MORE HOUSE FOR THE MONEY TODAY

AMERICAN BUILDER and BUILDING AGE, with which are incorporated National Builder, Permanent Builder and the Builder's Journal, is published on the first day of each month by the

SIMMONS-BORDMAN PUBLISHING CORPORATION
105 West Adams Street
Chicago, Ill.

NEW YORK
30 Church Street

WASHINGTON, D. C.
National Press Building

SEATTLE
1038 Henry Building

SAN FRANCISCO
485 California St.

LOS ANGELES
530 West 6th St.

Publisher's Page—Government Versus Private Housing Construction—by Samuel O. Dunn

Editorials

Public Subsidies and Private Housing
What Do You Think? Building Leaders' Views Pro and Con on Public Subsidies

Signs—Slogans—Names That Sell

Tested Merchandising
Peter J. McKenna Describes Advertising Methods That Have Helped Sell $100,000,000 Worth of Homes in 17 Years

Mortgage Interest Rates Cut Sharply
4 1/4 Per Cent on FHA Mortgages by Large Eastern Banks Brings Payments on 25-Year Loan Down to $5.42 Per Month Per $1,000

Home Owner Confidence Strengthened by Same Promotion Methods
Buyer-Approved Home Designs Found Most Satisfactory—Freak Stunts and Sensationalism Prove Non-Productive

A New Idea—the "1939 Home Style Show"
W. C. Tackett Opens Chicago Spring Market with 25 Buyer-Approved Model Homes

Service Guarantee Assures Buyer Approval
Kinsey of Los Angeles Builds Good Will and Reputation for Responsibility with Offer to Service New Homes for One Year

Three Livable Cottage Homes for Same Plan
Novel Oregon Home Is Built Air-Tight
20 Years of Reliable Home Building
Brennan Brothers Take the "Spec" Out of Speculative Building. Have Built $10,000,000 Worth of Houses in West Hartford, Conn.

"Pay When We Deliver" Says Builder Kelley
Nashville, Tenn., Firm Offers a Complete and Unique Home Building Service to Customers

Dropped Floor Living Room—Fits Hillside
April Front Cover Home

TruCost Figures for American Builder Home Designs
Time Records for TruCost
Principles of Well-Arranged Small Stores (Part II)
Stores for City and Suburb
Architect Designs a Two-Flat for Himself
McClatchy Sells 6-Room Row Houses for $250 Down
Builder Completes Detroit Housing Project on Time and Cuts Cost with Power Tools
Precut Framing (Part II)
Shopcrafters' Corner
New Products Department
News of the Month
Letters from Readers

The 1939 Building Directory
Classified Directory and Buyers' Guide; Trade Name Index

Index to Advertisers

BERNARD L. JOHNSON
Editor

JOSEPH B. MASON
Eastern Editor

R. E. SANGSTER
Managing Editor

DOLO PARR
Associate Editor

LYMAN M. FORBES
Research Editor

ROBERT H. MORRIS
Business Manager

A. W. HOLT
"TruCost" Editor


AUDITORIUMS—"There is no substitute for a Hard Maple floor," says the architect. Below, in herringbone strip pattern.

CLASSROOMS—Warm, dry, resilient Maple is the preferred flooring.

GYMNASIUMS—Architects, athletic coaches, and maintenance men agree, "Nothing takes the place of Hard Maple."

OFFICES—As in stores and public buildings, Maple always satisfies—architect, owner and employee.

BAKERIES—"By far the most economical floor to service and keep in good appearance," says the president of this bakery.

CLUBS—Hard Maple is modern as it is serviceable, matches any decorative scheme.

HOMES—Hard Maple offers permanent beauty. The owner writes: "This floor was laid in 1900!"

MFMA*...The MARK that means the floor will satisfy

Protecting you on every flooring job

In buildings of many different types, there is a simple way to play safe on owner satisfaction, on architect approval.

First, lay Northern Hard Maple. You know, then, that from every standpoint—appearance, comfort, ease of cleaning, maintenance cost, and service—satisfaction in use, is assured.

Second, when you order your Maple Flooring, be sure it's trademarked MFMA*.

This mark on the wood means that the Maple Flooring Manufacturers Association, as well as the manufacturer of the flooring, guarantees that it is all Northern Hard Maple of the grade stamped thereon, in accordance with exacting Association standards. There is no question, then, of species substitution, or risk of inferior grade. You are sure that the same Hard Maple quality proved in countless installations, is present in the flooring you lay.

The safe rule for builders is the safe rule for architects: For certain satisfaction—in factories, mills, bakeries, auditoriums, office buildings, schools, stores, or homes—choose Northern Hard Maple, (in strips or blocks) and look for the MFMA trademark on the flooring you buy.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1781 McCormick Building, Chicago, Illinois
See our catalog data in Sweet's, Sec. 12/77.
Our service and research department will gladly assist you with your flooring problems. Just write.

Floor with MFMA Maple
(NORTHERN HARD)
Government Versus Private Housing Construction

Two important issues are involved in the controversy over big government expenditures for housing in so-called "slum" areas of large cities. One is that of government versus private enterprise. The other is whether all the people should provide homes for themselves at their own expense, or most of the people should bear all the expense of providing homes for themselves, and in addition bear a large part of the expense of providing homes for others.

Before the present depression nobody questioned that all housing should be built by private enterprise with private capital, and occupied by its owners or rented by them at its market value. Under that system many billions were invested in homes. Private investment in housing in the decade before this depression averaged 4 billion dollars annually.

Almost from its inception the New Deal has proceeded on two assumptions new in this country—(1) that it is essential to the provision of adequate housing that government shall erect part of it, and (2) that government-built housing should be rented at less than cost—the balance of the cost to be borne by the general public.

In invading the housing field the government uses money collected from all the taxpayers to engage in direct competition with private enterprise. No convincing evidence has been offered that this is needed or tends to increase the total amount of building. The increase in total housing construction, including government construction, has been much less than experience during previous periods of recovery indicates it would have been if the government had followed only policies of encouraging private enterprise and investment.

Nor is this all. Those responsible for government housing construction assume that all the poor housing needing replacement is in the congested parts of big cities. Every person familiar with the homes in smaller cities, in towns and on the farms knows this is not true. Millions of our people outside of large cities in all parts of the country live in as poor homes as any in cities, and desire to build or rent better homes. Most of them are small business men, clerks, farmers and so on who are willing to work, and save, and provide fully for themselves, as their fathers did. Why should they, in addition, be taxed to help provide homes for the so-called "under-privileged" in big cities?

Why so much more concern in Washington about those living in big cities than outside them? And why so much less concern about the large majority who are able and willing to provide for themselves, than about a minority who may or may not be less able, but obviously are less willing, to provide for themselves?

One thing is certain: the policies of (1) increasing government competition with private enterprise, and (2) heavily taxing most of the people to help a minority, have been accompanied thus far by less recovery than ever occurred in this country from any depression in which such policies were not followed.

Samuel O. Dunn,
Shown above is the beautiful new concrete home of J. E. Johnson, of Midatlantic Pipe & Products Co., Norfolk, Va. Located at Virginia Beach, the house has attracted hundreds of visitors, even though not opened for public inspection—indicating rapidly growing interest in really fire-safe construction.

