

For Better Residential Walls Specify the Leader...

CELOTEX BUILDING PRODUCTS

CELOTEX INSULATING SHEATHING

Rigid cane fibre board coated with asphalt on sides and ends to be used under wood siding, shingles, brick veneer or stucco. It is structurally stronger than horizontal wood sheathing. Sizes: 25/32" thickness in 2' x 8', center-matched with T&G joints on long edges, also 4' wide, by 8', 9', 10' and 12' lengths with square edges. CELOTEX INSULATING

This tigid cane fibre lath possesses exceptional plaster bond ing strength of more than 1,000 pounds per square foot. It pronot an insulating, sound dead uning plaster base-beveled ship ing strength to walls. A continuous Lath, it leaves no lath marks. Size: ½" thick in 18" x 48" units.

I ... the line of building products that your clients *accept* with confidence.

More than twenty years of use-plus effective advertising for over twenty years-have established Celotex leadership in building materials for residential walls.

That's why-for *better* wall construction-it will pay you to specify Celotex Insulation Sheathing and Celotex Insulating Lath.

Under this one famous name you have proved products like these-made and sold by the same manufacturer. This centralized responsibility assures you of the same dependable high quality in every Celotex product you specify.

and an Jam ha

Call in the Celotex Service Engineer

Celotex maintains a corps of trained Service Engineers for your convenience. *Without obligation*, one of these specialists will meet with you, review designs you are developing, and suggest efficient and economical methods of installing Celotex Insulating Sheathing and Celotex Insulating Lath.

A note on your letterhead will bring one of these Service Engineers to your desk. Address: *The Celotex Corporation*, Dept. AF545, Chicago 3, Illinois.

Buy an EXTRA Bond Today . . . and Keep ALL the Bonds You Buy!



FOR ATTIC AND ROOF INSULATION

Use Celotex Rock Wool Batts. Clean, lightweight, easily applied between attic floor joists or rafters. They're fire-proof, moistureproof, full-thickness and permanent. Keep homes cooler in summer...save on winter fuel. Sizes: 15" x 24" and 15" x 48"...semithick and full thick.

CELO-ROK ANCHOR LATH

For walls between rooms and all ceilings between occupied floors where insulation is not required. Celo-Rok Anchor Lath provides an economical and efficient plaster base. Its core of fireproof gypsum rock is encased in a special heavy fibre sheet that bonds readily with plaster. Sizes: 16'' wide by 32'' and 48''. Plain or Perforated, Plain $-\frac{3}{6}$ " or $\frac{1}{2}$ " thick; Perforated $-\frac{3}{6}$ " thick.

For Stronger Walls Specify These Other Celotex Products, Too

Celotex Asphalted Building Board Celotex Vapor-Seal Lath Celotex Tile Board Celotex Finish Plank Celo-Rok Weather Proof Siding Celo-Rok Sheathing Celo-Rok Sheathing Celo-Rok Partition Panels Celo-Rok Anchor Lath Celo-Rok Plasters



	194
NEWS	
LETTERS	
FORUM OF EVENTS	
A new line of folding, weatherproof outdoor furniture postwar design of the month.	
RED ROCK AMPHITHEATER	
For a setting of weird natural beauty Burnham Hoyt designs an outdoor theater chosen by the Museum of Modern Art as one of the 47 best buildings of the past ten years.	
MAC DILL FIELD	
More in a series of remodeling projects proving that temporary military buildings can be both economical and attractive.	I
LIVING-KITCHEN	
An integrated living area including laundry, cooking and dining-space in one compact semi- divided unit.	
COMMERCIAL PORTFOLIO Six designs which capitalize on wartime short-	1
ages and space limitations.	
MEMORIALS FOR MANKIND	1
Why not a monument to American productivity? asks George Howe, Not for the things that it provides, but for the promise that it holds of the abatement of want.	
HOUSES	1:
A country house in Connecticut Surburban house in California a two-level scheme from	
Seattle, Wash Britain experiments with steel construction.	
PRODUCTS AND PRACTICE	1
Lighting the small home a review of lighting fundamentals: illumination, brightness, contrast in their relation to postwar design techniques.	1.21
BOOKS	1
Another technician's Utopia does home ownership pay? a social history of Scandinavia.	
PREFABRICATION	1
All-masonry house is quickly assembled with prefabricated wall and roof units of light rein- forced concrete.	
BUILDING REPORTER	2
Seabees move water tower in vertical position new products technical literature.	



Published by TIME Incorporated EDITOR-IN-CHIEF......Henry R. Luce PRESIDENT......Roy E. Larsen EDITORIAL DIRECTOR.....John Shaw Billings

THE ARCHITECTURAL FORUM

MANAGING EDITOR Henry Wright

ASSOCIATES: Louise Cooper, Mary Mix, Mary Sanders, Richard Saunders (Washington), Madelaine Thatcher. ASSISTANTS: Eleanor Bittermann, Charlotte Eckhardt, Ruth Feierabend, Martha Howard, Mary Jane Lightbown, Lawrence W. Mester (Production), Charlotte Speight. ART DIRECTOR: Paul Grotz.

CONSULTANTS: Miles L. Colean, George Nelson. BUSINESS MANAGER: Vernon Hitchcock. CIRCULATION MANAGER: George Seufert.

> ADVERTISING MANAGER GEORGE P. SHUTT

> > PUBLISHER Howard Myers

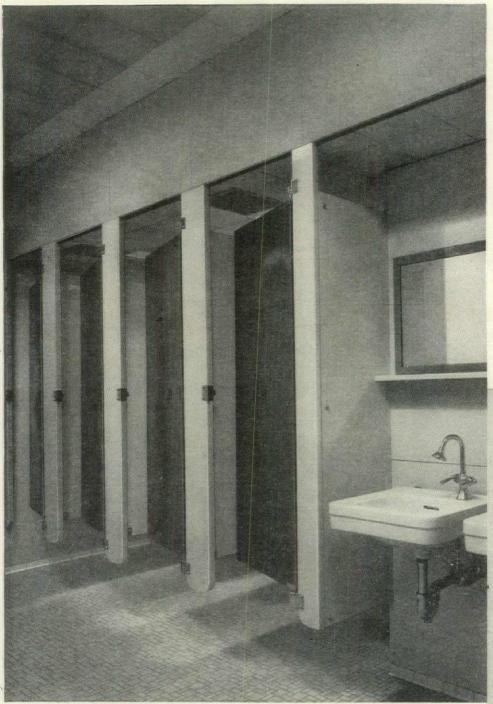
IN MILITARY SERVICE: Robert W. Chasteney, Jr., William J. Conway, Robert B. Hanford, Jr., Joseph C. Hazen, Jr., George B. Hotchkiss, Jr., S. Chapin Lawson, Amnon Rubinstein, C. Elmo Smith, A. Banks Wanamaker.

THE ARCHITECTURAL FORUM is published monthly by TIME Inc., 350 Fifth Ave., N. Y. 1, N. Y. Subscription may be sent to publisher's office or to 330 East 22nd Street, Chicago 16, 111. Address all editorial correspondence to 350 Fifth Ave., N. Y. 1, N. Y. Yearly subscription payable in advance. U. S. and Possessions, Canada, Mexico, South America, \$4.00. Elsewhere \$6.00. Single issues, including Reference Numbers, \$1.00. All copies mailed flat. Copyright under International Copyright Convention. All rights reserved under the Pan American Copyright Convention. Entered as Second Class Matter July 17, 1944 at the Post Office at New York, N. Y., under the act of March 3, 1879. Copyright 1944 by Time Inc.

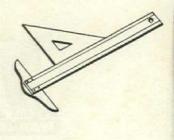
TIME Inc., Time and Life Bidg., Rockefeller Center, New York 20, N. Y., also publishes TIME, LIFE and FORTUNE. Chairman, Maurice T. Moore; President, Roy E. Larsen; Vice President & Sales Director, Howard Black; Vice Presidents, Allen Grover, Eric Hodgins, C. D. Jackson, P. I. Prentice; Comptroller & Secretary, D. W. Brumbaugh; Production Manager, N. L. Wallace; Circulation Director, F. DeW. Pratt. Producer, THE MARCH OF TIME, Richard de Rochemont; Director, Radio Programs Department, Frank Norris.

VOLUME 82, NUMBER 5

JUNE: TIME & LIFE Reception Room . . . War Activities Centers . . . Houses . . . Schools . . . San Lorenzo Village . . . Planning With You . . . National Stadium, Brazil.



CARRARA STRUCTURAL GLASS offers a combination of polished beauty, permanence and sanitation which qualifies it exceptionally well for use in the washrooms of public buildings. It is impervious to moisture, chemicals, pencil marks. It is easily cleaned. In the interesting application shown, Carrara partitions and stiles are hung from ceiling and walls so that the floer area remains clear and unobstructed. Architects: Hart, Freeland & Roberts.

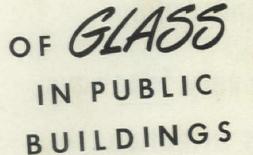


COMBINING DECORATIVE BEAUTY and practical usefulness. Pittsburgh Polished Plate Glass can serve a hundred purposes in public buildings. In this striking bank interior, heavy Plate Glass both bent and flat, is an important factor in creating a smart, business-like atmosphere. Note the large window at the rear. Architect: Walter W. Ahlschlager.

WHEN WINDOWS occupy such a large percentage of wall area, as in this University Building, it becames especially important to specify a quality glass. Pennvernon Window Glass and Pittsburgh Polished Plate Glass are always dependable choices for glazing structures like this. Architects: Cram & Ferguson.



INTERESTING APPLICATIONS



TRANSPARENT STAIR RAILS of Herculite Tempered Plate Glass offer new design possibilities, not only in public buildings, but in commercial and residential structures as well. Herculite Glass is tempered to give it many times the strength and impact resistance of normal Plate Glass. Architects: Reinhard & Hofmeister and Harrison & Fouilhoux.

Design it better with products of Pittsburgh Plate Glass Company R "PITTSBURGH" stands for Quality Glass and Paint

	We believe you will find much to interest you is our new illustrated booklet of ideas concerning the use of Pittsburgh Glass in building design. Send the compon for your free copy. Pittsburgh Plate Glass Company 2126-5 Grant Building, Pittsburgh 19, Pa. Please send me, without obligation, your new booklet entitled: "Ideas for the Use of Pittsburgh Glass in Building Design."	
	Name	
	Address	
	City	

Do These Facts <u>Surprise</u> You? <u>Two out of every three homes today</u> have cracked walls and ceilings <u>One home owner in every four says</u> cracked plaster needs attention

THESE FIGURES are not ours. They were revealed in a nation-wide survey made by the Reader-Consumer Panel of American Home Magazine.

If they surprise you, it's time to take serious notice *now* of the large number of Upson wall and ceiling jobs you can sell and install when material restrictions are lifted.

For, what other type of job will you have a chance to sell to one home owner in every four?





With Upson Panels, ceilings can be treated in a score of ways to lend charm and dignity to the room.

Application is simple and profitable. The finished job is beautiful to look at—and permanently *crackproof!* Upson Kuver-Krak Panels, $\frac{1}{4}$ " thick, are made of the only material produced specifically for *re*-covering cracked plaster.

Consult your lumber dealer or write us for details on how you can begin. The Upson Co., Lockport, N. Y.

> Upson Quality Products Are Easily Identified by The Famous <u>Blue</u>-Center

> > PANELS

CRACKPROOF



First president of the American Construction Council

It was after the losing campaign with Cox that Franklin Delano Roosevelt first took a hand in changing the course of U. S. building. How much he was to change it, few then realized. Roosevelt's appointment as president of the American Construction Council in 1922 marked his first step back into public life after his disabling illness. The name that was to make so many headlines first appeared in the FORUM in the July 1922 issue, which reported the organization of the Council, headed by the young lawyer who had been Assistant Secretary of the Navy. By 1923, Roosevelt's leadership in defining the building problems of high costs, labor shortage, and cyclical fluctuation had made him Cover Man in the fledgling newsmagazine Time, which said that "See young Roosevelt about it" was a by-word in the "World of Construction, our second-biggest industry."

>

¥

N

ORUM

I

0

-

4

-

-

In 1924, the FORUM quoted the Council's president: "A large percentage of present day building construction throughout the country is distinctly inferior in quality and unsound in financing." Ten years later the Federal Housing Administration, one of the first measures Roosevelt used to pull the nation back from economic disaster, set the first national pattern for quality housebuilding and sound housing finance.

It was during the campaign for the Presidency in 1932 that the people themselves first heard his deep concern for the underhoused "third of a nation." "If a slum area can be torn down and new modern buildings put up, I should call that a human necessity."

After that, the housing reforms came fast. There was the week in 1933 when Americans were losing their homes at the rate of 1,000 a day, when the savings of a generation were melting away with bank liquidations.

I ask the Congress for legislation to protect small home owners from foreclosure. (HOLC)

There were no jobs and no building and the underhoused one-third had almost become one-half. We must undertake a program to relieve unemployment through the construction of projects for slum clearance and the housing of persons of low income who are forced to live in unsafe, unsanitary and congested buildings. (PWA)

But private building money was still idle and private housebuilding, backbone of U. S. construction, at a standstill.

Congress took definite steps toward a national housing program through an act which I signed today designed to encourage private capital in the rebuilding of the homes of the nation. (FHA)

There were jobs in 1937 and all over the country trim little FHA houses were going up. But there were still slums and the make-work PWA program had not proved a good way to clear them. With Senator Wagner, the President worked out a new way.

A beginning has . . . been made under local planning, initiative, and direction in the eradication of some of the worst s l u m s of the country. (USHA)

By 1938 FHA was helping Building meet the needs of those who could pay \$10 per month per room; USHA was reaching down to house those who could pay but \$5 or less.

That still leaves in the nation a very large group of people who can afford to pay between five and ten dollars per room per month . . . We are still working on that problem; it is a very great national need.

But this was one Building job the great President had to leave undone. It was part of a bigger job which the President charted in 1936, when he spoke what may well be his own best epitaph:

Here in America we are waging a great and successful war. It is not alone a war against want and destitution and economic demoralization. It is more than that; it is a war for the survival of democracy ... I accept the commission you have tendered me. I join with you. I am enlisted for the duration.

NEWS...President Truman rates houses No. 1 (this page) ... Krug watches pressure mount

to repeal L-41 (this page) ... National Life pioneers packaged mortgage (page 8) ... Vanport City may

go to industry (page 9) ... Steel for Brazil (page 16).

REVIEW

Building men looked last month at two major questions: What part would the nation's new leader have in shaping Building's future? What would V-E day mean in terms of making some start on the biggest job ahead—rebuilding the U. S.?

It was much too soon to expect decisive answers, but the month brought a few more pieces to fit together in the jig-saw puzzle of the future-and the emerging pattern was not a discouraging one. That 1945 was a blueprint and not a building year was clearer than ever, but this meant that Building would be well-prepared to hit a stride even faster than its top war gallup of \$13.5 billion. F. W. Dodge Corp. reported in 37 states plans for 90,700 projects amounting to nearly \$15 billion; of these, half are on design boards and will soon be ready for bids. Lewis H. Brown put his bet on building expansion, told stockholders that Johns-Manville expects to hire between V-E day and 1948 one-third more workers than it had before the war. Tennessee, Maryland, and Pennsylvania joined the long list of states at work on legislation necessary to start city rebuilding. Portland, Ore., seeking the way to attract peacetime industry, set an energetic example for other war-boomed cities.

The reflection of a sparkling Stock Market showed on the faces of private builders. With equally small reason (see below), public housers slouched in gloom. Was there any basis for believing that the new President would take the government out of housing? Those who knew Harry Truman as an earnest seeker for the best way to get a job done knew his impatience with such



JOHN HAYNES, WPB Construction Bureau chief, is a member of the new "Committee on Period One" whose job is to work out relaxation of war controls.

profitless bickering as divides the U. S. housing front. The President is, above all, a realist. Like all realists, he would understand that the question was not whether the wall would enclose a publicly or privately-built house — but when enough men and materials to build all the walls we need would be available.

WASHINGTON

RECONVERSION

Will building limitation order L-41 be repealed after V-E day? The National Association of Home Builders mobilized to fight for lifting of all housebuilding priorities within 30 days after V-E day. WPB Chairman J. A. Krug would name no date but told builders, "WPB is anxious to see housing construction entirely free." Controls on lumber and on manpower must continue for some months, Krug said, but promised "greater leeway in the kind of home you can build and in the value of material you put into it."

Outlook is that programming of construction will continue for an indeterminate period after V-E day. Wholesale sacking of building priorities would threaten black markets and price jumps. But the H-2 or hardship housing program will be greatly increased and will probably cover houses selling for up to \$12,000. Material controls for building repairs will be the first to go. Conversion of industrial facilities (auto makers already have an authorization for \$35 million worth of such construction) and improvement of essential public services will go ahead before housbuilding, warned Krug.

THE PRESIDENT

When overnight Harry S. Truman switched from one of the most accessible public figures in Washington to the protected seclusion of the President's office, Building men, like the nation, wondered what to expect. Would the new chief executive share his great predecessor's passion for housing "one-third of the nation" or would he shift the emphasis to a top-down private enterprise show? Or, for that matter, would he set the housing pace or delegate the job to others?

That Building was neither out of the Presidential mind nor out of his sight became apparent when one of the callers early admitted to the White House was National Housing Administrator John Blandford. That much everyone knew. But not much more. Only clue to the future was a rewarding search of the Truman past.

As the Senator from Missouri, Truman had voted for the United States Housing Act that established low-cost housing as a federal function. As Vice-President, he had backed the proposal to use federal resources to maintain full



PRESIDENT TRUMAN owns his own home in Independence, Mo., built 80 years ago by Mrs. Truman's grandfather. From its well-worn, plum-colored carpets to its gingerbread gable, the Truman house would be at home in any older neighborhood.

postwar employment—a plan in which both public housing and public works construction would inevitably have an important part. But, as chairman of the famous Truman Investigating Committee, the President had more than once checked up to see that private housebuilding got a chance to produce up to capacity for the war effort. Realist Truman would likely stand for a slum clearance program that would give public and private effort a chance to work together.

Would the President back his predecessor's consolidation of all federal housing operations under the National Housing Agency? Or would he be sympathetic to the determined effort of some groups to strip the Federal Housing Administration away from the NHA setup? Would he back the proposal to add FHA to the responsibilities of the Federal Loan Agency, to which he has just appointed his old friend, John W. Snyder, as administrator? It was a good bet that the President, who got an extended look at the confusion of overlapping federal housing operations in the early part of defense building, would stand for housing unity. Cross-questioning Defense H o u s i n g Coordinator Charles Palmer at a Truman Committee session in 1941, he had said sharply: "Isn't one of the reasons for the difficulty we are having now due to the fact that we have so many agencies working on it and none of them are fundamentally responsible. . . .?"

The Truman Committee records also hold a clue as to what the President's attitude may be on reconversion goahead for housebuilding. Questioning Donald Nelson on allotment of war-short materials, Truman said: "If we can't build houses, we certainly ought not to be able to build automobiles. I think houses are more essential than automobiles."

But perhaps the most revealing building chapter in the President's record is the period when, as a Missouri county judge, he supervised \$10 million worth of road construction. Truman rigorously insisted on the lowest bid—which came from a South Dakota contractor. Hopping mad, Missouri high bidders trooped into Boss Pendergast's office. But when the Boss called the county judge, Truman refused to budge. Beaten, Boss Pendergast barked at the assembled contractors: "Get out of here. I told you that he was the contrariest man in the U. S."

OVERSEAS

BILL OF MATERIALS

's-Hertogenbosch is a smallish Dutch city off the main stream of war. It has never been an air-raid target. For only a few days last October was it a battleground. Compared to other cities, this town of 50,000 escaped with no great destruction: 1,500 homes destroyed, 7,000 damaged. Not long ago 's-Hertogenbosch reckoned exactly what itwould need to rebuild, providing the first specific bill of materials to come out of devastated Europe. This city's needs added up to a concrete gauge of the size of the job overseas, whose magnitude is hard to comprehend. If all Europe's estimated 70 million homeless were to be rehoused in the kind of dwellings planned by 's-Hertogenbosch, the bill of materials would amount to astronomical figures like this: 30 billion bricks; 61/2 billion roof tiles, 11/2 billion sq. yds. of glass, 12 million sq. yds. of wood, 260 million sq. yds. of boards, 451/2 million doors, 61/2 billion lbs. of cement, 13 billion lbs. of lime, 41/2 billion lbs. of plaster, 949 million sq. yds. of tar paper, 2 billion lbs. of mastic, 11/2 billion lbs. of zinc, 770 million lbs. of lead.

DAUTRY RIDES AGAIN

France, which got its first U. S. prefabs when 5,000 barracks units were sent to house dock workers, may soon get 4,500 additional units from this country. The sought-for prefabs are all intended for temporary housing in the bombed-out city of Orleans, where an experiment in reconstruction will soon begin. Testing of structural methods and materials will be carried on while historic Orleans rebuilds to a new plan, around a core of apartments and business buildings.

By early May the first French reconstruction job was underway at Amiens —in ruins since the German invasion of 1940. Amiens and the rural village of LeBosquel, where farmers have pooled their land for group cultivation, will be town planning models for national rebuilding, which must rehouse some five million homeless, replace total damage amounting to \$40 billion. The French government estimates that essential re-

BILLETS FOR BRITAIN

Strange spot in the London landscape are these asbestos hutments, elaborately dubbed Loughborough Gardens. Bombed-out Lambeth families will soon call them home. U. S. soldiers put up these houses and are now at work on 330 more, all to shelter families whose only present homes are air-raid shelters. Each hut has two bedrooms (9 ft. by 10 ft), a combined living and dining room (10 ft. by 12 ft.), and kitchen. There is a gas stove, a brick fireplace and running water. As the paved walk indicates, temporary houses like these may be in use for a long time after V-E day-until permanent building gets a good start.

construction will take 13 years, if labor works a 48-hour week. One part of the job is restoring 234,000 acres of farm land, now riddled with German mines. This task alone will require 10 years and cost \$400 million.

For her biggest job, France had chosen one of her biggest men-Raoul Dautry, the man who laid the "hundred day" railway that launched the Allied offensive in 1918, who made the rattletrap state railways run on time, who introduced workers' garden cities to his country, who finally got the heartbreaking job of arming a faltering France in the heartbreaking year of 1939. As Minister of Reconstruction and Town Planning, 65-year-old Dautry hopes to build for France the kind of modern housing few of her people have had before. Dautry plans to make minimum use of temporary housing; most of the "temporaries" built after World War I were only recently knocked down by German bombs. Temporaries will be of the lightest construction possible. Those





NEWS

so far set up are barracks for Naziconscripted labor now coming home.

Pinched, like every country in Europe, by manpower and material shortages, France looks hopefully to a permanent type of semi-prefab construction both for housing and for factory building. Normally, France has plenty of steel and a favored solution is a preformed concrete block and steel framing system. But not much of industry or transport is in shape to start turning out the basic materials of reconstruction. France will need help to redesign and rebuild her basic industrial machinery. (U. S. technical assistants to the Minister of Reconstruction have already been appointed.) To start the rehousing job, materials assistance will be needed, especially plumbing fittings and fixtures.

All reconstruction will be directed and controlled by the government. This, Dautry believes, is imperative to prevent a black market in materials and to make full use of labor. Workers will probably be drafted for rebuilding, released gradually as industrial production gets a start.

France's city planning problems are very different from those of the U. S. and of Britain. There are few French cities of over 100,000. There are few residential neighborhoods—most French merchants like to live near their stores. But French architects hope to set a new housing pattern: after the barracks will come livable modern structures with plenty of light and air and space. Le Corbusier himself was on hand to help with the job.

There will be little fruitless copying of France's lost architectural heritage. Auguste Perret, one of the great French architects, spoke for many: "Let us build what our ancestors would have if they were here now—in short, the best that an age has to offer to its people."

U. S. Signal Corps



BUILDING MONEY

There was plenty of building money in the market-but practically none of it was going for new building. With the investment channel of new construction blocked, the tide of ready money swept every type of real estate to a boom demand not seen since 1926. It was no news that the \$10,000-and-under house, choice of 90 per cent of all U.S. home buyers, had all but disappeared from the market. But last month in Providence, R. I., a veteran realtor reported what still seems almost unbelievable news in real estate circles: the line-up of buyers ready to pay \$25,000 or more for a house far exceeds the list of such properties for sale.

J. W. Riker's long waiting list of customers for luxury homes could be matched by many a busy real estate office throughout the nation. Understated realtor Riker: "For the first time in several years buyers are willing to pay prices approaching reproduction costs less depreciation."

"These billions of dollars of reserves that bulk so large are the fruit of people's sacrifice and self-denial. What could be more fitting than that their life insurance dollars should flow back into sound investments in modern home communities, and into mortgage loans on small homes as well?"

-BRUCE BARTON, policyholder Metropolitan Life Insurance Co.

NATIONAL PACKAGED MORTGAGE

The National Life Insurance Company at Montpelier, Vt., has been investing policy holders' funds for almost a



AMIENS will be experimental proving ground for methods that will speed French rebuilding, Minister of Reconstruction Dautry promises.

century. Over the last decade, this modestly sized company has led the life insurance giants in its willingness to shape investment policies to present-day borrowing needs and lending opportunities. In 1935 when most big home mortgage investors were prophesying that the New Deal's Federal Housing Administration insurance scheme would bankrupt the nation's mortgage structure. National was quick to understand the wider area of activity which FHA risksharing offered private capital. First life insurance company to write FHAinsured mortgages, National now has \$136 million in Title II and Title VI loans in its portfolio-75.3 per cent of all its mortgage assets. Exactly how well National's investment foresight paid off is clearly written in its FHA loan history: of a total \$157 million loans purchased and earnings of \$17 million net interest, losses have amounted to only \$110 thousand-.6 of one per cent of income received and 0.7 of one per cent of loans purchased.

Last month alert National Life chalked up another home finance first, became the first national mortgage investor to introduce a packaged mortgage. From now on National will loan money to buy not only a house, but also essential home equipment such as ranges and refrigerators. Announcing the new plan to loan correspondents in 48 states, vice-president L. Douglas Meredith, chairman of National's committee on finance, summed up these advantages for borrowers:

Costly installment financing will be eliminated.

▶ Payments for equipment need no longer be concentrated in two or three years but may be spread out over life of the mortgage.

Total financial load per month will be reduced.

• Rate of interest paid for financing equipment will be exactly the same as that paid for financing the rest of the house.

National foresees few legal difficulties in the way of the packaged mortgage. FHA has already agreed to insure mortgages covering household equipment. Says FHA: "The development of housing has come a long way from the simple four walls and a roof of earlier days." National's own legal counsel believes that "almost any article of household equipment can be considered realty if (1) it is paid for with the mortgage money; (2) it is appropriate for use in the home; (3) the parties express an intention that the article be realty; (4) there is some degree of actual annexation to the building."

With president E. S. Brigham, vicepresident Meredith, a one-time professor of economics, has been instrumental in National's up-to-date mort-



LENDER MEREDITH and friend

gage practices. Meredith, who took his Ph. D. at Yale, became Commissioner of Banking and Insurance for Vermont, is an uninhibited investment analyst, basing his business policies on a broad grasp of modern economic trends. His outlook: "Postwar mortgage lending will afford unbounded opportunities for improvement in all places of our mortgage techniques."

CITIES

WHERE TO BUILD THE HOUSES?

War has re-shaped the U. S. city pattern. War industry has been located by the government with an objective overriding all other considerations: speed of production. This has meant overloading in many spots, ghost towns in others. This uneven pattern of indus-trial distribution is probably not a very good one for peacetime needs. But only clear-cut policy and careful national and local planning can do much to change it. Most war migrants will tend to settle down in swollen cities, population experts say-unless there is a strong pull of job opportunities somewhere else. Permanence of the war-twisted pattern of industrial location and of population will depend upon (1) the destiny of government-built or government-financed war plants and (2) the location of new peacetime industry.

Portland's Plan. Some cities are already making specific plans for attracting new industries to give jobs to the increased population which the big tide of war migration (3 million workers) has left on their doorsteps. Portland, which has been busy turning out Liberty Ships at the rate of 11 a week, hopes to offer new postwar industry some special bait; 790 acres of excellent site, lying between the Columbia and Williamette rivers, provided with utilities, streets and parking facilities, served by five railroads, with plenty of cheap electricity available through the Bonneville Power Administration. The site: \$26 million Vanport City, twice as large as any other housing project in the country and Oregon's second largest city. Author of the plan is Chester A. Moores, chairman of the Portland Housing Authority and vicepresident of prosperous Commonwealth Inc., a real estate firm. Among its backers are Mayor Earl Riley, Senator Wayne L. Morse, most of the city's realtors, the Chamber of Commerce industries committee, the American Institute of Architects' Portland chapter, the Oregon Building Congress, the Oregon Federation of Labor, the Portland Home Builders Association.

Under the Lanham Act, the chunky two-story apartment buildings at Vanport City and East Vanport must all be removed. Home to 40,000 workers when ship production was at its peak, Vanport now shows about 17 per cent vacancy. With shipyard employment expected to shrink from 112,000 employes to 25,000 by the end of the year, war-boomed Portland will have a much better supply of housing than of jobs.

Zoned Industry, Chester Moores' proposal to use the Vanport site to attract the new industries that Portland needs was made after the Federal Public Housing Authority failed to encourage Vanport's transition to a veteran's rehabilitation center. Said Moores: "Portland is very short of good industrial locations. They have been pretty well picked over. The Chamber of Commerce has been contacted by approximately 80 companies interested in locating here. The area is large enough to develop into a model industrial district. Industries of all kinds

could be zoned with those most attractive in appearance being placed along the Pacific highway.'

The Portland Housing Authority has volunteered to undertake the job of acquiring sites as war housing is demolished and re-selling them to private industry. but so far the plan lacks National Housing Agency approval. Alternative proposal is that the Port of DALTON: plan for Britain Portland Commission or

local business men organized as a nonprofit group might buy the land from the government for re-sale. Hope is that the land might be acquired for approximately its cost to the government or under \$300,000.



VANPORT CITY may be industrial site

War Surplus Lever. But however valiantly Portland and many another city might try to plan for the new industry that would mean full peacetime employment, there was little planning on a national level to help. The RFC had the job of getting government war plants into private hands as soon as possible, but there was little enough evidence that disposal operations would be geared to any plan for more even distribution of industry over the whole country. Not since the demise of the unpopular National Resources Planning Board has the federal government had any mechanism for national industrial planning. Yet, even without conscious purpose, the federal government cannot help but influence industrial location through tax collection, expenditure, interest rate regulation, protective tariffs, land grants for railways, such public power developments as TVA, regulation of freight rates, many another policy. Would the government job of war plant disposal, which may change the economic shape of the U. S. for generations, go ahead without any attempt at over-all planning to direct industry where it is most needed?

Britain Seeks a Way. In Britain, which wants no more of the "depressed areas" that followed World War I, the government has already made it clear that it intends to assume large re-

sponsibilities for directing

postwar industrial location.

According to the White

Paper on Employment

Policy, the British govern-

ment will seek to "influence

the location of new enter-

prises so as to diversify the

industrial composition of

areas which are particularly

vulnerable to unemploy-

ment." To this end, the gov-

ernment will put new em-

Pictures, Inc.



phasis on its inter - war program of erecting in "development areas" well-designed factories for lease or sale to private enterprise. Hugh Dalton, Laborite chairman of the British Board of Trade and reconversion chief, has introduced a bill that will imple-

NEWS

ment the development plan in needy areas and also give the Board of Trade power to refuse a license to build a factory of more than 3,000 sq. ft. in places already over-crowded with industry. To a certain extent, even British Conservatives acknowledge the importance of control of industrial location and so of population in a period when Britain contemplates vast rebuilding (ARCH FORUM, April, '45). As progressive postwarrior Sir William Beveridge put it: "The trouble about all houses is that they have to be built somewhere."

MILWAUKEE'S BROOM

Early last month Milwaukee got out a new broom, started to use it on what may be the biggest job of spring housecleaning the city has ever seen. Milwaukee's broom was intended to sweep away some of the blight on its back doorstep. A new kind of municipal health ordinance, it gave the City Health Commissioner power to condemn and order vacated dwelling units which have "deteriorated so as to become unhealthful, insanitary or so difficult to heat as to be unhealthful."

To get a clean bill of health in Milwaukee, all dwellings must now meet stiff requirements:

Rooms must be adequately ventilated and lighted, and no rooms without at least one window may be used for living purposes.

▶ No sleeping room may have less than 50 sq. ft. of floor area for each occupant over 12 or less than 25 sq. ft. for chil-

Life Photos



NEW SLUMS FOR OLD?

A slum is sunless rooms and hall toilets. It is crumbling brick and rotting timber. It is a statistic in the municipal service books. But more than any of these it is a place a lot of people call home.

When the Metropolitan Life Insurance Co. acquired 18 city blocks for the Stuyvesant Town postwar housing project, it sent tactful letters to the 3,000 families in the neighborhood explaining why they would have to move. Trying to make things as easy as possible, Met also asked realtor James Felt to set up a tenant relocation center which it urged everybody to consult. So far about onethird of the families have found new homes. Few of them can look forward to coming back when Stuyvesant Town is finished—only about 7 per cent could afford its rents.

To ease the lack of low-rent housing, the New York State Legislature last month approved 10-year tax exemption on improvements in old-law tenements. But a correlative rent ceiling discourages owners who ask, "Why modernize if we can't charge higher rents?" The problem remained: unless slum-dwellers can find better homes than they had before, slum clearance in one block may mean a new slum in another.



Vacated buildings are boarded up



dren under 12.

Exterior doors and at least one window in each room must be screened.

No basement rooms with floor below lot level may be rented unless walls and floors are built of waterproof material.
There must be adequate lighting in rooms, stairs, and halls.

 Walls must be cleaned or painted when they become too dirty to reflect light.
 Construction, insulation and maintenance must be adequate to maintain an air temperature of of 70° under ordinary winter conditions.

"A healthy state of repair", plumbing maintenance, vermin control, garbage disposal are other stipulations.

If compliance with the new requirements requires structural alterations, they may be deferred until 1948. Otherwise, inspectors will begin cracking down within a few weeks, and Milwaukee expects a bustle of painting, screening and general clean-up. Longrange effect of this new way to get rid of blight would be much broader. With vigorous enforcement of the ordinance, hopelessly substandard housing would have to be eliminated entirely.

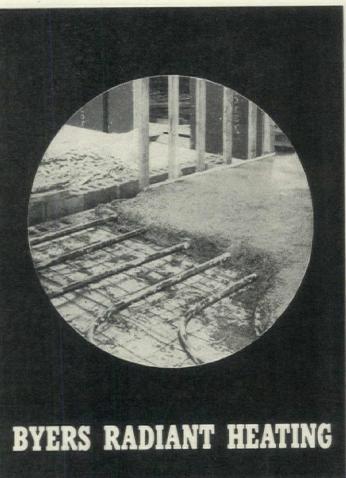
REDEVELOPMENT CHOICE

As cities all over the U. S. looked for legislative machinery that would enable them to get started on the big job of slum clearance and urban redevelopment, two major patterns emerged. Would local housing authorities, whose job is to build low-cost housing, get the additional assignment of acquiring blighted land, selling or leasing it for private redevelopment? Or would new redevelopment commissions, with no housing functions, be set up to aid private enterprise in land acquisition?

In Tennessee and Maryland the choice has been made. First state in the nation to give local housing authorities the power of eminent domain to acquire land for large-scale private rebuilding, Tennessee recently enacted legislation proposed by the National Public Housing Conference. Under the Tennessee law, municipal governments will develop a master plan for rebuilding, plotting use areas for public and commercial buildings, private and public housing. The plan will also stipulate a method for rehousing families displaced by redevelopment. Local housing authorities will then step into the operation, with power to condemn the land marked for rebuilding and to sell or lease it at its new use value. Maryland, which passed its first redevelopment law early this spring, chose to put the condemnation and resale power in the hands of rede-

(Continued on page 12)





A lot of thinking about post-war housing seems to be centered around basementless construction. The utility and economy of this type of construction has always been recognized, and since Byers Radiant Heating has proven so completely successful in eliminating cold floors—an inescapable handicap with old-style heating—the way is wide open to utilize it. Periodically, however, questions are asked about the effect of the heating coils on the concrete floor slab, and a few words of reassurance may be helpful.

It goes without saying, of course, that the pipe and concrete must expand and contract at the same rate when heated and cooled if difficulties are to be avoided. The important thing to remember is that wrought iron meets this requirement; it and concrete have practically identical rates of thermal expansion. This is one of the big advantages of wrought iron, and one of the properties that recommend its use.

It is not necessary to depend on theory alone for the answer, however, for the question is answered in terms of practical experience. A sizable portion of the thousand Byers Radiant Heating jobs now operating are hot water systems installed in basementless structures with concrete floor slabs. The evidence is overwhelming that in any properly designed, properly installed system, no difficulty whatever with thermal cracking need be anticipated. Naturally, it is important to handle the pouring and curing of the concrete in the correct manner. The Portland Cement Association will undoubtedly be glad to give you their recommendations on the best practice, if you contact them.

This subject emphasizes the importance of selecting the proper materials in installing radiant heating, for the qualities and properties of the pipe have a big bearing on ease and speed of installation, dependability and durability, and all-around satisfaction. Byers Wrought Iron meets all requirements to an unusual degree. In addition to its ability to work well with concrete, it has a high rate of heat emission; it can be readily formed and welded, which speeds installation; and its corrosion resistance has been conclusively demonstrated over extended periods.

A new technical bulletin has just been produced, which condenses the entire story of radiant heating into 52 fact-filled pages. It is the most complete treatment of the subject that you are likely to find between covers. We will be glad to send you a copy on request.

A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

BYERS WROUGHT IRON

IN CORROSIVE APPLICATIONS

CORROSION COSTS YOU MORE THAN WROUGHT IRON

MONTH IN BUILDING: NEWS

(Continued from page 10)

velopment commissions, and Baltimore's Mayor was already drawing up a list of appointees, all of whom will serve without salary.

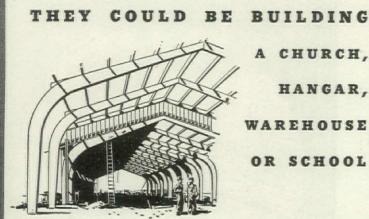
In Illinois, the legislature contemplated and real estate men opposed a proposal to make housing authorities the major operating force in redevelopment (ARCH FORUM, April, '44). A law on Illinois books since 1941 provides for redevelopment commissions, but no city has set one up. Pennsylvania favored a bill now before the legislature which would create local redevelopment authorities. This proposal drew little opposition, but there was some shooting at a companion bill which would open Pennsylvania's door to insurance companies interested in building housing (the number of places where Metropolitan Life will be enormously welcome may soon be enough to gladden an insurance salesman's heart). Only the home builders would not be happy to see Met in Pennsylvania. Hedging against competition, local home builders' association teamed together to back an alternative measure that would restrict insurance companies to slum sites and limit redevelopment projects to 10 city blocks.

With proposals framed by the National Public Housing Conference scheduled to come up in 17 state legislatures, those who fear the objectives or disapprove the methods of local housing authorities argued that to give them redevelopment leadership would throttle any action by private enterprise. Others hoped that more broadly representative authorities, with a closer relation to their communities, can work shoulder-to-shoulder with private building.

FRUITLESS WRANGLE

While many a city argued over the exact role of local housing authorities in redevelopment, few were optimistic enough to believe that private enterprise can undertake all parts of the slum clearance job-including provision of lowrent housing for families who cannot afford market rates. But in Washington, D. C. home builders and the National Capitol Housing Authority were still slugging it out on the question of which should get a chance to clear the capitol's slum alleys. The National Industrial Conference Board had digested the mountain of testimony piled up before a Senate arbitration committee, throwing in a few conclusions: private enterprise can build low-rent housing "at substantially lower costs" than public agencies; public management costs are 8 per cent higher than private fees;

(Continued on page 16)



Glued laminated wood arches lend themselves to many types and sizes of structures. Like other wood construction, they go up easily and fast. They make economical use of available lumber.

IT'S Flame-Proof wood CONSTRUCTION

Timbers pressure-treated with Minalith* fire retardant will not support combustion or spread fire. Structural members retain their strength without sudden collapse when exposed to flame.

Consider Minalith-treated lumber as a means of combating fire. All of the usual advantages of building with wood are retained.



1647 McCormick Building, Chicago 4, Illinois

Orders are now being accepted for future delivery. Write or wire for catalog and prices.

GERITY-ADRIAN ADRIAN,

guaranteed not to break, crack, peel, check, or tarnish; and it's guaranteed for the entire life of the product! This is an important sales feature — it represents an actual plus value to the buyers of Gerity

bathroom accessories.

In addition to distinctive modern designs, and

guaranteed quality, Gerity helps you to sell, through

attractive display boards for window, counter, wall, or floor use; through colorful, attention.getting packaging; and through extensive national advertising in leading homemaker's magazines and trade papers.

LIFETIME CHROME

MICHIGAN

MFG. CORP.

This is "Dover," one of a series of brilliantly styled Gerity lines. It's Guaranteed for Life!

A PERIOD SETTING FOR ANDERSEN COMPLETE WOOD WINDOW UNITS

Windowalls...windows that function both as walls and windows...can be placed to bring the beauties of the outdoors into the comfort of the indoors.

In this attractive Columbus, Ohio home, an angle bay of Andersen Casement Window Units, including a picture window, forms an intimate dining space looking out on ever-changing scenery. Meanwhile, the wall section formed by windows is weathertight. The Andersen Casement is highly regarded by architects because of its superior weathertightness, its convenience of operation and its precision construction.

indowall

Andersen Casement Units, Number 2418, placed at a 45° angle with Andersen Casement Picture Window Unit, Number P-5411. Over-all rough opening width: 9' 9¹/₂".

For additional details, consult Sweet's Catalog, or write Andersen Corporation.

Andersen Corporation

BAYPORT, MINNESOTA



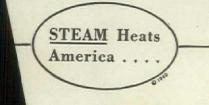


Edward E. Ashley, Consulting Engineer, New York, N. Y. Member of ASME, ASH&VE, and AIEE.

"In school heating, the different occupancy requirements of classrooms, study halls, dormitories, gymnasiums and other sectionsand often varying temperatures dictated by use-present prob-lems that call for control (1) at the source and (2) at the several zones," writes Edward E. Ashley. "Moderate, closely-regulated steam heat solves these problems and, at the same time, provides highly efficient operation and greatest comfort . . . Steam is the accepted medium for school heating-because it is flexible; because it can be more perfectly balanced than any other media; and because it can be accurately controlled ... When War Economy puts the emphasis on Fuel Conservation, the Heating Industry emphasizes Control.

Following are some of the schools for which Edward E. Ashley has specified Webster Systems of Steam Heating: Lincoln School for Teachers' College, New York, N. Y.; Albany High School, Albany, N. Y.; Eastview Junior High School, White Plains, N. Y.; Battle Hill Junior High School, White Plains, N. Y.; Junior High School, New Rochelle, N. Y.; Glenfield School, Montclair, N. J.; Columbus High School, Columbus, Ga.; Cypress St. School, Greensboro, N. C.

WARREN WEBSTER & CO., Camden, N. J. Pioneers of the Vacuum System of Steam Heating :: Est. 1888 Representatives in Principal U. S. and Canadian Cities Darling Bros. Ltd., Manufacturers & Licensees for Canada



MONTH IN BUILDING: NEWS

(Continued from page 12)

NCHA has been slow in clearing Washington's slums.

While members of the Washington Home Builders Association cheered, careful students of the low-rent housing problem agreed that the figure-garnished NICB report was just so much more fuel for the already blazing fire of controversy. Federal Public Housing Authority head Philip Klutznick immediately appeared with an armful of factual counter-arguments. But neither contestant could agree on the same set of facts. The public housers had the advantage of a record: average rents of \$32.12 per month at an average unit cost of \$4,969. The home builders flourished hypothetical cost sheets. Nonpartisans muttered that a single private low-rent project would be more convincing than a mountain of planning estimates.

MATERIALS

WOODPILE

Lumber supply will get no better this year, and lumber demand will not slacken. This is the unpromising report of the Lumber Survey Committee, which has just taken its regular quarterly look at the industry. Expanded operations in the Pacific will help to boost 1945 needs to 40 billion board feet, while production will probably amount to only 291/2 billion feet. Last year's lumber output was 301/2 billion board feet, about 4 per cent less than the year's consumption and 5.6 per cent less than 1943 production. Lumber output will continue to decline during the rest of this year, the Committee said, because of increasing manpower shortages, lack of heavy-duty

tires, trucks and tractors. Lumber prices are, of course, at the highest point or record, showing, according to the newes wholesale price index, a 53 per cent in crease over 1926 levels.

"As so often has happened during the last quarter century, the selfstyled practical men turned out to be the weak irresponsible dreamers, afraid to face unpleasant facts, while those of us who were called dreamers have, perhaps, some little right now to be accepted—at least belatedly as practical men. By now history has caught up with our most dire prophecies. That is at once the justification of our thinking and the proof of its tragic failure to influence our contemporaries." —LEWIS MUMFORD

STEEL FOR BRAZIL

Eighty miles inland from Rio on a wide bend of the muddy Parahyba River, Brazil's first modern steel plant is nearly finished. In a month or two the first giant blast furnace will be blown in, and by summer's end the rolling mill now under construction will be turning out sheet steel. The integrated steel plant at Volta Redonda, whose eventual output may reach a million tons a year (almost as much as the war giant Geneva plant in Utah) means an enormous step-up in the pace of Brazilian industrialization. It also means a vastly improved standard of living-for steel consumption is normally a good index of how well a nation lives. Prewar U.S. steel consumption in an average year amounted to 880 per (Continued on page 20)

Acme



VOLTA REDONDA, once a whistle-stop on the Rio-Sao Paulo railway with a total population of 57, is now the bustling site of Brazil's first modern steel plant. Shown here is a section of the complete new city now being built to house workers at the plant, which is expected to be in production by late summer.



FORMICA

• Sometimes frequent cleaning is as disastrous to a decorative surface as wear itself, but not so with the surfaces that are finished with Formica. They can be washed with soap and water, or with solvents when that becomes necessary and there'll be nary a spot, or a streak or a stain.

Formica is a non-porous material, that can be cleaned by the same methods as glass. It is harder than marble, but non-absorbent. Yet it may present the appearance of brilliantly finished fine wood, for in "Realwood" an actual wood veneer is introduced to provide the authentic wood grain. It is protected by a colorless and brilliant plastic film — the brightest, sturdiest finish ever put on wood.

THE FORMICA INSULATION COMPANY, 4620 Spring Grove Avenue, Cincinnati 32, Ohio



This is no ordinary set of offices—it is flexible and can be altered or completely rearranged to meet the ever-changing demands of modern business or the requirements of a new tenant. Yet it is a permanent, integral part of the structure—with a modern acoustical ceiling, flush-type fluorescent lighting, sturdy movable walls, easy-to-walk-on and colorful floors.

The J-M Unit Office System incorporates three Johns-Manville building materials:

 J-M Transite Asbestos Walls — movable, 100% salvageable, easily erected and dismantled.

- J-M Acoustical Ceilings—of demountable units which provide for a flush-type arrangement of fluorescent lighting.
- 3. J-M Asphalt Tile Floors—decorative; resilient; composed of individual units, permitting easy office alterations.

By using these three J-M Building Materials together, you achieve the complete flexibility which businessmen will demand in the post-war era. And—you write one simple specification; you gain one manufacturer's responsibility.

For further information on the J-M System of Unit Office Construction and how it can solve many future design problems, send for brochure, "Unit Offices by Johns-Manville." Write Johns-Manville, 22 E. 40th St., New York 16, N. Y.

where you want them

Here is the present layout of all the offices indicated in the corridor view at the left. Should a new layout become necessary, a rearrangement can be made quickly and economically. In addition to beauty and flexibility, another important advantage of J-M Unit Offices is the unusually low maintenance expense. This is due to the nature of the materials ... durable and easy to clean.

The Johns-Manville system of unit office construction now makes it possible to combine *permanence* with *flexibility*

Here are the three reasons why



MOVABLE WALLS...J-M Transite Walls are strong, sturdy, durable. They provide a complete system of dry wall construction, including the furring of exterior masonry walls. Although they have the appearance of permanent partitions, Transite Walls can be taken down and relocated almost overnight with 100% salvage. They are available for any height—even for low railings and counters. Made of asbestos and

cement, compressed under terrific pressures, they have a smooth, hard surface that withstands shock and abrasion. They're fireproof and will last indefinitely. May be left in their original attractive gray finish or they may be painted or decorated as desired.



ACOUSTICAL CEILINGS ... Ceilings of the J-M Unit Office System are sound-absorbing acoustical units which permit hung ceiling construction, concealing airconditioning ducts and overhead conduits. Since the units are demountable, this service equipment is readily accessible. J-M acoustical units are easy to clean, easy to maintain. They have a high lightreflection coefficient. An added fea-

ture is the exclusive J-M patented construction permitting interchangeability of flush-type fluorescent lighting and acoustical ceiling units.



Johns-Manville Unit Office Construction WALLS ... CEILINGS ... FLOORS

COLORFUL, RESILIENT FLOORS ... J-M Asphalt Tile Floors complete the J-M Unit Office System. Quiet and comfortable to walk on, they are easy to clean, easy



to maintain. Made of asbestos and asphalt, they will withstand hard wear and give years of service. Manufactured in small units in a wide variety of plain and marbleized colors, they lend flexibility to a great many designs and patterns. The individual units make it simple to extend the floor without evidence of patching or to replace tiles damaged by accident or office alterations.



Ever say to a building... "let's get tough."



IT'S REALLY TOUGH! Careystone is made of two of the most durable materials known - asbestos and Portland cement.



GOES ON FAST! 35-squarefeet-at-a-clip application cuts erection time to the bone.

THE PHILIP CAREY MANUFACTURING CO. LOCKLAND, CINCINNATI 15, OHIO

Careyduct		
Built-up	Roofing	
Expansio	on Joint	

Industrial Insulations ٠ . **Roof Coatings and Cements**

Carey stone Corrugated Asbestos Cement Roofing and Siding make a building really tough-but quick! No wear-out to it. The first cost is low and it's the last. No periodic maintenance required.

Careystone is in service on hangars, chemical plants, railroad buildings, foundries, factories and warehouses . . . and on buildings exposed to the corrosive effect of salt air. It's a "natural" where atmospheric conditions are rough on buildings.

For engineering, erection, application or performance data on Careystone, consult your nearest Carey branch or write ----



.

Rock Wool Insulation . Waterproofing Materials

PROTECTION GOES CLEAR THROUGH! No coatings. Structural and protective material are one.



WON'T BURN. It's naturally fireproof. Won't rot, rust or corrode. Ordinary industrial fumes or salt air won't phase it.

CANADA: THE PHILIP CAREY CO., LTD. OFFICE AND FACTORY: LENNOXVILLE, P. Q.

Asbestos Shingles and Siding Asphalt Shingles and Roofings Asphalt Tile Flooring . Pipeline Felt Asbestos Wallboard and Sheathing . Corrugated Asbestos Roofing and Siding . Miami-Carey Bathroom Cabinets and Accessories

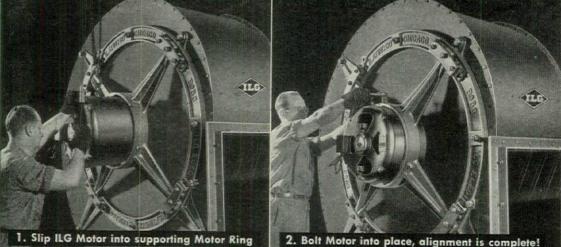
FOR THE ARCHITEGT

You'll find helpful data and suggestions for the use of aluminum in the 1945 edition of Sweet's Architectural Catalog. ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh 19, Penna.



"Aluminum roof installed 1933, East Liberty Presbyterian Church, Pittsburgh."

OW DOES ILG REDUCE INSTALLATION COSTS?



2. Bolt Motor into place, alignment is complete!

By building Centrifugal Fans which can be permanently aligned in two easy steps!

Many are the contractors, architects and engineers who save time, headaches and money by specifying ILG Direct-Connected Centrifugal Fans! With fan wheel suspended and driven directly from the motor shaft, permanent alignment is secured by following the two easy steps pictured above. This compact, simple, rugged design also makes it possible to partially recess motor into side of casing, saving valuable inches of space!

And each ILG Fan is so arranged that it can be quickly bolted into place on floor, wall or ceiling - bringing you savings in space, time and money all along the way.

Think of it - neither belts nor pulleys to require alignment, cause shut-downs for replacement, need frequent servicing-no expensive guards to buy! You no longer need to allow for constant power-wasting friction losses, nor for reduced air delivery because of uncontrollable slippage. Get latest data-and free copy of 88-page ILG-BOOK-by calling nearby Branch Office (consult classified directory) or writing us today.



VITALIZED VENTILATION

AND AIR CONDITIONING

FREE! 88-page book on solutions to ventilating problems.

WANTED: GRADUATE ENGINEERS! for ILG Branch Offices, Research, Engineering Departments. Exceptional opportunities now and post-war for graduates of accredited technical schools. Send details on education, experience, health, age, marital status, etc.

ILG ELECTRIC VENTILATING CO., 2899 N. Crawford Avenue, Chicago 41, Ill., Offices in 38 Principal Cities



Ask the ladies about ...

the new "Standard" Duo-Use Bathroom



They'll tell you why they want it in their home of tomorrow!

"Gives me two bothrooms in one!" "Saves space!" "Ideal for a big family!" That's what you'll hear if you ask the ladies what they like about the new "Standard" Duo-Use bathroom. This new idea in bathroom design provides for a dividing wall that enables two people to use the bathroom at the same time, each in complete privacy. One section contains the bath and shower. The other, containing the lavatory and water closet, makes an ideal powder room. No extra fixtures or piping necessary!

You see above just one of the many ways in which the Duo-Use idea can be adapted. Extra doors can be added for accessibility, extra cupboards and closets

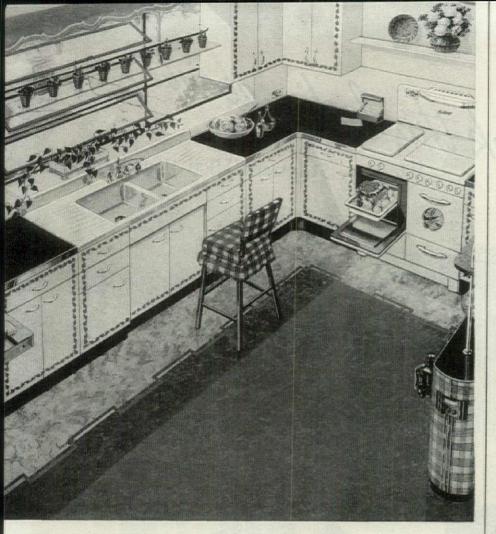
for convenience. And the new "Standard" Duo-Use bathroom is just as practical for hotels and apartments as it is for homes. Follow AMERICAN -"Standard"

advertising in leading magazines for new suggested stylings. As an architect or builder you'll find many an idea that can be put to practical use in planning the home of tomorrow.





New York CORPORATION Pittsburgh



PUT MRS. CLIENT IN THIS PICTURE! Just put her in a picture like the one above. Put her in the kind of modern, dreamlined kitchens which architects and builders are planning for tomorrow. Put her in front of the modern, beautiful ESTATE HEATROLA RANCE that will be the center of so many of these kitchens. For the ESTATE HEATROLA RANGE has always been the range that's years ahead in features. Estate was first to introduce modern table-top design to change the whole trend of kitchen planning. First to introduce the Air-Flow oven, the Grid-All, the Bar-B-Kewer and other much appreciated features.



ONE REASON I WANT an Estate Heatrola Range is that wonderful Bar-B-Kewer (separate meat oven) which lets me bake a cake while I *broil* a roast...saves mealtime traffic jams at the oven door.



EVERY ARCHITECT KNOWS there are trend-setters in every field. And through the years, no range has been so consistently out in front with the newest features and advanced design as the Estate Heatrola Range.

Estate Heatrola Ranges for City Gas, LP-Gas and Electricity are made by The ESTATE STOVE CO., Hamilton, Ohio - First with the finest for over 100 years.

MONTH IN BUILDING: NEWS

(Continued from page 16)

capita, in Brazil it amounted to only 22 pounds per capita.

For Brazilian building, which leads the world in its wide expression of contemporary design, the plant promises an opportunity to exploit steel frame construction. Massive reinforced concrete has been used to produce Brazil's exciting architecture, and the steel plant itself makes use of this structural technique, rarely used for big U. S. building jobs.

Structural steel, largely imported, has heretofore been scarce and high-priced, while the greater amount of labor required for reinforced concrete construction has been readily available and inexpensive. (In Brazil, labor costs only half as much as in Argentina and Uruguay. Even at top city prices, a common laborer gets 80 cents for an 8-hour day, a carpenter \$1.45, while a foreman may earn up to \$75 a month.)

