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VOLUME 82, NUMBER 4

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materials have been satisfied.

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General Electric Company, Heating and Air Conditioning Divisions, Section 5134, Bloomfield, N. J.

T BUY ... and hold ... WAR BONDS



Tune in: The "G-E HOUSE PARTY" every afternoon Monday through Friday, 4 p. m., E W T, C B S . . . The "G-E ALL-GIRL ORCHESTRA." Sundays, 10 P. M., E W T, N B C . . . "THE WORLD TODAY" News, Monday through Friday, 6:45 P. M., E W T, C B S

"My Postwar Thinking Starts Here...

AS AN ARCHITECT, I begin by remembering that I've spent a good many years in building up my reputation. I have learned that satisfied clients are essential to maintaining my business.

When L-41 is liberalized, it seems inevitable that there will be a rush of home repair and modernization. Then the pentup demand for new and better homes will descend upon us.

As always, clients are going to expect originality and sound planning. But more than ever before, I believe they are going to insist upon specifications of dependable materials.

That is why I'm going to rely upon my old manufacturer-friends, the firms with the tested and proved



The permanent solution to cracked plaster is Upson Panels. One home owner in every four says cracked plaster needs attention, according to the Reader-Consumer Panel of The American Home Magazine.

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products who have served me efficiently and well in the past. I know they will have improved products after the war. For that reason I will need a considerable amount of new information on which I can rely.

From firms who understand how to work with architects, I know I will get that kind of cooperation."

That is the way a good many prominent architects are talking to us these days. Their reasoning makes such good sense we wanted to pass it on to you. The Upson Company, Lockport, New York.



PACEMAKER IN

NEWS... Congress ready for housing plunge (this page) ... Government spearheads Britain's housing (page 8) ... The packaged mortgage arrives (page 9)... Advance planning funds (page 10) ... Inflation threatens veterans' loans (page 10) ... Illinois moves on blight (page 16).

REVIEW

Glittering war news this spring produced no booming talk of reconversion -for building or for any other industry. Building still had war work to do-and the job had been lagging for two months, while legislation extending the Federal Housing Administration's insurance ceiling slowly moved through Congress. Late in March the bill assuring another \$100 million worth of private war housing was on its way to the White House, and FHA hurried to wire its field offices to start processing stacked-up applications for mortgage insurance. But the big news was not in the headlines but in the heads of building men. And it could be written in one word-controls: material controls, labor controls, rent controls, price controls. How long would they stick? No one looked for early relaxation. But 1,000 veterans a day were coming home. Where would they live? German collapse was impending and cut-backs inevitable. And all over the country there was mounting public pressure that sooner or later would find its way to Capitol Hill.

Lack of new construction and inflated prices of existing property blocked the veterans' home loan program. New Economic Stabilization Director Chester Davis was more ready to ask for than Congress was to grant a capital gains tax that would deflate the booming real estate market by wiping out profits on sale of properties held less than two years. To New York's swank Gracie Square booming real estate buying brought the first co-operative apartment deal for years. At month's end the Senate Banking Committee thumbed down control of climbing commercial rents.

All over the U. S. cities, big and little, were settling down solidly to the job of measuring postwar building need, mapping action to meet it. Rochester, N. Y. surveyed building trades apprentice openings, planned to have jobs waiting for veterans. Michigan and Illinois state legislatures contemplated bills that would help private capital to get to work on rebuilding. In Biloxi, Miss. a Methodist bishop announced plans for a threestate Methodist center, fronting on the Gulf and including a hotel, "glassed-in" auditorium, and a short-wave radio station directed to Central America. Maryland's governor asked the legislature to approve a \$121/2 million hospital and school building program. In Detroit, the proposal of Communities Redevelopment Corp. to undertake a \$50 million redevelopment project on land acquired by the city (ARCH FORUM, Dec., '44) brought an enraged picket line to the City Hall. "We will not be moved," shouted residents who do not like to have their neighborhood called a blighted area. One of the great insurance companies decided that FHA is no longer "experimental," will now push these mortgages.

Doubled-up Britishers, some of whom now call the London tubes home, applauded the government's announcement that a half-million houses would be a-building within two years after V-E day. Already British builders were having a look at a sample of the 30,000 U.S. prefabs they will soon be asked to put up, and Federal Public Housing Authority's William Seaver was on hand to stage the demonstration. In Moscow, too, U. S. prefab had the spotlight, as the Architects Club gathered in mid-March to view a photographic exhibit introduced by Ambassador W. Averell Harriman. In Detroit, Frank Lloyd Wright offered a news note that may interest Tokyo: the Imperial Hotel, he said, can be wrecked "only if they put the bombs down the chimney."

WASHINGTON

HOUSING AHEAD

One Sunday morning early in March a good many housers, builders and real estate men looked at the New York Times, blinked, looked again. Frontpaged was veteran real estate editor Lee Cooper's tip-off that the "biggest program of public housing, urban redevelopment and rural home improvement in the nation's history" is on its way to Congress. Said the Times: The legislation would call for subsidies of \$110 million annually during the first three years after the war. This would include continuance of present subsidy to maintain low rents in existing public housing; additional contributions to postwar

NEWS



SENATORIAL COALITION BACK OF HOUSING LEGISLATION: Murray, Ellender, Wagner, Taft.

COOPER scoops to conquer

projects; rehabilitation of structurally sound urban housing; rural slum clearance: millions in annual aid to cities for urban redevelopment projects in which private builders would participate.

The bill would start 400 cities on \$1 billion worth of low rent public housing. It would open the way for local housing authorities to obtain 100 per cent private financing of all their projects. It would be sponsored by Senator Robert F. Wagner (Dem., N. Y.), Senator Allen J. Ellender (Dem., La.), and Senator James E. Murray (Dem., Mont.). Developed in conference between these legislators, federal housing agency chiefs and National Public Housing Conference executives, it was also "reported to have the endorsement of the National Committee on Housing, headed by Mrs. Samuel I. Rosenman."

By Sunday afternoon Mrs. Rosenman was busy sending telegrams denying that she had ever seen the bill. Senator Wagner's secretary called Senator Taft to say that her boss had no plans to sponsor such a bill, but the line was busy because so many people were telephoning questions to Senator Taft. By Monday morning most of the Na-Housing Agency's top ex-

ecutives were issuing denials right and left. But smart Lee Cooper, who exposed New York's building black market and has to his credit dozens of other housing news firsts, stuck to his guns. And the only conferee not heard from in Monday's burst of denials was the National Public Housing Conference.

Cooper's report followed closely a draft of proposed legislation prepared and widely circulated by NPHC. It also followed proposals for broadening the government's housing operations made to the Taft Committee by Federal Public Housing Authority Commissioner Philip Klutznick (ARCH. FORUM, Feb., '45). There was no doubt that the new public housing objectives covered by the disowned legislation were those on which both the housing agencies and influential Congressmen had found a broad area of agreement. Rumor had it that general embarassment occurred because the proposals had not been checked with the White House.

But the real news behind the news that housing legislation is in the offing was better still: Ohio's stalwart Republican Senator Robert Taft had agreed on housing legislative objectives with New Dealing liberal Senators Wagner and Murray, and with the Deep South's political son, Senator Ellender. Outlook is that housing legislation

> agreed upon by these key Congressmen will take the form of an omnibus bill covering a lot of ground (as predicted by THE FORUM, Feb., '45). It is expected to: Continue co-ordination of federal housing agencies under the National Housing Agency or under a comparable administrative board set-up.

> Encompass the various public subsidy programs described by the Times.

Include new proposals enabling private enterprise to reach farther down in the lower-priced field.

Direct that maximum planning be done at the local level.

Obviously, such a comprehensive bill, offering something to all warring sectors of the housing field, would divide opposition. Backed by the powerful Taft-Wagner coalition, it would have an excellent chance of getting through Congress. But much work remained to be done. Next month the National Housing Administrator will talk to the Senators back of closed doors on precise mechanisms (vield insurance is a favored formula) that might be used to help private capital tackle low cost housing.

LABOR

Construction workers who move from job to job get high hourly wages-sometimes as much as \$2 an hour. But in 1940 half (200,000) of all "free-lance" construction workers earned less than \$600 each. Some 98,000 earned less than \$1,000 and only 14,000 (3 per cent) earned \$2,000 or more. Workers emploved on contract construction or maintenance get only slightly better yearly earnings. Of 90,000 workers, more than half had earnings of less than \$1,000 each in 1940.

Suffering more than any other industry from seasonal and cyclical fluctuation, Building has never found the way to provide year-round employment for its labor or its equipment. Building economists have long argued that a guaranteed annual wage is the best way to end restrictive labor practices that help to keep building costs high. In 1941 THE ARCHITECTURAL FORUM, charting Building's postwar objectives, said that the industry must offer labor an annual wage based on a lower hourly rate. But the giant construction industry is made up of hundreds of thousands of small contractors who lack the capital to maintain year-round building organizations. Nor have building trades workers, cautiously clinging to high hourly wage rates, generally shown much willingness to compromise. The drive for a guaranteed annual wage has been spearheaded by the three big CIO unionssteel, automobile, electrical and radio workers-and by United Mine Workers, all of them operating in industries where large capital accretions hold the promise



that year-round employment may someday be written into a union contract.

But, as President Roosevelt asked the Office of War Mobilization and Reconversion to take a look at this explosive reconversion issue, there were signs that a guaranteed yearly wage would have support from some progressive AFofL building tradesmen, notably the International Brotherhood of Electrical Workers.

Building opinion has been as split as opinion in any other industry, which ranges from U. S. Steel's Benjamin Fairless—"impractical and illusory"—to the U. S. Chamber's Eric Johnston—"Industry must take the lead in securing regularized operations and steadier employment... It is a mistake to force annual wages down the throats of management by government order." Few were ready to offer a tailor-made solution to fit Building's obstinate bumps. Tentative beginnings proposed were:

Use of public works as an experimen-

tal laboratory for working out a yearround employment plan that might eventually apply to private enterprise. Organization of co-operative builders groups like the 16-member firm in Oklahoma City (Allied Builders, Inc.), who would be able to team together in signing a contract for year-round labor.

Some thought that fluctuation in Building employment would always be as inevitable as weather. But meat packing is a highly seasonal business (cows and houses take longer to rise to meet demand than any other commodities) and the Hormel Packing Co. is one of a half-dozen U. S. industries now operating under an annual wage plan. Hormel's 5,000 workers take days off in slack time, make them up by working overtime in busy season. Labor turnover, as high as 55 per cent before the year-round plan, was less than a half of 1 per cent in 1940.

Whether, as cynics were quick to point out, the President's order for an annual-

INS

wage study was merely a token gesture to restive labor, OWM had chosen a study team not likely to hide its light under a research bushel: Eric Johnston, CIO President Philip Murray, National

"We ought to make a brand new America every generation, replacing all the obsolete plants, old schools, houses, hospitals and everything else made of brick or mortar in a planned way over every thirty years."

-BEARDSLEY RUML, economist

Grange Master Albert Goss, N. Y. State Manpower Commission's Anna Rosenberg. While stable employment in Building might have to wait for an answer to many larger problems, one thing was clear: a guaranteed annual wage in manufacturing industries would go far to stabilize demand for housebuilding, core of construction. Sample: 80 per cent of all Hormel workers are home owners.

PAST IMPERFECT, FUTURE?

When delegates to the United Nations Security Conference assemble in San Francisco next month, they will find much about the buildings chosen for their sessions to make them feel at home. Plenary sessions will be held in the civic-owned opera house and section conferences in the adjoining and almost-identical veterans' building (below), both designed by Arthur Brown, Jr. and Albert Lansburgh. Built as living war memorials after World War I, the buildings are products of the classic monumentality that shaped many of Europe's state buildings-as ponderous and outdated as the diplomacy they house. These characterless replicas of Europe's past have their counterparts even on Moscow's Red Square, while the domed City Hall, which they flank, will remind Londoners of St. Paul's. There is no report of a plan to use the cloud, thunder and wind machines which are part of the equipment of the 3,285-seat opera house. All guests not registered as permanent will have to leave the city's six leading hotels before April 25.





NEWS



OVERSEAS

BRITAIN'S WAY

Housebuilding in Britain has been at a standstill for six years. Meantime, over two million homes have been damaged by Nazi bombs; of these, nearly onehalf million have been totally destroyed or made uninhabitable. Two out of every three London families are doubled up. Britain's prewar building labor force amounted to one million, now only 337.000 workers (with a little help from U. S. Army Engineer battalions) are available for essential bomb damage repairs. These are the reasons why housing in Britain is not an abstract part of somebody's postwar plan but today's hottest political issue.

A month ago the new Minister of Works, young Duncan Sandys, Conservative son-in-law of die-hard Conservative Winston Churchill, faced an irate House of Commons. "When are you going to stop dithering and produce policy?" members demanded. Even Conservative back-benchers, with an anxious eye on the postwar election, harrumphed a motion censuring the government for its failure to announce a housebuilding program.

Last month the Prime Minister's "housing squad" was out in force. To Minister of Reconstruction Lord Woolton, whose merchandising ability had been amply demonstrated*, fell the task of announcing at last what the government expects to do about housing. No partyman ("While I remain in office I am not going to have anything to do with any of your political parties"), Woolton is an ideal spokesman for the coalition government's present efforts to promise postwar "food, work, and homes for all."

11/4 Million Houses. "Homes for all," according to last month's clear-cut definition of the British government's intentions, means a separate dwelling for every family who wants one—or 750,000 new houses. It also means rapid progress in rebuilding slum areas—500,000 additional houses.

To make a start on this 1¼ million housebuilding program, the first two years after V-E day will be considered a "national emergency when exceptional measures must be taken to meet the housing shortage." At the end of this period, the government promised, there will be 300,000 permanent houses built or building and 200,000 temporary houses ready to move into.

* First as an executive of a department store chain, next when as Minister of Food he kept Britishers bappy on an austerity diet.



Price Control. Lord Woolton had earlier warned Parliament: "An inflated building program is only going to mean inflated prices." Building costs, already double their prewar level, are second only to labor shortage as a threat to Britain's ambitious housing plans. To check climbing costs, the government will control the volume of contracts let both by local authorities and by private enterprise. It will control the price of materials and equipment. Even with these measures, the White Paper anticipates the necessity for direct subsidy of privately-built houses that conform to standards set by local authorities. Clearly, the government would be the No. 1 customer in Britain's postwar housing market.

Prefab will play a big part in meeting the British building schedule-both for permanent and temporary houses. But it will probably not be the steel Portal prefab designed by the Ministry of Works (ARCH. FORUM, June, '44). Booed by both Parliament and the public as a "shack" and an "eyesore," production of the all-steel house has also been blocked by the lack of plant capacity and materials, which could not be released from munitions production as early as the government had optimistically predicted. Instead, private British firms have been invited to erect experimental groups of prefab houses. The most promising systems will be put into large-scale production as soon as possible.

Temporaries Opposed. Most ticklish part of Britain's immediate housing job is the temporary program. Local authorities argue that temporaries will pre-empt sites, delay permanent building. Already the Federation of Master Builders has mobilized against both prefab and



BRITAIN'S BUILDING MEN (L. to r.): Duncan Sandys, Minister of Works, looks over the site of an emergency housing job in which U. S. Army engineers are lending a hand. Lieut. General Sir Frederick Pile gets tough job of delivering emergency housing on time. Lord Woolton, Minister of Reconstruction, sets Britain's goal as more than one million houses, for which the government will be No. 1 customer, a program backed by all parties.

temporary construction, urging instead brick or concrete "two-room maisonettes, built four in a block, with prefabricated interiors."

Already the Prime Minister's initial promise of a "half-million emergency homes for heroes" had shrunk to the official program of 200,000, for which the government expects to spend more than \$500 million. Shipment of 30,000 U. S. prefabs will help out (see page 20). More may come from Finland and from Sweden. Hope is that a prefab system of permanent construction may be developed in time to substitute for some of the temporaries.

Man for the Job. But the government knows that Britain's bombed-out families want housing in a hurry. Late in March Duncan Sandys called in his one-time senior officer, jockey-sized Lieutenant General Sir Frederick Pile. To convention-smasher General Pile, whose antiaircraft defense brought Britain through the blitz, went a job that would call for the speed in which he is a specialist: production, transport, erection of temporary houses.

Back to Parliament went Minister of Works Sandys with a promise and a warning. The promise: 800,000 men will be at building work within the first year after end of the war in Europe. A way may be found to bring women into the industry. Prisoner-of-war labor may be used. The warning: "If the country expects the housing problem to be tackled at a wartime pace, it must also be prepared to accept wartime methods, inconveniences and interferences. All parties affected-employers, operatives, trade unions, local authorities, professional bodies and private citizens-all will have to make some contribution and some sacrifice."

CASSINO REBUILDS

Life

First reconstruction to be completed in war-devastated Europe is the housing project which marks the rebirth of Cassino, Italy. Just one year since the historical assault on this seacoast city reduced it to ruins, the new group of houses—gray plaster walls still damp, brick floors unswept and hearths as yet unlighted—was dedicated in an impressive ceremony attended by premiers, ambassadors, archbishops and the 81year-old abbot of Monte Cassino Monastery.

Prospective tenants for the new living quarters which will house nearly 100 families, were not present, however. They were still in Calabria or Sicily, evacuation centers which have temporarily absorbed Cassino's 7,300 inhabitants. Priority on the new houses will go to those who cannot remain with friends and to skilled workers who can help in the gigantic reconstruction job.

BUILDING MONEY

RISKLESS HOME OWNERSHIP

The New York and Suburban Federal Savings and Loan Association on Manhattan's upper West Side is a small bank (assets about \$3 million) where you can walk right in and talk to the executive vice-president without waiting. Bernard Jones, an easy conversationalist who very quickly seems like an old friend of the family, is a lender wellback-grounded in both the burdens and the bonuses of home ownership. In a life-time of work with the home mortgage, Jones has felt rather keenly the many inefficiencies of this old-fashioned financial tool. A few months ago he became the first lender in the country to Dave Robbins

JONES knows his best customers

offer a mortgage which ties in one package many long-promised aids to home ownership.

Jones' mortgage will protect buyers against the three major causes of foreclosure (unemployment, sickness, the

NEWS

burden of too-many high-interest equipment loans) by offering:

▶ Home equipment: refrigerator, washing machine, electric ironer—even an electric clock on the kitchen wall may be included in the loan. "Why shouldn't we give people a packaged house? You don't buy an auto stripped down. Money paid out on extra loans to finance equipment hurts us, hurts any mortgagee."

Additional advances to cover modernization and equipment at no extra charge up to the original amount of loan (anytime after three years). "This means getting your money out to work with the best customers you have."

Sickness and accident insurance guaranteeing mortgage payment as long as the disability lasts. "We have worked out with the Union Mutual Insurance Co. (Portland, Me.) an insurance plan that will not require medical examination or risk classification. Cost to the mortgagor is only 40 cents monthly per \$10 worth of coverage."

▶ Payment deferment of up to four months after the first three years (plus the usual 30-day grace period). "We have found that it usually takes not much longer than five months for a home owner thrown out of employment to find a new job."

▶ Self-reducing interest rate, dropping as equity increases from 5 to 3½ per cent.

"The time has come to abandon the seventeenth century exterior, the eighteenth century interior, the nineteenth century kitchen and bathroom for the advantages of twentieth century living." —ANON

FEDERAL DOLLARS

On Capitol Hill the gardeners were busy with their pruning knives, hurrying to catch up with an early spring. Indoors the Congressmen themselves were busy pruning. Their annual spring chore:

Life

Kennebunkport Bulge



the Independent Offices Appropriation bill, which allots housekeeping money for the federal housing agencies, the Federal Works Agency and dozens of others. Dollars fell right and left under the Congressional shears, but the job dragged while the gardeners argued over what to cut, what to leave for growth. One gardener was conspicuously unemployed: Tennessee's Senator Kenneth McKellar did not this year renew his perennial attempt to chop down the Tennessee Valley Authority.

Present prospects are that all the federal housing agencies will have less money to operate on next year than they did last. The Federal Housing Administration, which hopes for more activity and more housebuilding as the German war ends, took the biggest cut, may have to get along on almost \$500,000 less than its current budget. But both builders and FHA took comfort in the fact that the agency can get some extra money from Congress whenever normal building picks up.

After much whittling down and patching up, current outlook is that the Federal Works Agency will have \$35 million to lend to state and local governments for advance planning of public works. This is less than half of what FWA thinks is a minimum necessary to speed local planning (ARCH FORUM, Dec., '44). New in federal fiscal practice, the planning loan fund means that blueprints will not have to wait until the local governments issue bonds to pay for construction itself.

Plop into the Senate debate dropped an angry complaint from the people of Kennebunkport, Me. Republican leader Senator Wallace H. White tacked on an amendment that will permit Kennebunkport to repaint a mural in its new postoffice building. The mural: "a group of fat women scantily clad, disporting themselves on the beach." Kennebunkport wants no money (strong feeling has already raised a \$1,000 fund to pay for a seascape mural) but needs Congressional permission to alter a federal building. Kennebunkport was not bothered by the brief bathing suits, the Senator said, "it was the bulges, fore and aft, that they objected to." The Senate tittered, approved alteration.

HOMELESS G. I. JOE

Already veterans are coming home at the rate of 1,000 a day. But the Veterans Administration can count only 2,000 home loans approved under the veterans' guaranty plan it has operated for the last five months. It had been clear from the beginning that the labored formula for assisting veterans to become home own-



PURCHASE OF MICHIGAN SQUARE building by Time, Inc. marks brisk movement of business and real estate trading northward from Chicago's loop. Building lobby holds the famous Carl Milles Diana fountain. Other new takers in the neighborhood: NBC, General Motors (one block frontage), John C. Mack, who will convert the 42-story Medinah Club to a hotel.

ers was faulty (ARCH FORUM, Oct., '44). It was clearer than ever last month that the whole plan was stumbling badly and would stumble more.

One-third of all the guaranty applications VA has received since last November have been turned down. Prices for most older homes (new housebuilding is indirectly price-controlled by terms of priority allotment) are now too high for ex-G. I. Joe to buy with help from the government. Congress has directed VA to withhold guaranty of loans where prices are more than "reasonable normal value" of the property. Riding the real estate boom, many a broker was shunning veteran customers. Reason: it is easy to sell at inflated prices to buyers who seek no help from VA guaranties.

While G. I. Joe wondered whether the real estate boom would level off before the end of the five-year limit set for the government loan bolster, Congress meditated several tinkerings aimed to help. Representative Harris Ellsworth (Rep., Ore.) championed an amendment that would give the veteran ten years after his discharge to take up the government's offer of a guaranty covering 50 per cent or \$2,000 of a loan to buy a home, a farm, or business property. Representative John E. Rankin (Dem., Miss.), chairman of the House Committee on Veterans Affairs, flourished a curious solution for the inflated price problem: an amendment that would permit a veteran to pay out of his own (Continued on page 12)

Designed, built and erected by Byrne Doors, Inc., Detroit. Apac Sheathing installed by the Faulkner Construction Company. (Official U. S. Navy photograph.)

Check these "Century APAC advantages for construction and renovation work 1. Made of Asbestos Fibre and Portland Cement 2. Pleasing light gray color 3. Fire resistant and durable Convenient and aurable
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- required 10. Prompt delivery

Nature made Asbestos

Keasbey & Mattison have been making it serve mankind since 1873....with products like "Century" Apac, "Century" Asbestos Cor-rugated and Flat Lumber, Ebonized Asbestos, High Temperature Insulations and others. Interested in modern Asbestos and Magnesia materials? Write!

HIGH, WIDE and HANDSOME ! ... and SAFE because it's sheathed with "Century" APAC

ASBESTOS IN ACTION

HE striking architecture of this Navy Blimp hangar is its own tribute! The doors are like skyscrapers...120 feet high ... 220 feet wide ... weighing 300 tons. And they must open the entire width of the hangar in TWO MINUTES.

These giant portals must be the masters of wind and weatherfor failure to open and close quickly might spell the doom of a wind-tossed Blimp. So they are completely sheathed with "Century" Apac-K&M's low cost asbestos-cement sheet material. It is rot-proof, rust-proof and fire-resistant.

> In thousands of industrial plants, K&M "Century" Apac is used for roofing and siding, office paneling, sheathing in machine shops and stock rooms, linings for elevator casings and shower stalls. It is ideal for new construction, repairs or plant additions.

Enormous quantities of "Century" Apac have gone into wartime jobs. YET NOW THERE'S PLENTY AVAILABLE FOR YOUR INDUSTRIAL CONSTRUC-TION WORK ... without delay, without restrictions.

AT COMPANY AMBLER PENNSYLVANIA



LARGE ITEM in the operating costs of high buildings . . . or any buildings of more than one story . . . is the vertical transportation of passengers and freight. Peak efficiency can be obtained at lower costs with Montgomery Elevators. Not only is their original cost generally lower than other comparable makes, but for years Montgomery Elevators have been giving such dependable service in thousands of buildings that practically no major repairs have ever been required. For post-war construction or modernization, whether the building plans call for two stories or 42, you can depend on Montgomery for assistance in designing and engineering an efficient vertical transportation system.

MONTGOMERY MANUFACTURES a complete line of passenger and freight elevators, electric dumbwaiters and special equipment for vertical transportation. If you are planning a specific project, Montgomery Elevator Company invites your elevator problems.



MONTH IN BUILDING: NEWS

(Continued from page 10)

pocket the difference between asking price and the loan value that will pass VA scrutiny. But building men knew that only new building in volume could end the veteran's troubles, check real estate inflation.

CITIES

AGAINST THE ROOTLESS

To Manhattan dwellers who are sentimental - and most are - Washington Square, where Fifth Avenue begins, is the heart of New York. Here Greenwich Village, with its mixture of cold-water flats and high-priced studios, joins a thriving Italian neighborhood. Here are a few picturesque bypaths lovingly cherished by a city in a hurry to build skyscrapers-Washington Mews and Mac-Dougal Alley, where Village artists have their out-door spring show. Here are the old houses where names cluster thick as ivy - Washington Irving, Mark Twain, Henry James, Frank Norris, Thornton Wilder, Edna St. Vincent-Millay -Minetta Tavern where they still talk about the time Eugene O'Neill wrote Anna Christie in the back room.

Nowadays most of the noncommercial artists and writers have been pushed far

Charles Phelps Cushing Photos



away from the Square by the bright young people from the advertising agencies who can afford high rents, but the neighborhood retains the distinctive flavor of its tradition and a charm as oldfashioned as a lot of its plumbing. How clearly the Washington Square district feels itself a neighborhood was apparent last month when its mobilized for blocks to fight portended postwar building of a 30-story apartment building on one of the Square's Fifth Avenue corners.

The apartment building would demolish MacDougal Alley and a gracious half-block of old homes, cast a sevenblock-long shadow. Builder Joseph Siegel, who paid \$800,000 for the site, expects to spend \$4½ million on development. He thinks the new building, housing 1,000 people, will be a "big improvement" over the massive structure he built in 1929 on a site opposite, which has room for only 800.

Washington Square objections had more than sentiment to back them. There was no assurance, citizens argued, that new schools and supplementary transportation would be provided to take care of the population influx promised by promoter Siegel. Morris L. Ernst, famed liberal lawyer who was chief circulator of protest petitions, hit upon a philosophy for the protestants. Said Ernst: "People cannot take root when they live more than six or eight stories off the ground."

Whether or not Park and City Plan-(Continued on page 16)

WASHINGTON SQUARE wants no more skyscraper apartment buildings like No. 1 Fifth Avenue, which towers high above Washington Arch (below), shuts off light and air from neighbors. Larger edition of No. 1 is planned by builder Joseph Siegel, who has acquired a site opposite. Corner of the Square shown on left has been carefully remodeled to preserve facade of picturesque old buildings, is approved by neighborhood.





Equalized "Floating" support wherever the body touches.

TOMORROW'S WORLD, with its increased, more vigorous interests and activities, will make three exacting demands on furniture cushioning.

Bodily resources and nervous energy will need to be restored at every opportunity and *cushioning* will then be under the necessity of providing energizing rather than enervating comfort.

The millions of tiny resilient latex springs in "U.S." Koylon Foam literally flow to fit every contour, affording fully equalized "floating" support. Both body and nerves are rested!

* * *

Postwar purchasers can be traded up to better quality furniture more readily if assured of low maintenance requirements.

"U. S." Koylon Foam retains its lively resiliency long after the furniture it cushions is outmoded. "U. S." Koylon does not bunch, mat down, break-up! There need be no time out or expense

Listen to "Science Looks Forward"—new series of talks by the great scientists of America—on the Philbarmonic-Symphony Program, CBS network, Sunday afternoon, 3:00 to 4:30 E.W.T. to repair, renovate or replace "U. S." Koylon cushions.

"U.S." Koylon Foam is compounded to autlast the furniture it cushions.

"U.S." Koylon Foam will be available in a wide range of standard cushioning units as well as in yardage of various thickness which can be quickly cut to fit even the most fancy free of the designers' creations.

"U.S." Koylon Foam is serving military and medical needs exclusively at present. But it is none too early to investigate "U.S." Koylon Foam Cushioning advantages now for the furniture you will be designing or making when "U.S." Koylon comes back.



UNITED STATES RUBBER COMPANY

Serving Through Science 1230 SIXTH AVENUE · ROCKEFELLER CENTER · NEW YORK 20, N. Y.

SHADOWLESS

OFFICES? - BANKS? - SCHOOLS? - STORES?

Everything points in that direction. Since the days of the "pin-point" illumination of the candle the trend has been toward more and more diffusion in artificial light, with softer shadows and less eye fatigue. In this progress Frink Engineering and Frink Lighting Fixtures, the result of years of research in the science of illumination, have played a prominent part.

Modern fluorescent lighting, though still restricted by military requirements, has grown familiar to millions who, during the war years, have worked in war plants and essential businesses. Whether in an office, at a work bench or at a machine, fluorescent lighting has proved itself impressively better.

Frink-engineered fluorescent lighting will provide virtually shadowless illumination for post-war offices, banks, schools and stores.

With the coming of victorious peace and the release from the war-work to which our facilities are at present devoted, Frink L-I-N-Q-L-I-T-E Fixtures will again be available, engineered for vision and designed for beauty as well as superlative optical efficiency.

LIGHTING SINCE 1857

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THE ULTIMATE IN FLUORESCENT LIGHTING

THE FRINK CORPORATION, Bridge Plaza North, Long Island City 1, New York SUBSIDIARIES: Sterling Bronze Company, Inc. Barkon-Frink Tube Lighting Corporation



Draftless Air Distribution in War Production Plants than All Other Types of Ceiling Air Diffusers Combined . .

The satisfaction of the users and specifying engineers is attested by a multitude of repeat orders.

Huge Anemostats handle the desired volume of air for heating in winter and cooling in summer, at duct speeds of over 30 miles per hour - yet there is no draft condition in the breathing zone. Then Anemostats serve Instrument Rooms where a temperature variation of not more than plus-minus 1/2° is permissible. Any conditions can be met with the Anemostat!

Consult us on special applications.

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And more than thirteen thousand other installations

ANEMOSTAT CORPORATION of AMERICA 10 EAST 39th STREET, NEW YORK, N.Y.

"NO AIR-CONDITIONING SYSTEM IS BETTER THAN ITS AIR DISTRIBUTION"

tive director of the Chicago Public Housing Conference: "The bills provide a

chance for private enterprise to work

with public housing. They should reduce the housing 'no-man's land' that neither low-cost public housing nor high-cost

MONTH IN BUILDING: NEWS

(Continued from page 12)

LE-R

ning Commissioner Robert Moses is in favor of roots is almost the only subject for which there is no Moses opinion on record, but he is clearly in favor of open space. In March Moses came to the aid of the embattled neighborhood, fuming: "We mean to revoke the double bonus which accrues at present to people who put Chinese walls around New York's little open spaces." Racing the official filing of Siegel's plans was a Mosesdrawn zoning amendment which would limit the height of buildings surrounding New York's park space to street width. For the Washington Square area, this would mean no building more than

Countered Siegel: "I'm pretty sure seven or eight stories.

Mr. Moses can't do this to me because I saw him coming and rolled up my sleeves. I've got the Real Estate Board in one pocket and a bankroll in the other." But by month's end almost the only tenant in the Square neighborhood who had not declared against skyscrapers was Eleanor Roosevelt, who hasn't

been in town lately.

Out in front in a three-newspaper cam-AMITY IN ILLINOIS paign against Chicago's slums, the plaintalking Herald-American had directed its noisiest blasts at Mayor Ed Kelly's administration, more interested in spoils than slum clearance (ARCH FORUM, 245). Last month it looked as if the Hearstpaper's forthright shafts had found their target. To the state legislature went a bevy of sense-making rebuilding proposals with an earnest blessing from Chicago's Mayor. Clasping hands over the slum-clearance program, Democrat Ed Kelly and Republican Governor Dwight Green seemed to have abandoned the struggle for power that has thwarted many an effort to clean up

The Chicago Real Estate Board and the Chicago Housing Authority also Chicago. shook hands over two bills that would provide municipal assistance in land assembly and open the way for insurance companies to help out in rebuilding. Hope is that the key bill, which gives municipalities the right to condemn substandard structures, acquire land for public or private redevelopment, will be passed in time for a June referendum on a \$5 million housing project in Chicago's Negro neighborhood. Long enviously eyeing the Metropolitan Life's New York housing projects, Chicagoans beamed at the bill which will make Met or any other housebuilding insurance company welcome in Illinois. Approved Edward E. Clarke, execu-

private building reaches." Said Real Estate Board chairman Joseph B. Ford: "We're for slum clearance and removal of blighted areas. We think private industry hasn't been given the opportunity to show what it can do. These bills form one of the answers." Still courting real estate approval was

a bill giving housing authorities the right of eminent domain to acquire land for resale or lease to private enterprise. The bill would also establish housing authorities for an attack on rural slums.

PEOPLE

DIPLOMATIC ARCHITECT Urbane, accomplished Wallace K. Harrison, who has been busy with the architecture of diplomacy for the last two years, got one of the nation's top jobs last month. Appointed to replace Nelson A. Rockefeller as director of Inter-American Affairs, Harrison will officially as-

sume duties he has since discharged Assistant Rockefeller was named Secretary of State. Harrison's career has long been entwined with the Rockefellers. He and his partner J. Andre Fouilhoux



WALLAGE HARRISON

on Rockefeller Center, also designed a spent seven years Rockefeller-built hospital in Venezuela. Long team-mate of the late great Raymond Hood, Harrison once said of his work: "We have had courage because our biggest mistakes were made when we There were many who felt that U. S. diplomacy were too conservative." could use the same approach.

To Dorothy Draper's flamboyant camel-BUILDING EDITORS lia department, Good Housekeeping Editor Herbert R. Mayes has added a solid section on home building. Veteran building editor Joseph B. Mason will launch the Hearst magazine's plunge into the high tide of postwar housebuilding. Mason, who started his career with a carpenter's kit, has never lost his interest in getting out on the job site and talking to the men who know what housebuilding is up against. His firsthand knowledge of building problems made him, as editor of the American (Continued on page 20)

THE ARCHITECTURAL FORUM

Water seepages still delay acceptances and create doubt as to the competence WASCO copper-fabric thru-wall flashing elimiof the architect or builder. nates this hazard. Three repellents. nates this hazard. Inree repetitents, asphalt, sheet copper and impregnated fabric, unite to form a never-failing, fabric, unite to form a never-failing, time-defying, water stop. WASCO is easily hand-shaped to any contour at time of installation. Although WASCO costs less, it is a big improvement over 16 oz. copper flashing. Our A.I.A. Folder tells why. May we send it?

ASPHALT

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MANUFACTURERS AGENTS, please write. Many territories still open. send it?

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COPPER-FABRIC ASHING



FORMICA HAS EXACT INFORMATION ON How to Use PLASTIC DECORATION !-

There is widespread conviction that plastic available surfaces will be much more generally used tops for in building after the war, and Formica is able to provide you with exact and detailed room w information about the uses that are most doors, w

advantageous and the methods of erection. Formica began selling plastic sheets for decorative purposes in 1927, and its engineers have worked out most of the methods of application now employed. Data on which complete specifications can be based is available for the asking. These cover table tops for restaurants and public rooms, dinettes for the home or apartment, bathroom walls, counters, column covering, doors, wainscot in public spaces.

A more modern and harmonious line of Formica colors is in preparation. It includes attractive patterns and "Realwood" materials made by incorporating an actual wood veneer in a plastic sheet.

Ask for erection details and color charts.



THE FORMICA INSULATION COMPANY ... 4620 SPRING GROVE AVENUE, CINCINNATI 32, OHIO

Largest PREFABRICATION





U. S. Gov't Army Postal Concent. Center, L. I. City, N. Y. Alfred Hopkins & Associates, N. Y. Architect-Engineers



620 ft. Drill Hall, one of seven at Sampson, New York Sbreve, Lamb & Harmon, New York, Architect-Engineers

OVER \$200,000,000 CONSTRUCTION IN 3 YEARS

Having completed in excess of 150 War Projects for the Army, Navy and various Governmental Agencies, The John A. Johnson Contracting Corp. and its prefabrication subsidiary, The Pemberton Lumber & Millwork Corp., have learned by widely varied experience the value of *flexibility* in adapting Mills and Site Plants to meet seemingly impossible completion schedules.

On the high-speed U. S. Government Army Postal Concentration Center in Long Island City, erected in 72 days to handle Army mail for 11 fighting fronts, 160 ft. trusses complete with monitors and columns were among the most vital site-prefabricated units for this world's largest concrete block and tile structure.

At the Sampson Naval Training Station several site-prefabrication plants, as well as The Pemberton Mill, supplied thousands of units for this high-speed \$52,000,000 Navy Project.

MORE THAN 25,000 PREFABRICATED STRUCTURES

In the past three years the Johnson Organization and The Pemberton Mill have turned out over 25,000 prefabricated buildings, including huge structures over 600 feet long as

JOHNA. JOHNSON GENERAL CONTRACTORS

Brooklyn, N. Y., Washington, D. C., Pemberton, N. J., Atlanta, Ga.

UNITS OF THE JOHNSON ORGANIZATION:

John A. Johnson & Sons, Inc. • Pemberton Lumber & Millwork Corp. (Prefabrication Organization)

FACILITIES in the East...



well as more than 15,000 dwelling units to house government employees, war workers and others. Entire communities, housing up to 60,000 persons, and complete with utilities and facilities, have been included among Johnsonconstructed projects.

Prefabrication plant facilities, in order to contribute the maximum to the Government's huge construction program must be adequate for high-speed and *extremely flexible*.

ENORMOUS FOREIGN HOUSING REQUIREMENTS To meet the vital need of the foreign fighting fronts for essential housing and other prefabricated units, The Pemberton Lumber & Millwork Corp. is now making the seventh addition to its already large facilities, more than doubling plant production for French and British housing. Three railroad sidings, a fleet of 122 trucks and trailers, over 100 acres of storage, lumber yard and manufacturing facilities, and a background of nearly 50 years in house fabrication are factors which have enabled The Johnson Organization, The Pemberton Mill and other Johnson mills to become the leading prefabrication organization in the East.

LARGE PROJECTS NOW UNDER CONSTRUCTION

We are equipped to build or are now building industrial plants, hospitals, college and school buildings, large scale housing (domestic and foreign), demountable barracks and commercial structures of all types, and will be interested in submitting proposals on projects from \$100,-000.00 to \$50,000,000.00.

> OKING inte to FUTUR

PEMBERTON LUMBER & MILLWORK CORP.

Send for brochure "Looking Into the Future" or "Prefabricated Demountable Industrial Buildings and Low-Cost Homes."

