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 LATH
This rigid cane fibre lath possesses exceptional plaster bonding strength of more than 1,000 pounds per square foot. It provides an insulating, sound deadening plaster base-beveled lap edges reinforce plaster, adding strength to walls. A continuous Lath, it leaves no lath marks. Size: ½" thick in 18" x 48" units.

It's good business to specify Celotex... 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.

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.

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

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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—3/4" or 1/2" thick; Perforated—⅜" thick.

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Celotex Vapor-Seal Lath
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Celo-Rok Weather Proof Siding
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Celo-Rok Anchor Lath Celo-Rok Plasters

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MAY 1945

NEWS

LETTERS

FORUM OF EVENTS

A new line of folding, weather-proof 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.

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 shortages and space limitations.

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.

HOUSES

A country house in Connecticut . . . Suburban house in California . . . a two-level scheme from Seattle, Wash . . . Britain experiments with steel construction.

PRODUCTS AND PRACTICE

Lighting the small home . . . a review of lighting fundamentals: illumination, brightness, contrast . . . in their relation to postwar design techniques.

BOOKS

Another technician's Utopia . . . does home ownership pay? . . . a social history of Scandinavia.

PREFABRICATION

All-masonry house is quickly assembled with prefabricated wall and roof units of light reinforced concrete.

BUILDING REPORTER

Seabees move water tower in vertical position . . . new products . . . technical literature.

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 floor 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. Ahlschloger.

WHEN WINDOWS occupy such a large percentage of wall area, as in this University Building, it becomes 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 OF GLASS IN PUBLIC BUILDINGS

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: Reinhart & Hofmeister and Harrison & Fouilhoux.

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"PITTSBURGH" stands for Quality Glass and Paint
Do These Facts Surprise You?

Two out of every three homes today have cracked walls and ceilings.

One home owner in every four says 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, 3/4" 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 Blue-Center.
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."

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 slums 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.
Chief, Is a member of the new "Committee on Period One" whose job is to work out relaxation of war controls.

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.

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 gullal 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 peace-time 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 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 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 set-up? 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 Housing 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 go-ahead 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. Hoping 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 it would 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; 6½ billion roof tiles, 1⅛ billion sq. yds. of glass, 12 million sq. yds. of wood, 260 million sq. yds. of boards, 45½ million doors, 6½ billion lbs. of cement, 13 billion lbs. of lime, 4½ billion lbs. of plaster, 949 million sq. yds. of tar paper, 2 billion lbs. of mastic, 1½ 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 reconstruction 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

BILLETS FOR BRITAIN

Strange spot in the London landscape are these asbestos hutsments, 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.
so far set up are barracks for Nazi-conscripted 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 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.

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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.”

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 fruits 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 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 risk-sharing offered private capital. First life insurance company to write FHA-insured 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 channeled up another home finance first, became the first national mortgage inventor 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 along 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)

AMIENS will be experimental proving ground for methods that will speed French rebuilding, Minister of Reconstruction Dautry promises.
there is some degree of actual annexation to the building.”

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

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 reshaped the U. S. city pattern. War industry has been located by the government with an objective over-riding all other considerations: speed of production. This has meant over-loading in many spots, ghost towns in others. This uneven pattern of industrial 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 Willamette 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 vice-president 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 peak, Vanport now shows about 17 per cent vacancy. With shipyard employment expected to shrink from 112,000 employees 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 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 responsibilities for directing postwar industrial location. According to the White Paper on Employment Policy, the British government will seek to “influence the location of new enterprises so as to diversify the industrial composition of areas which are particularly vulnerable to unemployment.” To this end, the government will put new emphasis 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-
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. Mil-

wauke'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 children 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 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 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. Long-range 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)
Wondering about the effect of radiant heating on concrete floors

It's no problem with BYERS RADIANT HEATING

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.


BYERS WROUGHT IRON
FOR EXTRA SERVICE
IN CORROSIVE APPLICATIONS
CORROSION COSTS YOU MORE THAN WROUGHT IRON
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.

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**AMERICAN LUMBER & TREATING COMPANY**

1647 McCormick Building, Chicago 4, Illinois

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**MONTH IN BUILDING: NEWS**

(Continued from page 10)

...development 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 low-rent 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)
It's Guaranteed for Life!

Every piece of Gerity chromeware is unconditionally 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.

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

GERITY-ADRIAN
ADRIAN, MICHIGAN

MFG. CORP.

This is "Dover," one of a series of brilliantly styled Gerity liners.
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.

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' 9¼".

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

Andersen Corporation
BAYPORT, MINNESOTA
A FRONT ROW SEAT FOR NATURE'S SHOW
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.

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

"In school heating, the different occupancy requirements of classrooms, study halls, dormitories, gymnasiaums and other sections—and often varying temperatures dictated by occupancies—present problems 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."

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 new 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 capita, 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 29½ billion feet. Last year's lumber output was 30½ billion board feet, about 4 per cent less than the year's consumption and 5½ 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 on record, showing, according to the newest wholesale price index, a 53 per cent increase over 1926 levels.

"As so often has happened during the last quarter century, the self-styled 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

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 NCB 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 housing conference 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 their estimated cost sheets. Nonpartisans muttered that a single private low-rent project would be more convincing than a mountain of planning estimates.

MONTH IN BUILDING: NEWS

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 29½ billion feet. Last year's lumber output was 30½ billion board feet, about 4 per cent less than the year's consumption and 5½ 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 on record, showing, according to the newest wholesale price index, a 53 per cent increase over 1926 levels.