Everybody in the U.S. has a 35 cent stake in Brazil's big steel plant, for it was financed with the help of a \$45 million dollar credit extended by the Export-Import Bank and guaranteed by Brazil's Treasury Department, which holds a majority of stock in the enterprise. Total cost of the plant and integrated works and railway extensions amounts to about \$100 million. The U. S. is presently shipping the last parts of the rolling mill for which Brazil has been waiting a long time. Twice rolling mills were earmarked for Brazilian purchase, but war need sent one to Russia. the other to Henry Kaiser at Fontana.

OUTLOOK

Early last month WPB made it clear that it had no immediate notion of abandoning its determined pessimism about Building prospects. Even essential construction must pull in its wartight belt another notch, WPB said, asking specifiers to prune use of short materials. WPB's view:

Lumber: Extremely tight, especially in 1 and 2 in. boards. Situation growing worse (see above).

Plywood: Softwood plywood very short. Hardwood plywood not under controls but also critical.

Building boards: Some types are short, others easy. Local supply should be checked before specifying.

Roofing materials: Wood shingle supply very tight. Asphalt roofing becoming tight due to heavy military and overseas requirements.

Steel: Sheet and strip very tight, plate easier. Structurals tight. Rod and bar tight. (Continued on page 24)





THE DRESSETTE FLOOR PLAN Right or left-hand installations provided. The Junior Dressette offers spacesaving features for the small bathroom or powder room. The Eljer Dressette combines a high-quality and modernly designed lavatory and closet in an efficient unit ... an Eljer spotlight feature that gives profitable distinction to your bathroom planning and building.

In the Dressette, the usual visible tank is replaced by a separate unit built under the shelf of the lavatory. The water flows through a concealed pipe to provide an extremely quiet flushing action. The flush lever is on the side of the lavatory. The same principles are offered in a smaller size by the Junior Dressette. Both are made for right or left-hand installations.

These Dressette units represent the sound foresight found in all Eljer planning and engineering. Assure yourself of client and customer acceptance ... specify Eljer and build with Eljer plumbing fixtures.

ELJER CO. . FORD CITY, PA: SINCE 1907 MAKERS OF FINE PLUMBING FIXTURES **GENERAL ELECTRIC** brings you another in its series of postwar lighting perspectives. And this time it's stimulating suggestions for a gasoline service station or garage by George Cooper Rudolph, New York.



OLINE

Beste

me

G-E MAZE

GENERA

ELECTRIC

G-E MAZD

SENERAL

LECTRIC

A postwar opportunity to attract customers ...

"More merchandising is the heart of most postwar activity planned for service stations. And one of the best tools to aid merchandising is light!

Result: In our sketches we have tried to suggest some of the many effective applications possible with light . . . applications that will help attract customers, that will invite them to buy.

For example, in this service station we have conceived of a "ceiling of light", built around a standard, simplified unit . . . a panel of light which could be produced in quantity. By means of a switching arrangement, a choice might be offered between all ceiling panels lighted or the interesting pattern created by lighting only alternate panels. The same standard units could be applied to

> ceilings of lubritorium and washroom. To supply extra sales punch for featured items in the pump-island display cases, spotlights have been built into the canopy."

This new booklet, "Super service . . . with LIGHT", brings you more details on Mr. Rudolph's ideas for lighting a postwar service station. Write General Electric Co., Dept. 166-AF5, Nela Park, Cleveland 12, Ohio.

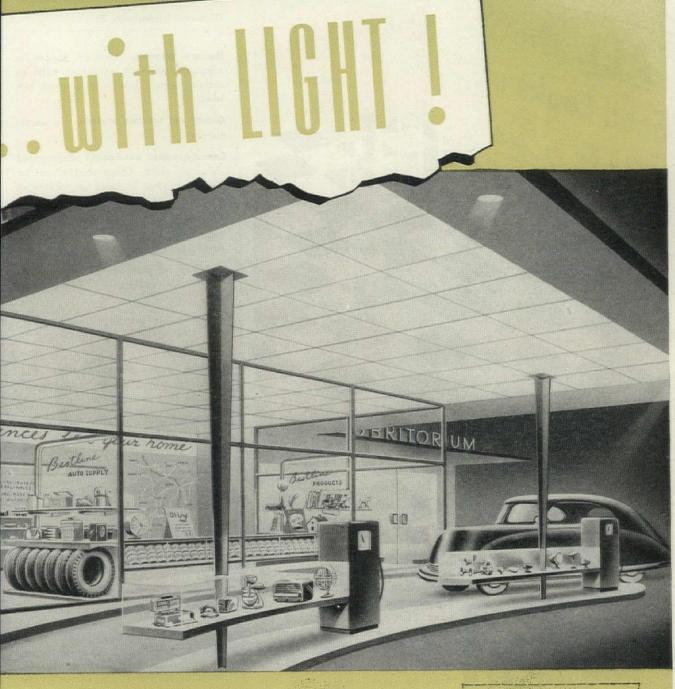
Đ



HONDR

Hear the G-E radio programs:"The G-E All-Girl Orchestra," Sunday 10:00 p.m. EWT, NBC; "The World Today" news, Monday through Friday 6:45 p. m. EWT, CBS; "The G-E Houseparty," Monday through Friday 4:00 p. m. EWT, CBS.

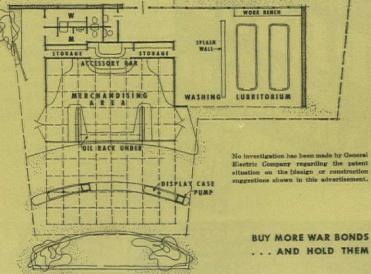
GE MAZDA LAMPS



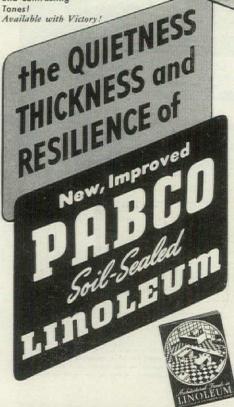
This floor plan indicates a standard layout for a chain of service stations — but single station operators also will find its suggestions helpful.

THE CONSTANT AIM OF G-E LAMP RESEARCH IS TO MAKE G-E LAMPS

Stay Brighter Longer!



Patterned in 9-inch **Cross-Directional** MARBLED SQUARES in One Tone, Two Tones and Contrasting Tonesl Available with Victory



ALL the

Good Looks of

LE plus

* Each Marbled Square is richly marbleized, with distinctive graining and real depth and purity of color. Each square is set cross-directional to add to the charm of the floor and skillfully hide all seams!

* It's the more practical floor, too! For Pabco Linoleum is Soil-Sealed to resist dirt, stains and scuffmarks - and Super-Waxed for easycleaning. Built-in quietness, resilience, thickness! And, importantany area or single 9-inch Marbled Square can be replaced if damaged or heavily worn without appearance of "patching."

WRITE for 24-page, full-color "Architectural Trends In Linoleum," Dept. 1045, nearest Pabco Office below.

> 60 years MANUFACTURING

Since 1889



MONTH IN BUILDING: NEWS

(Continued from page 20)

Masonry products: Over-all supply is adequate, although shortages exist in certain areas. Inventory at very low level.

Coment and concrete products: In ample supply.

Cement-asbestos products: Corrugated sheets are short. Other products in fair supply, subject to moderate delays in delivery.

Screening: Very tight and subject to tight controls. Only limited emergency supply for civilian use.

Cast iron soil pipe: In extremely short supply. No practicable substitute available.

Pressure pipe: Orders far exceed production. Non-metallic substitutes recommended

Plumbing fixtures, fittings and trims: Fixtures generally available. Fittings and trims in very short supply.

Heating equipment: In short supply, particularly cast iron radiation and steel boilers.

LABOR

RECONVERSION HURDLE

The Richmond Radiator Co. plant at Uniontown, Pa., made a reconversion back-track last month. There was no lack of materials. The trouble: a wage argument. Since January, 1944, the Richmond plant has been devoting 10 per cent of its capacity to bathtubs exactly like its prewar product, all for the use of the National Housing Agency, the Army, the Navy. The rest of its em-ployes are still busy heat-treating armorplate, for which they are paid 78 cents an hour. In April Richmond Radiator argued before a regional War Labor Board session that it was necessary to cut wages of employes working on bathtubs to 721/2 cents an hour "to meet price competition." In June, 1942 the rate for this kind of work had been 671/2 cents. Protesting the cut, United Auto Workers won a favorable WLB decision. Said regional WLB chairman Sylvester Garrett:

"Were the employer's position in this case agreed to generally, wage levels throughout the country would be substantially reduced during the reconversion period. Such a policy, if pursued by the War Labor Board and other stabilization agencies, undoubtedly would (Continued on page 28)



After the war, more and more people will want the solid satisfaction

provided by Automatic heating with Anthracite. Wartime has proven the advantages* of D & H Anthracite, establishing it as "The Fuel of the Future." To make this comfort de luxe available to your clients, specify Anthracite burning equipment in plans for postwar homes.

HEALTHFUL: Anthracite provides constant, even heat—not constantly fluctuating between hot and cold "on" and "off" periods.

CLEAN: Since Anthracite contains but a negligible amount of hydrocarbon, it burns with absolutely no smoke or soot. Clean heat!

ECONOMICAL: D & H Anthracite is especially economical, because of its high heat content. It provides more heat from less fuel.

CONVENIENT: Regulators, stokers, etc., make the use of Anthracite automatic, effortless. Amazing advances in postwar equipment.

The HUDSON Coal Company

SCRANTON, PENNSYLVANIA



Tune in D & H Anthracite's Sunday Morning World News, 9 A. M., every Sunday, CBS



Illustrated from Bryant national advertisement

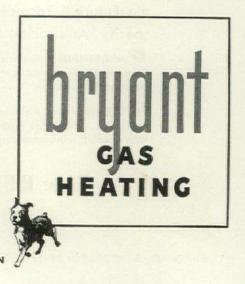
YOU WRITE THE HAPPY BEGINNING!

Tomorrow's new home buyers will be wise buyers. They will expect from you what you always have wanted to give them ... homes with more comforts!

The problem of heating probably will be left more completely in your hands. And Bryant gas heating, backed, postwar, by the nation's most complete line of gas home heating equipment, often will supply your best answer. You will have a far wider choice of efficient, automatic gas-operated units, ranging from individual room heaters to complete central heating installations, equipment to accomplish zone heating for the large residence or to tuck away in a closet of the small basementless home.

Yes, an expanded line of Bryant gas heating equipment will be available in the days ahead. With it, you can start new homeowners off without a single heating worry by writing Bryant gas heating into your plans.

THE BRYANT HEATER CO., CLEVELAND, OHIO One of the Dresser Industries





IS that the same roof construction we've used on our other buildings?"

WHAT'S GOING

ON HERE ?

"Sure it is. Our first Federal Roof was installed 26 years ago ... it proved so satisfactory we've used Federal on every plant addition built since."

"But Bill, wouldn't a cheaper roof deck serve the same purpose?"

"For a limited time perhaps, but we know from experience that precast concrete gives us the most for our money."

"Hmm-how about maintenance costs?" "They're aren't any! During all those years we've never had to spend a dollar on painting, repairs or replacements."

"That's a wonderful record, Bill."

"Now you know why nobody has to sell me a roof-when we need one, I buy Federal!"

• Thousands of "Bills" know the proven dependability of Featherweight Concrete Precast Roof Slabs. That's why industrial, institutional, government and railroad buildings all over the country are roofed with Federal for safe, fireproof, all-time protection.

CHANNEL SLABS for flat or sloping roofs (composition covering required) . . . NAILING CONCRETE SLABS, surface securely holds slate, tile, copper or other ornamental roof . . . RED INTER-LOCKING SLABS for sloping roofs only, no covering required.



FEDERAL CO. TEMENT 608 SOUTH DEARBORN ST. * CHICAGO 5, ILL.

For Over 38 Years * Sales Offices in Principal Cities

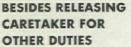


In response to your inquiry relative to what kind of service we have been getting from the 300 lb. Winkler Stoker installed three years ago in our forty-three unit apart-ment building located at 3777 N Meridian Gentlemen: unree years ago in our forty-three unit apart-ment building located at 3777 N. Meridian Street, we are pleased to advise that in checking over the expenses, we found that we have made an attractive saving in coal, labor, and depreciation of boiler since it was installed

in our Pacific Steam boiler. The first year we saved over one carload of * coal, besides labor which permitted our caretaker to be available for other duties. Our caretaker informed us this week that he has caretaker informed us this week that he has been using only six wheelbarrow loads of used more than twelve wheelbarrow loads for a 24 hour day before installation of the 24 hour day before installation of the

a 24 hour Winkler Stoker. We are pleased to give you this information and if you ever need a recommenda-tion you may refer to us. Yours very truly,

(NAME ON REQUEST)



MONTH IN BUILDING: NEWS

(Continued from page 24)

produce a substantial deflationary pressure on the nation's economics."

After the regional decision, Richmond Radiator abandoned all tub production, hurried to appeal to Washington.

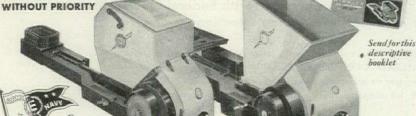
HOUSING STRIKE

When the Cities Service Refining Corp. set up the Maplewood Housing Corp. to undertake the biggest private rental housing project built during the war, it hoped to avoid any semblance of the old-time "company town." Joining hands with John W. Harris Associates, Inc. (builders who had a big part in Rockefeller Center, the Chicago Board of Trade building and the Tribune tower, other giants), Cities Service planned over 1,000 units, most of them one-family dwellings, to house workers at its new refinery at Lake Charles, La. -the nation's biggest integrated highoctane and butadiene plant. The Housing Corp. was to operate as a completely independent entity, and the 1,000-house town was to have its own mayor and its own police force. To Cities Service the housing development looked like a good idea all the way around: there was no housing available in tiny, crowded Lake Charles; prospect was that the efficient new refinery had a future stretching beyond war need; most of the tenants would be skilled workers earning wages that would support economic rents. The investment also looked like a good one to the Equitable Life Assurance Co., which took two mortgages totaling \$5,-790,000, both covered by Federal Housing Administration insurance.

But in mid-April the very thing Cities Service had most hoped to bypass was making headlines. An angry picket line shut down the refinery. Lost in ten strike-bound days was enough high octane gasoline to send 10,000 bombers over Tokyo, enough regular gasoline to move 30 armored divisions 100 miles. On the ninth day, President Truman ordered Secretary Ickes to seize and operate the plant. Strikers' grievance: rents were too high in the Maplewood project.

The protest was not new. Almost as soon as workers began moving into the attractive redwood houses, set pleasantly in a pine-wooded site along curving, dead-end streets, there were complaints about rents, which ranged from \$66.50 for a three-bedroom house down to \$30. Although many Lake Charles residents believe that these rents are a good deal higher than those for comparable (but not vacant) accommodations in the area,

(Continued on page 32)



NKL

fully automatic STOKERS

Everybody, these days, knows that stoker-firing reduces heating costs. How

In a Winkler Stoker, the inherent economies of stoker-firing are developed to

the utmost by sound engineering and failure-proof construction. From the

moment coal leaves the hopper or bin it is handled in a manner which permits full

utilization of its heat content. With minimum segregation of sizes, the coal is smoothly conveyed to the retort, where it is burned in an accurately metered

NO SHEAR PIN!

The Winkler further saves money because of service-free operation. The extra power developed by its *internal planetary gearing* is ample to crush all ordi-nary obstructions. If a metallic or uncrushable object should block the feed screw,

air flow which assures complete, smokeless combustion at the proper rate.

much, however, depends upon the efficiency of the stoker itself.

the Winkler Safety Release automatically and continuously disengages and resets the transmission until the blocking object

is removed. The Winkler then resumes normal operation with no shear pin to replace.

U. S. MACHINE CORPORATION . LEBANON, INDIANA

ALL WINKLER MODELS

ARE NOW AVAILABLE

BRIGHTEN THE OUTLOOK WITH

uminum Windows

Hospital managers appreciate aluminum windows. They find that these windows are easier to open and close throughout their long life. Also that frames, sash and sills are attractive, and easy to keep looking that way. The narrow sections provide greater glass areas.

Men responsible for upkeep find that aluminum windows save money. U. S. Naval Hospital, Philadelphia, Pennsylvania Architects: Walter T. Karcher and Livingston Smith Aluminum spandrels, sills, main entrance, interior trim pilasters, and miscellaneous uses in a sunroom.

These windows never need painting; no rusting or rotting to give trouble. There's no warping or swelling to cause sticking.

To satisfy yourself on all these points, inspect some aluminum windows. Write for a list of nearby installations. ALUMINUM COMPANY OF AMERICA, 1866 Gulf Building, Pittsburgh 19, Pennsylvania.



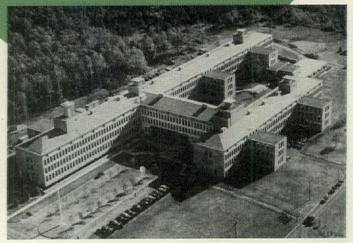
If you are planning

NEAD & 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 postwar 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 or reconversion problems.

Write us about the type of project you are planning, and we will gladly send you specific illustrated material.



LABORATORIES

LIBRARIES

HOSPITALS

OFFICE BUILDINGS

FACTORIES

VOORHEES, WALKER, FOLEY & SMITH, Architects

The largest single installation of steel partitions and wainscoting in the world was designed, manufactured and erected by Snead & Company for the Bell Telephone Laboratories, Inc., at Murray Hill, N. J. This modern research laboratory was designed for extreme flexibility of services necessary for the ever changing needs of space and equipment. Snead Mobilwalls for all interior subdivisions and Snead removable exterior wall wainscot for instant access to all service lines were chosen to best meet these requirements.

Snead MOBILWALLS

Engineers, manufacturers and erectors of metal equipment

FOUNDED 1849

SNEAD & COMPANY

JERSEY CITY 4, N. J.

ORANGE, VA.



"INSULITE has anticipated a postwar problem"

savs **MERTON E. GRANGER Prominent Architect** Syracuse, New York

Recent example of Mr. Granger's designing

MERTON E. GRANGER, A. I. A., president of the Syracuse, N. Y. Society of Architects, is already at work on plans for the postwar homes his clients will build.

"Tomorrow's homes," Mr. Granger says, "will present new problems in construction that must be frankly faced by the architect. One is the problem of vapor condensation within walls due to new methods of air-conditioning and heat control.

"I believe that the Approved Insulite Wall of Protection presents an effective answer to this problem. Certainly, the Insulite type of construction will effectively guard against moisture w problem by widespread.

Write for Wall of Pro



· On outer-walls, Insulite Bildrite Sheathing builds a wind-proofed, weather-tight wall of high insulation efficiency, superior bracing strength, a wall free from open cracks and knotholes.

· On inner-walls, Insulite Sealed Lok-Joint Lath builds a second wall of insulation, a rigid plastering surface. Lath marks are eliminated, plaster cracks reduced to a minimum.

· Sealed Lok-Joint Lath, with asphalt barrier against the studs. retards vapor travel. Bildrite Sheathing, being permeable to vapor, permits what vapor escapes the barrier to pass outside.

ithin walls. Insulite has anticipated this postwar developing this wall before the need for it was " complete technical data on the Approved Insulite tection. The coupon will bring it by return mail.	INSULITE, Minneapolis 2, Minn., Dept. AF55 Please send me your free booklet, "Scientific Facts."
	Name
lis 2, Minnesota	Address
Structural Insulation	ion City
Ande Exclusively From Wood	State

IN Minneapo

MONTH IN BUILDING: NEWS

(Continued from page 28)

the rental scale was approved by the National Housing Agency when priorities were granted. Slow-moving rentals slashed the planned 1,065 units to 789, and 100 of these are still unrented. When tenants protested the rents, the Corp. made a temporary reduction of \$12 on the \$66.50 house and shaved other rents proportionately, pending completion of community services. By March all streets were paved and lawns carefully landscaped. Maplewood's community center was complete with an A & P super-market, school, drugstore, movies. Back up went the rents.

In mass-meeting 500 tenants went on a rent strike. Maplewood Corp. started spot evictions. The Navy made an unsuccessfullly try at reconciliation. On April 9, tenants voted to go "house hunting," formed a picket line around the plant by midnight. Shouted Maplewood's tall, fiery-haired Mayor, no union man: "We'll keep picket lines at the refinery until our rents are reduced, and we won't work for the government. Cities Service or anyone else until we get rents down." Grumbled the local AFofL Metal Trades Council, bargaining agent for the open-shop plant and unfairly accused of cooperating in the strike: "If the government agents charged with the welfare of the people and the war effort were as quick to act in the proper direction as they are to implicate people who have no part in the controversy, this trouble could have been avoided or corrected long ago." Cities Service and Maplewood Housing Corp. said not a word.

Day after the government moved in the picket line broke up. But there was no settlement of the rent controversy. Under the War Powers Act, the National Housing Agency would be able to seize this privately-owned housing project-if directed to by the Petroleum Administration for War-and turn it over to the Federal Public Housing Authority to operate. Labor men in Washington urged that this would make much more sense than government operation of the plant. By month's end Cities Service may have wished privately that it had never gotten into the housebuilding business, but had made no move towards appeasement.

Since January 1, 1943, TIME, LIFE, FORTUNE and THE ARCHITEC-TURAL FORUM have been cooperating with the War Production Board on conservation of paper. During the year 1945, these four publications of the TIME group are budgeted to use 73,-000,000 lb. (1,450 freight carloads) less paper than in 1942. In view of the resulting shortage of copies, please share your copy of the FORUM with friends.

Easy to look at, Easy to work with

"U.S." Naugahyde upholistery

worth including in your future plans

"U. S." Naugahyde's striking colors are wide in selection, delicate in hue, permanent in their neverdimming characteristics.

"U.S." Naugahyde is so pliant that it is easily formed into every curve, bend, recess or angle — greatly simplifying tailoring problems.

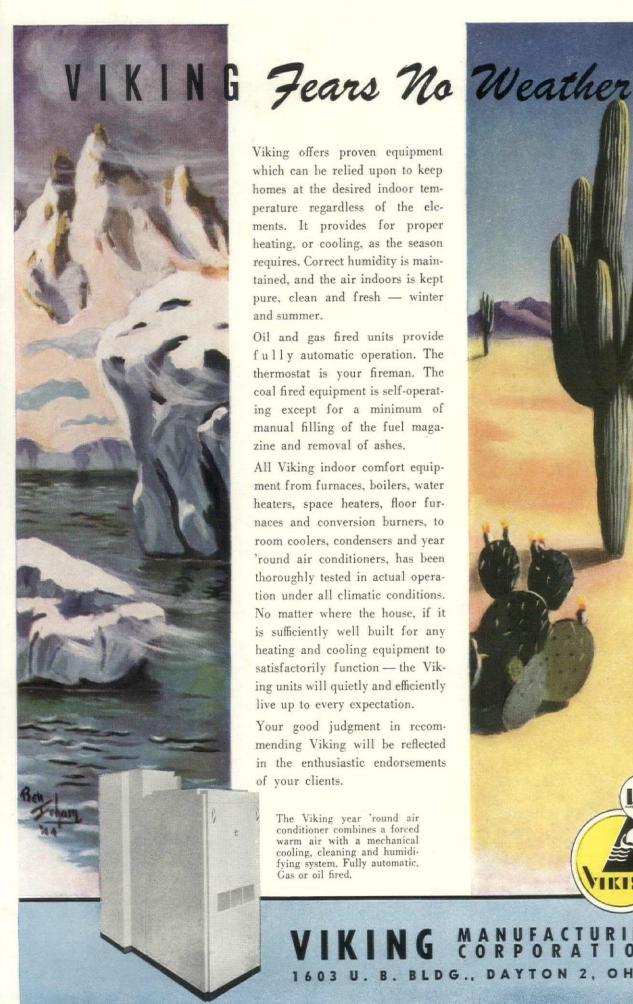
"U. S." Naugahyde's resistance to the most gruelling wear, the attack of all kinds of deteriorating agents and common, ordinary dirt assures complete satisfaction to decorator and user alike. "U. S." Naugahyde cleans easily—simply use soap and water.

> At present, "U.S." Naugahyde is proving its sturdiness in the toughest test of all . . . war. But information that should prove helpful to your postwar planning will be furnished on request. Write us today.

COATED FABRICS DIVISION · Mishawaka, Indiana

Serving Through Science

Listen to "Science Looks Forward"—new series of talks by the great scientists of America — on the Philharmonic - Symphony Program. CBS network, Sunday afternoon, 3:00 to 4:30 E.W.T.



Viking offers proven equipment which can be relied upon to keep homes at the desired indoor temperature regardless of the elcments. It provides for proper heating, or cooling, as the season requires. Correct humidity is maintained, and the air indoors is kept pure, clean and fresh - winter and summer.

Oil and gas fired units provide fully automatic operation. The thermostat is your fireman. The coal fired equipment is self-operating except for a minimum of manual filling of the fuel magazine and removal of ashes.

All Viking indoor comfort equipment from furnaces, boilers, water heaters, space heaters, floor furnaces and conversion burners, to room coolers, condensers and year 'round air conditioners, has been thoroughly tested in actual operation under all climatic conditions. No matter where the house, if it is sufficiently well built for any heating and cooling equipment to satisfactorily function - the Viking units will quietly and efficiently live up to every expectation.

Your good judgment in recommending Viking will be reflected in the enthusiastic endorsements of your clients.

> The Viking year 'round air conditioner combines a forced warm air with a mechanical cooling, cleaning and humidifying system. Fully automatic. Gas or oil fired.

ING MANUFACTURING U. B. BLDG., DAYTON 2, OHIO



It's Homemaking Time Again

This little home-building, feathered fellow with his jaunty Defoe yachting cap and his pretty mate symbolize what thousands of American families would be doing about now if this were a normal, peaceful spring.

• Perhaps next spring will be—and you will be building a new home. In the meantime, you can keep adding to your nest-egg of War Bonds which will help finance it. And we at Defoe can plan ahead for the surprising and thrilling things we will be able to build into it for you.

• • Of course, Defoe's engineering experience and production facilities are now being used only to build more warships and badly needed cargo ships for the Navy. However, the postwar plans of our Housing Division are progressing. New methods of manufacture are being worked out and a host of building materials put through a series of exhaustive tests to make certain that the new Defoe homes will set the pace for living comfort, efficient functional design, beauty and individuality of exterior treatment.

• Follow the story of Defoe's little homemaking birds in subsequent advertisements and let them lead you to eye-opening developments in a new concept of housing for Americans.

HOUSING DIVISION - DEFOE SHIPBUILDING & COMPANY, BAY CITY, MICH.



ななななな Five White Star Renewal Citations now decorate the Navy "E" Award won by Defoe workers.

SHIPS FOR VICTORY SERVANTS FOR PEACE are offered this

architects

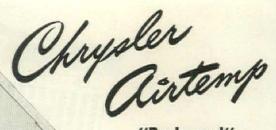
IRING

AND

Jata book FREES

In this most comprehensive handbook, the architect will find accurate, clear information on electrical conduits, surface raceways, wires and cables and their fittings. In addition, there is page after page of electrical data and handy reference tables. This book will help solve many problems in building wiring, the housing of wires and cables, and their installation. For meeting today's electrical problems and those of tomorrow, it will be an invaluable help. Write today for your copy.

Pittsburgh Pa



"Packaged" Air Conditioning

Modern Banks Require Air Conditioning, Too!

The daily traffic flow in banks is tremendous because they are a vital link in American business. It is highly essential for both architect and banker to appreciate the simple fact that air conditioning in banks is a must for tomorrow. "Packaged" Air Conditioning, pioneered by Chrysler Airtemp, is ideal for banks. Flexible and easy to install, these dependable, trouble-free and timetested Chrysler Airtemp units, with the hermeti-

cally sealed compressors, can be used singly or in multiple. These units can be installed with or without a duct system. Clean, cool, properly dehumidified air can be supplied to all areas in such a way as to add to the efficiency of workers as well as the comfort of patrons. Turn to Chrysler Airtemp when making modernization plans or designing new buildings for banks. • Airtemp Division of Chrysler Corporation, Dayton 1, Ohio.

Buy More War Bonds! Tune in Major Bowes every Thursday, CBS., 9 p.m., E.W.T.



This Fire Started 15 Years Ago in the Specifications

STOP FIRE! Plaster Does It Better

It's too late now... to go back 15 years and take "tinderbox" walls and ceilings out of this house.

But it's not too late... to make future homes more secure from fire. Make no mistake ... the man who designs has the lives and possessions of his clients right in his hands when he writes the specifications.

A fire-armor... Plaster made of gypsum, a material that cannot burn, applied over Rocklath, a gypsum fireproof base, covers the structural members with a fire-armor... always on guard...holding fearsome fire in check...when it comes to fighting fire *plaster does it better*.

And that's not all... Base coat plaster, with the final touch of U·S·G Finishing Lime, produces walls and ceilings of lasting beauty ... flexible to the will of the designer and the skill of the craftsman. Be sure with plaster... and be sure to specify U·S·G Plaster Products from base to finish.

Rocklath and U-S-G are trademarks owned by United States Gypsum Company



United States Gypsum

For Building • For Industry

Gypsum · Lime · Steel · Insulation · Roofing · Paint



The meaning of "Quality" is clearer ... now

• These stringent times of supply scarcities have demonstrated that there is no substitute for quality. This fact is going to be remembered.

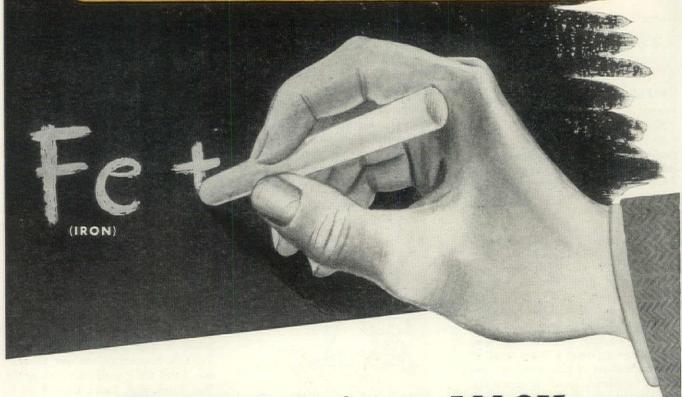
"Quality," long a word with but abstract meaning for many, once again is clear to all. It means that substitute products, whether high or low in price, whether they be tires, cigarettes or clothing, do not deliver full value. They do not give the lasting satisfaction you get from established, trademarked, high quality goods.

Builders hardware will benefit, postwar, from this awakened consciousness that *quality* is the yardstick by which all goods and services should be measured. And rest assured, that when civilian production is resumed, high quality craftsmanship and materials – always traditional with P. & F. Corbin—will produce *quality* builders hardware to meet every demand.



THE AMERICAN HARDWARE CORPORATION, SUCCESSOR NEW BRITAIN, CONNECTICUT • SINCE 1849

FORMULA FOR LONGER SHEET METAL LIFE



Toncan Iron is an ALLOY

that has the Highest Rust-Resistance of all Ferrous Materials in its Price Class

The outstanding performance of mechanized implements of war has further demonstrated the greater advantages obtainable through the alloying of various metals. That's why Toncan Iron—known for its rust-resistance for some 35 years should be more popular in the future than ever before.

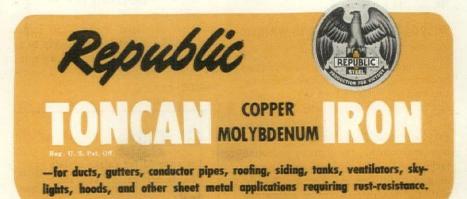
Toncan Iron is an alloy-with the highest rust-resistance of any ferrous material in its price class. It

SEE SWEET'S FILE or write us for detailed information on these Republic Building Products Pipe—Sheets—Roofing Enduro Stainless Steel Toncan Enameling Iron Electrunite E.M.T. Fretz-Moon Rigid Steel Conduit Taylor Roofing Ternes Berger Lockers, Bins, Shelving, Kitchen Cabinets Truscon Steel Windows, Doors, Joists and other building products is made from highly-refined openhearth iron (Fe) with which copper and molybdenum have been alloyed in correct proportion. It has *twice as much rust-resisting copper* as found in copper-bearing steel —along with *molybdenum* to make the copper more effective.

Toncan Iron is one of the easiest materials to fabricate, too—because it is commercially-pure iron, processed for high ductility. And no matter how you work Toncan Iron, you can't weaken its rust-resistance -for it goes all through the metal.

When you are asked to specify a material to fight rust, you'll find the best answer in Booklet No. 406, "A Few Facts About Toncan Iron for Architects and Engineers."

REPUBLIC STEEL CORPORATION GENERAL OFFICES • CLEVELAND 1, OHIO Export Department: Chrysler Bildg., New York 17, N.Y.



LETTERS

Farmhouse critique . . . Allen's daze . . . G.I. questions from a would-be architect . . . Architecture and politics . . . Memorial at Pearl Harbor . . . A letter from India.

UNPARDONABLE FARM HOUSES Forum:

Someone should raise a voice of objection to the effrontery which the National Association of Home Builders has labeled a "Farm House"; prize winning design displayed at their recent convention, and published in the February ARCHITECTURAL FORUM on p. 9. So I'll object.

As an architect I object to the atrocious taste displayed. I object to the foisting of "1929-country-estate-neo-Cape-Cod-style" as prize winning postwar housing. It wasn't good in 1929, is unpardonable in 1945, and thoroughly unprofitable for 194X, I trust.

But as a farmer I object most vehemently. As a farmer I object to all of the implications of that building-economic, functional, social. Even if a farmer wanted such a house, how on earth is it presumed he could pay all at one time for building it, as it is designed. Compared with the industrial worker's home, same competition, the farmer's income must be something. But what farmer would want his new home planned without regard for his special requirements - proper orientation, a clean-up room between the house and barns, a place to conduct his farm business, adequate storage planned for the extra needs of a farm household, an environment providing relaxations and diversions ordinarily offered by the community in more heavily populated areas, an opportunity to expand in small units. How about publishing a good 194X farmhouse? WILLIAM B. FYFE

Woodstock, Ill.

For an authoritative statement on farm house requirements see THE FORUM, April '45, pp. 141-4.—ED.

WILDCATS vs FRANK LLOYD WRIGHT Forum:

The annual meeting of the Michigan Society of Architects was memorable for two things; Frank Lloyd Wright spoke and an architect from Battle Creek, Mr. A. B. Chanel, showed me some photographs of a wildcat that he shot with a bow and arrow. On mature reflection maybe we had the program wrong; maybe we should have matched Mr. Wright with the wildcat, naturally giving the wildcat the first two bites in an effort to even things up.

I hesitate to go blabbing the information all around as the only result will be to strengthen the conviction of all architects east of the Alleghenies that architects in Michigan have to shoot their way through a mess of wildcats to get to the tepees of their redskin clients. This is not invariably the case and Mr.



Chanel actually has to go out and hunt for these interesting animals. He promises to have a Chapter dinner at which wildcat steaks will be served. This absorbing scientific experiment will be followed with keen interest, as the question of whether a diet of wildcat meat will tend to make architects snap at each other more than their normal diet of damp hay and dry Martinis has never been thoroughly explored.

"Detroit," Mr. Wright told the reporters, "is a typical American city and you can take that any way you choose." It would have done your journalistic heart good to see the way Detroit papers got all inked up over Mr. Wright's visit, and the public practically bent the building out of shape getting in to hear him. Possibly their faith in him might have suffered somewhat if they had known that Mr. Wright stated positively to me that I am a wit. Happy to find a subject on which we could agree, I assented eagerly.

GI JOBS See page 68 for details of this new

FORUM service for veterans.

I am of the opinion that if there was no such person as Frank Lloyd Wright it would be necessary to invent one. The impact of his ideas on the lay mind is terrific; when a member of the audience inquires, "Would you care to discuss the housing problem?" and Mr. Wright replies, "Housing is no problem except to the government," the listeners know they have heard something.

ROGER ALLEN

Grand Rapids, Mich.

MALMO THEATRE

Forum:

Congratulations on your diagram of the Malmö Theater, Sweden, as published in THE FORUM for February. The new innovations are very interesting. I will file it until such time as the War Production Board permits us to build.

J. J. SHUBERT Select Theatres Corp., New York, N. Y.

ARCHITECTURAL QUESTIONNAIRE

Forum:

I have just received my first issue of your fine magazine while serving with the U. S. Army overseas. I have read it and relished it from cover to cover several times now. The other boys here have also read it and the magazine is busy almost 24 hours a day ...

... I would like to give you some suggestions in regard to content, however. The first one concerns detailed construction data. In a recent issue, for example, you had an article on the Storagewall. I would be interested in detailed drawings as to how this item could be incorporated into the actual construction of a new home. Would the wall be strong enough to support the ceiling joists?

My second suggestion concerns the study of architecture. As a veteran, I would like to read articles on the promise that this field holds out to men returning from battle. I would like to know of the possibilities of studying architecture at government expense. I would like to know the various ratings of schools of architecture throughout the country. I think articles on such subjects would be of special interest to a

(Continued on page 42)

design for lasting appreciation with Dow plastics

up goes

SA

Screen from

Every material that has earned a permanent place in building has first proved itself in actual service. Leading the field among plastic materials in this respect is screen from Saran. It's going up all over the world . . . in buildings at home . . . in construction work in humid Pacific battle areas—toughest testing ground of all. It will continue to go up when private building is given the green light. For this is a *new* kind of screen. It's woven from a Dow plastic designed to withstand destructive forces that generally shorten the life of metal screens. Saran actually defies rust—shrugs off dampness, cold, snow, acid fumes, and even salt air. It won't sag or break and it doesn't have to be painted. If it gets dirty, clean it with a damp cloth.

Screen from Saran sets the pace for plastics in architecture. This same success, we confidently feel, will be followed by such leading Dow plastics as Ethocel and Styron for new and improved lighting fixtures, hardware, trim, and many other products.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN New York • Boston • Philadelphia • Washington • Cleveland • Detroit Chicago • St. Louis • Houston • San Francisco • Los Angeles • Seattle

We at Dow feel that the successful use of plastics in architecture is not a one-man nor even a one-industry job. It calls for the combined skill and experience of architect, plus fabricator, plus raw materials producer. Working together, this team saves time and money and puts plastics to work successfully. Call us-we'll do our part.

lets work it out together



Trimmed, Gained and Bored or Mortised on Special Order

Three Big Reasons Why Douglas Fir FACTRI-FIT Doors Assure A Better Job!

When you specify Douglas fir interior doors FACTRI-FIT, you get a door that is **completely** precisionmade—a door that assures a better hanging job.

Here's why! Douglas fir FACTRI-FIT doors are (1) trimmed to size, pre-fit—(2) gained for hinges—(3) bored or mortised to your specification. The work is done **at the mill.** It's clean, correct, better-looking.

And remember: Douglas fir doors are featured in attractive, modern

3-panel designs—layouts w h i c h are ideally adaptable to every type of building.

3

These durable FACTRI-FIT doors can be specified for a limited range of essential jobs today—and for all jobs you plan for postwar. When war restrictions are lifted, Douglas fir doors will be immediately available through regular civilian channels. Plan to use them. Send for catalog showing the complete line of Douglas fir interior doors, Tru-Fit entrance doors and new specialty items.

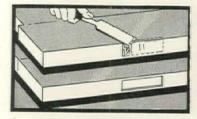


THE NATIONAL ASSOCIATION OF FIR DOOR MANUFACTURERS

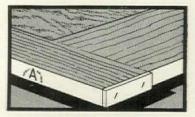
Douglas fir doors are also offered in two other classifications: STAN-DARD (made oversize for fitting to inexact openings) and PRE-FIT (trimmed to size, but without other machining).



Douglas fir FACTRI-FIT doors reach the job ready to hang. They save time and money—assure a better installation every time.



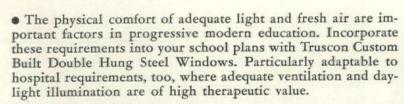
No reason for dull tools or unskilled workman to mar or "butcher" a FACTRI-FIT door. The work is done at the mill. It's sharp, cleancut, precise.



Douglas fir doors are edge-stamped for grade. Douglas fir PRE-FIT and FACTRI-FIT doors are scuffstripped for protection in handling and shipping.



Good Light + Good Ventilation Good Schoolroom Progress



This Truscon Double Hung Window, Series 138, is essentially a custom-built job to fit masonry opening sizes within limits shown in table, but is attractively low in cost. It offers great flexibility in choice of sizes, muntin arrangements and window grouping. In buildings with unusually high ceilings, fixed transoms may be incorporated into this window. Series 138 is designed to receive Standard Truscon Screens and Storm Sash, which are available at low cost. See Sweet's for additional information.

Ask for Truscon engineering service to help you adapt this efficient, good-looking window to your school, hospital and institutional jobs.

TRUSCON STEEL COMPANY • Youngstown 1, Ohio Subsidiary of Republic Steel Corporation

> CUSTOM BUILT DOUBLE-HUNG STEEL WINDOWS

TRACCOL

MAXIMUM SIZE OF WIN-DOWS BUILT INTEGRALLY Basis 1/4" Glass

(Two or more units with vertical mullions can be used for wide openings)

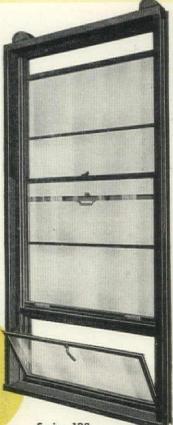
SINGLE WINDOW Maximum Width 4' 0'' *Maximum Height ... 6' 6''

TWIN WINDOW (built integrally) Maximum Width 8' 0'' *Maximum Height . . . 6' 6''

TRIPLE WINDOW (built integrally) Maximum Width.... 9' 0'' *Maximum Height... 6' 6''

*Maximum height can be increased to 8' 4" by using transom or hopper vent (not BOTH). However, only one dimension may exceed 7' 0".

Not available until after our wartime obligations are fulfilled.





FORD THICK-BUTT SHINGLES

• Thick butts, virtually the thickness of two shingles, give extra weather protection,

> • The beauty of Thick-Butt color blends is emphasized by the heavy embossed wood grain rextured weather surface. The soft toned shades of these blends offer a wide range of roof tone effects. Ford Thick-Butt shingles are recommended for both new roofs and re-roofing over old roofs.

FORD ROOFING PRODUCTS CO Makers of America's finest roofing products since 1865 Chicago 2, III. York, Pa. Vandalia, III.

ASPHALT ROOFINGS . SHINGLES .

Many home owners choose Ford Thick-Butt shingles because of the reassuring ruggedness they give to the roof. They look strong and they are strong.

In making Ford's Thick-Butt shingles a bottom layer of heavy felt is impregnated with about twice its weight of resilient blended asphalt saturant. Next is added a tempering asphalt coating that acts as a seal and binder for mineral granules. This is the standard construction of a regular shingle. Then to build up the extra thickness of the butt, the patented overlay process is employed to spread an added thick coat of asphalt, covered with granules over the lower weather exposed section of the shingle. Thus the name Thick-Butt because the butt is actually built up to virtually twice normal thickness. It is easy to see how this double thick butt makes a massive sturdy roof of unusual beauty and durability that has a popular acceptance among home owners.



SIDINGS . FORD-V-NEER

LETTERS

(Continued from page 38)

number of men whose attention has turned to building and architecture and who may go into that field as soon as the war is over or discharge takes place.

PFC. JOSEPH A. CAVANAUGH c/o Postmaster, New York

The Storagewall, shown as a non-bearing wall, could be adapted to support ceiling joists.
 The government provides one year of

2) The government provides one year of schooling for anyone in the Army; for persons under 25, one year plus length of service. Anything, including architecture, may be studied. For veterans planning to enter or return to Building THE FORUM has inaugurated a G.I. job service (see p. 68), will publish a pamphlet Building, War and Postwar to update veterans on what has and what may happen in this field. The pamphlet is free on request.—ED.

BANKS TAKE OVER

Forum:

The burning question "What will postwar architecture be like?" can now be answered by consulting our local bankers. (See the enclosed ad clipped from the hometown paper.)



The next step would be for the banks to offer free medical and legal advice also. With financial titans tussling for the privilege of giving "free" or "small cost" services what chance has the poor (financially) architect got?

Can this indicate a trend?

C. G. Hollo, Architect

Vallejo, Calif.

CONDEMNATION AND CONTEMPT

Forum:

... Your article on Neutra's Puerto Rican Public Works was interesting and so were the buildings Neutra designed but you went beyond the function of architectural criticism and took sides in a political controversy concerning the merits of Governor Tugwell and his program for Puerto Rico—in effect endorsing it. In taking sides it is such a pity that you had to endorse the wrong side —the Socialist and Collectivist one.

I may not know much about the ideas of your publisher Henry R. Luce but I (Continued on page 46)

for HOSPITAL DIET KITCHENS ... to save cost and increase efficiency



Diet kitchen floors of Armstrong's Linoleum are attractive, long wearing, easy to keep clean, and sanitary. These floors are quiet and resilient; employees appreciate their step-cushioning comfort.

Sanitary linoleum cove base saves your client cleaning time and effort. It eliminates dirt-catching corners and crevices at the joining of the floors, walls, and cabinets, streamlines the room's appearance.



Linoleum work surfaces are easy to keep clean. Its resilience quiets noise, helps minimize breakage of dishes. By coving linoleum up the wall, insanitary, dirt-catching joints are eliminated.

Storage shelves covered with Armstrong's Linoleum have a neat and orderly appearance and are easily kept clean. They last for years.

15

"BETTER FLOORS," our free, color-illustrated book, shows how these ideas and many others have been used in hospitals and other types of public buildings. Write for your copy now! Just address Armstrong Cork Company, Floor Division, 2305 State Street, Lancaster, Pennsylvania.



ARMSTRONG'S LINOLEUM

ARMSTRONG'S LINOWALL . ARMSTRONG'S RESILIENT TILE FLOORS

HOME HEATING EQUIPMENT FAMOUS FOR EFFICIENT PERFORMANCE than-average amount of fuel. That's the kind of performance you want in the homes you build! Ask the Gar Wood Dealer in your community to notify you when the new postwar models are available.

Satisfied customers are a valuable asset to any business . . . and in the case of architects or builders, that satisfaction must be long-lived. The folks who buy your homes must LIVE in them day in and day out, year after year. Gar Wood Tempered-Aire or Boiler Burner Units can go a long way to help achieve that satisfaction. Actual surveys have proven Tempered-Aire provides excellent heating performance on a less-

> Buy U. S. War Bonds ... and Keep Them!



GAR WOOD INDUSTRIES, INC., HEATING DIVISIO

AT LINE OF HEATING EQUIPMENT SHOULD WE GONSIDER

FOR OUR NEW HOME?

SPECIFY Constant

HOISTS and BODIES . . . WINCHES and CRANES . . . TANKS . . . ROAD MACHINERY . . . MOTO

Confidence



PERHAPS the first step in undertaking a new project is to insure confidence—in the idea and in the tools employed. No more needed tool is there than the pencil which translates ideas into working form and thence into reality.

VENUS Drawing Pencils are engineered to give you drafting perfection without failure: accurately graded to assure uniformity in all 17 degrees...strong in performance...smooth and clean in action.

Put VENUS to the test on your drawing board. Send us a postcard or a note for two free samples. Specify degrees wanted.

HARDY



AMERICAN LEAD PENCIL COMPANY, HOBOKEN, NEW JERSEY

A Time for Patience!

THAT NEW AND PROFITABLE APPLIANCE MARKET you envision is probably not far ahead. Frankly, we share your expectations of what it will be. We see in the offing big things for household appliance sales, come the day when we get the "Cease Firing" signal; telling us that our proud assignment for the armed services is finished.

We probably see bigger things in door chimes than you realize. For we are behind the scenes where many new things are taking place in door chime development. Things that will truly surprise you, ideas too important to you and to us to fully divulge right now.



What has been true in other industries has been true for us. The pressure of war emergencies has "steamed up" our thinking and our techniques, in laboratory and shop. Better door chimes than ever have been made by anyone will be a certain result. Their simple precision mechanism will be as dependable as a well made clock and comparatively foolproof. Their beauty will be the creative work of one of America's most talented designer-stylists. And in tone quality alone, their soft, clear notes will be a challenge to leadership.

And so we say again, "This is a time for patience, Mr. Architect." There *are* big things ahead for you and for us, if we will be sensible about what constitutes today's true problems—and be patient with their solution.



THE A. E. RITTENHOUSE COMPANY, INC., HONEOYE FALLS, N. Y.

LETTERS

(Continued from page 42)

am under the impression that he would be offended if I were to take this endorsement of Governor Tugwell as representing his views. I can only suppose the copy was written either by Neutra or a member of Governor Tugwell's staff, and that its political implications escaped the attention of the editor. And if not, that is, if THE ARCHITECTURAL FORUM knowingly published this article, my condemnation of your editorial policy and my contempt for the error of your political views is expressed.

LIEUTENANT (name withheld) U. S. Army

THE FORUM, never a political magazine, does not eschew reporting political facts when they bear heavily on building. The facts which made possible Richard Neutra's extensive program for public works in Puerto Rico should not be misconstrued as endorsement of any political party. For a detailed explanation of the Puerto Rican question see FORTUNE, May '44, p. 133.—ED.

DEBATE OR NO DEBATE

Forum:

Page 28, September, 1944, issue of THE FORUM: "Two famed and thoughtful interpreters of what is good for the people clash in a debate . . ."

Page 106: "In no sense a debate, the views here presented should clarify...."

SCT. R. J. HARLA

c/o Postmaster, New York, N. Y.

Reader Harla should complete his quotes. The first lifted sentence continues: "Clash is perhaps too strong a word—in fact 'team up' seems more precise."—ED.

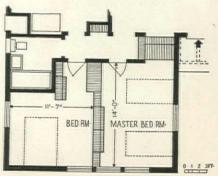
BEDLESS BEDROOM

Forum:

I have noticed the approving letters in recent FORUMS about the Storagewall. The very first comment I mentally made, when I saw that plan was "where are the beds going to be put?" I have still wondered even after looking at the plans carefully. Besides the two beds needed, chairs, something having a mirror and even tables would be necessary.

It seems to me that in the original plan the long wall must have been the

(Continued on page 50)



*ANOTHER PROMINENT BUILDER RECOMMENDS WHEELER OSGOOD



NILS E. JOHNSSON REALTOR REAL HETATIC AND INDURANCE Contractor and Buildar 2000 BUINE AVENUE - SAN PRANCISCO

December 7, 1944

Wheeler Osgood Co. Tacoma Washington

Gentlemen:

This replies to your letter which you state you are sending to several other builders across the country to obtain a general consensus of builder's options as to the post-war acceptance of Tru-Sized doors.

If our experience is a criterion, and we certainly believe it should be, the response to your inquiries will reveal the greatest bunch of boosters ever on your list of consumers. It took the war to show us, but now we know that for plain all-around common sense, Tru-Sized doors are the one and only buy, and they should have become the custom years ago. Mith your range of designs you offer to meet the taste and price, you should feel every confidence in a scaring post-war demand. That goes for every man in our organization.

Very truly yours, Pn 1-522



* Read What Nils E. Johnsson Leading San Francisco Builder Says—

> Each Tru-Sized Door is precision made to exact book opening and requires no sawing—no planing—no fitting. This saves 55 minutes hanging each door. If ordered fully machined for hardware the saving is increased to 70 minutes.

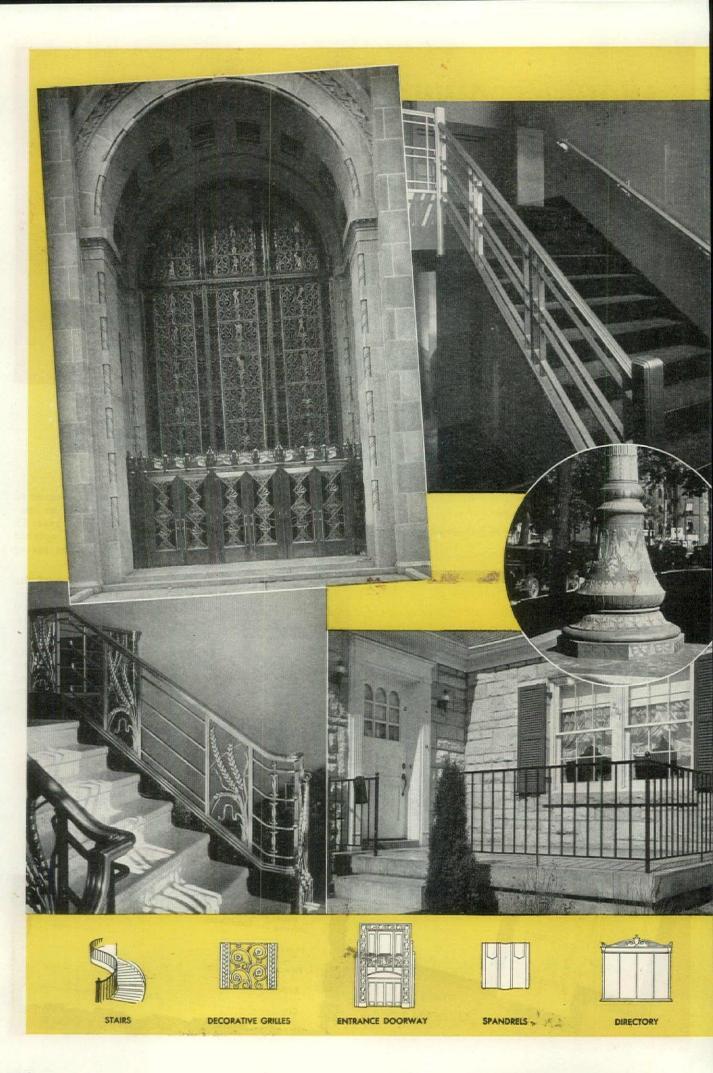
> Tru-Sized Doors are the product of the master craftsmanship of America's largest door manufacturer. The result is uniformly high quality—the best in modern design and workmanship.

> > For these reasons, more and more progressive builders are enthusiastic users of Tru-Sized Doors—they find they obtain better, more uniform results at lower cost.



(Company)	v. Dept. 11-28
The Wheeler, Osgood Company Tacoma 1, Washington	ure and detailed guide sheet for
Please send me free find ordering Tru-Sized Doors.	
Name	1
Firm	
Address	ZoneState
City	

AMERICA'S MODERN DOOR





ARCHITECTURAL METALS can be fabricated to

meet any requirement

Because of their extreme versatility, architectural metals lend themselves to architects' thinking. They can be used in the way you want—for what you want. They can be shaped and fabricated to your own ideas.

As you design tomorrow's buildings—whether they be large or small, commercial or residential—consider the many ways architectural metals can be used for practical, utilitarian purposes as well as for ornamentation.

Use them to give extra strength or protection in stairs, railings, door frames, windows, and hundreds of other building items. Use them, too, in the entrance, for store fronts, marquees, grilles, and all types of exterior and interior decorations.

Architectural metals, both ferrous and non-ferrous will be available for immediate use again as soon as building restrictions are lifted. Include them in your plans now. For a Directory of Leading Architectural Metal Fabricators who are anxious to serve you, write to Dept. F-5.

ORNAMENTAL METAL MANUFACTURERS

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











NON-FERROUS WINDOWS

FLAGPOLE BASE

ASE SI

STORE FRONTS AND MARQUEES

FIXTURES

HAND RAILINGS



 Whether you plan a small home, a large estate, a public building or a factory, our engineers will be glad to talk fence requirements with you, and give you the benefit of many years' experience. There is no cost or obligation whatever. I Restrictions still preclude the manufacture of most fence, but some Chain Link Wire Fence and other Stewart wire products are available NOW for certain protective purposes. On request, we'll be glad to tell you more about this.

The Stewart Iron Works Co., Inc. 1265 Stewart Block Cincinnati 1, Ohio



LETTERS

(Continued from page 46)

place for the heads of all four beds. When it becomes a Storagewall, what then? Can it be you have taken a poor plan in which to show the comforts of the Storagewall? I think you have.

HENRY M. SEAVER

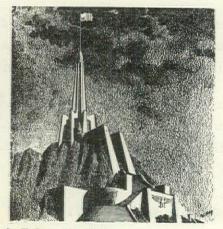
Pittsfield, Mass.

Reader Seaver forgets that the Storagewall with its built-in dressers and mirrors is designed to eliminate furniture. The necessary beds extend from the outer walls (see cut) with room for a bedside table and possibly a chair .- ED.

PEARL HARBOR MEMORIAL Forum:

I was deeply interested in the memorial debate in your magazine between the poet, Archibald MacLeish, and the architect, Charles Maginnis.

You may have heard about a plan I started at Pearl Harbor about two years ago. It has been acknowledged by President Roosevelt, Ralph A. Bard and many others. It is my desire to have THE Forum play a prominent role in our campaign. THE FORUM could launch a nation-wide contest to select a design for the "Shrine of Pearl Harbor." Perhaps you will find a patriotic architect who will submit his version of the "Shrine of Pearl Harbor" to serve as an example for other architects and designers.



As Todaro sees shrine

A charter has been granted to the Pearl Harbor Memorial Trust for the purpose of executing the memorial campaign. I sincerely wish that you would decide to render any support you can afford to give my plan.

Honolulu, Hawaii

TONY TODARO

THE FORUM hopes World War II memorializers will avoid the excesses of earlier patriots, believes Pearl Harbor offers an inspiring opportunity .--- Ep.