CONTRACTING CORP. "A FIRM FOUNDATION SINCE 1896"

Headquarters: 270 Forty-first St., Brooklyn 32, N. Y.

John A. Johnson Contracting Corp. 5001 Second Avenue Corporation (Heavy Equipment Organization)

MONTH IN BUILDING: NEWS

"TIME-PROVEN" KINNEAR DOORS ARE FIRST CHOICE WITH "POSTWAR" PLANNERS





"Time-proven" Kinnear Doors are first choice with builders because they know that they have demonstrated their ability to stand up and provide every convenience building owners like. Kinnear Doors included in your post-war plans will bring all-around satisfaction!

KINNEAR STEEL ROLLING DOORS are the best buy for industrial buildings, warehouses and other heavy duty installations. The door curtain is made up of interlocking steel slats that are sturdy and flexible. They coil up out of the way into a small enclosed roll, clearing the opening completely and allowing maximum use of floor, wall and ceiling space. Kinnear Rolling Doors are individually built to fit the particular opening.

KINNEAR STEEL RoL-TOP DOORS offer all the advantages of a sectional type door, with their provision for any number of glass panels, plus the rugged durability of all steel construction. Ideal for warehouses, receiving

platforms, commercial garages, etc. The door panels are hinged horizontally and fitted at both ends with heavy duty ball-bearing rollers. Accurately counterbalanced for ease in operation, the RoL-TOP door rolls to a horizontal overhead position in steel tracks.

KINNEAR WOOD RoL-TOP DOORS, featuring the famous weather-tight "Keystone Seal", are ideal for residence garages and similar installations. Attractive wood panels, which may be either solid or provided for glass, are hinged horizontally and fitted on both ends with ball-bearing rollers. Carefully counterbalanced, they open to a horizontal overhead position in steel tracks.

The Kinnear Doors described may be provided with a specially designed Kinnear motor operator unit. Remote control switches can be installed to operate the doors from any convenient position. Write today for latest bulletin !

THE KINNEAR MANUFACTURING CO. Factories

1640-60 Fields Avenue Columbus 16, Ohio 1742 Yosemite Avenue San Francisco 24, California



(Continued from page 16)

Builder, an effective plugger for private enterprise. Good Housekeeping, he says, will lend a hand in the national drive for a "superabundance of homes that are better planned, better built and equipped, and easier to live in."

Edward G. Gavin, recruited from the



GAVIN will talk to housebuilders. MASON will talk to customers.

American Lumberman, will replace Mason as top editor at the American Builder. Earlier editor of the American Contractor, Gavin writes about building from a broad background of practical experience in engineering and construction.

MATERIALS

TEAPOT TEMPEST

Unlike other short war materials, lumber will not be easier to buy when war production ends. Instead, it may be scarcer than ever. Biggest uncertainty in prospects for nonwar housebuilding: how much lumber and other short items will the U.S. ship to help Europe meet its enormous housing needs? (see page 8) Already builders eyed rebelliously the 165 million feet of lumber earmarked for 30,000 prefabricated houses now being produced for Britain (ARCH FORUM, Feb., Mar., '45). The lend-lease houses will have bathtubs, too. Not since 1942, angry builders reminded, have they been able to get anything but shower stalls for U. S. war housing. Cried the National Association of Home Builders: "Lumber, hardware, plaster board, fittings, fixtures, tubs, heaters, wiring, and all other critically scarce materials are being drained from already low inventories . . ." Replied WPB: less than 1 per cent of anticipated 1945 lumber production will be shipped for European rehabilitation.

Not even the prefabers, into whose laps the juicy British order fell, were happy. Specifications written to pare lumber use to a minimum have put fibreboard into the prefabs. While some producers claimed the materials are not (Continued on page 24)







Flat bottom makes for easy and safe stepping in and out.





Built-in seat for sitting bath or shower.





The integral tub-end seat is ideal for bath-

SPOTLIGHT

ing children.



bathing.





SPOTLIGH

Every point is within easy reach for cleaning.

MEAN ENTHUSIASTIC CLIENTS

FORTURES

PLUMBING FIXTURES

Spotlight Features in all Eljer plumbing fixtures give them distinctive qualities. Your clients want these features in their homes and commercial structures.

Consider the Legation tub by Eljer. The built-in seat, the wide flat bottom, the comfortable rim seat and the easy way in which the whole tub can be kept clean, are all extra features which mean immediate acceptance for this fine fixture. The over-all modern design and high quality are typical of all Eljer plumbing fixtures.

Be sure that you provide for these Spotlight Features in all your installations. SPECIFY ELJER AND BUILD WITH ELJER PLUMBING FIXTURES.

ELJER CO. FORD CITY, PA.



Designed by Albert Kahn Associated Architects & Engineers, Inc.

Note how successfully Johns-Manville Corrugated Transite has been used to achieve the architectural simplicity of streamlined and strictly utilitarian construction.

THIS modern plant of American Steel Foundries, with its horizontal glass and spandrel construction, is an excellent example of functional design, using the tough asbestos Transite sheets on the exterior walls.

Whatever the type of building you have in mind ... any type ... you'll find J-M Transite universally adaptable. It may be used alone or in combination with other building materials.

Of course, one of the outstanding qualities of this product, which makes a strong appeal to building owners, is its amazing durability. Corrugated Transite lasts indefinitely . . . requires no painting . . . no preservative treatment . . . no upkeep whatever. It's absolutely unaffected by the weather. Check this brief summary of the outstanding features of J-M Corrugated Transite:

1. It's durable, because it's made of asbestos and cement, two almost indestructible materials, compressed and corrugated under terrific pressure for extra strength.

2. It's practical, because it can't burn, can't rust, can't rot, and has high resistance to acids, to gaseous fumes, and to severe temperatures.

3. It's economical, because it requires no maintenance, is 100% salvageable, and may be quickly installed.

4. It's versatile, because its stone gray color and beautiful, symmetrical lines blend well with all modern architectural plans and designs.

For more specific and detailed information as to how J-M Corrugated Transite will solve your con-

struction problems, send for our new illustrated brochure on this subject. Call or write Johns-Manville, 22 East 40th Street, New York 16, New York.





THIS DROP OF WATER IS

DANGEROUS

because it leaked outside the drain . . . inside the building

Water, controlled, is man's friend; uncontrolled, it is his enemy. The buildings he erects are monuments to his eternal fight against the elements, but the greatest skyscraper and the finest home are both prey to the ravages of little drops of water if poor drainage permits them to seep into the walls, ceilings, or floors.

A kingdom is lost for want of a nail... a building, for want of a drain. It's "penny-wise and pound foolish" to tamper with the life of a

RING COMP

structure, by taking chances with unknown types of drainage products. Specify Josam drains every time and put the exclusive qualities of this recognized line on guard-duty day and night. Over a thousand different types for every drainage condition.

If in doubt about a drainage problem call the Josam representative in your community or write direct to the Josam Manufacturing Company, Empire Building, Cleveland 14, Ohio.



Executive Offices, 302 Empire Building, Cleveland, Ohio • Manufacturing Division, Michigan Representatives in all Principal Cities JOSAM - PACIFIC CO., 765 Folsom Street, San Francisco, California — West Coast Di EMPIRE BRASS COMPANY, LTD., London, Ontario — Canadian Distributors THERE ARE NO SUBSTITUTES FOR JOSAM PROD

FOR INDUSTRIAL TYPE FLOORS SPECIFY JOSAM NON-CLOG TRIPLE DRAINAGE DRAINS

Josam Non-Clog Triple Drainage Drains provide advantages offered by no other drain. Their 3-way performance guarantees better floor drainage, as well as positive protection against leakage. Sediment containers intercept the debris allowing clear water to pass into the drain line (normal drainage). If water seeps into the floor around the drain, it is returned directly into the drain line . . . does not spread into floor or walls (double drainage). If sediment container should become filled with debris, drainage continues through holes in auxiliary rim, signalling a need for cleaning (triple drainage). For complete description of these modern type floor drains send coupon below.



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and the Westman and the Street and the St	
FILL OUT AND MAIL T	HIS COUPON TODAY!
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JOSAM MA

MONTH IN BUILDING: NEWS





You retain the usual advantages of building with wood—ease and speed of erection, strength, lightness, resilience, high insulating value. And treated wood gives you this *plus*—ability to stand up under conditions often destructive to ordinary wood or other materials.

Specify the pressure treatment providing the protection needed—Wolmanized Lumber is resistant to decay and termite attack. Minalith*-treated lumber is flameproof.



1647 McCormick Building, Chicago 4, Illinois

(Continued from page 20)

sturdy enough for export, others carped at the government's design. *The Chicago Tribune* quoted the complaint of an anonymous prefaber it called "one of the largest":

"We are not going to bid on the homes because in our opinion the houses, while supposedly prefabricated, are not designed for efficient mass production. They were originally designed by Tennessee Valley Authority architects who had no knowledge of production methods.

"The FPHA architects then received the designs and 'gummed them up' some more. In my opinion it is going to end as a mess by the time the houses arrive in England and are erected and it will tend to give prefabrication a black eye there."

When the Federal Public Housing Authority awarded contracts covering 23,000 of the British units in mid-March, some well-known prefab names were missing, some comparative newcomers appeared. The units will cost an average of \$1,310 each. The contractors:

Connecticut: City Lumber Co., Bridgeport, 2,000 units.

Florida: Batavia Metal Products, Inc., Miami, 500; Dooley's Basin & Drydock, Ft. Lauderdale, 500; Flury & Crouch Co., West Palm Beach, 200.

Georgia: Georgia Consolidated Cont. Co., Manchester, 1,000; Miami Shipbldg. Corp., Manchester, 500.

Louisiana: Crawford Co., Baton Rouge, 2,000; Drycemble Houses, Inc. & Wesco Const. Co., New Orleans, 2,000.

Maryland: Pistorio Co., Baltimore, 500; Tovell Construction Co., Baltimore, 500.

Michigan: Berkey & Gay Furniture Co., Grand Rapids, 500; Eddy Shipbldg. Corp., Bay City, 1,000; Field Detroit Co., Detroit, 500; Pontiac Millwork Co., Pontiac, 200.

Minnesota: Jackson Co., St. Paul, 200. Mississippi: Green Lumber Co., Laurel, 500.

New Jersey: Plainfield Lumber & Supply Co., Plainfield, 500.

New York City: American Houses, Inc., 2,000; Bush Prefabricated Structures, Inc., 500; Gen. Fabricating Const. Co., 2,000; John A. Johnson Contracting Corp., 500; Reiss & Weinsier, 1,000; Walsh Const. Co., 2,000.

Pennsylvania: Allied Housing Assoc., Langhorne, 1,500; Mifflinburg Body Works, Mifflinburg, 500.

Texas: Texas Prefab. House & Tent Co., Dallas, 500.

(Continued on page 28)



on the all-weather protected loading dock problem

Purely practical considerations must guide the selection of industrial doors. That's why, first of all, these Crawford Doors for loading dock enclosure were built to stand frequent and hard duty usage. That's also why they were engineered to operate easily, quickly and dependably and to exclude weather.

When these matters affecting use and economy were settled to our satisfaction we turned our attention to refined appearance in keeping with modern trends in industrial architecture. We believe you will agree on this as basically sound practice. It is on such a basis that we solicit the opportunity to talk with you about your industrial door needs. Standard or special, one door or a battery of them—Crawford will give you sound counsel. Naturally—there's no obligation.

Crawford Door Company, 401 St. Jean, Detroit 14, Mich.





HOME OF JOHN DE LAITTRE, WAYZATA, MINN. MCENARY & KRAFFT, KARL E. HUMPHREY, Jr., Architects, Minneapolis, Minn.; ADAMS CONSTRUCTION CO.,

Builders and Painting Contractors, Minneapolis, Minn.

PRATT & LAMBERT

PAINT AND VARNISH

VERLOOKING beautiful Lake Minnetonka, Minnesota, from the south, this suburban home at Wayzata, was definitely planned for the site and the owner's family. All master rooms are on the south, and all service is on the north, convenient to the public road. The interior is a pleasing blending of ultra-modern lighting and appointments with commodious, open rooms, providing an atmosphere of dignity and hospitality. Pratt & Lambert Paint and Varnish have been used to obvious advantage in the decoration of this interesting home, further enhancing its charm.

The Pratt & Lambert Architectural Service Department offers its full resources to help architects secure maximum decorative results on any project.



PRATT & LAMBERT-INC., Paint & Varnish Makers NEW YORK · BUFFALO · CHICAGO · FORT ERIE, ONTARIO TO HELP YOU PLAN WITH Beauty AND Distinction



Use These New Types and Sizes of Truscon Residential Double Hung Steel Windows

This chart shows the new postwar types and sizes of Truscon Residential Double Hung Steel Windows. Keep it handy for your ready reference in planning your postwar structures today. These quality units will be ready and carried in stock just as soon as our wartime obligations are fulfilled.

These types and sizes are based upon the Project of Dimensional Coordination of Building Products.

In a future advertisement we will feature types and sizes of Truscon Custom Built Double Hung Windows with and without transoms and hopper ventilators, ideal for school and hospital construction. Write for your copy of Truscon's Steel Window Section which will appear in the 1945 "Sweet's Architectural File." It will contain types and sizes and installation details on all Truscon window designs.







AIA FILE NO. 16H

MONTH IN BUILDING: NEWS



Virginia: Forbert Corp., McGaheysville, 750.

Wisconsin: John D. Edwards Organization, Milwaukee, 500.

Contracts for plumbing and kitchen equipment covering 17,500 units went to:

Eugene Duklauer, N. Y. C., 5,000; Gotham Plumbing & Heating Co., Inc., N. Y. C., 3,000; Jesse E. Kahn, N. Y. C., 5,000; Nor-Feld Plumbing Corp., Manhasset, L. I., 3,000; Pipe & Engineering Co., N. Y. C., 1,500.

HATBOX-SIZE WASHER

While the industrial designer who invented the new gadget intends no threat to postwar domesticity, it will be easy for bachelors to wash their own socks in a diminutive automatic washer designed to fit easily into apartment bathrooms. Only 18 by 13 in., the small noiseless machine clamps on the side of a wash basin and has a hose connection with the faucet. The inventor, John Tjaarda, Detroit, says the machine will wash stockings and lingerie in ten minutes. Operated on the tumbler principle, it will also dry clothes when motor speed is increased. Patent has been applied for, and Tjaarda is now making plans for manufacture and merchandising.

PRICE CLIMB

Contractors are paying a lot more for building materials than they did five years ago. But they are not paying much more than they did in 1942 when national price control came to their rescue. Materials prices have jumped high over prewar levels, with most of the jump occurring just before ceilings. A regional office of the Bureau of Labor Statistics reported these price histories in the New York market since 1939:

Lumber shows the steepest rise, with a general increase of 125 per cent. When you can get it, dimension fir No. 1 sells at \$72 per 1,000 board feet, Southern pine board No. 2 costs \$63.75 as against a 1939 price of \$35.

Plaster advanced 24 per cent between 1939 and May, 1942 to sell at \$13 a ton, has not climbed since.

Window glass prices are up 58 per cent.

Hydrated lime is up 35 per cent.

Common brick is selling at \$19.75 per 1,000 against a 1939 price of \$13.

Face brick now sells for \$35 per 1,000, the 1939 price was \$28.

Cement has felt inflation least. Priced at \$2.35 a barrel in 1939, it now sells for \$2.70.

Look forward to:

"U.S."Naugah

FOR THE BEAUTY

OF COLOR AND GRAIN

YOU SEEK

UPHOLSTERY

There is an alluring pastel quality to every one of the colors that will be available in the postwar editions of famous "U. S." Naugahyde Upholstery. Even the most delicate of the shades in the almost limitless range of hues are of never-dimming character—stay bright and true for the lifetime of the seating. Also, the grain effects that will be introduced are emphatically distinctive. But best of all is "U. S." Naugahyde inherent quality... extreme flexibility combined with high resistance to wear and the attack of deteriorating agents.

> With a quarter-of-a-century of coated fabric experience back of them, "U. S." Rubber Company scientists developed a great many distinct coated fabrics for the armed forces and have also coated millions of yards of nylon, rayon, cotton, and glass cloth for military purposes.



COATED FABRICS DIVISION • Mishawaka, Indiana Serving Through Science



Robertson Vertical Lift Door

The leaves rise. Seconds after you press a button, every leaf, no matter how many, no matter how long, is stored away in a pocket above and in front of the truss. The door shown, opens in one minute.

Ceiling . . . unobstructed. Floor . . . unobstructed. Building approach . . . unobstructed.

The Robertson Vertical Lift Door was formerly known as Firguson. The original brains of this invention are now with Robertson. Robertson engineers will be glad to work out details with you. Architecuarally the door is adaptable to a wide variety of skin materials and designs. The many special features can be engineered to your requirements.

A Robertson representative can furnish complete data, or you may write for Robertson Door literature.



WHY TRAP with mechanical air filters which are only 10% to 20% efficient?

CLEANS AIR ELECTRONICALLY

... with 85% to 90% efficiency



Trecipitron

1. A Precipitron cell with ionizer detached to permit a view of the vertical collector plates inside the cell.

2. High-voltage wire creates an electrostatic field at the front of the Precipitron cell, charging all dust and dirt particles as they enter.

3. The charged particles are drawn to and precipitated on the vertical collector plates which are easily cleaned by flushing.

4. The improved Precipitron power pack provides 13,000 volts d-c to set up the electrostatic field that charges the particles as they enter the cell . and 6,000 volts d-c to the collector plates.



Commonly used mechanical filters trap only the larger particles of air-borne dirt. Countless smaller microscopic particles of floating dust, soot, smoke, abrasives . . . just "leak" through mechanical filters, defying capture.

But it's a different story with Westinghouse Precipitron -the electronic air cleaner. Precipitron removes airborne particles as small as 1/250,000 of an inch. The "blackness or discoloration" test shows the comparative efficiency of Precipitron to be 85% to 90%, as compared to 10% to 20% efficiency obtainable from mechanical filters.

For cleaner air . . . install Precipitron. It cuts down maintenance expense, spoilage of materials, deterioration of equipment and fixtures. It increases efficiency and comfort. For complete information about Precipitron, call or write your nearest Westinghouse office. Or write Westinghouse Electric & Manufacturing Co., P. O. Box 868, Pittsburgh 30, Pennsylvania.

ARCHITECTS ... PLANNING POSTWAR BUILDING

should include Precipitron in their plans . . . to assure the most modern, most efficient air cleaning. Suitable for every type of building, office . . . or homes where forced ventilation is used. Write for application data and specifications. T-04502

PRECIPITRON



*Trade-mark registered in U.S.A.

use PLANTS IN 25 CITIES OFFICES EVERYWHERE

THIS) can be the deciding factor...

Don't overlook the garage! Used a minimum of twice every day, the convenience and labor-saving devices of a garage can be as important a "sale" factor as those in the bathroom or kitchen . . . and a house that comes equipped with an Avco Automatic Door Operator on its garage will definitely have a plus in sales appeal.



The Avco Automatic Door Operator can be quickly and inexpensively attached to *any* type garage door. It is controlled by two buttons one in the car, one in the house.





By pressing these buttons, the householder can open or close and lock his garage doors automatically, and turn on or off the lights in his garage. This eliminates struggling with stubborn doors, getting out in the rain, and gives extra convenience and protection through automatic lighting. Control of yard flood lights and entrance lights to the house is an optional extra.



A SPECIAL CONVENIENCE like this can well be the deciding factor that turns a prospect into a client. It costs so little and adds so much that many architects and builders have already written for full details, planning to incorporate it in their plans...We'd be glad to send you full details too.

WOOD in war, in peace, always a favorite

Easy fabrication, beauty, economy, strength and superior insulating properties have put wood at the head of America's building specification sheets for centuries.

And because wood has been improved it will remain a favorite in postwar construction.

Alert to the necessity for progress, the wood industry, too, has utilized the benefits of modern chemistry, viz:

> **WOOD PRESERVATIVES** — clean treatments, toxic to fungi and with water repellent values furnish extra protection for wood and lengthen its life

> MODERN GLUES — that strengthen wood, permit its wider usefulness... in plywoods, in laminated structural members, in better millwork, in dry-built and prefabricated building construction.

Combining their resources and research in this service to wood are Monsanto Chemical Company, pioneer producer of the newer wood protection chemicals, and I. F. Laucks, Inc., Monsanto subsidiary, the world's largest manufacturers of industrial glues.

Producers of wood and wood products, and those who utilize them, can look here for the help and developments that will insure to wood its preferred position among all building materials.

> Monsanto Chemicals Company Organic Chemical Division 1700 South Second St., St. Louis 4, Mo.

ONSANTO

I. F. Laucks, Inc. America's Glue Headquarters Seattle 4, Wash. Lockport, N. Y. Los Angeles 1, Calif. Portsmouth, Va.

Laucks, Ltd. Vancouver, B. C. Stanbridge, Que.

Big advantages in little space... with a KOHLER washroom

0

A Kohler washroom means a gain in comfort and convenience of exceedingly great value in proportion to the space it requires. Home owners respond immediately to its possibilities as a convenience for both family and guests. It is a feature that adds pronounced selling value to new homes.

The arrangement above shows how effectively distinctive design can combine with compact utility. The floor space is only $4' \times 4'$. The Taunton lavatory with built-in Kohler fittings is only 14'' back to front, yet it provides a roomy shelf $3\frac{3}{4}$ " wide and an ample basin 16" x $8\frac{1}{2}$ ". The Trylon close-coupled closet is attractive, thoroughly practical, and economical.

The undisputed quality of Kohler fixtures and fittings is based on 72 years of manufacturing experience, plus the fact that all Kohler products are made in one plant, with complete unity of supervision.

If you do not have Kohler catalog K-41, write Kohler Co., Dept. AF-4, Kohler, Wisconsin. Established 1873.



WHERE WILL YOU USE THIS NEW FLOOR? ... COMBINES THE BEAUTY OF TILE WITH THE QUIETNESS, THICKNESS AND RESILIENCE OF LINOLEUM!

Patterned in 9-inch Cross-Directional MARBLED SQUARES in One Tone, Two Tones and Contrasting Tones! AVAILABLE WITH VICTORY !

New, Improved

Soil-Sealed

LINOLEUM

+ DESIGNED FOR USE

wherever floors must be both decorative and longwearing-colorful and easy-to-maintain!

*****NO TWO MARBLED SQUARES ALIKE!

Each square is exquisitely marbleized, with individual graining and real depth and purity of color. Each square is set cross-directional to enhance floor-beauty and simplify hiding of seams.

* EASY TO REPAIR

or make partition-changes! Any area or single 9-inch Marbled Square can be replaced if damaged or heavily worn without appearance of "patching."

* PABCO LINOLEUM IS SOIL-SEALED

to resist dirt, stains and scuffmarks - Super-Waxed for easier cleaning. Built-in quietness, resilience, thickness!



WRITE for "Architectural Trends in Linoleum," 24 pages full-color, Dept. 1145, nearest Pabco office below.

THE PARAFFINE COMPANIES .INC. NEW YORK 16 - CHICAGO 54 - SAN FRANCISCO 19 Makers, also, of Pabco Mastipave, Grip-Dek and Sani-Grip Floor Coverings; Pabco Paints, Roofings and Building Materials



Selecting FLUSH VALVES FOR HOSPITALS

• A recent survey among architects, widely experienced in hospital design, discloses a number of interesting trends in flush valve applications for hospitals. For example, there seems to be a trend toward the use of foot-operated combinations; there is a marked preference for *silent-action* flush valves. These trends and others are discussed in the booklet offered below.

Of course, a primary consideration in the selection of any flush valve combination is dependable, trouble-free *performance*, characteristic of all Watrous Flush Valves.

Very important also is *economy*—here the simple Watrous Water-Saver adjustment makes possible savings of many thousands of gallons of water each year.

Maintenance is another factor. This has been simplified by the convenient, single-step servicing feature of Watrous Flush Valves.

And significantly important to the comfort and convenience of the patients is the noise reduction gained by the use of Watrous "SILENT-ACTION" Flush Valves.

Combine all these qualities in the flush valves for your new hospital or modernization program by choosing Watrous Flush Valves —a selection that will be a constant source of satisfaction over the years to come.





 Naval Medical Center, Bethesda, Maryland, is equipped with Watrous Flush Valves. Designed by Navy Department with Paul P. Cret as Consulting Architect. Consulting Engineers: Moody and Hutchison. Plumbing Contractor: Standard Engineering Co.

• Fitzsimmons General Hospital, Denver, Colorado. Watrous Flush Valve equipped. Architect: Construction Division of Quartermaster General's Office. Supervising Architect: L. M. Leisening. Plumbing Contractor: Thos. F. Shea Co., St. Paul, Minn.

Cook County School of Nursing, Chicago, III.
Watrous Flush Valves throughout. County Architect:
Eric E. Hall. Consulting Engineer: Willis J. Dean,
Plumbing Contractor: E. J. Young & Co.

ARCHITECTS' VIEWS ON FLUSH VALVE APPLICATIONS

-

A survey of interesting trends in the selection of flush valves for postwar buildings is given in Bulletin No. 477—"How Architects Look at Flush Valve Applications". Write for your copy.

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



11111111
LETTERS

Comments on the Malmo Theater . . . Another letter from Allen . . . Is Modern Eclectic? . .

MALMO THEATER

Forum:

The Mälmo Theater in the February issue is a masterpiece. I don't know how you fellows do it, but you seem to manage to corral the world's best architecture, wherever and whenever it is built. ALBERT NICHOLS

Pasadena, Calif.

Forum:

... This theater seems to breathe of future works. It has all the elasticity and simplicity of line that artists have long been asking for. I look forward to the day when our country will be filled with such theaters.

HELEN GAHAGAN DOUGLAS Member of Congress, House of Representatives, Washington, D. C.

Forum:

... It strikes me as being the most thoroughly developed theater, from the standpoint of production and audience facilities, in the world today.

It has combined a great many features which a number of us who have worked in the theater and put our ideas on paper have looked forward to seeing accomplished. Although there are two or three basic elements that could have been better planned, I really believe this is a fine a theater as there is in the world, from a sheer producing-audience standpoint.

The only outstanding criticism that I make is the lack of facilities for quickly handling the arrival and departure of motor cars for the audience. I regretted the omission of a scale from the plans.

NORMAN BEL GEDDES New York, N. Y.

SOAP OPERA HOUSE

Forum:

Inasmuch as I frequently find myself AWOL these days (AWOL: that's Allen, With Out Laundry) my mind has been turning with increasing frequency—at approximately 18,000 r.p.m. on some days—towards the laundry in the postwar home.

Now my idea is this, and please feel perfectly free to interrupt if you do not agree with me, as we want to establish the closest coordination, although I will trouble you to quit fishing the olive out of my glass; there must be some way to

glamorize the laundry in the contemporary house. My idea is to make a tieup with the radio; most housewives turn the radio on while washing and ironing to check up on John's Other Wife. (This John is a pitiable character; if he's got two wives he's also got two mothers-inlaw, ain't he?) A gruesome thought indeed, even in parentheses. Okay. They listen to soap operas, so now we can call the laundry the Soap Opera House and escape with our lives. Am I boring you, or does your lower jaw always hang down like that? I have been taking more interest in laundry work since my barber has taken to giving me a bluing rinse when he washes my hair of which I have ample, on account of he says it makes the white whiter. You would think it would make the white bluer, would you not? He advises against starching it. . . .



The Laundry in the Contemporary Home will not have an ironing board that you fold up and put away in the Storagewall as Houdini, the only man who could do this without falling over the cocker spaniel in the middle of the operation, is dead. It will not have an ironing board that is hinged to the wall behind a cupboard door as I had one like this and it was always unfastening the door from the inside and falling out and cracking persons on the head. Always the wrong person, too. My idea is to have a round ironing board you can play poker on. Now all we have to do is to find some garment you can iron on a round ironing board. I used to have a boat cape when I was in the Navy that would be ideal but the express company lost it when I shipped it home from the receiving ship at Brooklyn which is not a ship at all but an aggregation of buildings out at Bay Ridge, a fact the discovery of which took much of the romance out of seafaring for me. . . .

ROGER ALLEN

Grand Rapids, Mich.

MURDER WILL UP

Forum:

... Does it appear to you that we are about to see the damndest wave of eclecticism of the best 1935-1939 vintage that we have ever seen? I have observed innumerable projects out here on the boards that from the standpoint of planning and recognition of our time out-do everything in the prewar period-in the wrong direction. It is strange but I never wondered until now what the architectural world would be like when all the 'Cape Cod' and 'French Provincial' boys would decide that it was profitable to 'go modern.' So-called modern designers are now at a premium out here, just like classical full-sizers used to be in the old days. These men are hired to make the Beaux-Art plans look modern. It seems now that every architect is not only a city planner but is also the oracle of the postwar architecture no matter what he did in the prewar period.

It seems to me that we are due for some pretty sad stuff and THE ARCHI-TECTURAL FORUM is going to have to take an even more critical point of view. You were the first in the field to present contemporary buildings with conviction and without bias. I think you are going to have to be the first in the field to recognize what is progressive in the planning and construction of the postwar period and what is eclectic. . . .

W. L. PEREIRA

Los Angeles, Calif.

Architect and/or Associate Producer Pereira sounds a timely warning. Contemporary architecture is by no means free of misapplication of misunderstood detail. We detect an equally regrettable trend toward the Rococo.—ED.

FLAT-ROOF DOLL HOUSES

Forum:

Here's a brainstorm rising out of the predicament (not to say the utter shame) of an architect being forced to give his daughter an apparently contractor-designed doll house for Christmas. If you've shopped for toys, you'll know what I mean. It is perfidy.

The idea is to painlessly educate both Mr. and Mrs. Building Public and the coming generations. For what parent wouldn't enjoy helping his youngster build a little house of prefabricated units? I mean the sort of thing you (Continued on page 38)





PRACTICAL assistance on store-front work is yours for the asking. A Kawneer man will be located near you soon. He's a trained specialist on store-fronts—ready to work with you in a consulting capacity, equipped with useful data and retail merchandising information.

Merchants will spend money to make money. The Kawneer program is selling the merchants of America on the *value of proper design* in the creation of store-fronts as "Machines For Selling". The Kawneer man will bring you and the

> THERE'S NEW OPPORTUNITY FOR ARCHITECTS IN THE STORE-FRONT FIELD!

merchants in your territory together for your mutual benefit.

Details of the Kawneer "Standard" line are available for your use on jobs now on your boards. A complete new line is in the offing with new ideas, new products, new time-saving features to help you. It will pay you to get the full information on the Kawneer Program. Write today for booklet, "The Architect and Machines For Selling". THE KAWNEER COMPANY, 204 FRONT STREET, NILES, MICHIGAN.



MACHINES FOR SELLING!



They'll fit in with your functional designs

Your post-war designs for "the busiest room in the house" look beyond mere decoration to beauty that serves practical purposes. You will find that *Formed* Iron fixtures lend themselves exceptionally well to your imaginative planning for functional design.

These fixtures are modernly styled to please the eye. They can be specified in white or a wide range of colors; are acid-resisting at no extra cost; have a high-glaze finish; and, most important, are scientifically designed to eliminate unnecessary weight with no impairment of strength.

Another assurance you have is that Formed Iron fixtures can be porcelain enameled on ARMCO Ingot Iron—the original enameling iron and the most widely used metal base for this exacting purpose.

Formed Iron fixtures belong in your post-war plans. They'll give your clients the lasting satisfaction that enhances your reputation as a good architect or builder. The American Rolling Mill Co., 931 Curtis Street, Middletown, Ohio. Help finish the fight with War Bonds



EXPORT: THE ARMCO INTERNATIONAL CORPORATION

ures Your Kitchen Headaches, Too!

Homemakers everywhere prefer AMERICAN KITCHENS for their postwar houses because of their (1) energy-saving conveniences, (2) time-saving arrangements, and (3) morale-building beauty. And you, Mr. Architect, gain even more when you recommend AMERICAN KITCHENS. For instance...

NO REVISIONS!

Once recommended, AMERICAN KIT-CHENS are easily and permanently sold. Mrs. Homebuilder won't be pestering you to make changes . . . this is obviously her "dream kitchen." Pictured below is a "U-type" AMERICAN KITCHEN, one of the four basic styles.





FITS ANY KITCHEN! No matter what size or shape of kitchen, there's a simple combination of AMERICAN KITCHEN units which fit it as though made to order.



SUITS EVERY BUDGET!

Mass production makes possible highest quality at lowest cost. And units may be left out, to be added later. Equally adaptable to new or old houses.



EASY TO SPECIFY! AMERICAN KITCHENS require no special plans, wiring or plumbing. They can be easily installed, with no extra work for you, Mr. Architect.

SATISFACTION ASSURED!

The arrangement . . . the conveniences . . . the all-metal construction . . . the beautiful finish — all combine to make clients your firm boosters when you specify AMERICAN KITCHENS. ALL INQUIRIES GLADLY ANSWERED BY EXPERTS



AMERICAN CENTRAL MANUFACTURING CORPORATION, CONNERSVILLE, INDIANA

APRIL 1945



A. O. SMITH engineers devoted a total of more than 23,000 test-years to developing Permaglas - the water heater tank which successfully defies all the troublemakers in all the

R BAR T IN

soil waters in the country.

One of the worst of these troublemakers, for instance, is tannic acid. It attacks ferrous metal and forms a bluish-black ferrous salt that acts like ink or dye

in most heaters . . . but never in Permaglas, because it's fortified to resist tannic acid and all the other troublemakers. Hot water as free from tints and taints as the original water source itself is always assured from Permaglas, the sparkling blue, mirrorsmooth, glass-fusedto-steel of SMITHway Permaglas Automatic Storage Water Heaters.

Write for "The Inside Story of Permaglas."Your clients will thank you for specifying this long-life, corrosion-proof hot water beater.



Buy an Extra War Bond This Month

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LETTERS

(Continued from page 34)

showed in the article The Storagewall in the November issue. (Congratulations, by the way for your splendid job of design and presentation!) Contemporary design lends itself so readily to modules that wall sections, window walls and (flat) roofs could all be readily made to scale. Think of the fun any building-minded couple would have playing with such a flexible model! Their little girl would probably never have a chance at it. Couple with such a set of blocks a few modern pieces of furniture (where flexible furniture is apropos) and the most adult adult would rationalize his fun and learn much in his study of his dream house. .

. . . By the way, has anyone told you yet that they plan to build the units of your Storagewall? Sure wish such things were either available or that we could count on 'em definitely later.

SEWALL SMITH

Lafayette, Calif.

Production arrangements for the Storagewall are pending .- ED.

A PLEA FOR SPACE

Forum:

The open plan is a great advance over 4 r., k. and b. So is the Storagewall (despite the New Yorker) over the Victorian hall closet, or even the 1925 hall closet. Unfortunately the trend which is represented by such items has grown out of the attempt not just to make space more useful, but to make smaller spaces do what was formerly done by larger ones. I may be getting a little bit confused, but the object of all this effort seems to be to enable a builder to sell a \$4,500 house for only \$6,000.

I'll grant you it's rather snide to go picking flaws when you people are trying so strenuously to house the American public well and cheaply. The trouble I forsee is that all these beautiful new houses are too small. And a too small house is well on the way to being a slum-partly because the occupants don't want to stay home, and money that should go to maintenance goes to maintain an automobile.

Even if the average American family contains only 4.1 people (whatever the fraction is, we can put it in the overhead storage space and forget about it), a downstairs without walls and doors can be an awful incentive to all go out to a movie. I'm not arguing that the downstairs of 4 r. k. and b. is better. I'm arguing for more space. The fact remains that if Ma and Pa want to enjoy their dull and quiet grown-up occupations in the evenings, the teen-age boy and girl certainly cannot cut a rug in the l.r., whether it's open plan or not. Either Sis and Junior roam the streets or Ma and Pa go to-somewhere else. Bed, maybe. But in my opinion the family can't come into its own until it is possible for all its members to be human beings at once. The sense of belonging together does not result just from everybody doing the same thing at the same time. There just aren't that many interests that grownups and children have in common. A home has to be a place where, when the various children want to do various child-like things, they can do them without disturbing the adults at their little enjoyments. . . .

NAOMI L. WOOD

Washington, D. C.

Forum:

I did want to sit right down and write you a glowing letter of congratulations on your issue of the special closets, baths and bedrooms, but I see time has passed and so I thought I'd just mention one thing which has stayed on my mind to annov me - I think the children's builtin bedrooms are super-divine but for one thing - a child ought to have a double bed.

I am looking forward to an issue devoted to developing a modern kitchen-I've lived in 15 homes in 4 years and as vet I've to see a kitchen that isn't lousy -I want "an everything in easy reach kitchen."

ANN HAUBERG

Belton, Texas

MORE ON MEMORIALS

Forum:

All this talk of whether our war monuments should house the sewerage disposal plant or should be merely an empty shell makes me wonder just what we are fighting this war for. I wonder what the men for whom the monuments are being built would say on this subject. I can't believe they are fighting to get their names on a bronze plaque; but rather for a chance to come back home to a well-organized world and live a decent life. Admittedly we all feel we owe much to those who won't come back. But trying to repay their sacrifice with a Neo-Greek temple whose columns are

(Continued on page 42)

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 budg-eted to use 73,000,000 lb. (1,450 freight carloads) less paper than in 1942. In view of the resulting shortage of copies, please share your copy of the FORUM with friends.

Things you can count on...

Sure as sunrise your guarantee of quality when you specify Flintkote.

You can count on it. Your clients get the best when your designs incorporate Flintkote Building Materials.

And that's important to you.

Because your reputation rests on the homes you design. And only so long as those homes live up to service expectations is your reputation secure.

You can count on Flintkote to protect your reputation, by building maximums of quality and service into every product.

In asphalt roofings . . . in sidings . . . insulation and insulation board products . . . in protective coatings.

You can count on fine quality materials . . . skilled labor under experienced supervision . . . almost 50 years' leadership in the field . . .

You can count on all these, plus a strong sense of pride in the products you specify. Yes ... you can count on Flintkote.

Your Sweets Catalog has complete specifications on Flintkote Building Materials. Or we will be glad to supply you with detailed information in answer to a note from you.



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The complete satisfaction the home owner feels over the Taco Water Heater or "Taco-One" Heating System you recommend or install isn't at all a matter of luck. It's the definite, logical result of the knowledge and experience of the engineers and manufacturers responsible for Taco equipment. This satisfaction, plus legitimate profit for the contractor, are the best reasons in the world for specifying Taco.



Which type of architect are you ?

ARTIST



You've met him. His softpencil renderings are exquisite, he's terribly sensitive to color and line and he's way above such sordid matters as money. But clients never mind paying his fees because he does create beautiful rooms. Is he really clever? Well, he always dresses up interiors economically by adding the color and charm of a Kentile floor. Even with today's limited Kentile color line, he creates magical patterns and when, in normal times, he combines Kentile's 44 colors and 15 tile sizes, the result is magnificent. (You could do it, too.)



MISSOURIAN He only grunts when you tell him about the beautiful Kentile colors and he won't read a laboratory testing report. But he is impressed by the actual record of Kentile's performance in such hard-wearing areas as the corridors of Rockefeller Center, A & P, or Wool-worth stores, etc. He visits these places himself, gets down on his knees to inspect the tiles, and talks to the maintenance men. Says he: "You should see how Kentile floors stand up in supermarkets and school corridors." (We could show you hundreds of examples.)



ACCOUNTANT This fellow reads cost sheets with his breakfast coffee and when he discusses flooring he adds up this way: "One-Kentile is usually the lowest price flooring. Two -it goes down faster and can be walked on almost immediately, so it doesn't cause costly delays. Three -Kentile wears almost forever, so its net cost by years is fractional. Four-any untrained person can maintain a Kentile floor by simple mopping and occasional waxing, so its maintenance cost is low. Kentile is the best buy." (And we can prove he's right too.)

