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FRANK LLOYD WRIGHT

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101 DISPLACED PERSONS

IN A STRANGE NEW LAND they stood these displaced persons. Silent men with grim tasks ahead worked purposefully and with little thought of the fatigue that racked their weary bodies. They were building a new community their community.

Women, hollow-eyed, their white drawn faces mirroring pain, went about setting their humble homes in order. On every side was hunger, privation—the plight of desperate people—"A picture of Europe, 1948?" . . . you ask.

No-a picture of America, 1620.

For here, 101 displaced Pilgrims—men, women and children of the new America—freedomloving people all, were beginning a new way of life. They were meeting critical shortages, and overcoming them—shortages of all the things that make for decent living—food, clothing, shelter . . . shortages that relatively were the greatest our nation has *ever known*.

There was a 100% shortage of almost everything on that day, 328 years ago, when their storm-battered ship nosed into the quieter waters of rock-studded coastal bays. Yes, a shortage of everything except COURAGE—a belief in the dignity of man—a passionate desire on the part of each to live as he liked.

.

Perhaps it was the strong driving force of the urge to be free men that enabled them to solve the critical shortages of their day. For you see, no one could pass a law providing new homes or schools... nor were there any homes here ready for them to occupy.

So, with bare hands and primitive tools, they individually dug from the earth and cut from the forests their own homes and schools. Ceaselessly and endlessly they worked at their simple tasks, struggling for necessities . . . looking ahead, not behind . . . building a heritage for millions of. Americans to come.

Are we less courageous than they?

Is war-scarred Europe more

destitute than they were?

Is there less hope in our time than theirs? Are our shortages more acute than 100%? There is a simple answer to those questions and to the problem they pose. It is a WORD. A short word, without glamour, but a virile word of dynamic force . . . a word, that in its simplicity, might be overlooked, but a word so powerful as to be virtually magic.

It isn't a new word to Ceco thinking, for in January 1947 we said this word was the key to better times—to security for all.

May we say it again?

It is W-O-R-K—a four-letter word for continuing prosperity, for preserving freedom in America and for providing hope throughout the world. As we said before, *everyone* must work more...produce more—*management* and *labor*.

Suppose we look at the simple mathematics of the problem. There just aren't enough homes, schools, hospitals, roads, to satisfy the needs of all—not enough steel, automobiles, freight cars, food . . . for America and the rest of the world. How can more of these scarce things be made available sooner, and at LOWER PRICES?

We, like you, have heard many so-called curealls. Some say too many have too much money ... they bid against each other for scarce things and thus keep prices ever moving upward, so taxes must be raised, not lowered—must be kept high to draw off excess money. Credit must be curtailed so buying will be slowed down. Or prices must be regulated and goods rationed.

Others say don't buy unless your needs are desperate, quit eating certain foods certain days, don't build now . . . don't . . . don't . . . don't . . . verboten. It all has a familiar ring somehow. It's a creed of hopelessness—of negation.

Let's hear a new voice in America, raised high in a mighty crescendo, drowning out those voices of fear. Yes, a new voice of hope, which will say in clear unmistakable tones of triumph . . .

"Let's DO something . . . yes, let's

trade DO for DON'T."

We of Ceco believe the American way to solve the problem of shortages and high prices is one of action . . . one of *doing* . . . of *making more things*, not buying less of what we have, of increasing prosperity . . . not dividing misery. And prosperity comes from *making a lot* for all . . . not *dividing a little* with all.

14. 60,000,000 EMPLOYED ...

Look at it this way. There are some 60,000,000 adults—men and women—employed in the nation today, making things for the more than 140,000,000 Americans and the many, many millions in all the other countries of the world. Now we can't increase our 60,000,000 employed to any great degree very fast. They just about represent today's manpower capacity—but, if everyone of those 60,000,000 . . . executives ... managers . . . labor . . . white collar people, *ALL* of America's working force, produced more *individually*, things would become more plentiful and prices would be reduced.

It's basically that simple.

•

Yes . . . we 60,000,000 Americans must work more, produce more, instead of less, and that goes for EUROPE and EVERY OTHER PART of the world. Everywhere we must increase manhour output . . . bricklayers must lay more bricks, architects create more buildings, miners dig more coal, farmers raise more produce, stenographers write more letters, managers do more managing . . . and this must go clear back through the entire economy from raw materials to manufactured products.

Then, and only then, will scarce things be plentiful . . . will money stop bidding up prices . . . will inflation be halted and a sound basis be established for the security of all, both *labor* and *capital*.

Given a freer rein this past year, the building industry made real progress in cutting down building shortages. For example, twice as many homes were completed in 1947, as compared to 1946 . . . plant expansion is getting closer to demand. Ceco salutes construction men for the job they are doing. We like to feel that in some measure we have been helpful in this progress. Here are some of the things we have done to help the building industry in 1947.

Our production in 1947 nearly absorbed manufacturing capacity, which was doubled in 1946 • New fabricating plants were erected in Hillside, New Jersey and Houston, Texas • Personnel in plants, offices and sales force increased more than 50% • More than 100 improvements were effected in our products • More than one-third of our new products developed since the war were put in production.

But what about the future?

Today, as was true a year ago, the building industry faces an imposing demand for all types of construction. People want more homes, schools, roads, and will get them if an *unhampered* building industry is permitted to provide them ... could get them at lower prices, too, if ALL would WORK to produce MORE, not less.

We of Ceco believe in America's future, in its ability to meet the challenge of world leadership —for after all, a way of life that has given Americans more of the good things of earth than any other people anywhere doesn't have to be proven . . . it is proven . . . it is working.

As for the building industry, Ceco has confidence *we can* count on our architects, engineers, contractors, builders and industry labor, to provide the structural needs of our nation. To this end the industry—America—can count on Ceco.



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Lucian Kight & John Martin Duquesne Light Co. Entry: Royer's Dept. Store Architect: Brandon Smith

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1 000



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Gold Seal Merit Award to: C. B. Marsh Marsh Electric Co. Entry: Klein's Dept. Store



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For further information write Kelvinator Division, Nash-Kelvinator, Detroit 32, Michigan



NEWS

WASHINGTON

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BUILDING MONTH. Last month as a record snowfall rapidly reduced metropolitan New York to the level of a snowbound village, the already substantial saga of wayward buses, ferryboats, etc. was enlarged by a wayward railroad train. The train, which all aboard believed bound for Port Washington, took a wrong turn and carried everybody rapidly out to Jamaica instead. As the New Year opened with both employment and the price index at a record level, the Building industry—and the nation—felt something like the passengers on the wayward railroad train: peering anxiously through the blinding snow, they continued to try, without any success, to make out familiar landmarks as they were carried inexorably and at top speed to a destination none of them had anticipated.

The question for everybody was still the same: Can we stay where we've got to so rapidly—or will we have to turn around and go down hill again? The month's most cheerful answer came from a Twentieth Century fund economist, who pleased everybody by announcing that we are all probably on the upgrade to stay. This sanguine economist, W. S. Woytinsky, thinks the postwar boom is being painlessly liquidated right now. He finds purchasing power and savings more evenly distributed than after World War I, says future production may rise beyond anything yet seen.

In Washington, it was clearer than ever that nobody wanted to be responsible for pulling the anti-inflation switch, if indeed, this switch could now be found at all. But the thickening confusion on just whereif anywhere-the strategic switch was to be found last month nearly threw housebuilding off the road entirely. With interest rates firming and mortgages once more looking for takers, Congress uneasily listened to the several authorities who urged braking FHA's Title VI mortgage insuring authority to a dead stop. Fortunately for the housebuilding business, Congress was finally persuaded that this was the wrong switch to pull. But the discussion that accompanied lifting the Title VI insurance ceiling by another \$750 million showed what is likely to happen when the legislation creating this government insuring authority expires in March. Renewal of Title VI will precipitate the whole question of whether high percentage loans, made directly to builders, are pushing house prices to dangerous levels. Insiders said that Congressional leaders were last month convinced of the merit of the direct-tobuilder feature of Title VI loans (see below) and will extend this legislation next spring but reduce maximum loan percentage (now 90 per cent on a \$9,000 house) as an attempt to curb prices.

Elsewhere in Congress, the Joint Housing Committee was winding up its investigation of what else might be done to pull house prices down-and to get more houses started. Representative Ralph Gamble, in a progress report last month, expressed confidence that supply of soil pipe, nails, gypsum products would be adequate for increased housebuilding over the next year. Price and supply outlook for heating, and plumbing supplies and for lumber is, however, less reassuring. Inquired Representative Gamble: "Why has the wholesale price index of lumber risen to 285.7 since 1939 (1939-93.2), whereas the price index of all building materials has risen to only

183.3 (1939-90.5)? It may be necessary to examine our entire lumber export checking machinery. It may be desirable ... to look further into the profits of lumber manufacturers and also to establish to the Committee's satisfaction that a retailer's service is necessary to mass construction of housing, particularly where some manufacturers own or control their retail outlets."

Although housebuilders themselves would welcome this and any other devices to reduce-or at least to stabilize-the price of their product, they could not help but feel the comfortable glow of accomplishment-and of even greater expectationsas they looked back on the busiest fall building season on record. The seasonal falloff had not hit until November, and the November tally of 82,000 new starts and 86,000 finished houses had not even remotely been approached in any other fall month since building activities were chronicled. Another favorable sign: rental housebuilding (although some big investors seemed to be stumbling, see page 14) was increasing, accounting for 15 per cent of all nonfarm housing started in October as compared with 11 per cent last January.

Government experts forecast a 30 per cent increase in public works this year. Most communities had waited as long as they could for needed schools and hospitals. And 1948 would be only the beginning of a building job that will last for many years to come. Sample: a federal tally of the war baby boom discovered that there will be three times as many children in primary school by 1955 as there were in the 1920's. Thoughtful educators believe this will mean, not only a lot of school building, but a new design approach: more flexible buildings, adaptable to various uses and ages.

All in all, the way ahead for Building looked clearer than it had for many a year. In spite of many uncertainties and some undoubtedly dangerous curves ahead—nobody thought we would have to bump down hill again.

WASHINGTON

PROBLEM IN INFLATION

Congress decides not to throttle financing of big housebuilding.

FHA's Title VI, the instrument by means of which more than one-third of all current housebuilding is financed, was very nearly caught in the anti-inflation drive of the special Congressional session. But, with some timely prompting from the American Legion, Senate Republican leaders decided that Title VI was more deflationary than inflationary, after all.

One trouble was that few Congressmen were masters of the intricate machinery of Title VI. They had heard such authorities as Federal Reserve Board's Marriner Eccles and Edward F. Brown, board chairman of Chicago's First National Bank, decry government-backed mortgage loans. Said Brown: "They are in excess of the cost of the property mortgaged, and can only result in loss to the buyer and to the government."

Title VI critics had one legitimate gripe. As every housebuilder knows, Title VI differs from regular Title II mortgage financing in its recognition of "reasonable current costs"-considerably higher than the "long-term stabilized values" that are the basis of Title II mortgage appraisals.

But it also differs in a far more important respect. Title VI is the first step toward production financing ever taken in an industry almost exclusively built on consumer financing. Under Title VI, the housebuilder becomes the mortgagor. He can take out the papers for a hundred mortgages at a time-which means that he can start 100 houses at a time. Under the old Title II plan, the housebuilder must sign up a customer for each house before he can get the financing to start building. To throw out Title VI would mean throwing out one of the few steps toward large-scale production yet taken by the laggard housebuilding industry.

Once this had been explained by housing bosses Foley and Richards (see below), Congress quickly agreed to lift the Title VI insurance authorization by another \$750 million. But only \$250 million will be immediately available. The President will have to say when it is time to dip into the remaining authorization of \$500 million. FHA officials say there is not much doubt that this will be very soon.

PERSONNEL

Foley team lines up in Washington housing jobs, with only one vacant.

In its busy special session, Congress found time to approve the President's choice of the two chief housing bosses. Confirmed were Raymond M. Foley as Administrator of the over-all Housing and Home Finance Agency, and Franklin D. Richards as Commissioner of the Federal Housing Administration.

Appointed by the President (but not yet confirmed by the Senate) was William K. Divers, to replace veteran John H. Fahey as chairman of the Home Loan Bank Board. Divers had been Foley's chief assistant in the Housing and Home Finance Agency. His appointment means that housing boss Foley will have the lieutenants of his choice in both key agencies (Richards was Foley's right-hand man when the housing boss was FHA Commissioner) and that the housing

agencies will be "coordinated" in fact as well as on paper.

The President also reappointed John Alston Adams to the three-man Home Loan



tempts at appeasement.

Tighe E. Woods was re-appointed as Housing Expediter, but there was not much left of his job. In the New Year, the remain-

ing government building restriction on amusement and recreation structures will be dropped, the guaranteed market and premium payment programs will be abandoned-only the veterans' preference requirement on new housebuilding will stick.



RICHARDS

Housing job not yet filled: Commissioner of the Public Housing Administration. Everybody in Washington expected this to go to John Dobbs, head of the Housing and Home Finance Agency's New England office. Meanwhile, Assistant Commissioner John Egan was named Acting Commissioner.

MARKET

COST-OF-LIVING

It varies among the cities mostly because of housing, BLS says.

Housing, as the National Association of Manufacturers found out last month (see page 11), is one commodity that an age of mass production has conspicuously failed to produce on a standardized and nationwide basis. The extent to which housing is a uniquely local product was illustrated in the City Worker's Family Budget, released by the Bureau of Labor Statistics.

The Bureau figured out how much money a family of four must spend in 34 cities to buy needed goods and services. The purpose of the study: to see how price rises had affected the family budget in the period between March 1946 and June 1947.

In the course of its research, the Bureau was surprised to discover how widely family expenditure for housing varied from city to city. (Since the Bureau lacked enough information about the monthly cost of home ownership, it figured what the worker's family would have to pay to rent an adequate dwelling in the various cities.) Housing expenditure, in fact, seems to be the main reason why the cost-of-living varies from city to city.

Adequate food for a family of four costs almost as much in Kansas City, one of the lowest cost-of-living cities, as in Washington, D. C., the highest cost city. The cost of clothing varies more-but in direct relation to climate. A family in Minneapolis, the coldest city on the Bureau's list, would need to spend almost \$64 more a year for adequate clothing than a family in Jacksonville, the warmest city. But the cost of adequate housing varies most of all. In June, 1947 the annual cost of adequate housing and home maintenance for a family of four amounted to \$868 a year in Washington and to only \$598 in Kansas City.

Said the Bureau: "The cost of housing is distinctly less in the smaller cities throughout the country." But exceptionssuch as Richmond, Va., near the top of the high cost list-illustrated what every real estate man knows: cost of housing also varies in relation to the amount of housing available on a local basis.

The seven highest housing cost cities, according to the Bureau's index: Washington, 100; Chicago, 91; New York, 90; Richmond, Milwaukee, Mobile, Birmingham-all 89.

The five lowest housing cost cities: New Orleans, 65; Kansas City, 70; Houston, 73; Los Angeles, 75; Scranton, 76.

MATERIAL

NAILS

Beauty parlors and delicatessens have them—or try Puerto Rico.

Kegs of nails were stowed under delicatessen counters, stacked up in beauty parlors, standing on the coops in poultry markets. They seemed to be everywhere, in fact, but in the builders' supply stores. Nail shortage was unquestionably the sorest spot in Building: so sore that one subcommittee of Congress' Joint Housing Committee (page 9) was doing nothing but look into it.

One witness told Senator Flanders' inquiring committee about the 19,000 keg shipment to Puerto Rico (no export license needed) which came right back to sell in the gray market at triple price. Flanders promised to do all that an investigation subpoena could do to stamp out the speculators who are raking in cash through loopholes in the nail distribution system. In return, representatives of the companies producing 90 per cent of the nation's nails shook hands on a four-point program:

Stepped up production-with plants to go on a 24-hour basis if necessary.

Increased production by non-integrated plants-independents not producing their own steel to be allocated more steel rod.

Better policing by the industry to locate and close up loopholes to the gray market. Concentration on production of nails of housing size.

HOUSES

NAM VIEW

We can get low-cost houses by opening door to industry competition.

Adding its impressive weight to the already substantial ranks of those contending with the Housing Problem, the National Association of Manufacturers has come up with one of the most cogent and factual reports yet seen. More than a year ago NAM set up a housing committee composed of leading manufacturers in the field, appointed National Gypsum Co. president Melvin H. Baker its chairman, and tapped two experts -FORUM consultant Miles Colean and extrust-buster Corwin D. Edwards-to help out. Last month NAM offered the findings of these high-powered and strategically placed investigators, in 32 closely printed pages.

As to what's the matter in housebuilding, NAM found little that would make news to Building men. The trouble, said NAM as many had said before, is that housebuilding is a small-scale, localized operation, bypassed by the techniques of mass production. The reason, said NAM as many had said before, is that no one factor, big enough and powerful enough to control the housebuilding operation, had emerged to create price and product competition by fighting down entrenched restrictions.

The report put this rather delicately: "The number of persons whose interests are actually competitive is ordinarily quite small in even a relatively large city. It is rare for any one party to assume, from the standpoint of the ultimate consumer, full responsibility for the proper erection of a house in the sense that a single concern is responsible for making an automobile. As a consequence, no single activity has a very large effect on the final cost of the completed structure, and since the total cost is not affected appreciably by any one price policy, it is reasonable for each group to think that there is a fixed amount of work to be done in supplying a fixed demand for houses, and that high prices and practices which raise the charges for that work must necessarily be profitable. Because of its nature, the construction industry thus comes to be based on relatively small volume with activities tending to be entirely upon a segregated local basis and some resultant practices designed to exclude outsiders and to eliminate competition among established concerns."

But NAM, unlike many of the investigators who have reported before, did not stop with a what's-the-matter list. NAM also offered some outspoken suggestions on what to do about it:

 Outlaw labor restraints on competition, the jurisdictional strike and the closed shop.
Repeal local laws providing preference for local contractors or locally made build-

(Continued on page 12)

MORE INSURANCE COMPANY HOUSING FOR NEW YORK CITY



This apartment development to house 600 families is planned by the New York Life Insurance Co. for Manhattan's upper East Side. Plans call for a single 19-story building, set well back from the street. A 1,400-car garage will be built on the adjoining block. Architects: Mayer & Whittlesey with Skidmore, Owings & Merrill.







Solving three pressing municipal problems at one whack, New York City condemned the land for this insurance company project. The public purposes served are 1) slum clearance housing; 2) a public parking garage (only 300 stalls will be reserved for apartment tenants): 3) widening of three cross-town streets (see diagram at left). Garage will be partly underground. Drawing above shows how its roof will be landscaped as a recreational area. The project is a good example of how public aid in land acquisition stimulate large-scale urban can redevelopment and coordinate it with other city needs.

Apartments in the project will range in size from two to seven rooms. Plans reverse conventional practice of interior court, call for wide landscaped area at sides. Glass walls at four sec-tions of the first floor permit a clear view through the structure to the garden on the opposite side. Since the development is located on the site of the old Third Avenue car barn, a Civil War landmark, New York Life faces no relocation problem. The company has made no announcment on rentals, but says it is planning for middle-income families.

Oliver Baker

ing materials. "The only purpose of this kind of law is to serve as the equivalent of a local protective tariff."

▶ Repeal contractors' licensing laws. "Intended to reserve the market for a local group... Where necessary building codes and systems of building inspection can replace licensing systems."

▶ Hold workingmen license requirements to a minimum. "Such requirements when perverted become devices to limit the number of men entering a trade."

> Develop model codes which can be generally adopted. "Codes are restrictive through their diversity for they are so numerous that even if each individually were satisfactory, the diversity of requirements from one town to another creates obstaeles to the mass production of uniform types of building material for a national market and to development of centralized prefabrication of portions of structures."

Write performance instead of specification codes.

Develop authoritative standards of performance. "This might be undertaken by the National Bureau of Standards. Standards of safety and health as distinct from engineering might be handled through the U. S. Public Health Service."

▶ Develop standardized testing of building materials. "The American Society for Testing Materials might, having determined the accepted standards, permit private and institutional laboratories to actually conduct the specific tests in accordance with uniform procedures subject to inspection and certification. This would make the results universally acceptable, for a certificate of approval thus issued by any one certified laboratory would be good anywhere."

Simplify code amendment procedure.

Pass state legislation establishing a state authority empowered to review and modify local codes.



MILLER CO. ART SHOW opened in Hartford. Sculptress Helen Arch and Henry Russell-Hitchcock view Mary Callery's Amity. Miller president Tremaine's favorite—Jose de Rivera's metal sculpture, Black, Yellow & Red—at right.

DESIGN

PAINTERS AND ARCHITECTS

Lighting equipment manufacturer assembles prize collection of modern art.

The Miller Co. of Meriden, Conn., which knows which side of the pitched roof argument most of its lighting fixtures are found under, has launched a public relations gesture ambitious enough to make its competitors seem very dim bulbs indeed. The firm's \$250,000 gesture involves a prize collection of the biggest luminaries in modern art. Miller's intention: to show the footprints the contemporary artists have left across the face of contemporary architectural design. Miller's sensible public relations hunch: to make friends among the vanguard of the architectural profession who specify lighting equipment for the top of the market.

Late last month Connecticut socialities gathered at the Hartford Atheneum, filed attentively past some 40 canvases and



THESE HOMES for 1,440 families may not get built in Chicago, since hot municipal controversy centers around their lake-front site. The Chicago Park District has filed proceedings to condemn the site—two blocks of lake frontage—as a public recreation and beach area. The syndicate backing the development is fighting condemnation on the basis of housing emergency and points out that this single project would exceed by 400 the total number of apartments for veterans built in Chicago last year. Architects are Loebl, Schlossman, & Bennett.

sculptures, heard critic Henry 'Russell-Hitchcock tell how the cubists, the abstractionists, the non-objectivists, etc. had all had a hand in what they might someday find themselves calling home. The Hartford opening started a two-year swing around the country for the Miller collection. Next stop: the architecturally minded Walker Art Center of Minneapolis.

The Miller collection, started in 1942 under the skilled eye of Emily Tremaine, wife of Miller president Burton Tremaine, Jr., is solidly based on Picasso, Mondrian, Braque, Leger, van Doesburgh, Klee, Miro, etc. But, since the Tremaines happily believe that U. S. designers can find new inspiration in newer work, it also includes such men as Jose de Rivera, Stuart Davis, I. Rice Pereira, Carlos Merida.

While in process, the collection hung on the walls of the Meriden plant, where, according to company officials, it set off all sorts of creative activity. President Tremaine, for example, got so attached to the de Rivera metal sculpture in his office (see cut) that he has been using it as a company trademark. But the fact that the sculpture also resembles an important part of a new Miller oil burner is mere coincidence, company engineers say.

Hitchcock has prepared a catalog of the collection, to be published in January, which traces the influence of contemporary art on contemporary architecture. Whether it will also canvas the reverse of this proposition, Hitchcock did not say.

HOMES FOR THE AGED

New British bill spotlights planning requirements for old people.

More than 6 per cent of us are over 60 and living alone; another 6 per cent are aged and lonely couples. For the housing needs of this 12 per cent, America has long failed to provide. Unlike many a European nation, the U. S. has depended either upon private purse or private pity to provide institutions —or else has simply looked the other way.

