty and budget is restricted.

BENDIX^{automatic} Home Laundry

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WEATHERPROOF; PARASITE-PROOF—Now plywood turns a tougher face to wear and weather... with Kimpreg plastic surfacing! Kimpreg withstands rain, snow, abrasion and extremes of temperature. And, with panel edges properly sealed, Kimpreg + Plywood defies termites, marine borers and fungi.

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Kimberly-Clark Corp., Neenah, Wis. Please send me the new free Kimpreg Book and names of manufacturers making plywood surfaced with Kimpreg. AF-846

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PLASTIC SURFACING

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Address _____
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Ever Walk Inside

a 40-foot

SMITHway
Permaglas
Tank?



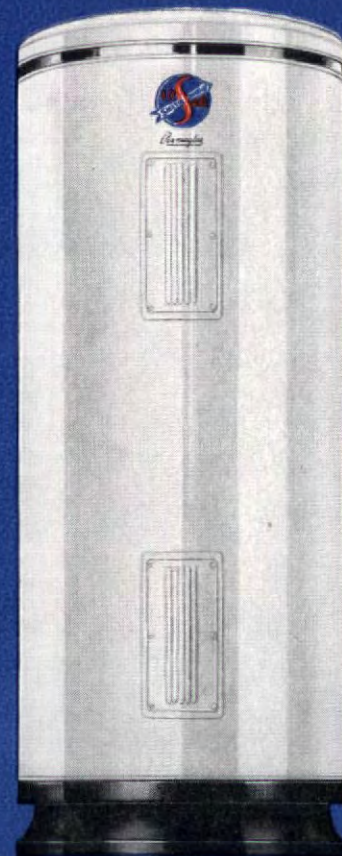
Huge SMITHway tanks like this—a single piece of glass-fused-to-steel—are used by leading brewers everywhere to guard the purity of their beers. Sparkling blue and mirror-smooth, the lustrous interior resists all rusting, staining, corroding.

That's why SMITHway Permaglas Water Heaters, too, CANNOT rust or corrode under *any* water condition. The glass-fused-to-steel heater tank does away with "tank spots" on clean laundry and tank corrosion dirt in the bath.

The Permaglas Water Heater stores and delivers hot water as clean as the source itself!

The same manufacturing mastery that produces huge tanks for brewers and food processors, produces Permaglas Water Heaters.

Masterpieces of engineering and modern styling, they equal the finest "homes of tomorrow" in efficiency, dependability, operating economy. Gas and electric models. Write today for "The Inside Story of Permaglas."



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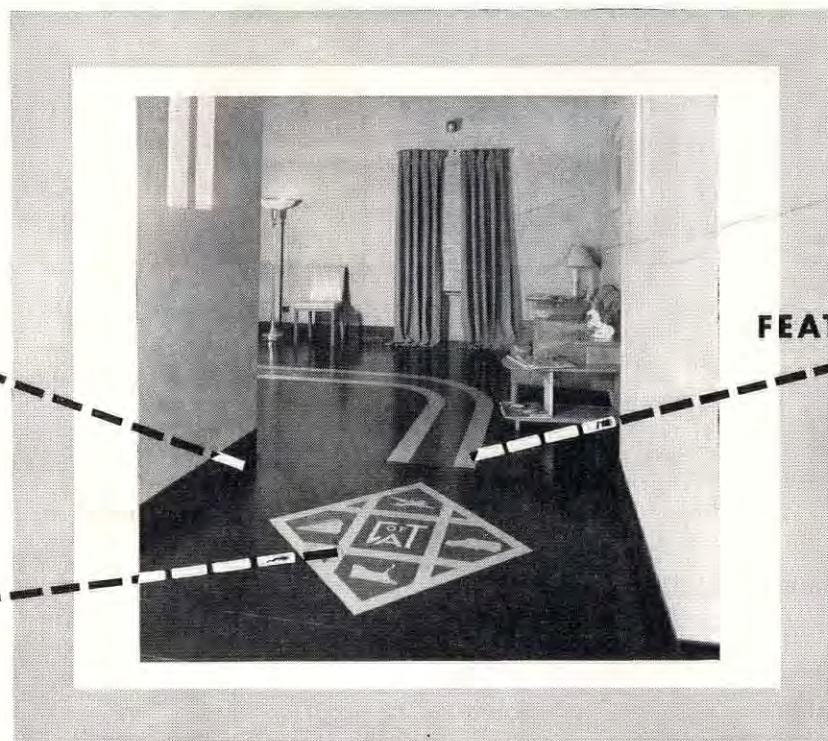
MORE DESIGN FREEDOM

When you use these Tile-Tex "Extras"

COVE BASE

FEATURE STRIP

INSERT



When you specify Tile-Tex Asphalt Tile, you have at your disposal many tools for executing the floor designs you need.

First of all, there are 36 plain and marbled Tile-Tex colors in 11 sizes to provide you with endless combinations for standard and random patterns.

But colors and sizes are only part of the story! By using Tile-Tex accessories—inserts, feature strips, cove bases and reducing strips—you can be sure of complete expression of your talents for floor design.

Nothing, for instance, gives a floor as much individuality as a colorful insert. These floor "stoppers" are cut to your specifications in the Tile-Tex Design Department. We can also suggest various floor treatments employing single or multiple inserts.

Tile-Tex feature strips are ideal for marking out certain floor areas, for separating border and field tile or for directing the flow of traffic on functionally designed floors. Reducing and edging strips in

matching or contrasting colors can be used to add further interest to the decorative scheme.

Possibly we can be of some help to you in connection with the use of Tile-Tex accessories. Write us on this or any other problem pertaining to asphalt tile floors.

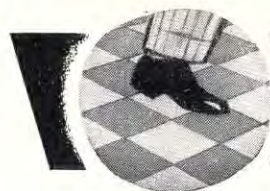
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FOR THE BEST IN FLOORING



Walseal* valves and fittings

**safeguard
pipelines**



Typical private homes in which
Silbraz joints have been installed.

of private homes

SILBRAZ* joints are particularly suited in private homes for use on hot and cold water circulating lines, boiler feed lines, steam return lines, and air conditioning lines, where red brass pipe or Type B copper tube is used.

Threadless, corrosion-resistant Silbraz joints made with Walseal valves, fittings and flanges are permanent. They will not creep or pull apart, and literally make a "one-piece pipe line."

The Walworth Company, valve and pipe fitting manufacturer since 1842, offers a complete line of Walseal valves, fittings and flanges for making Silbraz joints. For further information write for Circular 84.

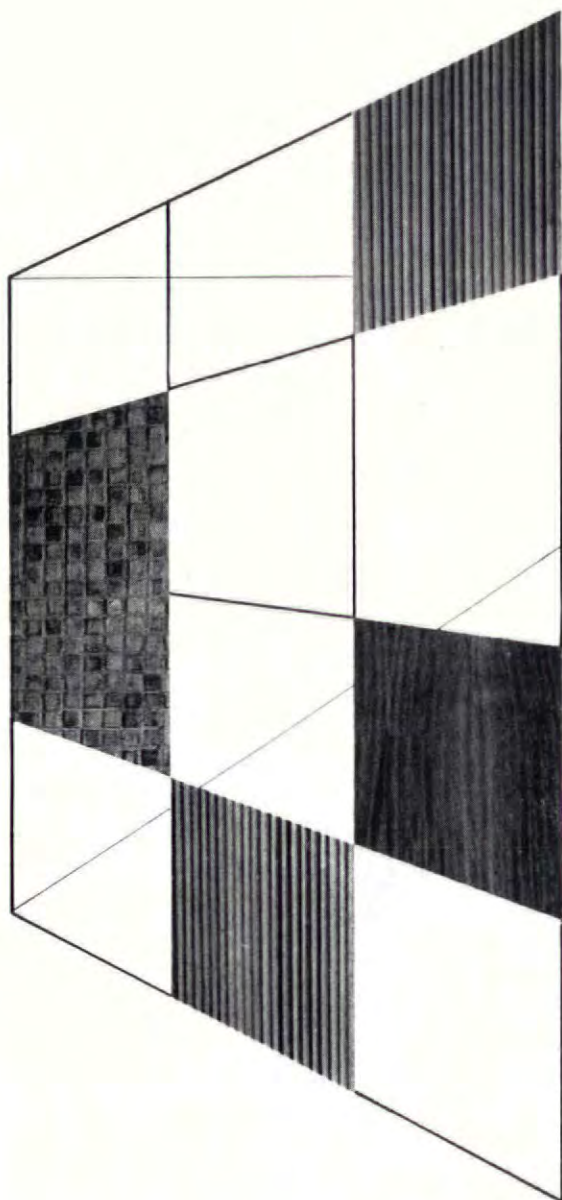
* Patented—Reg. U.S. Patent Office

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Make it a
"One-Piece Pipe Line"
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**when
backgrounds
are
foregrounds**

House & Garden goes right on showing houses and plans, knowing that Housing is the Number One interest in the nation today. The July issue sees great possibilities in the many types of wall finishes. Surfaces are considered functionally, decoratively. Texture, color, pattern all contribute to making walls a part of the room itself. There are charts to pore over, ideas to stow away. House & Garden's accurate source material on "everything to do with houses" is a constant stimulus to action.

House & Garden

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Men against Wright . . . Vet will move into house model . . . Filing the FORUM . . . Plaudits for Herrey theater . . .
Missionary sees the light on housing crisis . . . Planners' dilemma . . . More small houses wanted.

FUSE FOR EXPLOSION

Forum:

Frank Lloyd Wright's latest (FORUM, June '46) should win him the title of "Hollywood Archaeologist." Large massive piles of stone overwhelmed the ancient Egyptians, early Sumerians and primitive Mayans. However, with many years of progress, engineers and architects learned to build lighter and more daring structures until today we have the triumph of engineering and architecture—the airplane—and the many applications of that type of construction. Compare the house in Connecticut with the Fuller house. Then compare the Connecticut house with the many models of ancient temples, such as Karnak.

By the way, weren't some of the primitive temples built in a series of spirals—similar to Frank Lloyd Wright's design for the Museum of Non-Objective Art (FORUM, Jan. '46)?

A freak building is like a cuckoo clock that recites poetry on the half hour—both are very nice and very expensive, and neither add to the art or science of their development. If expense is no object and beauty secondary, I'm sure some of the writers of Fantastic Stories could invent spectacles to make Frank Lloyd Wright pay attention.

Wright's solution is a potpourri of ancient temples. The extravagant display of elementary engineering knowledge is expensive and unnecessary.

WILLIAM ATLAS

Chester, Pa.

Forum:

Most of us like Rube Goldberg's cartoons but we would hardly recommend his inventions for inclusion in an engineering textbook. Similarly, the impractical ideas of Frank Lloyd Wright should not be raved about by editors of a periodical to which young architects look for guidance.

Imagine trying to keep servants in a house in which neither their working spaces nor their living quarters have any windows.

Imagine a place "obviously laid out for group entertainment" in which the only connection between indoor and outdoor living space is a narrow winding stairway on which two could not safely pass each other. Or is it intended that visitors to the roof should return via the unprotected skylight so advantageously placed for accident purposes?

Imagine this Shangri-la(?) in a foot of snow, especially the aforementioned skylight.

Why spend money for a wide roof to keep out rain, snow and sunshine, and then cut a lot of holes in it, placed so that direct sunlight will fall on glass doors or on a reflecting flagstone or tile floor?

Why praise "integration" when guests are located an unprotected 175 feet from the main houses—next to the horses? Or is this another way of speeding the parting guests?

Imagine spending a New England winter in a living room with ten or so frameless glass doors. One would indeed agree with your comment that "although walls do exist they are unnoticeable."

Incidentally, were the plans purposely made illegible, or was it just a lousy job of presentation?

C. S. REED

Matthews, N. C.

Forum:

. . . Why do you place such a monstrosity as the "House in Connecticut" in such a place of importance? What your country and mine needs is more housing in the lower price field. After all the common man is in the majority and why not place all our energy to house him first.

D. J. HOLLIDAY

Vancouver, British Columbia

Forum:

I received your latest issue last night, and although I am not in the habit of sending letters to the editor, I have boiled over; so must forego more important things to blow off some of the steam that has been accumulating through the years—and ask for the proper squelching I must deserve from you and your readers.

Your feature article on Frank Lloyd Wright's latest monstrosity is the reason for this outburst—and monstrosity is the only word that describes it unless possibly obscenity is more in keeping. Probably he has done some great works in the past, but as a work of architecture (my definition—the art of building beautifully) this last monstrosity is in a class with Dali's paintings; it is the product of a disordered mind, or was done with the sole purpose of getting publicity.

And who wrote the tripe that accompanied the pictures? Without doubt it is the same person that rolled words around in the January issue, again about Wright. I have a sneaking suspicion that none but

Wright himself, the super egotist, could get that wild about his work. Whoever it is, he, and the FORUM in general, are in the habit of writing jargon, of using unusual words when simple words would do a better job—possibly thinking that it makes the article sound "high toned" and so appeal to the "intelligentsia" and "dilettantes," which terms are used as a reproach. Really, your writeup actually nauseated me and I have always prided myself on possessing a tough stomach.

Wright is just the fuse that touched off this explosion, I feel the same way about Neutra and many of the other "Modernists"; as I believe they are fundamentally more interested in obtaining publicity for the great "I AM" than in actually serving their clients.

And so the head of steam is somewhat reduced, and I can go back to work—open up with your broadsides about the backward, reactionary, eclectic Mr. Clark. Yours for a less hysterical architecture.

FREDERICK N. CLARK

Los Angeles, Calif.

Said the FORUM in June '46—"Many who admired the Museum for its light, pure structure and simple, unadorned curves will detest this house for its massive stonework and prolific mingling of shapes and materials." —Ed.

CRACKDOWN ON MODELS?

Forum:

Speaking of the Wright-designed bachelor bastian that appeared in your June issue, I comment from a hundred-dollar-a-month hall bedroom which I now occupy with my wife and her Bedlington terrier. All three of us feel that one of the great American administrative blunders of the year was not extending the Wyatt program to take care of models. Or perhaps some law could be passed to bring the stature of veterans down to quarter-inch scale. At any rate, with the housing shortage looming as nothing short of a national disgrace, no laurels should go to architect Wright or client Loeb for such a vulgar display. Rumor has it that money is plentiful but does that mean that it should be spent heedlessly? Why couldn't patron Loeb have settled for a modest cardboard facsimile and put up a man-sized shack or two with the change. Or, as the Bedlington says, "Even a dog-house would do."

HUNTER WOLFF, *Spouse and Pooch*
New York, N. Y.

(Continued on page 36)



THE combined research, production and distributing facilities of three famous companies are now offered to American industry by The Colorado Fuel and Iron Corporation. Thus, a new nation-wide service is made available in steel, wire products, and allied specialties under the trade-marks of Wickwire Spencer, Calwico, and CF&I—each a standard of industrial progress in its own right.

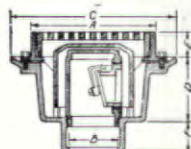
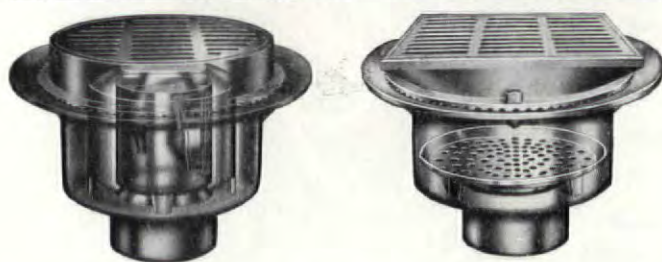
The East and Middle West will continue to be served by Wickwire Spencer Steel Division. The Colorado Fuel and Iron Corporation will serve the Plains and Mountain States with CF&I

facilities as before plus the products of the eastern and western divisions. The California Wire Cloth Corporation (a subsidiary) will supply its own products and in addition the products of the other two divisions to Pacific Coast customers.

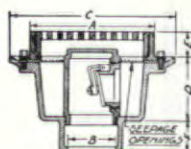
The well-earned reputation for quality which these three companies have enjoyed will be maintained in the new and greater Colorado Fuel and Iron Corporation.

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THE CALIFORNIA WIRE CLOTH CORPORATION <small>EASTERN SALES OFFICES 500 Fifth Ave., N.Y. 18, N.Y.</small>		<small>EXECUTIVE OFFICES DENVER, COLORADO</small>		<small>WEST COAST OFFICES OAKLAND, CALIFORNIA</small>
				<small>KEY CITY OFFICES SEE PHONE BOOK</small>

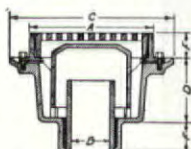
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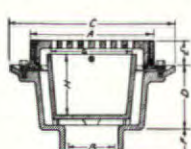
NO. 860 WITH VALVE AND BELL TRAP



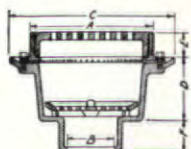
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FILING TIPS

Forum:

Now that the havoc you created in thousands of architect's files by changing the size of your format has been smoothed over, thanks to a number of ingenious ideas, it seems that some of these are worth recording. There is first the system of folding the pages double and marking the subject matter on the outside. Then there are some who are grateful for the lag in work brought about by price limitations because it gives them time to clip the margins so the sheets will fit a legal folder. The third and most prevalent system seems to be stacking the FORUMS intact, taking the catch each January and June to its final resting place under the eaves. Needless to say with your competitors' neat, uniform pages sliding efficiently and unobtrusively into any file, the unwieldy FORUM is looked on less and less lovingly by architects and secretaries. Not that this is any reflection on the quality of your articles or the impressiveness of your advertising volume. As a substitute for the easy-to-file spiral issues, has anyone ever thought of perforating the editorial pages, laying them out with a wide enough margin to fit a legal folder in width?

DON FREEM, Designer
Sarasota, Fla.

ALLEN'S KIDNEY

Forum:

I join in the claque for Allen. The encore which I demand, however, is not for more work from Allen, but for examples of Allen's work. Show us some of his two-family flats and store remodeling. Let's have a look at the stripe of his architectural kidney.

ERNEST KREMERS

Niagara Falls, N. Y.

Well, Roger?—Ed.

FIREPLACE FOREVER

Forum:

Am I too late to protest against a letter published last January by Dr. Renfreux Kirsche in which he denounced the fireplace as an evidence of "cultural lag"—"a sentimental attachment which drags us back from the threshold of the atomic age." I did not presume to express what I thought when I read it because, after all, I am not the "Directeur" of anything but simply the wife of an architect who lives in a house with a fireplace. It was not until April when you printed the picture of Dr. Kirsche and his goose egg gin drink and George Cole's letter commending his attitude on the fireplace as "evidence of his rare gifts" that I

felt impelled to write if only for the lining of your waste basket.

Granted that the fireplace no longer functions as a heating or a cooking agent in the house of today, I maintain that it has a far more important and subtle function. In this day of rush and frustration when home tends more and more to become a way station, I give our fireplace full credit for bringing the family together for these interludes of relaxation and companionship which we enjoy. Everyone looks forward to Sunday supper before the fire with lights turned low and music in the background. Corny? Perhaps, but even corn is desirable if it helps to preserve the relationships between members of a family.

... I trust Dr. Kirsche is not so civilized that he denies the fascination which a bright fire has for people of all ages. While he sponsors the atomic bomb which is truly playing with fire in its most advanced form, I shall retain the comfort and beauty and companionship of our hearth. I for one should be very sorry to have fire appear in our home only under a kettle on the stove or in a pilot light or on the end of a cigarette.

MRS. ARTHUR C. SWAB

Inglewood, Calif.

DILUTED MIES

Forum:

... A few comments that occurred to me as I read "A Portfolio of Work by Bertrand Goldberg."

To begin with Goldberg's architectural philosophy may be straight Mies but the results as evidenced in the examples are Mies—in a diluted form.

We find ourselves constantly admiring the creations of great architects such as Wright and Mies, but how can we consciously plagiarize their efforts and still remain sincere in our work? Are we not nourished and inspired by the genius of such men? Should their leadership induce an incentive on our part to increase our horizons or should it impell in us a worshipful acceptance of their approach to architectural problems.

To quote Mr. Goldberg, "The creation of a workable house is easy; the question is, how to make it beautiful." Is not a truly workable house beautiful? Are not the "characteristics" of a house determined by such things as site, condition, climate, orientation, native materials, family requirements, etc. And is it not the way in which these characteristics are solved that determine what may be defined as beautiful?

JAMES J. CHIARELLI

Seattle, Wash.

(Continued on page 38)

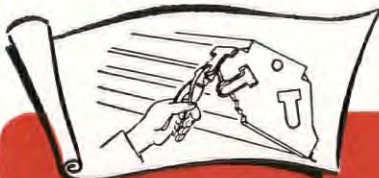
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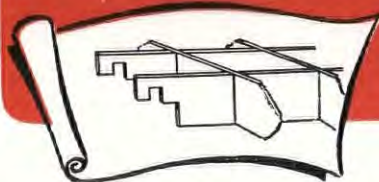
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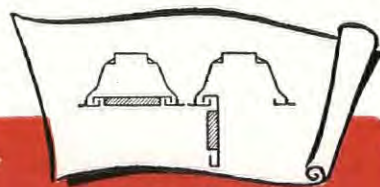


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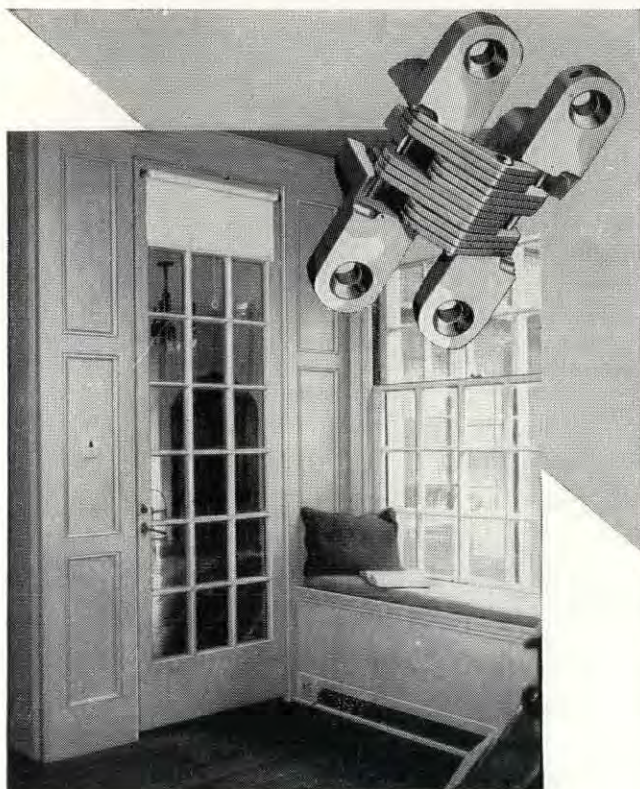


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D'HARNONCOURT KUDOS

Forum:

Since January when "the new FORUM" emerged in all its glory, I have been impressed with the excellent use of color to accent pages of black and white illustration. The best one to date, I think, is the article in your May issue entitled "Art of the South Seas." With only a few colors placed judiciously you have recreated the atmosphere of the exhibit rooms much more effectively than with a lengthy written explanation.

The exhibit itself, in its skillful manipulation of space, line and color, holds interest far beyond museum design. The principles developed by Mr. d'Harnoncourt could be applied with equal success to house design and would immeasurably increase the flexibility and variety of the architecture.

RONALD MERCER

St. Louis, Mo.

GADGETRY

Forum:

After glancing over the last few issues of FORUM, I came to the conclusion that it should be known thus:

THE ARCHITECTURAL FORUM

Magazine of Built-Ins,

or more precisely:

THE ARCHITECTURAL FORUM

Literature for Gadget Manufacturers.

KENNETH M. NISHIMOTO, *Architect*
La Crescenta, Calif.

Excuse us while we change tubes in our push-button fluorescent pencil.—Ed.

Forum:

Herman Herrey's aisle arrangement (FORUM, June '46) is one of the few sensible innovations I have seen in theater design in the past decade. Let us only hope that this treatment is not confined to new theaters alone. Movie houses, in which the problem of constant movement is much more serious, could adopt Mr. Herrey's plan with the blessings of the average fan.

Someday, someone is going to come up with a two-level luxury theater in which the seats are lowered automatically to a bottom level. Members of the audience would simply walk to their seat in the uncrowded lower level without stumbling and falling in semi-darkness over others already there. Upon reaching their selected seat they could press a button and the seat would move up into the theater area. Let all who have had tender feet trod upon by sharp-heeled matrons rally to the cause!

HAROLD RAMSLEY

Denver, Colo.

IDEA FROM THE LORD

Forum:

After writing a tentative draft of this let-

ter a friend showed me an article about Robert G. LeTourneau in the June *American*, telling of his great contribution to the solution of the housing problem. At first I thought his idea made mine useless, but further thought has convinced me that my idea is supplementary to his, and that both are needed if our nation is to succeed in building two million houses this year for the returning veterans. I was educated to be a building contractor, and hoped as a wealthy businessman to do the kind of thing LeTourneau is doing. But the Lord called me to the ministry, and sent me to Central Africa where my good wife and I have now labored for 29 years. I have heard, on the other hand, that LeTourneau wanted to be a missionary. The Lord kept him in America to do the kind of things I had wanted to do. Strange, isn't it?

Both by training and by many varied experiences on the Mission field I have been forced to solve problems. I read in TIME magazine about the housing shortage and the government's gigantic program for meeting the need. The whole problem intrigued me. Then the great idea came, and I think the Lord gave it to me to help my country, and especially to help the returning soldiers, who deserve the best we can give them.

I will not wait to apply for a patent, for time is precious. So I send this on with no protection of my interests except the honor of my countrymen, in order to get the ball rolling as soon as possible. Just to keep the record straight I am sending copies of this letter and accompanying sketches to my patent attorney for entry in his files. If anyone can prove that he has invented this identical thing before I did, then I hope he gets the full reward for his labors. Otherwise I would like to have a modest compensation for my idea, so I too can do the kind of things my twin LeTourneau has so much fun doing.

If this thing is as good as I think it is, the United States Government ought to buy the idea and release it for general use, without patent worries for anyone. I think a very modest compensation would be one dollar a house for the first million houses. I am offering my government an option until July 20, 1946, to buy this idea. After that date I am open to offers from the large metal companies or others, to sell the idea to one corporation, for a royalty of one per cent of sales price of all metal manufactured for SHELL-CRETE.

The idea of SHELL-CRETE is very simple, like rubber heels or the sewing machine needle. That is why I think it is worth millions of dollars. THE BASIC IDEA IS TO REINFORCE CONCRETE BEAMS BY A SURFACE METAL SHELL.

(Continued on page 40)

"—everything would have been just about perfect if we had only provided for a **HOME COOLER FAN**"



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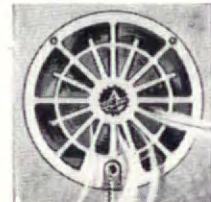


36", 42" or 48" fan for wall mounting in sealed attic or plenum chamber installation in unsealed attic.

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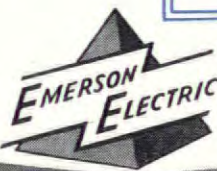
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that repels roaches. (Think what this means to a restaurant, bakery or hospital.)

that inhibits many molds and bacteria growths. (Think what this means to sanitation and odors in kitchens, bakeries and locker rooms.)

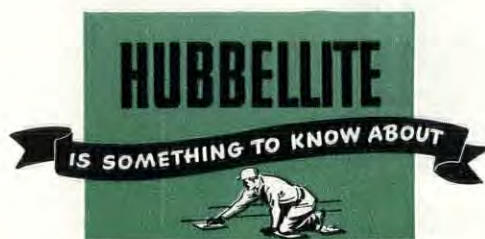
that is static-draining, non-sparking, non-dusting, non-denting under ordinary point loads. (Think of mills and factories.)

that resists food and kitchen fats and oils. (Think of a kitchen floor that will not go to pieces.)

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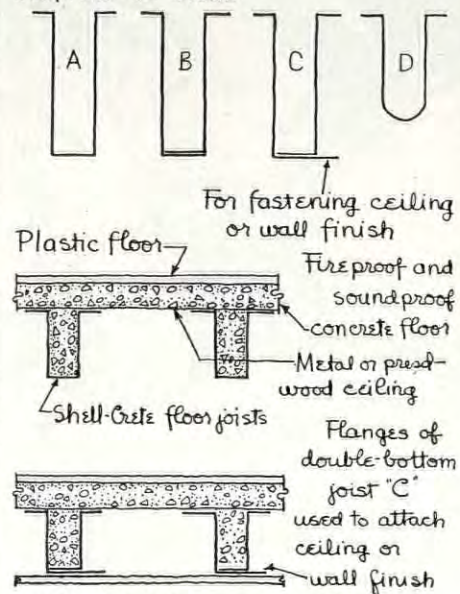
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Various aluminum forms for casting concrete beams to be used as joists rafters or studs



Shell-Crete Beam

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4. Permit teams of house builders to be organized wherever needed, to assemble houses in the way airplanes were so successfully manufactured during the war. It would be a sin against God and our soldiers to allow the building trade unions for selfish reasons to slow down house production for the soldiers and their families, not to mention the general public.
5. Give soundproof and fireproof and vermin proof construction.
6. Insure against the squeaking floors and stairs which are so often a curse of rapidly constructed houses.
7. Provide houses easy to keep clean.
8. Permit any desired variety of house

(Continued on page 42)

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7 COMPACT DESIGN—there are no protruding arms or levers to bend and get out of order.

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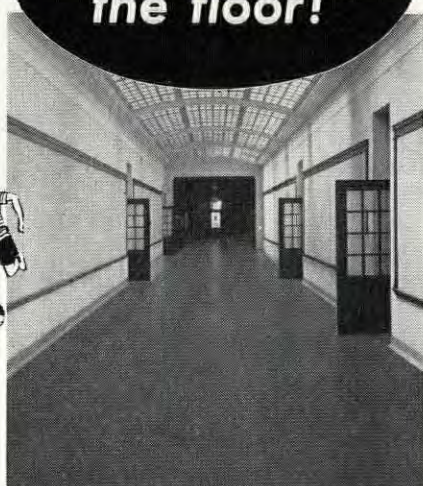
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plans. Standardized beam shells could be used in any way architects desired, after the first rush of high pressure building is over.

9. Permit the use of the largest possible amount of local materials, such as sand, gravel, stone and cement.

10. But above all else this idea will save time, and if used with imagination and courage, it seems to me it could easily double the possibilities of house construction in the next two years.

Hoping to hear soon from any or all of you who may be interested in SHELL-CRETE.

J. HERSHEY LONGENECKER

Luputa, Belgian Congo

BLANDINGS' DECOR

Forum:

For Mr. Blandings' house—\$51,000 is mild. How much do you suppose it cost him to decorate, and then to furnish, a \$51,000 house? Would \$25,000 more be about right?

MRS. RUSSELL BAKER

San Pedro, Calif.

Sounds about Blandings' speed.—Ed.

IDLE DREAMING

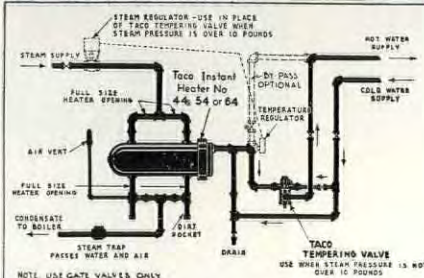
Forum:

In a way, the swell article on the reconstruction of Warsaw in your June issue is more discouraging than inspiring to students of city planning (of which I am one). It is naturally inspiring to note that basic replanning and neighborhood organization may soon actually be a reality in one of the world's oldest cities. But in a single sentence the writer of this fascinating planning story disposes of the problem that makes any such basic planning impossible in the U. S.—the problem that confronts every hopeful planner with all the imponderability of a stone wall, that remains to thwart the realization of the famous London County Council plan.

Warsaw, you say, can go ahead and do all these wonderful things because of municipal ownership of all land. In a single stroke this city has demolished all the barriers of vested interest that have made city planning in this country little more than a plaything for the academicians. London, too, for all the splendid foresight of its distinguished planners, has still made no significant start on the rebuilding of which every Britisher dreams—simply because the British Parliament has as yet devised no workable formula for compensating owners for land required in the interest of a more functional city pattern. Warsaw apparently

(Continued on page 46)

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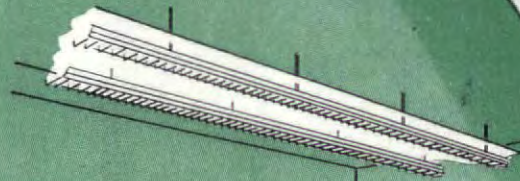
In Canada: Taco Heaters of Canada, Ltd.,
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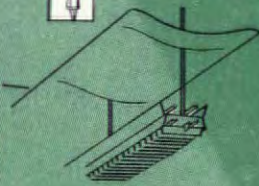
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GENERAL  ELECTRIC

More and more architects and interior designers are selecting G-E fluorescent lamps for their lighting projects. The *regular* G-E fluorescent lamp has become universally recognized as a versatile and practical basic lighting element

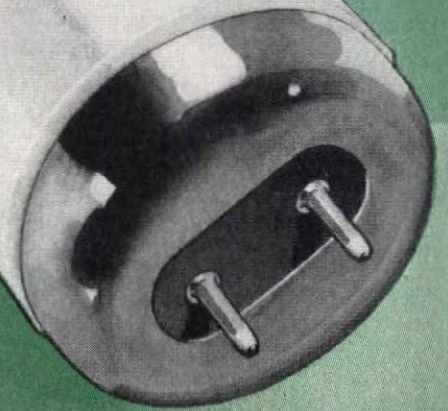
And, there are the newer type Slimline and Circline fluorescent lamps—the new Silvered Bowl, G-E Projector and Reflector lamps. All are products of intensive, continuous research that's aimed at making G-E lamps *Stay Brighter Longer*.

For more information on all newer G-E Lamps, call the nearest G-E Lamp office.

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GENERAL  ELECTRIC



500-lb. HYDROSTATIC PRESSURE TEST ON CINDER BLOCK COLUMNS PROVES WHY

AQUELLA makes WET CELLARS and WALLS Bone Dry!

The two columns you see here were set up to determine the effect of a hydrostatic pressure created by an 8-ft. head of water on a surface treated with Aquella.

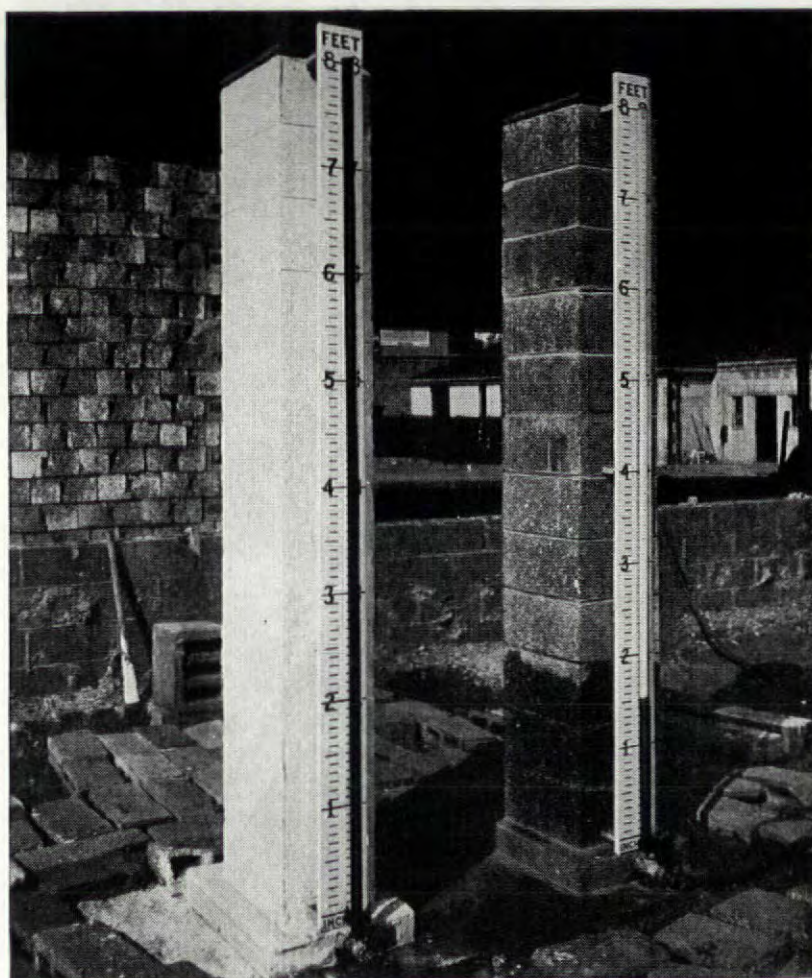
Both columns were made of highly porous cinder blocks, with an absorption rate of 15% by weight.

First, both columns were tested in their natural state and showed that they had identical coefficients for permeability. After such tests, the column on the left was treated with Aquella, while the one on the right was not.

The Aquellized column withstood the pressure of an 8-ft. head of water, equivalent to a hydrostatic pressure of approximately 500 lbs. per sq. ft., at the base.

The untreated column could not be filled with water higher than 18¾", because the water seeped through its cinder blocks at the rate of 2 gallons per minute.

Tests prescribed by the U. S. Bureau of Standards call for a maximum 2-inch head of water, or 10 lbs. pressure per sq. ft. The test described here is therefore approxi-

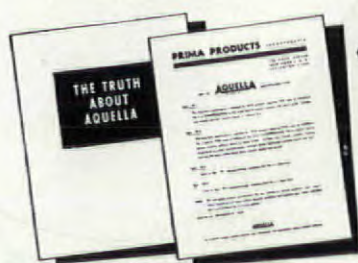


The Aquellized column, at left, holds an 8-ft. head of water (500 lbs. per sq. ft. at the base); the untreated column offers no practical restriction to the flow of the water through its walls.

mately 50 times more severe than that prescribed by the U. S. Bureau of Standards.

Aquella having proved its effectiveness under conditions as extreme as this, must necessarily be equally successful when applied to other types of masonry construction such as concrete, brick, stucco or cement plaster.

AQUELLA IS A "MUST" ON EVERY CINDER BLOCK JOBS!



**YOU'LL WANT THIS INFORMATION
FOR YOUR WATERPROOFING FILE**

Write today for your copies of "THE TRUTH ABOUT AQUELLA," and the "KEY TO AQUELLA SPECIFICATION TYPES."

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Reconversion Housing

Must Get First Call

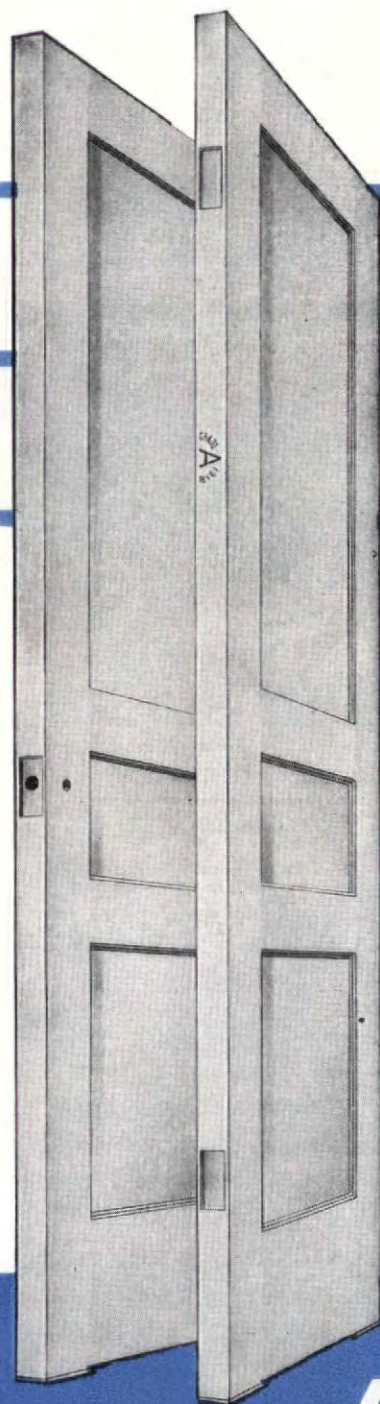
on Douglas Fir Doors

HOUSING is desperately needed. Necessary materials—including Douglas Fir Doors—**must** be channeled to meet this need.

As a result—even though Pre-fit and Factri-Fit Douglas fir doors are being produced in increasing quantities—there may be further delays in filling orders for non-housing uses or for housing that does not come under the Reconversion Housing Program.

Distributors and dealers will be delayed in building up inventories. It may be difficult, at times, to buy the exact design or type of door you want.

As production steps up, however, there will be plenty of these fine, precision-made doors to meet the huge demand. We suggest that you keep in touch with your regular source of supply.



When Douglas fir stock doors are again readily available for general needs, you can be assured that they will be the finest doors which can be produced by modern precision methods. These sturdy, attractive, durable doors—made of all-heartwood Douglas fir—feature refinements which save time and labor on the job and assure better installations every time.

Pre-fit

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

Pre-sealed

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

Factri-fit

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

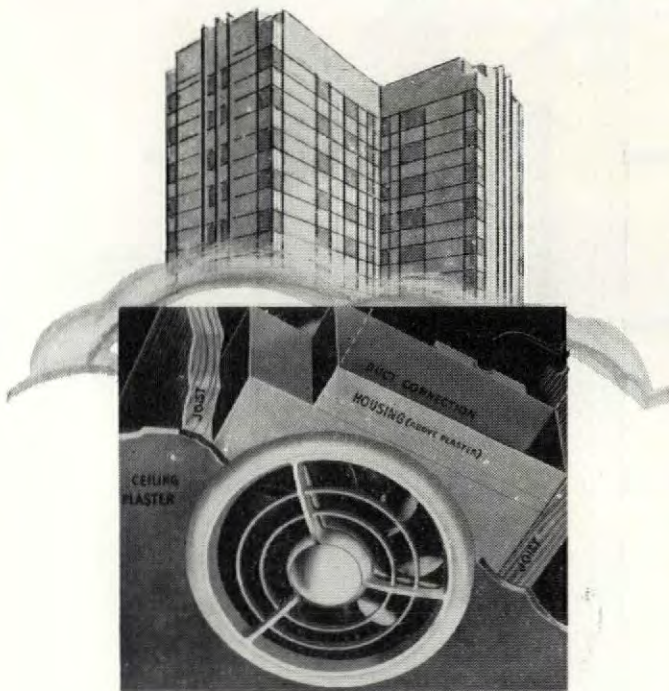
Doors will be grade-marked, of course—for ease in specification and ordering. Scuff-strips will protect the precision-cut corners during handling and shipping. They will be better doors in every way!

The National Association

**Douglas Fir
DOORS**
FIR DOOR INSTITUTE
Tacoma 2, Wash.



of Fir Door Manufacturers



CEILING

Blo-Fans

FOR G. I. APARTMENTS

MRS. G. I. wants her new apartment kept clean—free of cooking grease and odors. She wants ceiling ventilators that naturally capture unwanted air as it rises. The efficiency of Blo-Fan Ceiling Ventilator in drawing off steam, smoke and odors is so great that it soon saves enough in cleaning and redecorating costs to more than pay for the initial investment.

Ceiling installed, combining advantages of *both fan and blower*, Blo-Fans are twice as effective as ordinary sidewall ventilators of equal size. For Mrs. G. I. now—for an asset to easier leases in a future renters' market, install Blo-Fans.

Available Now
Kitchen Size Bathroom
Size Rumpus Room Size

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has settled this whole complex question in a very simple way. The city takes title to all the land, compensating all present owners for their holdings with the exception of land speculators who were expecting to profit from the war devastation.

Maybe the awful threat of the atom bomb, with its pressure for urban decentralization, may at last convince us that it is necessary to adopt some means of regulating land use in the public interest. Until we do so, city planning in any basic sense can be scarcely more than idle dreaming.

JOHN R. BRETT

Detroit, Mich.

HOUSE WANTED

Forum:

With New Yorker-length "Profiles" and amusing stories like "Mr. Blandings Builds His Castle," FORUM's functional approach seems to be directed towards entertaining the architect's wife—or her retired husband whose only concern with technical progress is how to get his feet on the table without lifting them!

I can always get my fiction via other channels. What I need now is a magazine that will devote most of its pages to the problem of the "small house." Once, "in the dear dead days beyond recall" FORUM put out 100 variations at a time of the \$5,000 house—assuming that this over-all price doesn't merit a shrug in the present day inflation, can't you at least give us a reasonable facsimile—not mass produced—to offer our veteran-builder market today?

FORUM's glamorous "showcase" versions of houses may whet many a luxury-loving appetite—while satisfying only that of a spend-thrift tycoon. But we the people want *small houses* so can't you prove there is such a thing with an honest-to-God SMALL HOUSE Issue!

JOHN NICHOLAS

Syracuse, New York

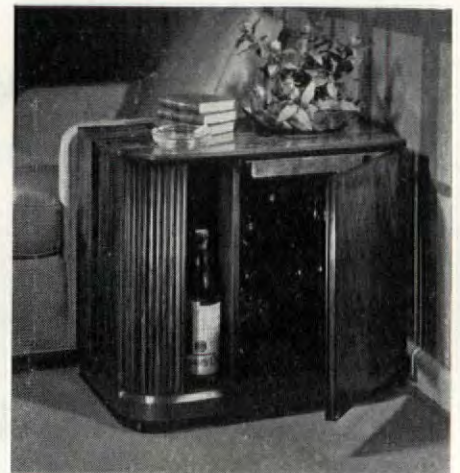
Reader Nicholas will, we hope, have been pleased by the low-cost housebuilding ideas which he found in the July issue.—Ed.

OVERSEAS MAIL BAG

Forum:

I am a Polish architect, an ex P.O.W. liberated from military camp in Germany by the U. S. Army in May '45. I can't go back to Poland under the present conditions and for that reason I am obliged to work in foreign lands. I don't know anybody in the U. S., either architects nor corporations of architects, to write to about my

(Continued on page 50)



DUNBAR
For **MODERN**



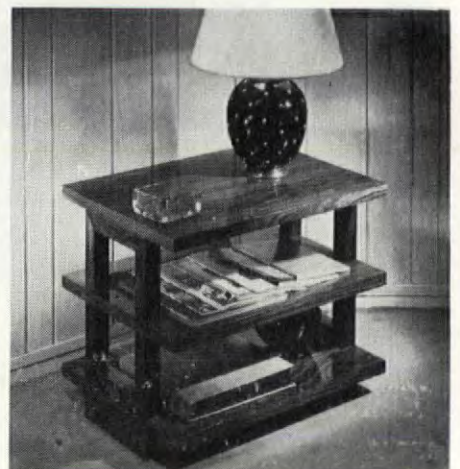
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to be produced later in 1946

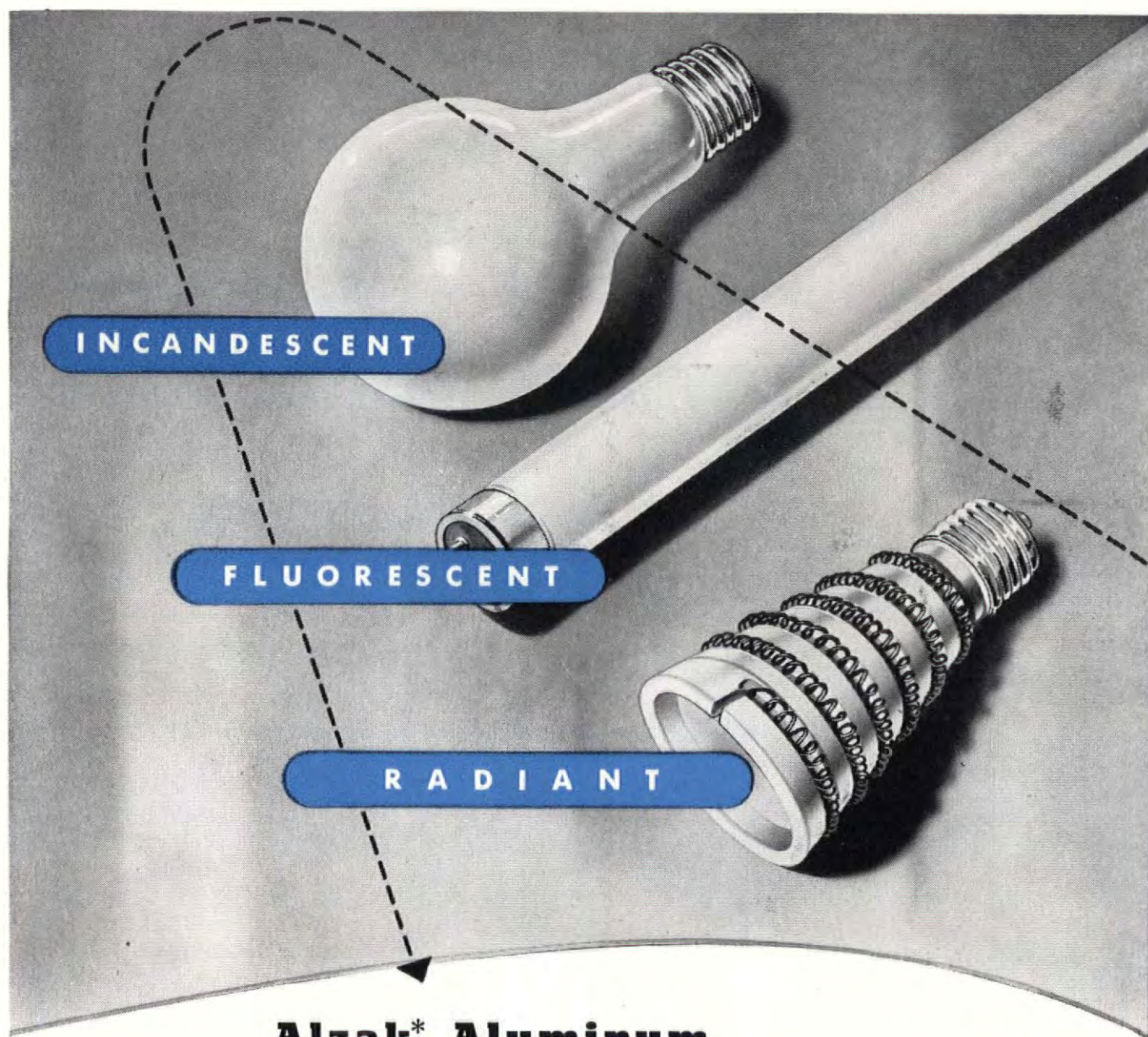
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Gulf Building, Pittsburgh 19, Pennsylvania.

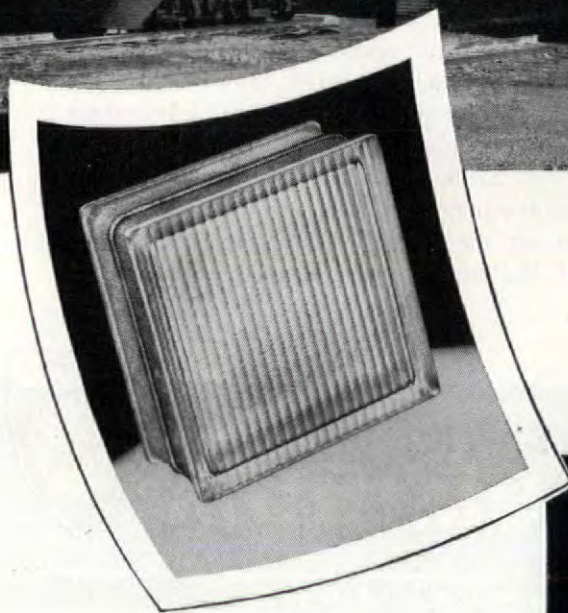
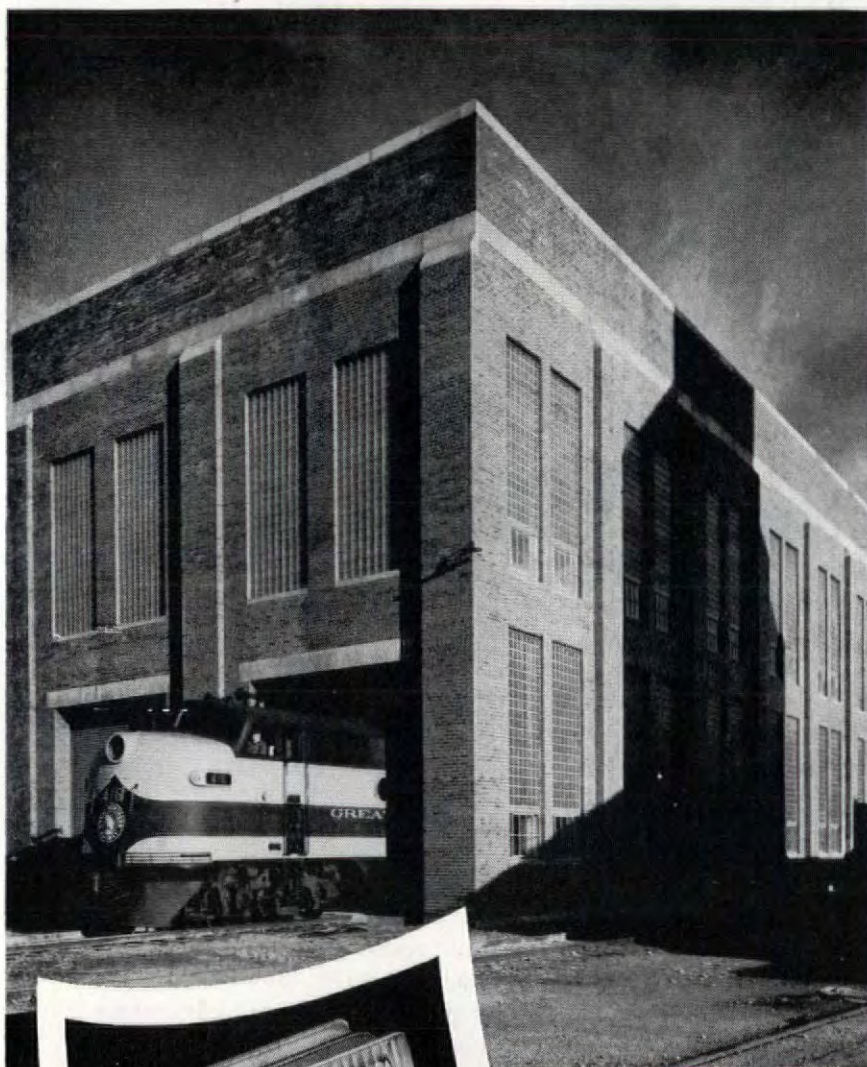
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In PC Glass Block construction there is no sash to need repairs, replacement or frequent repainting. Cleaning is quick, easy. That means important savings in maintenance cost.

When your clients are ready to go ahead with new buildings or to remodel present plants, you can safely recommend PC Glass Blocks. For the results will be improved appearance, better working conditions, long, trouble-free service—and *actual money savings*. Write today for complete information on PC Glass Blocks. Pittsburgh Corning Corporation, Room 347, 632 Duquesne Way, Pittsburgh 22, Pennsylvania.

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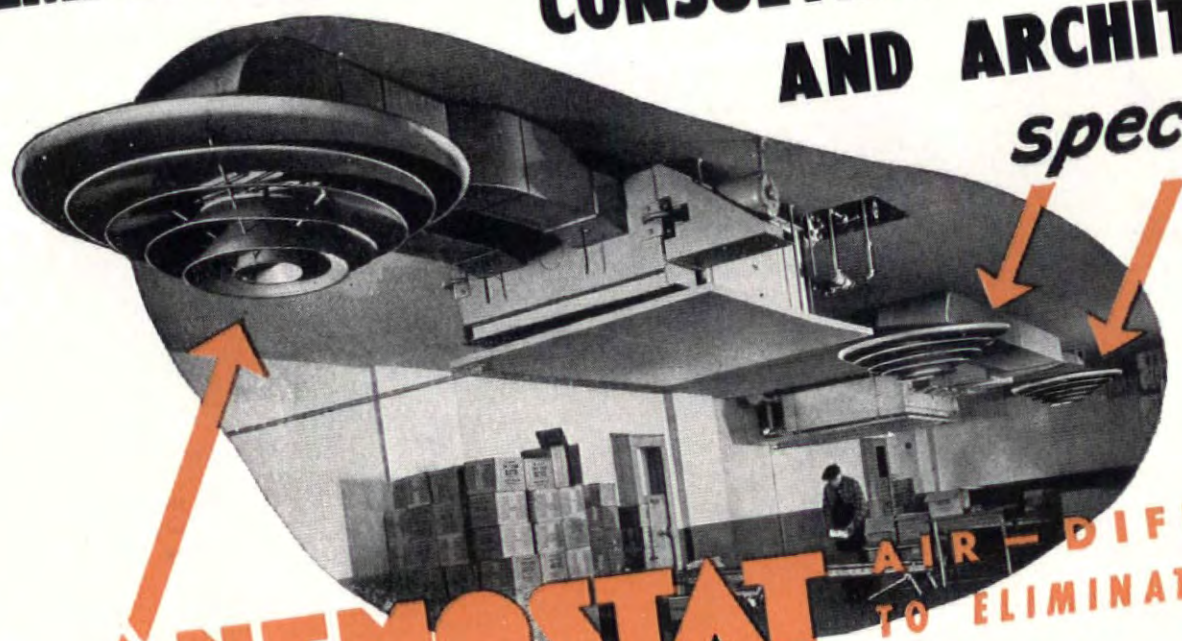


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*specified***



ANEMOSTAT AIR-DIFFUSERS
TO ELIMINATE DRAFTS

You're looking at the shipping room of the Bowman Dairy plant at River Forest, Illinois. Originally it was equipped with two ceiling-type unit coolers with the usual horizontal grilles . . .

Blasts of air from the unit coolers were so severe that employees could not endure room temperatures of 50° F!

HOW ANEMOSTATS COMPLETE AIR-CONDITIONING

Due to its patented design, the ANEMOSTAT distributes air of any duct velocity in a multiplicity of planes traveling in all directions. Simultaneously, the unit creates a series of counter-currents which siphon into the device room-air equal to about 35% of the volume of supply-air. This room-air is mixed with the supply-air within the diffuser before the air-mixture is discharged into the room. The velocity of the discharged air is instantly reduced within the ANEMOSTAT by air expansion.

In this way, the ANEMOSTAT diffuses air of any duct velocity noiselessly and evenly, thoroughly and draftlessly throughout the room . . . closely equalizes temperature and humidity . . . and prevents air stratification.

AC-104

Hoping that scientific air-diffusion was the answer to employees' complaints, one of their horizontal grilles was replaced with a *draftless* ANEMOSTAT air-diffuser. *That was the solution!* And the owners quickly ordered two more ANEMOSTATS. Today, working conditions are reported as "not only satisfactory, but enjoyable."

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The next air-conditioned building you're called upon to design may be a theatre, a restaurant, or an industrial plant. Whatever it is, when it comes to specifying ordinary grilles or ANEMOSTATS . . . think of the Bowman Dairy! Be prepared for your next air-distribution problem — write today for complete ANEMOSTAT details.

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MERCER, . . PENNA.

NO BOILERS • NO STEAM LINES
NO FUEL STORAGE • NO FIRE TENDING

situation. I therefore ask you to be kind enough to help me make connections with U. S. architects or with Polish architects in the U. S. in order to get a job.

I finished my studies in the Engineering School of Architecture in Warsaw before the war. After that I worked in many spheres of architectural creation. I designed commercial buildings, houses, villas, hospitals, and theaters, working for some time with Le Corbusier in Paris and later with Polish architects in Warsaw. In addition to such projects as the interiors of confectioner's shops, restaurants and apartments, I have designed scenery for Warsaw theaters, stands for exhibitions, covers, and illustrations for books and newspapers, etc.

At present I am studying city planning in Brussels Architectural School. I am 33 years old and I want to work in the U. S. A. where an architect may really prove his abilities.

WLODZIMIERZ LUKASIK

168, Chaussee d'Etterbeck
Chambre 24
Bruxelles
Belgium

Forum:

... I have been a constant reader of FORUM for several years now, and find it superior to any other magazine of this nature, not only in content, but also in presentation. In fact, designs illustrated in The FORUM have often helped me to solve a particular problem, or influenced my thinking while working in different architectural offices, and also while studying.

I have often hoped that, after the war was won and while I am still young, I would be able to study abroad, especially in the U. S. A., where architecture has reached such a high standard.

However I feel that I should at least try to obtain some first hand information with regard to the work, conditions, etc. before going. I am therefore asking you to refer me to a person who would like to correspond with me, exchanging ideas about design, construction, etc. and giving me advice.

I realize that this is quite a "tall order," but I hope you will not deny me.

HENRY KURZER, *Architect*

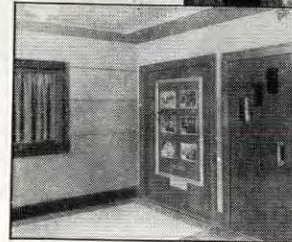
26 Fletcher Street
Bondi, N.S.W.
Australia

Interested architects may contact Mr. Lukasik or Mr. Kurzer at the above addresses.—Ed.

(Publisher's Letter, page 54)

For exciting new ... INTERIOR REMODELING

Before and after views of theatre lobby remodeled with Structural Bends



FOR ALL INTERIOR REMODELING

GENUINE STRUCTURAL BENDS ORIGINAL OF TEMPERED MASONITE

Made of strong tempered Masonite presdwood, Structural Bends are a practical, inexpensive material for creating modern effects in all interior remodeling or new construction. Smooth, graceful lines... interesting lighting becomes possible. Seventeen basic shapes, 8' and 12' lengths; any size area can be economically treated. Flexible... easy to cut... construct, finish and install. Time-tested, durable, modern, they afford unlimited opportunities at low cost. In stock. Write for Catalog... Plan Your Needs... Place Order Now.



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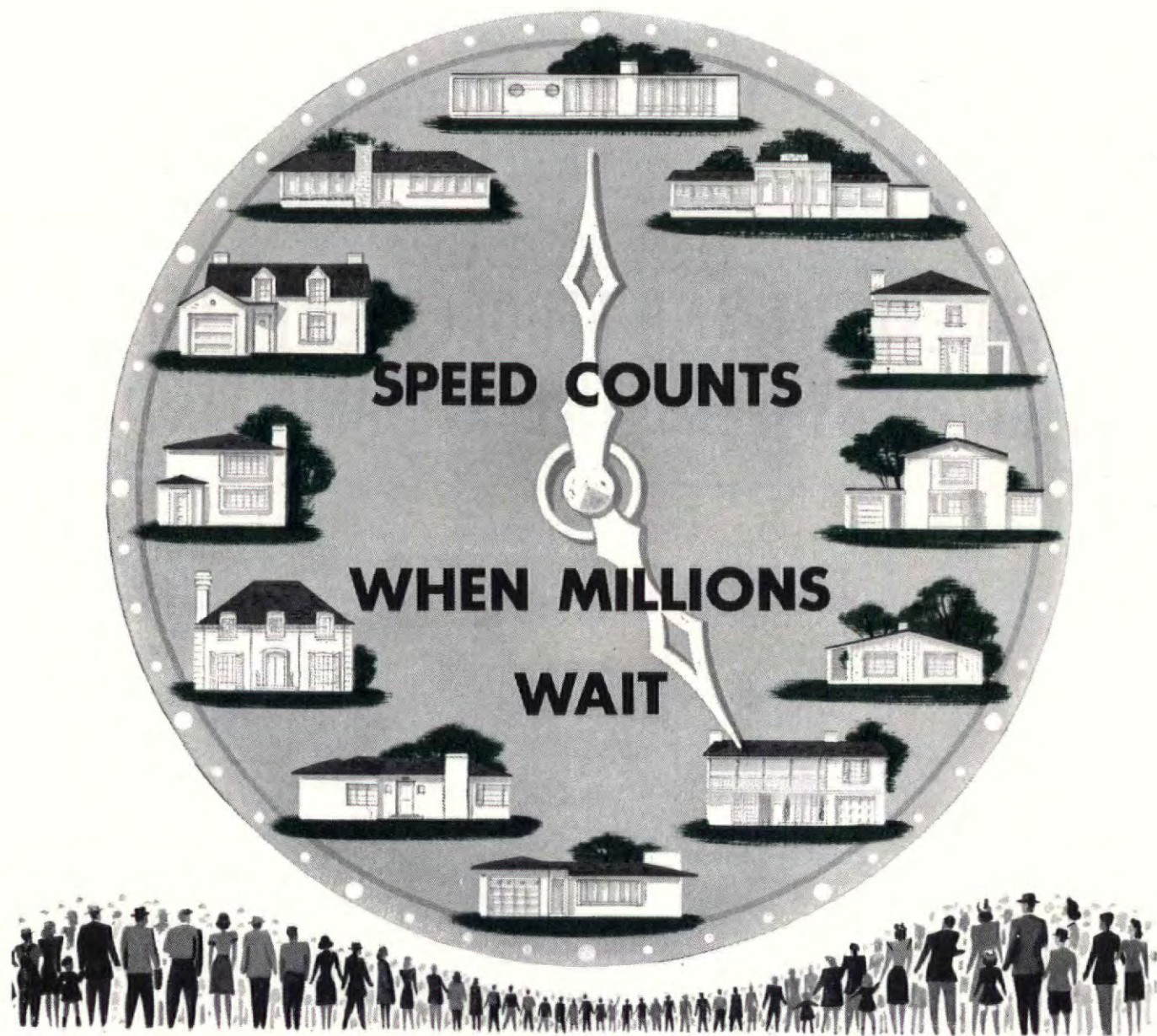
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SHEETROCK *Fireproof WALL and CEILING PANELS*

4,000,000 families desperately need housing. That means more new homes than ever before must be built, that more existing buildings must be remodeled into additional dwelling units. It means every saved second counts. That's why more and more architects and builders are using Sheetrock*. These panels finish up to 48 sq. ft. at a time, are quickly cut and fitted. Then the Perf-A-Tape* system "welds" them into smooth, trouble-free walls



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Write today for your free Sheetrock book to 300 W. Adams Street, Chicago 6, Illinois.