SCIENTIST



asphalt

He's an architectural Einstein and he really knows his stuff. Quite casually he'll say: "1/8 inch Kentile at 77° F, when subjected to pressure of 30 pounds on a hemispherically ended rod having a diameter of 0.25 inch, will indent less than .013 inch at the end of one minute with a tolerance of not more than .006 inch at 10 minutes." And he can tell you other fine tests that scientifically prove Kentile is better. (Clients are often impressed. We'll gladly refer you to a laboratory equipped to make such impartial tests).

DAVID E. KENNEDY, INC., 80 SECOND AVENUE, BROOKLYN 15, N. Y.





LETTERS

(Continued from page 38)

merely an engraved roll call seems ironical. They know their names will not be long remembered, they don't care about that; but they do hope the ideas for which they are dying will never be forgotten.

There has been too much wasting of time, materials, money, and lives because we still are not sane, civilized people. War is certainly not something to be remembered but rather to be forgotten. It seems to me we need a lasting memorial to their sacrifice, a country which in itself will symbolize peaceful living.

Our first step could well be building better places in which to live. Let's put our money into building communities that give people a chance for a better life; attractive communities with an abundance of sunlight and open green areas; communities that are made up of well planned and protected, attractive neighborhoods, intelligently related to the other activities of the city.

Obviously, the unveiling of our monument won't be for many years; probably we won't live to see it completed. But we've made a mess of the present and a marble veneer won't hide the rotten insides. Let's start planning for a better future and direct our money and energy in that direction—I believe that's what those who won't return truly want. Perhaps if we give everyone a chance for a healthy, well-rounded, normal life there will be no need to rob and kill for a chance to survive. Let our monument be a symbol of a new life—not a symbol of death, destruction, and sorrow.

ALICE WARREN

Birmingham, Mich.

For what one serviceman thinks on the question of war memorials, see below.-ED.

Forum:

THE FORUM didn't reach me during my last few months on the flaming continent and just today I saw the discussion by MacLeish and Maginnis and your December article on War Memorials. May the hate and cynicism of the front allow me to speak of these ideas with sincerity and logic.

Am I wrong in concluding that your ideal is eclectic monumentality? The "Boston Neo-classic War Memorial" looks like a Beaux-Art's variation on a theme by Mnesicles. Both eclecticism and monumentality are infinite, and I protest to both of them. I protest to the idea that we are a decadent people and are unable to solve all our building prob-

(Continued on page 46)

Air-Conditioned Music

The air-conditioning system in the home of tomorrow could be designed to bring radio programs as well as fresh air into every room. Unquestionably we will shortly see many other new things that will make living more comfortable-more leisurely-more pleasurable. We will see a wider use of aluminum and magnesium alloys in the products we use daily. For more than 25 years the Bohn organization has specialized in engineering these light alloys that are now attaining such wide acceptance. When the time comes, we will be glad to help solve manufacturing and selling problems for those to whom these light alloys can supply the all-important answer. BOHN ALUMINUM & BRASS CORPORATION GENERAL OFFICES-LAFAYETTE BUILDING + DETROIT 26, MICHIGAN ALUMINUM + MAGNESIUM + BRASS + AIRCRAFT-TYPE BEARINGS

BUY WAR BONDS

PLASTIC - FINISHED

Meet Every Requirement of Discerning Home Owners

Marlite

WALL

PANELS

Always noteworthy for its adaptability to wall and ceiling installation in all types of rooms in all types of buildings, plastic-finished Marlite has scored an amazing new success in a recent survey to determine what features home owners are looking forward to in their post-Victory interior walls and ceilings.

Home Owners selected "ease of cleaning" as the feature they considered most important for kitchen and bathroom walls and ceilings. "Beauty" was chosen as the top feature for living rooms, dining rooms and bedrooms. "Ease of cleaning" was second for these three types of rooms. "Permanence" was first choice, "ease of cleaning" second for recreation rooms. It is easy to understand why Marlite panels answer home owners' preferences so well . . . easy when you realize that Marlite has the *pioneer bigb-beat-bake finisb* which protects its lustrous surface against the penetrating action of dirt and moisture. Thus it provides an extremely durable surface that cleans easily; that retains original beauty for many years. gammannannannannannan

Designers can depend on Marlite to reflect faithfully the ingenuity of their planned designs—for new construction or remodeling. Marlite's large wall-size panels meet all room requirements—they're moderately priced, too.

Marlite is manufactured in five distinctive patterns (see illustration) with harmonizing moldings in plastic, wood, presdwood and metal. We suggest you send for information and a full-color catalog-today!

Marlite is ideal for kitchens. Easy to clean, always cheery and bright, it's sure to make a hit with home owners. Designed by Earl L. Confer, Architect, Detroit.



B

Living room walls and ceilings, featuring beauty, permanence and easy cleaning are easy to obtain with Marlite. Designed by Architect, Frank Gray, Aurora, III.

S

C

A

**



There's no problem in cleaning bathrooms where sparkling sanitary Marlite is installed. Marlite stays bright and sparkling for years.

PRODUCTS, INC:

Dover, Ohio

treet

SHE



HIG

ONEER



THE postwar world is going to see some mighty fine advancements in every phase of human living. But it isn't going to be the *dream* world lots of people are seriously expecting. Progress will pick up where it left off . . . and then go on from there. That isn't reactionary. It's plain common sense.

You, as a home designer and builder, can do more than any other single group in convincing the public that home building and household equipment isn't going to be so very different from that which was on the market before the war. Sure, improvements are continually being made. But no honest manufacturer will be offering new and untried equipment which has not been thoroughly proven in actual use.

What will Janitrol have to offer? Janitrol tomorrow, just as before the war, will offer the finest gas-fired heating equipment available . . . equipment which has been thoroughly laboratory-tested, completely proved in actual field installations . . . equipment that reflects the newest refinements and the most advanced designs . . . results of never ending research and development programs. So, the public doesn't have to drift into a dream world of pink-hued fantasy to find their "ideal" in heating equipment. Janitrol already has made a dream of warmth and comfort a happy reality for thousands of satisfied home owners.

Even before equipment is again available, you can help lead thousands more out of a dream world into real beating comfort and long lasting liveability by specifying Janitrol, the most modern heating equipment already proven in actual service. Be sure you have all the facts, write today for complete descriptive literature. Surface Combustion, Toledo 1, Ohio.





 Optonics is the new scientific method of giving color a FUNC-TIONAL value in factory production. It improves safety conditions, employee efficiency and morale, and reduces absenteeism. The Optonic Color System is described in a new book, "Color Power for Industry". A note on your business letterhead will bring you a copy with our compliments.

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



LETTERS

(Continued from page 42)

lems in the vocabulary of our own new magnificent materials — and building methods. And I object to the attempt to commemorate adequately the crucifixion of my friends by building marble shafts.

Boston's neoclassic war memorial is a monument to the fairest of the land who were pompously tossed to the sacred alligators of commerce and ease. But we thought - we tried to think - that we were paying a price for other things; things having very little to do with the highest standard of living in the world; things we didn't clearly understand because we were very young, but we trusted your generation to know how to plan, to design a program, a solution, so that universal education, wholesome living conditions, and time, could equate races, change the course of nationalism, enable everyone to live decently and so erase the problems which made my friends into little heaps of decaying flesh in France, Holland and Germany.

"For utility as well as monumentality ..." you say, and I read down and find that there is an historical library in the basement. Splendid! It is manifestly a monument to nationalism—"they gave their life for their country which is a great great thing"—to the strength and grandeur of the state, to the setting of one state and one people above another, to the "holier than thou" and the artificial aristocracy, to the "my country ... may she always be right, but my country right or wrong." Such an evil anachronism, and what a price it bears.

My friends who died knew that their country was imperfect, and they had an idea of how to solve the problems education for all, better housing and living conditions for all the underprivileged, and time — lots of time. But as long as a single race is persecuted or a single child living in want, anywhere in the world, how do you feel about showing the Boston neo-classic war memorial to the soul of my best friend whose body rots outside Guilsenkirchen?

I think his soul might be enshrined in the subaqueous light of the stacks of a library where all peoples are educated or perhaps in a park where negro children play just a short distance from their home, school, theater, church.

PFC. GEORGE C. PEARL Tarney General Hospital Palm Springs, Calif.

THE FORUM had no intention of endorsing the Neo-Classicism of Boston's proposed memorial. We too believe that Americans should be capable of solving building problems in the vocabularly of our new materials.—ED.

(Continued on page 52)



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

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





The Wheeler, Osgood Company, Dept. 11 Tacoma 1, Washington
Please send me free literature and detailed guide sheet for ordering <i>Tru-Sized</i> Doors.
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Name
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Address

FOR FULL INFORMATION MAIL COUPON TODAY!

ing, uniform quality, and master craftsmanship.

IN TOMORROW'S HOMES-

THE ACCENT WILL BE ON

According to the trend, a great many postwar homes are going to be built and sold with a lot of "built-in" features. Equipment and appliances, heretofore installed after the home was completed, are going to be provided as an integral part of the postwar home. *Most of these will be electrical*. Adequate wiring is the first important step in providing for these "built-in" electrical features. It is a factor that simply can't be overlooked.

The Square D Multi-breaker is a basic ingredient of adequate wiring. It affords modern convenience and protection—makes it easy to add circuits as they are needed.

Discuss the Multi-breaker story with your electrical contractor. If you'd like to have your nearest Square D Field Engineer sit in with you, he's at your service. The MULTI-BREAKER eliminates fuses completely. When a short circuit or dangerous overload occurs, the circuit is cut off automatically. A simple movement of the lever restores current after the cause of the overload has been removed. There are no delays—nothing to replace.

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AÉROFIN

FOR HEATING EFFICIENCY — Aerofin's specially designed Flexitube Coils are the answer.



Each Tube offset to allow for free expansion and contraction.

"U"-clip connections hold core, absorb external strains. FOR ECONOMY — because they eliminate expensive heating coil replacements and upkeep.

FOR ELIMINATION OF STRAIN TRANSMISSION TO HEADERS AND JOINTS — because they allow expansion and contraction of each tube independent of its neighbor.

FOR LONG LIFE — because of rugged construction, scientific design and quality of materials.

The U-Clip connections hold the core securely and allow free expansion of entire core without straining the external casing.

> All Aerofin products have been designed to meet the most exacting requirements in heating and cooling systems.

> Aerofin has been the dependable choice of architects, engineers and contractors for many years.

> Why not specify Aerofin on your next job and be convinced of its reliability?



MAKE SILBRAZ* JOINTS STRONGER THAN THE PIPE ITSELF

Make it a "one-piece pipe line" with WALSEAL------

WALWORTH

valves and fittings

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

To provide leak-proof, maintenance-free, copper and brass piping in homes, public buildings, industrial plants, schools, and other important structures, specify "one-piece pipe lines" made with Walseal* valves, fittings and flanges.

Threadless, every Walseal valve or fitting has a "SILVER RING" – a ring of silver brazing alloy – incorporated in each port. This alloy, when heated with an oxyacetylene torch, makes a Silbraz joint that is stronger than either the pipe or the fitting.

Silbraz joints make "one-piece pipe lines" that will not creep or pull apart under any amount of shock or pressure to which the pipe can be safely subjected. In thousands of installations – from homes to war-ships – these modern Silbraz pipe joints have proved their ability to take it under all conditions.

Assure your clients of maintenance-free piping — include Walseal products in all your present and post-war plans. Write today to Dept. AF for Catalog 42 giving complete data on Walseal valves and fittings as well as on the entire line of Walworth piping products. *Registered trade marks



WALSEAL* FLANGES FITTINGS VALVES



12 AWARDS TO 4 PLANTS

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD

the "



Blueprint of Happiness

THIS year you probably will not experience the great thrill that comes from poring over the blueprints for a home of your own. But we can tell you that your postwar home will be well worth waiting for!

• Yes... and today, while you're investing in War Bonds to help crush the Axis, remember you're also creating a nest-egg that will finance that home when you're ready to build it!

• • The techniques of functional design and compact construction which enabled Defoe to build 137 fighting ships for the Navy since we entered the war, will be turned to producing quality-built homes after Victory. In addition to the economies of volume production, these new homes will introduce concepts of beauty, comfort, and livability heretofore unknown in their price range -plus individuality of design and exterior treatment.

• Today, like ourselves, you have the double duty of performing your war-time task and buying your limit of War Bonds to hasten Victory.

• But you and we may both plan ahead around these scientifically designed homes that not only will offer greater dollar-for-dollar value to home buyers but will also contribute to better Armerican living standards and full employment.



A LETTER FROM THE PUBLISHER

Dear Reader:

G. I. Jobs-THE FORUM'S service to bring veterans and war workers to jobs in Building - is starting to move. Obviously, it must not move any faster than the war effort permits. What should and is happening now is that a good many interested organizations and individuals with jobs to give out are learning of the service. This is a necessary advance step if the service is to work smoothly when we really start the shift from war to peace.

THE FORUM has in preparation a pamphlet - Building, War and Postwar - written to bring up-to-date on the Building front those who have been away at the fighting front. A copy will be sent to anyone requesting it. Requests should be addressed to: G. I. Jobs, Architectural Forum, 350 Fifth Avenue, New York 1, N. Y.

Each day more letters like these come in:

Forum:

"Would you kindly send me information on your job placement service for discharged men of this war. I am a graduate Mechanical Engineer and honorably discharged from the U. S. Navy."

Forum:

"Read your last issue in regard to acquiring help, thru returning World War II veterans.

We are in need of a man having the following qualifications. One who is able to estimate, also a knowledge of drafting and ability to handle building projects.

Hoping that you may be able to

answer us with such a man." E. C. ENGELHARDT

Charles E. Engelhardt Construction Co., Bay City, Michigan.

> * *

With pleasant frequency these days the elevators stop at the 50th floor of the Empire State Building and bring to visit us in our new offices Building men in the news: Among the recent visitors: Göran Holmquist, Sweden's furniture king; Joseph Merrion, new President, National Association of Home Builders and his Executive Vice President, Frank W. Cortright; Lee Johnson, Executive Vice President of National Public Housing Conference along with writer, Charles Abrams; Detroit builder, Maurice Morrison; Retailing Editor, Louis Goodenough and his colleague, Helen Little; National Housing Agency Administrator, John B. Blanford, Jr.; Irving Clark of Westinghouse and Vice President of Producers Council; Douglas Meredith, Vice President of National Life of Vermont; Good Housekeeping's new Housing Editor, Joseph B. Mason; and of course many an architect including William Lescaze, Morris Ketchum, Jr., Henry Churchill, William Wurster of Cambridge, Peitro Belluschi of Oregon, Elizabeth Coit of FPHA, Charles Goodman of ATC, and Talbot Hamlin. They seem to like the offices as much as we do, which calls for a salute to TIME Inc.'s architects, Harrison, Fouilhoux and Abramovitz. Our friends are always welcome, and to those from out-of-town the view may prove an inducement. H. M.



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

To aid discharged veterans secure professional and executive employment in the building industry and affiliated branches, The FORUM opens its columns to applicants in the categories below.

Classified advertisements not exceeding 40 words, giving the applicant's qualifications and stating his preferences in occupation and location will be published without charge. All advertisements will be keyed by number only.

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

V102

ARCHITECTS, DRAFTSMEN, ENGINEERS, BUILDERS, CONTRACTORS

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



Folks "go for" electric water heaters! In 1944 a National Electrical Manufacturers Association survey showed that 35% of today's home owners intend to buy one-and the percentage is increasing steadily!

There's sound, common-sense reasoning behind this preference. It's a fact that electric water beaters are

> **SAFE** —Flameless, fumeless CLEAN -Smokeless, sootless EASILY INSTALLED - require no flues, vents or lengthy hot water pipes TROUBLE FREE -as electric lights

You'll be giving home builders and buyers the popular choice by including an electric water

heater in the homes you build. Your customers will get greater satisfaction, and you'll get quicker, easier sales!

FLECTRIC WATER HEATER SECTION NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

- CLARK ELECTROMASTER FRIGIDAIRE GENERAL ELECTRIC HOTPOINT HOTSTREAM KELVINATOR MONARCH NORGE PEMCO REX RHEEM SELECTRIC THERMOGRAY THERMO-WATT
- UNIVERSAL . WESTINGHOUSE.
- A House Wired For An **ELECTRIC RANGE Is Already**



1900

"Of course, this wonderful kitchen has ELECTRIC LIGHTS!"

lake a tip from the **PAST** the future is *Electrical!*



194X

"Naturally, this modern kitchen is wired for an ELECTRIC RANGE!"

YOU can't get away from it—selling people something they *really want* is infinitely easier and far less expensive than *forcing* them to take something less! And after Victory, builders and architects who have had the foresight to provide Electric Range wiring will reap speedy benefits. For most people *want* Electric Ranges!

HERE'S CONCRETE PROOF!

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

HOUSEHOLD MAGAZINE'S recent survey shows that 2.7 times as many women want an Electric Range as now own one.

The large and rapidly growing swing to Electric Cooking is also shown in surveys made by McCALL'S MAGAZINE, OFFICE OF CIVILIAN RE-QUIREMENTS, 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!

Write for details-now. Ask for FREE booklet, "Wire Abead". Address -

ELECTRIC RANGE SECTION NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION 155 East 44th Street, New York 17, New York

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Page Airways Incorporated, Rochester, N. Y. Thomas Bryan & Associates, Inc., Engineers.



United Air Lines, Chicago, Ill. Architect: Albert Kahn, Inc., Detroit, Mich.

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.



For technical data, specifications, and installation details, see our section in Sweet's Architectural Catalog, or write: Insulux Products Division, Dept. B-19, Owens-Illinois Glass Company, Toledo 1, Ohio. Douglas Aircraft Co., Inc., Santa Monica, Cal Architect: Joe M. Estep, Santa Monica, Calif.

CO



FOR TOMORROW

10 10 10

One thing is certain! As the aviation industry grows and expands, there will be an ever-increasing demand for lustrous, light-flooded panels of Insulux Glass Block.

Insulux is ideal for use in hangars, airport buildings and airline ticket offices. Why? Because it is a practical as well as a beautiful building material!

> Panels of Insulux transmit and diffuse light better than ordinary construction yet provide privacy along with light.

> Furthermore—panels of Insulux are non-combustible. They do not rot, rust or corrode. They cut down the amount of noise and dirt. And they are easy to clean and to keep clean.

OWENS-ILLINOIS

section of structural steel on schedule. Rapid, precision fabrication of mass tonnage for steel structures is Allied's contribution to vital industrial expansion. When engineers and layout men who have vision and creative ability ally with large plant facilities and a quarter-century of experience in getting down to cases with architects, engineers, and contractorsfabricating service becomes a fast-moving, co-ordinated effort. FABRICATED BY Your structural steel problem will find quick ALLIN. and satisfactory solution here. Send your plans and specs.

Bomber Assembly Plant, one of the world's largest faildings, 29,681 Tons of structural steel delivered at the rate of 8,000 tons per month.

> Three companies, with total structural steel capacity of 75,000 tons, who have pooled their facilities under centralized control and responsibility.

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STRUCTURAL STEEL

STEEL CLINTON BRIDGE WORKS, 101 S. Second St., Clinton, Iowa GAGE STRUCTURAL STEEL CO., 3123-41 S. Hoyne Ave., Chicago 8, III. COMPANIES MIDLAND STRUCTURAL STEEL CO., 1300-20 S. 54th Ave., Cicero 30, III.

STRUCTURAL

1945





Home of Mr. Lawrence E. Tripp Pasadena, Calif. Architect, Dougles H. McLellan, A.I.A. Builder, William Simpson Construction Co.

... to comforting, dependable warmth

30

Payne FURNACE & SUPPLY CO., INC., BEVERLY HILLS, CALIFORNIA

YEARS

Members of the Lawrence E. Tripp family and guests enjoy a home, the first glimpse of which promises warm hospitality. Perhaps it's the wide-open shutters, the vineclad brick walls or a combination of architectural details. Whatever it is that creates this pleasing first impression, the interior fulfills its promise. The rooms are suffused with clean, fresh, uniform warmth...*dependably* provided, year after year, by a PAYNE Furnace installation.

EVERYTHING

OF

LEADERSHIP

You will ZONE-CONDITION your home of tomorrow

Write for new booklet on PAYNE ZONE-CONDITIONING, successor to old-fashioned central heating. Circulated winter warmth, cooling summer ventilation... controlled by zones or individyal rooms.

C 1944 PAYNE FURNACE & SUPPLY CO , INC



It takes 10 men to do the field work for the ordinary window. Ten workers, each with a special skill; 10 individual costs.

Not so with the CROFT WINDOW WALL UNIT.

Here is the most revolutionary development in metal fenestration in a century. It is far more than the term "window" suggests.

Completely pre-finished and packaged, the CROFT WINDOW WALL UNIT requires no assembling, no fitting of parts, no extra costs. It is readily installed, ready for service the minute it is removed from its carton.

Factory-fitted throughout, the CROFT WINDOW WALL UNIT is complete in the fullest meaning of that term . . . interior and exterior trim . . .

CROFT STEEL PRODUCTS, Inc.

Executive Offices: 370 Lexington Ave. New York 17, N. Y. hardware . . . glazing . . . screens . . . storm sash . . . and venetian blinds.

There's more too. A patented wall ventilator is also included, so that air may be admitted without opening the window or storm sash.

That's why we say the CROFT WINDOW WALL UNIT makes 10 men disappear. All of the following field work is eliminated . . . Corner beads, plaster jambs and heads, interior trim, exterior trim, sills, stools, glass and glazing, painting, hardware attachment, adjustments, screens, storm sash, cleaning and caulking.

Priced for low-cost homes, the CROFT WIN-DOW WALL UNIT is to be sold through your local building supply dealer.

Write now to be placed on our mailing list.





Stop watches are made for split-second timing—but this war is nothing that seconds can measure. So here at Lawson's we're trying to quit holding watches on the war trying to concentrate completely on the work we do for the Armed Forces. Which means that the return of Lawson metal bathroom cabinets is definitely postponed.

But we are turning out Lawson Warwood cabinets—and we're prouder of our Warwoods every day. The Lawson Warwood is a quality product, carrying both the Lawson name and the Lawson guarantee.



THE F. H. LAWSON COMPANY Cincinnati 4, Ohio

IN THE FORUM

A list of the designers who have recently prepared house projects for the consumer magazines reads like a *Who's Who* of modern domestic architecture. Those represented in this issue should all be familiar to FORUM readers. The fact that many have remained, until recently, almost unknown to the general public is a striking demonstration of the complete editorial frontflip which the Home and Womens' magazines are making on the question of modern vs. traditional design. At long last people are getting a chance to see what modern houses are really like.



Gardner Dailey is one of the outstanding residential architects in the U. S. His pyramid of honors is topped by the Museum of Modern Art's accolade for two jobs; presidency of the San Francisco Planning Commission; work in Brazil for Rubber Development Corp.; a newly acquired mikeside manner.

Harwell Hamilton Harris, another Californian, has just returned to his L.A. practice after teaching at Columbia University in New York. One of the first modern designer's to turn to attractive, native materials, each of his meticulouslyworked out houses has been a design event since the FORUM published his first house in 1935.





Vernon Demars' unique designs have hit mediocre public housing with sledgehammer impact chiefly through FSA projects in the Southwest—for which the Museum of Modern Art honored him last year. Before entering the Navy in 1944 he was Chief of Housing Standards for NHA.

Michael Goodman, Russian-born, saw his first redwood structures in Siberia and China and followed their lure to California. Now he teaches in Berkeley, practices house design, and experiments with materials—from stained glass to concrete construction.





Victorine Homsey of Washington, D. C., architect in her own right, is also half of a famous husband-wife team. She and spouse Samuel (now in military service) developed a doubly effective formula for their domestic architecture: each worked independently on the same problem, then combined ideas and criticisms.

(Continued on page 62)

A HOT SUMMER IN WASHINGTON MIGHT HAVE "MOVED" THE RHINE



Worthington Air Conditioning Helps Meet the Menace of the Expanding Maps

In a little-known windowless building somewhere near Washington, D. C., out of which 100,000 maps a day have poured for fighting forces overseas — air conditioning prevents the fraction of a millimeter's error which atmospheric changes might cause in military maps. Such errors might "change" the course of rivers . . . spoil the accuracy of artillery fire . . . put parachutists on the wrong side of the ridge.

Humidity makes map film and printing paper stretch. Dryness shrinks them.

The two Worthington centrifugal refrigerating

machines installed in this "map factory" are part of the broad line of equipment Worthington can supply for air conditioning purposes.

Making so many of the "vitals" ... from Diesel engines, condensers and compressors to valves and V-belts ... Worthington is best able to engineer completely integrated systems for best results.

Write for facts on Worthington's fifty years in air conditioning, data on historic installations, and catalog material. Worthington Pump and Machinery Corporation, Harrison, N. J.



AIR CONDITIONING

REFRIGERATION

AR 4-11

ZONOLITE INSULATION USED. IN WASHINGTON D.C. GAS LIGHT COMPANY NEW BUILDING



Zonolite Fireproof Plaster and Concrete Greatly Reduce Dead Load . . . Insulates Against Heat, Cold and Sound

In this new addition to Washington's superb modern structures the floors and roof are insulated with Zonolite Concrete, and the walls are plastered with Zonolite Plaster. This use of Zonolite again follows the precedent rapidly being established by leading architects and engineers in scores of America's finest buildings.

Zonolite Concrete

Zonolite Concrete Aggregate replaces sand to make a permanent, fireproof, sound-deadening, lightweight insulating concrete for floors and roofs. It is easily poured, easily formed into cants, saddles, and slopes to give proper roof drainage.

Zonolite Plaster

Zonolite Plaster Aggregate replaces sand to make a fireproof, crack-resistant, lightweight plaster of high insulating and sound-deadening qualities.

1 INCH OF VERMICULITE* PLASTER PASSES 4-HOUR UNDERWRITERS' FIRE TEST

In a recent fire test by Underwriters' Laboratories, Inc., 1 inch of Vermiculite* Plaster successfully fireproofed a steel floor and primary steel beam for 4 hours. 1 cubic foot of this Plaster Aggregate weighs 8¹/₂ lbs. as compared to 100 lbs. for sand.

*Vermiculite is generic name for Zonolite SEND FOR A COPY OF UNDERWRITERS' LABORATORIES REPORT

Beautiful New Building of Washington, D. C. Gas Light Company. Winner of Award of Merit by Washington Board of Trade. 5,000 cu. ft. Zonolite Concrete—18,000 cu. ft. Zonolite Plaster. Architects—Leon Chatelain, Jr. and Jarrett C. White.

UNIVERSAL ZONOLITE INSULATION CO., Dept. AF-45, 135 S. La Salle St., Chicago 3, Ill.





Maximum efficiency for your lighting system, long life and low annual costs—you gain these benefits by specifying Alzak-finished Aluminum light reflectors.

The high reflectivity of Alcoa's Alzak-finished lighting sheet, in combination with the reflector manufacturers' designs, accounts for this high efficiency. The ease with which Alzak reflectors can be kept clean enables you to maintain this efficiency throughout the life of the system.

Alzak reflectors come in various finishes; for indoor and outdoor work, for spot illumination and diffuse. In ordering your reflectors, be sure to specify the type of Alzak finish for each job. Your reflector manufacturer can meet those requirements.

ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh 19, Pennsylvania.





Your signature on plans and specs for a home underwrites your reputation as a reliable architect. Your client depends on you for professional judgment and advice in all details.

An important one of these details is the hardware. Your recommendations are accepted on the amount to be spent to guarantee adequate hardware of quality and design that befits its rightful place as a permanent construction item.

If your client finds later that you have not allowed a sufficient amount to provide the hardware he needs—in quantity and quality—you are blamed, and your reputation suffers because of this overlooked detail.

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IN THE FORUM (Continued from page 58)



Russell Wright's industrial designing has shaped many an American object dinnerware, handkerchiefs, rugs and furniture. One of his early jobs was the Focal Food Exhibit seen by thousands at the N. Y. World' Fair.

Carl Koch (Lt. j.g., U. S. Navy) was previously Senior Research Technician, Standards Section, NHA, where he arrived after a Bacon Traveling Fellowship, a job with Markelius on the Swedish Pavilion at the N. Y. World's Fair, and designing his own house, part of the famous Snake-Hill group near Boston.





Cameron Clark, dropped designing big conventional houses when the market folded up with the stop-building order. Now concentrating on the Postwar World, he is a member of the Advisory Planning Council for Manhattan, Consulting architect on Postwar Projects.

Morris Sanders, New Yorker, known chiefly for homes, shops and display including Walter Winchell's bedroom, a hospital in Turkey, and bottles for Schenley Products—recently turned his attention to plastics, as Chief of Products Development for OPA, Plastics Consultant for the QM General's Office.





Caleb Hornbostel, son of the famous Hell Gate Bridge architect combines a Carnegie Tech degree with a Beaux Arts education. He has designed houses in prewar France, and factories here in the more immediate present—including a large shell-loading plant for the British Purchasing Commission.

Hugh Stubbins Jr., young instructor at Harvard's Graduate School of Design, first attracted attention with his thirdprize design in the Smithsonsian Competition. He has since achieved a name in public housing, designed two projects, is a member of FPHA's Architectural Advisory Committee.





Morris Ketchum Jr., of the recently combined firm, Ketchum, Gina & Sharp, has been responsible for many of the smartest shops in an increasingly smart shoping bazaar: his own home town. He is that *rara avis*, a native New Yorker and graduate of Columbia. He also holds a Fontainebleau *diplome*.

(Continued on page 66)



SHEETROCK Fireproof WALL and CEILING PANELS









Say "Fire, stay 'way from my home"—but say it in language that fire understands...in-

stall fireproof Sheetrock wall and ceiling panels. For Sheetrock is made of gypsum, the fire-fighting mineral that cannot burn... protects the framework over which it is applied till help can arrive.

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Simplified construction makes the BEACON

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THE ADMIRAL .

THE COMMODORE

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IN THE FORUM (Continued from page 62)



Huson Jackson is one of a group of architects, engineers and planners called "Plan-Tech Associates" which include Carl Koch, John Callender, Herbert H. Stevens Jr. and Arthur D. Mc-Voy. Since Harvard, 1939, he has majored in community planning and housing via USHA and private practice.

George Kosmak's first commission was a Montana ranch; another was a 57th Street lingerie shop; interspersed with modernization of tenements were Fair exhibits, Indian Service hospitals and schools, product design in association with Ruth Gerth (Mrs. K.)—all of which now takes them to San Francisco.





Charles B. Platt has practiced architecture for 20 years in New York State, with the usual run of residential, industrial and commercial jobs. For the past six years, from his relatively rural White Plains retreat, he has increasingly specialized in agricultural work such as dairy farms and expansible buildings.

Llewellyn Price of Pennsylvania, between service in two wars, has written a great deal about small house design and construction and has modernized a number of old farmhouses. Once again in private practice after war service, he has recently invented a lettering device called "Letterite."





Alfons Bach brings a European training to his New York design practice. Once art director for a German motion picture company, he switched to industrial design since coming to this country in 1926. His achievements range from perfume bottles to architecting his own home; also, presidency of the A.I.D.

Royal Barry Wills, from rock-ribbed, conservative Boston, has designed more houses which have pleased more New Englanders with their indigenous quality and which have won him more architectural awards than any other architect. He has written books on architecture, and is director of the Congress Cooperative Bank.



All of the above were responsible for design projects specially prepared for one or more of the consumer magazines. Other architects and designers whose recently published work figures in this issue include Alfred S. Alschuler, W. E. S. Smith, Anthony Thormin and L. Morgan Yost.



AN AIRPORT Loading Apron TERMINAL (semi-exposed) Radio Ground Waiting Room & Lounge Crews, etc. Pilots Restaurant reight & Express Truck Entrance Kitchen Baggage cket Standard Asphalt Tile is an attractive, dur-Passenger Entrance able floor for passenger and crew areas. It's low in cost, easy to clean, and can be used on suspended, on-grade, and belowgrade floors. P.S. For full in-0 formation about the Linotile (Oil-Bonded) for offices and ticket many architectural adrooms. It's rich look-

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FORUM OF EVENTS



ist Prize Kelly & Gruzen, Architects

Not premiated: Kelly & Gruzen, Architects



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Organized to determine the most appropriate location for a future state office building, or buildings, this recent competition for expanding the New Jersey capitol posed a straight problem of site planning. Required additional floor space was set at 400,000 sq. ft. The old capitol, its annex and some nearby revolutionary barracks were to remain, but competitors were allowed to recommend the condemnation or demolition of existing privately owned buildings and other property in the vicinity. Open to practising registered architects in the State of New Jersey, the competition was judged by the presidents of the New Jersey chapter of the AIA and the State Board of Architects, Sherley Morgan of Princeton, George W. McRae and Reeve Schley.

Kelly & Gruzen's winning design provides an eight story rectangular office building separated from the state house by a public mall. The central portion of an underground passage connecting the old and the new buildings, opens on a sunken garden in the middle of the plaza. The architectural treatment of the projected building attempts a modernized version of the existing capitol's federal syle.

The second parti, a truly contemporary approach (which received no mention) includes three distinct building masses one of which is a narrow 30-story-tower for state offices. This plan substitutes smaller planted areas on two levels for the central garden. The principal entrance is on the ground floor of the tower. Major rooms (Continued on page 76)





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open on the terrace above. The low building at the left would house the State Museum. A memorial, occupying the terrace wall at street level, was introduced by the architects though not specifically called for in the program. Second and third prize winners were Marcel Villineuva of West Orange and Albert E. Mieklewright of Trenton.



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"BETTER THAN CODE REQUIRES"

FORUM OF EVENTS

(Continued from page 76)

COMPETITION

The Committee for the Advancement of Ecclesiastical Sculpture of the National Sculpture Society has arranged with Eggers & Higgins, architects of Our Lady of Victory Church, New York, to use the facade of this church for a sculptural competition. The feature of the facade is to be a statue of Our Lady of Victory, eight feet high and designed for execution in stone. A \$300 prize will be awarded to each of the three winning artists and all models will remain the property of the sculptors. Competing sketches shall be in the round, cast in plaster at $2\frac{1}{2}$ in. scale. Further information and a blueprint of the church facade may be obtained by writing to the Committee at 115 E. 40th st., New York City.

The Sperry Gyroscope Co., and the Alumni Association of the American Academy in Rome announce a collaborative competition for the design of a memorial to Dr. Elmer A. Sperry. The competition, which closes May 14th, is open to teams comprising not less than two nor more than four representatives of the arts of architecture, landscape architecture, painting and sculpture. One prize of \$1,000, one of \$200, and three of \$100 each will be awarded. Applications for programs may be made to the American Academy in Rome, 101 Park Ave., New York 17, N. Y.

AWARDS

Architects Arthur A. Fisher and Alan Fisher of Denver, Colo., have been awarded first and third prizes in an international competition for their design of a small hospital and health center. The purpose of the competition is to encourage the building of hospitals for small communities where they are needed. The capacity of the Fisher-designed hospital is 40 beds with a planned expansion to 60. The hospital is to serve 12,500 people within a radius of from twelve to fifteen miles. The health center, an even greater asset to the small community, is set up to operate under a separate administration but in direct connection with the hospital.

Winners of the WGN-Chicago television studio design competition were recently announced. Arthur Frederick Adams and William F. Clark, Chicago engineers, won the first prize of \$5,000. Second prize went to the firm of Dinion & Merritt of New York. Joseph T. Gemmi of Decatur, Ill., won third prize. The competition was judged by Col. Robert R. McCormick, president of WGN, Inc., Frank P. Schreiber, station manager, and Henry Weber, WGN director of music, John W. Park served as professional adviser to the jury.

Recently cited for distinguished service by the New York chapter of the AIA were Wallace Kirkman Harrison, Jacques Andre Fouilhoux, Archibald Manning Brown, Ernest Flagg and Daniel Paul Higgins for their individual contributions to the prestige of the architectural profession.

ANNOUNCEMENTS

VAN DOREN, NOWLAND & SCHLADERMUNDT, industrial designers of New York and Philadelphia, have announced the appointment of five members of their staff as associates of the firm. They are, Donald E. Dailey, Lester Geis, Charles L. Metzler, Norman H. Prince and Ladislav Rado.

(Continued on page 84)



Purposeful use of energy in color reduces eye fatigueincreases efficiency among office executives and staffs!



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Ac	ldress
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FORUM OF EVENTS

(Continued from page 80)

WILLIAM W. CALDWELL, vice president of the building construction firm of Iglehart, Caldwell & Scott, Inc., New York, has been elected president to succeed Stewart B. Iglehart, who has been named chairman of the board.

HUBERT C. WATSON, formerly with Pan American World Airways and the New York Municipal Airport, is now associated with Walter Dorwin Teague, New York industrial designer, as consultant on aviation design.

OPENINGS OF OFFICES

WALLACE M. BAXTER and JOSEPH BAILEY announce the organization of the architectural partnership of Baxter & Bailey with offices at 1017 Langford Building, Miami 32, Fla.

BERNARD J. DEVRIES announces the reopening of his office for the general practice of architecture at 613 Hackley Union Bank Building, Muskegon, Mich.

MARTIN ULLMAN, industrial designer, has opened an office for product development and styling, architecture, project planning and package design at 113 W. 57th St., New York 19, N. Y.

CHANGE OF ADDRESS

FREDERICK H. REIMER, architect, announces the removal of his office to the Federal Security Building, 79 Post St., San Francisco 4, Calif.

EBERLE M. SMITH ASSOCIATES, architects and engineers, announce the relocation of their offices at 1202 Francis Palms Building, 2111 Woodward Ave., Detroit 1, Mich.

JOSEPH BAILEY, architect, has changed his address to 738 N.W. 14th Court, Miami 35, Fla.

PETER COPELAND, architect and industrial designer, announces the removal of his office to 745 Fifth Ave., New York 2, N. Y.

DIED

ROBERT MALLET-STEVENS, early proponent of the modern trend in architecture, in Paris at the age of 58. Popularly regarded as one of the foremost leaders of the modern French school of architecture, Mr. Mallet-Stevens was noted for his emphasis on light and air and utter contempt for ornamentation. The greater part of his work, executed between 1915 and 1930, applies to architecture the principle of cubist painting and sculpture of the period. Born in France of Swiss extraction, Mr. Mallet-Stevens designed many residences, factories, public buildings and worker's houses. In Paris, houses of his design line an entire street which bears his name.

CORRECTION

In the February article on *Postwar Building Techniques* it was inadvertently stated that films have been developed to eliminate reflection in conjunction with Thermopane glass. Actually, these films developed during the war, will be available after the war for direct application to any large glass areas but have no connection with Thermopane as such.

SPECIFY STREAMLINE COPPER PIPE FOR THE ARTERIES OF THE POST-WAR HOME



When specifying or installing a plumbing or heating piping system, the following leading questions concerning the arteries of the building should be of paramount importance. You should be able to answer them with a positive "yes".

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If the answer to any of these questions is NO —then you are not installing the piping system that will give you the utmost for the money expended, but if you wish to answer all these questions with a positive YES—then your choice will be genuine STREAMLINE Copper Pipe and STREAMLINE Fittings and you will specify and accept nothing else.

A STREAMLINE piping system offers the greatest possible resistance to rust and leaking water. It provides a lifetime, trouble-free, plumbing or heating system that, with the possible exception of extremely abnormal water conditions, will outlast the building in which it is installed. Plan on specifying and installing STREAMLINE Copper Pipe and Fittings for your postwar construction—or for replacement.

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has a drawer-full, too!

Important innovations in building construction are on the way. Already your files may be bulging with data on promised new products and new plans for using them.