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"STEAM Heats America"

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 for workers at the plant, which is expected to be in production by late summer.
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:

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

2. 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.
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 air-conditioning 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 light-reflection coefficient. An added feature is the exclusive J-M patented construction permitting interchangeability of flush-type fluorescent lighting and acoustical ceiling units.

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 marbled 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!"

**Careystone** 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 —

**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.
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.
HOW DOES ILG REDUCE INSTALLATION COSTS?

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

"Gives me two bathrooms 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.

American Radiator & Standard Sanitary
New York Corporation Pittsburgh

MAY 1945
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 RANGE 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.

EVEY 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.

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 war-tight 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. Structural tight. Rod and bar tight. (Continued on page 24)
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.
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.

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.

G-E MAZDA LAMPS

GENERAL ELECTRIC
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!

No investigation has been made by General Electric Company regarding the patent situation on the designs or construction suggestions shown in this advertisement.
Masonry products: Over-all supply is adequate, although shortages exist in certain areas. Inventory at very low level.

Concrete 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 employes 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 72½ cents an hour "to meet price competition." In June, 1942 the rate for this kind of work had been 67½ 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..."
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

MAY 1945
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 basement-less 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

LET THE PUP BE FURNACE MAN
"Is that the same roof construction we've used on our other buildings?"

"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 Cement Tile Co.
608 South Dearborn St. * Chicago 5, Ill.
For Over 38 Years * Sales Offices in Principal Cities
Gentlemen:

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 apartment 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 been using only six wheelbarrow loads of coal a day (24 hour period) whereas we had used more than twelve wheelbarrow loads for a 24 hour day before installation of the Winkler Stoker.

We are pleased to give you this information and if you ever need a recommendation you may refer to us.

Yours very truly,

(NAME ON REQUEST)

Everybody, these days, knows that stoker-firing reduces heating costs. How much, however, depends upon the efficiency of the stoker itself.

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

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 ordinary obstructions. If a metallic or uncrushable object should block the feed screw, 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.

ALL WINKLER MODELS ARE NOW AVAILABLE WITHOUT PRIORITY

WINKLER

fully automatic STOKERS

U. S. MACHINE CORPORATION • LEBANON, INDIANA

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 high-octane 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,
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. 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.
SNEAD & Company has specialized in the design, construction, and erection of commercial, institutional, and industrial metal equipment for almost a century. Installations in many of the world's outstanding buildings illustrate the high standard of Snead engineering and manufacture.

Snead Mobilwalls have for years been the accepted standard movable steel partition for office and factory buildings. Snead Wainscoting has revolutionized the construction of laboratories. Hundreds of the foremost libraries throughout the world are equipped with Snead Bookstacks, Study Carrels, Conveyors and Partitions.

The experience accumulated throughout the years in solving various problems related to metal equipment can be a source of help to architects and concerns planning 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.

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.

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Engineers, manufacturers and erectors of metal equipment

JERSEY CITY 4, N. J.
ORANGE, VA.
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 within walls. Insulite has anticipated this postwar problem by developing this wall before the need for it was widespread."

Write for complete technical data on the Approved Insulite Wall of Protection. The coupon will bring it by return mail.

MERTON E. GRANGER
Prominent Architect
Syracuse, New York

"INSULITE has anticipated a postwar problem"
says
MERTON E. GRANGER
Prominent Architect
Syracuse, New York

Recent example of Mr. Granger’s designing

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.

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"U.S." Naugahyde upholstery

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"U.S." Naugahyde's striking colors are wide in selection, delicate in hue, permanent in their never-dimming characteristics.

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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.

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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 unsuccessfully 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 AFOIL 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 toward appeasement.

Since January 1, 1943, TIME, LIFE, FORTUNE and THE ARCHITECTURAL 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. (1,460 freight carloads) less paper than in 1942. In view of the resulting shortage of copies, please share your copy of the FORUM with friends.
Viking offers proven equipment which can be relied upon to keep homes at the desired indoor temperature regardless of the elements. 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.
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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.
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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.

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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.

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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.

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MAY 1945
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.

P. & F. Corbin

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Toncan Iron is an alloy—with the highest rust-resistance of any ferrous material in its price class. It is made from highly-refined open-hearth 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."

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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 feasting of "1929-country-estate-neo-CapeCod-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 farm-house?

Woodstock, Ill.
William B. Fyfe

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.

Grand Rapids, Mich.
Roger Allen

MALMO THEATRE
Forum:
Congratulations on your diagram of the Malmo 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.

ARCHITETURAL 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)
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.

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When you specify Douglas fir interior doors FACTRI-FIT, you get a door that is completely precision-made—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 which are ideally adaptable to every type of building.

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.

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

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The physical comfort of adequate light and fresh air are important factors in progressive modern education. Incorporate these requirements into your school plans with Truscon Custom Built Double Hung Steel Windows. Particularly adaptable to hospital requirements, too, where adequate ventilation and daylight illumination are of high therapeutic value.

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.

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Series 138
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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.

FORD ROOFING PRODUCTS CO
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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

1) The Storagewall, shown as a non-bearing wall, could be adapted to support ceiling joists.
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.

"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.

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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-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.

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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 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.

Rittenhouse
Tomorrow's Better Door Chimes

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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.

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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.

NATIONAL ASSOCIATION OF ORNAMENTAL METAL MANUFACTURERS
209 CEDAR AVENUE, TAKOMA PARK, WASHINGTON 12, D.C.
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.

Tony Todaro
Honolulu, Hawaii

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

(Continued on page 54)
Builders' Foresight in the KITCHEN
Will Sell Many a Postwar Home!