Walls, floors and partitions are all of Lone Star and 'Incor' concrete: Exterior walls, 8-in. pre-cast building units, ashlar effect; 8-in. pre-cast concrete joists, with 2½-in. job-placed concrete slabs. This explains why Mr. Johnson says: "The fire insurance company gave me a lower rate than any other house in Virginia Beach."

Concrete homes are fire-safe, termite-proof, least expensive in upkeep—especially when Lone Star and 'Incor' are used, from cellar to roof: 'Incor' for watertight basements and non-dusting cellar floors; Lone Star or 'Incor' for high-quality pre-cast building units; 'Incor' for form-saving floor slab construction; Lone Star and 'Incor' in non-inflammable roofing.

Public Subsidies and Private Housing

The philosophy underlying the present trend toward subsidized public housing appears to be that every man, no matter what his economic status, is entitled to a decent, healthy place to live—just as it has become an accepted part of American thought that every child is entitled to a free education, no matter what his parent’s income.

Proponents of subsidized housing say that, like free education, the civic values of decent housing in place of crime-breeding slums are such that all citizens benefit and should therefore join in paying the costs.

Whether members of the building industry share this view or not, it must be admitted that it has apparently gained considerable public acceptance. Under the U.S. Housing Authority program $800,000,000 has already been appropriated for large scale public housing, and more is being urged on Congress.

Without commenting on the right or wrong of this policy, but accepting it as something which is occurring whether we like it or not, American Builder has the following to suggest:

If subsidies must be granted to housing, better results will be obtained by paying such subsidies to the “ill housed one-third” in such a way as to encourage them to buy small, individual homes through the regular channels of private building and finance. In other words, make the subsidies help private building and encourage private home ownership, rather than hurt private building and discourage home ownership in favor of renting.

Is such a thing possible? Let us see.

Under the U.S. Housing Authority program the following help is extended. 1. A 90% loan running for 60 years is granted by the Federal government. 2. A 10% loan is advanced by the local housing authority. 3. An annual subsidy of 3½% of the total cost is paid by the Federal government each year for 60 years. 4. Exemption from local real estate taxes is granted.

That is SUBSIDY in a big way!

American Builder is prepared to demonstrate that private builders with far less help, could provide much better houses at much less cost, both to the occupants, and to the tax-payers.

Let us illustrate with a $4,000 house (and lot). At this price or less a good house can be built and sold anywhere in the country close to cheap transportation. Under the FHA plan the monthly interest and amortization payment on a 25 year loan of this amount is approximately $24—too much for the “ill housed one-third.” But if the low-income home buyer were helped with the same 3½% annual subsidy granted by the USHA, his monthly cost would be reduced $12.50. So his good little $4,000 house would cost him only $11.50 a month! At that price he could afford to pay at least a part of local real estate taxes. With taxes, heat, upkeep and other necessary expenses included, the monthly cost to the subsidized owner would still be far less than he would have to pay in a large scale public housing project. Furthermore, the subsidy would run for only 25 years, the length of the loan. The entire operation would be handled by the usual private channels of building and finance. The subsidy would be paid directly to the loaning institution and would in effect amount to guaranteed interest on the loan.

If a 3½% subsidy does not bring the cost down low enough, it could be increased to 4% or 5% or even 6% and still cost less (since it runs for only 25 years), than the 60 year USHA subsidy. A 6% subsidy would practically cover the entire monthly FHA interest and amortization payments, leaving the underprivileged occupant to pay only the local taxes and upkeep!

Bear in mind, that since the financing is done by private loan agencies, with or without FHA insurance, the Federal Government would be spared the necessity of raising the huge sums now required to advance the 90% loans of USHA.

Planned “Garden Communities”

Who would be entitled to such a subsidy?

The answer is: the same people who are to enjoy the subsidy paid to public housing which they rent. Presumably the same type of “ill-housed” man of reasonably good earning power who is considered eligible for rental housing would be certified by the local housing authority as entitled to the subsidy. He could then build or buy a house in any location he might choose, subject, of course, to approval by the local housing authority. Private builders would be encouraged to build planned “garden communities” for subsidy homes. No down payment would be required, since the local housing authority would provide a 10% loan, just as it does under the USHA plan.

But suppose the lucky winner of this subsidy house lost his job, or decided he didn’t like the idea of a home of his own after all. The answers are easy. If he merely wished to move out, the house would be quickly snapped up by others anxious to get a house so cheap.
If he lost his job, he would probably go on relief, and the community would have to pay his rent anyway. So the local housing authority might well set up an unemployment reserve, to which the Federal Government would contribute another small subsidy, to carry the house payments in time of trouble.

Does this all sound very visionary? Indeed it does, and is. But yet it is far more practical, far more beneficial and far more inexpensive than the building of huge and costly large scale public housing such as is already being done.

It has this very important quality: it puts people in private homes of their own choosing where they ultimately become responsible property owners, tax payers and active participants in their own community. American Builder believes this is far more desirable than encouraging them to huddle in huge apartments where they are forever merely rent payers with no interest in or attachment to any community. The most colossal mistake imaginable is to exempt large scale public housing from local real estate taxes, as is being attempted, which thereby saddles the increased costs of streets, schools and community services upon private home owners. That is doing everything possible to discourage private home ownership.

American Builder’s proposal would encourage the building of homes in small towns and suburbs and in the country as well as in cities. It would eliminate the serious problem of public ownership and operation. It would immediately enlist the support of hundreds of thousands of real estate men, builders, material dealers, and many local building associations and other local building interests who for the most part are now opposing public housing.

If subsidies are to be given, let’s place them where they will do the most good. If action is wanted, this program would get it.

What Do YOU Think?

Building Leaders View Pro and Con

"Brand New" Housing Not Needed

To the Editor: Chicago, Ill.

I have read with much interest the advance proof of your editorial “Public Subsidies and Private Housing.” The plan you suggest seems to me to offer a sound approach to the public housing problem and one that at least has possibilities of reaching the type of people for whom subsidies are justified. The present activities of the USHA are not clearing slums or rehousing slums dwellers and, in fact, Administrator Straus has said publicly that, under the Act, he has no responsibility whatever for their rehousing and the proponent of the USHA program are openly stating that the emphasis on “slum clearance” given in the legislation was misleading and used only as a “sop to the banking and real estate interests.” (See article in Harper’s for March entitled “What’s Happened to Housing?”) It was intended to be a “housing program” for all those unable to pay for their own housing, which in some estimates they give as 80 per cent of our population.

Under the plan you propose, it seems to me that even families on relief could take advantage of the terms and have a chance of paying for the house on almost the same terms as the lowest possible rent.

Of course, I differ with your apparent philosophy in one respect—I do not grant that it is necessary to house our lowest income group, who are dependent on some form of public assistance, in brand-new modern housing. I believe that in many cases, if not all, properties now occupied by those just above the slum-dweller line could be improved and made safe and sanitary and even attractive at much less cost than new dwellings. Such a program would also tend to rehabilitate whole neighborhoods which would otherwise inevitably become slums, in time.

I am heartily in sympathy with that feature of your proposal which provides a means for private or institutional owning and managing of such property, rather than making the Federal Government the permanent landlord of large groups of our population, as the USHA now does. And I agree that such activities could most certainly be carried on with far less waste and extravagance than is possible under the present program.