Not so Laborite Britain. Speaking in 1945, in the early, excited days of the Attlee Government, Aneurin Bevan, Labor's fiery Minister of Health (responsible for housing) hoped that "the old people will not be asked to live in colonies of their own—after all, they do not want to look out of their windows on endless processions of the funerals of their friends; they also want to look at processions of perambulators . . ." Translating his hopes into action, Minister Bevan, two years later, presented to Commons the National Assistance Bill, which will become law next June. Its purpose: To provide housing for old people. Its chances of *immediate* success in impoverished Britain: Somewhat slim.

But, impoverished or not, Britain's planners, long determined to take care of the cradle as well as the grave, were buckling down to taking care of what lies in between. They had read venerable Seebohm Rowntree's report on "Old People" to rediscover what they had known for some time: that special problems exist in Old Age housing and that, in all decency and humanity, it was high time that they be tackled. Few changes had been wrought since Queen Elizabeth's Poor Relief Act 350 years agowhich instituted the big, miserable "Poorhouses." Protested Bevan: "Bigness is the enemy of humanity." Homes for old people, thought Bevan, should house not more than 20 or 30. They should not be set aside from communities, like leper colonies, but form a part of every neighborhood. To achieve all this, Bevan's National Assistance Bill called upon Local Authorities "to provide residential accommodation for persons who, by reasons of age . . . are in need"

Thus faced with the reality of Old Age Housing, British designers and architects got busy working out new design standards to fit the needs of old people. Obvious requirements: short stairs, balconies in the sun, double rooms to avoid loneliness. Less obvious needs: non-slippery bath tubs, closets within easy reach, clubrooms, dormitories for the infirm, bell systems to summon help, communal kitchens (plus small, minimum kitchenettes, enough to warm up some milk)-in fact all the things which, Bevan said, "well-to-do people have been accustomed to in residential hotels." The Tories, never a Party known for its reckless youth, offered no serious resistance.

Enumerating these delightfully human touches in Laborite planning, houser Charles Abrams last month sternly warned the U. S. that, in this respect, "America is among the most backward nations in the world." Many another nation, notably, of course, clean-living Denmark and Sweden, has long pointed the way toward decent homes for old people. With at least half of American science working hard to prolong life, the U.S. would be getting a good deal older. Cried Abrams: "Let us launch this campaign for the emancipation of the elderly. Let us write for them a new Bill of Rights . . ." If scarcity-ridden England could tackle the problem, the U.S. should find it a cinch.

MARSHALL FIELD ROOMS

Robsjohn-Gibbings furniture is shown in Chicago department store house.

Marshall Field, pace-setter for homemakers in the Midwest, has turned its impressive back on Chippendale in favor of the rather lavish contemporary pieces designed by T. H. Robsjohn-Gibbings. The Field store gave Gibbings furniture a handsome setting in its model house, suggesting interiors of some elegance and formality. Chicago shoppers were likely to find the Gibbings furniture more distinguished by good looks than by any new design notions.



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EQUITY HOUSING: Banks find yesterday's golden opportunity turning into today's expensive headache as only

To the almost-forgotten postwar planners of the early forties, equity housing, the investment invention of the Metropolitan Life Insurance Co., looked like a sure cure for an already bothersome housing stomachache. Unlike many another housing nostrum, equity housing seemed to taste as sweet to the social reformer as to the overstuffed fiduciary agent. It promised size, solidity and long-range planning in a field bedeviled by pint-sized operations, speculation, and a general obsession with a quick turnover. For the big investors of the little man's money, it also promised a long-term return of up to 6 per cent-as compared with earnings of 21/2 per cent on government bonds or 4 per cent on FHA mortgages.

As the life insurance companies moved briskly into direct housing investment to general applause, the rich (assets \$10.6 billion) savings banks of New York State eyed their nimbler competitors longingly. By 1945, when the savings banks succeeded in getting their go-ahead from the state legislature, the rosy glow of equity housing was already somewhat overcast by rising construction costs, labor troubles and the anti-discrimination issue. By last month, the record of the hopeful savings banks in this hopeful field had made at least one thing plain: more than a lot of money and some good intentions is required for equity housing.

Seven Stalled. The banks could point to one project completed, one underway; seven projects, for which land had been acquired, were stalled. Some of the banks, wondering why in the world equity housing had ever seemed like a good idea, were beginning to look for the nearest exit. One banking group had burned its fingers on a costplus construction contract; another had run smack up against a New York City ultimatum to start building. All were finding out that in building housing a board of directors is no substitute for a boss.

Last month, as the city's effort to get the banks to start work on their long-delayed Brooklyn project, Concord Village, spotlighted the bankers' troubles, sharp-tongued Park Commissioner Robert Moses summed up what was the matter: "The banks simply do not like equity housing. It involves not only some risk, but some work. It is much easier to buy government securities and file them away."

Dime Savings Bank president George C. Johnson's reply had a familiar ring: "It would be a sorry day for 7,000,000 depositors in the savings banks if their responsible officers were to delegate their duties to safely invest the banks' funds to Mr. Moses." The rest of Johnson's defense was not encouraging to those who hope the banks will find a way to get on with their job of equity housing: "In spite of the bombast and buncombe, the savings banks are, as usual, accomplishing the lion's share of relieving the housing shortage by making thousands of loans to legitimate, experienced builders who are fast overcoming this shortage." Big merchant housebuilders in the New York area, who have accused the savings banks of boosting everybody's construction costs by their inability to supervise labor and their competitive materials buying, said a jubilant amen. Fearful of the competition of the giant housing investors, the housebuilders now hoped for a better break on mortgage money.

Doubtful Aid. The row over Concord Village illustrated every aspect of the problem in a rather exaggerated form. In the first place, it demonstrated that the equity houser who accepts even the slightest form of public aid must be ready to take the consequences.

Intended to be a slum clearance job, Concord Village is linked with the proposed Downtown Brooklyn Civic Center, nucleus of what New York hopes will be its first completely rebuilt area. The Concord Village site had been acquired by the city under excess condemnation; it had been re-sold at auction with the proviso that the successful bidder must put up a "park-like" housing development of between 2.800 and 3,800 rooms with buildings not more than 14 stories tall. Acquiring the land as high-bidder, the banking group also acquired a possible penalty: failure to complete the project would mean re-sale of the land-with the banks liable for any cash deficiency.

Long before the deed was stamped, the banks found that almost every civic and housing group in New York had something to say about the Concord Village site—and most of it was no compliment to banking perspicacity. Situated between the Brooklyn and Manhattan Bridges, the site was rather generally held to be surrounded by traffic hazards and unsafe for children. But it was incontestably centrally located, and the New York City Planning Commission gave the nod.

Bids Rise. Then the banks hustled out to get bids. Their own figures had persuaded them that this 968-unit development would cost about \$6 million. The few bids they were able to entice convinced them that the figure would be nearer \$10 million.

This meant that the bankers would be obliged to go to the State Banking Board, hat in hand. The board's regulations (issued three years ago) had set maximum rent permitted bank housing investors at \$25 per room. Current cost estimates on Concord Village, the bankers said, meant that a rent boost of at least \$10 per room would be required.

Although powerful Commissioner Moses was smoothing the way, although the banking board ceilings, set three years ago, could hardly be said to be in line with current costs-a request for a boost in the bank's rent ceilings would touch a critical point in state G. O. P. policy. New York State Republicans are anxious to protect the small builder; they are equally anxious to limit state expenditures for public housing. Reflecting the controlling Republican policy, the banking board had adopted the principle that the banks should build in housing's "no-man's land" -that is, between the trenches of the private builder and the public housers. With the rise in building costs, nobody was quite sure where no-man's land now lay.

The question last month, however, was not for whom the banks would build Concord Village but whether they would build it at all. The Brooklyn Eagle, which has devoted itself to coverage of Concord Village, had splashed a page one headline warning that rising costs were likely to put the project on the shelf. Last month some of the banks involved privately admitted that they were ready to drop this hot potato altogether. Even if an attractive firm bid were in hand, the banks complained, there was still the matter of relocation. Some 100 families are still occupying property on the site, and there seemed literally no place to move them.

Ultimatum. All this made the bankers champ on their cigars when Brooklyn's Borough President John Cashmore summoned them to a meeting in November. Either make up your minds to go ahead by December 15, he told them, or the city will look elsewhere for "men of vision."

But when the December deadline arrived, the banks made no move and showed no signs of making one. Cashmore, evidently despairing of locating "vision," extended the deadline without marking a new date.

Concord is one of the four New York City "Villages" which the banks planned in 1945. The others: Sedgwick Village, a 784-unit development, planned for a site in the Bronx; Arlington Village, 600 units, Queens; Colonial Village, 1,332 units, Harlem, planned on the basis of tax exemption under the Redevelopment Companies Law. Construction of Arlington and Colonial has been "indefinitely postponed." Only Sedgwick now seems to have the slightest chance at a building start.

On their suburban and out-of-city "garden developments," the banks have made somewhat better progress. Parkway Village, the 687-unit garden development in Queens built to house UN personnel, is finished and occupied. But the banks now feel they contributed rather heavily to international amity when they signed the costplus contract. Construction costs reached close to \$4,000 a room. The banks figured that to get their money back at 4 per cent

two projects get started

they would have to hike rents to above \$30 a room. But Parkway is already full of UN tenants at \$25 a room, all happily holding three-year leases and two-year renewal options.

Much to their surprise, the bankers got a firm, acceptable bid for University Gardens, a 184-unit development to house University of Rochester faculty. Construction is underway.

Attractive bids have not, however, shown up for the three other "garden" developments: Waverly Homes, 750 units, Westchester County; Beacon Apartments, 50 units, Beacon, N. Y.; Niskayuna Gardens, 108 units, near Schenectady, N. Y.

Tight Reins. When the New York State legislature passed the law permitting savings banks to form corporations to build and own housing projects in 1945, bank deposits were piling and mortgage portfolios shriveling. The law opened a door to housing investment with these limitations: 1) no bank could invest in housing more than 5 per cent of assets or 50 per cent of surplus; 2) all activities were to be supervised by the State Banking Board.

The board immediately showed its intention of keeping a white-knuckled grip on the reins. Its regulations 1) set maximum (Continued on page 16)



PARKWAY VILLAGE (above) is occupied by United Nations employes. Architect was Leonard Schultze. Banks seem ready to drop Brooklyn project, Concord Village (below) for which W. T. McCarthy & Rosario Candela are assoclated architects.





SEDGWICK VILLAGE is planned for a site in the Bronx. Skidmore, Owings & Merrill is the architect. Savings bank group paid \$900,000 for site, formerlyoccupied by Convent of the Sacred Heart, resold a portion for \$283,678 to New York City for the Bronx Expressway.



NISKAYUNA GARDENS, to be located in Schenectady, was also designed by Skidmore, Owings & Merrill. Bankers liked plan, calling for generous fenestration, until they saw estimate of room cost (about \$4,000: Madigan-Hyland). S. O. & M. were told to whittle down.





WAVERLY HOMES (above) is a Westchester development intended to house 750 families in 61 buildings. W. F. R. Ballard is the architect. The photo of Ballard's model (r.) shows one-bedroom unit layout. Development (below) for Beacon, N. Y., 216 units, is also designed by Ballard.



rents at \$20 to \$25 per room according to community size; 2) set the maximum number of apartments per project at 50 to 200, according to community size; 3) diluted the risk by requiring at least three banks to invest in each housing corporation, but also diluted control by barring any one bank from controlling more than 40 per of the stock; 4) limited the amount each bank could invest in a single project to 1 per cent of assets or 10 per cent of surplus; 5) imposed a 40-year ceiling on amortization.

Twenty Bosses. The banks had a ready-made headquarters for their housing operations -the Savings Bank Trust Company, set up in 1933 to provide a central pool of funds for hard-pressed members. Since then, on the Yankee axiom that it's smart to do business with yourself, SBTC had sprouted into a general factotum: despositary, correspondent, confidant, information center, research bureau. A housing agency was tacked on to SBTC's many roles and Richard J. Olds, experienced in savings bank real estate departments, was named as head. A sub-bureau to advise on equity housing outside New York City was set up under Paul T. O'Keefe.

Although the banks blamed most of their troubles on rising construction costs, their critics said that a large part of the trouble lay in the mechanics of their housing operations. There were just too many banking fingers in each housing pie. Decisions on Concord Village, for example, have to be made by 20 banks. Snorted Commissioner Moses: "When you multiply the number of banks involved by the number of trustees of each, it becomes grotesque. Nobody can work with that kind of group, especially as most of them don't know anything about housing."

Some thought the banking colossi (31 state banks have assets of \$100 million or more) ought to reduce the confusion by going into housing singly. But SBTC's president, August Ihlefeld, readily admitting that one-bank control of project development is more efficient than the conference table method, doubted that any of the big New York banks would be interested in a lone-wolf role under present conditions. "Even for the big boys, it's too risky. A project in the metropolitan area has to create its own community, hence, has to be king-size."

Massachusetts Trys. The experience of savings banks in New York State has done nothing to convince their colleagues in the 16 other savings bank states that equity housing is an alluring opportunity. Massachusetts is the only other state to give savings banks a legal go-ahead on housing. Passed last year, the Massachusetts law has started only one project: a low-rent development for veterans being built in Worcester with a little help from the city and FHA mortgage insurance. Nothing else is in the works, and the banks are seeking the help of five-year tax exemption on improvements.

In New York, the bankers, their feet on their desks and their blue prints gathering dust, admitted helplessly that they had no formula for reviving their housing program. They shuddered at current construction costs, but they feared a falling cost trend even more. If construction cost should fall sharply in the future, projects built now would face heavy going in later years as cheaper, newer apartments spring up. As long-term investors, the bankers stressed, they are more vulnerable than the builder who turns his money over quickly.

While the bankers bided their time on housing, they were busy studying other markets. For in the last analysis, the strength of the bank's housing effort depends on what kind of bargains they find on mortgage and corporate bond counters, the traditional items on their shopping list. Interest rates were beginning to lift somewhat. Over the past few months, long-term government bond yields had gone from 2.18 to 2.34 per cent. High-grade corporate liens were up to 2.7 per cent compared to 2.4 per cent last year. There was still mortgage money available in the 3.5 to 4 per cent range—but there were rumors of widespread advances of up to 75 points.

For the New York families desperately in need of housing, the picture was not an encouraging one. If the around \$520 million housing purse held by the banks could not produce housing, what could? As the banks last month asked themselves whether they needed housing, it was still painfully clear that housing needed the banks.

POLITICS

HOT COLLARS

Dewey and Stassen exchange roundabout punches on housing.

Whatever Harold E. Stassen hoped to accomplish with his fairly unique housing program, he was at least raising steam under other prominent Republican collars. One of them belonged to Governor Dewey of New York.

Governor Dewey's concern, naturally shared by his State Commissioner of Housing, Herman T. Stichman, was not hard to understand. Mr. Stassen's views on housing, plainly set down in *Where I Stand*, are bounded on the left by: "I specifically propose that the Federal Government use a billion dollars a year for ... a major large scale (home) construction effort." On the right by: "But the important thing is for the government men to disappear on the proper cue."

The proper cue, Stassen believes, is the completion of the building, at which point it should be sold to private capital at a loss to the federal government, if necessary. This determination to keep the federal government out of the role of landlord means—and Stassen says he wants it to mean—that new government-built hous-

Stassen on Housing:

I specifically propose that the Federal Government use a billion dollars a year for a major large-scale (home) construction effort . . . When the units are completed they should be offered for sale immediately by the government, one half of them in single units or in cooperative units, on the Swedish plan for owner occupation, the other half to insurance companies and other capital investors for rental purposes . . . The cities to receive the first attention should be those that are not only tightly congested, but in which the building ordinances are streamlined and modernized to eliminate petty jurisdictional rules and featherbedding practices . . . Rent for the indigent should be handled just like any other facility needed by the indigent and should be purchased and paid for as part of the indigent program . . .

It would seem sound that while rent control should be continued for at least two more years, ceilings should be removed on any rental housing unit of more than two average rooms occupied by one individual

ing would not be intended for the nation's poor. Get enough housing built, he says, then let citizens occupy it according to their means, and existing housing will thus be emptied for the normal relief channels. Another observation: "I state flatly that if existing houses were effectively used, there would not be a housing emergency."

As Dewey's housing spokesman, Stichman savagely attacks these views. "Nationalization or socialization of all housing" is one sure result of such tactics, he insists, since builders would no longer be able to work profitably for anyone but the federal government. This is "not the philosophy of the Republican Party."

Cooler observers pointed out that Stassen's plan represents a nice compromise between the divergent opinions of the delegates whose votes he hopes to line up by convention time. For example: Stassen's campaign for delegates in the pivotal state, Wisconsin, is lead by Senator Joseph R. McCarthy, chummy with the real estate bloc in Washington and riding the headlines with his own housing investigation (see p. 9). On the whole, Stassen's position on housing did nothing to change his status in the party as a rash young man with safe old ideas.

But Governor Dewey's lofty wall of confident tolerance might be showing small seams, if Commissioner Stichman's recent speeches are a measure. Stichman has been concentrating heavily on an unnamed "man who has occupied high public office in one of the states and now seeks higher office." (When an AP man asked Stichman if he meant S-T-A-S-S-E-N after the commissioner's address at the 9th Assembly District Republican Club in New York, Stichman rumbled, "Use your own judgment.") Meanwhile, Governor Dewey made no rash statements on housing.



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17

LETTERS

The Palace, the Bridge and the Tower... More on Beaux Arts... The Decorator tells the Architect... Reply to William Levitt... FHA Title VI... Stock Plan Controversy... Fire Control... Postwar Germany.

PALACE, BRIDGE AND TOWER

Forum:

Thanks for Jim Fitch's stimulating chapter from his book in the October issue. First rate thinking and writing. G. E. KIDDER SMITH

Springfield Center, N.Y.

Forum:

I read The Palace, the Bridge and the Tower and was heartily impressed. I hope you are enjoying an orgy of justified pride. ALFRED LUBIN

Norfolk, Va.

Forum:

... The chapter from James Fitch's book in the October Forum. Swell! VICTOR HORNBEIN

Denver, Colo.

BOZART BUMBERSHOOT

Forum:

In trying to patch up a case for Dean Meeks and the U. S. wing of "bozart" ("Letters," Sept. '47), Mr. Cromelin is simply soldering seams in the rusty old bumbershoot that the "mckim-mead-andwhiters" riveted up, along about 1899, against Louis Sullivan's machine gunning. None then ever found an answer that would hold water and few care very much any more, except that the old thing apparently isn't going to die 'til the sun goes down.

Let John Cromelin read Viollet le Duc. He started a battle against the *Ecole* in 1859 which was only finished off by the uncontaminated kids of this day. In his "Lectures on Architecture," the chapter on the Gallic heritage vs. Neo-classicism is as fine as anything in architectural literature.

Let's really learn the history of our great Art. Stop all these design mining operations in either the detritus of Louis XV or in "modern" moraines.

WILLIAM GRAY PURCELL, Architect Pasadena, Calif.

SOME LIKE IT HOT

Forum:

Some time ago I wrote a letter (FORUM, Sept. '47), commenting on the coldness of published interiors; the fact that the interiors did not seem planned to go with the building itself, and a request that architects seek the services of an intelligent decorator. Beneath the letter you inserted a note stating FORUM readers might criticize certain lush decorator-designed interiors. I would like to clarify my statements. The majority of published interiors either show furniture that is upwards of 20 years old (but not antique) and hardly in keeping with the building housing it, or furniture so devoid of warmth and life that it is functional to the extreme.

I feel that the furniture which is out of date could be inexpensively restyled with proper color and pattern, and the new things could have a less boxy look with better accessories and some sort of simple pattern to offer cheerful relief.

Apropos your note, my accusing finger is as strong on overly lush interiors as it is on the lifeless ones.

> FRED SHRALLOW Career Builders

New York, N.Y.

VESTED GRATITUDE

Forum:

This subscriber has noted your reference to Messrs. Nelson and Cortright (FORUM, Oct. '47) and just wonders what you think there is to be gained by such "wise cracking." After all, I think that these two gentlemen have done more for the 40,000 Realtors and more for the advertisers in your magazine, than have you. . . .

E. A. BUTLER

Summit, N. J.

We regret that reader Butler thought we were wisecracking. We have never been more serious than in our opinion (apparently shared by a number of real estate men) that what Messrs. Nelson and Cortright may be able to do for 40,000 realtors is considerably less important than what the Building industry does for 130,000,000 Americans.—ED.

BUILDERS VS. DEALERS

Forum:

When Mr. Levitt classifies electrical wholesalers and dealers with Mr. Petrillo (FORUM, Oct. '47) my blood pressure is in danger. No one should criticize Mr. Levitt or any large builder for wanting to buy his appliances and other materials at the lowest possible cost. And I will venture the statement that he probably bought those 3,000 automatic washing machines at no more than 5 per cent above the factory franchised distributors' regular cost. In fact, I suspect the difference may have been even less. Over a long period of years we have observed similar transactions where, regardless of whether billed by a franchised dealer or a franchised distributor, the margin of profit on an order of that size was pathetically small....

By now, Mr. Levitt and thousands of others ask in all sincerity: "Why, if I am able to place an order for 3,000 automatic washers, and am willing to install and service those washers, shouldn't I be eligible for appointment as the manufacturers' distributor, and buy at the same price he does?"

Has Mr. Levitt labored through the years to convince dealers and public that this complicated gadget known as an automatic washer, is really dependable and will do a better job? ... Now that Mr. & Mrs. Public want it, and its' inclusion in a new home makes that home more salable, Mr. Levitt and other large builders are eager to become distributors... But were it not for the franchised dealers and distributors, there would not today be the relatively low factory production costs brought about by volume of sales....

Large builders of houses have been prone to move with the tide. Suppose they become direct factory distributors on the basis of ability to purchase 3,000 units in a year, and along comes a depression or war. Their tendency is to rove or to shift to construction of some other type. At any rate, the manufacturer must depend on his distributors and dealers to be there *always* to supply service, and even more important, to maintain and increase consumer demand, come depression, war, or boom.

Would Mr. Levitt, I wonder, care to swap net profits with some distributor or dealer, (in his same volume class) whom he classifies with Petrillo?

H. M. LONG L & K Electric Co.

Binghamton, N.Y.

Mr. Levitt suggests that if General Motors bought every component part going into the manufacture of an automobile through the same tortuous channels that builders go through, he would be interested in hearing Mr. Long's comment after paying \$3,500 or so for a Chevrolet. FORUM feels that the complaints of dealer Long and builder Levitt are both justified, both indicate the same thing i.e. the need to overhaul an increasingly unwieldy and unprofitable distribution system—Ep.

CLIENT EDUCATION

Forum:

Relaxing this evening with a stack of FORUM's at my left side, a glass of sustenance by my right side and an easy chair under my—, I was proceeding to catch up on products, practice, architecture, etc., and tear things to pieces with which to fatten my files...