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.
- 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

FOR EASIER SALES
Wire your houses FOR ELECTRIC RANGES

MAY 1945
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, CONNECTICUT

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 CORPORATION
GENERAL OFFICES—LAFAYETTE BUILDING • DETROIT 26, MICHIGAN
Designers and Fabricators
ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS
NOT ONE CENT
FOR REPAIRS
in Eight Years

Copper-melting fumes vanish like magic
Fans dispose of foundry heat and smoke

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

Burnady 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, Burnady'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 trouble-free 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"

---

LETTRES

(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 ¼ in. plywood covered with ½ 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)
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 home-building 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.

Think in terms of
STRAN 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

UNIT OF NATIONAL STEEL CORPORATION

MAY 1945
"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 and replacement costs.

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.
1 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.

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.

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

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.
Buried-in-Earth Tests Prove—
there is only one
PERMAGLAS

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

* * *

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)
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
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.

**Design and Fabrication**

- Calendar Cases
- Card Frames
- Check Desks
- Collapsible Gates
- Counter Railings
- Doors
- Elevator Cabs
- Entrances
- Gates Grilles
- Letters and Numerals
- Lighting Stands
- Marquise
- Name Plates
- Railings
- Safe Deposit Enclosures
- Signs Tablets
- Wickets

**In all Metals**

For details of Metalcraft Service, we refer you to Sweets 1945 Architectural File.

**Remember this name for quality workmanship and dependability**

**Cincinnati Metalcrafts Inc.**

DEPT. AF-545, 34TH AND ROBERTSON
CINCINNATI 9, OHIO

**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

**JOHN VAN RANGÉ**

**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 super-quality 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.

**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 Rangé Equipment for the Preparation and Serving of Food.

**The John Van Rangé Co.**

EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

Branches in Principal Cities

328 EGGLESTON AVE., CINCINNATI 2, O.
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.

"No messing with plaster when you use it"

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.

WELDWOOD Plywood

Weldwood Plywood and Plywood Products are manufactured and marketed by UNITED STATES PLYWOOD CORPORATION THE MENGEL COMPANY

New York, N. Y. Incorporated
Louisville, Ky.

Waterproof Weldwood, so marked, is bonded with phenol formaldehyde 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 Plywood, Inc. distributing units at Atlanta, Jacksonville, Louisville, New Orleans. Send inquiries to nearest point.
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 PRESTIGE OF RECOMMENDING ARCHITECTS.

Plan Parsons Pureaire Kitchens into every post-war 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  
LCN DOOR CLOSERS No. 614 SPECIFIED

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 2 1/2 square feet of wall surface with 30% less mortar joints than a wall made up of units of only 1 square foot... Up to 20% less plaster over the Pyrobar surface.

PYROBAR PARTITIONS
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 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
For Building • For Industry
Gypsum • Lime • Steel • Insulation • Roofing • Paint
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 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.

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.

Walter R. Hagedohm, A.I.A, architect, Los Angeles, Calif, says, "In this button-pushing age, adequate wiring is essential for the full realization of comfortable living through electrical conveniences."

Buy War Bonds and Hold Them
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.

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, Olgaivanna; Paul Nelson, who is arranging a building exhibit for France; Dorothy Liebes, the wonder weaver, and her fellow San Franciscan, Gardiner 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 James Bloomfield; Major Leslie Cheek, Museum Director turned warrior; "Norm" Wooters, the ice box tycoon; Roland Wank, looking things over for Albert Kahn; Richard Neu- trau, straight from Puerto Rico; Sgt. Will Burtin of the Air Corps; Caleb Hornbostel of Woman's Home Companion; Marcel Breuer, designer extraordi- nary; and the farmers' pin-up girl, Sara Bulette of Country Gentleman.—H. M.
Here is
a NEW
Structural Product

INDERON

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-all-trades" among structural materials.

INDERON is successfully serving the Army Air Corp 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.

Buffelen Lumber & Mfg. Co.
Tacoma 1, Washington

For Information, write
Chicago Sales Office
9 So. Clinton St., Chicago 6, Ill.

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!

WHAT WINDOW HAS THE TIGHTEST WEATHER SEAL?

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!
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

FITZGIBBONS STEEL HEATING BOILERS SINCE 1886

BUY AND HOLD
U. S. WAR BONDS
and STAMPS
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.
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.
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 collaboration 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 hum-ming 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 consumes 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 plaques 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 strod 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.

York Corporation, York, Pennsylvania.

Other Outstanding features
1. 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.
3. Pre-rotation vanes permit greater capacity reduction (down to 10%).
5. Simplified refrigerant shaft seal.

YORK REFRIGERATION AND AIR CONDITIONING
HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885
“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-to-handle 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 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.

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

Columbia WINDOW SHADES AND VENETIAN BLINDS

THE COLUMBIA MILLS, INC. • 225 FIFTH AVENUE, NEW YORK 10, N. Y.
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 how 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!

The "New Open House" contains valuable suggestions on using Ponderosa Pine doors, windows and woodwork for every room of the house. Profusely illustrated. A copy is yours for the asking—mail coupon.

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Chicago 2, Illinois
Please send me a free copy of "New Open House."

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Address: ____________________________
City: ____________________________Zone: __________State: __________

PONDEROSA PINE WOODWORK
THE BEST IS YOURS . . . WITH PONDEROSA PINE

MAY 1945
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.

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COLOR DYNAMICS

What 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 "Vitulized 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 unlimited.

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 extra 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.

15 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
FORUM OF EVENTS

POSTWAR DESIGN OF THE MONTH

Right in the face of those aviation long-heads who claim that in the peace to come a seaplane will be as obsolete as an antimacassar, 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 two-pronged piers. Ingenious docking devices for the planes, however, will offer the most blasé globe trotter a new travel experience.