(Continued on page 54)



The march is on! With right foot forward, 35% of today's home owners who plan to replace their present water heaters, intend to buy an electric water heater (according to a survey made for the National Electrical Manufacturers Association).

And here's why. The electric water heater is

SAFE-Flameless, fumeless

CLEAN-Smokeless, sootless

EASILY INSTALLED-Requires no flues, vents, or lengthy hot water pipes TROUBLE FREE-as electric light!

Be sure you give home buyers and builders what they want. Install electric water heaters in all the homes you build. Then you'll be in step!

ELECTRIC WATER HEATER SECTION NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

CLARK . ELECTROMASTER . FRIGIDAIRE . GENERAL CLARK • ELECTROMASTER • FRIGIDAIRE • GENERAL ELECTRIC • HOTPOINT • HOTSTREAM • KELVINATOR • MONARCH • NORG • PEMCO • REX • RHEEM • SELECTRIC • THERMOGRAY • THERMO-WATT • UNIVERSAL • WESTINGHOUSE

A House Wired For An **ELECTRIC RANGE Is Already**



Builders' Foresight in the KITCHEN Will Sell Many a Postwar Home!

"We wouldn't have bought this house, if it hadn't been wired for ELECTRIC LIGHTS."

Just a *little* foresight *now* in planning your postwar homes might make the difference between quick, profitable sales and slow, costly sales! Keep in mind the fact that *most people* want Electric Ranges, so plan to wire your houses for this modern convenience during building!

LOOK AT THESE FACTS!

• In 1941, ten times as many consumers demanded Electric Ranges as in 1933. The trend is rapidly towards Electric Cooking.

• The OFFICE OF CIVILIAN REQUIREMENTS' recent survey showed that 2.7 times as many families want an Electric Range as now own one.

• The large and rapidly growing swing to Electric Cooking is also shown in surveys made by HOUSEHOLD MAGAZINE, McCALL'S MAGAZINE, SUCCESSFUL FARMING, and others. 94X "We wouldn't have bought this house, if it hadn't been wired for an ELECTRIC RANGE."

• The additional cost of wiring for an Electric Range adds less than 12c a month to payments on a 20-year F.H.A. loan! Learn the details. Write-today-for FREE booklet, "WIRE AHEAD". Address:

Electric Range Section, NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, 155 East 44th Street, New York 17, New York

A-B STOVES • ADMIRAL • ELECTROMASTER • ESTATE HEATROLA • FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOT POINT • KELVINATOR • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE	THE RANGE SERVICE OUTLET	
FOR EASIER SALES		
FOR ELECTRIC RANGES	A SYMBOL OF THE MODERN POST-WAR HOME	

HOW TO BE IN TWO PLACES AT THE SAME TIME



• In the many hospitals equipped with CONNECTACALL—two-way nurse-patient communicating systems—nurses are doing double duty with a minimum of waste motion and fatigue. In these hospitals the nurse remains at her duty station until actually needed at the bedside. From her station she can readily converse with bed patients...learn their needs more quickly... take care of them more promptly.

At night, CONNECTACALL's Silent Supervision feature permits the nurse to listen at each bedside by remote control –without leaving her desk.

Whether you have new buildings or modernizing projects in the planning stage, CONNECTACALL can effect a permanent improvement in hospital efficiency that will pay for itself in payroll savings. For details and technical data, write for Bulletin 102, which describes "Connecticut's" complete line of Hospital Communicating and Signalling Equipment.

Connecticut Telephone & Electric Division

GREAT AMERICAN INDUSTRIES, INC.



MERIDEN, GONNECTICUT

NURSES' CALL SYSTEMS • DOCTORS' SILENT AND AUDIBLE PAGING DOCTORS' REGISTRY • INTERIOR TELEPHONE SYSTEMS • NIGHT LIGHTS • NURSES' HOME TELEPHONE AND RETURN CALL SYSTEMS



COMING LAWNMOWERS

Power lawn-mowers of tomorrow will combine real beauty with utility. Lawn-mowers are only one of the products that will be made more attractive and more readily useable, through the use of light alloys in substitution for much heavier metals. Aluminum and magnesium alloys combine lightness with great strength and will supply the answer to many problems in design. Consider Bohn as the source to which you can come for advice and assistance in helping plan your new products to meet post-war requirements.

BOHN ALUMINUM AND BRASS COPORATION GENERAL OFFICES—LAFAYETTE BUILDING • DETROIT 26, MICHIGAN Designers and Fabricators ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS





Copper-melting fumes vanish like magic

Fans dispose of foundry heat and smoke



"....We install them and forget them"

Burndy Engineering Company, Bronx, New York, has 20 Propellair airfoil fans ... in their foundry, in plating and pickling rooms, in welding and dipping departments, and for general plant ventilation.

The first was installed back in 1937. "Propellair fans solved our ventilating problems as fast as they arose," says Mr. H. Scheinbeim, Burndy's Equipment Engineer. "All have given *superb* service 16 to 24 hours a day, six days a week, with *not one penny* spent on repairs in the whole *eight* years."

Propellair airfoil fans combine troublefree performance with high output at high efficiency, and they are simple to install in small space. These modern marvels of air movement serve every industrial ventilation need. Ask us for Catalog 10-AF.



The whole blade works, not just the tips. Scientific variation of camber, chord, and pitch compensates for differences in linear speed at all radii. Type "CD" is shown. It is one of many models.

"MOVING AIR IS OUR BUSINESS"



LETTERS

(Continued from page 50)

Forum:

There are chairs and chairs. I was especially interested in those shown in THE FORUM for March, 1945.

Enclosed is a design I worked out and built some five years ago for our dining room and which has now been patented. Made of 3-ply laminations, my chair is



Musselman chair

self-bracing with an easy flexible feel. It is also easy to push back from the table. The plywood seat is hinged to the back of the chair. Its cover is $\frac{1}{4}$ in. plywood covered with $\frac{1}{2}$ in. cellular rubber and fabric.

The thing that interests me is that a device as old as the chair is still amenable to marked and radical improvement.

H. H. MUSSELMAN East Lansing, Mich.

HOUSING DREAM WORLD Forum:

....Americans are very fond of using initials such as WPB, etc. I would like to suggest that we who are not familiar with their significance might be assisted by an index to these initials.

I will go further now and refer to p. 64 of the August issue. Under the heading "Housing Dream World" the picture drawn by Daniel Starch [Starch's survey revealed that the \$6,000 home customer has been oversold on mechanical marvels, expects them all in his postwar home] shows a position for which I suspect magazines like the THE FORUM are entirely to blame. They put emphasis on the latest idea so that (Continued on page 58)



SEND FOR THIS Booklet

Optonics is the new science of using color FUNCTIONALLY in industry—to improve safety conditions, production, employee morale and to reduce absenteeism. The Optonic Color System is fully described in a new book, "Color Power for Industry". A note on your business letterhead will bring you a copy with our compliments.

THE ARCO COMPANY CLEVELAND, OHIO · LOS ANGELES, CALIF.



Designs that last deserve the permanence of steel

As long as grace, charm and simplicity have architectural currency, many traditional forms are going to retain an important place in the homebuilding picture. They have survived drastic changes in customs and ways of life in the past, and will probably survive them in the future.

But adherence to traditional design does not preclude progress. The most important developments will take place *within*—where Stran-Steel framing introduces new permanence, fire-safety and rigidity. Alert architects and builders are thinking in terms of Stran-Steel as a medium for better homes, better values.

The Stran-Steel framing system, new and improved, is versatile, efficient, speedy. Serving today as the steel "backbone" of the Navy's famous Quonset hut, it is ready for its assignment in tomorrow's homes, housing projects, apartments, commercial buildings and industrial structures.

二十二 二二 二 三 日本市

Think in terms of

YOU NAIL TO STRAN-STEEL

SIKHIN STEEL SERVING TODAY IN THE QUONSET HUT

GREAT LAKES STEEL CORPORATION Manufacturer of the Famous Quonset Hut for the U. S. Nav

STRAN-STEEL DIVISION · 37TH FLOOR PENOBSCOT BUILDING DETROIT 26, MICHIGAN

E

Dipped in Molten Tinc

FOR THE UTMOST IN RUST PREVENTION

"I predict that the most certain major changes in greenhouse construction will be the universal use of Hot-Dip Galvanizing to prevent the need of maintenance."

> T. E. KING, Vice President LORD & BURNHAM COMPANY

Day after day more new users are anticipating longer life and greater uninterrupted service for their products and installations by specifying Hot-Dip Galvanizing.

Thousands of installations mutely testify that the definite fusion of molten zinc with the base metal —through the Hot-Dip Galvanizing Method, increases the life of iron and steel products and installations—years and years beyond their normal expectancy. This process has saved users millions of dollars in expensive maintenance Two examples of steel constructed greenhouses by Lord & Burnham Co., Designers and Builders of Greenhouses since 1856... Hot-Dipped Galvanized throughout for protection from weather and condensation.

and replacement costs.

For the best Zinc Coating hot-dip GALVANIZING

「「「「「「「「」」「「「」」」

If the life of your products is menaced by corrosion—here is the solution to your problem. Conclusive tests have proved that Hot-Dip Galvanizing provides the utmost in rust prevention.

There is a member of the Hot-Dip Galvanizers Association near you who will be glad to discuss rust and corrosion prevention—for his name and address write: American Hot Dip Galvanizers

Association, Inc., First National Bank Building, Pittsburgh 22, Pennsylvania.

... and Then Myrtle Opened Her Purse



 Though the street outside is stifling, Inside Heatter's store it's worse.
 Myrtle, in no mood for trifling, Hastens out with tight-closed purse.



3 End that long "war of attrition"— Don't send folks out with a grouse! Keep your air in peak condition— Modernize — with Westinghouse!



2 In McCool's the fagged-out lady Trades her frown in for a smile. Air that hints of palm trees shady Bids her stop and shop a while.

It pays to be sure that your clients have correct air conditioning . . . that temperature, humidity, circulation and ventilation are scientifically blended for the comfort of customers and for personnel efficiency . . . that air cleanliness is complete for protection of merchandise and furnishings.

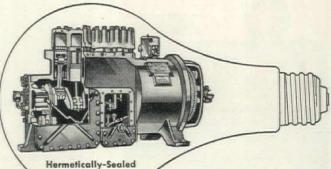
Be sure your clients get it. Call for Westinghouse application assistance early in the planning of new or modernized commercial or industrial buildings. Phone your nearest Westinghouse office or write Westinghouse, 150 Pacific Avenue, Jersey City 4, N. J.

THE SERVICE-PROVED HERMETICALLY-SEALED COMPRESSOR

These Westinghouse economy-satisfaction advantages have been proved by years of service in thousands of installations:---

No Shaft Seals. During wartime refrigerant shortages, few Westinghouse systems were ever "down." Why? Because seal leaks are the cause of a large percentage of all system failures.

> Few Parts to Wear . . . Direct-Drive Efficiency . . . Space-Saving Refrigerant-Cooled Motor.



Westinghouse CORRECTAir Conditioning





THOUSANDS of specimens of glassfused-to-steel were buried for years in soils from every section of the U. S. and Canada, to super-test

æ

their corrosion resistance. Only one emerged unscathed-Permaglas.

No other water heater tank offers Permaglas advantages. Back of this success are long years of research, chemical and metallurgical engineering leadership, outstanding produc-

tion experience, unique machinery and processes, and unlimited patience ... to assure hot water as clear and pure as the original water supply, always.

Write for "The Inside Story of Permaglas"... valuable to you and your clients when discussing corrosion-proof water beaters.

Buy an Extra War Bond This Month







LETTERS

(Continued from page 54)

good solid ideas are thought to be useless or out of date.

M. H. P. Allen

Johannesburg, S. A. THE FORUM views with equal affection solid construction and solid comfort.—ED.

LETTER FROM INDIA

THE FORUM sends regards to former Taliesin stalwart Edgar Tafel who here describes the work of India's largest architectural firm.—ED.

Forum:

Bengal is one of the richest provinces in India, with a population of approximately 60 millions. Formerly an agricultural province, it has shown rapid industrial expansion in the last 25 years. With this conversion, new types of buildings have been required, and the "architectural pace" has been set by Ballardie, Thompson and Matthews.

The firm was founded in 1919, when Harold Sudlow joined J. H. deC. Ballardie. Ballardie, a Scotsman born in Ceylon, had been City Architect for Calcutta. At a later date A. J. Thompson, was taken into the firm. In 1930 Bernard Matthews was also admitted. Both Thompson and Matthews received their early training at the Architectural Association of London. Mr. Ballardie retired in 1933. At the present time, J. K. Gora and A. K. Bose are members of the firm.

Architectural practice in Bengal generally follows a primitive pattern. Contractors furnish plans gratuitously and take their commission out of the construction fee. There are few architects who can practice as architects alone.



Lady Dufferin Victoria Hospital

However, Ballardie, Thompson and Matthews have done well by upholding themselves as members of a profession.

Their practice is as varied as any architect could dream of: industrial, domestic, office buildings, town planning, monuments, hospitals, clinics, boat interiors, laboratories, displays, churches, mosques, and theaters. As experts in their line, they also do Land Valuations and Evidence in Court. Since the war (Continued on page 62)

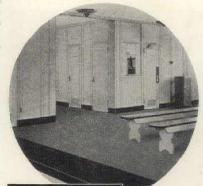


Slick-surfaced metal flashing is slippedin protection against leakage. WASCO rough, fabric surfaced, sheet-copper centered flashing is built-in protection against leakage. The impregnated fabric forms a perfect bond with the mortar, free of seepage-inviting, hair-line cracks. Electrolysis will not destroy its sheet-copper center because the impregnated fabric and asphalt binder are effective insulation against electrolytic action. May we send our A.I.A. folder?



WASCO Flashing Company 86 Broadway, Cambridge 42, Mass.





PERSONNEL OFFICE



BANK SCREENS









ili

All of these interiors have one element in common-interior flexibility ... flexibility secured by the use of Hauserman Masterwalls.

Hauserman Masterwalls . . . made with a background of over three decades of leadership in the movable steel partition field—plus Hauserman Service . . . by the largest, most complete partition field service organization in the country . . . guarantee maximum interior flexibility in every type of building.

The floor plans of all these interiors may be changed at the drop of a hat without dirt or muss . . . without interruption of work routine . . . and with complete re-use of parts.

Masterwall Catalog 45 provides stimulating and informative ideas for "engineering" flexibility into building interiors. Write for it.

THE E.F. HAUSERMAN COMPANY 6820 GRANT AVENUE · CLEVELAND 5, OHIO Branches in principal cities

IN PARTITIONS - movability PAYS











MERCANTILE NATIONAL BANK CORF., DWNER + WALTER W. AHLSCHLAGER, ARCHITEGT Henger construction co., contractor, all of dallas, texas.

Q-FLOORS H. H. ROBERTSON CO.

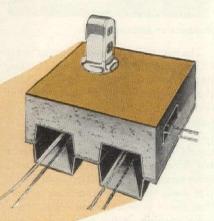
2403 FARMERS BANK BUILDING PITTSBURGH 22, PENNSYLVANIA



OFFICES IN 45 PRINCIPAL CITIES WORLD-WIDE BUILDING SERVICE

SPECIFICATION:

Owner wants to tap floor anywhere anytime and get electricity.



This demand is increasing.

It sounds like endless grief, ripping up floors and forever filling the place with mess and confusion. But Robertson Q-Floors are constructed to take this specification for granted—and make everybody like it.

Q-Floors are steel cells, crossed over by wire raceways. An electrician can drill into any six-inch area and install an electrical outlet in a matter of minutes. Floor plans are always fluid. Change is quick—with no trenches, no fuss.

And no grief for the architect.

Consider what electrical availability on a six-inch modulus means to any building. It will stay electrically modern no matter what the wonders of electronics produce. It will be always equal to the increasing mechanical demands on future buildings.

But there are also Q-Floor structural features that make a hit with any client. For example, Q-Floors reduce building time 20 to 30%. Two men can lay 32 square feet of Q-Floor in half a minute. The floors can be completed almost as soon as the frame. No wet materials delay progress—the Q-Floor immediately becomes a platform for all other trades. Construction is quick, quiet, clean, fireproof, without forms or shoring. Stairs can be installed as soon as the floors. Work soars upward!

Also, Q-Floors are light in weight. This effects considerable saving through the use of lighter framework. All these factors have a lot to do with the cost of Q-Floors being this may surprise you considering their electrical advantage—right in line with just average floor costs.

You can obtain detailed information from a Robertson representative or write for Q-Floor literature. The Electrical Fittings for Q-Floors are sold through General Electric construction materials distributors, who will gladly furnish complete data.

TIME-TESTED - OVER 3000 ROBERTSON Q-FLOOR INSTALLATIONS.





100 years of know how in the fabrication of ornamental metals, with examples of our fine craftsmanship adorning thousands of the finest buildings in America. You can entrust your blueprints to us with perfect assurance of accurate estimating, conscientious production, careful attention to every detail. We invite your correspondence on work covered by proper priorities, as well as projects which may be in the plan stage for post war.



LETTERS

(Continued from page 58)

they have done important work in quartering, remodeling and conversion for the armed forces.



Residence in Calcutta

The firm has done work in many parts of India, from Darjeeling to Madras, Bombay to Dacca, including New Delhi, Benares, Cawnpore and Calcutta. That corresponds to having done work in 30 states or more in our country.

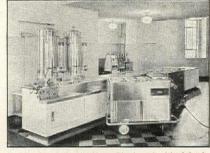
Their clients are varied; from the usual businessmen to Maharajas, Rajahs and Nawabs. With their various clients come strange prerequisites: some buildings must be longer from east to west than north to south, some cannot have doors opening on the north side of the building and some residences must have two completely separate living quarters —one western and one eastern. Many homes have a separate system of communication via halls and tunnels, for bearer and sweeper service.



Residence in Tollygunge

Thompson and Matthews are looking forward to a large volume of work immediately after the war, ranging from a small amount of conversion to large numbers of industrial buildings. With this construction will come also private housing, workmen's quarters, office buildings and hotels. All former buildings in Bengal have of necessity been designed with high ceilings and interior rooms. With the advent and acceptance of air conditioning, however, these architects feel there is bound to be a change in the basic design of most structures.

U. S. Army



Section Main Kitchen, Pittsburgh Municipal Hospital. Samuel Hannaford & Sons, Architects. Equipment by The John Van Range Co.

HOSPITALS NEED SPECIALISTS IN THEIR KITCHENS, TOO

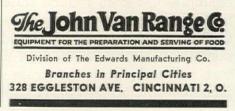
With increasing realization of the importance of diet as a factor in hospital service, the dietitian has taken a place with the physician and the surgeon in hospital administration. Like other specialists, the dietitian must have the best instruments and equipment with which to operate. This explains why so many hospital architects place their reliance upon

JOHN VAN RANGE KITCHEN EQUIPMENT

For 98 years we have been specialists in food service engineering for hospitals. Our work begins with the preliminary blue prints on the boards of the architects. We assist their organizations in detailing the layouts for all departments in which food is to be prepared or served. We design the equipment with specialists' understanding of the functions it is to perform and the conditions peculiar to hospital operation.

In manufacturing the equipment we employ the same superquality materials and workmanship that we put into the production of equipment for operating rooms and therapy departments. We relieve the architects of responsibility for installation of the food service equipment.

If you have hospital projects on your boards or in prospect, send us your inquiries.



The word is going 'round ...

Once an architect specifies Weldwood Hardwood Plywood and sees the final result, the same thing always happens

He acts like a scientist, after a great discovery . . . he's found "just the material he had been looking for"! Now, for every job on his board, he looks for an opportunity to use Weldwood Plywood again. Why? Just ask the architects who specify it

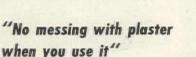
"It gives me limitless possibilities for decorative effect"

Weldwood Plywood comes in many fine, imported and domestic woods - from African mahogany to knotty pine. Weldwood enables you to attain a variety of rich, expensive-looking effects. The supply of Weldwood Plywood is currently limited by war needs.

"It goes up fast—ideal for fine interiors"

Weldwood comes in large, easily-handled sheets, covers big areas quickly. It's ideal for redecoration . . . and of great advantage where speed is important.





Weldwood Plywood also eliminates dangers of warping, swelling, and cracking in sash and woodwork, often caused by the tons of water in plaster walls.





"It helps me give my clients more for their money!"

Initial cost of Weldwood is surprisingly low. Besides this, Weldwood saves installation time and eliminates upkeep costs. Yes . . . Weldwood is less costly in the long run than old-fashioned materials.

Moreover, Weldwood Plywood is guaranteed for the life of the structure.

THE MENGEL FLUSH DOOR

Light . . . strong . . . permanently beautiful. Matches perfectly with Weldwood walls.





Waterproof Weldwood, so marked, is bonded with phenol formaldebyde synthetic resin. Other types of water-resistant Weldwood are manufactured with extended urea resins and other approved bonding agents.

Distributing units in Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Oakland, Philadelphia, Pittsburgh, Rochester, San Francisco, Seattle, Also U.S.-Mengel Plywoods, Inc. distributing units at Atlanta, Jacksonville, Louisville, New Orleans, Send inquiries to nearest point.



These Weldwood Plywood walls look costly, but actually are inexpensive.

Louis Farrar, Designer.

WOOD Plywood

Weldwood Plywood and Plywood Products are manufactured and marketed by UNITED STATES PLYWOOD CORPORATION New York, N. Y.

THE MENGEL COMPANY Louisville, Ky.





Thousands in use and every owner pleased

During the ten years preceding Pearl Harbor this company built an impressive total of Parsons

Pureaire Kitchens. Thousands of these Kitchens are today in use in all sections of the United States and in foreign lands.

So far as we know, every Parsons Pureaire Kitchen sold is still in active use.

Every Pureaire owner we have succeeded in contacting is satisfied with his investment.

Each year a larger proportion of our product has been sold to former Pureaire customers.

These facts are PROOF that Pureaire gets and

holds tenants-that it increases profits per dollar of investment-that is ADDS TO THE PRES-TIGE OF RECOMMENDING ARCHITECTS.

Plan Parsons Pureaire Kitchens into every postwar small-apartment multiple you work on. They will cost little if any more than old-style kitchens.

Save room, save money, build profits with this exclusive, high-quality product.

ARCHITECTS:—Your Sweet's Catalog carries full Pureaire specifications. Or write us.

THE PARSONS COMPANY

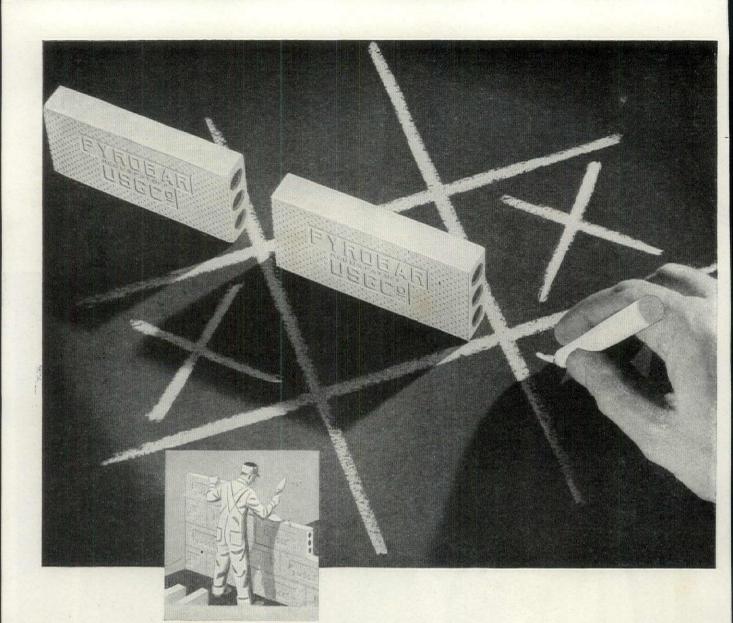
15000 OAKLAND • DETROIT 3, MICHIGAN



Theatre Doors Charles N. AGREE · ARCHITECT

Control by LCN overhead concealed method affords "fingertip" operation for these massive doors, designed to assure restful quiet to the thousands seeking relaxation each day in the Harper Theatre, Detroit • NORTON LASIER COMPANY, CHICAGO





"Tick-Tack-Toe"-where does the office go?

Here today and there tomorrow. What's the difference? Pyrobar partitions have what it takes to keep pace with the moves and moods of building occupants. Why? Because each unit provides 2½ square feet of wall surface with 30% less mortar joints than a wall

PYROBAR

The Dividing Line for lightweight—fireproof quickly erected—low cost partitions The true, square edges are readily cut and fit. Resistance against fire and sound travel is offered by these modern Pyrobar partitions which are quickly erected and made of easily available materials.

In addition, a weight saving up to 35% per square foot is

made up of units of only 1 square foot ... Up to 20% less plaster over the Pyrobar surface.

effected as against ordinary tile of equal thickness. Pyrobar is proved by years of use.

Pyrobar is a trademark owned by United States Gypsum Company



United States Gypsum

Gypsum · Lime · Steel · Insulation · Roofing · Paint

SPECIFY G-E SWITCHES CONVENIENCE OUTLETS

0

0

0

G-E high quality switches and convenience outlets will benefit any building. They are good looking and will give long, dependable service. Your clients will like them. Include G-E switches and convenience outlets in specifications for war purpose buildings now and for all types of buildings after the war.

SPECIFY FLAMENOL* BUILDING WIRE

Specify this high quality, small diameter, thermoplastic insulated building wire for entire wiring systems. It is available in size 14 to 2,000,000 CM. There are two types: Type SN for general purpose wiring and Type SNW for wiring in wet locations. This wire's insulation has long life, is flame retarding and resistant to oils, acids, etc. Type SNW insulation also has a low moisture absorption rate. 0

0

0

*Reg. U.S. Pat. Off

FOR UNDERFLOOR ELECTRICAL DISTRIBUTION

General Electric offers two types of underfloor wiring. Both give great electrical flexibility to factories, stores, offices, etc. Electrical outlets can be preset or added later as needed.



G-E Wiring Material News

0

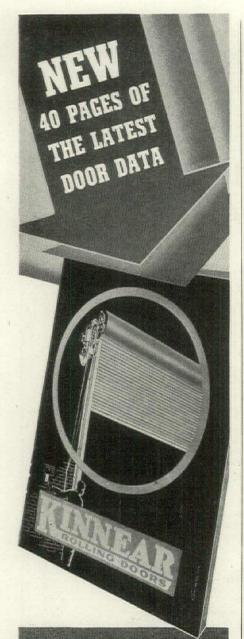
0

0

6

0

0



Here it is, the NEW 1945 edition! Forty pages of complete information. graphically presented. on Kinnear upward acting doors for every purpose. It shows why Kinnear Doors are so widely preferred. Kinnear Rolling Doors feature a sturdy, flexible, interlocking steel-slat curtain and space-saving coiling upward action. Kinnear sectional type doors and other closures are also presented. Send for your FREE copy of this useful door book todayl Write to The Kinnear Mfg. Co. Factories: 1640-60 Fields Ave., Columbus 16. Ohio and 1742 Yosemite Ave., San Francisco 24, Calif.

Offices and agents in principal cities



A LETTER FROM THE PUBLISHER

Dear Reader:

Nothing has cheered us so much as recent letters from friends now on combat duty discussing their postwar plans. Somehow that seems to add just the right reassurance to the newspaper headlines. For once, our anticipation has been good. Witness this from an Air Corps Major now in Germany:

"... it's worried me a little how some of us are going to catch up on the new materials, techniques, legislation, etc., that has been introduced since we left the fold. Probably if you have thought of this problem, you already have the answer."

Well, Major, we have thought of it and hope we have the answer in our forthcoming pamphlet, Building, War and Postwar, being written solely to update servicemen on what has been going on in building, and its prospects. Copies will be available soon, without charge. We invite requests for the pamphlet from servicemen. Civilian readers are invited to send us a list of their interested relatives and friends in the service to whom they would like to have the pamphlet forwarded.

This pamphlet is designed to supplement our "G. I. Jobs" Department more fully described in the box below. We are still feeling our way with this plan, but we have had so much encouraging comment that its prospects for success seem excellent. "G. I. Jobs" refuses to stay a secret now that Martha Dean described the plan on her Mutual program and daily papers throughout the country are spreading the word in their news columns. So again we say, read the

box below; perhaps there is something you can do to bring the right job and the right veteran together.

> 14 4

We have added a pair of fine binoculars to our office equipment. It is tempting to look out from our fiftieth floor sanctum and sweep the horizon. One can see an awful lot of buildings and an awful lot of architecture, or vice versa. When you visit us, we will show you the same sights which last month brought ohs! and double ohs! ! from such friends and notables as Industrial Designer Jo Sinel of San Francisco; Frank

Lloyd Wright and his lovely lady, Olgivanna; Paul Nelson, who is arranging a building exhibit for France; Dorothy

ebes Liebes, the wonder weaver, and her fellow San Franciscan, Liebes Gardner Dailey; Samuel A. "Pump Room" Marx of Chicago; Marc Peter, Jr., architect turned bombing expert; Harry Bent, who can outweigh any three Hawaiians; Nat

Keith of NHA; Charlie Eames. inventor of the plywood splint, and his delightful wife, Ray; John Normile of Better Homes & Gardens, ATC; Lieutenant Eames



James Bloomfield; Major Leslie Cheek, Museum Director turned warrior; "Norm" Wooters, the ice box tycoon; Roland Wank, looking things over for Albert Kahn; Richard Neutra, straight from Puerto Rico; Sgt.



Will Burtin of the Air Corps; Caleb Hornbostel of Woman's Home Companion; Marcel Breuer, designer extraordi-

Wank nary; and the farmers' pinup girl, Sara Bulette of Country Gentleman.-H. M.

G.I. JOBS

FORUM'S FREE PLACEMENT SERVICE FOR **DISCHARGED VETERANS**

To aid discharged veterans secure professional and executive employment in the building industry and affiliated branches, THE FORUM will publish without charge classified advertisements not exceeding 40 words, giving the applicant's qualifications and stating his preferences in occupation and location. All advertisements will be keyed by number only.

Employers seeking personnel are urged to make known their requirements. Such requests will be referred to appropriate applicants.

ARCHITECTS, DRAFTSMEN, ENGINEERS, BUILDERS, CONTRACTORS

EXECUTIVES IN-REALTY MANAGEMENT, SALES AND APPRAISAL, MORTGAGE FINANCE, TITLE & LEGAL WORK, RETAIL MATERIAL SALES Address: G. I. Jobs Architectural Forum 350 Fifth Avenue New York 1, N. Y.

Here is a NEW Structural Product



A High-Strength Material, in Large Panel Form, With a Smooth, Hard, Infrangibly-United Plastic Surface!

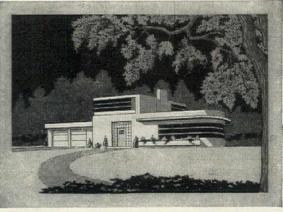
INDERON was developed as a utility container material for the Army Air Forces, was later adapted to many other war uses where strength, durability and dense, hard surface qualities were essential.

INDERON is waterproof, highly resistant to abrasion, impact, vapor permeation and other destructive forces. INDERON, made by chemically and infrangibly uniting Douglas fir veneers, plastic glues and a fibrous plastic film, is a large-size structural product which needs no surface protection, no decorative treatment, no structural support.

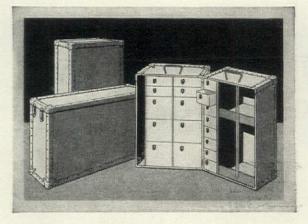
INDERON is stable. It does not warp or twist. It combines beauty, strength, durability and the economical panel form of standard plywood.

What Are the Uses of Inderon?

INDERON has literally thousands of applications in such fields as: Marine, Aviation, Railroad, Bus and Truck, Home, Office, Apartment, Farm and General Industry. Available now only for Army-Navy use. INDERON will become one of the most useful of all structural products in the post-war era. Write NOW for full information!



INDERON is ideally suited to play a large part in post-war home building—and in industrial construction as well. Consider INDERON in its three post-war grades (Standard, Decorative and Industrial) for exterior walls, concrete forms, roofs ,kitchen cabinets and fixtures, floors, porch decking, etc. Its low cost will make it a "Jack-of-alltrades" among structural materials.



INDERON is successfully serving the Army Air Corps as the preferred material for packaging many vital parts, medical supplies and delicate instruments. INDERON has also been used for many other important war purposes and has proved its ability to resist tropical fungus, termites, weathering and water immersion.

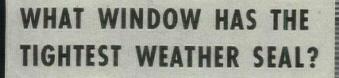
Manufacturers .

Buffelen Lumber & Mfg. Co. Tacoma 1, Washington

For Information, write Chicago Sales Office 9 So. Clinton St., Chicago 6, III. Washington Veneer Co. Olympia, Washington

WHAT WINDOW ADMITS THE MOST LIGHT?

STEEL, as you know! Slender frames and muntins permit 30% more glass area. Steel casements flood homes with light, and fresh air...completely control drafts. For Cape Cod, or Modern, Ceco steel windows give more light and ventilation!



STEEL!... According to a recent scientific study of the Metal Window Institute. So when you design or build a home specify Ceco casements and save on fuel and air conditioning costs.

WHAT WINDOW COSTS THE LEAST?

STEEL! In steel casements the initial cost is the *final* cost. In other windows there are hidden costs you are likely to overlook—hardware, accessories, additional labor costs, etc. So save on window cost...specify Ceco Steel casements!

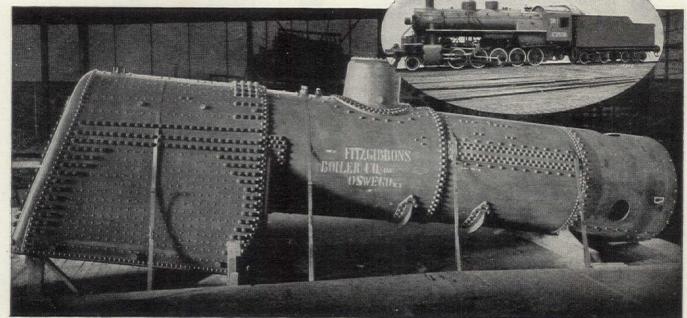
ENGINEERING

Concrete Engineering Division: Meyer Steel forms, adjustable shores and clamps, reinforcing bars, fabric, etc. Monufacturing Division: steel windows and doors, metal lath, metal weatherstrip, metal frame screens, steel joists, steel roof deck. Highway Products Division. Sheet Steel and Wire Division.

CECO STEEL PRODUCTS CORPORATION Manufacturing Division-5701 W. 26th St., Chicago, 111.

MAKES THE BIG DIFFERENCE IN CFCO CONSTRUCTION PRODUCTS

для ссср-*FITZGIBBONS* паровозные котлы



To speed the day when East meets West-

Our hard-fighting allies on the eastern front may soon clasp hands in mid-Germany with Eisenhower's tough veterans. To speed this day, powerful 2-10-0 locomotives with high pressure boilers by Fitzgibbons for Baldwin Locomotive Works are rushing vital supplies across Russia to the battling Russian armies.

And in liberated France and Belgium too, U. S. Army 2-8-0 locomotives, also with Fitzgibbons-built boilers, are moving up the mountains of supplies essential to Victory.

No longer do armies move "on their bellies" as in Napoleon's time. They move on the wheels which convey their ammunition, replacements, food, which facilitate the rapid maneuvering and shifting of whole army corps, getting essential supplies to the spot where and when they are needed. This is the function that Fitzgibbons locomotive boilers are aiding, speeding the day when East meets West—and when Fitzgibbons steel boilers and air conditioners will again play their leading role in America's building program.

FITZGIBBONS BOILER COMPANY, INC. • 101 Park Ave., N. Y. 17, N. Y. Works: OSWEGO, N. Y. • Branches in Principal Cities

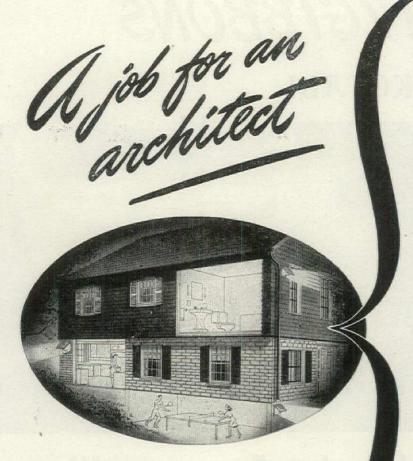
FITZGIBBON

STEEL HEATING BOILERS SINCE



BUY AND HOLD U. S. WAR BONDS and STAMPS

1886



• There will be gadgets galore to bewilder the post-war home builder.

What and how many will go into the home?

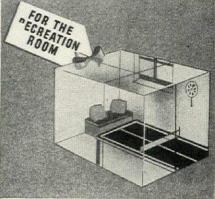
To what extent should the new home be a guinea pig of experimentation?

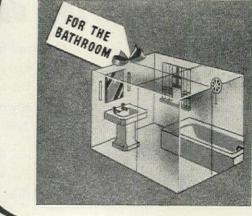
The Architect will in large measure be the arbiter-for his reputation, integrity and wisdom are at stake.

Some things are not new. They have been tested by time. Their acceptance grew amazingly in the pre-war period. They have an established function in post-war homes.

They are Victron Ventilating Fans.







They provide automatic air movement, eliminate steam, grease, grime, odor. They assure living comfort—protect, enhance the home owner's investment.

Victron ventilating Fans will be ready for specification in a number of improved models, suitable for kitchen, bathroom and recreation room. Basic information may be found in Sweet's Architectural File.



Dept. AF-545, 2950 Robertson Ave., Cincinnati 9, Ohio

COMFORT ENGINEERING for the men who will design torrow's interiors

Six years before the war America gained a new product, "U.S." Koylon Foam...that proved itself the most comfortable and versatile of all cushioning for furniture and bedding. Today, "U.S." Koylon Foam promises the

planners of tomorrow's interiors a new freedom in designs where comfort is a factor. For there will be a remarkably wide range of molded standard cushioning units available, as well as yardage from which comfort can be "cut to fit" your most original creations.

Although "U.S." Koylon Foam now serves war and medical needs exclusively, it is none too early to investigate its wealth of possibilities for your plans and inspirations for peace. "U. S." Kaylon Foam is Engineered Comfort, proved in use over many years as the superior rubber foam giving the ultimate in comfort, permanent durability and minimum maintenance cost.

DAM

Or peace. **Mattresses and Seating** UNITED STATES RUBBER COMPANY "U.S." KOYLON FOAM DIVISION · MISHAWAKA, INDIANA Serving Through Science

Listen to "Science Looks Forward"-new series of talks by the great scientists of America-on the Philharmonic-Symphony Program. CBS network, Sunday afternoon, 3:00 to 4:30 E.W.T.

SHOWER BATH CONVENIENCE IS PART OF MODERN LIVING!



INCLUDE A Bathe-Rite SHOWER CABINET IN YOUR "HOMES OF THE FUTURE"

HEALTH AUTHORITIES endorse frequent shower bathing as a positive means for promoting better living. The convenience and pleasure of auxiliary shower facilities should be included in all plans for homes designed for modern living.

"BATHE-RITE" SHOWER CABINETS for post-war are designed in *standardized sizes* on the modulus of 4. Place "Bathe-Rite" in your new or remodeled home plans now. Suitable for all types of structures. Simple to install, durable in construction, attractive in styling. Illustrated catalogue sent you upon request. See our postwar catalogue in Sweets.



IN THE FORUM

The stern firm name of Gruen and Krummeck is a dodge behind which hides the fact that Krummeck is not only a feminine partner, but that she is also in after-office hours Mrs. Gruen. This double collabora-

tion started five years ago when Gruen emigrated from Vienna to Manhattan; in 1941 branched out to the Hollywood hills. Here, amid soft breezes and the humming of beetles, Gruen and Krummeck hold hands over signs for department stores, jewelry stores



and if you still have a 3 coupon, shoe stores (p. 116).

Allmon Fordyce, designer of the Living-Kitchen (p. 107) is a rotund figure of a man whose architectural practice has never in any way interfered with the serious business of his life—exploring the culinary arts. In addition to this activity which con-



sumes a great deal of precious Fordyce time, he practices amateur chuckling, poker at which he is no amateur, breeds and sells Jersey cows on his 125-acre farm. In left over

snatches of time this famed bon vivant may be found at the Raymond Loewy offices.

To some people buying a house in the country is as natural as taking a bath. To Hildreth Meière, whose Rockefeller Center placques are only one success from a tireles designer, it is an indication that the solid city concrete which filled her veins has begun

to soften. In her city period Miss Meière was known to shudder at the sight of grass and confined herself to a region bounded by 57th St. and 34th St. But now a deadly passion grips her. At the mention of her country home (p. 125) her eyes glaze, and her head



goes up like a true city farmer scenting fertilizer.

Although Red Rocks Amphitheater, designed by Burnham Hoyt, has been filled with a variety of joyful noise, its most untramelled moments occurred before blueprints saw daylight. A hollow whose natural acoustics outdo Radio City Music Hall, it became the picnic spot for young Hoyt and a band of amateur



Thespians who strode the rocky ledges declaiming Shakespeare. Perhaps it was Hoyt's impassioned rendition of "O! That I were a glove . . ."that swept one of the feminine members into matrimony with the future architect. Of his present work our favorite next to Red Rocks is the Boettcher School (ARCH FORUM, Feb. '41).

For Less Friction Loss Thrust Absorbing BALANCE DISC

The YORK Allis-Chalmers Turbo REFRIGERATION Compressor

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

0 R

F

York Corporation, York, Pennsylvania.

EADQUARTERS

Other Outstanding features

- Low center of gravity of compressor—permitted by trough type cooler—cuts vibration, provides more accessible operation.
- 2. Stainless steel impeller blades resist erosion and corrosion assuring perfect wheel balance. Blade rivet heads are eliminated to provide unobstructed gas flow.

NG

- Pre-rotation vanes permit greater capacity reduction (down to 10%.)
- 4. Permanently silver-sealed condenser joints.
- 5. Simplified refrigerant shaft seal.

COOLI

REFRIGERATION AND AIR CONDITIONING

MECHANICAL

8 5

1 8



SINCE



"What's the matter with HER . . . did she get a raise?" "No, they just gave her the office that has Columbia Window Shades!"

That's the kind of "lift" our handsome, easy-tohandle window coverings always used to give... and will again, as soon as normal production is resumed.

Right now, your buildings may have to get along with present window shades or Venetian

COLUMBIA MILLS, INC.

blinds, since stock is limited. But soon, we hope, you'll be able to get the same fine-quality window coverings Columbia is known for. Plus that "service" touch our hand-picked dealers know how to give so well. You can always count on them for expert advice and help.

NEW

See Sweet's Architectural Catalogue for more complete information on Columbia products.

olumbi DOW SHADES BLINDS ETIAN

FIFTH

AVENUE,

2 2 5

10,

N. T.

YORK

THE

Where PRIVACY Is a "Must"

Here's how doors of Ponderosa Pine can help you!

Tired of war-crowded homes ... faced with the problems of growing families ... people today yearn for privacy. And providing greater privacy in the home you are designing is a job for doors of Ponderosa Pine. This is pointed out in the "New Open House"—32-page, profusely illustrated idea book. Mail the coupon today for your free file copy.





PRIVACY FOR YOUR DEN OR LIBRARY—It could have been an open archway, but this beautifully proportioned door of Ponderosa Pine provides seclusion for quiet rest or study. Note also the well designed Ponderosa Pine stock design window.



PRIVACY IN THE DINING ROOM— Note bow the louvered doors of Ponderosa Pine increase the effect of restfulness and quiet, yet without sacrifice of ventilation. Stock design doors and windows of Ponderosa Pine will be available in designs for every need and purse.



PRIVACY FOR BEDROOMS—Privacy is gained without sacrifice of ventilation with the use of louvered doors. Such doors add a delightfully informal note to this hallway, yet have plenty of dignity of their own. Note also, in the foreground, the double doors of Ponderosa Pine.

SEND FOR THIS FREE IDEA BOOK!

	'New sina																			
work	for d. A	ev	ery	r	00	m	of	F tl	he	hc	US	e.	Pre	ofu	se	ly	ill	us-		
												•	•		•				•	1
	IDEI		5.5	in	-	-		200	-		in									

PONDEROSA PINE WOODWORK Dept. MAF-5, 111 West Washington Street Chicago 2, Illinois	Open House
Please send me a free copy of "New Open House."	And the second s
Name	
Address	
CityZone	State



Here's a photograph of AIR-MAZE FILTERED AIR

The air that passes through an Air-Maze filter is really clean . . . freed from the dirt, dust, grit and foreign particles that wear out equipment, impair health, and cause discomfort and costly damage.

The protection that clean air affords has been a contribution of Air-Maze engineers and manufacturers for 20 years. The effectiveness of their job is found in the successful installations in thousands of buildings, hotels and factories . . . in the range canopies in restaurants, ships and hospitals everywhere ... and on engines and compressors in all types of service. If you have a problem involving air, ask your nearby Air-Maze representative or write us direct for Catalog No. AGC-144.

AIR-MAZE CORP. • CLEVELAND 5, OHIO Representatives in principal cities. In Canada: Williams and Wilson, Ltd., Montreal, Quebec, Toronto, Windsor; Fleck Bros. Ltd., Vancouver, B. C.



• COLOR DYNAMICS principles used in an attractive and efficient general office.

COLOR DYNAMICS

Scientific use of <u>energy in color</u> lessens eye fatigue of workers ... raises morale!

W hat difference does the use of cool or warm colors make in energy and morale?

What effect does a single wall of cool, refreshing green have upon eyes, muscles and nerves?

How can long, narrow offices be made to seem better proportioned? Square rooms be made to look less monotonous?

Pittsburgh's new science of COLOR DYNAMICS answers these questions. These answers are based upon exhaustive, scientific studies and actual experience in many fields. COLOR DYNAMICS is founded upon the simple psychological laws which govern the reactions of human beings to the *energy in color*. By the purposeful uses of this energy, architects, contractors and builders can use tones of color which are not only pleasing to look at, but will also lessen eye fatigue and enhance health and efficiency of employees.

With COLOR DYNAMICS you can create practical optical illusions. Offices can be made to seem more spacious and attractive. Rooms can be made to appear longer or wider, ceilings higher or lower, halls wider and lighter.

And when you order paint specify Pittsburgh! Being enriched with "Vitolized Oils", Pittsburgh Paints stay live, tough, elastic—provide long-lasting paint protection.

You'll find the fascinating story of what COLOR DYNAMICS is and how it works explained simply and completely in our new book on this subject. Write for free copy—today! Pittsburgh Plate Glass Co., Paint Div., Dept. AF-5, Pittsburgh 22, Pa.



The modern floor (Kentile) is set tile by tile, instead of in sheets. Except when war conditions temporarily eliminate some colors and sizes, Kentile is made in 44 plain and marbleized colors and 15 tile sizes plus 8 widths of feature strips. Therefore-patterns and color combinations are absolutely

lod

Floors

unlimited.

About

The modern floor (Kentile) is so resistant to



moisture and alkali it can safely be used right on concrete even when below grade. The modern floor (Kentile) sets a new standard for wear resistance. For instance, Kentile has served in busy corridors for 15 years without

showing wear.



The modern floor (Kentile) can be cleaned by simple mopping and its luster is maintained by just an occasional waxing.

The modern floor (Kentile), since it is laid tile by tile, may be altered piece by piece in separate areas without disturbing more than the affected sections.

An E TRA advantage of Kentile is the greaseproof tile-entirely resistant to grease, fat and oil. It costs only a few cents more and is available in 16 standard Kentile colors so it can be combined with standard Kentile and used only where needed.

Advantages all told in these New color folders:



You should know ALL the modern "ABC"s of floor quality-the Kentile standards. We couldn't list every one in this ad but we do tell the whole story in a new series of informative color folders. Each folder illustrates Kentile's advantages in various building categories. We'll gladly send you the folders that will help you. Without obligation, write on your letterhead, telling us the types of interiors you are especially interested in. Address David E. Kennedy Inc., 80 Second Avenue, Brooklyn 15, New York.





This man weighed 150 lbs.

-but Cotton Insulation wouldn't pack!

When the weight was removed, the insulation came back as light, fluffy, and efficient as ever.

Cotton Insulation made from the live, springy fibers of specially treated cotton possesses phenomenal qualities of resiliency. Neither time nor vibration will cause it to pack or settle—it only increases its fluffiness.

More efficient by from 4% to 36% (U. S. Gov't. tests), Cotton Insulation has many advantages. Light in weight. Safe to handle. Flame proof. Easily installed.

New construction everywhere is demanding Cotton Insulation. Existing structures are taking advantage of its easy adaptability. Full details are given in the book, "COTTON INSULATION". Send for it.

NATIONAL COTTON COUNCIL OF AMERICA COTTON INSULATION ASSOCIATION

HANDLES EASILY

free

One person can insulate an attic in a few hours, or experienced applicators are available to install Cotton Insulation.

SIMPLE TO INSTALL

To lay it flat, just unroll it like a rug. For upright installations, you simply clip it on. Not abrasive. Harmless to skin and clothing.

MAXIMUM INSULATION

Exceeds other materials 4% to 36% in insulating effectiveness. Can cut fuel bills up to 30%.

LIGHT IN WEIGHT

With 20% to 25% less bulk required, Cotton Insulation represents a structural load factor 40% to 90% less than the same thickness of other materials.

WILL NOT BURN

Even a blowtorch at 1800° will not make it burn. Nor will freezing affect it. Does not attract vermin.

WILL NOT PACK DOWN

It stays fluffed and efficient with permanent resiliency. Neither age nor vibration will pack it down.

MADE TO GOV'T STANDARDS

Production is government inspected. FHA and FPHA approved. No priorities needed.

SEND FOR THIS BOOK TODAYI

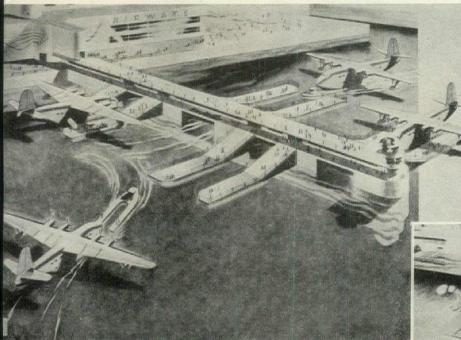
In this book you will find the full amazing story of Cotton Insulation and a full detailed account of government tests. Every architect, contractor, builder, and dealer can benefit by it.

National Cotton Council

- P. O. Box 18, Dept.
- Memphis 1, Tennessee

Please send me your book containing government analyses of the properties and use of Cotton Insulation.

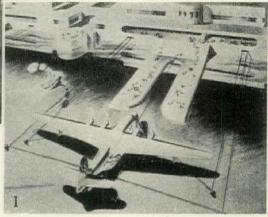
FORUM OF EVENTS



HORSESHOE-SHAPED TUGS propelled by outboard motors (above) can manoeuver seaplanes to their berths through the most congested harbor waters. Cables running to fixed electric winches (right) offer alternate docking facilities.

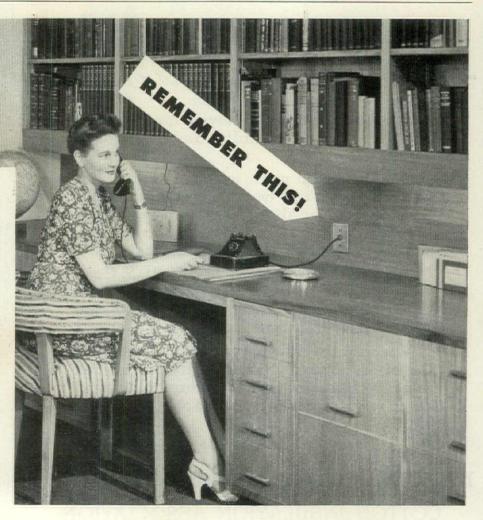
POSTWAR DESIGN OF THE MONTH

Right in the face of those aviation longheads who claim that in the peace to come a seaplane will be as obsolete as an antimaccassar, Glenn L. Martin Co. is forging ahead with elaborate plans for seaplane bases to be constructed on any shoreline. Requiring only a fraction of the land and far less expensive than airfields for landplanes, these bases are in themselves little more than twopronged piers. Ingenious docking devices for the planes, however, will offer the most blasé globe trotter a new travel experience. (Continued on page 86)



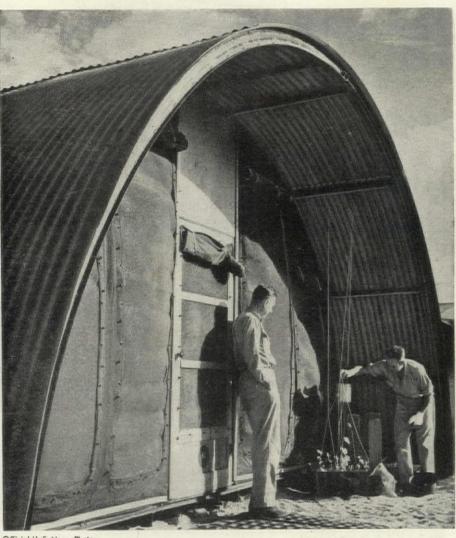
Built-in telephone facilities add real value to the homes you build. Yet it costs little during construction to install telephone conduit with conveniently located outlets. Now is the time to plan for the day when home owners can again have all the telephones they want—by providing for concealed wires to rooms where telephones will be most useful. Your telephone company will be glad to help you mark your plans.

BELL TELEPHONE SYSTEM



The Navy's "Sweetheart" in every port-

A Quonset Hut Insulated with KIMSUL



When the Navy puts a man ashore for land duty—whether it's on a tropical island in the South Pacific or an arctic port in the Aleutians—the sailor knows that he'll probably eat, sleep and work in a Quonset hut. Spread all over the globe, this "world's largest housing project" uses KIMSUL Insulation for protection from the rough and tumble elements, to make as comfortable a life as possible for its men.

"Kimmy"

The same advantages that make KIMSUL ideal for the Navy's use, make it best for home use also. The low cost of KIMSUL and its ease of installation are important. But equally important is its economical storage and shipment. KIMSUL comes compressed to only onefifth its installed length.

KIMSUL, with its many-layer construction, provides one of the most effective blocks to heat and cold known to science—KIMSUL has a "k" factor of only 0.27! This, combined with its resistance to fire, moisture, vermin, insects and fungus, makes it *the* insulation to do the same job for your homes as for the Navy.

Take a tip from the Navy—specify KIMSUL and give homes lasting comfort winter and summer.

A PRODUCT OF

Kimberly

Clark

RESEARCH

Official U. S. Navy Photo

For complete technical data on KIMSUL Insulation refer to Sweet's 1945 Catalog, or write to Kimberly-Clark Corporation, Neenah, Wisconsin.





*KIMSUL (trade-mark) means Kimberly-Clark Insulation

one of America's most Famous Cartoonists BUILDS FUTURE SALES FOR THE NEW COOLERATOR

ILLUSTRATION BELOW IS THE FIRST OF THE COOLERATOR CARTOON SERIES APPEARING IN WOMEN'S NATIONAL MAGAZINES

HOME

..

APPLIANCES

...SHE WON'T BUDGE SAYS SHE'S WAITING FOR COOLERATOR with the MAGIC FLAVOR-SAVER!

Before you design or build post-war homes, remember Coolerator can provide practically any type of home refrigeration . . . from the largest capacity Freezers and Electric Refrigerators to the most economical and streamlined Ice Conditioned Refrigerators.