(Continued on page 20)



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LETTERS





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... The war interrupted my usually efficient methods and the FORUMS piled high but now, in the Feb. '46 issue I find a letter so caustic and dripping with venom, that I had goose bumps when I finished. It was by Helen D. Ince and deplored the fact that as a non-professional she could not subscribe to the FORUM. However, the thing which really startled me was the comment by ye Ed. If true, it fits one piece to the jigsaw of the general attitude of doubt most clients have toward houses designed for the living of today and tomorrow.

Why is FORUM circulation limited to those who create for Others? The Others, the potential home builders, most of whom would take full advantage of new ideas, methods, etc., if they could but travel and visit the advanced architecture which exists —why should they be denied the opportunity to do so through the pages of this, Our FORUM?

The more educated an individual is, the broader the viewpoint; the mind is open to guided suggestion and there is less of the "I don't like spinach because Joe said it's bad." Give them a chance to taste it, let them savor all the tints and shades—let's devote more time to teaching!

The architectural profession does itself no good by retiring to the Inner Sanctum and wailing about the lack of public appreciation of its really fine efforts; and when I refer to the profession I definitely include all publications presenting good architecture.

How can we educate without providing the text? The more legitimate the information furnished the consumer, the more rapid will be our progress.

A. BENNETT BROWN Baltimore, Md.

FORUM agrees with Reader Brown, but points out that the work of many top-rank architects is now featured in consumer magazines. It is a hard business fact that advertisers in professional journals pay for professional circulation. —ED.

WHAT IS A ROOM?

Forum:

I have read with interest the excellent review of FHA Title 6 (FORUM, Aug. '47). While not wishing to detract from a clear and succinct presentation of this complicated administrative law, I venture to point out that FORUM has failed to include its basic system of evaluation. On this system hinges the entire administration of the law.

As you have explained correctly, the law states that the loan insured by the government shall not exceed so much a room, but you do not then explain the next logical step: namely, what constitutes a room.

(Continued on page 24)

Modernization Progress — a Continued Story



Administration Building (left) and Shrine, Our Lady of Victory Homes of Charity, Lackawanna, New York. Mortimer J. Murphy, Architect.

A seven-year program to obtain maximum comfort and low cost heating operation with Webster Moderator Control is a feature of the successful management of the heating plant at Our Lady of Victory Homes of Charity.

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This is important, for FHA by no means holds the ordinary concept of a room. Herein lies one of the primary weaknesses of Title 6 in adapting itself to the country's housing needs.

What constitutes a room in the government mind is set forth in the official room count formula . . . It requires no great study to realize that this formula is both highly arbitrary and restrictive; that a full 90 per cent insured loan can be obtained only on very special types of architectural planning. Insurance companies and other private lending institutions using similar methods of evaluation would do only a fraction of their normal business. The result of this rigid system is that commitments are made by the government ranging from 50 per cent to 100 per cent on different types of construction of the same economic value. In other words, full value is received only on a few limited and set types of planning. Others not agreeing with the formula are penalized to the point of making the secondary financing impractical.

ROBERT M. SNYDER

Clearwater, Fla.

OVER-THE-COUNTER PLANS

Forum:

I have been reading, with considerable interest the correspondence concerning "Home Planners, Inc.," and recently had the opportunity to see a letter addressed to C. Godfrey Poggi and signed by Joseph C. Hazen, Jr., Associate Editor. For your information I would like to quote a portion of the letter:

"But The FORUM also believes that the addition of a 5-15 per cent architectural fee to the cost of each small house will not produce the desired result. Until a better solution is devised, service offered by Home Planners, Inc., including completed working drawings for well designed homes at \$5 per set, has much to commend it."

Advocating such a policy is bad enough, but to make such a brazen statement would lead one to believe there has been a sudden and definite change in the policy of The FORUM-one that should receive the attention of those who hope for better construction and design generally....

LAUREN V. POHLMAN, A.I.A. Elizabeth, N. J.

Forum:

... It is difficult to comprehend how anyone connected in any respect with the profession of Architecture, much less anyone dependent upon the good will of that profession, could condone the sale or use of "stock" or "over-the-counter" plans. (Continued on page 28)

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We are not concerned with the actual encroachment of stock plans on our practice, because most users of stock plans have no understanding of the value of an architect's services, but we are concerned in that we believe impersonal, over-thecounter plans at any price cheapen the profession in the eyes of the general public.

> E. M. GALLOWAY, A.I.A. W. C. HENRY, A.I.A.

Westfield, N. J.

IFTTERS

Forum:

I must continue to disagree with you on the propriety of your seeming endorsement of the sale of commercial plans for small houses

It may be true that a majority of them throughout the country are not architectdesigned, but so far as New Jersey is concerned this situation is being rapidly overcome, largely because people have awakened to the fact that such plans do not produce proper results—in short are an abomination and a snare.

In my humble opinion you are again wrong in your premise when you say that "Tailor-made houses built under individual contracts are too expensive for the average family." This has not been the case in New Jersey except in rare instances. Wise planning on the part of the suburban architect has, to a large extent, overcome this hurdle. Furthermore the suburban architect plans and supervises the small house at a 6 per cent rate, not the 15 per cent you mention. Surely the architect is entitled to the small sum of 6 cents on the dollar (within which is included his overhead) when compared with the builders profit of 10 per cent, plus 5 per cent for overhead. not to say anything of the mechanic who charges \$20 per day. There may be some exceptions, but I don't know of any suburban architect solely planning small houses who is able to make a clear profit of \$20 per day. Besides the employment of an architect for the planning and supervision of any project has, time and time again, proved to be the best investment an owner can make. So why pick on the architect?

Generally speaking I think that all architects look to all architectural publications (Continued on page 32)



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to uphold their profession, rather than to throw obstacles in the way....

C. GODFREY POCCI, Architect Elizabeth, N. J.

FORUM agrees with Reader Poggi: 1) That employing an architect is the best investment any house owner can make. 2) That small house architects seldom earn enough money to live in the style to which mechanics have become accustomed. These two contradictory facts indicate in themselves that something is wrong with architecture as now practised. While not advocating "stock plans" as even a stop-gap solution for any site rougher than a billiard table, FORUM feels that providing good homes for the low-income groups must be faced as a real problem and attacked with boldness and imagination rather than dismissed on ethical grounds.—ED.

FIRE PREVENTION

Forum:

LETTERS

Much has been said and left unsaid since the Hotel Winecoff disaster (Forum, Apr. '47) regarding the faults and merits of vertical draft in multi-story building fires. While it is true that an open stair did carry the fire upward in the Winecoff, yet other vertical shafts-elevator and pipe shaftsshowed no signs of fire on their interiors. Even in this case of the open stairwell, if there had been means such as a heatbreakable skylight over the stairs on the top floor, it is very probable that the flash fire would have consumed the interior surfaces of the corridors and stairs but would not (as was the case) have mushroomed back down and then through the corridor doors and rooms to reach the outer air.

The proposal of cellular fire stairs (FORUM, Nov. '47) has some merit, but while stimulating thought it also has faults not readily apparent to the designer's mind.

Fire towers—while imperative for the exit of guests—are also used by the Fire Department to get at and extinguish the fire. Imagine if you will the chagrin of a fire officer sending his men up to say the sixth floor by means of a stair which only went to the fourth floor!*

Enclosed is a sketch of the same hypothetical hotel plan which would provide four separate stairs in two enclosed fire towers and would I am sure be more acceptable to those concerned with rentable floor area.

Incidentally, from time to time various contributors to The FORUM claim this double scissors stair as their own baby. To the best of my knowledge, the first multistory application of this stair was made by Charles B. Ferris, engineer and Ray Hughes, architect for the Mutual Life Insurance Co. of N. Y. in the alteration of

* Since each stairway could be clearly labeled at the ground floor exit, only an extremely rattled fireman would go up the wrong flight. —Ep.

(Continued on page 36)



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REPORTS ON GERMANY

Forum:

The letter by your reporter Peter Blake, (FORUM, Sept. '47) concerning the building situation in Germany is misleading.

In the first place, Kassel was 82 per cent destroyed, Nuremburg, 75 per cent, and neither the 96.7 per cent which the letter reports. See *An Introduction to Germany*, written by Headquarters, U. S. Forces, European Theater, published by the Theater Adjutant General. Further, this damage was not all sustained by a couple of air raids, as implied, but includes damage from minor air raids, artillery shelling, dynamiting by the Germans, etc.

In the second place, the description of the German construction worker is nonrepresentative, in that the exception has been cited and no mention has been made of the true status of the average worker. The most exceptional conditions are those of Kassel. It was the most severely damaged and has by far the worst reconstruction record. Kassel is a poor choice for the basis of an over-all description.

Admittedly, construction is slow and agonizing. Little machinery is available. Most land owners refrain from clearing their land. The rubble of brick and concrete is used for the manufacture of *Baustoffe aus Trummern*, a poor brick material, and most owners seem to be awaiting an increase in value of their particular pile of rubble. Production is slow, but most cities are working at rebuilding and cleaning.

The German construction worker also works slowly, a result of postwar depression of morale, a lowered calorie consump-(Continued on page 40)



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2 When operated to the OFF position, the Clampmatic spring accelerates upward (disconnect) action.

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tion, and possibly force of habit. But relatively few have taken off to the country to the "undamaged villages and well-stocked farmvards." The German worker does not engage in an abundance of black market construction because without his work card the worker cannot obtain a ration card. Black market wages are high, but black market food prices are even higher. Most workers plod along doing legitimate construction. Most consider the black market something of a scourge . . .

I feel that the letter is superficial, void of solid facts, and not up to good journalistic standards.

DANA B LEE Architectural Student Stuttgart, Germany

Peter Blake comments: (1) The figures on Kassel were obtained from the Military Governor for Kassel, and the Kassel City Architect, in October 1945. The 96.7 percentage includes part-destruction of buildings still largely in use. (2) Though Kassel and Nuremberg were very severely damaged, I suggest that the following important German cities sustained similar damage: Pforzheim, Darmstadt, Wuerzburg, Cologne, all Ruhr cities, Hannover, Bremerhaven, Hamburg, Dresden and, of course, Berlin. This list is very incomplete. (3) While worker demoralization plays an important part (as noted in my original letter), most Military Government reports for the period of, roughly, the summer of 1945 to May 1947 place the blame for much of the manpower shortage and displacement upon large-scale black marketeering. Because of the desperate seriousness of this, black market suppression became one of the principal U.S. Counterintelligence missions in Germany around the middle of 1946. In the following letter Architect Ferdinand Kramer who, like myself, speaks German (and therefore did not have to rely too heavily upon the army's routine indoctrination pamphlet for his facts) elaborates on several important points which I was unable to make for lack of space:

Forum:

Quite recently I returned to Germany for several weeks and saw not only my former hometown, Frankfurt a/Main, but also travelled widely through the rest of the country. While I realize that Mr. Blake's report was intended to be only a brief survey of the matter, I feel that the following points should also be made:

First, there should be the formulation of a program for:

a. Provision of minimum housing for the population of destroyed cities. (Continued on page 44)



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b. Resettlement of refugees.

IFTTFRS

- c. Reconstruction of utilities and industries in accordance with the Military Government.
- Repair and maintenance of existing buildings, neglected during the last ten years.

Secondly, I think forceful mention should be made of reasons why practically none of the obvious program has been started.

The following are a few of the basic steps which only partly concern the building industry, and which must be undertaken before the above mentioned program can be properly begun:

- There is no coordination of administration and only promise of a vague political future.
- b. There is no proof that the Germans can carry their own responsibilities since for nearly a generation their steps have been rigidly controlled.
- c. There are no expropriation laws of real estate, necessary for City planning.
- d. There are no laws to settle mortgages on property which no longer exists. Interest must still be paid on a house even though it is a pile of rubble. At the same time the rubble belongs to the State and cannot be removed by the owner for rebuilding.
- e. There are no studies on the correct sizes of the rebuilt cities. This is important since the life pyramid is now at the top, with 100 per cent more deaths than births and a 25 per cent surplus of females.
- f. There have been no surveys as to the industries and trades by which the inhabitants will support themselves.
- g. There have been no decisions as to whether reconstruction should be along old street layouts, whether old quarters should be abandoned, or whether building should be in new decentralized sections. One fact which might influence this decision is that existing street utilities constitute 3 per cent and foundations 15 per cent of the total value of the building.
- h. Lastly, there have been no decisions on either emergency or permanent housing.

Coal is a vital necessity for the production of building supplies. Since the production of this key material is not at prewar level and is used mostly for reparations, nothing has been accomplished. The few existing stocks of building materials are kept under priority. The main source of material is the rubble since it has to be removed anyway and its use saves coal. If this rubble is going to be used efficiently, the production, digging, transportation to

(Continued on page 48)



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The German nation itself will be unable to finance reconstruction as long as the cigarette is a symbol of value and taxes are sky-high. An average laborer gets 35 marks a week. At this rate, it is better for him to lavish all his time upon the care of one chicken since he can barter 2 fresh eggs a week for a package of cigarettes having a value of 125 marks, thus avoiding payment of taxes. The only source for all buying is the black market. Prices range from 5 marks for a package of matches to 2,000 marks for a pair of shoes, 8,000 marks for a suit, 500 marks for a pound of coffee, etc. The wage of 35 marks a week is not apt to encourage honest labor at these prices. As a result, all Germans are living on their substance. Each day they stand in long lines in front of exchange stores to barter their bric-a-brac for supplementary food necessary to keep alive.

As for the destruction, it is impossible to visualize a devastation so complete without actually seeing it. The lowest estimate of the amounts throughout the country is 400 million cubic meters of rubble. . . .

The average living space per person before 1938 was approximately 30 square meters. At present, if this standard were reduced to a minimum of 8 square meters, the reconstruction time for basic housing and utilities, using all available German labor, material sources, and machinery, would be between 25 and 30 years.

FERDINAND KRAMER

New York, N.Y.





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IN THE MODERN OFFICE

BYERS WROUGHT IRON

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BUILDING OF JOHNSON WAX

Nurdeel conditions: extention of conditions: extention of supervision ensuing of context of the outer when the ensuing of ensuing the economical and extension ensuing of the economic of the economical and the economical and extension extension of the economical extension of the economical extension of the economical economical and economical economical and economical e Here's an Advertisement that started a **Performant**

This is the tenth anniversary of a revolution in heating.

In 1937, Frank Lloyd Wright, the famous architect, designed a new building for Johnson Wax. He included a new-fangled method of heating, in which coils of pipe, carrying the heating medium, were embedded in the concrete floor. The heating contractors, Westerlin and Campbell, recommended wrought iron for the coils.

Byers Wrought Iron pipe was used... and in line with its policy of informing designers and engineers of new developments, A. M. Byers Company ran an advertisement on the subject as the building neared completion. You may have seen it ... but certainly would never have dreamed of how far-reaching its effects would be.

A flood of inquiries came from technical men, interested in the new method of heating. From this beginning in 1937 the Byers organization collected all available data, developed additional information, and put the result between covers in the first complete, authoritative bulletin on radiant heating. This—and succeeding editions, in which additional facts and findings were included—has been accepted as the "Bible" of radiant heating by thousands of architects, engineers, and heating contractors. In succeeding years, Byers engineers worked with hundreds of designers on specific projects, continued to gather data, and today have accumulated more *complete* and *practical* information on the subject than can be found anywhere else on the globe.

This "experience pool" covers information on the use of radiant heating in almost every type of structure: homes, churches, schools, hospitals, railroad stations, hangars, garages, brooder houses, theaters, telephone exchanges, laboratories, dog kennels . . . the list is far too long to itemize. This wealth of data provides practical answers to almost every question that can arise in connection with radiant heating . . . and it is available to all architects, engineers, and heating contractors interested in applying this modern method of heating.

It is significant that with thousands of installations already made, over 90% of those of which Byers has record have used Byers Wrought Iron pipe. Byers Wrought Iron pipe offers the exact combination of qualities and properties needed for radiant heating: ease of fabrication; high heat emission; almost identical thermal expansion characteristics with concrete, and proved resistance to corrosion. For a "progress report" on this ten years of radiant heating progress, ask for the booklet, "What we have learned from 1000 radiant heating installations."

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

CORROSION COSTS YOU MORE THAN WROUGHT IRON

BYERS GENUINE WROUGHT IRON TUBULAR AND HOT ROLLED PRODUCTS ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS



When does a man start slipping?

The moment comes to every man.

The moment when he realizes that he isn't the man he used to be . . .

That the days of his peak earning power are over . . .

That some day not so very far away some younger man will step into his shoes.

When does this time come?

It varies with many things.

But of one thing you can be sure. It will come to you as surely as green apples get ripe – and fall off the tree.

Is this something to worry about? Well, yes. But... constructively. For that kind of worrying can lead you to save money systematically. What's the best way to do this? By buying U. S. Savings Bonds . . . *automatically*. Through the Payroll Savings Plan. Or through the Bond-A-Month Plan at your checking account bank.

Either method is an almost foolproof system of saving. It's automatic. You don't put it off. There's no "I'll start saving next month"—no "Let's bust the piggy bank."

And you get back four dollars, at maturity, for every three invested.

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Get on the Payroll Savings Plan-or the Bond-A-Month Plan-today.

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Mueller Type 106 Cast Iron Gas-Fired Gravity Furnace — Sectional cast-iron heat exchanger. Vertical design cabinet for basement and utility room installa-tion. For small and medium-size homes.



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F



COAL

Mueller Type 202 Oil-Fired Winter Air Con-ditioner — Type 201 plus forced-air circu-lating and filtering unit. Also convertible to AGA-listed gas-fired unit.





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nace — Five sizes from 20" to 30" fire pots.



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Mueller Type 702 Steel Coal-Fired Winter Air Condition-er — Type 701 plus forced air circulating and filtering unit.

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Cast Iron Coal-Fired Gravity Fur-nace — Capacity 42,000 Btu output

at register.



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> Brikcrete prices are low because it is locally manufactured by a chain of plants. Eliminates the two big costs of freight and distribution. Write for brochure BB and name of nearest plant.

> > Good manufacturing territories are open. If interested, ask for Brikcrete Book No. 2.

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> *8" units for exterior walls. Extra for 4" partition walls, \$126.00. Prices are national average, subject to slight change according to locality.





FORUM

Anybody who has had the unforgetable-and very nearly incommunicable-experience of living for a while in one of Frank Lloyd Wright's masterpieces (as several members of the FORUM staff did during the preparation of this issue) is likely to have acquired a recurrent dream. It runs like this: In the year 2,048 the builders of a decentralized U. S. will turn to the buried archives of a place called Taliesin near Spring Green, Wis. and dig up the plans for homes, theaters, art galleries, garden restaurants, whole cities. And then Frank Llovd Wright's great spatial visions will finally become a living

environment for millions of Americans.

For a magazine conspicuously devoted to the notion that every age must create its own building pattern, this may seem like reaction. But we will dodge the brickbats by immediately pointing out what we believe equally: that Frank Lloyd Wright is designing (and this is much more our tragedy than his) not for life as it is in our own perilous time, but for life as it can be—and someday will be.

Creative personalities are frequently ahead of their time, but the artist whose medium is structure faces special limitations. In the first place, his work is not reproducible or transportable: it cannot be run off on rotary presses for millions of readers; it cannot be shipped around to art galleries. Merely to see such an artist's work, its audience must seek it out; they must, for example, undertake a pilgrimage to the Falling Water House or the Johnson Wax Building or one of the Taliesins.

But an architectural experience is much more than seeing. Architecture is perhaps the most powerful and pervasive of the arts, but the building has to be actually used before the emotional experience it involves can really happen to anybody. Thus about the only chance the U. S. public in any quantity will have to *experience* a Wright building is the Guggenheim Museum, a project now indefinitely deferred by uncertain building costs. It is to be hoped that the project's sponsor, distinguished by a long record of public service, may decide to absorb some of this current cost as one more public service, so that Wright's masterpiece can happen while the sponsor, the architect, and all the rest of us all still here to enjoy it.

We like to think that the next best thing to building Wright is publishing him and proudly present this issue completely devoted to his new work, on the anniversary of our original Frank Lloyd Wright issue of 1938. Like the first one, this issue was completely designed and written by him; the plans and sketches appear as they were drawn by the 50 young men who now compose the Taliesin Fellowship.

Taliesin is very busy now; once more apprentices are there from all over the world—Sheng Pao from China, Salah Zeitoon from Egypt, Rana Mansinhji Mahobatsinhji from India, Gershon Kohn from Palestine, to name only a few. It was pleasant to see again top hands Jack Howe, Wes Peters and Gene Masselink, whom we met way back in 1938.

They're using jeeps in the farm work now, but otherwise things haven't changed much. Everybody still gets up for breakfast at six; everybody washes his own dishes and takes turns cooking. There is still a movie in the theater on Saturdays, dinner and music in the Wright living room on Sundays, lots of good talk every day when the drafting room knocks off for tea at 4:30.

All the work in this issue was done in the great Taliesin drafting room, where the Fellows come in from the snowy hills and their current job of re-shingling the barn to turn out the drawings. Here the silvery-haired Master sits at his own drafting table, in front of the roaring wall-size fireplace, deciding on the winter pasture for the Guernsey herd, and all the while turning his enormous dreams of life for Free Men into the reality of structure—his force and vitality undiminished at 76, his confidence that Americans will yet find a way to come into their inheritance unwavering.



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Designed and delineated by R. Vale Faro Schmidt, Garden & Erikson Architects & Engineers Chicago

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ANNOUNCEMENTS

AN INSTITUTE OF PROFESSIONAL TOWN PLANNERS has been formed in Canada to promote the science of city and community planning. Officers in the new group are: Tracy LeMay, President; John Kitchen, Vice President; and E. G. Faludi, Secretary-Treasurer. Its headquarters are at 24 Bloor Street East, Toronto.

HERMANN FIELD, AIA has been appointed Director of Building Plans for Cleveland College, a post in which he will develop an overall plan for a new downtown college center. Mr. Field will also serve as a member of the architectural faculty of Western Reserve School of Architecture.

MAGUOLO & QUICK, architects and engineers, (formerly P. M. O'Meara Associates) will continue their practice of ecclesiastical and institutional design at offices in Minneapolis, Detroit, Cincinnati and St. Louis.

BUILDING PREVIEWS



FELS RESEARCH INSTITUTE LABORATORY for the Study of Human Development is now under construction at Antioch College, Ohio. The brick-faced, steel and concrete building will house the widely varying testing activities required in the Institute's continuing study of a group of people from conception to maturity, including study of their family and school environment. The 80 rooms in the laboratory will provide biochemical, psychological, physiological and genetic laboratories, an observation nursery-school wing and X-ray, dental and medical examining rooms. High and low temperature rooms will be used to test individual resistance to extreme environments. Louis Magaziner, Philadelphia architect, designed the building; Charles Leopold acted as mechanical engineer; Max Mercer, supervising architect. Wermuch, Inc. are builders.

THE NEW \$2,000,000 SPALDING PLANT at Willimansett, Mass. effected such savings by its coordination of the company's separate manufacturing facilities, that even today's high costs were underwritten. In one operation alone at least ten handlings of lumber were eliminated. Office space and cafeteria are provided on the second floor for the company's 300 employes. Adjacent to the main building is a laboratory for material research. Lathrop Douglass, architect, and Guy Panero, engineer, designed the building which will be completed in the Spring.