Am not sure that we would want to see any policy or program adopted that would further beef up the FHA, as their activities are proving very injurious to our associations in many areas, but it does seem that, if the Government is justified in taking risks in connection with any individual debts for home-ownership, it should be for this class who must be provided with a certain amount of relief out of the public purse in any event.

MORTON BODFISH, Executive Vice President, United States Building and Loan League.

"Promote Home Ownership"

To the Editor: Rochester, N.Y.

To my way of thinking, you have put your finger on the underlying fundamental of the whole problem—how the job can be done with least expense to taxpayers, and at the same time, promote home ownership and the recovery of business.

It must be apparent to anyone who studies the subject carefully and with open mind, that private enterprise if aided by a subsidy can do the same job which is now being done by the U.S. Housing Authority, and at far less cost in the way of subsidy. Whether the plan you propose is fundamentally sound is open to question. But it is certainly as sound as some other plans proposed, and would cost the taxpayers far less, to say nothing of promoting home ownership and thereby generating a greater attitude of responsibility on the part of the community in general.

Your editorial should be placed in the hands of all Associations, Chambers of Commerce, newspapers, Women’s Organizations, to stimulate thinking. I have attended several housing meetings lately, and can see the need for such discussion as you have suggested.

PAUL S. COLLIER, Sec’y-Mgr., Northeastern Retail Lumbermens Association.

Wants 3 Per Cent Interest Rate

To the Editor: Chicago, Ill.

I have read with interest your proposal that home ownership be given a subsidy through a small annual payment from the Federal Government which would in effect wipe out the capital cost in twenty-five years. Certainly your proposal is in many ways more sound than the present policy of the USHA. At least the citizen would have something when the procedure was finished.

(Continued to page 130)
Signs—Slogans—Names that SELL

A GOOD sign is like a calling card—it expresses the character of the development and sets the theme of the sales story. Shown above are a number of signs of the type popular with some of the large Eastern builders.

According to such a builder-sign specialist as J. Rose of Cameo Sign Service, Brooklyn, N.Y., who does a large part of the Long Island sign business, there is a strong trend towards more attractive, artistically designed signs that fit into the countryside without disfigurement.

Scientifically designed and located signs are necessary to cash in on newspaper advertising, he points out. The largest and most impressive sign is placed at the development. Then direction signs are placed at important traffic corners within a five-mile radius. Additional traffic signs are placed in a ten-mile radius carefully worked out. Closely connected with the art of signs is the selection of attractive names for developments, proper slogans, and names and slogans for model homes. Following are a few (Continued to page 156)
SELLING homes is the most interestingly human adventure in the business world, Peter J. McKenna declares, and he really believes it. That is why in 17 years he has become one of the foremost advertising men in the country specializing in real estate and home building.

His concept of helping operative builders sell houses is a large one. It includes the general plan and idea of the development itself, the planning of features that will give the community an outstanding character, publicizing the early stages of the construction, creating news stories when model homes are opened to the public, and, of course, those two most essential activities of an advertising man, the preparing of newspaper advertising copy and of folders, signs and booklets.

“Our job is to help the builder educate the public to appreciate the higher standards of today,” he told me. The walls of his New York office are vivid proof of what he has been doing along these lines for they are plastered from floor to ceiling with copies of builder advertisements, photographs, booklets, slip sheets and publicity scoops.

“Builders have raised their home standards to a point where the buyer today gets a dwelling never dreamed of a few years back,” he said. “Today we are constantly dramatizing these improvements through our local newspapers and making the public ask for the quality construction and equipment items being used.

“There was a time when the selling of a home—the most important investment in the average man’s lifetime—was not presented to the public as attractively as the selling of a $15 suit of clothes. But today, by modern merchandising methods we wrap the modern home in a new and alluring package. Our model homes are completely furnished to the last detail including flowers on the mantel. Public notables sponsor the breaking of ground. The event of spring signalizes the opening of the ‘Bride’s House.’ We christen the opening of a new community by breaking a bottle of champagne at the gatepost. Perhaps the village president manipulates the throttle of a steam shovel to break ground, or a Federal Housing official breaks the turf of a golf course taken over for a new development with a silver niblick.

“The buying public understands something that is new—something that is interesting. But buying a home is a serious business, and meaningless, empty stunts will be resented. We must dramatize the progress of home builders. A model home that is completely equipped with a host of labor-saving devices can be called ‘The House that Works.’ Or another which features telephone system from front and back door to kitchen and second floor hall is called ‘The House that Talks’.”
McKenna is closely in touch with a large number of active builders. His clients are among the largest in the country. Ten of them alone sold more than 1,800 houses last year. In 17 years McKenna has been closely associated with builders in the selling of more than 13,500 dwellings representing over $100,000,000. Included in his organization, the Metropolitan Advertising Agency of New York City, are specialists in various phases of home selling, including an experienced newspaper man. A carefully worked out program is followed in connection with the publicizing, merchandising and selling of a building development. The activities in connection with the selling program may be classified under five heads: A. Setting the stage; B. Model homes; C. Publicity; D. Newspaper advertising; E. Booklets, folders and specialties.

Setting the Stage

Any building project must have a character, setting and background that is suited to the type of persons who are expected to buy. The advertising counsellor can help the builder determine what he is “shooting at” and will then set the stage. Considerable discussion frequently brings out one important feature that will become the theme of all publicity, advertising and promotion. It may be large wooded building sites, or it may be an exclusive neighborhood, or it may be closeness to good transportation, or it may be a low price for that classification of house. Any of these features might serve as theme.

Estimates of the total number of houses to be built are made. The number of basic plans and elevations, a complete description of materials and equipment used in the houses set up. Lists are made of such features of important equipment and structural items. Interest-
ing facts about the background of the property are dug out. The builder's background and the number of homes he has built are studied. Selection of the name of the development, the naming of streets with an eye to public acceptance by the proper group of buyers is carried on. The actual work of publicizing the project starts long before construction begins. A newspaper story describes the acquisition of the property and early plans. A few weeks later other stories announce the beginning of construction, how many houses are under way and when the first model home will be open for inspection.

As the model house or houses approach completion, elaborate plans are laid for its opening. A prominent public official or FHA official is secured to conduct the official opening. Arrangements are made for photographers, and newspaper men notified. The house is attractively furnished, the builder actually buying the furniture rather than borrowing it as sometimes in the past. Placards are put up in the house calling attention to its outstanding features of equipment and construction. In some cases colorful and striking banners or flags are put up in the neighborhood, well designed signs direct crowds to the model home.

**Model Homes Best Showrooms**

A properly dramatized and publicized model home opening brings out thousands of interested persons, only a small percentage of whom may be actual potential buyers. It is the job of the builder's salesmen to silt out the actual prospects. An expert merchandising counsellor aids the builder in picking the right kind of salesmen and helps him in training them to handle customers skillfully. The procedure of closing a sale or getting a down payment is carefully studied. McKenna found on one job that salesmen were having difficulty getting a down payment. Investigation showed that the form which the customer was expected to sign was an elaborate and complicated document that scared them off. He drew up a simple contract form that removed most of the mental hazard and made it easier for the salesmen to "get the name on the dotted line."