THESE LEADING FIRMS ARE DISTRIBUTORS FOR AMERICA'S SOLE SPECIALIST IN HOME REFRIGERATION

Allentown, Pa., Bell-Clark & Company Atlanta, Ga., The Yancey Company, Inc. Baltimore, Md., David Kaufman's Sons Binghamptom, N. Y., Southern Tier Elec. Supply Co., Inc. Birmingham, Ala., R. P. McDavid Co., Inc. Boston, Mass., Bigelow & Dowse Company Buffalo, N. Y., H. D. Taylor Company Burlington, Vt., J. S. George Supply Co. Charlotte, N. C., Southern Radio Corporation Chattanooga, Tenn., Radio & Appliance Dist., Inc. Chicago, III., Commonwealth Utilities Company Cincinnati, O., Ohio Appliances, Inc. Cleveland, O., Cleveland Radiolectric, Inc. Columbus, O., Ohio Appliances, Inc. Dallas, Texas, The Schoellkopf Appliance Co., Ltd. Davenport, Ia., G. W. Onthank Co. Dayton, O., Ohio Appliances, Inc. Denver, Colo., David C. Dodge Company Detroit, Mich., Republic Supply Corporation Des Moines, Iowa, G. W. Onthank Company El Paso, Texas, Albert Mathias Company Fargo, N. D., Fargo Glass & Paint Co. Grand Rapids, Mich., State Distributing Company Houston, Texas, Straus-Frank Company Huntington, W. Va., Van Zandt Supply Company Indianapolis, Ind., Appliance Distributors, Inc. Jacksonville, Fla., Consolidated Automotive Co. Kansas City Mo., Enterprise Wholesale Furn. & Stove Co. Knoxville, Tenn., C. M. McClung & Co. Little Rock, Ark., Holcomb Gunn, Inc. Los Angeles, Calif., Sues-Young Co. Louisville, Ky., Ewald Distributing Company Memphis, Tenn., Mississippi Valley Furniture Co. Milwaukee, Wisc., Taylor Electric Company Nashville, Tenn., Keith Simmons Company, Inc. New Haven, Conn., American Distributors, Inc. New Orleans, La., Modern Appliance & Supply Co., Inc. New York, N. Y., D. W. May Corporation Export—J. H. Latham Oklahoma City, Okla., Jenkins Wholesale Division Omaha, Neb., G. W. Onthank Co. Philadelphio, Pac., Elliott-Lewis Electrical Company Phoenix, Ariz, Albert Mathias Co. Pittsburgh, Pa., J. A. Williams Company Portland, Ore., Bargelt Supply Providence, R. L, Providence Electric

Company Richmond, Va., Wyatt-Cornick, Inc. Rochester, N. Y., Bickford Brothers

St. Lauis, Ma., Stanley Distributing Company Salt Lake City, Utah, Refrigeration

Serv. & Eng. Co. San Antonio, Texas, General Hotel

Supply Company

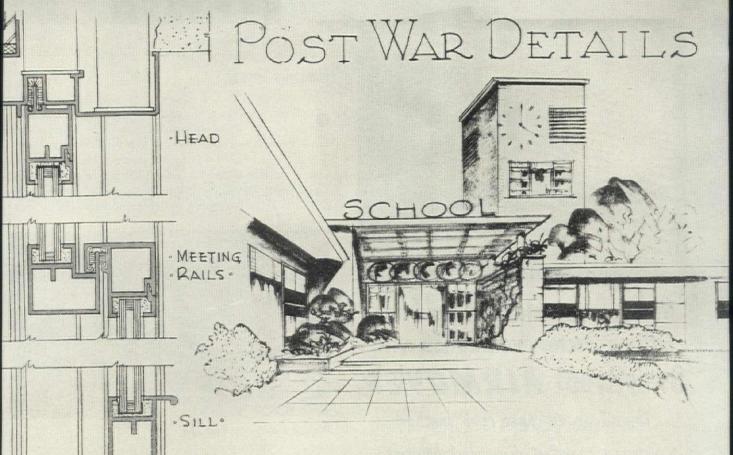


San Diego, Calif., Gough Industries, Inc.

Vincennes, Ind., Ebner Ice & Cold Storage Company Washington, D. C., May Hardware Company



COOLERATOR COMPANY Duluth 1, Minnesota Buy More War Bonds!



A RECENT AUTHORITATIVE SURVEY INDICATES THAT ALUMINUM DOUBLE-HUNG WINDOWS ARE ESPECIALLY ADAPTABLE FOR SCHOOLS BECAUSELIGHT & VENTILATION CAN BE CONTROLLED IN AMOST PRACTICAL MANNER BY MOUNTING

ALF-SCALE-DETAILS (DOUBLE GLASS SHOWN)

-JAMB- MULLION.

DPECIFY

AND

DETAIL

THE ROLLER-SHADES AT THE MEETING-RAILS

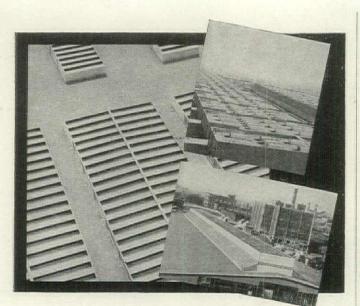
ADLAKE ALUMINUM WINDOWS GLIDE SO EASILY ON THEIR NON-METALLIC WEATHER STRIPPING THAT A CHILD CAN OPERATE THEM WITHOUT DIFFICULTY..... ADLAKE ALUMINUM DOUBLE-LUNG WINDOWS

DOUBLE-HUNG WINDOWS ARE A SELF-LIQUIDATING ASSET...

> ALUMINUM DOUBLE-HUNG WINDOWS

HE ADAMS AND WESTLAKE CO. ELKHART, IND., U.S.A.

alaze



Meet your problems of providing efficient factory ventilation with Swartwout AIRMOVER

The advanced "open roof" method

• Architects and ventilation engineers welcome the AIRMOVER for its adaptability to all roof conditions... its efficiency in handling large volumes of heat-motivated air... its pleasing appearance and low height (only 32").

You can use AIRMOVER on any industrial building

Forge shop Foundry Heat treatment building Assembly buildings Steel mill Machine shop Annealing plant Galvanizing plant Stamping plant Power plant Warehouses Recreation buildings Laboratory Repair shop Garages

AIRMOVER is the modern "open roof" ventilation method that's guaranteed to provide low cost satisfactory results. Can be installed quickly, economically — without complicated construction. It's ideal for remodeling and modernization needs as well as new buildings. Standard units combine to handle almost any situation, or custommade sizes can be had to meet special structural conditions.

AIRMOVER has been proved in severest tests on many vital war plants. See our Bulletin 220 in the new Sweet's Architectural File.

AIRMOVER bas greater exbaust efficiency because of reduced length of air travel through ventilator. Can be as wide as your roop ... but never more than y2" bigb.

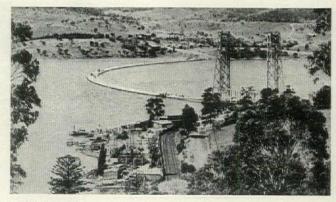


FORUM OF EVENTS

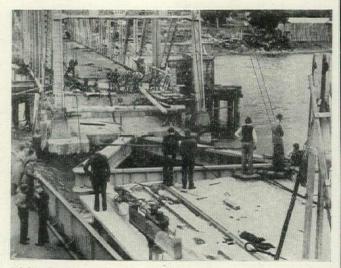
(Continued from page 82)

FLOATING BRIDGE

The new curved, floating bridge which spans Australia's Derwent River is not the result of a war exigency, its unfamiliar and temporary appearance notwithstanding. Designed by David Victor Isaacs in consultation with the Tasmanian Public Works Department, it requires a minimum of heavy construction, is quickly assembled, breasts the river's swift current. The floating part of the bridge consists of 24 prefabricated pontoons of hollow reinforced concrete, each 132 ft long.



Pontoon causeway in Tasmania



Joining floating section to fixed span

These were launched in quiet waters and joined by welding the hundreds of steel reinforcing rods embedded in their walls to form a 3,165 ft. section which was then towed into place. Passage of shipping is permitted by a 204 ft. lift span on the near shore of the river which can be raised electrically to a height of 180 ft. in two minutes' time. The span operates on steel towers in foreground of upper picture. The gentle curve of the bridge, pointing upstream, deflects thrust of the strong center current toward the banks.

EXHIBITS

Sponsored by the Netherlands-America Foundation, a memorial exhibition of the works of the Dutch painter, Piet Mondrian, will be on view at New York's Museum of Modern Art until May 13th. Fifty oils and drawings covering a (Continued on page 90)

A REPORT on the Performance of WAX WOOD FINISHES-1944 - "No Better or 1937—"Efficient and Satisfactory for Schools" Cheaper Method"

CHAS. W. CONNELLY ARCHITECT BUILDERS BUILDING GUARLOTTE NORTH CAROLINA December 30, 1937

Minwax Company, Inc. 11 West 42nd St. Answering your recent letter relative to my ex-New York, N. Y. perience with MINWAX Flat Finish, would advise that we have specified it extensively for stand Gentlemen: ing trim and paneling on school work throughoy the local district and am satisfied that for Type "0" work for which I have specified it, is an efficient and satisfactory material. It has been my experience that because of ease with which it can be applied, it has Possible to get satisfactory results at 9

both as to appearance and as to the dur and effectiveness of the finish under - very truly, conditions.

CHAS. W. CONNELLY ARCHITECT BUILDERS BUILDING GUARLOTTE NORTH CAROLINA Minwax Company, Inc. New York, N. Y. December 6, 1944 Gentlemen: In the past ten years I have used Minwax Flat Finish on Practically all my work. Flat Finish on practically all my motes Where a smooth, durable, stained surface was desired, for paneling, floors, etc., I find no better and cheaper method than the applino better and cneaper method than the appli-cation of Minwax. Yes, my clients seem well satisfied. Very truly yours,

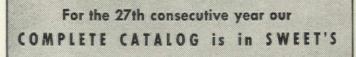
C. W Comelly Chas. W. Connelly

HIGH SCHOOL KINGS MOUNTAIN, N.C. Typical of 40 Carolina Schools where MINWAX has "saved money Chas. W. Connelly, Architect

URABILITY-ease of application-economy... all are important performance characteristics. Many years of experience with MINWAX Wood Finishes in schools and residences lead architect Chas.W. Connelly to state, "I find no better or cheaper method ... my clients seem well satisfied."

With so much emphasis being placed on giving the post-war owner the most for his building dollar, this is significant. It confirms the experience of hundreds of other architects over more than 30 years.

MINWAX is the original penetrative stainwax finish. In clear and authentic stain colors, it enriches the true, natural beauty of the wood with a soft wax finish of great charm. Because it penetrates the wood, MINWAX

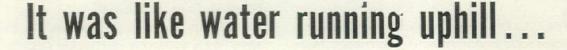


cannot chip, mar or scratch white. On floors, worn spots where traffic concentrates can easily be "patched" (retouched) with a little more MINWAX. Re-scraping is therefore never necessary.

We believe, on the basis of past performance, that MINWAX will answer the requirements of the most exacting post-war owner. For full information, refer to our catalog in Sweet's, or write to MINWAX Company, Inc., 11 West 42nd Street, New York 18, N.Y.

FOR FINAL VICTORY ... BUY-AND HOLD-WAR BONDS





-

How could a huge copper box gutter, with no provision for expansion and contraction, give perfect service for 70 years? Such a gutter actually exists. Yet all experienced sheet metal men, including ourselves, thought of it much as we would of water running uphill. It seemed contrary to Nature...until Revere's sheet metal research supplied the explanation, not only for the surprising service of this gutter, but for the disappointing service of certain others.

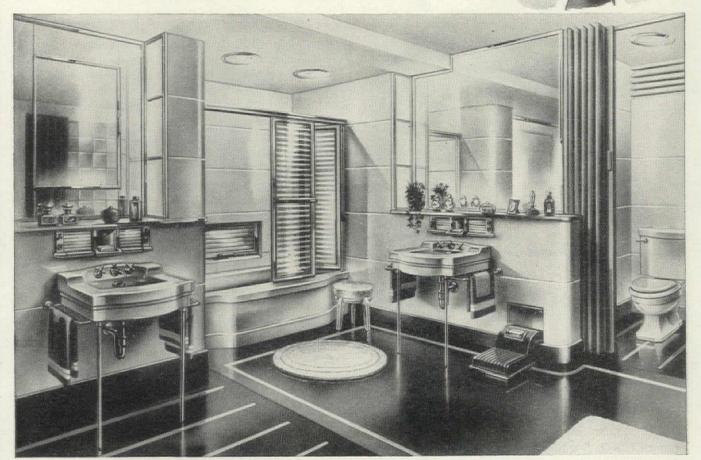
In the Revere Research Laboratory we duplicated the 70-year old installation, and subjected it to successive cycles of heat and cold. We found that the heavy-gauge cold-rolled copper used had enough columnar strength not to buckle when it expanded. Instead, it merely flexed or bowed. No failure occurred. When light-gauge copper was used, it buckled — and promptly failed. Nor did the presence of expansion joints, when tried, alter the final result.

From this and other Revere research has come the principle of columnar strength as applied to sheet copper construction. From that principle Revere has worked out new methods that reduce this type of construction to a matter of engineering design. These will be described and illustrated in a booklet now being prepared. Upon request we will place your name on our list to receive a complimentary copy when issued. Write the Revere Executive Offices. Revere materials are handled by Revere Distributors everywhere. For help in difficult problems, call on the Revere Technical Advisory Service, Architectural.



"Slick bathroom! . . . let's snitch a few ideas!"

"Pretty swank . . . that business of having two wash bowls. And darn practical, too . . . with our houseful of kids. The long wall in our bathroom would take 'em nicely!"



PLAN FOR TOMORROW - BUY MORE WAR BONDS TODAY

"That safety bottom bathtub with shower would be swell in the bathroom we're planning. I'd put my dressing table across from the lavatory and build closets on each side of the door as you come in. And that Briggs Beautyware in blue is a happy thought for the pink and blue color scheme I have in mind!"

"My problem is to modernize an old bathroom. And I can't think of a quicker, slicker way to do it than with Briggs Beautyware! It's so smartly styled and is so easy to keep clean . . . bet you I'd never be ashamed of my bathroom again!"

FREE BOOKLET-"Planning your Bathrooms and Powder Room." Write for yours today!



Whether you're planning a bathroom for a new home or modernizing an old bathroom . . . Briggs is working hand-in-hand with you! Our designers have done wonders with those formed metal plumbing fixtures you already like so much. When you see them again, they'll be the last word in style and convenience . . . and, as always, built to last!

BRIGGS Beautyware

BRIGGS MANUFACTURING COMPANY, PLUMBING WARE DIVISION, DETROIT 11, MICHIGAN

This advertisement, in full color, appears in: House Beautiful, June; House & Garden, July Copr. 1945

the modern pipe

FOR TOMORROW'S PLANS

There's a modern non-metallic pipe in keeping with plans for tomorrow's ideal home. It's ORANGEBURGthe root-proof, trouble-free, lifetime pipe for house-tostreet sewer or septic tank connections and other nonpressure uses outside the house.

ORANGEBURG is made in long, lightweight lengths; can be handled, transported and installed with ease; does not chip or break easily; has an exceptionally high flow capacity; and has a proven record of permanence. TAPERWELD JOINTS are assembled quickly, securely, without cement or joining compound.

Also comes PERFORATED - the perfect pipe for septic tank filter beds, foundation footing drains and subsoil drainage.

You will be interested in the many unusual characteristics of this modern pipe. Write today for a descriptive booklet. Dept. AF, THE FIBRE CONDUIT COMPANY, ORANGEBURG, N. Y.



The Root-Proof Pipe

ANGEBURG



FORUM OF EVENTS

(Continued from page 86)

period from 1900 until the painter's death in 1944 will be included. The Museum is also preparing in multiple form a series of small, compact but very complete exhibitions to be sold and circulated throughout the country and abroad. An example is the one entitled, What is Modern Painting, which includes 31 full color and nine black and white reproductions of modern paintings mounted on thirteen large, colored panels with text discussing the pictures in terms of the important trends in painting during the last 75 years. A book by Alfred H. Barr under the same title is published in conjunction with the exhibit, which rents for \$12 per week and sells for \$60. Other multiple exhibits now available are Creative Photography and Look at Your Neighborhood.

COMPETITION

La France Industries of Philadelphia, Pa., has announced a second competition in textile designs for upholstry and drapery fabrics. Awards will range from \$15 to \$100 in cash. The scope of this year's competition has been widened to include examples of fabrics personally designed and woven on hand looms. Another change in the rules provides for two classes of awards-one for students and amateurs and another for professional designers and instructors. Entries must be received in Philadelphia not later than May 15th. Judging will take place during the early part of June and winners will be announced at that time. Among the jury members are architect Oscar Stonorov and Richard Bach of the Metropolitan Museum of Art.

SCHOLARSHIPS

The College of Architecture and Design of the University of Michigan has announced that two Arthur C. Tagge scholarships in the amount of \$325 each may be awarded again this year. Candidates may be students in architecture, landscape architecture, painting or design and shall have been in residence in the college for at least one semester. Preference will ordinarily be given to advanced students. The scholarships will be awarded for the fall term of 1945-46. Awards will be made only if the qualifications of applicants are considered adequate. Application should be made before June 1, 1945 to the Office of the Dean, 207 Architecture Building, Ann Arbor, Mich.

The Department of Architecture of Syracuse University announces one \$400 and one \$200 scholarship to be awarded by competition on Saturday, July 14, 1945. The competition will be in two fields-drawing and preparatory school record. Contestants must submit to the College of Fine Arts, not later than Thursday, July 5th, a portfolio containing not more than 20 examples of their work in free-hand and mechanical drawing together with three letters of recommendation as to personality, character and general fitness. The high school records of all contestants will be carefully examined and special attention will be given to mathematical ability. Each contestant must be a graduate of an accredited high school and must, on or before June 25th, apply to the Director of Admissions, Administration Building, Syracuse University, for entrance to the College of Fine Arts as a regular student and must submit a recommendation from his high school prin-(Continued on page 94)

The Economical Insulation

You will find that PC Foamglas can be cut to fit around projections and openings right on the job, with ordinary tools. The big, strong, rigid slabs, conveniently packaged, can be handled and laid quickly and easily.

FOAMGLAS

IN the long run, you will find this cellular glass material the most economical insulation you can use. Why? Because the insulating properties of PC Foamglas are *permanent*.

While the insulating efficiency of many insulation materials deteriorates with age, PC Foamglas goes on year after year without loss of its original insulation value. Being glass, it is impervious to moisture, acid atmospheres, fumes, and vapors. It is verminproof, fireproof.

On roofs and equipment, in floors and walls, PC Foamglas has maintained predetermined temperature and humidity levels. It prevents condensation. Can you think of any other insulation that does all these things - permanently?

In all sorts of plants, all over the country, PC Foamglas is in increasing demand among men who are facing insulating problems. Freedom from repairs and replacement alone is prime proof of its ability to keep insulation costs down.

When you are considering insulation, be sure to check other materials against PC Foamglas. For complete information, just fill in and mail the convenient coupon. We shall be glad to forward free copies of the booklets you select. Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh 22, Pa.

Also manufacturers of PC Glass Blocks



This concrete floor, insulated with PC Foamglas, prevents heat travel from the room below. A concrete wearing floor will cover the PC Foamglas.



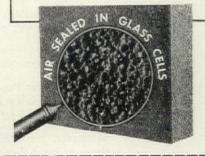
This re-roofing job includes permanent insulation. Roofers have found that they can safely recommend PC Foamglas to the most exacting plant managers for the toughest insulating jobs. PC Foamglas retains its original insulating value—indefinitely.



CHECK THESE PROPERTIES OF PC FOAMGLAS:

- 1. Permanent insulation
- 2. Vermin- and vaporproof
- Fireproof
 Waterproof
- 5. Light weight
- 6. Easy installation
- 7. Rigid structure
- 8. Economical

FIRST COST IS LAST COST



Room	639, 632 E irgh 22, P	ing Corpor Duquesne W 'a.	
Please	send alor ts I have o	ng my free	Floors copies of the is understood
Name.			
Addre	88		



The Challenge

JEFFERSONVILLE, INDIANA MARCH 6, 1945.

HERMAN NELSON CORP.

GENERAL SOMERVELL, CHIEF OF ARMY SERVICE FORCES, HAS DIRECTED THAT MARCH 1945 BE THE GREATEST VOLUME MONTH OF THE WAR PRODUCTION EFFORT TO DATE. YOU ARE REQUESTED TO EXPEDITE PRODUCTION ON ALL YOUR CONTRACTS WITH THE JEFFERSONVILLE QUARTERMASTER DEPOT, REGARDLESS OF CONTRACT SCHEDULE. ALL FIGHTERS OF THE PRODUCTION FRONT ARE ASKED TO GIVE ALL EFFORT POS-SIBLE TO COMPLY WITH GENERAL SOMERVELL'S WISHES IN COOPERATION WITH THE MEN ON THE FRONT FIGHTING LINES.

JEFFERSONVILLE QUARTERMASTER DEPOT

Our Answer

There could be but one — increased production of the special equipment built by Herman Nelson and shipped overseas to the battlefronts as fast as we can turn it out.

Since the outbreak of war, Herman Nelson has been building special equipment for overseas use of all branches of the Armed Forces. With greatly increased activity in overseas operations, there has been a correspondingly great increase in 1945 requirements for this Herman Nelson-Built Equipment. We'll meet our schedules — yes, and make deliveries ahead of contract if devoting every effort all down the line will make this possible.

For this reason — and you'll agree that it's an all-important one — we may not at all times be able to satisfy the demands for Herman Nelson Heating and Ventilating Products.

However, after the overseas requirements of our Fighting Men are met, we will continue to do our best to provide quality equipment for essential projects of the Army and Navy and for necessary industrial War developments.

Moreover, Herman Nelson Branch Offices, Product Application Engineers and Distributors will continue to assist you in solving heating and ventilating problems on all projects which are essential today and for those projects which will be undertaken after Victory.



lerman Nelson Direct Drive Propeller Fans Herman Nelson Belt Drive Propeller Fans





Herman Nelson Horizontal Shatt Propeller-Fan Type Unit Heaters Herman Nelson Type H Centrifugal Fans







Herman Nelson Verical Shaft Propelleran Type Unit Heaters

NELSON has but one answer

Herman Nelson Branch Offices

Boston-J. E. Carey, Mgr., J. F. Flannery, Product Application Engineer.
Chicago-C. A. Pickett, Mgr., J. C. Donaldson, Herman Stai, Product Application Engineers.
Detroit-M. E. Van Vliet, Mgr., E. C. Seyphol, Product Application Engineer.
Milwaukee-Carl Amundson, Product Application Engineer.
Minneapolis-Homer Melvin Bird, Product Application Engineer.
Moline-Anthony Spoodis, Product Application Engineer.

New York-Robert F. Ruggles, Mgr., E. V. Loughran, Product Application Engineer. Philadelphia—P. A. Cavanagh, Mgr. St. Louis—Henry C. Sharp, Mgr., E. Paul Harder, Product Application Engineer.

Engineer. Syracuse—Lawrence C. Ward, Product Application Engineer. Washington—J. M. Osborne, G. M. Heslop, Product Application Engineers

Application Engineers Herman Nelson Product

Albuquerque, N. M.—Boyd Engineering Co., Ltd. Atlanta, Ga.—Felix J. Commagere Birmingham, Ala.—Hugh C. Boisclair Buffalo, N. Y.—Edward H. Cox Cape Elizabeth, Me.—The Partridge Co. Charlotte, N. C.—Charles M. Setzer & Co. Cincinnati, O.—Kenneth B. Little Co. Cieveland, O.—H. W. Kaiser Company Columbus, O.—Russell H. Smith Equipment Co. Dallas, Tex.—W. E. Lewis & Co. Denver, Colo.—Fox & Company Des Moines, Iowa—Products, Inc.

Duluth, Minn.-Williams-Swanson Co. El Paso, Tex.-Boyd Engineering Co., Ltd. Grand Rapids, Mich.-O. D. Marshall Houston, Tex.-D, R. Rippey Indianapolis, Ind.-George Heidenreich Jackson, Miss.-H. M. Ludlow Kansas City, Mo.-H. H. Wright Company Louisville, Ky.-John Zimmermann Los Angeles, Calif.-F. J. Hearty & Co. Memphis, Tenn.-Southern Sales Co. Miami, Fla.-R. P. Kelley Milwaukee, Wis.-C. W. Miller

Minneapolis, Minn.—P. R. Reese Nashville, Tenn.—Southern Sales Co. New Orleans, La.—L. Villere Cressy Co. Oklahoma Cify, Okla.—O. T. Carroll Omaha, Neb.—Verne Simmonds Pittsburgh, Pa.—Allegheny Engineering Co. Richmond, Va.—W. Wallace Neale Saginaw, Mich.—W. A. Witheridge Co. Salt Lake Cify, Utah—Rushby C. Midgley San Antonio, Tex.—Harry J. Dalton San Francisco, Calif.—E. C. Cooley Co. Spokane, Wash.—R. L. Nelson

Herman Nelson Distributors

Babbitt Steam Specialty Co. Babbitt Steam Specialty Co. New Bedford, Mass. Bailey-Farrell Co. Pittsburgh, Pa. E. Best Plbg. & Htg. Supply Co. Quincy, Ill. W. L. Blake & Co. Portland, Me. The Blodgett Supply Co. Burlington, Yt. J. C. Bowles Co. Seattle, Wath. J. C. Bowles Co. Seattle, Wash. Braid Electric Co. Nashville, Tenn. Brammall Supply Co. Benton Harbor, Mich. Brock-McYey Co., Inc. Lexington, Ky. Bruce-Rogers Co. Fort Smith, Ark. Calcasieu Lumber Co. Austin, Tex. Canney-Plue, Inc. Rutland, Yt. Careva Company York, Pa. Carman-Thompson Co. Lewiston, Me. Carman-Inompson Cc. Lewiston, Me. W. A. Case & Son Mfg. Co. Erie, Pa., and Jamestown, N. Y. Cedar Rapids Pump & Supply Co. Cedar Rapids, Ia. Central Metal & Supply Co. Baltimore, Md. Consolidated Supply Co., Inc. Portland, Ore. Portland, Ore. Cooper Supply Company Tulsa, Okla. Harry Cooper Supply Co. Springfield, Mo. Cordes Supply Co. Milwaukee, Wis.

Dallman Supply Co. Sacramento, Calif. Desco Corporation Wilmington, Del. and Chester, Pa. R. B. Dunning & Co. Bangor, Me. Electric Supply Co. Atlanta, Ga. Ewinger Supply Co. Burlington, Ia. Fox Electric Supply Co. Elgin, III. Globe Machinery and Supply Co. Des Moines and Cedar Rapids, Ia. Griffith Electric Supply Co. Trenton, N. J. Griffith Electric Supply Co. Trenton, N. J. Hajoca Corporation Asheville and Charlotte, N. C., Richmond, Norfolk, Roanoke, Danville, and Staunton, Va. Hall & Knight Hardware Co. Lewiston, Me. Hansen Supply Co. New London, Conn. The Hardware & Supply Co. Massillon, O. Heating Trades Supplies, Inc. Toledo, O. Heating Trades Supplies, Inc. Toledo, O. Holyoke Supply Co., Inc. Holyoke, Mass. The Hughes Supply Co. Mansfield, O. Inland Supply Co. Champaign and Danville, III. Inland-Peoria Supply Co. Peoria, III. International Engr. & Supply Co. Providence, R. I. E. Keeler Company Williamsport, Pa. The W. H. Klefaber Co. Dayton and Hamilton, O.

Kester Machinery Co. Winston-Salem, High Point and Burlington, N. C. LaCro..e Plumbing Supply Co. LaCrosse, Wis. Latrobe Plumbing Supply Co. Latrobe Plumbing Supply Co. Latrobe, Pa. Lehigh Valley Supply Co. Allentown, Lansdale, East Stroudsburg and Easton, Pa. LeValley, McLeod, Kinkaid Co., Inc. Elmira, Olean, Schenectady, N. Y The Link Company Jackson, Mich. Luzerne & Lackawanna Supply Co. Wilkes-Barre, Pa. Y. Luzerne & Lackawanna Supply Co. Wilkes-Barre, Pa. Manufacturers Selling Co. Trenton, N. J. Marsden & Wasserman, Inc. Hartford, Conn. Michigan Supply Co. Lansing, Mich. Chas. Millar & Son Co. Utica and Binghamton, N. Y., Springfield, Mass., & St. Johnsbury, Yt. Morrison Supply Co. Fort Worth, Amarillo, Lubbock, Wichita Falls and Sweetwater, Tex. Mott Bros. Company Rockford, Ill. Murphy Supply Co. Rockford, III. Murphy Supply Co. Green Bay, Wis. The Ohio State Supply Co. Youngstown, O. Palmer Plumbing Supply Co. Laconia and Rochester, N. H. Palmer Supply Co. Portland Ma Paimer Supply Co. Portland, Me. The Penn State Supply Co. Sharon, Pa Reading, Foundry & Supply Co. Reading, Pottsville, and Lebanon, Pa.

W. J. Riley Supply Co. Monroe, La. Robbins-Gamwell Corporation Pittsfield, Mass. The Rockel Company Zanesville, O. The Salina Supply Co. Salina, Kan. San Antonio Machine & Supply Co. Corpus Christi and Waco, Tex. Southern Equipment Co. Southern Equipment Co. San Antonio, Tex. Strong, Carlisle & Hammond Co. Cleveland, O. Tay-Holbrook, Inc. San Francisco, Fresno, San Jose and Stockton, Calif. The Tholen Bros. Supply Co. Leavenworth, Kan. The Topeka Steam Boiler Wks. Co., Inc. Topeka, Kan. Trimble & Lutz Supply Co. Wheeling W. Va. Trimble & Lutz Supply Co. Wheeling, W. Va. Geo, E. Trudel Co. Manchester, N. H. U. S. Supply Co. Kansas City, Mo., Wichita, Kan., Oklahoma City, Okla., and Omaha, Neb. The Universal Supply Co. Parkersburg, W. Ya. J. A. Walsh & Co., Inc. Houston, Texas Washburn-Garfield Co. Worcester, Mass. Worcester, Mass. Western Maryland Supply Co. Hagerstown, Md. Wigman Company Sioux City, Ia Yelton-Weaver Supply Co. Springfield, III.



NELSON CORPORATION HERMAN Manufacturers of Quality Heating and Ventilating Products GENERAL OFFICES: MOLINE, ILLINOIS . FACTORIES AT MOLINE, EAST MOLINE AND CHICAGO, ILLINOIS

Herman Neison Belt Drive Unit Blowers





Herman Nelson Blower-Fan Type Unit Heaters







Herman Nelson Unit Ventilators



A WAR TESTED FINISH FOR Tomorrow's Buildings

Seaporcel*, developed to withstand grueling punishment at sea, is a new and improved ceramic coating. One of its many future applications will be to beautify buildings such as the theatre shown above. A product of the war, Seaporcel is destined for widespread use in tomorrow's peaceful world.

Because of the unlimited variety of shapes, shades, colors and finishes in which Seaporcel can be made, it affords the architect almost endless opportunities for useful application to building faces, signs, etc. Write for information today.

Seaporcel is fused to its metal base at 1500° F.; it is NOT a baked enamel (paint dried at 200-350° F.).

There are a few areas in which Seaporcel Porcelain Metals Inc. is not represented. Inquiries from interested agents are invited.

*Reg. U. S. Pat. Off.

SEAPORCEL PORCELAIN METALS, INC.

28-00 Borden Avenue, Long Island City 1, N. Y. Formerly Porcelain Metals, Inc.

FORUM OF EVENTS

(Continued from page 90)

cipal as to his character, health and ability. Application must be accompanied by the required \$5 matriculation fee.

Each portfolio of drawings must contain the name and address of the student contestant and a statement from the student's high school principal that the drawings, etc., in the portofolio are the original work of the contestant. All portfolios will be returned after the contest by express collect unless other arrangements are made with Dean H. L. Butler. Architectural scholarships may be held for a five year period provided the student maintains a C plus (80 per cent) average each year.

AWARD

Of the 915 designs submitted in the Pencil Points-Pittsburgh Plate Glass competition, "A House for Cheerful Living," that of Norman Fletcher and Jean Bodman Fletcher of Birmingham, Mich., won first prize. I. M. Pei and Frederick G. Roth of Princeton, N. J., won second prize, Ralph Rapsom of Chicago, third and Eduardo Fernando Catalano of Cambridge, Mass., fourth. Honorable mentions went to Elmer Babb, Cleveland, Ohio; Donald Bathelme, Houston, Tex; Karl J. Belzer and Karel K. Dekker, Los Angeles, Calif.; Major Thomas J. Biggs, Aberdeen Proving Ground, Md.; Bernard L. Campbell, Plainfield, N. J.; W. Brooks Cavin, Silver Spring, Md.; C. N. Chau, Chicago, Ill.; A. Albert Cooling, Los Angeles, Calif.; Alexis Dukelski, West Los Angeles, Calif.; Leon Hyzen and Allmon Fordyce, New York; Seymour R. Joseph, New York; Stanley A. Kazdailis, Chicago, Ill.; Lt. Vincent G. Kling, Norfolk, Va.; Oliver Lundquist, Washington, D. C.; Charles G. MacDonald, Cambridge, Mass.; Pat Marshall, Chicago. Ill.; C. Stuart Perkins. Wayzata, Minn.; F. G. Roth and I. M. Pei, Princeton, N. J.; Simon Schmiderer, Torquato de Felice and Michael M. Harris. New York; Douglas C. Simpson and Edward P. Elliott, Ottawa, Canada; Joseph Allen Stein, Mid Valley, Calif.; E. W. Waugh, George Matsumoto and Charles T. Granger, Bloomfield Hills, Mich.; Frank Weiss, Philadelphia, Pa.; Charles D. Wiley, Birmingham, Mich.

Eight special prizes were awarded to Eduardo Fernando Catalano, W. Brooks Cavin, Louis C. Dixon and Lee B. Kline, Seymour R. Joseph, Charles G. MacDonald, I. M. Pei and Frederick G. Roth, Ralph Rapson, Charles D. Wiley.

NEW OFFICES

3

SEV JONASSEN, industrial designer formerly with General Motors, has opened his own office at Hunterbrook Road. Peekskill, N. Y.

CHANGE OF ADDRESS

ROGER ALLEN, architect, announces the removal of his office to 1126 Grand Rapids National Bank Building, Grand Rapids 2, Michigan.

OSCAR FISHER, designer, has moved his office to 154 Nassau St., New York 7, N. Y.

THE DETROIT BRASS FOUNDRY will hereafter be known as the Los Angeles Brass Co., and will occupy new offices at 90 Oak Knoll Ave., Pasadena, Calif.



Employes need fresh, cool water, too

Remember the old oaken bucket?

Pretty impractical in today's busy war plants. Yet, employes need . . . for efficiency and morale . . . at least eight glasses of water daily, doctors say.

Large capacity, economical Westinghouse Water Coolers provide all the water employes need. There are several models to choose from, including an explosion-proof model approved by Underwriters' Laboratories for installation in refineries, munitions plants or wherever explosions are a hazard.

Dependability and low-cost operation are assured by the hermetically-sealed refrigeration system, pioneered and developed by Westinghouse. Dirt and moisture, enemies of cooler efficiency, are sealed out.

Ask your Westinghouse supplier about models available now.

Westinghouse Electric & Manufacturing Company, Springfield 2, Mass. Plants in 25 cities. Offices everywhere.

Westinghouse WATER COOLERS

US-10B Water Cooler with bubbler.

Packaged Refrigeration by Westinghouse

MILK COOLERS • HOME FREEZERS • REACH-IN REFRIGERATORS • ROOM COOLERS • BEVERAGE COOLERS Tune in John Charles Thomas, Sunday 2:30 E.W.T., N.B.C. • Hear Ted Malone, Mon. Tues, Wed. Evenings, Blue Network



BUILD BETTER WITH

GOLD BOND

LATH . PLASTER . LIME . METAL PRODUCTS . WALL PAINT . INSULATION

ALMOST any material you can name is "fireretarding". Even a newspaper dropped on a bonfire will slow down the blaze for a moment. That isn't to say that fire-retarding materials shouldn't be used in home construction. They have a very real function for framework, exterior and interior finish, and flooring. But when, for the same money or less, you can get fireproof materials for wall and ceiling insulation, why take a chance on materials that are merely "fire-retarding"?

In homes, fires often spread rapidly because the space between the 2x4's acts as a flue. In spite of the usual fire stops, flames can leap from basement to attic in a matter of seconds. This can be prevented when full-thick fireproof insulation is used.

When you specify Gold Bond Rock Wool, your client is getting insulation that is fireproof permanently fireproof—not merely fire resistant or fire retardant. It is made by one of the country's largest manufacturers of building materials, and is furnished in the newest type blankets and batts in all standard sizes and thicknesses. You will find the full line of 152 Guaranteed Gold Bond Products described in Sweet's.



Fireproof as the rock from which it is made, Gold Bond Rock Wool simply can't burn.

POST-WAR NEWS! Revised building codes in many cities will insist on home insulation that really adds fire protection. Gold Bond Rock Wool meets these exacting requirements.

National Gypsum Company, Buffalo 2, N. Y.

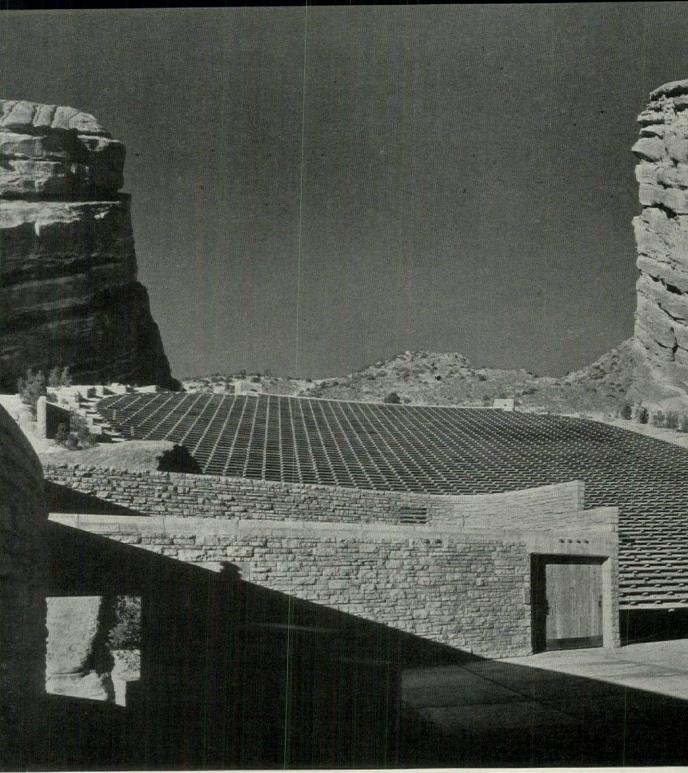
LIBOARD

SOUND

CONTRO

.

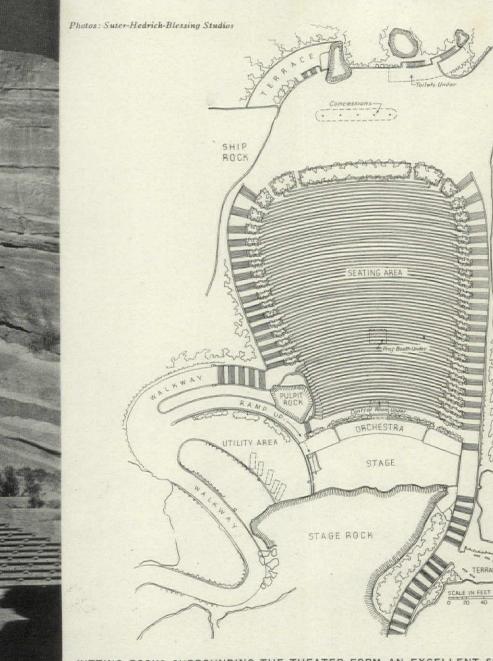
OUTDOOR AMPHITHEATER



BLEACHERS SEATING AUDIENCE OF 9,000 OCCUPY A NATURAL OPEN SPACE WHICH SLOPES GENTLY DOWNWARD

RED ROCKS AMPHITHEATER, COLORADO

For a setting of weird natural beauty, Burnham Hoyt designs an outdoor theater which in sheer dramatic structure is unrivaled in the world.



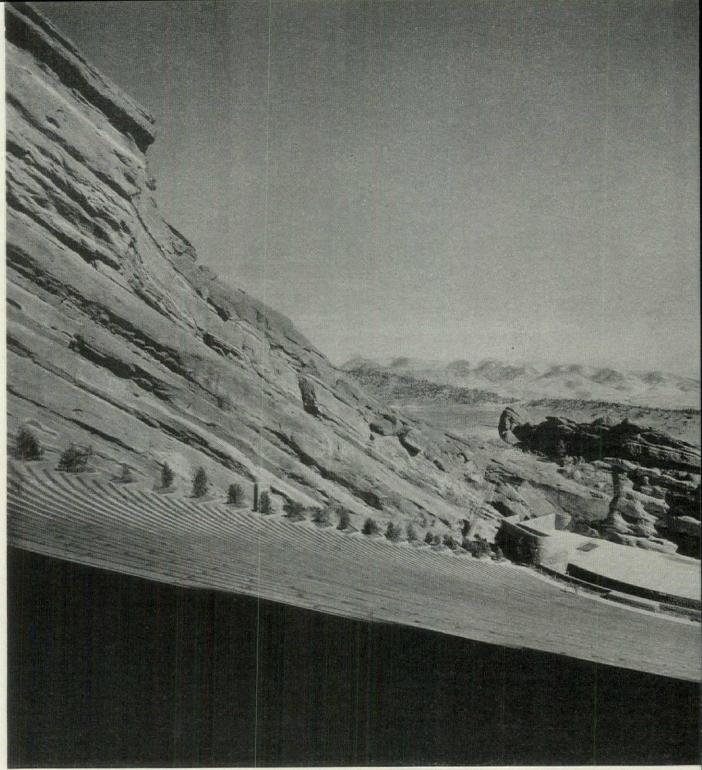
JUTTING ROCKS SURROUNDING THE THEATER FORM AN EXCELLENT SOUNDTRAP

GREAT BOCK

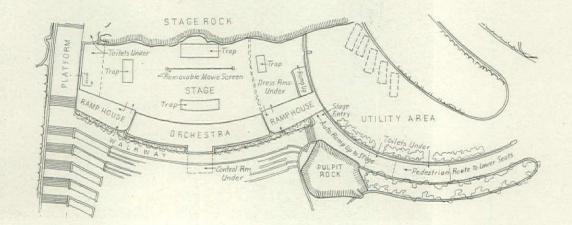
-



HUGE SANDSTONE MONOLITHS



STUPENDOUS VIEW SERVES AS BACKDROP FOR STAGE. RAMP HOUSES AT EITHER SIDE OF APRON ARE THEATER'S OF



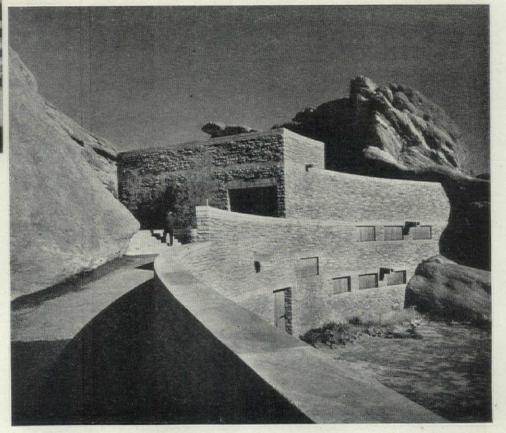
Red Rocks Ampitheater, cushioned against the Denver foothills and affording a magnificent view of distant mountains to the east, is a superb example of what an architect can do with a liberal helping hand from God. More important, it is also an example of the admirable restraint with which architect Hoyt preserved the original flavor of a majestic setting—a restraint which, for once, admits nature as a full collaborator.

The basic plan was determined by the natural rock formation. Fantastically-shaped, intensely red sandstone monoliths outline the perimeter of a huge sloping open area and give the location uncanny acoustic properties a whisper carries perfectly to the very top of the seating space. The weird beauty of the site coupled with its unique dramatic assets made it imperative that the theater built there truly merge with its surroundings. For this reason, native stone which approximates the red color and rough texture of the monolithic rocks was used throughout, and the entire design held to extreme simplicity.

Major change was the extensive cut and fill required to correct the original contour of the audience area which sloped south away from "Stage Rock" at front center. Fortunately, this laid bare a continuation of the large "Creation Rock" which forms the right "wall" of the theater and gave an added unity to the entire composition. The seating layout was dictated by the existing top level slope. Wide rows of bleachers are serviced by side stairways and separated from them with buffer strips of juniper, a shrub native to this section of Colorado. The old stage fill, made a number of years ago to provide a level space for amateur theatricals, was completely excavated, thus affording two levels of storage space and dressing rooms under the stage.

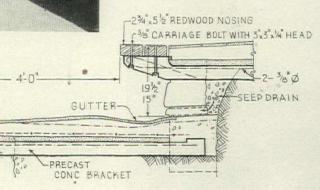
To preserve the pristine atmosphere of the theater, parking areas are located at the upper level of the seating space out of audience view. Mechanical facilities are also hidden. The switchboard which controls all lighting is placed behind the conductor's stand. A moving picture booth is located under a section of removable seats in the center area and the stage provided with a disappearing moving picture screen and four traps. With a minimum of architecture per se, Red Rocks Ampitheater is unquestionably an architectural triumph.

SIDE VIEW OF RAMP HOUSE SHOWS ENTRANCE TO DRESSING ROOMS, TOILETS

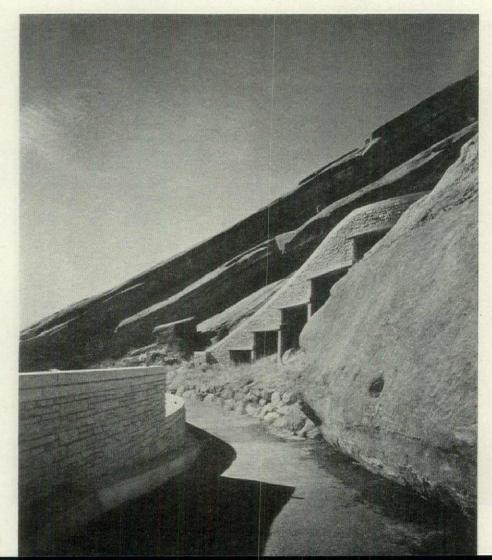


STURE TOWARD A PROSCENIUM





The 4 ft. spacing of the bleachers makes radiating aisles unnecessary, allows latecomers to reach their seats without disturbing others. Side circulation is provided by 20 ft. wide stairways with landings at every third row of seats.



THE ARCHITECTURAL FORUM

MAC DILL FIELD, FLORIDA

More in a series of remodeling projects proving that temporary military buildings can be economical and attractive.

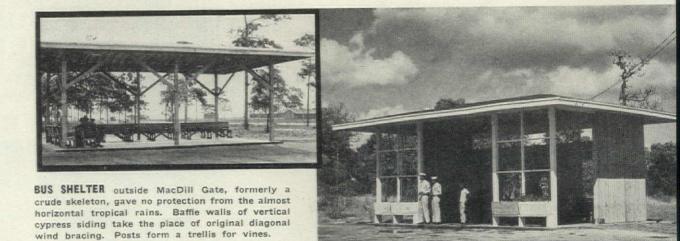


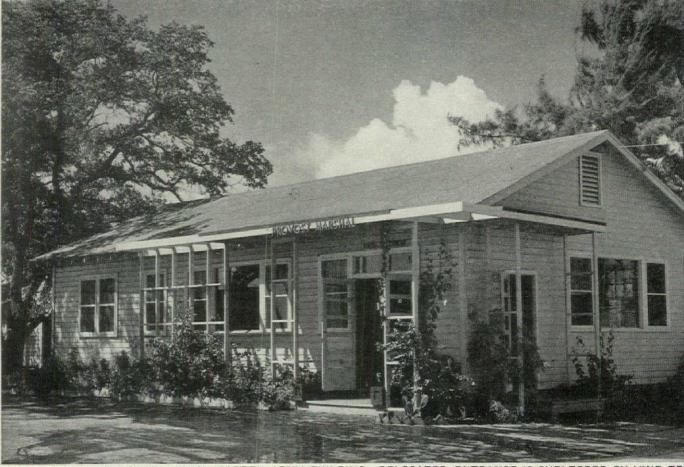
AIR FORMER

MAC DILL'S WISHING WELL, originally planned as simply a design feature, gleaned almost \$3,000 in a single year. Submerged marble plaque at center of pool tells contributors that money collected goes to veterans.

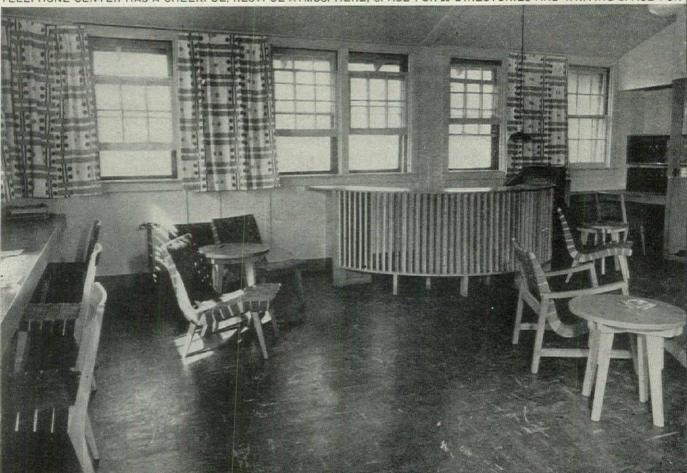
Mac Dill Field, Florida, has appeared twice before in THE FORUM. In June, 1943 we published its redesigned and rebuilt Post Exchange and in February, 1944 a number of remodeled community facilities. All of this work, and the various service and recreational centers on the following pages are the work of Capt. Joseph J. Roberto, formerly special service officer at the field. An outstanding demonstration of the fact that good design is not inconsistent with temporary, low cost construction, it serves to show how little is needed to convert hard-boiled, standardized army structures into attractive, useful buildings.

Many are unaware of the fact that the Army feels shortages of building materials just as acutely as any civilian construction agency. Many camps are located far from rail and industrial centers and shortages are even more apparent. The War Department, in order not to aggravate material shortages, has set limits on the cost of construction and the cost of remodeling of military structures, similar to those governing civilian building and these limits applied to all of the work shown. Capt. Roberto and his commanding officer, Col. James B. Carrol, are to be congratulated on a fine job carried out under adverse conditions.





MP'S OFFICE IS NO LONGER USUAL BARREN ARMY BUILDING. RELOCATED ENTRANCE IS SHELTERED BY VINE TR



TELEPHONE CENTER HAS A CHEERFUL, RESTFUL ATMOSPHERE, SPACE FOR 50 DIRECTORIES AND WRITING SPACE FOR

Put. Betty Salte

LIVING-KITCHEN

An answer to the problem of over-specialized space, this integrated living area includes laundry, cooking and dining-living space in one compact semi-divided unit.

0

2

CTURAGE

BA2

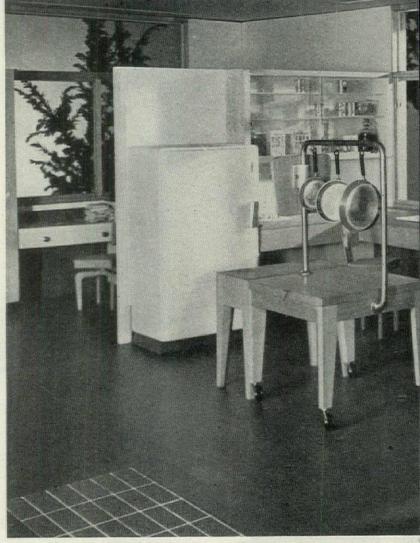
BR

This combination living-work space is much more than an immensely convenient kitchen. It is part of a basic approach to house design which shelves the unrelated separate room and instead divides the house according to use. One section becomes a quiet area including bedrooms and a study or extra living room if the house is large; the other is a noisy area where the entire family spends most of its waking hours. And this is called the Living-Kitchen.

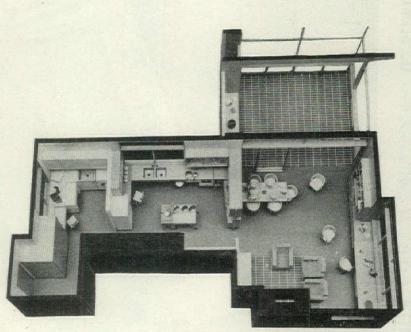
Although such an idea can be made to fit almost any existing space, the plan shown here redesigns a long narrow area, formerly a separate kitchen and dining room divided by a butler's pantry. This space is opened up and redivided into laundry, cooking and dining areas by means of cupboards which serve as semi-partitions. Space left between the ends of these partitions and the central wall of the house provides easy circulation without cutting directly through kitchen or laundry and disturbing whoever is at work. The spacious dining area is equipped with a fireplace and grouped seating in addition to the usual dining table and chairs. One wall is devoted to cupboards for games and hobbies and contains a folding desk, used by both children and grown-ups. Thus, one semidivided area serves as the housewife's work space; a within-earshot playroom for children; a dining room; a living room; a hobby room. Such a design gives real focus to the activities of the entire family.

Even greater flexibility is added to the plan by a screened porch separated from the diningliving area with sliding glass panels. Experience has shown that panels of this sort are rarely opened because of the bug nuisance. The porch screening is therefore an important adjunct, eliminating the irritation of flies and mosquitoes from outdoor dining. When the panels are completely rolled back, porch and interior become one area, large enough for entertaining 20 or 30 people. The porch can also serve as a rainy day play space for children.

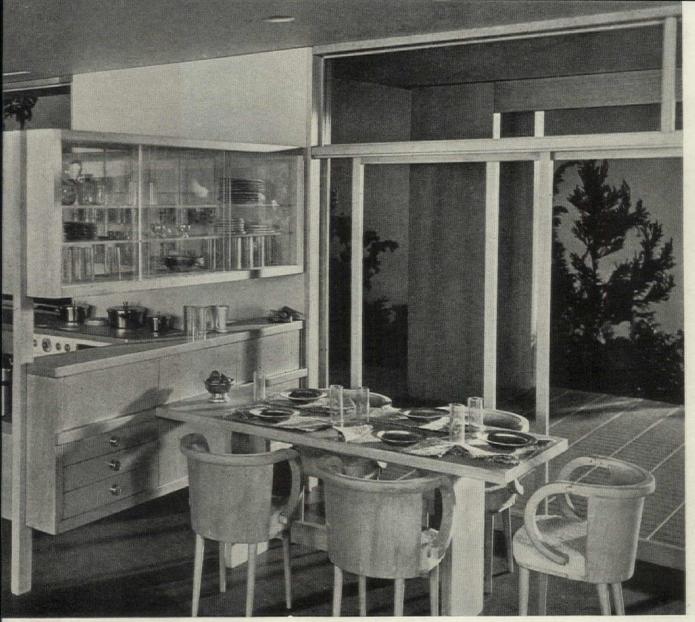
Both kitchen and laundry are excellently planned for efficient and pleasant use. The laundry doubles as a sewing room with work counters convenient to both washing equipment and sewing machine. In the kitchen work space is a suspended shelf with cupboards hung above it rather than under it to provide clear floor space. Only the equipment used every day is stored in the kitchen proper. Seldom-used utensils plus vegetables, fruit and canned goods are stored in special cabinets and bins on the opposite wall. To eliminate cooking odors at the source—an important consideration in such an open plan—a fan grill is provided directly above the stove.



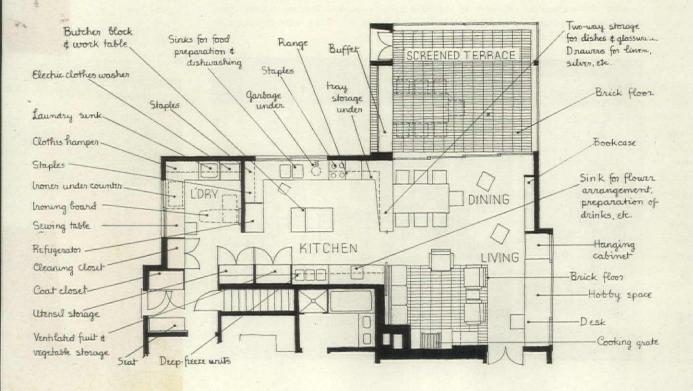
THIS VIEW OF DEVIN DENNETT'S EXTRAORDINARILY DETAILED MO

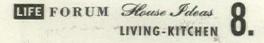


Life Photos: Eric Schall



VS THE LAUNDRY (REAR), KITCHEN AREA, DINING SPACE AND SCREENED PORCH. NOTE SLIDING GLASS DOORS (RIGHT)





a na

学校に認知

The

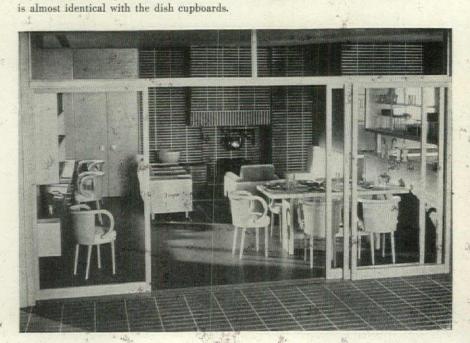
ž

東部小や

E10

Perhaps the most successful feature of Architect Fordyce's Living-Kitchen is the merging of two distinct atmospheres. He has managed somehow to suggest an air of comfort and relaxation in the dining area (above) without clashing in any way with the general impression of workmanlike efficiency of the food preparation and laundry centers. One device used is the repetition of details. The book cabinet in the dining space, for instance,

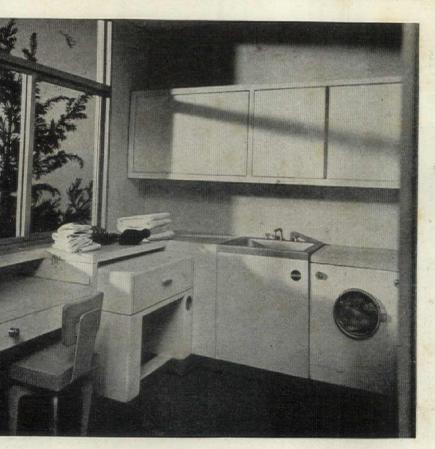
man and





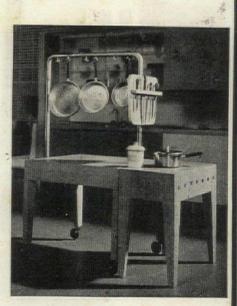


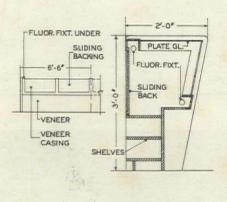
GLAZED, TWO-WAY CUPBOARDS SEPARATE KITCHEN FROM DINING ROOM, WITH OPEN SPACE BELOW FOR SERVING

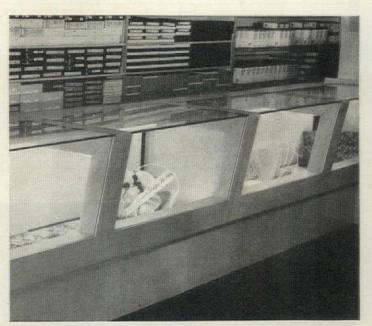


LIFE FORUM House Ideas

Sewing and laundry can be done at the same time in the compact work room (left). Sewing table is placed under window; washer, dryer and ironer line far wall. Unusual kitchen work unit is a combination butcher's block and movable table with rack for cutlery and skillets (below).