A New ELEMENTARY SCHOOL at Atascadero, Calif., will incorporate a number of good design features. The classrooms, all on ground level, have direct access to individual play areas on the south side of the building. A wide overhang covers part of this space for protected play and also obviates building heat in late spring and early fall. Room lighting is bilateral, but predominantly from the north with semi-direct artificial lighting for dark days. The Latisteel method of construction, used by designers Daniel, Mann & Johnson, provides modular wall panels of light steel with concrete fill—a method which met requirements for safe, economical and rapid structure. *(Continued on page 58)*

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- Crane is correct ... correct in styling to complement good room design. Crane offers a right style for every taste—a right price for every building budget.
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- Crane is preferred . . . year after year, nation-wide surveys prove that Crane is far and away the best known name in plumbing.

The uncompromising quality of Crane Sinks extends to Crane bathroom and laundry fixtures, too—and to a full line of heating equipment for any system and any fuel.

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All are represented in the Sweet's Builders' File. Of course, it is still true that certain fixtures are more available than others—check your requirements with your Crane Branch.

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EXHIBITS



THE AMERICAN DESIGNER'S INSTITUTE in Philadelphia is sponsoring an exhibit of work conceived, designed, executed and installed by Pratt Institute students. Its purpose is to acquaint the businessman and layman with the aims and methods of contemporary design education by presenting a first-hand glimpse of designers in the making. After the preliminary showing in Philadelphia during December the exhibit will be sent to various cities through the country.

A RETROSPECTIVE EXHIBITION OF SCULPTURE by Jo Davidson is being sponsored jointly by the National Institute of Arts and Letters and the American Academy of Arts and Letters, from December through February. The collection of over 175 pieces (including statues, portrait busts and sketch models of Monuments) will be on view at the American Academy of Arts and Letters Gallery in New York City.



"MODERN SCULPTURE FOR ARCHITECTURE" is the New York Architectural League's addition to this year's exhibitions on the correlation of the arts. Its primary aim is to acquaint architects with trends of modern sculpture as seen in the work of nine outstanding practitioners. Isamu Noguchi's sheet-stone compositions (see left) and David Smith's hard-bitten metal designs might well be used to humanize an ultra-placid facade or interior with a touch

of contemporary fury. Photographs of effective sculpturearchitecture coordination from Greece in the 5th Century B. C. to Phoenix, Arizona in 1947 reinforce the exhibit's message. Other modern sculptors represented in the show are: Henry Moore, Jacques Lipchitz, Ossip Zadkine, Jose de Creeft. William Zorach, Hugo Robus, and Alexander Calder.

COMPETITIONS

THE LINCOLN ARC WELDING ENGINEERING UNDERGRADUATE Awards will be given this year for the best papers written by resident students on designs for arc welding of parts of machines, complete machines, trusses, girders or structural parts; or on the maintenance and repair of existing machines and structures by arc welding. Closing date for the contest is May 15, 1948. In addition to the first three prizes of \$1,000, \$500 an \$250 there are four awards of \$150 each; eight of \$100 each; 12 of \$50 each; and 50 of \$25 each. The following scholarships are also offered: to the institutions in which the first winner is registered: four scholarships of \$250 each; to that of the second winner two scholarships of \$250 each; and to that of the third winner a single (Continued on page 60)

THE JANITROL TRIPLE SERVICE HOT WATER HEATING SYSTEM From a New, Single, Modern

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Supplies all household needs for bot water and heating

FROM a single Janitrol unit you get three separate sup-efficient, automatic home heating... one for automatic dishwashing and laundry appliances ... one for bath, shower and lavatory.

This complete Janitrol system, gas or oil fired is so com-pact and highly efficient, it can be installed in any conven-ient place in the basement . . . the first floor, in a closet, utility room or adjoining garage . . . even in the attic.

Comfort Heating: The Janitrol hot water system is a complete factory tested package. When used with modern convector radiators the temperature of each room can be individually controlled. Hundreds of radiant panel heat-ing installations in ceilings and floors have also been made, utilizing Janitrol's advanced design for low cost of installation and proved performance.

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Write today for complete specification data and infor-mation on typical installations.











Lavatory and Bath



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Igaz & De Martini.

The Visual Front has won wide acclaim for this purpose. It makes the entire store a "walk-in showcase". It calls attention to the merchandise the owner wants to sell. It is truly functional architecture.

Colorful Vitrolite* glass facing on solid areas attracts attention. Large areas of plate glass reveal the store interior. Where window condensation is a problem, *Thermopane*^{*} should be specified. *Tuf-flex*^{*} tempered plate glass doors extend a cordial welcome . . . are now readily available. Because it's all glass, a Visual Front can be kept new looking by cleaning with water and a squeegee. Your L·O·F Glass Distributor has prices and data on all glass products for storefronts.

You'll find our Visual Fronts book helpful in suggesting ideas and color combinations. It contains many designs by leading architects. For your copy, write to Libbey-Owens-Ford Glass Company, 4418 Nicholas Building, Toledo 3, Ohio.

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\$250 scholarship. Further information about the contest may be obtained from the James F. Lincoln Arc Welding Foundation at Cleveland 1, Ohio.

THE JAMES HARRISON STEEDMAN MEMORIAL FELLOWSHIP in Architecture, to be awarded this Spring under the auspices of Washington University, Mo., offers \$3,000 for a year's travel and study abroad. Requirements for candidates are: 21-31 years of age; an architectural degree from an accredited college; one year of practical office work; American citizenship; good moral character; at least one year's residence in St. Louis. Application blanks must be in the hands of the Chairman of the Department of Architecture, Washington University, St. Louis, Mo. not later than January 31st.

NEW OFFICES

GEORGE NELSON, AIA announces the opening of offices for the practice of architecture and industrial design at 343 Lexington Ave., New York, N. Y.

CLARENCE SMITH II, architect and engineer, has resumed his private practice in offices at 1000 Peachtree St., NE. Atlanta, Ga.

RICHARD HANSEN will practice architecture and community planning at 1201 E. 63d St., Kansas City, Mo.

LEON HYZEN has opened his office as consultant in architecture, store planning and industrial design at 53 W. Burton Place, Chicago, Ill.

F. ALBERT HUNT, architect, announces the opening of his office at 4 Purdy Ave., Rye, N.Y.

ARCHITECTURAL MODEL BUILDERS, Frankfort, Ill, offer services in field of three-dimensional displays-exteriors, floor layouts, dioramas, etc. (Continued on page 64)



Hendrick Grille in linen closet door

In the Futura House, Portchester, N. Y., the architect used Hendrick Grilles (without glass) in doors of linen closets to permit full circulation of air to prevent mildew. Note attractive decorative effect.

Armorgrids



XXX

The Architectural FORUM January 1948 60

How G-E lamps make merchandise easier to see ...

easier to buy!

This specialty shop exhibit at the General Electric Lighting Institute, Nela Park, Cleveland, shows dynamically how the "3 A's of Store Lighting" may be applied to move merchandise.

1. ATTRACTION is achieved by emphasis lighting with G-E fluorescent lamps in floor and wall case displays. Accents and highlights are superposed with reflector and projector spot lamps mounted in recessed fixtures.

2. APPRAISAL illumination, using both fluorescent and filament lamps, may be set from 30 to 120 footcandles, providing correct conditions for quick, accurate buying decisions.

3. ATMOSPHERE lighting combines blue, gold, pink, daylight and 4500° white fluorescent lamps housed in the wall case tops. Perimeter lighting creates feeling of spaciousness.

For the latest in lighting ideas, tools and techniques, architects are invited to visit the G-E Lighting Institute. Make arrangements through your nearby G-E Lamp district office.



Section of ceiling luminaire. Reflectors are designed to distribute light both over selling areas and over vertical displays in wall cases.

SIXTH OF A SERIES FEATURING DISPLAYS AT THE G-E LIGHTING INSTITUTE



G-E projector spot lamp with side prong base in shallow box used for flexible spotlighting in show window arrangement.

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A giant step forward of major importance to every architect, engineer and piping contractor...

Now, for the first time, you can join iron pipe without threads or welding—and have a "one-piece" system as strong as the pipe itself — by using FLAGG-FLOW Threadless Malleable Fittings.

These basically new and better fittings are precisionmachined for brazing to standard black steel or wrought iron pipe. Simply CLEAN-FLUX-HEAT and the silverbrazing alloy flows by capillary action to form a seamless, *permanently bonded* joint.

QUALITY FEATURES AT MINIMUM COST

But beyond this simplicity of fabrication you gain important advantages never before available. FLAGG-FLOW means *free-flow* through smooth, unbroken, pocketless channels that are, in effect, continuations of the pipe itself. Thus FLAGG-FLOW gives to iron pipe the streamlined, low-friction loss advantages of copper tubing or welding — at *substantially lower cost*.

In fact, you get qualities previously found only in the costliest piping installations at a cost no higher than for threaded jobs.

MAKES TOUGH PIPING JOBS EASY

Moreover, FLAGG-FLOW gives you *complete* freedom in layout. No longer need you worry about tight, inaccessible spaces — or making rights and lefts come together — or forcing fittings to face properly by wrenching them into position. FLAGG-FLOW will fit wherever pipe will go, giving you tubing flexibility with piping strength — easily, permanently, cheaply.

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ANNOUNCEMENTS

CHANGES OF ADDRESS

WILFRED KEEL, AIA announces the removal of his office to 843 Peachtree St., NE., Atlanta, Ga.

MARTIN BECK, AIA is now located at 10 Nassau St., Princeton, N. J.

ROY SCHOENBROD & ASSOCIATES, architects and engineers, have moved their offices to 1253 N. LaSalle St., Chicago, Ill.

HAROLD PERRY, architect, announces that his office is now located at 1 Main St., N. J.

JOHN CAPONE, AIA is continuing practice at 505-7 Orange St., Newark 7, N. J.

MILLS CONSTRUCTION Co. has moved to the Financial Center Bldg., 405 Montgomery St., San Francisco, Calif.

CHAUNCEY RILEY, architect, has moved to 52 W. 46th St., New York, N. Y.

MILLS & PETTICORD and ASSOCIATES, architects and engineers, are now in offices in the Riggs National Bank Bldg., 14th St. & Park Road, NW, Washington, D. C.

LEOPOLD HAUF, JR., architect, has changed his address to 101 Walsh Road, Lansdowne, Pa.

CLARENCE PETERSON and WENDELL SPACKMAN, architects, announce the removal of their offices to 45 Second St., San Francisco, Calif.

NATHANIEL SAXE, consulting engineer, announces the moving of his offices to 122 E. 42d St., New York, N. Y.

MARTIN SCHNUR, industrial designer, has moved his offices to 9 Warren St., Newark, N. J.



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LET GENERAL ELECTRIC HOME BUREAU

It takes skill and experience to plan a good kitchen or laundry.

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Yes... there's more to kitchen and laundry planning than just allotting space for appliances.

All General Electric kitchens are designed around the "work center" idea – a Refrigerator Center, a Range Center, and a Sink Center. But every home is different, has a different space and shape allotted to the kitchen, and requires a different solution.

The plans on this page show the General Electric Home Bureau's suggestions for revising two average kitchens, using the same floor area and the same appliances.



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HELP YOU WITH YOUR HOME PROJECTS

. and there's more to good planning than arrangement

How one kitchen can be fashioned in four ways with no change in equipment or space.

Shah

Once the kitchen plan-the location of appliances and cabinets, of doors and windows-has been decided upon, then it's time to give the kitchen its "character."

Kitchens should be designed not only for effi-

ciency, but for charm. Because it is one of the most-used rooms in any home, the kitchen should also be one of the most cheerful, most livable rooms in the home.

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The pictures on this page show how one basic kitchen plan can take on four different – yet equally charming – characters.

from the fishing villages of New England

Leaded glass windows, beamed ceiling, Wood-paneled walls, casement windows and spacious dignity characterize this Early and authentic folk design result in a charming Early American kitchen. This room is English kitchen. It is a restful kitchen, alive with charm and beauty. ideally suited to the popular type home Rough timbers capture the rugged quali-If you prefer a Cape Cod kitchen, here is ties of the Southwest for a distinctive, imagan example of a striking theme borrowed

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any room in the home.

inative Ranch House kitchen, colorful as

for faster sales and extra profit... BRING THE LAUNDRY OUT OF THE BASEMENT!

No longer need the laundry be a wet spot in the cellar. Today, the "most-wanted" homes are those with bright and cheerful all-electric laundries — upstairs!

And did you know that reliable studies have shown that the average family will realize direct savings of *more than \$200 a year* through electric home laundering?

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A separate laundry in a room of its own . . . a room that can become an extra room for living. Attractive, compact General Electric equipment leaves plenty of room for other home activities.



The Standard Laundry includes wringer washer, automatic tumbler clothes dryer, and rotary ironer—arranged to avoid all unnecessary handling and lifting of clothes.

The Automatic Laundry has an automatic washer, automatic tumbler clothes dryer, and flatplate ironer. Here electricity takes *all* the drudgery out of washday.



A Kitchen-Laundry combination. Where space for a separate laundry is not available, two-in-one plans like this are still far better than the old-fashioned basement laundry. The General Electric Home Bureau can help you plan a combination like this.



GENERAL BELECTRIC ...

adequate wiring costs so little more... MEANS LOTS MORE SATISFIED CUSTOMERS!

After all, the goal of every builder is to win more satisfied customers and that, to a builder, means satisfied owners in every one of his homes.

One of the best ways to win satisfied owners is to impress them with the adequacy and the quality of the wiring and the wiring devices. Your customers see and use these daily. Silent switches . . . weatherproof outlets . . . and plenty of convenience outlets in every room will fairly shout, "Quality!" for the entire home.



This room is adequately wired. There are plenty of convenience outlets, well spaced, so that furniture can be arranged as desired. Outlets are located where they are easy to reach. Switch at the door controls any desired outlets. Separate switch for closet lighting. enough outlets mean a tangled network of unsightly cords. Too many appliances on one circuit mean poor operation. Poor electrical planning doesn't provide lights for closets.

General Electric has a complete line of wiring devices, including many for special uses, such as silent switches for bedrooms, clock outlets with hangers for electric clocks, and weatherproof switches for use outdoors.

And the Home Bureau has a thorough knowledge and understanding of what people need and want in home wiring today.

So, when you're sending us your kitchen and laundry plans, why not let us look over your wiring plan, too? There's no charge and no obligation on your part, and we may be able to suggest some important improvements.



Everything Electrical for Every Home You Build

... THERE'S PROFIT FOR YOU IN THESE

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The General Electric Company organized the Home Bureau to meet the constantly increasing demand for technical help in planning truly upto-date homes.

Today, professional planners and builders will find that the Home Bureau offers a fully coordinated technical and sales service . . . insuring proper arrangement, installation, and use of electrical appliances. Here's how it works:

Kitchen and Laundry Planning Service

Before you build, make sure that your kitchens and laundries are *right*!

When your plans are sent to the Home Bureau, a skilled staff of experts checks every detail, and suggests improvements, if needed.

After the final plan is decided upon, the room is actually set up in the Home Bureau, using exact scale models, including General Electric equipment. It is then photographed, and the picture is hand-colored, so that you can *really see* just how your all-electric kitchen or laundry will look in your homes.

This helpful service is free to the professional

builder and planner, through General Electric distributors (listed herein).

Do such homes cost more to build?

It doesn't cost you a dollar more, Mr. Builder, to put in G-E All-Electric kitchens and laundries, because you are buying for resale. In fact, you make an *extra profit* on every bit of equipment sold.

And the BUYER profits, too!

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Home Planning Consultant Service

The General Electric Home Bureau does not originate or sell house plans. However, at your request, the Home Bureau will have its skilled staff of experts review your plans and offer suggestions for their improvement. Many architects have found this Home Planning Consultant Service helpful in designing up-to-date homes.

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GENERAL ELECTRIC HOME BUREAU SERVICES

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Helping You Sell

General Electric's Home Bureau service to you doesn't stop when the plans are complete.

It's a selling service, too! It's designed and operated to help you turn your plans into homes marked "SOLD" — into satisfied customers and into money in your own pocket.

Here are some other parts of the Home Bureau "package," each of which can be a mighty big help in your selling plans.

When you send us your plans, this is what you get back. A special brochure with your customer's name (or with your own name, if you prefer) on the cover. Inside there's a beautiful, hand-colored picture of the kitchen or laundry, with complete blue prints, specification sheets, and lighting suggestions. Extra copies of the pictures are available upon request.

Architectural Studies—a 32-page book of architectural hints, illustrating the importance of good design and ingenious planning.

How to Measure a Kitchen—a handy guide to taking room measurements the right way. An invaluable aid for all remodelling jobs.

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Kitchen for Mr. Mrs. Carl Jones Personalized brochure for your customers



And lots of other helpful selling aids

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REMODELING has its problems, too. And the General Electric Home Bureau can offer valuable help to architects and builders in solving these problems.

Here's how the Home Bureau changed one old-fashioned kitchen into an up-to-date, efficient, all-electric kitchen.



This kitchen can be found in thousands of homes today. It is oldfashioned and inefficient. The refrigerator and the range are well placed in relation to the sink, but the room lacks proper work surfaces, adequate storage space and lighting at important work centers.

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The remodeled kitchen can hardly be recognized as the same room ... but actually, few design changes have been made. Modern equipment has replaced obsolete equipment; the room has been made bright and cheerful; and lighting has been provided at all work centers.

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THE ARCHITECTURAL FORUM . JANUARY 1948 65

N O H

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that you were going so soon, so had no chance and now have no need to say Goodbye. Just as The Forum of January 1938 was yours so this issue of January 1948 is yours. as you steered your charge between the shoals of avarice and false-pride toward a more Forum in fact. Your devotion to Architecture as a great Cause held true to its course thing resembling appreciation. The end is not yet. You made The Forum on paper a resembling neglect at home confronted it and you helped to change all that to some-Your helping hand reached this work some ten years ago at a time when something A heart as deep as yours we see but seldom coupled with the fine discrimination you times you steadily upheld the standards of Freedom and Truth. For a needy profession Architecture will not lose you. While fashioning a magazine for "profit" in equivocal We who loved the humor in your eyes and wit upon your tongue shall miss you but work, as always, with the sympathetic and approving vision of an even greater spirit. In truth I am unable to believe that you have gone—sure that what is you will see this this number of your magazine may mean is here dedicated to you. I saw no indication We were working on it together when I last saw you a day before you left and whatever And now young men in Architecture, everywhere, owe to Howard Myers more than to possessed or such loyalty to friendship. you greatly served despite its sense of itself.

Frank Lloyd Wright

November 16th, 1947

Taliesin

standing that is as surely, love. To them you were and are the Future that is Now. any journal or any school anywhere. They looked to what you were and did with brightened hope. They look upon you now with gratitude, sure of the sympathy and under-

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- Art is not fully appreciated unless it is true to contempor aneous Life.
 - should seek to enjoy and enrich the present more. Nor should we disregard the creations of the Past but we Not that we should ignore the claims of posterity, but we
 - should try to digest and assimilate them into our con-

sciousness. Slavish conformity to traditions and formulas fetters the expression of individuality and so of vitality in Architec-ture. We can only weep over those senseless imitations of European buildings which one beholds in progressive forstyles. Perhaps we are now passing through an age of the eign nations. We marvel why Architecture should be so devoid of originality, so replete with repetitious obsolete Democratization of Art, while awaiting the rise of some princely master who shall establish a new dynasty.

Would that we loved the ancients enough so that we might copy them less!

interior permanently filled with pictures, sculpture and To a Japanese accustomed to simplicity of ornamentation and frequent changes of decorating method, a Western bric a brac gives the impression of vulgarity.

Who can exist day after day in the midst of such confusion of color and form as is seen in the homes of America? ence. In Western houses we are continually confronted In the tea-room the fear of repitition is a constant preswith what appears to us useless reiteration.

Simplicity and freedom from such vulgarity make a sanctuary from the vexations of the outer world.

In these days when industrialism is making true refinement more and more difficult the world over do we not need a true Architecture more than ever? The masterpiece is a symphony played on our finest feelings. The sympathetic communion of minds is true art

Our mind is the canvas on which the artists lay their designs. The Masterpiece is of ourselves as we are of the appreciation. Mind speaks to Mind.

We go hungry solely because of lack of appreciation. The nearer science the further from humanity. We clarify too Masterpiece. Do not praise the masters but praise yourmore human the appeal the deeper is the response. The much and enjoy too little. The sacrifice of the esthetic to the so-called scientific has been the bane of art exself for liking what the masters would have you like. hibitions. Contemporary art cannot be ignored in any vital scheme of life. The Art of today is the art that really belongs to us: it is our own reflection. In our self-centered century what inspiration do we offer? The Past may well look with pity at the spiritual poverty of our civilization, the future will laugh at the barrenness of our Art.

DKAKURA KAKUZO, THE BOOK OF TEA, 1925

THE USONIAN HOUSE GREW ON THE PRAIRIE. WE GOT RID OF THE ATTIC, ABOLISHED THE BASEMENT, THREW OUT THE BOXES

THE Usonian House began to be a democratic dwelling on the Oak Park prairie so many years ago that it takes an effort to think back to that time. It began as a campaign against the senseless complications most domestic life met at that period when a respectable house was a series of compartments within boxes.

Every house consisted of a basement, numerous compartments for nearly every activity imaginable in connection with domesticity, and an attic usually graced with dormers or ruffles of some kind. We got rid of the attic first and began throwing out compartments. Finally after a general struggle we abolished the basement.

In those days the "guillotine" window was the "practical" window. We lost a number of clients who came to say that they would "take everything except those swinging windows." That feeling gradually disappeared and we planned houses there on the prairie with big living rooms and commodious fireplaces, all eventually turning toward the great single room, dining room, and work space—in other words, the open plan that we now call Usonian.

In those early days when nearly everybody who wanted to build a house asked what "Style" our houses were, it would have simplified matters greatly if we could have said "this is the Usonian Style." But the name came much later from the great originator of the modern realistic novel, Samuel Butler. In the work he called "Erewhon," he pitied us for having no real name for ourselves. He suggested the word Usonia as embodying the real meaning of the word union—the States United and as having also desirable euphony. The name is for us, I suppose, an eclecticism. But nevertheless one that seems to serve excellently will in place of nothing at all.

In these houses we had reached a great simplicity. To know how great, we need only to compare them with the houses of the period in which the work was done. I think the houses of that period used to be called "General Grant Gothic." There were much worse names.

Today the Usonian house has a simple concrete mat, as we call it, laid upon 5 or 6 in. of broken stone ballast with no foundations other than shallow trenches dug to drain, then filled with broken stone. The walls rise directly on this stone ballast of the foundation belt.

Then came the matter of how the walls should rise. It seemed that laminated wood, three thicknesses with paper-insulation between them, would be most economical (wood not at that time being a precious material), as well as practically fireproof and verminproof. An inner layer of insulation any thickness could be inserted within the two layers of wood at no great expense. We planned the outer walls and interior partitions together as the support of the roof.

Then came the matter of the roof itself. There are three types we have made available in Usonian houses: The flat roof projecting over the outside walls to afford general protection to the wood, and where passing above windows often becoming trellises carrying vines. The low-pitched gable or visible roof, where some sightly kind of material could be used for covering the roof surface, a slightly more expensive type. The hipped roof, a still more expensive type, but extremely becoming to either flat or hilly country, and permitting rooms to be carried up into the roof space with a very fine interior result.