On the *electrical* side alone, there are enough postwar developments now in the news to make the evaluation job burdensome for anyone but an electrical specialist.

Here is another place where John Watts, the local electrical contractor, can be of real help to you. He can help evaluate new products or ideas in the light of his on-the-spot knowledge of regional codes, powersupply, working conditions. He'll be glad to work with you on plans for applying new electrical ideas to industrial, commercial, or residential buildings, even though the project may be tentative.

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The Gold Bond 2" Solid Partition System will be available again as soon as our metal lath plant is released from its present vital assignment of making metal landing mats for portable airfields. Full detailed drawings and specifications of this system are given in our section in the 1945 Sweet's, together with a de-

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HOUSE OMNIBUS

AFTER a 14-year intermission, broken only by short intervals of unimportant activity, home building is preparing to go again.

These preparations are marked by controversy. Obviously, home building has no major reconversion problem, but that does not deter some from insisting that—like the automobile industry—we must pick up where we left off. With equal vehemence others demand that even the first postwar house include advances in planning and in technique which have evolved over several past decades.

These extreme views take everything into account except the public the families supposed to live in the houses.

This issue of THE FORUM seems well timed to bring some order out of this chaos. If the public is to acquire, through sale or rental, a million or more new houses a year, some attempt should be made to find out what the victims of all this contention think the houses should be like.

A variety of private and government agencies have measured the housing *need*. Converting *need* to *demand* calls for accurate appraisal of what the customer wants. To find out what the customer wants is a less baffling process than might be supposed. Fortunately that assignment gets a continuing work-over by a group of experts—the editors of the magazines which each month are read avidly by millions.

These editor-experts are endowed with the usual allotment of human failings, but by no stretch could they be counted among the starry-eyed, ivory tower dwellers so frequently scored by "practical" men. These are among the most realistic people alive, with the persistent warning signal of the newsstand till to keep them on the beam. They shoot the sky of public opinion and what the public wants is what they give.

For several recent issues THE FORUM has previewed for its building audience the first of a series of House Ideas now being carried to the 22 million readers of LIFE. This month we leave our immediate family and show what some other respected magazine colleagues are doing. This group includes magazines wholly devoted to the home and others which make the home a featured department. THE FORUM believes no more useful exhibit could be assembled than this show of postwar home building currently contrived by these magazines.

It is not only a good show, but to many who do not follow it closely it offers its share of surprises, chief among these a modicum of comfort to adherents of the status quo. On the other hand, most of the ideas featured avoid those electronic-swimming-pool-in-the-library fancies into which some of our favorite liquor dispensers blow an alcoholic breath of life.

Every page in this issue is rich in ideas. In the main, their variety and sense should be reassuring to those in Building prepared to move at least with the public, if not ahead of it. When studied, these ideas prove to be realizable because they already have been realized. What is new is the notion that any number of these ideas may meet in the same house. When they do, the house proves to be not a Cape Cod cottage or a miniature Swiss chalet but a truly contemporary house designed to withstand the shocks of a changing life, a life in which much change has already become the norm. After all, a nation which has trebled the number of its college graduates in the last twenty years has aquired new living habits which refuse to be fenced in by four simple walls, however well insulated, and a roof.

And we note briefly that this tour fills us with a certain, if unattractive, pride. Except to those who have joined THE FORUM'S audience recently, some of these proposals and many of their proposers will be familiar. This, we feel, is as it should be. THE FORUM must keep its building practitioners ahead of the public. Consumer magazines reflect and strongly influence the public's views. If, as the evidence suggests, THE FORUM has anticipated a major trend toward modern design, this should prove an advantage to building professionals and their customers.

Soon, and the sooner the better, we will see whether home building is ready to march in step with its public. How well the two are synchronized will determine the number of customers. And more important, determine whether at long last gracious living is to be the lot of most Americans.

Better Homes & Gar



JOHN NORMILE, Associate Editor of BETTER HOMES & GARDENS, is responsible for the magazine's cleancut editorial material on building design, construction and maintenance. To his job he brings 25 years of practical experience as an architect in Des Moines where he was president of the Iowa Chapter, American Institute of Architects. Before that he saw France from two points of view -as a student of the Ecole Des Beaux Arts in Paris, as a Lieutenant of Engineers in World War I. Now, in addition to editing and architecting, he travels for the express purpose of "finding new home plans to conquer."

Home is where you hang your mortgage

points out John Normile, emphasizing the conservatism of most prospective owners.

To announce that our postwar homes will be push-button palaces of metal and glass and plastic would be as foolish as to call the Cape Cod cottage the last word in home design. Either statement would be as full of holes as a Swiss cheese. The truth probably lies somewhere between: the houses we build tomorrow are bound, by our very human nature, to be a combination of the best of the old and the new.

We believe that the average family has basically good taste and is eager to accept sensible innovations in home design. We know them, however, to be essentially conservative when buying a home, largely because this is the greatest single investment any one family ever makes. Their viewpoint on home design is not the same as it is in the selection of an automobile, refrigerator, or other appliances, where the sum spent is much smaller and involves less future risk.

Again, sentiment and tradition are strong in home building. Both are encouraged by builders, most of whom tend to resist any change in their accepted ways.

For these reasons, Better Homes & Gardens feels that to fulfill its mission of bringing to its readers new and better designs, it must act as a leavening influence between the creative designers and their ultimate market. Besides convincing the home owner of the soundness and practical value of the ideas we present to him, we must choose a bit of both the best extreme and the finest traditional designs. To lean too far toward the new would shock the prospective builder-and to lean too far backward would equally discourage him-into absolute resistance to any progress.



SLIDING CURTAINS DIVIDE ROOM OR SCREEN IT FROM VIEW. LOW WALL AT RIGHT EXTENDS OUTSIDE, IS USED TO ST





DESK AND STORAGE ON OPPOSITE SIDES OF ROOM PARTIT

Living rooms merge with out-of-doors in plans from Better Homes & Gardens.

In recent months *Better Homes & Gardens* has put a number of crack architects and designers to work planning modern rooms, each one expressive of the present trend toward light, air and openness in architecture. The living room shown above was designed for this series by Russell Wright. Its entire front facing toward the garden is made of double glazed panels which are kept tightly closed on chilly days, but can be rolled aside into pockets during warm weather. By means of a diagonal semi-partition the room is divided into two areas: the larger for social activity, the secluded nook for study.

Alfons Bach designed the two rooms opposite, both of which are conventional in structure and offer, therefore, excellent ideas for remodeling. Planned as combination living-dining space, they achieve a separation of function by sensible furniture grouping. At the same time the open arrangement lends flexibility. Large windows provide a maximum of light.

Better Homes & Gardens

DEN FURNITURE

LOW FURNITURE AND A MIRRORED FIREPLACE WALL MAKE THIS SMALL ROOM APPEAR SPACIOUS



AT

1 - 2 ·

RADOKS-

BOOKS





DINING

KITCHEN



INNOVATIONS INCLUDE DRAWER REFRIGERATOR BELOW COUNTER, EGG-CRATE CEILING-LIGHT ABOVE TABLE



Dining-kitchens are planned for efficient meal preparation, easy serving.

George Kosmak designed the pleasant kitchen-dining unit shown above, which is adjacent to a laundry at left and a living room and terrace at right. Grease-proof washable plastic curtains can be drawn between kitchen and dining and between dining and living space to make three separate rooms, or left open to form one elongated area. Thus, when working in the kitchen one need not be isolated from the social group. Generous windows make each room light and airy but are shaded by wide eaves and deep louvers to keep out the hot midday sun. Aseptic kitchen white has been replaced by soft greens and reds and by natural wood textures.

Flexibility, utility and comfort are combined in the kitchendining plan by Morris Ketchum opposite. An island cupboard unit containing sink, work counter and pass-through serving space separates the two areas and clatter is eliminated by acoustical treatment of floor and ceiling. The entire wall in the dining space is of glass, making the outside barbecue terrace a part of the inner rooms.

Better Homes & Gardens



CUPBOARD UNIT EXTENDS THROUGH WALL ONTO TERRACE FOR SERVING OPEN-AIR MEALS





DINING ROOM VIEW OF CUPBOARD UNIT REVEALS SLIDING BACK PANEL

1





Hobby rooms combine plants, shop, darkroom, movies in ingenious plans.

The prewar "rumpus room" is looked upon with a jaundiced eye by *Better Homes & Gardens* who point out that "Yesterday's fun rooms were usually areas partitioned in the basement as after thoughts to handle parties or wash-hangings. In them, either was often a damp affair."

Their plans for postwar hobby rooms, therefore, are not limited to ping pong tables and clothes lines, but take care of the entire family's spare time activities—music, photography, flower-raising, movies, shopwork, sewing, drawing, handicraft. Cheerful, sunny rooms suitable for any floor of any house, old or new, they need not be tucked away in the basement unless it happens to be the most convenient spot. The attached double garage of an existing house might be a thoroughly practical space for such a room. Flexibility of arrangement and a sensible segregation of different activities keynote each of the rooms shown on these pages. For instance, noisy, mussy hobbies such as shopwork are separated from the movie-music portion of the rooms.

Better Homes & Gardens



Particularly suitable for a garage is this hobby room by Carl Koch with its disappearing glass-paneled entrance door. Areas are well-planned for different hobbies, although no actual wall separation occurs except in the darkroom. An L-shaped cabinet and sofa arrangement extending from a Franklin stove forms a pleasant recreation group. Handicraft corner along opposite wall provides shallow tool cupboards above benches to eliminate head-bumping, deeper ones near ceiling.





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13



TROUGH LIGHTING IN THE CEILING SIMULATES DAYLIGHT, HINGED VANITY MIRROR NEXT TO DOOR MIRROR PROVI



Bedrooms double as living rooms, provide extra space for reading, working.

Morris Sanders' solution (above) strips the bedroom of all conventional paraphernalia except the bed, substitutes built-in furniture and storage cabinets for the usual bureaus and dressing tables. A gay color scheme of gray and yellow touched with red, and the simplicity of chair and lounge design contribute further to this non-bedroom atmosphere. Wide windows overlooking a terrace are equipped with venetian blinds for privacy. In the bathroom, twin lavatories solve the early morning rush problem. The room opposite, designed by Russell Wright, offers unusual bedtime convenience, is also appropriate for any daytime activity. Hinged doors on a ceiling track divide it into two areas for sleeping and working. Concealed behind cushions of the convertible beds, shallow storage slots and a pull-out board simplify recumbent reading and writing. A continuous desk along the opposite wall can be converted into a sewing table. Wardrobe space is provided by built-in closets and drawers.



BLE IMAGE

BEDSIDE CURTAINS ALLOW PRIVACY, BOOKS AND RADIO ARE WITHIN REACH







WARDROBES ARE AMPLE, MIRROR CLEVERLY ANGLED



CHAIRS ARE RUGGED, SECTIONAL STORAGE CABINETS CAN BE ARRANGED TO SUIT THE CHILD



Children's Bedroom

Planned for easy change and rough treatment, this bedroom is adaptable for children of any age, combines sleeping facilities with plenty of play and work space. Folding doors open onto a terrace which enlarges the play area and makes it a part of outdoors. A skylight and large window by the oversized sun-bathing couch contain special glass which admits beneficial sun's rays. Morris Ketchum's plan also includes deep clothes wardrobes, double decker bunks, private bath. Sectional bureau near bathroom is architect-designed.







The April

MARY DAVIS GILLIES, Interiors and Architectural Editor of McCall's has seen their decorating department through the vicissitudes of 12 yearscoming to them when things in the home field, and American life in general, were pretty much in a slump. Known in addition as authoress of two books-"Popular Home Decoration" (1940), and "All About Modern Decorating" (1943)she acquired background for her editorial career by teaching Household Arts at the University of Oregon and working in the Textile Division of the Bureau of Home Economics, Department of Agriculture, in Washington, D. C.

Mr. and Mrs. McCALL know what they want

... fall into three definite groups in their attitude toward design, says Mary Davis Gillies

Since December 1943, McCall's reader demand for houses and more houses has been developing in gold rush proportions.

Thousands of letters discussing new house "wants" have gone over our desks. As a result of these letters, we are less disturbed about what people *want* than about what they will get and what they will pay for it.

A small segment of the public may expect remarkable new innovations as soon as the war is over, but that attitude does not apply to the mass market. When it comes to buying or building a house, Mr. and Mrs. McCall definitely become conservative, are honest about their wants and are remarkably well informed.

Their first concern is the plan—it must be practical and simple. An astonishingly large group eye a plan with an idea to making future additions as family needs expand. Large crops of babies seem to be in the offing. The subject of storage is important, too, and as basements and attics dwindle, women realize that drastic improvements and changes in storage must be made.

But discussion really grows hot when the subject of one and two-story houses comes up. Judging from a sample of approximately 3,500 votes taken from a total of more than 18,000 entries in our recent architectural contest, there seems to be an almost even split on this question, with more interest displayed in the two-story house in the East and a concentration of interest in the one-story house in the South and West.

There is definite interest in good basic planning but the skin of the house, the architectural style, arouses the greatest interest. Mr. and Mrs. McCall divide roughly into three groups on this subject.

-

(Continued on page 102)

Group A is the sentimentalists with some hard-boiled conservatives mixed in. While the wives dream of a rose-covered cottage with green shutters, the men think in terms of resale values. This group never gets down to specific details and would probably be much easier to sell a house to than the other two groups.

This letter from a sergeant and his wife is a sample:

"We have chosen the Cape Cod house, my wife and I, because we feel it represents home to us more than any other house could. We were agreed upon such a house even before we saw the Home of Tomorrow Contest.

"We have pictured our Cape Cod house in all seasons of the year and in each of them it has always appeared most desirable. We know how lovely it will look against the delicate green of springtime, how pretty its flower-bordered walks will be in summer, and how cozy it will look in the bright autumal setting. We have even pietured it in winter with snow on its ridgepole and covering its lawn and it appears just as comfy and homey as did its picture in springtime.

"It is our hope to make it as beautifully attractive inside as it will be outside, so that anytime in the year it will always be just the home we've always wanted."

Group B is the practical realists. They are not taken in by the fancy window dressing of the traditional house. Their chief concern is a house that works. This group voted for the modern house and it will be a more interesting group to deal with but more difficult to sell. They know what they want and they propose to get it. The following letter is typical.

> "Since the war my G.I. hubby and I have lived in more types of houses than would be possible under normal conditions. With these experiences, we've been aided in deciding the type of house we want and do not want for our own home.

> "We like modern — feel that this type of compact, streamlined house is designed 'special' for new war couples like us. Such houses are economical, built of fresh ideas, are a forward step in keeping with our demand for a brand new life in a brand new world.

> "In the era to be, the latest inventions will call for a fresh background. The way we feel about OUR HOME, 'twill be as spanking modern as the new generation we hope to have in it!"

Group C falls in between these two extremes. In many cases the people in Group C are older. They are not as concerned with style and basic principles. They have put up with so many uncomfortable hard-to-clean houses that they are ready for a new deal in housing in any form.

The actual style vote cast in our contest is interesting. When asked to "check the type of architecture you like best," the following vote resulted:

	Per cent
Cape Cod	 46.1
Dutch Colonial	 6.1
Modern	 33.4
Ranch House	 12.5
Georgian	 2.4
South Colonial	 1.5
Monterey	 0.6
English or Tudor	 1.2
Other Type	 2.1

(A small number of contestants chose two types.)



OPEN CANOPY EXTENDS ACROSS BAY AT REAR OF HOUSE

John Funk's design, selected as a representative modern house on which readers could base their opinion, is screened from the street by a high wood fence. A continuous glass wall protected by a wide overhang opens all major rooms to the front garden and invites maximum outdoor living. A two-car garage containing storage space is located on the property line and opens directly on the street. The entire backyard was designed as the children's play area. This house, chosen by the Museum of Modern Art as one of the 47 best buildings of the past two decades, was published in THE FORUM in March, 1941.

By a margin of less than seven per cen

Royal Barry Wills' traditional house was presented to *McCall's* readers as an alternate for the modern version above. Its excellent proportions and delicate detailing are representative of the best Colonial architecture. Two single dormers on the street side and a continuous dormer across the back, however, are concessions to contemporary requirements. The double "coach house" garage at the rear contains a storage balcony under its peaked roof. A driveway at the side of the property leads from the garage to the street. The two-story plan reduces land coverage and renders the house practical for small lots in built-up residential sections.



GARAGE WING CREATES SHELTERED CORNER OFF STUDY



THE MODERN ONE-STORY HOUSE IS CHARACTERIZED BY HORIZONTAL LINES AND A LAVISH EXPANSE OF PLATE GLASS cCall's readers voted the Colonial house below their favorite over the modern design.




Isometric views contrast the open modern plan with Colonial's compact privacy.





The majority of readers (57.1 per cent) preferred this contemporary living room by architect Carl Koch to the traditional room below. Its spacious windows, good light and ventilation, reduced maintenance problems and adaptibility to active living were listed among its most important assets.



Living room contest put modern slightly ahead of traditional.

The traditional living room decorated by Lord & Taylor, was found to symbolize a comfortable, sheltered mode of living. Many women considered period furniture easier to combine and to rearrange. A number selected it on the ground that it would better fit their present or future homes.

George H. Van Anda





M°CALL'S

13,539 women give reasons for dis-

	ING ROOMS	s for dis-
Too small		37%
Hard to ente	ertain	32%
Furniture do	besn't fit	30%
Not enough	windows	29%
Everything		27%
Hard to clea		22%
Color scheme		18%
Everything		14%
Uncomfortat		12%
		12%
SOFA STYLE P	REFERENCE	
	Sectional	47%
A.		
	Lawson	29%
m		
ALLO	Camel Ba	1 20ar
125	Gamer Bat	IN 20%
8 4 4		
automo		
BUILLING		
IDE	Ornate	4%
-		
ARMCHAIR PRI	EFERENCE	
		0
	53%	自
Lounge	53%	LE I
		A Contraction
		00
Modern	26%	脑
Modern	2070	
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Wing	17%	当
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Ornate	4%	P
		Armen
	DEFFORM	
STORAGE UNIT	PACTENEN	1C
E		
- Son S	ectional	
Frank	bookcase	58%
A CONTRACT		
	reakfront	
	reakfront bookbase	27%
		27%
		27%
	bookbase	27%
	bookbase lodern	
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	bookbase lodern	
	bookbase lodern	
	bookbase Iodern breakfron	t 15%
	bookbase Iodern breakfron	t 15%
PORTABLE LAN	bookbase lodern breakfron MP PREFERE	t 15%
	bookbase Iodern breakfron	t 15%
PORTABLE LAN	bookbase lodern breakfron MP PREFERE	t 15%
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Portable Lai	bookbase lodern breakfron MP PREFERE 50%	t 15%
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PORTABLE LAI	bookbase lodern breakfron MP PREFERE 50%	t 15%
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PORTABLE LAN Plain Oil base	bookbase lodern breakfron MP PREFERE 50% 20%	t 15%
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PORTABLE LAN Plain Oil base	bookbase lodern breakfron MP PREFERE 50% 20%	t 15%

11,327 women give reasons for disliking their DINING ROOMS.

Not enough storage spa	ice 57%
Furniture is old	41%
Too small	38%
Furniture doesn't fit	29%
Hard to serve meals	28%
Not comfortable	24%
Hard to clean	19%
Gloomy	15%

... and also report that the dining room doubles for other activities

Writing38Sewing34Only for meals31	tie
	%
Only for meals 31	%
	%
Studying 24	%
Hobbies 19	%
Business 9	%
Sleeping 3	%
Games 3	%

DINING ROOM TABLE PREFERENCE

入入	Pedestal	41%
m	Modern	40%
मि	Stretcher	13%
A	Borax	6%
DINING CHAIR H	PREFERENCE	
Duncan Phyfe	61%	A
Bentwood	25%	A
Borax	8%	
Spindle back	6%	A
LIGHTING FIXTU	JRE PREFERE	NCE

The second second	Flush	ceiling	40%
	Chand	elier	35%
	Fluore	scent	25%
CABINET P	REFERE	NCE	
Modern		8%	TIP
18th Centu	ry	41%	PP
Early Ame	rican	51%	



Preference for architect William Muschenheim's modern dining room was expressed by those who enjoy ease of upkeep, an intimate, friendly setting, sturdy furniture and forwardlooking appearance. To many, this room typified their ideal of home life of tomorrow.



Voters divided evenly on these dining rooms but preferr

Architect Lewis Bowman's traditional dining room appealed to 50 per cent of readers, the majority of whom were childless. These women found a joy in old things and meticulous, correct housekeeping, and felt that their antique or period furniture would be unsuitable in the modern dining room.







H. Creston Doner's Libbey-Owens-Ford kitchen was the favorite of 36.9 per cent. But in this group many admitted that eye-appeal was the factor which drew their vote and not the implied dream that meals would merely evolve themselves. Storage space and proved workability of equipment was questioned by many.

NO UPPEEP GLASS 6 TILE WALLS	5
CLOSES OVER RANGE	Ĩ
CLOSES OVER RANGE OVER RANGE OVER RANGE OVER RANGE	
NEW TYPE RANSE RO	1
POTS SUNK CONE MOTOR FOR ALL	1
GARBAGE DISPOSER DRAWERS J	In It
ROOT PELALS	1.1.1
GLASS OVEN	1

ORESCENT LICHT

"traditional" kitchen to the "day-after-tomorrow" model.

The phrase "tried and true" explains why many voted for the traditional kitchen. To these women, the kitchen is a work room not suitable for public display. The homey, cheerful atmosphere of the white enameled kitchen and no need for new equipment were other factors influencing their choice.



M°CALL'S

11,887 women give reasons for disliking their KITCHENS.

Not enough counter space	61%
Not enough storage space	60%
Inconvenient to work in	42%
Too small	34%
Needs remodeling	30%
Sink is inconvenient	30%
Need new range	26%
Floor worn and shabby	25%
Hard to keep clean	24%
Need new refrigerator	22%
No place to eat	20%
Dark and gloomy	18%
Too many doors	18%
Everything old and shabby	15%
Too big	11%

FLOOR PLAN PREFERENCE



Window over the sink?

Unnecessary	3%
Desirable	50%
Necessary	47%

Would you be satisfied with a sink at right angles to a window?

es	46%	
0	54%	THE S

REFRIGERATOR PREFERENCE

N

Deep, one door		26%
Bhallow, 4 com	parti	ment 74%
Do cabinets above pr counter disturb you?	epara	ation
Yes 27%	No	73%
Do you have a center wor your kitchen?	k tab	le In
Yes 33%	No	67%
Planning a new kitchen, include a center work tab		you
Yes 35%	No	65%
Electric ventilator install	ed?	
Yes 9%	No	91%
Is a ventilator important?		
Unnecessary		4%
Desirable	5	4%
Necessary	4	2%
Is central light necessary	?	
Yes 69%	No	31%
Where in kitchen is suppl lighting important?	emer	ntary
Over range	8	8%
At range	7	7%
Over counter		9%
Over eating area		9%
In ironing area		1%
All others	1	3%



Single beds or double beds—the individual has a free rein in architect C. Dale Badgeley's modern bedroom, and what exponent of a compatible marriage would not advocate this flexibility? The readers are pleased because it is a room planned for both sexes—dainty for women and uncluttered for men.



Bedroom preference was definitely for the modern design.

Of *McCalls* women readers 41.5 per cent selected architects Pomerance and Breines' traditional bedroom. The wife feels it is the one room in the house that is really her own—it is not just a room for sleeping and dressing but a place for intimate living and expression of personality.





M°CALL'S





Let's look ahead

says Richard Pratt. After all, our readers know what traditional houses are like, so I show them modern.

RICHARD PRATT. Architectural Editor of LADIES' HOME JOURNAL, has no peer as an effective crusader for the best contemporary design. "I was managing editor of House & GARDEN," he says, "just as the thatched effect in shingles was beginning to disappear, and I hope to be architectural editor of LADIES' HOME JOURNAL until the gable roof is gone." During Pratt's tenure, no JOURNAL house has ever blushed beneath a gabled roof. For this among other reasons, he has used models instead of existing houses as the best way to influence consumer opinion. Incidentally, or not so incidentally, perfectionist Pratt photographs the models himself. A one-time landscape architect, he is master of the specialized art of model landscaping, and his collection of Arctic shrubs and dwarf trees makes even the redwoods cringe.

As far as my magazine is concerned, we have put the prewar house out to pasture. For when it comes to capturing the public imagination in the matter of better modern living, I prefer something more able to cope with today's conditions.

I feel that most American families have never had a chance to know how well they can live, or for how much less—which is what I am trying to make as clear as I can to them in the *Ladies' Home Journal*. The pages at my disposal are far too few for me to use them on architecture that people can see by simply looking backward. And it seems to me that during this ironically miraculous opportunity of a wartime hiatus in private building, time is also too precious to spend it on anything which fails to bring our houses up to date.

There is a lot of wondering about whether people would rather have traditional or modern, and what it is that people don't like about their living places. As to the latter, I think to all of us the faults of houses up to now must be painfully apparent, especially the fantastic fault of price; and as to the former I feel the only positive way to resolve people's uncertainty is to fill their eyes with the best that progressive architects can produce. It seems to me this course contains the possibility of killing both wonder-birds with a single stone.

I realize this course is not so simple as it sounds. I am aware of the bewildering complexities to be encountered and overcome—the complexities that arise in connection with money, land, industry, labor, government, laws, and greed. But there is one so-called complexity which to my mind is less a complexity than a bugaboo, and that is people—people as that thing known in the trade as customer acceptance. If people ever get a chance to rent or buy a really good home for one-third less than a really poor one cost before, I feel they won't worry about the simplified forms of appearances and simplified methods of manufacture which can make that lower price possible.

Money, land, industry, labor, government, laws, and greed;—therein, I think lie the complexities that can tangle with progress. Not people. In fact, I look to an enlightened public demand to untangle those complexities, exercising the pressure of people by the millions who become convinced that there can really be better houses for less money.

The thing is how to set forth the subject as simply as possible, so that people will have something to go by. I am afraid that people on the whole—even house-hungry people—aren't likely to enlighten themselves by studying what I consider the two outstanding contributions to the question of better homes for less money: R. Arnold Denton's TNEC report, and the same man's bulletin on Housing Cost for NHA. But in those two documents people could find all they need to know—all except what the designer can do for them.

So what I do is feed them spoonfuls of Denton in beakers of Frank Lloyd Wright, Gardner Dailey, Hugh Stubbins, Jr., Carl Koch, Huson Jackson, George Fred Keck, Vernon DeMars, Lawrence Kocher, Malcolm Duncan, Mario Corbett, John Funk, the Homseys, and as much more of the finest architectural talent in the country as I can manage. The *Journal's* millions of people seem to love it, and I only hope it works.

STANDARDIZED BASIC PARTS OF THIS HOUSE CAN BE COMBINED IN VARIOUS ARRANGEMENTS



0 parts to develop a low cost house easy to look at and easy to live in.

Journal



The Journal's sponsorship of the factory-built house and top-notch contemporary design naturally leads it to presentation of houses that do not yet exist. Use of house models is also a good solution to problems presented by the present stoppage of all but minimum war housing. Editor Richard Pratt has developed model making and photography to an exact science; his miniature landscaping techniques have assumed the proportions of a trade secret. All of the Journal houses shown here are models made by Devon Dennett, landscaped and photographed by Pratt.

The low cost design for factory-production prepared by Plan-Tech Associates would look at home in any neighborhood. From the large multi-purpose living room to the secluded bedroom wing, a pattern of family living has shaped the logical floor plan. Main living space has been clearly articulated according to major use areas, without sacrifice of an open plan. The self-contained master bedroom suite, with separate dressing room and bath, is an excellent device for family privacy. Prebuilt kitchen units house laundry equipment, heating unit, sink, range and refrigerator.

AL-AS-LIFE MODEL WITH CONVINCING APPLE TREES ILLUSTRATES SIMPLE CLEAN LINES OF LOW COST HOUSE



Vernon DeMars' design skillfully exploits the limited space of a low cost row house



VARIED EXTERIORS, SET-BACKS, PROJECTING PARTY WALLS, SECLUDED GARDENS GIVE ROW HOUSE ADVANTAGES

imum privacy and individuality.

Journal



SINGLE DWELLING, ADD NOTHING TO THE COST

Good row houses make good neighbors, observes the *Journal*, offering this cheerful example as evidence that the plan that gets the most space for the least money need not also settle for the least livability. Architect Vernon DeMars has squarely attacked the twin bogies of economical row house design: monotony and overflowing neighbors.

Variation of color and texture combine with occasional set-backs to give each house exterior a distinctive identity. It costs almost nothing, as every large-scale developer knows, to add surface changes to a single basic design. Few low cost basic designs have, however, provided for the easy interior flexibility possible here through use of interchangeable prebuilt panels and preassembled storage and kitchen units for almost all partitions. Except for sound-proof masonry party walls, every structural part of these houses could be factory-built. The design would lend itself equally well to the pre-cutting system widely used to speed construction.



Hugh Stubbins' design for mass production acbieves an uncrowded compactr



easy to live in as it is to build.

Journal



RCH GIVE EXTERIOR INTEREST,

LL LIGHTED BY SOLAR WALL

The Journal's consistent interest in construction simplification has naturally led it to straight-forward work like this house by Hugh Stubbins. Carefully avoiding the labels of either "modern" or "prefabricated," the Journal sells houses like these to its readers on the basis of the greater livability promised by nontraditional planning and construction. The centrally sloping roof providing for inside drainpipes is, for example, presented primarily as a way to avoid the maintenance problem of gutters and downspouts. The fact that it is easier to build and hence cheaper than any other is offered only as a secondary argument.

Stubbins' design develops naturally around the center of household operations: adequate facilities for child care, laundry, preparation and serving of food, arranged in logical sequence and supplemented by storage space where needed. The house is economically compact, but the moderate amount of main living space has been so carefully worked into relaxation, study and dining areas that there is no feeling of boxiness. Glass walls bring in the out-of-doors (in this case, the indoor-outdoor garden makes this more than a figure of speech) and add to a sense of interior spaciousness. They also, as the *Journal* puts it, provide "winter heat free of charge by the sun." The plan, geared throughout to factory-built structural parts, also shows one-piece bathroom and kitchen units, to be built in at the site.





MODULAR-SIZED GLASS PANELS YIELD PLEASANT INTERIOR PROPORTIONS; THE FIREPLACE IS A PREFABRICATED UNIT





NEW LIVING ROOM GIVES ADDED DINING SPACE

BAG 2220

LIV. RM.

DIN-RM



THREE-BEDROOM PLAN IS MODERATE BEGINNING

1. Jack TO GARAGE BOBBIE PASSAGE

-----1-

Gardner Dailey's evolving house achieves maximum variation of size and structure

dular design and panel construction.

Journal



Sectional construction, combining standardized parts with a highly flexible plan, is probably the most promising formula for a factory-built house that will have wide market appeal. Gardner Dailey's design for mass production uses a three-foot module to achieve standardized parts that are readily interchangeable. Thorough-going systemization of all structural dimensions means that panels of only a few basic types can be assembled in an almost infinite variety of room arrangements. Piping and wiring would, of course, be built into the prefabricated sections. This kind of construction requires a minimum of assembly time on the job site and promises a house that is as easy to expand as it is to build initially.

Closets, cupboards, kitchen equipment, built-in furniture would also be sized to a multiple of three feet and fit into place, as the *Journal* says, as "snugly as a drawer in a table." Dailey's kitchen (illustrated on page 118) is worth careful attention for its clear-cut division as two functional areas: one for preparing and storing food, the other for handling all dining implements. The cupboard with pass-through counter gives partial separation, making it easy to combine child care with kitchen work. The bathroom would arrive at the site ready-built as one unit. Connecting it, the *Journal* estimates, would require only four service men as against the eighteen operations of conventional installations.

CTORY-BUILT PANELS MAKE IT EASY TO EXPAND THE HOUSE IN STEP WITH A GROWING FAMILY OR BIGGER BUDGET



Journal



WIDE GLASS WINDOWS LOOK INTO THIS TWO-PURPOSE KITCHEN MADE OF PREBUILT SECTIONS

ALL BATHROOM EQUIPMENT IS FACTORY ASSEMBLED





Unit bathroom needs only service connections for installation. Fixtures are cantilevered from seamless, insulated wall. Tub tapers for extra room.



HOUSE BRAUTIEU



Karsh

ELIZABETH GORDON, Editor of HOUSE BEAUTIFUL, is one of the many distinguished graduates of the NEW YORK WORLD. Married to Colonel Carl Norcross (now with the Eighth Air Force and formerly editor of AVIATION magazine) Miss Gordon has fortunately been able to live out much of the pattern of gracious living which she monthly unfolds for the readers of the Hearst luxury home magazine. Her own Dobbs Ferry house "made up of Regency masses with modern detailing," is a flowering of her magazine's untiring search for home design that combines contemporary livability with traditional elegance. (Example: a two-story solar window lights the circular staircase.) Always ready to act upon any of her editorial theories, Miss Gordon recently learned to fly in five hours, thereby providing copy for a get-acquainted-withairplanes feature in a recent issue. As a one-time GOOD HOUSEKEEPING editor and head of the NEW YORK HERALD-TRIBUNE's top-notch household department, Miss Gordon is a skilled hand at the business of spicing home-making with a little glamour.

People want sensible things

... are more interested in how houses work

APRIL

than how they look, says Elizabeth Gordon.

The \$64 question confronting the housing industry is: "How much change will people want in postwar homes?"

Inherently our American character is predisposed toward change and progress. But there are, sociologically, definite limits on how fast change can be accepted and absorbed.

Achieving that delicate balance, between the public's desire for things to change for the better and its dislike of things changing too fast, is the dilemma facing the home-building industry. Some change there must be, else the industry will be geared only to attrition and the population curve. And neither of these is fast moving enough to produce a robust business climate.

The practical men in the building industry (contractors, operative builders, materials manufacturers) concluded from their pre-war experiments with modern architectural thinking that people want almost no changes in houses. But I should like to respectfully submit the opinion that this is a fallacious conclusion to draw from the evidence . . . a snap judgment that does not properly evaluate *all* the factors involved. For when you get right down to specific cases, and ask people exactly what they do and do not want, you find that *they want the function of modern architecture, without the look of modern*. After wading through tons of mail from home owners, and digesting bales of statistics I have come to the conclusion that the experimenters with modern failed because they were attempting a design "revolution." Whereas an "evolution" was all that was wanted and all that could possibly succeed. (Continued on next page)



Bay windows, again overscaled, are almost the single, most-wanted window type. People like the opportunities bays offer for furnishing a room, also like the appearance they give to house exteriors.



People moan because window heights are not calculated in terms of whether furniture will have to be placed under them. They think building designers should mentally furnish every room before building.

The right windows will sell houses . .

When people *actually* tell you what they want in a house they talk in terms of performance—not in terms of style. And lo and behold, they want characteristics which are advancements over old, similar things—characteristics which point in the direction of modern but do not go "whole hog" into modern.

For instance, there is an overwhelming national desire for more windows, bigger windows and more interesting windows. People ask for more light, more sun, better orientation. They talk about bringing the outdoors in. All their talk points to overscaled fenestration, in all its numerous forms. BUT give them a variety of pictures of windows, and ask them to choose the ones they like best, and they will choose those windows with traditional detailing, rather than windows with a modern handling. But they will also choose those pictures using the largest amount of glass. To get the right answers from such evidence needs precise thinking. It is fallacious to conclude that if people reject modern windows they must want the same old variety of windows. It is just as wrong to say that because they want more glass they want modern. The *right* conclusion is that people want more glass, used in overscaled openings, but handled in a traditional manner. In short, *tastes are on the move*—in a sane, evolutionary cycle that will progress in an orderly manner toward modern, always keeping its design roots in the near past. Ignoring the trend could be, I predict, just as fatal as trying to rush it. And I see frightening signs in the trade that reactionary-ism is swinging contractors and operative builders so far to the right that they will get as badly burnt as they did when they tried left wing modernism. Neither extreme is sound, in the light of the laws of social chance.



Walls of windows, treated in a traditional manner, are very much wanted. They want glass, glass, glass. Trade secret: they don't want

their new architecture to force them to throw out old furnishings.

Richard Averill Smith

Corner windows are more accepted (particularly for bedrooms) than you might think, since they are a modern cliche. People like them for the additional wall space they provide for furniture.



Ribbons of windows are liked and wanted, particularly if the usable floor space for furniture is not spoiled thereby. Notice how majority of these windows are worked out in a completely traditional idiom and how agreeable traditional furnishings look against such backgrounds. This may bother worshippers of authenticity, but not the people. Photos: Maynard Parker

Bays for special functions, such as dining, are much liked. A high majority would like more than one bay in a house—if they were not repetitive and monotonous in appearance. This desire ought to be specially studied as a solution for the dining-roomless house. For it permits dining area to look pretty and important, a must in our social mores.



Within-the-partition storage offers whole new worlds of opportunity for improving liveability. Such within-the-wall planning can range from flush drawers and cupboards (without concealing doors) to more elaborate solutions, such as the one shown open and closed here, or versions which tend toward being whole storage rooms, such as a dressing room.



People are smarter than we sometimes give them credit for. They not only know a good thing when they see it—they can tell which of two good things is better than the other.

It is a time honored practice to load a house with flashy eye-appealing gadgets if it is being built for sale. It worked before the war and it will undoubtedly work again. The real issue becomes: which, of the many opportunities, is the most sure-fire technique for giving a house sales appeal? Of all the ways to develop sales appeal which, of the many, will produce the most "come-on" for the money spent?

I predict that well-planned storage space (I am not referring to clotkes closets) can prove to be one of the hottest sales appeals. People who are contemplating buying or building are living in old quarters—which is synonymous with saying they have a serious shortage of space to store things. A house with many types of storage space, designed specifically for the type of possession it is to hold, would have an irresistible lure. (Owners of new houses think they have enough clothes closets, but not nearly enough space for practically everything else.)

The few operative builders who made a point of developing better-than-average storage solutions, before the war, all did very well—regardless of what price bracket they worked in. This fact matches neatly our consumer investigations: that every room in the house needs to be re-examined in terms of how more and better storage can be provided to improve the usability of that room. It means that common possessions (from record albums, men's shirts, golf bags, card tables to screens, storm windows and garden furniture) should be studied dimensionally, so that adequate and appropriate storage spaces can be created.

Maynard Parker

People definitely regard the garage as a storage room. They want it to be wider than necessary for the number of cars they own or expect to own. For in practice, the garage catches the overflow from the rest of the house. Operative builders who have experi-





mented with a wider than necessary garage report high consumer acceptance.

Hanging cupboards over the hood of the automobile are examples of ways space that might be wasted can be turned to functional use. Such space can be developed without enlarging the outside foundation dimensions, and is an example of what can be done by studying plans.

Homeowners would not be allergic, in any way, to more storage along hallways and passageways. Such areas are hard to furnish anyway, and the pattern of doors, drawers and cupboards offers enough interest to break the monotony of walls. A variety of space solutions could lie behind the doors, such as are shown at the right.



adgetry

Common complaint is that there is not enough storage in the bathroom. The average medicine cabinet is entirely too small say both owners and renters. Twice or three time as much space is wanted in the bath used by two people. The more people that are to use a bath, the more the storage space should multiply.





Plans developed for House BEAUTIFUL by Cameron Clark

A plan invented to show people's "Wants"

Analyze this plan and you'll know many of the characteristics that people tell HOUSE BEAUTIFUL the 194X house should have. Obviously, not all points would be likely to occur in the same plan, so study each characteristic separately from the whole.

1. Garage is close to the street, making possible inexpensive, short runs of driveway. Garage also serves as a buffer, separating service functions from the principal living quarters, gives inside access to the kitchen. Overhang gives weather protection to the front door.