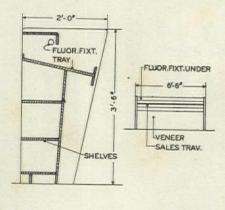






KPERTLY DESIGNED WOODEN SHOWCASES WITH SLANTED FRONTS ARE A STANDARD GRUEN AND KRUMMECK ITEM

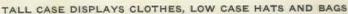




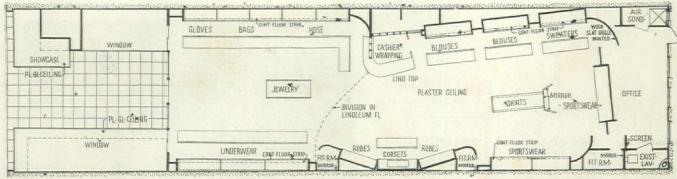
3. WOMEN'S APPAREL

Light construction treatment is suitable to the feminine merchandise this store sells.

MARJORIE LANE SHOP, FLUSHING, N. Y. JOSE FERNANDEZ, Architect STANGER BROTHERS, General Contractors







0 2 4 6 8 NFF

Photos: Gottscho-Schleisner



CASHIER'S DESK WITH TRELLIS SCREENING IN CENTER OF STORE BREAKS LONG VIEW FROM EITHER DIRECTION

3. WOMEN'S APPAREL

The use of curved and broken wall spaces throughout does much to soften a narrow rectangular plan. Hats and accessories are grouped near the front for convenience of itinerant shoppers; ready-to-wear, negligees and underthings are placed at the rear of the store near fitting rooms. The usual large number of sales counters are reduced to a minimum, thus saving floor space and permitting easier circulation. A rose and gray color scheme is used throughout for walls and woodwork, accented by a checker board linoleum in royal blue and gray. Because only a small amount of this flooring was available, plain gray had to be used in the rear of the store, but the abrupt change is not unpleasant as it emphasizes the two distinct store sections. Interiors of shadow boxes and the fin of the cashier's counter are painted off-white.

FINISHES AND EQUIPMENT: FLOORS—Flawless Floor Co., covered with linoleum, Congoleum-Nairn, Inc. WALL COVERINGS—wallpaper, Laverne Originals and A. H. Jacobs Co. CHAIRS—J. G. Furniture Co. CABINETS—Stuyvesant Fixture Co. Neon Sign—Salzman Electric Co.



MEMORIALS FOR MANKIND

"Why not a monument to American productivity?" asks George Howe*, "not for the things that it provides, but for the promise that it holds of the abatement of want."

WO recent articles in THE ARCHITECTURAL FORUM[†] by Poet-ex-Librarian-Propaganda Minister MacLeish and Master Builder-ex-President AIA Maginnis must have left a public hungry for inspiration as hungry as before. It would seem that most US citizens must agree with them that utilitarian monuments are not to be considered. The materialization of a transitory convenience is not to be confounded with the memorialization of a timeless event. Probably it may be agreed also that memorial monuments meet a human need if not indeed a human necessity. "We may live without architecture," says Ruskin, "and worship without her, but we cannot remember without her." MacLeish's argument that only the people can decide what they want and Maginnis' plea for symbolism will not meet much opposition. But what do the laureates offer by way of concrete suggestion? MacLeish's "Memorials for Remembrance" are embarrassingly reminiscent of mammy melodies moist with childhood's recollection while below the veil of words in which Maginnis mysteriously wraps the reality of his symbol appear the familiar feet of the old front and back leg team, Mythology and Mother Church.

A less cluttered image of the ground may perhaps be obtained by surveying it from points more remote than the practical, the personal, the parochial and the posthumous. Are death and mourning to be immortalized in architectural forms recalling the tragedy of vanishing cultures or shall the living breath of a great nation be solidified in symbols projecting a perpetual present of hope and heroism? Is the end of our building to be monumental lamentation over the inestimable loss of countless separate human beings known and unknown or the embodiment of the purpose for which universal loss is nobly and silently suffered?

Were the Spirit of America to meditate the nature of a Memorial for Mankind, he might soliloquize somewhat as follows:

"Consider the words of Marcus Aurelius, 'For nothing is so productive of elevation of mind as to be able to examine methodically and truly every object which is presented to them in life and always to look at things so as to see at the same time what kind of universe this is and what kind of use everything performs in it and what value everything has with reference to the whole and what with reference to man, who is a citizen of the highest city of which all other cities are like families; what each thing is and of what it is composed and how long it is the nature of this thing to endure which

† September, 1944.

^{*} Supervising Architect, Public Buildings Administration, Federal Works Agency.

now makes an impression on me and what virtue I have need of with respect to it, such as gentleness, manliness, truth, fidelity, simplicity, contentment and the rest.'

"What, then, am I, and what is the part I play in the plans of God and man? What is the meaning of the event I would commemorate and how long will that meaning endure and into what material symbol shall I build it?

"It seems to me that I am an image of nature with its obscure means and shining visible ends, its prodigal productivity, brave trials and sometimes tragic errors. In my productivity I take a proper pride, not for the things that it provides but for the promise that it holds of the abatement of want which has made men mean and contentious in spite of the struggles of the spirit to prevail, and especially for this occasion on which it has stemmed the spread of new-born tyranny over the face of the habitable globe. For I have shown that in learning how to live well I have not forgotten how to die well.

"So this same productivity might be the meaning of my monument and this meaning is timeless for it is centered in here and now, it is not the wishful sum of yesterday and tomorrow but the wilful sum of countless todays.

"To give my meaning substance a pyramid might well be the simplest and most stable shape familiar to all men and common to all cultures and the plan of the pyramid might take the form of the five-pointed star which is the symbol of our unity, with steep shining arrises and sharply shadowed returns. I might build it of polished granite in huge blocks of blended colors drawn from every quarry in the land and it should be greater than any pyramid ever built, not for the pride of a tyrant in the labor of his slaves but for the pride of the power of a free people which is one with me, the Spirit of America, in a sense in which perhaps no other people has even been one with the spirit of a nation. The pyramid should stand as long as men shall endure as evidence of my undertaking that no other monument shall ever be built in memory of war.

"If I built such a monument I might build it in an amphitheatre of rocky eminences and on their sides I might set tiers of seats and terraces for multitudes and I might raise it on a vast stepped platform approached by highways from every side. In the midst of the steps I might set a great stone and on the stone I might engrave these words:

" 'ERECTED BY US THE PEOPLE, THE HUSBANDMEN, ARTISANS AND ARTISTS OF THE UNITED STATES OF AMERICA, IN A MO-MENT OF REST AFTER BATTLE, TO COMMEMORATE AN INTER-LUDE IN WHICH WE TURNED FROM OUR PREDESTINED TASK OF FREEING MAN FROM THE FEAR OF WANT, WHICH HAS BLIGHTED HIS SPIRIT IN THE DAYS OF ITS FLOWERING, TO DIE AND LABOR AS FIGHTERS AND AS WORKERS TO FREE MAN FROM THE FEAR OF MAN FOREVER.'

"And on the day of the dedication I might speak through the mouth of my poet Herman Melville:

"'Thou who, in all Thy mighty, earthly marchings, ever cullest Thy selectest champions from the kingly commons: bear me out in it, O God!'"

Occupied by Hildreth Meière, the well-known mural painter, this house was designed and built by a fellow artist with few architectural inhibitions, a fine feeling for space and materials. It is impossible to classify as either "modern" or "traditional." Instead, is is a highly individualistic and satisfying solution of a problem in contemporary living, carried out in easily available materials in a skillful, assured manner.

The plan is admirable. The kitchen, dinning room and all utility areas are on the ground floor within easy access of the entry. A maid's room and bath, also on the ground floor, insure complete privacy for those on the studio and balcony levels. The generous entry serves to keep snow and dirt out of the rest of the house and the ground floor terrace fireplace provides informal outdoor dining facilities within easy reach of the kitchen.

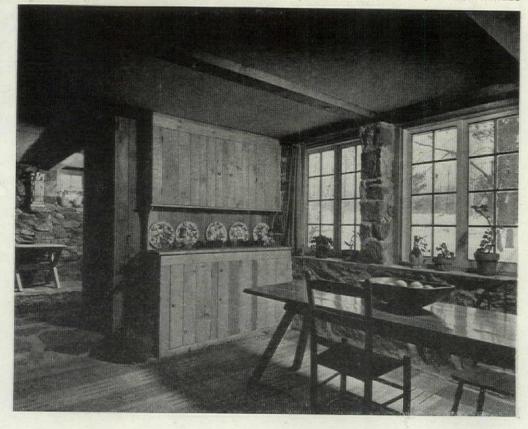
The studio living room, on the second floor level, occupies about two-thirds of the balance of the house. It opens on a raised terrace to the north through a centilevered balcony, which also serves as a protective hood over the ground floor windows. Master bedrooms and a library are located on the second and third floors and reached by an open stair at one end of the living room.

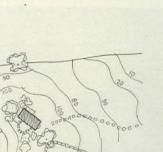
The compact plan, only 25 ft. by 50 ft., gives no feeling of constriction. The ceiling between the cypress timbers is a delicate sky-blue. Paneling is pine and the trim on the exterior is painted white. The $3\frac{1}{2}$ acre plot has been left virtually un-landscaped, and its unhampered appearance is in complete accord with the house.

The mortgagee was Stamford Trust Co., Stamford, Conn.

CONSTRUCTION OUTLINE: FOUNDATION: Field stone. STRUCTURE: Exterior wallscommon brick, building paper, N.C. pine sheathing; inside—studs, Rocklath, U. S. Gypsum Co., and plaster. Floors—oak, pine and cypress. Ceiling (ground floor)—Celotex, Celotex Corp. Roof—cedar shingles. INSULATION: Roof—Balsam Wool, Wood Conversion Co. WINDOWS: Sash—casement. WALL COVERINGS: Living room—knotty pine. Kitchen plywood. Dining room—cypress. KITCHEN EQUIPMENT: Range—Universal, Landers, Frary & Clark. Refrigerator—Coolerator Co. BATHROOM EQUIPMENT—Kohler Co. and American Radiator-Standard Sanitary Corp. HEATING—warm air system with humidifying. Boiler—Petro air conditioner, Petroleum Heat & Power Co. Regulator—Minneapolis-Honeywell Regulator Co. Water heater—Universal, Landers, Frary & Clark.

CABINET AND TABLE, DESIGNED FOR THE HOUSE, COMPLEMENT EXPOSED ROCK WALLS





50 100

E

KINE

BOAD

Photos : Damora



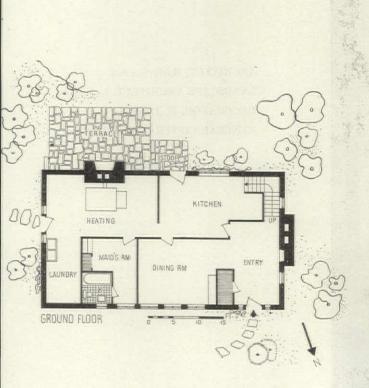
HOUSES Connecticut country house (p. 126)... Suburban house in California (p. 128) A two-level scheme from Seattle, Wash., (p. 130)... Britain experiments with steel. (p. 134)

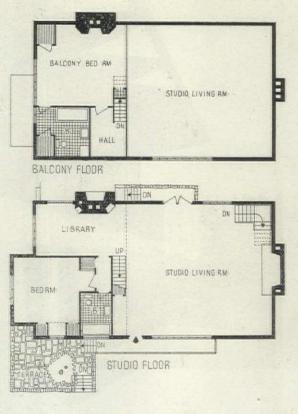
RUSTIC MATERIALS AND NATURALISTIC LANDSCAPING BLEND ADROITLY IN THIS EASY, INFORMAL DESIGN





TO ROOF, THE HUGE STUDIO LIVING-ROOM IS FINISHED IN ROUGH MATERIALS, FURNISHED WITH CHEERFUL ABANDON

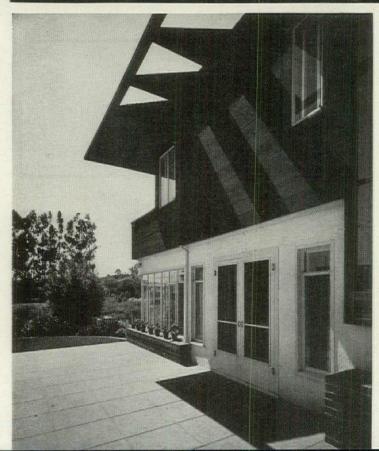




HOUSE IN PETALUMA, CALIF. Architect Mario Corbett solves the problem of app

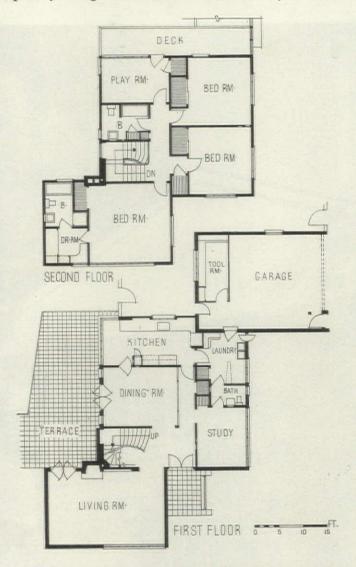






REDWOOD AND STUCCO CONTRIBUTE VIGOR AND CL.

ARCHITECT, Mario Corbett LANDSCAPE ARCHITECT, L. Vaughn DECORATOR, H. J. Powers GENERAL CONTRACTOR, J. Frahm temporary design to a small conventionally-minded community. The result: modern without mayhem.



In 1942 when this suburban house was in scaffolding, surrounding neighbors eyed it anxiously, afraid of what this first influx of modern design might do to their community. A conservative version of Frank Lloyd Wright's early Midwestern style, the design was harmless enough, but to suburbanites brought up on the correctness of Cotswold cottages and synthetic Colonial, the broad overhangs and glass wind shelter at the entrance seemed radical indeed. As it turned out, Corbett succeeded in creating a structure which fits quietly into the existing patern without pretention and is now even pointed to by neighbors as the type of house they want themselves.

The main feature of the plan is a generous side terrace, on which the living room, stairway, dining room and kitchen all open; an excellent arrangement for the medium-sized suburban lot. Ground floor circulation is direct and open, and the second floor level, with its four bedrooms and two baths, is unusually compact and orderly for a dwelling of its size. On either side of the house, baffle walls of redwood grape stakes afford exceptional privacy to the outdoor living areas.

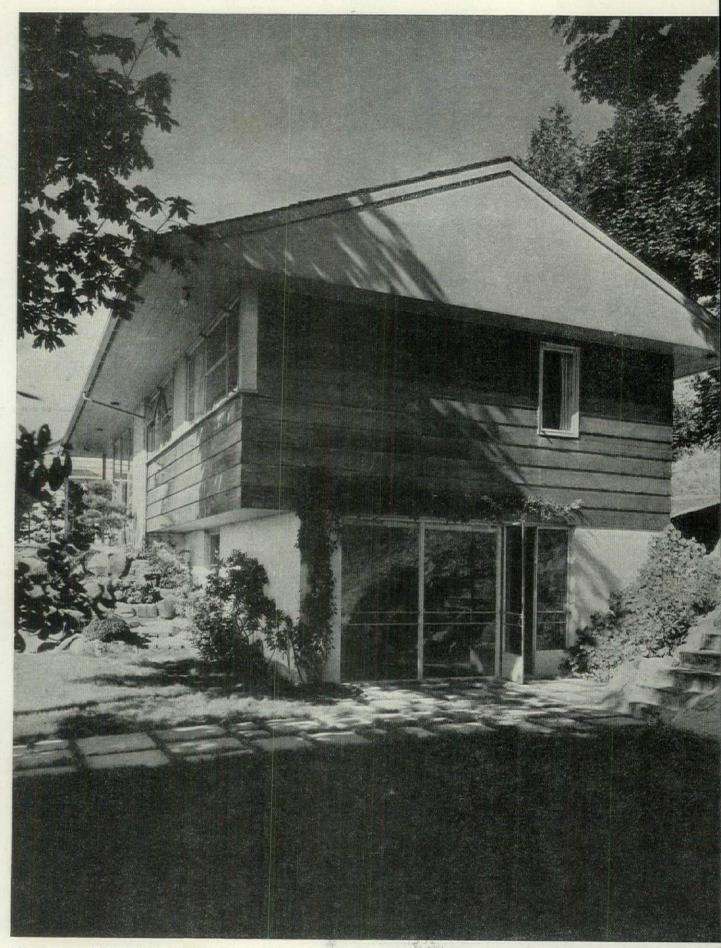
CONSTRUCTION OUTLINE: ROOF—redwood shingles. Deck canvas. INSULATION: Outside walls, attic floor and roof— Cabot's Quilt, Samuel Cabot, Inc. WINDOWS: Sash—steel casement, Truscon Steel Co. Glass—single strength, quality A, Libbey-Owens-Ford Glass Co. FLOORS: Main rooms—hardwood. Bathrooms—linoleum. HARDWARE—Russell & Erwin Mfg. Co. ELECTRICAL INSTALLATION: Switches—Mercury, Hart Mfg. Co. Fixtures—specially designed, Fred Casella. KITCHEN EQUIPMENT: Range and refrigerator—Westinghouse Electric & Mfg. Co. Fan—Pryne & Co. LAUNDRY EQUIPMENT: Washington machine — Bendix Home Appliance Co. BATHROOM EQUIPMENT — Crane Co. Cabinets — Hallenscheid & McDonald. HEATING — forced warm air system with fan and air filters.

KTENSION OF FIREPLACE UTILIZES OTHERWISE WASTED WALL SPACE; GLASS PANEL ELIMINATES DARK SERVICE HALL





HOUSE IN SEATTLE, WASH. Architect Paul Thiry makes the most of a difficult appro

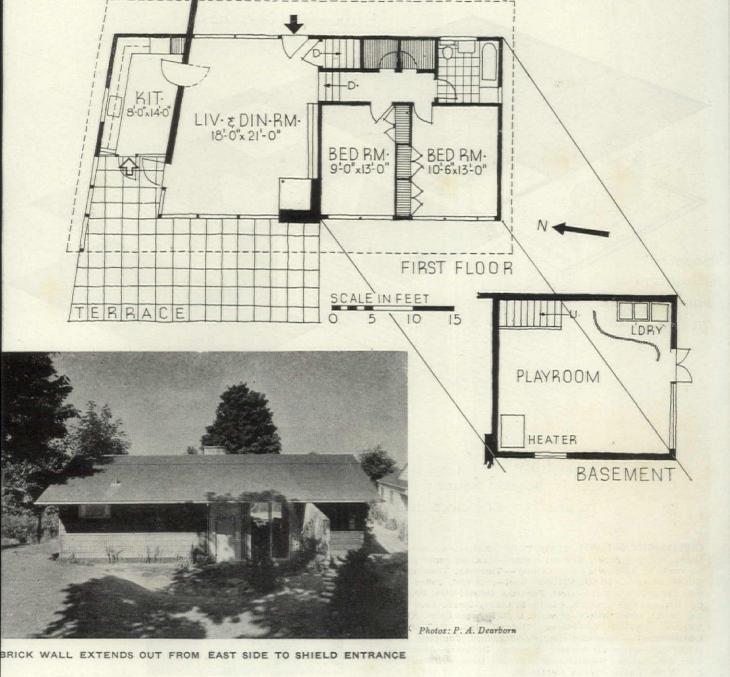


SOUTH END OF HOUSE IS A FULL FLOOR ABOVE GRADE, MAKING ROOM FOR A SUNNY BASEMENT UTILITY-PLAYROOM

FHA restrictions, produces a compact dwelling suited to needs of a small family.

Set on a bank some 20 or 30 ft. above the street, this house takes advantage of the grade with a variation of the two-level scheme now popular with builders in the Mid-west. The living room, dining room and kitchen are at the central level and have higher ceilings than the balance of the rooms. Sleeping and basement floors are set only a few steps above and below the main entrance grade. Running the entrance walk around the end of the house to the rear insures privacy on the west terrace and permits an uninterrupted outlook from the front of the house which faces downhill.

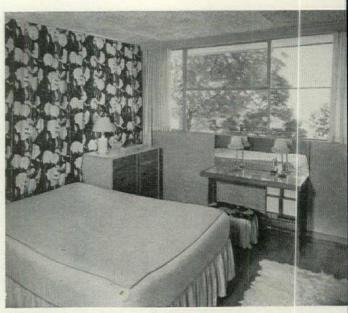
A splayed wall between living room and kitchen opens up the view to the northwest and adds interest to the design. The basement, which serves as both a playroom and utility area, has a floor-toceiling window of its own and opens on both the south and west terraces. A free standing screen solves the problem of segregation of work and play areas and an automatic heating unit is exposed in one corner of the room. The two bedrooms above face the view, while the bath shares a plumbing stack with the laundry equipment.



MAY 1945

HOUSE IN SEATTLE, WASH.

The west side of this house, designed for a grey climate in which sun is at a premium, is almost entirely glass. As a result, a close indoor-outdoor relation is possible. Light, air and a scenic panorama are all accessible. A further tie-up between indoor and outdoor spaces is the repetition of materials. The fireplace is of concrete as are the living and kitchen terraces. The brick partition between kitchen and living areas extends through to the outside. Adequate storage space and complete division of living and sleeping quarters have made this house extremely simple to maintain. The heavy curtains at the living room windows, drawn at night, have kept fuel costs down to approximately 60 per cent of a conventional house of the same volume.



BEDROOM HAS A WALL OF FLORAL PAPER, THERMAX CEIL

Bedroom floor raised four steps above living area

Basement playroom open at grade on two sides

> Brick partition extends beyond house to shelter entrance walk

CONSTRUCTION OUTLINE: STRUCTURE: Exterior walls—cedar siding, building paper, shiplap; inside — building paper and fir plywood, U. S. Plywood Co. Ceiling — Thermax, Thermax Co. ROOF—shingles. INSULATION: Roof—rockwool, Johns-Manville. WINDOWS: Sash—steel, Fenestra, Detroit Steel Products Co. Glass—single strength, quality B, Libbey-Owens-Ford Glass Co. WALL COVERINGS—plywood, U.S. Plywood Corp. ELEC-TRICAL SWITCHES — Harvey Hubbell, Inc. BATHROOM EQUIPMENT — American Radiator-Standard Sanitary Corp. HEATING—warm air system, filtering. Diffusers—Anemostat Corp. of America. Regulator—Minneapolis-Honeywell Regulator Co. Water Heater—Wesix Heater Co.

MAIN ENTRANCE WALK AT REAR



Photos: P. A. Dearborn

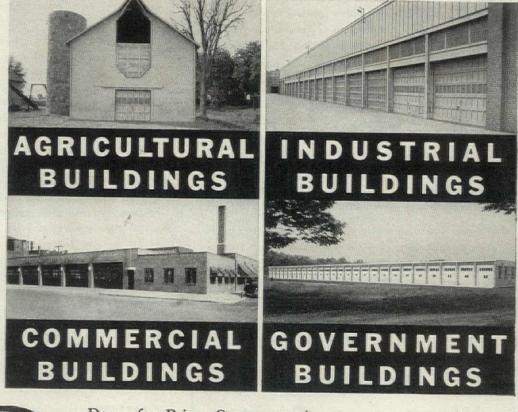
Where and when



OVERHEAD TYPE DOORS

The distribution of Ro-Way Doors is practically nationwide. Experienced installation and service engineers are available through Ro-Way Distributors and Sales Agents. See the Classified Telephone Directory or write for name of Representative serving your territory.

If the job calls for Doors for Government Buildings or essential Industrial, Commercial or Agricultural Buildings, reasonably prompt delivery is assured.





Doors for Prime Contract projects are given special handling to provide preferential delivery service.

Write for Ro-Way's 88-page "Time-Saving Specification Book" for Architects. Please attach professional card or letterhead. See our Catalog in Sweet's.

ROWE MANUFACTURING CO. 988 Holton Street, Galesburg, Illinois, U.S.A.

RO-WAY EXCLUSIVE FEATURES

- "Crow's Foot" Outer Bearing Support.
- "Tailor Made" Springs.
- "Zip-Lock" Torsion Spring Adjustment.
- Double-thick Tread on Track Rollers.
- Friction-Reducing Track Design.
- Parkerized and Painted Hardware.



HAS THE ANSWER

If it's about Electrical Wires and Cables

AC, a modest fellow with a brilliant twinkle in his eye, has become a tradition to everyone connected in any way with Paranite Wire and Cable. He has grown up with the organization, and can look back on many outstanding achievements in the development and improvement of insulated wires.

You'd never know it, though, because Mac doesn't talk much. But his slow, soft-spoken reply to any question will either impress you deeply or make you howl with laughter—for there is a rare combination of sound, down-to-earth logic and keen, dry wit deeply entrenched above those twinkling eyes.

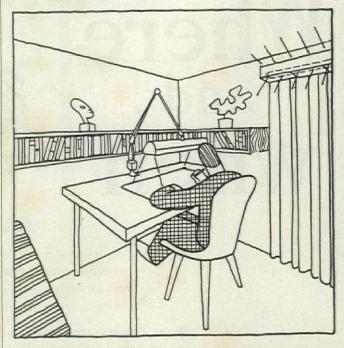
Whether you're an architect, builder, contractor, engineer, manufacturer, or wholesaler—it will pay you to get acquainted with Paranite and reap the benefits of Mac's long experience and sound judgment. He is the man who has done the most to help us continue using, conscientiously, the slogan . . .

If it's PARANITE it's right!



PRODUCTS AND PRACTICE

(Continued from page 144)



STUDY Background lighting, a mixture of incandescent (yellow) and fluorescent (white), is keyed to the concentrated eye task illumination. Work table fixture is adjustable and furnishes evenly distributed light where it is needed. Twenty to fifty footcandles are recommended for close eye work.

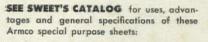
the fringe on top" had a glass bowl which threw some of the light to the ceiling and some downward for a seeing task. Without much thought people were getting a measure of balanced lighting. The modern type of opaque shell reflector casts light only in one direction, thereby creating high brightness contrasts. If opaque reflector lamps are used then some background lighting is essential.

There was also a period in lighting history when all direct light was eliminated and indirect used exclusively. But indirect light is by no means a cure for all home lighting ills. A room lighted solely by a continuous cove of fluorescents or incandescents using the ceiling as a reflector will be monotonous and unpleasant. Objects will seem to float in air because they are shadowless and lack form. One difficulty with total indirect lighting is that in order to provide enough light for specific seeing tasks the intensity of the whole system must be increased and the ceiling becomes a source of unpleasant glare. Indirect lighting needs the sparkle and interest of direct light. This is particularly true in bedrooms and living rooms where accents are needed for decorative effect, and at the dining room table where direct light creates pleasant highlights on china and silver. In work rooms the emphasis should be placed on seeing efficiency.

PATTERN in home lighting is the combination of direct and indirect light sources to achieve a pleasant result. In developing such a pattern, indirect light is used to create atmosphere and reduce excessive contrasts between light and shade. Direct light is used for specific eye tasks and to create interestareas of light against the background of the indirect lighting.

Bright light sources against dark backgrounds produce high brightness-contrasts which are unpleasant to the eye. Neutral wall tones have a high reflective quality and create a

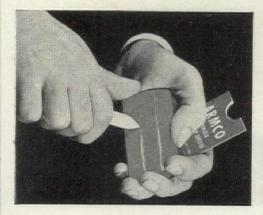
(Continued on page 150)



Galvanized ARMCO Ingot Iron

ARMCO Galvanized PAINTGRIP Steel (also available with ARMCO Ingot Iron or Copper-Steel base)

ARMCO Stainless Steel



This "peel-off" picture clearly shows the advantages of ARMCO Galvanized PAINTGRIP steel for all sheet metal work to be painted.

No. 1 is the full-weight galvanized coating that protects the highquality iron or steel base from rusting.

No. 2 is the special mill-Bonderizing that takes and preserves the paint without pre-treatment. No fuss, no bother, no added cost.

No. 3 is the smooth, tight paint finish that can be applied as soon as the work is done, and lasts several times longer than paint on ordinary galvanized or uncoated sheets.

Remember, it costs no more to use ARMCO Galvanized PAINTGRIP than to specify ordinary galvanized and acid-etch it before painting. And you get a smoother, better looking, longer lasting job. Exposed air ducts, roof-drainage systems, and furnace casings—these are just a few building uses.

Write for the ARMCO PAINTGRIP booklet, which gives complete in-

The "Scratch Test" shows how paint sticks to ARMCO Galvanized PAINT-GRIP steel. The top half of the sample is Bonderized at the mill. When scratched with a penknife only a slight mark can be seen. Paint on ordinary galvanized steel (bottom half) peels off readily.

If it's to be painted insist on this

TRIPLE PROTECTION

formation on fabricating, finishing and applications of this steel. The American Rolling Mill Company, 1231 Curtis Street, Middletown, Ohio.

Special Purpose Sheet Steels FOR TOMORROW'S BUILDINGS



GLASER and RADO'S conception of a women's apparel shop

"A glass area over the entire front opening," say Glaser & Rado, leading architects, "with a minimum of exposed frames gives a feeling of continuity between street and interior. This continuity is accentuated by the wine Carrara wall at the right, penetrating from the exterior into the interior. Also, the ceiling and the left side are continuous. On the left, the showcase for smaller display and the lettering continue beyond the separating glass front. One side of the shop is mirrored from floor to ceiling which optically doubles the space."

Leading architects have found the versatility of Pittsburgh Glass and Pittco Store Front Metal especially helpful in the creation of strikingly attractive store designs. And long experience justifies absolute confidence in the uniformly high quality of these products. You are assured of readily available "Pittsburgh" service through a nationwide system of branches and dealers.

"PITTSBURGH"

stands for Quality Glass and Paint



A 44-page book of ideas, styles, techniques and materials for building or modernizing retail stores for the exclusive use of architects and designers. Mail the coupon for your free copy of "There is a New Trend in Store Design." It will be sent to you without obligation.

Formal Class

Cadislar C

	Pittsburgh Plate Glass Company 2227-5 Grant Building, Pittsburgh 19, Pa.
	Please send me, without obligation, a <i>free</i> copy of the book "There is a New Trend in Store Design."
	Name
	Address
	City State
8	

COMPANY PITTSBURGH PLATE GLASS PRODUCTS FOR STORE FRONTS AND INTERIORS

VITH PROVED FEATURES FOR POSTWAR BUILDING

BOR-LOC

MORTISE LOCK

UNIFAST

BALL BEARING CLOSER

The Evidence

Normally manufactured in 5 sizes. Closer is of rack and pinion type with extra large, onepiece manganese steel shaft and pinion rotating in ball bearing. Rack piston and double compression chambers ground fitted to .0003" tolerance. Special leak-proof packing gland and splash chamber prevents "creep" of closer liquid under pressure. Finest steel spring, amply powered. Regulating valves of improved design: once adjusted they "stay put." Now available only on orders carrying proper priority.

POLYFLEX

Development of the Lockwood Ball Bearing Closer represents the most thorough-going job of scientific research and engineering in the history of door closer manufacture. Another example of Lockwood resourcefulness and ingenuity, it sets a new standard of door closer performance. Maximum power, to close and latch doors under all conditions; important reduction in internal friction, to make opening easy; leak-proof gland to eliminate leakage of closer liquid; compact design to economize head room; full complement of holder arms and attachments for every type of installationplus those well known Lockwood features of inbuilt quality, durability and fine appearance.

You can include the Lockwood Ball Bearing Closer in your plans for postwar industrial plants, banks, hotels, hospitals, schools, apartment and office buildings... with full confidence that it will live up to your high standards.

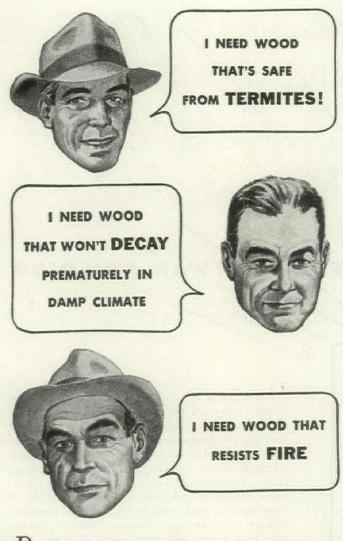
You will find more information about the Lockwood Ball Bearing Closer and other Lockwood Builders' Hardware in the 20 pages of FINISHING HARDWARE AT A GLANCE, filed in 17 b 1 SWEET'S, 1945. Or a request on your letterhead will bring you a copy.

LOCKWOOD HARDWARE MFG. CO. FITCHBURG, MASSACHUSETTS Division of Independent Lock Company

CAPE COD

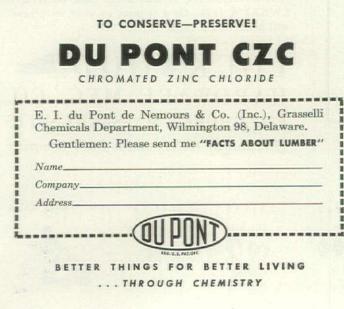
PATRICIAN

BALL BEARING CLOSER



Decay, termites and fire are triple threats to the life of wooden structures. Fight them all at once by using lumber that's been pressure-impregnated with Du Pont Chromated Zinc Chloride.

CZC is clean, odorless, economical. It does not alter the natural strength, appearance, workability and other desirable properties of wood. When lumber is again available, be sure you have on hand this book on the advantages to you of CZC-treated lumber. Use the coupon now!



PRODUCTS AND PRACTICE

(Continued from page 146)

desirable background for eye task considerations but not for atmosphere.

Three important rules in creating the light pattern are: 1) the lighting must be interesting and esthetically pleasing. In this respect lighting has the same or greater effect in creating moods in people as other physical environments. It is difficult to relax under a floodlight and the opposite is also true: that the mind becomes sluggish with eye fatigue when working at a critical eye task in low levels of illumination. Accents are as important in lighting as color in decoration. 2) The lighting must be distributed so that there is enough everywhere. Enough light means light of the proper intensity to accomplish a specific task. Reading and sewing are not the only eye tasks for which enough light should be provided. There is also the hunting for objects in dark closets, the search for a collar-button in a dresser drawer that resembles a dark cave and the precarious foothold on cellar steps. 3) No naked light source should be visible in the line of vision. And, to carry this rule one step further all reading and eye task areas should be checked for reflected glare and high brightness contrasts in the periphery of vision.

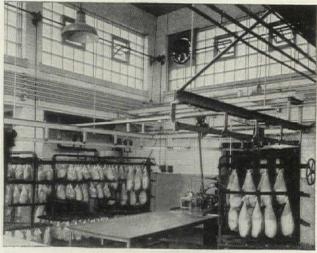
In addition to these complicated objectives the light pattern must be flexible.

FLEXIBILITY is the light pattern's ability to meet changing needs. The trend toward open planning and the dual use of space makes flexibility imperative. For instance, in a large combined living and dining space in which the dining table also serves as a dressmaking table three distinct light levels are called for. A high level is needed for sewing, an intermediate level needed for dining and a low level for general illumination-a conversational level. Flexibility in light levels can be accomplished by the use of three-speed sockets on individual fixtures or by having the room or area switched on two light levels-a low level of general illumination for conversation and casual seeing tasks and another higher level for the lighting of critical eye tasks with its proper ratio of background illumination. Flexibility in direction, and to some extent intensity, can be achieved by the use of fixtures with flexible arms. This development in fixtures is to be commended since it makes of the lamp a useful implement in seeing and not an archaic piece of decoration. Flexible lighting will aid in the double use of space and in making the proper light levels available when needed.

IMPROVEMENTS and new features have made home lighting devices more effective. Among the specialties will be sun lamps for cold morning warmth; "black" light to activate fluorescent materials to be seen in the dark; germicidal lamps for sickrooms and air conditioning; infra red lamps for drying the laundry; lamps with built-in reflectors for directional spotlighting and a variety of small lamps for baseboard and keyhole lighting.

Plastics and luminous metal will be featured in postwar fixtures. So-called luminous metal is a thin sieve-like sheetmetal stamped with small holes which pass enough light to make the metal appear transluscent. It will be used in light shields to reduce the high contrast ratio caused by opaque materials silhouetted against the light source. Plastics in a variety of shapes will find new uses in fixtures displaying a minimum of metal. (Continued on page 154)

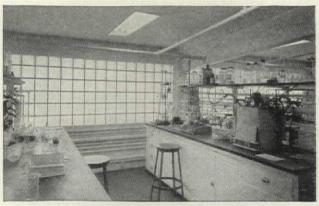
WHY THE BUTCHER...THE BAKER THE COSMETICS MAKER



Meat Packing Plant-- Insulux provides better diffusion of light and better working conditions.



Bakery - Insulux locks out dust and helps to control the humidity and temperature problems.



Testing Laboratory - Insulux is impervious to vapor and highly resistant to acids.

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

"Daylight with Insulux"

INSULUX solves many problems for the manufacturer of consumer goods. Problems of light, temperature, humidity and dust control!

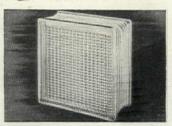
Panels of Insulux Glass Block flood workrooms with natural daylight-improve working conditions -and allow full use of floor space.

But-that's not all! Panels of Insulux have high insulating value. They reduce heat loss and condensation. They lock out dust and dirt. They reduce materially the cost of air conditioning.

Furthermore-panels of Insulux do not rot, rust or corrode. They are easy to clean-and to keep clean. And-they never need painting.

5 REASONS WHY 1 SAVE FUEL-Better insulation means less fuel loss. SAVE UPKEEP CHARGES-Easy to clean-and to keep 3 SAVE MAN HOURS-Better light control insures better 2 clean. No painting required.

- 4 SAVE SPOILAGE LOSSES-No infiltration of dust or dirt. SAVE REPLACEMENT COSTS - Panels of Insulux do not
- rot, rust or corrode. 5

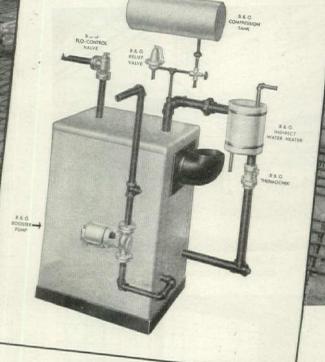


Insulux Glass Block is a functional building material not merely a decoration. It is designed to do certain things that other building materials cannot do. Investigate!

OWENS - ILLINOIS insulux **GLASS BLOCK**

THERE'S A PLACE IN EVERY BUILDING FOR INSULUX





HEATING MEDIUM FOR RADIANT PANELS

(or, for that matter, any other kind of radiation)

Radiant Heating has taken a firm grip on the interest of both home and industrial builders. More freedom in planning room arrangements—greater cleanliness—more comfort at lower air temperatures—lower operating cost . . . these are a few of the reasons people are asking questions about this *completely concealed kind of heating*.

THE IDEAL

Successful Radiant Heating depends upon the use of comparatively large heating surfaces at low temperatures! What other heating medium can satisfy these requirements as easily, accurately and economically as Forced Hot Water!

The chart below shows the range of heating medium temperatures required by Radiant Heating. Forced Hot Water can be positively controlled to circulate through the panels at any of these lower temperatures—using only the simplest kind of equipment! It can be circulated at any level, either above or below the boiler.

And, in addition, the B & G Forced Hot Water System provides a year 'round supply of low-cost hot water for every household use. No separate heater needed—the same boiler that heats the house also heats the domestic water. For years, the insignia "B & G" has stood for pioneering

For years, the insignia "B & G" has stood for pioneering work and continuous improvement in forced hot water heating systems. It is logical, therefore, to look to this organization for new developments which will further advance heating comfort and fuel economy.





BRASCO BRINGS Beauty THAT NEVER WEARS OUT

THERE'S more than meets the eye when you admire the trim lines and attractive finish of a modern Brasco Store Front. Sound engineering, backed by 30 years experience, gives assurance that Brasco's beauty is built to last.

Structural strength is embodied in every unit that goes into a Brasco Front. Heavy-gauged metals are used throughout... all bars have continuous steel reinforcement... exclusive patented features within the sash provide dependable glass safety.

All Brasco members are fabricated to fit and install perfectly, making the entire front a rugged, harmonious whole. Recognizing this, leaders in modern store front design specify complete Brasco Construction, confident that their most advanced ideas will not only be interpreted faithfully, but permanently as well.

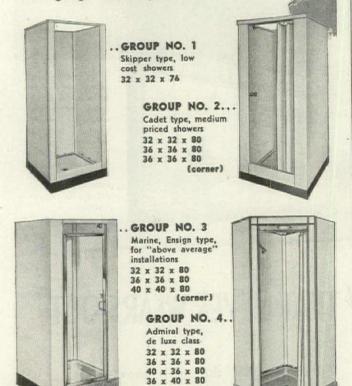


BRASCO MANUFACTURING CO. HARVEY · (Chicago Suburb) · ILLINOIS · National Distribution Assures Effective Installation ·

STANDARDIZATION OF SHOWER CABINET AND GLASS DOOR SIZES

A step forward ...

The standardization of shower cabinet and glass door sizes announced by Fiat marks a step forward in the industry that will be of definite benefit to the architect, builder, jobber and plumber. Standardization will expedite bathroom planning, make possible bigger values in showers, simplify jobbers stocks, and promote uniformity in installation methods. Fiat showers are classified into four groups with six basic sizes.



Glass Shower Doors. One standard size—24 x 72 Measurements conform to the American Institute of Architects 4" unit module system.

40 x 40 x 80

(corner)

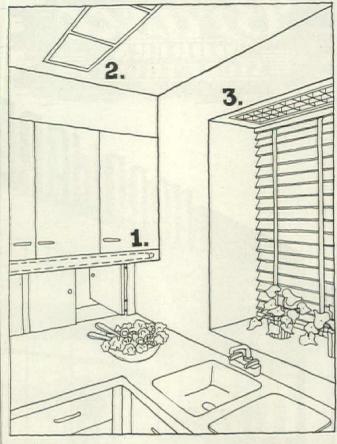
AVAILABLE FOR DELIVERY NOW

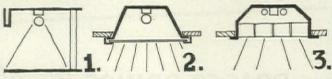
NO. 85—Recommended for homes, clubs, hospitals or public buildings. Size 36 x 36 x 78. Deep type receptor—heavy 1/4" MASONITE walls. NO. 80 Volunteer — has remarkable strength and is easily erected. A good shower for economical installations. Size, 32 x 32 x 76 and 30 x 30 x 76.



PRODUCTS AND PRACTICE

(Continued from page 150)





KITCHEN efficiency is improved by the lower brightness, daylight color and coolness of fluorescent lamps in the central ceiling fixture, which furnishes 20 footcandles at table height. Eye task lighting at the sink is semi-direct. Low brightness fluorescent eliminates shadow below cupboard at the dining room tray slide.

COLOR in home lighting is becoming a factor of increasing importance with the introduction of higher levels of illumination. Our heritage in home lighting has been an abundance of yellow light-from candle to incandescent electricity. For this reason yellow light is associated with home comfort. Daylight or white light is associated with work. One criticism of fluorescent lighting in the home is its lack of red light, which produces peculiar and unaccustomed color effects. However, white light is more efficient for seeing tasks to the extent that it approaches daylight in its spectral qualities. The best results for general home lighting will probably be obtained by a mixture of fluorescent (white) and incandescent (vellow). One difficulty is that the two light sources, incandescent and fluorescent, are decidedly different in color when viewed together. But the light itself will blend and produce a pleasant, efficient result. Fluorescents will meet the need for white work-light in the kitchen, laundry, workshop and bathroom.

Prewar lighting design was usually an afterthought—an afternoon's chore of selecting lighting fixtures, and the smallest item on the building budget. Postwar lighting design through new equipment and public awareness looms as one of the most important features in the future small home.

SF AND wing. Veterans' Hospital installation includes Milcor Metal Lath . . . Milcor Bull Nose Corner Beads NTENANCE-B . . and Milcor Window Stools. Whenever your designs and specifications for hospitals and other structures incorporate Milcor Fireproof Building Products, you provide the advantages of plaster-on-steel and assure yourself of finished jobs that remain assets to your reputation. These advantages are important: Fire safety - guarding both lives and property. Space economy. Favorable sound transmission properties. Crack and impact resistance - assuring permanent beauty of plaster walls. Sanitation, for health. . The Milcor organization has the experience and "know how" to help you attain especially satisfactory results with fireproof construction. In metal lath, corner beads, metal trim, casings, and window stools, Milcor leads the field. • Consult the Milcor catalog in Sweet's or write for the Milcor Manual. MILCOR STEEL COMPANY MILWAUKEE 4, WISCONSIN Chicago 9, Illinois Illinois • Kansas City 8, Missouri Los Angeles 44, California • Balti souri • Rochester 9, New York Baltimore 24, Maryland Only Milcor makes interior metal trim F-253 with an Insulmat lining that effectively minimizes sound reverberation. Milcor No. 501 Window Stool **Profile of** Milcor **Bull Nose Corner** Specialmesh Bead No. 11 Metal Lath Showing Milcor No. 11 Milcor No. 644 Reinforcement Milcor No. 601 **Expansion** Corner Bead **Metal Base Metal Base**

G PRODUCTS

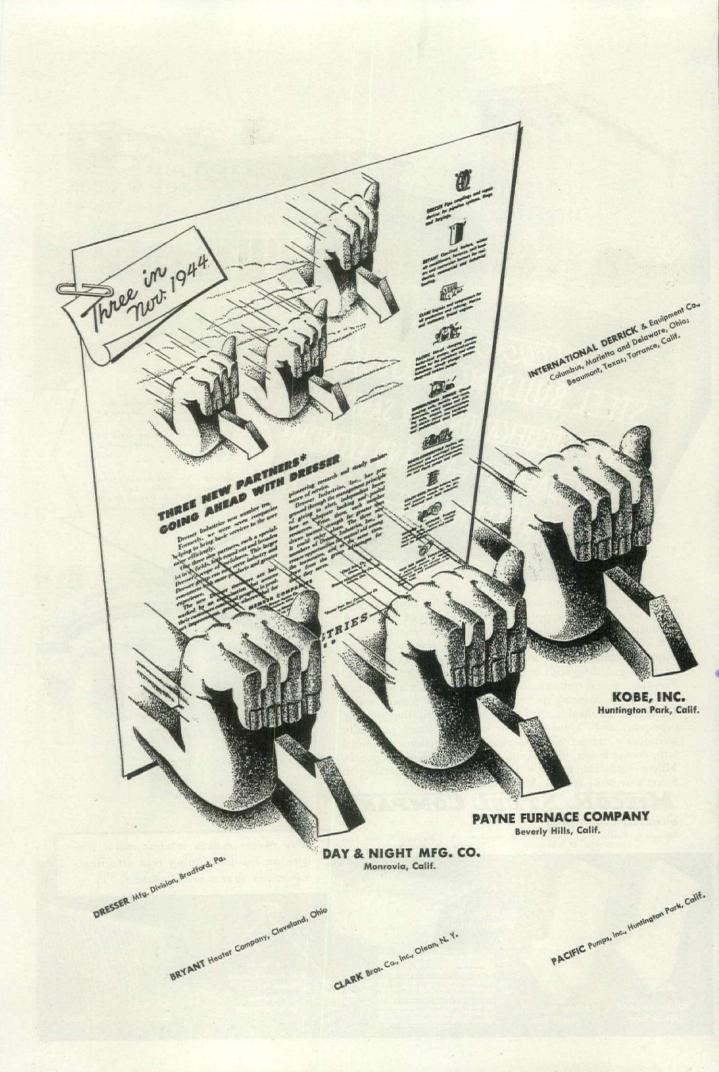
SANITATION

MILCOR

MAY 1945

Above: View of Veterans' Hos-pital, Dayton, Obio, showing its three connecting wings.

Below: View showing detail of the main entrance in the central



.

... again three more BECOME PARTNERS IN

DRESSER INDUSTRIES, INC.



Dresser Industries continues its growth toward more efficient, more comprehensive service to customers. Three new partners now enlarge our scope of usefulness to the gas and oil industries.

Day & Night Manufacturing Co., supplies a remarkably efficient hot water heater for the home. Payne Furnace Company is unexcelled, particularly throughout the West, for its gasfired steel heating equipment. These two companies perfectly complement and augment Bryant Heater Company, a Dresser Industries member which for 35 years has produced fully automatic, quality gas-fired heating appliances, most extensively used in the East.

Kobe, Inc., makes an ingenious hydraulically actuated oil-well pump, a fundamental development in view of the nation's need to go ever deeper for oil. This pump dovetails with oil-well drilling and production equipment offered by two other Dresser Industries members, Pacific Pumps, Inc., and International Derrick & Equipment Company.

Dresser Industries is now a team of thirteen companies pooling their resources for better products, better service to their customers.

> Dresser Industries, Inc. Terminal Tower, Cleveland 13, Ohio

For the Added Bathrooms Post-War Living Will Require...

Typically American as ham-and-eggs —is the modern shower! It follows the armed forces around the world, be it only an improvisation — from empty oil drum or gasoline tin. And it will follow them home, too! The war has indeed made millions more of shower bath "converts"—not only in service but in hundreds of housing developments as well.

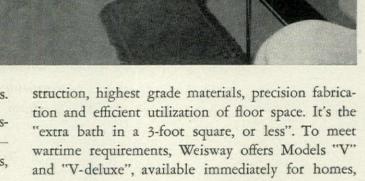
Weisway CABINET SHOWERS

Consider this as you face the wave of building and modernization to sweep the nation after the war. It will be the greatest in history. And in countless thousands of homes old and new—added bath facilities will be at the top of the list of com-

forts which are most in demand by American families.

For every field of construction — residential, industrial, institutional — home, hotel or country club — Weisway will be ready, with impressive models, refined and improved.

Specify Weisway - and you specify: leak-proof con-



commercial and industrial installations, through the

regularly established plumbing channels.

HENRY WEIS MFG. CO., INC., 502 OAK ST., ELKHART, INDIANA



IN DESIGNING the new laboratories of G. D. Searle & Co. at Chicago, Illinois, Architect Herbert G. Banse was well aware of the benefits of air conditioning.

Almost half the 1,300,000 cubic feet of the structure is air conditioned. A zone system based on the area of outside wall, roof and window exposure is used. Because it is a drug and chemical plant, particular attention has been paid to prevailing winds and the location of fresh air intakes and exhaust ducts.

Separate air conditioning units in the several manufacturing departments, as well as in the office, research and recreational areas, permit flexibility depending on the requirements of these areas. Particular attention has been given to allowance of space for easy accessibility to large assembled units, balancing dampers and duct work to permit later alterations and extensions if required.

In the words of President John G. Searle: "The system has enabled us to produce essential drugs the year round without hindrance by weather conditions of temperature and humidity... and employee morale has been maintained at a high level due to the clean, comfortable and pleasant atmosphere in our plant."

Of course, "Freon" refrigerants obviously don't do the whole job. It takes good architectural designing ... and a thorough understanding of the problem. But equipment designed to utilize "Freon" safe refrigerants does lend assurance that the installation will perform satisfactorily and safely. Why not get complete information about "Freon" safe refrigerants today? Build up your own "postwar" reference file. Write Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington, Delaware.

"Freon" safe refrigerants are widely used in heavy-duty refrigeration and air conditioning systems.



Contraction of the

SUPPORT THE MIGHTY 7TH WAR LOAN ... BUY BIGGER BONDS

SELF-ENERGIZING-ONE PIECE-OVERHEAD TYPE

hawfir los

-SAVE Space and COST in Garage Construction

Requires only 2" of headroom above the opening. Saves from $12^{1}\!/_{2}$ " to 16" of sidewall construction on all four sides . . . from \$9 to \$35 in actual building costs.

PREFIT TO SIZE One size only. Prefit to standard 8 by 7 foot residential garage openings.

Attractive

Designed to blend with any style of architecture.

3 6 3

Strong

Made of durable Douglas fir, structurally strong!

Weatherproof

Easy-to-Install

Easy to Install! Hardware 97% pre-assembled. Installed in less than 45 minutes!

Few Tools Needed

A hammer, screwdriver, level, saw, brace and bit do the job! This new improved Craw-Fir-Dor will be ready for production the moment war restrictions are lifted. Low in cost — within the reach of every home owner — it will be easier to install, easier to operate, strong, durable and attractive. Backed by a large industry — approved and sold as a standard product by the eight leading fir door mills in the United States — Craw-Fir-Dor will help you speed and improve every postwar garage job.

Put Craw-Fir-Dor in your plans - now.

Available Everywhere In The United States

Craw-Fir-Dor is sold by lumber dealers in every part of the country. Keep in touch with YOUR dealer; he'll have Craw-Fir-Dors the moment conditions permit!



For special residential or industrial installations, write: Crawford Door Company, Detroit, Michigan—maker of a complete line of sectional overhead-type doors.

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

These Features Mean *EFFICIENCY PLUS* In Cold Storage Doors

VERTICAL PANELS prevent moisture and dirt accumulation and add further to structural strength.

CROSS BRACING prevents sagging or warping...makes York Doors structurally strong...rugged.

SELF-ADJUSTING hinges and latches maintain constant and even gasket pressure. Hardware is streamlined... built for heavy duty...rust resistant.

KICK PLATE takes the bumps and reinforces the door against damage from shavings, ice or other obstructions that may be swept into the doorway.



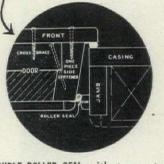
YORK Cold Storage Doors keep temperatures and operating costs lower. The special advantages shown above reduce spoilage hazards and provide the structural strength to withstand almost limitless opening and closing. York Cold Storage Doors are specialized for every refrigeration service. Doors for all applications are available to your clients through a York factory branch or distributor nearby. York Corporation, York, Pennsylvania.

MECHANICAL

AND

RIGERATION

FOR



DOUBLE ROLLER SEAL with two water and grease-proof, wear-resistant gaskets insure perfect, enduring seal and prevent sweating and deterioration at the base.

CONDIT

SINCE

COOLING



Send for the "Architects' and Engineers' Manual York Cold Storage Doors." It gives complete information—plus valuable tables and dataf or refrigeration plants.

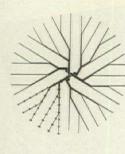
HEADQUARTERS

1885

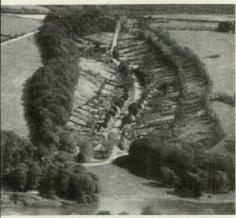
BOOKS

Another technician's Utopia . . . Does home ownership pay? . . . A social history of Scandinavia.



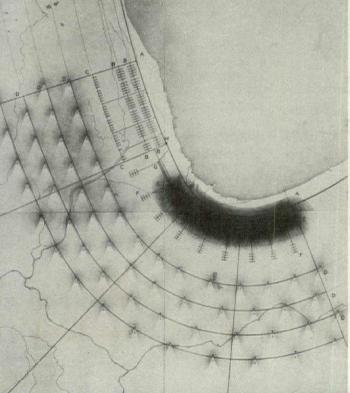


EARLY RADIAL STREET SYSTEM



	CONTRACTOR AND INCOME
PRIMITIVE RIBBON DEVELOR	DATEAUT





THE NEW CITY. By L. Hilbersheimer. Paul Theobold, Chicago. 191 pp. Illustrated. 111/4 in. x 123/4 in. \$5.95.

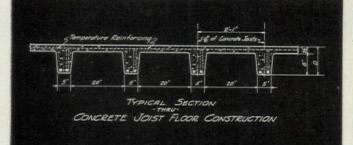
Following a trail blazed by the writings of Gideon, Mumford, Saarinen and Sert, L. Hilbersheimer, erstwhile professor of city planning at the Bauhaus and at present instructor at the Illinois Institute of Technology, tosses his mortar board into the ring with a new manual on city planning. Purportedly a general survey and layman's introduction, the book encompasses most of the important aspects of the field: historic background, study and analysis of the components of planning practice, its outstanding theories and theorists, with understandable emphasis on the Hilbersheimer concept. If this work is truly intended for the average reader, his IQ is a good deal higher than is generally suspected. Take for example the author's comparison of the centric and the ribbon system: "To make a fair comparison . . . and to weigh the economic merits of each, we need to consider two ideal areas of equal size and similar problems, one treated according to the centric principles, the other according to the linear. Such a comparison is afforded in two plans, one by Ludwig Sierks and the other by Peter Friedrich . . . The centric plan of Sierks calls for 36 terminals from which two trains will leave each hour. The ribbon plan of Friedrich requires only twelve terminals. From each of these six trains will leave every hour. The total number of trains is the same for both plans-72. In the centric system, however, the trains leave every half hour; in the ribbon system, every ten minutes. The average distance between center and terminal in the centric system is 3.5 miles; in the ribbon system, 4 miles. The running time in the ribbon system, therefore, is greater than in the centric system. This extra running time is offset, however, by shorter waiting time, for three times as many trains are running in this system as are scheduled in the centric system. In the latter system, the number of trains would increase toward the center because the different zones of influence would overlap as the center is approached. In the ribbon system, the number of trains will remain the same in all parts except in the center line where all trains meet. The accessibility to means of transportation is, therefore, practically the same throughout the entire area. The superiority of the ribbon system, as far as transportation is concerned, is evident." This is a matter of opinion.