(Continued on page 86)

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

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 ARCHITECTURAL FORUM
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.

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 one-fifth 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.

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

KIMSUL (trademark) means Kimberly-Clark Insulation

Wrap the postwar home in a KIMSUL blanket.
one of America's most Famous Cartoonists
BUILDS FUTURE SALES FOR THE
NEW COOLERATOR

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

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
A recent authoritative survey indicates that Aluminum Double-Hung Windows are especially adaptable for schools because light & ventilation can be controlled in a most practical manner by mounting 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-Hung Windows are a self-liquidating asset....

SPECIFY AND DETAIL

ALUMINUM
DOUBLE-HUNG
WINDOWS

THE ADAMS AND WEST LAKE CO. ELKHART, IND., U.S.A.
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

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AIRMOVER has greater exhaust efficiency because of reduced length of air travel through ventilator. Can be as wide as your roof... but never more than 32” high.

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Specialists in Air Movement by Natural Methods
A REPORT on the Performance of MINWAX WOOD FINISHES—
1937—"Efficient and Satisfactory for Schools"

Minwax Company, Inc.
11 West 42nd St.
New York, N. Y.

Gentlemen:
Answering your recent letter relative to my experience with MINWAX Flat Finish, would advise that we have specified it extensively for standard trim and paneling on school work throughout the local district and am satisfied that for Type "O" 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 been possible to get satisfactory results at a slight saving. These results have been played both as to appearance and as to the durability and effectiveness of the finish under conditions.

...very truly,
Chas. W. Connelly

CHAS. W. CONNELLY
ARCHITECT
RAILROAD BUILDING
CHARLOTTE, NORTH CAROLINA
December 30, 1937

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

DURABILITY—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

MINWAX WOOD FINISHES
Floors • Paneling • Trim

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Waterproofings • Dampproofings • Caulkings • Protective Coatings

MAY 1945
It was like water running uphill...

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.

REVERE
COPPER AND BRASS INCORPORATED
Founded by Paul Revere in 1801
Executive Offices: 230 Park Ave., New York 17, N.Y.
"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!"

"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!"

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!

This advertisement, in full color, appears in: House Beautiful, June; House & Garden, July.
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 ORANGEBURG—the root-proof, trouble-free, lifetime pipe for house-to-street sewer or septic tank connections and other non-pressure 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.

ORANGEBURG
The Root-Proof Pipe

WITH 20 YEARS EXPERIENCE IN THE MANUFACTURE OF NON-METALLIC CONDUIT AND PIPE, SERVES THE POWER AND LIGHT, TELEPHONE, GENERAL CONSTRUCTION, CHEMICAL, PETROLEUM, PLUMBING AND RUBBER SUPPLY FIELDS WITH ELECTRICAL FIBRE CONDUIT . . . ELECTRICAL UNDERFLOOR DUCT SYSTEMS . . . AND FIBRE PIPE FOR NON-PRESSURE USES.

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 upholstery 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. Taggee 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-
The Economical Insulation

PC FOAMGLAS

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.

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.

CHECK THESE PROPERTIES OF PC FOAMGLAS:
1. Permanent insulation
2. Vermin- and vaporproof
3. Fireproof
4. Waterproof
5. Light weight
6. Easy Installation
7. Rigid structure
8. Economical

FIRST COST IS LAST COST

Also manufacturers of PC Glass Blocks

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

This reroofing 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—indeinitely.

Pittsburgh Corning Corporation
Room 630, 632 Duquesne Way
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Dear Sirs:

Roofs... Walls... Floors...

Please send along my free copies of the booklets I have checked. It is understood that I incur no obligation.

Name: ____________________________
Address: _________________________
City: _____________________________ State: ___________________________

MAY 1945
The Challenge

HERMAN NELSON CORP.

JEFFERSONVILLE, INDIANA
MARCH 6, 1945.

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 POSSIBLE 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.
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.

A WAR TESTED FINISH FOR Tomorrows Buildings


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)

principal 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 portfolio 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


Eight special prizes were awarded to Eduardo Fernandez 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

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 WATER COOLERS

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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.
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
STUPENDOUS VIEW SERVES AS BACKDROP FOR STAGE. RAMP HOUSES AT EITHER SIDE OF APRON ARE THEATER’S...
Red Rocks Amphitheater, 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 Amphitheater is unquestionably an architectural triumph.
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.
MAC DILL FIELD, FLORIDA

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

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.

BUS SHELTER outside MacDill Gate, formerly a crude skeleton, gave no protection from the almost horizontal tropical rains. Baffle walls of vertical cypress siding take the place of original diagonal wind bracing. Posts form a trellis for vines.
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
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.
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 semi-divided 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 dining-living 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.
WS THE LAUNDRY (REAR), KITCHEN AREA, DINING SPACE AND SCREENED PORCH. NOTE SLIDING GLASS DOORS (RIGHT)

- Butcher block & work table
- Sinks for food preparation & dishwashing
- Range
- Buffet
- Screened terrace
- Laundry sink
- Cloth hanger
- Staples
- Garbage under
- Heavy storage under
- Refrigerator
- Cleaning closet
- Coat closet
- Utensil storage
- Ventilated fruit & vegetable storage
- Seat
- Deep-freeze unit
- Twin-way storage for dishes & glasses
- Drawers for linen, silver, etc.
- Brick floor
- Bookcase
- Sink for flower arrangement, preparation of drinks, etc.
- Hanging cabinet
- Brick floor
- Hobby space
- Desk
- Cooking grate

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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, is almost identical with the dish cupboards.
GLAZED, TWO-WAY CUPBOARDS SEPARATE KITCHEN FROM DINING ROOM, WITH OPEN SPACE BELOW FOR SERVING

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).
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
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.