**Getting Publicity**

The opening of a development and the building of homes are newsworthy events when properly handled. The whole concept of a new project can be built up by skilful publicity, which starts from the very earliest stages of the operation as has already been pointed out. Frequent newspaper stories are written about the various steps in the progress of construction. The builder is quoted on the number of homes he plans to build and the effect it will have on local employment and prosperity. The opening of a model home is publicized before, during and after the event. If a number of sales are closed at the day of the model opening, this is the occasion for another newspaper article. Good photographs of the houses, with the black and white sketches of the floor plans, should be obtained and supplied to the local real estate editor with concisely written details about the construction features of the house.

Frequently a publicity story built around the remarks
"A Good Folder Should Be a Resume of Your Best Salesman's Talk.—You Must Fit the Folder to the Type of House and Class of Buyer Desired."

The builder concerning some national development in housing or some news event concerning home building can be prepared that will make the grade with the real estate editors. Publicity serves a definite purpose for the builder, but it should not be relied on to do the whole job. Regular and consistent paid advertising is the basis of successful builder merchandising.

**How Much for Advertising?**

A definite allotment for newspaper advertising space is recommended by McKenna to his clients. It varies with the type of home and type location and type of builder. A rough rule of thumb is suggested as $100 on a $10,000 house or $50 on a $5,000 house—roughly one percent of the sales price including land. Advertising is placed on the basis of a thorough study and knowledge of the features of the various newspapers and other local advertising mediums. A house in the lower price range is more heavily advertised in newspapers circulating among the lower income groups. Without careful study a builder might bring out a crowd of people as a result of an advertisement in the wrong paper that did not suit the type of community he was building.

One important theory practiced by McKenna is never to put a telephone number on an advertisement. He believes that unless a person is interested enough to come out to see the house, it is better not to talk to him at all as he may get the wrong impression over the telephone.

**Folders and Booklets**

McKenna prepares booklets, large, small, simple and elaborate for his various clients, but the basic idea behind all of them is that they present the best essence of the salesman's talk. The book-

(Continued to page 150)
Mortgage Interest Rates Cut Sharply

4 1/4 Percent Interest Rate on FHA Mortgages Announced by Large Eastern Loaning Institutions. Brings FHA Payments on 25-Year Loan Down to $5.42 Per Month Per $1,000

With financial institutions loaded with money which they are unable to place in commercial loans at even very low interest rates, builders have for some time been wondering whether there would not soon be a movement toward lower home mortgage interest rates—especially on insured FHA loans.

The question was dramatically answered early in March when a number of large New York financing institutions announced reduction in the basic interest rate on sound FHA mortgages on small single-family dwellings to the unprecedented low rates of 4 1/4 percent.

Bowery Savings Bank, one of the largest financial institutions in the country announced that it had $10,000,000 immediately followed suit by announcing that it had also reduced its general rate on single-family homes to 4 1/4 percent and also announced $10,000,000 immediately available for such loans. George W. Loft, chairman of the board of this bank, estimated that the reduction from 5 to 4 1/4 percent would save the average buyer of a small house $1,000 over the period of a loan.

Prominent builders in the New York area were quick to pounce upon the new low interest rate as a further inducement to increase sales. It is generally felt that the new low rate should give a considerable impetus to the spring construction market which had already been showing large increases over last year.

The effect on the cost of buying a home of the 4 1/4 percent interest rate can be readily appreciated. On a 25-year loan the basic interest and amortization payments at 4 1/4 percent are reduced to $5.42 per month per $1,000.

This to be added the 3 1/2 percent FHA insurance charge. This will mean that the monthly FHA payments (without taxes) on a $5,000 FHA mortgage will be approximately $28, and on a $4,000 loan $22.50, showing a substantial saving.

Bowery Savings Bank has $10,000,000 to lend this year on first mortgages, insured by the Federal Housing Administration. These loans are for newly built, or projected, well-constructed houses in suitable locations. The interest rate on approved applications will now be 4 1/4 percent per year.

Builders of group developments, as well as individuals who are planning to construct or buy their own homes, are invited to take advantage of this new, low interest rate.

By making this reduction in interest on acceptable FHA mortgage loans, the Bowery Savings Bank hopes to encourage the building and purchase of better homes. 1939 should be a great year for homeownership!

If You Are Building One Home

Or Hundreds

You will find it to your advantage to talk with the Bowery Savings Bank before you finance the construction. Under the Bowery’s FHA plan, each payment made by the owner or purchaser of the property will be interest and amortization payments, which are credited to the owner’s account. This means a saving every month until the cost of the home is fully paid.

If You Are Buying a Home

Save money by obtaining a Bowery financed home. It is not policy to keep all of our mortgages for permanent bank investment. We do not sell the mortgages to persons or corporations unknown to you. All through the life of the mortgage, you will have the assistance of dealing with a century-old organization which has an established reputation for fair practice in the mortgage field. And our FHA interest rate of 4 1/4% means a substantial saving to you. Be sure the home you buy is financed through the Bowery.

If You Already Have a Bowery Mortgage

To those who have assumed mortgages at the Bowery on one or more family dwellings, this Bank offers every assistance in refinancing the loans under the FHA plan at low interest rates. In cases which are qualified for FHA insurance, the cost for refinancing will be moderate. See us for details.

BOWERY SAVINGS BANK
Mortgage Loan Department, 110 East 42nd Street

ANNOUNCING

4 1/4% Interest Rate
on FHA Mortgage Loans

100 East 42nd Street, New York.

FIRST WITH NEW 4 1/4% F.H.A. INTEREST

$5625 up $565 CASH
Large plots, paved streets, sewers. 75 designs. 5 minutes to 8th Ave., Subway

GROSS-MORTON
Jamaica Estates
 CORPORATION

CORNERS

Sineja Reale & 182nd St., Jamaica, L., N. Y. C.

$10,000,000 TO LEND this year on FHA new home mortgages at the unprecedented low rate of 4 1/4 percent per year is formally announced by the Bowery Savings Bank in the large advertisement reproduced at left.

Other financial institutions reduced interest rates from 5 percent to 4 1/2 percent following the lead of this bank. This low rate is on selected mortgages and will be largely restricted to new single-family homes, the bank announced.

PROVINCIAL BUILDERS immediately announced the new interest rate, as in the advertisement of Gross-Morton shown below.

ANNOUNCING

4 1/4% Interest Rate
on FHA Mortgage Loans

Bowery Savings Bank has $10,000,000 immediately available for such loans. George W. Loft, chairman of the board of this bank, estimated that the reduction from 5 to 4 1/4 percent would save the average buyer of a small house $1,000 over the period of a loan.

Prominent builders in the New York area were quick to pounce upon the new low interest rate as a further inducement to increase sales. It is generally felt that the new low rate should give a considerable impetus to the spring construction market which had already been showing large increases over last year.

The effect on the cost of buying a home of the 4 1/4 percent interest rate can be readily appreciated. On a 25-year loan the basic interest and amortization payments at 4 1/4 percent are reduced to $5.42 per month per $1,000.