Floor heating is characteristic of all these houses, of which we have some 65 in about 28 of our states. This type heat is referred to here as gravity heat, that is to say, the kind of heat rising naturally from the floor slab itself.

We can never make the living room big enough, the fireplace important enough, or the sense of relationship between exterior, interior and environment close enough, or get enough of these good things I've just mentioned. A Usonian house is always hungry for ground, lives by it, becoming an integral feature of it.

It has been said of these individual houses that the individuality of the owner has been sacrificed to that of the architect. But if you will examine the small sequence here, the variety of which has been kept no matter how many of them are built, you will see that each man's house is his home. There is but one house like it and that house is his. His own devices, tastes, limitations are present in each instance, intelligently interpreted for him as an individual.

In the ten examples of Usonian houses selected from some 60 or 70 and presented for consideration, you may judge of these things for yourself.



MR. AND MRS. VIGO SUNDT USONIAN DWELLING ON LAKESHORE NEAR MADISON, WISCONSIN LANTERN TOP SEPTEMBER 1942

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THIS moderate-cost Usonian was planned for the lakeshore. Its large living room has the lantern for cross sunlight that characterizes many of these dwellings. Corner features of brick take care of the utilities; otherwise the house is of wood except for pre-cast concrete tile floors. The sash are wood also.

> PHOTOGRAPHIC REPRODUCTIONS OF DRAWINGS AND PLANS BY MAX M. KLEIN AND BROTHERS

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DINTING

ROOM

BRICK FLOOP



MR. AND MRS. ROY PETERSON RACINE, WISCONSIN. USONIAN FOR THE NORTH. TILE ROOF BRICK CHIMNEYS OCTOBER 1941

THIS house for the Northern woods has a roof to carry snow and the decoration of icicles in winter. The high ceiling of the living room slopes under the roof. Broad boards are used for outside and inside walls and for ceilings. Concrete pre-cast tile floors. Brick chimneys and stabilizing wall masses. Gravity heat.





MR. AND MRS. DOUGLAS GRANT NEAR CEDAR RAPIDS, IOWA. A HILLSIDE TYPE OF THE USONIAN SCHEME NOVEMBER



THIS Usonian type is closed toward the highway, open toward the bordering wood. The house is placed on a horizontal flat green field and is partly in the wood. It has the quiet domestic aspect shared by most Usonians. Gravity heat.



JOLAR HEMICYCLE

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THIS second house for Herbert Jacobs on a farm near Middleton, Wis. is a berm-type dwelling similar to the Detroit cooperative on pp. 82-83. On the exposed hilltop site, excavation of the sunken cycle in front of the hemicycle facing to the South furnishes the earth-bank surrounding the building to the North. The sunken cycle partly protects exposed glass surfaces from winds and affords sheltered space in which children will play. Bedrooms are on mezzanine overlooking the living room.







THIS is an extension of the Usonian solar-hemicycle similar to the Jacobs House, No. 2. It is a type we are building at moderate cost on several exposed and steeply inclined sites in different States. It is suitable for southern exposures in temperate zones where native building materials are still accessible. Native stone wall-masses and chimneys. Concrete pre-cast floor slabs.



THE butterfly roof I suggested to Frankfurt, Germany in a brochure published in Frankfurt in 1913 is here adapted to a combination music-studio and cottage living room. The cantilevered roof shelters both—tall windows opening to a garden so terraced that comfortable seating may be had using the studio and living room as a stage. The two rooms may be thrown together by means of a sliding partition.

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DR. CHARLES BELL USONIAN HOUSE EAST ST. LOUIS, ILLINOIS. BALCONY FLOOR EXTENDS INTO LIVING ROOM FEBRUARY 1947

DWELLING for Dr. Bell is a type useful where wooded slopes form the site. Entrance is on the upper level, with bedrooms and stair down to 'tall living room placed on the lower level, together with dining room and work space. The upper bedroom floor projects into the living room, eventuating there as a balcony. North wall is closed, south and east exposures are chiefly glass. The living room floor extends as outside terrace.



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EAST ST. LOUIS, MO.

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USONIAN TYPE SMALL HOUSING PROJECT FOR SEVEN STATE COLLEGE TEACHERS NEAR LANSING, MICHIGAN OCTOBER 1937



THIS project for seven Usonian dwellings for seven teachers employed at Michigan State College was designed for a 40 acre tract near Lansing. The construction (Usonian standard by that time) of laminated walls and partitions, concrete mat and gravity heat was repudiated by the U. S. Government. No loan could be secured therefore and the project had to be abandoned. One of the houses (the Goetsch Winckler) was nevertheless built at Okemos nearby. And many others have been built in some 29 different states since, embodying precisely the same construction as then proposed and with perfect satisfaction to all concerned. Government expert opinion reported "the walls will not support the roof; floor-heating is impractical; the unusual design makes subsequent sales a hazard."



HOUSING PROJECT ON ONE HUNDRED ACRE TRACT NEAR PITTSFIELD, MASSACHUSETTS FOR UNITED STATES GOVERNMENT

A LONG distance call, from housing administrator Clark Foreman in Washington, said: "I don't see your name anywhere on our roster. Why don't you contribute something?" "I'd like to." I said, "but I've never been asked."

"Well, I guess I understand that oversight but I think we ought to end it. Will you do a project for us?" I said I would.

Finally, 100 houses in Pittsfield, Mass. were told off to me and after I visited the site, I went to work. When the plans were nearly finished, a telegram came telling me to stop. It seems Mr. Foreman had been superseded by another. But since the project was nearly completed, I was authorized to finish it.

In Washington all were quite generally delighted with it. Some doubts as to detail had to be resolved. But sometime later word reached me that the local architects of Massachusetts had taken the matter up with their Congressmen and that only local architects as provided for in a statute covering the matter would be allowed to handle the project.

Although the government offered to buy what I had done, I declined to sell it because I would have no positive control over execution. And so this project is still one of the best shots in our locker. In this scheme, standardization is no barrier to the quality of infinite variety to be observed in nature.

No entrance to any dwelling in the group is beside any other entrance to another dwelling. So far as any individual can know, the entire group is his home. He is entirely unaware of the activities of his neighbors. There is no looking from front windows to backyards: all the private functions of family life are here independent of those of any other family. Playgrounds for the children, called sundecks, are small roof gardens placed where the mother of the family has direct supervision over hers. Family processes are conveniently centralized on the mezzanine next the master bedroom and bath, where the mistress of the house can turn a pancake with one hand while chucking the baby into a bath with the other, father meantime sitting at his dinner, lord of it all, daughter meantime having the privacy of the front room below for the entertainment of her friends.





CLOVERLEAF GROUND SUBDIVISION, A TYPE AVOIDING TOO OBVIOUS STANDARDIZATION IN GENERAL EFFECT JUNE 1942

81

THIS LOW COST SCHEME FOR GROUP HOUSING MIGHT PROFITABLY BE USED TO SOLVE MANY PRESENT BUILDING PROBLEMS

THIS berm-type project was begun with the assumption that the work upon the buildings would be done by the Detroit auto workers who intended to live there. It was mainly a drainage and landscape problem. But the times were such that the group could never get together with much effect on progress. The affair languished for a year and died. But the nature of the scheme is apropos to so much of the building problem in our country today that it is on record here for what it may be worth.







A FOR THE ELIZABETH ARDEN CO. ON MOUNTAIN DESERT TRACT NEAR PHOENIX. PLATE GLASS IN STEEL SASH. REINFORCE



D CONCRETE CONSTRUCTION. ROOF SLABS COVERED WITH 16 INCHES OF EARTH FOR TERRACE GARDENS APRIL

ELIZABETH ARDEN made an excursion to Taliesin West with the high purpose of doing something for her clientele in the Arizona desert as inspiring in point of appropriate relationship to environment as is her practice with female reconstitution. Soon, all mixed up where that affair was concerned, we lost ment, is included here for your entertainment. The arrangement is sufficiently obvious, the roof in this instance becoming owner in residence bringing up the rear. It would seem that the fundamental error in this essay lay in the emphasis placed on sufficiently environment of the root of the outle seem that the owner in residence bringing up the rear. It would seem that the sufficiently environs, the root in this instance becoming tundamental error in this essay lay in the emphasis placed on sunlight, when twilight or moonlight was preferable. Project adandoned.









ARCHITECT'S DWELLING AND WORKPLACE OF THE TALIESIN FELLOWSHIP IN ARIZONA DEERT ON MARICOPA MESA BELOW MCDCWELI

TALIESIN West is another one of those ventures in the general direction of the unknown in which this architect has so often indulged. It was clearly undesirable (even impracticable) for the Taliesin Fellowship to live indoors for half a year because its members are devoted chiefly to building, farming and the preparation and eating of good fresh food—mostly an outdoor affair. And having once made the acquaintance of Arizona by way of the Arizona Biltmore and work for Dr. Chandler, we, compelled to take a step toward winter quarters, naturally gravitated in that direction.

There is probably more instruction concerning construction in the desert ways of plant life than in any books ever written. Also, there is salutary effect upon the human imagination in transferring our design activities from one place where all is pastoral and in domestic scale to a place such as we chose there on the Maricopa Mesa near the ranges of McDowell Peak.

The camp structure was almost entirely made by the apprentices themselves. Pobobly \$10,000 would represent the cost of all required outsde their efforts as directed by myself. The Arizona camp presents a bold experiment in the use of textiles for overhead. If ever a suitable fabric could be found for comparatively permanent use in construction such as we have adopted here, a pressing building problem could be easily solved for many purposes beside residence. Available to us at the time, however, was only a heavy canvas, which we find good for only about three years under the extreme desert heat which takes the "filling" out of the canvas in time and lets water through. So our overhead, while translucent and attractive beyond expression and serving as interior lighting, still is subject to renewal every three years. However, the permanent walls and framing itself make this a not-too-great hazard. The illustrations in the photograph section following speak for themselves.







mutilition noted 9-3-24 ele

FOR MR. AND MRS. V. C. MORRIS OF MAIDEN LANE, SAN FRANCISCO. A DWELLING ON HIGH SHORE OF PACIFIC OCEAN



GARDEN TERRACE TOP. CONCRETE STRUCTURE WITH STEEL REINFORCED FLOORS AND WALLS STEEL SASH MARCH 1945

THIS ocean front house at San Francisco is planned for a cliff site dropping sheer about 110 ft. from lot level to tide water. The structure is earthquakeproof, built of reinforcing steel and concrete. Concrete top slabs, throughout, are waterproofed and covered with 16 in. of top soil, planted to grass, flowers, and shrubs. A house to the ocean, a garden to the neighbors.



MR. AND MRS. PAUL PALMER NEAR PHOENIX, ARIZONA. REINFORCED CONCRETE. FLAT SLAB ROOF SEPTEMBER 1947

THIS romantic dwelling in southern climate is for a young Phoenix doctor and his family in the Arizona desert. Water, always a grateful circumstance in the desert, is here part-feature of the house. There are views of Camelback Mountain to the rear. The house is surrounded by orange orchards. It is a goodtime family place of concrete. Other features characteristic of Usonian houses including gravity heat are incorporated.


LEIGH STEVENS RANCH GROUP NEAR YEMASSE, SOUTH CAROLINA BUILT OUT OF CYPRESS IN THE DEEP SHADE OF A SOUTHERN SWAMP FOREST. CONCRETE AND CYPRESS WIDEBOARD WALLS COPPER ROOF. HEXAGONAL UNIT SYSTEM JANUARY 194

thine sheds and barn. tables, cattlesheds, dog kennels, bird houses as well as maplace is designed for country life involving Negro farmers, area on which the rambling cypress buildings are placed. The vater-level, with large moss-hung trees round about the whole irn swamp. The grade level of the fields is about 7 ft. above ea. The ranch type scheme spreads out beside a typical Southname of the old place ruined there by Sherman's march to the ation scheme by Leigh Stevens because Auldbrass was the ULDBRASS'' is the historical name given this southern plan-

nacy with the beauty of the surrounding forest-glade. and the general plan-form is of a type yielding greatest intivalls are natural to the kind of framing used (or vice versa) oofs are treated blue by way of a simple process. The sloping valls standing on gravity heated concrete floors. The copper The materials of construction were naturally cypress plank nodious residence of Mr. and Mrs. Leigh Stevens themselves. suest house and caretaker's cottage are adjacent to the com-

architect could imagine it. Construction is completed. ern plantation life it is because neither Mr. Stevens nor his f there is anything needed to complete this domicile for South-



















THIS stone pergola rambling on the crest of a ridge in Connec ticut has been widely misunderstood and chiefly on account o its scale. A man of average height may reach up and touch th eaves anywhere. If you have seen a watermelon vine with th melons lying at rest in it, you may glimpse something of th The various units comprising the group are of concrete through out, reinforced with steel rods: concrete spools faced with ston or unfaced as the case may be. The rooms themselves are simpl cut off from the pergolas by glass windows floor to ceiling swinging on pintles. The bedrooms are skylighted. The whole a sturdy country house group of the type comprising maste dwelling, caretaker house, garage, stables and detached gues cottage placed on one side of the lanai in which is a sun garden. The whole design is a kind of shelter from the wind character (and significance, too) of this low, spreading opus. sweeping the hilltop.





HOUSE FOR MR. AND MRS. LLOYD BURLINGHAM EL PASO. TEXAS. PATIO TYPE ADOBE DWELLING IN DESERT SAND MARCH 1942

SAND DUNES

THE Burlinghams have a place near El Paso piled with sweeping sands, continually drifting in swirling lines that suggest waves of the sea. This is a design for a pottery house, that is to say, adobe. As contemplated here, the walls are molded accordingly. The general plan is a patio surrounded and protected by house and walls overlooking an immense valley.

"THE WAVE" A DWELLING ON OCEAN-FRONT NEAR CARMEL, CALIFORNIA FOR MR. AND MRS. STUART HALDORN APRIL 1945

"THE WAVE" is a suggestion to the Haldorns for an appropriate, luxurious, steel-and-masonry shelter on a completely exposed ocean front where heavy surf breaks high over great rocks piled on the shore. The steel fenestration opening only beneath on account of wind, the sunken garden (excavated earth transferred to the top of the house for insulation) and the terrace for recreation are its main features. The public road along the sea was a drawback hard to overcome. This plan is in sketch form only.







ARCH OBOLER HOUSE-GROUP IN HIGH HILLS OF SANTA MONICA, CALIFORNIA NEAR PACIFIC OCEAN PLANNED MAY 1939

*EAGLE FEATHER" is Arch Oboler's dream of an eagle's nest on a mountain top with superb views of surrounding valleys and not too far distant Pacific Ocean. The plan provides well protected living quarters in a much exposed high place but in a mild climate. Materials are broad-board redwood, native stone, broad-board overhead and wide-plank floors.







SPORTS CLUB IS PART OF HOTEL DEVELOPMENT FOR HUNTINGTON HARTFORD ON 130 ACRE TRACT IN HOLLYWOOD HILLS

HUNTINGTON Hartford's sports club is the recreation unit of the otherwise complete hotel in the canyon below. The structure, a natural for prestressed steel and concrete, terminates a high range in the Hollywood hills. In design and construction it is an example of earthquakeproof cantilever construction. The central supporting unit is a heavily built stone-faced reinforced concrete shaft. Like the trunk of a tree with a taproot, it stands firmly rooted at the end of the high ridge above the hotel.

Springing from this central shaft, the trefoil of cantilevered shallow bowls of vertical concrete balance each other: a cantilevered tripod carrying three clubroom glass enclosures, capped by shallow glass domes constructed of stainless steel tube-rings and glass tubing. The service portion of these lies in the central shaft as do the main accommodations for club members and guests. The match-court and swimming pool are also cantilevered from supporting stone bastions and so related to the upper clubroom spaces that activities on either are plainly visible from the terraces forming the edges of the shallow, concrete bowls in which the clubrooms rest. A fourth bowl, domecapped, is reached by the main elevator and provides a sunbathing terrace overlooking the surrounding country.

All is mainly in sunlight and, in structure as in effect, is an economic use of the materials of which it is built. The construction would have the same chance in a tremblor as a tree with a taproot. The dramatic character of the edifice is achieved at no sacrifice of either economy or good sense but actually makes a good-time place natural to environment and purpose. Work in plan stage.

















MACHINERY

EXHAUSTS

CONNECTED

TO

VENTILATING

STACK

BY

Ø St 19ac LAUNDEY TAAT

ned to be built in Milwaukee, Wis., was an attempt to put a ideal for its purpose. The establishment comprises complete of the wash and for the wash storage. The executive offices are near the main entrance where the packaging is done. The dry-cleaning establishment surrounds a central vent-shaft All stands upon a busy thoroughfare in Milwaukee where much traffic passes every moment of the day. The building has been head, filled with warm air in winter, cool air in summer, the air drawn into the workrooms themselves by the suction of the Rest room and toilet accommodation, dining room and service accommodations are in the mezzanine, above the private offices of Mr. Adelman and his son. The drive-in feature has been amply provided for by sheltered approaches to delivery room. planned as a great open center, with a plenum-chamber over-THIS "Drive-in" laundry for Benjamin Adelman & Son, plansteam-laundry with arrangements for collection and delivery novel idea in the laundry business into the perfect shape, standing in the parking space provided for drive-in patrons. basement exhaust to which the boiler room is connected.

SPACE

BENEATH FLOORS.

COMPLETELY AIR CONDITIONED

WITHOUT success our Foundation made an attempt to change the routing and the design and placing of the Wisconsin Highway Commission's projected bridge over the Wisconsin River near Spring Green and Taliesin. The citizens most affected by the bridge rallied 600 strong to our support. But other towns—the nearest 17 miles away—regarded this scheme as favorable to Spring Green at their expense (a long-range civic jeal-

ousy!) and the proposition was defeated by a bureaucracy previously established.

We prepared a standardized unit system cantilever bridge, staunch and easy to repeat any number of times anywhere—either independent of shop fabrication or employing it. The type is called the Butterfly because the wingspread of the spans concentrates the load upon a deep central

girder economical up to spans of 200 ft. The low sweeping arches become an asset to any landscape; whereas the commercialized high steel-truss main-bridges of the Highway Commission are about as becoming to the landscape as the poles and wires of utility companies an outrageous imposition pardonable only in a pioneering era. Where civilization has succeeded we have a right to more enlightened consideration.

CONCRETE

BRIDGE

FIT

TO

ASSOCIATE

WITH

LANDSCAPE

REINFORCED



PROPOSED

FOR

WISCONSIN

SEPTEMBER

1947

RIVER

FOR S. C. JOHNSON AND CO. A LABORATORY TOWER IN EARTHQUAKE CANTILEVER CONSTRUCTION COMPLETING THE

THE S. C. Johnson Company's new research-laboratory is a natural extension of the original administration building. In effect, it is a tall (14 stories) ventilating shaft, surrounding which all research activities of the laboratory have direct, all-around access.

The endless duct ramifications unavoidable in a building spread over the ground are here avoided, and the segregation of various departments is effected vertically instead of horizontally with the great advantage of light on four sides of each department. Communication between departments is also shortened and direct. Heating, ventilating and the appurtenance systems usually running into miles of complex piping and connections are here standardized vertically with direct take-offs from all supply systems to 14 operating floors.

The structure again is a trunk with a taproot, carrying lateral floor-slabs like branches, the glass shell hanging firm from each alternate floor slab. This glass envelope, like that of the original administration building, is formed of tubes outside but with a plate-glass wall inside, movable for cleaning purposes. The exterior of the building is provided with live steam outlets so the glass walls may be easily kept bright and clean.

Each story projects over the one below enough to form a drip which helps keep the glass clean and provides additional space on the best floors of all: those going up in the air.

Every appropriate appurtenance known to science has been sought in this building by Herbert F. Johnson, the originator and owner of the project.

It may be truly said in every sense in scheme and structure that here is an organic building. Construction is proceeding.



111









THIS series of small chapels (seating 75 to 100 people), each chapel with its own garden (all gardens in a garden) stands elevated upon the mass of shale now composing the unique site. The plan of the whole was an attempt to take some of the curse off the customary undertaker's official proceeding. I didn't expect to make even the funeral of one's enemies exactly cheerful, but I did think I could give the obsequies some beauty without destroying their integrity.

Here five simultaneous funerals may be so conducted that one is not too aware of another. All preparation and disposal of the deceased is from down below in chambers independent of the ceremonial arrangements for special mourners. The place of mourning for the families called the "slumber room" caused most trouble, as the chief mourners do not care to be seen, though they do want to see. And, inasmuch as for some time before the funeral the deceased must lie in a private room at their convenience as mourners, the processes of one funeral immediately following another, the proper allocation of this space became a major problem. Here the synthesis is fairly complete and the business of the undertaker's funeral arrangements, choice of caskets, flowers, etc., is located in an independent building at the entrance to the chapel yard. The practice of following the hearse through city streets to the burying ground after services has been dropped. The period of mourning has been somewhat shortened and a colorful, happy environment abundant with music; dignified, soundproofed, well-lit space and reasonable segregation for each occasion has been provided. Every possible convenience designed to make the place helpful to the bereaved is here incorporated. The emphasis is here laid not on Death but on Life. In plan stage. (Note: Nicholas P. Daphne called me after midnight a year or so ago to say that because he had bought the finest lot in San Francisco he wanted the best architect in the world to build a mortuary on it. Nick asked me if I had ever built one. I said no, and I thought that was my very best qualification for doing one. So he gave me the job. Of course I had to "research" a good deal and that nearly got me down. I would come back home, now and then, wondering if I felt as well as I should. But Nick had a way of referring to the deceased, always, as "the merchandise," and that would cheer me up. I pulled through

MORTUARY FOR NICHOLAS P. DAPH

MINISTRATION BUILDING





ULPIT AND CHOIR AT APEX OF TRIANGULAR PLAN FRAMED BY WINDOWS ENCLOSING DISTANT VIEW OF LAKE MENDOTA





The structure is unitarian in character, trusting to a sense of the altogether as more beautiful than the aggregation of steeple, meeting house and parsonage could ever be. In this design, the social activities of the members of the congregation are served by the Church Auditorium itself.

In the front of the Auditorium, beautiful views of distant Lake Mendota frame the pulpit on either side. The preacher and the choir are at this apex of the main triangle. The whole triangle is the center of the plan, and the apex of the triangle is a stone mass of perforated pattern. The perforations are closed by colored glass making the mass resemble the rose window of an antique church. Otherwise, it is the mass of the structure that is depended upon to give the impression of aspiration usually left to the steeple. The walls are to be made of native stone, the interior framing wood, and the roofs copper. Construction to proceed next Spring.



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THIS small department store in India for the Sarabhai family, proprietors of Calico Mills, is a simple and direct solution of their individual merchandising problem. Concession to the character of the climate is found in the carrying of all floors independent of direct contact on the outer wall shell, the shell itself being a perforated screen allowing inlet and exit of air on all floors. Top floors are for rest and private dining rooms. A very tall two-story show-window permits the display of the printed calico fabrics which the mills produce. The construction is reinforced concrete block, earthquakeproof and fireproof.