The Hilbersheimer planning formula is "based on an independent settlement unit limited in size and containing within itself all the necessary elements of a city, segregated according to their function. In this plan the backbone of the settlement unit is the main traffic artery. On one side of that artery are located the industrial areas; on the other side, first the buildings for commerce and administration set within a green belt, and beyond them the residential area surrounded by a park with schools, playgrounds and *(Continued on page 166)*

SCHEMATIC REDEVELOPMENT for Chicago and its environs. Shaded dots are "independent settlements of limited size" with separate industrial and residential areas planned to minimize smoke nuisance.

How to lower centering costs and speed up construction USE CONCRETE JOIST CONSTRUCTION and CECO Engineering Service

STEP 1. CECO ENGINEERS PREPARE INSTALLATION DETAILS



Ceco's experience with 250,000,000 sq. ft. of concrete joist floor construction lies behind every Ceco installation detail. Here is a typical cross-section thru concrete joist construction.

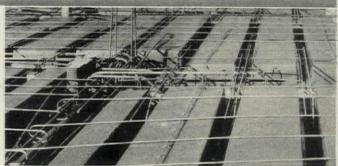


Feel free to consult Ceco when you use concrete joist construction. Capable engineers in 22 offices are always ready to help in the preparation of designs and estimates . . . help cut costs!

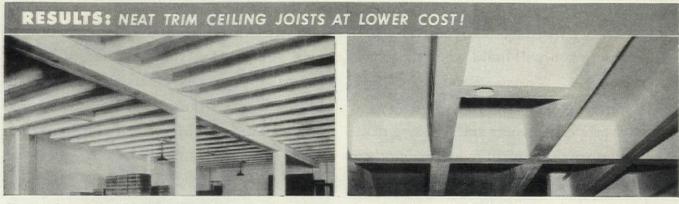
STEP 2. CECO CONSTRUCTION EXPERTS SUPERVISE PLACING OF MEYER STEELFORMS



All Meyer Steelform construction requires is this simple open wood centering that may be re-used from one floor to next as can Meyer steelforms. Eliminate extra lumber cost, save time, increase efficiency.



To eliminate leakage of concrete and insure accurate execution of structural design Meyer Steelforms must be correctly placed. Here you see the proper accurate alignment on a Ceco supervised job.



Here you have fireproof construction at the cost of non-fireproof construction. This clean functional ceiling used to advantage in warehouses, light manufacturing buildings and garages! Close-up shows the finished character of ceiling joists built with Meyer Steelforms. Concrete joists can be left exposed or finished with a flat ceiling hung from the construction.



May we interrupt ..?



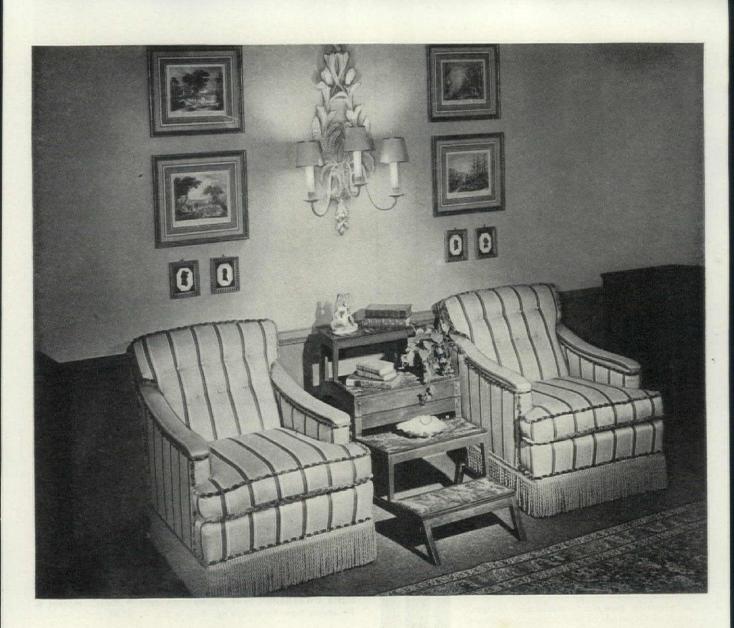
TF you are thinking of the multi-story building you will build when the war is over – or

If you are among the thousands of progressive property owners and building managers who are thinking of modernizing their vertical transportation system when labor and materials are available —

We suggest that you get the planning behind you now as we have learned by experience that the preliminary plans for an elevator or escalator installation often take more time than is required for the manufacture and installation. We can assist you with your post-war plans

Your Otis representative is ready now to help you develop your elevator plans . . . to make preliminary studies and recommendations. Call him today and be assured of the last word in vertical transportation tomorrow.

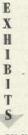




Surprising companions...

Choice pieces from different periods find lasting compatability in related groupings by Tomlinson. As, for example, the antique 18th Century step-ladder chair shown here as a useful central piece between two mated chairs in contemporary style and fabric. Surprising, isn't it? But then, this is the type of subtle color-and-design coordination that decorators and architects can expect from Tomlinson.

Furniture by OMLINSON



IN NEW YORK: 385 MADISON AVENUE

IN CHICAGO: 1666 MERCHANDISE MART

IN PITTSBURGH: 907 PENN AVENUE

AND IN HIGH POINT, NORTH CAROLINA



To assist manufacturers of window assemblies with the speedy, economical and correct installation of window and sash hardware. Grand Rapids Hardware Company offers a trained and competent engineering service to cooperate with them right on the job. These men can be of assistance to all who agree that window planning should begin now and who are willing to observe first hand what the Grand Rapids Invizible Sash Balance will do for them.

These services are rendered without charge or obligation.

- Easily installed. Only 6 simple steps. No odd sizes. Completely interchangeable.
- 2 No tapes or cables or exposed tubes. Entire sash balance moved with the sash. Always invisible.
- 3 Deliveries of Grand Rapids Invizible Sash Balances are governed by government priorities. Send for catalog for information and delivery details.

Sash pulleys will be available as soon as materials are released.

GRAND RAPIDS HARDWARE COMPANY GRAND RAPIDS . . MICHIGAN

BOOKS

(Continued from page 162)

community building in it. An agricultural area adjoins this park . . . The settlement groups would form linear or pointformed, fanlike patterns, the exact form of the group being determined by the analysis of the settlement's function and by the conditions peculiar to each situation." Like so many planners, Mr. Hilbersheimer also suffers from the occupational disease of his profession—false idealism—and this is no potion for John Q. Public. Existing cities are more than doodlings on a blackboard and the real planner must compromise with large and costly structures, prevailing land values, budgets and public sentiment.

The author's theory is elaborately illustrated by renderings that bear a striking likeness to rayograms. These are as difficult to interpret as they are mystical in appearance. Also included are definite replanning projects for such cities as Chicago. The schematic drawing for a replanned Manhattan, however, really gives the show away. Here residential properties occupy the entire shore front with industry located toward the center. Undoubtedly a river view from every window would be pleasant but the men who work with actual city maintenance will argue indefinitely the vital importance of water transportation and the consequent necessity for commercial waterfront property, particularly in the case of an island city. Diminishing river traffic can mean nothing but increased trucking, an even heavier burden on the railroads.

While it should not be missed as another interesting unbosoming of the planning savants, Mr. Hilbersheimer's book is too highbrow for the layman at which it is aimed, not broad enough in its approach to make it a consequential work for the professional readership. It is, however, an intelligent, if biased, opinion.

HOME OWNERSHIP: IS IT SOUND? By John P. Dean. Harper & Brothers, New York. 215 pp. 5 in. x 81/4 in. \$2.50.

The fact that a medieval Englishman allowed that "a man's home is his castle," and the fact that Edgar Guest reported that a house requires "a heap o' livin" to turn it into a home, has somehow contributed to the notion that it's better for a man to own his own home than to rent it. So now comes Dr. John P. Dean, in a book with the dullish title *Home Ownership—Is It Sound?* and says, in effect, "a man's home may be his prison." And more than that, he supports another rhymer, Ogden Nash, who pointed out that it takes "a'heap o' payin'" as well as a heap of other things to make a house a home.

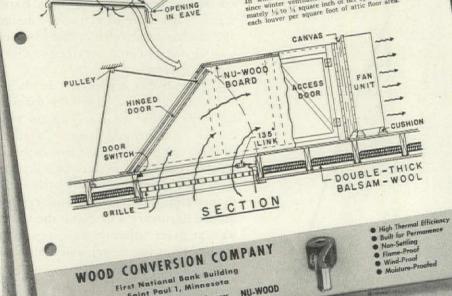
Dr. Dean seems to be a rather sensible man. He's not against owning a home; but, he says, quite realistically, it might be better to rent it. And that's what his book is about. He's in favor of skipping the word "home" and substituting the word "shelter." And he thinks, without saying so, that we'd be a little less inclined to advocate home ownership for everybody if we thought of it as shelter ownership.

It's a book crammed full of asterisks and footnotes, all of them extremely pertinent to the subject, but not to be read as entertainment. But for those who do concern themselves with the realistic aspects of housing, it should prove invaluable.

Dr. Dean is not impressed with the statements of the current President of the U. S. or Ex-President Hoover or the late President Coolidge, all of whom were active salesmen of "home ownership." He discounts (Continued on page 170)

ATTIC FANS FOR SUMMER COOLING - OPEN ATTICS

<text><text><text><text><text><text><text>



NU-WOOD

NOOP IN 3 Minners

dement sond me set of application data sheets.

Carefully detailed-authoritative-these valuable Balsam-Wool data sheets illustrate latest application practices-give "pointers" on applying insulation for highest efficiency-contain information difficult to get elsewhere. These sheets are prepared in the interest of better application practice by Wood Conversion Company, makers of Balsam-Wool. Start your file nowmail the coupon for a set of Balsam-Wool Data Sheets.

State

ACCEPT-WITH

OUR COMPLIMENTS-

THESE Balbam Wool

DATA SHEETS

Balsam-Wa

Saint Paul 1, Minnesota

Products of Wayerhoeuser

SEALED INSULATION

1. WINDPROOF

all Work

Balsam-Wool

APPLICATION

DATA SHEET

SEC.

No. 3

Double-Thick Balaam-Wool Attic Insulation is ideal for both winter and summer confort. In summer the house, thus lowering the "cooling load." This means that is lowering the "cooling load." This means house faster and more ecconomically in an "open" attic where the construction of the and the euves are open, it is necessary to install the the in a sustion box. "right" attic. The seeling grille, location and size are first determined as suggested in Data Sheet F-1.

- 4 LASTING 5. NON-SETTLING
- 2. MOISTURE-PROOFED 3 FIRE RESISTANT

BALSAM-WOOL

6. HIGHLY EFFICIENT

BALSAM-WOOL NU-WOOD -Products of Weyerhaeuser

HOLD EVERYTHING!

A hospital corridor is no place to play "boomps-a-daisy" . . . for door closers that "act up" can be very upsetting to a nurse's tray - not to mention her temper and the patients' nerves.

The "cure" for making doors docile in hundreds of hospitals is the Russwin hydraulic door-closer. It's typical of the entire line of Russwin builders' hardware . . . hardware of attractive design and mechanical excellence that has been giving outstanding service for more than a century.

To give lasting satisfaction, hardware for hospitals, like hardware for any building, must measure up on two counts . . . utility and design. Neither of these can be expected from inferior hardware made necessary by a skimpy hardware allowance. For little extra money first quality Russwin brass or bronze hardware will make the hardware an asset rather than an eyesore to the buildings you design and build.

Russell & Erwin Manufacturing Co. New Britain, Conn.

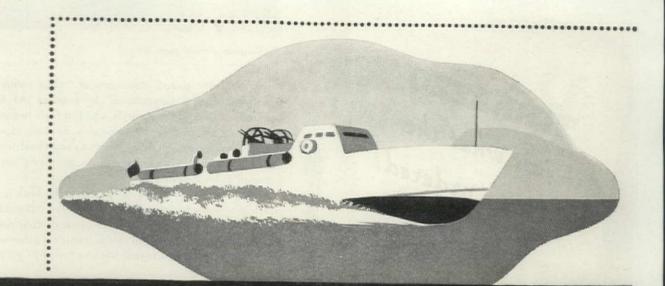


The closing power of a Russwin doorcloser is a high-grade steel spring ... it is checked by a piston in a cylinder filled with a special nonfreezing liquid.



FOR ENDURANCE -- SPECIFY WROUGHT OR CAST BRASS AND BRONZE

FOR DESIGN AND WORKMANSHIP . . . SPECIFY



Whether you build PT Boats or Prefab Houses...

with a Kimpreg[®] Surface

A revolutionary new alloy-like material is achieved by fusing to plywood's surface a cured plastic skin of KIMPREC. This resultant material is not a plywood in the ordinary sense, not a conventional plastic laminate. It is a brand new, better structural medium with countless applications in many products—including, very probably, those you plan for post-war production.

With KIMPREC, plywood is converted into an improved substance which can be machined, formed and fastened like ordinary wood—yet has a plastic's smooth, tough surface and beautiful, permanent, paintless finish.

KIMPREC adds the following advantages to plywood: 1) increases durability and flexural strength; 2) provides resistance to

Among the users of KIMPREG are: Buffelen Lumber & Manufacturing Company; Olympic Plywood Company; Washington Veneer Company; and The Wheeler, Osgood Company; all of whom are currently producing a Douglas Fir Plywood surfaced with KIMPREG. This product is sold under the trade name of Inderon.

moisture and vapor; 3) armor-plates against extreme abrasion; 4) diminishes grain-raising effects; 5) makes the material scuffproof, splinterproof, snag-resistant; 6) affords a stainproof, washable, "wipe clean" surface; 7) creates resistance to chemical action, decay, temperature-extremes, fire, vermin, and mold. Moreover, it is warm to the touch, does not have the chill "feel" of metal surfaces.

Today all KIMPREG is required for military needs, ranging from airborne "prefab" huts to glass-smooth tables for packing parachutes without snagging. Hence, the wartime color of KIMPREG is a soldierly olive-drab. Post-war, however, it will be offered in a variety of appealing hues.

Now is the time to investigate the possibilities of KIMPREC-surfaced materials for your *peacetime* requirements.

Timpre	eg.	Send Coupon for FREE KIMPR Kimberly-Clark Corporation, Name	
TRADE MARK	0	Firm	1
	Kimberly	Type of Business	
facturing Company; Olympic meler, Osgood Company; all of	Clark	Address	
with KIMPREG. This product	le ,	² City	State



FINE TERRAZZO is the perfect prescription for a hospital floor. It's sanitary—easy to clean easy to keep clean. And despite the heaviest foot traffic, such a floor will retain its original beauty and endure for the life of the building.

Skilled craftsmen who create *fine* Terrazzo prefer Atlas White cement. Experience proves that it provides a matrix for a faithful reproduction of any desired combination of colors. It reflects the full, rich beauty of the marble chips used and gives true value to any color pigments required.

For further information, write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

The matrix is as important as the marble chips



BOOKS

(Continued from page 166)

such frequently quoted statements as "home ownership is a bulwark against Communism" by pointing out that the hundreds of thousands of people who lost their homes in the 1920's were not made anti-Communists by their experience. And he has some very cogent things to say about the difference between actually owning a home and being simply the owner of a down payment.

Perhaps the most interesting chapter in the book is the one which gets down to cases in discussing "the financial dilemma; to own or to rent." He reaches no single conclusion, but his examination of the actual cost of owning a home will be a revelation to those who regard the investment as simply paying off a mortgage.

For instance, he points out that the interest the home owner would have received if he had invested his money in some other way, is a legitimate cost of home ownership. He says, as well, the depreciation is an equally significant factor in home ownership, that a man should be aware that the house for which he is spending \$10,000 may be worth only \$6,000 when he has finished paying off his mortgage.

Other costs to which Dr. Dean turns his attention are debt service and the seemingly unending number of fees and special assessments to which the home owner is subjected.

Much of Dr. Dean's criticism of home ownership economics, however, stems from his appraisal of the situation in pre-FHA days. Many of the practices he condemns simply do not exist any more. He seems to minimize the importance of the many safeguards that have been thrown around home ownership, such as: monthly amortization; lower interest rates; insurance against payment lapses, due to unemployment or sickness; and the stabilization of community values through proper land planning and zoning.

At the end of his book Dr. Dean suggests half a dozen research projects that might throw some additional light on the problem. One of the most interesting is his proposal that home ownership be studied, not from the point of the owner, but from the point of view of the house itself. For instance, how often, he asks, do various *types* of houses change hands, the implication being, of course, that one type of house might be better for the renter and another type of house be built for the actual buyer. Dr. Dean also asks the question: "What proportion and which houses have been carried through to unencumbered ownership and what condition are they now in?"

These and his other suggestions for further research are provocative and would be well worth the investigation of agencies really concerned with the economics rather than the patriotics of owning a home.

THE SCANDINAVIAN COUNTRIES, Rise of the Middle Classes, 1720-1865. By B. J. Hovde. Chapman & Grimes, Inc., Boston. II Vol. 823 pp. 6 in. x 9 in. \$10.

It is unlikely that more than a small percentage of the architectural world knows Bryn J. Hovde as anything but the ex-Chairman of the Pittsburgh Housing Authority. This is no reflection on the scholarly standard of the profession but in view of his recent appointment as Chief of the Division of Cultural Cooperation of the State Department, it is interesting to learn a little more about the academic side of his (Continued on page 174)

WINDOWS FOR DREAMS THAT COME TRUE

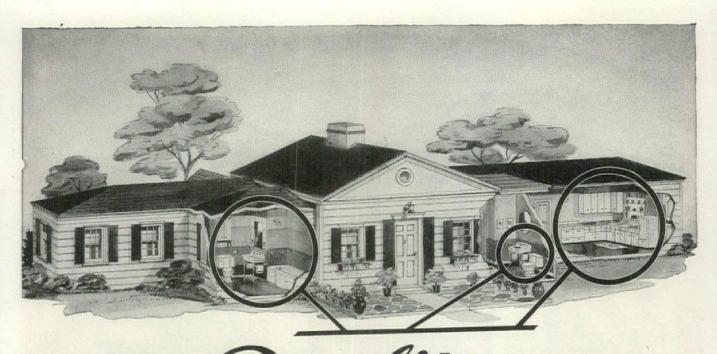
General Bronze is ready for the day when architects' new conceptions, now on the boards, will "come to life" in three dimensions...ready with a complete new series of designs for greatly improved bronze and aluminum windows...windows that will conform to tomorrow's advances in building design.

For the past four years General Bronze has been supplying the armed forces with a great variety of metal products. These new activities have led to new production techniques, new ways of fabricating bronze and aluminum, and new manufacturing economies that will permit higher quality windows at lower prices.

Plan now to include GB windows in your new buildings. Take advantage of the experience of the world's largest pre-war manufacturer of non-ferrous windows. Specify windows that will be permanently weather-tight and always easy to operate...windows of low maintenance cost...GB windows of bronze or aluminum.

GENERAL BRONZE CORPORATION 34-17 TENTH STREET LONG ISLAND CITY 1, N.Y.

SIX CONSECUTIVE ARMY-NAVY "E" AWARDS



CRANE Quality HERE WILL HELP YOU SELL MORE HOMES

Builders have found that Crane bathrooms and kitchens can be mighty strong selling arguments when showing prospects a new home.

These prospects recognize the name Crane as standing for high quality and they fully realize how much modern Crane bathrooms and kitchens can add to their comfort—how much this equipment can mean if they want to resell.

Why not put this recognition to work in the homes you are planning? The Crane postwar line will include newly styled plumbing fixtures to suit modern taste—to fit any building budget—sturdy, reliable equipment that will possess the same tested quality and beauty that have led to nation-wide preference for the name Crane.

When war conditions permit the production of these new fixtures, your plumbing contractor will be in a position to supply them for the homes you are planning to build. When that time comes, complete information will be available from him or your nearest Crane Branch.



Daylight FOR BETTER LIGHT



Thermopune ... FOR COMFORT

Now you can *double* the appeal of glass in your postwar houses.

Offer the better light and exciting beauty of big Picture Windows. They make enjoyment of the outdoors a part of indoor living—a feature of proved salability. Add the appeal of heat savings and greater comfort made possible by Thermopane, the windowpane that insulates.

Thermopane helps keep rooms warmer in winter, cooler in summer, and tends to shut out street noises the year 'round.

The benefits of Thermopane are described briefly at right. To help your planning, get our new Thermopane book, containing full information on the sizes, thicknesses and types of glass with which it can be made. Write to Libbey Owens Ford Glass Company, 1555 Nicholas Building, Toledo 3, Ohio.



Thermopane . . . the windowpane that insulates Makes big windows practical in any climate



Thermopane provides effective insulation because a layer of dehydrated air is sealed hermeticallybetween its two panes of glass. Thanks to the patented Bondermetic Seal, used to prevent dirt and moisture infiltration, there are only two glass surfaces to clean.

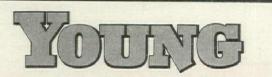
This double-glass windowpane fits into a a modified sash, just like a single pane of regular glass...stays in all year. It's a modern, practical way to provide the benefits of bigger windows, with assurance of winter comfort and heating economy.

YOUNG CONVECTORS



Here's good newsl "STREAM-AIRE" Copper Convectors will be available as soon as present extensive war effort permits . . . Young units that are so widely preferred by schools, hospitals, offices, apartment buildings.

MODERN in design, Young Convectors are made to blend with either period or ultra modern architecture and furniture. "STREAMAIRE" heating elements are made of copper and respond faster to temperature control demands. They offer the maximum in heating efficiency, maintaining a constant circulation of warm, healthful air... are easy to install, easy to keep clean. If you have a job waiting for modern convector heating, call the Young application engineer in your locality today (refer to the classified section of your phone directory) or write to the address below.



HEAT TRANSFER ENGINEERS

Manufacturers of Oil Coolers • Gas, Gasoline, Diesel Engine Cooling Radiators • Intercoolers • Heat Exchangers • Engine Jacket Water Coolers • Unit Heaters • Convectors • Condensers • Evaporators • Air Conditioning Units • Heating Coils • Cooling Coils • and a complete line of Aircraft Heat Transfer Equipment. **YOUNG RADIATOR CO.**, Dept. 155-E, Racine, Wis., U.S.A. APPLICATION ENGINEERS IN PRINCIPAL CITIES

BOOKS

(Continued from page 170)

career. Dr. Hovde has also been associated with the department of history of the University of Pittsburgh and is, in his own right, an eminent scholar of Scandinavian culture. The history of these peoples is certainly a neglected element in standard American education and to the harassed student of European affairs Hovde's recent historical study of Sweden, Norway and Denmark will furnish a much needed perspective of the rise of the middle-class, capitalistic society in the Scandinavian countries for the purpose of evaluating their potential roles in the postwar world.

Dr. Hovde has undertaken a huge task attempting to cover the evolution of three countries from a near-feudal, monarchistic stage to the relatively mature period when "urban economic enterprise, commercial, financial and industrial, was well launched on the course of modern technique." It would be no small enterprise to approach such an involved subject from a single, specialized viewpoint, but the author has in no way limited himself or circumscribed his material. Instead, he has managed to cover all phases of politicoeconomic and creative life against a well defined historic and philosophic background, maintaining at all times a clear interrelation, of his various themes.

The extremely wide scope of Dr. Hovde's work makes it almost impossible for him to treat the general economic position of Scandinavia in juxtaposition to that of Europe in general. He does, however, fully appreciate the tremendous influence of the Pietistic movement, which originally emanated from Germany, on all phases of Scandinavian thought. Implicitly, he assigns these philosophic trends directly back to their earliest source but it is apparent that such influences were almost equally received from England and the Wesleyan movement. It is easy to underestimate the extent of British persuasion on the "North countries," unless one can accept the essentially British temperament (as opposed to the German) that is inherent in the customs and approach of the Scandinavian.

If at times the reader is unduly conscious of the tremendous documentation of Dr. Hovde's study, he will also appreciate the fact that not only is the author widely read in his field, but he also knows how to present his findings with authority. As a reference work, *The Scandinavian Countries* is certainly the outstanding American study that has appeared in recent years. While our libraries are full of contemporary books on these countries that have tremendous appeal for the liberal and consumer groups, they have too often been written with the avowed purpose of driving home a single feature or phase of Scandinavian society. None has succeeded in widely defining the "North country," its people and its civilization. Dr. Hovde's firmly constructed history does much to fill this need. Some criticism, however, may be made of his tendency to slip, unnoticed, from one country to the other.

What the fate of the Scandinavian countries will be after the war in Europe is over, no one can safely prophesy. As this book establishes a vivid background for international understanding, it is to be hoped Mr. Hovde's projected sequel covering the period from 1865 to the present time will be available before actual postwar reconstruction begins.

(Continued on page 178)

Simple Suggestions for More Attractive Wall Design Treatments with Douglas Fir Plywood

Many and varied are the wall design treatments possible with beautifully - grained Douglas fir plywood. Advertisements 1 and 2 of this series* detailed two methods of using panels placed horizontally. In the rendering below -that of a smart, modern, shop interior - vertical panel arrangement predominates. Standard 4 x 8 panels are used vertically with the wainscoating placed horizontally; the unusual design effect is achieved by vertical V-grooves,

feet, however, do not hesitate to place the panels horizontally as in detail E-for combinations of vertical and horizontal arrangements may be used in the same room with pleasing effect. Nine and ten foot lengths are available to assist in solving special problems.

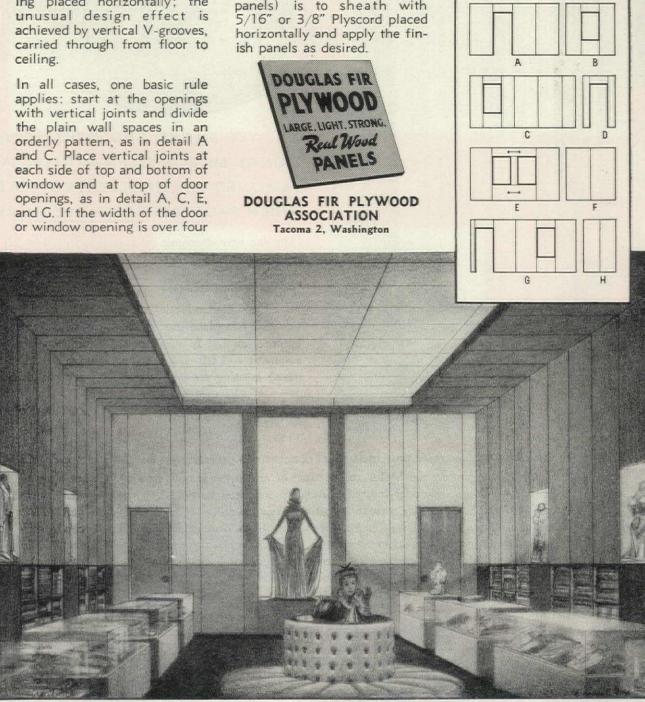
The most satisfactory method of applying special patterns (or patterns made up of small panels) is to sheath with 5/16" or 3/8" Plyscord placed ish panels as desired.

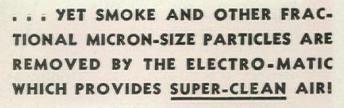
No. 3 of a Series

CAN PLYWOOD BE SPECIFIED NOW FOR POSTWAR USE?

The increased capacity of the industry will make MORE Douglas fir plywood available THAN EVER BEFORE, as soon as the needs of the armed services lessen or war restrictions are lifted. There will be no reconversion de-lays; the same types and grades of Douglas fir plywood that are now being made will flow immediately into peace-time building and construction.

*Reprints available on request.





Only the new electronic microscopes, will show all the particles of dust that the Electro-Matic Air Filter will remove. By first giving dust particles an electrostatic charge, then attracting them electrically to viscous surfaces, the Electro-Matic makes possible a degree of cleanliness in plant atmospheres that is unapproachable by other means. In addition, this equipment is rugged, automatic and self-cleaning (an exclusive AAF development) assuring continuous operation at peak efficiency.

Super-clean air for commercial and industrial concerns is guaranteed by the Electro-Matic

HAS TO BE MAGNIFIED 40,000 TIMES TO LOOK LIKE THIS:

The use of filtered air to protect the health and comfort of employees is not just altruistic but a sound business investment. A large industrial insurance company estimates the time lost by employees due to colds and other dust borne respiratory reasons is costing business millions of dollars each year. This does not take into consideration the indirect losses resulting from production slow down, costly mistakes and the unavoidable waste due to inexperienced operators replacing absent key workers. Nearly every type of industrial plant and commercial concern is represented among the users of AAF equipment. For complete information on the Electro-Matic Air Filter send for Bulletin 250-D.

R

RO-MATIC

FILTER

Incorporated

In Canada: Darling Brothers, Ltd., Montreal, P. Q.

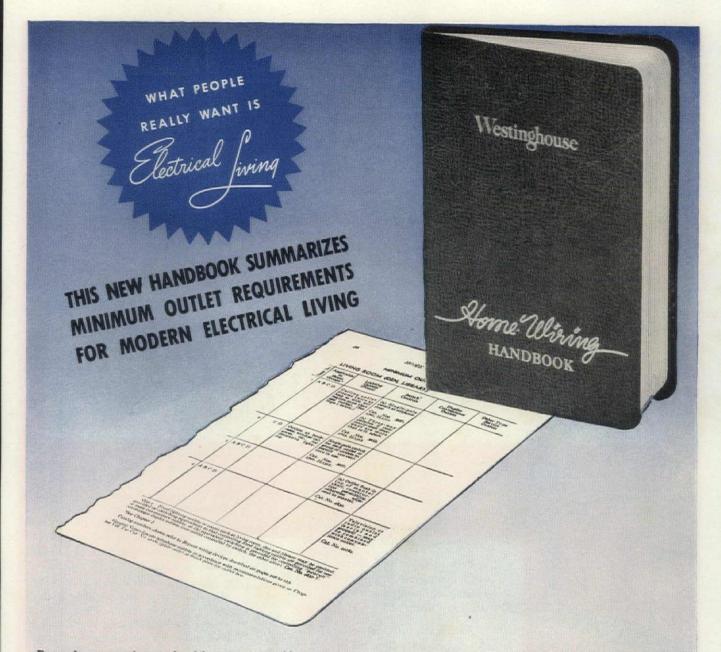
AMERICAN

427 Central Avenue

COMPANY, INC.

THE SELF CLEANING ELECTRONIC AIR FILTER

LOUISVILLE 8, KY.



Room by room, for each of four groups of homes in the popular priced class, the minimum outlet requirements are clearly outlined in this new Home Wiring Handbook.

For example, by referring to Chapter III you can quickly specify the correct number, type and location of fixed lighting outlets, switch controls, duplex convenience outlets and other service outlets to install.

Every electrical wiring detail required in homes for



BETTER HOMES DEPARTMENT

as a part of its consulting service to the home building profession, offers the following FREE BOOKS: Electrical Living in 194X—Professional Edition; Manual of Better Home Wiring. full convenience Electrical Living is explained and summarized in the same comprehensive, concise way. Control centers, feeders, circuits, circuit protection, signal systems, and facilities for telephone and radio are included.

Every architect, engineer, builder, prefabricator and electrical contractor in the housing field will value this timesaving, 120-page guide to what people really want, electrically. J-91529

- ORDER YOUR COPY NOW -

Westinghouse Electric & Mfg. Co. Extension Training—Industrial Relations Department 306 Fourth Avenue, Pittsburgh 30, Pa.
Gentlemen: I enclose \$1.00 for a copy of your "Home Wiring Handbook".
Name
Street
City

A MILLION HOMES A YEAR. By Dorothy Rosenman. Harcourt, Brace and Co. 303 pp. 51/2 in. x 8 in. Index, bibliography, \$3.50.

As chairman of the war-born National Committee on Housing, Dorothy Rosenman has been important as an agent for mediating the internecine skirmishes that divide the U. S. housing front. Mrs. Rosenman's first published book accurately reflects her two main drives: to merchandise progressive ideas about housing, and to open the way for action by establishing the broadest possible area of agreement among all sectors of interest. Both of these goals are ably accomplished—the first, because Mrs. Rosenman writes with both clarity and vigor; the second, because she is a realist who knows that the many kinds of vested interests in land, taxes and every phase of construction cannot be discounted by the simple expedient of ignoring them.

It is no condemnation of her work to say that she has made no startlingly new contributions to the already large body of proposals for dealing with the problem of more and better housebuilding. Her intention has not been to point new

COME ON IN- the water's fine!

Sure it's fine . . . because the architect *planned* it that way!

Permutit* helped. Permutit furnishes complete equipment to make swimming pool water as pure as drinking water!

Architects, builders and real estate developers have found *many* ways in which better water can help them

produce better living and working conditions. They turn to Permutit for controlled-quality water in industrial plants, municipal water works and private homes.

If you have a water problem, bring it to: The Permutit Co., Dept. AF., 330 West 42nd St., New York 18, N. Y. or Permutit Co. of Canada, Ltd., Montreal. *Trademark Reg. U. S. Pat. Off.



WATER CONDITIONING HEADQUARTERS

directions, but to clarify and synthesize recommendations for action which have already won wide acceptance. Her proposals (yield insurance, subdivision control, taxation on use value, improved techniques for urban land assembly, etc.) do not differ greatly from recommendations published last year by the Twentieth Century Fund's housing committee, but they are somewhat less broad in scope. Thus while she echoes the Fund committee's interest in stimulating investment in rental housing, she does not seem to share that group's grasp of the basic faults of home finance or its willingness to look for new ways of tapping building money. It is possible that Mrs. Rosenman's contacts with building finance groups through the work of her committee have convinced her of the imponderable difficulties that lie in the way of any basic changes in the present mortgage structure.

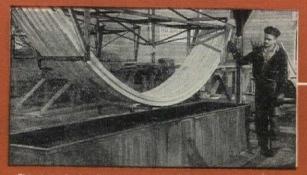
There will probably be little controversy about her conclusion that "there is no one (housing) cost factor capable of sufficient reduction to revolutionize total production costs" and perhaps not much about her secondary conclusion that "cost of distribution of materials and parts" is the only single factor offering "promise of drastic reduction." But some may feel that her energy and enterprise might have been more profitably devoted, say, to digging up some new facts about the distribution cost factor than to a rehearsal of cost data already documented and distributed by the National Housing Agency and others.

Although the reader may wish that Mrs. Rosenman had a rather smaller collection of metaphors and similes, her writing is both simple and lucid and the book may reach its major importance as a means of alerting the nonprofessional reader to the real nature of housing and planning problems paramount in everbody's welfare. For this reason, it is fortunate that she has clearly distinguished between the problem of supplying low cost housing and the anything-but-synonymous problem of urban redevelopment. Equally fortunate and timely is her emphasis on the need, born of modern living conditions, to disavow every kind of isolationism:

"The dawning realization that nations cannot successfully pursue a lone-wolf policy is stirring the individual to consider the complexity of his relations with his fellow man—the influence of other lives upon his life, of other business enterprises upon his business, of other standards of living upon his standard . . . There is no single field of human endeavor which testifies so vividly to lack of foresight in considering the interdependence of one man with the other as that of home building."



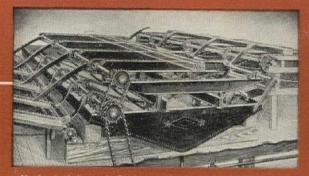
panels. This is a flood-spreader type of machine for the applica-tion of Laucks plywood treating solutions.



This is a hydraulic-plunger type of operation. In this model dead weights are eliminated, submerging is achieved by top side pressure. Tanks of this type are used for structural members and for fabricated pre-shaped stock, such as the Quanset arches pictured. Quantities of stock handled per immersion are com-paratively small.



A mono-rail basket in operation. Materials to be treated are carried in a weighted cage and "dunked" in Laucks preservative water-repellents. This type of tank is generally used for the treat-ment of sash, doors, etc.



Mechanical dip tank. Timbers as large as 6 x 8 inches can be handled over the chains, which have a speed of about 30 feet per minute. Formerly used in mills for dipping to prevent sapstain. these tanks are now used to dip pantoon stock, siding, dimensional lumber, etc., in FUNGISEAL. These tanks are generally 10 feet wide and are made any length to suit conditions.

Four ways to apply **REZITE AND FUNGISEAL**

For best results in any wood treating operation the proper dipping equipment, as well as the proper wood treating materials are required. In advancing the use of Laucks, two outstanding wood treating chemicals, Rezite and Fungiseal, Laucks wood treating experts have been privileged to work with leading wood treatment operators for years, devising the most practical methods . . . of which the four presented here are typical. May we help you?

In the East:

Lockport, N.Y.

Portsmouth, Va.

In Canada:

Laucks Ltd. Vancouver, B.C.

Stanbridge, Que.

	Wood	Sub. Wt.
W. R. CEDAR	1920	2700
MAPLE	2703	1920
FIR	2250	2400
RED OAK	3669	960
PINE	2250	2400
COTTONWOOD	2330	2300
BIRCH	3669	960

I. F. LAUCKS, INC. Sectile 4, Wash. Los Angeles 1, Colif.



MEDCINC WEICH

that one word is reason enough to install STEEL INSULATION the insulation that is a DEFINITE FIRE-STOP

The photographs at the left were taken after a raging fire had blazed in the interior of a frame house for four hours. Yet, despite the seriousness and duration of the fire, the house was still standing, its wall intact. For the walls and ceiling were insulated with Ferro-Therm Steel Insulation — sheets of *steel* that acted as a definite *fire stop* and prevented the spread of the flames.

A leading engineering firm that examined the structure reported, "The Ferro-Therm obviously performed its function of reflectivity even at the high temperatures generated by the fire. In only a very few exterior stud spaces in the whole house did the Ferro-Therm pass enough heat to char the exterior plywood sheathing. The Ferro-Therm over the ceiling joists performed in the same way, and actually did not allow the fire to get into the attic space. Aside from the broken windows, the house gave no evidence on the exterior of having been ablaze for probably four hours in the interior."

The hazard of fire is another reason why there is no substitute for Ferro-Therm *Steel* insulation. It is not only noncombustible, it reflects heat above 1000° F. And, because it is allmetal: (1) it does not absorb moisture, or convey any moisture to framing members; (2) it completely prevents the penetration of termites, rodents and insects; (3) it makes a *permanent* installation that is 100% efficient for the life of the building.

Investigate the advantages of Ferro-Therm — how its high reflectivity saves fuel in winter, keeps houses cooler in summer, and gives *permanent* year-round comfort. Complete details will be sent upon request.

AMERICAN FLANGE & MANUFACTURING CO. INC. Ferro-Therm Division

30 ROCKEFELLER PLAZA, NEW YORK 20, NEW YORK

A four-hour fire failed to destroy this Ferro-Therm insulated house



Only Steel Insulation Can Give You Steel's Advantages

THE HEART OF STRONG, LEAKPROOF PIPING

For "one-piece" copper or brass piping systems that eliminate leaky joints, maintenance and repairs, specify Walseal* (patented) valves and fittings.

ILVER RINGS

All Walseal products have "SILVER RINGS" — rings of silver brazing alloy — incorporated into every port. When heated with an oxyacetylene torch, these rings make threadless Silbraz* joints that are leakproof and permanent stronger than the pipe itself. Silbraz joints will not creep or pull apart under any shock or pressure which the pipe itself can withstand. In thousands of installations — everywhere — no properly made Silbraz joint has ever failed.

Walseal products are easily installed, even in cramped quarters or positions. You merely flux the ends of pipe and fitting, insert the pipe into the fitting, and apply the torch in the prescribed manner. When the silver brazing alloy appears at the juncture of pipe and fitting, you know that a perfect Silbraz joint has been made. It's a simple, easy and quick modern method of assuring your clients strong, leak-proof, permanent "one-piece" piping!

You'll find complete information on Walseal products in Walworth Catalog 42. Write for a free copy today. *Registered trade-marks

Make it a "one-piece pipe line" with WALSEAL

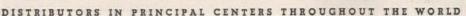
WALWORTH

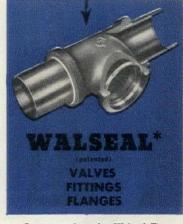
valves and fittings

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



12 AWARDS TO 4 PLANTS





Cut-away view of a Walseal Tee showing (left) silver ring as it appears after Silbraz joint is completed; (center) silver ring as inserted by Walworth in each port of Walseal products; and (right) section showing penetration of alloy after joint is completed.

How to measure the heating values you specify...

SEMBLED. Uncrate set it up, and it's ady for connecting.

MULTI-THERMEX TUBES. Transfer heat quicker. Never become overheated. Assure long life.

ATIC CONTROLS. estitive, earBy adstad. Constant temrature is assured.

LARGE CAPACITY BLOWER and FILTER. Large volumes of clean filtered air are moved guietly and effectives

TRUCTION, Providad by rugged welding inroughout . . careful factory assembly.

THERMO-DRIP HU-MIDIFIER. Provides moisture in just the right amount for comfort and health.

ita

Conversion Bu

. it's not size that counts!

YOU can't measure a winter air conditioner's performance by the number of cubic feet it occupies. Research and engineering here at Surface Combustion have shown that the elimination of bulky combustion chambers and oversized burners results in quicker, more plentiful heat from *smaller* units than is possible with many conventionally designed larger models.

No, it isn't size that matters in measuring the values of a piece of heating equipment. It's the *inside* of a furnace —the design and construction that really count. Compact Janitrol Winter Air Conditioners enable the builder to place units in utility rooms . . . in the corner of a basement . . . even in a wall section of a living room . . . to make more space for living or other household services.

That's why, to make the best use of clean, comfortable gas heat, so many home builders and designers have specified Janitrol.

For no other gas-fired heating equipment provides the *combination* of advantages that Surface Combustion has engineered.

Check the Janitrol features listed on the opposite page. They are the values that measure the warm comfort and long-time high performance you'll want to specify just as soon as equipment is again available. Surface Combustion, Toledo 1, Ohio.

FAS.FIRED

HEATING EQUIPMENT

Beneath the Surface...

a great deal more!

Even when you look close, there's much more than meets the eye.

Your reputation is staked on every roof in your designs. Up there, too ... with your promises and guarantees ... rests your client's confidence in you.

Keep those guarantees secure... by planning to roof with Flintkote shingles. For *beneath their surfaces there's a great deal more*...

Unseen, but very much present are physical advantages that give your clients an extra bonus of service. And also unseen, are other *intangible* elements that cut costs, safeguard the investment of the purchaser, and the reputation of the architect.

They are Flintkote's matchless skill and special knowledge of asphalt and asbestos products... decades of research and craftsmanship in the manufacture of building materials... the constant sample testing that tells in advance how Flintkote products will perform in service...and an unchanging adherence to the ideal of quality.

Such ingredients bear no price tag, appear on no specification sheet.

That is what we mean when we say that beneath the surface there's a great deal more.



THE FLINTKOTE COMPANY - 30 Rockefeller Plaza, New York 20, N.Y. Atlanta - Boston - Chicago Heights - Detroit - East Rutherford - Los Angeles - New Orleans - Waco - Washington



Appreciation. for the Architect

• Today the architect is devoting his time and talent to the war effort. It's landing barges, hangars, barracks, and other essential construction that are on his drawing board now. BUT

... after the war, millions of pent-up American dollars will pour into the greatest wave of home building in our history. As manufacturers of quality merchandise, Edwards is interested in seeing quality homes built . . . that is why we are running a campaign for the architect.

Over 90.000 prospective home builders have written for the booklet offered in advertisements like this, running in the American Home. Entitled "How To Plan Your New Home," this book emphasizes the wisdom of employing an architect. These little "best sellers" are available to architects with their name and address imprinted. They will serve as a contact between you and your clients. Order them today!

EDWARDS and COMPANY NORWALK, CONN. IN CANADA: EDWARDS & CO., LTD.

The stuff of dreams

• A dream is a fragile thing . . . a bubble which can so easily burst.

Make sure that in some happy, nottoo-distant day, your dream house will really be home for you and your family! Build towards it by buying and holding as many War Bonds as you possibly can. And plan your house with sound good sense and the help of an architect.

No one knows better how to incorporate your ideas into livable logic than the trained and skilled architect. His knowledge and his experience will help you avoid pitfalls he will check overspending, save you heart-breaking disappointments give you a home that is truly yours in every sense of the word. Edwards and Company, Box 390, Norwalk, Conn.

- (Save Postage-Paste Coupon on Penny Postcard)

Plan your house now ! START RIGHT-

WITH AN

ARCHITECT.

Name Street_

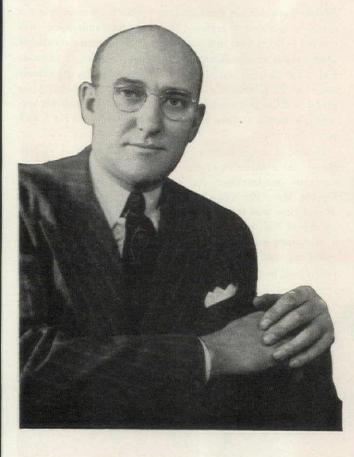
City_

Make that glorious future surestart now by buying bonds, then plan your house with an architect. Edwards and Company has prepared an authentic little book, "How to Plan Your New Home," which we would like to send with our compliments. Please use the coupon below.

this be yours fre Please send a free copy of the booklet, "How to Plan Your New Home."

ATT 645

ELECTRICAL SIGNALING



You have more confidence in a heating dealer when you know what he can do — what he represents and how well he serves after the sale.

That is why we'd like to have you, as an architect, know the background of the Timken Dealer in your locality — to be fully familiar with the services he can perform for you.

These Services Are Available to You!

1. A complete organization for planning, furnishing and installing Timken Silent Automatic Oil Heating Equipment—the automatic heating that has proved most economical and dependable in thousands and thousands of homes during the war.

2. A complete department at our factory, in charge of a competent heating engineer, which is available to dealers at all times for consulting service as well as for the design and calculation of complete heating systems.

3. Factory-trained mechanics to insure a better installation on your heating jobs, and to provide proper service after the sale.

See Your Timken Silent Automatic Dealer You will get better owner satisfaction and make

Meet O. K. Moore another Timken Dealer

O. K. Moore, President of the Automatic Oil Heating Co., Chicago, an organization devoted exclusively to planning, selling, installing and servicing home heating equipment and insulation materials. They have a background of years of experience in the field, a reputation for working well with architects, and enjoy a fine reputation among the many thousands of Timken Silent Automatic Oil Burner users in the territory. Mr. Moore is also President of the Chicago Oil Burner Association, and literally lives "heating."

* * *

more money in the long run by specifying and buying Timken Silent Automatic Oil Heating Products for your clients. Timken assures greater economy with the thrifty Wall Flame. It is so simple it has only one moving part — and so fully automatic that the one moving part is self-lubricated.

To insure earlier delivery of Timken products when wartime restrictions are relaxed, we suggest you place Reservation Orders (no obligation) with the nearest Timken Dealer now.



PREFABRICATION

All-masonry house is quickly assembled with prefabricated wall and roof units of light reinforced concrete.

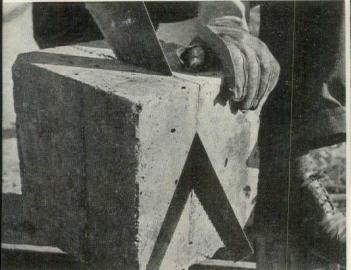
Life Photos: Farbman



BUILDER HAL B. HAYES times erection of his prefabricated house which was assembled, furnished and landscaped in thirty-four minutes using mobile crane in background.

Prefabrication made news in LIFE'S March 26 issue when a three-room masonry house, furnished and landscaped, was erected in thirty-four minutes. Within the hour, the inevitable photographs of a milkman at the front door and a glamour girl in the bathtub had also been taken. Actually, the sample house at El Cerrito, Calif., took weeks to construct. After prefabrication and assembly bugs had been eliminated it was a simple matter to take it apart and reassemble it for LIFE's photographer.

Behind this spectular news story is the work of Hal B. Hayes, the designer, and fifteen years of experimentation in concrete construction. An earlier Hayes project (ARCH FORUM, Mar. '39) was a cast-in-place concrete house. Hayes at that time was trying to reduce the cost of the house shell by use of elaborate steel forms of his own design. He used a cast cavity wall to solve heat transmission and condensation problems and for ease in placing mechanical work. His cavity wall houses needed no furring. (Continued on page 188)





"PLASTIC AIR," light concrete material is shown in left hand picture being cut with a carpenter's saw. Material is light enough to float in fresh water. Center picture shows section of a test block, mottled surface at left can be polished to bring out yellow and maroon shades for interior treatment. Picture on right shows water repellent surface of processed material used for exterior walls.





MECHANICAL CORE, of kitchen, bathroom and furnace closet swings into place in one unit. Plumbing fixtures are attached to walls in prefab assembly. Piping is built into walls. Center picture shows kitchen at end of living room. Picture on right shows unroofed unit with pipe air vent between kitchen and bath. Connections are made to water, gas and waste piping embedded in floor slab.



There is NO SUBSTITUTE for Experienced Technical Skill

When you are planning new or extended electrical systems, future requirements must be given equal consideration to present needs. Correctly engineered switchboards, panelboards and power distribution methods demand careful planning and selection if future requirements are to be considered.

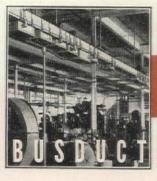
Here is where the A Sales Engineer can be of real assistance. Through many years of successful

working with Architects, Contractors and Industrial Engineers he knows your problems. By his daily contacts he has first-hand knowledge of the latest developments in your field. His technical skill is on display in hundreds of installations in your locality. Behind him is a pioneer manufacturer of switchboards, panelboards and power distribution systems. His experience and ability are yours for the asking, so call or write him today.



ELECTRIC COMPANY General Office and Factory 3650 Windsor Place St. Louis 13, Mo.

New York Office and Warehouse 419 West 54th Street New York 19, N.Y.









These Sales Engineers Can Help You

ATLANTA 2, GA. Herman Junghans 1820 Memorial Drive S. E. P.O. Box 4183

BALTIMORE 11, MD. Wolfe & Mann Mfg. Co. 28th and Sisson Sts.

BUFFALO 2, N. Y. James Hunter, 259 Delaware Ave.

CHICAGO 7, ILL. Triangle Equipment Co., Inc. 610 W. Van Buren St.

CINCINNATI 2, OHIO Miller Kleine, 1303 Union Trust Bldg.

CLEVELAND 15, OHIO R. F. Reske Agency Room 606, 1900 Euclid Ave.

DALLAS 1, TEXAS P. A. Michler, 1814 Allen Bldg. DENVER 2, COLO. F. E. Staible, 319 14th St.

DES MOINES 9, IOWA Midwest Equipment Co., 908 Grand Ave.

DETROIT 1, MICH. J. P. Laughlin, 3101 Brooklyn Ave. FLORIDA — CLEARWATER F. C. Picker, 606 N. Osceola Ave. (P.O. Box 264)

INDIANAPOLIS 4. IND.

Harry L. Dickinson 305 Merchants Bank Bldg. KANSAS CITY 6, MO.

B. L. McCreary & Son Interstate Bldg., 417 E. 13th St.

LOS ANGELES 12, CALIF. Zinsmeyer Co., 729 Turner St.

MEMPHIS 3, TENN. Lee B. Rosebrough, 166 Monroe Ave.

MINNEAPOLIS 2, MINN. L. H. Cooper, 220 Frontenac Bldg.

NEW ENGLAND (BOSTON) J. J. Cassidy 72 Jacob St., Malden 48, Mass.

- NEW ORLEANS 12, LA. W. J. Keller, 304 Natchez Bldg.
- OMAHA 2, NEB. Midwest Equipment Co., 1112 Farnam St. PHILADELPHIA 7, PA. Wm. A. MacAvoy, Jr., 244 N. 10th St.

PITTSBURGH 22, PA. Crescent Sales Co., 298 DuQuesne Way

ST. LOUIS 6, MO. O. H. Rottmann, 1023 N. Grand Blvd.

SAN FRANCISCO 9, CALIF. Columbia Elec. Mfg. Co., 390 9th St.

SPOKANE 9, WASH.

TRACUSE 10, N. Y. F. L. Grant, 625 Cumberland Ave.

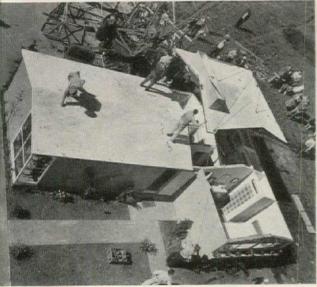
TOLEDO 6, OHIO Frank L. Lucas, 2236 Hollywood Ave

Paul E. Ebersole, 214 S. Victor St.

EXPORT REPRESENTATIVE NEW YORK 7, N. Y. Langguth-Olson Co., 11 Park Place

MAY 1945

(Continued from page 186)





14-15-20

ROOF construction is a rigid shell that transfers its load vertically to the sidewalls. No rafters or beams are used and the entire roof is installed in three sections. Picture above shows living room roof panel with interior surface painted.





WALLS are placed in nine units. Picture at left shows living room wall 20 ft. long, 8 ft. high and $2!_{2}$ in. thick hoisted into place in one piece. Material is resilient to allow handling of large units without cracking. In picture above sliding doors operate in a sheet metal channel.





INTERIOR needs no plaster finish as decoration is applied directly to concrete panels. Wall height openings give ample light and ventilation and leave uninterrupted wall spaces for decoration and furniture. Walls are cast in large units eliminating small windows.

Another advantage was the fact that the door and window frames were cast with the wall.

Imaginative and energetic, Hayes became dissatisfied with ordinary concrete as a prefab material and experimented constantly to improve it. At the same time he was developing new building construction machinery and other structural innovations. He succeeded in developing a material which was light and strong enough for prefabrication, having at the same time insulation qualities to protect the interior surfaces from condensation moisture. This material is a lightweight concrete called Plastic Air, on which patents are pending, and which Hayes claims is fireproof, waterproof, and earthquake proof. He was about ready to mass produce houses when the war interrupted his production. Denied the use of reinforcing steel for private construction Hayes used his new material to construct gasoline tanks for the Army and Navy where it is withstanding severe usage. When wood became scarce for West Coast housing projects Hayes persuaded government agencies to grant him special priorities on the necessary steel to build the sample house at El Cerrito.

The secret of his lightweight concrete material is in taking the weight out of the stone aggregate by increasing its volume. Raw materials are crushed lightweight rocks abundant in southern California and Arizona. These are heat treated and mixed with a chemical of secret formula. When heated, the molten aggregates are expanded about twenty times their original volume as heat releases gases from the formula and saturates the mixture with air bubbles. Cooled, the material reverts to solid chunks weighing only 10 lbs. per cubic foot. It is then given a further chemical treatment which gives it resiliency and makes it watertight by sealing off the capillary attraction. The chemically altered and recrushed aggregates are then poured into a conventional concrete mixer with cement and water. The finished concrete weighs less than 50 lbs. per cubic foot, as compared with 145 lbs. for the conventional type. Wall and roof panels 21/2 in. thick are watertight and provide excellent insulating qualities. Its resiliency and lightness make it more comfortable for floors than ordinary concrete. Its density compares with that of a hard wood. It can be sawed and worked with carpenter's tools and nails can be driven into it without surface chipping.

The house was assembled by thirteen men. Hal Hayes bossed the job, his brother operated the mobile crane and a carpenter foreman directed the setting crew. These three men were the only ones who had previous experience in the

(Continued on page 192)



ALUMINUM HAS COME OF AGE *architecturally!* Thanks to the development of R301 and the other light-weight, highstrength alloys developed by Reynolds metallurgists, aluminum takes its place as a modern *structural metal*, with unit strength greater than many types of steel!