This to be added the 3 1/2 percent FHA insurance charge. This will mean that the monthly FHA payments (without taxes) on a $5,000 FHA mortgage will be approximately $28, and on a $4,000 loan $22.50, showing a substantial saving.
Home Owner Confidence Improved by Sane Promotion Methods

Buyer-Approved Home Designs Found Most Satisfactory—Freak Stunts and Sensationalism Prove Non-Productive

A survey of the home building under way in the early months of 1939 shows the white Cape Cod cottage—small, trim and neat—to be a universal favorite with today's home owners. It "looks the part" of good taste, economy and homelike comfort, and is evidently in line with both the mass-mind and the average pocketbook of the present season. American Builder editors, on inspection tours west, east, south and north, all report the same: the dominance of these small Colonial and Early American types, dotting the highways and brightening the suburbs with their white walls, green roofs, which also include promotion of local builders and dealers, and encouraged by FHA and building and loan financing, thousands of new home owners are finding real "low cost housing" and home satisfaction in these popular little dwellings.

It is interesting to observe how closely current promotion efforts in most communities are following conservative and sane programs. A great many exhibition or model homes are being built and displayed; and almost without exception they are of the "buyer-approved" type; that is to say, they are designs of traditional homey appearance which square with the inner mental picture of the majority of buyers as to what the new home should look like. The grotesque extremes of modernism which startled the public a few seasons back have been largely discarded in favor of the more conservative Cape Cod and English cottage for the smaller models, and the Colonial and Regency styles for the larger demonstration homes. Even where considerable pressure had been brought to bear on local building interests to tie in with an extensive campaign, as that of the "Life" houses (where the big push was certainly on the radical and extreme in modernistic architecture), the designs actually selected for building by local industry leaders have been, without exception, the more conventional and conservative of those offered.

Lower Priced Exhibition Homes

In the matter of cost the survey also shows a growing trend to exhibit and promote houses that are priced for today's market. Operative builders have discovered that the public is ready to buy if shown an attractive small home at reasonable cost; and accordingly much of the promotional and sales effort this spring is being directed straight at this mass market. Builders are not now making the earlier mistake of exhibiting a de luxe sample home costing $12,000 to $20,000 to home seekers whose income limits them to a $4,000 or $5,000 commitment!

The typical demonstration home of this season, that is producing the best results, is the small, well built house on a fairly large lot. In equipment it is complete and adequate without being overloaded with gadgets. Decorative and furnishing schemes are in good taste and on the conservative side, American Builder's survey shows.

A notable example of local home building promotion on a nation-wide scale through the building of demonstration homes is that sponsored jointly by the National Lumber Manufacturers Association and the National Retail Lumber Dealers Association. These great organizations, through their local members, are determined to prove to the American public that good small homes can be and are being built at really low costs. "A dollar a day or less" will pay for a snug little home today, these building industry organizations are now engaged in demonstrating.

Their 1939 promotion plan is based on two basic home plans, for each of which four alternate exteriors are supplied. One is a 4-room cottage, the other a 5-room 2-story. Costs are ranging from $2,000 to $3,000 for these trim little dwellings, proving that both adequate housing shelter and satisfactory home security can be supplied under private enterprise and private tax-paying financing at terms within the reach of most families.

Sincere Home Promotion Is Building Consumer Confidence

Several thousand of these small homes are being built as samples by local building material dealers and contractors. Attractive printed matter, illustrating these homes and explaining the advantages of home ownership under present long-term, low interest-rate financing, is distributed to the throngs of interested visitors. This year's program follows substantially the same course as last year's, under which eight homes of graduated size and cost were built near Washington, D.C., as a "laboratory community" and then duplicated in whole or in part in some three thousand other cities and towns during the year.

Other praiseworthy campaigns through exhibition or model homes now under way with excellent results are the Johns-Manville "Triple-Insulated" homes and "Guild-Way" homes sponsored by local J-M dealers, and the Weyerhaeuser "4-Square" homes by lumber dealers. The Portland Cement Association also is working effectively with local cement products plants and concrete contractors to build and demonstrate the latest developments in houses of concrete masonry and monolithic construction.

All these promotional efforts are tied, this year more than ever before, to the realities of today's low-cost home market and to the known preference of the buyers for sane and sensible design and construction. The indications are that home owner confidence in the building industry is being strengthened by these business-like home demonstrations and by the reassuring newspaper comment and other publicity releases and promotion regarding them.

We are hearing less about houses as "machines for living" and more about the satisfactions and wholesome independence of owning a "home of your own." And the buying public is evidently responding to this confidence-building approach.
A New Idea—the "1939 Home Style Show"

W. C. Tackett Opens Chicago Spring Market with 25 Buyer-Approved Model Homes

By R. E. SANGSTER

N OT one model home, but a group of twenty-five, all under construction at the same time! That is the program which W. C. Tackett, Chicago builder, is pushing through for early spring completion and which will form his "1939 Home Style Show" in his Scarsdale development.

W. C. ("Bill") Tackett has been a prominent builder and real estate developer in the Chicago area for the past 22 years. During part of that time he has also been in the mortgage banking business. From 1924 to 1930 he operated in over 20 subdivisions and developments located in the Chicago metropolitan area. Scarsdale, the scene of the Tackett 1939 Home Style Show, was subdivided by this firm in 1929.

With that background setting the stage for the building season ahead, Mr. Tackett carefully gauged his market and undertook what promises to be the most spectacular campaign inaugurated in the Chicago area during the past ten years. The first announcement of it appeared in the form of a distinctive newspaper ad reproduced on the opposite page; as it originally ran, this copy occupied about four times the area shown here and completely dominated the real estate page in a Chicago paper. A second advertisement along similar lines followed in another paper a week later, and smaller ads are scheduled to appear weekly until the first of May. A direct mail campaign is being used to supplement the display advertising on the Home Style Show. This is being mailed to a list of 2,000 prospects that have made inquiry during the last three years. The entire campaign is proving highly successful, and from the start it has brought about 1500 people a week to the Scarsdale development in spite of very bad weather; number of prospects is expected to increase greatly as the days improve.

The basic idea behind the Home Style Show is to provide the buying public with a wide selection of homes from which style, size and price preferences can be satisfied. Each one of the 25 models is different—in size they range from 6 rooms with 1½ baths to 8 rooms with 3 baths; in style, from the various periods to modern; in price, to fit the pocketbooks of those wanting homes anywhere in the medium priced bracket. After careful study of these three considerations, based on interviewing thousands of people during the past year, these houses were designed to be right up to the minute as far as public taste and demands of livability are concerned.

All trends have been closely watched. For instance, in the 1939 houses central or through halls are being incorporated. This is in line with what 75 per cent of the people in this bracket now want, and is contrary to the general trend in home designing during the past years, in which period residential designers tried to squeeze out every possible cubic foot of excess space. It was also found that the larger the rooms, the easier the house is to sell. People want plenty of clothes closets and appreciate electric bathroom heaters in addition to the regular heating plant. Home buyers are now willing to pay the slight increase in cost necessary to provide these features.