2. Plentiful storage space in the garage for all the oddments that the modern family wants to keep there: tools, lawn mower, bicycles, lawn rollers, furniture, sports equipment.

3. Access from the garage directly to the garden area, so

garden equipment is always close at hand without being carried or dragged too far.

4. Service entrance for deliveries completely screened from living rooms and outdoor terraces, and requiring the delivery boy to make very little penetration into the house. All service functions, including the children's play yard, highly visible from the kitchen.

5. Generous turn-around space for cars to back out of garage. Also space for guests to park cars off street.

6. Main entrance is well placed in respect to all private living functions, being well away from the living room, dining room, terraces, porches, etc. Yet the vista from the front door through to the library window wall is appealing and important, a quality much **liked** by Americans.



7. Front hall offers excellent trafficway to all parts of the house, so the bell may be answered from any direction. Its relation to rest of rooms makes all the public rooms dead-end rooms, which means traffic need not course through one room to get to another.

8. Rear part of hall has been used for books and desks, and sliding doors in its three openings permit it to be closed off into a cozy book nook. Unless halls can be used for more than traffic, they are a waste of space.

9. Living room has three exposures, the main one on the south being a big, over-scale bay which will frame the garden view and be an important architectural focal point to decorate around. (Bay windows are becoming as popular as fire-places for that purpose.) Living room is wonderfully "insulated" from the noises and smells of the kitchen. It has good wall spaces for important furniture, as well as places for free-standing pieces. Also the possibility for built-in shelves and radio and television equipment at north end.

10. Double duty porch-room with jalousies for privacy

and wind protection in the spring, summer, and fall, to be glassed in winter for plants.

11. Garden pocket to be used in very hot weather (except in late afternoons, when dining terrace will be *the* spot to sit), when shade and breeze are wanted. A hedge toward the street gives this privacy. This is planned for the addition of a future guest room or library.

12. Dining room has a big bay, which can be furnished as a breakfast nook or as another reading corner. Three big wall spaces make furniture placement easy, or will provide for built-ins. (See HOUSE BEAUTIFUL, October 1943). Big door opening to hall permits dining room to be thrown together with hall and living room for parties. Notice door to dining terrace and vista beyond.

13. The kitchen and pantry represent the best modern practice, but have added advantages of more window area, a dining table integrated right into counters, so it can be used for work surface, a huge cleaning closet (no more "broom closets"), high visibility of service entrance and the play yard.

JUSE BEAUTIFUL



More thoughtfulness and everyday understanding of human problems would produce better houses. Women would like a plan to provide a segregated play space for children, smack under kitchen windows. In this plan such space is enclosed on three sides, would save wear and tear on lawn.



The porch has not been properly exploited by home planners of the last 20 years. For it *can* be planned for year round functions. Above you see porch (of preceding plan) in summer-time. Jalousies are to provide privacy without stopping breezes. In insecty climate screens would be used.



People would like the porch to have a wintertime function too. If it is properly oriented to the south it can be a cool plant room, if provided with one judiciously sized and placed radiator. The old sunroom idea should be reexamined and redesigned in the light of this preference. 14. An inside stairs to basement, housing in same framing a "back" stairs to the servants' quarters or future "back bedrooms."

15. An outside grade stair to basement, for delivery of such staples as firewood, coal, making it easier to hang out the wash—if the laundry is below grade.

16. All over the country there is a marked trend for people to want the laundry on the first floor instead of in the basement. Since the automatic washer has eliminated steamy smells, this is practical. Locating it near the rear entrance, and close to the kitchen, is generally popular.

17. An outdoor dining terrace is very much wanted by most people, no matter how much they can spend for a house. This one can be reached from both dining room and kitchen. In the cool spring and fall it would be used as a "sun pocket." In hot weather it would have awning, screens.

18. This house is designed for solar radiation, so that the heat of the sun can be utilized in winter when wanted, but shaded out by overhangs in summer. This is chief function of the overhanging balcony and the second floor porch on the south side of the house. Interesting because it shows how many ways there are to achieve the economy of sun heat.

19. The T-shaped upstairs hall shows how three rooms may be served by a short run of hall space. Note bigger-thanusual linen closet. A grille for an attic fan could be set into hall ceiling, for this plan is ideal for attic fans.

20. The master suite has three exposures and its own sun deck, separate bath and a dressing room. It also has a quick access to the child's room through the bathroom. Note use of sliding doors on dressing room and bath. Swinging doors would rob floor space, making it impossible to do all this in the space.

21. Deck for sun bathing, providing privacy from street and neighbors, as well as an adjustable slat roof for controlling the rays to personal liking.

22. Well-lighted and ventilated dressing room, designed with Mrs. Home Owner in mind. Provides seven feet of hanger space on one side, and the other wall space accommodates shallow cupboards for hat shelves and shoe racks. The corner dressing table between the windows would provide good daylight from two sides. Women rate this highly.

23. The master bath is generously sized. Bath is recessed in such a way that glass shelves may be set over the tub at either end. If stall shower is not wanted, space could be used for bath linens and the shower put over the tub. This is a more economical use of space, and is more rational, unless you are a fanatic about showering.

24. Note that the child's room is well located between master suite and servant's room, so that care could come from either direction. Child's bath has its own linen closet, where bedding for this and the adjoining room might be kept.

25. Servant's room and bath with private access from the kitchen and the rear entrance. If child is old enough not to need care, passageway in that direction could be blocked up.

26. Since the garage is only one-story, it would be possible to add one or two rooms over it at a future date to house servants, if the present servant's room was wanted for another child.

27. Guest room and bath are nicely isolated from rest of the bedrooms, and have choice exposure and facilities. Age, sex, and number of children would dictate how this room be used. Most families want a fine second bedroom, regardless. APRIL 1945 25¢

ON REARING CHILDREN FROM CRIB TO COLLEGE

Vith Special Sections on THE FAMILY HOME FEEDING THE FAMILY FAMILY FASHIONS FAMILY FUN 725,000 Paid Circulation MAGAZINE



David Robbins

MAXINE LIVINGSTON, Family Home Editor of PARENTS' for the past five years, has been working with home magazines since the late twenties, witnessing and accelerating what she believes is an evolution in home planning. With ARTS & DECORATION magazine during the prosperous pre-depression period and later with CREATIVE DESIGN, she was an early advocate of realism and practicality in home design. When the depression crumpled the satin poujs that bedecked the editorial policy of many a home publication, this editor's plea for realism was no longer a minor voice. She is an avid seeker after household facts-and it is no uncommon occurrence to find her ringing doorbells to learn at first hand what families with children want, need and plan for their homes.

Houses are for families

. . . and children's needs as important as grown-ups' says Maxine Livingston

What kind of houses do the readers of *Parents' Magazine* want? Well, let me quote from the article, "Planned Around the Children," which appeared in the February issue. The article was written by the mother of two young daughters and expresses most significantly the housing wants of families with growing children:

"I wanted a house that reduced the daily chores and drudgeries to a minimum—one that I could run instead of one that 'ran me.' I want leisure to read, attend concerts or lectures; I want to go swimming with my children and have time to spend with them. I want to garden and to play golf, and I would rather be a cave dweller than build a house that leaves me no time for these things. I have been thankful ever since we decided to build that I continually asked myself questions such as whether a guest room, used occasionally, is worth a daily fifteen minutes of dusting and sweeping? Whether a dining room, enjoyed at most three hours a day, is a luxury?"

As everyone knows, and the War Production Board's recent survey shows, families with children represent by far the largest market for homes. Yet, why is it that builders too often overlook the important problem of planning the house for family relationships? Why are they so concerned with the style of the house when their efforts should be concerned with planning houses—even the smallest houses—that are efficient, comfortable to live in, and suitable for children to grow in. What specifically makes a house efficient, comfortable to live in, and suitable for children to grow in?

Have you ever thought about the amount of cooking, washing and ironing that must be done for a family of two adults and two or three children? If your thinking along these lines has manifested itself in a squawk at the butcher's and grocer's bills, think of the housewife who damns the builder because there are too few cupboards, not enough work surfaces, and not an extra inch of space in the kitchen where the family can comfortably eat their meals. In an effort to "increase efficiency and save the homemaker unnecessary footsteps," there has been a trend toward cutting down the overall size of the kitchen-a trend which has been overdone and which has caused the homemaker considerable hardship. And why have builders relegated the laundry to the basement? Don't they know that in most households (especially where there are children) there is daily laundering-or it is done at least three times a week? So bring the laundry upstairs-there is even logical reason for having it on the second floor, and with automatic equipment it is perfectly feasible. It is easier for the mother-homemaker to have a well-equipped laundry on the first floor so that she can keep her eyes on the children while performing household duties.

We at *Parents' Magazine* have found an increasing desire for one-story houses. Many mothers tell us that the trek from first to second floor innumerable times a day consumes too much valuable energy and time, and that the stairwell, though often a high point of beauty and grace, is waste space that has to be kept clean and heated.

One of the complaints we hear most frequently is the lack of closet and storage space. How little thought and planning has gone into the layout of closets! Few houses have adequate storage facilities, but certainly there must be some builders who are fathers as well and who realize that closets alone would sell houses to families with children especially closets designed for storing children's toys and athletic equipment, closets equipped with adjustable fixtures so that a child would be able to hang up his own clothes.

Families with children are interested in space-saving ideas and rooms with flexible or dual uses. I don't mean "tricky" ideas; the ideas must be workable, practicable and usable. One space-saving idea that appeared in *Parents' Magazine* recently and which created considerable interest, suggested a way to divide an average-size room into two in order to provide separate cubicles for brother and sister. Many families want at least one dual-purpose room which can be used in part as a second living room—either by the parents when the children entertain their friends in the living room, or as a place where the children can raise rumpus.

I have been astonished at the number of requests we have received for suggestions that would be helpful in planning a house to accommodate grandparents as well as children. As a result, we recently published an article and illustrated a house that was "Planned for Three Generations." The response to this article, requesting additional information and inquiring about the availability of blueprints and floor plans, exceeded our expectations. So planning for families with children is just sensible consideration for the comfort of the family, congenial family relationships, and convenience for the homemaker. And as one prospective home builder recently wrote, "Let's build to satisfy the daily tasks instead of just making it nice for entertaining."

Economical division makes one family bathroom do the work of two.



Good example of *Parents'* down-to-earth approach to the housing needs of a growing family is this proposal for inexpensive bathroom remodeling. Prepared by W. E. S. Smith, the simple plan is calculated to appeal to many a family whose budget falls short of a bathroom for every bedroom. The original long narrow bathroom with fixtures cramped against one wall is typical of older houses. Addition of a partition, a window, and one plumbing stack turns it into two efficient compartments for duo-use, with room for new fixtures.







This dual-use room offers a logical laundry production line, beginning with a bin connected with clothes chute and progressing to the electric dryer. Cabinet-like, tumbler dryers, harmonizing with kitchen equipment, are now being designed for postwar manufacture.





A variation of the basic save-mother's-steps theme brings the children down to a basement playroom, adjoining a laundry, canning, food-freezing and storage combination located for easy first-floor access. This is a feasible way to remodel an existing house where basement space is ample but firstfloor space is limited. Making good use of the kind of nonautomatic laundry equipment many families own, this plan also provides partial separation of laundry and kitchen, eliminating cross circulation through these working areas. The breakfast nook whose furniture folds up to become a gated playpen is a practical addition to the room's usefulness.



Moved up to the second floor, this laundry occupies no more space than a bathroom, includes ironing, sewing, and storage facilities. Automatic dryer is placed over washer to save both space and effort, while the sliding door is another space economy. The outer door leads to a convenient sun deck for airing special pieces.



APRIL 1945

Planned to make parenthood a pleasure, these suburban houses afford generous space



WINDOW-WALLED CHILDRENS' ROOMS ARE ISOLATED FROM NOISE IN PROJECTING WING OF SUBURBAN HOUSE









Developed by Alfred S. Alschuler to fit an Illinois family's specific definitions of its requirements, this design features a threepurpose living room. The open plan avoids any crowded feeling in a highly compact house, while folding doors convert the alcove library to a guest room and a service bar links kitchen to dining space.



ry family living need.

Editorially geared to the interests of moderate-income families who demand the best for their children, Parents' Magazine has sponsored home designs showing a refreshingly direct grasp of the complicated requirements of such families. The two houses shown are representative: plenty of well-handled space with children's sleeping rooms isolated from the main living portion. Both are characterized by meticulous attention to the details of family storage. Neither shows the slightest preoccupation with exterior effect. Major emphasis is on large view windows in living room and plenty of light in children's rooms.

The more elaborate house on the opposite page solves its bathroom problem by having three, but Anthony Thormin's less expensive plan below gets maximum use out of one bathroom by providing two lavatories. Thormin's story-and-a-half house graciously ascends a wooded hillside site, takes full advantage of a magnificent view by a ground-floor terrace and glass-walled living room. Designed for all members of the family, the ground-floor playroom, with its ample fireplace, provides a second living room, whose value will increase as the family grows.

Noteworthy details are Alschuler's wardrobe storage wall in both master bedroom and playroom and the capacious service porch in the Thormin design, used to store rubbers, raincoats and big toys. Laundry equipment is also located in the porch.





UNDIVIDED LIVING-DINING SPACE EXTENDS HOUSE DEPTH



GLASS WALL, OPEN SHELVES BRING LIGHT TO INNER HALL







Knopf-Pix

CALEB HORNBOSTEL, recently appointed Architectural Consultant for WOMAN'S HOME COMPANION, says "I have been a woman's home companion since I was married in 1928." An architect who has been in the housebuilding business both in this country and in France, he says: "In 90 per cent of the houses built, it is the woman who does the dictating." His career has tangled with the woman's angle more than once. Long ago he worked his way through Paris by designing beach pajamas, and one of his recent jobs was a factory for Revion Products, the fingernail titans. Between these landmarks, Hornbostel has been designing shell loading and radar plants.

Some like it hot, some like it cold,

and the Companion strives to please both, says Editor William A. H. Birnie

Helping its readers to plan their homes has always been a part of the *Companion's* service. Interrupted during the dark days of 1941, our home planning department was revised and revitalized in the fall of last year. We are fortunate in having as our technical adviser in this expansion the invaluable assistance of Caleb Hornbostel.

Before launching our new program, we went to our consumer panel of 2,000 Reader-Reporters to find out what *Companion* readers want and need in their postwar homes. The response to the detailed questionnaire was of itself the most convincing indication of how important building is to our readers. The percentage of returns was the second highest in the history of the panel. Of its members, about one-third contemplates building or buying, about two-fifths intend to alter their present homes, some for resale. As a result of our questionnaire, we know the sort of houses *Companion* readers like, the amounts they intend to spend. In addition, it was evident that our readers are not committed to any architectural style and that to meet their needs we must present both modern and traditional houses.

We regularly plan a home for a Reader-Reporter whose needs, tastes and resources are typical of a large segment of our circulation. Any architect distinguished in the style house they like—men of such different viewpoints as Royal Barry Wills, Harwell Hamilton Harris and Ketchum, Gina and Sharp—is commissioned to work with the family. The plans that result are not visionary hopes, but as specific and real as the final blueprints approved by a client just before the steam shovels move in; houses which will be built by the families for whom they are planned.



HARRIET BURKET, Interior Decoration Editor of WOMAN'S HOME COM-PANION, has both abundant homemaking ideas of her own and an abundant confidence in the average woman's capacity for creative home-making. On the premise that the "difference in people's homes is a matter of pocketbook, not of taste," she devotes herself primarily to the problem of how a housewife can stretch a limited budget to a maximum of comfort and beauty. Her first job was with ARTS & DECORATION where she helped start a new trade quarterly-CREATIVE DESIGN. She was also merchandise editor of House & GARDEN.

Mort Corwin



ELIZABETH BEVERIDGE, Home Equipment Editor of WOMAN'S HOME COMPANION for the last nine years, has taught enough home economics to understand the housewife's need for good mechanical tools. A farm girlhood, she says, gave her both an unfeminine feeling of competence in handling farm machinery and a highly feminine interest in bringing some machinery into the unmechanized farm house.

• **T**^N planning the decoration of *Companion* postwar homes, I am confronted with a simple fact of mathematics. The income of a typical *Companion* family varies from \$3,000 to \$5,000 a year, with some below and many above these figures. Obviously, the decorative scheme cannot be lavish. But these families are deeply interested in their homes and anxious to have them right. It is our job to show them how to do it.

"I have tried to meet their problem by using color as my first substitute for expensive fabrics and custom-built furniture. It's long been my observation that the average woman is afraid of color, unsure of her own judgment in how to use it, timid of new combinations. It is my hope that through the color schemes developed for our postwar homes, all *Companion* readers may be weaned from the usual rose bedrooms, green kitchens and buff living room walls which have made so many American homes identical twins.

"At other times, ideas have been substituted for money. If, on the smallest budget, good furniture cannot be bought, it can with few tools and little experience be made. We've offered patterns for furniture that's simple to build but of good, honest design, for the benefit of our readers who are not in a position to take advantage of our more frequent coverage of established furniture lines.

"I have not lost sight of those readers who want to beautify the homes they already own. When we show how a house can be modernized structurally—the basement made into a game room, closets added, bathroom brought up to date—I plan the new decorative scheme right along with the construction changes designed by the architect. For I am convinced that architecture and decoration must never be considered as separate problems."

•N^o house is complete until it is equipped to make normal living possible. Since the carriers for water, electricity, gas and heat are built into the walls we at the *Woman's Home Companion* consider it essential that equipment be planned for from the very first sketches of the house. Considering both the requirements of the family and the general scheme of the house we work with the architects for an arrangement of appliances and work centers which will provide the best possible working conditions in the home — with special emphasis on the kitchen and laundry.

"The use of equipment is of even greater importance in the low cost home than in the higher priced one. The homemaker of moderate means does more of the housework herself and depends less on domestic help, outside services and the use of prepared and semi-prepared food. Even though she starts with only a minimum number of basic appliances it is imperative that they be placed where they will give the greatest service and where their use will entail the smallest expenditure of energy in working back and forth from one to another.

"The Companion does not consider its equipment job done when the immediate needs of the family have been planned for; there must also be provision for growth and expansion. At a time when the world is being shaken and blasted by machines, people eagerly await the day when those instruments of destruction may be turned to means for better living. Only necessity will force them to settle for the bare essentials in equipment. Their plans for the years ahead include appliances they have known or read about but have not been able to own, and they confidently expect devices as yet unheard of."



CALEB HORNBOSTEL'S FOUR-LEVEL DESIGN FITS A RIDGED SITE, PROVIDES A RAISED SUNDECK WITH A VIEW

Woman's Home Companion houses designed for actual clients feature modern a



TWO VIEWS OF LIVING ROOM, DECORATED BY DAN COOPER







ROYAL BARRY WILLS' NOSTALGIC EXTERIOR, REQUESTED BY CLIENTS, MASKS A MODERN MACHINE FOR LIVING IN

ditional design in judiciously equal doses.

Each month Woman's Home Companion selects from among its readers a typical family for whom they plan a postwar home—a home tailor-made for that family's needs and desires. The houses published in this series clearly show that, although many Americans still prefer Cape Cod, an ever-growing number are demanding modern design. Typical of homes which the postwar building public is already putting into the blueprint stage, are the two shown on these pages.

The first, designed by Caleb Hornbostel for the Eugene A. Winger family of Beloit, Wis., is described by the *Companion* as "modern but not mannered, efficient but not mechanical, easy to live in but beautiful." It is planned in four different levels to take advantage of an irregular ridge site overlooking a beautiful valley. The living room, isolated on the lower level, features a window wall which makes the magnificent view a part of the room itself. Native materials and muted earth colors are used throughout as a further tie with the landscape. Ample storage space in every room, one of the Wingers' most emphatic requirements, is provided by built-in cabinets.

The second home, designed by Royal Barry Wills, gives the Wilhelm G. Johnsons of Erie, Penn., just what they asked for: "We want everything modern inside, but we also want a warm traditional exterior, preferably Cape Cod." A variation on the center-hall theme, this house is more open in design than its predecessors. Dining room and living room are combined and an outdoor living area is provided in the rear.







Woman's Home Companion.

Designed specifically for the returning serviceman who can afford only a simple home under the Bill of Rights loan allowance, these two houses provide ample and skillfully planned living space for two people. Each one can be expanded to keep pace with a growing income and a growing family. The basic unit should cost only \$3,500 to build.

The modern one-story home by Ketchum, Gina and Sharp is designed on the modular system and takes every advantage of sunshine, air and out of doors by an excellent use of glass areas. Extended outward by a T-shaped wing, it will provide guest bedrooms at a distance from the house proper, but connected with it by a long corridor lined with built-in storage cabinets along one wall. The car port may be enlarged to accommodate two cars instead of one.

The traditional home, an efficient cube design by Llewellyn Price begins as a one-story house, can later be expanded into two stories. When this is done, the original living room becomes a dining area and the two ground floor bedrooms are changed into a living room merely by knocking out a partition. The tub is moved upstairs and the extra space used to enlarge the kitchen.

Although expansion of both houses is extremely simple, the modern home would involve less expense since its original rooms are unchanged and new construction would not necessitate removing the roof. TRADITIONAL HOME ADDS SECOND FLOOR, CHANGES FIRST















WIDE EAVES SHADE WINDOWS IN COMPANION-PLANNED HOUSE

A "California" house for the Berkshire Hills of Massachusetts.

Like many prospective home owners, the Lawrence E. Shumways of Turners Falls, Mass., had no dedecided preference about the type of architecture for their postwar home. They demanded only one thing elbow room. This modern house, designed by Harwell Hamilton Harris provides exactly that. Although constructed on three levels to fit a sloping site, it compares favorably with one-story houses in ease of operation. Living room, dining room, kitchen and bedrooms are all on the first floor. The children's playroom is combined with a sewing room in the basement, while Mrs. Shumway's top floor study, a cheerful room with fireplace and bookcases, is isolated from family noise.

Native construction materials make the house fit naturally into its background of hills and trees. Walls are of natural wood used horizontally and crossed at intervals by vertical strips, while rock from nearby ledges is used for retaining walls and fireplaces.

The front view of the house reveals a large glazed area—full length windows on both the south and east sides of the first two floors, clerestorys in the top floor study. The abundance of sunshine, extraordinary view and feeling of spaciousness provided by such windows is particularly appropriate to the living room and dining alcove and to the playroom. The open design is carred still further by the combination living-dining area separated only by a fieldstone fireplace. The bedrooms, placed at the rear of the house, have small windows for privacy and for warmth in the cold New England winter.


LAUNDRY TAKES FULL ADVANTAGE OF GENEROUS WINDOWS

8

The laundry room in the basement of the Shumway house receives excellent natural lighting. Clothes bins, tubs, sorting and sprinkling counters and cupboards are grouped beneath the windows. Space below an indoor drying rack on the left wall may be utilized for automatic laundry units when purchased. Sewing corner in playroom (below) is concealed behind large doors, game table doubles as a cutting table.



11



Gentleman

APRIL, 1945



SARA BULETTE, Editor of the "Country Gentlewoman" section of COUNTRY GENTLEMAN since 1942, is a gentlewoman farmer herself. Dividing her time between a Philadelphia editorial desk and a 57-acre Bucks County farm where she lives with her husband and son, Mrs. Bulette speaks with the knowledgeable authority characteristic of a magazine that has long been the American farmer's bible. She joined COUNTRY GENTLEMAN in 1937 to initiate a department for rural clubwomen, later founded the Country Gentlewoman League (which now numbers some 375,000 members). She flew to England in 1941 to do a series of articles on what war had done to the farm folk of Britain.

What farm women want

is a house designed for the business of farming, says Sara Bulette

Not so long ago the New Yorker magazine quipped, "Home was quite a place when people stayed there." That's the way farm women feel. Only they state their sentiments in the present tense. Which means that the first thing they want in their homes—postwar, as always—is a husband and kids. And everything else—from a weatherproof roof to a swinging faucet on the kitchen sink—they want because it will help them to keep their families healthy, happy, comfortable and contended AT HOME. As one of our readers summed it up: "My motto, idea and hobby all rolled into one is to make home the biggest drawing card in the lives of my family."

In general, the farm woman has a three-fold set of specifications for her house.

One: a house that fits the land. That, I think is what she means when she uses adjectives like "permanence," "serenity," "simplicity," "deep roots." It is also what she means when she says that she wants her home to be structurally sturdy, insulated against cold, heat, wind, rain, yet designed to take full advantage of those country luxuries light, fresh air and view. I honestly believe she rates these qualities so high that she would choose a less conventional type of architecture in preference to a traditional one if it is demonstrated that the less conventional type fits the land better in appearance, strength and "openness."

Two: a house that fits the business of farming. She's thinking about this when she specifies a kitchen that will take care of far more tasks than mere food preparation, when she talks about a specially built work-clothes



DB

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KITCHEN - N

First prize in Country Gentleman's Better Kitchens Contest went to this plan for remodeling a typical country kitchen. Badly placed doors and too small windows could not be redesigned, but equipment is grouped to facilitate circulation and to take advantage of the small amount of natural light. Refrigerator, sink and range joined by ample work surfaces flank two sides of the room. A serving counter at the left of the range hides a sliding wood box which can be filled from the yard.

Second prize was given to this solution for the large kitchen in a large house. Former illogical arrangement placed pantry too far from work center, refrigerator in dining room, washing machine and separator near cooking units. New plan removes wood and coal storage from porch to cellar, thus providing room for separate cooking and laundry centers divided by a glass block partition to give borrowed light to cupboards and work surfaces. With new cabinet storage former pantry space can be utilized for a bathroom.

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closet and a handily arranged wash-up place for the men and is willing to give up one of her first floor rooms to a farm office.

Three: a house that fits the family. Privacy for all, space for hobbies, space for family recreation and for entertaining with special provision for the teen-age group and for those community activities that enrich farm living from both the economic and social standpoints: i.e., meetings of 4-H club, homemakers' club, church groups, committees, etc.

These specifications would present a tremendous challenge to the architect and engineer even if he could plan for as many rooms as he desired. Instead he is limited by costs of building, maintenance and repair, and by considerations of efficient housekeeping. The answer can only be, of course, tremendous flexibility of space. If a large kitchen and a large living room seem called for, it would be at the sacrifice of a separate din-



when the living room is turned over to the youngsters for a party or 4-H meeting

ing room. More and more farm women are coming out in favor of this arrangement-preferring a living room large enough to take care of a big table and chairs which can do triple duty-for company meals, for family conferences and games, and as a study place for the children. They prefer their kitchens to be arranged for the service of regular meals -and most of them want to keep the old summer kitchen and bring it up to date as a modern workroom where laundry, canning, freezing and farm kitchen chores other than food preparation can take place-and where space is allowed for the men's work clothes closet and wash-up place. Farm women who say they want a separate farm office usually count on it as a multi-use room. In addition to its roomy desk and filing cabinet for farm records they feel that with a studio couch, comfortable chair, and good reading light it can serve as an extra bedroom, a guest room, or-in a two-story house-as a temporary sickroom where an invalid could be more easily cared for during the day. Last but not least, it could be a refuge for Mother and Dad when the living room is turned over to the youngsters for a party or 4-H meeting-or a place for the children to study when Mother and Dad are entertaining.

Not so very long ago we asked extension specialists in home furnishing and home management to list for us five things in addition to the acknowledged big three: running water, electricity and adequate heating—they thought added most to solid comfort in the farm home. They are all things which can only be 100 per cent effective if considered at the time a farm house is being planned.

Number one, of course, was ample storage space. After all, the most important function of a house-next to sheltering



people-is to provide space for keeping their possessions. And if you stop to think about it, there is no housekeeping job which doesn't involve getting out, arranging for use, and putting away these possessions. Much of the never-ending monotony of this particular phase of housework can be eliminated when a house affords an adequate "filing system" of cupboards, closets, shelves and bins for making tools and possessions as accessible as possible. The most concentrated example of this occurs in the kitchen where cupboards at each work. center hold the utensils most used there. But farm women ask us to remember that the same principle applies throughout the house. In the living room, for instance, places for the possible location of cupboards, shelves, etc., for books, games, farm records (if there is no separate farm office) writing materials, hobby equipment, musical instruments, toys-are almost as important for the designer to consider as the location of windows and doors. Several farm women have pointed out that they could use a closet in the living room or front hall that is not only large enough for coats but a stack of folding chairs to be used in the living room when there's a club or committee meeting. Adequate storage for bedding and clothes is another whole field for study. Most farm women seem to prefer an ample linen closet convenient to bedrooms and they want moth-protected space for summer storage of woolens. Bedroom closets really cleverly contrived could actually reduce the size of bedrooms to the extent of allowing for three bedrooms where two might have been planned. Shallow, and built along a whole wall-perhaps forming the partition between rooms-these closets could offer clothes-hanging space. racks for shoes and smaller accessories, and built-in drawers of varying depths. The latter would take the place of a bureau or chest of drawers. Desk and dressing table are other pieces of bedroom furniture farm women say they'd like to have built into this wall-long efficient closet unit. Thus most of the money for bedroom furnishing-to say nothing of bedroom spacecould be devoted to the bed.

Another item mentioned repeatedly was an arrangement of furniture that does not require reshuffling of tables and chairs every time they are to be used. Farm women who say they



... and they need a place for the ever-present piano with space enough for a group to gather around it.

want a large living room are usually thinking of three main groupings of furniture for different uses. There's a big table and chairs for company dining—there's the grouping of comfortable chairs around a fireplace or other center—and they need a place for the ever-present piano with space enough for a group to gather around it. And in order to be able to do this and still have sufficient space between furniture groups





Tenant house designed by Charles B. Platt is a basic unit of three rooms—kitchen, dressing and living room (convertible into sleeping quarters) which can be built for a few hundred dollars by unskilled farm labor. Bedrooms, bath, central heating and garage can be added when necessary, providing great flexibility for family needs. The foundation, a concrete slab, eliminates excavation. to avoid a cluttered look and permit ease of circulation, they need a lot of help from the designer in his intelligent allotment of floor and wall space.

Another leading item on the "home comforts" list was good lighting, natural and artificial. I don't believe there was one entry in a recent *Country Gentleman* kitchen-improvement contest that didn't mention plans for enlarging at least one window. The use of glass brick in kitchens was another popular idea. Farm women also seem to like the idea of the large "picture window," affording as it does a place for wellloved house plants without cutting down light and view. Corner windows, too, seem to be widely acceptable, but so far there seems to be only a deep silence on the subject of the huge sheet of glass which forms a whole or part of a wall. Could be, they are wondering about the cleaning of the glass and yards of drapery fabric such windows would require.

That easy-to-clean business crops up in every detail of house planning from the farm woman's angle. Usually she sums it up with phrases like: "we want good surfaces—smooth, attractive, durable, easy to keep clean." That is the case whether she is talking about walls, woodwork, floors, work surfaces or labor-saving equipment. Not long ago I was present at the launching of a postwar model for an important piece of household equipment. The man who designed it is an engineering genius. Every word he said, as he displayed charts illustrating



They want their kitchen eating space planned so that men coming in from the fields can sit down at the table without impeding last-minute cooking and serving of the meal.

the mechanical improvements that had been made, proved it. But at the very end he proceeded, also, to prove he was a mere man by announcing with a proud flourish, "We added a couple of rows of beading for the sake of appearance." He might just as well have said, "to please women, the dears." Well, I'll eat that piece of equipment including the motor if even one woman will be pleased because there are now two dust-catching grooves where before was a beautiful unbroken rounded surface cleanable with a few swishes of a cloth. It makes a woman wonder just how many other housecleaning headaches -paneling in doors, fancy molding on baseboards, for instance -have been added by men under the fond delusion that they are pleasing the women. Well, they can take our word for it that if any phase of a house or its equipment-large or small -is being added merely to improve the appearance, and for that reason alone, ten to one you'll really please the women by omitting it.

But to finish up the home-comfort list.

Arrangement of rooms and doors and stairways with an understanding of the main household traffic flow, is the next item. Your plans have always taken this into consideration, and every expression of opinion by farm women bears you out. They want their kitchen eating space (Continued on page 146) "Certainly we're ready to <u>talk</u> elevators"...

DURING the past several years, the manufacturing facilities of the Otis Elevator Company have been devoted largely to the production of a great volume of specially designed elevators and precision equipment for a number of vital war requirements.

And, as long as the war lasts, a large part of these facilities will continue to be devoted to the production of war goods.

Right now, however, the Otis Elevator Company is in a position to help you *plan* for your post-war elevator needs.

Your Otis representative is ready to serve you. He is available to analyze fully your elevator problems and to make recommendations concerning the equipment which will be best suited to your post-war requirements.

By planning now, you will be assured that a minimum of time will be lost in getting your required equipment in production after war restrictions have been removed.

So, to be certain of the last word in vertical transportation for present or proposed office buildings . . . for hospitals, hotels, factories, or warehouses, call your Otis representative *today*.





TO SEE THE ELEVATOR OF TOMORROW . . . LOOK AT SEDGWICK HOSPITAL ELEVATORS TODAY



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Sedgwick Hospital Elevators are ruggedly constructed to do many essential jobs.



vator machines are specially de-signed for hospital elevator service.



Comfortably proportioned to ac-commodate stretchers, visitors or commodate hospital personnel.

The new Sedgwick Electric Hospital Elevators are expressly designed for use in hospitals up to six floors where car speeds up to 150 feet per minute are required.

These multi-use Sedgwick elevators are made with three types of control. One-The Sedgwick simple, straight automatic push button control with dispatching buttons in the car for each landing and a call button at each opening, for operation without an operator or attendant. Two-Sedgwick's selfcentering, manually operated lever-type car switch for those elevators to be run by an operator. And three-Sedgwick dual control which offers all the advantages of automatic floor stops and permits operation of the elevator with or without an operator by simply flicking a switch.

These are some of the advantages of Sedgwick Multi-Use Electric Elevators for smaller hospitals. There are many more. We would like to tell you about them. So if you have a perplexing lifting problem-present or postwar-tell us about it. Our engineers will be happy to help and show you how Sedgwick elevators solve smaller hospital vertical transportation problems through safer, surer, more economical operation.

edgwick WORKS MACHINE 140 West 15th Street, New York 11, N.Y.

COUNTRY GENTLEMAN

(Continued from page 144)

planned so that men coming in from the fields can sit down at the table without impeding last-minute cooking and serving of the meal. They prefer that stairways be planned in relation to the working part of the house rather than the front door, and they want the food-preparation center of the kitchen adjacent to the end of the living room which will be used for company meals.

Under the heading of health and safety-rated high as solid comforts by farm women - these features were mentioned most often: rodent and insect proofing, fire prevention, properly constructed and lighted stairways, good ventilation.

It is generally agreed that postwar prospects for farm housing are backed by more intelligent playning and more cold



Fifty-four per cent have funds set aside for buying appliances.

hard cash than ever before. The fly in the ointment at present is a lack of dependable, consistent information about new developments in building and building materials. Much of this information will, of course, have to wait until manufacturers know where they stand. But it's going to be needed fast as soon as it becomes available. Meanwhile there is little chance that the flow of dream-stuff about mobile sterile, washable, button-controlled postwar houses will build up too great expectations in the farm field. Judging by the rural reaction to it, our entire farm population lives in the state of Missouri.

In a recent farm structures survey conducted by our Research Division, there was a question phrased as follows: What, if any, new improvements, ideas and developments in housing or house building materials have you read about, heard of, or seen that appeal to you? There followed sizeable rows of blank spaces to be filled in-no list to guide their reactions in any way. Now, the rest of the questions in this survey were all answered by practically 100 per cent of those interviewed. But two-thirds of them passed up the question completely. And 22 per cent of these who did answer came right out and said "None." From 11 to 16 per cent of those who had seen new developments that impressed them, mentioned composition sidings (exterior and interior), insulation material and uses for asphalt and asbestos. From 7 to 5 per cent mentioned heating equipment, glass for structural purposes, prefabricated products, plastics, built-in features, airconditioning and attic fans, glass (non-structural) and plywood, pressed wood, etc.

The survey referred to a minute ago was based on personal interviews with about 2,400 farm families almost half of whom live in the Midwest. Two-thirds were owners. It covered all (Continued on page 150)



Speed-When It's Your Move

Keep buildings a jump ahead with Pyrobar partitions that move fast for new or alteration work...and here's the reason:

Pyrobar Partition Tile can be laid up rapidly. Each unit provides 2¹/₂ square feet of wall surface with 40% less mortar joints than a wall made up of only 1

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The Dividing Line for lightweight—fireproof quickly erected—low cost partitions These dependable partitions, made quickly and economically with available materials, offer resistance against fire and sound travel.

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square foot surface units . . . up to 20% less plaster is used over the true, even Pyrobar surface. The true, square edges are readily cut and fit. These are the Pyrobar advantages that permit planning in step with any modern move. Complete literature is available on request.

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A LIVING ROOM BAY OF ANDERSEN COMPLETE WOOD WINDOW UNITS

lindowall

This Minnesota home was designed with an eye for sunshine. Its living room bay is placed to catch the cheering morning sun as it lights up the neighborhood.

This bay is made by combining stock-size Andersen Complete Wood Window Units, in this instance Andersen outswinging CasementUnits on each side of a fixed center sash. Andersen WINDOWALLS perform the insulating functions of a wall, the viewframing and ventilating functions of a window.

Andersen Casement Units, Number 45210, sash opening, $3' \ 134''$ wide. Fixed sash is $3' \ 134''$ wide. Ventilating units placed at 45° angle. Magnus Jemne, Architect.

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

Andersen Corporation

BAYPORT MINNESOTA



For years, laboratory lights had burned late while research chemists toiled and delved. And then—on a cold, blustery night in 1937—the great moment arrived. At last, a method had been found for measuring the efficiency of toxic preservatives for wood . . . a method that was to permit the establishment of definite minimum standards for treating woodwork such as windows, screens, doors and frames.

Protection in the public interest—protection of architect, builder and homeowner alike—is the purpose of the toxic minimum standards devised by NDMA. Administered by responsible authorities, these standards serve to enhance and improve the lasting quality of wood ... add an extra measure of endurance to wood's unequaled beauty, workability, utility and economy.

The NDMA Seal of Approval—available by license to all manufacturers and distributors who conform to the toxic preservative standards of the NDMA—represents these six steps of protection:

An efficient test for measuring effectiveness of toxic preservatives

- Minimum standards governing the toxic preservative treating of woodwork products
- 3. A seal identifying products treated in conformity with NDMA Toxic Preservative Standards
- Mill inspection of treating equipment and practices
- Laboratory check-tests of preservative solutions
- 6. Educational effort in the public interest

NATIONAL DOOR MANUFACTURERS' ASSOCIATION McCORMICK BUILDING · CHICAGO, ILLINOIS



COUNTRY GENTLEMAN

(Continued from page 146)

phases of building, improvement, repairs and remodeling of farm structures together with equipment and furnishings acquired within recent years and plans for postwar equipment. Now being tabulated by the Commercial Research Department of The Curtis Publishing Co., the results should be available by about the end of October.

Of farm owners, 15 per cent were planning to build new homes after the war. The average house planned shaped up as follows: It would cost about \$4,000—would be one-story,



The women say, "These architects and engineers ought to be made to do the cooking and cleaning for just one week in some of the houses they expect us to manage."

with six rooms and a bath. Outside walls would be wood siding; roof, composition shingle; walls and roof would be insulated. First choice for inside walls split almost 50-50 between lath and plaster and wall or panel board to be finished (again a 50-50 split with a slight edge for the first mentioned) with either paint or wallpaper. It would be heated with a central, hot air system, and would have an electric water heater.

Improvements—69 per cent of all families surveyed had made some in the last few years—71 per cent plan additional improvements after the war.