THIS is a design for an urban hotel without interior corridors, regular windows on the street, or stores below to add to congestion and deprive the hotel of its best asset: the comfort and entertainment of its guests. It is somewhat less commercial than has become standardized in our states by chain systems exploiting guests for profit. The building is planned to be built at Dallas, Texas for Rogers Lacy, an oil capitalist.

The structure is as completely organic as we can make it, weighing about one-tenth what skyscrapers of the Rockefeller Center type weigh, stabilized at this great height by a great single feature lacking in most similar buildings. This is the impressive mass of an adequate air-conditioning intake and exhaust, to which all parts of the great hotel have direct access.

All supports are set back from the property lines to allow clear glass surface all around the street frontage, the entire ground floor being transparent from side to side of the entire ground area. Because the building is in the form of an open court, the center of this space will be in bright light and become a large water basin over the service features below.

Various parts of the lower stories and mezzanine protrude as pergolas into this central court. From one corner of the interior court the tall shaft rises, placed to cast no shadow on the court. In plan the life of the hotel is in the patio. By this simple means, its to-and-fro, ordinarily humdrum, is here dramatized and made interesting in spite of itself.

The features required by the best cosmopolitan life are all here simplified and expanded. The building is not only fireproof but so are the furnishings. There is a bathroom belt running around the building on each floor, ceilings dropped to carry piping and air conditioning, each belt connected to the giant vent shaft enabling the whole interior space to breathe freely.

Should any guest prefer to turn from the dazzling beauty of this interior to view the street, the view is available by openings provided for that purpose.

The plans make all this more or less evident. If our cities are to continue habitable, something like this turning inward, over ample parking facilities, all avoiding competition with surrounding mercantile establishments, introducing an element of repose and real harmony into building, is absolutely necessary. Construction is awaiting favorable building conditions.











I



ADMINISTRATION BUILDING AND WATERDOME ARE UNDER CONSTRUCTION. COVERED ESPLANADE LEADS TO PROJECTED





ORIDA SOUTHERN COLLEGE, LAKELAND, FLORIDA, DR. LUDD M. SPIVEY, PRESIDENT. GENERAL PLAN AND PLANS OF SOME OF THE BUILDINGS MAKING UP THIS ORGANIC CAMPUS GROUP. ALL CONSTRUCTION STEEL-REINFORCED CONCRETE BLOCKS.

DR. Ludd M. Spivey is the hero of Florida Southern College. When he flew from Lakeland to Taliesin about ten years ago he came for the avowed purpose of giving the U. S. at least one example of a college wherein modern life was to have the advantages of modern science and art in actual building construction. The overall plan of the buildings shown here was the result. Since that time the indefatigable efforts of the good Doctor have found ways and means to build them.

We have finished the chapel, the library and several seminars; the administration building and the swimming pool are under construction.

The entire scheme is given an outdoor garden character fit for Florida by the continuous esplanades which connect all the buildings. When building is completed, the U. S. will have at least one example of the cultural value of organic buildings well suited to time, purpose and place.





INTERIOR OF FLORAL-CHAPEL FLORIDA SOUTHERN COLLEGE HERE WITHOUT FLOWERS. BELOW, EXTERIOR FROM ESPLANADE

THIS brief selection of views necessarily omits many of the characteristic features of the constructions herein illustrated. Moreover, photographs of buildings are inevitably unsatisfactory because the third - dimension -"depth"—cannot be reached by the camera. Upon seeing the buildings, after having seen the photographs, invariably comes the expression: "Why, we didn't know it was like this." The photograph leaves the essential reality still to be grasped. Horizontal planes are those best revealing space relationships, and they defy photography. These particular buildings are all more truly imagined from drawings than from the short-hand of the cameraeye. So this "photographic section" is an addenda at random—to be read between the lines.



LIBRARY OF FLORIDA SOUTHERN COLLEGE. POSITION OF BUILDING IN SCHEME BEST SEEN BY REFERENCE TO OVER-ALL PLAN

AT the top of this page is a glimpse of the esplanade which connects all buildings, enabling one to walk to and from each in shade or protected from rain. Below is a view of the library; at bottom a close-up of the stack-room. Opposite, are shown the exterior and interior of the library reading-room built of double-block walls. All walls and structural members are reinforced cast-concrete. Roofs, eventuating into trellises, are too new to be vine-covered as intended. Color of the buildings inside, as out, is a warm tanlighter on the plain surfaces. Roofing edges down over the eaves are in verdigris bands of copper detailed to drip, so that no gutters are needed. Acoustics are especially fine. The buildings do not crowd each other as might be inferred from the paging here, but each has its own stretch of esplanade and intervening trees. The library is similar to the chapel in construction but the chapel is more airy and "Floridian" in character, with a poise that bespeaks the spirit in the letter. Concrete wall-perforations are filled with cut-glass jewels. Flower-tower sifts sunlight into the auditorium, seating 1000 persons in out-door light.







LIBRARY OF FLORIDA SOUTHERN COLLEGE. EXTERIOR OF READING ROOM FROM ESPLANADE. INTERIOR VIEW OF READING ROOM





OF SOLOMON R. GUGGENHEIM MEMORIAL MUSEUM. BELOW: VIEW ACROSS 5TH AVENUE FROM CENTRAL

r the Solomon R. Guggenheim Foundation will on the block bounded by Fifth Avenue, 89th , New York City. As a project the design has fate usual to an idea, since time began. Reged from fright to enthusiastic approval.

to be taken by the uninitiated seems to be the solid continuous floor surface, winding about pace, beginning on the second floor and exth the great dome at the top above that central within this central space is where the majesty and atmosphere of this building can best be

whole is primarily an interior one. From it the ling itself expands skyward in a flood of sung the grand ramp from the interior as well as of bright daylight from the exterior.

that people looking at pictures on this unplastic wall-space will be aware of any positive e arrangement of the pictures or in their own the ramp in viewing them, is erroneous. As a ne entire interior is so gently proportioned that hade upon one is of complete repose similar to will wave, never breaking, never offering resisto vision. It is this extraordinary quality of the known only in movement that characterizes whing it a more sentient and spiritual expresceeling by way of building materials and processes than has yet been achieved.

Possibly it is the simple commonsense of the idea that confounds its critics. The construction of the great ramp, like that of a sea-shell, is clear of interior supports of any kind, the fibrous floors being carried throughout from the outer walls. The glass dome, covering the interior space and protecting it from excessive heat, is double, the space between heated in winter, cooled in summer. The dome is translucent rather than transparent.

The simple arrangement for handling pictures is not only laborsaving, but picture-saving as well. No glass will be required upon them because of the complete air conditioning of the building interior, a proper degree of humidification being maintained the year round, and all entrances and exits guarded by dust-collecting vestibules. Nor will pictures require more than a negative frame because of the nature of the lighting.

Entering into the spirit of this interior, you will discover the best possible atmosphere in which to show fine paintings or listen to music. It is this atmosphere that seems to me most lacking in our art galleries, museums, music halls and theaters.

Since the first studies of the Museum were published, additional ground has been purchased and the building changed not so much in constitution as in proportion: an annex extending to 88th Street, and 30 feet on Fifth Avenue added. At present the Solomon R. Guggenheim collection is being moved into temporary quarters as designed by the curator. Construction of the building is awaiting favorable building conditions.



E-UP OF GUGGENHEIM MUSEUM FROM FIFTH AVENUE AND TWO VIEWS FROM ABOVE SHOWING GLASS DOM





GLASS tubing, closing the int walls of the Museum, is similar t Johnson office-building at Racing dome is constructed of two thick spaced 5 in. apart with air cond Striated bands of tubing lighting are constructed likewise. The efbut translucent; not transparent






LECTURE ROOM USED AS CINEMA OR DINING ROOM. BELOW, GENERAL EFFECT OF BRICKWORK AND TUBING LAID SIMILARLY



GROUND PLANS, DETAIL AND ORIGINAL MODEL OF THE HOUSE FOR MR. AND MRS. LLOYD LEWIS, LIBERTYVILLE, ILLINOIS

THIS prairie house for the Lloyd Lewis' is located on the low lands of the Desplaines river. It seemed desirable to lift the living rooms of the house a low story-height above the ground level. The view down the river is thus enhanced and the humidity of the region rendered less objectionable. The river flows alongside the house and a garden extends beside the river from the Entrance Loggia. A screened-in porch extends the spaciousliving room into a wide balcony overhanging and sheltering the entrance Loggia. Floor heated.







IEWS OF LIVING ROOM AND DINING-ALCOVE. CYPRESS BOARD CEILINGS AND FURNITURE. ROSE COLORED COMMON-BRICK



THREE USONIANS: ROSENBAUM'S IN ALABAMA. POPE'S IN WASHINGTON D. C. GOETSCH-WINCKLER'S AT OKEMOS, MICHIGAN



LODOKE BAIRD'S AT AMHERST, MASSACHUSETTS. HERBERT JACOBS' AT MADISON, WIS.







THREE DETAIL GLIMPSES OF CONSTRUCTION: FIREPLACE. SIDE ENTRANCE. (BELOW) ACROSS LIVING NO

THIS brick and cypress plywood house at Bloomfield Hills, Michigan for Mr. and Mrs. Gregor Affleck, is another "up off the ground house" in a dense wood. It is nevertheless floorheated and top-lighted. The plan is characteristic Usonian: one commodious room for general living purposes with bed-room privacy in an extended wing. In this case additional accommodation occurs in the ground floor basement.









"SNOWFLAKE" AT PLYMOUTH, MICHIGAN: FIREPLACE. DINING-ALCOVE WINDOWS. (BELOW) SUNLESS EXTERIOR WINTER VIEW



GROUND PLAN AND TOP VIEW OF HOUSE. (ABOVE) LIVING ROOM WINDOW AND EXTERIOR GLIMPSE OF OVERHANGS IN SNOW



*S NOWFLAKE" is the name of the country home designed for Mr. and Mrs. Carl Wall at Plymouth, Michigan. One of the more elaborate Usonians, this dwelling like the Paul Hanna House at Palo Alto, California, is based upon a hexagonal unit throughout. The "hex," being more human than the rectangle, affords easier circulation and nestles more readily into its environment. The house is the usual three-ply board-wall and brick-wall type. The interesting adjacent lodge and country-stable are not included here owing to lack of space. Concrete floors are heated.





THREE VIEWS OF REDWOOD DESERT-DWELLING NEAR PHOENIX, ARIZONA BUILT FOR THE PAUSON SISTERS OF SAN FRANCISCO

THIS single redwood-board wall house was erected in the Arizona desert. An attempt at super-economy was given stability by heavy masses of desert-stone cast in wooden forms. The Pausons did well by their house, furnishing it and living in it with charm. Unfortunately, renting it for a season, the house was burned to the ground. It is now about to be rebuilt.







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Lok'd Bar sash sections, with flanges rolled in one piece, do away entirely with applied weatherings and have no exposed cracks to invite rust from rain or corrosion from smoke and fumes. Ventilators are either pivoted or commercial projected. Their integral weathering flanges, closing tightly on ample bearing surfaces, reduce wind infiltration to less than three quarters of one cubic foot air per minute at 25 m. p. h. wind velocity, giving greater interior comfort and saving fuel to the owner.

For the life of any building, especially in exposed locations in industrial or commercial districts, HOPE'S Lok'd Bar Factory Sash show less depreciation, cost less and demand less attention for upkeep and give lasting satisfaction to the owner. Write for Hope's Lok'd Bar Factory Sash Catalog.

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Solid Bronze Cup Pivots, stronger, neater, cannot stick or jam and are the only pivots which make perfectly weathertight joints. Hope's Lok'd Bar Joint... Threading the flat tee horizontal muntin thru the vertical bulb tee gives sash

Threading the flat tee horizontal muntin thru the vertical bulb tee gives sash more strength in proportion to steel used and least harmful distortion of metal.

REVIEWS



Main facade is embellished







Original sketch for madonna window by Roualt (left). The artist at work (above).



Lurcat (left) shown with his tapestries

CHURCH AT ASSY

Located in Haute Savoie, a French department forming the south shore of Lake Geneva, this recently completed church nestles in a hollow in the mountains at an altitude of 2,000 meters. It was built under the direction of a Dominican Father who had the taste, courage and presumably the means to marshall the talents of some of France's leading artists for its design and execution. In keeping with its rugged and majestic surroundings, architects Novarina and Mallot evolved a bold modernization of the traditional style of the region. The result is a striking edifice which retains a certain rustic warmth through the use of rough wood and strong color. The main portico has exposed framing on the under side and the whole facade behind the columns is occupied by Fernand Leger's symbolic mural. Stained glass windows were executed by the painters Bazaine, Derain and Roualt. One of the latter's works is shown at left. The interior has a huge painting by Bonnard which was especially commissioned for this church and represents the last completed work by this artist before his recent death. The tabernacle is the work of Braque while the Stations of the Cross are depicted in tapestries by Lurcat.

The closest counterpart of such close collaboration among top flight artists in an ecclesiastical building is, of course, the church at Pampula, Brazil. The church at Assy, however, is the first outstanding European example and one which it is hoped will establish a precedent. (Continued on page 164)



SERVEL IS THE CHOICE YEAR AFTER YEAR BECAUSE

stays silent

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The refrigerant is hermetically sealed in a set of vessels connected by pipes. A tiny gas flame is applied to the lowest vessel (A). Owing to the evaporation properties of the refrigerant and the law of gravity, ice forms in an upper vessel (B). No machinery not a single moving part—is needed. Thus, Servel stays silent, lasts longer.

REVIEWS

BOOKS

PILLAR TO POST. By Osbert Lancaster. Transatlantic Arts, Inc., New York. 80 pp. Illustrated. 61/2 in. x 91/2 in. \$2.25.

Originally published in 1938 and aimed at the English layman, the undiminishing value of this book and its still timely relevance to American as well as British suburbiana puts a birthday celebration in order. Mr. Lancaster has written a wise and comic book. It is delightful and stimulating to find him so smoothly projecting the Horatian principle that a work of art should entertain as well as instruct. Moreover, it is essential that architects, as well as lesser mortals should occasionally indulge their sense of humor.

In his light-hearted fashion, Mr. Lancaster has something serious to say. He attempts "to induce an attitude towards

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architecture less reverent and of greater awareness" in the private citizen. The universal awe and ignorance he bland chiefly on Mr. Ruskin, whose windy confusion of metaphysic and architecture frightened the populace away. This charge is perhaps, a little unfair, as Ruskin, surrounded by rapi industrialization and the consequent uglification of England landscape, wished to make plain that taste reveals character and that a city's history is commemorated by her architecture —a sincere and valuable contribution, however responsible he may be for the unfortunate Victorian preoccupation witt things Gothic.

The author outlines, in a crisp, clean and scholarly manne the important legacies for which England must thank the Greek, Roman and Byzantine worlds, and traces the history of English architecture from Early English to the present da with emphasis on contemporary houses, (22 of the 4 "chapters" are on the nineteenth and twentieth centuries) Mr. Lancaster's discrimination, his restrained tastes and hi strong grasp of the practical blend into 80 pages of impis malice, and reverence-where reverence is due. Con panioning his prose are the author's simple, microscopicall clear drawings, one for each period described. These drawing represent no specific structure-"no reference is intended t any actual building living or dead"-but convey the important architectural fashions of the day. They are adorned with small human caricatures: a chubby monk complete with mop an bucket; a curate and a school-mistress, respectful befor ruins; a burly Tudor mounting his horse; an organ-grinde with his monkey.

All this and much more is to be found in the pages of Mr Lancaster's charming and informative book. Though deplor ing mass-produced Stockbroker's Tudor and Banker' Georgian, he closes with the hope that from the bare, functional, cubistic style, not yet completely successful, "will on day emerge a genuine modern architecture that need fear no comparison with the great styles of the past."—I.A.K.

AMERICAN INTERIOR DESIGN. By Meyric R. Rogers. W W. Norton & Co., New York. 281 pp. Illustrated. Some color plates. 111/4 x 9. \$20.

It has been a long time since the appearance of a scholarly and authoritative book on the broad aspect of American interior design and furniture. Admittedly, publication of such as Mr. Franklin's admirable photographs of Colonial Williamsburg have contributed importantly in the traditional field, but they have, for the most part, dealt with isolated periods of our history. Books dealing with later and more general subject matter seem, on the otherhand, amateurish and definitely commercial alongside Mr. Rogers opus. His is a study and a history with only one short chapter devoted to the aftermath of the industrial revolution. This will undoubtedly scare off a good many sworn modernists and, wrongly so, since the value of American Interior Design lies as much in its evaluation of relative significance through the years as in its objective analysis. Being no partisan, the author can calmly state that: "Our national conservatism, which runs as a counterbalance to our readiness for novelty and change, makes it easy for us to continue unthinkingly with well-tried and accustomed forms. This, however, is the way of stagnation unless we realize that the forms themselves -our beloved New England pine or our smart and dignified design of the Federal period-are in themselves of no dynamic importance to the present unless we understand the value and spirit that permeates them. This alone is immortal."

(Continued on page 168)

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REVIEWS

The illustrations of contemporary design, which are limited in number but carefully and well chosen, indicate that if Mr. Rogers leans at all to one school, it is that of the revival of the handicrafts and, heaven knows, he is not alone in this feeling among moderns or traditionalists. He claims that: "As to economics and the handicrafts, we are beginning to realize that, within human scale and for certain ends, the machine can only defeat itself and become the most costly method of production in both the long and the short run. There is no necessity for us to restrict ourselves to the limitations of the machine, though we must, of course, use it within its limits to maximum capacity and the point of diminishing returns. The most efficient tool is not always the most complex or the most quantitively productive. We are now learning the lesson that man is not to be fed by quantity production alone. Demand

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for work produced with a minimum of mechanical aid is on the increase." It is scarcely necessary to point out that the author's sense of social responsibility is not costing him any sleep. But so far as the upper income bracket goes there is a good deal of truth in what he says. His book is in itself and opulent affair reminiscent of private publications of the Twenties. Productionwise it is a beautiful job. Supplemented by a complete and useful glossary as well as some biographic cal notes, it is just the thing for anyone seeking a sane and thorough account of the American evolution in the home arts.—M.S.

THE LAST LATH. By Alan Dunn. F. W. Dodge Corporation 119 W. 40th Street, New York 18, N. Y. \$2.50.

Architects have always been noted for their high talk. But the great architectural jargon which a generation ago was largely emotional—grand entrances, perfectly swell fenestrations, great huge cornices—has turned and twisted into an intense intellectual language in recent years—a language of organic syntheses, articulations, buffer zones, and flow liness Architects are no longer, in the popular mind, artistic gentlemen who stroll in moonlight gardens with lady clients, or ladies of clients. They are frenzied men snatching the great tortoise-shell claws of heavy spectacles from their temples and stabbing the air before them as they struggle to describe with mere words the taut mainspring of a machine for living. Where once it was a romanticized profession, architecture is now semanticized.



"Exactly! Where you want mutative continuity and design correlation, I want a closet!

The best cartoons in Alan Dunn's new book, "The Last Lath," an Architectural Record book, are very funny presentations of phrases which have become architects' glibnesses. Clients militantly demand doors through beautiful wall masses, sit meekly shivering in an outdoor living area, gossip about what happened in a neighbor's all-purpose room. Even some of the captionless drawings are essentially satirization of verbal design. Dunn's pen strokes are as fluent and erratic as some of the architects he joshes, and never fail to make his ideas funnier—W.McQ.

RECONSTRUCTION AND THE HOME. By Howard Robertson, F.R.I.B.A., S.A.D.G. The Studio Publications, Inc., 381 Fourth Ave., New York. \$3.00.

"England . . . is wont to act in a peculiar and personal way in all creative work, at least in peacetime. The method (Continued on page 172) Structural Clay Products Institute offers you TWO NEW BASIC BOOKS featuring MODULAR COORDINATION

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Los Angeles 33, California

REVIEWS

includes recognition that invention and creative experiment are useful; but it prescribes a period of testing, during which the new thought is exported abroad for trial; and after full development there (or rejection as the case may be) it is reabsorbed, gradually re-naturalized and finally accepted as a phase of evolution."

Howard Robertson's new book, "Reconstruction and the Home," is a guide to the English who are constructing and



Mr. Robertson discusses houses and flats in chapters ranging from "Heat and Light" to "The Design of Accessories." As the leading quotation-from his section "The Building"-indicates, he does not expect the new homes of England to be of very advanced design, with the least assertive generally the most widely

reconstructing their homes.

Maxwell Fry's Ladbroke flats

approved. Some, but not all of his illustrations (see photo) demonstrate this. A good deal of Mr. Robertson's caution stems from realistic appraisals of government control and material availabilities, as in the case of bathrooms:

"The good bathroom, the kind we would covet, is likely to remain something of a mirage. It exists, but we can see it rather than approach it. We will all probably have to make do. Not because the perfect bathroom cannot materialize, but because we will not have the money to encourage it to be produced."-W.McQ.

AMERICAN SCULPTORS SERIES. Wheeler Williams, 1; Paul Manship, 2; Anna Hyatt Huntington, 3; Daniel Chester French, 4. W. W. Norton & Company, Inc., N. Y. Under the auspices of The National Sculpture Society. \$1.50.

In this new series of inexpensive photographic chapbooks on the work of leading American sculptors, No. 1 in the series is the most recent sculptor (Wheeler Williams) and the succeeding books work historically backwards, with Paul Manship



as No. 2, Anna Hyatt Huntington as 3, Daniel Chester French as 4. Just what will the publishers do when voracious readers of these handsome little picture albums will ask for examples of some of our younger modern sculptors (such as Noguchi, Hebald, Robus, Smith et al)? Our only hope is that if they commence a new series with Roman numerals, they let the Roman influence go no further.

Whatever one's tastes in sculpture (and there is and has been in this country a tremendous variety to choose from), one can agree with Paul Manship that "the credo of an artist is the result of his education and environment." Sculptural education has its complications in this broad land of ours, due to the difficulties of shipping sculpture around for exhibitions. All the more reason, then, for having photographs of work in easily accessible form.

There is very little text in these booklets-only a brief (Continued on page 176)

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biography in each, a list of honors, and of works. In some



cases the works shown are in private museums and collections (notably Anna Hyatt Huntington's), while in others they are to be found on buildings or *in situ* (as with Daniel Chester French).

Most of each book consists of photographic reproductions (not too clear), and for each there is a brief caption of identification. A student of sculpture would not learn much technique from these pictures, but they give interest-

historical impressions as surveys of work done and popularly acclaimed. Indeed, we trust that neither architects nor students will study this material too assiduously. It has a place in any record of our past but (we hope) not too much importance for our sculptural future. As a matter of fact, it is unlikely that the careers of these particular representatives of leading (or successful) American sculptors is apt to be repeated. For, as the short biography of Daniel Chester French in No. 4 points out: "... His background was ... one of accomplishment, of hard work, of brains, of educated and cultivated minds. But nowhere in it had there ever appeared the slightest blossoming of artistic talent. Therefore it was a complete surprise to his family, and probably to himself, when the youth of nineteen, who hated school, who showed no inclination to go to college, decided out of so clear a sky to become a sculptor. . . . He learned by doing."-E.B.