Although the 25 Home Style Show models cover the entire range of architecture, the bulk are concentrated in Colonial and Early American, with simply framed roof...
lines and full two stories, rather than cut up rooms and

dormers. There is only one Modern design in the group;
it has been found that only one buyer in twenty
wants this type and Neo-classic styling will take its place in
later projects. A simple rectangular plan proved to be
the choice of 75 per cent of the prospects, and offers the
greatest building economy. There is also a trend toward
more baths. Even in a six-room house there is a demand
for two or two and a half baths. Dining rooms in the
1939 houses are larger and entirely separate; Tackett
has found that the combined living and dining room is
not popular with a large majority of the prospects. One
or two sun decks are definitely demanded, and of course
a garage is included with every home. About 50 per
cent of the garages are attached, these being mostly on
smaller homes. Buyers of the larger houses generally
want provisions for two cars, and these are usually de-
tached to reduce bulkiness in the house design. Further,
it has been found that there isn’t one buyer in fifty who
will purchase a basementless house in the Chicago area.
To date this close watch on the market has resulted
in these homes being sold either before or upon comple-
tion. However, possession will not be given on any of the
twenty-five until May 1st. Meanwhile they are being
built to satisfy the discriminating 1939 Buyer: and, priced
to meet the budget of the family of average means, good taste and sound judgment. Select your home in the same
way that you choose your automobile—not from pictures, not by seeing one sample house and
ordering your own from blueprints, not by studying an ad or your own you may not understand;
BUT, see this great group of exhibition homes—the best that money will buy in each price class
—and, make your choice. Select the one that pleases you; or, have one duplicated on your lot.
We have homes in all stages of construction so that you may inspect details ordinarily hidden,
yet vital to sound construction. Others are complete and ready for occupancy. Twenty-five houses
in each class of modern living—embodying every improvement for modern living.
Each house is outstanding in its class. Each an inspiration to visit or own. The utmost care in
the supervision of mechanics and selection of materials insures the soundest construction and great-
est value for that portion of your income you intend to invest. We will assume your present lease.

**1939 HOME STYLE SHOW**

25 Houses—All Different—6-7-8 Rooms—Price Range
$13,000 to $20,000—Highest Quality and Maximum Value Through
Close Cooperation of 28 Leading Local and National Firms.

Scarsdale is about one hour from the heart of Chicago Loop, at a definite price.

**NEW $250,000 RECREATION CENTER**

The new $250,000 Recreation Center, built on the corner of School Street and Library Avenue, is

- One of the finest in the state
- 75 × 150' modern clubhouse
- Night lighted tennis courts
- Football field
- Ice skating rink
- Well equipped children's playground
- Lush landscaping

New and built to satisfy the discriminating 1939 Buyer: and, priced to meet the budget of the
family of average means, good taste and sound judgment. Select your home in the same
way that you choose your automobile—not from pictures, not by seeing one sample house and
ordering your own from blueprints, not by studying an ad or your own you may not understand;
BUT, see this great group of exhibition homes—the best that money will buy in each price class
—and, make your choice. Select the one that pleases you; or, have one duplicated on your lot.

We have homes in all stages of construction so that you may inspect details ordinarily hidden,
yet vital to sound construction. Others are complete and ready for occupancy. Twenty-five houses
in each class of modern living—embodying every improvement for modern living.
Each house is outstanding in its class. Each an inspiration to visit or own. The utmost care in
the supervision of mechanics and selection of materials insures the soundest construction and great-
est value for that portion of your income you intend to invest. We will assume your present lease.

**W. C. TACKETT, Inc.**

**DESIGNERS AND BUILDERS**

50 Cedar Street

Phone Del. 4015

**CHICAGO**

The process of buying or building a home even for those who have insurance is usually

- The presence of major building firms in the area
- The ability to see the homes in person
- The opportunity to ask questions and receive feedback
- The option to make changes during the construction process

The home is not only a place to live, but also a reflection of one's personal style and preferences.

**NEW 1950 RECREATION CENTER**

- One of the finest in the state
- 75 × 150' modern clubhouse
- Night lighted tennis courts
- Football field
- Ice skating rink
- Well equipped children's playground
- Lush landscaping

**DIRECTIONS:** Drive out Northeast Highway, Route 13, to Arlington Heights. Turn left at first stoplight entering town, five blocks to Scarsdale.

**W. C. TACKETT, Inc.**

**DESIGNERS AND BUILDERS**

50 Cedar Street

Phone Del. 4015

**CHICAGO**

The process of buying or building a home even for those who have insurance is usually

- The presence of major building firms in the area
- The ability to see the homes in person
- The opportunity to ask questions and receive feedback
- The option to make changes during the construction process

The home is not only a place to live, but also a reflection of one's personal style and preferences.

**NEW 1950 RECREATION CENTER**

- One of the finest in the state
- 75 × 150' modern clubhouse
- Night lighted tennis courts
- Football field
- Ice skating rink
- Well equipped children's playground
- Lush landscaping

**DIRECTIONS:** Drive out Northeast Highway, Route 13, to Arlington Heights. Turn left at first stoplight entering town, five blocks to Scarsdale.
Since there will be no duplication at Scarsdale, plans for a second group of 25 houses are now being prepared. These will constitute a showing for the summer market, and again duplicates within the fifty mile radius will be sold from them. Present indications are that between 75 and 100 homes will be built and sold in Scarsdale this year, having a total value of about $1,250,000.

How the Tackett Organization Operates

W. C. Tackett, Inc., offers a complete building service. The departments of the business consist of sales, design, construction, interior decorating and financing—all under one roof. Everything is handled except heating, wiring and plumbing, which are on a sub-contract basis. Besides the promotion and advertising manager, there are 16 full and part-time salesmen on the sales staff. This group functions very closely with the other departments to give a streamlined business set-up. For instance, on every speculative job, Vernon Grimmer, the designer, submits sketches of a proposed house. These are first given to the sales department for criticism. After that they are checked by Victor Grimmer, staff architect. Then the construction department looks them over for possible suggested changes from a structural standpoint, and meanwhile they are being approved by Miss Hutchinson, staff interior decorator. By that time the originals, with the suggestions, are ready for checking by Mr. Tackett.

The proposed house has now been given the general approval of the office, and the architectural department proceeds to draw up the plans. As a last step before blueprints are ordered, Dave Marr, construction superintendent, checks them structurally and gives the final O.K.

W. C. Tackett, Inc., has a very flexible financing plan which can be adapted to suit the needs of their prospects. All houses are eligible for FHA insured mortgages if this type of loan is desired. The firm’s own estimating department provides quick, accurate service when prospective jobs are up for consideration and the customer’s desires are being determined.

Because of wide experience gained during his building career and being thoroughly informed on the local building market, W. C. Tackett can estimate prospective building volume with uncanny accuracy. This provides the advantage of being able to make commitments for some time ahead. Already contracts are signed for all the lumber, plumbing, heating and wiring to be used for the coming year. Therefore prices will be stable for this period, and any job can be quoted at a definite figure. This assurance of volume building also means that the work of the various construction crews can be scheduled with each man assigned to the same operation on every job; the constant repetition develops efficiency in every phase of construction.

The 6-room Tackett house at the left is typical of many of the houses in the builder’s 1939 program. Simple lines, rectangular plan, center hall, efficiency U-shaped kitchen with breakfast nook, enclosed porch and generous room sizes throughout are some of the features.
High Quality Specs for "Tackett-Built" Homes

High grade materials and good construction rate high in the list of reasons why these homes are "Buyer-Approved." Some of the highlights are as follows:

FOUNDATION—10 in. poured concrete over 12 x 22 in. reinforced footing. Waterproofed with both integral compound and sprayed emulsified asphalt put on the outside under pressure. Drain tile around footing. Basement floors, 4 in. concrete over cinders. Drives and garage floor, 5 in. concrete.