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."

TWO 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

* Supervising Architect, Public Buildings Administration, Federal Works Agency.
† September, 1944.
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 MOMENT OF REST AFTER BATTLE, TO COMMEMORATE AN INTERLUDE 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!'"
HOUSE IN STAMFORD, CONN., designed by Bimel Kehm, is suited for work as well as living.

Occupied by Hildreth Meire, 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, it 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, dining 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 3½ 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.


CABINET AND TABLE, DESIGNED FOR THE HOUSE, COMPLEMENT EXPOSED ROCK WALLS
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
Photos: Phi

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 pattern without pretension 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:**
HOUSE IN SEATTLE, WASH. Architect Paul Thiry makes the most of a difficult approach.

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-to-ceiling 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.
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.

**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.
- **Electrical 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:** Weslx Heater Co.

**Bedroom:** Has a wall of floral paper, Thermax ceiling.

**Basement playroom:** Open at grade on two sides.

**Brick partition:** Extends beyond house to shelter entrance walk.

**Main Entrance Walk at Rear:**

Photos: P. A. Dearborn
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(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 foot-candles 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 interest-areas 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)
If it's to be painted insist on this
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MAY 1945
THERE IS A NEW TREND IN STORE DESIGN

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 white 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."

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BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

(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 sheet-like sheetmetal stamped with small holes which pass enough light to make the metal appear translucent. 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

"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.
2 SAVE UPKEEP CHARGES — Easy to clean—and to keep clean. No painting required.
3 SAVE MAN HOURS — Better light control insures better working conditions.
4 SAVE SPOILAGE LOSSES — No infiltration of dust or dirt.
5 SAVE REPLACEMENT COSTS — Panels of Insulux do not rot, rust or corrode.

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!

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.

OWENS - ILLINOIS

INSULUX

GLASS BLOCK

THERE'S A PLACE IN EVERY BUILDING FOR INSULUX
THE IDEAL
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.

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 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.

PRACTICAL TEMPERATURE RANGE
FOR RADIANT PANEL HEATING

FREEZING POINT

Temperature range through which water can be circulated

BOILING POINT

160°

70°

BELL & GOSSETT COMPANY
Morton Grove, Illinois
Canadian Licensee: S. A. Armstrong, Ltd.
115 Dupont St., Toronto

SEND FOR THIS DESCRIPTIVE BOOKLET
ON B & G FORCED HOT WATER HEATING

FORCED HOT WATER HEATING SYSTEMS

THE ARCHITECTURAL FORUM
In this design, advantage has been taken of the usual roof slope to allow a larger center feature window. Facing the street, the continuous shadow box for illuminated lettering permits effective night lighting.

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 -
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.

**GROUP NO. 1**
Skipper type, low cost showers
32 x 32 x 76

**GROUP NO. 2.**
Cadet type, medium priced showers
32 x 32 x 80
36 x 36 x 80
36 x 36 x 80 (corner)

**GROUP NO. 3**
Marine, Ensign type, for "above average" installations
32 x 32 x 80
36 x 36 x 80
40 x 40 x 80 (corner)

**GROUP NO. 4.**
Admiral type, de luxe class
32 x 32 x 80
36 x 36 x 80
40 x 36 x 80
36 x 40 x 80
40 x 40 x 80 (corner)

Glass Shower Doors. One standard size—24 x 72
Measurements conform to the American Institute of Architects 4" unit module system.

**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 (yellow). 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.
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 • Los Angeles 44, California • Kansas City 8, Missouri • Baltimore 24, Maryland • Rochester 9, New York

Milcor makes interior metal trim with an Insulmat lining that effectively minimizes sound reverberation.

Above: View of Veterans' Hospital, Dayton, Ohio, showing its three connecting wings. Below: View showing detail of the main entrance in the central wing.

Veterans' Hospital installation includes Milcor Metal Lath . . . Milcor Bull Nose Corner Beads . . . and Milcor Window Stools.
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 gas-fired 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.
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.

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 comforts 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 construction, highest grade materials, precision fabrication and efficient utilization of floor space. It's the "extra bath in a 3-foot square, or less". To meet wartime requirements, Weisway offers Models "V" and "V-deluxe", available immediately for homes, commercial and industrial installations, through the regularly established plumbing channels.
Another model "POSTWAR" PLANT


...completely air conditioned with "FREON" refrigerants

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.

SUPPORT THE MIGHTY 7TH WAR LOAN ... BUY BIGGER BONDS
Craw-Fir-Dor

SAVE Space and COST in Garage Construction

Requires only 2" of headroom above the opening. Saves from 12½" to 16" of sidewall construction on all four sides... from $9 to $35 in actual building costs.

PREFIT TO SIZE
One size only. Profit to standard 8 by 7 foot residential garage openings.

Attractive
Designed to blend with any style of architecture.

Strong
Made of durable Douglas fir, structurally strong!

Weatherproof
Panels are of Exterior plywood — the type used in PT boats!

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.

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.

CROSS BRACING prevents sagging or warping... makes York Doors structurally strong... rugged.

DOUBLE ROLLER SEAL with two water and grease-proof, wear-resistant gaskets insure perfect, enduring seal and prevent sweating and deterioration at the base.

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.

Send for the "Architects' and Engineers' Manual York Cold Storage Doors." It gives complete information—plus valuable tables and data for refrigeration plants.