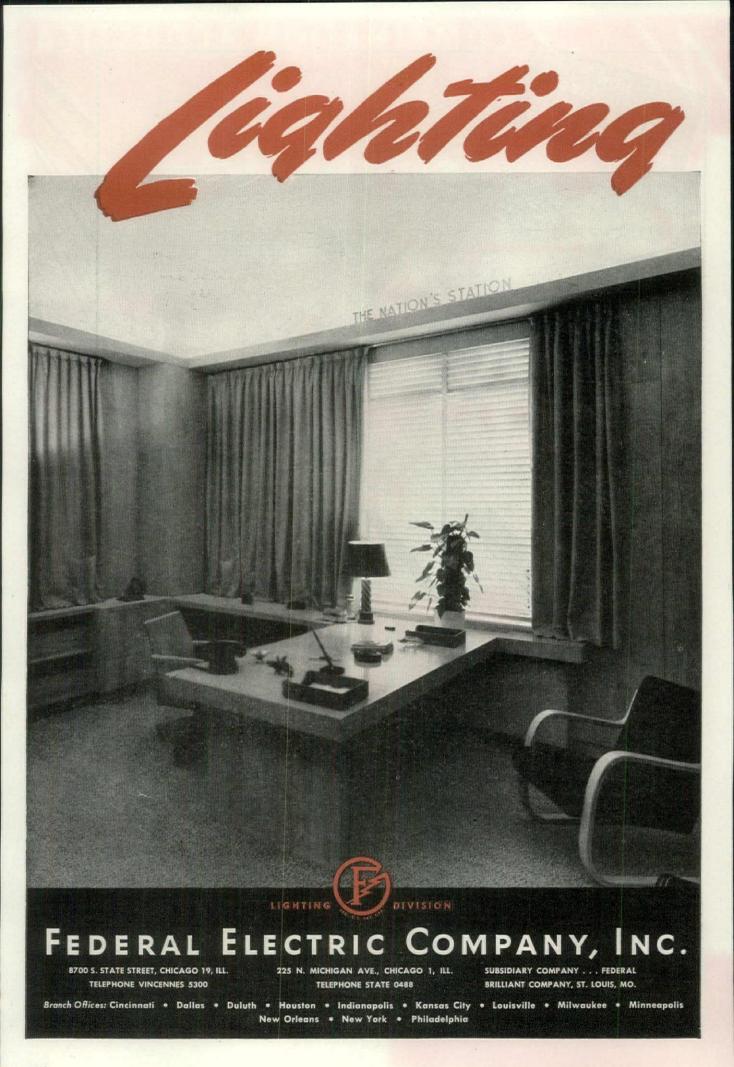
Today's advanced ideas can now be transformed into structures for tomorrow.

See catalog in Sweet's or write for Catalog 104 "Reynolds Aluminum. Its Important Role in Architecture." Reynolds Metals Company, 2528 South Third Street, Louisville 1, Kentucky.

Keep your Dollars fighting . . . Buy More War Bonds

★ To aluminum's recognized beauty, R301, Reynolds sheet and plate alloy, now adds high strength combined with resiliency. It has a typical tensile yield strength of 60,000 lbs. p.s.i., good corrosion-resistance and excellent spot-welding characteristics. In addition, it is more workable than previous alloys. Special Bulletin 50-A gives data on R301, is available upon request.







-with COLD CATHODE Fluorescent Lighting

COLD CATHODE

FLUORESCENT LIGHTING

Many years of pioneering have given Federal Electric lighting engineers the "know how" when it comes to modern, effective and efficient lighting systems for all purposes—industrial, hotel, building, office, store, display, and decorative lighting. For some years Federal Electric Company, Inc., has been a recognized

FEDERAL

leader in the manufacture of Cold Cathode fluorescent lighting equipment. With Zeon Cold Cathode fluorescent lighting, illuminating engineers and electrical contractors have successfully solved many highly involved lighting problems. Let men like these help you get the most efficient lighting at a minimum cost.

LECTRIC

The mark of lighting quality

Remember: There are two kinds of fluorescent lighting!

"Hot Cathode" is the common heater filament type of fluorescent lamp; "Cold Cathode" is the improved shell-electrode type, of which Zeon is the outstanding example. Long life, lower maintenance cost, greater flexibility are some advantages of Zeon Cold Cathode Fluorescent Lighting.

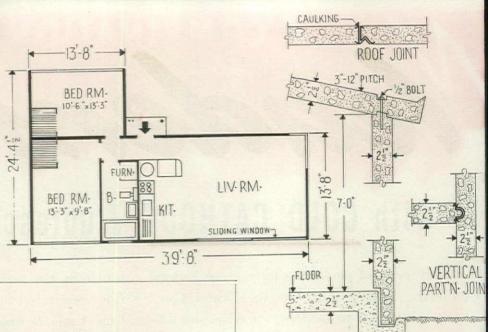
Take Advantage of Lighting Information Service

You, your architect, engineer, or contractor, are invited to submit your lighting problem in a detailed letter. Federal Electric Company engineers will give it thorough and immediate attention. Address Lighting Division, Federal Electric Company, Inc., 8700 South State Street, Chicago 19, Illinois.

PREFABRICATION

(Continued from page 188)

Hayes method of prefabrication and assembly. The other men on the job were six men in the setting crew, a plumber, who made the gas and water connections and a landscape gardner with two assistants. Based on past prefabricating experience Hayes estimates that one eightman crew will be able to erect twelve houses a day. Key to the speed of erection (and also a possible drawback of the assembly method) is the large crane and racking space needed to assemble





design and rigid steel frame

Here is a line of casement units with full 28" sash openings. Heights run from 2' - 41/2" up to 4' - 51/4". These attractive stock-size units are helpful in solving many problems of design and proportion.

Pella special design hinges provide an extra long 51/2" plate for screwing into the solid wood top and bottom sash rails. Butt plate is riveted to the welded steel inner frame of Pella casement units. Hinge extends to allow washing from inside. Tamper-proof when closed. A special mortise and tenon sash joint gives greater gluing surfaces. Joints are also steeldowelled. Sash is made from genuine White Pine full 13/4" square and toxic-treated. Pre-war installations have demonstrated these 3-light wide Pella



casements to be thoroughly practical on all counts.

PELLA 3-LIGHT WIDE SASH easily supports weight of 300 lb. man without springing sash "out-of-true."

The

面

题现

Free FOR YOUR FILE!

22 separate pages of scaled Pella casement details for all types of installations. Send for your FREE set today. Write: ROLSCREEN COMPANY, Dept. A-55, Pella, Ia.



LIGHTS

CASEMENT

INTS

WIDE

ROLSCREENS - the original roller-type inside screens. The ultimate in screen effi-ciency and convenience.



DUAL GLAZING-a single panel type that mounts on in-side of sash. Inconspicuous. Easily removed for cleaning.



PLAN has 700 sg. ft. floor area. Heater in closet sends warm air through grilles to centrally located entrance hall.

CORNER

FOUNDATION

CAULKING

OUTER

the panels before hoisting in place. Cranes and space may not always be available but the method as now developed is applicable to large tract and sub-division operations. The material is light enough to float on water so it is possible that other ingenious methods of erection can be developed.

The wall panels are erected complete with doors and where two panels come together in a straight line they fit into each other with a tongue and groove joint. Corners are interlocking and roof panels are set flush with each other and made watertight by means of an overlapping metal joint. Threaded sleeves are provided on the top surface of wall panels to receive bolts that hold the roof. These holes are also used as lifting points in hoisting. Wall piping and electrical conduit work was built in as the panels were prefabricated. The kitchen, bathroom and furnace closet were lifted onto the foundation as one unit. As other units were being put in place a plumber made the necessary connections of fixtures to pipes embedded in the slab. Fixtures for bath and kitchen were attached to the walls in prefab assembly. Where vertical wall panels meet roof sections a small wood molding is applied to cover the joint. Vertical joints in sidewalls may either be finished flush by using a prepared putty or covered with a inconspicuous wood molding.

(Continued on page 196)

New! **COMBINATION ACOUSTICAL** STEEL CEILING and ROOF

enestra Building Panels, laid in long spans from beam to eam, provide excellent surfaces for both ceiling and roof. The top surface is ideal for application of whatever roofing aterial you prefer. The under surface gives you a smooth, eat appearing paneled ceiling-which requires no finishing ther than a coat of paint. That means lower construction ost-lower maintenance.

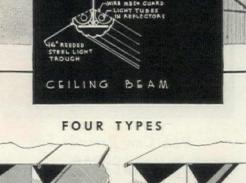
C

The under surface of the panels can be treated for acoustical fect, and the panel raceways filled with insulating materials. he channels in the sections provide excellent runways for sertion of wiring, pipes and ducts.

The panels are easy to lay-lock together for a tight fit. hey provide an attractive, durable, incombustible ceiling hat is in keeping with finest architectural lines.

Fenestra Building Panels are not yet available, but you can corporate them in your plans with the expectancy that they ill be ready by construction time. Get the facts about them ow. Mail the coupon.





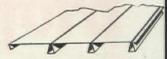
-FENESTRA BUILDING PANELS A

GIRDER

PRESSURE RESISTING USTIC CHILING

TYPE A. Two channels with top and bottom plate which, with service cover, form two-cell box beam.

TYPE B. One flat surface, two channel-type ribs. Flat side up or down, inside or outside.



TYPE C. Horizontally or vertically, for walls. Normally filled with insulation at the factory.

HOLORIB. Steel Roof Deck with triangular-shaped ribs 6" on centers, 11/2" deep, for spans to 8'. Standard width of Type A, B and C Panels, 16", in # 20 to # 10 gages. Holorib in # 20 and # 18 gages.

DETROIT STEEL PRODUCTS COMPANY, Building Panels Division (formerly Holorib Div.) Dept. AF-5, 2252 E. Grand Boulevard, Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Building Panels.

Name Company

Address

. HOW DEEP A FOUNDATION FOR A GOOD

ESTABLISHED 1865 P. B. POLHEMUS CO., INC.

ENGINEERING . MANUFACTURING . INSTALLATION

ROSELLE, NEW

The foundation of a successful kitchen calls for plenty of *deep thinking*. Factors of economy and convenience are the product of careful ap-praisal of all the elements in the construction

KITCHEN

picture. Polhemus engineers have helped architects solve the many problems in the field of food preparation and service. Hotel, Restaurant and Institutional assignments have been a specialty for over 50 years. If you are anxious to put a good foundation under your kitchen plans, let us assist you in developing practical, labor-saving units. You will find our installations effective in Design and Service, providing the maximum in operating efficiency. Consult us now, on post-war projects.

Architects, Engineers and Owner-Managers desiring to make post-war plans now, are invited to consult with our engineering staff.

1010 VERMONT AVE. N.W. WASHINGTON, D. C.



You Can Proudly Say "IT'S A MAJESTIC **GIRGULATOR FIREPLACE**"

Because-

Heat circulates with fur-1. nace-like efficiency, adding cozy room-wide warmth to the fireplace's cheery open blaze. The cool air drawn in at floor level is heated as it flows past the patented Radiant Blades and out the warm air grilles at mantle level, heating the entire room.

Saves on installation costs by simplifying masonry work, but allows any type or style of mantle to be used. 3. Guaranteed not to smoke.

Scientifically designed so that you can be certain every fire-place will operate perfectly. 2,363,026 Your building plans should include the Majestic Circu-lator Fireplace. Write for complete details.

THE MAJESTIC COMPANY 995 Erie St., Huntington, Indiana

U. S. Pat. No.







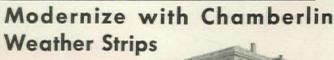
See Insert in et's Catalog S

Be sure of the finest quality materials and expert installation by factorytrained installers. For half a century, Chamberlin products and service have been leaders in their field. Chamberlin weather strips keep out dust and dirt, save fuel and cut cleaning and decorating expense. For further details, call the nearest Chamberlin office.

Formerly Chamberlin Metal Weath



Home Office: 1231 LaBrosse St., Detroit 26, Mich.



11 PARK PLACE

NEW YORK 7. N.Y.

Another Chamberlin Installation National Press Building, Washington, D.C.

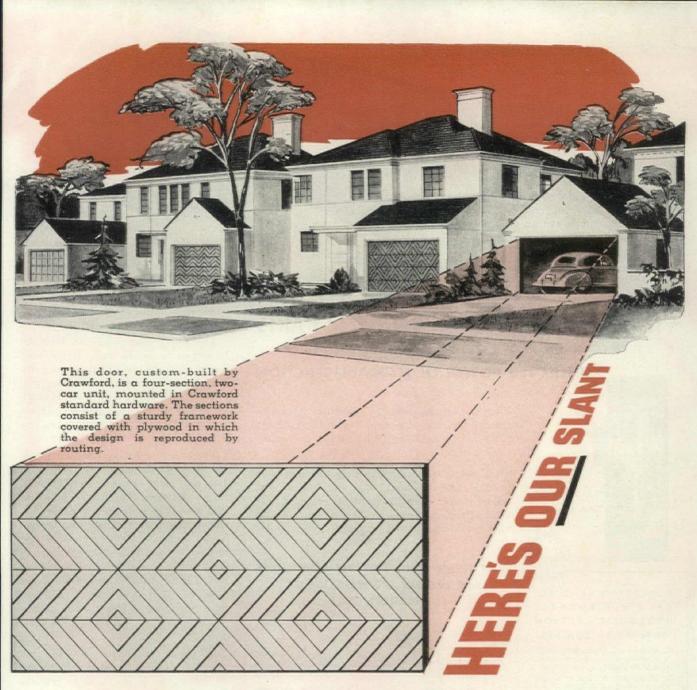
"Proper

Installation

is Half

the Job"

JERSEY



-on Custom-Built Garage Doors...

Although Crawford stock doors for residential garage application are so designed that they fit gracefully into all the popular and accepted architectural styles there will still be in postwar years as in previous years, a certain percentage of instances when doors of individual design will be indicated, especially so when the garage front is an integral part of the front of the house, as in the example illustrated.

Creating garage doors of individual design for mounting in Crawford standard hardware is sound architectural practice because it permits complete latitude in individual expression combined with the structural, installation, operating and servicing advantages of the standard Crawford mechanism which has proved its superiority in so many thousands of installations during the past 15 years.

Crawford Door Company, 401 St. Jean, Detroit 14, Mich.

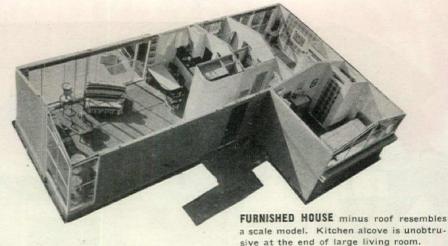
DOORS Residential Garage Doors Commercial & Industrial Doors Hand or Power Operated Doors * Craw-Fir Doors *

PREFABRICATION

(Continued from page 192)

The nine wall sections and three roof units were erected fully finished. The ceilings and walls are painted, with the exception of the bedrooms in which the walls are papered. The wall paper is applied directly to the concrete panels. Experiments are being carried out with integral coloring in the aggregates and the cement. The only finish then needed will be a waxing to bring up the color.

Money is saved where wood is eliminated in door bucks and trim by casting



* HEAVIER, LONGER-WEARING PARTS

possible because of

UNLIMITED POWER OF HYDRAULIC-ACTION

With the terrific power of Hydraulic-Action to actuate the control, tough, strong, hard-driving parts can be built into White-Rodgers temperature controls.

That means a control with long life, free from trouble calls due to breakage or adjustment needs. Under even the hardest, roughest use, White-Rodgers Hydraulic-Action controls can take it and come back for more.

WHY HYDRAULIC-ACTION CONTROLS ARE LONGER-WEARING UNDER HARDEST USE

At left is a cross-section of the diaphragm and part of the liquid-filled capillary. In this view the liquid has contract-ed, releasing pressure on the diaphragm and causing the switch con-





In this cross-sec-tional view, the liquid charge of the capillary has ex-panded with a rise in temperature. The positive force of this hydraulic action forces the diaphragm out-ward and causes the switch contacts switch contacts

to function

EXPANDED

Illustration of the While-Rodgers diaphragm body, the actuating element of every White-Rodgers. temperature control. It is so designed as to exart full pressure at the point of contact with the switch mechanism.

the Hydraulic-Action solid-liquid charge is responsible for its longwearing dependability in service. How this works is shown in these illustrations.

The amazing expansive

and contracting force of

a scale model. Kitchen alcove is unobtrusive at the end of large living room.

the door stop molding in concrete. An edge can be formed in the material sufficiently true to hang a door.

The living room and one bedroom have floor to ceiling sash sliding horizontally to open one-half the total width of the opening. Sliding doors are protected at the top by a sheet metal channel and at the floor are grooved to slide on a metal T-section to form a weathertight sill.

Buildings are not limited to a single size as the factory forms are adjustable and can make various sized panels. Haves estimates that it will take less than a week to pour the foundation and make the wall and roof sections for one house. However, many sections can be turned out simultaneously in the prefabricating plant. The sample house has 700 sq ft. of space divided into a living room, two bedrooms, bath and kitchen. Sales price will include built-in plumbing fixtures, gas furnace and window blinds.

All the buyer will have to do is provide his own furniture and a lot to put the house on. Hayes plans to get into mass production as soon as reinforcing steel is available. Steel is the only critical war material used in his building method. The model house at El Cerrito, the smallest and cheapest unit he intends to build, is planned to sell for \$2,000 in mass production.

SASH SLIDES ON METAL T SECTION



OF WHITE-RODGERS HYDRAULIC - ACTION TEMPERATURE CONTROLS 1. May be mounted at any angle

8 EXCLUSIVE FEATURES

or position, above, below or on level with control point.

2. Hydraulic - Action principle incorporating solid-liquid-filled bulb and capillary provides ex-pansion force comparable to that of a metal bar.

3. Diaphragm motion uniform per degree of temperature change. Power of solid-liquid charge permits unusually sturdy switch construction resulting in positive contact closure.

★ 5. Heavier, longer-wearing parts are possible because of unlimited power.

6. Dials are evenly and accurately calibrated over their entire range because of straight-line expansion.

 Controls with remote bulb and capillary are not sensitive to change in room temperature. Accuracy of control is not affected by temperature changes in surrounding area.

Not affected by atmospheric pressure. Works accurately at sea level or in the stratosphere without compensation or adjustment.

WHITE-BUNGERS FIFI RII. 1292E CASS AVENUE ST. LOUIS 6, MISSOURI

Controls for Refrigeration . Heating . Air-Conditioning

0



The Window You Can Build a House Around

Of course, nobody would think of building a house around a window. But here's a window you could do it with, if you wanted to.

Everything that goes into the erection and finishing of an ordinary window is already in the CROFT WINDOW WALL UNIT.

Because the CROFT WINDOW WALL UNIT is completely pre-finished, all the following field work is eliminated . . . corner beads, plaster jambs and heads, interior and exterior trim, sills, stools, glass and glazing, painting, hardware attachment, adjustments, cleaning, caulking, and installation of screens, storm sash and venetian blinds.

A patented wall ventilator, which admits air

CROFT STEEL PRODUCTS, Inc.

Executive Offices: 370 Lexington Avenue • New York 17, N. Y. without necessity of opening the window or storm sash, is included with each unit.

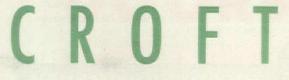
This finishing work is done by trained experts at the factory, before shipment.

The instant the CROFT WINDOW WALL UNIT is removed from its carton, it is ready for service. No assembling. No fitting of parts. No extra costs.

That's why we say, here's a window you can build a house around.

Priced for low-cost homes, the CROFT WINDOW WALL UNIT is to be sold through your local building supply dealer.

Write now to be placed on our mailing list.



"The Proof of the Pudding is in the Eating"

... as any successful chef will tell you. The proof of quality in restaurant flooring is in the performance under today's exacting conditions. Architects who have specified Tile-Tex Asphalt Tile for dining areas and Tuff-Tex Grease-proof Flooring for commercial kitchens know what kind of results to expect. Both products have proved their worth in eating places from coast to coast.

Restaurants need durable, easy-to-clean floors in attractive designs, at reasonable cost. That recipe for good floors can be made with Tile-Tex Asphalt Tile.

Give your restaurant clients the best—specify Tile-Tex and Tuff-Tex, and you will be certain of recommending tested and proved floorings.



Colonial Inn, Minneapolis, Minnesota

A list of outstanding restaurants who have used Tile-Tex products will be sent any architect on request.



PRODUCTS-like people-have backgrounds! The reputation earned by L&H appliances through 70 years of faithful service brings to you the unmatched heritage of stability, dependability, and permanence. This background gives you the assurance of time-proved leadership in research, product development, and advanced selling features.

KEROSENE RANGE

ELECTRIC RAN

eritage

PRODUCTS

GAS RANGE

THERE'S

In every home you build and furnish, the kitchen is most critically inspected. When your prospect walks into the kitchen and sees an L&H range, it's like meeting an old friend of the family - for these ranges have

LINDEMANN

MILWAUKEE

2

7.

J.

served housewives of four generations. They're known and recognized for quality.

OIL HEATER

PORTABLE OVEN

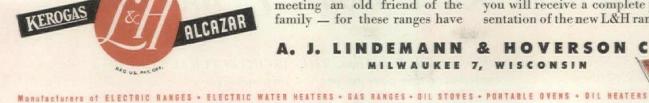
ELECTRIC WATER HEATER

KEROSENE OIL STOVE

Plan your kitchens around L&H ranges. They'll have time and labor-saving devices; temperature and time controls-features to excite the admiration of every woman. L&H has always specialized in the production of quality cooking and heating appliances. You can offer L&H products with confidence. Here's a helpful suggestion. Send us your name, now. When we're back into civilian production again, you will receive a complete presentation of the new L&H ranges.

HOVERSON CO.

WISCONSIN



WICKS



LET'S GET THE ADMIRAL HIS HORSE!



Admiral Halsey has his eye on a fine white horse called Shirayuki.

Some time ago, at a press conference, he expressed the hope that one day soon he could ride it.

The chap now in Shirayuki's saddle is Japan's Emperor-Hirohito.

U.S. Navy Photo He is the ruler of as arrogant, treacherous, and vicious a bunch of would-be despots as this earth has ever seen.

The kind of arrogance shown by Tojo—who was going to dictate peace from the White House . . . remember?

Well, it's high time we finished this whole business. High time we got the Emperor off his high horse, and gave Admiral Halsey his ride.

The best way for us at home to have a hand in this clean-up is to support the 7th War Loan.

It's the biggest loan yet. It's two loans in one. Last year, by this time, you had been asked twice to buy extra bonds. Your personal quota is big-bigger than ever before. So big you may feel you can't afford it.

But we can afford it—if American sons, brothers, husbands can cheerfully afford to die.

IF YOUR AVERAGE WAGE PER MONTH IS:	YOUR PERSONAL WAR BOND QUOTA IS: (CASH VALUE)	MATURITY VALUE OF 7TH WAR LOAN BONDS BOUGHT
\$250	\$187.50	\$250
225-250	150.00	200
210-225	131.25	175
200-210	112.50	150
180-200	93.75	125
140-180	75.00	100
100-140 🕑	37.50	50
Under \$100	18.75	25

ALL OUT FOR THE MIGHTY 7th WAR LOAN

In cooperation with the 7th War Loan, THE ARCHITECTURAL FORUM contributes this page to present this message.

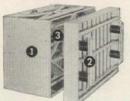
THOUSANDS OF CUBIC FEET OF CLEAN AIR

B CONCERNING OF THE OWNER OF THE OWNER

DELIVERED EVERY MINUTE BY ...

ecipition – the electronic air cleaner

HOW PRECIPITRON WORKS



1. A Precipitron cell with ionizer detached to permit a view of the vertical collector plates inside the cell.

2. High-voltage wire creates an electrostatic field at the front of the Precipitron cell, charging all dust and dirt particles as they enter.

3. The charged particles are drawn to and precipitated on the vertical collector plates which are easily cleaned by flushing. **4.** The improved Precipitron power pack provides 13,000 volts d-c to set up the electrostatic field that charges the particles as they enter the cell . . . and 6,000 volts d-c to the collector plates.



Precipitron offers unmatched efficiency . . . is easy to install . . . easy to clean. Operation is simple and silent. There are no moving parts to get out of order, so maintenance is at a minimum. And power cost is low.



Clean air is headed your way, at the rate of thousands of cubic feet per minute...if you install Precipitron. Hundreds of plants, offices, buildings and stores already have the benefits of Precipitroncleaned air. For them it is cutting down spoilage of valuable materials, deterioration of equipment and fixtures, expense of maintenance. At the same time it is increasing efficiency and comfort.

Westinghouse Precipitron, which cleans air by an electrostatic principle, is three to five times as efficient as the conventional mechanical filter. It removes those hard-to-capture, microscopic particles of air-borne dirt, dust, smoke, soot, fumes and abrasives as small as 1/250,000 of an inch.

Available now, for essential war production needs ... Precipitron, in the future will bring new high standards of air cleaning efficiency for all peacetime requirements. For complete information call your nearest Westinghouse office. Or, write Westinghouse Electric & Manufacturing Co., P. O. Box 868, Pittsburgh 30, Pennsylvania. J-04504

ARCHITECTS... PLANNING POSTWAR BUILDING should include Precipitron in their plans...to assure the most modern, most efficient air cleaning. Suitable for every type of building, office... or homes where forced ventilation is used. Write for application data and specifications. Ernest Gunnar Peterson, Architect

PRESERVE WOOD'S NATURAL BEAUTY!

Architects recommend Cabor's Shingle Stains to bring out the natural beauty of wood and preserve its loveliness for years to come! Best to use for hurried wartime construction, Cabot's Stains are quick and easy to apply — won't peel or blister — give maxi-mum protection at minimum cost — come in a variety of colors from clear brilliant buses on the variety of colors from clear, brilliant hues to the effective weathering grays and browns!

FREE BOOKLET— "Stained Houses"—contains illustrations— fullinformation. Send for your copy and color card now! Samuel Cabot, Inc., 1269 Oliver Building, Boston 9, Massachusetts.

Cabot's Shingle Stains Heavy - Bodied

Creosote



This striking new booklet-planned by Virginia Hart, eminent kitchen consultant—will be of great value to you. Many illustra-tions of unusual, yet practical kitchens—with floor plans and unit specifications—show how easily and effectively Kitchen Maid Standard Unit Cabinetry can be combined to give all the beauty, convenience, and efficiency demanded by modern housewives.

WRITE FOR YOUR COPY. Before planning another kitchen, ask your local Kitchen Maid dealer for a copy of this valuable new booklet, or write The Kitchen Maid Corp., 455 Snowden Street, Andrews, Indiana.



Planni TO BUILD

*

By THOMAS H. CREIGHTON

THE AUTHOR: A member of the firm of Alfred Hopkins and Associates, he has helped build the biggest post office in the world as well as hotels, houses, schools, hospitals and a modern church. He has taught the history of architecture, lectured on hospital planning, and is the author of many articles on post-war planning which have appeared in professional magazines.

THE BOOK: A lively, informed survey of what's ahead in building from the point of view of the community as well as the indicommunity as well as the indi-vidual planner. Architect and builder alike face important changes in post-war community building programs. Here is a practical book to help you meet your future problems.

Illustrated, \$2.50 At your bookseller's . DOUBLEDAY, DORAN



-

JUST PUBLISHED

*

+

Partial Contents:

Social Needs and Business Risks Planning Community Growth Integrated Building Construction Architecture and Engineering The Skeleton in Building's Closet Coal, Air, Water and Hope = Plastics What's Ahead for the Architect and Building Contractor

*



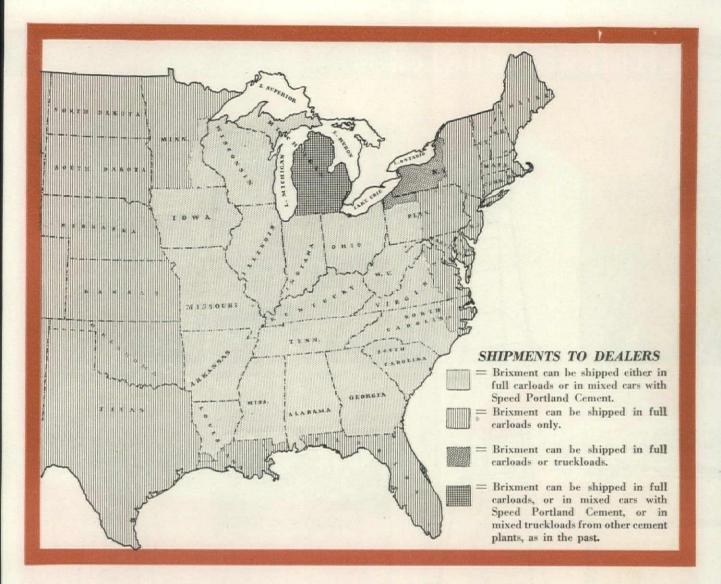


BUILDINGS

The buildings you are planning for tomorrow will have every modern appointment and convenience-your clients will demand them. In public building planning, don't overlook the fountains. If they're Halsey Taylor they'll be trouble-free and service-sure! Patented features such as matic stream projector and health-safe pressure-proof drinking stream make them the fountains of tomorrow, available today for essential construction and tomorrow for post-war demands. Write for catalog.

THE HALSEY W. TAYLOR CO., Warren, O.





IMPORTANT NOTICE!

For a good many years, Brixment Masonry Cement has been distributed not only by the two Louisville Cement Co. mills in which it is made (at Speed, Indiana, and Brixment, N. Y.) but also through other manufacturers of Portland Cement.

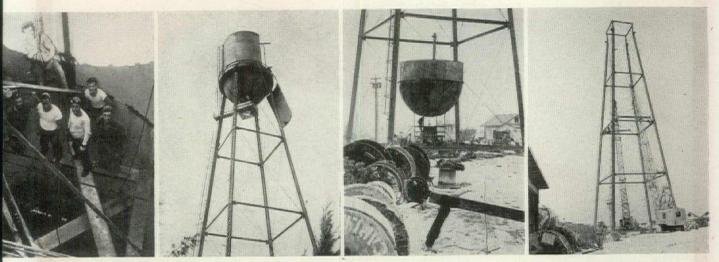
Today, the cost of manufacturing Brixment has risen so sharply that we can no longer continue to distribute it through other cement plants. Therefore, effective June 1, Brixment will be shipped only from the two mills at which it is made (except for lower Michigan—see map.)

Thousands of Brixment dealers have always bought Brixment in mixed cars with Speed Portland Cement, or in full carloads, direct from the mills. Such dealers will in no way be affected by the new policy. Like Brixment, Speed Portland Cement is an outstanding material in its field, backed by 115 years of cement-making experience. No better Portland Cement is made. . . If you want any further information, please write, wire or telephone.

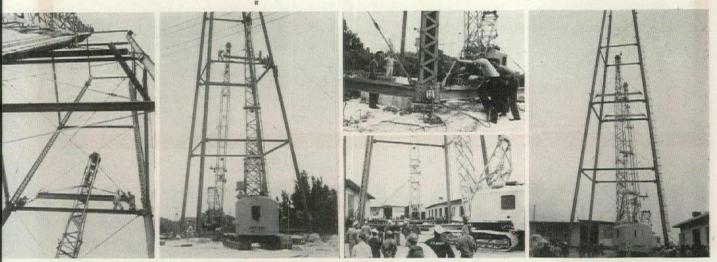
Louisville Cement Company, Incorporated General Offices: Speed Building, Louisville 2, Ky. Telephone: Wabash 3131. Eastern District Sales Office: 101 Park Ave., New York 17 Telephone: Caledonia 5-8592

BRIXMENT Masonry Cement SPEED Portland Cement

BUILDING REPORTER



STEEL TANK WAS DISMANTLED TO LOWER THE CENTER OF GRAVITY BEFORE MOVING TOWER TO NEW LOCATION



TOWER WAS LIFTED FROM FOUNDATIONS, FORWARD CRANE PULLED STRUCTURE AND REAR CRANE AS ONE UNIT



Ingenious Seabees remove hazard to an airfield by improvising a novel method to relocate a steel tank tower.

MOVING A 160 FT. WATER TOWER standing up, was accomplished by the 123rd Construction Battalion of the Seabees when necessity demanded that the tower, a hazard to an airplane landing field, be moved in a hurry. Two winches were set up at the tower base. The cover of the tank was detached and lowered, and a working platform was erected inside the bowl-shaped bottom. The tank was cut vertically into four sections above the rivet line. To lower the bowl section the legs above the 5 ft. side wall had to be extended. Guy lines were fastened to the tops of the legs and attached to four tractors which gently pulled the frame open. This permitted the bowl to be lowered at the same time that the rivets holding bowl to legs were cut.

The complete leg assembly was light enough to be handled by two large cranes—an 80 and 95, with 85 ft. booms, which were long enough to lift the tower. Steel struts which braced the legs were stiffened with timbers and the tower lashed and guyed. The cranes were brought up on opposite sides and spreader bars were rigged to the center strut from the top of the boom of each crane. Block and tackles were attached to the bottom of the legs and secured to the base of each crane to maintain balance, and to swing the tower slightly

(Continued on page 208)





ATRINE

"First thing my architect's gonna put in my post-war home is a Color Balanced Suntile bathroom. It's WEATHERPROOF!"

VHAT THEY SEE ...

Breathes there a service man so rare who isn't dreaming of the comforts of home? Our fighting men are living for the day when they can come home for keeps. In leisure moments they plan for that time.

Decorative, practical Suntile fits perfectly into the plans of those men dreaming of homes of their own. Suntile provides all the beauty and luxury they've missed during their war-weary years.

Suntile is not being made now. But, when peace comes, Suntile will once again be available to bring color-balanced beauty at a nominal cost to homes of tomorrow.

THE Cambridge ith color-Right

When You Specify SUNTILE You Specify Satisfaction

TILE MFG. COMPANY

MEMBER OF THE PRODUCERS' COUNCIL

CINCINNATI 15, OHIO

THIS SERIES IS BASED ON AN IDEA SUGGESTED IN LETTERS WRITTEN BY CPL. LOUIS A. PERKOVIC OF THE ARMY ENGINEERS IN THE SOUTH PACIFIC

Minneapolis HONEYWELL PERSONALIZED HEATING CONTROLS Installed in This Project Each Tenant Controls the Temperature of his Own Apartment 60-70 E. Scott Street Heilding Association OWNERS Minneapolis HONEYWELL Regulator Co.

ROSS, BROWNE & FLEMMING - Managing Agents

HONEYWELL Personalized HEATING CONTROL HEATING CONTROL Must in this typical Must modernization program

When the 60-70 E. Scott St. Apartments, Chicago, were remodeled, Honeywell Personalized Heating Control was a "must" in this typical modernization program, even though all the apartments were leased in advance.

Originally containing 16 large apartments, this near North Side building has been converted into 64 one and two bedroom units. The owners, looking to the future and recognizing the advantages of added comfort and increased rentability, installed Honeywell Personalized Heating Control, with a thermostat in each apartment.

You will find Personalized Heating Control of vital interest to your clients. Recommend and specify Honeywell Personalized Heating Control for every apartment job, whether it be a new building or a modernization program. Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue South, Minneapolis 8, Minnesota. Branches and distributing offices in all principal cities.

PO

S

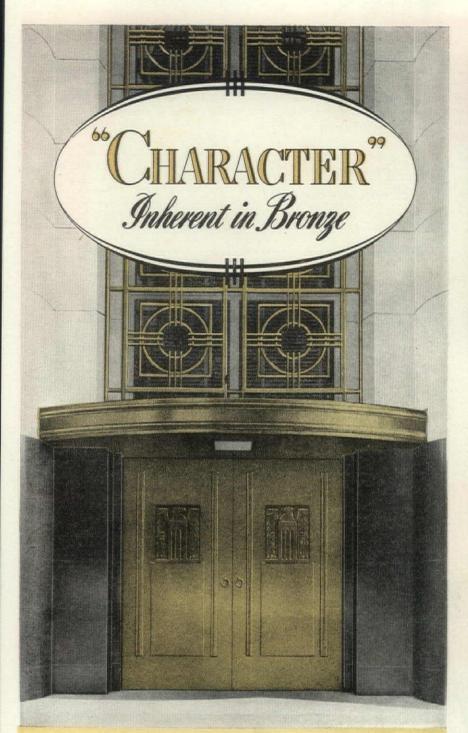
TEMS

NE

N

CONTROL SY

Keep Them Winning — Buy MORE War Bonds!



These photographs show the Anaconda Extruded Architectural Bronzework on the Victoria Bank and Trust Company Building, Victoria, Texas. The continuous bronze grille extending upward five stories above the Main Entrance is believed to be the largest single frame in the country. The Benson Manufacturing Company of Kansas City, Mo., executed the entire bronze installation Architects-C. H. Page & Son, Austin, Texas.

FOR ORNAMENTAL WORK

THE AMERICAN BRASS COMPANY-General Offices: Waterbury 88, Conn. Subsidiary of Anaconda Copper Mining Company • In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.



glance at the illustrations reveals how the impressive "character" motif of this bank building was carried out by using Anaconda Architectural Bronze. At the same time, the air of charm and distinction it lends is also apparent. But there's more to bronze than appears on the surface.

Besides its beauty and remarkable adaptability to design, bronze offers the double economy of durability and ease of fabrication. Its moderate cost is a further reason why so many leading architects have specified this ageless metal.

The American Brass Company has for years been the leading supplier of Architectural Bronze, Copper and Nickel Silver in all wrought forms for ornamental work of every description.

> BUY WAR BONDS... Saved Dollars Mean Saved Lives

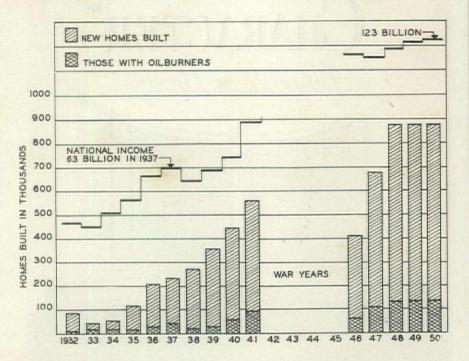
BUILDING REPORTER

(Continued from page 204)

to clear obstructions in tight places. The two cranes were tightly lashed together to synchronize the motion. One crane did the pulling. Both cranes lifted cautiously at once, and the tower swung clear in the air. In less than four hours the tower was resting on new footings having been moved approximately three city blocks. The same general procedure in reverse was used for re-erection.

OIL HEATING IN NEW HOMES according to Fueloil & Oil Heat's most recent survey shows that of an estimated 3.700.-000 new homes to be built in the five postwar years, at least 15 per cent will be oil heated. This study is based on several assumptions including plentiful fuel oil for domestic use, a relatively high level of business activity and consumer income, and an increase in building activity. Consumer income, it is estimated, will reach a postwar low of 115 billions of individual income in 1947. climbing to 123 billion in 1950. Calculated from the use of oil heat in the ten years prior to the war, when an average of 15.2 per cent of new residential building was centrally oil heated with variations up to a high of 22 per cent, it is felt that the popularity of oil heat in new homes will not be below prewar averages. Applying this average of 15.2 per cent to the estimated postwar residential construction, a reasonable expectation of oil heated new houses in 1946 may be 62,000 rising in 1947 to 103,000. In 1948, '49, '50, 132,000 oil fired new houses a year should be reached. Accompanying chart shows past and estimated postwar spendable income, probable new home construction, and the estimated number of new homes to be oil heated.

(Continued on page 212)



) esign for Living

Lifetime comfort is assured by PAYNE gas-fired warm air heating . . . choice of tens of thousands of discriminating home owners, coast to coast.

PAYNE FURNACE COMPANY (One of the Dresser Industries) BEVERLY HILLS, CALIFORNIA

PAYNE ZONE-CONDITIONING Successor to old-fashioned central heating. Circulated winter warmth, summer ventilation . . . controlled by zones or rooms. Write for new booklet.

ARCHITECT, Gerard Colcord BUILDER, Wm. C. Warmington

(HRS) EVERYTHING



The attractive floor in this semi-private room at the Paterson General Hospital is Nairn Veltone Linoleum #2923. With border of Nairn Plain Linoleum #1131.

For modern hospitals and institutions ... the "first choice" floor is NAIRN LINOLEUM

On all counts: Appearance, resilience, durability, ease-of-maintenance, Nairn is the "first choice" floor for modern hospitals.

Floors of Nairn Linoleum are easy to keep clean and sanitary. Low in first cost—they require only a minimum of maintenance. Their quality is backed by the reputation of the oldest manufacturer of linoleum in America.

In great hospitals and nursing homes and in smaller institutions of every type, this most modern of floors —Nairn Linoleum—is daily proving to be the outstanding floor for tomorrow's building and reconstruction. A handbook on linoleum specifications has been prepared for your use. May we send you a copy? Congoleum-Nairn Inc., Kearny, N. J.



easy to maintain, colorful, permanent, resilient



IT'S PEN. Chrome - THE NEW "BLONDE" WOOD FINISH

Here is the tested, perfected answer to today's demand for "blonde" wood finishes. Pen-chrome Wood Stains produce soft tints that harmonize beautifully with modern bright interiors. Pen-chrome Clear Finish (used over the stains) dries to a wax-like texture, but will stand years of wear and cleaning. Pen-chrome compliments almost any wood. Its use guarantees satisfaction and low maintenance cost.

O'Brien, specialists in fine wood finishes since 1875, recommend Pen-chrome for trim, plywood, cabinets, panelling—on any wood. Pen-chrome has been used by leading architects on hundreds of jobs in fine residences, store remodeling, low-cost housing projects, and institutions. Write for full details.

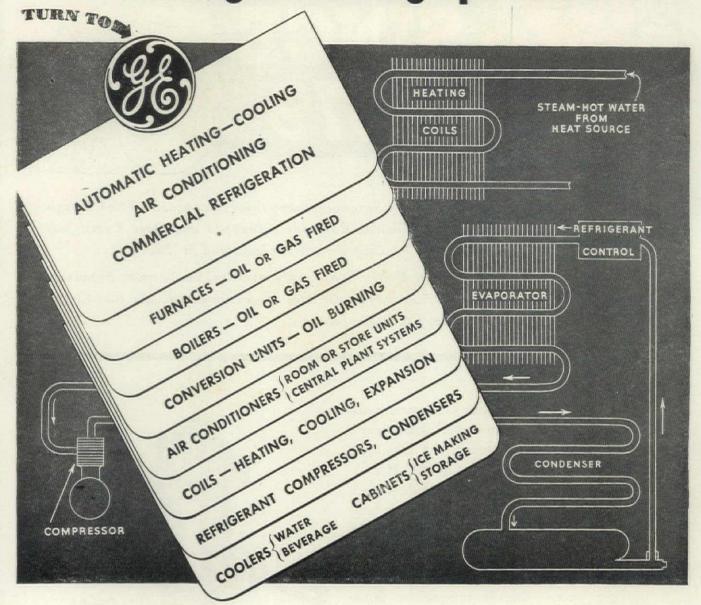
O'BRIEN VARNISH COMPANY, 104 N. JOHNSON ST., SOUTH BEND 21, INDIANA See Sweet's for complete information about all O'Brien paints.







For Heating or Cooling Specifications



Whether for commercial, industrial or domestic application, appropriate G - E units offer you advantages worthy of investigation.

Strengthening the ready acceptance of equipment bearing the famous G-E monogram—hallmark of advanced engineering and dependability —are new war-born improvements—improvements of design and performance which, when manufacture can be resumed, assure even greater leadership in the prophesied postwar building boom.

Get the facts now. Be ready to provide this comfort-giving equipment your clients now want -and will soon demand! Write: General Electric Company, Air Conditioning Department, Section 5505, Bloomfield, New Jersey.

BUY ... and hold ... WAR BONDS



AUTOMATIC HEATING, COOLING, AIR CONDITIONING, AND COMMERCIAL REFRIGERATION

Tune in: "The G-E HOUSE PARTY," every afternoon, Monday through Friday, 4 p. m., EWT, CBS..."The G-E ALL-GIRL ORCHESTRA," Sundays, 10 p. m., EWT, NBC... "THE WORLD TODAY" News, Monday through Friday, 6:45 p. m., EWT, CBS





In the Eighteen Seventies, many things happened. The Chicago fire in '71, Charlie Ross was kidnapped and Boss Tweed was finished in '74, Custer made his last stand in '76.

In 1879 the electric light, newly invented, was to make Broadway the gay white way a year later. It was in this decade that Coyne & Delany Co. began business.

Plumbing and Sanitation has made many advances since 1879 . . . during all these years, under the single management, the Delany's, father and sons, have aimed at SIMPLICITY as an integral feature of every product they have made, from cast iron tubs and high tank fittings to the ultra modern DELANY FLUSH VALVES and Vacuum Breakers.

The DELANY FLUSH VALVES have only 6 moving parts—this is unique in flushometer construction. The DELANY NO. 50 VACUUM BREAKER (fits any flush valve) has but one moving part . . . these DELANY products combine to make the simplest, most efficient and easiest to maintain flushometer assembly—with full protection against back syphonage and resulting water contamination.

Send for folder A



COURE BROOKLYN N.Y.



IF YOUR BUILDINGS NEED THIS RAINCOAT DO THE JOB NOW!

Put a "raincoat" on your shabby buildings now . . . make them look like new again and protect them for the future.

The Horn Research laboratories, after ten years of scientific and field tests, developed Waterfoil, manufactured of irreversible inorganic gels.





These gels bond chemically and mechanically to masonry to form a dense hard coating which lets the masonry breathe as it should, but helps impede water penetration to prevent reinforcing bar rust and spalling.

Waterfoil is free from oil, cement, lime, casein or glue. It is unlike any other masonry treatment and has a true scientific basis for its formulation. Send today for the Waterfoil literature. It's important.

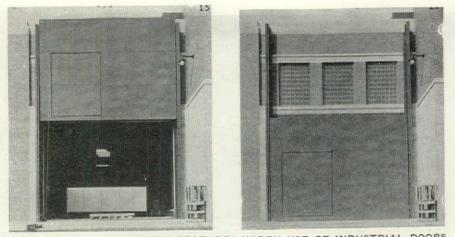
A. C. HORN COMPANY Established 1897

MANUFACTURERS OF MATERIALS FOR BUILDING MAINTENANCE AND CONSTRUCTION LONG ISLAND CITY 1, N. Y. • HOUSTON, TEXAS • SAN FRANCISCO, CALIF.

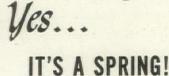
BUILDING REPORTER

(Continued from page 208)

AIRTIGHT DOOR WITH BLOW-OUT PANEL, an interesting variation in vertical lift door design was developed by The Kinnear Mfg. Co., for the Unconventional Power Plant Laboratories of the Air Technical Service Command at Wright Field, Ohio. The principle of operation is similar to upward rolling type doors, as it is spring counter balanced and motor operated. Airtightness when the door is closed is accomplished by means of air-inflated rubber tubes which



NEW SEALING AND SAFETY FEATURES WIDEN USE OF INDUSTRIAL DOORS



It is the famous No-Sag^{*} Spring that is revolutionizing furniture construction and design. For the past four years, it has been confined almost exclusively to military needs in the production of seating and sleeping equipment for the armed forces. It is now on the planning



Write to Dept. A. for "Progress" Booklet describing the numerous applications of these unique springs.

boards of forward-looking designers because of these exclusive No-Sag Spring advantages: greater spring surface—maximum efficiency in a minimum of space—the suspension principle of spring-ing that eliminates perishable materials such as webbing and twine-ties—and its adaptability to any design or construction requirement.

OUR ENGINEERING DEPT. is available for consultation. We will even spring up and upholster, free of charge, any sample frame you send us—and return it with full explanation of our method.

*Patented and Patents Pending

NO-SAG SPRING COMPANY • KAY MANUFACTURING CORP. Executive Offices: Executive Offices:

21590 Hoover Road, Detroit, Michigan Foot of Warren Street, Brooklyn, N. Y. Permanent Display Quarters: American Furniture Mart, Chicago are controlled by valves working in conjunction with the push-button motor control. The door can be raised and lowered for regular service without starting the air-sealing mechanism, but if the door is closed and sealed, the motor operator will not start the door upward until the airseals have been automatically deflated. To lower the door and seal it in place, one push-button closes the door, another button operates the sealing mechanism. The blow-out panel safeguards against any hazard, and will blow outward with the slightest gas explosion.

NEW PRODUCTS

AERO SIGNS

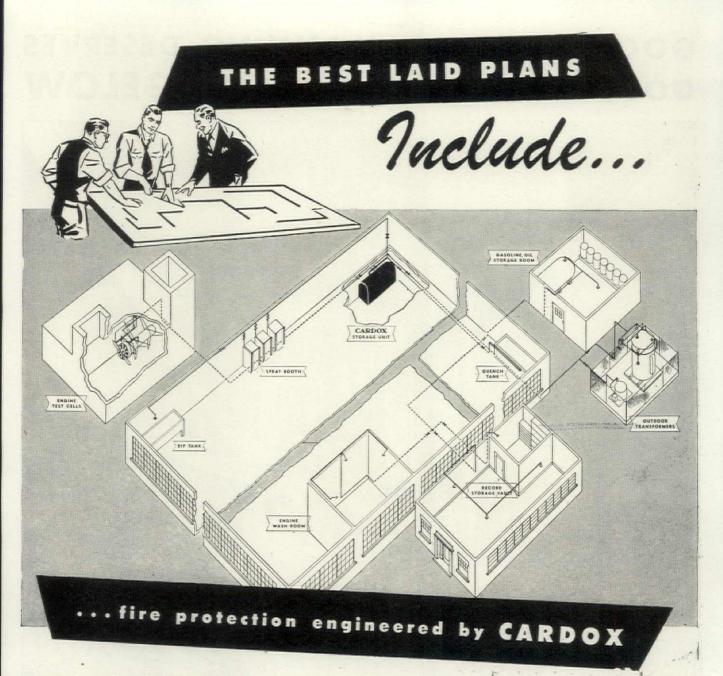
Permanent enameled metal ground markers available for air traffic.

Easily readable signs of porcelain enamel conforming to standard aeronautical practice help airmen by designating names of towns, latitude and longitude, direction and distance of nearest airport, and identifying landmarks. A series of porcelain enameled



steel segmented sections have been developed which can be readily assembled into letters, figures or symbols. These can be shipped in compact boxes, complete for a letter or character, with detailed directions and the necessary screws and washers for quick assembly. Height of letters, sizes, colors, shapes, and widths of strokes in the proposed segmental porcelain enamel markers conform to the CAA suggested standards. Porcelain enamel has demonstrated its suitability for permanent

(Continued on page 216)



Inexpensive carbon dioxide is widely recognized as the ideal fire extinguishing medium for a wide variety of fire hazards. It is fast, non-damaging and inexpensive.

But, where a few pounds, properly applied, will stop one fire, another may call for tons . . . all released in the fire zone in a matter of seconds!

Through Cardox methods of control and engineered application the multiple advantages of carbon dioxide . . . supplied instantly in pounds for small fires, in tons for large ones ... are given enhanced performance and greatly broadened scope of usefulness.

A Cardox System-engineered for the specific hazards it covers-extinguishes fires by a timed mass discharge of Cardox CO₂, stored at 0°F. and 300 p.s.i. in a single storage unit of 1/4 to 125 ton capacity. Thus, an ample quantity of liquid carbon dioxide is available for mass application at high rate for large critical areas or for multiple hazards ... with ample reserves for new emergencies.

Cardox CO2 has uniform extinguishing characteristics regardless of plant or atmospheric conditions. Cardox applications can thus be most effectively engineered in accordance with individual hazard requirements... even in the case of a combination of hazards as unusually diversified as those shown in the schematic view above.

Architects now developing postwar building plans are invited to draw on the Cardox Research Division and Engineering Staff for practical cooperation in planning fire extinguishing facilities engineered for maximum protection of the specific hazards involved.

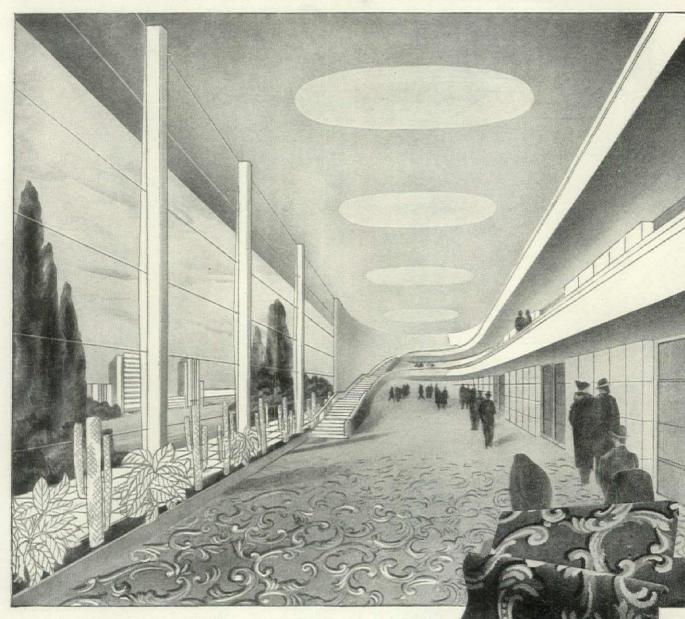
CARDOX CORPORATION BELL BUILDING • CHICAGO 1, ILLINOIS District Offices in New York, Washington, Detroit, Cleveland, Atlanta, Pittsburgh, San Francisco, Los Angeles, Seattle

31

GUISHING

Cardox CO2 is supplied instantly in pounds or tons from a single Storage Unit contain-ing 500 pounds to 125 tons at controlled low temperature of 0°F and 300 p.s.i.

GOOD POSTWAR PLANNING DESERVES GOOD CARPET PLANNED BY **BIGELOW**



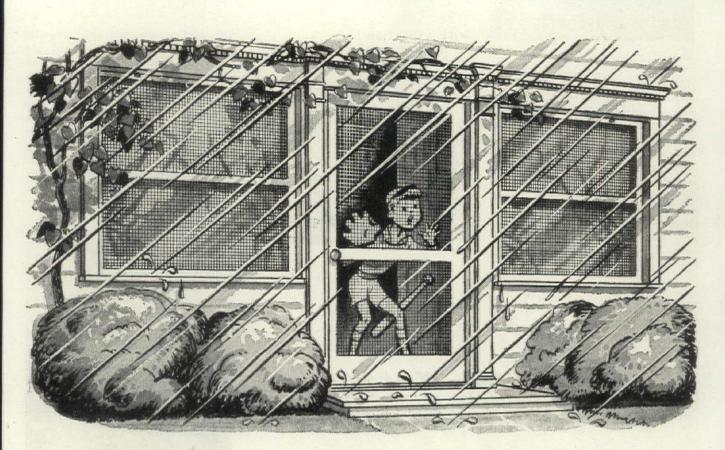
In this brilliant design, for postwar construction, the lobby has become a show window...A vast display case in which to merchandise a business.

And take note, please, of the floor. With Bigelow modern carpet designs, and an expert sense of color values, Bigelow Carpet Counsel has helped the architect add an exciting element to the design with the *right* floor covering.

When Bigelow looms can again weave contract carpet, Carpet Counsel will be ready to help you with the right carpet for the right spaces at no extra cost per square yard.

BIGELOW-SANFORD CARPET CO., INC.

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



A Glutton for Punishment

• Unlike old-fashioned type screens, LUMITE, the new plastic screen cloth woven from Saran*, takes a beating—and likes it! Durable—because of its extreme resiliency, LUMITE will not dent or bulge! Long-lasting, because LUMITE will neither rust nor corrode!

Unaffected by smoke, salt air, rain, snow, heat or cold, this revolutionary new plastic screen cloth is non-staining, saves frequent repainting of sills and sidewalls—and never needs painting itself. A simple wipe-off with a damp cloth restores its fresh look, immediately.

LUMITE is a *proven* scientific advance that makes old-fashioned window screening obsolete – lasts longer because it withstands wear from natural causes!

Tested daily by the Armed Forces under every possible climatic condition through actual use, LUMITE is well worth waiting for and planning for—in the postwar building that's ahead. Your jobber can't ship any LUMITE until after the war, but we will gladly send samples and information, now!

*A product of the Dow Chemical Co.

TESTED IN WAR READY FOR PEACE

Not just a postwar dream product... millions of feet of LUMITE are now in actual use, protecting the Armed Forces against disease-carrying insects.

- ★ Will not rust or corrode, long-lasting
- Non-staining . . . no streaking of sills or sidewalls
- * Strong, resilient... no dents or bulges
- * Unaffected by smoke or salt air
- * Non-inflammable
- ★ Will be priced competitively with better grades of wire screen cloth.

The new plastic insect screen cloth



CHICOPEE MANUFACTURING CORP. Lumite Div. 40 WORTH ST., NEW YORK 13, N.Y. World's Largest Manufacturer of Plastic Screen Cloth



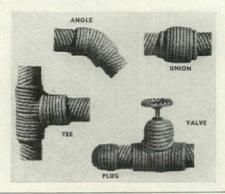
BUILDING REPORTER

(Continued from page 212)

signs in industry, and is available in any desired color. It is bright, moistureproof, weatherproof, stainproof, fireproof, sturdy and permanent. It is not likely to chip or scratch, and occasional washing restores original brilliance. High reflective value makes porcelain enamel suitable for markers, particularly in the case of illuminated markers which should aid in night navigation. *Manufacturer:* Market Development Div., Carnegie-Illinois Steel Corp., Carnegie Building, Pittsburgh, Pa.

PIPE INSULATION

Tape forms sealed jacket around pipes, and prevents condensation drip.



This pliable, cork-filled, easy to handle tape, stops damaging drip from cold water pipes. It forms a snug, sealed jacket around pipes, completely covering fittings, valves, etc. It is quickly and easily applied without tools, and is especially suited to pipes of one inch in diameter and less. No Drip is brown in color, but can be painted. It is long lasting, and requires no maintenance. Coil for 7 linear ft. of pipe costs \$1.25. Manufacturer: J. W. Mortell Co., Kankakee, Ill.



TELEVISION

Postwar set operates on optical projection principle, producing larger picture.