VILLAGE HOUSING IN THE TROPICS. By Jane Drew, E. Maxwell Fry and Harry L. Ford. Lund Humphries & C., 12 Bedford Square, London, W.C.1, Illustrated. 5 in. x 8 in., 134 pp. Price: (paper-bound) 7/6 d.

This little book is at once a fascinating and terrifying addition to what must be an almost non-existent class of literature that dealing with life and building conditions in Colonial West Africa. It is fascinating because it demonstrates the applicability of contemporary town planning and housing concepts to even the most primitive community. It is terrifying because it describes the actual conditions of such communities today. Although the authors—an English town planner and two architects—are careful not to draw any generalizations from their material, the generalizations nevertheless protrude, like the bones of a half buried skeleton. West African problems are numerous and severe and none of them do any credit to the "White Man." A full four centuries after his appearance, malnutrition, disease, ignorance and poverty hold the African in stupefying squalor.

Yet it is to their credit that the authors show little of that patronizing superiority which characterizes "civilized" men when confronted with the ruinous impact of their civilization upon defenseless primitive cultures. They went to Africa to prepare this handbook for the Resident Minister and they have reported with honesty and sympathy what they found. "Mirrors are still expensive and beyond the income of many village authorities" while "plates and cutlery are beyond the income of most villagers." As far as they could find, "no villages at all (have) water-closets and a proper water-borne sewage disposal system" while "the day of village electricity is still some way off." Such a catalogue of disaster might well have daunted less persistent designers but not the present authors. There is much that can be done right now and they *(Continued on page 180)*

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See those black arrows coming from the Modine Convector Panel below the window? That's *radiant beating*—mild, radiant heat in just enough quantity to offset heat loss from window area. **ADD CONVECTION HEATING** Cooler, floor-line air (white arrows) is drawn into convector. Warmed by copper heating unit, air rises and is discharged through outlet grille to provide gentle convection heating (broken arrows).

<u>Result:</u> Modine Convector Radiation ... the greatest forward step in modern heating science

Nor JUST radiant heating ... not just convection heating—but a blended combination of both! That's what Modine Convector Radiation now offers you. Here is modern heating at its best — dependable new hot water and steam heating comfort for moderate cost homes and apartments, as well as commercial and institutional buildings.

Modine Convector Radiation now costs less than any other form of radiation. Add to that these important advantages which it gives you: 1) individual room control. 2) instant response to automatic controls. 3) gentle air circulation without the use of moving parts that wear out. 4) distinctive room charm and cleanliness without unsightly radiators.

If you're planning to build or modernize, specify Modine Convector Radiation. Call Modine's Representative listed in the "Where-to-Buy-it" section of your phone book. Or send for new, free Convector Booklet! MODINE MAN-UFACTURING CO., 1507 DEKOVEN AVE., RACINE, WIS.





NEW-MODULAR Facing tile HANDBOOK

MODULAR Facing tile HANDBOOK



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THIS 90-PAGE HANDBOOK IS THE FACING TILE INSTITUTE'S PRESENTATION OF MODULAR FACING TILE TO THE ARCHITEC-TURAL PROFESSION

Here is a handbook of great value to architects, engineers, builders, masonry contractors and others interested in using Structural Clay Facing Tile in modern design and construction.

Standard modular sizes are now available for Structural Facing Tile. As a ready source of information on Modular Facing Tile, the Facing Tile Handbook presents in three sections: (1) specifications, available colors, fire resistive ratings (2) detailed illustrations of various sizes and shapes (3) suggested assembly details and layout procedures.

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REVIEWS

for the Small Home AND PROTECTION out all the natural beauty of wood shingles, clapboards, or siding in a wide choice of colors from brilliant hues to weathering browns and grays. The high content of pure creosote oil assures long lasting protection. For construction economy, Cabot's Stains are quick and easy to apply ... cost one-third as much as good paint ... won't peel or blister even on green

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lumber

Free Booklet-"Stained Houses" contains complete information, illustrations, and color card! Write: Samuel Cabot, Inc., 128 Oliver Bldg., Boston 9, Mass. Cabot's

CREOSOTE STAINS

have shown how to do it. With simple text and a wealth of good diagrams, they cover problems of adapting village layout to climate, topography and social structure; various types of housing are shown (including that for the polygamous Mohammedans), together with minimal designs for communal kitchens, washhouses and public baths. There is a whole section on water supply and waste disposal. Protective measures against insect life are described (to protect the village against the dreaded tsetse fly, keep the bush cleared 230 yds. away from nearest house).

What is most impressive about the book, however, is the attitude of the authors towards the natives themselves. They show both sympathy and respect for tribal cultural patterns as, for example, in their discussions of the social uses of the front porch, the street and the "palaver" grounds. It is certain that not only Africans, but the rest of us as well, would be a lot happier if the spirit as well as the letter of this little book were to serve as an effective policy for colonial peoples everywhere.-J.M.F.

FOREIGN PERIODICALS

MARG. 25 Cuffe Parade, Colaba. Bombay 5, India. A new quarterly devoted to national problems and achievements. Covers all fields of art with a beguiling, but not too oriental, flavor. As might be expected, the major issues are city planning and housing. Annual rate: Rs. 18.

ART PRESENT. Published by Editions Clermont, 44 rue Copernic, Paris 16, France. A new bi-monthly printed in French and English which deals with architecture and the plastic arts in a very French manner. Yearly rate: 1,300 fr.

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page display of 150 beautiful colors ... each tint from the palest to the darkest shown on a large page (9" x 15"). The correct mixing formula is given on the reverse of each page.

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Your picture will be "completed as planned" with versatile, beautiful Arketex Ceramic Glazed Structural Tile.

Arketex, with its wide range of sizes and textures, in your colors, is ideal for interior and exterior use ... for partitions or load-bearing walls. The first cost is the only cost - Arketex is a permanent wall and finish all in one.

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Locker Plants

ETEX







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ARKETEX





The feeling is mutual ...

There's an affinity, say designers of fine furniture, when discussing the relation between Kencork floors and walls and modern home furnishings. They appreciate how Kencork's golden browns and leafy tans flatter furniture, fabrics and accessories—the decorative contribution of its subtle squares and rectangles—and its interesting, unusual surface. Architects, too, note the physical appeal of Kencork: the comfort of Kencork's resilience—its sound-absorbing qualities—its tendency to insulate against heat and cold. And both architects and builders are often surprised to learn that this cork

tile, popularly considered expensive, may now be compared with other floorings or wall coverings of equal durability and quality. To learn the entire story of today's Kencork, consult your flooring dealer. Or write the nearest Kennedy office for informative Kencork color folder and quotations. David E. Kennedy, Inc., 69 Second Avenue, Brooklyn 15, N. Y.-324 Fourth Avenue, Pittsburgh 22, Pa.-1211 NBC Bldg., Cleveland 14, Ohio-1355 Market St., San Francisco 3, Cal.-Bona Allen Bldg., Atlanta 3, Ga.-452 Statler Bldg., Boston 16, Massachusetts-Ring Bldg., 18th & M Streets, Washington, D. C. -58 E. Washington Blvd., Chicago 2, Ill.

NCORK
YOUR BACK DOOR

not your front door . . . if you think you're sitting pretty



Your internal plant efficiency isn't worth a plugged nickel if your shipping platforms are jammed

No matter how modern and efficient your plant looks on the *outside*—you only have to look at your loading platforms to get the *inside* story.

No matter how much money you pour into new machinery, new designs, new methods . . . if you neglect the basic "tool" of plant production, SHIPPING AND RECEIVING FACILITIES, you may as well pour your money down the drain.

Don't expect the impossible from your traffic manager. Do expect mounting shipping costs—if he is not provided with adequate loading platform space. You'll get the most out of trucks with adequate loading platforms; room to move around.

Right now, make a study of your "bottleneck" areas. Minor remodeling can often take care of normal plant expansion for years to come. Check your traffic manager, consult your architect. They will save you time *and* money!



GOODS CAN'T MOVE FASTER THAN THEY'RE LOADED!

BUILDING REPORTER







PACKAGED ESCALATOR with maximum rise of 23 ft., for installation in smaller business establishments.

Measuring 32 in. between handrails and designed for a maximum rise of 23 ft., this new Escalator is engineered to meet the needs of business establishments where moving stairways have not previously been considered economically feasible. Its handling capacity is 5,000 persons per hour. The 32 in. width between handrails provides ample room on one step for an adult and child and because the maximum rise is only 23 ft., the use of lighter weight structural and mechanical members is possible. The new moving stairway is a selfcontained package in that its operating machinery is built within the unit's truss. The usual machine room is eliminated and because the new Escalator is approximately 25 per cent lighter in weight, structural reinforcement can be minimized or eliminated. According to the manufacturer, there has been no sacrifice of safety devices or operating efficiency but design changes have lowered the price, cut installation costs and reduced power consumption. The price of the new conveyor is said to be approximately 33 per cent less than for the standard 4,000 per hour capacity Escalator which measures 24 in. between handrails and is heavily constructed for rises up to 60 ft. Quiet operation and the elimination of slack in the handrails are other features. Otis safety tread and comb plates, 180° extended newels, aluminum deck covers and mouldings, and interior panels of porcelain enamel are standard equipment. Speed rate is 90 f.p.m., angle of incline is 30°

Manufacturer: Otis Elevator Co., 260 11th Ave., New York, N. Y.

FLUID DRIVE ELEVATOR reduces engine size, simplifies electrical control system.

Warsaw Elevator Company's new "Gyrol" fluid drive elevator uses a coupling device similar to that on some automobiles to achieve economies in size, power and cost. According to Warsaw engineers, the new elevator's automatic acceleration and deceleration replaces present complex arrangements of heavy duty automatic switches with a two-switch control, one for up travel, one for down. Less service and maintenance is thereby required. A smaller elevator motor can be used because it starts under no load, being thrown on when the car switch is closed and gaining momentum before the fluid coupling takes hold. No heavy starting current is required and power costs thus are also decreased. Besides the savings of space and maintenance, the company estimates savings well over 10 per cent on installation. The unit shown is rated at 1,500 lbs. and 125 ft. per minute, with a 71/2 hp motor, single speed, 1,200 rpm. Weight is 1,600 lbs. Manufacturer: Warsaw Elevator Co., Warsaw, N. Y.

, a second marchar biovator Go., warsaw, N. 1.

STEEL PICTURE WINDOW combines large fixed sash and two ventilating casements.

The new standard Fenestra picture window, an attractive three-unit combination with narrow steel frames and muntins, includes a large center fixed-glass area flanked on either side by an outswinging casement. The large fixed light sash is glazed with a single pane of plate glass set in non-hardening putty. The smaller ventilating casements which open out to catch the breezes and deflect them into the room are operated by Fenestra Roto-Adjusters. A locking handle clamps these vents firmly against the frame for a weather-tight seal. The new window may be used in a wall, bay or corner and may be equipped with storm sash and screens from inside the building. *Manufacturer:* Detroit Steel Products Co., 3111 Griffin St., Detroit, Mich.

ALUMINUM JALOUSIES act as windows, provide ventilation, protect against rain and glare.

Developed primarily to meet the needs of the tropics, Thorn Tropic-al aluminum jalousies serve as a combination window. venetian blind and storm sash without the use of glass. They



provide controlled ventilation, protection against rain and glare and afford complete privacy. Made entirely of non-ferrous materials, they are vermin, termite and rotproof, do not warp or swell, need no painting and are highly resistant to corrosion. Frames of Tropic-al

jalousies have integral reinforcing ribs and water baffles designed to conduct water to the outside. The strong horizontal extruded slats, approximately $3\frac{1}{2}$ in. wide, are ribreinforced and are connected together by a flat rod. Top and bottom reinforcing ribs interlock when slats are closed to provide protection against housebreaking. A friction control on the bottom of the connecting rod at the sill holds the slats in any position up to 185° and locks them firmly when closed. Tropic-al jalousies come to fit standard size openings and are delivered to the site assembled ready for installation. Manufacturer: L S Thern Co. Allochary Ave. 6, 20th St.

Manufacturer: J. S. Thorn Co., Allegheny Ave. & 20th St., Philadelphia, Pa.

DUAL-PANE TEMPERED GLASS DOOR with metal frame costs less than all glass doors.

This new Temprex Glass Door, which comes in standard sizes complete with handle and lock and drilled to receive



double action floor checks, is reported to be the first dual-pane tempered glass door on the market with a metal frame. It is also reported to cost considerably less than existing all-glass doors. Framework of the new unit is extruded 3/32 in. aluminum with an Anodized finish. It is assembled in two sections locked together by special extruded keys running the full length of the vertical and top and bottom rails. The door is equipped with two panes of 3/s in. Temprex (tempered plate glass) and has a standard floor lock mounted so that the cylinders may be removed by loosening screws on the front lower edge of the door. The unit

may be had in any width up to 42 in. and in any specified height, or in standard units of 30 in., 32 in., 34 in. and 36 in. widths, with a 6 ft. 113% in. height. The unit may be mounted on standard double action floor checks, or on butt hinges. Standard door closers may also be mounted on the top rail. *Manufacturer:* Appleman Art Glass Works, North Hackensack, N. J.

ALUMINUM DOOR CANOPY is easily installed.

Designed to protect doorways from rain, snow, sleet and sun, the new Lumi-Shade all-weather door canopy features utility,



low cost and easy installation. The roof is constructed of interlocking aluminum sections and is designed to drain rain water and snow to the gutter and off the sides at the corners. It will not catch leaves

or dirt. The canopy is finished in (Continued on page 188)

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QUIETER SAFER

Samuel B. Dixon School, Detroit, Michigan. Architects: Lane-Davenport-Meyer Contractor: H. B. Culbertson Co.

acoustical ceiling of noncombustible Fenestra

STEEL PANELS

This Detroit school gymnasium illustrates the versatility of Fenestra Building Panels. Here is a combination ceiling and roof that provides desired quietness and firesafety, and does it by economical construction methods.

Fenestra Type AD Panels, 17' long, are laid directly on the beams, eliminating purlins and rafters. The result: a clean, unobstructed ceiling.

This long-span panel is capable of carrying either roof or floor load between beams. The smooth, bottom face is perforated and backed up with fibre glass or rock wool, inserted within the cells, for sound absorption. Wiring for lights is also concealed in these cells. Insulation and roofing, applied to the top surface, completes the roof unit. When used for floors, the Type AD Panels are combined with concrete or other floor surfacing materials of your choice.

Type AD Panels, available in lengths up to 20', are ideal for construction calling for two flat surfaces. Also available are Fenestra Type C and D Panels, as well as Holorib Roof Deck. These metal panels provide an economical and timesaving means of building floors, walls, ceilings, roofs and partitions. You'll find data on all types in Sweet's Architectural File. Or mail the coupon.



DETROIT STEEL PRODUCTS COMPANY Building Panels Division Dept. AF-1, 2251 E. Grand Boulevard Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Building Panels.

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WIDE ENOUGH for adult and child—or traveler and luggage. The new Otis "32" carries 5000 people an hour comfortably. It is designed for any vertical rise up to 23 feet.

SAFETY FEATURES include narrow-gage metal treads, semi-circular extended newels, continuous pinchproof rubber hand rails... the world's safest transportation.





A LIFETIME OF BEAUTY. The modern Escalator's graceful lines and gleaming aluminum balustrade combine to give buildings the New Look in level-to-level travel.

It's big in capacity It's <u>Otis</u> throughout

HERE NOW — the new Otis "32", designed especially for the medium-sized and smaller building. The result of many years' research, this modern Escalator has all the time-tested features of earlier models, plus a wealth of post-war design features . . . it is truly the last word in Escalator design.

Capable of carrying 5000 people an hour, the Otis "32" handles more persons per dollar investment than any other moving stairway. Wide enough to comfortably carry an adult and child on one step, it is the ideal size for most stores, stations, plants, banks and other public buildings. Yet for all its spaciousness, the "32" requires less space and structural work than narrower moving stairways.

Best of all there has been no compromise with quality. In eye-appeal, in safety, in the inherent ruggedness that makes for long life and low upkeep, the new "32" is the equal of any Escalator we ever built. And remember, only Otis makes Escalators.

NEW FREE BULLETIN B-700A tells the whole story. Write for your copy to Otis Elevator Company, 260 Eleventh Avenue, New York 1, N. Y.

Offices in All Principal Cities

"Escalator" is a U. S. Patent Office registered trademark of the Otis Elevator Company. Only Otis makes Escalators.



ELEV



There's insulation and there's INSULATION!

Many new homeowners boast that their places are insulated ... then get a terrific let-down when they learn that the insulation has been installed so thin that they will get only a fraction of the benefits that home insulation can provide.

That's why we have emphasized two important features about insulation in the ad shown below. In the name of good construction we believe that you will subscribe to these recommended specifications.

NATIONAL GYPSUM COMPANY, BUFFALO 2, N.Y.



For the newest in building and remodeling products, see your local Gold Bond dealer first.

Puzzle: which house costs less to heat?

The house on the left costs a lot less to heat—the one with the snow on the roof. The snow is still there because this house is insulated with Fireproof Gold Bond Rock Wool. Furnace heat is kept inside instead of leaking through the roof to melt the snow. Heating costs are cut as much as 40%. Naturally you?

Heating costs are cut as much as 40%. Naturally you'll want year new home insulated. But don't make the mistake of just saying you want "insulation". That's like going to the butcher and asking for a pound of meat—any meat. It will pay you to remember two points about insulation:

- Specify Fireproof Gold Bond Rock Wool. This National Cypsum product is not just "fire-resistant", not just "fire-retarding" but as fire-proof as the rock from which it is made.
- 2. Specify that you want full thick insulation --not 1 inch or 2 inches thick but full thick. With full thick insulation you get the full benefit that home insulation can and should provide. And because it completely fills the wall, only full thick insulation provides an effective fire stop.

Insulation is the one modern home improvement Insulation is the one modern home improvement that pays for itself by reducing heating costs as much as 40% every year. Then during the summer it keeps rooms 8" to 15" cooler. The resale value of the house is automatically increased. , Old homes, too, can be insulated the Gold Bond way. Call your local Gold Bond applicator for a free estimate. He is listed in the phone directory under "Insulation". The easy payments will be

amazingly small because your fuel bills go down immediately. Gold Bond Rock Wool insulation is only one of over 150 Gold Bond Products—engineered to help you build orremodel better at no extra cost. Included are Gypsum Lath, Plaster, Lime, Sheathing, Metal Lath, Insulation, Wallboard, Acoustical Products and Sunflex, the one-hour wall paint. Your local Gold Bond lumber and building ma-terial dealer is headquarters for all that's new in building products. See him first!

NATIONAL GYPSUM COMPANY BUFFALO 2. NEW YORK

Gold Bond Building Products add greater fire protection, permanency, and beauty at no extra cost. These include fireproof wallboard, lath, plaster,



a variety of baked enamel colors and the colorfast enamel finish is chip- and crack-resistant. Lumi-Shade comes complete in one package ready for installation and, as there are only six different parts, is easily installed.

Manufacturer: Thabet Manufacturing Co., 626 Huron St., Toledo, Ohio,

STEEL BRIDGING for reinforcing floors reduces building costs.

Pioneer Tru-tye bridging is a new, tested steel bridging for reinforcing floors. Replacing the conventional wood bridging, it is formed from rust-proofed, high carbon steel and is ribbed to provide extra strength. In use it is secured to the top of each joist by two pongs and is countersunk with one hammer blow. The two ends are then fastened to the bottom of



How much air at 4th and Main?

You can't afford gold-braided doormen for that store at 4th and Main. No luxurious "extras" of any kind.

And yet you know, from costly experience, that air conditioning for this store is a must. You know that next summer will be hot and sticky . . . that shopping is wearying work ... and that women will give their patronage to stores and shops that are comfortably cooled.

So it isn't a question of whether you need comfort cooling at 4th and Main. The question is: How much can your store afford?

USAIRCO has the profitable, business building answer in its 3 great comfort cooling systems ... each a pre-engineered package unit ... each available in a variety of sizes to meet any requirement.

Refrigerated Kooler-aire delivers the ultimate in air conditioning ... Cold Water Kooler-aire is designed for those locations where 55° water is available . . . Evaporative Kooler-aire gives washed and filtered air cooling at "pennies-a-day" costs. USAIRCO co-operating engineering counsel is available for correct installation.

Would you like to see exactly what these systems are and what each one can do for you? Write and we'll send you all the facts.

UNITED STATES AIR CONDITIONING CORP. Como Ave. S. E. at 33rd, Minneapolis 14, Minn.



3 COMFORT COOLING SYSTEMS ... AT 3 BUDGET LEVELS

the two adjacent joists with one nail in each. Ends are bent upward and the prongs driven into the wood for a permanent bond. According to the manufacturer the new unit effects savings in labor and nails which cut bridging costs in half. The unit comes in one standard size, fits 2 x 6 in., 2 x 8 in, and 2 x 12 in. joists.

Manufacturer: The Pioneer Co., Century Bldg., Pittsburgh, Pa.

RUBBER STRIPS attach to concrete forms to produce bevels and decorative treatments.

The U. S. Rubber Co. has recently introduced a new method

of forming bevels and decorative grooves on concrete surfaces by means of rubber strips attached to the forms in place of conventional wood strips. These new strips, produced in various shapes and sizes, attach to the form with a waterproof adhesive and are easily removed without chipping the mortar. The rubber is said to produce a smooth finish and the strips can be reused many times.



Manufacturer: U. S. Rubber Co., Rockefeller Center, New York, N. Y.

SAFETY STAIR NOSING with colorful non-slip abrasive tread is designed for use with resilient floor coverings.

This new line of Tuff-Tred Safety Stair Nosings provides maximum safety, durability and enduring appearance to all types of stairways. Furnishing a wide, smooth, non-slip, non-trip surface which contains over 60 per cent abrasive grains, they are available in either square or round edge designs in a choice of four colors. Nosings can be installed with all types of resilient floor coverings, rabbeted into wood stairs or inserted into concrete or terrazo stair construction.



Manufacturer: Goodloe E. Moore Co., Danville, Ill.

WASHABLE FLAT PAINT, applicable to fresh plaster, offers one-coat coverage, does not support flame spread.

Especially suitable for housing projects, Rubber Gard Velvet Flat is a washable, decorative flat finish that can be used on fresh, damp plaster walls as well as on existing surfaces. With excellent one-coat hiding qualities, it does not support flame spread even under intense heat, is resistant to staining and can be scrubbed like porcelain with ordinary cleaning compounds. It can be easily applied, dries in one hour and can be painted over with any type of paint. This new rubber base paint comes in white and ten colors.

Manufacturer: Wilbur & Williams Paint Corp., 43 Leon St., Boston, Mass

FLUORESCENT LIGHTING FIXTURE for industrial installation is low cost.

According to the manufacturer, low cost is the main feature of this full-size Silv-A-King industrial fluorescent lighting fixture. Known as the Economical Unit, it is a two lamp, 40-w. open-end type fixture, completely wired with 6 in. No. 18 AF wire leads, ready to install. Reflector is full size, 13 in. wide, 52 in. long and comes in (Continued on page 192)

GENERAL ELECTRIC Q-FLOOR WIRING ADDS FLEXIBILITY TO STORE LAYOUT

To provide an electrical system that can be quickly adapted to any changes in store arrangement, the new Abraham Drug Store in Burlington, Vermont, has been equipped throughout with Robertson Q-Floors and General Electric Q-Floor wiring.