Perf-A-Tape and Sheetrock are Reg. T. M.



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SYLVANIA NEWS

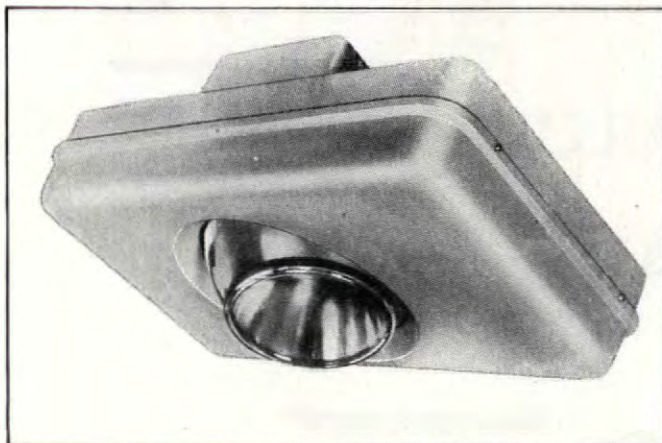
ARCHITECTURAL EDITION

AUG.

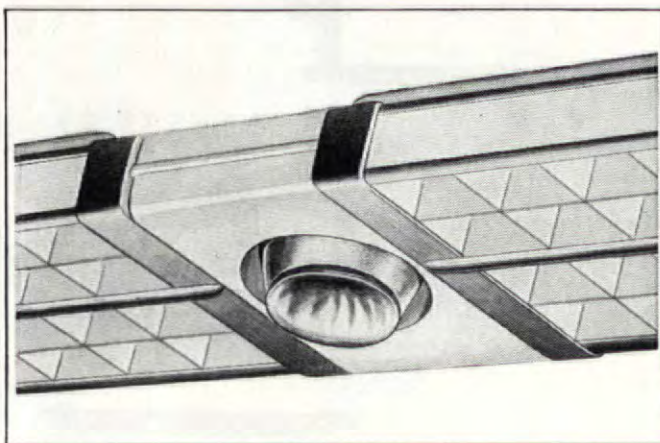
Prepared by SYLVANIA ELECTRIC PRODUCTS INC., Salem, Mass.

1946

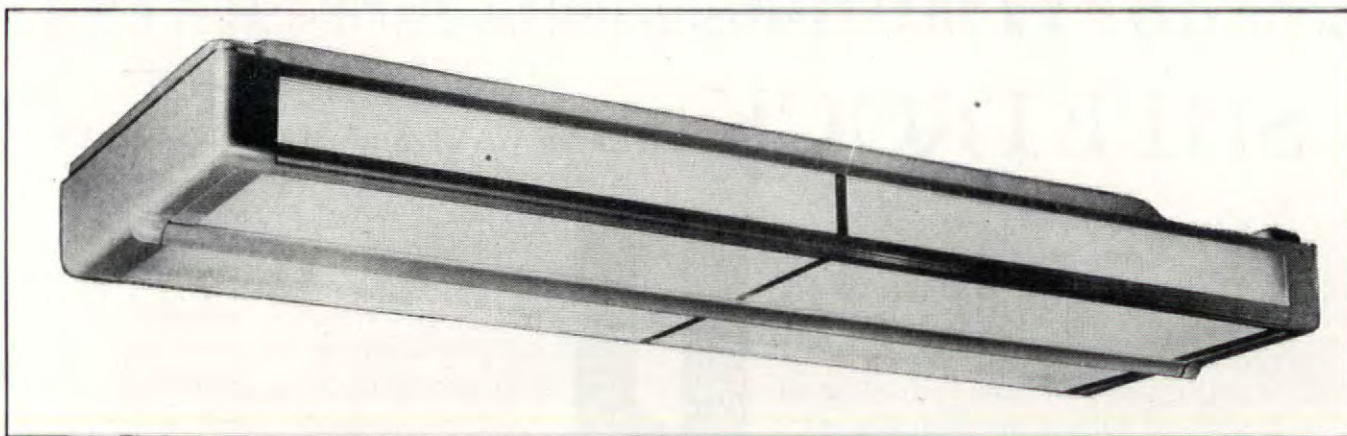
INCANDESCENT AND FLUORESCENT LIGHTING COMBINED BY VERSATILE SYLVANIA FIXTURES



Here is the new Sylvania CP-150 adjustable incandescent spotlight. This powerful unit will find wide use in stores, theatres, entrances, window displays—for focusing attention where it is wanted. CP-150 can also be joined with fluorescent fixtures to form a combination lighting unit.



The CP-150 spotlight is shown joined with two Sylvania CL-440 fluorescent fixtures—all three being members of the same "design family." Provides accent lighting plus general illumination. (The CP-150 can also be turned to its narrow side and centered between fixtures of two 40-watt lamps each.)



This is the Sylvania CG-440—glass shielded version of the CL-440 fixture (above right). Containing four 40-watt fluorescent lamps, this fixture has the beauty and modern appearance required by the most exclusive shops and offices.

These new fixtures are examples of Sylvania's pioneering in new and improved lighting equipment. Architects will find these Sylvania Electric units readily adaptable to the most exacting design specifications.

SYLVANIA ELECTRIC

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

HERE COMES THE FLYING BUS

You may see things in the world of the future even more strange than this double helicopter bus that needs no landing wheels. New materials—new production techniques—give promise of untold developments. Important light alloys that will help shape this future world are aluminum and magnesium. The combination of strength with lightness,

together with attractive appearance which both possess in marked degree, will assure many new uses for aluminum and magnesium. But we're not waiting for the world of tomorrow. Bohn engineers would like to discuss possible applications of these light alloys in the products you make. Write, phone or wire for further details.

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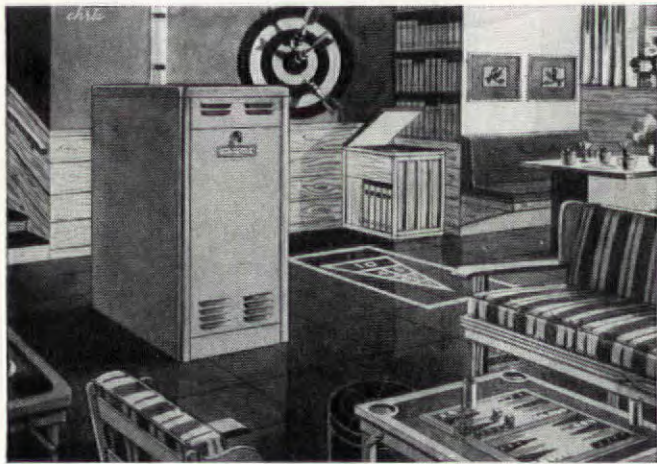
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...for heating comfort plus

Plus *what* you say? Plus all of these advantages found only in KOVEN WATERFILM BOILERS:

UNIFORM HEAT—for comfort.

FAST STEAMING BOILERS—for quick heat.

EFFICIENT HEATING—for economy.

SMART MODERN JACKETS—for attractive appearance.

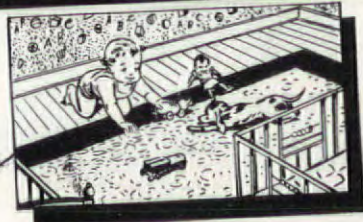
Made for automatic firing with oil, stoker or gas.

These reasons alone make the KOVEN WATERFILM BOILERS outstanding in their line. WATERFILM BOILERS are available in a variety of models suitable for large or small homes, apartment houses and industrial plants. For trouble-free operation, choose a WATERFILM for the job! Write for free illustrated booklet.

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EVEN ROOM TEMPERATURE THROUGHOUT THE HOUSE!

A LETTER FROM THE PUBLISHER

Dear Reader:

As this is written, Congress is talking about going home for a needed rest. If Congress doesn't need it, we do. During the present session our national legislature has spent more time debating housing than in any session since the Capitol's doors swung open on Nov. 21, 1800. Odds are that the Wagner-Ellender-Taft Bill, as exclusively predicted in these pages two months ago, will not get to a vote. But this is not the first time political shenanigans have gotten in the way of needed legislation.



We wonder what lobbyists do when Congress vacations. Where do they holiday? Do they, as we hope, leave their multigraphs at the office? Do they go fishing? We wish them a mess of eels.

* * *

One of the most enervating practices that goes with running a government agency is the inevitable personal appearances before Congressional Committees. During the present session, it is estimated that Housing Boss Wilson Wyatt spent no less than 50 hours testifying before such Committees. Several times that many hours must have been spent preparing. Obviously these are hours when, as a modern Gilbert and Sullivan might say, the expeditor isn't expediting housing. This month, Wyatt reports, 470,000 housing units have been started through June, 730,000 to go before New Year's.

* * *

Lots of juicy stuff in this issue. One story which interests us particularly is the Rye Shopping Center (page 76). Way back in August 1943 the FORUM ran a piece called "Planning With You," later printed as a pamphlet and widely distributed (150,000 copies) by civic organizations. This little primer aimed to sell planning to the public. Among many ideas it espoused was a proposal to turn Main Street into a pleasant shopping park.

"... But no one has seen a city really designed for living properly in the 20th century.

"What would such a town be like?

"This town, let us say, is a community

of 75,000 people, located anywhere. Approaching our imaginary city on an express parkway, we notice that the highway no longer goes through the town but skirts by it. It is banked by trees instead of billboards, dilapidated hot dog stands and the usual junk that clutters up most of our roads.

"From the parkway there is a turnoff which leads directly, without the interruption of cross traffic, into landscaped parking spaces which surround the business center.

"Leaving our car, we proceed to a covered sidewalk which leads directly into Main Street. Unlike other Main Streets, there are no cars on it. In place of the old pavement and trolley tracks there are long stretches of lawn, paved walks, benches, fountains, flowerbeds and trees. Our new Main Street is for pedestrians only.

"This kind of a Main Street could be created right in your own town. To get it, it would not be necessary to tear down all of the existing buildings, or even many of them. By eliminating dilapidated structures that have outlived their usefulness, clearing out the ring of commercial blight which surrounds the business district of most towns and taking advantage of existing open spaces, plenty of land can be found for the parks and parking spaces needed. And all this could be done gradually.

"None of the buildings is particularly large or high, nor are they all alike. But the riot of signs is gone, and the individually designed shops are planned so that each harmonizes with the other."



Within a matter of months, it was possible to publish the fine Linda Vista shopping center attached to a California war housing project (See September 1944 FORUM, pages 81 to 93). And now, along comes the village of Rye, N. Y., to prove that private enterprise knows what the score is, too. We predict the Rye Center will have a great commercial success, and that it will prove a civic magnet, drawing thousands of important visitors from this country and abroad. Real estate tip—buy Rye. H.M.

They Want a Home They can be Proud of . . .



**DESIGN FOR
COAL**

"Fuel Satisfaction"
means . . .

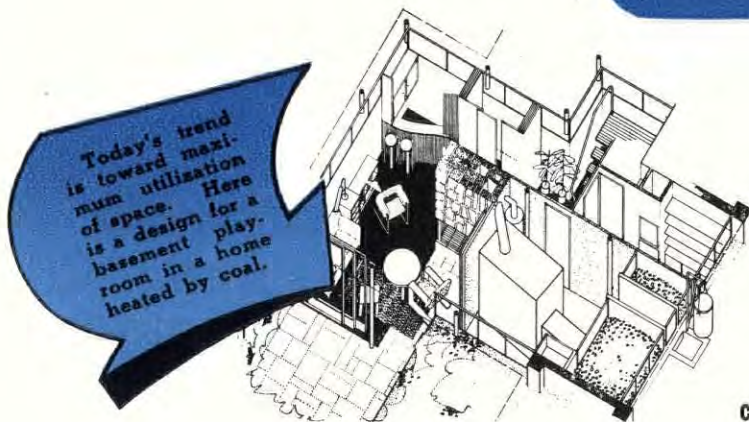
Lowest possible installation and maintenance cost in central heating plants, the best in automatic heating with an ash-removing, bin-fed, coal-burning stoker; a plentiful supply of clean fuel; economy and dependability in operation.

"A comfortable, worry-free place where we can live and raise a family in peace and security—a home we'll be proud of when folks visit us . . . and an investment to fit our pocketbook."

Millions of new homes must meet the urgent need of returned veterans — and their two-fold problems. They want homes of beauty and comfort — but they must be economical too.

When you design for them — homes or housing projects — include **MODERN COAL BURNING PLANTS**. No other fuel can give them equal value, dependability and all-round satisfaction. Up-to-the-minute coal furnaces, and more automatic stokers are available in increasing numbers every day.

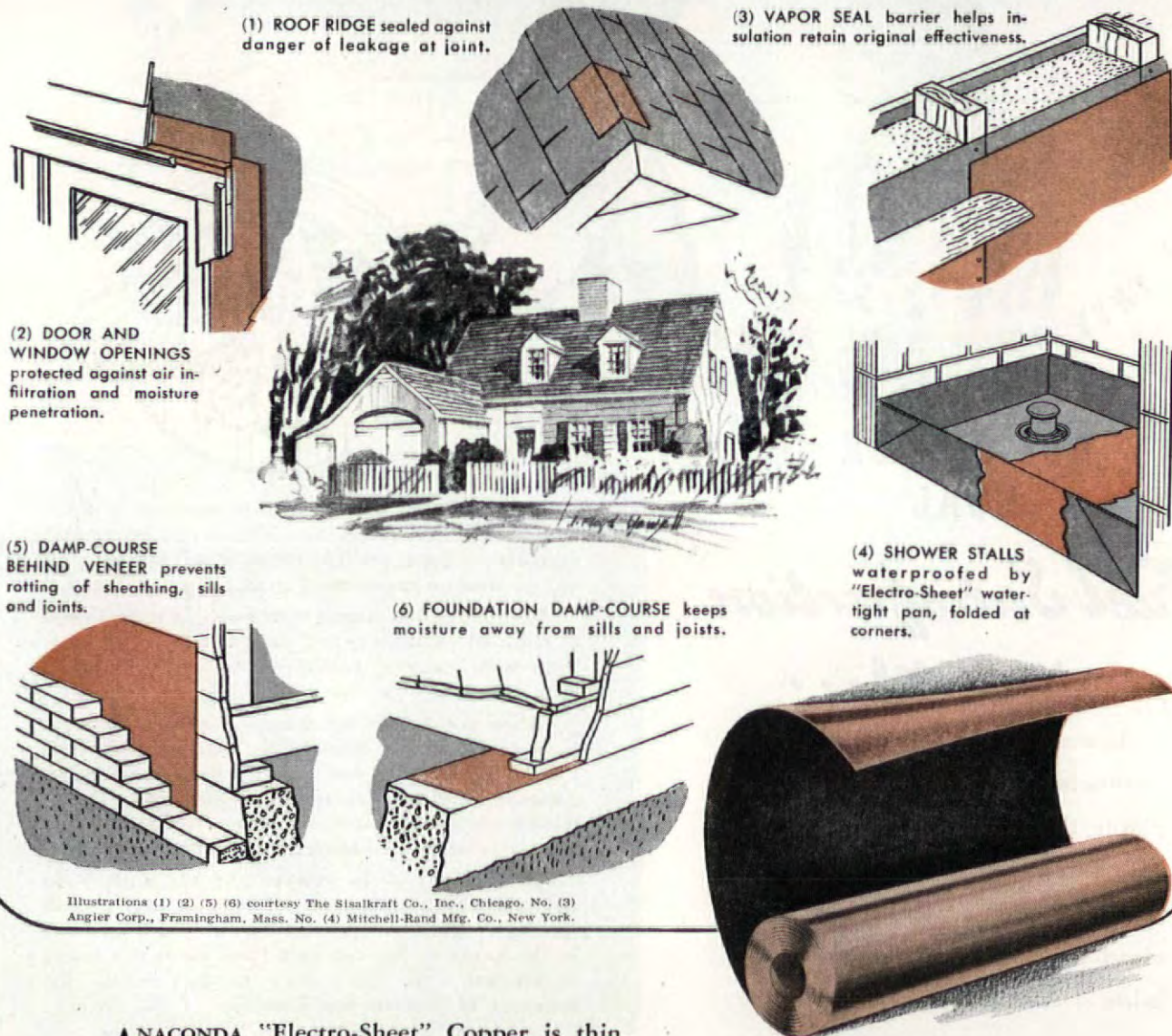
Your clients — the veteran and his bride — do not have a barrel of money. True, they have a small nest egg. But their home of tomorrow is their stake in the future — you can help them make it a sound investment. So give them comfort — with the economy of modern coal heating.



**Norfolk
and Western
RAILWAY**

CARRIER OF FUEL SATISFACTION

Vulnerable Points Damp-proofed with ANACONDA "Electro-Sheet"



ANACONDA "Electro-Sheet" Copper is thin sheet copper formed by electro-deposition. It is furnished in long, continuous lengths to several manufacturers, where it is either bonded with high grade building papers or coated with an asphaltic compound.

In addition to the applications illustrated, there are many other places where Anaconda "Electro-Sheet" can be used to provide economical, lasting protection against driving rain, snow and other forms of moisture.



Anaconda

COPPER

THE AMERICAN BRASS COMPANY
 General Offices: Waterbury 88, Connecticut
 Subsidiary of Anaconda Copper Mining Company
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 New Toronto, Ont.



Grandma called it a PETTICOAT...

YES, grandma called it a petticoat or a pettyskirt. But, ask friend wife if she wears a petticoat and she will stare at you in amazement. Today, it's called a slip. The petticoat is out.

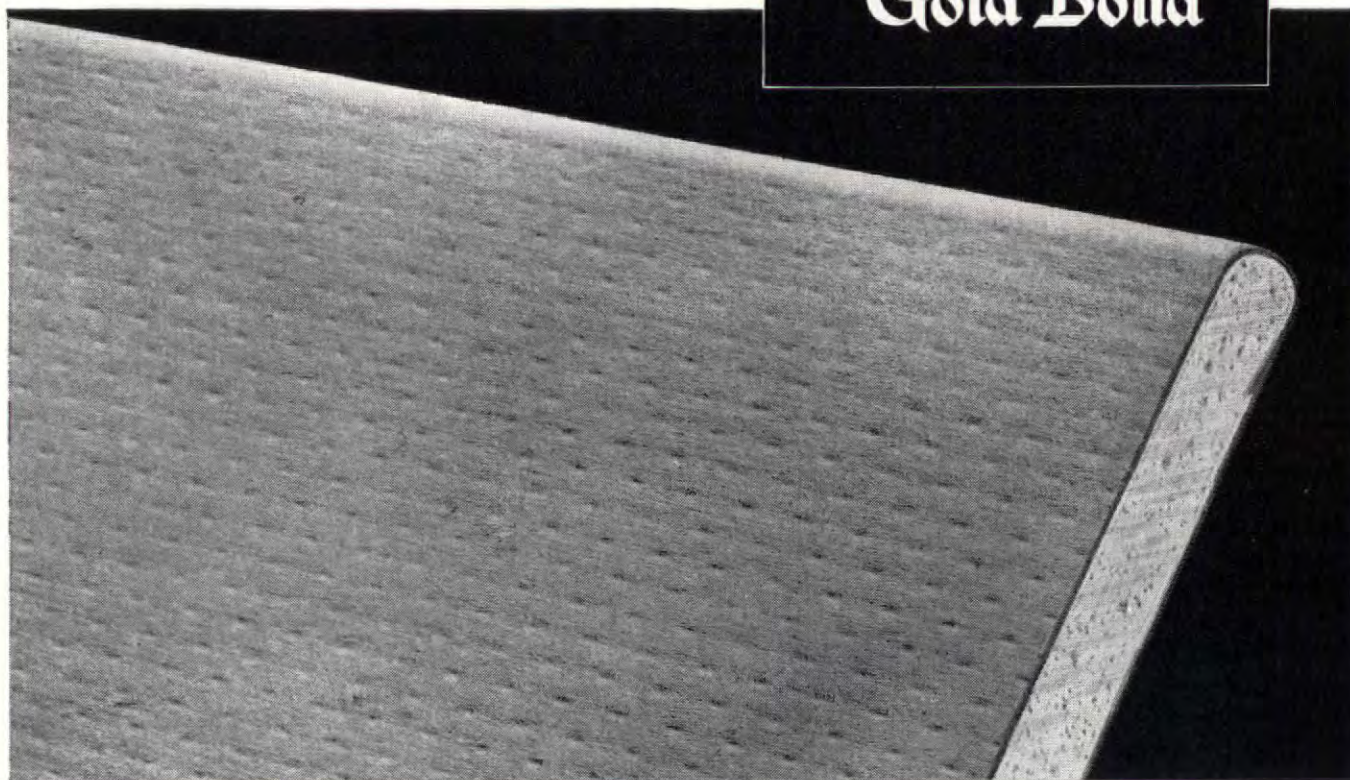
Which reminds us that oftentimes specifications still call for plaster lath or plaster board as the plaster base. *The correct name is Gypsum Lath.*

In manufacturing gypsum lath, the strength of the finished product is entirely dependent on the formation of the gypsum core or center. National Gypsum uses an exclusive patented process that insures uniform

structural strength and follows through with strict laboratory control over every step in the manufacture of this product.

Gold Bond Gypsum Lath is an important member of the famous family of over 150 Gold Bond Building Products. The full line is described in our section in Sweet's. National Gypsum Company, Buffalo 2, N. Y.

**You'll build or
remodel better with
Gold Bond**

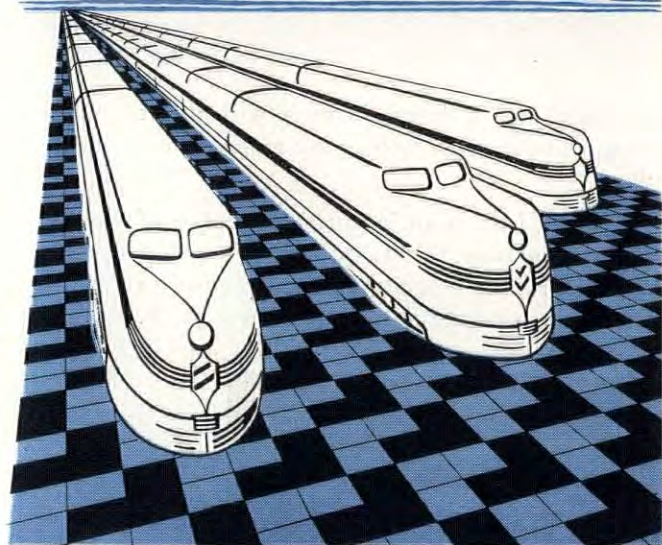


NATIONAL GYPSUM COMPANY • BUFFALO 2, N. Y.

Over 150 Gold Bond Building Products including gypsum lath, plaster, lime, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

MILES AND MILES

OF PROOF



HOOD RESILIENT FLOORING

In 1934, Hood Rubber Tile was installed on the floors of 25 sleek, new streamlined coaches of a leading New England railroad.* Today, after 12 years and hundreds of thousands of miles of war-borne feet scuffing, scraping and grinding, this Hood Tile still retains its original brightness and shows little sign of wear. Railroad maintenance men say that Hood Rubber Flooring meets exacting railroad requirements better than any other type of flooring.

Hood Rubber or Asphalt Tile is backed by 50 years of Hood manufacturing skill, combined with B. F. Goodrich leadership in research. It is easy to clean, easy to look at, easy to walk on. *Super-Density* eliminates dirt-catching pores. Variety in permanent color, good style and correct design pleases the eye. Resiliency absorbs shock and vibration.

Architects specify "Hood" when they want the best in resilient flooring—leader since 1925. Free color catalogs on request.

*name upon request

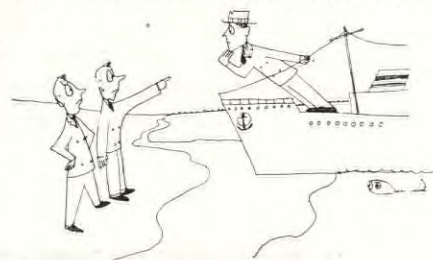


RUBBER & ASPHALT TILE FLOORING



Joe Boaz, who designed the Ottumwa, Iowa, skating rink (p. 73), is addicted to three things: coffee, tinkering and Le Corbusier, in that order. The first was acquired at Schrafft's while he was one of the bright young men with Ketchum, Gina and Sharp. He used to dash out every hour on the hour for a steaming cup, still feels the call of the brew every time the clock strikes. The second stems from an urgent necessity to keep his '37 Ford running, a task which he insists consumes more time than architecture. The third, Le Corbusier, must be absorbed in small doses because he can't take too much of the master without needing a cold towel at the back of his neck. When not preoccupied with the above, he likes to listen to recordings of small jazz groups, that is, until he runs out of beer and pretzels.

Harold Sterner, designer of Amster Yard (p. 63), has been suffering from sea fever since childhood. One manifestation of this malady is a handsome assortment of ship models, two of which are now in the late President Roosevelt's collection. Another was the S. S. MATES, an ancient and ugly craft that chased submarines in World War I and retired to a life of ease as house boat for Sterner thereafter. All was smooth sailing until a mid-winter icefloe washed her ashore, sent her sprawling across the well-kept lawn of Oscar Hammerstein's Long Island estate. Composer Hammerstein fumed right in the middle of a lyric. His lawyers fumed. Sterner fumed. Finally the local Boy Scouts carted away the debris. Undaunted, Sailor Sterner now plans a house for himself at Long Beach with bedroom no further than 30 ft. from his sailing dinghy.



In his architectural career Herman Siegel has run the gamut of the gustatory scene from hot dog emporium to chi-chi cafe. Commenting on his resulting lack of corpulence or opulence, Mr. S. says: "I found out that designing restaurants does not mean you eat more." His favorite job was the old Hollywood Restaurant along Broadway. While Boss Siegel and assistants worked beaverishly, the chorus girls kicked out their tip, tap and toe routines, to the distraction of all males concerned. Needless to say, the chorus line invitingly hampered the assembly line. Fortunately or unfortunately, no such troubles disrupted progress on Siegel's more recent staid Dunhall and Krieger restaurants (p. 97, 102). Both were executed sans cheesecake on the side.

Wayne S. Hertzka and William H. Knowles, designers of the Oyster Loaf Restaurant, (p. 99), think back often to the day thirteen years ago when their partnership was sealed on a San Francisco park bench. In the midst of the bank holiday of '33, fresh out of M.I.T. and fresh out of money or jobs, they decided to pool their sole tangible asset, one lone prospect. They still like to remember that during this period two could eat lunch for fifteen cents. Except for their wartime separation which ended early this year when Hertzka emerged from the Army a Lieutenant Colonel and Knowles returned from Arizona where he designed and built a town, the bond of the park bench has held firm. The Oyster Loaf Restaurant attractively marks the postwar reunion of the two.





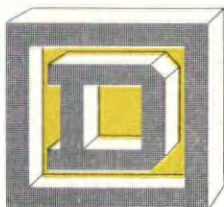
When Your Clients Ask... *"What about Multi-Breakers?"*

These few simple facts tell the whole story:

- 1** A Multi-breaker is the modern circuit wiring protector or "safety valve" for electrical circuits.
- 2** It automatically disconnects the circuit should a short circuit or dangerous overload occur.
- 3** Multi-breakers operate without fuses and there is nothing to replace to restore the circuit.
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- 5** Multi-breakers meet the 1946 National Electrical Code. They are non-tamperable.
- 6** On the average, Multi-breakers cost no more—sometimes less.

Ask your electrical contractor or Square D Field Engineer for complete facts and figures on Multi-breakers for homes or industry.

*The **MULTI-BREAKER** eliminates fuses completely. It is neat and compact—can be installed in any convenient wall. It provides the protection and convenience which every modern home deserves.*



SQUARE D COMPANY

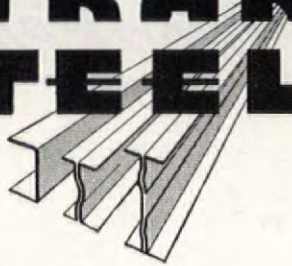
DETROIT

MILWAUKEE

LOS ANGELES

A BETTER BEGINNING FOR A HOME, APARTMENT OR LIGHT INDUSTRIAL BUILDING

BUILD WITH
**STRAN
STEEL**



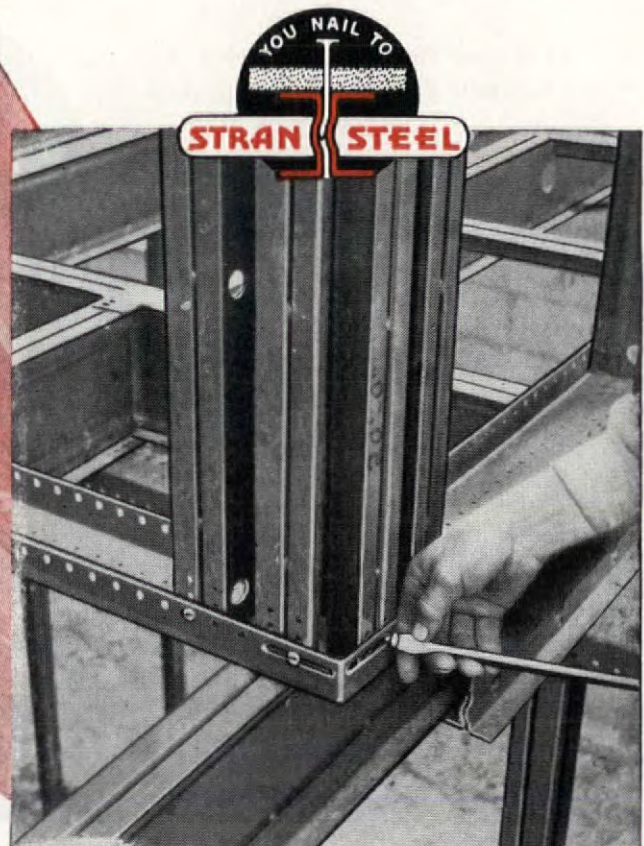
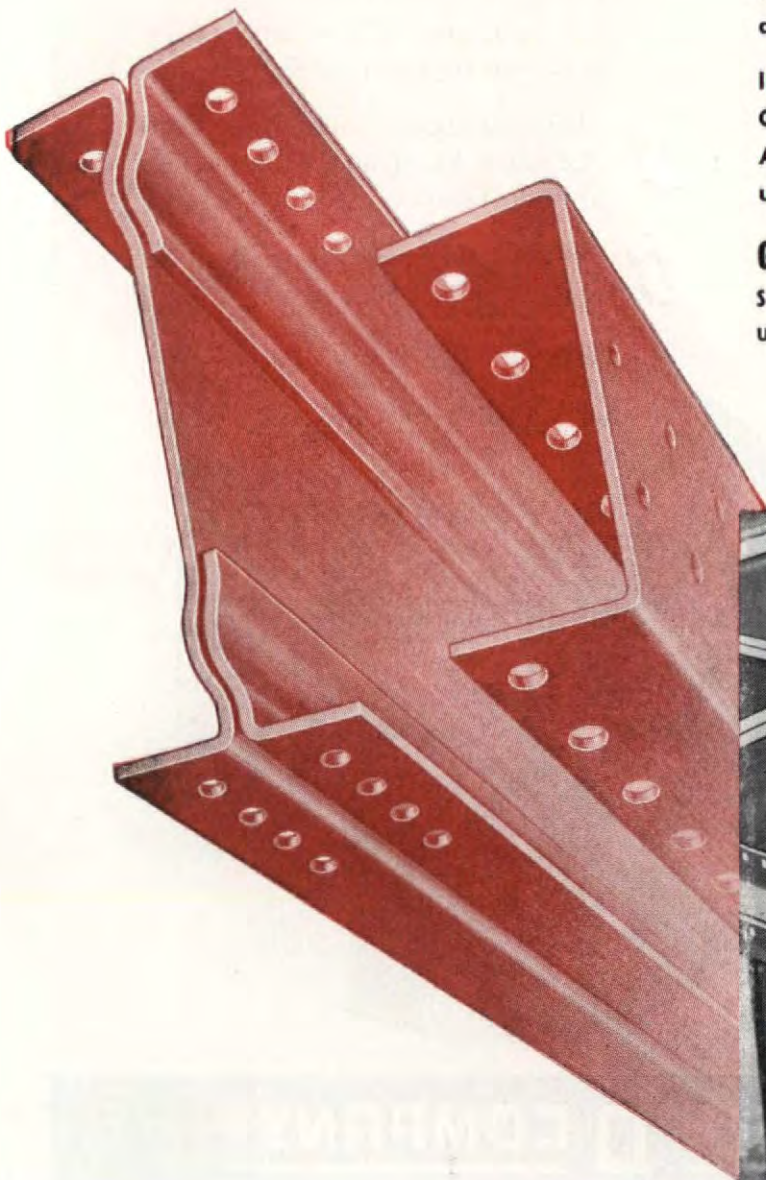
Any structure that begins with Stran-Steel has a long, money-saving future ahead of it. Built around a fire-safe, all-steel frame that cannot rot, warp or sag, it will spare the owner the expense and inconvenience of cracked walls and sagging floors.

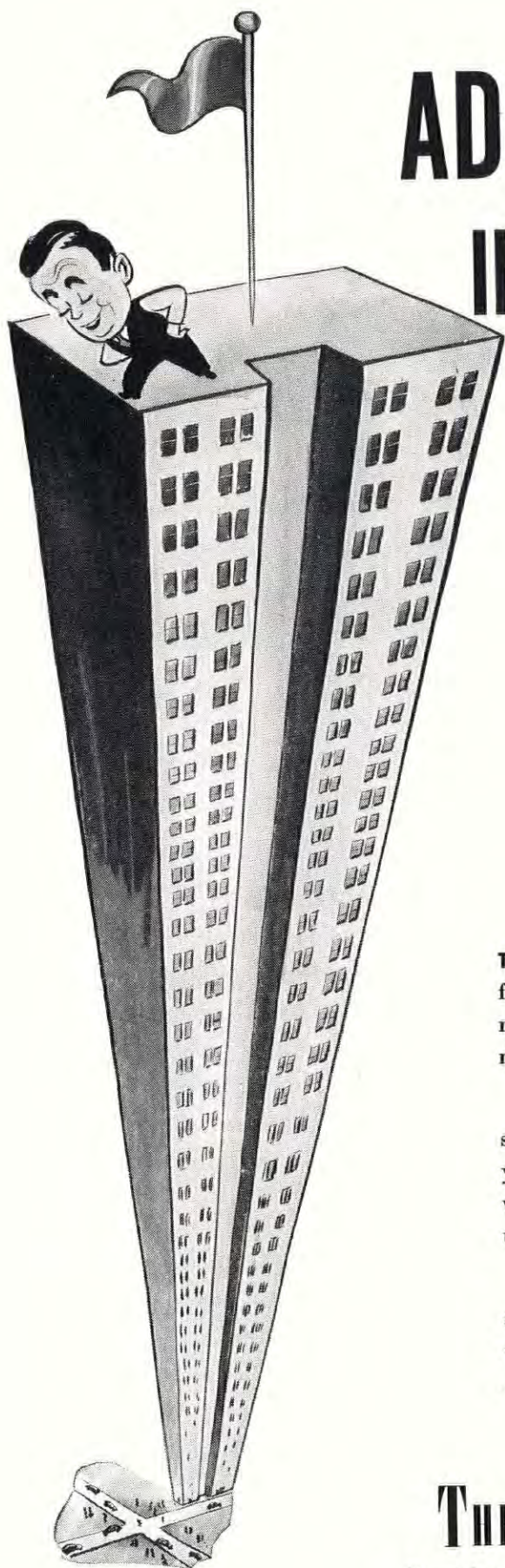
The Stran-Steel method makes lightweight steel framing extremely practical and economical for light-load buildings, and permits full play to the architect's skill. Joists, studs and channel plates are pre-cut to desired lengths for quick, easy erection on the site, without the use of special tools or equipment. By means of the patented *nailing groove*, collateral materials are nailed directly to the frame, and held there in a grip stronger than that of wood.

Investigate the full story of Stran-Steel framing. Complete details are contained in Sweet's File, Architectural, Sweet's File for Builders, or the January issue of Building Supply News.

GREAT LAKES STEEL CORPORATION

Stran-Steel Division • Penobscot Building, Detroit 26, Michigan
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ADLAKE WINDOWS IN YOUR BUILDING HELP SEND MAINTENANCE COSTS DOWN DOWN DOWN

THAT'S BECAUSE your Adlake Aluminum Window is built from lustrous aluminum that requires no painting nor maintenance. What's more your Adlake Window will never warp, rot, rattle, swell or stick.

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

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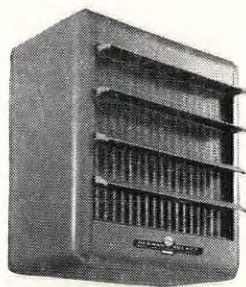
ESTABLISHED 1857

ELKHART, INDIANA

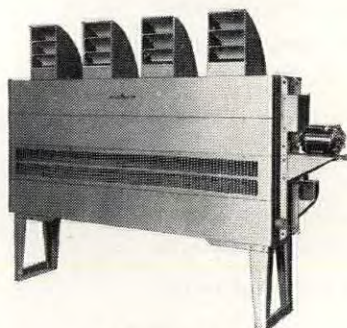
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But proper heating and ventilation
may be vastly more important
to your clients



Herman Nelson
Horizontal Shaft Propeller-Fan
Type Unit Heater



Herman Nelson
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Today . . . perhaps more than ever before . . . equipment which will help speed up production, cut down absenteeism and improve working conditions, is important to every type of business.

It's no wonder there is such a growing demand for Herman Nelson Propeller-Fan Type Unit Heaters. These units, available in a wide range of sizes and capacities, have proved their superiority in thousands of industrial plants and commercial establishments of all types. Like other Herman Nelson Products, these unit heaters are designed and built for maximum operating efficiency and economy. They incorporate laboratory and "use-tested" features, resulting from 40 years confined exclusively to the manufacture of quality heating and ventilating products.

The statement, "You can't buy better products than those bearing the Herman Nelson nameplate," is as true today as it was in 1906.

Consult THE NEAREST HERMAN NELSON PRODUCT APPLICATION ENGINEER OR DISTRIBUTOR. He will provide practical as well as technical assistance in the most satisfactory solution of any heating or ventilating problem.



THE HERMAN NELSON CORPORATION
for 40 years manufacturers of quality heating and ventilating products
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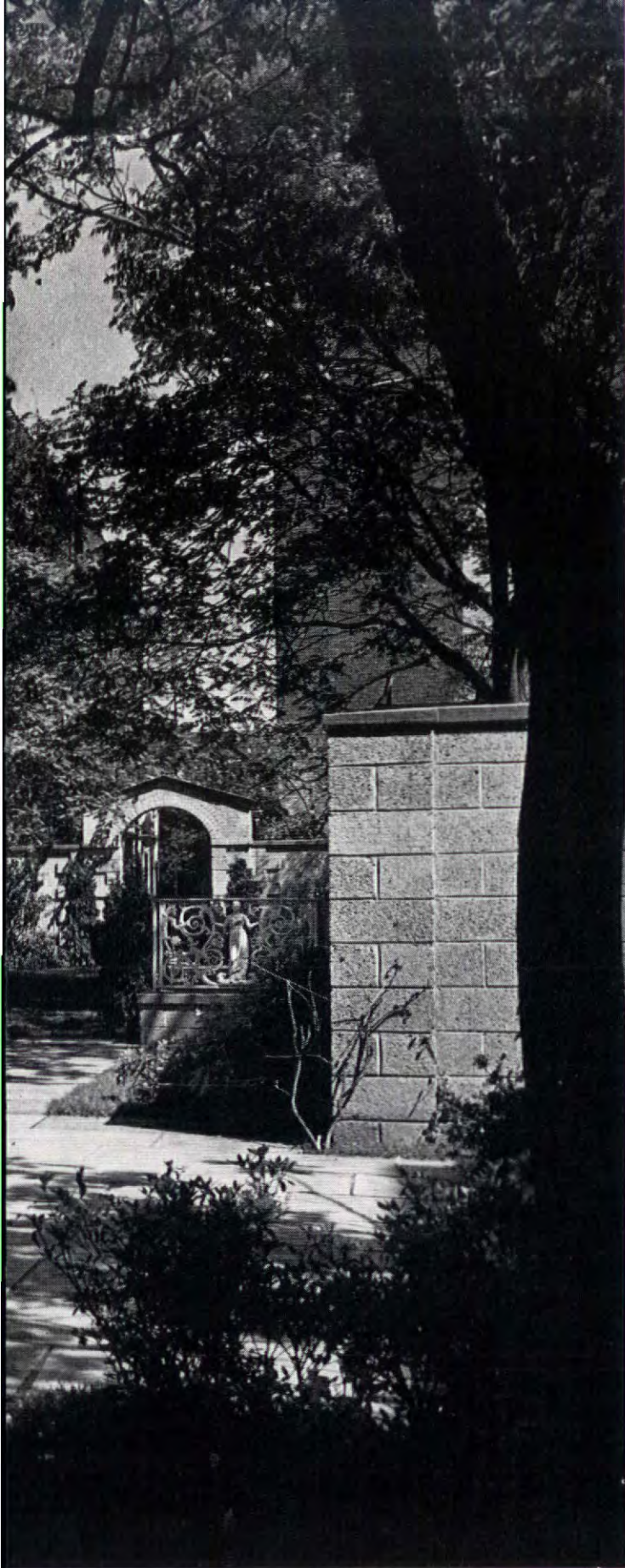
Ben Schnall



IN THE HEART OF NEW YORK,
THE ATMOSPHERE
OF A HOUSE IN THE COUNTRY

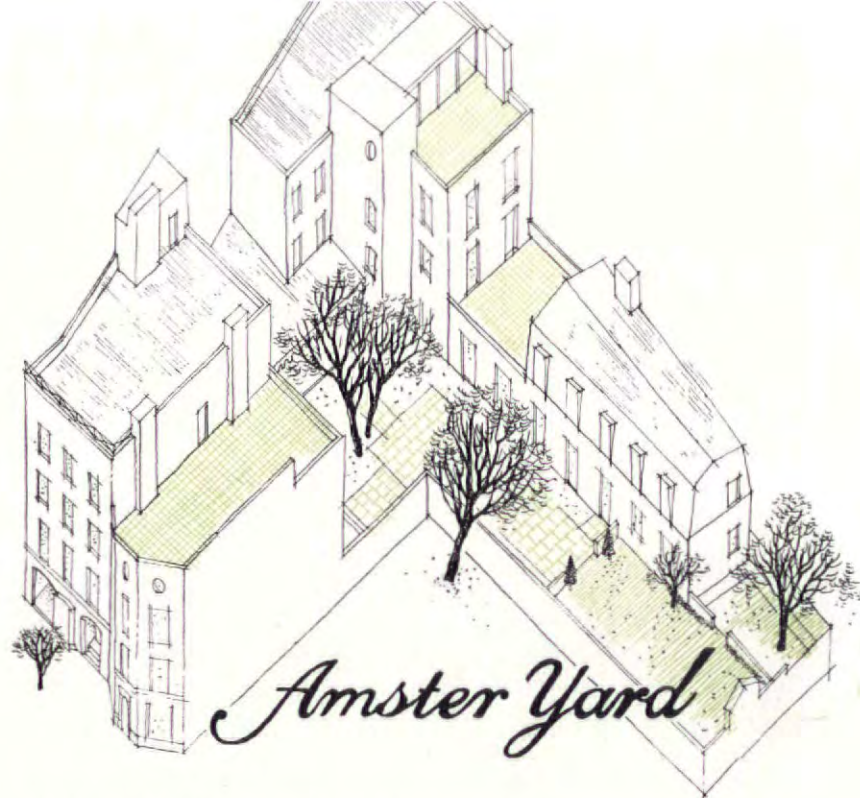


Reclaimed from a century of urban neglect, the heart of a city block is converted into a handsome garden surrounded by apartments and



P. A. Dearborn

professional offices.

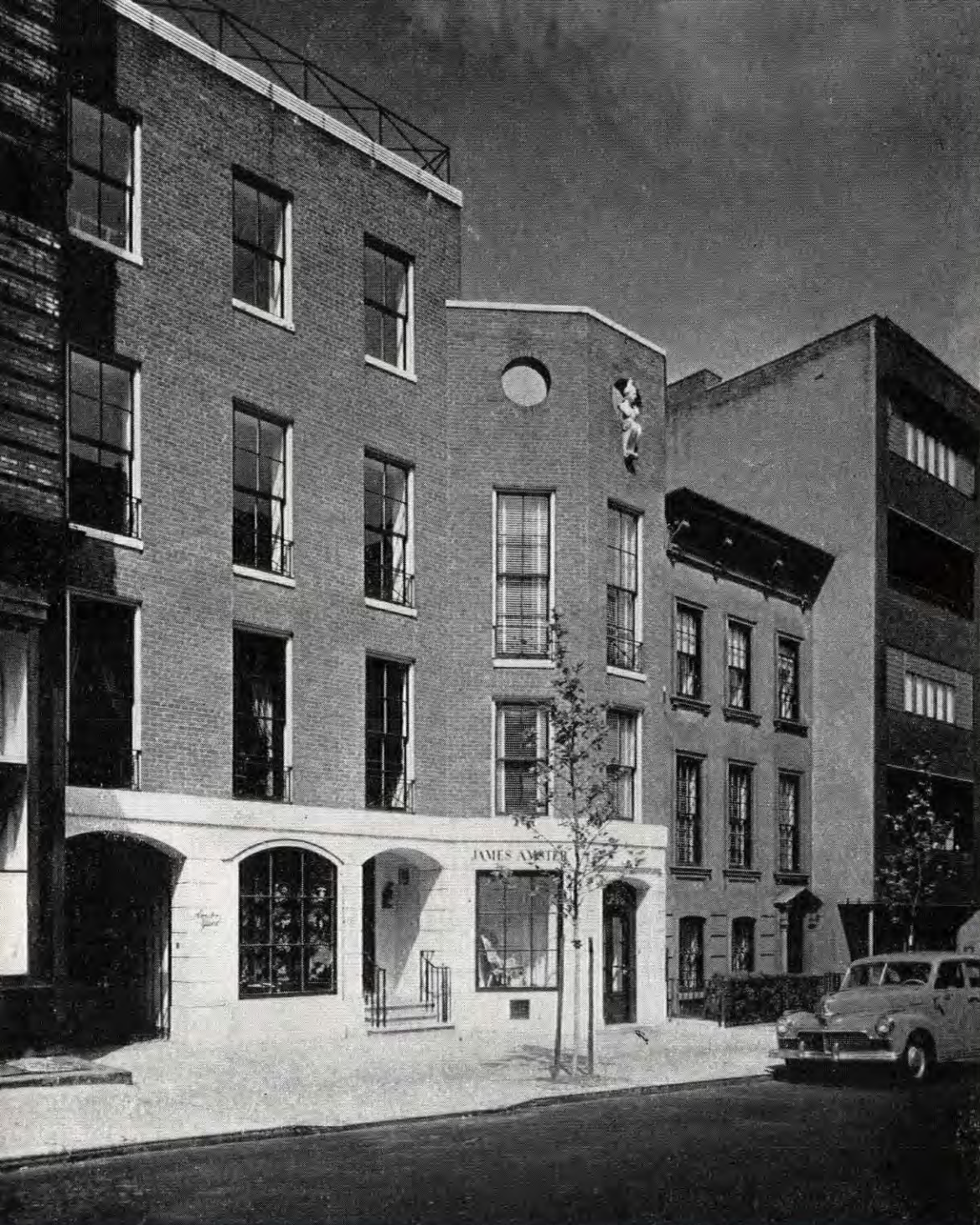


A year ago, the L-shaped plot on which this development in Manhattan's upper east side is located was a fairly typical cross-section of metropolitan real estate. Along its south or street front were two shabby brownstone houses. A nondescript three-story building of uncertain vintage occupied the inner northwest corner. And a rambling line of what might have once been stables formed the north wall of the courtyard. The brilliant modern sculptor, Isamu Noguchi, had a studio there. Located here, too, were several enterprises of vaguely artistic nature. These, together with overhead clotheslines and volunteer ailanthus trees, gave the courtyard a general atmosphere of genial if slatternly neglect.

When James Amster, the present owner, took possession in the fall of 1944, the property had two cardinal virtues. It lay in the path of a redevelopment which was spottily but surely reclaiming this section of the island from blight. And it was ideal for Amster's own interior decorating business—being only a stone's throw from Third Avenue, center of the thriving antique-furniture-and-biblot trade. At the same time, of course, the plot presented many ticklish problems. All four buildings were in poor condition structurally: yet they could not be wrecked without being subject to the new and stringent zoning ordinance of December, 1944, which would have required a 25 ft. setback along the rear property line. On the other hand, to use the existing buildings along the rear it was necessary, under another code requirement, to allot two-thirds of the total area to shops and offices. These were just two of the plan limitations around which architect Harold Sterner had to work his way before reaching the admirable solution shown on these pages.

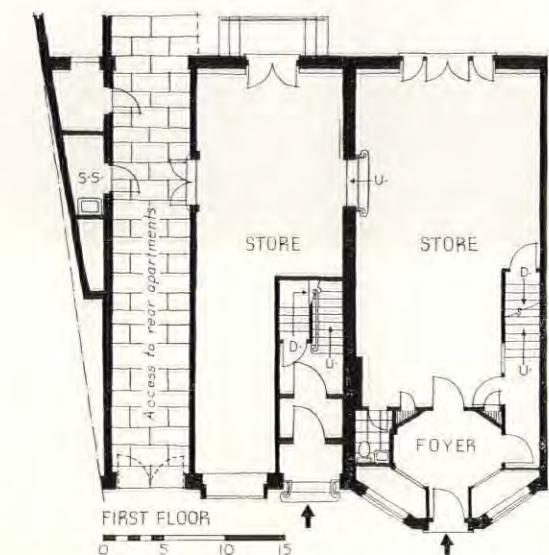
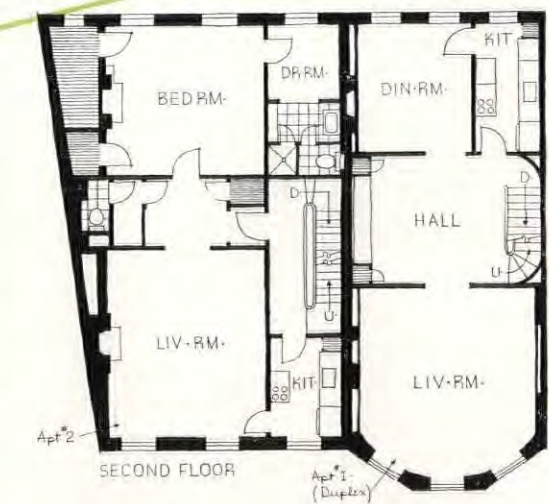
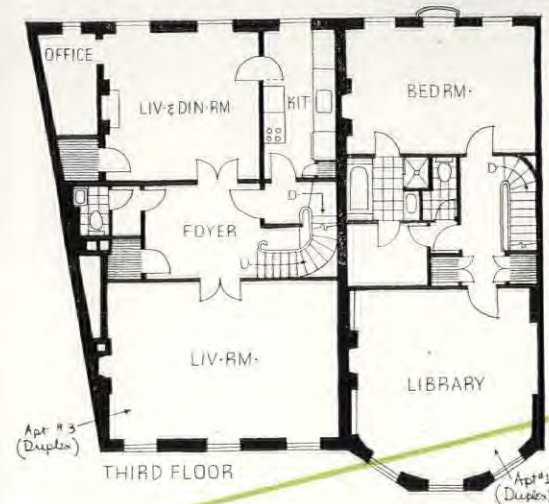
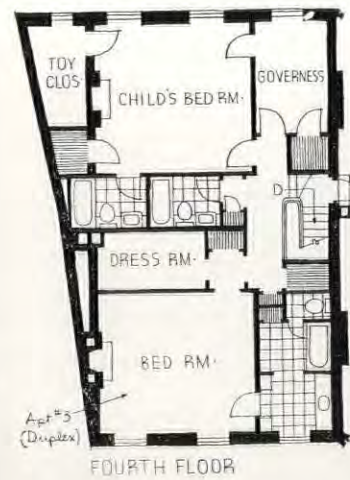
Then there were problems of financing and material. Concerning the first, Amster is cautiously caustic—New York lending institutions are notorious for their lack of imagination, their hesitancy to finance any type of building enterprise even slightly off the beaten path. However, through perseverance and tact, financing was secured, and the owner reports—not without satisfaction—that he now has a fairly steady stream of admiring visitors from the real estate and mortgage fraternity. As for the materials—neither owner nor architect are entirely clear as to just how they *did* secure them. Success was mostly due to indefatigable shopping, although ability to make quick substitutions played its part. "We shopped all over," Amster says. "We had to find the wire, find the pipes, find the boiler. We had to shop to get just the right color of bricks for the front, for the flagging in the garden, for the metal canopy in the garden. . . . On the opening day, however, I was still minus two refrigerators." Despite the fact that costs ran higher than anticipated, only moderate increases in rents were necessary.

The Yard is pleasantly nostalgic, a tribute to the skill and restraint with which traditional ornament has been combined with simple mass. Its character was largely determined by the project's eight tenants, all of whom had signed leases before work began and all of whose tastes and possessions inclined towards eighteenth century France.



NEW BOWED FRONT EMPHASIZES SHOP, MINIMIZES VARIATION IN FLOOR LEVELS OF TWO HOUSES

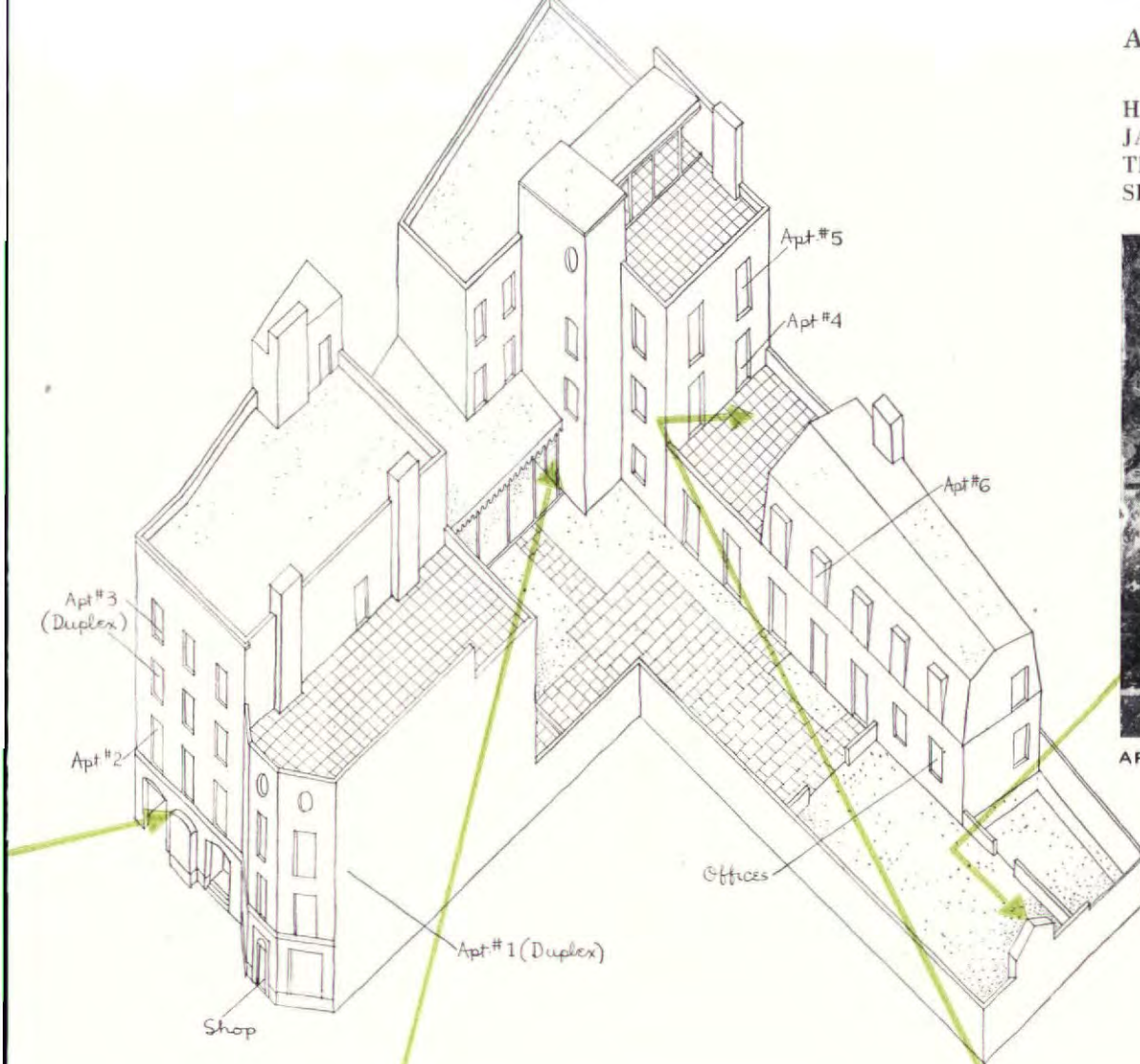
OWNER'S FOYER HAS MIRROR-BACKED SHELVES . . . AND USES ANTIQUE DOOR TRIM AND STAIRRAIL



Photos: Ben Schnall

AMSTER YARD

HAROLD STERNER, Architect
JAMES AMSTER, Owner and Decorator
THEODORE SANDLER, Interior Design Consultant
SHEPPARD-POLLACK INC., General Contractors



ARCH HAS WEATHERPROOF MIRROR

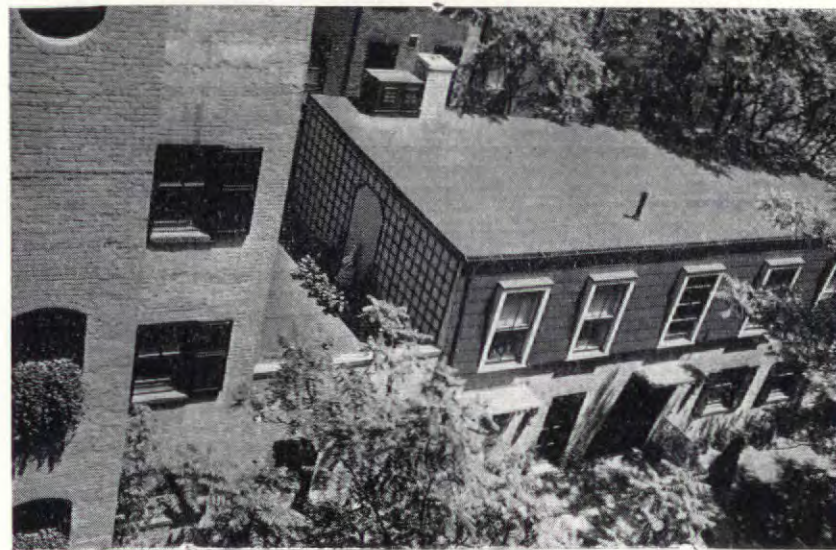
OPEN STAIRTOWER PROVIDES SIMPLE, HANDSOME ACCESS TO APARTMENTS

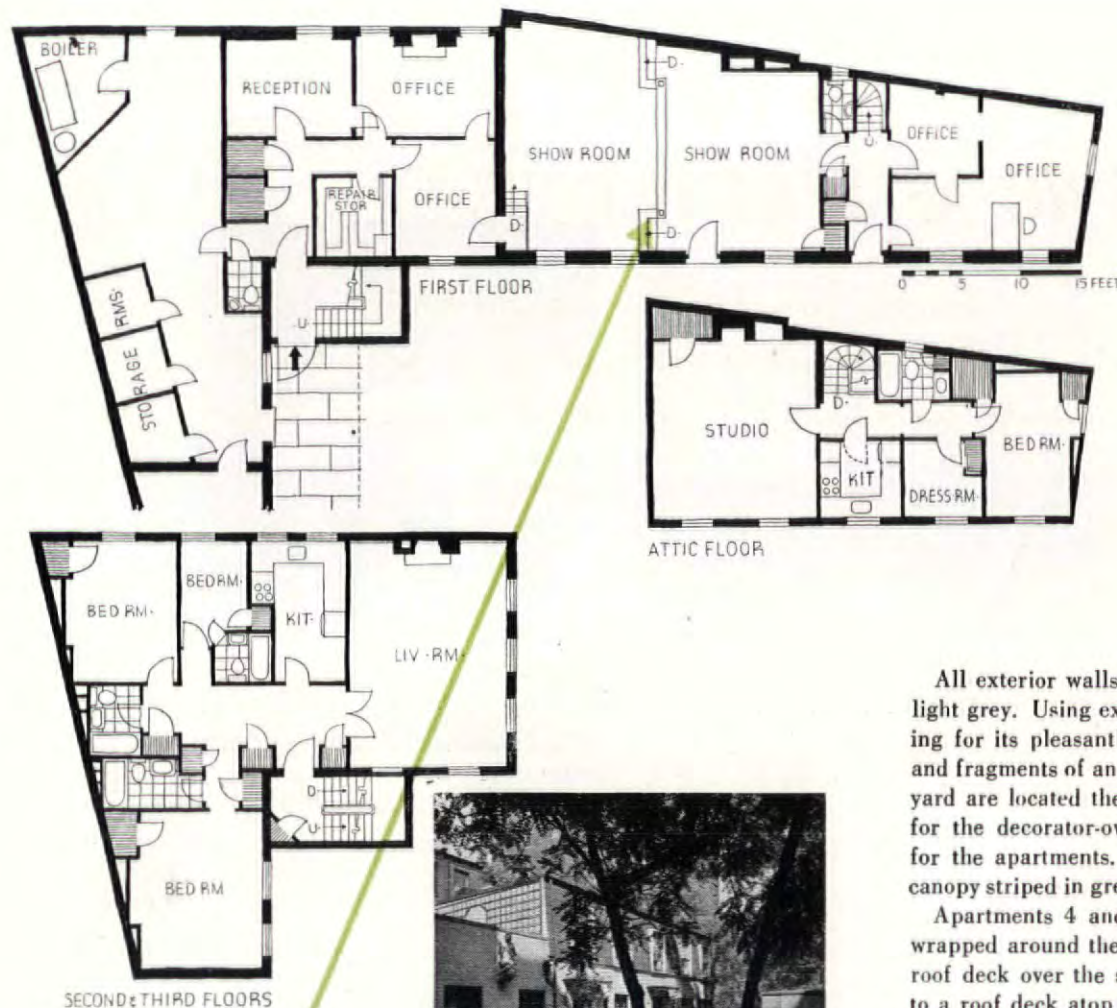


P. A. Dearborn

The four buildings in the Yard not only have intelligent (if somewhat formal) individual plans; they also represent an adroit manipulation of the building, zoning and housing ordinances which beset the New York architect. Thus unsightly and expensive fire escapes, and fire-retarded halls were avoided in the two front buildings by keeping one a single family house (Apt. 1) and the other a two-family house (Apts. 2 and 3). A single ground floor shop across both buildings was made possible by installation of a 3-hour fire door in the party wall. Similar ingenuity is apparent in the buildings at the rear. The code required new fireproof stairhall to Apts. 4 and 5, with fire-retarded entrance doors. This was met by rebuilding the existing open stairtower and installing special fireproof wooden entrance doors which still met requirements.