This set has a viewing screen of 16 in. by 21 1/3 in. Prewar television sets have a maximum viewing surface of $8\frac{1}{2}$ in. by 11 in. because the image appears directly on the end of the tube. In the new R.C.A. set the image is projected from a 5 in. kinescope or cathode ray tube to a spherical mirror. The image is reflected to a plane mirror and then to the viewing screen. The retail price will be about \$395.

Manufacturer: Radio Corp. of America, R.C.A. Victor Div., Camden, N. J.

FLUORESCENT LIGHTING FIXTURE

Ribbed reflector provides stronger, straighter lighting installation.

The Quick-Liter, formerly confined by WPB restrictions to lightweight fixture models, is now available with a lateral reinforcing ribbed reflector which provides straighter and stronger lighting installations. The lateral ribs minimize dents due to accidental blows, and produce straighter reflector edges, making a neater looking job. Lamps start without flicker and will light at low temperatures, on low or irregular voltages. The unit is available for two or four 40 w. fluorescent lamps, for operation on 115 or 230 v., AC, 60 cycles.

Manufacturer: The Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo. (Continued on page 220)

Can Be Engineered Into 1 Elevator?

THE TRUE MEASURE of an elevator's efficiency is the quality of the job it does -- the way it stays in service day after day moving men, material and merchandise up and down without breakdown and with minimum maintenance.

Sedgwick elevators are designed to give an extra measure of service. Believe us? We hope you don't. We hope, instead, that you're skeptical—that you want to see for yourself. Let's take a look at a Sedgwick Electric Freight Elevator.

Many Safety Features

At the top of the hoistway is a worm geared V-groove traction machine with internal spur gearing — special steel gear and sheave shafts — and an electro-magnetic brake to stop the car if the current is interrupted from any cause.

A centrifugal speed governor operates the car safety which stops the car should it descend at excessive speed or should the cables break.

Self-Aligning Motor Cuts Costs, Simplifies Installation

An efficient single speed, reversible type motor, designed for heavy duty service, provides the power to operate the elevator. Its high starting torque and low starting current help cut operating costs. And the self-aligning motor mounting facilitates installation.

Made in Any Size to Lift Any Load

Sedgwick makes five *standard* freight elevators with capacities from 2500 to 8000 lbs. But Sedgwick designs and manufactures elevators to lift any load. Fact is, today, on many aircraft carriers, fighting planes are lifted from hangar deck to flight deck on Sedgwick elevators —capacities, 85,000 lbs. and more.

Sedgwick Line Offers Wide Choice

The complete line of Sedgwick Elevators and Dumb Waiters includes Electric and Hand Power Freight, Passenger, Hospital, Residence, Invalid and Sidewalk Elevators—Electric and Hand Power Dumb Waiters —Electric Stair-Travelors—all designed to solve "man" handling and materials handling problems through greater operating efficiency.

New Elevator and Dumb Waiter Specification Book Available

If you have not yet reserved your copy, write now for this easy-to-read, 24-page booklet, "Sedgwick Standard Specifications for Elevators and Dumb Waiters," compiled to assist the architect and engineer in the specificationwriting phase of his work.



SEDGWICK MACHINE WORKS, 140 W. 15th St., New York 11, N. Y. ELEVATORS • ROTO-WAITERS • SPECIAL LIFTS • DUMB WAITERS

"HUSKY" THRU and THRU

Cut-away View Kewanee Hi-Pressure Firebox Series. Also for Oil, Gas or Stoker Firing

NEEDEN GERLEN

For Heating Power and Process Steam

> 75 YEARS BOILERMAKERS

KEWANEE Heavy Duty BOILERS STEEL BOILERS

Steel plates . . . further strengthened by extra heavy stays and braces. . . . provide strength and durability which add years of service. As proved during 75 years of boiler making, the design and proportioning extract and put to useful work the maximum amount of heat in fuel.

> HAND FIRED or MECHANICAL 100, 125, 150 LBS. STEAM WORKING PRESSURE 25 TO 304 HORSE POWER

KEWANEE BOILER CORPORATION

Branches in 60 Cities-Eastern District Office: 40 West 40th Street, New York City 18 Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION



Until the need no longer exists, Michaels facilities will continue to be engaged in the manufacture of the materials of which bridgeheads are made. Bridge Trestles, V-type Pier Trestles, and other war essentials are constructed in the Michaels plant by the same men and machinery that were used in the manufacture of prewar products. This means that reconversion presents no problems, nor will there be long delays in getting back to civilian production once the green light is flashed. In the meantime we'll be glad to give you information on the products for which Michaels have been famous since 1870: Marquise • Push Bars • Wire Work • Exhibit Cases • Elevator Doors • Tablets and Signs • Name Plates • Bulletin Boards • Cast Thresholds • Store Front Sash • Parking Meters • Lamp Standards • Kick and Push Plates • Extruded Thresholds • Extruded Casements • Welded Bronze Doors • Elevator Enclosures • Building Directories • Grilles and Wickets • Bronze Lighting Fixtures • Bronze Casement Windows • Fixtures for Banks and Offices • Bronze and Iron Store Fronts • Bronze Double Hung Windows • Bronze Markers and Plaques • Railings (cast and

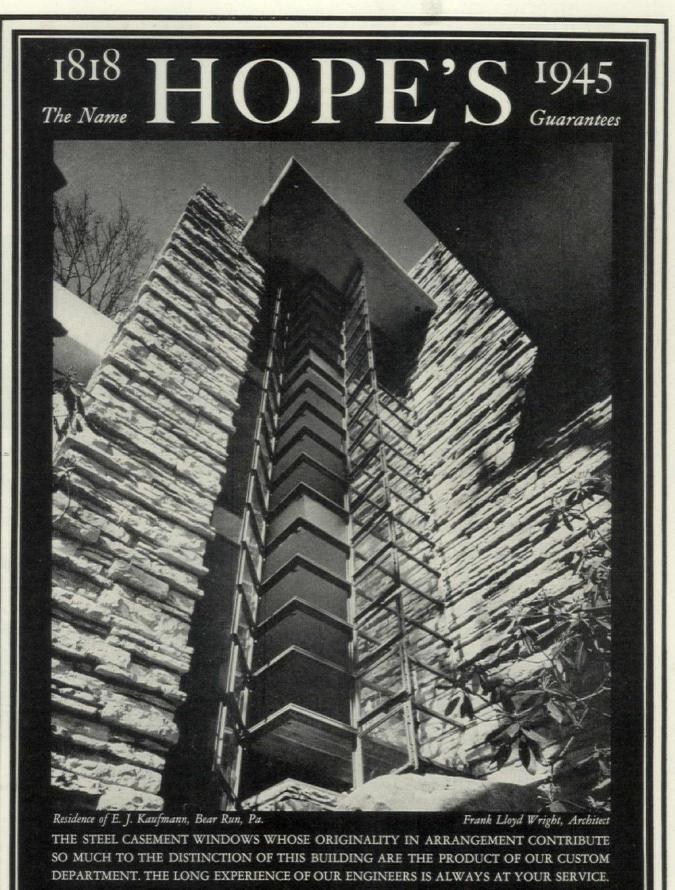
wrought) • Check Desks (standing and wall) • Wrought Iron Lighting Fixtures • Stamped and Cast Radiator Grilles.



Experienced Representatives Wanted . . . Keep on Buying War Bonds

THE MICHAELS ART BRONZE CO., Inc., Covington, Kentucky Manufacturers since 1870 of many products in Bronze, Aluminum and other Metals

ANOTHE

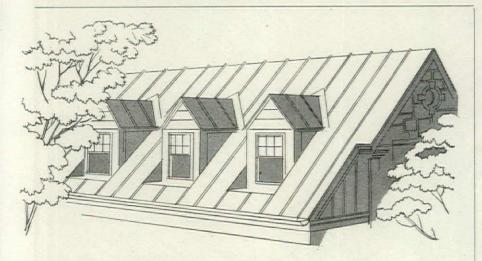


HOPE'S WINDOWS, INC., Jamestown, N.Y. BACK THE ATTACK WWWAR BONDS (Continued from page 216)

SANDING MACHINE

Electric and air driven hand-size sanding tool solves intricate sanding problems.

These two portable sanders, the "Sterling 1000," an electric model, and the "Speed-Bloc," an air driven machine, cover ranges of abrading from coarse to finish sanding, lapping and polishing. The electrically driven machine features orbital motion, a development which enables surface finishing operations with uniformity, precision, speed and economy. This motion drives thousands of abrasive grits in 3/16 in. orbits in the same direction against the work at a rate of 5,000 cycles per minute, so that cutting action is uniform over the entire surface. It performs equally well on wood, metal, plastics, undercoats, primers and finished coats of paints, enamel, lacquer and varnish. The airdriven model has automatic control, and is recommended for wet-sanding operations or where volatile fluids are used to lubricate the work. It is designed to operate efficiently on 60 lbs. pressure, using approximately 6 cu. ft. of compressed air per min. under load. It operates on dry or wet, flat or curved sur-



For Distinctive APPEARANCE and Superior PERFORMANCE

FOLLANSBEE seamless terne roll roofing

Here is a proved roofing material that affords the Architect ample scope in working out attractive designs . . . that provides durable roofing protection . . . that permits use within conservative budgets.

Follansbee Seamless Terne roofs may be laid with standing seams in a variety of patterns which enhance the appearance of many structural types... they may be painted any color desired.

Furnished in 50 foot rolls without seams, which eliminate cross-seaming, Follansbee Seamless roofing is easily and quickly installed ... requires only a minimum of maintenance to assure lasting, efficient service.

Specification and data file furnished on request.



FOLLANSBEE STEEL CORPORATION GENERAL OFFICES · PITTSBURGH 30, PA.

Sales Offices – New York, Philadelphia, Rochester, Cleveland, Detroit, Milwaukee. Sales Agents – Chicago, Indianapolis, St. Louis, Nashville, Houston, Los Angeles, San Francisco, Seattle; Toronto and Montreal, Canada. Plants—Follansbee, W. Va., and Toronto, Ohio

ALLOY BLOOMS & BILLETS, SHEETS & STRIP CLAD METALS COLD ROLLED CARBON SHEETS & STRIP POLISHED BLUE SHEETS · ELECTRICAL SHEETS & STRIP · SEAMLESS TERNE ROLL ROOFING





faces, and is used on wood, metal, plastics, compositions, undercoats, primers, and finish coats—covering the same field of abrading as the electric model. *Manufacturer:* Sterling Tool Products Co., 155 East Ohio St., Chicago 11, Ill.



STORAGE CONTAINERS

Transparent plastic tubing is used for blueprint containers.

Tenite transparent tubing prevents blueprints from becoming frayed and torn while in storage at the Curtiss-Wright Corp. It also keeps the blueprints dustproof and provides an orderly, compact method of filing. The tubing is extruded in several diameters, and cut into desired lengths. One end is sealed with a Tenite disc, the other end is plugged with a wooden stopper which bears an identification label.

Manufacturer: Extruded Plastics, Inc., Norwalk, Conn.

(Continued on page 224)



• Any home-owner whose house costs too much to heat may find himself "out on a limb" when he tries to rent or sell.

One of the best ways to guard against that, when you build, is to make sure you get an *adequate* chimney. This means a chimney big enough to handle *all* fuels equally well. Because then you'll *always* be free to switch to any fuel you might choose—including the most economical and dependable of them—Bituminous Coal.

That's an important point, because today's expensive fuels may become even more costly in the years ahead—and America's 3000year supply of Bituminous Coal means this fuel will *always* be plentiful and economical. The extra cost of a.chimney big enough to supply the natural draft needed for Bituminous Coal is only about \$16 for the average 7-room house.

About 4 out of every 7 homes in the U. S. burn coal for steady, uniform, dependable heat. And your architect or builder will tell you that a chimney adequate for Bituminous Coal is also efficient for any other fuel. Talk it over with him—it-will pay you to do so!



AN ADEQUATE CHIMNEY lets you heat with Bituminous Coal—which can save you enough hard dollars to pay a good share of your taxes or mortgage interest! And, when used with a modern coal stoker, this most economical fuel is not only "automatic," but also clean and odorless in operation.

BITUMINOUS COAL INSTITUTE, 60 EAST 42ND STREET, NEW YORK 17, N.Y. (This is one of a series of advertisements now appearing in home-makers' magazines) **LET ME BRING YOU** up to the minute on what's going on behind Spencer Heaters.

Check any survey on the number of people who plan to buy airplanes as soon as possible after the war . . . and you'll be amazed at how air-minded the American people have already become. And you'll get a very good idea how highly respected are the engineering "know-how" and ingenuity of organizations like The Aviation Corporation.

That will make the name The Aviation Corporation a selling point for men who will include Spencer Heaters in the homes they design and build in the post-war "air age." But a more important and unique

"I've just seen something good!.."

selling point will be the remarkable advances built into the Spencer Heater line itself by the combined experience of the engineers of Spencer and The Aviation Corporation. Spencer is worth knowing more about before you write the specifications for the post-war homes you're planning. We'll be glad to discuss it with you.

SPENCER HEATER

Division – The Aviation Corporation Williamsport, Pa. PRODUCT

Remember to specify Wheeling Metal Lath g Just a reminder that Wheeling Fireproof Building Materials dovetail into present and postwar plans. For instance, Wheeling Bar-X-Lath (and the Bar-Z-System) forms a perfect keying base for plaster, for permanent sur faces and excellent finishes. Also remember the Wheeling line has been augmented by Steelcrete Expanded Metal.

MEMO



WHEELING CORRUGATING COMPANY WHEELING, WEST VIRGINIA

NEW YORK - PHILADELPHIA - CHICAGO - ST. LOUIS - RICHMOND - ATLANTA KANSAS CITY - MINNEAPOLIS - BUFFALO - LOUISVILLE - DETROIT BOSTON - NEW ORLEANS - CLEVELAND - PITTSBURGH - HOUSTON

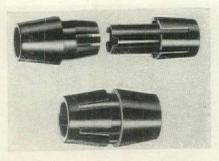
BUILDING REPORTER

(Continued from page 220)

PLASTIC GROMMET

Low cost, blind features indicate widespread insulation applications.

Non-inflammable, plastic, "Des-Grommets" offer advantages for insulation and protection of cables and lines passing through bulkheads of ships and aircraft, and for other applications of electrical insulation. "Des-Grommets" are composed of two parts and designed so they may be applied from one side only by means of a special tool. To install



the grommet, it is slipped onto the tool and put through a hole in the partition. As it is drawn together, an undercut section of one half is engaged with a spring locking section of the other. The



Central Heating from an Available Steam Source Eliminates Individual Boilers and Cuts Fuel Costs

Twenty years ago a group of manufacturers in a compact industrial area made arrangements to purchase and pipe steam from an available source nearby. This made it possible to shut down their own boilerswhich, because of smoke regulations, had become antiquated. Also, by dispensing with labor, coal, ash handling and other costs, they effected material savings -in fact, one of the largest users paid for his share of the steam distribution lines out of these savings in 6 months operation.

Today the originally installed steam piping, insulated and protected by Ric-wil Conduit, is still enabling their plants to enjoy lower steam costs and freedom from individual boiler worries.

A recent survey by a postwar plan commission indicates the feasibility of increasing the boiler capacity of the same plant to serve an adjacent industrial and residential area comprising five square miles at a substantial profit!

Central Heating is practical for industrial, commercial, institutional and residential groups. Special studies of typical installations are available upon request.

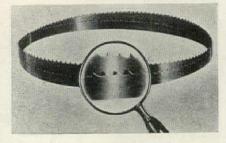
RIC-WIL INSULATED PIPE CONDUIT SYSTEMS THE RIC-WIL COMPANY · CLEVELAND, OHIO

Any Industrial or Residential Area can Enjoy these Advantages

- Savings of 15% or better in fuel costs.
- Elimination of individual boiler worries.
- Cleaner, healthier working conditions.
- Reduction of smoke and soot in neighboring residential areas.
- Extra production space in plants.
- Decreased fire and explosion hazard.
- Private coal delivery and ash removal eliminated.
 Uniform clean heat—whenever
- required.
- Unfailing source of "process" steam and hot water.

tool then forces the two sections together, locking them into one integral unit at the point at which the partition stops further movement. Made of plastic, they are available in a wide range of sizes to accommodate cables and tubes from 1/4 in. through 2 in. diameter. Two sizes for wall thickness are supplied, one to accommodate 1/8 in. to 1/2 in. and the second for bulkheads $\frac{1}{2}$ in. to 1 in. thick. Unlimited colors are available and facilitate identification. Now used extensively in the ship building and aircraft industries, low cost and blind features of this Grommet indicate its application for insulation in a wide variety of electrical, plumbing, air-conditioning, and automotive uses.

Manufacturer: Victory Mfg. Co., 1105 So. Fair Oakes Ave., So. Pasadena, Calif.



SKIP TOOTH BAND SAW

Designed for easier, faster cutting of non-ferrous metals, plastics, wood, etc. The Barnes Skip-Tooth Band Saw prevides greater chip clearance and is shaped to eliminate loading and clogging of the teeth. It is designed for easier, faster cutting of magnesium, aluminum, soft brass and other nonferrous metals, and for the cutting of plastics, compositions, fibre, wood, etc. It fits any standard band saw machine. Requiring no sharpening, it can be used until completely worn out. It is available in coils to any desired length, in 2, 3, 4, and 6 teeth per inch; in widths of 1/4, 1/2, 3/4 or 1 in., and gauges .025 to .035.

Manufacturer: W. O. Barnes Co., Inc., 1297 Terminal Ave., Detroit 13, Mich.

ABRASIVE FACING New non-metallic abrasive cloth used for

cleaning and resurfacing.

Downite is a rustproof abrasive which is safe and easy to use. It has no sharp edges to injure the fingers, will not crack, crumble, shred or disintegrate, and will outlast other rub-down types of abrasive materials. Downite has a cotton base and is readily cleaned by immersion in effective solvents. Suitable for smoothing or resurfacing wood, metal, and other surface areas, it has many other uses such as removing grease or oily metal filings from around machinery, and removing grease from hands.

Manufacturer: Downy Products Co., 555 Central Ave., Orange, N. J.

(Technical Literature, page 230)

Is There a Fireman in the House?





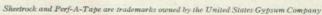


live fireman into a house, of course. But you can build in fire protection with Sheetrock

You can't build a

wall and ceiling panels. Sheetrock is made of gypsum, the fireresisting mineral that cannot burn. Sheetrock panels shield the framework over which they are applied till help has a chance to arrive.

Sheetrock may be decorated with any finish that's brushed, sprayed or painted on ... and you can start the minute the last panel is nailed up. Plus that, you can have sweeping, unbroken surfaces with the Perf-A-Tape system or make an asset of the joints with the decorative beveled edge Sheetrock. You can apply Woodgrained Sheetrock that's finished in faithful woodgrain reproductions of knotty pine, bleached mahogany or walnut. Available now. For more problem-solving information, write us today. United States Gypsum, 300 West Adams Street, Chicago 6, Illinois.



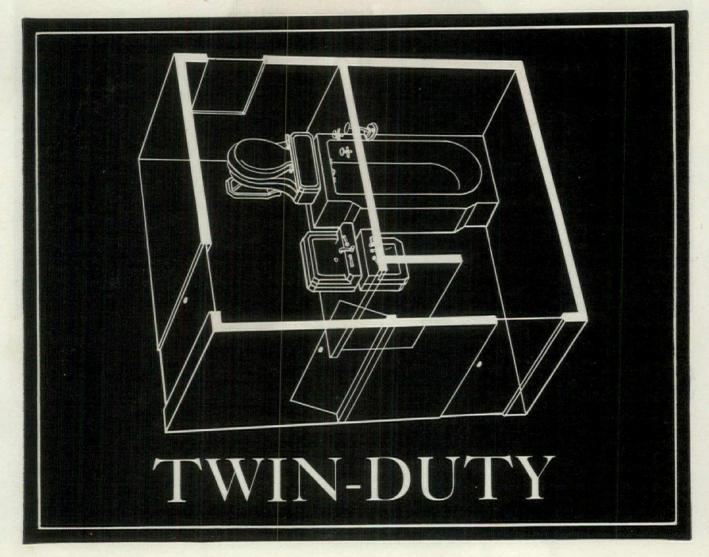
For Building . For Industry



United States Gypsum

Gypsum . Lime . Steel . Insulation . Roofing . Paint

Clients will thank you for this new kind of bathroom...



Case "Twin-Duty" bathrooms provide the perfect answer to the popular demand that every square foot be made to *count*.

Through ingenious layouts of two compartments, the customary space is made to serve two people at the same time, with full privacy for each.

Featured prominently in "Savefor-a-Home" displays at leading Savings Banks, these bathrooms have already drawn wide praise for the "Twin-Duty" idea from many sources.

From our book of sketches comes this practical and compact design. One compartment has a tub, the other a water closet, while each has its own lavatory. Entrances from the hall and master bedroom, and inter-communicating door. Piping is all in one location.

W. A. Case & Son Mfg. Co. Buffalo 3, N.Y. Founded 1853. Style with



Lifetime Plumbing Fixtures



NOTHING TO SIT ON ...

... IS SO RESTFUL AS FOAMEX

Cross-section above shows how Foamex simplifies deep-cushioned seating. One molded material does the job of both springs and stuffing. And does it better.

If you're a designer fighting for simplicity, Foamex is your ally.

If you're an advocate of more comfortable living, Foamex is on your side.

A single layer of this Firestone rubber-latex foam is all that's needed for deep-cushioned ease in easy chairs, sofas, built-in seating.

Foamex provides its own springy-ness, its own softness—both in one sag-proof, lump-proof material. It transforms upholstering into a cloud of air-andlatex bubbles ... millions in a seat. Each is a tiny air cushion. Each is a little spring cushion. Each is a breathing valve to keep seating air-cooled, dust-free, damp-proof, odor-proof. All are welded together into one time-and-wear-defying unit.

Foamex is proven. Long before the war, it became standard for railroad, bus and airline seats, and in several leading automobile models. Put it into your post-war plans for homes, hotels, restaurants—wherever it pays to be economical with space and lavish with comfort.

Meanwhile, those little *Foamex* bubbles have a big job to do-shielding fighting men from concussion.

P.S. The ideal covering for Foamex seats-Velon*, Firestone's wonder fabric. Makes smarter colors practical.



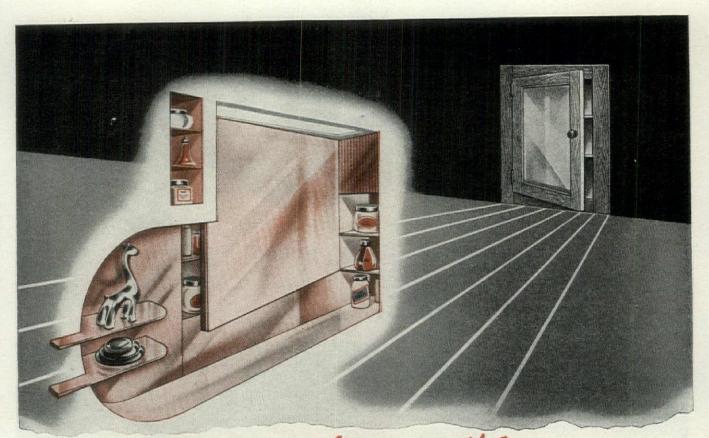
TRALIC

ANOTHER CONTRIBUTION TO A BETTER WAY OF LIFE by

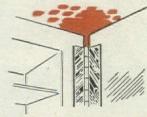


NOTHING TO SLEEP ON IS SO RESTFUL AS FOAMEX





Who first *made something* of a "hole-in-the-wall"?



NO SAG--NO WARP--NO STICK. Miami-Carey was first with piano-type hinges and onepiece mirror frames.



ROSETTES "WENT OUT" when Miami-Carey introduced the mirror clip—now standard in the industry.

THE PHILIP CAREY MANUFACTURING CO. LOCKLAND, CINCINNATI 15, OHIO

MIAMI-CAREY did. Until Miami-Carey introduced the *first* real bathroom cabinet in 1925 (complete with electric lights), a box-in-the-wall was the height of convenience. Since then, most of the "firsts"

Since then, most of the 'hrsts in cabinet design have come from Miami-Carey.

Further, no one approaches Miami-Carey in range of models, sizes, prices. Nor in the quality-features that have made these cabinets the best buy for over two decades . . . steel construction that won't rust, plate-glass quality mirrors guaranteed 5 years against silver spoilage, high quality finishes, solid brass hinges, mirror frames and many others.

For information on models currently available write-



concealed LIGHTING - another Miami-Carey first in beauty and convenience.



THE ROUND MIRROR CABINETanother Miami-Carey first.



THE MIAMI-CABINET DIVISION, MIDDLETOWN, OHIO

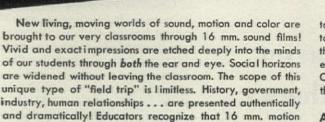
 Careyduct
 Industrial Insulations
 Rock Wool Insulation
 Asbestos Shingles and Siding
 Asphalt Shingles and Roofings

 Built-up Roofing
 Roof Coatings and Cements
 Waterproofing Materials
 Asphalt Tile Flooring
 Pipeline Felt

 Expansion Joint
 Asbestos Wallboard and Sheathing
 Corrugated Asbestos Roofing and Siding
 Miami-Carey Bathroom Cabinets and Accessories

THE ARCHITECTURAL FORUM

Continuous Field Trips Right in the Classroom with 16 mm. motion pictures



to you until our war efforts are completed—now is the time to lay the groundwork for your visual education program. In this connection, an unusually interesting and informative story entitled "What Will Happen in the Movies the Day War is Over . . ." is being distributed in attractive booklet form by the Ampro Corporation. Write today for your FREE copy.

AMPRO CORPORATION

Precision Ciné Equipment

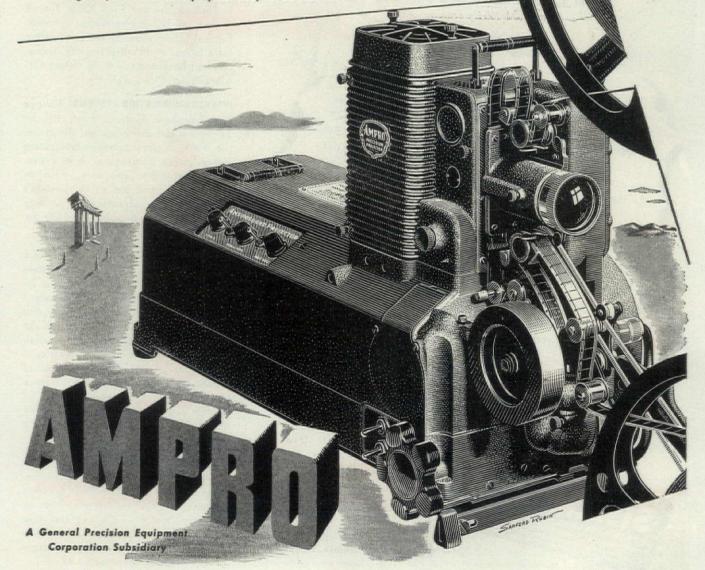
Although Ampro 16 mm. sound projectors may not be available

pictures are essential to the development of tomorrow's

CITIZEN OF THE WORLD.

. .

Chicago 18, Illinois



TECHNICAL LITERATURE

(Continued from page 224)

GRANITE. Fletcher Granite Products, Bulletin No. 3, 9 pp., 81/2 in. by 11 in. This bulletin tells how granite masonry fits into the plan of dimensional coordination consistent with the plan of Project A 62. It offers a specific proposal for the application of accepted concepts of modular design and dimensional control to granite, with the purpose of providing the same distinguished granite stock for a ready-to-wear market, that hitherto has been available only as

a custom tailored material. Standards for the machine-fabricated granite units are expressed in terms of specifications covering kind of stock, color and texture, finish, size, wind, square, surface smoothness, saw markings, etc. A schedule of sizes and a section devoted to finishes is also included. H. E. Fletcher Co., West Chelmsford, Mass.

AIR HANDLING APPARATUS. What We Make, Catalog 500. This condensed, pocket-size catalog describes Sturtevant's complete line covering more than 50 different types of equipment which are used for thousands of different ap-

You'll Never Have to Run an Ad Like This as Long as There's SISALKRAFT

> We are in the need of a tough, durable building paper that we can specify for weather-resistant paper that we can specify for weather-resistant qualities. It must be a flexible, easy to apply maquanties. It must be a nextbre, easy to apply ma-terial that will shut out cold winds and protect terial that will shut out cold winds and protect sheathing and wood framework from rotting. So snearning and wood framework from forting, so much the better if we can specify the same paper much the better if we can specify the same paper as a dry sheet under roofing, wood and concrete Because data and concepted and and concepted conas a dry sneer under roomie, wood and concrete floors, and to protect and cure newly poured connoors, and to protect and cure newly poured con-crete basements, garage floors, driveways, and ridemalize Commented substanting crete basements, garage noors, driveways, and sidewalks. Summarized, what we want is a build sidewalks. Summarized, what we want is a build-ing paper that won't tear in application and so ing paper that won't tear in application and so water-proof that it will give our buildings water-proof that it will give our buildings the weather protection they need. With all these qualities it must call the wearner protection they need. With all these qualities it must sell at a reasonable price. Adqualities it must sell at a reasonable price. Ad-dress your replies to "Progressive Architects,"

Anywhere, U. S. A.

KRAFTGO

Here are a few of the Many Sisalkraft Uses Install as flashing around all ex-terior openings . . . for dust-proof floor construction . . . moisture-free walls . . over studs before plaster base lath is applied . . . over roof frame for tighter roofs.

Manufacturers of SISALKRAFT, FIBREEN, SISAL-X, SISALTAPE AND COPPER-ARMORED SISALKRAFT plications. Various types of air washers, blowers, compressors, exhausters, dust collectors, fans, turbines, etc., are illustrated and described, and information is included on their numerous applications. An interesting section gives practical engineering data developed from Sturtevant's experience in working with all types of air handling problems. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

BADIANT HEATING. How to Choose a Heating System for Your New Home, 16 pp., 81/2 in. by 11 in. This consumer booklet gives prospective home builders information on radiant heating applications in residential construction as well as factual data on operating and installation costs. It describes the method of radiant heating which utilizes wrought iron pipes embedded in a concrete floor, and reviews nine residence installations where costs of this type of system represents between 6 per cent and 10 per cent of the home's total cost. The booklet asks the prospective builder to consult architects for estimates of radiant heating installation costs, and illustrates homes designed by Ernest Gunnar Peterson, Raymond Viner Hall, Philip F. Hallock, George Fred Keck, Joseph Hoover and William van Eaton Sprinkle. Factual information on radiant heating installations is included for city, suburban and farm homes. A. M. Byers Co., Clark Bldg., Pittsburgh, Pa.

INTERCOMMUNICATION SYSTEMS. Kellogg Pax Telephone Systems, 4 pp., 81/2 by 11. This folder describes and illustrates the PAX modern intercommunication system giving information on its operation, maintenance and uses. Also included is a brief list of the system's features and advantages. Kellogg Switchboard and Supply Co., 6650 So. Cicero Ave., Chicago 38, Ill.

ELEVATORS_DUMB WAITERS. Sedgwick Standard Specifications for Elevators and Dumb Waiters, 24 pp., 81/2 in. by 10% in. This booklet contains standard electric and hand power elevator and dumb waiter specifications and is designed to assist the architect and engineer. It also serves as an indication of the extent of the Sedgwick line of freight, hospital, sidewalk and residence elevators and of the various types of electric and hand power dumb waiters. Sedgwick Machine Works, 150 W. 15th St., New York 11, N.Y.

CONCRETE MASONRY. Planning Your Home, 14 pp., 51/2 in. by 85% in. Answers to many questions about concrete masonry material are found in this informative booklet, as it explains how various forms of the material meet the desires of an architect's client. Sections

(Continued on page 234)

EVEN THE SMALLEST 0 POSTWAR HOME CAN HAVE THE ADVANTAGES **OF EFFICIENT** AUTOMATIC **OIL HEAT** WITH WILLIAMS DIL-O-MATIC

BLOOMINGTON, ILLINOIS

The War Bonds you buy and KEEP will insure a quicker Victory for all and a more prosperous Peace for you. Reconversion suggests PEACED -it is, in fact, an harbinger of PEACE for which we are eternally grateful. It also suggests more and better buildings with walls . and ceilings made enduringly beautiful with the original Ohio White Finish and its famous twin, Hawk A day of the local day Spread. Both brands are scientifically processed from rock quarried from the heart of the world's purest deposit of dolomitic limestone-both are always fresh, make a pure white easy working putty that spreads far. For your protection both brands are always packed in bags marked with distinctive Red Zig Zag Stripes. For literature describing our complete THE OWNO BYDRATE & SUPPLY CO line of Ohio lime products, write to The Ohio Hydrate & Supply Co. Woodville, Ohio

THOSE WHO CAN'T AFFORD TO MAKE ERRORS IN MEASURING VALUABLE STORED LIQUIDS CHOOSE -



THEY'RE ALWAYS DEPENDABLE
 MO% automatic.
 No pumps, valves, or auxiliary units needed to read them.
 Models available for either remote or direct readings.
 Accuracy unaffected by specific gravity of tank liquid.
 Approved by Underwriters' Laboratories for gauging hazardous liquids.
 Write for complete details.

36-30 SKILLMAN AVE .. LONG ISLAND CITY, N.Y.



THE NEW FREEDOM GAS KITCHEN featuring a fine ROPER GAS RANGE

Architects and builders alike acclaim the modern ROPER GAS RANGE as ideal for kitchens of tomorrow. Styled in step with the future, these smart new Ropers offer outstanding refinements that rate "tops" in customer preference. They will fit new kitchens perfectly. A Free kitchen booklet will be sent to you upon request. Write today.



CORP

GEO. D. ROPER CORPORATION, Rockford, Illinois, manufacturer of ROPER, "America's Finest Gas Range" for all gases including L.P. (Liquefied Petroleum) gas. Back home we turn night into day with it

Deep into many Arctic regions, electricity is being carried for the first time in history, thanks to Laytex-insulated wire.

Yes, worldwide war has subjected Laytex to many new conditions not only freezing cold, but tropic heat, moisture, and shattering shock — greater strain and wear than any single wire was ever meant to withstand . . . to a degree far beyond what was expected.

Right now, the entire output of Laytex Wires and Cables is required for military needs. One day, Laytex will be once more available for Residential and Commercial Buildings, Police and Fire Alarm Systems, Communications, Signalling, Power, Control, and other exacting services.

Listen to "Science Looks Forward"—new series of talks by the great scientists of America—on the Philharmonic-Symphony Program, CBS network, Sunday afternoon, 3:00 to 4:30 E.W.T. **Rubber Insulation at Its Best**



ELECTRICAL WIRES AND CABLES



Serving Through Science

UNITED STATES RUBBER COMPANY

1230 Sixth Avenue • Rockefeller Center • New York 20, N.Y. • In Canada: Dominion Rubber Co., Ltd.

TECHNICAL LITERATURE

(Continued from page 230)

are devoted to discussions of what concrete masonry is, how it is made, in what forms it is available, what it looks like, and where it is used in the house. Explanations of how the material provides insulation and helps keep the house dry are also included. A construction detail illustrates where and how the various forms can be used. Public Information Service of Besser Mfg. Co., 551 Fifth Ave., New York 17, N. Y. MECHANICAL AND ELECTRICAL EQUIP-MENT. Mechanical and Electrical Equipment for Buildings, Second Edition, 453 pp., 5% in. by 81/2 in. Price \$5. This second edition by Charles M. Gay and Charles DeV. Fawcett incorporates innovations in design, materials, methods and tables, and acquaints the architect, student and building manager with basic theories and applications of building equipment. Many chapters have been rewritten, amplified and modernized. Discussions of new types of heating, plumbing and water supply equipment have been added as well as a section on escalators and articles on the charac-



HOME OWNERS WILL WANT MORE THAN 50% FAN EFFICIENCY...

UNLESS the range is directly underneath, that is all they are likely to get from a sidewall exhaust fan.

On the other hand, a BLO-FAN installed directly over the range will operate at *full* efficiency. No dragging of greasy steam across the ceiling – no mingling with cross drafts into other rooms.

Your clients will thank you for specifying BLO-FAN "over-the-spot" ventilators in kitchen, bath, gameroom, laundry.

"JUNIOR" 175 cfm "Three sizes — "STANDARD" 300 cfm "SPOT" VENTILATOR BLO-FAN is more than a fan - more

OF

than a blower. It combines the advantages of both, providing volume plus power. It traps odors and vapors as they form, before they can spread.



"DE LUXE"

500 cfm

BRANCHES (To be re-established after the war) SAN FRANCISCO - SEATTLE - CHICAGO - NEW YORK

teristics and applications of fluorescent lamps and luminaires. This volume treats five separate subjects in detail: water supply, plumbing and drainage, heating and air conditioning, electrical equipment and acoustics. Many well prepared illustrations accompany the concise text. This excellent book should be equally helpful to the practice of everyday architecture and the beginning student. John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N. Y.

RESIDENTIAL HEATING-SOLAR ORIENTA-

TION. Heating the Home, Central Heating Systems: Solar Orientation in Home Design, 12 pp., 4 pp., 81/2 in. by 11 in. "Heating The Home," presents in nontechnical language the advantages, disadvantages, problems, and operation of air, water and steam home heating systems. It includes diagrams and discussions of seven types of systems: gravity warm-air, forced warm air, gravity hot water, forced hot water, one-pipe steam, two-pipe steam and panel heating. Among subjects discussed are heating equipment standards, register and radiator placement and types, radiator shields, effects of reducing temperatures at night, and provision for domestic hot water from the heating plant.

Solar Orientation suggests methods of taking advantage of the sun by facing as many rooms as possible to the south and opening them to the benefits of additional warmth, daylight and year round living enjoyment. It tells what solar orientation in design is, outlines its benefits, and explains solar mechanics and the control of sunlight. This circular answers many questions on this subject and illustrates the text with good plans and diagrams. Small Homes Council, Mumford House, University of Illinois, Urbana, Ill.

REQUESTS FOR LITERATURE

WILLIAM M. CHASE, builder, 15 Linwood Ave., Buffalo 2, N. Y., would like to receive literature on postwar products utilized in the construction of modern cottages.

The Contract Dept. of the PALACE HARD-WARE Co., 581 Market St., San Francisco 5, Calif. would like to receive catalogs and information on products connected with the building industry.

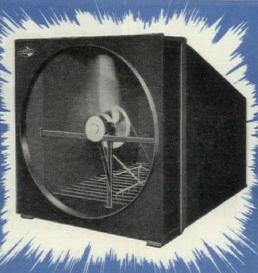
BERNARD J. DEVRIES, architect, 613 Hackley Union Bank Building, Muskegon, Mich., would like to receive data, catalogs and samples for an AIA file.

E. L. TULLY, draftsman, 147-30 Barclay Ave., Flushing, New York, would like to receive latest catalogs for an AIA file.

MARATHON CORP., Menasha, Wis. would like to receive catalogs, and data on all building products for an AIA file.



After the war, America will not be content to swelter in "bakeoven" homes-





Emerson-Electric Home Coolers -built in two types-provide botweather comfort all summer.

No more "HOT BOX" homes!

This modern method of providing summer comfort should be included in all postwar home plans.

EMERSON-ELECTRIC Exhaust Fans

For commercial and industrial installations. Rid the air of dust, dirt, heat, fumes and odors. Sizes: 12-in. to 48-in. Displacements up to 21,100 cu.ft.perminute. When the sun goes down, the Emerson-Electric Home Cooler Fan goes to work—quietly and out of sight, up in the attic. At the touch of a switch this powerful fan exhausts the day's accumulation of hot air—pulls it out of the house and replaces it with cooler outside air drawn through open windows and doors. Result: It's cool inside.

In your specifications, provide for either of two types: Plenum chamber mounting, illustrated above, or for mounting directly on an outside wall. Sizes from 36-in. to 48-in., with displacements from 9,000 to 21,100 cubic feet of air per minute. Write for complete specifications.



THE EMERSON ELECTRIC MFG. CO. • ST. LOUIS 3, MO. Branches: New York • Chicago • Detroit • Los Angeles • Davenport

How Emerson-Electric Home Coolers reduce inside temperatures



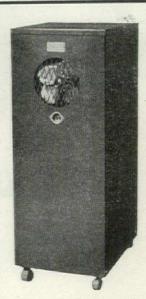
Inside temperature higher than outside. Attic temperature 120 to 130 degrees. No wonder the house is "like a bake-oven."



Outside temperature 20 degrees lower than maximum day temperature. Inside 20 degrees higher than outside and the building is still radiating heat.



Emerson-Electric Home Cooler Fan provides cooling breezes throughout the house and reduces temperature for pleasant, refreshing sleep.



PORTABLE CHEMICAL DEHYDRATORS

Automatically controlled, using flake calcium chloride for controlling humidity and for preventing dampness in:

Basement recreation rooms, offices, libraries, storage rooms, fur storage vaults, etc.

Prices \$100.00 to \$500.00

Manufactured and sold by





G.I. JOBS

FORUM's FREE PLACEMENT SERVICE FOR DISCHARGED VETERANS

To aid discharged veterans secure employment in the professional and executive areas of the building industry and affiliated branches, The FORUM opens its columns to applicants in the categories below.

Classified advertisements not exceeding 40 words, giving the applicant's qualifications and stating his preferences as to occupation and location will be published without charge. All advertisements will be keyed by number only.

Employers seeking personnel are invited to make known their requirements.

ARCHITECTS DRAFTSMEN ENGINEERS

CONTRACTORS

BUILDERS

EXECUTIVES IN-**REALTY MANAGEMENT, SALES AND APPRAISAL MORTGAGE FINANCE, TITLE & LEGAL WORK**

RETAIL MATERIAL SALES

Address: G. L. JOBS ARCHITECTURAL FORUM 350 FIFTH AVENUE NEW YORK 1. N. Y.

WHAT DO SOY BEANS HAVE TO DO WITH COAL?



Just this: Centuries ago the Chinese discovered that the lowly soy bean had thousands of uses! Yet only today is science really putting the soy bean to work.

It's just as hard to believe that small size Reading Anthracite is sometimes overlooked as an efficient and economical means of supplying heat and steam in heating and power plants of any size. Consider these unusual advantages of Reading Anthracite Barley:

SLASHES HEATING COSTS-Reading Barley is high quality Pennsylvania Anthracite that does the job at lowest cost-keeps you well within your fuel budget.

ALWAYS AVAILABLE – No "shortage" headaches! There's ALWAYS plenty of Reading Barley. You can buy it now, store it now. Not subject to spontaneous combustion or deterioration. "LAUNDERED" COAL — Though small in size, Reading Barley receives the same thorough laundering as our larger sizes of anthracite. Clean when delivered, clean to use!

NEWS FLASH - to architects, design engineers; REALTY MAINTENANCE ENGINEERS, PURCHASING AGENTS.

With so many shortages, due to the war, it's good to know that Reading Barley and traveling, or chain grate, 'stokers are *both* available today. If economy plays an important part in your planning, we urge you not to overlook the major savings assured by this ideal combination. Use the convenient coupon below. Investigate the economy and service provided by Reading Anthracite Barley.

The burning characteristics and adaptability of Reading Barley assure equally good performance in band-fired equipment — either forced or induced draft.



THE PHILADELPHIA AND READING COAL AND IRON COMPANY READING TERMINAL, PHILADELPHIA, PENNA.

BOSTON, MASS. BUFFALO, N.Y. CHICAGO, ILL. DETROIT, MICH. MILWAUKEE, WISC. MINNEAPOLIS, MINN. NEW YORK CITY, N. Y. ROCHESTER, N. Y. ST. PAUL, MINN. SUPERIOR, WISC., DOCKS WASHINGTON, D. C. READING ANTHRACITE CANADIAN COMPANY, Limited, Toronto, Ontario; Montreal, Quebec

Philadelphia and Reading Coal and Iron Company, Reading Terminal Building, Philadelphia 5, Pa.	BAC JAC BAC JAC
Please send complete information on Reading Anthracite Barley.	N. DYRE
Heating Equipment (type and make)	MANNA A
NAME	(NICHING)
CITY STATE	WENN
DAUAUAUAUAUAUAUAUAUAUAUAUAUAUAU	110

For LAMINATED **TIMBERS** in CONSTRUCTION

Specify-

"GLUE: Glue used shall be PENACO-LITE G-1131 or equal, applied and cured in accordance with the manufacturer's in-structions."

This truly DURABLE Resin Adhesive is backed by an enviable record of war-time performance.

Specify **PENACOLITE G-1131**

Manufactured by PENNSYLVANIA COAL PRODUCTS CO. PETROLIA 55 West 42nd Street PENNA.

New York 18, N.Y.



By writing Modernfold Doors into the specifications, you'll be helping to achieve the practicality and efficiency desired in post-

war design. Modernfold, with its accordion-like opening and closing, is suitable for homes large and small ... gives them room flexibility. Fold Modernfold to the walls, and the entire area is available . . . bring them together and the privacy of small rooms is available. And Modernfold is beautiful too-a distinct asset to room decoration. See how Modernfold can help your business-and your profits. Write today for full information.

NEW CASTLE PRODUCTS



1613 1 Street, New Castle, Indiana Distributors in All Principal Cities In Canada Richards, Wilcox Canadian Co., Ltd.

LONDON ONTARIO

SPECIFICATION AN

The advertising pages of FORUM are the recognized market place for those engaged in building. A house or any building could be built completely of products advertised in THE FORUM. While it is not possible to certify building products, it is possible to open these pages only to those manufacturers whose reputation merits confidence. This FORUM does.

merits confidence. This FORUM does.
Adam, Frank, Electric Co. 187 Adams and Westlake Company, The. 95 Air-Maze' Corp. 78 Airtern (Division of Chrysler Corporation). 34 Aliminum Company of America. 17, 29 American Air Filter Co., Inc. 176 American Brass Company, The. 207 American Flange & Manufacturing Co., Inc. 180 American Lead Pencil Company. 56 American Lead Pencil Company. 45 American Rolitor & Standard Sanitary Corporation. 19 American Rolling Mill Company. 12 American Telephone & Telegraph Co. 229 Andersen Corporation. 243 Armstroon Corporation. 43 Armstroon Corporation. 43 Ariation Corporation. 43 Aviation Corporation, The (Sepncer Heater Division) 222 Bathe-Rite Division (Milucaukce Stamping Company). 74 Bell & Gossett Co. 214 Bituminous Coal Institute. 215 Bigelw-Sanford Carpet Co., Inc. 214 Bituminous Coal Institute. 221 Bohn Aluminum and Brass Corporation. 53
Byers, A. M., Company. 11 Cabot, Samuel, Inc. 202 Cambridge Tile Mfg. Company. 205 Cardox Corporation 213 Carey, Philip Company, The. Opp. 17, 228 Case, W. A. & Son Mfg. Co. 226 Ceco Steel Products Corporation .00 Calamberlin Company of America. .00 Chicopee Manufacturing Corp. .213 Chryaler Corporation (Airtemp Division) 34 Cincinnati Metalorafts, Inc. .00 Coolentum-Nairn, Inc. .00 Coolectator Company, The. .00 Consertion (Airtemp Division) .34 Columbia Mills, Inc., The. .00 Connecticut Telephone & Electric Co. Division (Great American Industries, Inc.) .52 Corpin, P. and F. .36 Corpin, P. and F. .36 Corpin Go. .210 Crane Go. .172 Crawford Door Company. .172 Crawford Door Company. .195 Croyle Revolutes, Inc. .197
Defoe Shipbuilding Company
Edwards & Company. 184 Eljer Co
Federal Cement Tile Company. 27 Federal Electric Company, Inc. 190, 191 Fiat Metal Manufacturing Company. 154 Fibre Conduit Co., The 90 Fir Door Institute. 90 Firestone 27 Fitzgibbons Boiler Company, Inc. 71 Flintkote Company, The. 183 Follansbee Steel Corporation. 220 Formica Insulation Company, The. 0pp. 16 Frigidaire Division (General Motors Corp.) 240
Gar Wood Industries, Inc. 44 General Bronze Corporation. 171 General Electric Company. 22, 23, 67, 209 General Luminescent Corporation. 198 General Luminescent Corporation. 198 General Motors Corp. (Frigidaire Division). 240 Gerity-Adrian Mfg. Corp. 13 Grand Rapids Hardware Co. 166 Grasselli Chemicals Department (E. I. Du Pont de Nemours & Co., Inc.). 150 Great American Industries, Inc. (Connecticut Telephone & Electric Division). 55
Hauserman, E. F. Company, The. 59 Hope's Windows, Inc. 219 Horn, A. C., Company. 211 Hudson Coal Company, The 25 ILG Electric Ventilating Co. 18
Insulite Company, The
Jonns-Manvile Bet. 10 & 17 Kaufman, H. J. Company, The 236 Kay Manufacturing Corp. 212 Kennedy, David E., Inc. Opp. 81
tonnou, buttu ta, and transferrence to the transfer

UYING INDEX

Kewanee Boiler Corporation. 217 Kimberly-Clark Corporation. 83, 169 Kinetic Chemicals, Inc. 159 Kinnear Mfg. Co., The. 68 Kitchen Maid Corp., The. 202	
Lasier Company, Norton	
Majestic Company, The. 194 Mengel Co., The. 63 Miami Chinet Division (The Philip Carey Company) 228 Michaels Art Bronze Co., Inc., The. 218 Miloor Steel Company. 155 Milwaukee Stamping Company (Bathe-Rite Division). 74 Minneapolis-Honeywell Regulator Co. 206 Minwax Company, Inc. 87 Monsanto Chemical Company Subsidiary (I. F. Laucks, Inc.) 179	
National Cotton Council of America	
O'Brien Varnish Co	
Parafine Companies, Inc., The. 24 Paranite Wire & Cable Co. (Division of Essex Wire Corp.). 146 Parsons Company, The (Afjilated with Traverse Bay Mig. Co.). 64 Payne Furnace Co. 208 Penn Salvanizing Co. 236 Permutit Co., The. 178 Philadelphia & Reading Coal and Iron Co. 237 Pittsburgh Plate Glass Company. 2.3, Opp. 80, 91, 148 Pittsburgh Plate Glass Company, Paint Division. Opp. 80 Polhemus, P. B. Co., Inc. 174 Ponderose Pine Woodwork. 77 Poropellair, Inc. 54 Pryne & Co., Inc. 24 Propellair, Sociation. 79 Propellair, Sociation. 79 Propellair, Sociation. 79 Provellair. 234	
Republic Steel Corporation. 37 Revere Copper and Brass, Incorporated. 88 Reynolds Metal Company. 189 Ric-Wil Co., The. 224 Rittenhouse Co., Inc., The A. E. 46 Robertson, H. H. Company. 60, 61 Rolscreen Company 192 Roper, George D. Corporation. 232 Rowe Manufacturing Co. 145 Russell & Erwin Mfg. Co. 168	
Seaporcel Porcelain Metals, Inc. 94 Sedgwick Machine Works, Inc. 216 Sisalkraft Company, The. 230 Smith Corporation, A. O. 58 Spencer Heater Division (Aviation Corp.) 222 Stewart Iron Works. 50 Star-Steel Division (Great Lakes Steel Corporation). 55 Surface Combustion Corporation. 182 Swartwout Co., The. 86	
Taylor, Halsey W., Co., The. 202 Tile-Tex Company, The. 198 Timken Silent Automatic Division (The Timken-Detroit Axle Co.) 105 Tomlinson 165 Traverse Bay Mfg. Co. (Affiliated with The Parsons Co.) 64 Truscon Steel Company. 41	
United States Gypsum Company	
Van Range, John, Co., The 62 Victor Electric Products, Inc. 72 Viking Manufacturing Corporation, The 0pp, 32	
Walworth Company. 181 Wasco Flashing Company. 58 Webster, Warren & Co. 16 Weis, Henry Mfg. Co., Inc. 158 Westinghouse Electric Elevator Co. 57 Westinghouse Electric & Manufacturing Co. 95, 177, 201 Wheeler Osgood Company. 47 Wheeling Corrugating Co. 223 While:-Rodgers Electric Co. 196 Williams Oil-O-Matic Heating Corporation. 231 Wood Conversion Company. 167	
York Corporation	

Specify MODERN Window Insulation



RUSCO PATENTED ALL-METAL Combination Screen & Storm Sash

Note... there's one magic word you can write into your plans that makes it possible for you to offer your clients more permanent comfort, convenience, protection and fuel economy than ever before! It's the word "RUSCO"!

Include it into all present and future specifications for homes, hospitals, schools, institutions, office and industrial buildings!

With RUSCO All-Metal Window Insulation specified you can give your clients all these extra, permanent, modern advantages:

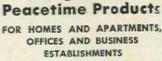
- year-round rainproof, draft-free ventilation
- self storage that eliminates all changing and storing of insulating sash and screen
- increased year-round comfort, cleanliness
- · increased efficiency of air conditioning systems
- lower maintenance cost
- permanent fuel savings up to 30%

RUSCO Windows are the *first* practical Insulating Sash for large buildings —"tailor-made" to meet your needs. They have provided outstanding service since 1937. Investigate them now! For complete engineering specifications see Sweets' 18a-7, or write direct for free booklet and name of nearest distributor.

AUDUU PATENTED ALL-METAL **COMBINATION WINDOWS** THE F.C. RUSSELL CO. • 1836-AF Euclid Ave., Cleveland 15, Ohio Filed in Stacks

Whether it's for the world's largest apartment development or for a single home

Look to the favorite Look to Frigidaire



Frigidaire



Household Refrigerators —in all sizes and models —including the famous Frigidaire Cold-Wall.



Electric Ranges-from small apartment models to full size deluxe cabinet models.



Fully-automatic Electric Water Heaters—in many capacities and models.



Home Freezers for freezing foods and storing frozen foods in the home.



Portable self-contained type Air Conditionersfor window installation.



Home Air Conditioners - complete in a single package.



Water Cooling equipment for all applications.



Self-contained, large capacity, Air Conditioners.



Refrigeration Cooling Units and Compressors for large refrigerators.

Get Free Conservation Booklet which tells how to care for and keep

which tens how to care for and keep existing equipment in good repair until you can replace it with new equipment. Get free copy from your Frigidaire Dealer. Look under "Refrigeration" in Classified phone book.

Or write Frigidaire, 412 Amelia St., Dayton 1, Ohio. In Canada, 324 Commercial Rd., Leaside 12, Ontario.

FRIGIDAIRE Made only by

GENERAL MOTORS

Peacetime Products

COMMERCIAL REFRIGERATION . AIR CONDITIONERS

BEVERAGE, MILK, AND WATER COOLERS

REFRIGERATORS . RANGES . WATER HEATERS

HOME FREEZERS . ICE CREAM CABINETS



VICTORY IS OUR BUSINESS!

Fairchild Aerial Surveys, Inc.

For Excellent

PARKCHESTER – built by the Metropolitan Life Insurance Company on 130 acres in the Borough of the Bronx, New York City. Parkchester was planned by the Company's Board of Design and constructed by the internationally-known firm of Starrett Bros. & Eken, Inc. The community contains 171 fireproof apartment building units. In every one of the 12,272 kitchens there is a Frigidaire Electric Refrigerator-the refrigerator made only by General Motors.



This precision protractor CHECKS TOLERANCES TO 1/2°! AND IT'S LUMARITH*X

PERFECT ALIGNMENT of blade pitch in warplane propellers is necessary to prevent excessive vibration. The aligning device-the complex precision instrument shown aboveconsists chiefly of Lumarith* X (high acetyl cellulose acetate), selected after exhaustive tests for its molding accuracy, dimensional stability and toughness.

There are 8 plastics parts including base, cogwheel, vernier, handle, bracket, bearings and pivot. This protractor must function to 1/2° and must be efficient within a temperature cycle of -58° to $+158^{\circ}$ F., a real tribute to the skill of die-maker and molder.

This kind of performance explains why Lumarith plastics are such favorites with fabricators. The wide range and scope of formulations not only assure materials individualized to the exact characteristics desired for end use, but also for precise dimensional control in molding and machining.

What are your design problems? Send for Celanese Plastics Designer's Booklet, or refer to Sweet's Catalog. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Ave., New York 16, N.Y. *Reg. U. S. Pat. Off

Dropped 60 feet to a concrete floor this Lumarith X propeller protractor was still workable although the metal frame had broken. Note that calibrations are molded in, not cut. Molded by Cruver Mfg. Co., Chicago, Ill.

A Celanese* Plastic

In Action is actualided . . .

garages are built again, this quality door will be obtainable for residential use, other structures of the armed services. The "OVERHEAD DOOR" is available now for governmental, industrial, and commercial installations; when new home unit to fit any size opening, it is used extensively in Coast Guard buildings and instant operation and uninterrupted service in all weathers. Built as a complete depend upon The "OVERHEAD DOOR" with the Miracle Wedge! It insures

TRACKS AND HARDWARE OF SALT SPRAY STEEL

COPYRIGHT, 1945. OVERHEAD DOOR CORPORATION

OVERHEAD

DOOR

CORPORATION

Hartford

Any "OVERHEAD DOOR" may be manually or electrically operated. Sold and installed by Nation-wide Sales – Installation – Service,

TED

KA UT REAL

City, Indiana,

U. S. A.

MIRACLE WEDGE

WITH THE

THE