Appliances—99 per cent now own some in this order: stove (90 per cent), radio, iron, washing machine, refrigerator (70 per cent), 68 per cent are planning to buy new appliances after the war, in this order: refrigerator and/or quick freezer (42 per cent), stove, washing machine, vacuum cleaner, radio and iron (the last 2, 16 per cent).

In order to squeeze the wishful thinking out of this survey, families were asked whether funds were already earmarked for improvements. Forty-seven per cent answered in the affirmative for home improvements—and 54 per cent have funds set aside for buying appliances. Most of it is in war bonds (74 per cent) and cash bank accounts (33 per cent).

There's a *Country Gentleman* editorial survey I'd like to touch on briefly, too. Several months ago we wrote to the leading manufacturers of kitchen equipment offering to pass along to our farm women readers any questions they might have concerning the types of postwar equipment most desirable for the farm home. These we made into a questionnaire which was distributed on request to readers. One thousand, four hundred questionnaires were returned and here are some of the trends they revealed.

Refrigerators: Eighty-five per cent now own refrigerators (73 per cent of them electric)—but 45 per cent expect to buy a new one when they become available. An overwhelming majority would buy an electric refrigerator, with 12 per cent (Continued on page 154)

A D J U S T A B L A Stragals



are designed to compensate for expansion or contraction of doors. Made of extruded bronze, aluminum or nickel, they are easily installed and adjusted; prevent drafts, air currents, and help to keep out dirt and dust. They are simple, practical, rugged, and available in several styles for any type of doors. \P Architects and builders have been specifying and using Michaels Adjustable Astragals and other products for many years. And while present wartime restrictions preclude their manufacture, we believe it will be to your advantage to investigate NOW.

> We shall be glad to send complete information and specifications on any or all Michaels building products.

OTHER MICHAELS PRODUCTS

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

Above: Type A Surface Astragal may be applied to wood or hollow-metal doors, or as a stop bead, or at bottom of door.

Right: Type A-1 Astragal for surface application on bullnose hollow-metal or wood double door.



THE MICHAELS ART BRONZE CO., Inc., COVINGTON, KY. Manufacturers since 1870 of many products in Bronze, Aluminum and other Metals

> Experienced representatives wanted. Keep on Buying War Bonds!



Explanation: Massive appearance with heavy shadow lines is a feature of Bird Master-Bilt asphalt shingles. Combined result of extra-thick butts and deeply embedded coarse mineral granules. Available in a wide range of modern high-lighted colors. Permanence of color, longer life, freedom from repair assured by Bird's exclusive method of Controlled Production. Extra cost trifling compared to better appearance and lasting satisfaction. Gives a luxury look to medium-priced homes.

P. S. These shingles meet all F. H. A. requirements, and are approved by Underwriters' Laboratories, Inc., as fire-resistant.

> Get full details from Sweet's File, Architectural, catalog 8 b/1. Send for a descriptive folder to Bird & Son, inc., East Walpole, Massachusetts, Dept. CD-54.

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Master-Bilt SHINGLES

Master-Bilt Shingles, in a wide variety of colors and blends, are only one of Bird's many quality products for building, repairing and modernizing homes and industrial buildings. See also Sweet's File, Architectural, 8 a/3 for Bird Built-Up Roofs, 9 b/1 for Bird Neponset Black Building Paper for use as vapor barrier with insulation.

TIME-SAVING SPECIFICATION DETAILS FOR BIRD Master-Bilt ROOFS — Eave Treatment



Install rigid drip edge extending 3/8" beyond facia board. Use galvanized iron painted both sides. As starter strip use Bird Black Mineral Surfaced Roofing at least 6" wider than roof overhang. Lay parallel to eaves with lower edge flush with drip edge. Spot nail in place. Apply shingles.

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Consider the above facts in terms of postwar rental competition. Consider how much a modern elevator system — with smart Dahlstrom Elevator Entrances—will add to the rent-appeal of your property. Today is not a minute too early to start planning such essential improvements. Getting the details behind you now will put you out in front when Peace comes and the wild clamor for new construction starts again. Today, Dahlstrom is equipped and ready to work with you and your Architects to make the most of your opportunity. Write now.

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Dahlstrom is proud of the "Three" stars in its Army-Navy "E" Flag. The new one just added is further indication of the intensity with which the Dahlstrom family of workers has worked for Victory.





MODERN MAID OPERATES ON NEW PRINCIPLE... OVERCOMES ALL OBJECTIONS TO OLD-STYLE ELECTRIC WASHERS!

Here at last is a completely practical electric dishwasher . . . priced so low that every kitchen you plan can easily afford it.

Developed by a woman to overcome women's objections to dishwashers, Modern Maid utilizes an entirely new principle of completely submerging dishes by forcing 4-5 gallons of hot water over them ... at the rate of 140 gallons per minute!

Unlike other models, Modern Maid operates either fully loaded ... or with only a few dishes. It washes dishes, greasy pots and pans . . . vegetables and table linens. Thoroughly *cleans itself* after use . . . is easy to operate . . . and does not break dishes.

Modern Maid brings the beauty and efficiency of a "model kitchen" within reach of medium-priced homes and apartments. Write for literature today.



COUNTRY GENTLEMAN

(Continued from page 150)

wanting gas, and only 1 per cent an ice refrigerator. About a fourth of them would spend between \$150 and \$175, another quarter would spend between \$200 and \$250. Most of them seemed to think the present range of sizes was about right but about 25 per cent disagreed, most of them preferring that refrigerators be wider. Eighty per cent of them said they'd prefer a porcelain enamel finish to a less expensive synthetic enamel. Almost 100 per cent want a zero food storage unit and divide about half-and-half when it comes to having it a part of, or separate from, the refrigerator. Asked to state what other features they'd like included, a larger freezing unit, a place to store milk, and a vegetable bin led the field. Other features were adjustable shelves, revolving shelves, place for tall bottles, hydrator-humidifier, dasher-type ice cream freezer —more trays, deeper trays—water cooler with outside tap.

Ranges: Fifty-seven per cent want new ones after the war. Half of them prefer electric ranges. Gas and bottled gas come next—with a small percentage each, voting for wood, kerosene, wood and electric, gas and coal, wood and oil, in that order, with coal at the bottom of the list. When it came to special features, 98 per cent considered an oven-temperature control necessary and more than 60 per cent voted for a glass window in the oven door, a table-top range, one giant burner, a cooking well. A clock minute-minder and an oven light were two features not listed which many women added.



"... I like to view my flower garden while I'm working at the kitchen sink."

Storage space: Seventy-three per cent will buy or build some new kitchen cabinets. And the old-time cupboard is definitely out-94 per cent prefer the continuous-top counter with cabinets below and above. Preference as to materials stacked up this way: Wood, 52 per cent-Steel, 35 per cent-Plastic, 22 per cent. Naturally a high percentage-96 per cent-preferred to have a choice of heights for counters. As to use of available space under counters-61 per cent said all should be used for storage-and 35 per cent said most. Only 4 per cent said very little should be used. They all said they wanted a choice of colors but when it came right down to choosing, 64 per cent preferred white and 17 per cent, ivory. Of colors, green led the field with 10 per cent: red and blue tied at 61/2 per cent. Asked about work surfaces that need special lighting-84 per cent specified light on the wall above the sink. Additional features some farm women would like to see provided by the makers of kitchen cabinets were, in this order: broom closets; cabinet drawers for individual foods, as flour; racks for pot lids; sliding and adjustable shelves; (Continued on page 158)

600 WEST POINT STUDY-ROOMS Relighted with GUTH "Cadet" Indirects!



Foot-Candles <u>Plus</u> Correlated Brightnesses Scientifically Relieve Eyestrain!

The intensive course of study given West Point Cadets during their 4-year period, is probably the most rigorous and the most sustained seeing-test to which man is subjected. To provide best possible seeing-conditions for the critical seeing-tasks involved, all West Point study-rooms have recently been equipped with highest quality of illumination.

High-intensity illumination has been provided, PLUS uniform distribution of lighting, PLUS shadow-free features, PLUS low-brightness luminaries, PLUS correlated brightnesses throughout the entire room area. The studyrooms were painted to complement the illuminating system. Specific details of the installation are given at the right.

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Guth "CADET" is a Luminous Indirect Luminaire for use with two rows of either 40-watt, or 100-watt Fluorescent Lamps, CADET is suspended on single-stem hangers, and is constructed for individual or continuousrow installations. The translucent cream-white reflectors direct approximately 75% of the light upward, and 10% downward. Room-ceilings should be painted Albine White to cooperate with the lighting system. Average fixture brightness of 40watt CADETS is 221 Foot-Lamberts; 375 F. L. for 100-watt CADETS. Fixtures are 481%" and 601%" long respectively, and should be suspended from 20" to 36" from the ceiling. All metal portions of CADETS are finished "300° White". Listea by Underwriters' Laboratories, Inc.

UNITED STATES MILITARY ACADEMY WEST POINT, NEW YORK

INSTALLATION DATA

The typical West Point study-room is 14' 0" long by 15' 4" wide, with 10' 8" ceiling height. LIGHTING is provided by three Guth CADETS, each 961/8" long and each equipped with 4-40 watt White Fluorescent lamps (2.9 watts sq. ft.). Fixtures are suspended 17" from ceiling to top-of-reflector; fixtures are on 3' 9" centers, and are run parallel to the 14' 0" room-length. ROOM-PAINTING COLORS were selected to co-operate with the illumination system. The entire ceiling, plus 12" top of sidewalls, are painted off-white color with 77% Reflection-Factor. Remainder of side-walls is painted soft-green, having 54% R.F. Floors are painted light-gray and have 15% R. F. BRIGHTNESSES throughout the room are correlated and are of the same order. The four brightest spots on the CADET luminaries average 221 Foot-Lamberts. The four brightest spots on the ceiling average 106 F. L. The brightnesses on the side-walls at eye-level. average 13.8 F. L. FOOT-CANDLE READINGS are very uniform throughout the study area. Horizontal readings on the study-tables (31" above floor) are 45.4 Foot-Candles. Illumination at 45° to vertical, 36" above the floor, and 12" out from the study-table, is 23.7 Foot-Candles. Horizontal illumination at the 4 corners of a 10' 0" square is 29.8 Foot-Candles. SOUND from the fixture is practically eliminated (difference between total noise and background is only 0.5 at sound level of 37.5 decibels). RADIO INTERFERENCE is eliminated by use of one filter in each 8' G" CADET fixture. STROBOSCOPIC is unnoticeable, in both lamps combined, the peak light-output is 14% above the average light-output. ENGINEERING for the entire installation was done by the United States Engineers, New York District Office. WHOLESALER was the Baitinger Electric Co., Inc., New York City, N.Y.

Missour



WINDOWS FOR YOUR DREAMS OF TOMORROW

Tomorrow's window designs are ready today . . . and they'll be in production as soon as materials are available.

They'll be bronze or aluminum, of course, because these are the best materials known today for this particular purpose—and because both of these metals will be much more economical after the war.

Naturally they'll be made by General Bronze-a firm with the technical "know-how" to apply bronze and aluminum to the most modern types of window design.

General Bronze, you will remember, was the world's largest fabricator of non-ferrous windows before the war. They have the experience, the designing talent and the production skill.

The new GB non-ferrous windows will incorporate the most practical advances in window construction ever offered. They will be permanently weather-tight and always easy to operate. They will not rust or rot out and their maintenance costs will be negligible. So plan now to include GB non-ferrous windows in your postwar plans.

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SIX CONSECUTIVE ARMY-NAVY "E" AWARDS

Seamen's Institute, Brooklyn, N.Y., Henry V. Murphy, Architect. Sandblasted Black Serpentine spandrels on street sides of building show appropriate martime subjects.

> Close-up of one of the decorative Black Serpentine spandrels, Seamen's Institute.





Chesapeake and Potomac Telephone Company Building, Baltimore, Md., Taylor and Fisher, Architects. Note sand-blasted Black Serpentine spandrels in lowest row. Close-up showing use of sand-blasted design for contrast and enrichment.

Sand-Blasting Opens NEW VISTAS of Decorative Utility for BLACK SERPENTINE

The wide range decorative possibilities in sand-blasted ALBERENE Black Serpentine is demonstrated in the spandrels, designed for Catholic Seamen's Institute, Brooklyn, N. Y., Henry V. Murphy, Architect, and those for Chesapeake and Potomac Telephone Company Building, Baltimore, Md., Taylor and Fisher, Architects. These are typical of the many new treatments and interesting finishes that ALBERENE has developed for the enrichment of current and post-war buildings.

Wherever design calls for stimulating contrasts or accents, Black Serpentine is preeminent...a most practical choice from the standpoints of economy and availability. So dense and tough is this stone that it may be cut as thin as 7/8"and its durable polish is lustrous but nonreflective.

A request on your business letterhead will bring samples, conveniently boxed, of Black Serpentine, Tremolite Green and our mottled blues and greens. Please address Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York 16, N. Y. Quarries and Mills at Schuyler, Virginia. Sales offices in principal cities.





BLACK SERPENTINE

PERMANENT, NON-REFLECTIVE, ECONOMICAL

BLUEPRINTS FOR YOUR HOUSE of TOMORROW



YOU MAY HAVE A CONVEYOR-BELT WAITRESS

Your Heating Plant will Tomorrow's homemaker may find this

be KOVEN WATERFILM fort of the KOVEN WATERFILM BOILER. The patented construction of the WATERFILM BOILER incorporates all the latest scientific developments . . . bringing you quick heat, even room temperature and a plentiful supply of domestic hot water. This smartly jacketed, fast steaming boiler is made for automatic firing with oil, stoker or gas ... in models suitable for use in industrial plants, apartment houses and large or small homes. The sectional series for apartment houses or industrial plants can be taken through a 2 foot door thus eliminating expensive rigging and alteration costs. Call or write KOVEN for detailed information.

JERSEY CITY, N. J.



KOVEN WATERFILM BOILER-BURNER UNIT

154 OGDEN AVENUE

PLANTS: JERSEY CITY, N. J. . DOVER, N. J.

dish and glass holder, drinking fountain. Asked for general suggestions about kitchen appliances,

women specified again and again that they be "easily cleaned," and made to fit closely to floor, wall or work surface so as to allow no space for dust and dirt. They're interested in materials that will not corrode, warp, stain or chip. Other suggestions-larger toaster-waste paper chute from kitchen to furnace-racks for small utensils. And I guess that's more than enough statistics for now.

bread board; ironing board; towel racks; storage for outdoor clothes; narrow shelves for spices, etc.; rounded corners for ease in cleaning; desk; filing cabinet; toe space under all

Kitchen sinks: Sixty-three per cent of the women expect to buy a new sink-very few want a sink alone-43 per cent want a sink and cabinet-52 per cent a continuous top unit. Threequarters of them prefer a double-compartment sink. They practically all want a spray for cleaning vegetables and most of them-67 per cent-want a combination hot-and-cold faucet rather than two separate ones. Fifty-two per cent prefer two drainboards to one. Eighty-eight per cent want the sink under a window. Additional features not listed in the questionnaire. but mentioned by farm women were toe-space under sink cabinets, removable strainers (dish pan sink), built-in soap

cabinets; sanitary garbage container; ventilation.

COUNTRY GENTLEMAN

(Continued from page 154)

There's just one thing more. It is about the traditional battle between the house-designer and the housekeeper. You know how it goes. The women say, "These architects and engineers ought to be made to do the cooking and cleaning for just one week in some of the houses they expect us to manage." And the designers come right back with the accusation that women are absorbed in detail at the expense of the wholethat they give more importance to orchid walls and crocheted doilies than they do to four walls and a roof.

There has been a good deal of this sort of thing, already, in connection with postwar homes. That it has not and need not-crop up in the field of rural housing is surely due to your recognition of the fact that there is no real battle involved. Both sides have a perfectly valid viewpoint-but instead of clashing they actually supplement one another.

A women says, "I want good light at my stove and mixing table and sink, places to plug in electrical appliances right where I use them, good lights to read and sew by in the living room." And a specialist works out a wiring system that will deliver the goods. Or she says, "I like to keep an eye out toward the barn without walking too far to a back door, and I like to view my flower garden while I'm working at the kitchen sink." So an architect figures out how the kitchen can have wide windows and still allow wall space for plenty of storage cabinets.

So it goes for everything that helps to make a house comfortable and convenient. The homemaker concentrates on details of day-by-day living while the architect and the engineer make them into working parts of a unified design. And if the balance seems somewhat uneven-all the work on one side and mere wishing on the other-that's a strictly temporary situation. For once four walls and a roof enclose the comfort and convenience specialists have designed and constructed, the homemaker will spend the rest of her life maintaining the order and cleanliness, creating the color and charm which alone can make the house a home.

The Name HOPF'S Guarantees 1818 WINDOWS 1945

The Ideal Kitchen Window A HOPE'S METAL CASEMENT

Reaching across the sink to adjust the kitchen window is no effort if the window is one of HOPE'S metal casements. A finger-tip control sets it for just the ventilation you want—or closes it tightly. Notice that it is screened on the inside — that the screens can be removed in a matter of seconds — and also that the outside glass

can be very easily cleaned from within. It's safe to predict that other forms of windows are now obsolete for the kitchen and by choosing HOPE'S Windows the owner is assured of the mechanical perfection and durability that make this new convenience a lasting benefit at no increase in cost.

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let's cut it to fit

"That's swell for a big house, but to make it fit in our narrow space, I'd put the tub and shower at the end and have the dressing table opposite the lavatory by the window. This would give me practically the same bathroom you see in the picture."

Isn't that just like a man"

"It always takes a woman to get the most out of small space! I'd plan it to give me ample elbow room. It would be easy to put the lavatory and dressing table on the same wall just opposite the other fixtures. Then I'd have plenty of space in which to move around."



IT WILL be Briggs, all right, young lady. Which means it will also be the last word in style and convenience, with extra durability built-in. Our designers have improved those formed metal plumbing fixtures you like so much ... originated and developed by Briggs before the war. Next time you see them, they'll be better than ever and still within the reach of even the most modest budget.

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This advertisement, in full color, appears in: The Saturday Evening Post, April 28; House & Garden, May; House Beautiful, April

I don't care how it's arranged!"



"RIGHT DRESS" for STORE FRONTS

THAT the complete Brasco Construction is indeed the "right dress" for store fronts is evidenced by thousands of installations in every type of retail establishment from coast to coast.

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HOUSE BEAUTIFUL

announces the addition of

Miles Colean

well-known housing authority to its editorial staff

Miles Colean joins House Beautiful as liaison officer between you, us and Postwar Prosperity.

Eminent authority on housing and building, Mr. Colean has recently served as Housing Research Director of the Twentieth Century Fund... and produced the book "American Housing," the first and only study of housing as a business.

Previously he acted as Technical Director and Assistant Administrator of FHA, instituting many practices now used by the Housing Industry. Mr. Colean has also engaged in private practice; has been associated with Holabird and Root, and with Starrett Brothers and Eken, Inc.

In his capacity as consultant at House Beautiful, Miles Colean will meet with builders and manufacturers to help interpret postwar consumer needs for industry's use. He will advise with you on the designing and merchandising of your products to meet those needs. We believe his advice can be of great value to you. For he has the best perspective of anyone in or out of the building field. Mr. Colean is, for example, largely responsible for FHA's nationwide system of housing standards; for introducing our minimum residential construction requirements and our land-planning standards for sub-divisions.

House Beautiful is proud to welcome Miles Colean. His addition greatly strengthens this magazine's down-to-earth, practical editorial policy . . . a policy that faces the facts of life and *does* something about them.

Mr. Colean's offices are in Washington, D. C. If you wish to confer with him, write Editor Elizabeth Gordon, House Beautiful, 572 Madison Avenue, New York 22, N. Y. asking her to arrange it.





Here's striking evidence of how Weisways meet the demand for more and better bath facilities. The floor plans and photographs show one of many actual Weisway installations recently made by a hotel, which thereby doubled its number of "rooms with bath" and increased its revenue.

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trade them rooms for space!



MASONI

nome owners have set aside a lot of money for post-war remodeling—but the ideas and the planning will have to come from you.

Show them how to change waste space into useful rooms . . . an unfinished cellar into a game and hobby room, a cluttered attic into a double-duty guest-and-playa room — and how the smooth, versatile Masonite* Presdwoods can do most of the job, going up right over old construction. As wall, ceiling and furniture panels, durable work and play surfaces, they may be finished for any effect you want.

Bright, new modern kitchens, remade bathrooms are high on the list—you can make major changes easily and at modest cost with the Masonite hardboards. Specify them smooth or with pressed-in tile patterns, custom-finished or ready to paint, wax or varnish on the job. Grainless, splinterless, resistant to moisture and heat, dense and hard, you'll prefer them for many purposes.

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UCTS

BOOKS

The author of "cradle-to-grave" social security offers his formula to rid Britain of unemployment.



BEVERIDGE: freedom from idleness

FULL EMPLOYMENT IN A FREE SOCIETY. By Sir William Beveridge. W. W. Norton & Co., New York. 274 pp., appendices, glossary, and index. $5!_2 \ge 8!_2$ in. \$3.75.

Thirty-five years ago Prime Minister Winston Churchill, making what was probably government's first acknowledgment of its responsibility for dealing with mass unemployment, said, "Send for that boy Beveridge." William Beveridge, whose creative economic thinking was at the time finding its major outlet in articles for the London Morning Post, went to Whitehall to report on unemployment. His study opened the way for the world's first public program of unemployment insurance and was the first of a long and now famous series of Beveridge Reports-each one a firmly planted guidepost on the road to social progress. Last year not the Prime Minister, but a whole nation waited for Beveridge. Sir William Beveridge's newest report was not made at the request of the British government ("the Report is much inferior to what it would have been had I been able to draw upon the resources of the government"), but at the increasingly audible appeal of the British people, an appeal echoed with equal urgency in the U. S. In both great democracies, full peacetime employment has clearly become a national goal no less imperative than the Atlantic Charter's Four Freedoms.

But pursuit of full employment, as Beveridge himself admits, "is not like the directed flight of an aircraft on a beam; it is a difficult navigation, in which a course must be steered among shifting, unpredictable, and to a large extent, uncontrollable currents and forces." Whether or not the U. S. and Britain adopt the course of public policy charted by Beveridge or any part of it, neither country can dodge the question which the British economist attempts to answer. Many will challenge Beveridge's premise that a program of planned public outlay is needed to assure full employment within our system of private management and private ownership. Many will doubt that public effort is able either to conceive or to execute the gigantic plans necessary to maintain constant demand for all that the economy can produce. But many thoughtful Americans will agree with this basic Beveridge view: "If full employment is not won and kept, no liberties are secure, for to many they will not seem worth while."

Beveridge quickly rejects the easier and "totalitarian solution of full employment in a society completely planned and regimented by an irremovable dictator." Both Britain and the U.S. have "traditions of resolute individualism and democratic government" and the Beveridge proposals are aimed to achieve full employment without violating these traditions. Significantly, his list of essential liberties (freedom of worship and speech, freedom to change the government, freedom in choice of job, freedom in management of personal income) does not include liberty to own the means of production. American readers will be taken aback by Beveridge's belief that this is "not an essential citizen liberty in Britain, because it is not and never has been enjoyed by more than a very small proportion of the British people." The report is, however, based on the view that "full employment is in fact attainable while leaving the conduct of industry in the main to private enterprise."

Beveridge wants not socialization of production, but socialization of demand. Thus, while many traditional lines of private ownership and management would remain undisturbed, the government would assume responsibility for a "long-term program of planned outlay." The Beveridge formula for planning national outlay so that the sum of all separate spendings will add up to the demand for all labor available means that the government would enormously increase its area of business investment. His plan is not simply a device to manipulate the public spending power to counterbalance recessions in private outlay—a principle backed by many U. S. economists and basic in the "full employment" bill sponsored by Senator James E. Murray. Instead, he proposes public outlay directed toward a broad and positive program of social gains.

In his development of this program, significant differences in prevailing U. S.-British attitudes become very clear. There are many reasons to believe that majority opinion in Britain is back of an everwidening area of public activity. There is, for example, relatively little opposition to the goverment's dominant role in housing operations (even the Conservative party last month endorsed a bigger public housing program). There is also general agreement that public funds skall be used to acquire large amounts of land for rebuilding. In the U. S. these ideas arouse the most violent antipathies.

On the basis of these policies, whose wide public acceptance may in part be due to the amount of war damage, the Beveridge proposal to use public funds for a vast housing and rebuilding program is probably feasible for Britain. "Adequate and healthy housing," he says, "presents the largest single objective for desirable outlay after the war and affords the largest scope for raising the standard of *(Continued on page 170)*

Meet Lionel Jacobs– Another Timken Dealer

How many times have you wished you knew a heating dealer that would always do an A-1 job of furnishing and installing home heating or air conditioning—one who would build client satisfaction for you and enable you to make more money?

Well, meet Lionel Jacobs of Automatic Heat Inc., Philadelphia, a typical Timken Dealer.

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Timken backs up all dealers by building and furnishing the highest quality oil heating products. Each of these products is equipped with the thrifty Timken Wall-Flame Oil Burner which is so fully automatic it even lubricates itself. To get the best heating results, Timken maintains complete facilities at the factory for laying out all types of home heating jobs for dealers. In addition, all Timken Dealers receive, the benefits of factory training for their mechanics to insure proper installation and competent service.

Call the Timken Dealer in your community on your Dext home heating job. You'll find that you'll profit



New U-Shaped Home, designed by Harold H. Ehlert, A.I.A., noted Detroit architect. One of a number of new homes by leading architects featured in Timken Silent Automatic national magazine and newspaper advertising.

more by using his experience, his complete facilities, and the high quality Timken equipment he sells.

Timken Dealers are accepting Reservation Orders now without obligation to insure earlier delivery of new and improved Timken Silent Automatic Oil Heating Products when wartime restrictions are relaxed.

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"STRETCHED" WITH A GROUP-Without the window group, this room might have seemed cramped. Note how the stock Ponderosa Pine windows help to "stretch out" the room.



When you need a "Space Stretcher"...

Doors and Windows of Ponderosa Pine Can Help!

Cost may limit floor space—but there's many a way to make small rooms look larger! Ponderosa Pine doors and windows, for instance, can help you "stretch" space ... and, in addition, can help create new, fresh treatments for every room in the home. This page shows only a few of the many ways in which Ponderosa Pine will provide better living and lasting value in the homes of tomorrow:



"STRETCHED" WITH A DOOR—To increase the feeling of spaciousness, a glazed Ponderosa Pine door was used in this narrow passageway. The closet door on the left is also a stock Ponderosa Pine design.



"STRETCHED" WITH A BAY – Bay windows – made up of stock Ponderosa Pine units – create an effect of greater space. Bay windows are not expensive if made of stock Ponderosa Pine units, which can be toxic treated to enhance still further the natural durability of wood.

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It's the good old unbeatable one-two punch that spells knockout for the German axis. U. S. Army 2-8-0 locomotives from the west, and Russian 2-10-0 locomotives from the east – many of both are powered by good Fitzgibbons boilers built in our Oswego, N. Y., plant. They're doing a real job now, moving the huge weight of munitions, equipment, food, and men that modern warfare demands.

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Grease Interceptor Dependability ...

Relies on Positive Protection against siphoning when vent waste line becomes clogged. This is achieved by the Patented Boosey Internal Air Relief and Air Lock incorporated in all Boosey Air-Away Grease Interceptors.



AIR-AWAY Grease Interceptors

Exhaustive field and independent laboratory tests have conclusively proved the dependability of these exclusive Boosey features for preventing siphoning of the interceptor's contents when waste line vent becomes clogged-a not uncommon occurrence which will cause conventional type grease interceptors to lose their water and grease contents to the sewer.

Where the vertical outlet line does not exceed four feet, Boosey Air-Away Grease Interceptors can safely be installed without connection to a waste line vent where local codes permit.

For the customer's protection, all Boosey Grease In-terceptors will be furnished with Internal Air Relief and Air Lock regardless of the model specified on the order. No premium is charged for this essential grease interceptor dependability.

List price reduction of \$10 per model will apply on all No. 1508 and No. 1509 Boosey Air-Away Grease Interceptors making them cost no more than conventional type interceptors.

Send for New Price List and Illustrated Literature superseding all literature in the hands of the Trade issued prior to March 1945.



BOOKS

(Continued from page 166)

life, health and happiness." U. S. opinion would overwhelmingly endorse this objective, but question the method. The U. S. building business has a good deal of confidence in its own ability to deal with this national need, assisted by a broader definition of the teamwork formula represented by the FHA government-insured mortgage program. Such use of the public fiscal power to stimulate private investment outlay is only a minor part of the Beveridge program, which relies mainly on direct public spending.

Beveridge's suggestions for reducing housing costs represent an interesting amalgam of both these fiscal policies. He would use government credit to reduce interest rates on building money to 21/2 per cent or lower. Like U. S. war housers, Beveridge would use government funds for bulk buying of standard equipment (sinks, refrigerators, washing machines), which "can be made far more cheaply if made in bulk for a guaranteed demand."

Britain also seems a good deal readier than the U.S. (see page 10) to back Beveridge's second full employment proposition: state control of industrial location. "There is no longer any necessity for industry to be concentrated near the source of power which it uses, for power can be distributed. There is equally no reason and no sense in using the vast developments of transport in order to throw an increasing burden of travel on human beings rather than on goods." This proposition, intended to end regional employment disbalance, also offers a way out of the dilemma that has long mocked the efforts of those who believe in planned communities.

The Beveridge brand of economics opens an exciting new perspective. His full employment budget is geared not to dollars nor to any traditional concept of wealth, but to an estimate of available manpower. In this, the British economist joins a U. S. social realist, TVA's David Lilienthal, in recognition of the people of a nation as its greatest wealth and primary resource. But Beveridge's picture of a Britain where public planning will take the lead in productive effort is not calculated to appeal to the U.S., which looks to individual initiative. In tipping his hat to private enterprise, Beveridge also tips his hand. Henry Kaiser will probably put the book (Continued on page 176) aside half-read. Copyright 1945 by Low





Cold water pouring into a heated copper gutter during test in the Revere Laboratory

WE USED HEAT TO GET

"light"

This photograph, of an experimental copper gutter being tested in the Revere Laboratory, was taken by light that was mostly heat. For the kind of light Revere was seeking in this research was information, knowledge, understanding — that we could pass on to you.

To get it, we had to bring the sun indoors, or at least its summer heat. Also sudden rainstorms, to create a temperature range of 160°. And put under them a typical sheet copper gutter such as any skilled worker might install on a building. Then we could see what happens when cold rain hits sun-baked copper, could measure any movement in the metal—could, in short, find out why sheet copper construction sometimes fails, even when materials, design and workmanship all appear virtually perfect.

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What equipment will use minimum floor areas for the air distribution system?

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From the quantity of Federal Roof Slabs in service, it would be possible to construct a concrete road two feet wide and over 28,000 miles long...you could walk around the world on it! Here is tangible evidence that leading architects, builders and owners choose Federal "above all" for permanent, fireproof, trouble-free roof protection.

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Published in the Interests of Better Sight and Sound

Survey Reveals Strong Trend to Fluorescent Lighting in the Home Owners Show Particular Interest in Kitchen, Living Room Installations

Preliminary reports of the impartial survey conducted by a leading market research organization—at the request of Sylvania Electric's Sales Research Department—indicate that the postwar era is likely to see a considerable expansion in residential use of fluorescent lighting.

APRIL

To determine the public's interest in this type of illumination, more than 3,000 personal interviews were conducted. Of those interviewed, only about 10% now have fluorescent lighting, but almost half of these plan further installations after the war. Of the homes now without fluorescent lighting, 16% plan to install it. As a guide to architects in formulating postwar plans for home fluorescent lighting, the survey also covered public preference by room. Among those not having fluorescent, but planning to install it, the kitchen is the most popular room by a wide margin. (The chart below shows the relative percentages in this group.) Living room, bathroom, bedroom, dining room and basement follow in order.

Among those now having fluorescent and planning additional installations, the kitchen also ranked first, with bathroom second and living room third. The order in the rest of the list was the same.



"You plan to have fluorescent lighting in both the kitchen and bathroom. Now, how about the basement?"

DID YOU KNOW...

That 79% of the people having fluorescent lighting in their homes expressed themselves as *entirely* satisfied with it?



SYLVANIA ELECTRIC PRODUCTS INC., Salem, Massachusetts

MAKERS OF FLUORESCENT LAMPS, FIXTURES, ACCESSORIES; INCANDESCENT LAMPS; RADIO TUBES; CATHODE RAY TUBES; ELECTRONIC DEVICES



... do it with a VISUAL FRONT

The Visual Front succeeds as a powerful selling device because it attracts attention into the store—*not* just to the front itself.

Take this storefront design for example. The clear glass serves functionally as a barrier to wind and rain. *But it's no barrier to vision*. Even the doors are clear glass—tempered for extra strength. As a result, passersby can see all the color and motion of the store interior . . . can see far more merchandise than could be displayed in conventional small windows.

And it's a thoroughly practical front. Both the clear plate glass and the pilasters of colorful Vitrolite are unharmed by year after year of weathering. Vitrolite never needs refinishing, for it can be washed to a sparkling cleanness.

There's no need to worry about excessive heat losses from large areas of plate glass if you install Thermopane, the L·O·F windowpane that insulates. This doubleglass insulating unit is a practical answer to the problem of providing clear visibility, together with comfort in cold weather. And the insulation provided by Thermopane acts to prevent condensation on glass areas.

Plan now to get the many benefits of a Visual Front into your design. Write for copy of our informative, illustrated book on Visual Fronts. Libbey Owens Ford Glass Co., 7145 Nicholas Building, Toledo 3, Ohio.


For floors that help eyes see better...

Vital Plants Install LIGHT-REFLECTING CONCRETE FLOORS made with Atlas White Cement

SCIENTIFIC tests prove that concrete floors made with Atlas White cement instead of regular gray cement act as giant reflectors of light. They aid illumination by reflecting more light to vertical work surfaces and more light to underside surfaces.

Light-reflecting floors on duty at war plants are helping to reduce accidents, errors and spoilage.

For the full story, ask for the book "Light from Floors." Write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.



BOOKS

(Continued from page 170)

CUADERNOS DE ARQUITECTURE. Published by El Colegio Oficial de Arquitectos de Cataluna y Baleares. First issue. 40 pp. Illustrated. $934 \times 131/2$.

It takes a surprise appearance of an architectural magazine from neutral Spain to reawaken the American readership to the long, war-enforced severance of cultural ties between this country and the European continent. Our preoccupation with the war effort, America's huge wartime building program and the natural focus of attention on postwar planning have tended to offset this and dull our interest in European art and culture. The first issue of this Hispanic architectural journal indicates that we have not missed much. It follows the most classic tradition of its type of publication, is in appearance practically indistinguishable from Argentina's *Revista de Arquitectura*. If its excellent photographs and heavy, glazed paper, are any indication, Spain has not suffered seriously from either a paper shortage or limited production facilities.

Following the contents page is a large and impressive portrait of General Franco, captioned: "Cuadernos de Arquitectura initiates its humble task with the symbol of the country's recovery, dedicating the frontispiece of this publication to the august effigy of the Spanish premier, leader of our people in war and peace. Hailing the chief of state as the restorer of our moral and material good, we repledge our disciplined adherance as Spaniards and as architects."

Perhaps the most interesting deduction that can be made from reading the *Cuadernos* is that the war has produced nothing more than a complete standstill in the evolution of Spanish architecture. The entire focus is on prewar design. One of the feature articles, for example, harks back to the all out Romanesque style of the Exposition Nacional de Bellas Artes of 1942 in Barcelona.



The only new construction shown is that of an insurance bank (see cut) and a block of apartments in Barcelona either of which, in plan and detail, might have been built in any American city during the first fifteen years of the century. In the apartments particularly, light and circulation have been handled in an extremely obsolete manner.

If, in American eyes, Spain's postwar building follows an outmoded pattern, our own conception of modern architecture has not made much of an impression on the editors of the *Cuader*nos. In an article which reviews architecture of the first three decades of the twentieth century, Frank Lloyd Wright is referred to as an "intelligent reflection" of the best functional architecture as it had been previously expressed in Europe. Of what may have occurred in this country or elsewhere since 1930, no mention is made. There is, however, an interesting comment on architecture in the land of the rising sun: "Japanese interior decoration has been in complete consistency with the best Loos and most simple Mallet-Stevens tradition. In their exterior treatments, Japanese architects attempted, during the thirties, to conform to the universal pattern."



All over the country, multiple dwelling units featuring one or more Norge household appliances are in operation or under construction. The reason: Norge equipment is highly satisfactory to both the investor and the user.

SEE NORGE BEFORE YOU BUY

NORGE DIVISION, BORG-WARNER CORP., DETROIT 26, MICH.

ROLLATOR REFRIGERATORS GAS RANGES HOME HEATERS RO-TA-TOR WASHERS ELECTRIC RANGES COMMERCIAL REFRIGERATION He thinks I'm talking to myself!

Of course the Sheik is confused by Laytex-insulated wire. He's one of the countless number of men now seeing wire for the first time. In hot deserts and tropical jungles, in distant islands and freezing arctic lands—places where electricity has never before been harnessed, Laytex is demonstrating its marvelous properties as a wire. To many of the people in these lands, wire henceforth means Laytex.

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Military needs now take the entire output of Laytex Wires and Cables. But we hope the day is not far off when manufacture will be resumed for Residential and Commercial Building, Police and Fire Alarm Systems, Communications, Signalling, Power Control and other exacting services.



ELECTRICAL WIRES AND CABLES



Serving Through Science

UNITED STATES RUBBER COMPANY

THE ARCHITECTURAL FORUM



... here's one way to prevent it!



• There are many ways to shave costs when you build a new home—some good, some bad. And one of the very *worst* is to get a *small chimney*. For a skimpy chimney gives you no choice to heat with any but the *most expensive* fuels.

That means you're left "holding the bag" in terms of high fuel bills—or of lower resale value!

So, no matter what fuel you *now* plan to burn, be sure you get an *adequate* chimney—one big enough to handle *all* fuels equally well—including, of course, Bituminous Coal, the most economical and most dependable fuel of all.

The extra cost of an adequate chimney, when you build, is only about \$16 for the average 7-room house. And the *savings* it makes possible by permitting you to burn Bituminous Coal can pay a good slice of your taxes or interest. That's one big reason why 4 out of every 7 homes in the U. S. use Bituminous Coal!

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AN ADEQUATE CHIMNEY leaves you forever free to switch to any fuel you choose. That's a big point to remember when you consider that today's expensive fuels will probably be even *more* costly in the future. One reason Bituminous Coal is the most economical is because America has a 3000-year supply! And, when used with a modern coal stoker, dependable Bituminous Coal is also clean, odorless, and "automatic."

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



8 square feet is enough for any small apartment kitchen!

Everywhere architects are at work on plans for multiple housing in the form of small apartments. And solving their most troublesome problem with Parsons Pureaire Kitchens.

For each Pureaire needs only 8 sq. ft. of floor space —much less when it is set into the wall. That means far MORE room for LIVING and SLEEPING.

Yet Pureaire is a complete kitchen of full-size units. Four-burner stove, refrigerator and unit, oven, sink, drawers, shelves, EVERYTHING. It can boil, bake, fry or broil the finest dinner you ever ate. And not allow a whiff of cooking odor, vapor or surplus heat to escape into the room! All this at a cost little if any greater than a set of multiple units of similarly high quality.

With Pureaire even a one-room apartment can become A COZY, DESIRABLE HOME.

Don't waste precious room on obsolete, multi-unit kitchens. Save room and INCREASE INCOME PER DOLLAR of investment with Pureaire.