York Refrigeration and Air Conditioning

Headquarters for Mechanical Cooling Since 1885

May 1945
BOOKS

Another technician’s Utopia . . . Does home ownership pay? . . . A social history of Scandinavia.

THE NEW CITY. By L. Hilbersheimer. Paul Theobold, Chicago. 191 pp. Illustrated. 11¼ in. x 12¼ 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

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.

RESULTS: NEAT TRIM CEILING JOISTS AT LOWER COST!

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.

30 YEARS OF EXPERIENCE IN REINFORCED CONCRETE!

CECO STEEL PRODUCTS CORPORATION

Concrete Engineering Division—5701 W. 26th St., Chicago, Ill.

MANUFACTURING DIVISION, SHEET STEEL AND WIRE DIVISION, HIGHWAY PRODUCTS DIVISION

ENGINEERING MAKES THE BIG DIFFERENCE IN CECO CONSTRUCTION PRODUCTS
May we interrupt...

If 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.

ELEVATOR COMPANY
OFFICES IN ALL PRINCIPAL CITIES
Surprising companions...

Choice pieces from different periods find lasting compatibility 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 Tomlinson

EXHIBITS

IN NEW YORK:
385 Madison Avenue

IN CHICAGO:
1666 Merchandise Mart

IN PITTSBURGH:
907 Penn Avenue

AND IN HIGH POINT,
NORTH CAROLINA
In planning post-war construction of hundreds of thousands of new homes, contractors will be forced to take advantage of every product whereby time can be saved without sacrifice of installation time, satisfactory service and dependable performance.

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 firsthand what the Grand Rapids Invizible Sash Balance will do for them.

These services are rendered without charge or obligation.

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.


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)
Double Thick Balsam-Wool Attic Insulation is ideal for both winter and summer comfort. In summer, the insulation prevents heat from penetrating into the house, thus lowering the "cooling load." This means that an attic fan gives better results by cooling the house faster and more economically.

In an "open" attic where the construction is loose and the "eaves" are open, it is necessary to install the attic fan in a suction box. The suction box may also be used to advantage in a "tight" attic.

The ceiling grille, location and size are first determined as suggested in Data Sheet K-1.

To reduce air and fan noises the fan should be placed back one fan diameter from the nearest side of the grille, but not closer than 3'. The unit should be placed over a partition or ceiling if possible, to prevent excessive vibration. The fan should be mounted on rubber cushions or suspended from the ceiling to reduce the "eaves" noise.

The cross section of the box should be as large as the intake grille opening or the discharge opening. All framing members should be placed on the outside of the "eaves" opening or the discharge opening. All framing members should be placed on the outside of the "eaves" opening.

When the fan is not running, the open grille may be covered by a hinged trap door which can be opened and closed by a rope and pulley from a closet in the room below. This trap door will also serve as a fire escape. The doors should have a 1½" hinged fan door, closed automatically in case of fire inside the house. An automatic shut-off device should be installed in the fan motor, which will close the trap doors immediately in case of fire.

The total net area of the exhaust openings in the attic should be not less than the net open area of the grille. If wall louvers do not give a sufficient net open area, additional openings may be made in the "eaves" opening.

Where screens are used over the louvers, they should be inspected and cleaned when necessary. In winter, louvers may be partially covered.

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 now—mail the coupon for a set of Balsam-Wool Data Sheets.
A hospital corridor is no place to play "boombooms-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 door-closer is a high-grade steel spring... it is checked by a piston in a cylinder filled with a special non-freezing liquid.
Whether you build PT Boats or Prefab Houses...

---

Your product can be improved

with a Kimpreg* Surface

A revolutionary new alloy-like material is achieved by fusing to plywood’s surface a cured plastic skin of KIMPREG. 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 KIMPREG, plywood is converted into an improved substance which can be machined, formed and fastened like ordinary wood—but has a plastic’s smooth, tough surface and beautiful, permanent, paintless finish.

KIMPREG adds the following advantages to plywood: 1) increases durability and flexural strength; 2) provides resistance to 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 KIMPREG-surfaced materials for your peacetime requirements.

Send Coupon for FREE KIMPREG Book to:
Kimberly-Clark Corporation, Neenah, Wis.

---

Among the users of KIMPREG are: Buffalo 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 Inderton.
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

ATLAS WHITE CEMENT
for FINE TERRAZZO

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 patriotism of owning a home.


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)
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
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.

**TYPICAL CRANE EQUIPMENT AVAILABLE NOW**

- Oxford Bathtub
- Yorkshire Lavatory
- Hanover Closet
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PLUMBING • HEATING • PUMPS
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NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS
Now you can double the appeal of glass in your post-war 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.
Here's good news! "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.

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APPLICATION ENGINEERS IN PRINCIPAL CITIES

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 politico-economic 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. 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.
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 wainscoting placed horizontally; the unusual design effect is achieved by vertical V-grooves, carried through from floor to ceiling.

In all cases, one basic rule applies: start at the openings with vertical joints and divide the plain wall spaces in an orderly pattern, as in detail A and C. Place vertical joints at each side of top and bottom of window and at top of door openings, as in detail A, C, E, and G. If the width of the door or window opening is over four 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 horizontally and apply the finish panels as desired.

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Tacoma 2, Washington

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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 delays; the same types and grades of Douglas fir plywood that are now being made will flow immediately into peace-time building and construction.

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Real Wood PANELS

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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

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.

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A MILLION HOMES A YEAR. By Dorothy Rosenman. Harcourt, Brace and Co. 303 pp. 9½ 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 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 everybody'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."
In most plywood mills a Rezite machine is used to treat panels. This is a flood-sprayer type of machine for the application of Laucks plywood treating solutions.