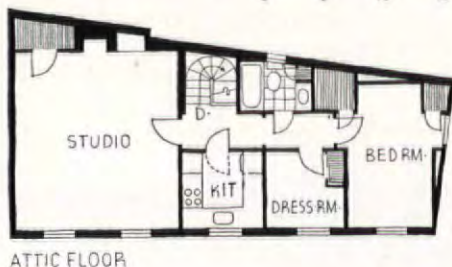
MANSARD GIVES COURTYARD NOSTALGIC AIR OF OLD FRANCE





AMSTER YARD

HAROLD STERNER, Architect
JAMES AMSTER, Owner and Decorator
THEODORE SANDLER, Interior Design Consultant
SHEPPARD-POLLACK INC., General Contractors



ATTIC FLOOR



PROJECT MAKES A JUDICIOUS USE OF SCULPTURAL FRAGMENTS

All exterior walls facing on the courtyard are painted in a cool, light grey. Using existing trees, the garden was re-landscaped, relying for its pleasantly romantic effect upon the baroque sculptures and fragments of antique ironwork. Along the rear line of the courtyard are located the offices of the architect, show room and offices for the decorator-owner, and storage space and hot water heater for the apartments. The loggia leading to the street has a metal canopy striped in grey and green with a flagstone floor (see page 63).

Apartments 4 and 5 have an identical, L-shaped plan which is wrapped around the open stair tower. The lower one has a private roof deck over the showroom, both have access via the stair tower to a roof deck atop the building. The architect's own apartment is in the new mansard section over his offices.

Like the units along the street, those in the garden are heated by metered steam from a utility company. There is a completely equipped laundry in the basement below the owner's salesrooms: this is available to one tenant each day.

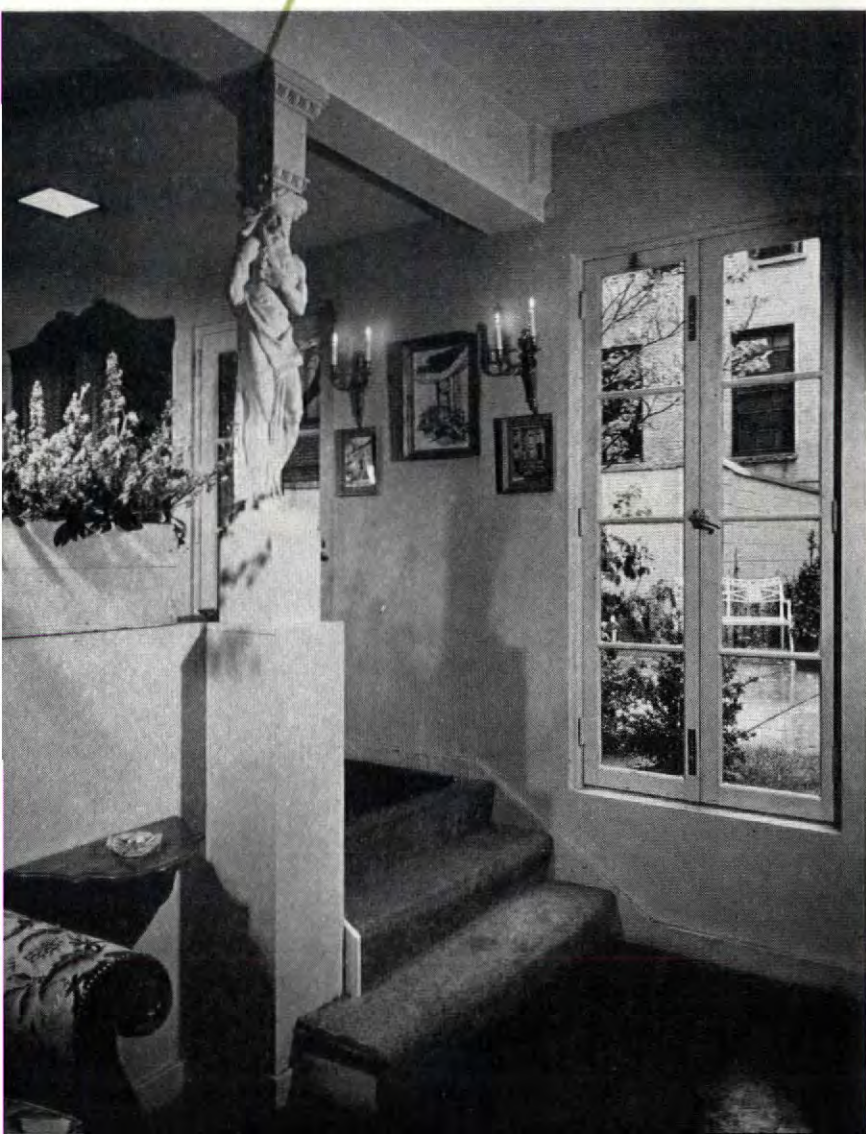
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—new brick on street facade, furring, metal lath and plaster. Floors—new oak parquet or strip throughout. Ceilings—plaster on wire lath. **ROOF**—asbestos shingles, Johns-Manville. Decks—mineral surfaced roofing. **INSULATION:** Roof and exterior apartment walls—rockwool. **FIREPLACE:** Damper—H. W. Covert Co. **SHEET METAL WORK:** Flashing and leaders—copper. Ducts—sheet metal. **WINDOWS:** Sash—double hung and casement. Glass—Pennvernion, Pittsburgh Plate Glass Co. **FLOOR COVERINGS:** Kitchens and bathrooms—linoleum. **WALL COVERINGS:** Living rooms—some wallpaper. **KITCHEN EQUIPMENT:** Ranges—Magic Chef, American Stove Co. Sinks—stainless steel. Cabinets—Kitchen Maid Corp. Fan—American Blower Corp. **ELECTRICAL INSTALLATION:** Switches—Hart & Hegeman. **LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliances, Inc. **BATHROOM EQUIPMENT:** American Radiator-Standard Sanitary Corp. **WATER PIPES**—brass. **HEATING**—metered steam. Radiators—Trane Co. **AIR CONDITIONING**—York Corp. Water heater—Everhot Mfg. Co.

ARCHITECT'S OFFICE AND FLAT ARE SELF-CONTAINED



Photos: Ben Schnall



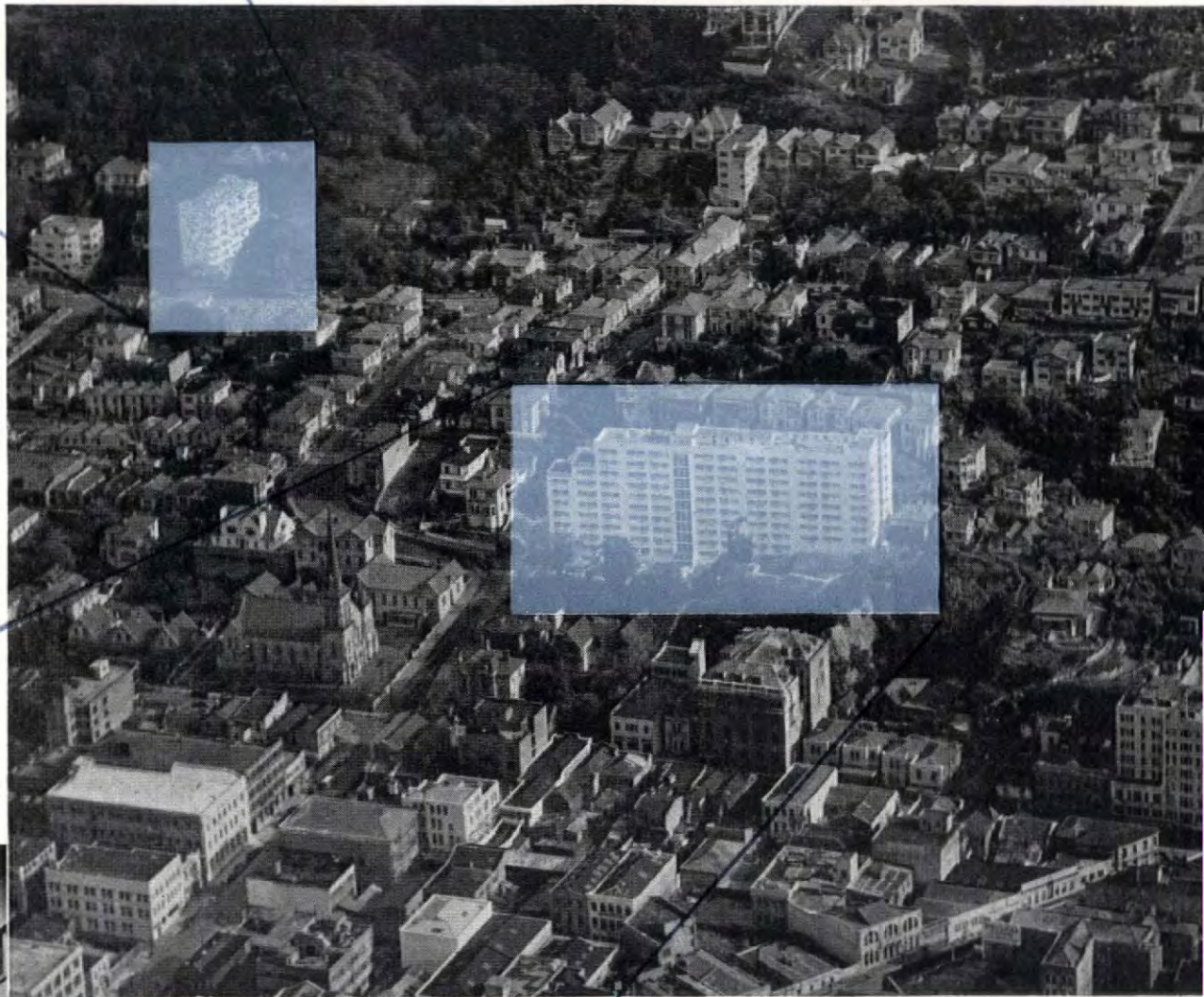


McLEAN FLATS HAS TWENTY-FOUR UNITS

TWO APARTMENT HOUSES in Wellington, N. Z.

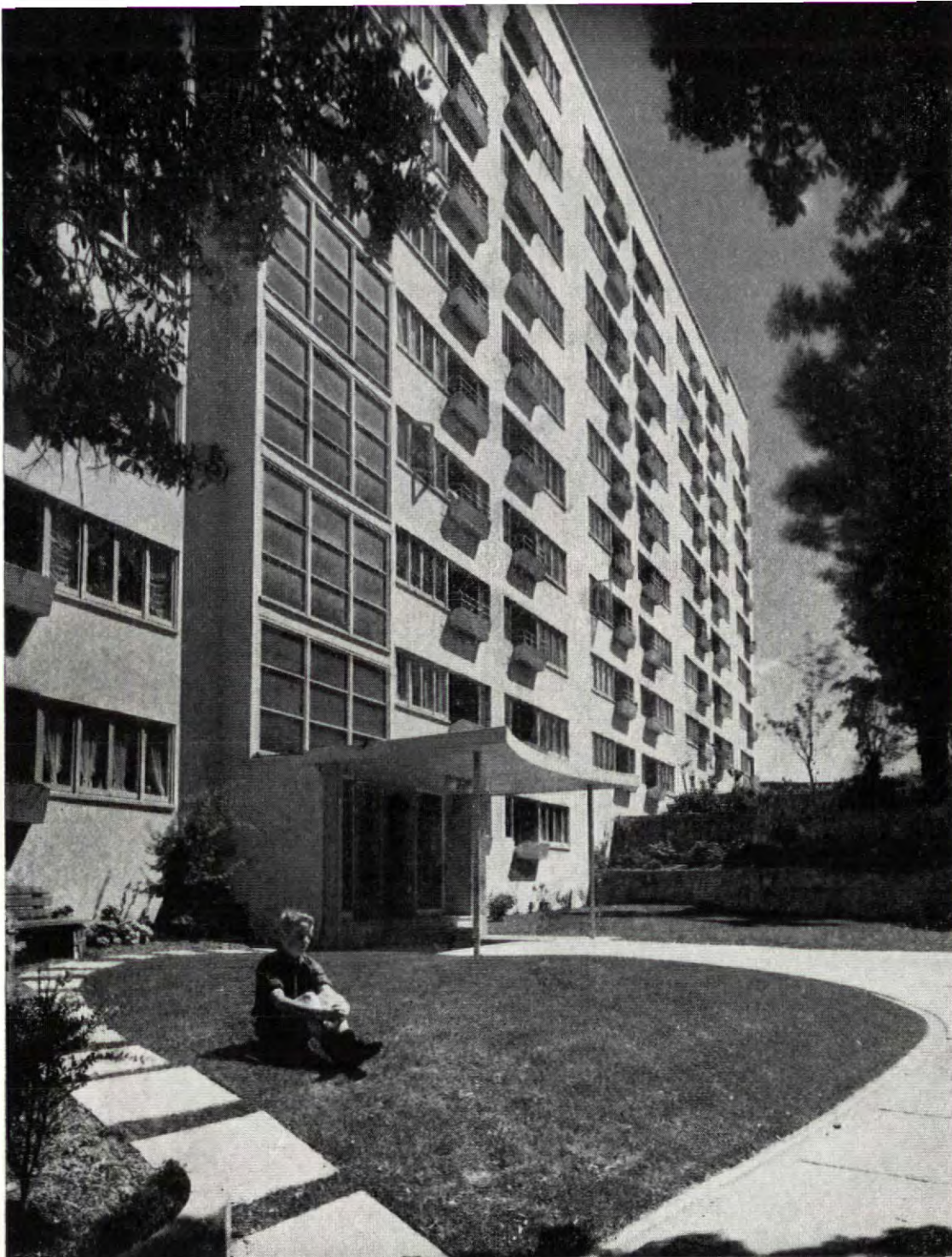
Two low cost multiple dwellings recently erected under a vast government housing program set high standards for workers' quarters. Gordon F. Wilson, supervising architect.

AIRPLANE VIEW OF WELLINGTON INDICATES ACCESSIBILITY OF THE NEW APARTMENT BUILDINGS



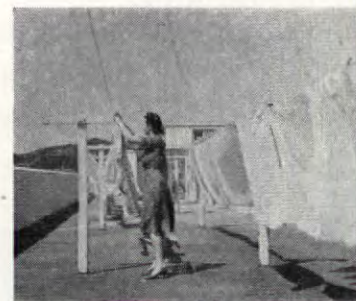
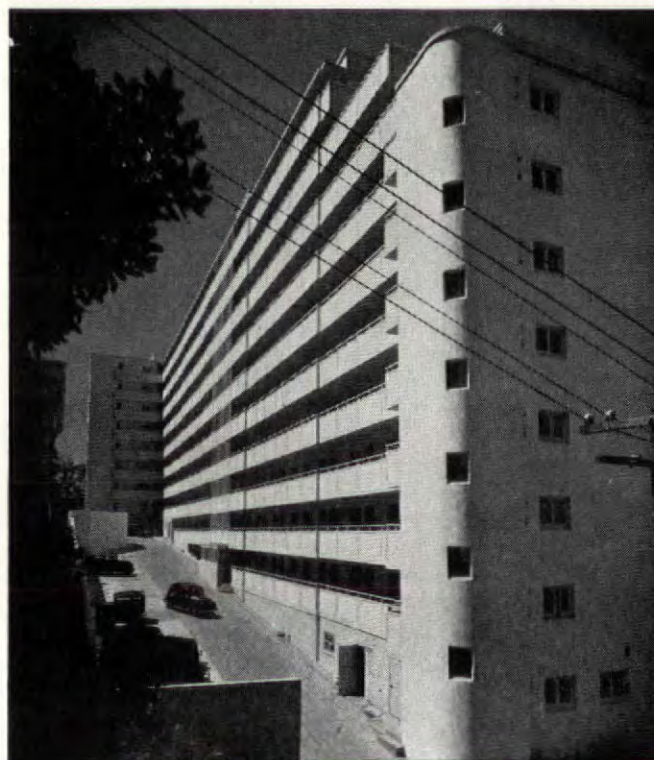
EAST FACADE OF DIXON STREET FLATS



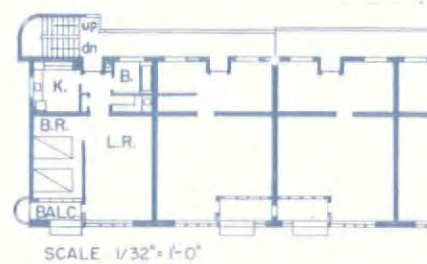
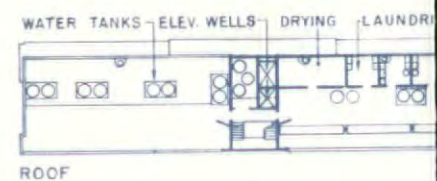


VERTICAL COLUMN OF WINDOWS ABOVE ENTRANCE GENEROUSLY LIGHTS CENTRAL STAIRWELL

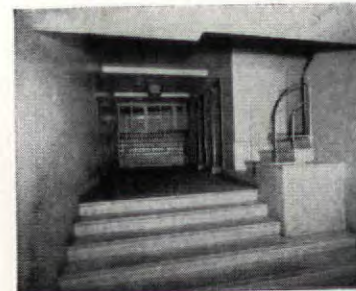
ACCESS TO APARTMENTS IS ALONG OPEN BALCONIES



WASHING IS SUN-DRIED ON RO

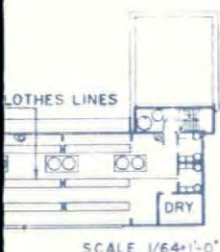


CLEAN, UNADORNED ENTRY HA

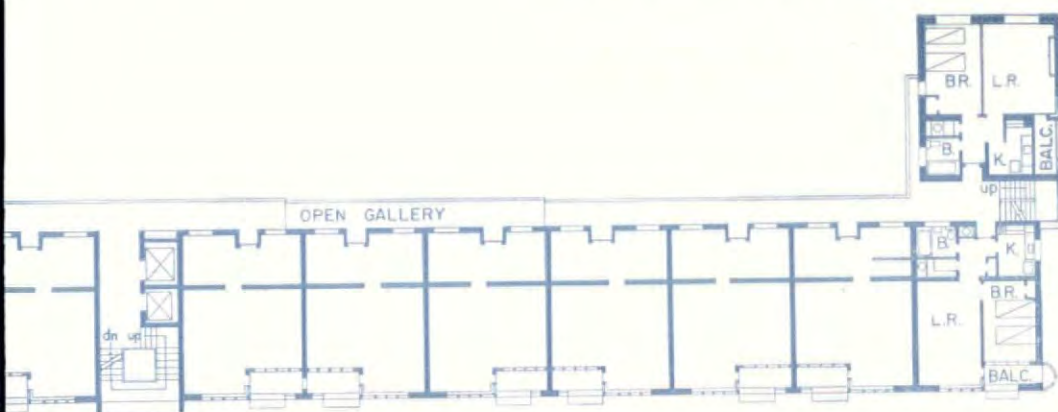


PORTICO AT GARDEN ENTRAN





DIXON STREET FLATS COMMAND A HARBOR VIEW, ARE WELL ABOVE SURROUNDING HOUSETOPS

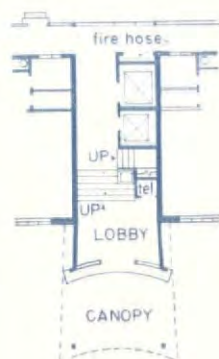


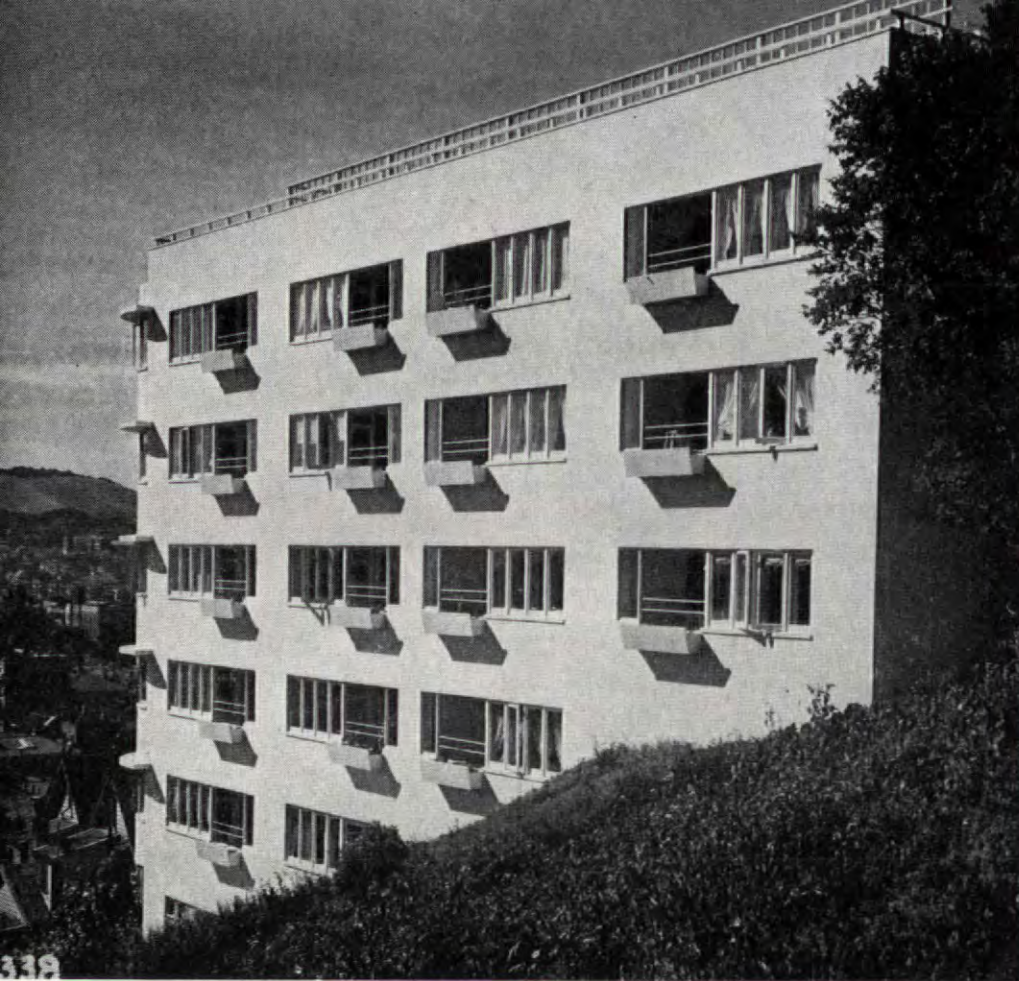
Complete privacy, good light and ventilation are key elements in the design for one of Wellington's largest apartment buildings.

New Zealand's state housing program which was inaugurated in 1936 to stimulate recovery from the depression, has, to date, produced over 20,000 rental units. Aimed to take up the slack between the number of houses provided by private enterprise and the number needed by the people, the great majority of the government-built units are individual houses of the bungalow type. However, some multiple dwelling units like the ones presented here have been erected in larger cities like Wellington and Auckland. Both types set an overall standard for workers' housing unparalleled in any other country.

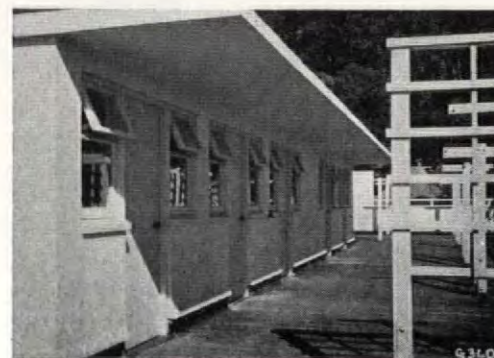
The Dixon Street flats (above) are typical of the larger, most recent buildings. The aim of the architects of the Department of Housing Construction was to develop a multi-unit block that would incorporate as many advantages of house planning as possible. A definite feeling of privacy has been gained by locating apartment entrances along an open air gallery, ranging all windows so that they cannot be looked into from other apartments. The over-all impression is one of small individual houses placed in rows, one above the other, rather than of a conventional flat. All living rooms and bedrooms are oriented to the east, have unobstructed view of the harbor. Individual, recessed balconies are large enough for outdoor dining. Though they receive full benefit of the morning sun, they are protected from the prevailing westerly wind. Racks placed below the balustrade level permit the drying of light washing on the balconies without disfiguring the general appearance of the building. This minor convenience supplements sixteen large laundries which, contrary to general practice, are located partially on the roof, partially at ground level. In the unit plan the position of the kitchen adjacent to the front door keeps traffic down to a minimum, almost abolishes the need for a service entrance.

Dixon Street flats, which contains 116 one-bedroom apartments, occupies a one-acre site. After a careful study including requirements for earthquake resistance, a cellular reinforced concrete system of construction was chosen, for its light weight and because it eliminates columns and beams. Bearing walls are about 8 in. thick, floors, two-way reinforced, 5 in. thick. Exterior walls vary from 6 to 8 in. with 2 by 3 studs placed 1 in. clear of the concrete for insulation and to take care of condensation.

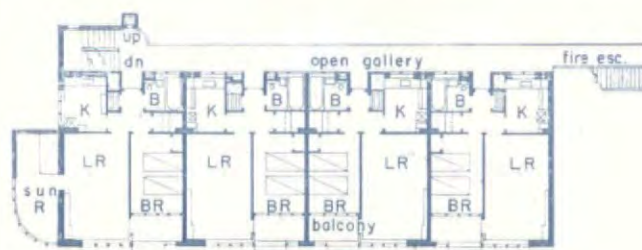




UNGLAZED WINDOW AREAS ARE ACTUALLY OPENINGS FOR RECESSED PORCHES

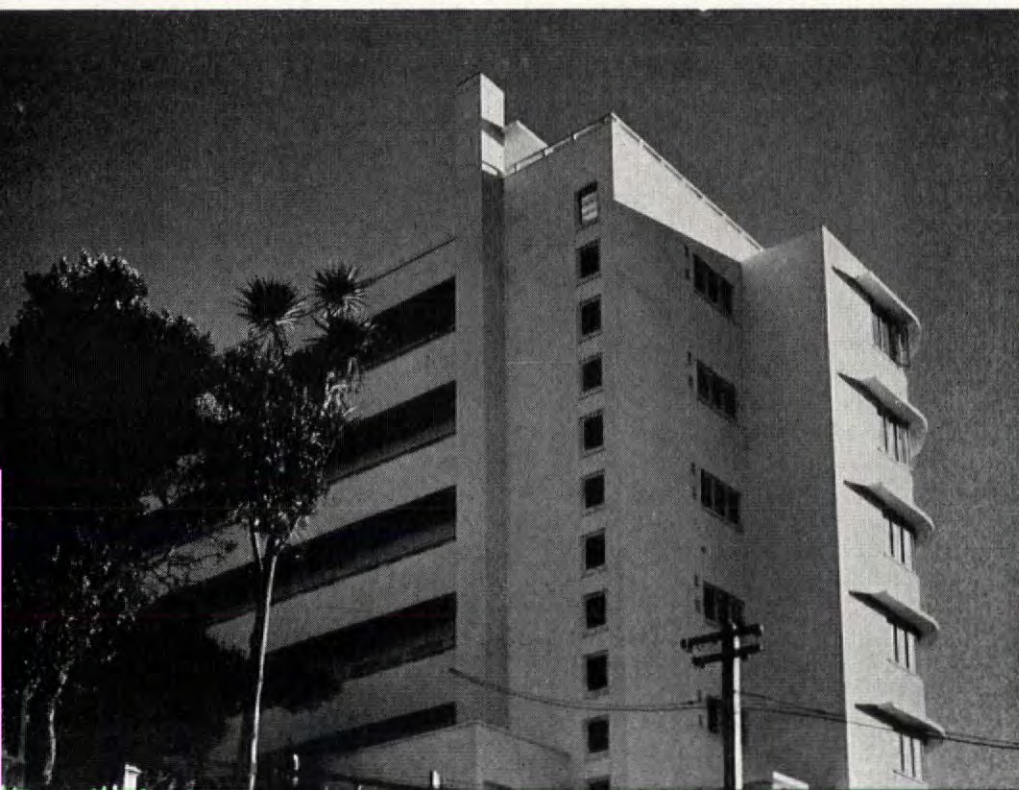


BOTH BUILDINGS HAVE ROOF LAUNDRIES



A common planning idiom is applied to both large and small buildings.

CORNER UNIT IN McLEAN FLATS BOASTS AN ADDITIONAL GLAZED SUNROOM



Many people suspicious of state housing in general will find their fears of drabness, uniformity and high cost allayed under New Zealand's system of building. Reiterating most of the planning features of the Dixon Street apartments, McLean flats presents a smaller version of the low-cost multiple dwelling. The main entrance, instead of being centered as in the larger apartment house, is at the end of the building, gives directly onto the street. One apartment on each floor enjoys a secondary bedroom which can also be used as a sun room. Rents in both buildings range from £17/6 to £19/0, about one-third the customary price asked for similar facilities in privately constructed buildings.

Although 80 per cent of the demand for houses is concentrated in Wellington and Auckland the proportion of apartments erected as compared with individual houses is only 1½ per cent. In both, however, tenancy form is rigid. The tenant must keep his premises in good order and repair, is not allowed to sublet any part of it, neither can he conduct any form of business in the building. However, if unemployed, the tenant is permitted to retain his home rent-free until he can again afford payment. Veterans and families with children are given preference over other applicants.

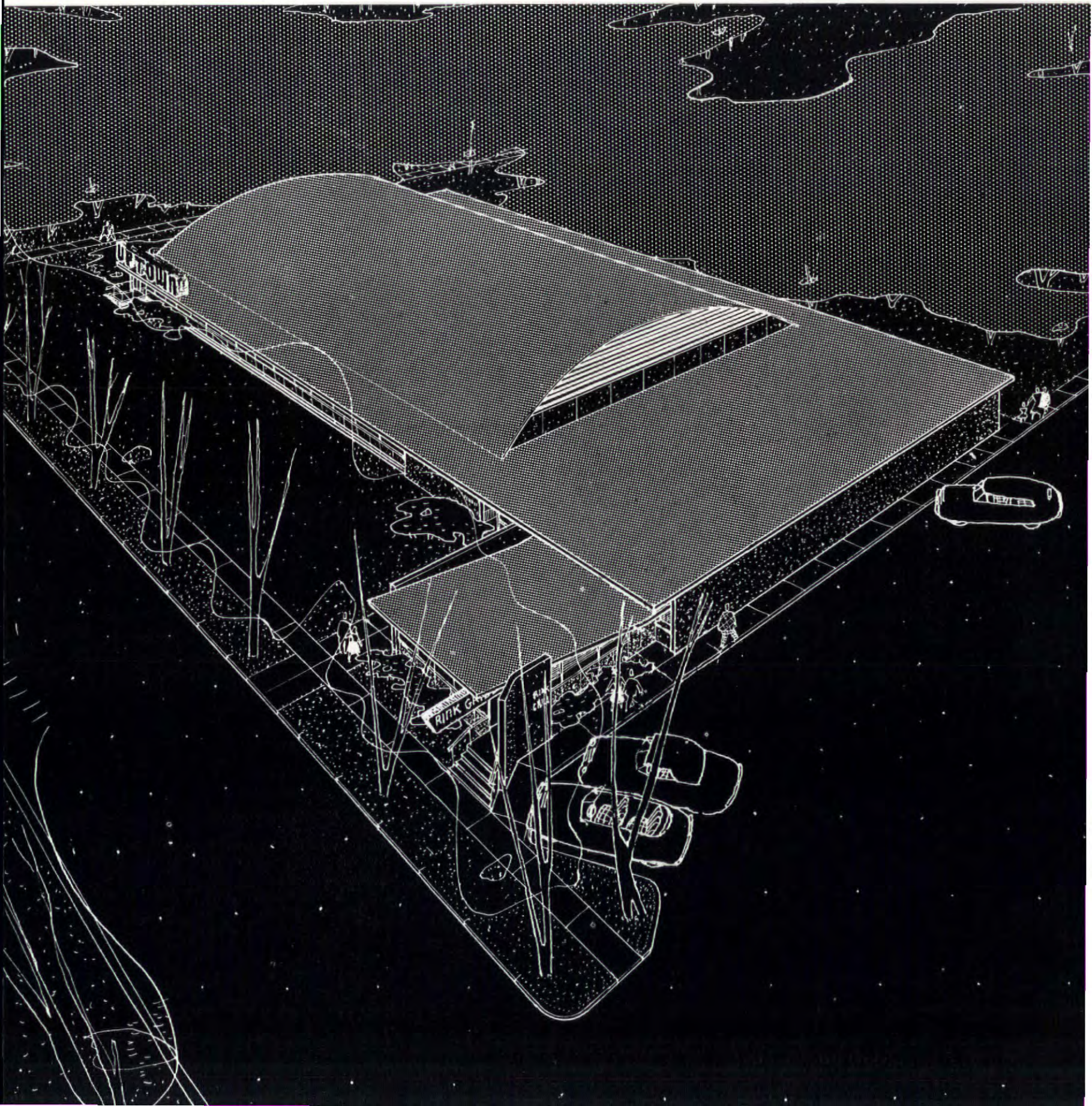
SKATING RINK

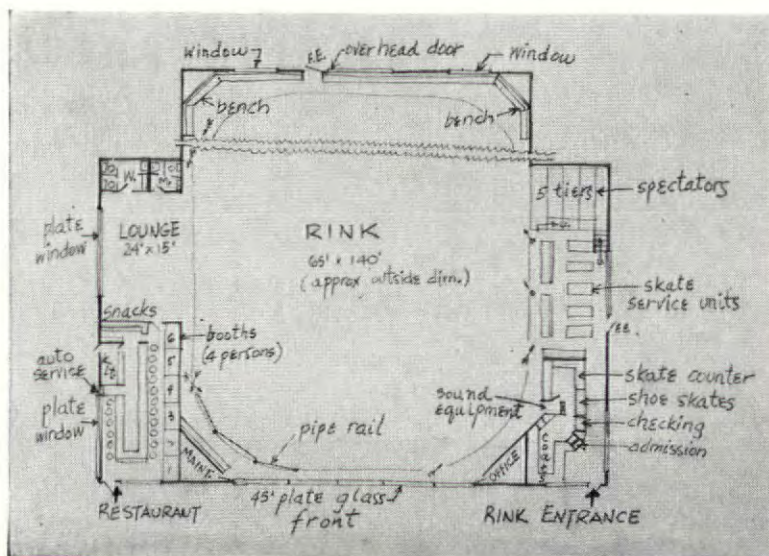
BUILDING PREVIEWS

Planned for a small Oklahoma town this rink affords a glimpse of typical community recreational buildings of the future.

JOE BOAZ, Architect

E. C. MEEKS, and R. R. RICHARDSON, Owners





CLIENT'S ORIGINAL SKETCH SHOWS DIVIDED CUSTOMER FACILITIES

Skating rinks, like theaters, appear to have outgrown the hand-me-down period. There may have been a day when any old warehouse or abandoned armory could be flooded and frozen, but ice-skating has become prominent enough to warrant custom-designed facilities in a great many communities. It has, of course, the great advantage of immunity to terrain and climate, promises to give roller skating and bowling a close run for favorite.

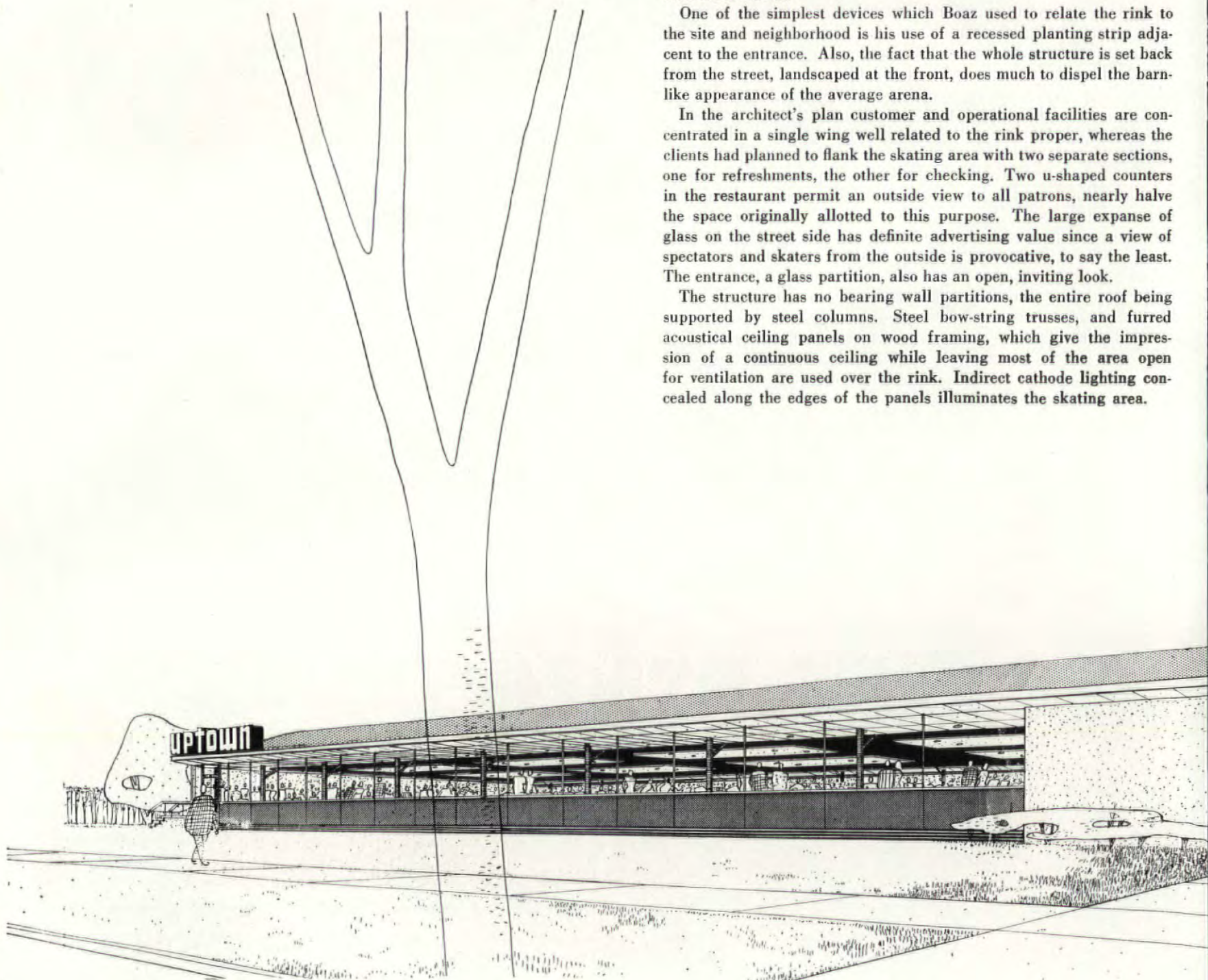
Architect Joe Boaz, who, not so long ago, deserted New York for a practice in Oklahoma, takes the problem of skating rinks seriously. His design, concise and efficient, would be appropriate on Main Street in any American town. A skillful combination of arch and flat roof construction gives the building a definitely permanent appearance and despite its unavoidable bulk it fits unobtrusively into a business neighborhood.

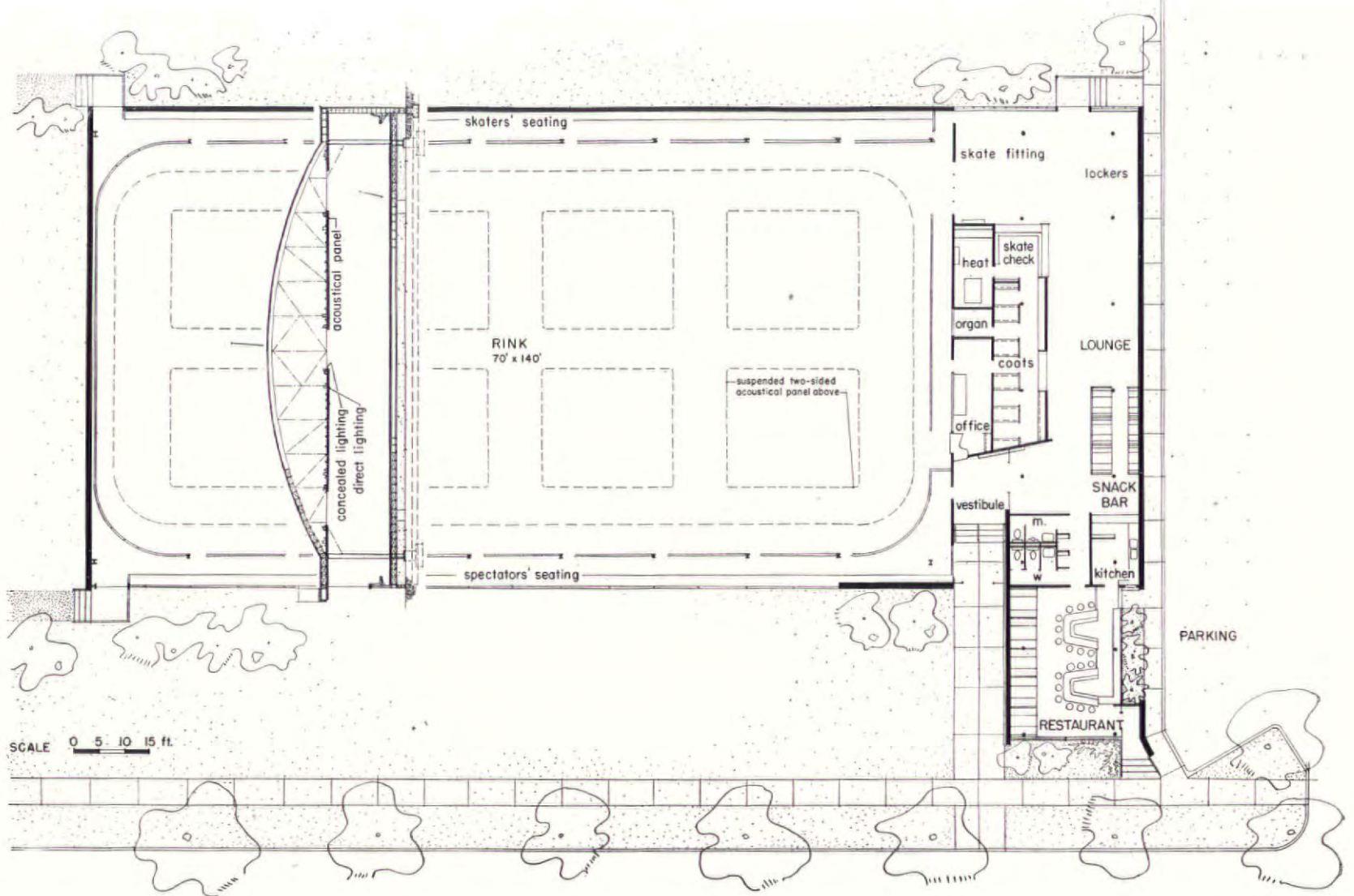
Architecturally speaking, the owners of the rink needed convincing. Being familiar with the financial and operational requirements for such an establishment they believed themselves qualified to design one. Their final sketch, (and not a bad one compared to most existing rinks), appears at left. Having drawn this up while still in the Navy they were as self-confident as they were positive they could not afford to pay a professional designer. Finally, on sound advice they agreed to consult an architect, submitted their drawing to Boaz who astounded them by reorganizing it, saving enough space, material and money to more than cover his fee.

One of the simplest devices which Boaz used to relate the rink to the site and neighborhood is his use of a recessed planting strip adjacent to the entrance. Also, the fact that the whole structure is set back from the street, landscaped at the front, does much to dispel the barn-like appearance of the average arena.

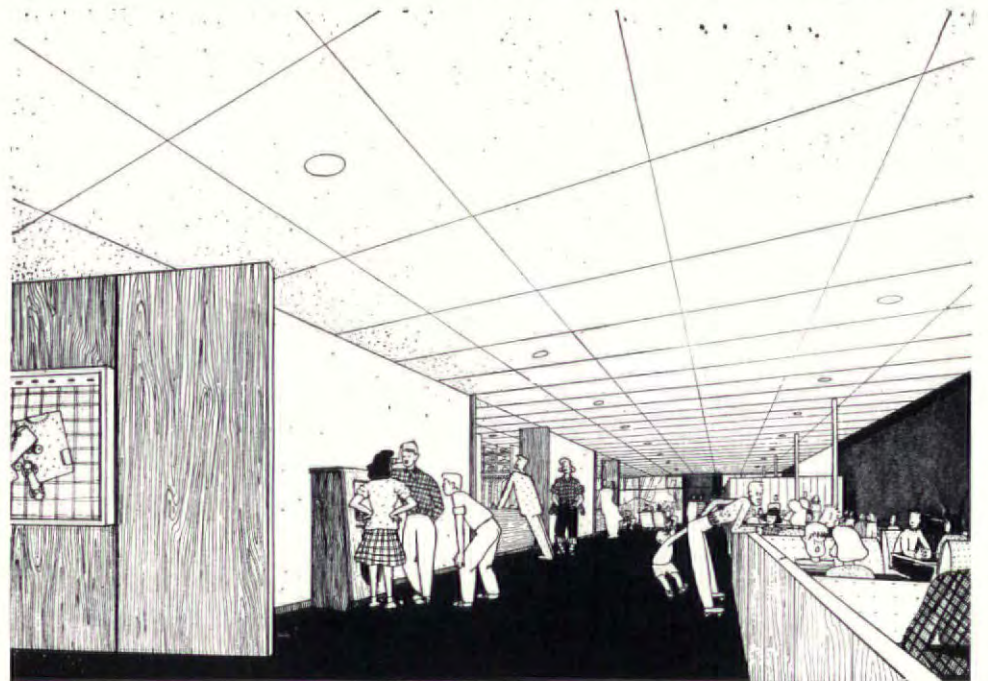
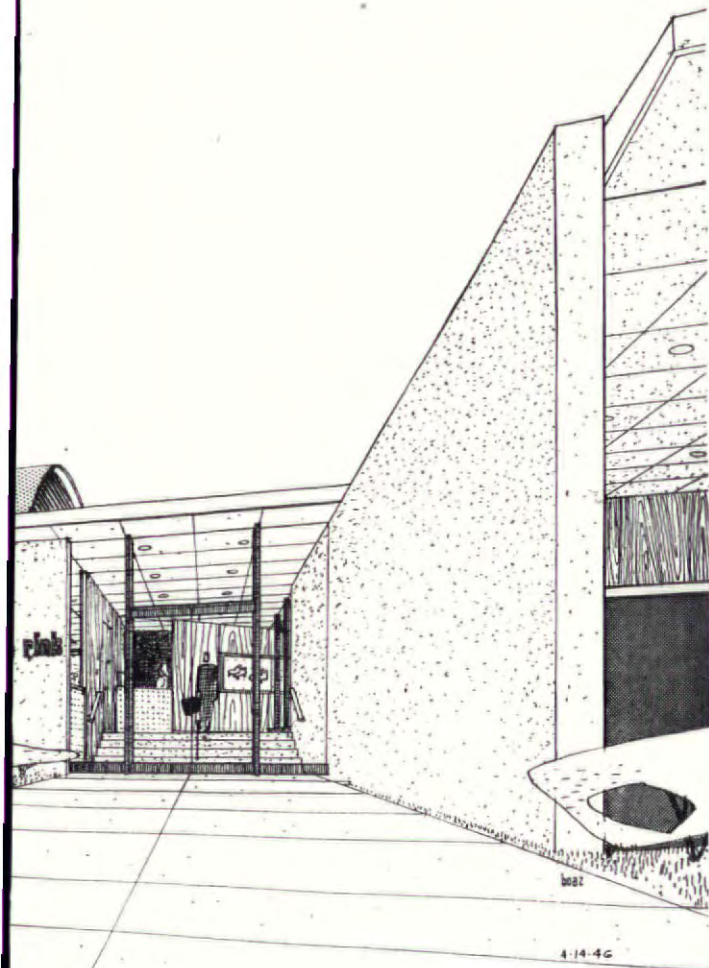
In the architect's plan customer and operational facilities are concentrated in a single wing well related to the rink proper, whereas the clients had planned to flank the skating area with two separate sections, one for refreshments, the other for checking. Two u-shaped counters in the restaurant permit an outside view to all patrons, nearly halve the space originally allotted to this purpose. The large expanse of glass on the street side has definite advertising value since a view of spectators and skaters from the outside is provocative, to say the least. The entrance, a glass partition, also has an open, inviting look.

The structure has no bearing wall partitions, the entire roof being supported by steel columns. Steel bow-string trusses, and furred acoustical ceiling panels on wood framing, which give the impression of a continuous ceiling while leaving most of the area open for ventilation are used over the rink. Indirect cathode lighting concealed along the edges of the panels illuminates the skating area.





SEATING AREAS for skaters and spectators are separate, flanking the rink on two sides. Both have individual exits channeling all circulation in one direction. In view of the rink's size which is almost as large as the one in Madison Square Garden, it is surprising that tier seating has not been arranged. Ice carnivals, exhibitions, etc., draw large crowds and adequate facilities for entertainment of this type would greatly increase the revenue from the rink. The refreshment area, a self-contained unit is set well apart from checking and other service facilities.



INTERIOR view of entrance area shows check rooms at left, six refreshment booths along the right wall. Stucco, the exterior finish material carries past the main doorway to the top of the stairs. The extreme simplicity of the interior treatment makes for easy maintenance but at the same time produces a cheerful, well-tailored effect. The rear wall of the lobby, except for an entrance leading from the parking lot, is completely glazed.

SHOPPING CENTER

Grass will literally grow on Rye's main street when plans for revamping its business section are executed.

CITY OF RYE, N. Y., Owners

KETCHUM, GINA AND SHARP, Architects

Exactly three years ago FORUM pointed out that the 1932 campaign slogan of grass in the streets was something devoutly to be hoped for rather than to be feared. FORUM raised the question (Aug. 1943) as to why American Main Streets need be asphalt wastelands—ugly to look at, dangerous to cross, hard to enter and harder to escape. Why not deflect vehicular traffic, replace the paving with grass, trees and benches, and throw a ring of public parking areas around the rear of the stores? Now, the city of Rye is preparing to do just that to its four-block-long business district.

One town which does not propose to sit idly by and let its business district drown in its own chaotic traffic is Rye, N. Y. An old town which in recent years has become a prosperous suburban satellite of New York City, Rye's downtown section is primarily a retail goods and services center. Its customers are largely motorized and, even before the war, the city was aware of an acute traffic and parking problem. But, unlike many towns, Rye used the wartime breathing spell to do something about it. The City Council, through its Planning Commission, went to work: Homer Hoyt and Frederick J. Adams* were engaged to make economic and physical analyses of the business district.

The results were sufficiently alarming. Dr. Hoyt found that, in 1944, at least \$3 million worth of retail trade—a third of the annual \$9 million retail total spent by Rye people—went to stores outside of Rye. A vicious circle had been established: people couldn't shop conveniently in the main business center so they bought out of town; this cut down volume for Rye's merchants and discouraged them from keeping adequate and varied stocks; then the people who did reach these stores failed to find what they wanted. Inconvenience of shopping, inadequacy of merchandise, alienation of trade, depression of values—this is the chain of related disabilities which analysts Hoyt and Adams laid bare.

Many-sided as Rye's problem was, its crux was found to lie in traffic congestion and totally inadequate parking facilities. The principal thoroughfare—named, almost too aptly, Purchase Street—is five blocks long. At its north end is the station, used every week-day by a large proportion of the population which commutes to work in New York (24 miles and 40 minutes to the southwest). Its south end empties into the heavy traffic of the Boston Post Road. Since most of the town's

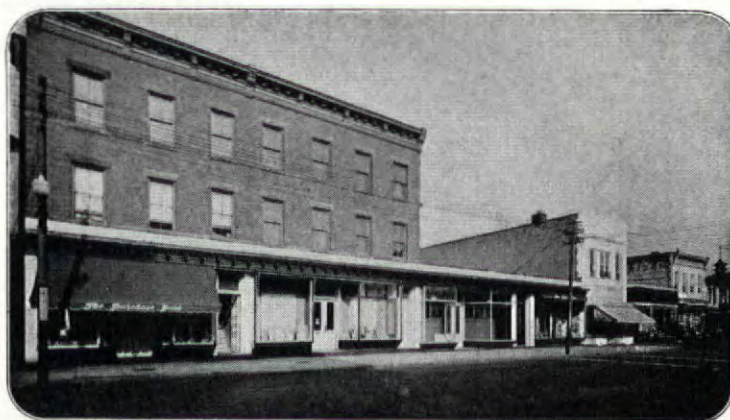
residential section lies across this road to the east and south, along the shore, Purchase Street becomes the most direct route for commuters. This leads to heavy traffic jams morning and night, and during shopping hours.

In addition to parking space for shoppers, there is the added problem of providing space for commuters—many of whom leave their cars at the station (or as near as they can get to it) all day.

The scheme shown on these pages was developed by the architects under the supervision of Morris Ketchum, Jr. and Vincent Furno. It provides for a radical revision of this traffic flow with a surprisingly small disturbance of the business section itself. In effect, the business district will be converted into an island. Purchase Street will be closed off at both ends and planted in grass; the buildings which front on it will find it profitable to develop new faces at the rear; and a ring of tree-shaded municipally-operated parking lots will enclose the entire island. Traffic will be deflected around this central plot, with traffic circles

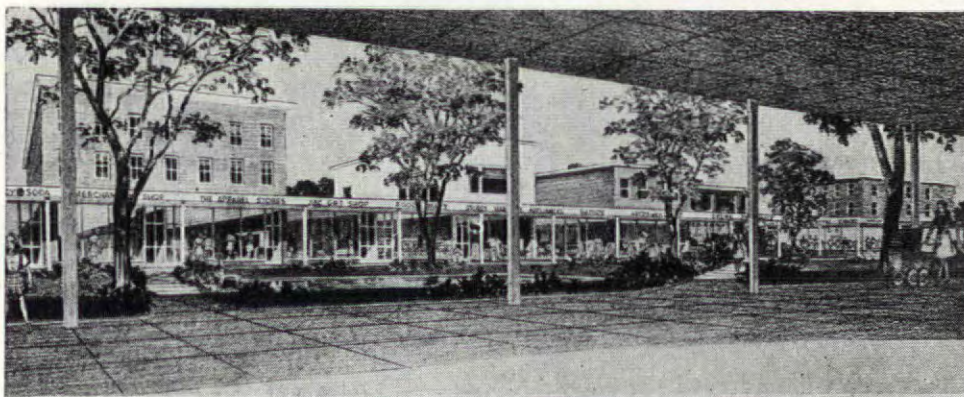
at both the station and the Post Road; and the station will have its own parking area independent of those for the shoppers.

But even this degree of physical replanning involved many property owners whose active support was essential to its success. To this end the proposed solution has been divided into two stages. This technique served both to keep capital cost within easily manageable limits and to demonstrate to the community as a whole the advantages of even a partial reconstruction. For the same reason, the scheme is so designed as to require a minimum of property condemnation, nor is any compulsion over the design of individual buildings contemplated. Since the rear of all the properties along Purchase Street will be exposed to public view, it is felt that their redesign will be both prompt and natural. The architects proposal calls for continuous, covered sidewalks along the entire length of Purchase Street. This architectural device, together with the proposed landscaping of the tree-shaded mall, will automatically unify the inner perspectives of the development.



The barren asphalt and disparate facades of Purchase Street . . .

. . . will be replaced by landscaping, unified by covered walks.



* Dr. Hoyt is Associate Professor of Urban Land Economics and Dr. Adams, Professor of City Planning at Massachusetts Institute of Technology.



Aerial view of the business district of Rye, N. Y., showing how reconstruction will deflect traffic and convert shopping area into island surrounded by parking areas.

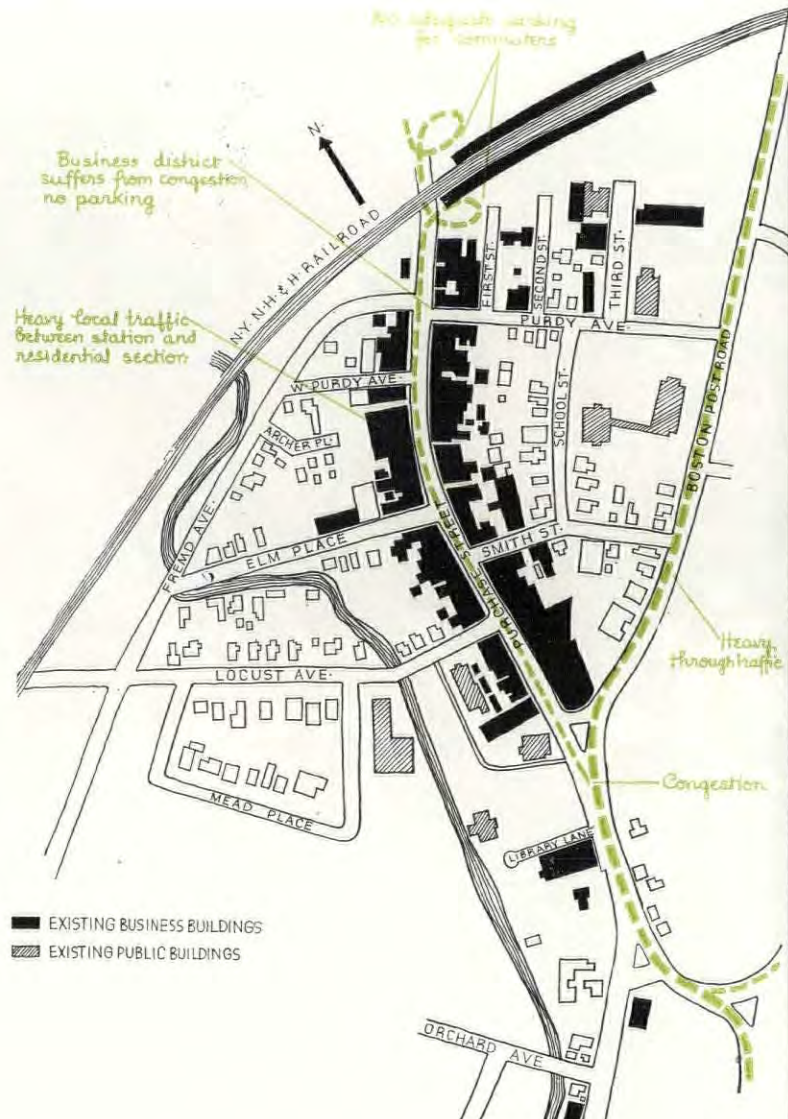
SHOPPING CENTER

CITY OF RYE, N. Y., Owners

KETCHUM, GINA AND SHARP, Architects

One of the most admirable qualities of the Rye project is its modesty and simplicity. From both the standpoint of physical planning and architectural development, the scheme is simple. It relies upon no monumental devices, calls for no grandiose alterations to the town center. Rather it proposes to eliminate merely those buildings and streets which are past their usefulness. At the same time, it provides a far more strategic location for a new firehouse. Its effect will be to greatly improve the periphery of the business section with a network of paths and landscaped areas. Existing trees are to be preserved wherever possible and new ones planted in the parking areas. Deliveries to and from the stores will also be facilitated by these parking areas, since they furnish direct access to all stores.

Architecturally, the proposed renovation of Purchase Street itself is reminiscent of an earlier and more leisurely day. The trees and covered sidewalks are actually no innovation; a 50 year old photograph shows both (left below). In their new form, the continuous arcades will extend the full length of the street on both sides. They will protect shoppers from winter snow, spring rain and summer sun. They will, at the same time, aid the shopkeepers by eliminating awnings and reducing glare and reflections in the show windows. Visually, they will unify the disparate facade along the street while reducing the need for any extensive modernization above the first floor. Together with the grass-planted, tree-studded mall which will replace today's asphalt, these arcades will make Purchase Street a safer and more pleasant place to shop.



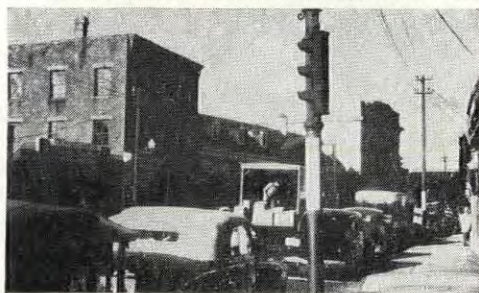
EXISTING CONDITION. Purchase Street suffers the double disability of not having adequate parking space for shoppers and of being an arterial connection between the station at the north and the Post Road at the south. Either one of these conditions by itself would make it difficult to shop conveniently in the area; together, especially at rush hours, they make it impossible. The obvious need is to deflect vehicular traffic around the central area, while at the same time providing off-street parking close to stores and to station. Appearance of whole district leaves much to be desired.

Fifty years ago Purchase Street had safe, tree-lined streets and covered walks...



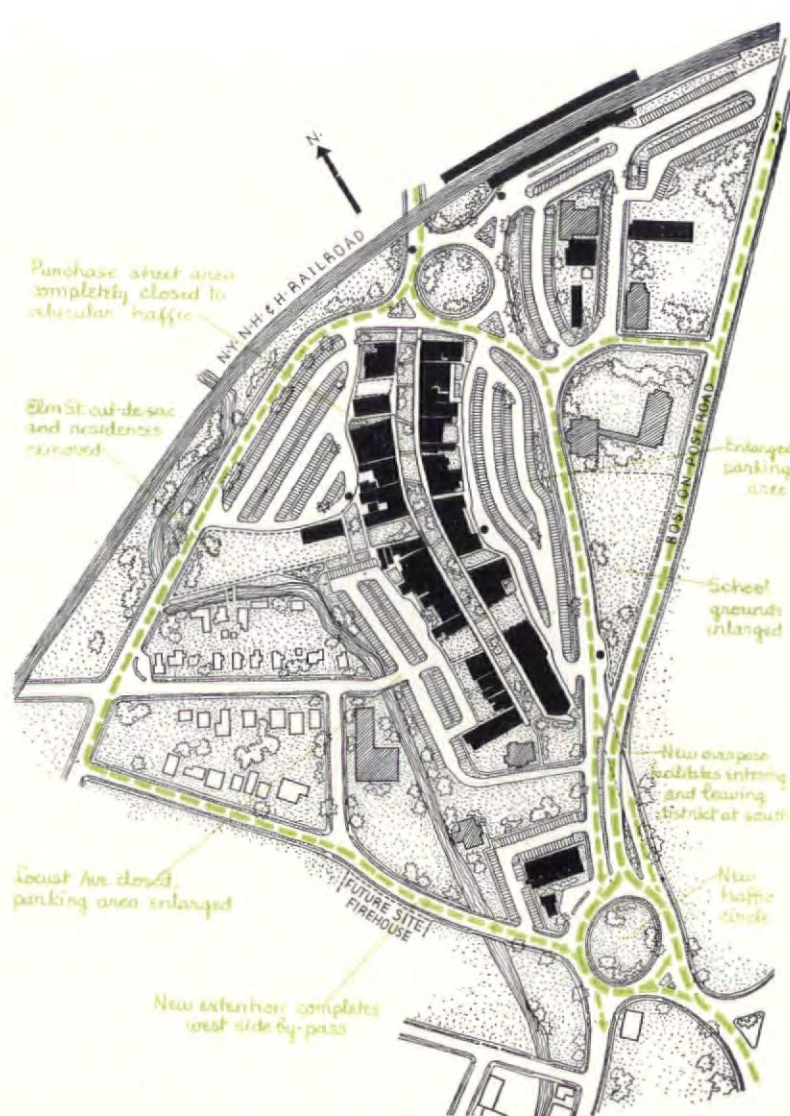
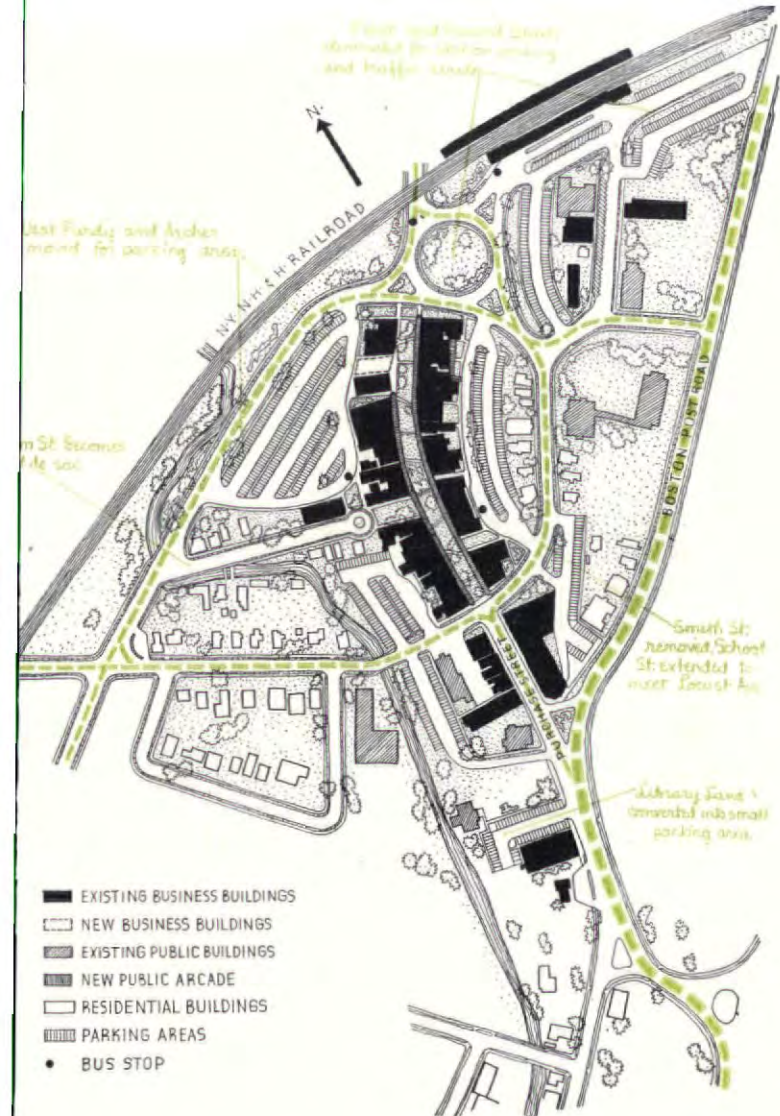
... Today its character is changed.