EXTERIOR WALLS—Hines precision kiln-dried framing lumber to assure rigidity of frame and absence of squeaky floors and plaster cracks. Celotex Vapor-seal sheathing under veneer of pressed brick laid in cement mortar, Wisconsin Lannon stone, Burlington Sunset or Indiana limestone. All siding, clear cypress.

LATH and PLASTER—3 coats cement plaster on USG Rocklath. Metal lath ceilings and metal corner beads throughout. In baths, ceramic tile on cement base over metal lath.


ROOFING—Kolorite stained clear red cedar shingles or Bangor slate.

SHEET METAL WORK—Copperloy gutters and downspouts over decks over bays and copper flashings.

MILLWORK—White pine doors and sash. L-O-F D.S.A.

THIS 7-room house built by W. C. Tackett in his Scarsdale development has 2½ baths. The detail above presents a very attractive entrance and handling of the attached garage; a McKee upward-acting garage door was styled particularly for the design of this house.
glazing. All interior doors and window sash, 1 3/4 in. thick; all front doors, 2 1/2 in. thick. Windows fitted with interlocking weatherstrip and outside doors equipped with interlocking thresholds.


KITCHENS—Built-in cabinets and linoleum counter tops; upholstered built-in breakfast nooks.

PLUMBING—Standard Sanitary fixtures throughout. Double heavy cast iron sewer pipe used under basement floors.

HEATING—Sunbeam gas-fired winter air conditioning with thermostatic control.

WIRING—Red Seal system.

LIGHTING FIXTURES—Lightolier, Framberg built to own design.

HARDWARE—Corbin solid brass.

WALLPAPER—Imperial.

Besides the above materials and equipment, there are numerous plus-value features built into these houses to give them added buyer appeal. For instance, in the halls Rittenhouse door chimes are recessed into niches; in the kitchens Midwest automatic ventilating fans and G-E electric clocks are built in. Already mentioned are the Midwest auxiliary electric heaters in the baths. Other features included in all the 1939 houses are cedar closets, two or three full-length mirrors, a screened-in porch and at least two wood-burning fireplaces in every house. All basements receive a particularly attractive treatment. A good sized recreation room contains a rustic wood-burning fireplace, walls paneled in either knotty pine, pecky cypress or wormy chestnut, Tile-Tex asphalt floor, and sometimes a built-in bar. The balance of the basement used for heating plant and laundry has a plastered ceiling; all exposed structural steel, heating and plumbing pipes finished with 2 coats of aluminum paint, and all concrete walls covered with 2 coats of A. C. Horn's "Symentrex" waterproof white paint.

Included in the purchase price are screens, 4 inches of black dirt over entire yard, lawns, landscaping and financing charges. These items, together with all the extras mentioned above, give the home buyer a complete job; the entire service is available to him under one roof. However, the Tackett formula for the successful sale of homes is to be found in their statement, "We advertise that the hidden value in every home is the integrity of the builder."
Service Guarantee Assures Buyer Approval

Kinsey of Los Angeles Builds Good Will and Reputation for Responsibility with Offer to Service New Homes for One Year

A THREE-POINT policy of relying upon quality planning, designing and building; fair dealing with subcontractors, and organization, has enabled Kersey Kinsey, Los Angeles builder, to develop a profitable business in small home building, and at the same time offer the small home prospect what virtually amounts to a custom planned home at prices ranging from $4,000 to $18,000. The average price of a Kinsey-built home is $6,900.

Three years ago Kinsey entered the highly competitive small home field in the North Hollywood section of Los Angeles as an operative builder, with a schedule calling for at least six speculative type (model) dwellings a year, in addition to contract work. In that time he has built over 100 homes, all of a different design, on a contract basis, besides the scheduled operative building.

Operations were not what may be termed large scale or spectacular, but were so well organized and based on such sound principles of business practice and management that in an industry known for its seasonal slumps, Kinsey has established a steady, dependable, day-by-day business with practically no lay-off periods for construction crews. This has been due, largely, to the practice of staggering construction and arranging work so that men would be occupied the year round rather than at peak periods only.

This builder believes it is highly important to pay fair and reasonable prices for quality work in order to maintain satisfactory industrial relations, to the end that relatively low supervision costs result. Also, that an organization whose planning and construction activities are smooth running and well co-ordinated within and without, insures buyer confidence and goodwill.

An analysis shows that most of Kinsey’s clients come from satisfied home owners.

On the other side of the picture, as evidence of the success of this policy, is a low ratio of labor turnover, backed by what consists of a permanent, hand-picked group of subcontractors. The same painting crew has been employed by this building organization during its three years of operation. Confidence in their knowledge and ability to get along with people is responsible for this satisfactory state of affairs.

Planning and Designing Service

A complete architectural planning and designing service is offered to small home customers. This complete service is made possible through an arrangement worked out with a qualified A.I.A. architect, heretofore identified only with large public and private projects.

The setup is such that all interviewing is done by the builder or his associate, Edwin Starr. From these consultations preliminary plans are drawn, the builder acting as go-between for architect and client. All changes are made on these preliminary plans. Only when there is complete accord as to details, costs figured and agreed upon, etc., are final plans prepared. The architect furnishes a complete set of working drawings on which every detail is noted. To supplement these, the building organization prepares a set of detailed specifications and minimum requirements, made up of as many as 20 printed forms, even for the $4,000 contract job. Specifications cover every operation and every feature of construction and installation from the time grading begins.
to the completed house and landscaping, if any. By following these detailed specifications the home owner is never in any doubt as to what he is getting. On the other hand, the minimum requirements, which are also set forth in detail, are designed to establish a definitely high standard of work. This complete understanding between builder and prospect saves a lot of grief, eliminates the possibility of sudden changes which inevitably affect construction costs.

Plans are so carefully prepared and subcontractors so familiar with Kinsey's construction methods and standards of work, thereby requiring a minimum amount of supervision, that the architect feels well satisfied to turn over job supervision to Kinsey's construction department. This is headed by Glenn Daugherty.

Thus, by cutting down time usually spent by the architect in preliminary interviewing, preparing specifications and supervision, it is possible for this home building firm to obtain the co-operation of an architect whose service might otherwise be prohibitive. The architect, on the other hand, can afford to handle homes of the $5,000 to $10,000 class because of this saving of time. By associating with a reputable builder, also, he does not in any way jeopardize his professional standing nor does small home designing interfere with his regular output in the higher bracket field. Besides, it is a means of providing "feeders" for his designing staff.

One of Kinsey's individually designed homes is shown on this page. Each house of this type is built to the owner's order, the design and layout having been adapted to individual requirements. Some effort, however, is made at standardization in interior details. Where the aim is for distinctive trim at little cost, combinations of the builder's own stock molds are used. The living room of the Laurelwood house shown opposite, a demonstration unit developed by the builder and Bullock's Bureau of Interior Decoration, serves as an example. Here, five different stock members are combined to make a detailing ceiling trim. Had this been turned out in one piece its cost would have run higher.

Construction Practice

By paying fair prices for quality work as indicated, and working with the same subcontractors, a relatively permanent construction department has been built up, with the ultimate result that not only are supervision costs reduced, but there is no loss of time in training new crews. On this basis also, the builder can determine job costs almost to a fraction.

Construction schedules are so planned that from 10 to 18 houses are under construction at all times. This number is never allowed to fall below the minimum and sometimes runs as high as 20, which makes for steady employment of subcontractors and continuous activity for the builder. In fact, construction schedules are broken down so minutely that each operation fits into the other. There are no waits, say, for the painting crew from the time they "rough-in" a job and then return for finishing.