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 treatment of sash, doors, etc.

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 Quonset arches pictured. Quantities of stock handled per immersion are comparatively small.

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 pantoone 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?

SUBMERGING WEIGHT SCHEDULE

<table>
<thead>
<tr>
<th>Wood</th>
<th>Sub. Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>W. R. CEDAR</td>
<td>1920 2700</td>
</tr>
<tr>
<td>MAPLE</td>
<td>2703 1920</td>
</tr>
<tr>
<td>FIR</td>
<td>2250 2400</td>
</tr>
<tr>
<td>RED OAK</td>
<td>3669 960</td>
</tr>
<tr>
<td>PINE</td>
<td>2250 2400</td>
</tr>
<tr>
<td>COTTONWOOD</td>
<td>2330 2300</td>
</tr>
<tr>
<td>BIRCH</td>
<td>3669 960</td>
</tr>
</tbody>
</table>

[Weights per M. board feet of lumber at 12% moisture content]

I. F. LAUCKS, INC.

In the West:
Seattle, Wash.
Los Angeles 1, Calif.

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May 1945
A four-hour fire failed to destroy this Ferro-Therm insulated house.

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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 all-metal: (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.

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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.

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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.

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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.

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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.

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... 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.

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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."

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Division of THE TIMKEN-DETROIT AXLE CO.

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All-masonry house is quickly assembled with prefabricated wall and roof units of light reinforced concrete.

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 spectacular 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.)
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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 @ 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.

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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 1/2 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 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 withstand­ ing 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 2 1/2 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
Tomorrow’s new towns & villages will use a lot of R301*

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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 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.

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.

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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.
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 gardener with two assistants. Based on past prefabricating experience Hayes estimates that one eight-man 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 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 an inconspicuous wood molding.

(Continued on page 196)
Fenestra Building Panels, laid in long spans from beam to beam, provide excellent surfaces for both ceiling and roof. The top surface is ideal for application of whatever roofing material you prefer. The under surface gives you a smooth, eat appearing paneled ceiling—which requires no finishing other than a coat of paint. That means lower construction cost—lower maintenance.

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This door, custom-built by Crawford, is a four-section, two-car unit, mounted in Crawford standard hardware. The sections consist of a sturdy framework covered with plywood in which the design is reproduced by routing.

- 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.

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 wallpaper 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 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 weather-tight sill.

Buildings are not limited to a single size as the factory forms are adjustable and can make various sized panels. Hayes 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.

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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. 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.

FIND YOUR QUOTA . . . AND MAKE IT!

<table>
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<tr>
<th>IF YOUR AVERAGE WAGE PER MONTH IS:</th>
<th>YOUR PERSONAL WAR BOND QUOTA IS: (CASH VALUE)</th>
<th>MATURITY VALUE OF 7TH WAR LOAN BONDS BOUGHT</th>
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<td>18.75</td>
<td>25</td>
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In cooperation with the 7th War Loan, THE ARCHITECTURAL FORUM contributes this page to present this message.
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This striking new booklet — planned by Virginia Hart, eminent kitchen consultant — will be of great value to you. Many illustrations 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.

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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 individual 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.

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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.

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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)
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.

"First tiling my architect's gonna put in my post-war home is a Color Balanced Suntile bathroom. It's WEATHERPROOF!"

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** THIS SERIES IS BASED ON AN IDEA SUGGESTED IN LETTERS WRITTEN BY CPL. LOUIS A. PERKOVIC OF THE ARMY ENGINEERS IN THE SOUTH PACIFIC **
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.

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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.
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.

A 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.

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FOR ORNAMENTAL WORK

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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.

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Lifetime comfort is assured by PAYNE gas-fired warm air heating . . . choice of tens of thousands of discriminating home owners, coast to coast.

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Successor to old-fashioned central heating. Circulated winter warmth, summer ventilation . . . controlled by zones or rooms. Write for new booklet.
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.

For modern floors and walls
NAIRN LINOLEUM
easy to maintain, colorful, permanent, resilient
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 Swee's for complete information about all O'Brien paints.
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
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

DELANY FLUSH VALVES ARE NOW MADE OF BRASS

SINCE 1879
Coyne & Delany Co.
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.
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 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 use.

(Continued on page 208)
THE BEST LAID PLANS

Include...

...fire protection engineered by CARDOX

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 ¼ to 125 ton capacity. Thus, an ample quantity of liquid carbon dioxide is available for mass application in planning fire extinguishing facilities engineered for maximum protection of the specific hazards involved.

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 post-war building plans are invited to draw on the Cardox Research Division and Engineering Staff for practical cooperation in planning fire extinguishing systems engineered for maximum protection of the specific hazards involved.

CARDOX CORPORATION
Bell Building • Chicago 1, Illinois
New York, Washington, Detroit, Cleveland, Atlanta, Pittsburgh, San Francisco, Los Angeles, Seattle

Cardox CO₂ is supplied instantly in pounds or tons from a single Storage Unit containing 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!

*Proven a product of the Dow Chemical Co.

LUMITE

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

MAY 1945
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 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.


BUILDING REPORTER
(Continued from page 212)

signs in industry, and is available in any desired color. It is bright, moisture-proof, weatherproof, stainproof, fire-proof, 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.


How Much Efficiency 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-Travlers — all designed to solve "man" handling and material handling problems through greater operating efficiency.

New Elevator and Dumb Waier 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 specification-writing phase of his work.