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EARLIER OCCUPANCY ... AT LESS COST!

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LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 25-MILLION BARRELS ANNUAL CAPACITY... OFFICES: ALBANY • BIRMINGHAM • BOSTON CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS • JACKSON, MISS. • KANSAS CITY, MO. NEW ORLEANS • NEW YORK • NORFOLK • PHILADELPHIA • ST. LOUIS • WASHINGTON, D. C.

18 Years' Outstanding Performance . . . 'INCOR' . . . America's FIRST High Early Strength Portland Coment

The window washer gets an interesting slant on things; how windows are standing up on a job, for instance. Do they stick when he tries to open them? Should they

Aluminum Windows ARE TOPS"

be repainted?

Aluminum windows are on the "No" list for these questions. Built of Alcoa Aluminum, they're long-lived; you don't have to worry about part replacements. Made to fit at the factory, they work easily and smoothly, and are permanently weather-tight. These windows don't have to be painted.

Put aluminum windows on your "Yes" list, as you make plans for the future. With their fine appearance, greater glass areas and their other advantages, they give more satisfaction to a building's occupants. Owners find they cost less in the long run. ALUMINUM COMPANY OF AMERICA, 1866 Gulf Bldg., Pittsburgh 19, Pennsylvania.

> Apartment House at 19 East 72nd Street, New York City

> Architects: Rosario Candela and Mott B. Schmidt

ALCOA ALUMINUM

"IF YOU WANT MY ANGLE,

UNIT MENA MOMENTIAL FLOOR OR FROM THE CEILING

Built-in heat, through channels that are part of the building, making radiators unnecessary! This is just one forecast of Great Things-to-Come in postwar Anthracite heating methods, destined to further establish D & H Anthracite as The Fuel of the Future. Wartime experience in thousands of homes has already established D & H Anthracite as the most modern of fuel, the most-wanted—the "MUST"—fuel for the future.

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

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CONVENIENT: Heat Regulators, stokers, etc., make the use of Anthracite as automatic, effortless as possible with any fuel. Amazing advances ahead!





COAL COMPANY

PENNSYLVANIA

TUNE IN D & H ANTHRACITE'S SUNDAY MORNING WORLD NEWS 9 A. M. EVERY SUNDAY, CBS



It is confidently predicted that within the first postwar decade television will be a billion dollar industry. One manufacturer's survey estimates the market at 11/2 million television sets the first postwar year and double that amount in the second. Within three or four years after the war it is expected that networks will be expanded to reach over 9 million wired homes. If this is likely, then architects, builders, realtors and lighting experts need to study the impact of this new industry on the homes and apartment houses of America. Introducing a miniature theatre into the living room and adding a prominent antenna to the roof is bound to have an effect on building design and interior planning. The owner of a television set will rent or buy the house that offers good television reception. An installed antenna may become the added inducement needed to sell a house or rent an apartment, and for new homes it may become standard equipment.

NEW SPACE CONCEPTIONS

Furniture arrangements for viewing may dictate an entirely new plan for the living room. It is inconceivable that householders will rustle chairs through the house every time a program is to be viewed. A fixed grouping of chairs probably will grow around the television screen in much the same way as heavy furniture once grew about the fireplace. An empirical rule for correct viewing distance is from four to six times the screen height. With a screen fifteen inches high the viewers should be seated within a pie shaped area with a radius of about eight feet. If four or more people are to sit in this area then a light, space-saving, comfortable chair will be a design necessity. Few homes are large enough to devote separate space to television viewing so this area must double with other uses. It will be (Continued on page 188)

THE TELEVISION IMAGE, an optical illusion, is possibly due to an eye faculty called persistance of vision. The eye continues to see light after it has left an object. At any one instant an area no larger than a pinhead is illuminated on the screen. Cathode ray tubes trace 30 full pictures a minute.







The vacant lot at Fourth and Vine



CRANF

MOST every Sunday afternoon Bob Roberts and his wife Martha lock up their apartment and stroll down Fourth Avenue to look at a vacant lot at the corner of Vine.

You might wonder what attraction there is in a vacant lot that makes this journey worthwhile.

But to Bob and Martha it is more than a vacant lot —on it they visualize the home they plan to build when the war is over. And back in their apartment is a filing case full of suggestions for that home—articles torn from magazines—floor plans—planning books on bathrooms and kitchens.

There are thousands upon thousands of Bobs and Marthas in towns and cities across the country—some have their plans completed—many are only in the wishing stage—but they are important to you, for they are your future market.

Since the war started, Crane Co. has furnished, to hundreds of thousands of these planners for tomorrow, information on bathrooms and kitchens to help them make their dreams come true. Their familiarity with Crane quality—the wise preference they express for Crane plumbing will help make the homes you intend to build easier to sell if the bathrooms and kitchens are equipped with Crane fixtures.

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The Season-stat ad-justed for extremely cold weather, pro-vides relatively hightemperature air in the duct system.

As winter weather conditions change, the amount of heat delivered by the heating plant should be changed. By controlling the air temperature in the duct system, the amount of heat can be changed ... In order to provide true indoor comfort, it is essential to have continuous movement of properly heated air. The continuous delivery of air, heated to a temperature in keeping with the outdoor temperature, is attained with the Mueller Season-stat. . . . This is just one of the many benefits you gain with a basically correct heating system - one that treats and handles air, and can be equipped for purification, cooling, and other features. . . . Plan now on specifying "Climatrol system" in your post-war homes.

Mail the coupon for free book.

Specially designed for the chosen fuel	Tear out this coupen and mail today
gas, eil, or coal - equipment for homes of every size, type, and price range old or new. Member	L. J. MUELLER FURNACE CO. 2001 W. Oklohoma Ave., Milwaukee 7, Wisconsin Please send Season-stat bulletin, also literature describing furnaces and winter air conditioners for: Gas Gas Goil Gas Boilers
HEATING AND WINTER AIR CONDITIONING	Name



Famous Industrial Designer Brooks Stevens

STYLES the NEW COOLERATOR for Postwar Homes



Here's an electrical refrigerator that's styled right for the postwar kitchens of tomorrow! Brooks Stevens and his staff worked for months before submitting 60 beautiful, workable designs. These 60 designs were then consumer tested and the design for the New Coolerator Electric was found to be the favorite of women everywhere!

When you design tomorrow's kitchens, remember the Coolerator Electric, —the only refrigerator with the exclusive MAGIC FLAVOR-SAVER!

Coolerator

The Coolerator Company, Duluth 1, Minn,



ICE-CONDITIONED COOLER-ATOR—Available in $5\frac{1}{2}$ and $6\frac{1}{2}$ cu. ft. Models. The perfect refrigerator for women who prefer ice.



COOLERATOR HOME FREEZER Available soon in 6½ and 16 cu. ft. size. Contains compartment for freezing foods as well as storing frozen foods.

BUY MORE WAR BONDS

PRODUCTS AND PRACTICE

(Continued from page 184)





TELEVISION SIGNAL (above), limited to horizon reception, is transmitted long distances for rebroadcast by relay pickup stations or coaxial cable. Transmitted wave (left) from A to building B arrives at antenna C later than the main signal, producing after-image Interference on the screen if not blocked by reflector element.







desirable in simultaneous activities that the viewing area be dimmed by separate switch control for video reception and acoustically treated so that audio reception does not interfere with those reading or talking. Oblique and curved walls, dwarf partitions, curtains, glass baffles and unsymmetrically shaped rooms may have to be developed to achieve desired results. Consideration should be given to the wall background for the television screen-a non-reflecting wall paint or non-glossy wall paper in soft blues and grays is recommended to improve picture quality and reduce eyestrain. Light sources that shine or reflect directly into the viewing screen will affect the clarity of the image. For daytime viewing sets should be located away from windows. Large glass areas will present a problem but this can be solved by inside wall locations and the use of easily operated curtains as light shields.

COLOR SETS REMOTE

Home television sets for postwar use will be of two kinds, a direct view and a projection type. The direct view type is the set of prewar vintage which is almost entirely in use at the present time. The picture image is viewed on the end of a cathode ray tube or reflected directly in a mirror at the top of the cabinet. The projection type employs certain principles of the Schmidt optical system in which the cathode ray tube is fixed vertically and the image passes a series of mirrors and lenses to emerge on a screen in the face or top of the cabinet. A third proposed type is optical projection of the picture to a wall or screen. This type is now used for large screen theatre reproduction but is not yet ready for home sets. For deluxe installations equipment can be built-in and the screen mounted flush with the wall. One difficulty will be that projection types require a dustproof enclosure to keep lenses and mirrors free from fine dust which will fog the image.

The maximum screen size said to be practical for the home and planned by the industry is 18 in. by 24 in. It is probable that the 525 line scanning value, which is described as having the same or slightly better picture value as a 16 mm home movie, will be established. Within the industry it is argued that the added clarity in image definition using a line scanning value of 735 or higher does not warrant the additional cost to the consumer. Prices of direct view equipment will depend on the size of the cathode ray tube furnished. A cabinet projection set manufactured by R.C.A. will be priced around \$395.00. Adequate servicing of sets will be a necessity since high voltages are developed in the equipment. A safeguard of the home set will be a cutout

(Continued on page 194)



Thermostatically Operated Valves for Radiators and Ventilating Units





Thermostatically Operated Dampers for Ventilating and Blast Heating Systems



For trouble-free, efficient, economical operation of a heating plant, good temperature control equipment *alone* is not enough. That is why Johnson (established in 1885) renders a complete service from the planning stage through proper performance.

Johnson not only manufactures a complete line of precision-built thermostats and controllers but designs the whole temperature control system from "A to Z" in cooperation with architects and their consulting engineers. Then Johnson follows through by installing the system and getting it in perfect operating order before it is turned over to the plant engineer. Years of careful training and experience enable Johnson temperature control experts to bring seasoned knowledge to bear on the proper application of every element in a complete temperature control system.

On your next temperature control problem, whether heating, cooling, ventilating, air conditioning or industrial processing, ask your heating or air conditioning contractor about Johnson...or call a Johnson engineer from a nearby branch office. He is at your service, without obligation.



FOUR MAJOR ADVANTAGES of



This attractive panel brings ample light into the modern apartment house foyer. PC Glass Blocks make large openings practical. Insulating properties reduce heat losses.

In this distinctive office, panels of PC Glass Blocks supply ample diffused daylight. They also ease the load on heating and air-conditioning equipment. Privacy is assured. Drafts and infiltration of dust are prevented.

Large areas of PC Glass Blocks bring ample daylight into this power plant. In addition, they save money on sash repairs and replacement, reduce heat losses, can be quickly and easily cleaned.

PC GLASS BLOCK Construction

- **light Transmission.** PC Glass Blocks admit a generous supply of diffused daylight, direct it over wider areas where it is needed most. Less artificial light is used.
- Insulation. PC Glass Blocks have valuable insulating properties, reduce heat losses through lighting areas.
- Easy Cleaning. Large panels of smooth-surfaced PC Glass Blocks can be cleaned quickly and easily by a man with a long-handled brush.
- Permanence. PC Glass Blocks are not easily broken. There is no sash to rot, crack, rust or need repainting. Repairs of any kind rarely are needed.

In addition, PC Glass Blocks deaden distracting sounds, lessen condensation, exclude dust and grit. Clean comfortable workrooms protect the health of workers, enable precision machinery to operate continuously at top efficiency, reduce damage to goods in process.

PC Glass Blocks can be recommended with assurance to your clients for new construction and plant modernization. They come in a wide range of sizes and designs. Pittsburgh Corning Corporation, Room 723, 632 Duquesne Way, Pittsburgh 22, Penna.

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UILD a house almost anywhere and B complete everything except the kitchen installation. THEN sell the house and promise the new owners it will be ready in 24 hours.

Now call your nearby Youngstown Kitchen distributor and you can produce a finished, gleaming, REALLY MODERN Youngstown Kitchen the same day.

Nothing to build by hand, no time lost attaching hardware or waiting for paint to dry. The new owners can use their Youngstown Kitchen at once.

That's Youngstown service in all but a few wide open spaces. Local warehouse

stocks, factory fabrication and finishing, simplified installation methods make YOUNGSTOWN Kitchens Builders' Kitchens. It is the one room in the house that is finished when it's in.

Until the last shot is fired-buy bonds - give blood salvage fats and paper — work for Victory. Then do your part to . .

Send for the new Youngstown catalog entitled, "Builder's Kitchen"



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HERE ARE THE METHODS

That Give this Modern Flooring a Superior Finish:



SATIN SMOOTHNESS

The same precision sanders (multiple-drum) used for fine furniture prepare the flooring for Bruce factoryfinishing by giving it a smoothness not possible on the job with portable equipment.





Finishing starts immediately after sanding, so there is no "raised grain." Also, the finishing is done with the moisture content of the flooring just right. This scientific control is possible only at the factory.



PERFECT FILLING

Proper filling of an oak floor is vital to the finish. In Bruce factory-finishing a high quality silex filler of the same porosity as the grain of the wood is worked into the flooring in plastic form.

PENETRATING SEAL



INFRA-RED DRYING

After filling and sealing, the finish is dried with Infra-red Ray lights. Heat is applied uniformly for the depth of the film, eliminating the hazard of a spotty, porous finish. There is no such thing as "unfavor-able drying weather." able drying weather.

EXTRA BUFFING

Before waxing, high-speed bristle brushes and a steel wool buffer burnish the finish into the wood, produce a superior surface for the application of wax.

SUPERIOR WAXING

Highest quality, wear-resisting wax is rolled onto the flooring smoothly and uniformly . . . then buffed and polished by a series of high-speed brushes and buffers. This is many times the polishing action custom-arily given a waxed floor.

UNIFORM COLOR

The foregoing methods also result in a uniformity of shade and tone on Bruce Streamline Floors which will not be found on comparable grades of flooring finished on the job. The natural beauty of the wood grain is greatly enhanced.

It's the Finish that Counts on Floors!

Bruce Streamline Floors are unmatched for beauty, wear and ease of maintenance. We confidently believe this is the floor the home owner of the future will demand. You are invited to write for further details.

E. L. BRUCE CO., MEMPHIS, TENN.



PRODUCTS AND PRACTICE

(Continued from page 188)

switch to forestall accidents to amateur mechanics when the back of the cabinet is removed.

Color television is produced experimentally today by mechanical means using revolving disks and filters. Until it can be produced electronically, by some method similar to the cathode ray tube, it is not considered practical for home sets. Experts believe commercial electronic color television to be five to ten research years away.

A possible plan development is a sep-

arate space for the recreational machines of radio, television, record changing and home movie projection. Since these items have become an integral part of our leisure it seems more likely that they will be woven efficiently into the scheme of the living room. The "Musicorner" designed by John Vassos for the World's Fair (ARCH FORUM, July, '40) was an early design contributing to this trend. (See cut) Programs for the double and alternate use of space become a necessity in planning living rooms for small houses and apartments. In such plans the space allotted to the television set will be as important as wall space for a bed.





John Vassos' Television "Musicorner"

TELEVISION TROUBLE

Immediate but surmountable difficulties facing the industry in bringing television to the home are network transmission and the home receiving antenna. Network broacasting is a fundamental problem because the television signal, unlike the radio wave, refuses to follow the curvature of the earth but travels in straight lines. Depending on the height of the transmitter the television wave traveling in sight-lines is limited to a horizon radius which varies with the terrain from 40 to 50 miles. High buildings located at a focal point in densely populated areas now have an added value as television broadcast towers. The Empire State building is the antenna pole for the National Broadcasting Company. The Columbia Broadcasting Company uses the Chrysler Building and DuMont's WABD sends its signal from a mast on top of 515 Madison Ave., N. Y. C.

To distribute television over large areas it will be necessary to pick up the signal with relay stations and "bounce" it across the country or as an alternate method carry the television signal over long distances by means of a coaxial cable. Either will work and probably both will be used to solve problems in network coverage. The coaxial cable reduced to its simplest terms is a hollow metal conductor containing a wire accurately held along its center line.

For the first period of postwar development, television broadcasting will be limited to the dense areas of population with a gradual expansion in network facilities to cover the rural sections. There are nine stations broadcasting programs at the present time, with over 100 applications pending before the FCC.

WAVE REFLECTION

A new problem for architects and apartment house owners is the roof-top antenna. Engineers hope that as the power of the transmitted signal becomes stronger and receiving sets more sensative that antenna built directly into the sets will be a possibility. For the present a good antenna or *dipole* installation is of extreme importance to good video (Continued on page 200)



with SABINITE "M"

ACOUSTICAL PLASTER

FINISH

The architect who has his "ear to the ground" and his eyes on the future knows that modern buildings should combine sound correction, beauty and fire protection as a part of the original conception. By the same token, old buildings should be "sound-conditioned" to keep up with present-day demands . . . and all this can be done easily and quickly with one material

-Sabinite "M"—an acoustical plaster finish. Why? Because Sabinite "M" has upset old ideas and set up new standards. It goes on like any other plaster finish . . . lends itself to any architectural design . . . blends with any decorative scheme . . . requires no special planning, construction or application. Any skilled plasterer can put it on.

Today, Sabinite "M" offers a practical, low cost solution for modern noise quieting. The smooth-textured Sabinite "M" finish is high in light

reflectivity. And important, too, is the fact that it may be had in prepared colors or decorated to suit.

Sabinite is a trademark owned by the United States Gypsum Company



United States Gypsum For Building · For Industry

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SPECIFY GAR WOOD HEATING EQUIPMENT FOR MAXIMUM EFFICIENCY



GOOD HOMES DESERVE



HOME HEATING EQUIPMENT

THE ORIGINAL BURNER UNITS

BE SURE that your homes will be just as comfortable and inexpensive to heat as you have planned them to be. Recommend the heating equipment that is famous for efficient, economical performance . . . Gar Wood oil or gas-fired Tempered-Aire or Boiler Burner Units.

Actual Surveys Prove the Efficiency and Economy of Gar Wood Tempered-Aire

Prewar Fuel Consumption in Gallons per Square Foot of Floor Area

IN ROCHESTER	
Average for territory	1.65
Average GAR WOOD equipped	.77
IN TOLEDO	
Average for territory	1.54
Average GAR WOOD equipped	.77
IN DETROIT	
Average for territory	1.54
Average GAR WOOD equipped	.71
IN HARTFORD	
Average for territory	1.30
Average GAR WOOD equipped	.90
IN DREXEL HILL, PA.	
Average for territory	1.18
Average GAR WOOD equipped	.85
IN RICHMOND	
Average for territory	.97
Average GAR WOOD equipped	.86



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Think in terms of **STRAN STRAN STREEL** SERVING TODAY IN THE

QUONSET HUT

Beauty that lastsbeauty that is built around steel

It is beauty of design that first attracts the builder or buyer of a small home. But how much more attractive that beauty becomes when it is safeguarded by the permanence, rigidity and fire-safety of steel. Stran-Steel framing systems, new and improved, can accomplish this efficiently . . . and pay dividends for years to come in reduced maintenance, freedom from plaster cracks and sagging floors.

Stran-Steel members provide a framing system that is easy to work with, both on the drawing board and on the site. Its most distinctive feature is the patented nailing groove, permitting the use of ordinary hammer-and-nail methods for attaching collateral materials: When a nail is driven in, it is clinched in a grip of steel more secure than wood.

Investigate the advantages of Stran-Steel. Plan and build in steel for lasting beauty.

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ment for commercial, industrial and residential buildings.

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MAGIC DOOR TEAMWORK for Odd-sized Door Requirements

In spite of space limitations, these unequal sized sliding doors operate efficiently and automatically . . . Open in unison at approach . . . Close after passage . . . Save time . . . Eliminate damage

Location of a much-used doorway in the plant of Princeton Knitting Mills at Watertown, Conn., called for an unusual Magic Door installation. A short and a long operating arm, actuated by the electric-eye mechanism, promptly open the unequal-sized doors to their full width and close them after passage.

The versatility of Stanley Magic Door installation and operation gives latitude to traffic planning in industrial and commercial buildings. Once installed, they speed traffic, save worker time, reduce accidents and eliminate door damage. Include Magic Doors in your future building or modernization plans. Stanley will cooperate with you in preparing plans and specifications. Fill out and anne (E anne mail the coupon now.

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Has Better Water-Retention



Here's the way to test for high water-retention. Slap a small dab of any two mortars onto a brick. Wait a minute, then feel each dab. The



one that stays plastic longest will be the one having the highest water-retention. Try this with Brixment mortar!

-AND HIGH WATER-RETENTION IS ESSENTIAL TO WELL-BONDED, WATERTIGHT MASONRY

Water-retaining capacity is the ability of a mortar to retain its moisture, and hence its plasticity, when spread out on porous brick. • High water-retaining capacity is of *extreme importance* in mortar. If the mortar does not have high water-retaining capacity, it is too quickly sucked dry by the brick; the mortar stiffens too soon, the brick cannot be properly bedded, and a good bond cannot be obtained. Brixment mortar has extremely high water-retaining capacity. It strongly resists the sucking action of the brick. Brixment mortar therefore stays smooth and plastic longer, when spread out on the wall. This permits a more thorough bedding of the brick, and a more complete contact between the brick and the mortar. The result is a better bond, and hence a stronger and more water-tight wall.

LOUISVILLE CEMENT CO., Incorporated, LOUISVILLE 2, KENTUCKY CEMENT MANUFACTURERS SINCE 1830

PRODUCTS AND PRACTICE

(Continued from page 194)

reception. The dipole is an antenna mast with two projecting arms at the top, developed for television. It is not as simple as the copper wire strung for radio reception and requires special lead-ins of coaxial cable. High antennas will be necessary in cases of blocking and multipath interference. For example, to overcome the shielding effect of a small hill near his home, a set owner near Greenwich, Conn. installed a dipole mast about 40 ft. high. It is impossible to predict an average height since some antennas concealed in attic spaces have proved adequate. Ground leads and lightning arrestors are essential for safe installations.

The ideal condition is to have the television dipole in an unobstructed sightline to the transmitting station. Any building beyond the receiving dipole may reflect a television signal like a mirror. This reflected wave which arrives later than the main wave at the screen (because it has traveled further) causes an after image or ghost. A number of such reflecting surfaces located within the critical distance of an eighth



"flameproofed COTTON

... modern insulation miracle!

Only recently, Department of Agriculture experts discovered the hidden low heat conductivity, or "k" value of cotton, making it the ideal insulation material.

Today, specially processed Lo-"K" flameproofed COTTON **INSULATION** is recommended everywhere by leading architects, contractors and builders for superior flameproof, insulating values.



Lo-"K" permits far less heat to escape in winter . . . far less heat to intrude in summer. Resistant to moisture, rot and mildew, it will last indefinitely. Lightweight and flexible, it is easier and less expensive to install by 25% to 40% lower labor costs.

Specify Lo-"K" with complete confidence for every type of construction.





ALL-WAVE master antenna system. amplifier and repeater. B broadcast, short wave and FM wire. C interior cables. D distributing transformers. 0 outlets. television dipole. (Television, 1944)

of a mile to a mile from the dipole will cause a series of ghosts appearing on the screen at the same time. To overcome this problem a "reflector" is placed on the dipole to block the delaved signals. It may also be necessary to install more than one set of dipole arms where the transmitter stations are located in opposite directions from the receiving antenna.

The problem of locating antenna is more complicated in city apartments due to the great number of chances for reflection, shielding and interaction caused by surrounding buildings. One solution to the apartment house problem is the master antenna system to include not only television but FM (frequency modulation), short wave and radio as well. The master antenna can be made an integral part of the building design in place of a maze of individual dipoles competing for the most advantageous reception position.

"Freedom of the waves" may take on new meaning as law suits develop over one citizen building a structure that will block his neighbors television reception. Blocked buildings may find it necessary to buy television receiving privileges on adjoining properties.

A hard fact for the builders of apartments to swallow will be the estimated cost of \$40.00 per apartment outlet for the master antenna system. Cost may be taken care of on a rental basis but no matter how financed it will require serious attention. Television is not yet a fool-proof "plug-in" device and until it is the antenna will remain a delicate and integral part of good television reception, and an important consideration for builders and architects.

In factory, office and store - wherever the best of light is required for maximum production, streamlined action or salesmaking display - wherever lighting units must incorporate unusual beauty, low first cost and minimum maintenance - there Joleco Fluorescents are giving unexcelled performance specifically engineered for the job.

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BRILLIANT ILLUMINATION

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Joleco's engineering staff, in spite of war production, have developed many exclusives — single top and bottom plate construction for speedy installation — quickly removable reflector plates for trouble-free maintenance — unusual ventilating principles for fast heat dissipation - and many other features that compel careful investigation before specification.

Learn more about Joleco Fluorescents and Joleco Specific Illumination. Architects, contractors, engineers, and other responsible executives, are urged to avail themselves of Joleco counsel and aid in solving their specific lighting problems.

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Control by LCN overhead concealed method adds functional ease of entrance to the illusion of having crossed the threshold created by the unobstructed beauty of all-glass doors designed for Chicago Bridge & Iron Company Restaurant • NORTON LASIER COMPANY, CHICAGO





It'll be saying "Happy Landings"

ALCOA ALUMINUM

for many years ...

The aluminum in this airport building helps give travelers a cheery greeting. Used alone, and in combination with glass, stone and steel, the result is an unusually attractive structure. And from a functional standpoint, it is equally outstanding.

Erected just before the war sidetracked all aluminum from architectural uses, this installation is too young to qualify as evidence of aluminum's lasting ability. Hundreds of others do, however. For example—

Alcoa's new book, "Let's Look at the Record", pictures dozens of architectural aluminum installations ten years old or more. Besides being convincing evidence of aluminum's economic worth, this book should prove valuable as you plan for the future. For a free copy, write ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh 19, Pennsylvania.

Terminal Building, National Airport, Washington, D. C. Architects: Office of the Supervising Architect, Washington, D. C.— W. Englebert Reynolds, Commissioner of Public Buildings— Howard Lovewell Cheney, Consulting Architect, Alcoa Aluminum was used for trim, entrances, vestibules, doors, windows, sills, balustrades, railings, grilles, desks, bulletin boards and other fixtures, stairways, clocks, radiator enclosures, cornices, coping, drip moldings, and exterior covering for the control tower.



A Quonset Hut Insulated with KI



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 onefifth its installed length.

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

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

Official U. S. Navy Phot

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

WRAP THE POSTWAR HOME IN A KIMSUL BLANKET





The most comprehensive handbook ever prepared on home wiring. Ten chapters. 120 pages. Dozens of charts, tables and diagrams. Covers every detail you require to plan and design a complete modern electrical installation for homes.

Shows how to analyze electrical and wiring requirements for homes in various price ranges; how to plan outlets and circuits; where to install control centers, feeders and service entrance; and gives complete data on conductors, voltage drop, modern circuit protection and grounding. You'll find complete information on design and installation of signal systems, telephones and radio circuits, too.

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The Drake is equipped with The SLOAN FLUSH VALVES

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> Sloan Valve Company, 4300 West Lake Street, Chicago, Illinois. Gentlemen:

The Drake

When the Drake Hotel was built about 25 that time. They have given us most excellent ser-vice. vice.

To keep these valves in top working condi-tion, we have found that the cost of re-washering based been very small. The supplicity of the con-struction has made them very easy and inexpensive to service, and in addition, they are consistently economical in the use of water. They require no constant regulating. To sum up, Sloan Royal Flush Valves have turned out to be a very good investment for us, and they still are. I fully believe that they will still be going strong for another 25 years.

Cich B. Wercher ERICH E. UTESCHER Chief Superv. Engineer Drake-Blackstone Hotels

SUPERIOR 2200

December 6, 1944

THE DRAKE, at the north gate of Chicago's famous Michigan Avenue, is one of the nation's finest hotels-and like the majority of the nation's finest hotels, is equipped with Sloan Flush Valves.

Says Mr. Utescher, Chief Engineer, "Sloan ROYAL Flush Valves were installed when the Drake was built about 25 years ago and have given most excellent service-I fully believe they will still be going strong for another 25 years."

With unequalled dependability of operation and with maintenance costs as low as 1/4 of 1c per valve per year, your choice of Sloan will assure you of the best in Flush Valves.

Remember-there are more Sloan Flush Valves sold than all other makes combined.

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The Sloan Valve Company has been awarded the Army -Navy "E" three times for excellence in War production



This modern non-metallic, light-weight pipe is ideal for house-to-sewer connections and other nonpressure uses outside the building or on the farm. Non-corrodible. Root-proof. Lasts a lifetime. Permanently tight line with Taperweld joints. Also PERFORATED type for septic tank filter beds and other drainage uses. Low cost. Easy to install. Write for literature. Address Department F.

THE FIBRE CONDUIT COMPANY, ORANGEBURG, N. Y.

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BUILDING REPORTER

Heating, welding and power experimention indicates important changes in postwar design practices.



INGENIOUS INVENTION of hot water heater operated in part by gravity circulation for one-level heating problems can be adopted to multi-level use.

ONE-APARTMENT HEATING SYSTEM operating on the principle of a free water level has been designed to allow the tenant to regulate heat to his individual requirements. It is also applicable to stores, cold water flats and other places where the source of heating is located on the same level with the space to be heated. The system, developed by Maxim Kronfeld, includes a small horizontal tank and a vertical heater. These make a completely automatic hot water system utilizing existing piping and radiators. A rotor with a body like a screw propeller extending from the shaft of a small motor into the return water pipe continually lifts a small quantity of water over the top of the pipe into the tank. As the water spills over the top it is deposited down the supply pipe through the medium of the permanent free water level and gravity. The water is thoroughly heated before going to the radiators as it passes through a water coil in a spiral gas burner. Either a special coil type radiator designed for use with the system, or conventional radiators are joined into a continuous circuit, breaking only at the point of the heat distributing unit. No water jacket

or water storage tank is required, as only the water in the radiators and their connecting pipes is used for heating and circulating. The entire system is hooked up to the existing water main and house drain, and is equipped with safety devices that automatically refill evaporation in the system. Exhaust pipe ducts carry fumes and excess steam pressure to exterior. The system as blue printed gives theoretical low cost operation through use of the small appliance-size motor. The gas fired burner handles the fuel problem safely, cleanly and without storage difficulties. Tenant controlled and tenant operated, the system is designed to meet low cost heating and maintenance problems.

WELDED DESIGN used on the warehouse and shipping building of the World Publishing Co. in Cleveland, Ohio is the most important factor in its low building cost according to Mr. F. W. Mettler. the structural steel engineer on the job. This one-story building with an area of 48,950 sq. ft., was built in 1941 at a cost of \$107,500, or \$2.21 per sq. ft. Columns and rafters were arc welded, the columns being shop fabricated in 7 hrs. with a cost per column of \$10.77 a ton. The fabricating cost for rafters was less than \$4.00 per ton. Field welding of the steel work was sublet for \$350, which breaks down to a cost of \$3.18 per ton as compared to about \$6.00 for field riveting. As a further comparison, using current prices, conventional beam and column work is quoted at \$140 per ton erected, while the fabricator of the described job estimates a duplicate job at \$120 per ton erected - a saving of 14.3 per cent in favor of welded design.

INTERIOR of low cost World Publishing Co. building in Cleveland, Ohio shows arc welded columns and rafters. Columns were shop fabricated in seven hours.



NEW BUILDING USES for farm and sawmill by-products and commercially unused fibers combined with cement or concrete to produce hard-setting aggregates, is one of the interesting new developments executed by the Office of Production Research and Development in connection with the University of Michigan, Tests with 225 different types of lightweight materials including farm, forest, industrial and home wastes have proved that certain mixtures are suitable for machine fabrication of insulating, weather and fire resistant building boards, wall, roof and floor panels. Others appear particularly adapted to shingles, large siding sheets, floor tiles and water pipe. Combinations of these materials will offer new materials for improving insulation of buildings, at the same time saving on construction costs.

The OPRD also has a contract with the New York University's Guggenheim School of Aeronautics to perfect wind turbines for generating electricity. One study has concluded that "the wind turbine has special promise for the middle western states which do not have sufficient coal and water supply. If successful, this source of electricity can be used to develop a TVA of the Mississippi Valley." Experiments have concentrated on the design of 200 ft. diameter rotors mounted on 150-ft. towers and generating from 41/2 million kwh at 1,000 kilowatt rating to about 6 million kwh at 2,000 kilowatt rating. One wind machine would generate electricity to supply 4,000 families.

NEW TYPE OF BASEBOARD HEATING has been developed by Warren Webster & Co., for postwar homes. In this system the small radiator fits behind the baseboard, goes around the exposed walls of the room, delivering even heat to every corner. The heating unit is a pipe around which are coiled fins of fine copper sheets. Cold air taken in at the floor line passes over this unit and heated air emerges at the top. Because the warmed air is delivered along the entire length of the exposed wall, there is no concentration of heat and practically no variation in temperature from wall to wall or from floor to ceiling. In tests of this system, the heat differential at different levels and in different sections of the heated area was less than 2°. With this method air ducts and supply and return pipe loops in the cellar are eliminated.

(Continued on page 212)

Mour... Pittco Metal offers two outstanding lines



PETTCO Imaginative planning has made Pittco Store Front Metal artistically as well as functionally suitable for every store front need. This Pittco De Luxe awning bar gives operating mechanism and awning roll adequate protection from weather. It is designed to harmonize with any combination of shapes in the De Luxe line. The extruded method of manufacture gives it the sturdy strength, clean, sharp contours and perfect color and finish which are characteristic of Pittco De Luxe Store Front Metal. And these distinctive

features explain the constant use of Pittco De Luxe on those jobs where high quality is demanded. The bars, mouldings and sash of the De Luxe line combine to make store fronts impressive and appealing.

> **PITTCO Although lighter in weight** than Pittco De Luxe, the new Pittco Premier line embodies the same imaginative styling and painstaking craftsmanship which has made the De Luxe line so popular. In the Premier line architects will find that the perfect harmony between units makes it possible to create a wide variety of pleasing and attractive store fronts. The Pittco Premier

construction can be set more quickly and easily than any other metal construction. All setting operations are carried on from the outside and the procedure is so simple that a substantial savings in setting time is effected. Pittco Premier is styled to provide a shallower reveal for show windows than is given by the De Luxe line. Being light in weight and moderately priced, Pittco Premier is the ideal choice for jobs which require quality metal at an economical price.



"PITTS BURGH" stands for Quality Glass and Paint

PITTCO PREMIER /NING BAR

DESIGNING A POST

"MERIT-METER

YES NO NO NO NO YES NO HO NO NO NO YES

SASH

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Mesker Brothers Book of Windows for Homes

WAR HOME?

... then send for Mesker Brothers' Book of Windows for Homes! Unlike average "catalogs", written largely from the manufacturer's point of view, the Mesker Book of Windows for Homes is written by an architect for architects. It is filled with illustrations and information on trends in innumerable types of houses. It contains many valuable architectural renderings and helpful new ideas on window treatments. Most important, ALL the standard type windows shown in the Mesker Book of Windows for Homes you can definitely work into your plans today ... with the assurance of getting them as soon as we resume manufacturing. Since paper shortage limits quantities, requests will be filled in the order in which they are received. That is why we urge you to order your copy today by mailing the coupon NOW. There is no obligation.

Before the war, Mesker's quality supremacy was proved by this Steel Sash Merit Meter, based on sworn facts from Sweets Catalog. And wartime's precision experience will assure not only as fine post-war Mesker Windows, but *much finer*. And you can depend on that!

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City			_State	
		ohibit establi for each book		
Н	OME	WIND	OWS	
BUILDING REPORTER

(Continued from page 208)

PLASTIC COATED FABRICS expected to broaden utility of woven cotton goods. *Name:* Fabrilite Plastic Coated Fabrics.

Features: Plastic coated fabrics which have been used for jungle hammocks, raincoats, etc. during the war, have been developed to the point where they are expected to broaden the utility of woven cotton goods. Before the war the technique of coating textiles was limited more or less to rubber compounds and the use of pyroxylin compositions for producing imitation leather. However, coated postwar fabrics are expected to be much more widely utilized in protective coatings such as raincoats, shower curtains, and other household accessories. Fabrilite plastic coated fabrics, made with synthetic resin compositions have many interesting properties. They can be heat sealed or cemented, and can be given high or translucent colors. Designs can be embossed on the surface. These fabrics are flexible, light weight, unusually tough and possess properties which permit ease of cutting and stitching, resistance to prespiration, stains, moths, food chemicals, abrasion,

cracking, stretching or shrinking. They also afford high protection against water, cold, wind and dust, are washable and have good draping properties. *Manufacturer:* E. I. du Pont de Nemours & Co., Inc., Wilmington 98, Del.



LEAK-PROOF AIR GUNS offer instant and positive operation.

Features: This new line of leak-proof air guns is used for removing chips, dust and dirt and for operating air driven tools such as air vises, clamps, presses, etc. The gun discharges either a small puff or full blast of air by a slight fingertip flex of the hose. Operation is instant and positive, thus effecting substantial savings in air, power and compressor maintenance costs. Effortless handling saves time, reduces operator fatigue and speeds production. The patented, streamlined ball and socket valve joint which has only two moving parts, eliminates levers, buttons, gaskets or glands. Air pressure helps close valve tightly when finger tip pressure is released. Type A is most popular for permanent applications. Type AB is recommended for remote control and is attached directly to the air pipe line and operated by hand, foot control, pulleys, etc. The guns are available in three styles and for complete range of hose diameters. *Manufacturer:* Trico Fuse Mfg. Co., 2948 North 5th St., Milwaukee 12, Wis.

FLUX easily welds broken electrical heating wires.

Name: Chanite Flux.

Features: Broken and burned out electrical heating elements in any type of electrical equipment can easily be repaired by the use of this new powdered flux. It is easily applied in a matter of seconds, and the welding is completed without the use of welding or soldering equipment. To mend the broken heating element, it is necessary only to stretch the wire a bit so that the broken ends can be lightly joined, or to bridge the gap with another piece of wire. Flux is then placed over the ends to be welded, and held in place with a match stick that has been dipped in water and then into the powdered flux. The elec-

(Continued on page 218)





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with THRUSH Jorced CIRCULATION PERFECTLY CONTROLLED!

Summer - Winter Hot Water Heat!

PLANNED AUTOMATIC HOME COMFORT



THRUSH WATER HEATER

THE HOMES that are being planned now will have better heating. Are you telling the people in your community

of the advantages of forced circulating hot water equipped with Thrush controls? It is the finest method of providing real home comfort science has yet devised. If you are not familiar with Thrush Summer-Winter System of Hot Water Heat, see your wholesaler today or write Department H-4.

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"Finger tip" control of climate



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SUMMER COOLING . WINTER HEATING . IN ONE SIMPLE UNIT

ndoors-the year round!

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ist the touch of a finger! That's all it takes to ovide just the climate desired indoors—no matter nat the weather is outside—in homes equipped with rvel *All-Year* Gas Air Conditioning. The simple Selectrol'' thermostatic control regulates all operaons of the Servel Gas Air Conditioner—winter, mmer and between seasons.

reasons why the Servel All-Year Gas Air Conditioner has won enthusiastic praise in more than 400 installations from coast to coast. It helps explain why architects everywhere are planning to install Servel All-Year Gas Air Conditioning in their post-war homes. No other air conditioning system provides similar functions—offers such ease and simplicity of operation the year round.

This simplicity of operation is one of the big



IN WINTER

BETWEEN SEASONS

Set the thermostat, flip the right-hand switch to "R." That's all the owner of a Servel Air Conditioned home has to do to keep refrigerated, clean air, freed from sticky humidity, circulating through his house.

In spring or fall, when both heating and cooling may be necessary for short periods, the left-hand switch may be set at "V," for continuous draft-free ventilation.