Planned for Efficiency

This attractive four-story building, like larger buildings constructed with Q-Floors, was designed for efficient service and economical maintenance now and throughout its life. Today, Q-Floor wiring provides ample facilities for general and showcase lighting, for cash registers, and other electrical needs. In the future, as layout changes are made, electric outlets can be moved and new outlets added wherever needed — quickly, and without the expense of ripping up floors or installing new raceways.

How Q-Floors Save

Any building, large or small, can be designed to stay electrically flexible with G-E Q-Floor wiring. The Q-Floor system — a series of hollow steel cells under the finished floor — provides raceways that can be tapped anywhere in the floor on six-inch centers. Thus, electrical facilities can be changed at any time, with little effort, and at low cost. When building, get Q-Floor planning assistance from your General Electric Merchandise Distributor or a factory underfloor specialist. For information, write to Section C59-14, Appliance and Merchandise Department, General Electric Company, Bridgeport 2, Connecticut.



All electrical requirements in the up-to-date Abraham Drug Store, Burlington, Vt., are provided for with General Electric Q-Floor wiring. This modern wiring system, making changes in electrical layout simple and inexpensive, will keep this building always electrically young.

Left: Orin Lambert of Sherwin Electric Company, electrical contractors, demonstrates the ease with which new electric outlets can be installed in Q-Floors. Right: L. S. Newton, architect, proudly makes a purchase in the new Abraham Drug Store, which he designed to include General Electric Q-Floor wiring. Note accessibility of electric outlets.





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research laboratories. In production, these products are checked against the highest standards in the industry. The trust and acceptance symbolized by the USG trade mark means more satisfied clients for architects and builders. It's a firm foundation for better business.

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her drink is pure and clear ...

She's the healthiest child in the world—this regular American kid. Pipe had much to do with making her strong, straight and sturdy, and in keeping her so.

She drew her first breath in a modern hospital. Mile after mile of pipe made possible the sanitary and therapeutic facilities that gave her a head start over the children of other nations.

Her home sets the world's standards for comfort, convenience and healthful living, largely because of the thousand-or-so feet of pipe that provides pure water, heat and sanitation.

All through her life, steel pipe in one form or another will help to assure her health and happiness. She can take it for granted—we all can.

The interesting story of "Pipe in American Life" will be sent upon request.

COMMITTEE ON STEEL PIPE RESEARCH of American Iron and Steel Institute, 350 Fifth Avenue, New York 1, N.Y.

STEEL PIPE MAKES IT POSSIBLE!

... better living through pipes of steel for plumbing and heating purposes.





EMERSON-ELECTRIC HOME COOLER FAN Installed in attic, this sturdy fan forces out the day's accumulation of hot air, pulls in cool night air through open windows and doors. Designed to give years of silent, trouble-free service in all types of homes.

> KITCHEN VENTILATOR Adjustable to wall thickness, this dependable fan whisks out kitchen heat and cooking odors, prevents spread to other rooms.

If Mr. and Mrs. Client were building their own home, they'd be sure to "build in" two important comfort

features – an Emerson-Electric Home Cooler Fan for a cool, "sleepable" house on hot summer nights—and an Emerson-Electric Kitchen Ventilator for an airy odorless kitchen.

Emerson-Electric is continuing to sell these two home-comfort ideas in more than a score of popular magazines, reaching thousands of present and prospective home builders. You're sure to please your clients and make your client-job easier, when you specify and install Emerson-Electric Kitchen Ventilating Fans and Home Cooler Fans.

For detailed specifications and complete information, write for free illustrated catalog No. B-30 TODAY.

THE EMERSON ELECTRIC MANUFACTURING CO., ST. LOUIS 21, MO. Branches: New York Chicago - Detroit - Los Angeles - Davenport



BUILDING REPORTER

either porcelain enamel or synthetic baked enamel on heav gauge steel. The gray enamel hood matches in color th

outside reflector. Ballasts are high-power factor, and starters separately mounted behind lamp-holders, allow for easy replacement. The unit is com-



pletely adaptable for single or continuous runs, chain or conduit suspension.

Manufacturer: Bright Light Reflector Co., Dept. EC-7, Fain field and State Sts., Bridgeport, Conn.

NEW FLUORESCENT FIXTURE LINE offers variety of type and models.

This complete new line of fluorescent fixtures, known a Trofferlite, includes a variety of types and models in 12 in

24 in. and 13³/₄ in. widths, and in deep or shallow construction. The 12 in, and 24 in width fixtures are manufactured in the following types: open, glass enclosed, baffled and louvered. In deep construction these fixtures can be had for use with 96 in. and 72 in. Slimline tubes. The 13³/₄ in. width fixture is available



only with Holophane Controlens. All of the new units are treated against rust and are finished in baked white ename inside, gray enamel exteriors.

Manufacturer: Leader Electric Co., 6127 North Broadway Chicago, III.

DUPLEX REFRIGERATOR combines 7 cu. ft. deluxe refrigerator and 3.5 cu. ft. zero food locker in one cabinet.

Actually two appliances in one cabinet, the Frostair Dupler provides a 7 cu. ft. refrigerator above a $3\frac{1}{2}$ cu. ft. frozen food locker. The 40° refrigerator has a full 14.2 sq. ft. shelf area

while the zero locker holds 130 lbs. of meat or 80 qts. of fruits or vegetables. Each compartment features a separate Dutch door and a separate refrigeration system. In the upper or refrigerator compartment the freezing coils are concealed inside the walls. Thus defrosting of the refrigerator area is eliminated. Humidity is kept at 80 per cent. Removable shelves glide out easily and



because the refrigerator compartment has waist high reach to the lowest shelf, there is no stooping or bending. Other features of this compartment include a separate icemaker capable of making 90 cubes at one time, a special compartment for tall bottles and three wire baskets for fruits and vegetables. According to the manufacturer, the icemaking compartment needs defrosting only once or twice a year. The 3.5 cu. ft. frozen food locker, located behind the lower Dutch door, maintains temperatures at zero and requires no defrosting. The compartment has two aluminum-fitted bins equipped with automatic safety stops. The new Frostair Duplex is heavily insulated and employs two silent hermetically sealed refrigeration systems which are said to insure efficiency, few repairs and long life. Overall (Continued on page 196)



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between several Andersen Gliding Window Units, so that nearly the entire room is walled with glass. Specification data is in Sweet's Architectural and Builders' Catalogs or will be sent by Andersen Corpo-ration on request. See your local lumber and millwork dealer for prices and delivery information. * TRADEMARK OF ANDERSEN CORPORATION

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... in a house wired for an Electric Range

dimensions are height 681/2 in., width 33 in., depth 291/2 in. Price ranges from \$588 to \$593, depending on locality.

Manufacturer: Frostair, Division of the General Tire and Rubber Co., 332 S. Michigan Ave., Chicago, Ill.

COMPACT REFRIGERATOR of 73/4 cu. ft. capacity fits into small and medium size kitchens.

Designed to fit into small kitchens and apartments, Coolerator's new $73/_4$ cu. ft. "Kitchen Saver" refrigerator gives a

maximum storage capacity in a cabinet requiring a minimum of floor space. The compact, streamlined cabinet measures only 56³/₄ in. high, 28 in. wide, and 25 in. deep. It provides 15.7 sq. ft. of shelf area and in addition a 25 lb. built-in frozen food locker. A separate shelf is included for three large ice cube trays or the freezing of 42 cubes at once. Other features include two special shelves for



tall bottles, a fruit and vegetable crisper, defrosting tray, interior light and 3 in. of insulation. The new refrigerator is operated by a hermetically sealed freezing unit that does not require oiling or adjustments and has three zones of cold. List price of the new unit is \$239.75 f.o.b. Duluth.

Manufacturer: The Coolerator Co., Duluth, Minn.

ELECTRIC RANGE for apartments and builder projects requires minimum floor space.

Designed especially for apartments and builder projects as a companion to the Kelvinator Space Saver Refrigerator

(B.R. 4/47), this new 21 in. electric range provides important space saving and efficiency advantages for the small, modern kitchen. Only 21 in. wide, 25 in. deep and 36 in. high, it features a full size two-unit oven and three surface units. The



two-unit oven with a 3,000-w, top unit for broiling and a 2,000-w. bottom unit for baking measures 16 in, x 16 in, x 19 in. Heavily insulated with Fiberglas it has a counterbalanced door and broiler stop and rounded corners for easy cleaning. A concealed vent provides an outlet for excess vapor. There is a manually operated oven selector switch for bake, preheat and broil speeds and a signal light to indicate when oven is in operation. The three surface units, an 8 in. unit with a wattage range from 130 to 2,100 w. and two 6 in, units with wattage ranging from 80 to 1,250 w., are of triangular tubular design. Each seven heat unit has two separately controlled cooking areas for greater flexibility and economy. Cooking units can be raised to allow easy cleaning of the reflector pan. The new range has a welded one-piece porcelain exterior with porcelain acid resistant top, recessed sloping switch panel and a handy appliance outlet. Connected load is 10,260 w.

Manufacturer: Kelvinator Division, Nash-Kelvinator Corp., 14250 Plymouth Rd., Detroit, Mich.

STAINLESS STEEL SINKS available in any number of units.

This new line of seamless utility stainless steel sinks is available in one, two, three or more (Continued on page 200)

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HOW TO HAVE

contented customers

To have contented customers, popular home-buyer trends must be recognized. Today the trend is to Electric Ranges. Another million American families switched to Electric cooking last year. Estimates indicate that this year over a million more Electric Ranges will be installed.

This is a definite trend that cannot be ignored. Progressive builders recognize this trend. Electricity is a "must" in any house. It's simple and economical to include wiring for an Electric Range leading to a range outlet in the kitchen at the time of construction. This is assurance that the houses you build are not only modern today, but will stay modern for years to come!

Follow

the trend



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welded units. Deep drawn from 18 gauge stainless steel, they come in seamless depths of either 6 or 8 in. and have standard $1\frac{1}{2}$ in. drain openings. Bowl size on all models is $11\frac{3}{4}$ in. x $13\frac{3}{4}$ in. x 8 in. Units can be



furnished in either flat or raised edge for tile or sheet metal drainboards and come with or without ledgeback. Following size sinks are available: single with ledgeback, 16 in. x 16¹/₂ in. x 8 in.; single without ledgeback, 16 in. x 14 in. x 8 in.; double with ledgeback, 18³/₈ in. x 26¹/₂ in. x 8 in.; double without ledgeback, 16 in. x 26¹/₂ in. x 8 in.; triple without ledgeback, 38³/₄ in. x 16 in. x 8 in.; triple with ledgeback, 38³/₄ in. x 18¹/₂ in. x 8 in. Four or more grouped units can be supplied on special order. Sinks are available in Monel metal at slightly higher cost, all are furnished less fixtures and strainer. *Manufacturer:* Zeigler-Harris & Co., 2900 N. San Fernando Road, Burbank, Calif.

MODULAR TRIANGLE for drafting brick and tile courses.

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Manufacturer: W. W. Ford, 505 N.E. 5th St., Oklahoma City, Okla. (Technical Literature, page 208)



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investigate the long-life economy and efficiency of JUST LINE quality. In addition to all-welded seamless construction, radius corners and many other features, JUST LINE SINKS give you the



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TECHNICAL LITERATURE



X-RAY PROCESSING FACILITIES. Planning the X-Ray Processing Facilities and Equipment, Part I, II, III. Medical Technical Service, Medical Division, Eastman Kodak Co., Rochester, N. Y. 42, 28, 66 pp. $7\%_8$ in. x $101/_2$ in.

Of special interest to hospital architects, these informative booklets offer much helpful data on the planning of X-ray processing facilities. The introduction points out that the flow of X-ray films from the radiographic room, through the processing facilities, to the viewing room may be expedited by the proper planning of the processing rooms within the X-ray department and by the efficient arrangement of equipment. The design approach is made from the standpoint of motion economy in routine procedures based on recommendations of time-study engineers. Part I "Planning the X-ray Processing Facilities" deals with the location of facilities, special purpose rooms, loading rooms, planning the floor



CABINET SHOWERS

space, single room layouts, arrangement of equipment and light tight entrances. It also covers electric wiring, ventilation, floor and wall coverings. Part II deals with illumination, the loading bench in the X-ray processing room and facilities for drying the X-ray films. Part III is devoted exclusively to X-ray processing tanks, their design, materials and construction, plumbing, temperature control and maintenance. The three volumes are fully illustrated with plans, diagrams, sketches, etc.

GOLF RANGES. Golf Range Operator's Handbook. The National Golf Foundation, 407 South Dearborn St., Chicago, III. 34 pp. $8\frac{1}{2}$ in. x 11 in. Price \$1.

The first publication to be printed on the subject of golf ranges, this handbook provides pertinent information on the construction, maintenance and management of golf facilities. Opening chapters give information on the area required for golf ranges, selecting the site, planning and laying out the range. Following sections discuss fairways and target greens, tees, illumination, retrieving of balls, balls and clubs. A "Golf Range Operator's Forum" offers reports of construction, equipment and operating developments contributed by cooperative range operators. Concluding chapters cover practice sand traps, range turf maintenance and miniature golf. Architects' drawings illustrate a contemplated golf range project, photographs show various types of buildings, tees and other golf range facilities.

CEILINGS. Leading The Trends, "It's Simple With Simplex." Simplex Ceiling Co., 552 W. 52d St., New York, N. Y. 16 pp. 81/2 in. x 11 in.

These pages adequately describe the advantages and installation of Simplex Ceilings, a flexible, adaptable, easily-installed type of metal panel ceiling construction. Large scale diagrams illustrate the system's application to various types of construction and structural conditions. Drawings show how Simplex ceilings can be used with fluorescent lighting, for blanket air distribution, noise reduction, radiant heating, invisible music source, etc.

STEEL. Warehouse Stocks. Allegheny Ludlum Steel Corp., 2020 Oliver Building, Pittsburgh, Pa. 72 pp. 8½ in. x 11 in.

This list of tool and high speed steel warehouse stocks not only indicates types, shapes and sizes available, but shows the local warehouses in which each item is stocked. It contains 62 pages of indices of all high speed and tool steels marketed by the company through its warehouse system. Each page is laid out in tabular form with the company's 18 warehouses represented vertically and sizes listed horizontally. Symbols, used to designate flats, squares and rounds indicate whether a warehouse stocks the particular shape and size desired. Additional pages list warehouse and sales office locations and carry basic information on the product listed. Final pages are devoted to Carmet (sintered carbide) products available.

WOOD PRESERVATIVE. Chapman "Penta" Preservative. Chapman Chemical Co., 333 N. Michigan Ave., Chicago, III. 13 pp. 81/2 in. x 11 in.

Discussing the chemical nature of pentachlorphenol, the active ingredient in Chapman's "Penta" Preservative, this colorful booklet explains the many wood preserving advantages of the product. It also presents data on the treating equipment and treatment methods used, quantities of preservative needed and other outstanding features of the material. (Continued on page 212)



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TECHNICAL LITERATURE



DOOR FRAMES. Announcing the New Herculite Door-Frame Assembly. Pittsburgh Plate Plass Co., 632 Duquesne Way, Pittsburgh, Pa. 8 pp. $8\frac{1}{2}$ in. x 11 in.

This booklet describes Pittsburgh's new complete, packaged metal door-frame assembly for use with Herculite glass doors. The 12 available styles suitable for practically any type of business or commercial building are illustrated. Variable dimension tables and typical section views are also included.

FIREPLACES. Successful Fireplaces How to Build Them. Thirteenth Edition. The Donley Brothers Co., 13900 Miles Ave., Cleveland, Ohio. 80 pp. 83% in. x 11 in. Price \$.50.

This new edition of "Successful Fireplaces How to Build Them" describes the design and construction of both indoor and outdoor fireplaces which burn cleanly and give maximum



warmth. Beginning with a discussion of the factors involved in fireplace planning, such as location, size, etc., the bool gives a brief step-by-step procedure for building a masonr fireplace. The following section elaborates upon the construction, includes tables of fireplace dimensions, flue lining capacities, etc. Another chapter fully treats the Donley Heat saver, a heat-circulating type of fireplace—its advantages required equipment, installation procedure, etc. Additional sections discuss fireplace history; the Dutch oven fireplace the outdoor fireplace; fireplace difficulties, their prevention diagnosis and treatment; Donley fireplace products; etc.

HEATING. Winter Air Conditioning. Gravity Warm Air Heat ing Systems, Gas Heating. Surface Combustion Corp., 2375 Dor St., Toledo, Ohio. 7 pp. 91/4 in. x 113/4 in.

The first in a series of ten heating guides for architects builders and heating engineers, these two publications provide technical information relative to best applications for variou types of heating systems, most suitable arrangements o ducting, furnace location, etc. The "Winter Air Conditioning" guide covers forced air systems with or without humidity con trol. The Gravity guide discusses all types of gravity systems utilizing either natural, manufactured, mixed or liquified gas Both booklets include plans and diagrams illustrating the correct placement of the heating unit, stacks, risers, registers and return air intakes. Floor plans of residences to which the various types of heating are particularly suited are also included along with suggested specifications covering installa tion and other pertinent data. The remaining eight guides will be available shortly, will be titled: Conversion Burners for Remodeling, Fuels and Fuel Conservation, Heating Systems in Review, Hot Water and Steam Systems, Multiple Dwellings-Basementless Houses, Radiant Panel Gas Heating, Commercial and Industrial Systems and Janitrol Equipment Gas Heating.

LIGHTING. Westinghouse Recessed Type TR Troffer Luminaires. Westinghouse Electric Corp., Lighting Div., Edgewater Park, Cleveland, Ohio. 12 pp. 83% in. x 107% in.

This booklet describes the advantages, uses and installation of Westinghouse's new recessed troffer luminaires. Pointing out the ease of installing and maintaining proper illumination by use of the versatile troffers, the book includes photographs, sketches, schematic diagrams, illumination design data and suggested layouts for various conditions.

ACOUSTICS. Sound Control. Johns-Manville Sales Corp., 22 E. 40th St., New York. 16 pp. 81/2 in. x 111/8 in.

Sound Control offers practical suggestions for quieting noise, correcting acoustics and isolating vibration. Describing the various sound absorbing materials produced by the company, it discusses their special advantages in solving sound control problems. Application recommendations, construction details and illustrations of commercial, educational and industrial installations are also included along with a description and data chart.

ARCHITECTURAL MODELS. Your Plans Come To Life in Mitchell Models. Mitchell Models, 112 Water St., Benton Harbor, Mich. 4 pp. $7\frac{1}{2}$ in. x 11 in.

Many three dimensional models of various types of architectural projects are illustrated in this folder as examples of this model maker's work. Text discusses use of models in promoting industrial and commercial projects, public programs, city planning and residential use, how they are made and how they pay for themselves. (Continued on page 216)

Like Going to Florida"



says this owner of a B & G Hydro-Flo Panel Heating System

Here's a report on B & G Hydro-Flo Heating that requires no further comment:"In 1945 your company made a layout for a radiant heating job



which was to be installed in a new home which we were to build and occupy. To my knowledge, this was the first job of this kind in this immediate neighborhood.

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dirt, and warm floors all of the time. The room temperature is carried at 68° to 70° and we were actually very comfortable.

"Our boiler has been fired with a Winkler self-feed stoker, the coal bin being between the utility room and the garage which are connected together as one unit. We have a one-story house with no basement. We used wrought iron pipe with concrete floors throughout. The garage is heated also, although at a lower temperature than the house. The pipes in the bathroom are four inches apart and the balance of the house, twelve inches apart. They are eighteen inches apart in the garage.

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TECHNICAL LITERATURE

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REQUESTS FOR LITERATURE

S. A. ASHMAWY, electrical engineer, 6 Abu-Tamman St., Koubba Gardens, Cairo, Egypt.

WILLIAM J. BARRON, architectural student, Box 33, Elberta, Mich. MARSHALL L. BIGGS, Box 1058, Palo Alto, Calif.

THE BUILDING UTILITIES UNIT Co., 666 Mission St., San Francisco, Calif.

RALPH E. CROOK, architect, Lancaster National Bank Bldg., 126 W. Main St., Lancaster, Ohio.

FLINN & SAITO, architects, 513 Lafayette Building, Waterloo, Iowa. WILBUR GREEN, architect, 2403 San Jacinto, Houston, Tex.

J. LUITEN, JR., architect, Lod Houbenstraat 26, Eindhoven, Netherlands.

DONALD C. F. MILLER, architect & engineer, Box 350, Barberton, Ohio.

RILEY CONSTRUCTIONAL SYSTEMS DEPT., Messrs. Cawood Wharton & Co., Ltd., prefabricators, 1A, Cavendish Road, Leeds 1, England. RICHARD E. STEIN, architectural student, 133-37 41st Road, Flushing, Long Island, N. Y.

S. STEINER, civil engineer, P. O. Box 609, Haifa, Palestine.

HOWARD E. WHITLOCK, contractor, 815 West 24th St., Pueblo, Colo.

REQUESTS FOR INFORMATION

PETER ALKEMADE, engineering student, Kerkehorst 33, Wassenaar (Z-H) Netherlands, desires literature and information on all types of building materials and equipment.

WALTER E. BOWDEN, builder, 124 East Ashby St., San Antonio, Tex., desires information on materials and equipment for resi-(Continued on page 222) dential construction.



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TECHNICAL LITERATURE



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J. P. CROW, engineer, design and building construction, 626 E. 6th St., Montgomery, Ala., would like information on short-cuts and methods of effecting savings in residential, apartment and commercial construction.

ELECTRO CONSTRUCTION CORP., (att: Myron Freiberg) 3520 Council St., Los Angeles, Calif., requests technical data on new developments in specialized lighting, electrical construction devices and products for commercial, industrial and residential electrical installations.

THE HOME OWNERS COOPERATIVE, INC, R.D. No. 1, Camillus, N. Y. requests information on building materials and equipment, particularly hardware and heating equipment, suitable for use in a development of 150 medium size homes.

ROBERT A. LITTLE, architect, 1303 Prospect Ave., Cleveland, Ohio, requests information on hardware, lighting fixtures, furniture, fabrics and finishes for contemporary residential and commercial work.

OAKLANDON HOMES, INC., construction, real estate, Oaklandon, Indiana, requests literature on all phases of residential construction as well as sub-division development.

JOHN G. QUINN, architectural & engineering designer, 1715 Maple St., Saginaw, Mich., requests literature on residential and small commercial buildings suitable for north central states.

W. J. ROBERTSON, lumber & building supplies, Thomaston, Maine, desires information and literature on wood and wood products.

MARTIN SCHNUR, industrial designer, 9 Warren St., Newark, N. J., requests information on materials and methods related to the design and construction of commercial interiors and exteriors.



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PECIFICATION AND BUYING INDEX

e advertising pages of FORUM are the recognized market place for those gaged in building. A house or any building could be built, completely products advertised in THE FORUM. While it is not possible to certify ilding products, it is possible to open these pages only to those manuturers whose reputation merits confidence. This FORUM does.

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