SEDGWICK MACHINE WORKS, 140 W. 15th St., New York 11, N. Y.
ELEVATORS • ROTO-WAITERS • SPECIAL LIFTS • DUMB WAITERS

(Continued on page 220)
Cut-away View Kewanee Hi-Pressure
Firebox Series. Also for Oil, 
Gas or Stoker Firing

For Heating 
Power and 
Process Steam

Kewanee Boilers

Heavy Duty STEEL

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 proportion­
ing 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
KEWANEE, ILLINOIS

Branches in 60 Cities—Eastern District Office: 40 West 40th Street, New York City 18
Division of American Radiator & Standard Sanitary Corporation

MAY 1945
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
The steel casement windows whose originality in arrangement contribute so much to the distinction of this building are the product of our custom department. The long experience of our engineers is always at your service.

HOPE'S WINDOWS, INC., Jamestown, N.Y.
BACK THE ATTACK BUY WAR BONDS
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 air-driven 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 surfaces, 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.

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.

Agents—Chicago, Indianapolis, St. Louis, Nashville, Houston, Los Angeles, San Francisco, Seattle; Toronto and Montreal, Canada.

Platers—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

STORAGE CONTAINERS

Transparent plastic tubing is used for blueprint containers.

Texit transparent tubing prevents blueprints from becoming frayed and torn while in storage at the Curtiss-Wright Corp. It also keeps the blueprints dust-proof 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)
Want to keep your new home from getting you "out on a limb"?

...then here’s a money-saving tip

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 3000-year 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!

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.
MEMO

Joe-
Remember to specify
Wheeling
Metal Lath!

-Jim

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 surfaces and excellent finishes. Also remember the Wheeling line has been augmented by Steelcrete Expanded Metal.
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 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 1/8 in. through 2 in. diameter. Two sizes for wall thickness are supplied, one to accommodate 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.


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 boilers—which, 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

Skip Tooth Band Saw

Designed for easier, faster cutting of non-ferrous metals, plastics, wood, etc.

The Barnes Skip-Tooth Band Saw provides 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 non-ferrous 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.


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.

(The Technical Literature, page 230)
Is There a Fireman in the House?

SHEETROCK Fireproof WALL and CEILING PANELS

You can't build a live fireman into a house, of course. But you can build in fire protection with Sheetrock wall and ceiling panels. Sheetrock is made of gypsum, the fire-resisting 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 Wood-grained 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.

Sheetrock and Perf-A-Tape are trademarks owned by the United States Gypsum Company

United States Gypsum

For Building • For Industry

Gypsum • Lime • Steel • Insulation • Roofing • Paint
Clients will thank you for this new kind of bathroom...

TWIN-DUTY

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 "Save-for-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.

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-latex bubbles...millions in a seat. Each is a tiny air 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.

Who first made something of a "hole-in-the-wall"?

**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" 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—

**THE MIAMI-CABINET DIVISION, MIDDLETOWN, OHIO**

**Asbestos Shingles and Siding**
**Asphalt Shingles and Roofings**
**Careyduc • Industrial Insulations • Rock Wool Insulation**
**Asbestos Shingles and Siding • Asphalt Tile Flooring • Expansion Joint**
**Built-up Roofing • Roof Coatings and Cements • Waterproofing Materials**
**Asbestos Wallboard and Sheathing • Corrugated Asbestos Roofing and Siding**
**Miami-Carey Bathroom Cabinets and Accessories**

**THE PHILO CAREY MANUFACTURING CO.**
**LOCKLAND, CINCINNATI 15, OHIO**

**NO SAG—NO WARP—NO STICK.**
Miami-Carey was first with piano-type hinges and one-piece mirror frames.

**ROSETTES "WENT OUT" when Miami-Carey introduced the mirror clip—now standard in the industry.**

**CONCEALED LIGHTING — another Miami-Carey first in beauty and convenience.**

**THE ROUND MIRROR CABINET — another Miami-Carey first.**
Continuous Field Trips
Right in the Classroom

with 16 mm. motion pictures

New living, moving worlds of sound, motion and color are brought to our very classrooms through 16 mm. sound films! Vivid and exact impressions are etched deeply into the minds of our students through both the ear and eye. Social horizons are widened without leaving the classroom. The scope of this unique type of "field trip" is limitless. History, government, industry, human relationships... are presented authentically and dramatically! Educators recognize that 16 mm. motion pictures are essential to the development of tomorrow's CITIZEN OF THE WORLD.

Although Ampro 16 mm. sound projectors may not be available 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 Cine Equipment

Chicago 18, Illinois

A General Precision Equipment Corporation Subsidiary

MAY 1945

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TECHNICAL LITERATURE

(Continued from page 224)

GRANITE. Fletcher Granite Products, Bulletin No. 3, 9 pp., 8½ 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 applications. 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.

RADIANT HEATING. How to Choose a Heating System for Your New Home, 16 pp., 8½ 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., 8½ in. by 11. This folder describes and illustrates the PAX modem 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, III.

ELEVATORS—DUMB WAITERS. Sedgwick Standard Specifications for Elevators and Dumb Waiters, 24 pp., 8½ 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, 16 pp., 5½ in. by 8½ 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 POSTWAR HOME CAN HAVE THE ADVANTAGES OF EFFICIENT AUTOMATIC OIL HEAT WITH WILLIAMS OIL-O-MATIC

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MECHANICAL AND ELECTRICAL EQUIPMENT. Mechanical and Electrical Equipment for Buildings, Second Edition, 453 pp., 5½ in. by 8½ 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 characteristics 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 ORIENTATION. Heating the Home, Central Heating Systems: Solar Orientation in Home Design, 12 pp., 4 pp., 8½ in. by 11 in. "Heating The Home," presents in non-technical 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.


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.

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