Noise, glare, congestion make shopping difficult



Tomorrow, quiet and comfort will return to Purchase Street. The shops will front on a little park of trees, grass and benches. Continuous covered sidewalks will provide all-weather access to all shops, while municipal parking behind the stores will make shopping easier.





IN ITS FIRST STAGE the new plan does exactly this. A traffic circle and parking lot for 215 cars is created at the station by closing First and Second Streets. The upper two-thirds of Purchase is closed to traffic, the paving replaced with a landscaped mall and existing buildings connected by continuous covered walks. Access to these stores is made easier than before by a parking lot for 226 cars immediately behind stores on west side and one for 100 cars on east. School Street is bent around to meet Locust and complete the by-pass. Elm Place becomes a dead end.

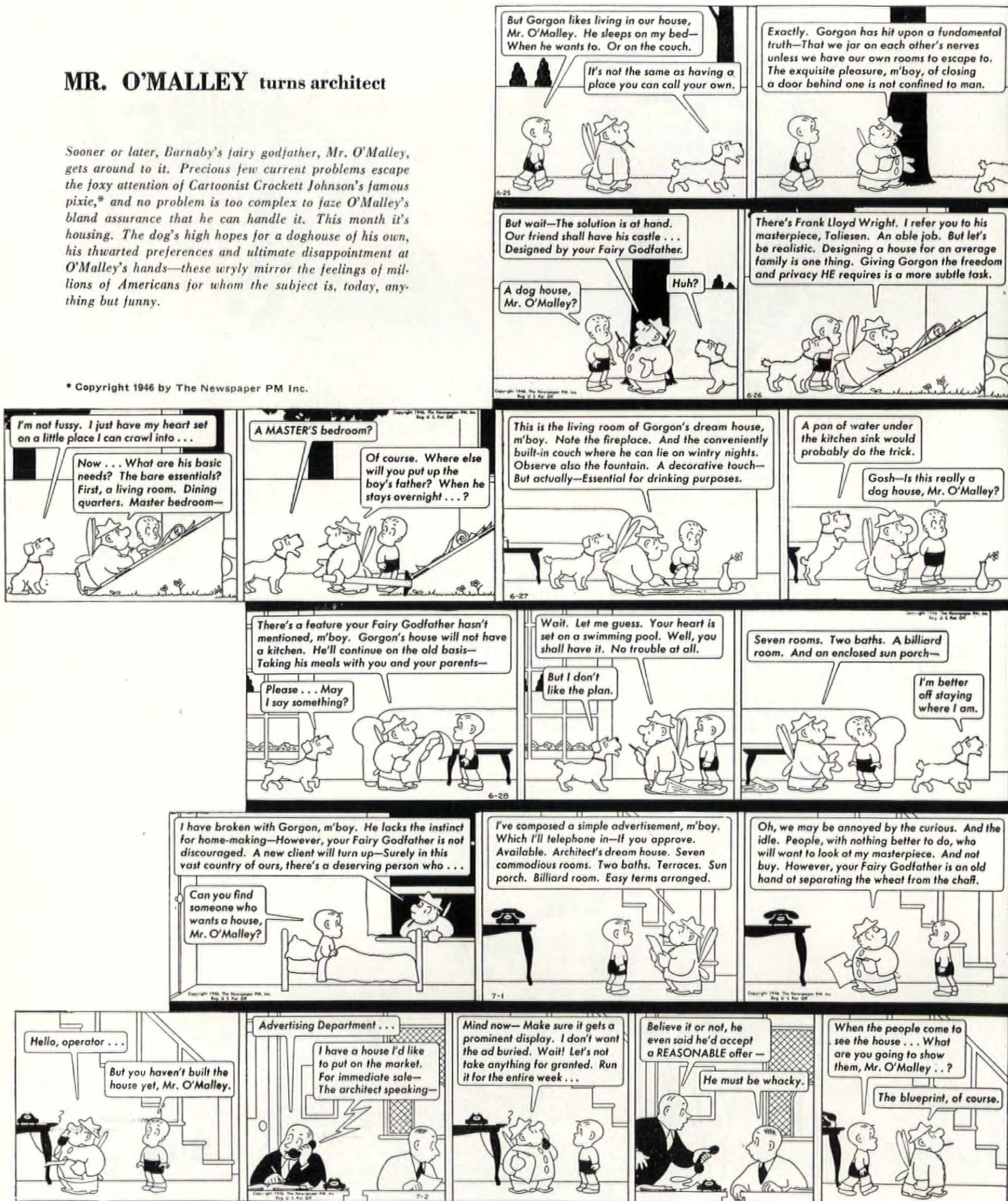
IN ITS SECOND AND ULTIMATE STAGE, the closing of Purchase Street is completed. School Street is extended due south to a new traffic separation center at the Post Road, Mead Place is also extended to this circle: a circular traffic loop around the shopping center is thus completed. Inside this island, Elm Street is converted to pedestrian use, Locust provides access to an enlarged parking area for 170 cars at the southwest, and the east parking area is extended and simplified to accommodate 260 cars. Local buses can now circle the area with convenient stops for stores and station.



MR. O'MALLEY turns architect

Sooner or later, Barnaby's jairy godfather, Mr. O'Malley, gets around to it. Precious few current problems escape the foxy attention of Cartoonist Crockett Johnson's famous pixie,* and no problem is too complex to faze O'Malley's bland assurance that he can handle it. This month it's housing. The dog's high hopes for a doghouse of his own, his thwarted preferences and ultimate disappointment at O'Malley's hands—these wryly mirror the feelings of millions of Americans for whom the subject is, today, anything but funny.

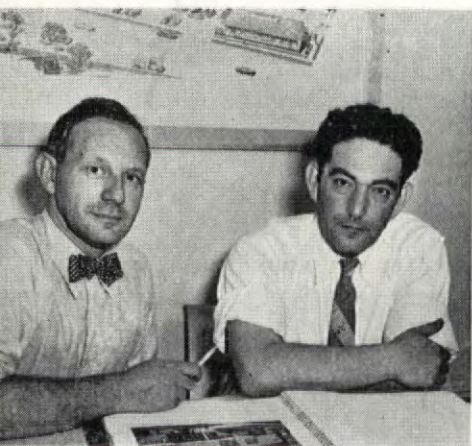
* Copyright 1946 by The Newspaper PM Inc.



A portfolio of work by **BERLA & ABEL**

STRIP WINDOWS, GLASS BLOCK AND LIGHT BRICK WALLS PRODUCE TYPICAL BERLA & ABEL FACADE IN WASHINGTON, D. C.





BERLA & ABEL

More architectural sight-seeing is done in Washington, D. C. than in any other U. S. city. Although its public buildings normally attract the most attention, they are by no means the most interesting. Privately constructed apartment buildings, row houses and detached residences, such as those presented in this portfolio, give welcome relief to critical eyes which easily tire of looking at the uniformly staid facade behind which official Washington operates. This refreshing architectural relief is often provided by the free hands of Messrs. Berla & Abel, whose work comprises this portfolio.

A pair of unconventional architects, Berla & Abel respect the traditions of the nation's capital but are actively opposed to further perpetuation of architectural styles which should have died with the construction systems which fostered them. An atmosphere of cynicism pervades the old brownstone house which contains their offices. Both men take great pleasure in their struggles with conservative federal and local building officials.

Julian E. Berla is the "politician" of the pair (as his partner puts it), and is the most deeply involved in the continuing local argument of modern vs. traditional. He is quick to trade verbal blows in behalf of his architectural beliefs. In this hotbed of tradition it is small wonder that he seldom reacts favorably to new buildings designed by others and that he brands Washington architecture in general as "just plain mediocre." However, his ways are winning, a fact attested by his recent election as head of the local AIA chapter.

Joseph H. Abel shares the architectural concepts of his partner, but physically is his antithesis. A hulking,

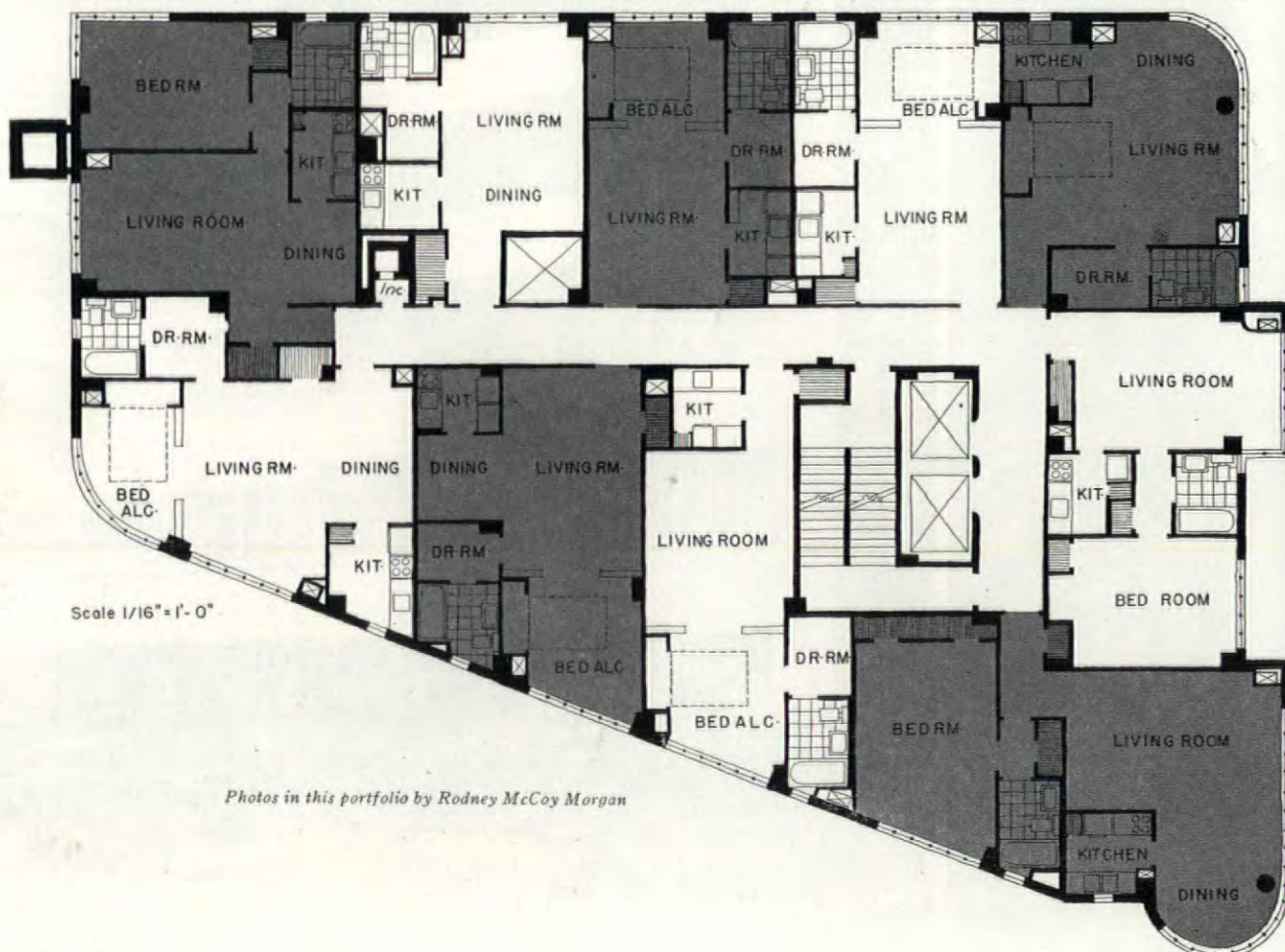
ponderous man, he rarely smiles, never laughs. At the moment he is writing a book on apartment house design which will contain many of the projects developed in his office.

What, in the opinion of Berla & Abel, constitutes good apartment house design is made amply clear in the following presentation of six of their latest and best projects. The architectural philosophy behind these buildings may be boiled down to the synonym "simplicity," a term which the architects use over and over again in describing their work and occasionally interchange with the adjectives "bare" and "severe."

These words aptly describe Berla & Abel's buildings as well as their ideals. Their architectural concepts are expressed most clearly in the exteriors of their apartment buildings—rather than in their planning. Finishing materials almost universally consist of light-colored brick, glass and glass block. Projecting bays, many of which are cantilevered, are used to increase room and window sizes and for decorative purposes as well. The facades are more interesting than those which result from less imaginative traditional design. And, by the expert handling of large areas of glass block, the architects create unusually inviting entrances and lobbies.

Interior planning varies with the problems presented by the width and shape of the sites. Where feasible, utilities are concentrated around light and air shafts inside of the building to permit a maximum opening up of exterior walls. The relative openness of individual apartment plans is dictated by their small size (a product of the local rental market) as much as by Berla & Abel's contemporary approach to planning.

BED ALCOVES AND DRESSING ROOMS REPLACE THE BEDROOMS IN SEVEN OUT OF TEN APARTMENTS PER FLOOR



Photos in this portfolio by Rodney McCoy Morgan

EFFICIENCY APARTMENTS with combined living-sleeping areas tailor this building to the local market.

This and the two buildings immediately following are located on a single block along Wisconsin Avenue. They are two and a half miles northwest of the White House and close by the Naval Observatory park and Potomac River of which they command an excellent view. Small houses on the opposite side of the street limit the outlook of only the first floor apartments. Although each of the three buildings is separately owned, their related design and uniform size (eight stories) give the Berla & Abel block an attractive and outstanding appearance.

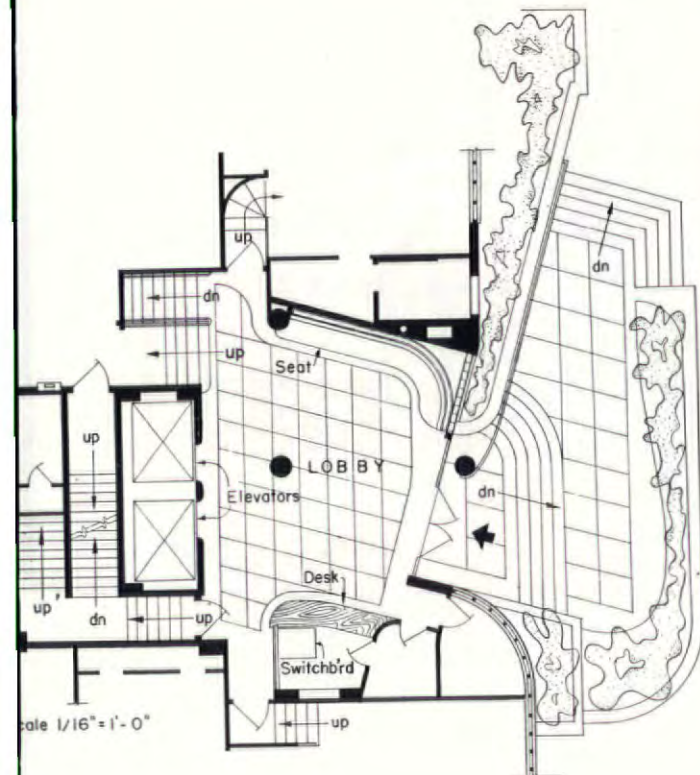
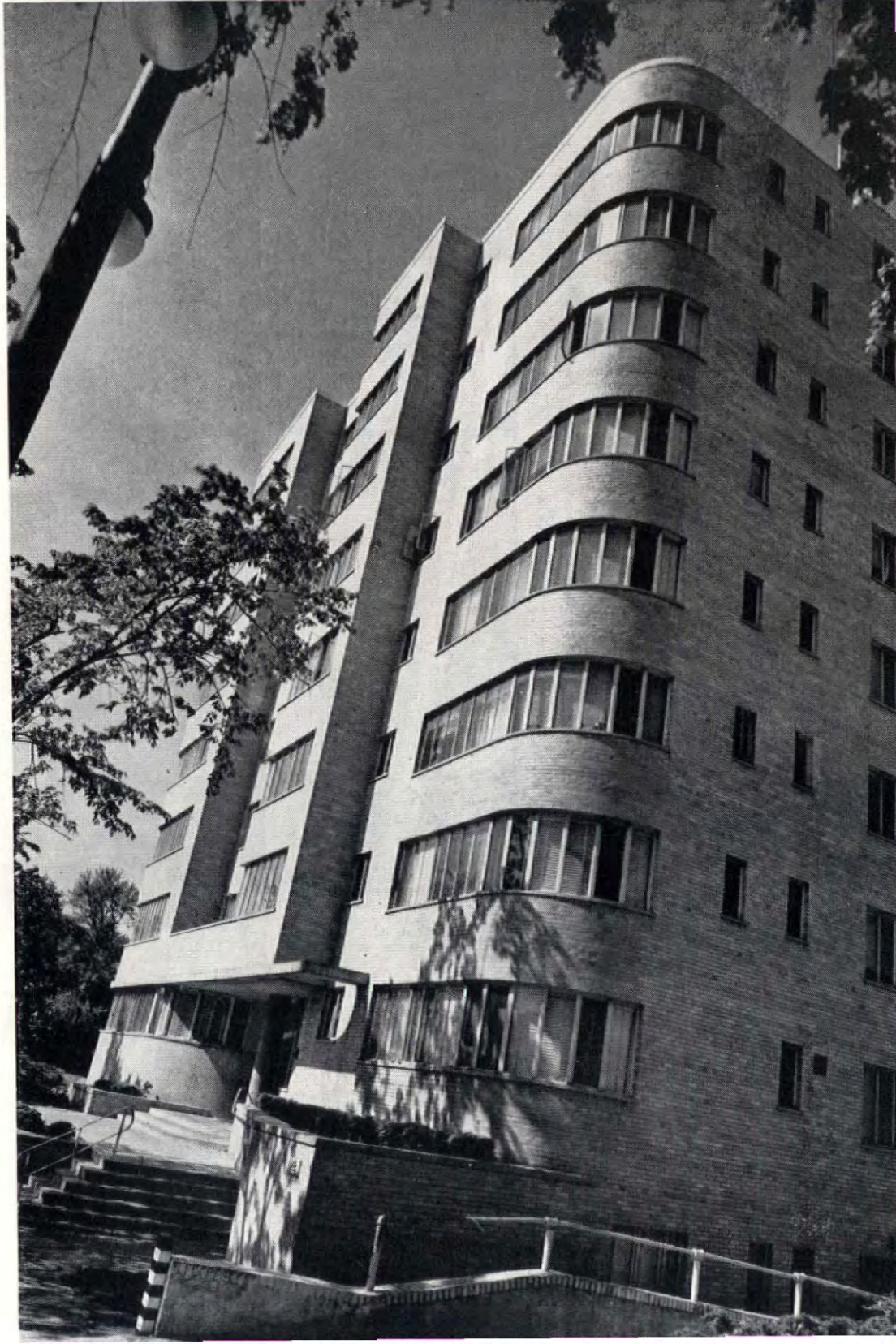
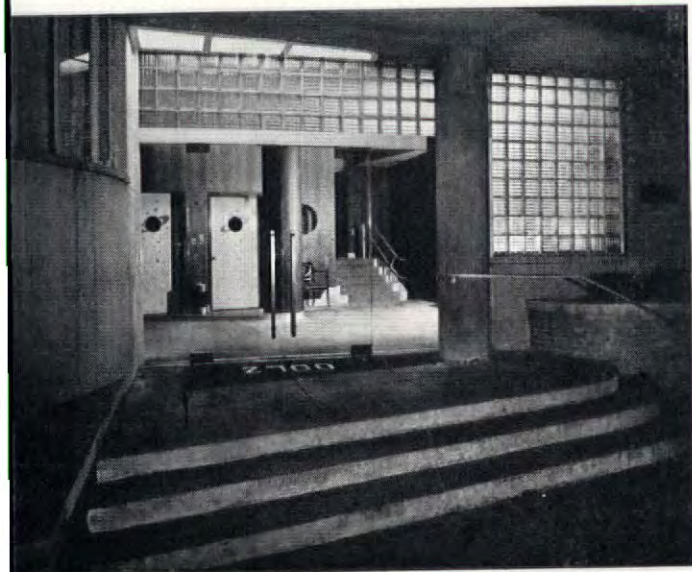
Presented on this page, 2700 Wisconsin Avenue contains 97 apartments which rent from \$50 to \$90 per month, including all utilities, switchboard service and an elevator attendant during rush hours. The preponderance of so-called "efficiency units" comprised of living room, dressing room, kitchen and bath, is justified by the large proportion of Washington couples and single people who work all day and therefore appreciate small, easily maintained apartments.

Apartment breakdown: 2 four-room units, 20 three-room units, 75 two-room units. *Financial details:* Cost, \$323,000 in 1942, exclusive of \$60,000 lot. Prudential Life Insurance Co. holds the 10-year mortgage. *Builder:* Lewis Breuniger & Sons, Inc.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum lath and plaster. Floors—reinforced concrete, tile and joist construction, United Clay Products Co., prefinished wood blocks, E. L. Bruce Co. **ROOF**—4-ply slag. Roof garden—concrete. **INSULATION:** Roof—rigid board above slab. Sound insulation—U. S. Gypsum Co. **WINDOWS:** Sash—steel casements, Detroit Steel Products Co. **GLASS**—Double strength, quality B. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS**—Houghton Electric Co. **FLOOR COVERINGS:** Kitchen—linoleum, Armstrong Cork Co. **WALL COVERINGS:** Lobby walls—Flexwood, U. S. Plywood Co., Inc. **HEATING**—system with filtering and humidifying, Detroit Stoker Co. and International Boiler Works. Air Conditioning—York Corp.

CANTILEVERED BAY PROTECTS LOBBY ENTRANCE, INCREASES WINDOW AREA OF LIVING ROOMS ABOVE AND ADDS INTEREST TO THE BUILDING'S BRICK FACADE



OUTSIDE EXPOSURES are reserved for living and bedrooms by location of utilities around air shafts.

Located next door to the project shown on the preceding page, 2702 Wisconsin Avenue provides no parking space, thus forces tenants to park in the street or on nearby vacant lots. Although this and the adjoining Berla & Abel buildings have set a new design tempo for the area which has been enthusiastically accepted by both tenants and neighbors, the likely construction of similar buildings on nearby vacant lots is viewed with some alarm—development of these lots will somewhat limit the views on which the architects capitalized and will aggravate the parking problem.

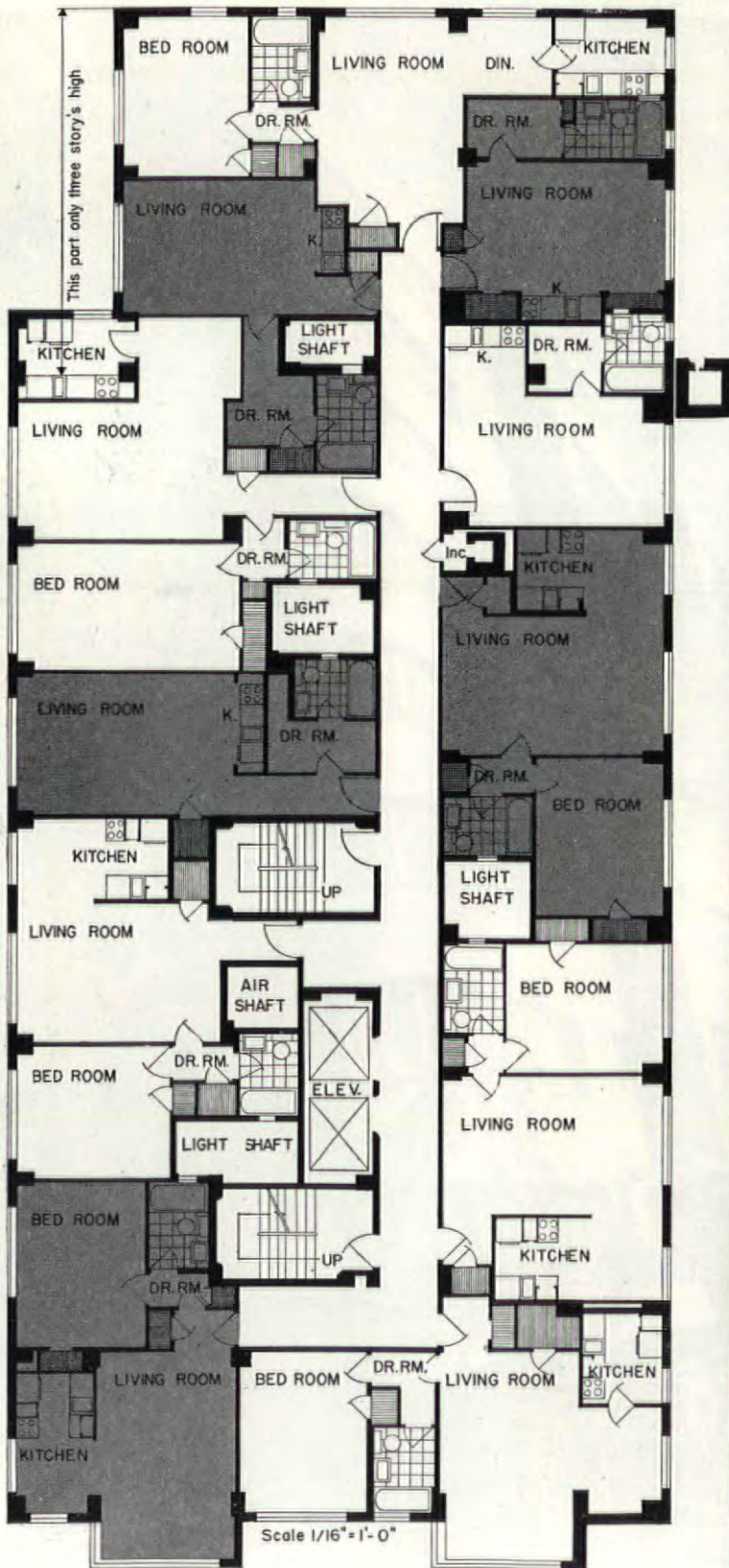
Tenants generally approve of the design of the building, are particularly enthusiastic in their comments concerning the large windows and ventilation they achieve. These large living room and bedroom windows are made possible by the interior location of bathrooms around five light and air shafts and by combining interior kitchens with dining alcoves.

Apartment breakdown and rents: 50 three-room units at \$65 and 20 two-room units at \$54. *Financial details:* Cost, \$302,000 in 1942, exclusive of \$45,000 lot. A 15-year mortgage covering about 60 per cent of the original project valuation is held by State Mutual Insurance Co. of Worcester, Mass. *Builder:* Standard Construction Co.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum lath and plaster. Floors—reinforced concrete, tile and joist, finished in wood block, E. L. Bruce Co. **INSULATION:** Roof—Celotex Corp. rigid board. **SOUND INSULATION—**U. S. Gypsum Co. **WINDOWS:** Sash—Fenestra steel casement, Detroit Steel Products Co. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS—**Westinghouse Electric Corp. **ENTRANCE DOORS—**Herculite, Pittsburgh Plate Glass Co. **KITCHEN EQUIPMENT:** Range and refrigerator—Westinghouse Electric Corp. Cabinets—Kitchen Maid Corp. **BATHROOM EQUIPMENT—**American Radiator & Standard Sanitary Corp. **HEATING—**vacuum vapor system, C. A. Dunham Co. Fans—American Blower Corp.

INTERIOR CONCENTRATION OF THE BATHS AND KITCHENS PERMITTED OPENING OF LIVING AND SLEEPING AREAS TO THE OUTSIDE WITH LARGE STRIP WINDOWS



DEEP NARROW LOT proves no problem to Architects Berla & Abel who use big windows for all conditions.

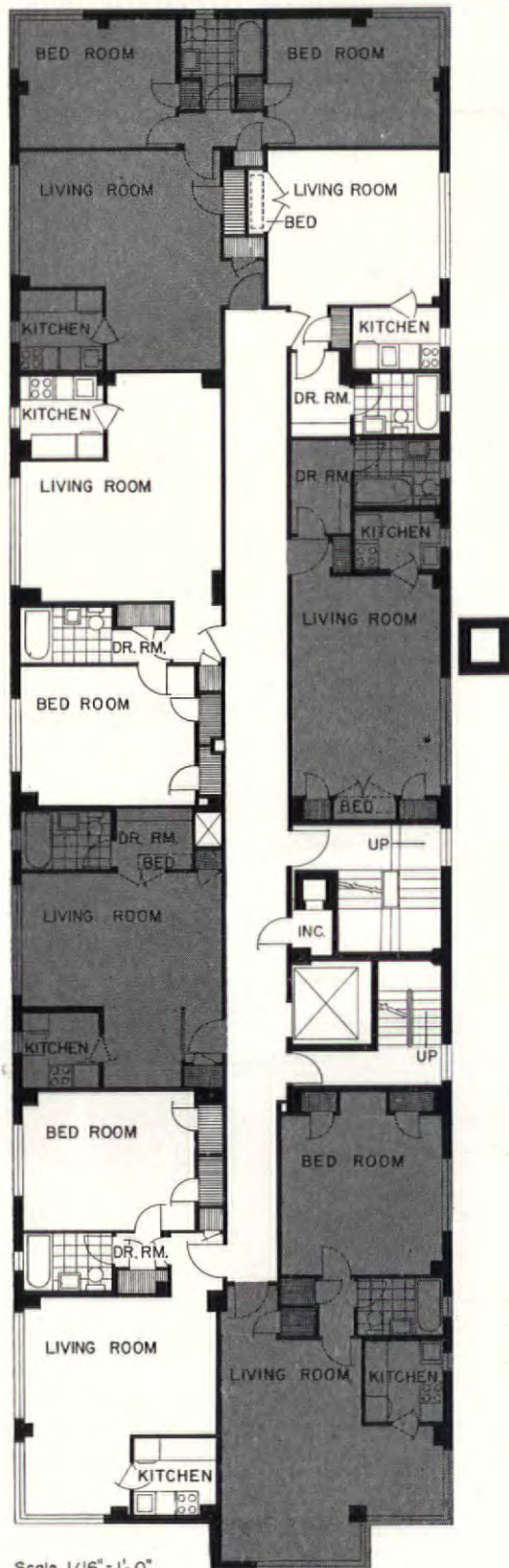
The smallest of the three Wisconsin Avenue buildings, this 49-unit building was the first to be completed and thus set the style for the two shown on the preceding pages. The design was readily accepted by the owner because it made the most of light and view and let in a maximum of air—the latter is a particularly important consideration in Washington where summers are notorious for their heat and humidity. Favorably impressed by the large living room and bedroom windows, tenants are quick to criticize the comparatively small kitchen windows which provide insufficient light and air. Other criticism is leveled at the meager basement laundry facilities and the fact that there is no back yard drying space; clothes are frequently washed in the bathtubs. Play space for children is provided on the roof, but this has proved to be uncomfortably hot in summer and is accessible only by stairs which discourage the carrying of young children and their playtime accessories.

Apartment breakdown: 3 four-room units, 28 three-room units, 18 two-room units. *Financial details:* Cost, \$167,000 exclusive of \$27,000 lot. The 20-year mortgage is held by John Hancock Life Insurance Co. *Builder:* H. K. Jawish.

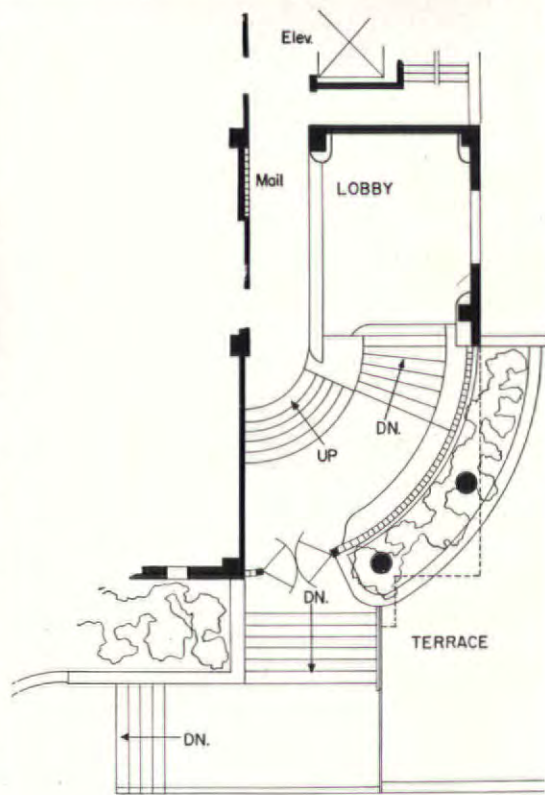
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum lath and plaster. Floors—reinforced concrete, tile and joist, wood block finish, E. L. Bruce Co. **INSULATION:** Roof—rigid board above slab. **SOUND INSULATION—**U. S. Gypsum Co. **WINDOWS:** Sash—steel casement. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS—**A. B. See Elevator Co. **ENTRANCE DOORS—**Herculite, Pittsburgh Plate Glass Co. **HARDWARE—**Schlage Lock Co. **ELECTRICAL SWITCHES—**General Electric Co. **BATHROOM FIXTURES—**American Radiator & Standard Sanitary Corp. **HEATING—**vacuum vapor, C. A. Dunham Co. **Fans—**American Blower Corp. **INCINERATORS—**Kerner Incinerator Div., Morse Boulder Destructor Co.

NARROW LOT DICTATED TANDEM LAYOUT WITH BATHS AND KITCHENS ALONG EXTERIOR WALLS, YET LOBBY AND APARTMENTS ARE OPEN TO VIEW AND AIR

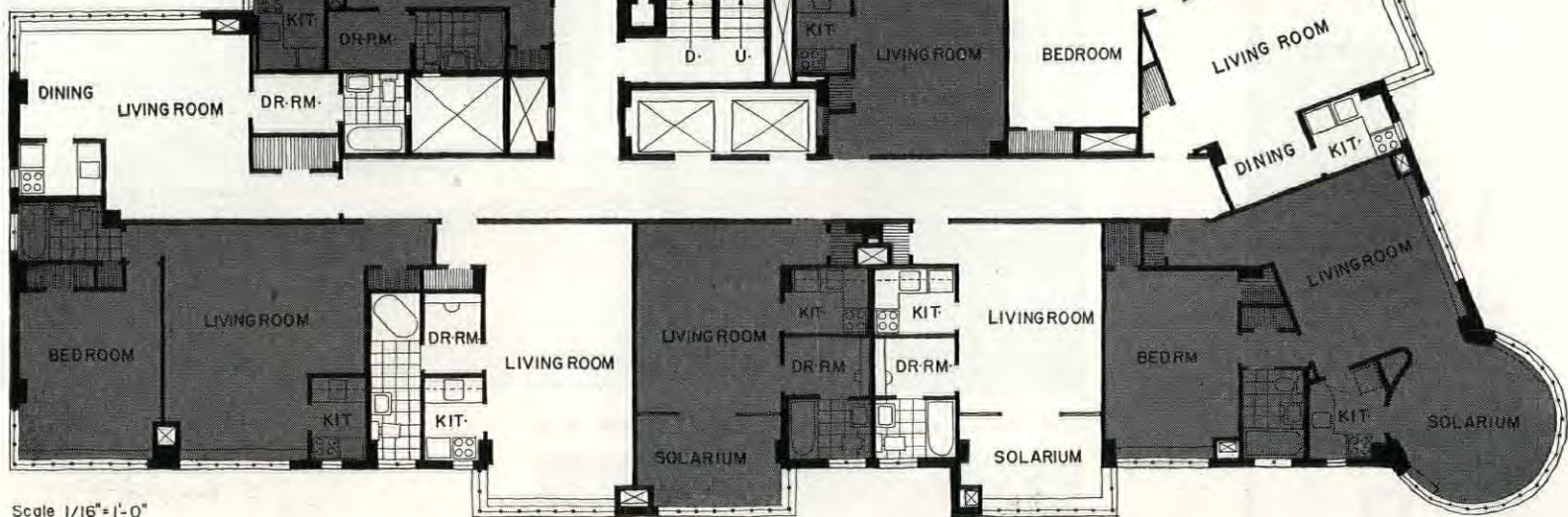


EXTERIOR IS AN HONEST EXPRESSION OF THE PLAN





CORNER WINDOWS DOMINATE NORTH AND EAST FACADES WHICH OVERLO



Scale 1/16"=1'-0"

MARBLE ENTRANCE CONTRASTS WITH THE WHITE BRICK FACADE



CORNER WINDOWS make the most of the breeze and view in Berla & Abel's largest, swankest building.

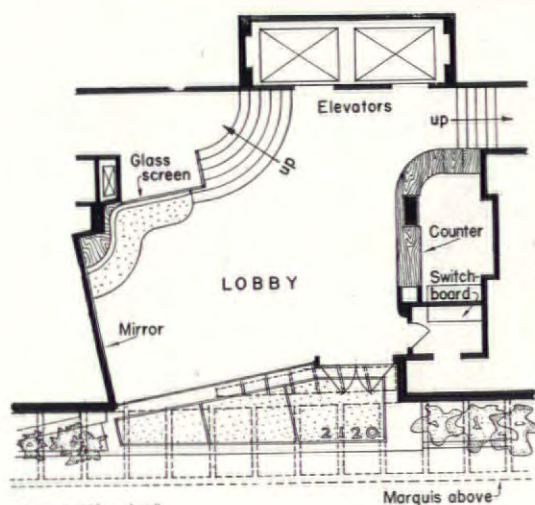
Largest of the group of apartment buildings, Washington House is located on famous 16th St., axis of the White House and address of many of the Capital's swankest embassies, churches and residences. Like the other projects, this building is comprised primarily of 2½-room apartments designed to accommodate Washington's typically small family and unmarried worker. Although not the case in this building, many of these "efficiency apartments" are rented for short terms as hotel suites or temporary offices. Like a hotel, however, this building boasts valet service, switch-board service, and a direct telephone line to nearby stores and garages. The latter convenience offsets to some extent the complete absence of parking facilities on the premises. While the corner lot location of the building and its large casement windows provide better-than-average ventilation, air conditioning is provided to assure summer comfort.

Apartment breakdown: 8 four-room two-bath units at \$140, 24 three-room units at \$95, 8 three-room units with circular solaria at \$110, 86 two-room units at \$65. *Financial details:* Cost, \$357,000 in 1941 exclusive of \$65,000 lot. *Mortgagee:* Union Central Life Insurance Co. *Builder:* Alvin Aubinoe Construction Co.

CONSTRUCTION OUTLINE

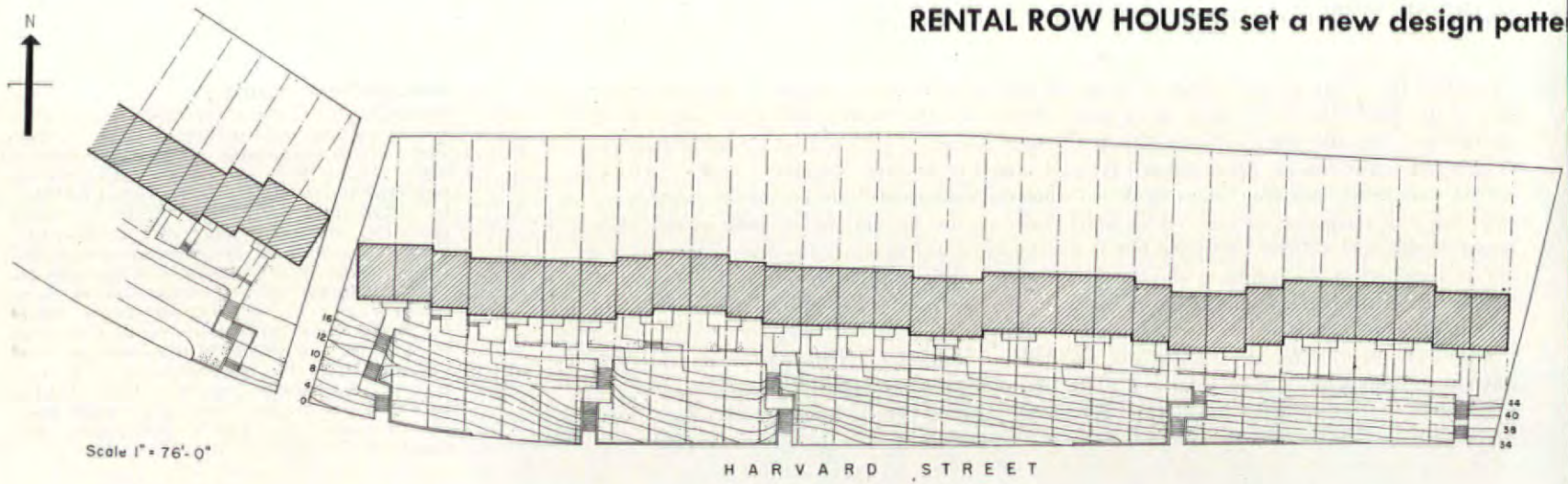
STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum Co. lath and plaster. **FLOORS**—finished in wood blocks, E. L. Bruce Co. **ROOF**—4-ply slag, The Barrett Co. **SOUND INSULATION**—U. S. Gypsum Co. **WINDOWS:** Sash—Fenestra steel, Detroit Steel Products Co. Glass—Pittsburgh Plate Glass Co. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS**—Otis Elevator Co. **FLOOR COVERING:** Kitchen—linoleum, Armstrong Cork Co. **PAINTS**—Benjamin Moore Co. **ENTRANCE DOORS**—Herculite, Pittsburgh Plate Glass Co. **HARDWARE**—Schlage Lock Co. **HEATING:** Heating specialties—C. A. Dunham Co. Air conditioning—York Corp. **INCINERATOR**—Kerner Incinerator Div., Morse Boulder Destructor Co. Mail Chutes—Cutler Mail Chute Co.

NEARBY PARK. SIZE OF THE ENTRANCE LOBBY IS EXAGGERATED BY ITS GLASS EXTERIOR WALL AND PROVISION OF A MIRRORRED PARTITION AT ONE END OF THE ROOM

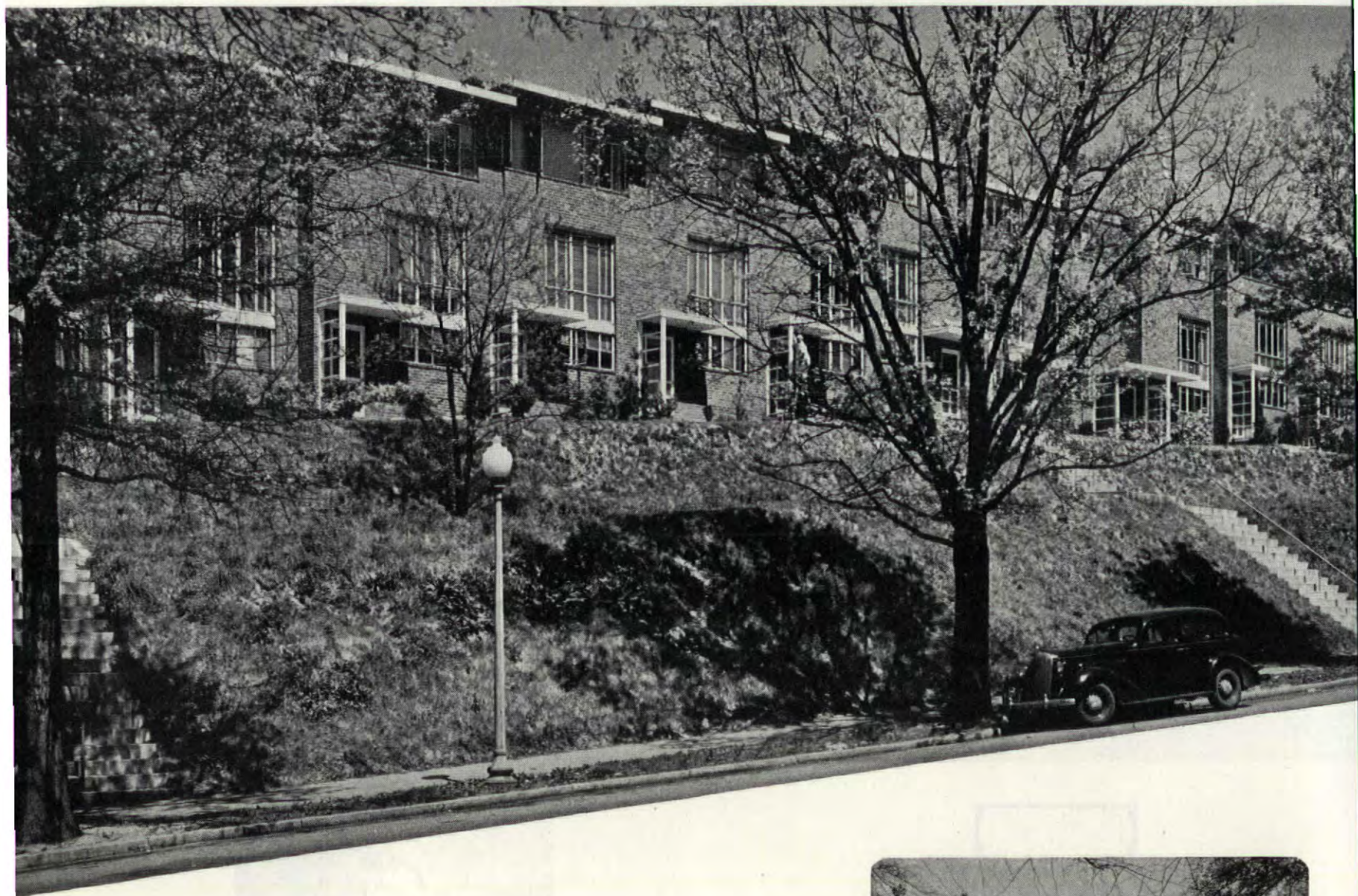


CIRCULAR SOLARIA ARE DINING ROOMS

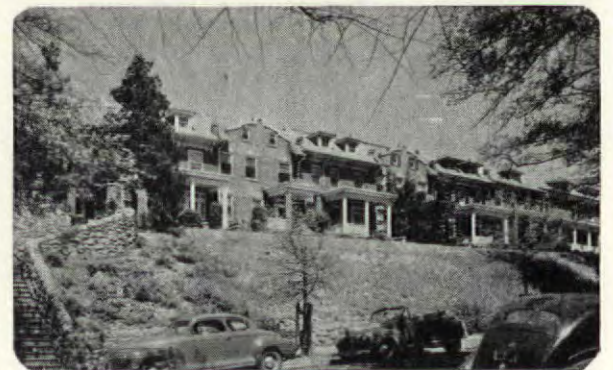




ADAPTED TO A HILLTOP SITE, ROW HOUSES ARE STAGGERED VERTICALLY AND ENTERED AT THE BASEMENT LEVEL. OVER SIZE WINDOWS AT FRONT AND REAR AS



OLD HOUSES IN NEIGHBORHOOD CONTRAST SHARPLY WITH BERLA & ABEL PROJECT



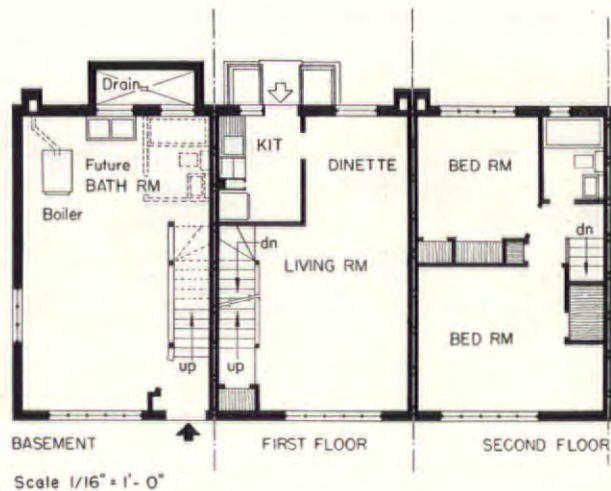
r an old hilltop residential neighborhood.

Just as their multi-story apartment projects have given new life to their respective neighborhoods, Berla & Abel's rental row houses have set refreshing design patterns in several other sections of Washington. The project shown on this page is about two miles from the White House in the heart of a good residential area whose ornate, Victorian residences are gradually giving way to attached housing. The new project has been enthusiastically accepted by both tenants and neighbors. Unlike most other nearby houses, these are designed to capitalize fully on the hilltop site. Large windows, which rise from the living room floor, open the room to the view. The front entrance opens into the multi-purpose "basement," yet first floor rear entrance is at grade.

To give a feeling of increased spaciousness to the small (16 ft. wide by 26 ft. deep) houses, the stairs were enclosed only by lattice work comprised of 2 by 4 in. members widely separated. Although attractive, this device has proved to be dangerous for children.

Financial details: Cost, \$8,000 per unit in 1942, excluding \$2,500 charged to lot and site improvements. Rent, \$85 per month, including gas, electricity and janitor service. *Mortgagee:* Perpetual Building and Loan Assn. *Builder:* J. B. Shapiro.

QUATE LIGHT AND AIR AND CAPITALIZE ON THE VIEW



FRONT ENTRANCES ARE COMBINED WHEN HOUSES ARE ON LEVEL GROUND



ENTIRE BEDROOM WALL IS OF GLASS WITH MOVABLE SASH AT BOTH ENDS



TWIN HOUSES were built for sale but held as a rental investment by their forward-looking builders.

Part of a 500-house subdivision about $3\frac{1}{2}$ miles north of downtown Washington, these two-family units were built in 1942 by J. B. Tiffey & Son after an earlier experiment had proved that the public likes Berla & Abel's row house architecture (FORUM, July '41, p. 68). Although these buildings were originally built for sale, wartime curtailment of house building prompted Builders Tiffey to hold on to them as an investment, to rent the units for \$57.50 to \$60 per month. (\$50 is the shelter allotment; \$7.50-\$10 covers the cost of utilities including janitor service for grass cutting, snow removal and once-weekly basement cleaning.)

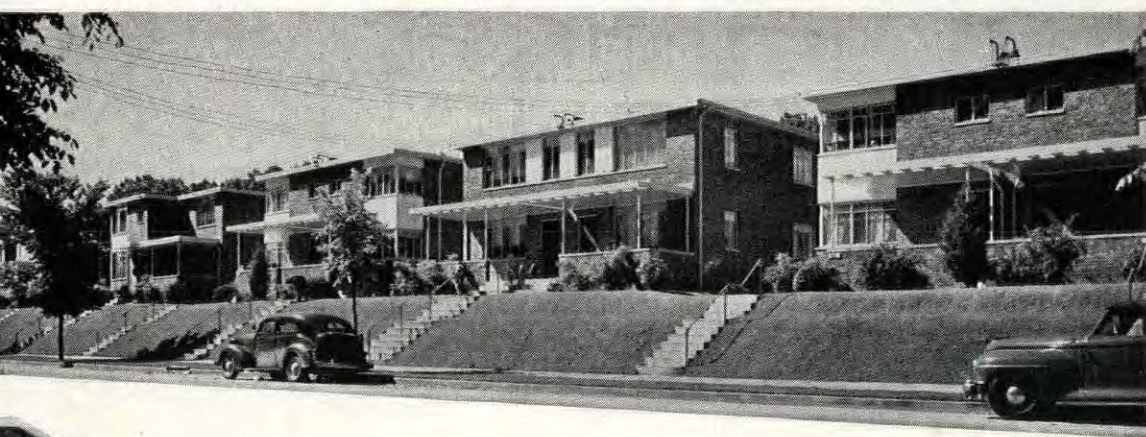
Further convinced of the soundness of Berla & Abel's designs, the builders have recently launched another row of contemporary twin houses in the same subdivision. They will include several improvements over their prewar predecessors. The new units will measure 19 by 37 ft. instead of 18 by 32 ft., and the increased area will make way for basement stairs from each unit.

Financial details: 1942 sales prices: \$14,500 for an inside two-family building, \$15,950 for an outside building, including land. Mortgages covering 75 per cent of these prices were written by Washington Permanent Building and Loan Assn.

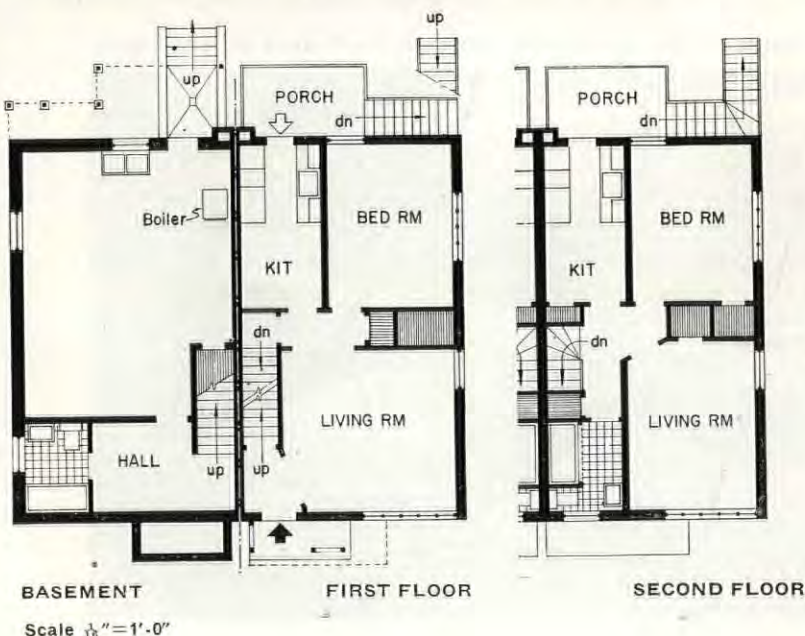
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—brick, West Bros. Brick Co., cinder block backup, furring strips, U. S. Gypsum Co. Rocklath and plaster. **ROOF**—4-ply slag. **INSULATION:** Roof—Red Top Insulating wool, U. S. Gypsum Co. **SHEET METAL WORK**—galvanized iron. **WINDOWS:** Sash—Fenestra steel casement, Detroit Steel Products Co. Glass—double strength, quality B. **WALL COVERINGS:** Main rooms—wallpaper. Bathrooms—tile wainscot. **PAINTS**—Pittsburgh Plate Glass Co. **HARDWARE**—Schlage Lock Co. **ELECTRICAL INSTALLATION:** Wiring system—BX. Switches—Hart & Hegeman. **KITCHEN CABINETS**—Murphy Bed Co. Fan—Deihl Mfg. Co. **BATHROOM EQUIPMENT**—American Radiator & Standard Sanitary Corp. **HEATING**—hot water system.

FRONT PORCHES TIE TWIN HOUSES TOGETHER, ADD INTEREST TO BOX-LIKE SHAPES AND SHIELD WINDOWS FROM DIRECT RAYS OF SUMMER SUN



UPHILL GRADE AND AN OCCASIONAL DETACHED UNIT VARY PROJECT'S SKYLINE



INTERIORS SHOW RELATIONSHIP BETWEEN FENESTRATION AND ROOM LAYOUT

U-SHAPED PLAN develops wide lot with maximum area per floor without recourse to a central court.

Situated on the corner of Connecticut and Wyoming Avenues, a little more than a mile north of the White House, this 96-unit apartment is in the upper-middle class section of the Capital where contemporary architecture is considered as just one more in the collection of mixed architectural styles and not therefore as an unwanted intruder. However, its clean straightforward lines and the large window areas, shown to advantage in the introductory photograph on page 81, set this building apart from its more traditional neighbors.

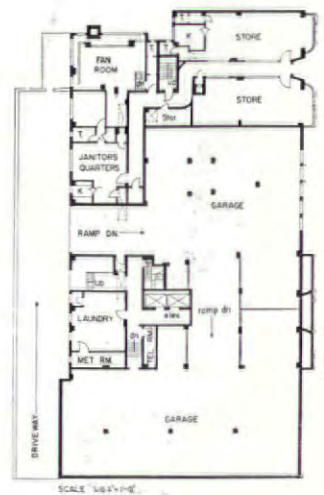
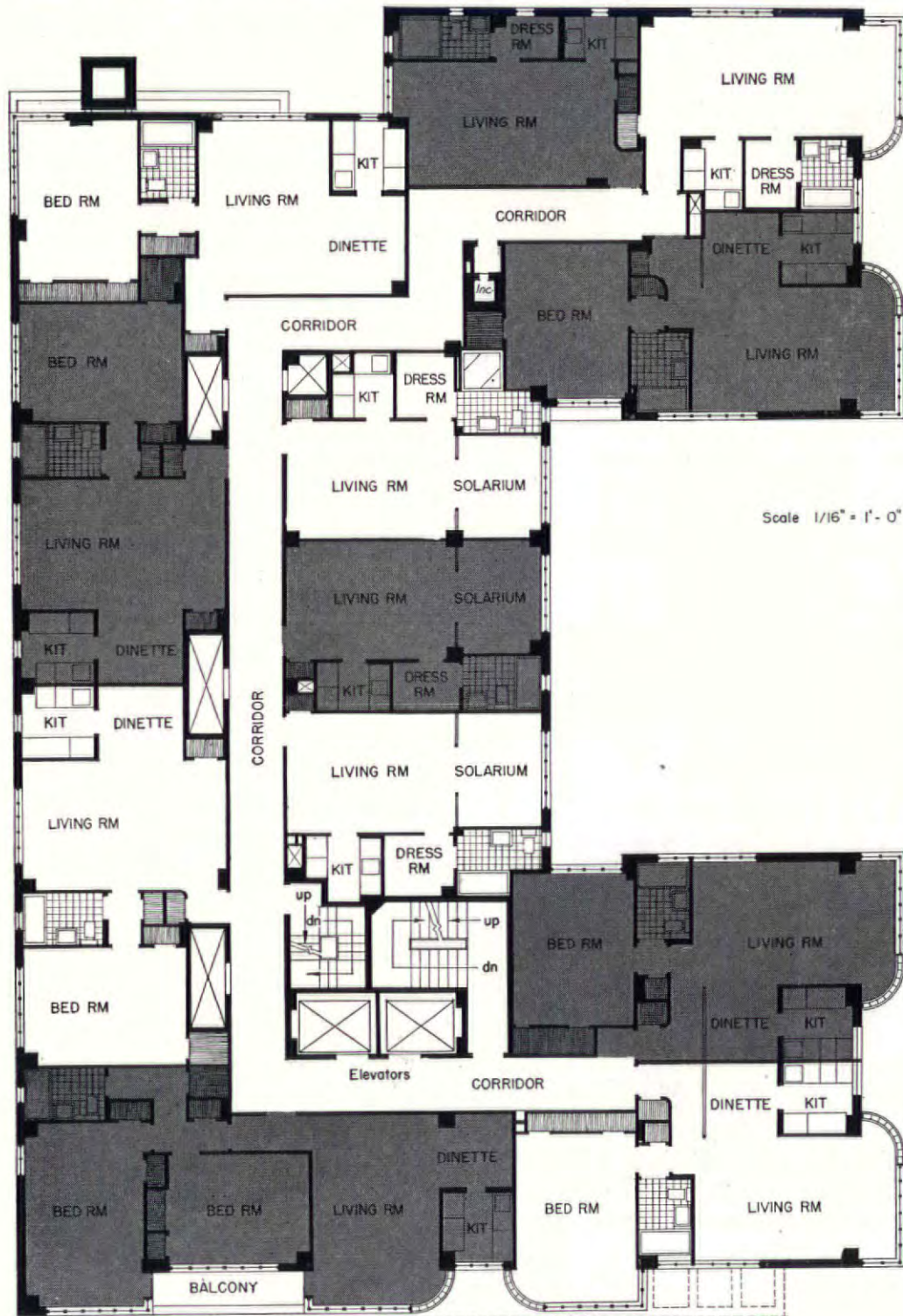
Unlike the other projects included in this portfolio, this building provides space in the basement for parking of cars and for two shops—a drug store and a soda fountain. Although the garage now accommodates only 20 cars, this figure will be raised to 30 when it is once again possible to hire an attendant to handle systematically the parking of cars. Tenants comment favorably upon the basement conveniences—particularly the parking facilities.

Apartment breakdown: 7 four-room units at \$115-125, 49 three-room units at \$65-88, 40 two-room units at \$53-65. *Financial details:* Cost, \$345,600 in 1941, exclusive of \$62,000 lot. *Mortgagee:* Home Life Insurance Co. *Builder:* Charles Oshinsky.

CONSTRUCTION OUTLINE

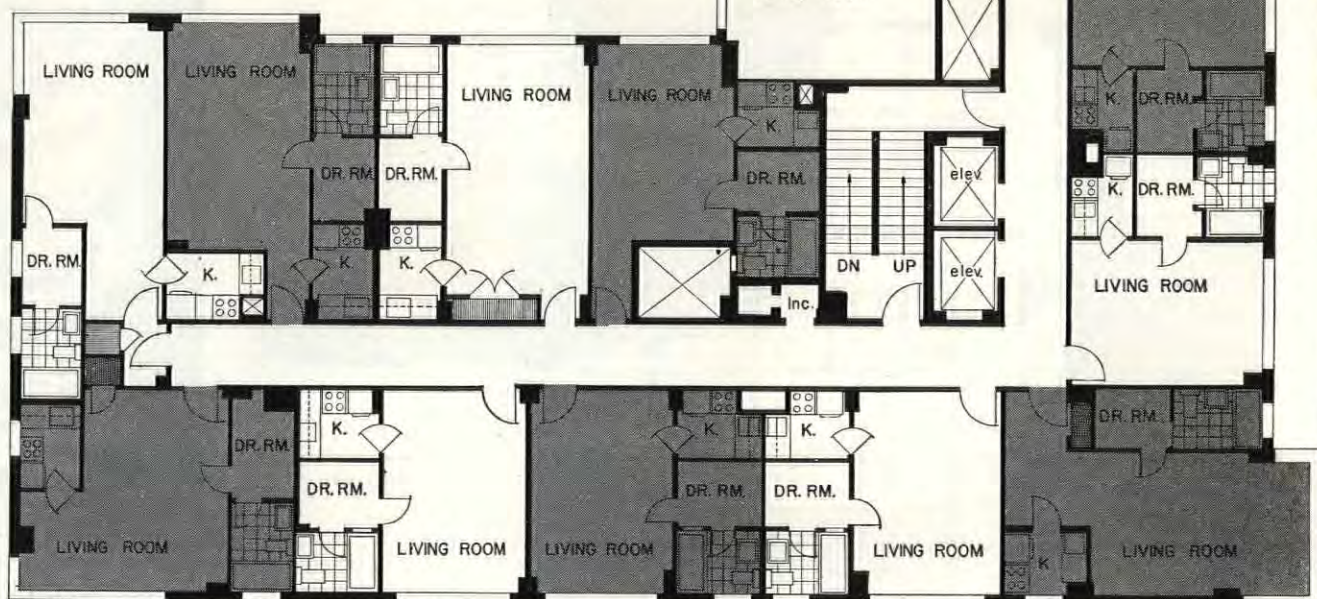
STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum Co. lath and plaster. Floors—finished in wood blocks, E. L. Bruce Co. **ROOF**—4-ply slag. Roof garden—concrete. **SOUND INSULATION**—U. S. Gypsum Co. resilient clips between apartments. **WINDOWS:** Sash—steel casements. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS**—A. B. See Elevator Co. **ENTRANCE DOORS**—Herculite, Pittsburgh Plate Glass Co. **HARDWARE**—Schlage Lock Co. **ELECTRICAL SWITCHES**—General Electric Co. **BATHROOM EQUIPMENT**—American Radiator & Standard Sanitary Corp. **HEATING**—vacuum Vapor system, C. A. Dunham Co. **Fans**—American Blower Corp. **INCINERATOR**—Kerner Div., Morse Boulger Destructor Co.