Flip the right-hand switch to "H"; set the thermostat. No matter how cold it gets outside, the Servel Air Conditioned home stays cozy and comfortable. The heated air is properly humidified for the maximum protection of health, and of the building.

Yes, once the Servel All-Year Gas Air Conditioner is installed, a comfortable temperature and humidity indoors—a new quality of living every day of the year—can be maintained with the simple, "finger-tip" control.

What's more, Servel's special modulated step control maintains temperatures at the thermostatic level without the "lag" or "overshoot" common to most systems. For further details about this exclusive Servel feature and other advantages of Servel *All-Year* Gas Air Conditioning, get in touch with your local Gas Company, or write direct to Servel, Inc., 2504 Morton Avenue, Evansville 20, Indiana.

Gas Air Conditioner

ADE BY THE MAKER OF THE SERVEL GAS REFRIGERATOR



The attic caught fire - - but Cotton Insulation Saved the house!

When lightning struck the residence of Ray A. Spooner, in North Carolina, the attic and roof were burned. Says Mr. Spooner:

"Fireproof Cotton Insulation saved the rest of the structure, as the fire was unable to eat its way through. The only damage to the insulation itself was a slight charring on the upper surface. A few days after the fire, the cotton dried out entirely and was just as fluffy and light as when it was first put in."

Cotton Insulation resists burning. Yet this is but one of its many advantages. It insulates from 4% to 36% more efficiently. It is the lightest in weight of all commercial insulations. It is permanently resilient. Safe to handle. Easy to install.

For new construction or in existing structures, cotton is your most profitable and satisfactory insulation.

NATIONAL COTTON COUNCIL OF AMERICA COTTON INSULATION ASSOCIATION



HANDLES EASILY

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

SIMPLE TO INSTALL

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

MAXIMUM INSULATION

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

LIGHT IN WEIGHT

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

WILL NOT BURN

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

WILL NOT PACK DOWN

2

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

MADE TO GOV'T STANDARDS Production is government inspected. FHA and FPHA approved. No priorities needed.

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

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

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What's ahead

IN BUILDERS HARDWARE?

Research indicates that, while builders hardware postwar may be novel to a degree and new materials utilized, by far the greatest emphasis will be placed on high quality, highly *functional* designs executed in the timetested, traditional metals – brass and bronze.

Warm, mellow and enduring ... these materials need only the hand of appreciative craftsman-

ship to adapt them to the best in homes . . . commercial buildings . . . civic structures . . . hospitals . . . educational institutions . . . or any other type of structure.

Keeping abreast of trends in design, construction and installation, and evaluating them in terms of life-time user satisfaction, P. & F. Corbin is serving the best interests of all who specify, buy or sell good builders hardware.



P. & F. Corbin

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

BUILDING REPORTER

(Continued from page 212)

trical plug is placed in the socket, and the element welds itself together. The flux, which incorporates a number of different natural materials, is available in small packages without priority. *Manufacturer:* Chanite Laboratories,

914 S. Main St., Ft. Worth 3, Texas.

PLASTIC with asbestos filler.

Features: A new plastic, combining the qualities of fire and shock resistance with easy molding properties, has been

developed for the Navy by the General Electric Co. Made with an inorganic asbestos filler bound together with phenolic resins, the plastic has characteristics of relatively high flame resistance, low toxicity, easy moldability and shock resistance. Glass, also an inorganic material, is used in another plastic development for the Navy.

Manufacturer: General Electric Co., 570 Lexington Ave., New York, N. Y.

DOMESTIC STOKER streamlined.

Features: This new streamlined stoker, soon to be put on the market, is modern



in appearance as well as in its mechanical details. The hopper has a lower than usual filling height, and is provided with forced ventilation through an air jet, to prevent back-gassing into the basement. The inter-planetary transmission utilizes an internal gearing design which places eight teeth in constant contact. A simple and convenient selector lever permits an infinite number of coal feed adjustments without changing the position of the belt or stopping the motor. It also maintains automatically the correct belt tension at all times. The air-meter, designed on a new and different principle, assures correct combustion under varying conditions by automatically adjusting the flow of air to the constantly changing fuel bed demands. The new design eliminates the shear pin or clutch. In the event of an obstruction, an electric overload switch stops the motor and automatically restarts it after the obstruction is removed. The retort is of one piece construction, and is designed to burn a wide variety of coals efficiently.

Manufacturer: Conco Engineering Works, Mendota, Ill.



FLUORESCENT FIXTURE combines lamp shielding and glass diffusion.

Name: Eggcrate Aristolite.

Features: This new fluorescent luminaire combines lamp shielding and glass diffusion in the same unit, providing strong, efficient down lighting through eggcrate louvers, plus diffused side lighting through glass panels. Both the panels and eggcrates can be removed separately for easy maintenance. The fixture, designed for four 40 w. fluorescent lamps, has panelled and die-cut ends which afford light-window design. Available for individual or continuous installation, it can be suspended from the ceiling or directly mounted.

Manufacturer: The Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo. (Continued on page 224)

A Trane Cooling Coil being installed to lower the temperature of the windings of a power plant generator.

THE HEAT REMOVER THAT SOLVES A THOUSAND COOLING PROBLEMS

Trane provides a Cooling Coil for every process and comfort application

• By removing heat Trane Cooling Coils do a multitude of temperature lowering jobs. Best known is their task of extracting heat from uncomfortable air for human comfort. But with that their job just begins.

They cool the windings of generators which might otherwise over-heat and burn out. They cool and condense gas in electric furnaces to prevent oxidation in such processes as copper brazing and bright annealing. They help to make better bread by removing heat from the loaf as it comes from the oven. They cool the oil that cools power transformers. They remove the heat from jacket water of diesel engines. They help make radio transmission possible by cooling the electric tubes used in broadcasting. They dissipate the heat of compression in large central air compressor systems. They even keep milady's fur coat in tiptop shape when she stores it for the summer at the furrier.

These are but a few of hundreds of applications of Trane Cooling Coils for cooling and dehumidifying air and other gases and for cooling liquids. Whether encased in an air conditioning unit, evaporative condenser or cooler, product cooler used separately, or incorporated in the machinery of others, Trane Cooling Coils provide for the maximum transfer of heat.

Trane Cooling Coils are available in four types for cooling with chilled water, cold well or municipal water, or any direct expansion refrigerant. Coils can also be provided for raw water from river, lake or pond, for circulating oil, glycol, or other viscous fluids.

Water coils may be furnished with positive drainage features that will prevent freezing and with removable headers to facilitate tube cleaning.

If you have a cooling problem, whether for comfort or process, call on Trane first. Either contact the Trane branch office nearest you, or write for Trane Catalog DS-365.

Also write for your copy of the new TRANE POSTWAR PRODUCTS BULLETIN.



Type OS



Type DE

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The Trend to Planned Kitchens is Growing MAKE THE MOST OF IT!

"MORE than seven out of ten postwar homes will cost \$3,000 or over," predicts the United States Chamber of Commerce. That price range is assurance that the modern home of tomorrow will include an all-electric kitchen. The ultra-modern bathroom captured the fancy of the American housewife in the building boom after the last war. Today she is well aware that her home is only as modern as its kitchen.

Over 30,000 Inquiries a Month

• Each month thousands of prospects send for the Hotpoint Planning Guide "Your Next Kitchen"... prooj of the interest in, and consumer preference for, the planned electric kitchen. Hotpoint's hard-hitting advertising campaign urges the purchase of war bonds now for postwar building.

Building Boom in Sight

• Victory will find America with a pent-up purchasing power of over a hundred billion dollars. The new home market is unlimited . . . plan now to take advantage of it. Design and build homes with modern functional kitchens. They will speed turnover and reduce financial costs in speculative building. Remodeling homes and replacing old, worn appliances with a complete, all-electric kitchen is also a profitable market.

Write Us Today

• Hotpoint's expert staff of kitchen designers is ready to offer you suggestions on any kitchen planning or construction problems. Write for details of "Hotpoint Kitchen Planning Service."

Edison General Electric Appliance Co., Inc. 5651 West Taylor Street, Chicago 44, Ill.

Hotpoint Dependability Assured by 40 Years Experience

IN MOST STATES, ALL HOTPOINT KITCHEN EQUIPMENT CAN BE INCLUDED IN F. H. A. INSURED MORTGAGES

HOTPOINT REGIONAL SALES OFFICES EASTERN: 570 Lexington Avenue, New York City 22, Plaza 3-9333. SOUTHERN: 304 Red Rock Building, Atlanta 3, Walnut 2959. CENTRAL: 1456 Merchandise Mart, Chicago 54, Superior 1174. WESTERN: Western Merchandise Mart, 1355 Market Street, San Francisco 3, Underhill 2727. HOTPOINT ELECTRIC REFRIGERATORS - RANGES - WATER HEATERS - HOME FREEZERS - WASHERS AND IRONERS

CLOTHES DRYERS .

DISHWASHERS · GARBAGE DISPOSALLS · CABINET-SINK · STEEL CABINETS

SAVE HER TIME AND FOOTSTEPS ...and you save MONEY

Today's shortage of nurses points up a fact which is always vital to sound, economical hospital management. That fact is the importance of making the best possible use of every nurse's time and energy. The best way to improve nursing efficiency is to cut out wasted footwork.

Here's an answer: CONNECTACALL two-way nurse-patient communicating system for new buildings or modernizing projects. CONNECTACALL includes standard call button and corridor signals, *plus* the advantage of voice contact between the nurse at her station and every patient under her care. Thus the nurse can instantly learn each patient's needs, going to the bedside only when she is really needed there. At night, CONNECTACALL'S *Silent Supervision* feature allows her to "listen in" at each bedside . . . without leaving her duty station. The net result is better, more prompt hospital service, even with fewer nurses.

From the first day of operation, CONNECTACALL begins to pay for itself in greater hospital efficiency. For details and technical data on Connecticut's complete line of communicating and signalling systems, write for Bulletin 102.

Connecticut Telephone & Electric Division

GREAT AMERICAN INDUSTRIES, INC.

MERIDEN,

Nurses' Call Systems • Doctors' Silent and Audible Paging • Doctors' Registry • Interior Telephone Systems • Night Lights • Nurses' Home Telephones and Return Call Systems

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THE EXPERIENCE OF

OVER 100,000

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ACOUSTICAL INSTALLATIONS

... At Your Service Through Sound Conditioning Authorities Like These from Coast to Coast

• The nationwide Acousti-Celotex* Distributor Organization *has collaborated with more architects* than any other group in the acoustical field.

Through the experience of over 100,000 installations, the men of this organization are daily assisting architects in the solution of such problems as:

• How to diagnose acoustical and noise quieting difficulties ...

• How to design architecturally for optimum acoustics...

• How to be sure of mechanical perfection in the proper acoustical material and its application ...

• How to make certain of the acoustical installation's perfect appearance and continued satisfactory performance through the years

Each of these men is thoroughly trained in sound conditioning practice and upholds the Acousti-Celotex Service ideals. Each has long experience in working with other sub-contractors. When you entrust a job to his Company, you may be sure it will be trouble-free.

The combination of the world's most widely proved and used acoustical materials—Acousti-Celotex products —with competent Sound Conditioning Authorities like these, is the architect's *complete assurance* of a job well done.

Whatever the assignment, whatever the circumstances, please feel free to call on the staff of your nearest Acousti-Celotex Distributor. The extra service he offers you in no way affects his ability to compete on the smallest or the largest job you may have. That service is the unwritten *plus value* that goes with every specification for a Celotex Acoustical Product. It is another reason why this nationwide organization collaborates with more architects than any other in the acoustical field.

NOTE: Contact the Acousti-Celotex Distributor nearest you. Or drop a note to us. It will bring a trained Sound Conditioning Man to your desk. Write : The Celotex Corporation, Dept. PP-645, Chicago 3, Illinois.



Service Ideals ACOUSTI-CELOTEX

We, the members of the world's most experienced acoustical organization, are dedicated to these Service Ideals :

 Proven ability to diagnose acoustical and noise quieting problems ...

• Scrupulous honesty in surveys and recommendations . . .

• Considerateness and promptness in contract application work . . . • Timeless interest in the satisfactory performance of every job...

In more than 1000 years of combined acoustical experience, we have analyzed, engineered and installed Sound Conditioning in schools, offices, factories, banks, public buildings, stores, churches, hospitals, restaurants, theaters, and other buildings. This fund of knowledge acquired in over 100,000 installations is yours for the asking, entirely without obligation.

The Acousti-Celotex Distributor Organizations of U.S. and Canada

BUILDING REPORTER

(Continued from page 218)

PAINT GUIDE in slide rule form.

Name: Valdura Paint Guide. Features: The pocket-size Valdura Paint Guide provides a handy method of selecting the best paint for a given application without detailed technical knowledge of different finishes. Working on the slide rule principle, the guide makes conveniently available all information on the properties of Valdura Heavy Duty Maintenance Paints plus application data necessary for choosing from the entire Valdura line. Two settings of the rule give first the correct surface preparation, second the proper priming and finishing coats. The rule also tells the paint's resistance to heat, acid, alkali, moisture, abrasion, sun and oil, as well as coverage and drying time data and the use of proper thinner and correct proportions.

Manufacturer: American-Marietta Co., 43 East Ohio St., Chicago, Ill.

PROPELLER FANS for commercial, industrial and public application.

Features: A new and improved line of propeller fans, available with either di-

Improve Architectural Formwork with CALCIUM CHLORIDE Concrete

Concrete formwork has become increasingly prevalent in decorative architectural design. As such use increases, the forms become more complicated and costly, and the concrete mix itself requires special adaptabilities.

The addition of calcium chloride provides three great improvements over plain concrete for intricate formwork. First, calcium chloride adds plasticity so that concrete fills forms more completely and uniformly for better finish. Second, it provides high early strength so that forms may be quickly removed for repeated use. Third, calcium chloride supplies automatic "built-in" curing where other curing is impracticable.

Explanation of these features is given in Bulletin 28, "Early Strength Concrete," sent on request.

CALCIUM CHLORIDE

4145 Penobscot Bldg., Detroit 26, Mich.





rect or belt drive in a wide range of sizes and air deliveries, has been announced for industrial and commercial application. One of the most important features is the "air-foil" profile with the pitch increasing toward the hub. This section, according to the manufacturers, not only increases efficiency and permits quieter operation but minimizes undesirable overloading tendencies characteristic of propeller fans. The peripheral edge of the aluminum blade, also incorporating an "air-foil" profile, is flanged backward to reduce air turbulence. Four steel arms hold the motor rigid horizontally and vertically, but are designed to allow slight rotation of the motor frame around the shaft to absorb and dissipate vibration and prevent its transmission to the panel. Fans through the 36 in. size have only two blades while the larger sizes have three. The fans are engineered to use the minimum number of blades thus keeping sound at the lowest possible pitch. The streamlined air inlet in the panel is another feature which permits delivery of more air with less noise. Manufacturer: The Herman Nelson Corp., Moline, Ill.

TRANSMISSION BELT utilizes steel cables instead of cord or fabric.

Name: Compass 250.

Features: The Compass 250 transmission belt, developed for postwar machinery and equipment, embeds steel cables in rubber and encases them in an envelope of non-load carrying fabric. The cables consist of a special twisted, finely stranded, hightensile wire, with half of them in the belt twisted to the left, and the other half to the right to insure a neutralized, true-running belt. According to the manufacturer, these belts are practically unbreakable and have surplus strength even under shock loads. They are made with synthetic rubber to resist lubricating oils or other deteriorants. Cost per inch of width is higher than for conven-

(Continued on page 230)

Bendix Radio...another modern plant designed around air conditioning

BENDIX RADI



THE RECENTLY built two-story plant of the Radio Division of famed Bendix Aviation Corporation is another good example of the trend toward designing the structure around air conditioning. Here, complete air conditioning throughout the year provides comfortable, healthful working conditions and has proved invaluable in maintaining strenuous wartime production schedules. As W. P. Hilliard, General Manager, states:

"It has been estimated that our entire output during the summer months would drop somewhere around 25% if we did not have complete air conditioning in our plant."

The Bendix installation consists of two Carrier Centrifugal Refrigerating Machines of 250 tons and 550 tons capacity. These serve the main plant and provide absolute control of temperature and humidity in inspection departments.

Batteries of smaller refrigerating machines are used in connection with research and testing laboratories. Precision instruments are tested in a Trim installation of 550-ton Carrier Centrifugal Refrigerating Machine in the Bendix plant.

Bendix "cold box" where bleak, 40° below temperatures duplicate conditions encountered in high altitude flying. "Freon" safe refrigerants are used exclusively.

The Bendix plant is a picture—today—of the plant of tomorrow. It again proves the effectiveness and value of air conditioning . . . illustrates why industrial leaders are giving more thought to this modern improvement. Keep pace with air conditioning. Your clients will ask you about it. Write for reference file data on "Freon" safe refrigerants. Kinetic Chemicals Inc., Tenth and Market Sts., Wilmington 98, Del.

"Freon" safe refrigerants are widely used in heavy-duty refrigeration and air conditioning systems.





• Modern design calls for flush, streamlined surfaces. Such surfaces offer far greater opportunities for artistic effects. They also permit the pleasing and the unusual in the appearance of doors, cupboards and secret panels. SOSS INVISIBLE HINGES are an outstanding contribution to this modern trend—doing away entirely with "broken surfaces" and protruding butts. When SOSS INVISIBLE HINGES are used, hinges are placed in their proper location — *bidden* from view.

Write for the Soss "Blue-Print Catalog." This catalog gives full details for the many applications of this modern hinge. It will be sent free to you on request.

SOSS MANUFACTURING COMPANY 21767 HOOVER ROAD, DETROIT 13, MICH.





A Ten-Strike on the Summer Bowling Slump

Bowling alleys no longer need to close for three months during the summer season. Many bowling leagues now continue play throughout the year. Chrysler Airtemp Air Conditioning has made a perfect 300-score by providing clean, properly dehumidified air to keep cash registers ringing the year round. "Packaged" Air Conditioning, pioneered by Chrysler Airtemp, is ideal for bowling alleys. Flexible and easy to install, these dependable, trouble-free and time-tested air condition-

ing units, with the hermetically sealed compressors, can be used either singly or in multiple. Low in operating cost and upkeep, these units make further savings possible by spot cooling certain sections of recreational centers-giving maximum comfort where it is most needed. Shorter work days will allow more time for recreation after the war. Specify Chrysler Airtemp to help your clients add these summer profits. • Airtemp Division, Chrysler Corporation, Dayton 1, Ohio.

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



Before they ask you... give them plans for BENDIX Home Installations!

Beat those anxious women "to the draw"! Have your installation plans ready *now* for the one-and-only Bendix Automatic Home Laundry! Because countless thousands will demand this laundry miracle in their new homes—where it will wash, rinse and damp dry clothes automatically!

Briefly, the Bendix eliminates set-tubs; fits perfectly in Kitchen, Playroom, Basement or Utility room; takes only 4 square feet of floor space. Helps sell the house. In many states, it is available for FHA financing.

For full information, consult your Bendix distributor. His name is in the classified section of your telephone directory.

BENDIX DE LUXE MODEL: 26" wide, 36" high (control panel back board at rear). 38" high from floor, 2234" deep.

BENDIX STANDARD MODEL: 251/4" wide, 35" high, 223/4" deep.

BENDIX automatic Home Laundry

Bendix Home Appliances, Inc., South Bend, Indiana ... Pioneers and Perfectors of the Automatic "Washer."

Roddiscraft PROCESS OF STANDARD CONSTRUCTION IMMUNE TO CLIMATE



Roddiscraft

WAREHOUSES

CAMBRIDGE 39, MASS., 229 Vassar St. CHICAGO 8, ILL., 1440 W. Cermak Rd. CINCINNATI 2, OHIO, 457 E. Sixth St. DALLAS, TEXAS, 2615 Latimer St. KANSAS CITY 8, MISSOURI, 2729 Southwest Bivd. LOUISVILLE 10, KENTUCKY, 1201-5 S. 15th St. LONG ISLAND CITY, N. Y., Review and Greenpoint Ave. MARSHFIELD, WISCONSIN MILWAUKEE 8, WIS., 4601 W. State St. NEW YORK CITY 18, NEW YORK, 515 W. 36th St. SAN ANTONIO, TEXAS, 727 N. Cherry St. DEALERS IN ALL PRINCIPAL CITIES

See Sweet's Architectural File for complete door line and specifications The beauty of Roddiscraft Solid Core Flush Doors is more than veneer deep. Beneath the beautiful natural wood faces is a solid foundation — crossbanding and core welded together under heat and pressure, and protected by a permanently waterproof glue line. Roddiscraft construction is an effective barrier to the passage of fire and sound. Silent closing without binding — immunity to conditions which warp and swell ordinary doors make Roddiscraft Doors an enduring investment in beauty and utility.

> All Roddiscraft Doors made in accordance with Roddis standard construction are backed by the Guarantee Bond and permanently identified by the built-in redwhite-and-blue dowel — exclusive Roddiscraft features.

> > FROM TIMBER TRACT TO BUILDING SITE ? It's Roddis All the Way



BUILDING REPORTER

(Continued from page 224)

tional transmission belts, but it is explained that economies are possible because correspondingly narrower belts and face pulleys can be used for specific power loads. These belts can also be adapted to lower speed ranges, and nearly eliminate creep on the pulley. These advantages result in power savings, improvement in speed regulation from no load to full load to peak load, and in reduction of pulley face and belt face wear. They will be produced in



Manufacturer: Goodyear Tire & Rubber Co., Akron, Ohio.



VERMICULITE in light form. *Name*: Alexite.



So warm and dry and safe, Kencork is the ideal nursery floor, the *friendly* floor for tiny toddlers—self-insulating, shockabsorbing, non-slipping (and stainproof, too).

So warm and dry and safe, Kencork is also the ideal floor in bedroom or bathroom - kind to wet, bare, unprotected feet.

Yet this warm, dry floor is most famous for its resilience and comfort when you walk on it hour after hour in offices, shops or homes and for the beauty of its golden tan and nutty brown patterns.

Yes, for thirty years Kencork has been proving that nothing else can match *all* the advantages of cork tile. It isn't being made today but it will be made again—soon, we hope. In the meanwhile, plan for tomorrow by studying the interesting Kencork folder issued by the company that originated cork flooring in 1899. Write to David E. Kennedy, Inc., 69 Second Avenue, Brooklyn 15, N. Y.



Features: Great strides have been reported in the use of vermiculite as a non-metallic, sound-proofing insulating material, due to the discovery of several Two additional vermiculite mines. recently opened are mining Alexite, a light type of vermiculite, and are shipping it to building supply dealers, cleaned and ready to be expanded in furnaces. When expanded ten to fifteen times its original size Alexite contains nearly a million insulating air cells per cu. in., and acquires an insulation and fire-proofing quality equal to or better than, the best materials now commonly sold. Vermiculite used in place of sand with plaster and cement aggregates for floors, walls and ceilings, gives better protection against fire and lightens the weight of the complete structure.

Manufacturer: Alexite Engineering Co., Colorado Springs, Colo.

RESIN GLUE with exceptional properties. Name: Plaskon 810-12.

Features: This new hot-press phenolic glue is extensible with wheat flour and thus permits unusual economy while meeting strict performance standards in plywood and furniture panel stock. At its maximum permissible extensionequal parts of resin and flour-the new glue assures a bond that will withstand a 3 hr. boil test without delamination. Used without extension, it meets the most rigid requirements in water and weather resistance. Plywoods fabricated with it can be used under prolonged or constant extremes of temperature and humidity. Under the most severe conditions the unextended glue outlasts the wood itself. It is available as a dry, water soluble powder and is more stable in storage than liquid phenolic resin. No special skill is required for mixing or using it. No special preparation of the wood is necessary, and a wide latitude of moisture content in the wood is allowable.

Manufacturer: Plaskon Div., Libbey-Owens-Ford Glass Co., Toledo, Ohio.



RIGIDIZED SHEETS well suited to porcelain enameling.

Features: Rigidized metal, available through a new method of cold forming sheet metal, is well suited for adaption to porcelain enamel sheets and panels (Continued on page 236)



Sure it will sell -but will it sell another?

HOUSING authorities predict a market for 10 million new houses in the first 10 years after victory.

Many houses will sell, at first. But what then? Will each house you build bring you orders for more?

They Will If They're Planned For Better Living!

People expect a lot in their postwar homes, scientific planning, the best materials, expert construction. And according to surveys by FORTUNE, the U. S. Chamber of Commerce, and Government agencies, electrical equipment stands near the top in postwar wants.

That's your clue! They'll be looking for automatic heating, adequate wiring with plenty of outlets, proper lighting, an electric kitchen with dishwasher, garbage Disposall, range, refrigerator and exhaust fan, cabinets and a clock. And they'll want an electric laundry, too!

And this complete house can still be competitively priced. The difference in cost will be relatively minor, and the monthly payments will be increased by a surprisingly small amount because of the single, long-term mortgage.

G. E. Has Plans For Better Living, Too!

We're still concentrating on war work, but after

victory you can count on General Electric to back you up with a complete building and merchandising campaign.

In the meantime write for your copies of General Electric's booklets, "The New Home And Your Pocketbook," and "Castles in Foxholes." Just send your request to Home Bureau, General Electric Co., Appliance and Merchandise Department, Bridgeport, Conn.

FOR VICTORY— General Electric is working night and day to back the attack. You can help, too, by buying and holding more War Bonds than before.

TUNE IN: "The G-E House Party," every afternoon, Monday through Friday, 4 p.m., E.W.T., CBS. "The G-E All-Girl Orchestra," Sunday 10 p.m., E.W.T., NBC. "The World Today," News, Monday through Friday, 6:45 p.m., E.W.T., CBS.



Nurses Home, Mercy Hospital, Cedar Rapids, Iowa, Dane D. Morgan, Architect-Engineer. The Stark Building Company, Builders



Hospital Buildings equipped with Lupton Metal Windows have abundantly daylighted rooms with controlled, natural ventilation free from drafts. Lupton Windows are weathertight and easily operated. Forty years' experience has gone into their modern design and construction. For complete dependability, specify Lupton Metal Windows.

See our Catalog of Post War Types and Sizes in Sweet's for 1945, or write today for reprint.

MICHAEL FLYNN MANUFACTURING CO. E. Allegheny Ave. at Tulip St., Philadelphia 34, Pa. Member of the Metal Window Institute

LUPTON METAL WINDOWS



"Late ? well live only got two hands !"

JNITED STATES STEEL

YOUR guess is as good as ours as to what the postwar kitchens will be like-but of this we are certain-steel will be used in ever increasing quantities! Why? Because steel is a low-cost, versatile metal. It is durable, easy to clean,

strong and good-looking. No other material can do so many jobs so well. Write for our new booklet, "85 Ways to Make a Better Home." It shows how U·S·S Steel Products can be used to make better homes at low cost.



CARNEGIE-ILLINOIS STEEL CORPORATION, Pittsburgh and Chicago COLUMBIA STEEL COMPANY, San Francisco TENNESSEE COAL, IRON & RAILROAD COMPANY, Birmingham United States Steel Supply Company, Chicago, Warehouse Distributors-United States Steel Export Company, New York

- STEEL SINK of white porcelain enamel on a VITRENAMEL base, or you can have sparkling U-S-S Stainless Steel sink and work tops that last a lifetime. Both are easy to clean.
- 2. STEEL CABINETS finished in gleaming enamel. Wipe clean in an instant. Doors close quietly without banging. Steel drawers roll out easily without sticking.
- 3. PORCELAIN ENAMEL WALL TILE. Perfect for kitchen walls especially over sink and behind the range and refrigerator --cleans easily, withstands oven heat, never needs paint.



only STEEL can do so many jobs so well



"APPROVED"

SAYS THE USAAF IN GIVING OFFICIAL RECOGNITION TO THE HIGH STANDARDS* BACK OF WILLIAMS OIL-O-MATIC OIL BURNERS FOR OVER 25 YEARS

*The coveted "Approved Quality Control Rating" of the U. S. Army Air Forces is awarded only to a manufacturer whose own inspection system meets the high standards of quality required by the USAAF.

LIAMS

BLOOMINGTON, JELINOIS

if you cash in a War Bond now you hinder the war effort. Keep supporting our men in uniform by KIEPING the Bonds you buy.

BUILDING REPORTER

(Continued from page 230)

for store front installations. By the patented design-rolling process, the metal is scientifically distributed throughout the cross section, giving extra strength and patterned surface effects, and producing changes in its mechanical, textural and utility values. Rigidized sheets eliminate the problem of "waves" in panels for achitectural use. They are available in a wide range of designs two of which are particularly adaptable to porcelain enameling. ACC-4s, the coarser pattern, is suitable for use as a sign panel, with either block or cutout letters set away from the panel. No. 1-ACC is a finer pattern of distinctive design. The use of Rigidized metals will not interfere with normal fabrication methods for any material. *Manufacturer:* Rigid-Tex Corp., Buf-

falo, N. Y.



COMPRESSED AIR SAW saves time, labor and money.



Features: This lightweight compressed air saw, weighing 42 lbs., cuts through soft wood on an average of one inch per second and hard wood in about double the time. Interlocking chain construction, with strong links and easier link replacement assures maximum service. A narrower kerf with a sequence of 4 teeth gives faster cutting action using less power. Generally used as a 2-man saw, the helper's end is quickly detachable to allow for use by a single operator, or should the saw become pinched. Operated by a 31/2 hp motor at 90 lbs. air pressure, its cutting capacity is 24 in. A 5 hp 36 in. cutting blade is also available, as well as electric models. Lombard Governor Manufacturer: Corp., Ashland, Mass.

SPRINGLOC FASTENER of unique design. Name: Carlso.

Features: The Carlso, a lightweight, self-aligning, springloc fastener, was originally designed to overcome difficulties in the attaching of aircraft cowlings,



but has since demonstrated its adaptability as an all - purpose fastener for non-aircraft applications. It consists of two parts—a stud and a receptacle—the former having a squared shank on which the two opposed sides are serrated, while the

latter is of spring clip design and engages the serrations in the manner of a ratchet to secure the stud in place. Using the new device to fasten a cowling, it is brought into approximate visual alignment and the studs started one at a time. After all the studs have been started in their respective positions, they are driven home with a screw driver-a sharp tap sufficing for each stud. To remove a cowling fastened with the new appliance, it is only necessary to turn the studs a quarter turn to either side to disengage them. While they are easily disengaged when desired, they will not loosen due to vibration. The No. 7 Carlso fastener is interchangeable with AN 228 and AN 232 fasteners as far as the drilling and dimpling of the sheets on which it is mounted is concerned. With a single receptacle it can withstand loads in excess of 900 lbs., and this can be further increased by nesting two or three receptacles to engage a single stud. Other uses for which the new fastener is adapted include heating and ventilating ducts, grain storage bins, and portable sheet metal buildings.

Manufacturer: The Glenn L. Martin Co., Baltimore, Md.

(Technical Literature, page 244)



KEWANEE Heavy Duty BOILERS Steel Firebox

A casual glance at the exterior of any Kewanee shows the ruggedness which insures additional years of service . . . because that extra strength goes all the way through.

Kewanee Boilers Serve by Saving!! They last longer. Correct design and proportioning extract and put to useful work the maximum amount of heat in fuel.

> HAND FIRED or MECHANICAL 100, 125, 150 LBS. STEAM WORKING PRESSURE 25 TO 304 HORSE POWER

For Heating, Power and **Process Steam**



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HATS OFF TO

CECO INTERMEDIAT Harry A. Thomsen, Architect Dinwiddi Construction Co., Contractor for the Spreckels Sugar Co. Building, Woodland, California.

HATS OFF DEPARTMENT

An interesting example in which a California Architect combines plant and office building into one unified structure. Here Ceco steel windows are used to excellent advantage in both office building and plant. Ceco furnished intermediate casements, fixed sidewall, pivoted sidewall, mechanical operators, screens and commercial projected steel windows.

HATS OFF TO

Alfred S. Alschuler Architect and Contractor for the Pheoll Manufacturing Co. Building, Chicago, Ill.

Here you find a fine treatment of entrance with long continuous steel windows serving both manufacturing space on first floor and office space on second floor. A nice solution to the problem · of resolving various units into a dignified pleasing facade. Ceco furnished pivoted sidewall, fixed sidewall, and architectural projected windows.

CECO

HATS OFF TO

Joseph W. Radotinsky, Architect Universal Construction Co., Contractors for the Argentine High School Addition, Kansas City, Missouri.

The use of continuous steel windows give maximum lighting for classrooms harmonious with the modern treatment of the entrance. In this high school you can see that lines of continuous steel windows are particularly applicable to school room use. Ceco furnished commercial projected windows, with the vertical muntins omitted.

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A United States War message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America

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TECHNICAL LITERATURE

(Continued from page 236)

AIR DIFFUSERS. Kno-Draft Adjustable Air Diffusers, 76 pp., 9 in. by 11¹/₄ in. This easy reference catalog simplifies the selection and application of Kno-Draft Air Diffusers for heating, cooling, ventilation or combined systems. It contains sketches, charts, instructive text and dimension prints to provide the necessary data for the proper application and performance of Kno-Draft Air Diffusers. Data on selection, application, location, assembly, erection, adjustment and testing has been compiled as a quick, accurate aid for those responsible for the design of air diffusion and those who install the equipment. Separate sections are devoted to accessory equipment. W. B. Connor Engineering Corp., 114 East 32nd St., New York 16, N. Y.

COLOR. A Practical Guide to the Use of the Optonic Color System, 12 pp., 8 in. by $10\frac{1}{2}$ in. This booklet outlines the factors to be considered in the proper selection of colors according to the Optonic System, which was developed to reduce eye fatigue by a scientific use of



color in interior painting. The booklet describes the system and gives rules for color selection taking into account quality of light predominant in the room, reflective and absorptive factors, etc. The Arco Co., 7301 Bessemer Ave., Cleveland, Ohio.

CARPETS. A Manual on Mohawk Carpets, 23 pp., 8¹/₄ in. by 11 in. This booklet presents to the architect information on soft floor coverings. It compares five main type of carpet weaves giving their characteristics, and uses, and illustrates their surfaces, backs and cross sections. The manufacturer also makes recommendation for what type of carpet to use for various type buildings. Mohawk Carpet Mills, Inc., Amsterdam, N. Y.

SPACE HEATERS. A Primer on Space Heaters, 12 pp., 4 in. by 8½ in. This booklet is prepared to give the nontechnical reader a practical understanding of what a space heater is, how it is used, and what it will do. Main parts of the unit are illustrated and described, advice is offered for choosing the right capacity, and of special interest is information on the fan forced air principle applied to the space heater. Evans Products Co., Detroit 27, Mich.

MAGNESIUM. Dowmetal Magnesium Alloys — Who? What? When? Where? Why? 16 pp., 8½ in. by 11 in. Acting as a ready reference this booklet answers briefly and simply many questions often asked about magnesium and Dowmetal, magnesium alloys. What magnesium is, where it is found, in what forms it is available, and its price are a few of the subjects covered. Magnesium's importance as a structural material, its various fabrication methods and uses of Dowmetal for postwar products are discussed and illustrated. The Dow Chemical Co., Midland, Mich.

VALVES. Automatic Valves, No. D-12, 28 pp., 8½ in. by 10% in. This catalog gives general information on Cash Acme Automatic valves. It includes descriptions of by-pass valves, pressure reducing and regulating valves, pressure controls for hot water heating systems, pressure relief valves, refrigeration valves and strainers. Cut away diagrams and installation drawings illustrate applications. A. W. Cash Valve Mfg. Corp., 600 North Water St., Decatur, Ill.

INSULATION. Conservation of Fuel For War, Industrial Insulation with Mineral Products, Information Circular 7263— Dec., 1943. This Government circular offers to manufacturers helpful information on insulating materials and their application to high temperature equipment, to encourage fuel saving. Booklet free, Industrial Mineral Wool Institute, 441 Lexington Ave., New York 17, N. Y. (Continued on page 250)

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802-5 South 72nd Street

TECHNICAL LITERATURE

(Continued from page 244)

ROOFS. Functional Designs for 194X, 9½ in. by 11¾ in. This interesting folder contains reprints of Barrett's series of advertisements devoted to functional roof areas designed by such architects as Carl Koch, Harwell Harris, Richard Bennett, Ely Kahn and Robert Jacobs. These postwar designs demonstrate how wasted areas atop today's buildings can be utilized advantageously in future structures for such projects as outdoor recreation units for factory employes, open air study and recreation areas for elementary school children, outdoor solariums and exercise facilities for hospitals, shuttle airports atop commercial buildings, and convenient parking lots for theaters. The Barrett Div., Allied Chemical & Dye Corp., 40 Rector St., New York, N. Y.

HEATING. *I-B-R Installation Guide*, No. 1, 20 pp., 8¹/₂ in. by 11 in. Price \$.25. This installation guide, incorporating the latest technical data on installation methods, presents a simple, efficient and economical basis for installing one-pipe forced circulation hot water heating systems. The calculation and design is cov-



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Cross section of spray booth

The Wingfoil Fans used in this installation are the new Non-Overloading Wingfoil Pressure Type Fans (patents pending). As the imposed air resistance increases, the fan motor, instead of being overloaded, will actually be "un-loaded" —in other words, less horse power is required... This opens an entire new field of application to the architect and system design engineer.

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L. J. Wing Mfg. Co., 157 W. 14th St., New York 11, N. Y. Factories: Newark, N. J. Made in Canada at Montreal



ered in five steps: - determination of the heat loss, selection of the main, radiation, selection of the boiler, and the pump size. Generously illustrated with diagrams of recommended installation practices, the guide also includes tabulations showing heat loss factors, Btu requirements for quantities shown, equivalent Btu heat loss, and heat emission rates. A section explains in detail the method of calculating friction heads and radiator sizes based on temperature drop, and provides tabulations of equivalent lengths in feet of pipe, friction factors, temperature drop in main and radiators. It is accompanied by a calculating sheet showing application of the method to a typical dwelling. The Institute of Boiler and Radiator Mfgrs., 60 East 42nd St., New York 17, N. Y.

FACING TILE. Catalog 45 C, 23 pp., 8% in. by 11 in. The 1945 Facing Tile Catalog contains specifications, finishes, colors, and shapes of glazed and unglazed facing tile produced by members of the Facing Tile Institute. It also includes photographs illustrating decorative and sanitary uses of facing tile and base, cap, etc., details of the different type tiles. Facing Tile Institute affiliated with Structural Clay Products Institute, Washington, D. C.

BUILDING MATERIALS. Bulletin of the Producers' Council, No. 47, 68 pp., 83/8 in. by 103/4 in. This bulletin presents information on new products and developments, and new uses for established materials. Information on pressure treated lumber, industrial asphalt tile, packaged air conditioners, bathroom fixtures of non critical materials, modular size steel windows and light steel framing are representative of the interesting items presented in this issue. Edited by Dept. of Technical Services, A.I.A. and published by The Producers' Council, Inc., 815 15th St., N.W., Washington, D. C.

REQUESTS FOR LITERATURE

M. C. KLEUSER, City Architect, Dallas, Tex., would like to receive catalogs and information on hospital equipment.

PIERRE NIMAL, Consulting Engineer, Choubrah, Egypt, would like to receive literature and catalogs on heating and air conditioning equipment, insulation, household appliances, lighting, kitchen and bathroom planning and equipment.

ROCER L. BRIDGEMAN, Architect, Westmoreland, N. H., would like to receive data and samples of synthetic resin finishes and coatings for wood; waterproof adhesives and relative catalysts; information on prefabrication methods, laminating techniques and surface treatment of wood.



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mercial, industrial and institutional types of buildings. For complete information on toilet room environments, refer to Sanymetal Catalog 19B-5 in Sweet's Architectural File for 1945.

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New York, N. Y.

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SPECIFICATION AN

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