WALLS OF GLASS ARE INTERRUPTED ONLY BY STRUCTURAL COLUMNS AND BEDROOM BALCONIES WHICH ARE MORE DECORATIVE THAN FUNCTIONAL

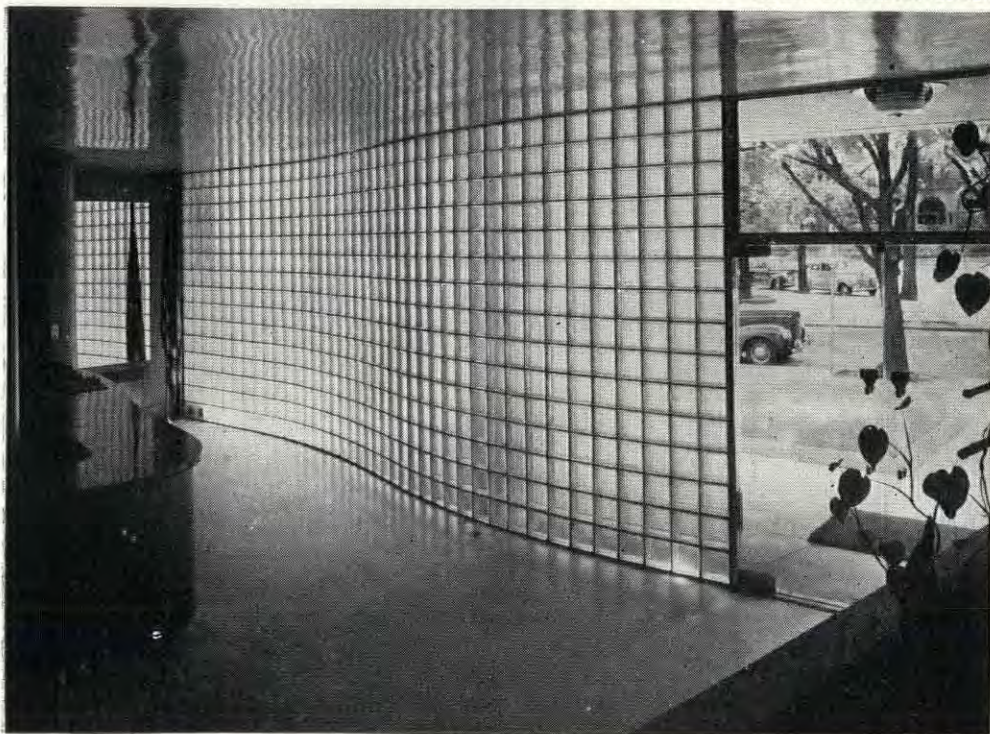




FRONT ENTRANCE IS ACCENTUATED BY PANEL OF GLASS BLOCK AND PROJECTING BALCONY



GLASS BLOCK PANEL AND SOLID GLASS DOORS ADMIT LIGHT TO MAIN ENTRANCE LOBBY



small apartments per floor with utilities economically grouped around small air shafts.

Of all the apartment buildings presented in this portfolio, this one is most closely fitted to Washington's peculiar rental market; each of its 124 units are of the small 2½-room efficiency type. They rent for \$45 to \$50 per month depending upon location and room dimensions. These figures include electricity for lighting, refrigeration and kitchen ventilation, gas for cooking and 24-hour switchboard service with direct lines to shopping facilities. In view of the uniformly small size of the apartments, it is not surprising to find that the project was built at a comparatively small prewar cost per unit, about \$2,500, and that there are 17 apartments per floor served by two elevators. Standardization of apartment size facilitated the economical arrangement of bathrooms and kitchens back-to-back and made it possible to arrange the rooms so that few living rooms back up against their neighbor's kitchen or bath. The owner and builder of the "Croyden" has completed several other projects of comparable design and has yet to notice any prejudice against their appearance or function—either by tenants or financiers.

Financial details: Cost, \$314,000 in 1941, exclusive of lot. *Mortgagee:* Mutual Benefit Life Insurance Co. *Builder:* John McInerney.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—masonry, brick and hollow tile, wood furring strips, U. S. Gypsum Co. lath and plaster. Floors—wood block finish, E. L. Bruce Co. **ROOF**—4-ply slag. Roof garden—concrete. **SOUND INSULATION**—U. S. Gypsum Co. resilient clips between apartments. **WINDOWS:** Sash—steel casement. Glass—double strength, quality B. Glass blocks—Owens-Illinois Glass Co. **ELEVATORS**—Westinghouse Electric Corp. **ENTRANCE DOORS**—Herculite, Pittsburgh Plate Glass Co. **HARDWARE**—Schlage Lock Co. **ELECTRICAL SWITCHES**—General Electric Co. **KITCHEN EQUIPMENT:** Range—gas, Norge Div., Borg-Warner Corp. Refrigerator—Westinghouse Electric Corp. **BATHROOM EQUIPMENT**—American Radiator & Standard Sanitary Corp. **HEATING**—vacuum vapor system, C. A. Dunham Co.

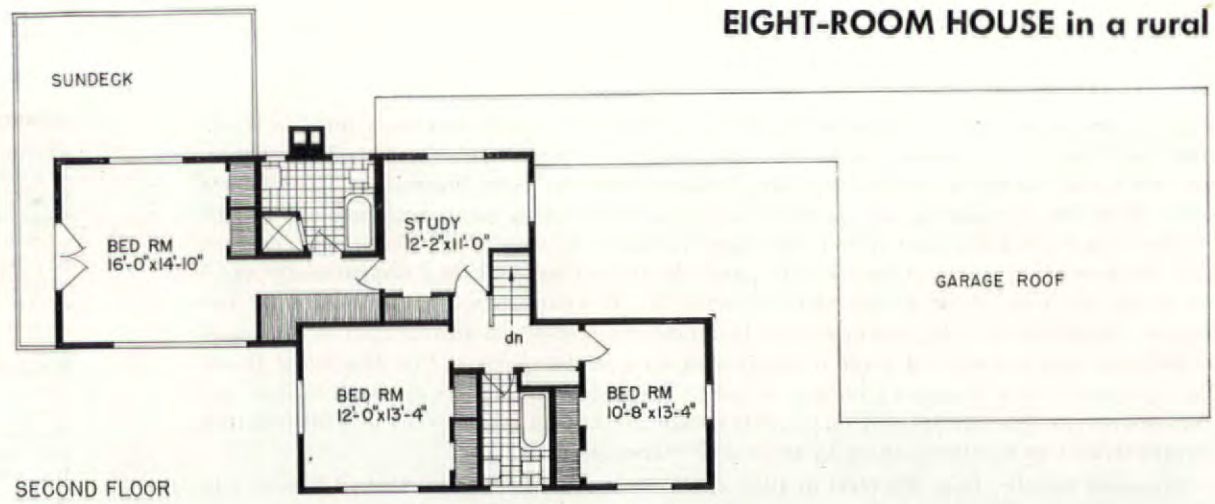
SETS IN FACADE PERMIT INCREASED WINDOW SIZES AND FACILITATE VENTILATION OF THE APARTMENTS



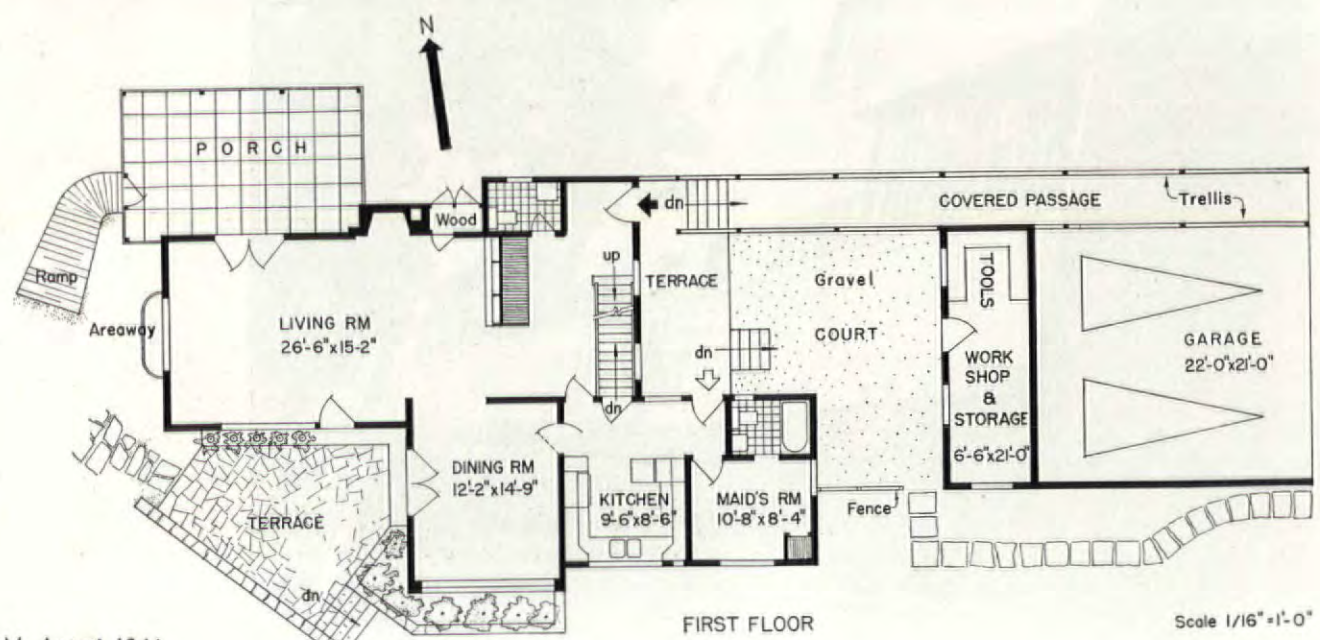
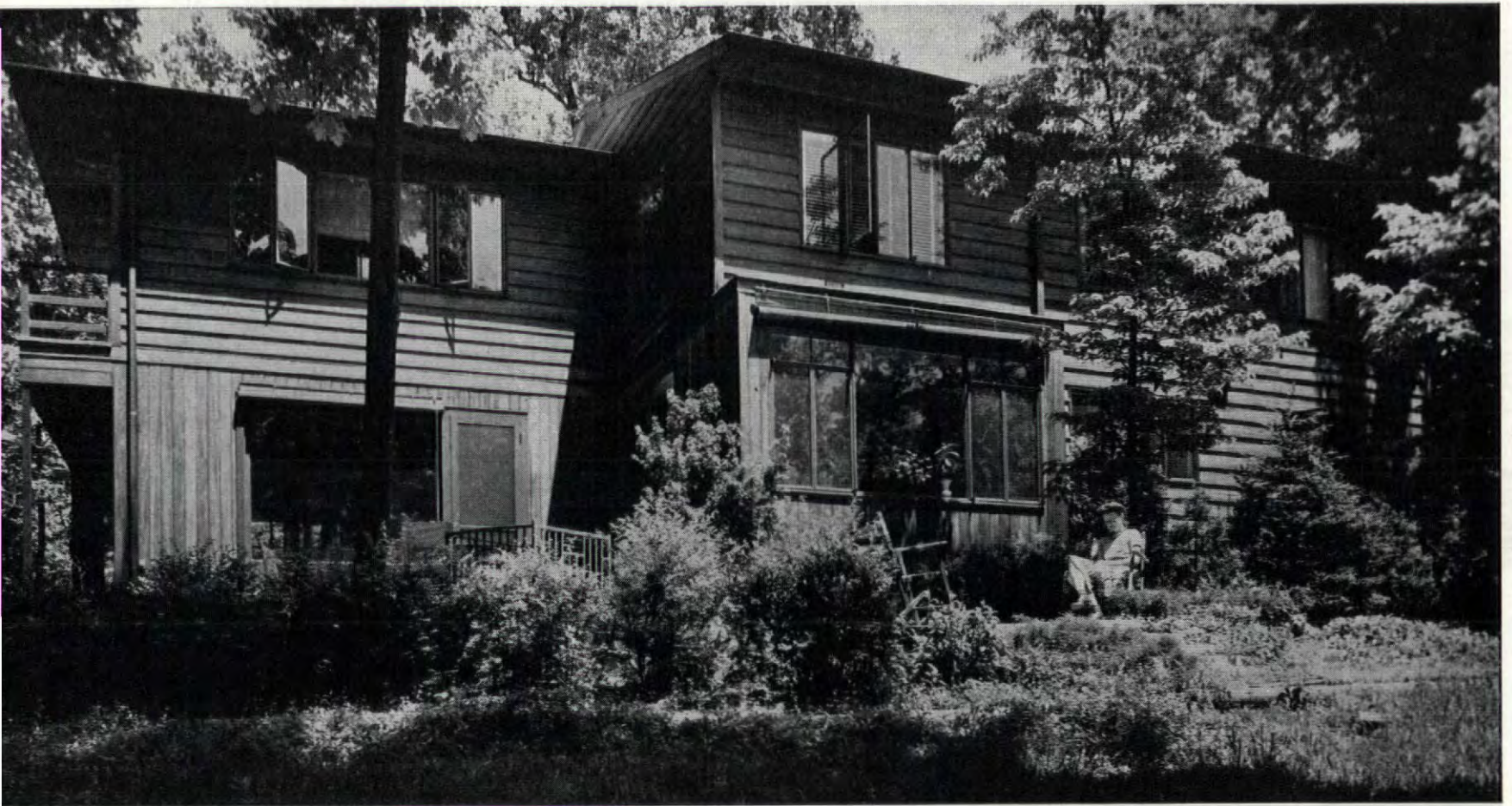
ALL LIVING ROOMS ARE BRIGHT AND AIRY



EIGHT-ROOM HOUSE in a rural setti



OILED CYPRESS SIDING AND LARGE AREAS OF GLASS REQUIRE A MINIMUM OF MAINTENANCE AND BLEND ATTRACTIVELY WITH WOODED SURROUNDINGS



oves that Architects Berla & Abel design attractive homes as well as multi-family apartments.

Located on a 4½-acre wooded knoll in a subdivision in Langley, Va., about three miles from District of Columbia, this house is sited to take full advantage of its rural surroundings. The only view (of a meadow and stream) is to the west, and trees shield the house from the sun except on the south. Thus the living room is situated to face in both of these directions. A screened porch and open terrace on either side of the living room further capitalize on the natural amenities of the site. The dining room and most of the bedrooms are positioned to enjoy the same exposures.

Although the kitchen is conveniently near the dining area and the front door, it and the maid's quarters are sufficiently isolated from the living area to avoid interference. And, while they are entered from the same brick terrace which serves the front door, a trellis connecting the car shelter and the house screens the gravel surfaced service yard from the entrance walk.

Financial details: Completed at a prewar cost of \$14,000 (exclusive of land valued at \$4,500), the house was financed with a \$12,500 mortgage written by the People's Life Insurance Co. of Washington, D. C. *Landscape Architect:* Daniel U. Kiley. *General Contractor:* A. Page. *Owner:* Stanley S. Surrey.

CONSTRUCTION OUTLINE

FOUNDATION—cinder block. **STRUCTURE:** Exterior walls—cypress siding, Sisalcraft Co. paper, sheathing, studs, U. S. Gypsum Co. Rock-lath and plaster. Floors—hardwood finish. **ROOF**—Dutch Lap shingles, Keasbey & Mattison Co. Deck—canvas. **INSULATION:** Outside walls and attic floor—rockwool bats, Johns-Manville. **WINDOWS:** Sash—casement, Hope's Windows, Inc. **FLOOR COVERINGS:** Kitchen and bathrooms—Linoleum—Armstrong Cork Co. **DOORS**—Roddis Lumber & Veneer Co. **HARDWARE**—Schlage Lock Co. **KITCHEN EQUIPMENT:** Range—Hot Point, Edison General Electric Appliance Corp. Refrigerator—Westinghouse Electric Corp. Fan—Ilg Electric Ventilating Co. **BATHROOM EQUIPMENT**—Crane Co. **HEATING**—warm air system, Gar Wood Industries.

DINING ROOM OPENS TO THE LIVING ROOM THROUGH AN UNCASED OPENING



LIVING ROOM FOCUSES ON THE LONG LOW FIREPLACE

LIVING ROOM IS SEPARATED FROM THE ENTRANCE AND STAIR HALL BY A STORAGE PARTITION



COVERED PASSAGE CONNECTS CARPORT WITH ENTRANCE

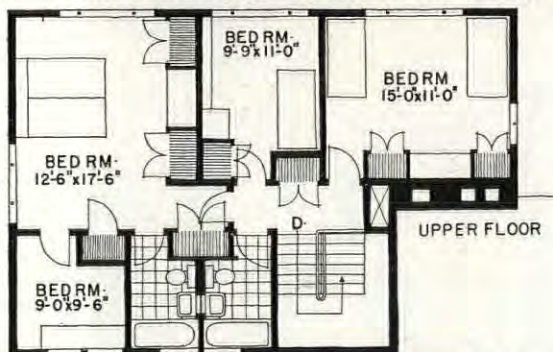


THREE-LEVEL HOUSE on a sloping lot capitalizes on view and grade.



PORCH CONNECTS GARAGE WITH FRONT ENTRANCE

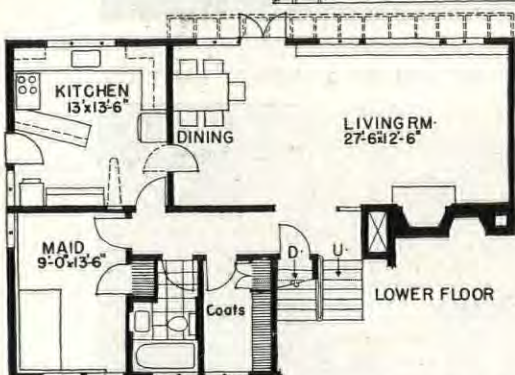
In conjunction with Designer J. Henderson Barr, Architects Berla & Abel staggered the floors of this eight-room house to fit it to the sloping one-acre site. A drop of 6 ft. in the natural grade from front to rear of the house made it possible to place the front entrance half way between the living-dining and bedroom floors, and thus to minimize the amount of excavation. To offset the reduction of the basement to the size of the study and stair hall, a 10 by 10 ft. room on the second floor was earmarked for dead storage. Reduction of the facade to a story and a half in height gives it an attractively low appearance, accentuated by the wide chimney. The house contains 31,000 cu. ft., was built in Langley, Va., at a prewar cost of \$12,200, exclusive of lot, and was privately financed. *General Contractor: A. Page. Owner: Mason Barr.*



BEDROOM WALL IS COMPRISED OF BUILT-IN WARDROBES AND CHESTS



LIVING ROOM IS SEVEN STEPS DOWN FROM FRONT ENTRANCE HALL



LARGE WINDOWS AND DOORS OPEN REAR TO VIEW

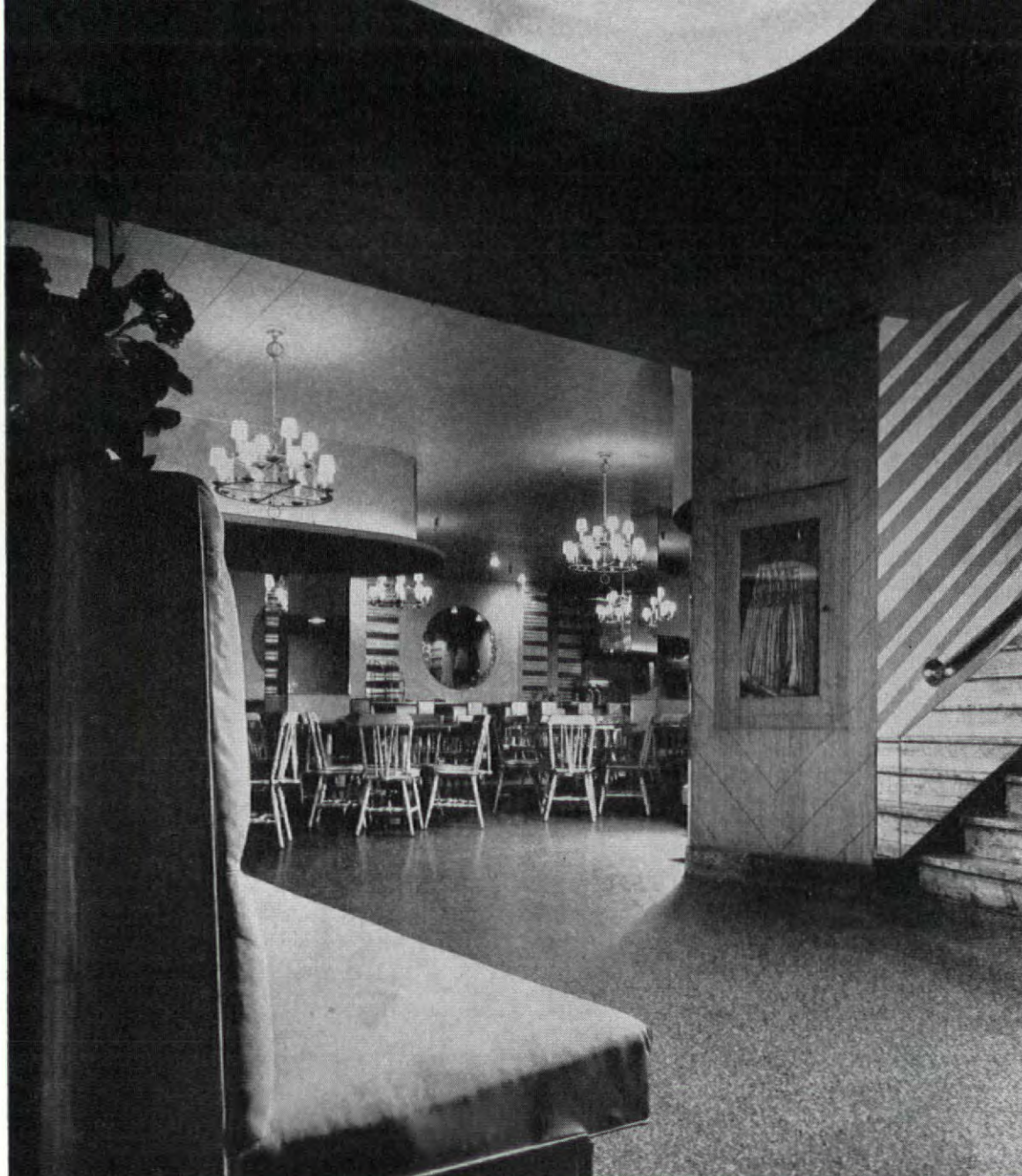


AT DUNHALL'S,
A NEW CANOPY WITH
COVE LIGHTING ADDS
GLAMOUR TO OLD BAR



4 REMODELED RESTAURANTS

1. DUNHALL'S, Herman H. Seigel, Architect
2. THE OYSTER LOAF, Hertzka & Knowles, Architects
3. HECTOR'S BAR-CAFE, George C. Rudolph Associates, Architects
4. SOLLY KRIEGER'S, Herman Seigel, Architect



FINISHES AND EQUIPMENT

INSULATION: Ceiling—acoustic, U. S. Gypsum Co. FLOOR COVERINGS—terrazzo. WALL COVERINGS—Flexwood, U. S. Plywood Co., Inc., linoleum and leatherette. ELECTRICAL FIXTURES—fluorescent and incandescent; contractor—Solmor Electric Co. KITCHEN EQUIPMENT—Progressive Kitchen Equipment Co., Inc.



A SUSPENDED CEILING WITH OVAL COVE LIGHT SEPARATES BRIGHTLY-LIT COFFEE SHOP FROM MORE SOMBER COLORS OF MEN'S GRILL

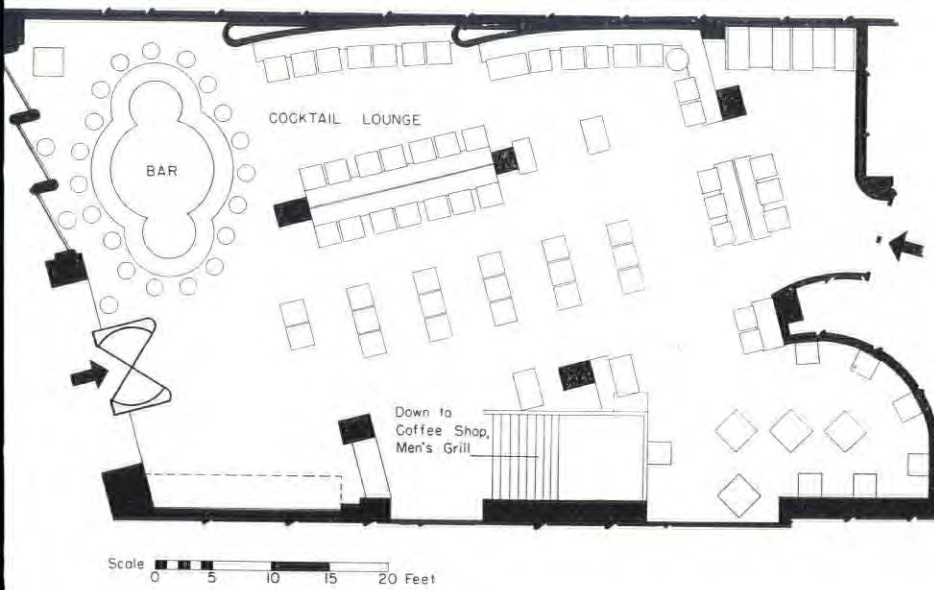
GOOD DESIGN PLUS GOOD FOOD: the recipe which made an old two-level restaurant into a fashionable

Complete reconstruction by a new management of an existing plant, has made this midtown New York restaurant into a big money-maker. Occupying the street and basement floors of an office building just below the Times Square theater district, the new Dunhall's was designed primarily for a midday trade. It has proved successful at this, but has surprised even its owners by developing a big dinner and after-theater trade as well. The reasons for its success, according to Mr. Harry Sheretzky, one of the owners, are simple: good food and good design. "Decor is of course no substitute for good food," says Sheretzky, "but people prefer a combination of both if they can get it." He credits the architect with contributing largely to the Dunhall's success—especially that of the basement where "not one in a thousand restaurants are successful."

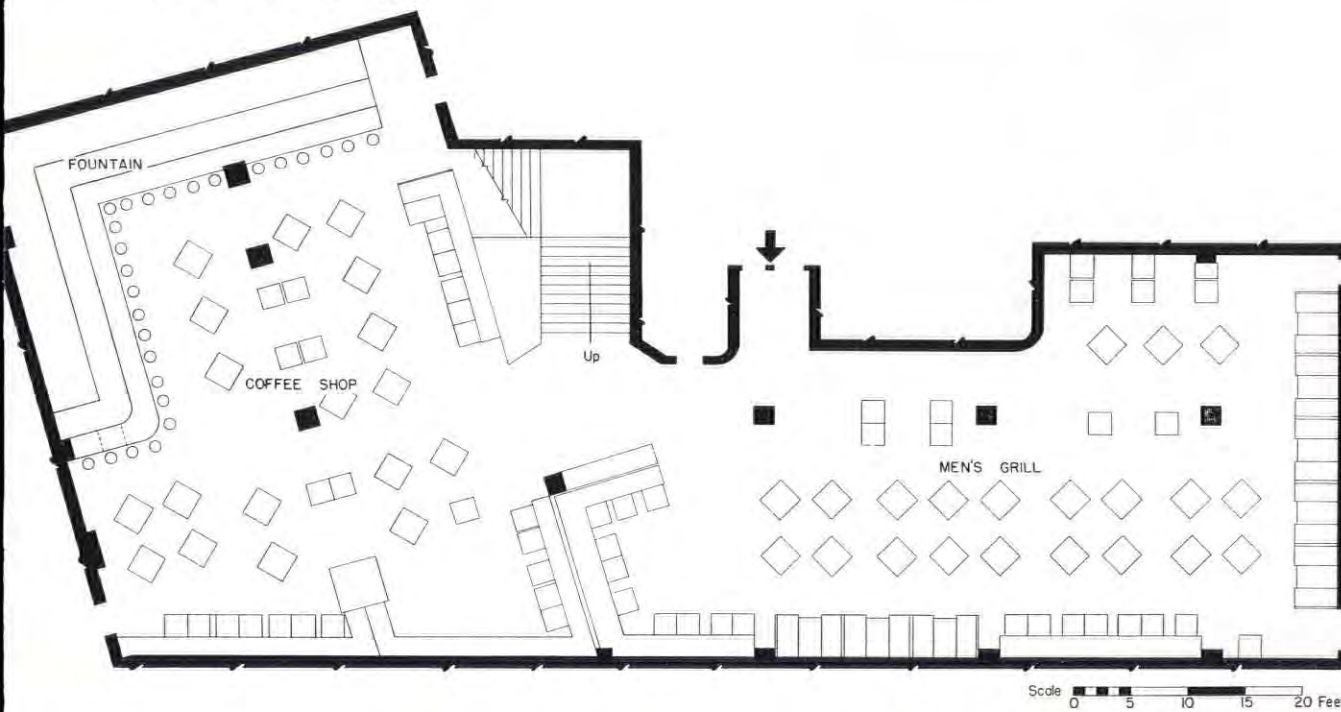
Both floors were completely rebuilt and redecorated, including the installation of a new kitchen on the street level and the revamping of the old one downstairs. In the three dining rooms, which now seat a total of 600 persons, only the bar and stairway were unchanged. Since the previous interiors were nondescript, a bold handling of color and pattern was used throughout. Except in the Men's Grill, the color scheme is blue, yellow and white with accents of silver leaf and black. In the Grill, to minimize a ceiling cut up with ductwork and piping, a very dark wine color was used on the ceiling with downlights concentrated on the tables. Walls here were sheathed in wood veneer.

DARK BLUE WALLS HAVE HAND STENCILED DESIGN IN YELLOW





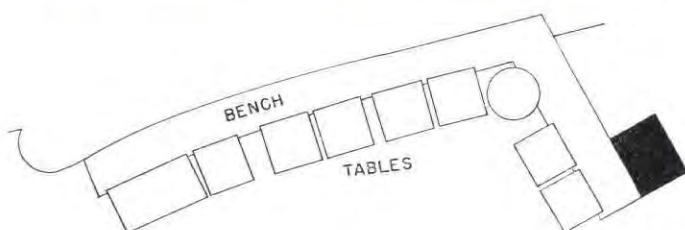
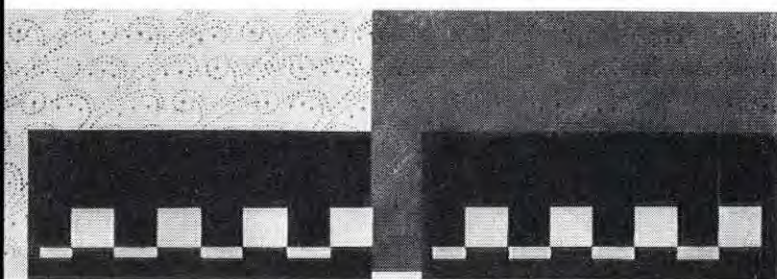
NEW KITCHEN on street floor is located here and connected by dumb waiters to existing kitchen below for dishes, supplies, storage, etc.

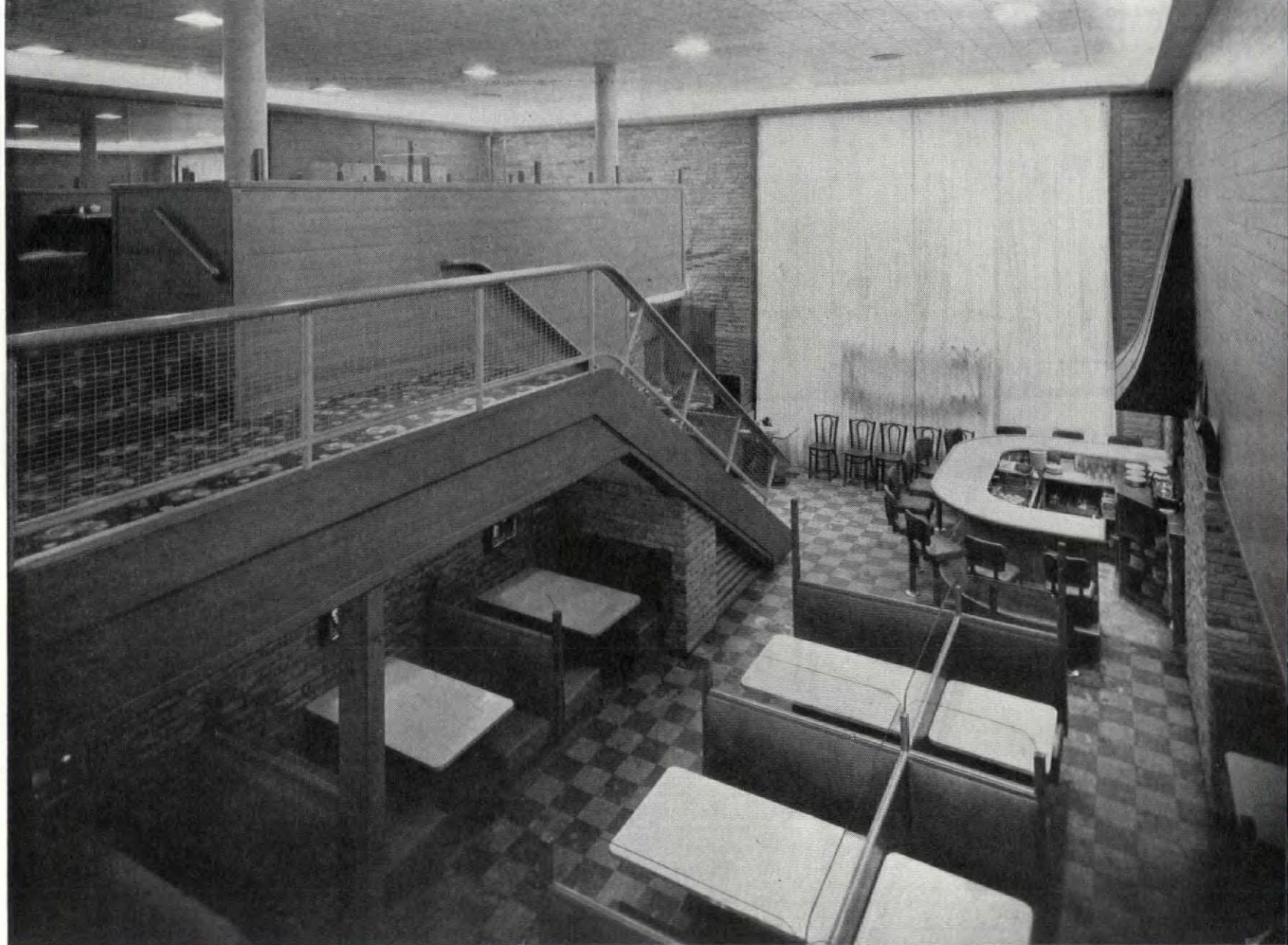


STREET WINDOW TRIM IS IN BLUE, WHITE, YELLOW GLASS MOSAIC

money-maker for Dunhall's. Herman H. Seigel, Architect.

TAILS OF CONTINUOUS BANQUETTES ALONG WALL OF COCKTAIL LOUNGE





THIS RESTAURANT MANAGES TO SEAT TWO-THIRDS OF THE CUSTOMERS ON MEZZANINE LEVEL WITHOUT THEIR FEELING ISOLATED OR CROWD

THE OYSTER LOAF uses a big window to provide its patrons and prospective patrons with views both in and out

HERTZA and KNOWLES, Architects

JACKS and IRVINE, General Contractors

FINISHES AND EQUIPMENT

Exterior walls—ceramic veneer, Glassing, McBean & Co. and hand-cut Sierra stone. WINDOWS—steel, specially fabricated. Glass—plate, Libbey-Owens-Ford Glass Co. and Pittsburgh Plate Glass Co. STAIRS AND ELEVATORS: Stairs—wood. Treads—linoleum, Armstrong Cork Co., or carpet. Freight elevator—Pacific Elevator & Equipment Co. Dumbwaiter—Vincent Whitney Co. FLOORS COVERINGS: Dining room—asphalt tile. Stairs and cocktail room—carpet, Bigelow-Sanford Carpet Co., Inc. WALL COVERINGS—Oregon Pine, t. & g. FURNISHINGS—specially designed, leather and Naugahyde upholstery, U. S. Rubber Co. HEATING—gas fired hot air system, thermostatic control. Furnaces—Payne Furnace & Supply Co.

In enlarging and remodeling the premises of this San Francisco sea-food restaurant, the architects have made intelligent use of the site's only distinctive feature—the fact that it is located at the head of an important street. The outlook down this street (toward the St. Francis Hotel and Union Square) is the reason for the huge window which dominates the reconstructed building. Centered on the axis of the street, the window gives outlook and view to the interior while on the outside it and the sign above become an important advertisement.

The high rentals involved largely conditioned the development of the plan. The new restaurant occupies the entire building, where previously only the right half of basement, street floor and mezzanine were in use. (The second floor will ultimately be developed for large parties.) To achieve a high seating capacity, it was necessary to accommodate two-thirds of the diners on the mezzanine level. The architect's problem was therefore to make it as attractive to the patrons as the main floor. This they have done by the large window, by variation in floor levels and large open areas, by the easy stairs and good general lighting.

In general character, the architects have attempted to suggest a marine atmosphere without, as they put it, resorting to such hackneyed devices as fake port holes and life preservers. Interior walls are either pine, lacquered to suppress some of the grain, or hand cut Sierra stone, laid up for a strong horizontal texture. The acoustical ceiling is painted a blue green.

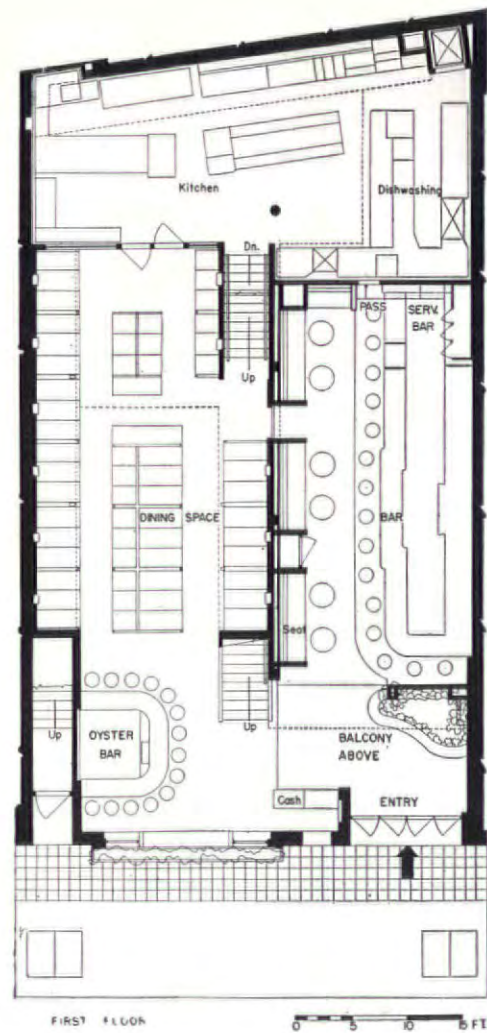
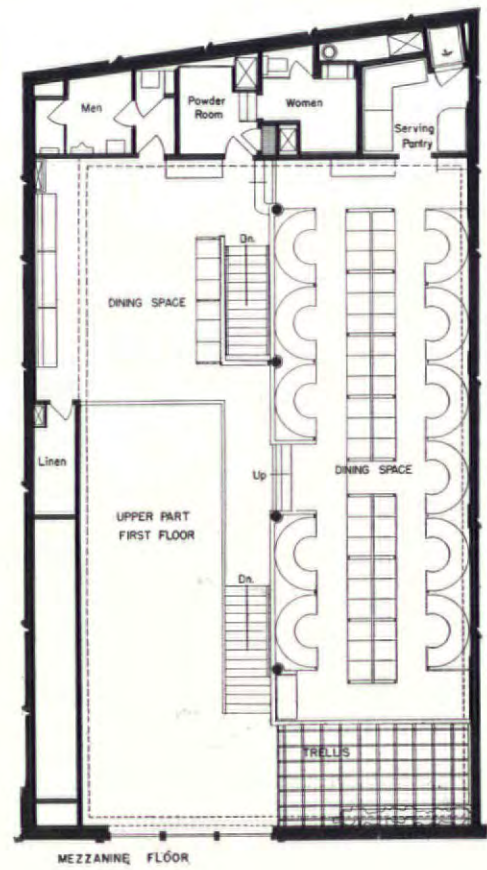


MEZZANINE DINING AREA LOOKING TOWARD WINDOW AT FRONT



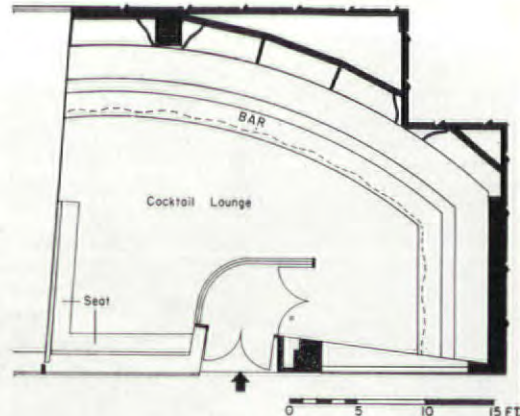
OYSTER BAR IS LOCATED FORWARD NEAR CASHIER AND ENTRY

STREET FRONT FEATURES BIG WINDOW WITH AQUARIUM





LIGHTED GLASS BAR FRONT, ROOM'S CHIEF FEATURE, IS CLEARLY VISIBLE FROM STREET

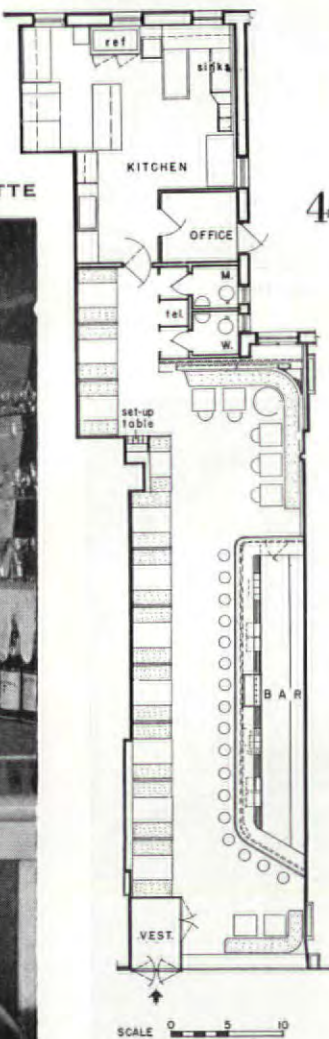
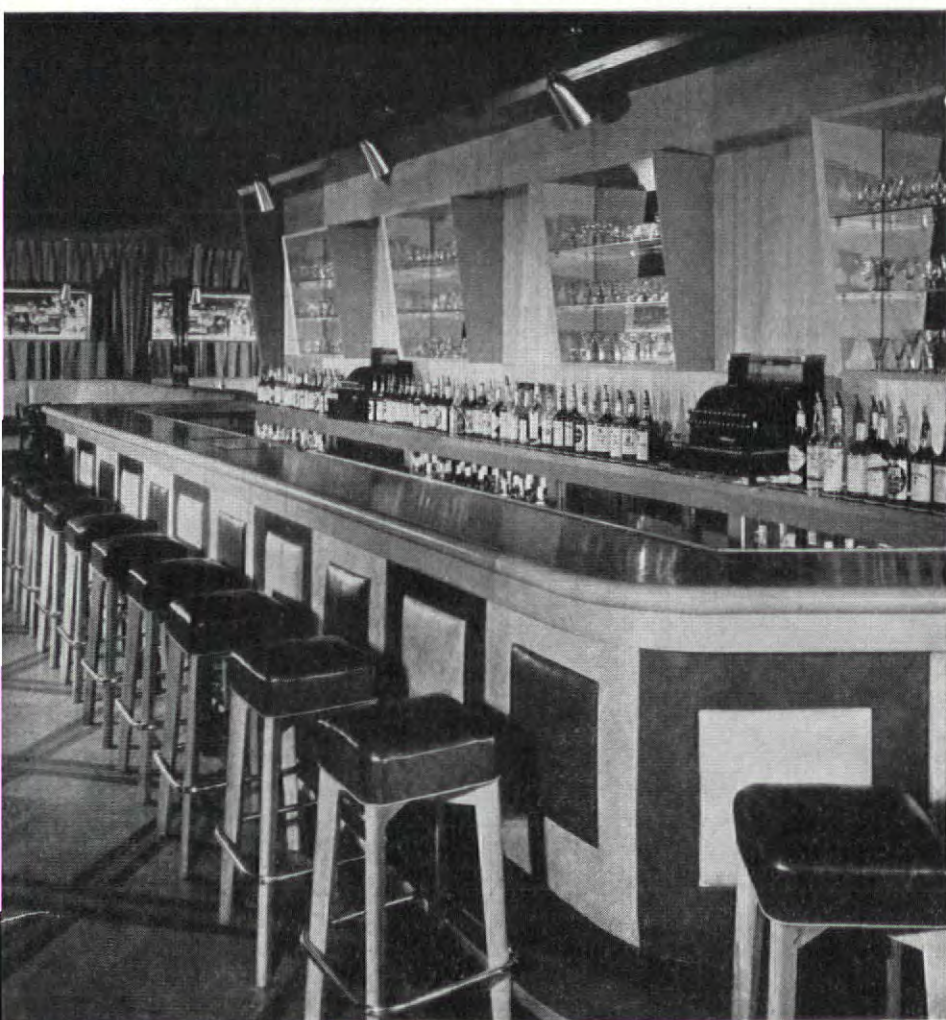


3. HECTOR'S BAR-CAFE

GEORGE C. RUDOLPH, Architect
H. R. PORTER, Associate

Although this new small bar adjoins the lobby of an existing New York cafeteria, from which it is separated by a pierced wood screen, it has a street entrance of its own. Chief decorative feature is the bar itself: the curved back bar is mirrored in easy segments, so that standard equipment could be used without change. The bar front is of corrugated glass, backlighted. A color scheme of white, gray and plum is used, the latter on the low ceiling. Floors are gray terrazo. The room is air conditioned.

THE BAR-FRONT IS UPHOLSTERED IN BEIGE AND MAROON LEATHERETTE



4. SOLLY KRIEGER'S

HERMAN H. SIEGEL, Architect

A small establishment serving only chops and steaks, this recent New York City installation had to be made on a minimal budget. Aside from economy, the owner's only requirement was that the interior be intimate, with subdued lighting to create a quiet and comfortable effect. All the fixtures are new: but elsewhere the architect had to improvise at a number of points. For example, existing plaster was in poor condition and the budget did not permit replacement: instead, the walls were skilfully and simply concealed with fireproof cloth and leatherette. Floors were surfaced with asphalt tile. Seating, stools and bar front were upholstered in leatherette. Tables are of chromium with plastic tops. A color scheme of beige and maroon is followed throughout.

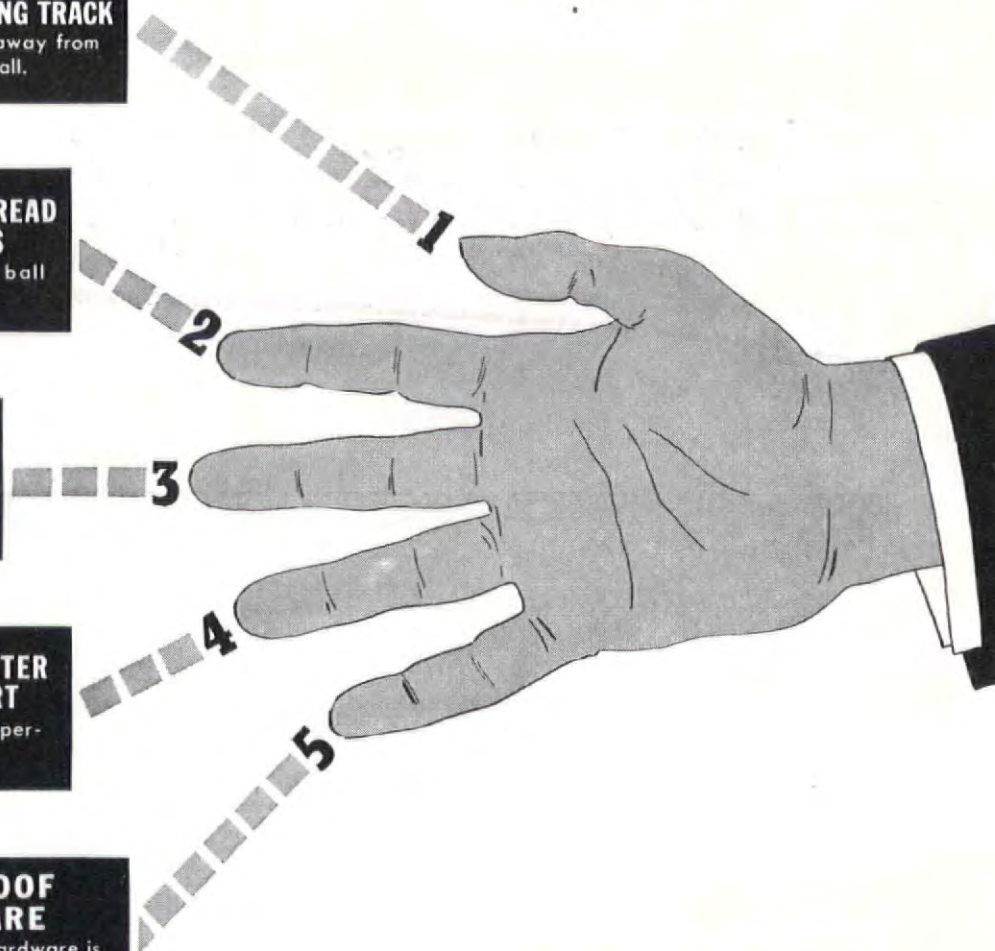
**SPECIAL DESIGNED
FRICTION-REDUCING TRACK**
makes rollers ride away from
track sidewall.

**"DOUBLE-THICK" TREAD
TRACK ROLLERS**
Each rolling on seven ball
bearings.

**"TAILOR-MADE"
POWER SPRINGS**
Each "Power-Metered" to the
weight of each door.

**"CROW'S FOOT" OUTER
BEARING SUPPORT**
Holds sheave wheel in per-
manent alignment.

**RUSTPROOF
HARDWARE**
All Ro-Way Door hardware is
Parkerized and painted after
fabrication.



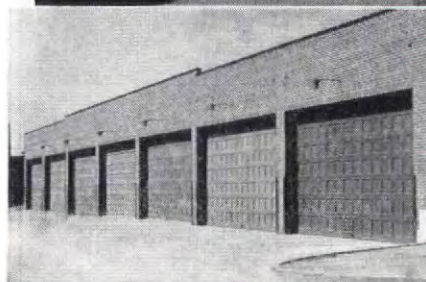
Ro-Way

**THE ONLY OVERHEAD TYPE DOORS
WITH THESE 5 EXTRA VALUE FEATURES**

No matter how you look at 'em, Ro-Way Overhead Type Doors are the modern doors for this modern age. Check the features above—exclusive with Ro-Way—and you have five good reasons why so many architects, builders and owners agree: Ro-Way Doors are in a class by themselves. Write for complete catalog. No obligation.

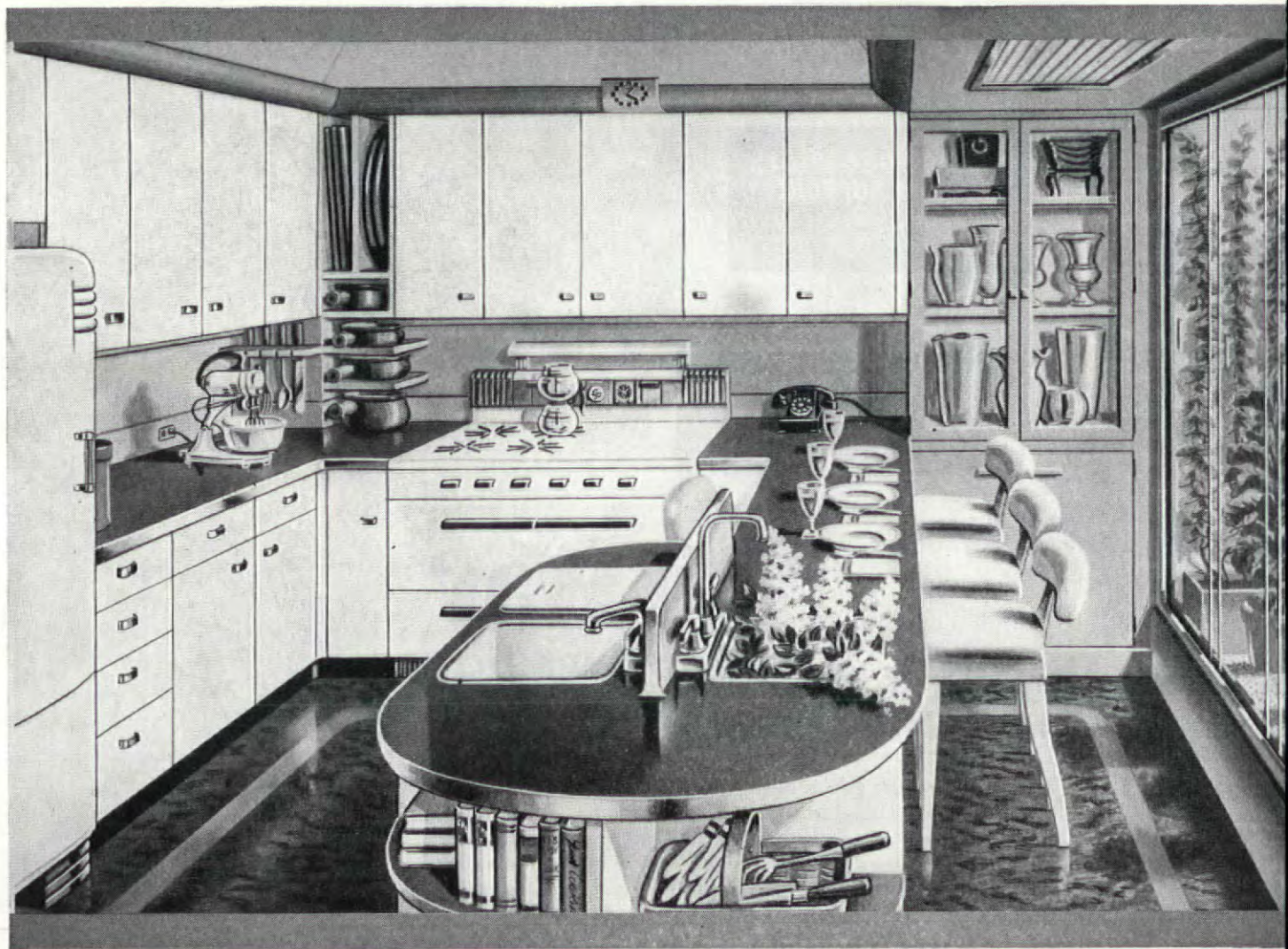
*Complete and Dependable Ro-Way Overhead
Type Door Sales and Installation Service is
available nationwide. See our catalog in Sweet's.*

ROWE MANUFACTURING CO.
910 HOLTON STREET • GALESBURG, ILL., U. S. A.



There's a RoWay for every Door way!

Let's look at it through a woman's eyes...

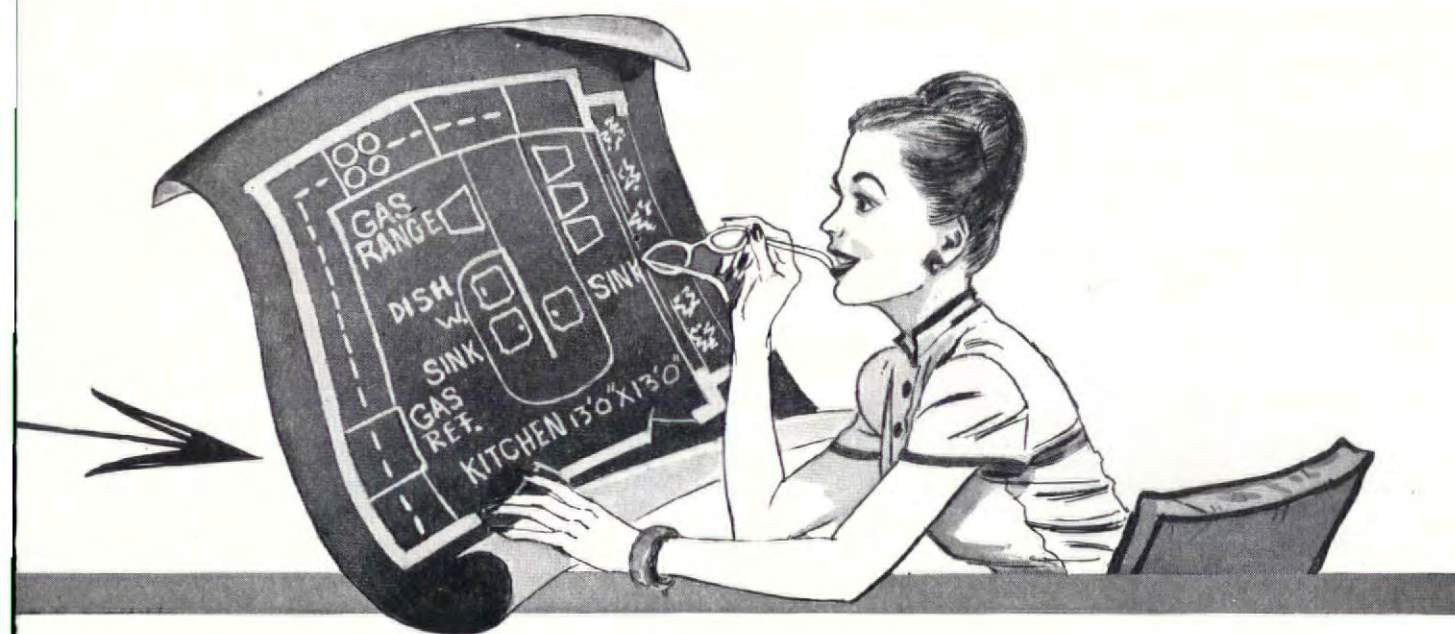


One in a series of "NEW FREEDOM

GAS

KITCHEN" designs

shown currently in a list
of important women's magazines



It's her bailiwick! It's the place where she spends most of her time, does her most absorbing work! So it's no wonder women are more interested in the kitchen than in any room in the house . . . are full of ideas on kitchen planning which you, as architects and builders, will be interested in noting! For example, here are some of their actual comments from a recent survey conducted on this particular "New Freedom Gas Kitchen" design:

Re: the layout: "Shows how even a double-purpose kitchen can be both compact and step-saving!" "Very practical arrangement of work areas." "Light and airy—plenty of cabinet space." "Handiest breakfast bar I've ever seen . . . grand for children!" "Love the big picture window!"

Re: the equipment: "I sure would enjoy cooking on that streamlined new Gas range—why, it even has automatic clock controls!" "I've always preferred cooking with Gas. It's faster, cheaper, and gives better results." "I want a Gas refrigerator, too. It's silent—and always dependable." "As far as I'm concerned, there's nothing like Gas service throughout the house!"

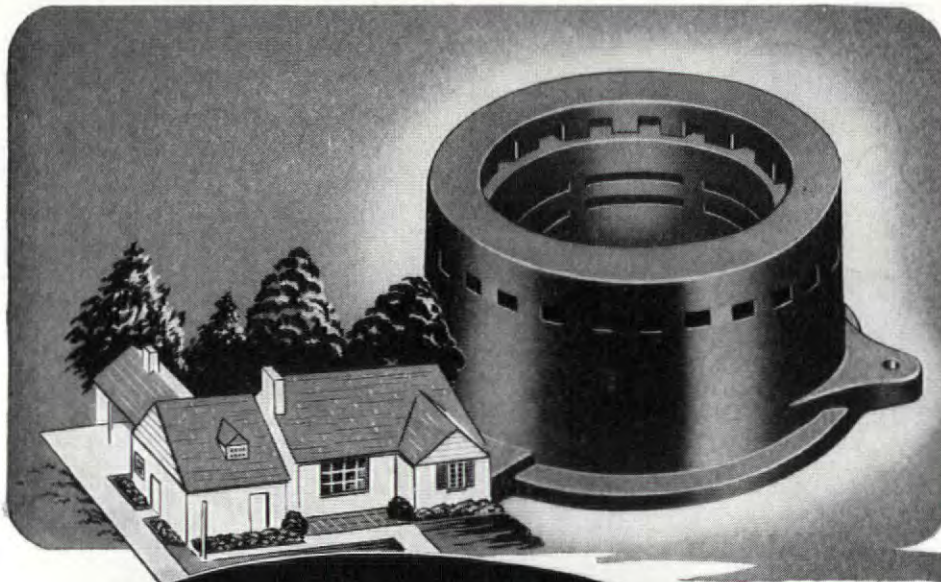
Re: the decorative treatment: "So bright and cheerful . . . red and green are my favorite kitchen colors!" "The flower sink is a wonderful idea!" "I see two things I've always wanted in my kitchen—a utensil rack and a telephone!" "Like the book and tray shelves." "This kitchen looks so modern and easy to keep clean!"

ONE THING STANDS OUT! The vast majority of women want clean, economical, dependable Gas as their "new freedom" kitchen fuel! In 20 million homes throughout America women are cooking with Gas now . . . enjoying the speed, flexibility and dependability which only the Gas flame can offer. Gas is the preferred fuel for refrigeration and water heating, too . . . as well as for

automatic house heating and up-to-the-minute year round air conditioning. That's why it's wise to recommend Gas equipment for all 5 jobs in the homes you plan and build. Your local Gas Company will be glad to give you complete technical details on modern Gas practice, appliances and systems.

AMERICAN GAS ASSOCIATION

ANNOUNCEMENTS



**HOW A 34-LB. CASTING
MAKES A HOUSE ...**

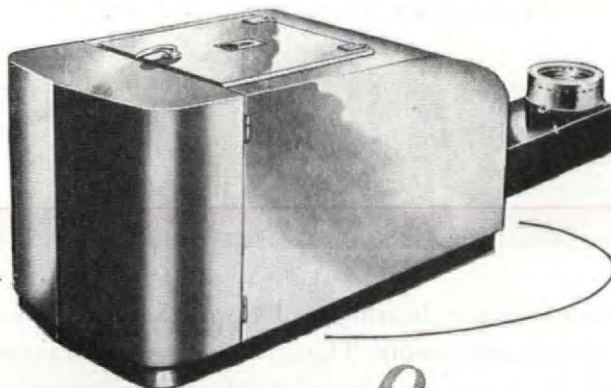
MORE COMFORTABLE

Pictured above is the exclusive one-piece burner head of a Whiting home stoker. Into its design has gone upwards of \$40,000, spent for exhaustive tests to attain a burner head that would burn—efficiently—*any kind of bituminous coal*. Whiting covers this burner head with a guarantee for service that is not equalled in the stoker industry.

The burner head is just one of the reasons why you should specify Whiting stokers to heat the residences and small stores for which you are responsible. Stokers provide operating economy as compared to hand firing, and superior comfort—results as compared to any other form of automatic heat, but the Whiting gives you, or your buyers or tenants, a great deal more.

Our recent booklet, "How To Choose A Stoker," tells important and interesting facts which will help you to measure *any* stoker more wisely. A free copy is yours for the asking. Write for it today.

WHITING STOKERS, Suite 2501, 11 So. LaSalle St., Chicago 3, Illinois



WHITING

COMPETENT REPRESENTATION
IS NEAR YOU

Stokers

THE INSTITUTE OF DESIGN, Chicago, Ill., has acquired another building to extend its educational facilities for returned veterans. New members of the faculty include: James Davis and Rainey Bennett, painting; Hugo Weber, sculpture; Arnold Ryan, advertising; Hin Bredendieck, industrial designer, and Harry Callahan, photography.

THE MORTGAGE BANKERS ASSOCIATION OF AMERICA in cooperation with the Graduate School of Business Administration of New York University will sponsor a two-week training course in mortgage banking and real estate finance next fall. The course will include the economics of urban real estate, valuation and appraising. An additional course is planned for senior executives of investment companies under the guidance of G. Rowland Collins, dean of the graduate school.

THE PORTLAND CEMENT ASSOCIATION, Chicago, Ill., has created a new Division of Research and Development to be administered by Dr. A. Allen Bates. To finance this program the Association has set aside a substantial part of its yearly income to be used in the expansion of research activities in the field of Portland cement and concrete, as well as their engineering applications.

COMPETITIONS

THE NEW YORK CHAPTER OF THE AMERICAN DESIGNERS INSTITUTE announces the Garrison's Magazine contest for the best design for a Junior Department Store of moderate size. Special emphasis is laid on open display, interchangeable units and flexibility. First prize is \$1,000 and there are five other awards of \$100 each. After the contest closes the original drawings will be sent on an exhibition tour, while winning plans will be published in Garrison's Magazine starting with February 1947. Closing date is December 15, 1946. Further information may be obtained from The American Designers' Institute, c/o Garrison's Magazine, 110 E. 42nd St., New York 17, N. Y.

THE SYRACUSE MUSEUM OF FINE ARTS and THE ONONDAGA POTTERY COMPANY, N. Y., announce their eleventh National Ceramic Exhibition. Any ceramist wishing to submit work may ship it to the nearest regional center: Los Angeles County Museum, Calif.; Cleveland Museum of Art, Ohio; Cooper Union, New York, N. Y. (Several others will be announced later). The Syracuse Museum will assume the cost of insuring and shipping accepted works to the National Exhibit at Syracuse and returning them to the ceramists. Entries must be received in Regional Centers between September 19th and 22nd. Further information may be received from Anna Wetherill Olmsted, Director, Syracuse Museum of Fine Arts, Syracuse 3, N. Y.

APPOINTMENTS

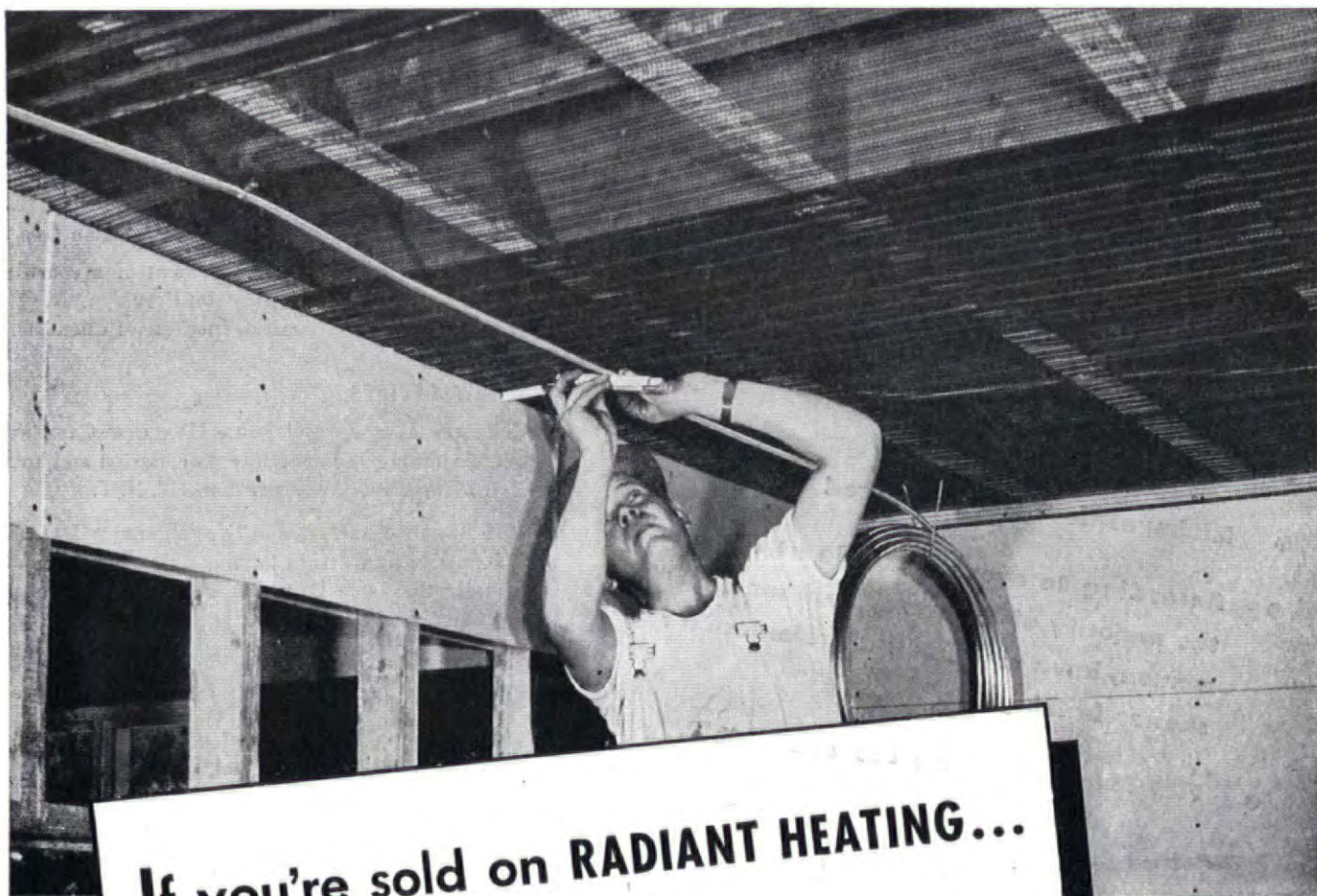
CAPTAIN LAURANCE ROBERTS, now assigned to duty with the Signal Corps in Washington, has been appointed Director of the American Academy in Rome. Captain Roberts, formerly Director of the Brooklyn Museum, will assume Directorship of the Academy after his discharge from the Army.

ROBERT LA MONTAGNE ST. HUBERT, former professor at the American School of Fontainebleau, France, has been appointed professor of architecture at Clemson College, S. C.

HARRY COLLINS is now Manager of the Resin and Insulation Materials Division of the General Electric Company.

A. M. BYERS COMPANY announces that Alfred B. Drastrup is now manager of their Alloy Steel Sales Department.

(Continued on page 108)



If you're sold on RADIANT HEATING...

Recommend *Copper Tube!*

IF you are sold on radiant heating, plan to use Chase Copper Tube, for copper tube has many advantages for radiant heating installations.

Copper tube can be bent easily, on the job. It is light in weight—easy to handle. And it can be installed in the standard plaster coat.

To these advantages add the long-recognized economy of Chase Copper Tube and you can see how

the specification of copper tube can make a radiant heating system appear even more desirable.

The demand for Chase Copper Water Tube is so great that we are not able to satisfy it at all times. However, the technical information is now available to you for future planning, and is being distributed throughout the building industry.

Send today for your copy. Simply address Dept. AF86.

7 Reasons WHY CHASE COPPER TUBE FOR RADIANT HEATING

1. EASY TO BEND
2. LIGHT IN WEIGHT
3. SOLDERED FITTINGS
4. SMALL DIAMETERS
5. LONG LENGTHS
6. LOW COST
7. LONG LIFE



Chase
BRASS & COPPER CO.

Waterbury 91, Connecticut
SUBSIDIARY OF KENNECOTT COPPER CORPORATION

This is the Chase Network—handiest way to buy brass

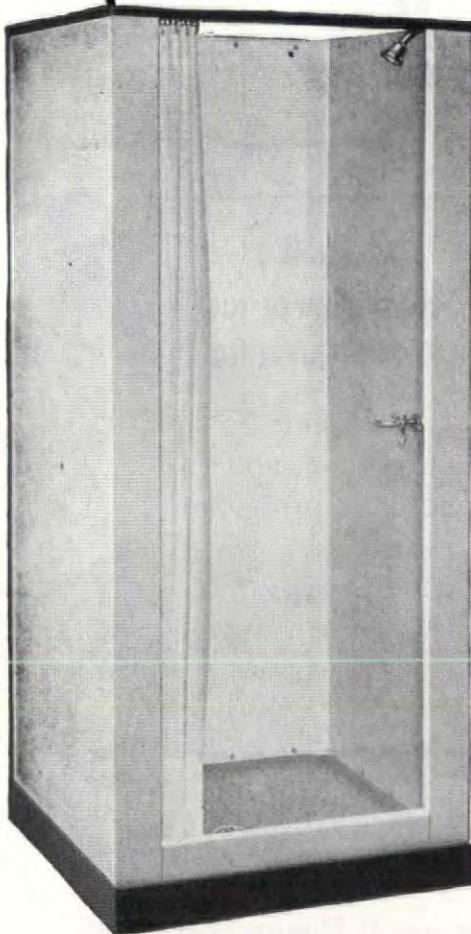
INCORPORATED

ALBANY† ATLANTA† BALTIMORE BOSTON CHICAGO CINCINNATI CLEVELAND DETROIT HOUSTON† INDIANAPOLIS JACKSONVILLE† KANSAS CITY, MO. LOS ANGELES MILWAUKEE
MINNEAPOLIS NEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER† SAN FRANCISCO SEATTLE ST. LOUIS WASHINGTON† (†Indicates Sales Office Only)

FIAT Skipper

... solves the bathroom problem for low cost housing

- Low installed cost
- Minimum floor space required
- According to surveys made at camps the majority of Veterans, both men and women, have expressed a preference for shower bathing
- Fiat Skipper showers are available



Specifications

SIZE—32x32x76.

WALLS—BONDERIZED, GALVANIZED STEEL. Finished inside and out with white baked-on-synthetic enamel.

RECEPTOR—Semi-flat standard type Stonetex; slip-proof, leak-proof, non-absorbent. Brass drain for 2" waste connection cast integral with receptor.

VALVES—Combination hot and cold compression valves with shower head and arm.

ACCESSORIES—Curtain rod and curtain.



FIAT METAL MANUFACTURING COMPANY

1203 Roscoe St., Chicago 13, Ill.

21-45 Borden Ave., Long Island City 1, N. Y. • 32 S. San Gabriel Blvd., Pasadena 8, Calif.

COLMAN O'SHAUGHNESSY has joined the Stanley F. Chamberlain industrial design organization of New York as Executive Associate.

IAN PATTERSON has been appointed as assistant manager in the chemical product development division of the Goodyear Tire & Rubber Company.

JOHN MARTIN HUGGETT, former Captain USMC, is now Pittsburgh District Manager of the publication *Iron Age*.

DR. FOSTER DEE SNELL, president of a consulting chemists' and engineering company in Brooklyn, N. Y. was elected President of the American Institute of Chemists.

NEW OFFICES

HUSON JACKSON and JOHN HANCOCK CALLENDER announce their partnership in architecture, design and housing research at 299 Madison Ave., New York 17, N. Y.

KENNETH DALZELL and K. WHITNEY DALZELL, JR., have formed a partnership for the general practice of architecture under the name Dalzell & Dalzell, architects, 525 Millburn Avenue, Short Hills, N. J.

RALPH BRYAN, AIA, after four years in the Navy Civil Engineering Corps, has resumed practice with offices temporarily located in the Construction Building, Dallas, Tex.

H. EUGENE GRIESHABER and JAMES NEILAN have formed the partnership of Grieshaber & Neilan to practice architecture at 302 State St., New London, Conn.

PRENTISS HUDDLESTON, AIA, announces the reopening of his architectural office in the Brock Building, Tallahassee, Fla.

CALDWELL DIAL, AIA, and ALBERT THOMAS, JR., AIA, have returned from the Armed Forces and have reopened the architectural firm of Dial & Thomas in Columbia, S. C.

WM. STEELE, FAIA, J. SANDHAM, AIA and WM. STEELE, JR., announce formation of a partnership with offices in the Electric Building, Omaha, Neb.

HENRY SCRIPPS BOOTH is opening an office for the practice of architecture at 1210 Kales Building, Adams Avenue West, Detroit 26, Mich.

EDWARD FLEAGLE announces the reopening of his architectural office at 18 South Broadway, Yonkers, N. Y.

MAJOR RICHARD LENNOX and MAJOR JOSEPH MATTHEWS, recently returned from service, have reestablished their architectural and engineering office at 352 S. Illinois St., Indianapolis, Ind.

SYLVESTER SMITH, AIA, formerly chief architect for Day & Zimmermann, Inc. has opened an office for general practice at 1916 Race St., Philadelphia, Pa., while being retained as consultant by Day & Zimmermann, Inc.

CHARLES ROBINSON, AIA, is opening an office at 107 E. Gay St., Lancaster, S. C.

D. KENNETH SARGENT, FREDERICK WEBSTER, THOMAS GRENshaw and MILO FOLLEY announce a partnership for practice of architecture with offices in both Syracuse and Watertown, N. Y.

E. CARLETON GRANBERY, JR., RA, until recently Lt. Comdr. in the Navy CEC Corps, and his wife, Diana Granbery, have opened an architectural office at 34 Livingston St., New Haven, Conn.

(Continued on page 110)

Perspective on a contemporary stair hall

AREAS which traditionally are dull and gloomy can easily be flooded with cheerful daylight by panels of Insulux Glass Block.

The increasing use of Insulux by architects is the result of this ability to perform in an important functional capacity while also doing an appealing decorative job. When installed in large areas, the high insulating value of Insulux lowers the cost of heating and air conditioning operations. Dirt and dust are blocked out. Sound transmission is lowered.

Upkeep of Insulux panels is remarkably low, even under adverse conditions because they resist moisture and will not rot, rust or corrode. Painting is never required and the occasional washing necessary is a simple matter.

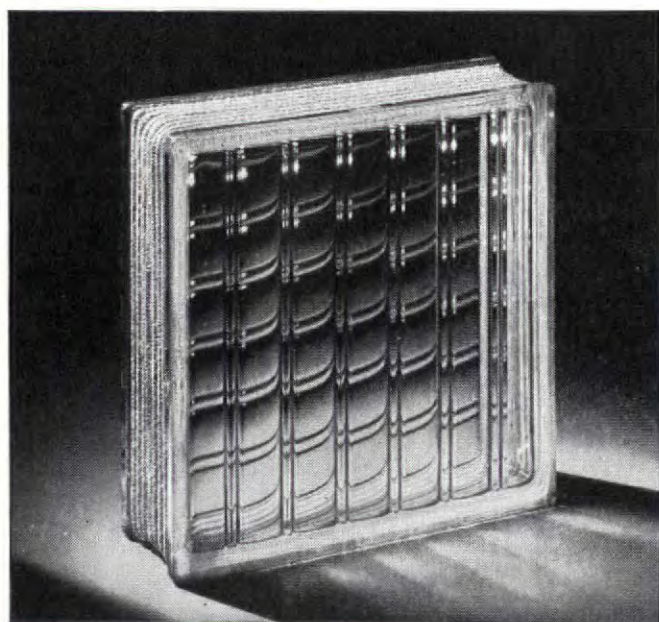
Consider the use of Insulux Glass Block at any point—in *any* building—where natural daylight will increase livability or improve working conditions.

OWENS - ILLINOIS

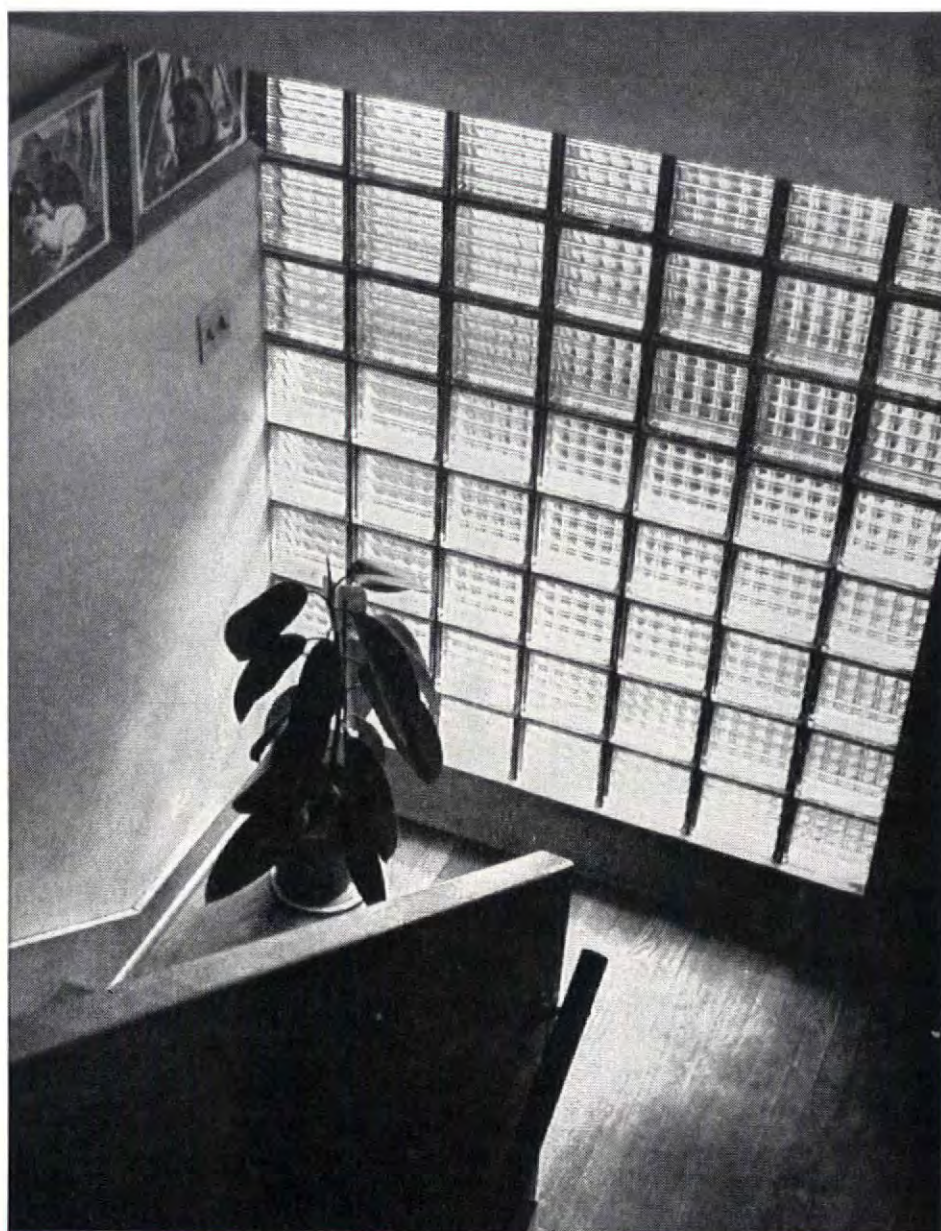
INSULUX

GLASS BLOCK

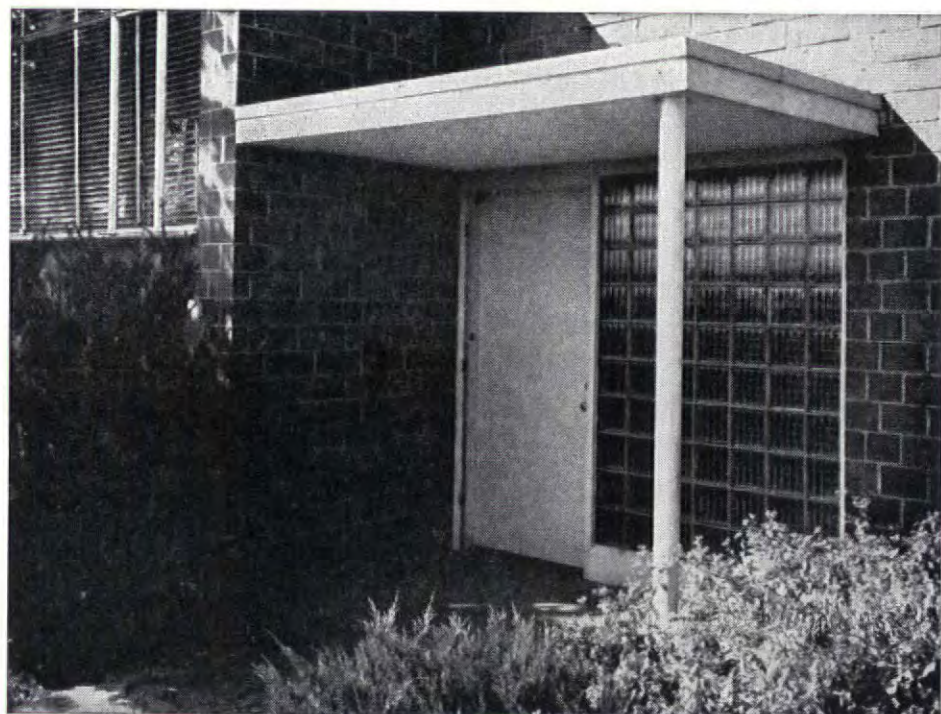
For technical data, specifications and installation details, see our section of Sweet's Architectural Catalog or write Dept. C-20, Owens-Illinois Glass Company, Insulux Products Division, Toledo 1, Ohio.



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



One of the many residential uses for Insulux Glass Block is shown in the stair hall of this home in the Little Switzerland development. This community of contemporary homes is located on Brown's Mountain, six miles from Knoxville, Tenn. All homes are by Alfred and Jane West Clauss. Insulux brings pleasantly diffused daylight inside—privacy is assured.



In tone with contemporary exteriors. Insulux is extremely practical for daylighting entrances, stairways, bathrooms, kitchens—any room where light with privacy is desirable.



For Post Office or Corner Store

GEORGIA MARBLE

for impressive modern buildings

Sparkling crystal white Georgia Marble is being used today in the construction of many of America's finest buildings. The range of usefulness of this modern construction material has proved unlimited. From such impressive structures as the new Post Office in Athens, Ga., illustrated above, to the corner store in towns and cities throughout the country, Georgia Marble is adding a modern, progressive touch.

In addition to its eye appeal Georgia Marble has proved to be eminently practical for the modernizing of shops and stores as well as for new construction because it can be supplied in veneers as thin as 1¼" and does not require painting on the back. Production facilities have been substantially increased and material is readily available.

THE GEORGIA MARBLE COMPANY, Tate, Georgia SALES AND SERVICE OFFICES:

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ATLANTA 3, GA.

419 — 4th Avenue
NEW YORK 16, N. Y.

300 No. Beacon Street
BRIGHTON 35, MASS.

513 Liberty Trust Building
PHILADELPHIA 7, PA.

Bond Building
WASHINGTON 5, D. C.

1570 Hanna Building
CLEVELAND 15, OHIO

"The Marble with the SPARKLING CRYSTAL"

JOHN CARR and PHELPS CUNNINGHAM announce the formation of a partnership for the practice of architecture with offices in the Schofield Bldg., 9th and Euclid Sts., Cleveland, Ohio.

WILLIAM FOX, JR., after 5 years as Lt. Commander in the Civil Engineer Corps of the U. S. Navy, has opened an office for the general practice of architecture in the Wilma Building, Missoula, Mont.

BERYL PRICE, recently released from service as Captain in the Army Engineer Corps on Saipan, is resuming architectural practice at 1911 Pine St., Philadelphia 3, Pa.

THOMAS BROAD and DONALD S. NELSON announce their association in the firm Broad and Nelson, architects, engineers and planners, with offices in the Burt Building, Dallas 1, Tex.

BERNARD WEBB, JR., is reopening his architectural office at 704 Bankers Insurance Building, Macon, Ga.

HERMON HORN, after five years with the Corps of Engineers, is resuming architectural practice with Adolph Knappe at 192 Lexington Ave., New York, N. Y.

JAMES E. LOFTUS announces the opening of his office of architecture in the Omaha National Bank Building, Omaha, Neb.

KENNETH CLARK, architect, and LAWRENCE ENERSON, M. L. arch., announce their partnership in the practice of architecture and site planning at 1202 Sharp Building, Lincoln, Nebr.

G. H. ANDERSON, architect, until lately with the Marine Air Wing as construction officer, announces the reopening of his office in the Lloyd Building, Seattle, Wash.

ARTHUR BASSIN, DAVID CHESKIN and BARNEY TOKARSKY announce their association as architects, engineers and planners of modern developments in offices at 407 S. Dearborn Street, Chicago, Ill.

A. C. LYRAS, architect, announces the opening of his office at 28 W. 44th St., New York, N. Y.

LT. COL. JESSE T. JOHNSON is resuming his architectural practice at 713 Sycamore St., Columbus, Ind.

MATTHEW EHRLICH has opened an architectural office in the Crozier Building, 1420 Chestnut Street, Philadelphia 2, Pa.

WARNETT KENNEDY & ASSOCIATES, architects and engineers, offer all industrial design services in their new office at No. 11 Bentinck Street, London, W.1.

JOHN SOMERVILLE, architect, has opened an office at 230 E. Walnut Street, Green Bay, Wisc.

ROBERT MILLER, architect, announces the opening of his office for general practice at 616 Stock Exchange Building, Portland, Ore.

C. HERBERT MULLEN has opened an office for the practice of architecture in the Joplin National Bank Building, Joplin, Mo.

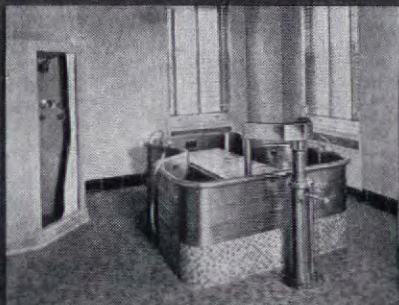
BRYAN NOLEN, AIA, has returned from service and is reopening his office in the Key Building, Oklahoma City, Okla.

LORENTZ SCHMIDT, AIA, WAYNE MCVAY, AIA, and THOMAS PEDDIE, AIA, have become associated as Lorentz Schmidt, McVay and Peddie, Architects, at 1832 E. Second St., Wichita 7, Kan.

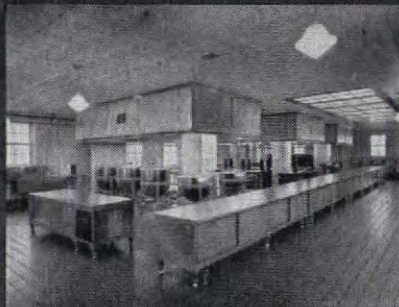
C. W. SHAVER, JR., AIA, is practicing architecture at 22 S. Main, Sheridan, Wyo.

(Continued on page 114)

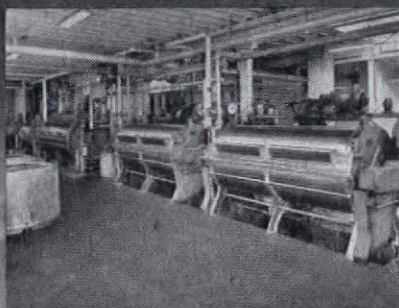
WHERE *ONE* METAL MEETS ALL NEEDS...



MONEL HYDROTHERAPY TANK made by The John Van Range Co. and installed by American Radiator and Standard Sanitary Corp., Pittsburgh, Pa.



MAIN KITCHEN. Completely Monel-equipped by The John Van Range Company of Cincinnati, Ohio.



EFFICIENCY for the laundry. Monel washers and extractors manufactured by The American Laundry Machinery Co., Cincinnati, O.

One versatile metal serves throughout Fitzsimons General Hospital in Denver, Colo.

*That metal is Monel.**

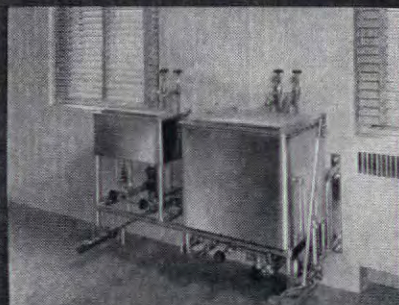
In operating room, clinic and laboratory...in hydro-therapy department, kitchen, cafeteria and laundry, this silvery, rustproof nickel alloy does many jobs . . . and does them well.

Not only that, but Monel equipment is durable, long-lived. It lasts for years despite heat, continuous use...despite heat, steam and moisture . . . despite acids, alkalis and a wide range of hospital solutions.

Monel is also an outstanding material for roofing, flashing, gutters, downspouts, skylight frames and ventilators . . . for lath tie-wire, and for valves, pump shafts and accessories.

Specify Monel for new hospital construction and the remodeling work on your boards. More than a quarter of a century of dependable performance justifies Monel's recognition as *The Standard Metal of the Modern Hospital.*

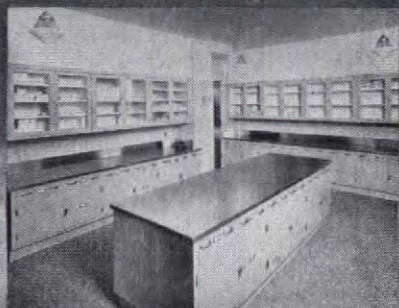
*Reg. U. S. Pat. Off.



IN THE SURGICAL DEPARTMENT. These all-Monel sterilizers are a product of The American Sterilizer Co., Erie, Pa.



A BRIGHT, ATTRACTIVE pharmacy. Sink, table tops and counter tops are Monel.



NURSES' WORK ROOM. Monel table top and counters. This equipment, like that in the pharmacy, made by General Fireproofing Co., Youngstown, O.

MONEL

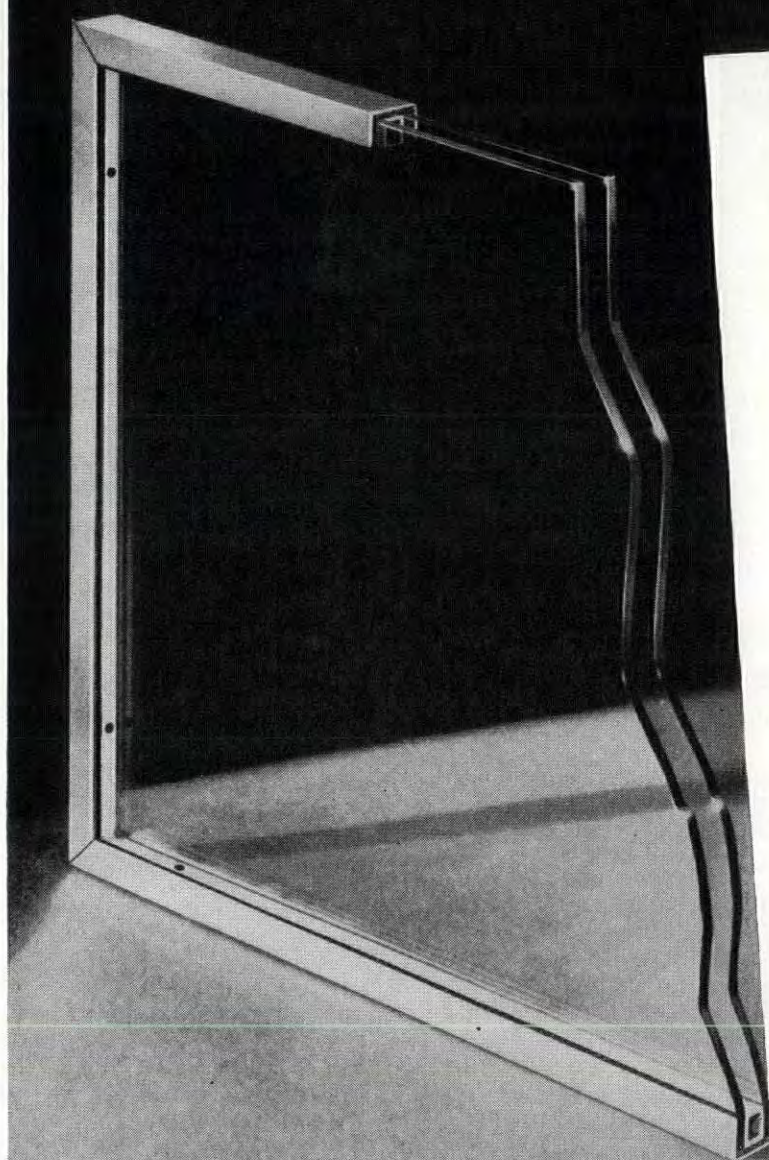


FITZSIMONS GENERAL HOSPITAL, Denver, Col., another famous Monel-equipped institution. Architect: Construction Div. of the Office of the Quartermaster General, Washington, D. C.

THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK 5, N. Y.

QUESTIONS and ANSWERS

"Pittsburgh's" New Window



QUESTION . . .

What is **TWINDOW**?

ANSWER . . .

Twindow is the newest development in insulating windows. It is a simple, prefabricated window unit, consisting of two or more panes of glass with a hermetically sealed air space between and a sturdy protecting frame of stainless steel.

QUESTION . . .

Where can **TWINDOW** be used most advantageously?

ANSWER . . .

Twindow should be used wherever clear vision and effective insulation are important. It is a "natural" for large windows in homes, for store front windows, large windows in factories, office buildings and institutions.

QUESTION . . .

Why was **TWINDOW** developed?

ANSWER . . .

Twindow is the result of extensive research at the Pittsburgh Plate Glass laboratories to develop an efficient, eco-



"PITTSBURGH" stands for Quality Glass and

P I T T S B U R G H P L A T E G L A S S

about **TWINDOW**

TRADE-MARK

with BUILT-IN Insulation

nomical means of combining transparency with good insulating qualities.

QUESTION . . .

Just how well does TWINDOW insulate?

ANSWER . . .

Twindow reduces heat loss through windows to less than half that experienced with a single pane of glass. This insulation decreases the load on heating or air-conditioning equipment.

QUESTION . . .

What effect does TWINDOW have on room comfort?

ANSWER . . .

Twindow makes areas close to windows just as comfortable as other parts of the room. It minimizes downdrafts and helps to keep temperature and humidity at proper levels.

QUESTION . . .

Can TWINDOW help eliminate the nuisance of fogged windows?

ANSWER . . .

Yes. Except under extreme conditions, Twindow's sealed air space prevents condensation on the glass, assuring clear vision. And since no dirt or dust can reach its sealed-in surfaces, Twindow is as easy to clean as an ordinary window.

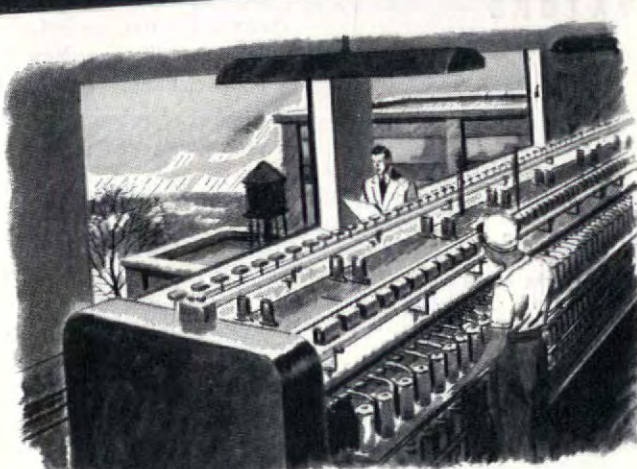
QUESTION . . .

Does TWINDOW require some special installation technique?

ANSWER . . .

No. Twindow is an easily handled unit, and installs as simply as a single window pane.

For more answers to your questions about Twindow, mail us the coupon. Pittsburgh Plate Glass Company, 2307-6 Grant Building, Pittsburgh, Pa.



Pittsburgh Plate Glass Company
2307-6 Grant Building, Pittsburgh, Pa.

Please send me, without obligation, complete facts about TWINDOW, the window with *built-in* insulation.

Name.....

Address.....

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

C O M P A N Y

ANNOUNCEMENTS

DARCEY TATUM, JR., architect, is opening an office in the Frank Nelson Building, Birmingham, Ala.

LEO ROSELYN and LLOYD GARTNER announce their partnership as Roselyn & Gartner to offer architectural and industrial design services at 821 Market St., San Francisco 3, Calif.

E. PAUL HAYES, AIA, announces the opening of his office at 128 W. Kirk Avenue, Roanoke 11, Va.

THE CONTINENTAL WIRE CORPORATION, York, Penna., will specialize in electric wire and cable for use in lighting fixtures and appliances. Officers of the newly-formed company are: C. C. Christiansen, President; Edgar Harrigan, Vice-President; J. C. Shafer, Secretary; and Harold Olden, Treasurer.

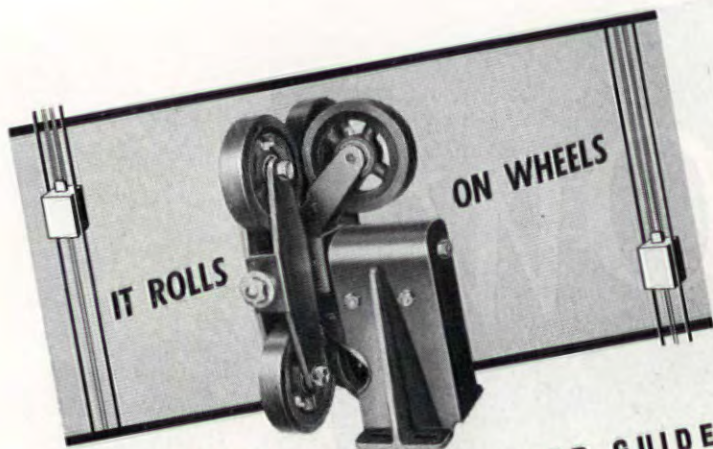
SPENCE-RIGOLO, an industrial and architectural firm located at 677 5th Avenue, New York, N. Y., has been formed with George Schaffer as President.

GENS-JARBOE, INC., a newly-formed construction firm, will have its offices at 101 Park Avenue, New York 17, N. Y.

GEORGE TAYLOR, former lighting specialist for General Electric, is president of Taylor-Light, Inc., North Hackensack, N. J., a new firm, which will manufacture residential and industrial lighting fixtures.

CHANGES OF ADDRESS

ROBERT WILMSEN, architect, announces that his address is now 404 Tiffany Bldg., Eugene, Ore.



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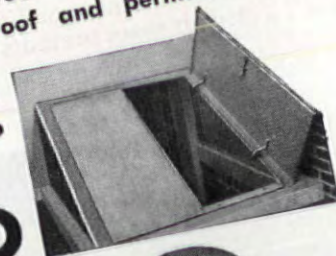
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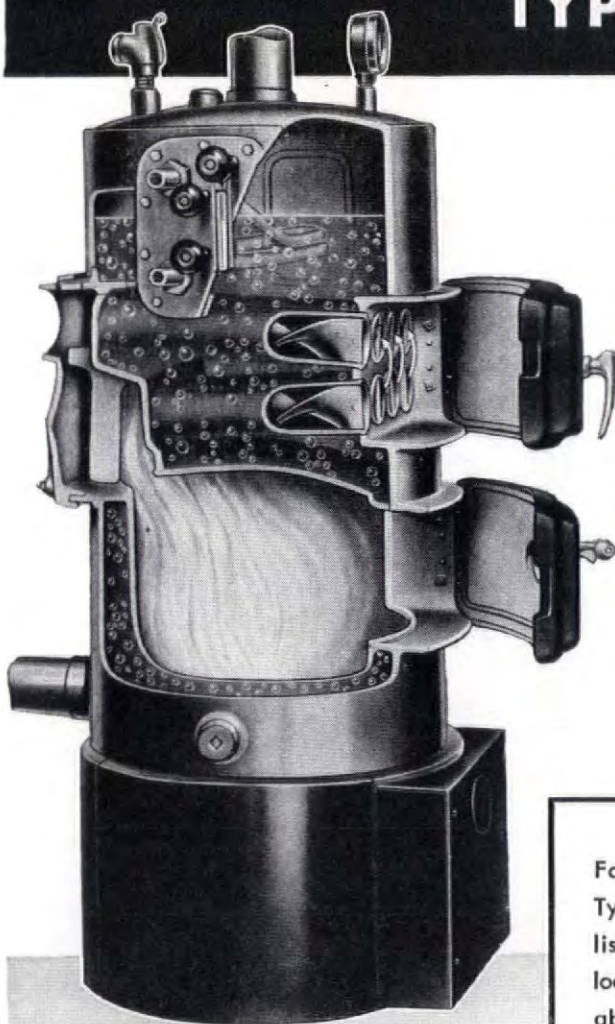


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This is the first of a series of illustrations by Hugh Ferriss demonstrating the adaptability of Architectural Concrete for apartment buildings—hospitals—schools. Architectural Concrete combines architectural and structural functions in one economical, fire-resistant material. Watch for future illustrations and details.

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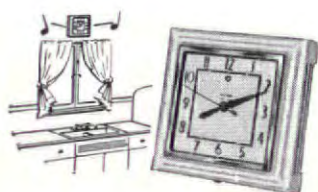
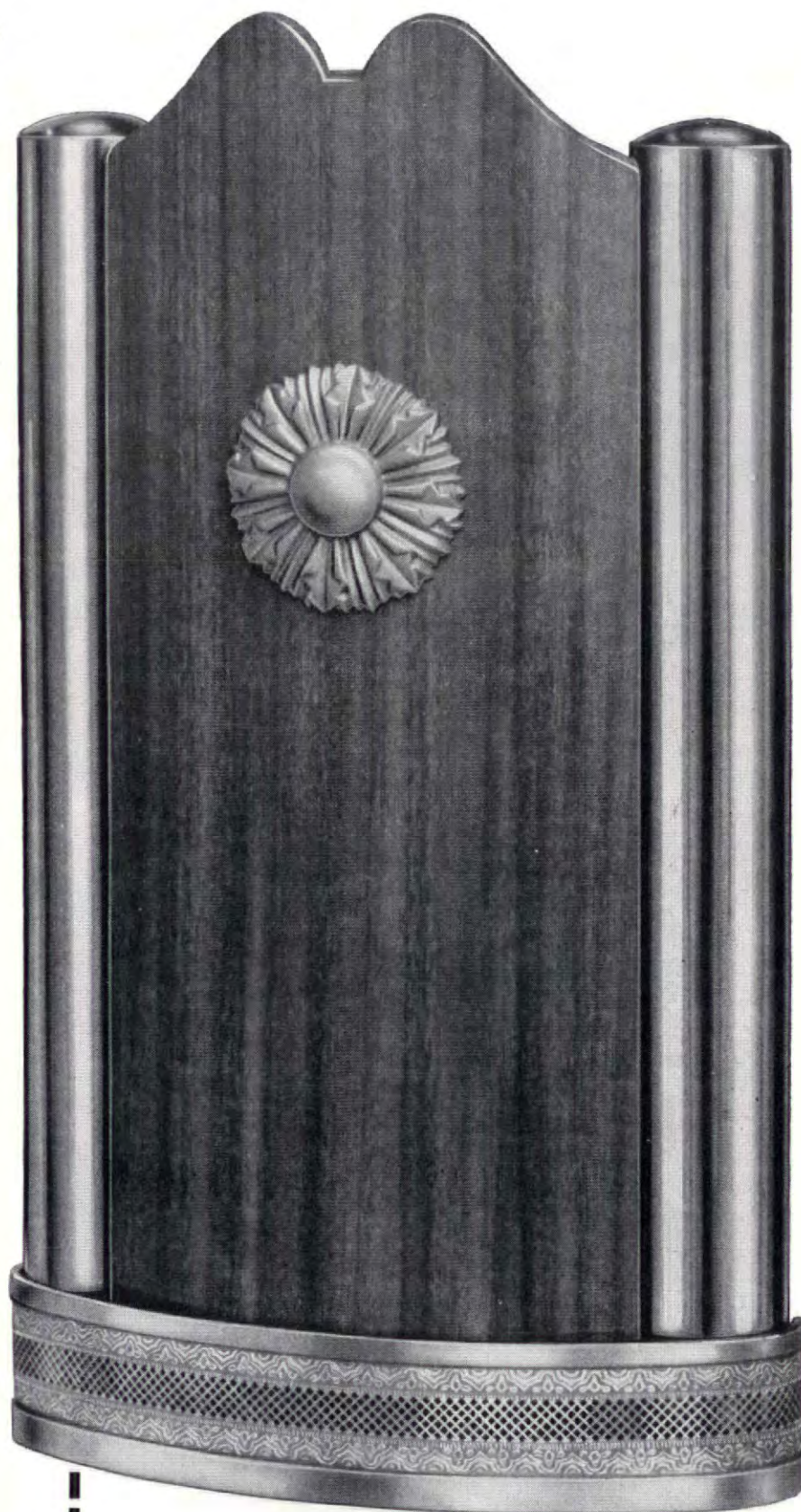
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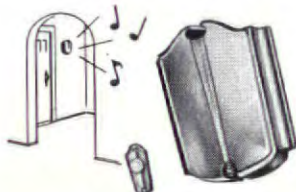
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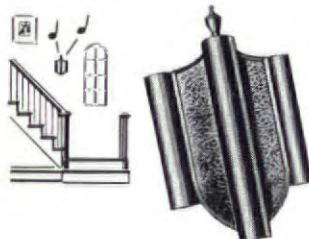
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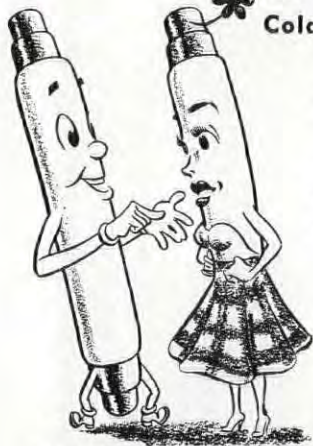
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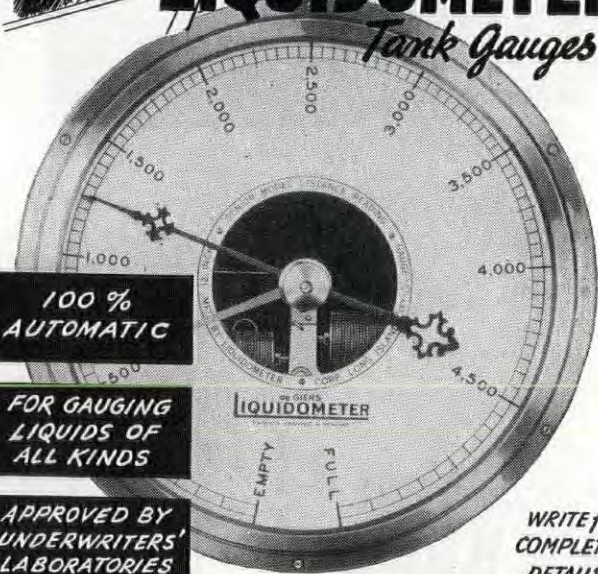
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MORRIS LAPIDUS, architect, is now at 256 E. 49th St., New York 17, N. Y.

DALE ALFRED WHITE has transferred his architectural office to 26½ Public Square, Mt. Vernon, Ohio, and is maintaining a branch in Akron, Ohio.

LEWIS MACKENZIE, AIA, has moved to 500-2 Architects Building, Philadelphia 3, Pa.

ROBERT E. ALEXANDER, AIA and Am. Soc. Planning Officials, announces the new location of his offices at 3701 Stocker St., Los Angeles, Calif.

RICHARD PINNELL, designer, Stanley Burne, Structural Engineer, J. S. Daniels, Engineer, and A. J. Daniels, Surveyor, are now located at 3437 Goldfinch, San Diego, Calif.

McENARY & KRAFT, AIA, have moved to larger offices at 1110 McKnight Building, Minneapolis 1, Minn.

DIED

DR. CHARLES V. PATERNO, New York builder and real-estate developer, well-known for his construction of Castle Village and Hudson View apartment groups in Washington Heights, and the Marguery Hotel in downtown Manhattan.

NORTH A. WRIGHT, Public Relations Director of Libbey-Owens-Ford Glass Company, Toledo, Ohio. During the war Mr. Wright was a director of the Producers' Council which aided in expediting war materials and developing new war products.

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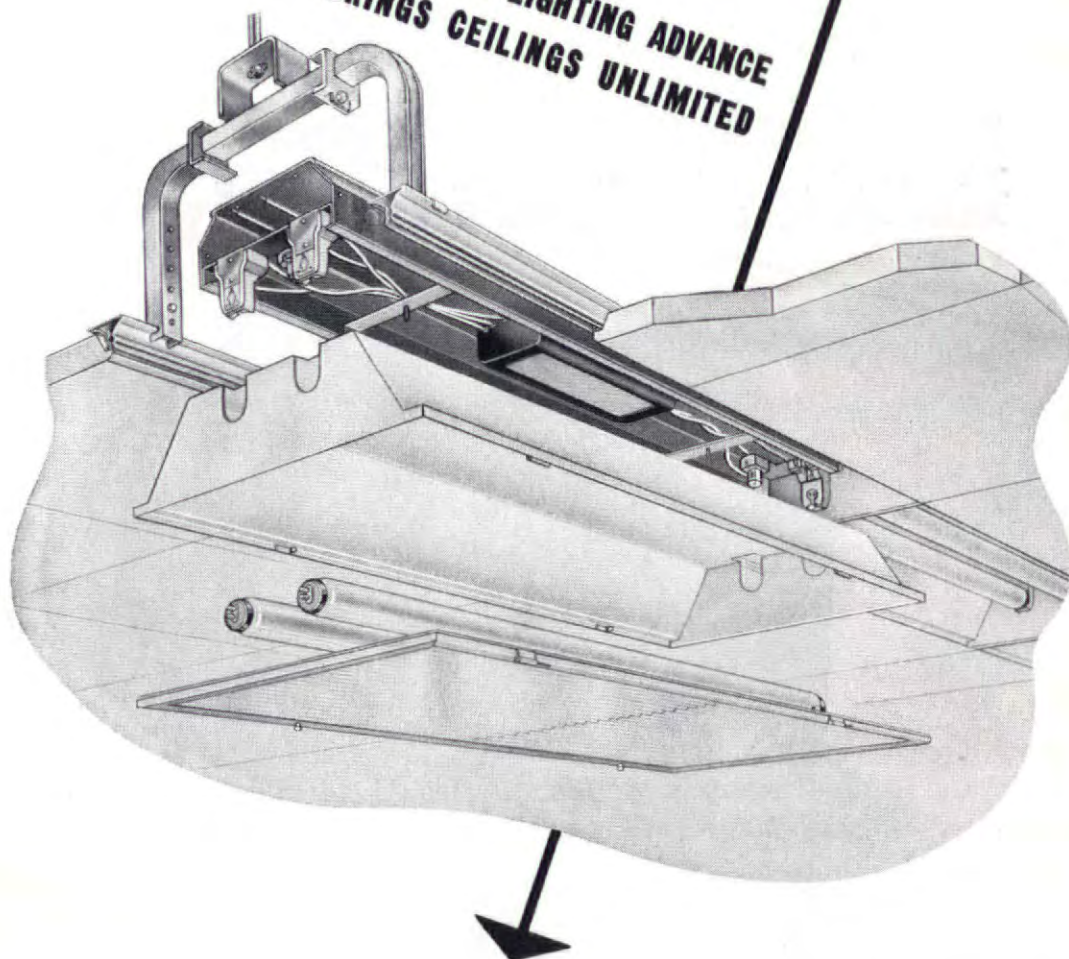
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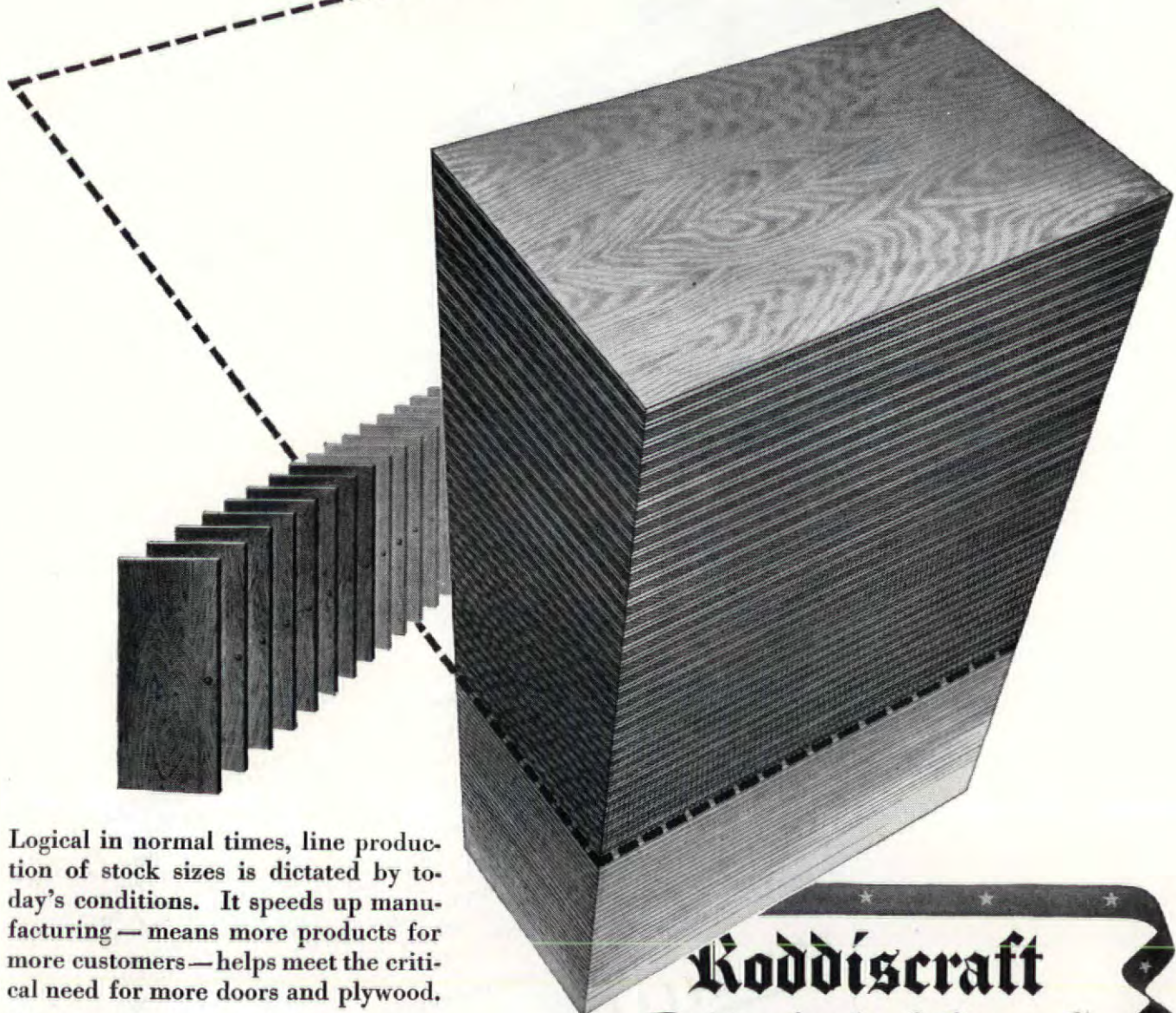
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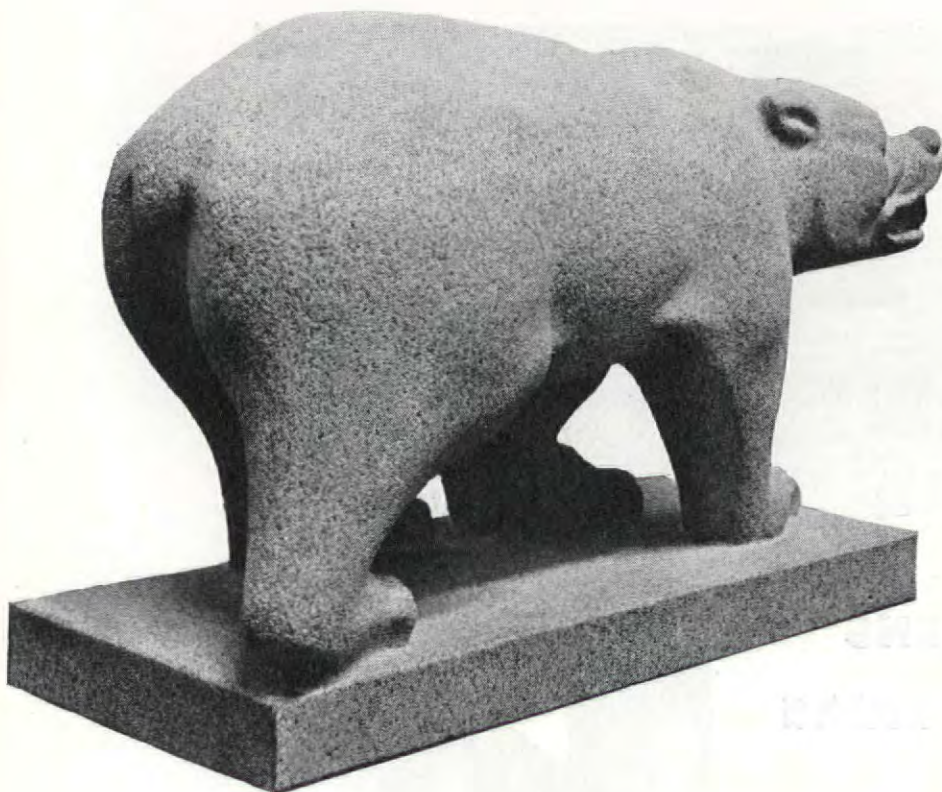
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SCULPTURE

The only thing that has deprived the East of a first-hand look at sculptor Raymond Puchinelli's work is his own propensity for creating immovable objects. His first interest lies in the simple act of carving stone. The bigger the chunk, the happier the artist, but it has to be good hard stone like diorite, porphyry or onyx—materials that are tough to handle and tougher to transport. The *Buffalo* (see cut), which measures less than four feet but weighs over a thousand pounds, made its first appearance at a temporary exhibition, found a permanent habitat at the Santa Barbara Museum, not for his melting expression but for his tremendous avoirdupois.

Although Puchinelli is equally well known for small bronze figurines of dancers, his larger work is a natural complement to architecture. It appears to have been created for bases and pediments of buildings. One of his best recommendations as an architectural sculptor was voiced by critic Albert Frankenstein who said, "He has an exceptional sense for sculptors' materials, and it is no accident that most of his figures in stone are based on looped returning rhythms . . . the stone, in other words, dictates its own self-contained shape . . ." Puchinelli has had a number of architectural commissions on the West Coast, among them the figures for the San Francisco Building (see cut below), designed by architect Timothy Pflueger for the Golden Gate Exposition. Among his best known individual figures, most of which are located in or around his native San Francisco, is a ten foot panther (see cut) in polished black diorite for the entrance of the Salinas Junior College.

As an individual Puchinelli's greatest charm lies in his simplicity and responsiveness. This carries over into his work. Though he started out as an abstractionist, struggling for many years with "pure form", his innate love for the living, moving, feeling quality in life brought him around to more realistic sculpture. And even three years of teaching in the department of architecture at the University of California did not tone down his directness. He says, "I think all these undecorated walls get pretty boring and oppressive. Le Corbusier is wonderful but sculpture really adds freedom to architecture."

Currently in New York to arrange an exhibit of his drawings, Puchinelli finds himself captivated by some of the most indecent little bacchantes and cupids that adorn grubby old brownstones. He feels that they contribute a friendly feeling to the buildings, a quality totally lacking in most average unornamented West Coast houses of the same era. It is this quality of fantasy and responsiveness that is the essence of his work.

If the *Bear* (see cut), his most recent piece of sculpture, is any indication of Puchinelli figures to come, some enterprising gallery had better hire a string of flat cars (augmented by a derrick or two) and arrange a one-man show beyond the environs of the Golden Gate. (Continued on page 124)





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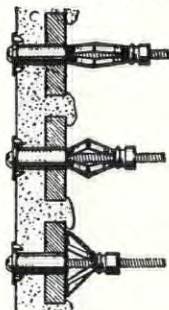
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ARTS OF THE SOUTH SEAS. By Ralph Linton and Paul S. Wingert in collaboration with Rene d'Harnancourt. The Museum of Modern Art, New York. 195 pp. Illus. 7½ in. by 10¼ in. \$5.

FORUM readers already familiar with the recent exhibit *Art of the South Seas* (FORUM, April '46) will be disappointed to find that the exceptionally clear visual presentation of the show itself has not been carried over into the book, nor has the cultural continuity been set forth in nearly so dramatic a fashion. South Seas culture would be of natural interest to any student of design, but a thorough sociological background is needed to interpret its wide variety of artistic expression. While this study offers many illuminating explanations of the functions of individual objects, its detail is confusing to the average reader because it lacks a clear anthropological framework on which to hang the facts. That an anthropological study can be made dramatic has already been demonstrated by such books as Ruth Benedict's *Patterns of Culture*. Without a solid understanding of the motivations—social, religious and economic—it is difficult, if not impossible, to understand the art. *Arts of the South Seas* contains a wealth of material and some excellent photographs but it is unfortunate that from the Museum's excellent presentation a more integrated work was not produced. C.S.

THE MODERN SMALL HOSPITAL and Community Health Center. Published by The Modern Hospital Publishing Co., Chicago. 138 pp. Illustrated. 10½ in. by 14 in. \$7.50.

Before embarking in the popular field of small hospital design, it would be wise for architects to study this book which has been written around the results (Continued on page 128)

O'BRIEN'S
Pen-chrome
WOOD FINISHES
Bleached Mahogany
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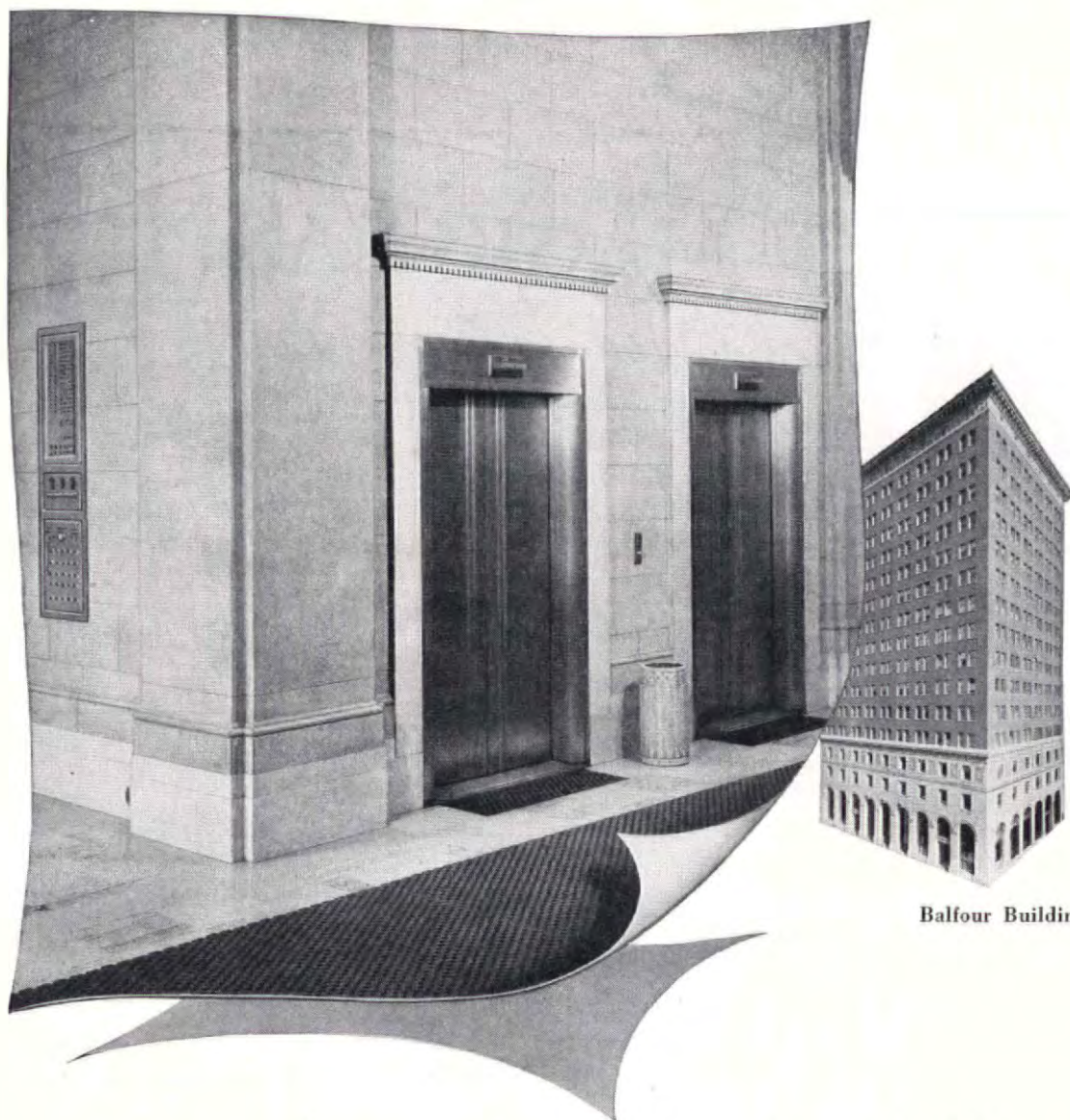
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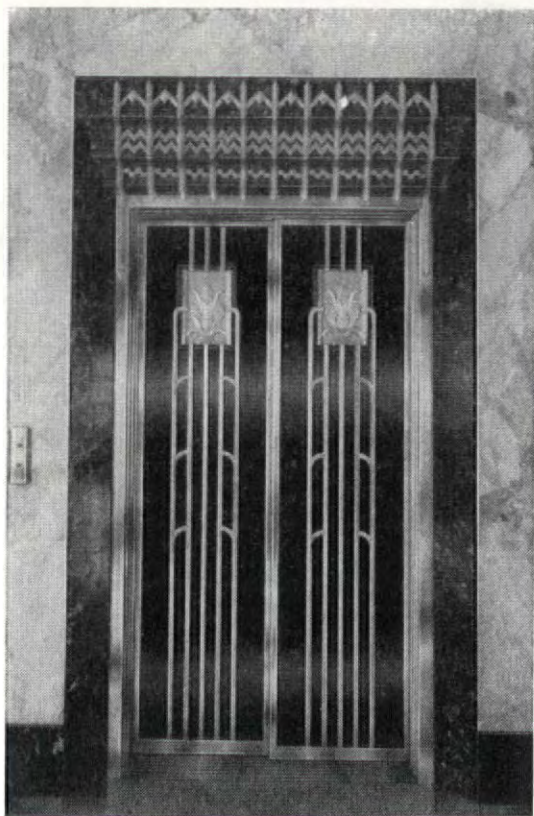
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Illustrated above: Dahlstrom First Floor Elevator Entrance in the Macon County Building, Decatur, Ill. Aschauer & Waggoner and Charles Harris, Associate Architects, Decatur, Ill.

Door Panel—Polished Black Micarta with cast aluminum ornamentation in a high polished satin finish.

Frames—Formed aluminum in a high polished satin finish.

Illustrated at right: A typical example of Dahlstrom cooperation with Architects and Designers—reproduction of a full-color sketch as it is submitted.

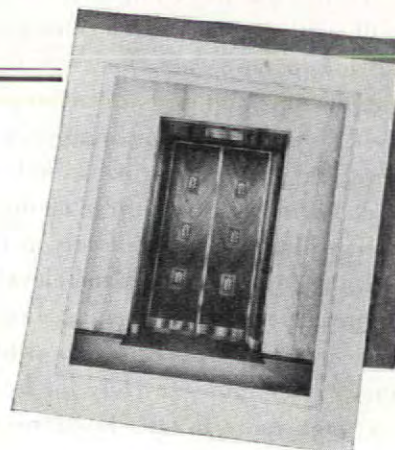
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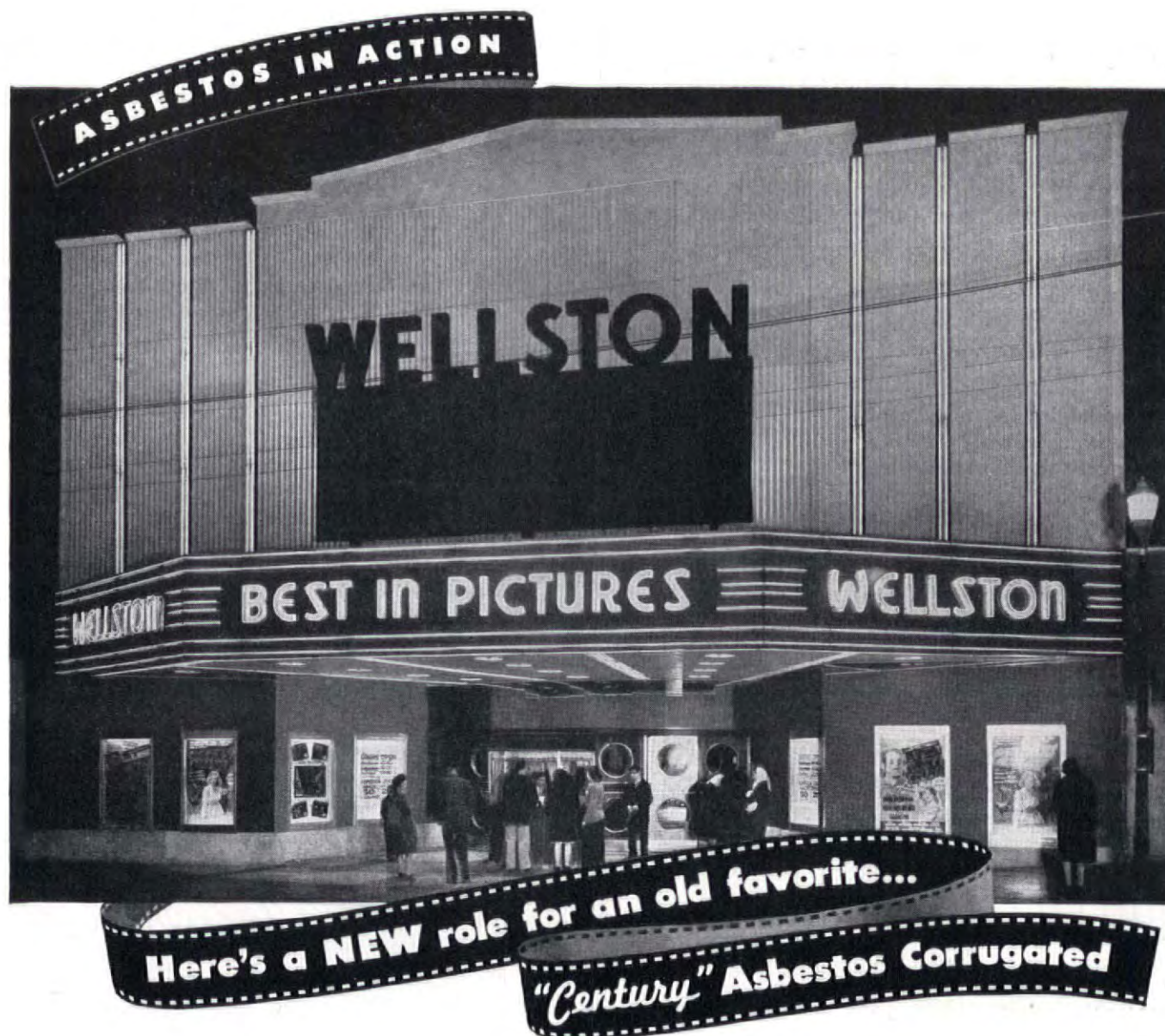
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Here's the key to keen interest in stucco homes—the new color chart which gives you exterior decorating ideas that will make stucco homes big news in your town.

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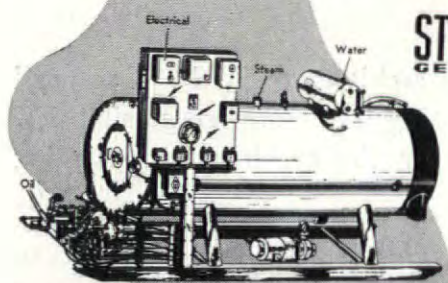
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of a 1944 competition sponsored by the publishers. In addition to plans and drawings, there is included a useful collection of authoritative articles on administration, financing, operation, patient's needs, etc. *M.S.*

BUILDING CONSTRUCTION COST DATA—1946. By Richard Snow Means, P.O.B. 62, Duxbury, Mass. 72 pp. 7 in. by 10½ in. \$1.50.

An alphabetical tabulation of average spot prices, this concise, spiral bound book is a guide to cost estimation. It does not tell the reader how to estimate; it provides him with figures that will serve as a check on his own figures and provides estimates for many items which might otherwise be difficult to obtain. Supplementing quoted prices, 94 costdowns show how the more important estimates were derived.

Data presented in the book are based on bids from contractors, sub-contractors and quotations from building materials companies. Labor rates used in compiling the cost estimates for completed work are averages for the U. S. One of an annual series, data in the current addition have been revised to reflect costs as of January, 1946. More than 1,000 items of construction are covered—from caisson concrete to 8D nails, from trees to toothbrush holders. The pages are tabbed alphabetically for ready reference. Items covered by mechanical, electrical and heating subcontracts are, with a few exceptions, excluded.

The method of presentation is indicated by the following excerpt from the page tabbed "A":

ITEM	UNIT	LABOR	MATERIAL	TOTAL
Ashlar veneer—ordinary	Sq. Ft.	\$22	\$68	\$90
Asphalt block—8 by 4 by 1 in.	Sq. Ft.	\$06	\$29	\$35

J.H.

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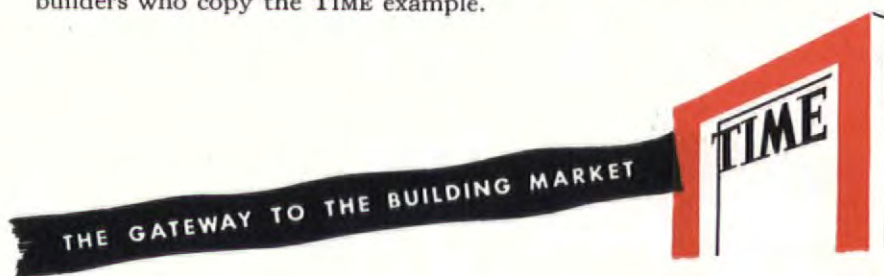
WORK-IN-PROGRESS HOMES like this are attention-getters for the best in building materials and home equipment. For TIME readers are building the kind of houses that set new construction standards for their neighbors.

Of course not all TIME readers are poring over blueprints—but with incomes double the average U. S. family's, they have the means to build and buy and consistently improve the show-room homes of fine communities across the nation.

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There will be a change of address for TIME subscriber #13-10-MH-982-808, Mr. A. Levy of Lakewood, New Jersey, when the finishing touches have been put on this new home now under construction.

*Most of the 756,000 TIME men in business are executives, proprietors or partners, the kind of men who have a good deal to say about their company's purchases, too. These decision-making men in banking, engineering, manufacturing, government are your best industrial building prospects—and they vote TIME 10 to 1 their first choice of all the magazines they read.



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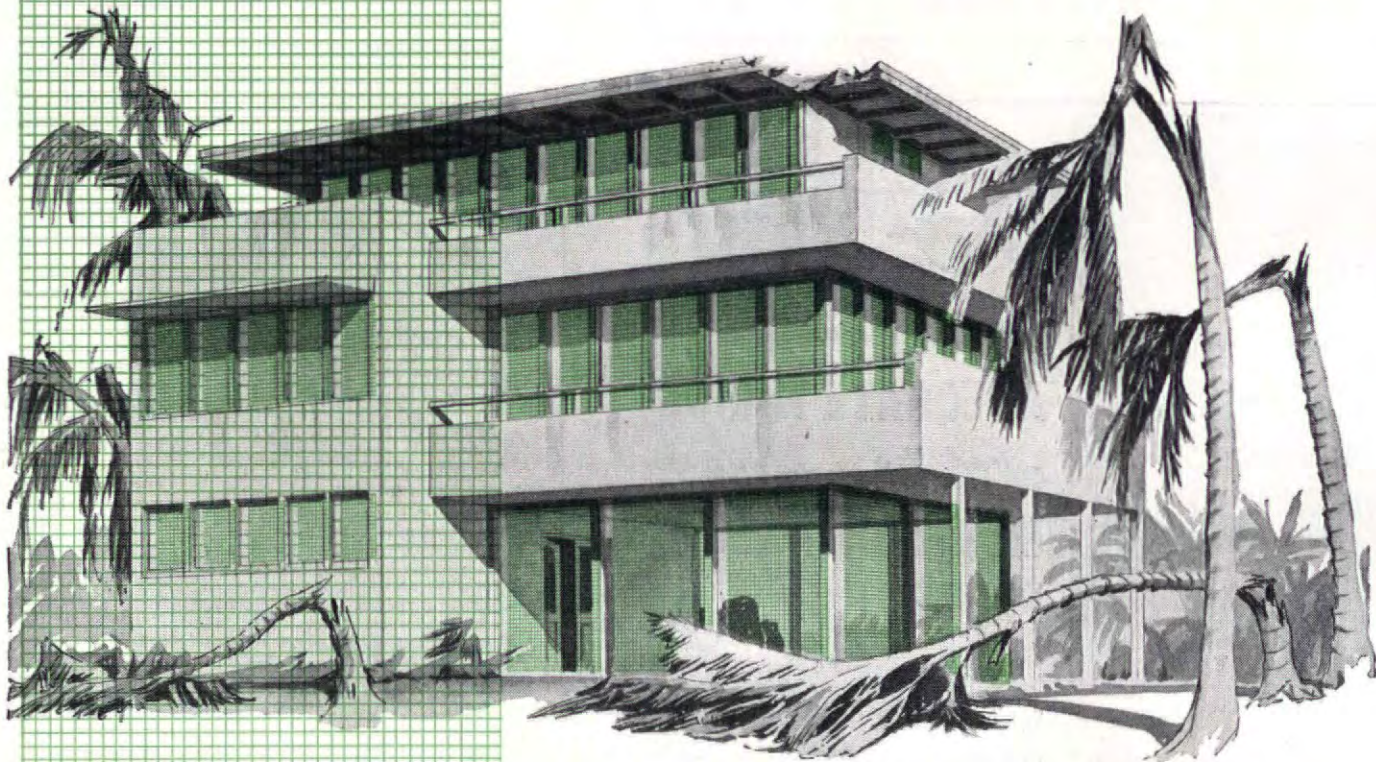
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FREE—Write Firestone, Akron, for your copy of full-color *Velon* booklet.

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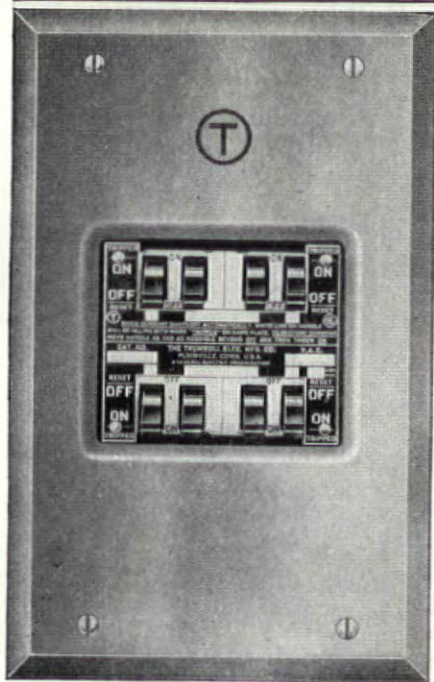
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DRAFTSMAN—Discharged Seabee, married, age 23, desires employment by arch. or constr. firm as draftsman. Completed 2 yrs. college. Has working knowledge of arch., topo., and mech. drafting. Prefers West Coast area. Box E-278.

ARCHITECT—37, licensed, disch. officer, CE, desires connection leading to resp. position or partnership in modern architect's office or bldg. development. 12 yrs. American & Eur. exper. N. Y. or West Coast preferred. Box E-279.

DRAFTSMAN—Arch. draftsman, vet, 26, single. Desires position with arch. firm (metropolitan area). 5 yrs. exper. with arch. and engr. firms. Available Saturdays. Gus Anancas, 358 Grove St., Jersey City 2, N. J.

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MANUFACTURERS' REPRESENTATIVE—Canadian veteran—first class references. Seeks agencies for building trade material. Montreal district. Box E-281.

ARCHITECT—33, Polish, liberated from German military prison by U. S. Army in May, 1945. Grad. of Engr. School of Arch., Warsaw. Varied arch exper., designed bldgs., houses, hosp., theaters, plus interiors of shops, restaurants & apts. Also theater sets, exhibitions, posters, covers, book illus., etc. (Worked with LeCorbusier). At present studying city planning in Brussels Arch. School. Unable to return to Poland, desires arch. pos. in U. S. Box E-282.

ARCHITECTURAL DRAFTSMAN—(Junior). Seeks start with progressive firm. 4 yrs. trng. Age 32, married. New York area. Edgar Winter, 2320 Grand Ave., New York 53, N. Y.

OFFICE MANAGER—37; Master of Bus. Adm.; Commended Personnel Staff Off., Army Capt., Exper. Efficient layout and procedures; effectively coordinated advtg. prod.; organized and supervised records, General accountant. Cooperative, apt at details and exec. responsibilities. Outside N.Y.C. Box E-283.

ARCH. TRACER—Vet, 21, wants opportunity for advancement. 2 yrs. exper., with samples of tracing and rendering work. Hobby—art. Planning to enter evening college to become architect. Work in or near N. Y. C. Box E-284.

LANDSCAPE ARCHITECT—25, B.S. degree from Penn State School of Landscape Arch. Desires pos. with city planning firm or landscape consultants. Prefer East or Midwest. Box E-285.

ENGINEERING DRAFTSMAN—Arch. and mech. Vet, single, 33, 10 yrs. exper. at bldg., arch. and mech. design. Desire assignment in Hawaiian Islands. Can furnish excellent references. Box E-286.

DRAFTSMAN—Apprentice. Ex-Army Capt., CE, desires apprentice drafting pos. with arch. concern in N. Y. C. or Long Island area. B. of Fine Arts degree, Univ. of Notre Dame, rendering ability. Married. At present attending drafting school. Richard A. Metzger, 10 Benjamin Rd., Oceanside, L. I., New York.

MANUFACTURERS' REPRESENTATIVE—Graduate architectural engineer, registered architect, returning to China shortly, wishes to represent manufacturers of prefabricated houses, building materials, plumbing, heating and electrical equipment and fixtures and other allied products. Box E-287.

VETERAN—with strong political, legal, and social connections in Manila, P. I., desires agencies for building equipment with headquarters in Manila. Former member of Engineer Corps located in Manila. Age 37, married with 1 child. Now an associate of prominent western N. Y. architect. Prior to service had large practice specializing in low cost home designs, also collaborated on several large housing projects in vicinity. Will need 6 mos. to close present business connections. Box E-288.

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ARCHITECTURAL DRAFTSMAN—First class draftsman by architectural firm specializing in institutional bldgs. Permanent employment and top wages. Write John J. Flad, Architect, 133 Langdon St., Madison 3, Wis.

EXECUTIVE—Man with business administrative experience needed to take complete charge of company offering new management and arch. services in home building field. Opportunity to invest. Write—President, Housing Research Foundation, 1012 Church St., Evanston, Ill.

DESIGNER—Experienced in commercial arch. or indus. design wanted by southwestern Michigan mfr. of storefront materials. Exper. in rendering, design, and layout essential. An excellent opportunity to advance. Box R-243.

SALESMAN—Sales opportunity with excel. future. Aggressive, personable young man wanted (25-35 yrs. of age) by large national mfr. of non-ferrous bldg. products. Must have had arch. trng. Bldg. constr. exper. preferable. Job involves some traveling; Michigan, Ohio, Indiana, Hdqtrs. at Detroit with pleasant associates and working conditions. Send brief self-sales letter with resume of background for appointment. Box R-244.

ARCHITECTURAL DRAFTSMAN—Capable of making complete working drawings and details from sketch stage. State salary desired and exper. T. R. Shoaff, Arch., W. B. Proctor, Associate, 406 W. Berry St., Fort Wayne, Ind.

ARCHITECTURAL ENGINEER & ARCHITECTURAL DRAFTSMAN—Opportunity knocks—for one good arch. engr. and one good arch. draftsman. Right applicants will be given place in architects office on participating basis. Salary if preferred, Location Kentucky. Give trng., references and expectations. Box R-245.



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For advertisements in the Post reach your best customers—the leaders, who are first to buy the new and better things.

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THE SATURDAY EVENING
POST



"It's GAS for heat," says Doyle



"Oh no," says Brown, "it's OIL"



...yet both of them agree
the best for heat's G.E.



WHETHER your client is Brown or Doyle, you can go along with his heating preferences *and still specify G. E.*

There are G-E gas- or oil-fired units for your steam, hot water or conditioned warm air applications. Each of these is time-tested, reliable . . . worthy of the G-E reputation . . . and *yours!*

Remember, too, that a G-E unit will please your client because of its economical operation. Some G. E. owners

have reported savings up to $\frac{1}{2}$ their fuel bill.

So, for the kind of home-planning clients tell their friends about, be sure to include a G-E unit in your specifications. See Sweets Catalog for details. For information on price and delivery call your nearest G-E dealer—you'll find him listed in your Classified Telephone Directory. *General Electric Co., Air Conditioning Department, Section 6138, Bloomfield, N. J.*

Automatic Home Heating

GENERAL ELECTRIC

OIL-FIRED



Boiler for steam or hot water heating systems



G-E Winter Air Conditioner (warm air)



G-E Conversion Oil Burner

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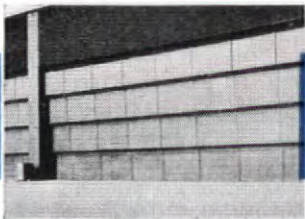
Boiler for steam or hot water heating systems



G-E Winter Air Conditioner (warm air)

The main point of interest to you

is that when this Robertson Vertical Lift Door is open, it is completely stored, out of sight, out of the way. The sections nest above the door opening and in front of the main truss. Ceiling—unobstructed. Walls—unobstructed. Floor—unobstructed. And approaches to the building—unobstructed. Snow and sand drifts are no problem. Frost pushing the ground up or snow sagging the roof do not jam these Vertical Lift Doors. The principle is sound engineering, simple, adaptable, efficient. Details can be varied to suit you.



You are not limited by height or width.



If you want speed, the largest door can be opened in 60 seconds; the smaller opens in less than ten seconds.

The operation can be electrical or manual. The door is fully counterbalanced.



All sections reach the top at the same time but they can be stopped at any point to save heat. There is a safety device available to halt

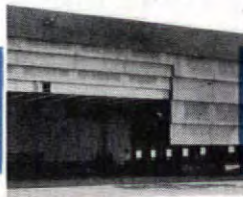
the door if it descends on an object.



Any skin material is available, to harmonize with your design; also windows, heat and sound insulation and sliding pilot doors.



The Vertical Lift may be divided into independent sections without obstructing the multiple opening.



The lowest section can easily be made to conform to ground slope.



A Robertson representative will gladly give you all data. Robertson engineers will work with you or your engineers applying the Vertical Lift principle to your design. For Door literature, write

Robertson Vertical Lift Door

H. H. ROBERTSON CO.

2403 Farmers Bank Building, Pittsburgh 22, Pennsylvania

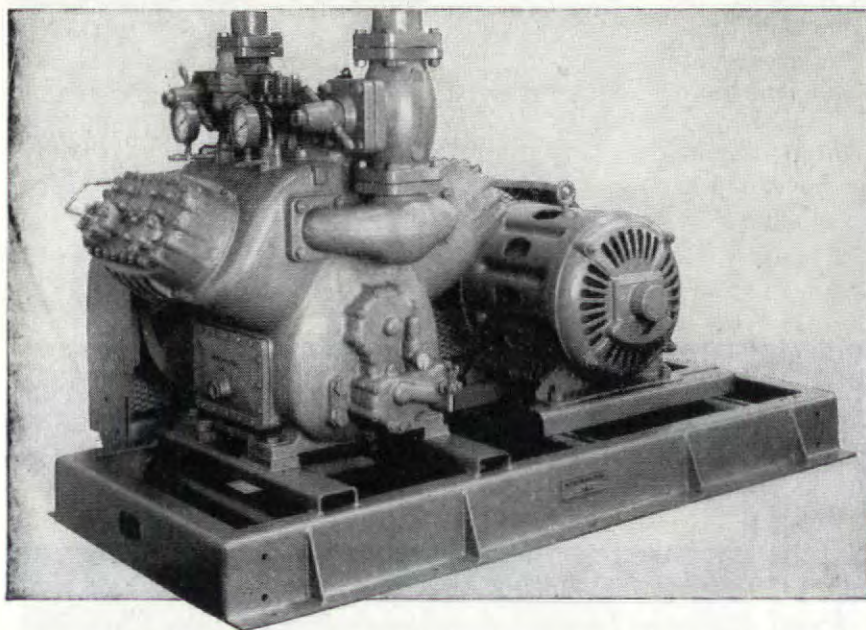


Offices in 50 Principal Cities, World-Wide Building Service

WORTHINGTON

Air Conditioning and Refrigeration Report

Worthington Pump & Machinery Corporation, Harrison, New Jersey



NEW LINE OF COMPRESSORS FOR LOW PRESSURE REFRIGERANTS LOWERS AIR CONDITIONING COSTS

Answering the demand for improved equipment in the air conditioning industry, these new Worthington Compressors — ranging in size from 2 to 125 HP — combine features long sought by architects, consulting engineers and building operators.

Simplified construction reduces weight and dimensions without sacrifice of typical Worthington durability. Patented Feather* Valves . . . simplest, lightest, most reliable ever designed for compressor use . . . eliminate shock wear, noise. Accessibility of moving parts, removable bear-

*Reg. U. S. Pat. Off.

ings . . . and cylinder liners, and forced-feed lubrication in larger sizes . . . lengthen life and make maintenance easy. Positive partial-capacity control helps keep operating costs low.

Incorporated in Worthington condensing units, these compressors team up with Worthington Multi-V-Drives, special motors and high and low pressure safety controls for low-cost installation and operation. *Worthington Pump and Machinery Corporation, Harrison, N. J. Specialists in air conditioning and refrigeration machinery for more than 50 years.*



AS-13



Famous N. Y. Store Gets Worthington Air Conditioning

Lane Bryant, the famous women's apparel retail establishment, in its modern store on Fifth Avenue in New York City, will offer its patrons the benefits of a Worthington air conditioning installation. The Arthur E. Magher Co. is the contractor and Mr. Edward Ashley, the Consulting Engineer,



Worthington Ad Rated "Best-Seen" and "Best-Read"

According to impartial Starch reports, the Worthington Air Conditioning and Refrigeration advertisement reproduced above was rated first among all air conditioning advertisements in TIME Magazine and third best-seen and best-read of all twenty-two advertisements tested in that issue. This, and other Worthington Air Conditioning and Refrigeration advertisements are read by leading businessmen throughout the country.

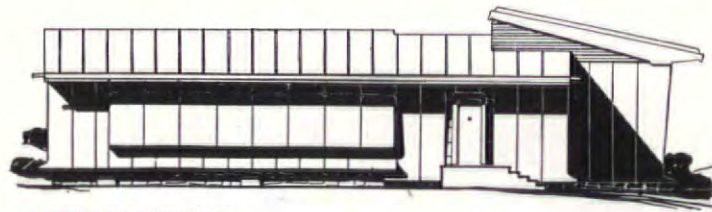
Investigate Worthington for "Integrated" Systems

Because Worthington makes so many of the "inner vitals" of an air conditioning or refrigeration system — compressors, condensers, pumps, turbines, valves, fittings, etc., — it is your best source of the efficient, economical "Integrated" system you want. Consult your nearby Worthington Distributor for further details.

PRODUCTS AND PRACTICE

FRENCH PREFABS designed by architects Mirabaud and Chemineau use steel tubes and sheets in novel, efficient framing systems.

France, like every other war-scarred country in Europe, looks toward prefabrication as a means of rehousing a large part of its population. Given the character of her pre-war building industry, it is natural that her prefabs develop along somewhat special lines. There is, for example, little lumber in France: interest therefore naturally turns to the use of steel and concrete in which the French have long excelled. These two recent houses by the Paris firm of Mirabaud and Chemineau are illustrative of this trend. Both are designed for prefabrication of sheet steel, steel tubing and laminated sheet plastics—although only the smaller one (bottom of page) can be properly called low-cost. Both employ novel and interesting framing systems, designed for minimum use of material in its cheapest and commonest form—sheet and tube. And both depend upon the nascent French plastics industry for surfacing materials—in fact, the smaller of the two has a kitchen and bath completely prefabricated out of synthetic resins. Although somewhat awkward in over-all design, the straightforward handling of industrial materials in these houses has much to commend them to American prefabbers.



WEST ELEVATION



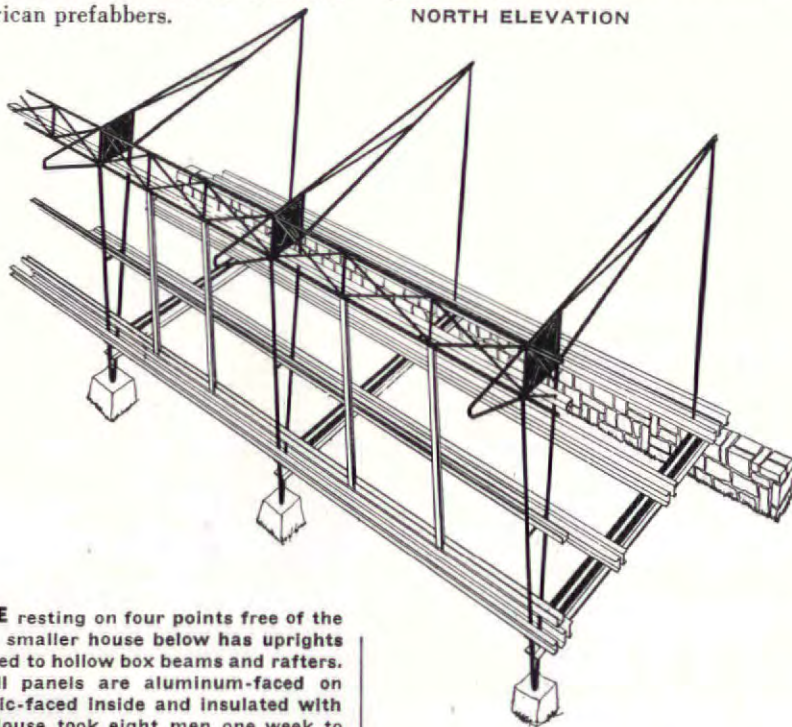
EAST ELEVATION



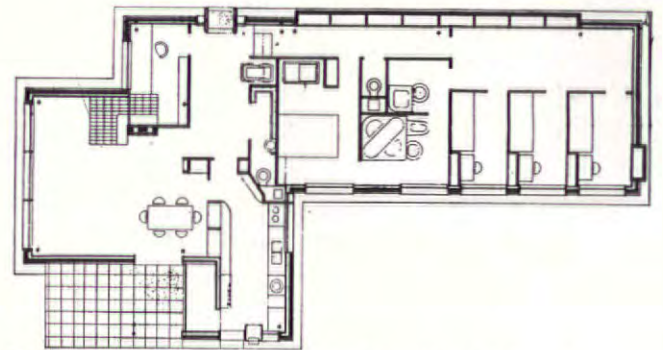
NORTH ELEVATION



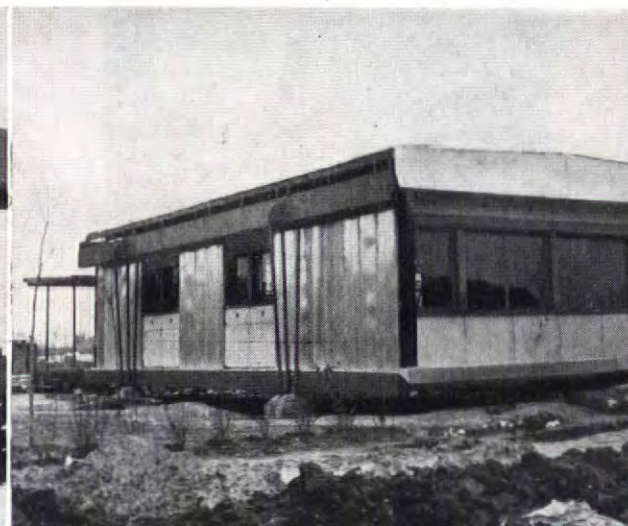
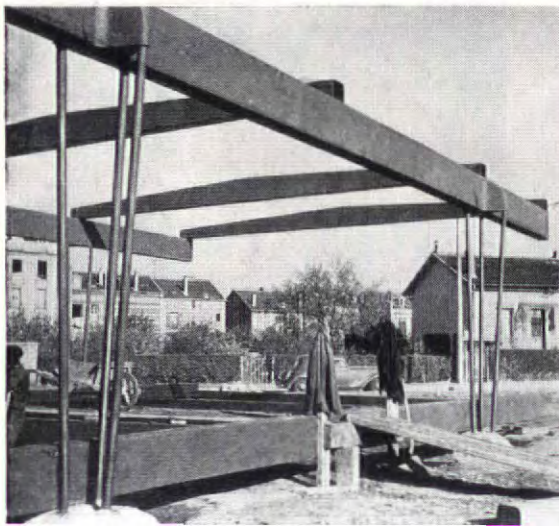
SOUTH ELEVATION

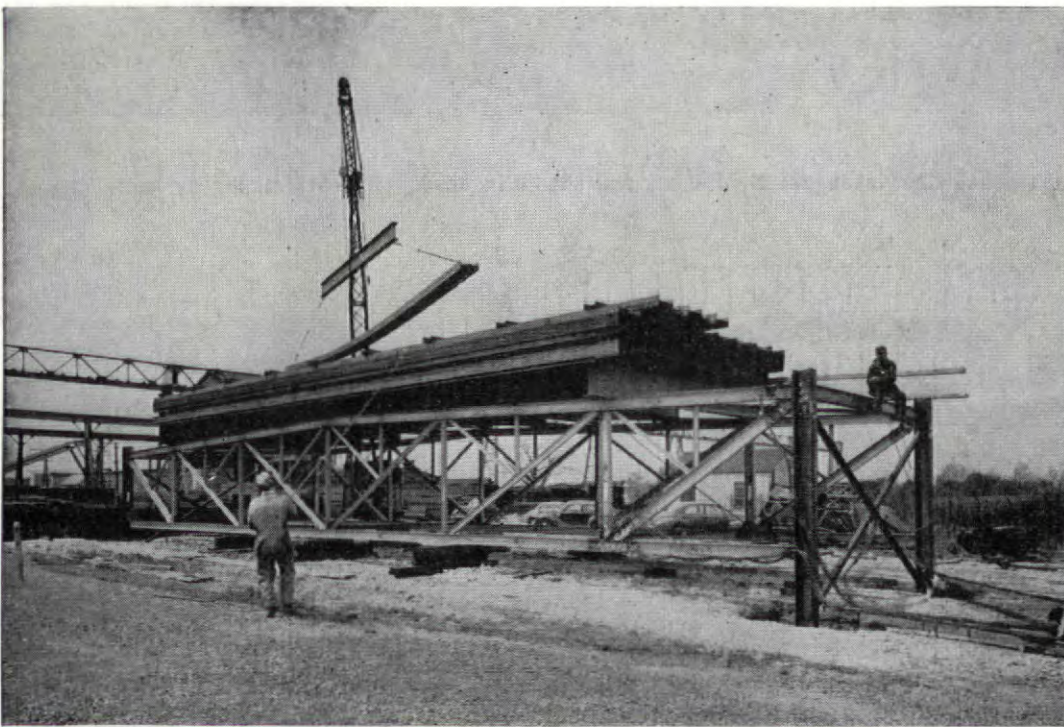


A RIGID FRAME resting on four points free of the curtain walls, smaller house below has uprights of tubing welded to hollow box beams and rafters. Roof and wall panels are aluminum-faced on exterior, plastic-faced inside and insulated with glass wool. House took eight men one week to complete.



LARGE HOUSE (above) is based on variation of framing system shown at left. Frames are fabricated of welded tubing, stiffened at intersections with metal diaphragms. All wall, floor, and partition panels are metal-framed, surfaced with linoleum-like plastic. Note that pressed steel cases project beyond wall face under wide eaves.

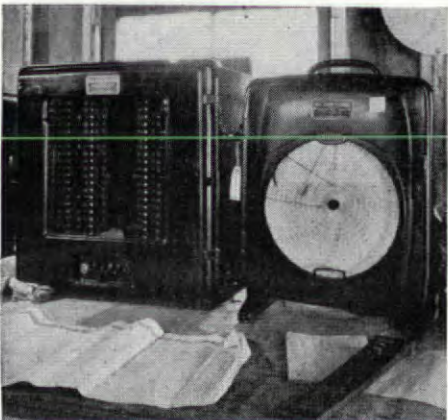




NEW STRAIN GAUGES used by Cleveland firm to measure stress flow in loaded structures.



CEMENTED to the vertical and diagonal members and bottom chord at the point of intersection, these gauges electrically measured the minute movements of the loaded structural elements. Resulting impulses were electronically magnified to the point where they could be measured by conventional recording devices. Other gauges can be seen in general picture at top of page.



ONE OF THREE PAIRS of strain recording instruments used in recording the tests. Since each gauge was numbered, each value for each reading could be readily identified.

Using electronic strain analysis equipment developed during the war for the aeronautics industry, Cleveland's Austin Co. recently completed a series of tests which revealed in detail how stresses flow through loaded members. 144 strain gauges were used in the tests, which were carried out on a pair of welded H-section trusses of Austin design and fabrication. The strain gauges, made by the Baldwin Locomotive Works, are extremely sensitive. They measure instantly the average strain in a one-half inch length to one-millionth of an inch. The gauge itself consists of a tiny loop of copper-nickel wire with a diameter of one-thousandth of an inch—finer than a human hair. This is cemented to the steel surface so that it will change in length exactly as does the steel on which it is mounted. This stretching causes the diameter to decrease and the change in diameter changes the electrical resistance of the wire. While this change in resistance is naturally very small, it is multiplied by electronic equipment to a point where it can be measured by conventional recording devices.

The strain measurements from 144 gauges were recorded by three strain recorders manufactured by the Foxboro Company. Each instrument made an automatic written record of the strains at 48 gauge points.

Three tests were made. Approximately 3,000 strain readings were recorded at intervals during the loading and unloading in the tests, as well as under the peak loads. While the actual readings confirmed the theoretical design calculations of the trusses under test, chief interest lies in the technique itself. For analytical purposes, this technique should prove an important supplement to such existing methods as photo-elasticity. It may be applied to actual, full-scale loaded structures, where it can plot the flow and size of stresses in any element or group of elements.

THEATRICAL LIGHTING EQUIPMENT appli

A lavish application of theatrical lighting equipment has been made in the fourteen show windows of the new store for John David, Inc. on New York's upper 5th Avenue. The results are eye-catching, to put it mildly. Unlike most show window lighting, the David installation is primarily designed for daylight effectiveness. Reason for this emphasis: the crowds in this area, one block from tourist-haunted Rockefeller Center, are largely a daytime phenomenon. To catch their eye, the David show windows had to compete with some of the canniest and most expensively dressed windows in the world. They had also to combat daylight, reflections and glare. To this end, Century Lighting Co. engineers have packed color and an unprecedented amount of light (a maximum of 17,000 w.) into each window.

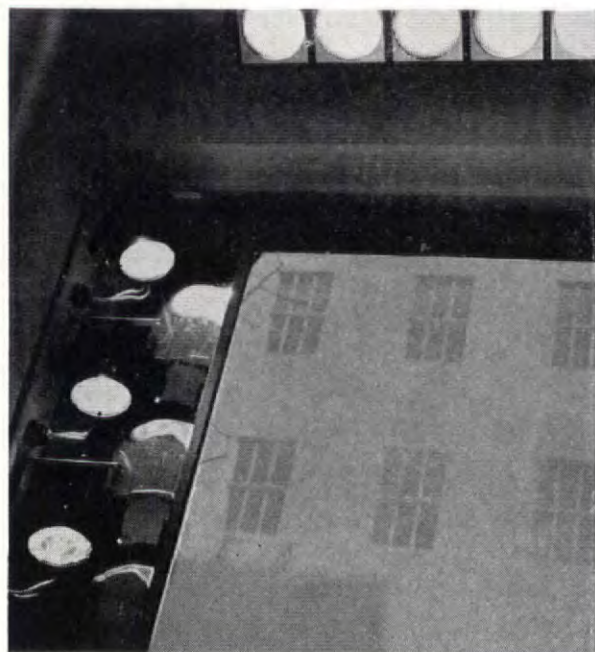
For theatrical people there is nothing especially new in the installation. But the average store architect is apt to be bewildered by an installation which deals not only in high intensities but in color, focus and modulation as well. The system is complex, requiring an electrician, a central switchboard room, and a telephone system by which window dressers on the street can communicate with the switchboard. But it is also extraordinarily flexible, providing a totally new level of display lighting in full daylight, including the iridescence and depth associated with stage lighting.

At the present time, the cost of such installations probably makes them out of the question for small shops. But for large, central stores located along lanes of dense pedestrian traffic, they offer a valuable new merchandising technique.



show windows, yields dramatic display for highly competitive locations

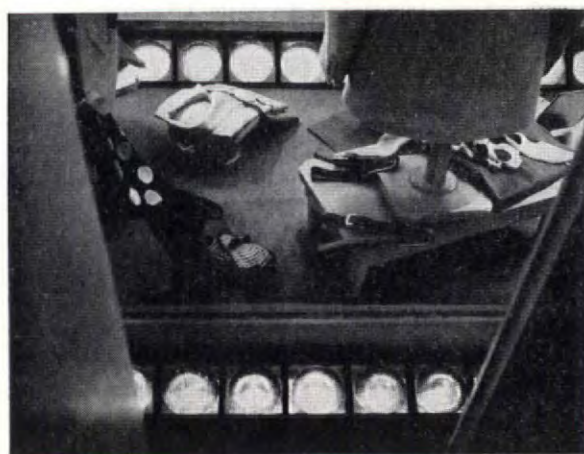
AIR EXHAUST



Upper corner of typical window. Aluminum-backed frames conceal lights from passers-by

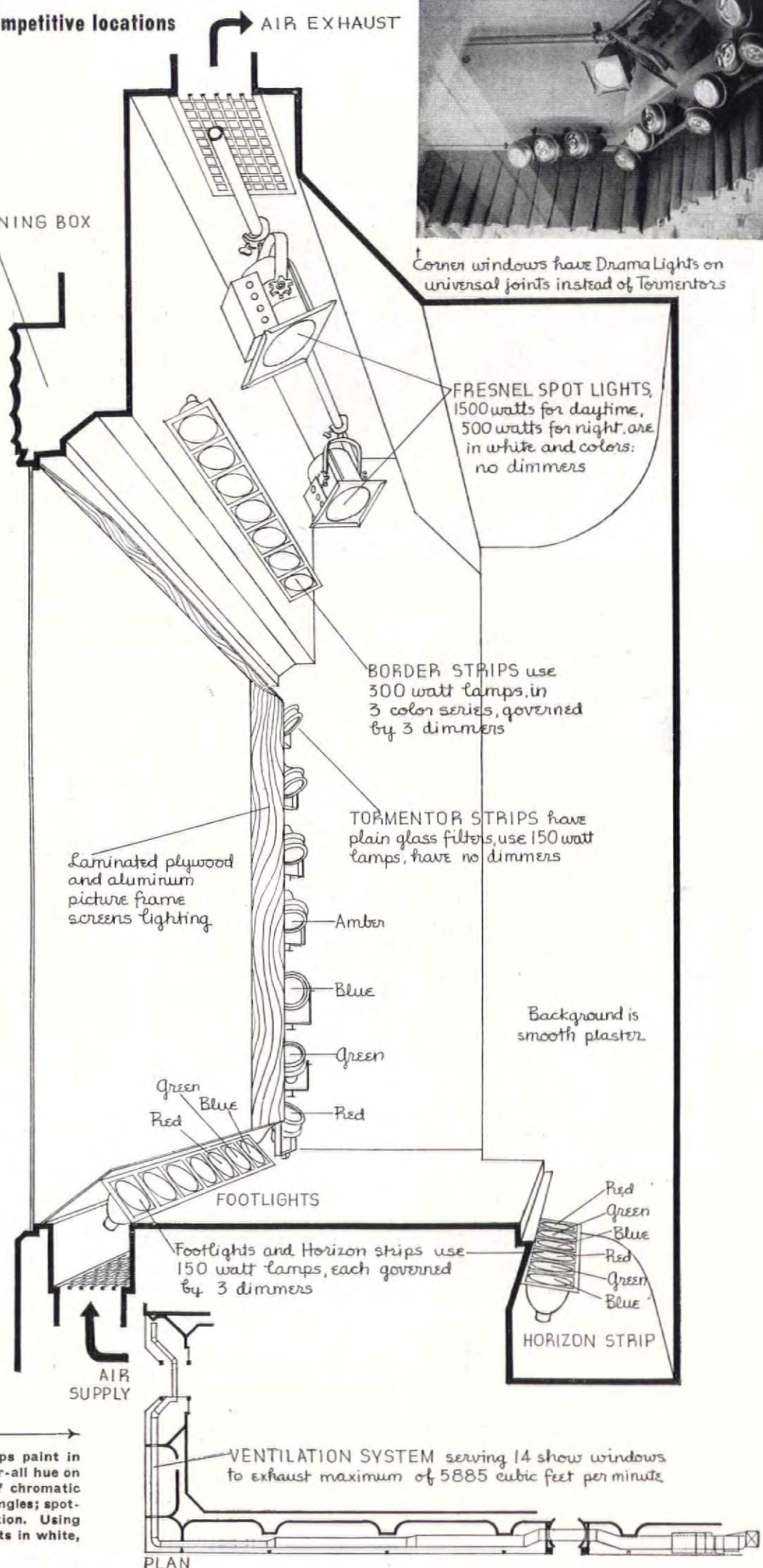
PAINTING WITH LIGHT. Display director plugs in phone in waterproof jack outside. Down in basement control room, electrician stands by to throw switches for desired effects. Director can select the colors, intensities and compositions from angle of man in the street.

Typical windows show Footlights



FIVE UNITS YIELD FLEXIBILITY. Horizon strips paint in the background; border and footlights cast over-all hue on merchandise; tormentors cast intense glow of chromatic light to give sparkling highlights visible at all angles; spotlights are used to "punch holes" in composition. Using red, green, blue and some amber and some spots in white, a wide range of lighting effects is possible.

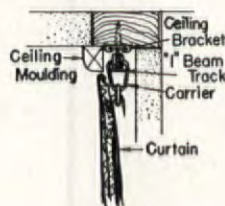
AWNING BOX



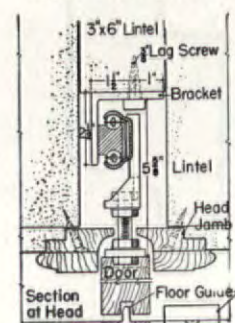
Corner windows have Drama Lights on universal joints instead of Tormentors



I-beam track is easily curved



Typical ceiling track



Ball-bearing sliding door



Detail, ball-bearing drawer slides

DOORS, drawers and curtains slide easily and silently on new hardware.

To meet the growing demand for silent, easily-moving sliding doors, curtains and drawers, the Grant line of hardware has been recently expanded to include complete coverage in all three areas. Using the ball-bearing suspension unit with track assembly, sliding doors weighing up to 100 lbs. can be easily hung; for lighter closet doors, a roller-bearing unit for use with standard I-beam curtain track is available. The curtain track employs a roller-bearing suspension unit. Because of the flexibility of the track and variety of the fittings, almost any installation is readily soluble. The ball-bearing drawer slides are self-lubricating and come in a range of weights and sizes for both industrial and domestic cabinetwork.

Manufacturer: Grant Pulley and Hardware Co., 33-36 57th St., Woodside, N. Y.

JALOUSIES provide light, ventilation and privacy.

Offering adequate rain protection and sunlight control by simple opening and closing of the slats, the new line of jalousies is suited for use between rooms or for balcony or porch enclosure. The slats, made of toxic treated cypress with lip edges, are operated on brass pin pivots and connecting links, which in turn are operated by a worm gear operator on the jamb. They can be fixed at any angle within 100 degrees assuring a complete range from vision to privacy, and can be cleaned from inside or out. The jalousies are available in heights ranging from 12 $\frac{3}{4}$ in. to 96 $\frac{3}{4}$ in., in a range of widths, and are suitable for either fixed installation or use in doors, folding screens, etc.

Manufacturer: Gate City Sash & Door Co., Fort Lauderdale, Fla.

CEMENTITIOUS FLOORING MATERIAL combines durability, resiliency, and quietness.

Corite is an all-purpose flooring material which may be applied monolithically or precast as tile or slabs. It is suitable for indoor and outdoor use in homes, apartments, schools, shops, factories, decks and may be applied over any clean, sound, sub-floor of concrete, cement, masonry, asphalt, tile, wood or metal. Highly wear and fire resistant, it does not deteriorate when exposed to weather. It is similar to hard-wood flooring in comfort, resilience and sound absorption, and possesses an impact-absorption capacity approximately ten times greater than cement, tile, terrazzo, marble, and similar flooring materials. Corite is mixed with water in an ordinary batch mixer, poured in a monolithic layer $\frac{1}{2}$ in. thick, and trowelled to any desired texture. It may be sanded

and polished after installation. The material is available in grey, tan, light and medium red, cordovan, white, green and black in 100 lb. bags, and according to the manufacturer, is competitive in price with linoleum and hardwood.

Manufacturer: Corite Corp., 1250 Rio Vista Ave., Los Angeles, Calif.

OIL BURNER with automatic clutch realizes 10 to 24 per cent savings in heating costs.

Equipped with a foolproof, automatic clutch which operates by centrifugal force, the new Gilbarco oil burner has demonstrated fuel savings of from 10 to 24 per cent in actual test installations, according to the manufacturer. This development guarantees complete combustion of fuel, eliminates smoke and soot, reduces stack temperature. As in conventional burners, the motor operates the oil pump and air fan from the motor shaft. However, in the new unit the Economy Clutch interposed on the shaft between the pump and fan delays delivery of oil until the fan is delivering sufficient air for complete and even combustion. In operation, the motor starts, simultaneously setting the fan in motion. When the fan is delivering sufficient air, the Economy Clutch by centrifugal force engages the fuel pump. This delayed action operation guarantees an abundance of air when the fuel and air mixture is ignited, thus smoking and sooting from unburned oil are eliminated. When the burner is shut off, the clutch action is reversed. The fuel pump first stops operation while the fan rotates for several seconds after the flame has ceased.

Manufacturer: Gilbert & Barker Manufacturing Co., West Springfield, Mass.

(Continued on page 142)

Still in Tune with Today's *Building Plans*

TIMBER STRUCTURES, INC.

**...Continues to Pioneer New
Prefabricated Building Units**

Throughout the period of reconversion, Timber Structures, Inc., has continued to serve the architects and contractors of America.

Despite serious shortages we have been able to keep materials flowing to supply today's urgent construction needs.

At the same time our engineering department has been pioneering many entirely new developments in the field of wood fabrication — developments which are opening new horizons for practical low-cost building.

Commercial and Industrial

Prefabricated Assemblies

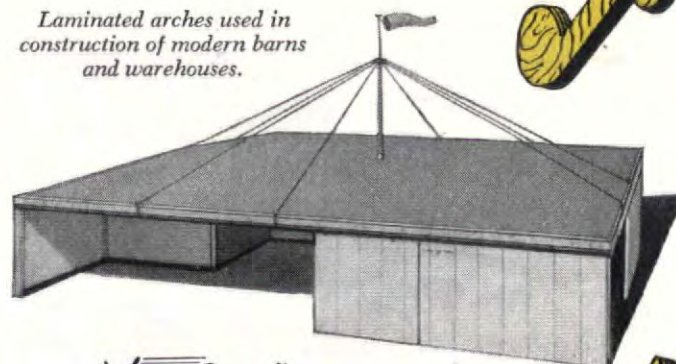
Farm Buildings • Prefabricated Bridges

MOBILCORE Housing Units

"Aero-Quad" Hangars • **Commercial Hangars**

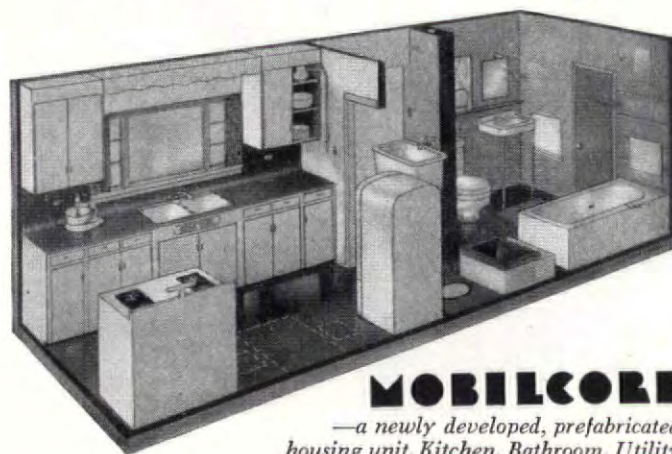


*Laminated arches used in
construction of modern barns
and warehouses.*



"Aero-Quad"

*—a new four-plane hangar for
housing private planes.*



MOBILCORE

*—a newly developed, prefabricated
housing unit, Kitchen, Bathroom, Utility
room—complete.*

TIMBER STRUCTURES, INC.

"PIONEERS IN PREFABRICATION"

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SEATTLE, WASH.

NEW YORK, N. Y.

TRENTON, N. J.

CHICAGO, ILL.

SAN FRANCISCO, CAL.

EUGENE, OREGON

TRANSPARENT FLUID permanently waterproofs concrete, brick, stone, tile, stucco, wood and other surfaces.

Used and tested for sometime on a limited scale, Hydrozo is a colorless, mineral preservative that is not affected by atmospheric conditions after application. It has the consistency of turpentine and may be brushed or sprayed on to concrete, brick, stone, tile, stucco, wood and many other types of surfaces, making them, according to the manufacturers, thoroughly and permanently waterproof. It completely penetrates the surface thus eliminating dampness, seepage, deterioration, alkali, efflorescence or acid. To treat a surface, two coats should be applied not less than 24 hrs. apart. A third coat may be necessary on interior walls for extreme cases of pressure seepage. One gallon covers from 100 to 200 sq. ft. with two coats, depending on the porousness of the surface treated. By adding equal parts of Lithozinc paste, Hydrozo may also be

used as a waterproof masonry paint. It is packed in 1 gal. containers, 5 gal. cans and 30 and 55 gal. drums.

Manufacturer: National Hydrozo Co., 5234 St. Clair Ave., Cleveland, Ohio.

ALUMINUM ROOF PAINT protects surface, reduces inside temperatures.

This roof paint, processed from a high quality asphalt base and fortified with pure aluminum paste, leads to the surface to form a foil-like, metallic shield against the elements. According to the manufacturer it reflects 80 per cent of the sun's rays, thus providing longer life for the roof surface and reducing inside temperatures as much as 15°. It is suitable for use on smooth or slate roll roofing, asphalt shingles, built-up, slag or metal roofs and is also made for outside metal work such as tanks, flashings, iron fences, etc. Only one coat is required, with one gallon covering approximately 300 to 350 sq. ft. Cost is approximately a cent per sq. ft. It comes ready for use in 1 qt., 1 gal., and 5 gal. containers, and may be applied by brush or spray. It dries within an hour and the surface may be used 3 or 4 hrs. after application.

Manufacturer: United Gilsonite Laboratories, Scranton, Pa.

FASTENER for use on removable and hinged panels.

Shakerproof Q-Two is a simplified, light duty, quick-operating fastener for use on removable or hinged panels wherever accessibility for inspection, oiling, adjusting, cleaning or servicing is required. Simple to install, it consists of three parts: a stud which is secured to the outer sheet by a special spring washer and a receptacle which is easily snapped on to dimpled inner sheets or frames. Other features include allowance for variations in sheet alignment up to 1/8 in., compensation for variations in sheet thicknesses, elimination of rivets and screws, and positive locking with one-quarter turn. According to the manufacturer, initial and installation costs are low.

Manufacturer: Shakerproof, Inc., 2501 North Keeler Ave., Chicago 39, Ill.

VENTILATING FAN for exhaust ventilation and cooling.

This axial-flow ventilating fan is available in monel metal for damp or corrosive vapors, or in cold rolled steel for ordinary exhaust ventilation and cooling. Made in 3 ft. to 5 ft. diameters, it may be mounted in any position. The slow speed, direct drive motor, equipped with permanently sealed ball bearings, is 18 pole, 375 r.p.m., 220 v., single phase or 220-240 v., three phase, with an input of 700 w. It is internally cooled by circulating air within the hub. Guide vanes on the inlet side reduce corkscrewing of air with the rotation of the blades, and blade tips, revolving within a ring, reduce tip losses.

Manufacturer: The Moore Co., 544 Westport Road, Kansas City 2, Mo.

KITCHEN VENTILATING FANS for exhausting large volumes of air.

Two new kitchen ventilating fans, a 16 in. unit for small restaurants, shops, lavatories, etc., and a smaller 12 in. model, are designed for quiet, slow speed operation. They have large overlapping blades for exhausting large volumes of air and are equipped with fully enclosed, dustproof motors. The 16 in. model operates on 66 w. and exhausts 1,650 cu. ft. of free air per minute. It has an

(Continued on page 144)

ALL the furniture in Case Study House #11 is equipped with



Sponsored by
ARTS & ARCHITECTURE
J. R. Davidson, Architect

Case Study House #11 called for a modern, but thoroughly practical furniture conception. The architect found the answer in No-Sag* Springs—resulting not only in lighter, less cumbersome furniture, but also in more durable and comfortable furniture.

Solving the functional problem while increasing the livability of the furniture and the home, it's no wonder that No-Sag Springs are rapidly finding a place on the drawing boards of progressive architects everywhere.

NO-SAG SPRING CO. • KAY MANUFACTURING CO.

Executive Offices:
21590 Hoover Road, Detroit, Mich.

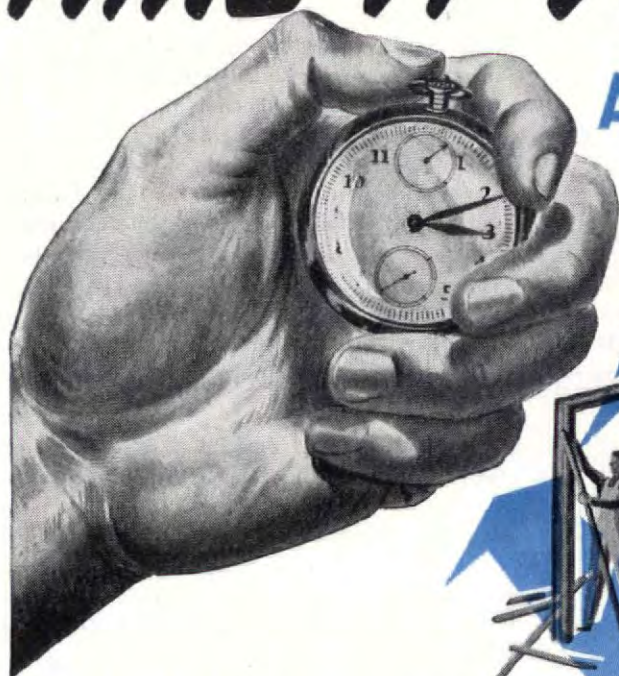
Executive Offices:
Foot of Warren St., Brooklyn, N. Y.

WEST COAST PLANT: 6511 McKinley Ave., Los Angeles, Calif.

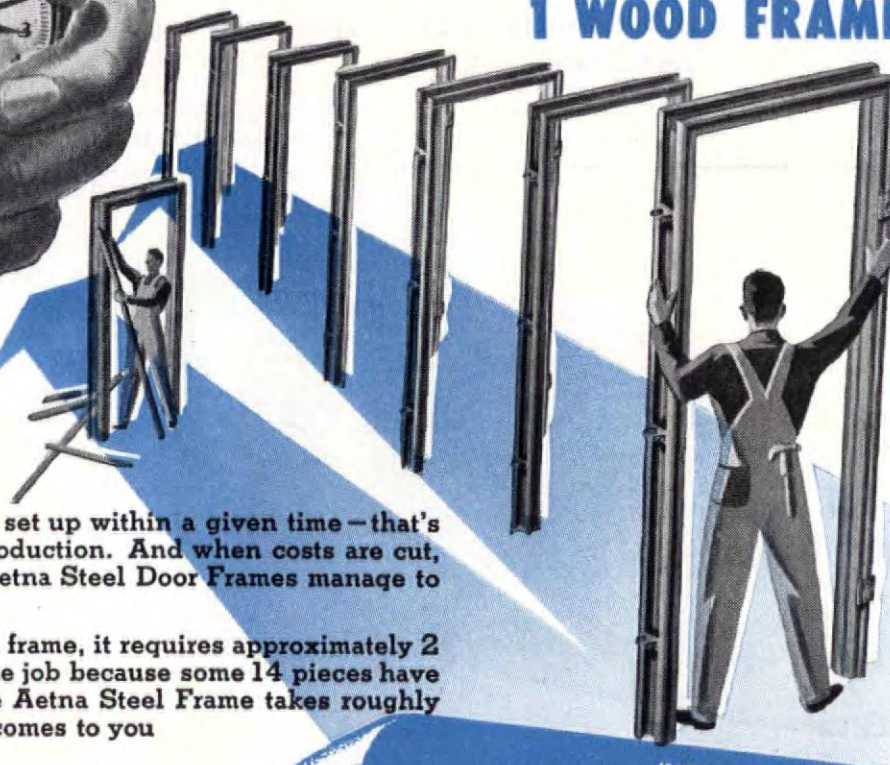
Trademark Reg. U. S. Pat. Off.

*Pat. & Pats. Pending

TIME IT YOURSELF!



Almost 7 STEEL FRAMES
in the time required to set up
1 WOOD FRAME



Seven times as many door frames set up within a given time—that's really going places in speeded production. And when costs are cut, too—that's doubly great news! Aetna Steel Door Frames manage to do both.

Here's how: In the old-style wood frame, it requires approximately 2 hours and 15 minutes to set up the job because some 14 pieces have to be assembled. By contrast, the Aetna Steel Frame takes roughly 20 minutes to erect—because it comes to you as a complete integral unit.

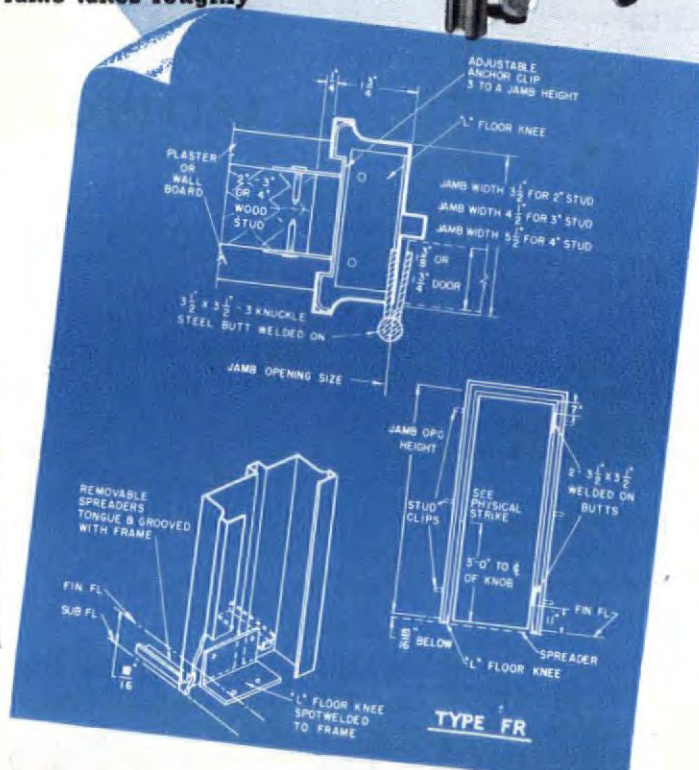
COSTING EVEN LESS THAN WOOD JAMBS AND TRIM INSTALLED, these revolutionary, time-saving, vastly superior frames for home construction come in any quantity and in standard sizes.

Ask your building supply or lumber dealer, or write for name of your nearest Aetna representative.

CHECK THESE IMPORTANT ADVANTAGES OF AETNA STEEL DOOR FRAMES

- ✓ Designed for strength, rigidity, permanency . . . welded integral unit of jamb, head and two sides of trim.
- ✓ Will not swell, warp or crack; non-chipping and damage-proof, thereby eliminating repairs.
- ✓ Hinges, factory-welded and spaced to fit most prefabricated wood doors.
- ✓ Bronze strike plate is furnished to fit most standardized bit key and tubular locks and latches.
- ✓ Comes prime-coated.
- ✓ Easy and economical to erect.
- ✓ Supply problems simplified.

For close to half a century, Aetna has specialized in the manufacture of Hollow Steel Doors and Steel Door Frames for industrial and public housing needs. Now, mass production and standardization make Aetna Steel Door Frames AVAILABLE TO HOME OWNERS.



AETNA STEEL PRODUCTS CORPORATION

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

outlet box attached for connection of conduit and can be easily mounted on a suitable panel board. Automatic outside shutters are available for use when fan is to be installed for direct outdoor exhausting. The 12 in. unit, operating on 53 w. and exhausting 900 cu. ft. of air per minute, is equipped with off-on switch, extension cord and plug. Two sizes of adjustable mounting panels for windows or transoms, 27 in. to 48 in. in width, are available.

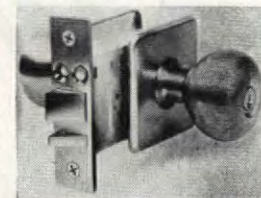
Manufacturer: The Emerson Electric Manufacturing Co., 1824 Washington Ave., St. Louis, Mo.

ENGINEERED CYLINDER LOCK features safety, long wear and low maintenance.

The new Integralock is made in two basic types, mortise and cutout, and has 8 functions for each type. According to the

manufacturer, it is the first completely engineered cylinder lock of its type in the hardware field. It is manufactured of pressure formed metals with bronze, brass and chrome finishes, and has self-lubricating, precision designed and machined parts which are said to assure long wear and low maintenance. As an added safety feature the lock incorporates a sheer pin that snaps if the lock knob is forced with a wrench, but leaves the cylinder in the knob in working order for key opening. Interchangeability of keying and ease in accuracy of installation are other features.

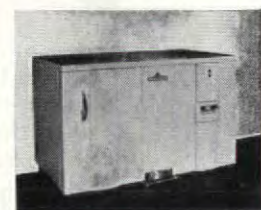
Manufacturer: Sargent & Co., New Haven, Conn.



COMBINATION REFRIGERATOR, FREEZER and ICE CUBE MAKER fulfills home refrigeration requirements.

The Panelectric Cuberator, Model 20 CFR, combines in a single, modern cabinet a 5 cu. ft. refrigerator (38°) with high temperature evaporator, an ice cube maker, and a 3 cu. ft. frozen food storage compartment. Providing for the needs of the average household, it is compact and quiet in operation and has no moving parts except the hermetic spring-mounted motor compressor. The frozen food compartment is maintained at zero temperature. The Cuberator freezes 20 cubes at once. By pressing a button cubes are delivered into a drawer from which they are removed as needed or stored for later use. Trays automatically refill and freeze in about 40 minutes. An indicator light shows freezing operation is under way, goes out when cubes are ready. Automatic controls maintain frozen cubes in freezing and storage units, and correct temperatures in regular refrigerator and freezer compartments with minimum electric current consumption. There is no excess dehydrating of foods and no defrosting of the unit is required. Model 20 CFR, 36 in. high, 54 in. wide, 25 in. deep, also has commercial applications. Production is scheduled for fall.

Manufacturer: Panelectric Corp., South Norwalk, Conn.



F. S. Lincoln

English Oak IN A MODERN SETTING

No photograph can capture the sheer beauty of this lobby. It is the entrance to the grill of the stylish, sophisticated Hotel Pierre.

Architect Samuel A. Marx (Noel L. Flint—C. W. Schonne, Associates) has created a blend of rich, colorful excitement... and crisp, clean modern lines.

When you're in New York, visit that room. Run your fingertips over the smooth, lustrous finish of the specially selected English Oak Flexwood.

Step back, and let your eye sweep along the graceful, flowing lines that curve effortlessly around columns and walls.

Revel in the rich feast of color... the unusual burl pattern of brown and tan at the base of walls and columns.

See how effectively those lovely walls

set off the brilliant Persian Red, and the gold and silver leaf of the exotic curved mural. The beauty, flexibility and exclusiveness of Flexwood helped make this exceptionally handsome setting possible.

Flexwood is real wood, made pliable by a patented process and permanently bonded to a fabric backing.

Write for full information and samples today.

Flexwood and Flexglass are manufactured and marketed jointly by United States Plywood Corporation and The Mengel Company, Incorporated.

UNITED STATES PLYWOOD CORP.
Dept. F, 55 West 44th Street, New York 18, N. Y.



Also FLEXGLASS and LEATHERWALL

HOME LAUNDRY automatically washes, rinses and damp dries 10 lbs. of clothes.

Launderall, when loaded and turned on, automatically fills with the correct temperature water, washes clothes, drains, double rinses with clean water, drains, spins clothes damp dry, cleans and turns itself off. Featuring Reverse-rol action, which rotates the cylinder a number of times in one direction and then in the other, bundling or knotting of clothes is eliminated. Top-Fil-Dor permits loading of the 10 lb. capacity cylinder through the top, and forgotten items can be added to the wash without starting the wash cycle over again. The Top-Fil-Dor handle acts as a safety latch. If turned while the machine is in operation it automatically shuts the machine off until the door is again closed. To operate, the housewife has only to put the clothes in the machine, add soap, set water temperature dial for hot or warm water and turn on the switch. Forty minutes later the damp-dried clothes are ready for the line. Washing and rinsing (Continued on page 146)



If you are planning

LABORATORIES
LIBRARIES
HOSPITALS
OFFICE BUILDINGS
FACTORIES

SNEAD & COMPANY has specialized in the design, construction, and erection of commercial, institutional, and industrial metal equipment for almost a century. Installations in many of the world's outstanding buildings illustrate the high standard of Snead engineering and manufacture.

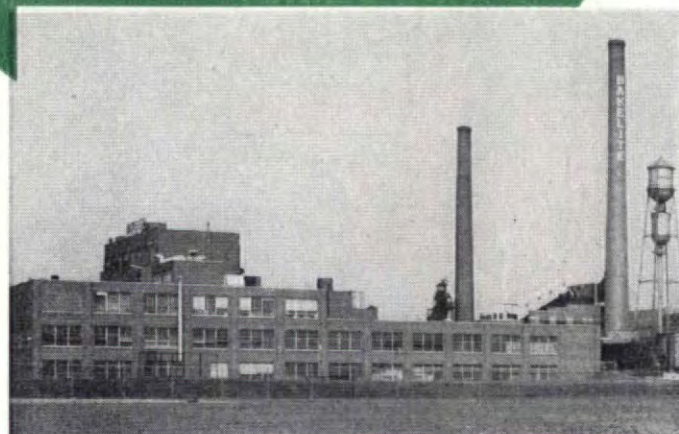
Snead Mobilwalls have for years been the accepted standard movable steel partition for office and factory buildings. Snead Wainscoting has revolutionized the construction of laboratories. Hundreds of the foremost libraries throughout the world are equipped with Snead Bookstacks, Study Carrels, Conveyors and Partitions.

The experience accumulated throughout the years in solving various problems related to metal equipment can be a source of help to architects and concerns planning new projects. We offer you this wealth of experience and the services of our engineers to assist in the preparations of plans and specifications, without cost or obligation. Inquiries are also invited from firms desiring help on modernization problems.

Write us about the type of project you are planning, and we will gladly send you helpful illustrated data.



Since 1849, the Snead symbol of lasting beauty, quality and progress in metal construction.



Francisco & Jacobus, Architects and Engineers

**BAKELITE CORPORATION, Unit of
UNION CARBIDE & CARBON CORPORATION
BOUND BROOK, N. J.**

Snead Mobilwalls have been used for many years in the offices as well as the laboratory and manufacturing divisions of this world-renowned concern. The extreme mobility, flexibility, and reusability of Mobilwalls have served its needs ideally. A great corporation like this cannot afford to tie up office or manufacturing space for more than a few hours when interior alterations become necessary. This Mobilwall installation has paid for itself many times over in time saved while making alterations. Write for catalog or ask our sales engineer to demonstrate how Snead Mobilwalls can serve you efficiently, economically. No obligation.

Snead MOBILWALLS

SNEAD & Company FOUNDED 1849

Designers, manufacturers and erectors of library bookstacks and steel partitions

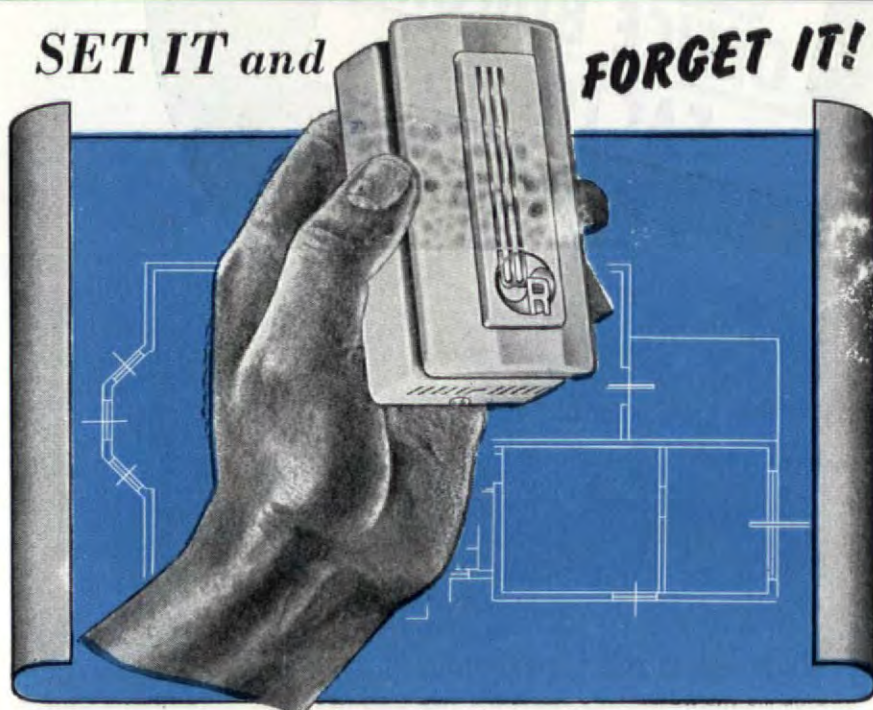
Sales Office: 94 Pine Street, JERSEY CITY 4, N. J.

Main Office and Plant: ORANGE, VA.

cycles are scientifically timed to take 34 minutes, filling and draining takes 6 minutes. Water temperature is thermostatically controlled so 140° water enters the machine with the regular "hot" setting, 100° to 104° water with "warm" setting. Roto Drier spins the clothes damp dry. Launderall is simple in construction and easy to service. The washing cylinder is supported at both ends, and the Hydro-pel drive is engineered for smooth, effortless operation. The cabinet, 24½ in. by 24½ in. by 36 in. high, harmonizes with modern appliances. *Manufacturer: F. L. Jacobs Co., Appliance Div., 1043 Spruce St., Detroit 1, Mich.*

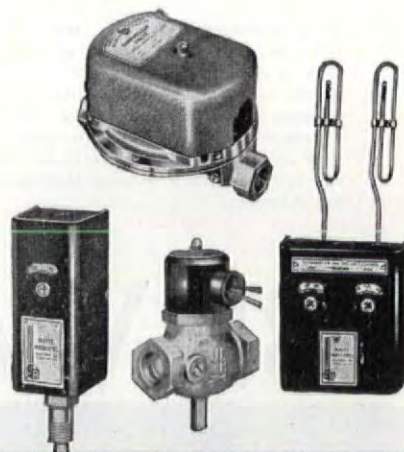
HOT WATER HEATER LINE features efficient performance with low operating costs.

Four fully automatic water heaters which burn inexpensive fuel oil and require no gas or electric connections, comprise



Your answer to the need for really satisfactory AUTOMATIC CONTROL for residence heating

Once installed and adjusted for the heating plant, you safely can forget White-Rodgers controls. From then on, their extreme dependability relieves you of further worry or service due to the control. That is one of the main reasons why leading manufacturers of heating equipment furnish White-Rodgers controls as "standard." Write today for heating catalog and installation data.



WHITE-RODGERS ELECTRIC CO.

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Controls for Refrigeration • Heating • Air Conditioning

the 1946 Duo-Therm line. Streamlined in design and finished in white enamel, the manufacturer claims operating costs to be less than 4 cents a day for an average family of four. Hourly recovery rate of each heater, equal to the capacity of its large, self contained storage tank, assures a plentiful supply of hot water at all times. A simple, foolproof, patented Dual Chamber Bias Baffle Burner which gives clean and efficient performance on both pilot flame and high fire, is the heart of the unit. Other features include: heavy guage, high temperature, galvanized steel boiler; central boiler flue to provide quick heat transmission to heat more water faster; precision thermostatic control; handy water temperature adjustment; automatic draft regulator; constant level oil control to provide accurate and uniform metering of oil; thorough insulation; sound engineering and construction qualities.

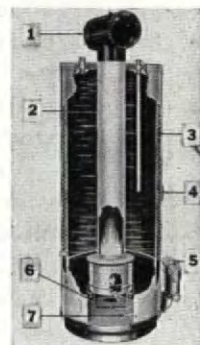
Manufacturer: Duo-Therm Div., Motor Wheel Corp., Lansing 3, Mich.



AUTOMATIC WATER HEATER consumes less oil.

This automatic oil-burning water heater featuring an improved burning unit is said to consume a third less oil on the pilot. It includes: (1) a combination automatic draft regulator and 6 in. tee-pipe connection with a door for easy lighting and viewing the flame. Insulated with corrugated asbestos on sides, (3) and rock wool on top, it has a snap on plate (4) for easy access to the thermostat bulb. Other features include a 5 in. flue (2), water temperature adjustment disc (5), improved burner support and base design (6), and (7) plunger rod for easy burner cleaning. Five capacities are available: 20, 30, 40, 50 and 65 gals. Heating rate for the 20, 30 and 40 gal. sizes is 30 gals. per hr., while the 50 gal. size is 40 gal. per hr., and the 65 gal. size, 55 gal. per hr., based on an 80° temperature rise.

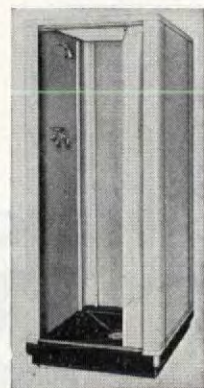
Manufacturer: J. L. Gillen Co., Dowagiac, Mich.



SHOWER CABINET features neat design and construction.

This modern, streamlined Stylite Shower Cabinet is easily erected without bolts or screws. Fabricated of 20 gauge steel, finished with paint enamel inside and out, all exposed fixtures are chromium plated. The porcelain enamel receptor is chemically treated to provide a safe non skid mat surface and the entrance ledge is grooved to provide a firm footing. The drain and strainer, made for a 2 in. inside caulked soil pipe are integral, thus any danger of leakage is eliminated. Furnished with the cabinet is receptor, supply valve, shower head and arm, soap dish, white duck curtain, rod and hooks, drain and strainer.

Manufacturer: The Sanymetal Products Co., Inc., 1705 Urbana Road, Cleveland, Ohio. (Technical Literature, page 150)





In testing new heating, cooling and air conditioning developments in the Trane Laboratory, it was found that 23,040 temperature measurements were required daily. To do it manually would require the services of 64 men taking readings every 4 minutes 24 hours a day—and that obviously was impractical. Unfortunately, the only available instrument would read but a quarter of the required 64 temperatures.

So Trane Engineers built a system that enabled a single recorder to register all the temperatures every four minutes.

Now Trane Research Engineers can use their 64-manpower system to get *complete* records of the functioning of any new heating or cooling unit, and only one man is needed to operate it.

Creating testing equipment when conventional

equipment fails to get the desired effect is one more example of the thoroughness of Trane Engineers who carry out a constant program of research in the development and refinement of Trane Products and Systems.

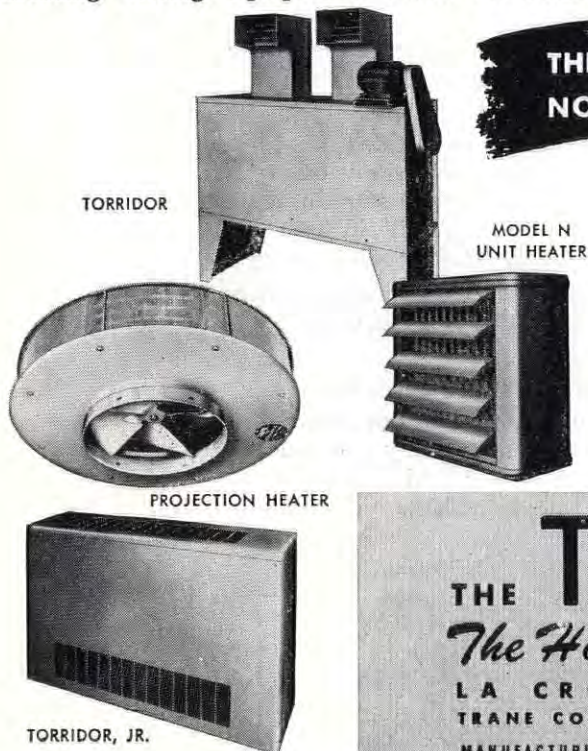
All Trane Products are designed and built together for service together. So broad is the line and so perfectly are Trane Products matched that the architect and engineer may select complete Trane systems for heating, cooling or air conditioning.

More than 200 Trane Field Engineers in Principal cities all over the country cooperate with architects, engineers and contractors in the application of Trane Weather Magic. National advertising is advising customers to seek counsel and Trane information from architect, engineer, and contractor.

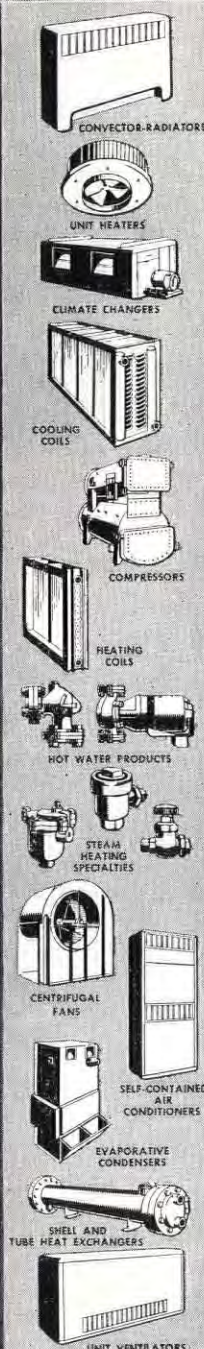
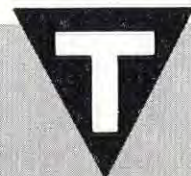
THE LARGEST MANUFACTURER IN THE FIELD NOW PRESENTS 4 GREAT UNIT HEATERS

Any heating demand can easily be met from the wide range of sizes and capacities in the four Trane Unit Heater types.

1. *The Trane Model N Unit Heater*, a conventional model, uses a special broad bladed fan to move large quantities of air at low fan speeds. 2. *The Trane Projection Heater*, introduced originally by Trane, utilizes the heat formerly wasted at the ceiling—and is thus ideal for high ceilings. 3. *The Trane Torridor*, a blower type unit, is recommended for heating large unobstructed areas and for door blanketing. 4. *Trane Torridor, Jr.* combines the advantages of a blower unit heater with the attractive cabinet of the Convector-radiator.



THE TRANE COMPANY
The House of Weather Magic
 LA CROSSE • WISCONSIN
 TRANE COMPANY OF CANADA, LTD., TORONTO
 MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT





***Remove the visual barrier . . .
and you make the store more inviting!***

In this suggested Visual Front, *Vitrolite** glass facing carries the color of the exterior side wall back through the clear glass front. *Thermopane**, the transparent insulating unit, reduces the possibility of condensation on windows. Doors are *Tuf-flex**, the clear plate glass that is tempered for extra strength.

A Visual Front makes capital of human tendencies.

It makes the most of people's preference for a place that looks light, spacious and airy.

It takes advantage of their habit of gravitating toward other people—for through a Visual Front they can see other people buying.

The Visual Front idea is clicking with architects because it enables them to provide a design based on sound principles, but one truly different. It clicks with store owners because the Visual Front calls attention, not to itself, but to the interior and its merchandise. That boosts sales.

Fortunately, glass combines transparency with many other virtues. It cleans easily. It resists weather. Its lustrous surface doesn't call for refinishing.

It pays to be open minded about storefronts.

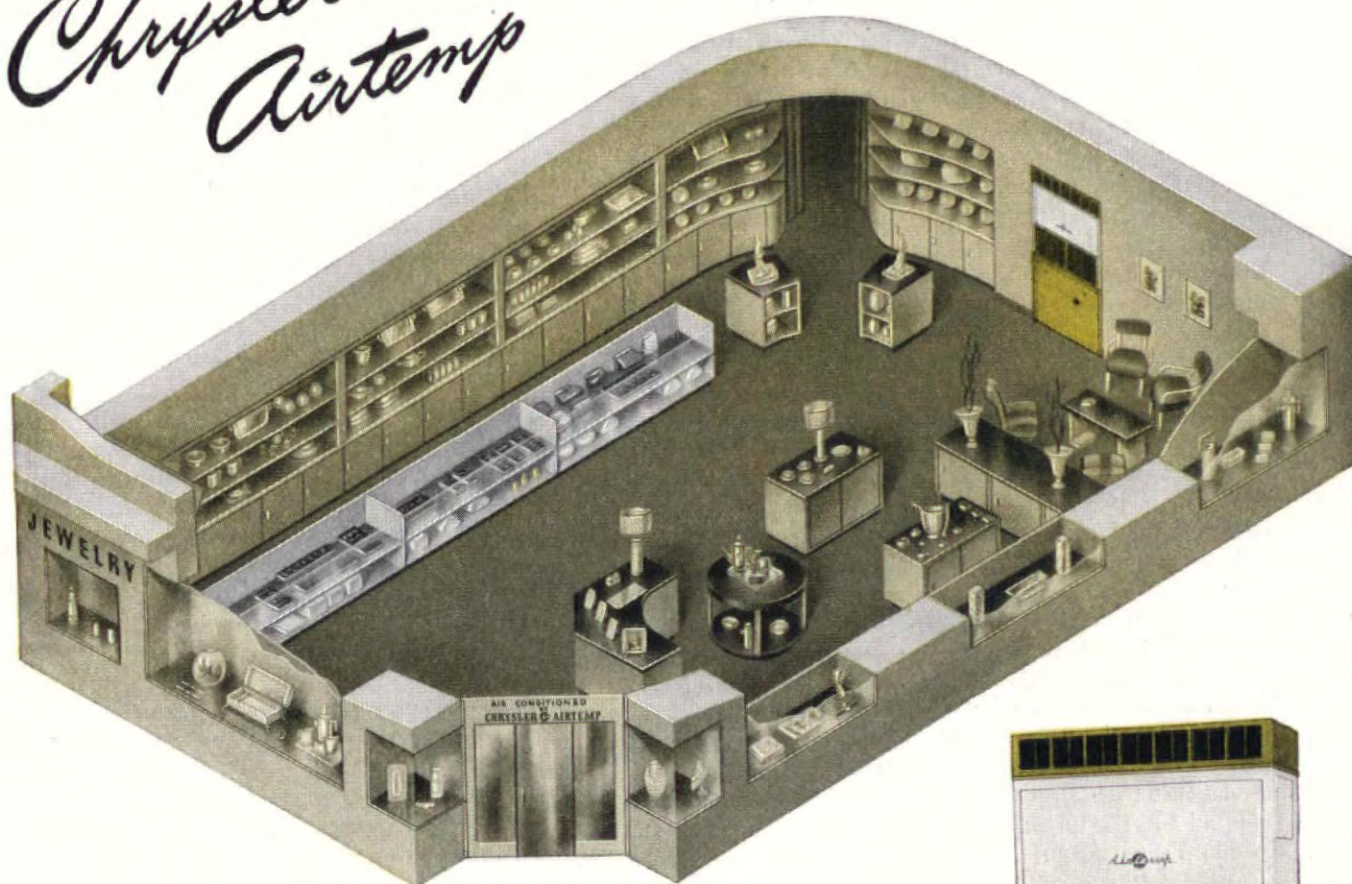
Before your next design goes on paper, send for our free Visual Fronts book. It's packed with ideas that you can use or adapt to your needs. Libbey-Owens-Ford Glass Company, 3586 Nicholas Bldg., Toledo 3, Ohio.

* REG. U. S. PAT. OFF.



LIBBEY · OWENS · FORD
a Great Name in **GLASS**

*Chrysler
Airtemp*



Ever Try to Sell Jewelry?

This might sound like an odd question to ask an architect, but architects indirectly can be an important sales force for jewelry stores.

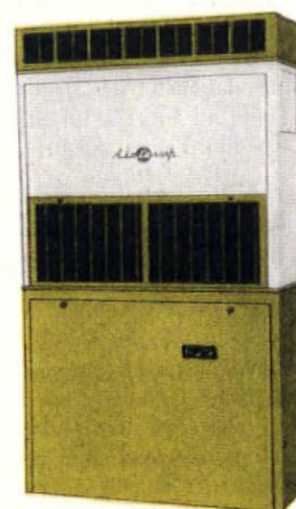
People like to have lots of time for consideration when they buy jewelry. They don't like to be hurried, or bothered. And—they like above all to shop in comfort. That's why air conditioning has been such a sales booster for jewelers.

The ideal form of air conditioning for large or small jewelry stores is the "Packaged" Air Conditioner, pioneered by Chrysler Airtemp. It's simplified air conditioning, economical and easy to install in

single or multiple units. And just as easy to move, too—a big advantage when remodeling or changing locations.

"Packaged" Air Conditioners occupy very little of a store's valuable floor space, and are so flexible in design that they fit into any store plan. All are equipped with the famous Chrysler Airtemp Sealed Radial Compressor, outstanding for long life at low operating and upkeep costs.

For specifications, architects are invited to write Airtemp Division of Chrysler Corporation, Dayton 1, Ohio; in Canada—Therm-O-Rite Products, Ltd., Toronto, Ont.



"Packaged" Air Conditioner

A simplified form of easy-to-install air conditioning that builds business for all stores. Heating coil can be added to "package" for Winter air conditioning.

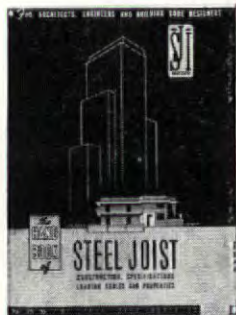
CHRYSLER  AIRTEMP
HEATING • COOLING • REFRIGERATION

TECHNICAL LITERATURE



CONCRETE. Design of Reinforced Concrete Structures by Dean Peabody, Jr. Second Edition. John Wiley & Sons, Inc., 440 4th Ave., New York. 532 pp. 5 3/4 in. by 8 5/8 in. Price \$5.50.

A reference book for designers, the second edition of Design of Reinforced Concrete Structures is a thorough treatment of the fundamentals of structural design in reinforced concrete. Including 15 per cent more material than covered in the first edition, added data include discussions of the Saliger-Whitney "plastic theory", prestressed concrete, beams curved in the horizontal plane, design of rigid frame bridges, and design of forms. The chapter on shrinkage and plastic flow has been rewritten and enlarged, as has that on elastic frame analysis. Illustrative designs and discussions have been revised to agree with the 1941 A.C.I. code or the 1940 Joint Committee Code.



STEEL JOISTS. The Handbook of Steel Joist, 1946 Edition. Steel Joist Institute, 3709 24th St., N. E. Washington, D. C. 16 pp. 8 1/2 in. by 11 in.

The 1946 revised edition of Steel Joist Construction gives architects, engineers and building commissioners the latest and most complete specifications and standards for steel joist construction. Advantages of open web steel joists, specifications for their design and use, and standard loading tables are included. A breakdown of the sections include: Open Web Steel Joists for Use in Floor and Roof Construction, Standard Specifications for Steel Joist Construction, Recommended Abbreviated Regulations for Use in Building Codes, Code of Standard Practice of the Steel Joist Institute, Recommendations of the Steel Joist Institute With Regard to Handling and Erection of Steel Joists, Explanation of Standard Loading Tables and Bridging.



BRICKWORK. Brickwork by W. B. McKay. Longmans, Green and Co., Inc., 55 5th Ave., New York. 192 pp., 5 1/2 in. by 8 3/4 in. Price \$2.75.

This book, prepared to assist those receiving technical training in the bricklayers craft, is intended primarily for beginners. It includes information on the manufacture, and characteristics of brick; uses and types of cements and limes; bonding methods of walls; construction of junctions, quoins, jambs, and foundations; and necessary tools. Construction of miscellaneous bonds, piers, offsets and corbels, lintels and arches; advantages and construction of cavity walls, circular work, reinforced brickwork, fireplaces, window sills, copings, etc. are covered. A chapter is also devoted to drawing equipment and hints on draftsmanship and methods of representation. Many details illustrate the various construction methods described.

BRICK. Brick Structures, How to Build Them. Revised and edited by Ralph P. Stoddard. 11th Edition. McGraw-Hill Book Co., Inc. 330 W. 42nd St., New York. 167 pp., 5 1/2 in. by 8 1/4 in. Price \$2.00.

Information on materials, design and construction methods necessary for successful brick construction is incorporated in this reference book. Construction steps are graphically illustrated and described with text. Details necessary to eliminate common faults such as moisture penetration through walls, appearance of efflorescence on outer brick surface, settlement or cracking of walls, etc., resulting from use of improper materials, poor workmanship or faulty design, are given special attention. The newest information on mortars for brick masonry is also included.

BUILDING CODE. Building Code Modernization. (A Series of Reference Bulletins) American Iron and Steel Institute, 350 5th Ave., New York. 70 pp. 6 in. by 9 in.

To help officials now at work revising building codes, the American Iron and Steel Institute has prepared a booklet of eight reference bulletins covering technical phases of building regulations. Based on the latest recognized standards and conservative engineering practice, they include facts related to general code considerations, contents and arrangement, building classification and fire protection, exit requirements, structural standards, in form suitable for code use, covering hot rolled steel shapes, modern light steel constructions, steel piles and metal veneers.

PARTITIONS. The Gold Bond 2-inch Solid Partition System. National Gypsum Co., Buffalo 2, N. Y. 16 pp., 8 1/2 in. by 11 in.

Advantages, economics, installation details and specifications for the Gold Bond 2-in. Solid Partition System are included in this brochure. The four metal partition units; ceiling runner, vertical steel channel stud, metal base and metal base clip, which are used with diamond mesh lath and gypsum plaster to build the wall are illustrated and described. Simple construction steps are also featured. Specifications, complete erection details, charts of comparative space and money savings augment the text.

FLUORESCENT LIGHTING. How To Get The Most From Fluorescent Lighting. Day-Brite Lighting Inc., 5411 Bulwer Ave., St. Louis, Mo. 6 pp. 5 1/4 in. by 7 1/2 in.

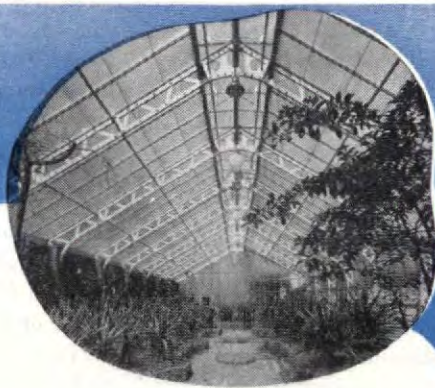
Designed to acquaint the layman with what to look for in fluorescent lighting, this booklet contains a check list of features which a good installation must include to produce a lasting, efficient, fluorescent lighting system with minimum operating and maintenance costs.

RADIANT HEATING. Chase Copper Tube for Radiant Heating. Chase Brass & Copper Co., Waterbury 91, Conn. 75 pp., 5 1/2 in. by 8 1/2 in.

Information on the theory, principles and advantages of radiant heating is included in this guide, along with discussions of the practical problems involved in its installation. It is written in semi-technical language for the plumbing, heating and building trades, and is adequately illustrated with installation details, diagrams, photographs, plans and tables. The section on "Theory and Application" treats the history of radiant heating, its fundamentals, advantages, panel requirements, construction, expansion, friction loss, selection of tube, cost, and a discussion of radiant cooling. Design procedure, panel location, heat transfer, heat loss, controls, venting, grading, expansion tank selection, circulating pump, suggested method of constructing prefabricated radiant heating panels and other pertinent subjects are presented. Several structures which incorporate copper radiant heat are featured and their installations illustrated and explained.

FANS. Emerson Electric Fans for 1946. The Emerson Electric Mfg. Co., 1824 Washington Ave., St. Louis, Mo. 28 pp., 8 1/2 in. by 11 in.

The complete line of Emerson electric fans is illustrated and described in detail in this catalog. Design and construction specifications with complete performance data are included for desk fans, air circulators, ceiling fans, kitchen ventilators, exhaust and cooler fans. Information on several new products, the 20-in. window type cooler fan and two kitchen ventilating fans is also included. (Continued on page 152)



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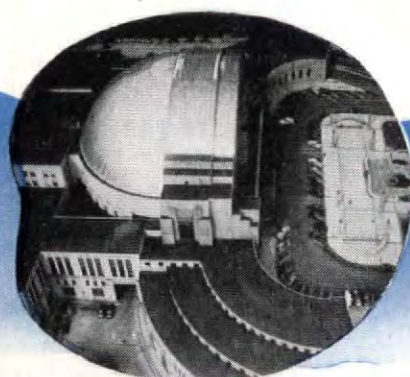
What you can do with other metals, you can often do better with aluminum. Be sure to include Alcoa Aluminum in the plans of your future buildings. ALUMINUM COMPANY OF AMERICA, 1866 Gulf Building, Pittsburgh 19, Pennsylvania.



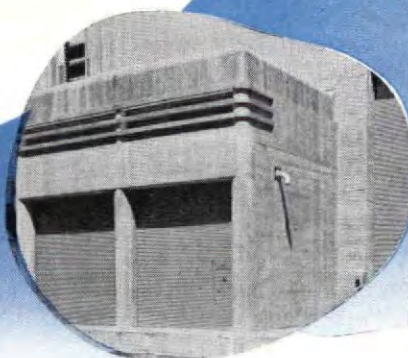
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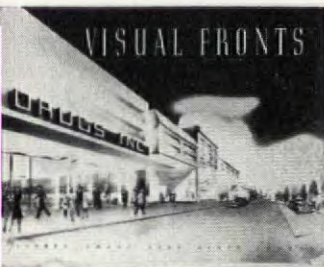
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STORE FRONTS. Visual Fronts. Libbey-Owens-Ford Glass Co., Toledo, Ohio. 24 pp. 11¼ in. by 9⅞ in.

Glass store fronts, which begin at the bulkhead and continue to the ceiling thus making the whole store a dramatic display, are described and illustrated in this brochure. Advantages, flexibility, adaptability, etc. of Visual Fronts are explained. Selection of the proper type glass for doing the display job in relation to the type of merchandise to be sold is discussed. Many suggested Visual Front designs prepared by architects and designers are illustrated in color. These include a super market, dress shop, hardware and department store, recreation center, restaurant, grocery, confectionery, pharmacy, service station, airplane and automobile showroom. A section devoted to the company's products gives characteristics, advantages and uses of different types of glass.

SHINGLES & STAINS. Creo-Dipt Shingles and Stains. Creo-Dipt Co., Inc., North Tonawanda, N. Y. 8 pp. 8½ in. by 11 in.

Information, advantages, and uses of double wall Zephyrs, hand-split shakes and wood shingle stains are included in this catalog. Zephyrs are sidewall, red cedar shingles which come in attractive colors, and are factory-dipped full length, on both sides to preserve them against rot and decay. Their application over Zephyr Insulation Backing Board and over rigid type wall board is discussed and illustrated with section drawings. Two types of hand-split shakes for sidewalls and roofs are also included along with other Creo-Dipt products. A reference data chart for stained shingles lists size and style, thickness, packing, coverage per bundle, etc.

ASPHALT TILE. Recommended Specifications for the Installation and Maintenance of Asphalt Tile Flooring. Asphalt Tile Institute, 19 W. 44th St., New York. 4 pp. 8½ in. by 11 in.

Specifications for asphalt tile flooring includes data on contractor's preparatory work and sub-floor, asphalt tile materials, method of application, cleaning and waxing. Instructions for cleaning and waxing maintenance is also included.

BUILDERS HARDWARE. Erco Artistic Builders Hardware, Catalog No. 4. Erco Manufacturing Co., 4010 W. Montrose Ave., Chicago, Ill. 28 pp. 8½ in. by 11 in.

This catalog illustrates and describes a few of the many cast brass, bronze, aluminum and nickel silver Erco hardware products. Entrance door handles, pulls, knockers, escutcheons, shutter fasteners, surface bolts, cast bronze name plates and tablets are a few of the items included.

KITCHEN CABINETS. The New Palley Line of E-Z Plan Steel Kitchens. Palley Manufacturing Co., Pittsburgh 12, Pa. 6 pp., 8½ in. by 11 in.

How basic kitchen units can be assembled into modern kitchen layouts is illustrated in this folder. Standard-sized bases, complete sink assemblies and wall cabinets are illustrated and dimensioned. Combinations of these three types to provide an all steel, modern kitchen is illustrated with drawings.

SILICONE RUBBER. Silastic, The Dow Corning Silicone Rubber, No. 1, No. 1-A. Dow Corning Corp., Midland, Mich. 4 pp. each. 8½ in. by 11 in.

These two pamphlets are the first of a series devoted to the six new and improved Silicone Rubber stocks for molding and extruding, coating and laminating. Of general interest to engineers, designers and maintenance men, *Silastic Facts No. 1* is a general introduction to the new silicone rubber, useful over a temperature range of—70° F to 500° F. *Silastic*

Facts No. 1-A, designed for consumers of Silastic products, contains information about the established uses for this heat stable, semi-inorganic, rubber-like material as well as tables giving the physical, electrical and chemical properties.

SWIMMING POOLS. Paddock Engineering Co., 9060 Santa Monica Blvd., Los Angeles, Calif. 92 pp., 8¾ in. by 11¼ in.

Design, construction and equipment for postwar swimming pools is fully presented in this collection of informative catalogs and detail sheets. Pertinent factors such as location, size, public or private use, and shape are discussed. The mechanical equipment for filtering, recirculating and chlorinating the pool; for cleaning the filled pool, decks and gutters, and disposal of waste water is described and illustrated. Filter and chlorinator information is complete including details. Ladders, springboards, underwater lighting, slides, etc., are also covered. Plans and sections of different types of pools, filter plant elevations and details of gutters, copings and other component parts give a completed picture of swimming pool construction.

REQUESTS FOR INFORMATION

HARRY A. GAGE, Box 240, Pauls Valley, Okla. would like to receive information on all kinds of low cost housing devices.

CHARLES R. HAM, 1620 McDaniel St., Portsmouth, Va., would like information and literature on construction materials and equipment for residences, stores, kitchens, bathrooms; heating, lighting and reinforced concrete.

DAN FINK, director, Bygningsteknisk Studiearkiv, Royal Academy of Fine Art, Copenhagen, Denmark desires information and literature on city planning, housing projects, materials and equipment for factories, plants, schools, etc.

E. W. LAWRENCE, 11341 Collins St., North Hollywood, Calif., requests information on residential and restaurant equipment.

HENRY A. LESTER, 20 Girton Ave., Kingsbury, London, N.W. 9, England, requests literature on construction and equipment for all types of hotels, restaurants and other catering establishments.

O. PHILLIP & Co., 19 Rector St., New York, N. Y. Att: Craig Burr, desires literature in duplicate on materials and equipment applicable to general public works.

ROBERT WILLIAM REMY, architect, Northampton, Mass., desires information on residential and commercial building materials.

REQUESTS FOR LITERATURE

ALLEN L. BARTLETT, architect, Mountain Brook Development Co., 216 Empire Building, Birmingham, Ala.

PAUL BAUER, designer, P. O. Box 3926, Sauturce, Puerto Rico.

CAFRITZ CONSTRUCTION Co., realtors and builders, 14th & K Sts., N. W., Washington, D. C.

J. E. HOLMES, Holmes, Bradenton Beach, Fla.

HERBERT KAUFMAN, 33 Riverside Drive, New York 23, N. Y.

CLARK R. KJORLAUG, architect, 2502 Robinhood St., Houston 5, Tex.

RAYMOND K. KNOX, architect, 1005 E. Washington St., Pittsfield, Ill.

ROBERT W. LIMPUS, designer, 126 W. 54th St., New York 19, N. Y.

DOMINGO MARTINEZ, 307 W. 79th St., New York, N. Y.

RICHARD MAXWELL, architectural designer, 1051 Broadway, San Francisco, Calif.

A. D. MCINTYRE, draftsman, c/o James Hardie & Co., Pty. Ltd., Breakfast Creek Road, Newstead, Brisbane, Queensland, Australia.

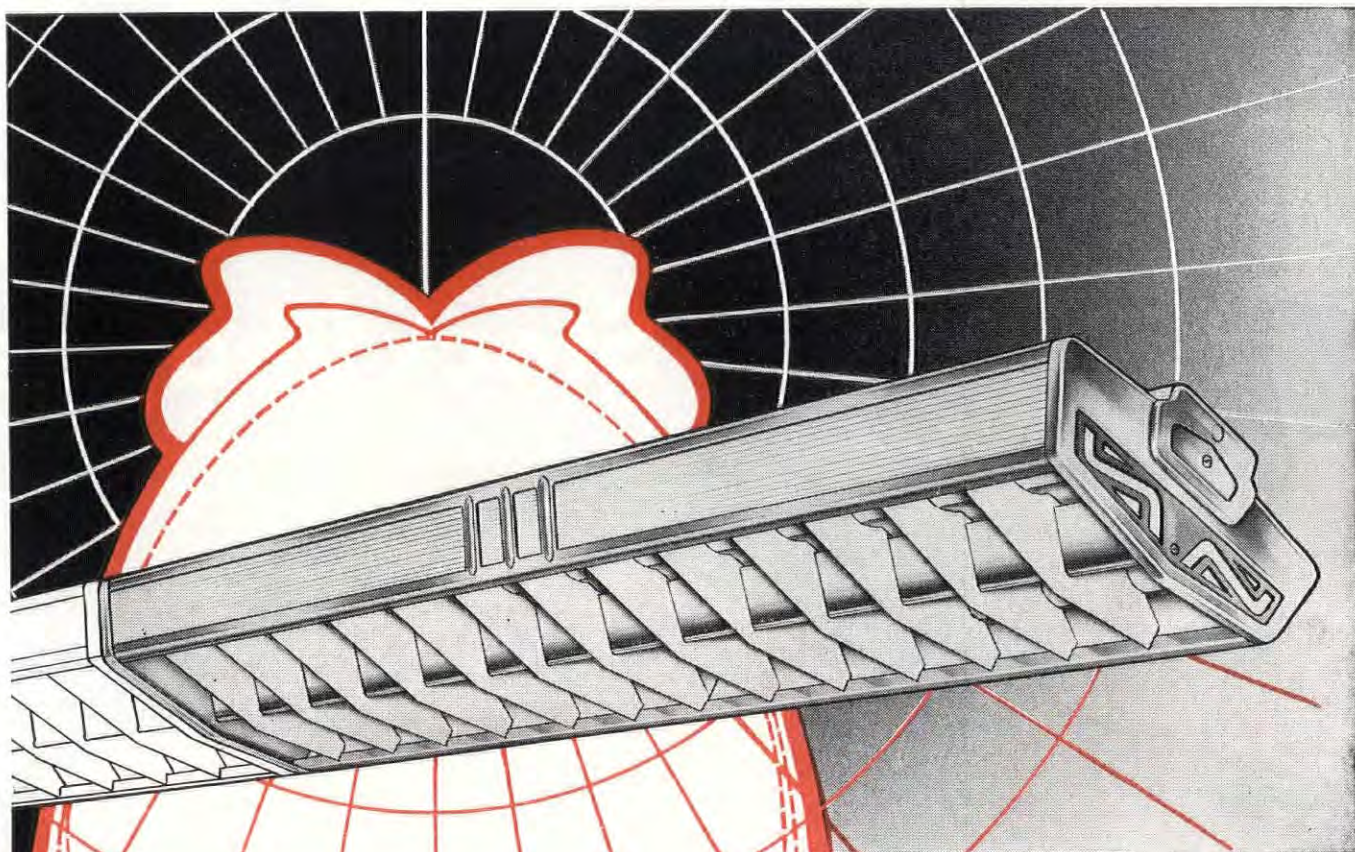
ROBERT T. C. MILLER, H. K. Ferguson Co., Hannah Building, Cleveland, Ohio.

NYGAARD BUILDERS, INC., 2400 Center St., Tacoma 3, Wash.

JOS. P. SCHIERER, architect, 404½ Marshall St., Shreveport, La.

FREDERICK E. SLOAN, architectural engineer, Briar Road, Golf, Ill.

HERBERT A. WILLCOX, P. O. Box 2436, Anchorage, Alaska.



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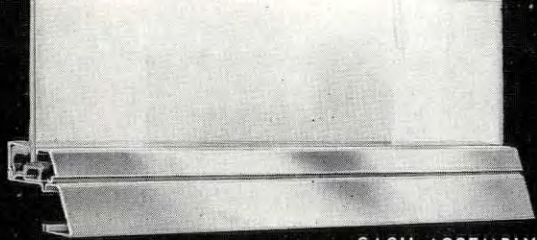


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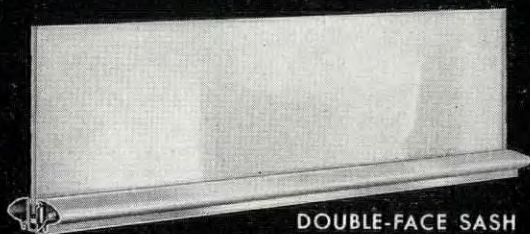
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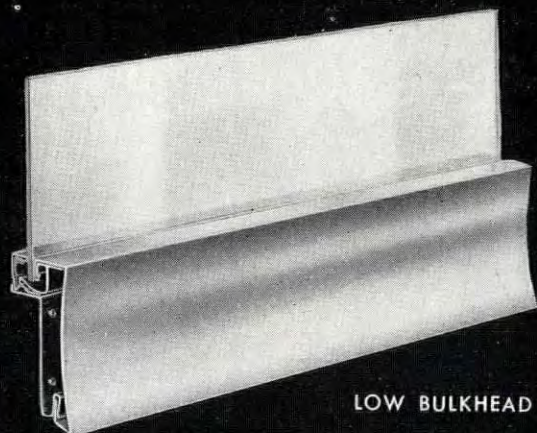
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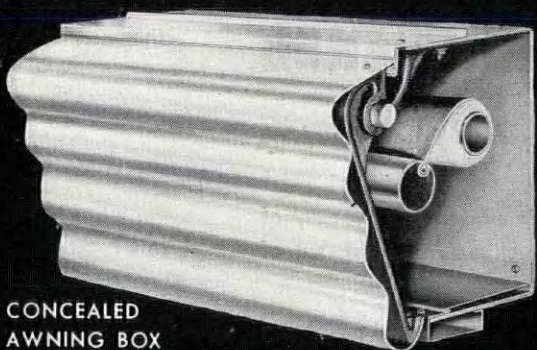
SASH ASSEMBLY



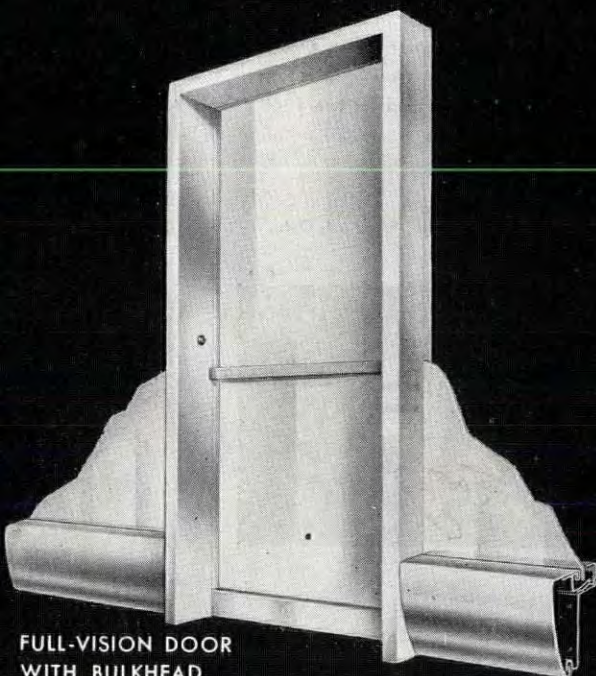
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The assemblies pictured at the left are examples of K-47 styling. Mail the coupon below for Construction Details of both the K-47 Line and the Kawneer Standard Line.

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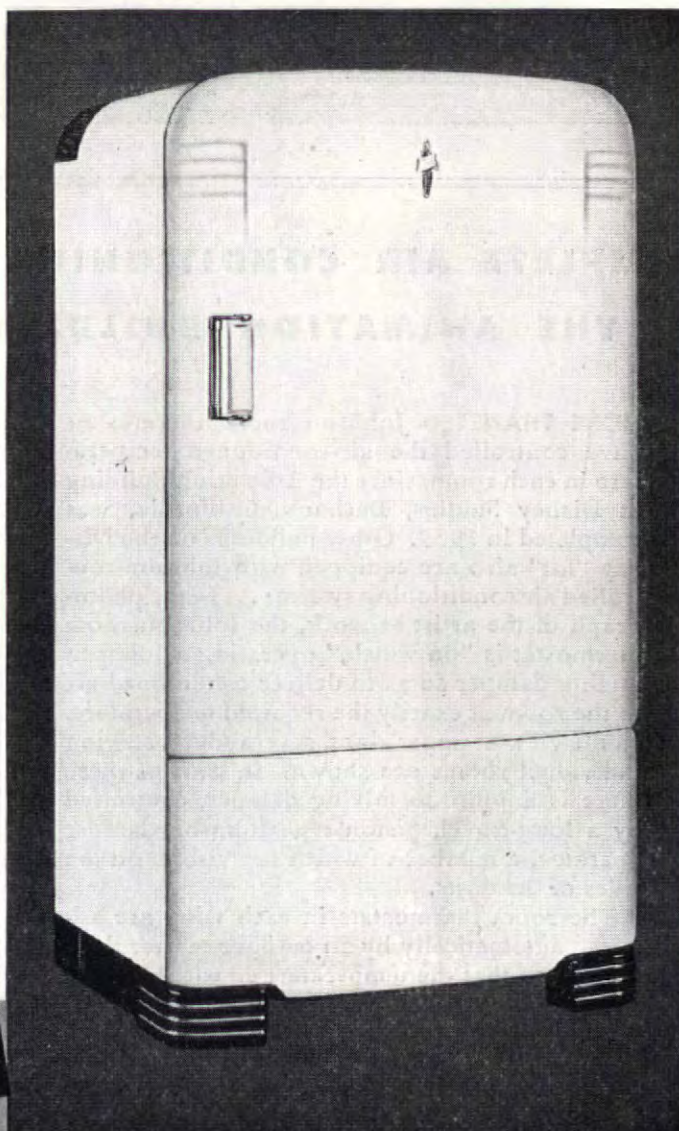
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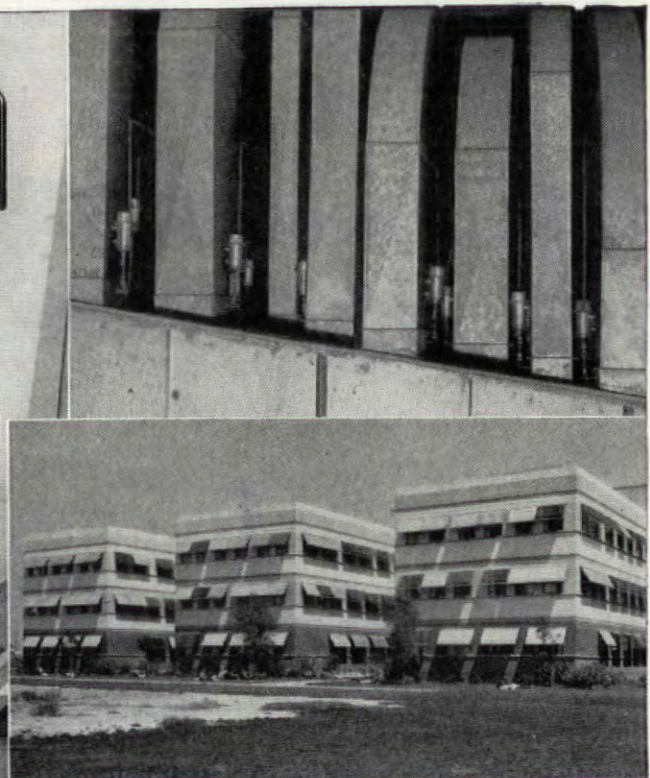
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**ANOTHER EXAMPLE OF JOHNSON.
INDIVIDUAL ROOM CONTROL**



"MAKE MINE MUSIC," Disney feature picture now showing, was being made at Disney Studios when these photographs were taken. The artist is at work on the "Two Silhouettes" sequence... The air conditioning equipment is by General Electric Company.

**COMPLETE AIR CONDITIONING JOHNSON CONTROLLED
IN THE ANIMATION BUILDING AT *Disney* STUDIOS**

MORE THAN 150 Johnson room thermostats have controlled the air-conditioned temperature in each room, since the Animation Building at Disney Studios, Burbank, California, was completed in 1939. Other buildings on the Disney "lot" also are equipped with Johnson-controlled air conditioning systems... In the photograph of the artist at work, the Johnson room thermostat is "on watch," operating a Johnson mixing damper so as to deliver conditioned air to the room at exactly the required temperature. In the view at upper right, several ducts serving individual rooms are shown. In each of these there is a Johnson mixing damper, controlled by a long-travel, piston type Johnson damper operator, a number of which are visible on the sides of the ducts.

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

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



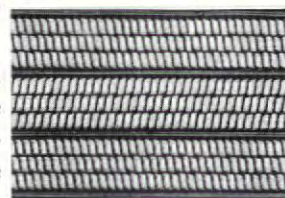
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Adams and Westlake Company, The.....	61
Aetna Steel Products Corporation.....	143
Air Reduction	13
Airtemp (Division of Chrysler Corporation).....	149
Alberene Stone Corp.....	110
Aluminum Company of America.....	47, 151
American Brass Company, The.....	56
American Flange & Manufacturing Co., Inc.....	Bet. 32 & 33
American Gas Association.....	104, 105
American Rolling Mill Company, The.....	121
American Skein & Foundry Co. (Boosey Mfg. Co., Norman, Division).....	36
Anchor Post Fence Company.....	30
Anemostat Corp. of America.....	49
B & T Metals Company, The.....	128
Bendix Home Appliances, Inc.....	31
Bilco Manufacturing Company, The.....	114
Bird and Son, Inc.....	118
Bohn Aluminum and Brass Corporation.....	53
Boosey Mfg. Co., Norman (Division of American Skein & Foundry Co.).....	36
Cabot, Samuel, Inc.....	158
Carr, Adams & Collier Company, Inc.....	16
Carrier Corp.	130
Ceco Steel Products Corporation.....	123
Celotex Corporation, The.....	Cover II
Chamberlin Company of America.....	158
Chase Brass & Copper Co., Inc.....	107
Chrysler Corporation (Airtemp Division)	149
Colorado Fuel & Iron Corp., The.....	35
Dahlstrom Metallic Door Company.....	126
Day-Brite Lighting, Inc.....	153
Dunbar Furniture Mfg. Co.....	46
Edison General Electric Appliance Company, Inc.....	23
Elevator Safety Corporation.....	114
Eljer Co.	Cover III
Emerson Electric Manufacturing Co., The.....	39
Fiat Metal Manufacturing Company.....	108
Fir Door Institute.....	45
Firestone	131
Flintkote Company, The.....	28
Frigidaire Division (General Motors Corp.).....	29
General Electric Company.....	17, 43, 134
General Luminescent Corporation.....	118
General Motors Corp. (Frigidaire Division)	29
Great Lakes Steel Corporation (Stran-Steel Division).....	60
Guth, Edwin F., Company, The.....	37
Homasote Company	18
Hood Rubber Co.....	58
House & Garden.....	33
Insulite Company, The.....	24
International Nickel Company, The.....	111
Johnson Service Company.....	156
Kawneer Company, The.....	154
Kay Manufacturing Co.....	142
Keasbey & Mattison Company.....	127
Kennedy, David E., Inc.....	27
Kewanee Boiler Corporation.....	115
Kimberly-Clark Corporation	32
Kinnear Mfg. Co., The.....	26
Koppers Company	160

BUYING INDEX

Libbey-Owens-Ford Glass Co.....	148
Liquidometer Corp., The.....	118
Majestic Company, The.....	124
McKinney Manufacturing Company.....	14
Milcor Steel Company.....	157
Miller Company	119
Miracle Adhesives Corp.....	50
Molly Corporation	124
Monroe, Lederer & Taussig, Inc.....	114
Mullins Manufacturing Corporation (Youngstown Kitchens).....	25
National Chemical & Manufacturing Co.....	40
National Gypsum Company.....	57
Nelson, Herman Co.....	62
New Castle Products.....	159
Norfolk and Western Railway.....	55
No Sag Spring Company.....	142
Nu Tone, Inc.....	117
O'Brien Varnish Co.....	124
Otis Elevator Company.....	125
Overhead Door Corporation.....	Cover IV
Owens-Corning Fiberglas Corporation.....	19
Owens-Illinois Glass Company.....	109
Paraffine Companies, Inc., The.....	42
Penberthy Injector Company.....	41
Pittsburgh Corning Corp.....	48
Pittsburgh Plate Glass Company.....	21, 112, 113
Polhemus, P. B. Co., Inc.....	26
Portland Cement Association.....	116
Prima Products	44
Pryne & Co., Inc.....	46
Reardon Company, The.....	128
Reznor Manufacturing Co.....	50
Robertson, H. H., Company.....	40, 135
Roddis Lumber & Veneer Co.....	120
Rowe Manufacturing Co.....	103
Saturday Evening Post, The.....	133
Servel, Inc.	2, 3, 155
Square D Company.....	59
Smith Corporation, A. O.....	Opp. 32
Snead & Company.....	145
Sonneborn Sons, Inc., L.....	22
Soss Manufacturing Company.....	38
Stensgaard, W. L., and Associates, Inc.....	50
Stran-Steel Division (Great Lakes Steel Corporation).....	60
Structural Clay Products Institute.....	15
Sylvania Electric Products, Inc.....	52
Taco Heaters, Inc.....	42
Thrush, H. A., & Co.....	20
Tile-Tex Company, The.....	Bet. 32 & 33
Timber Structures, Inc.....	141
Time	129
Trane Company, The.....	147
Trumbull Electric Mfg. Co.....	132
Unexcelled Chemical Corporation.....	159
United States Gypsum Co.....	51
United States Plywood Corporation.....	144
U. S. Prefab Corporation.....	30
Upton Company, The.....	4
Walworth Company	Opp. 33
Waterfilm Boilers, Inc.....	54
White-Rodgers Electric Co.....	146
Whiting Stoker Sales Co.....	106
Worthington Pump and Machinery Corporation.....	136
Wurlitzer Co., The Rudolph.....	22
York Shipley, Inc.....	128
Youngstown Kitchens (Mullins Manufacturing Corporation).....	25

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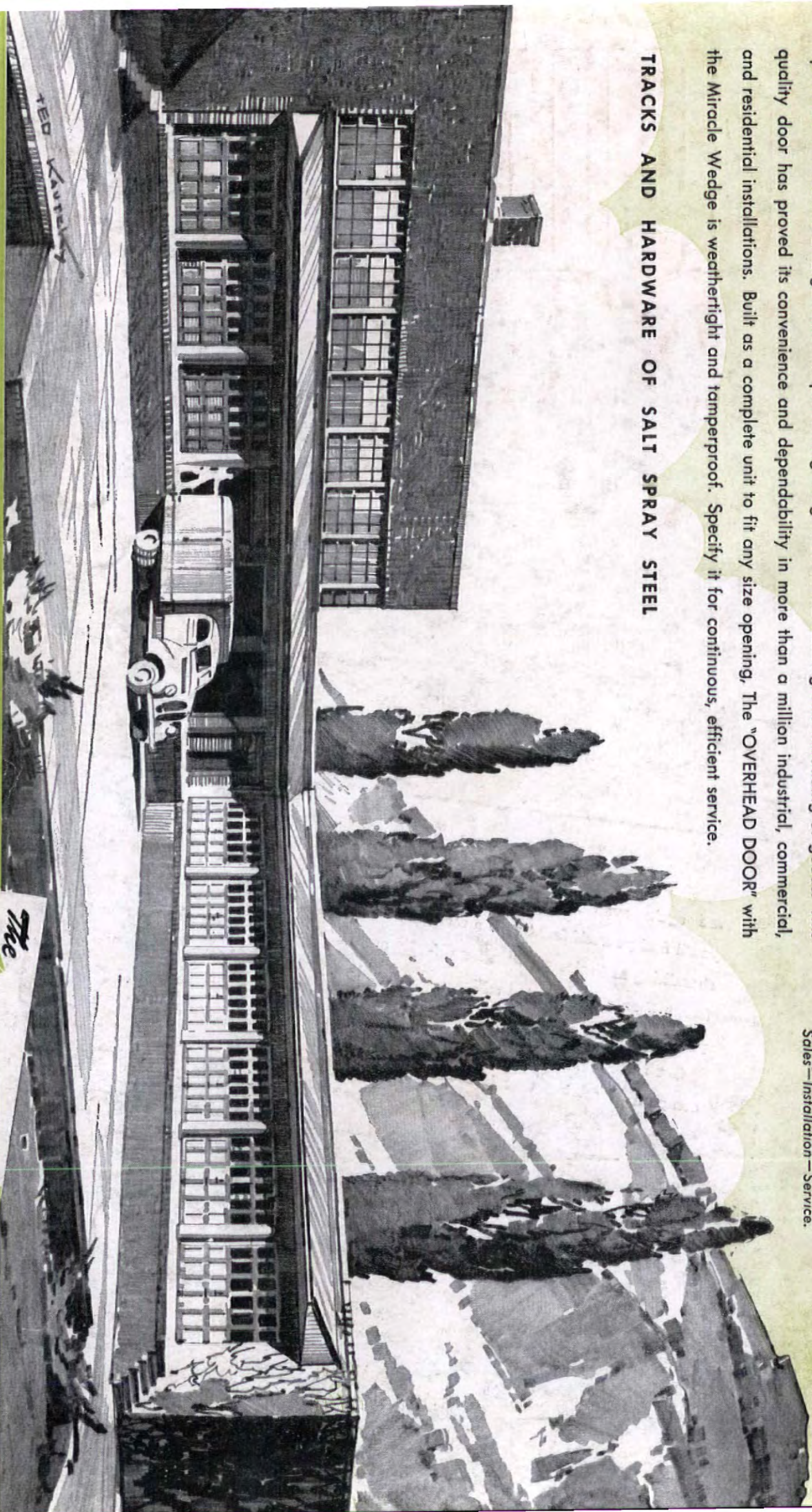
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