Merchandising and Service Setup

Operative building which paved the way for the present contract work, was arranged as a fill-in during periods when the construction load was not heavy, and took the form of model homes. They have all been furnished by Bullock's, Los Angeles. Even in model home planning the policy of co-ordinated effort is followed. Builder and decorator consult on all details.

(Continued to page 148)
LAURELWOOD house, shown above with floor plan, is one of Kinsey's typical demonstration houses furnished by Bullock's of Los Angeles. Planning is complete in every detail, even to landscaping. Both the exterior and interior are designed in a modified California modern style. Notice in the plan that many corners are rounded in a streamlined fashion for a pleasing interior effect.

LEFT: The living room of this house is trimmed with special millwork made to the builder's own design and then kept stocked in the builder's yard. The unusual fireplace mantel is of clear birch shellacked to bring out its natural tone.
Three Livable Cottage Homes for Same Plan
Built on Long Island by William R. Gibson; Designed by Architect Arthur E. Allen

WILLIAM R. GIBSON has built more than 8,000 houses in various parts of Long Island since 1910. Last year he decided to try out the low-cost, one-story Colonial cottage type, three illustrations of which are shown on this and opposite page for the same floor plan. They were designed by Architect Arthur E. Allen. There is an undoubted keen public interest in artistically designed small Colonial cottage homes, but Gibson’s new Sunbury development has not been featuring these long enough to determine whether they can be successfully sold on Long Island, where two-story houses have been most predominately popular in many areas.

The floor plans are well laid out with a good-sized living room, two attractive bedrooms, ample closets and an attached garage.

Architect Allen has given the houses a low, quaint appearance, nicely typified in the Cape Cod model above. A slightly different and modernized effect is given with

FLOOR PLAN is unusually compact and livable, with a 12’ 9” x 16’ 6” living room and a master bedroom 10’ 6” x 13’ 9” having 2 closets. Bathroom and kitchen plumbing are economically grouped. The dining alcove, 6’ x 7’, is a pleasant and cheerful spot.
the hip roof treatment of the house at the top of this page. More authentic and sturdy looking is the Dutch Colonial at the bottom of the page, with its gambrel roof and nice Colonial details. The front entrance door is attractive with its upper portion glazed and with diagonal cross pane's below. The gambrel roof design provides a large attic for storage or for the possible addition of extra bedrooms. Construction embodies use of insulating sheathing and metallated Rocklath plaster base. Roofs are of colorful asphalt shingles laid over heavy felt.
Novel Oregon Home Is Built Air-Tight

Ventilating Louvres Under Windows Are Part of New Construction Method

BY OFFERING increased value, a new home recently completed at Lake Oswego, Portland, Oregon, merits “Buyer Approval” on a number of counts. This five-room residence designed by John Yeon, and built by Burt Smith, Portland contractor, offers comfortable, adequate housing for the average family, embodies all the newest construction methods and most efficient materials obtainable. Accurately kept cost records show the total labor and material cost slightly under $3,500.

The home has a spacious 13'-6" x 19'-6" living room, 10'-6" x 14'-6" and 11' x 11' bedrooms, modern bathroom, 10' x 10' kitchen, 8' x 9' service room and single garage.

Exterior is Resnprest weatherproof plywood made by M and M Wood Working Co. and selected because of its beauty and adaptability to smooth wall construction, its permanence, strength, rigidity, greater insulation value and because of its resistance to termites and dry rot bacteria.

Unique and revolutionary is the treatment of all windows. They are sealed so tightly, each is positively air and moisture-tight. Ventilation is provided by ventilating louvres placed beneath all windows. These louvres designed and perfected by Yeon and Smith have been under trial in Portland residences for over two years and owners report them outstandingly satisfactory. On the exterior, they appear as batteries of stationary slats. Behind the slats is screening, and that's all there is to be seen outside. Inside beneath every window is a modernly designed hinged door set in weatherstripping. When opened, the doors allow free passage of air into the home. This newly completed house is so tightly constructed that when all exterior doors and ventilating louvre doors are closed, the fireplace will not draw, and only when a louvre is opened will the fire begin to crackle. Yeon and Smith
THE close-up view of the terrace side at the right indicates method of using framing to enclose windows with ventilators directly beneath. On the opposite page a front view of the house is seen.

point out many advantages of their ventilating systems. All windows are burglar-proof. A home may be ventilated constantly, rain or shine, as no moisture can blow in through the louvres. Curtains may be drawn without interfering with the ventilation of a room. Light and vision are never grazed by screens. Only the louvre openings are screened.

A truly country home—over half the exterior wall space is devoted to modern windows of Libbey-Owens-Ford Crystal Plate Glass. Interiors are of plaster over Johns-Manville Steeltex metal lath. Floors are of 13/16 oak except in kitchen and bathroom where linoleum is used. The house is equipped with Bendix washer, Mueller gas furnace and air conditioning ducts from every room. A unique service is the drying room adjacent to the furnace room.

Every care has been taken to insulate the house adequately. Exterior walls are of Resnprest over one inch tongue and groove with 15 pound Johns-Manville felt between. Roof is of two inch tongue and groove shingled with cedar shingles. All ceilings are insulated with one inch (Continued to page 150)

KITCHEN windows are also the same revolutionary type used throughout the house. View at right shows doors for ventilation control; cross section and details below give important construction features.
20 Years of Reliable Home Building

BRENNAN Brothers have been building good homes in West Hartford, Conn., continuously since 1919—some years more than others, but always a few. With so much criticism being directed against the building industry these days, it is worthwhile pointing out that there are many thousands of firms like Brennan Brothers who do consistent, reliable work over a period of many years. Most of them, like Brennan Brothers, do both contract and speculative work. They do not "make the headlines" the way the big city operators do but, taken collectively over the more than 16,600 towns and communities in the U.S., they form the backbone of the nation's residential construction program.

West Hartford is a comparatively small—but rapidly growing—community. Yet Brennan Brothers have done more than a million-and-a-half dollars worth of work in 20 years. The firm is a family partnership in which William R. Brennan handles the plans and inside work, and Charles E. Brennan handles the construction end. Katherine Brennan handles the bookkeeping and financial matters and the interior decorating of the Brennan-built homes. She selects all the wallpapers, linoleum designs, hardware, lighting fixtures, kitchen equipment and other types of fixtures and equipment.

In the course of a year members of the firm interview from 400 to 500 prospects and listen carefully to their requests. The architecture and planning of the Brennan houses are, therefore, based almost entirely on "buyer approval." The firm usually purchases a number of lots on a street in which they intend to operate—in some cases they will develop an entire street. Most of their houses are sold while in process of construction, some are sold from plans and others sold completely finished and decorated down to the last detail.

The continuous, reliable experience over a period of years enables them to keep constantly improving their houses on the basis of sound experience and approval by the owners.

The Fletcher-Roberts home illustrated and fully detailed with this article is an excellent illustration of the Brennan handiwork. It is owned by Gerald M. Fletcher, advertising manager of the Stanley Works in New Britain, and his parents. Situated on a spacious lot, the house is of brick construction with stucco trim. The
garage entrance is easy to get into and is equipped with Stanley Upward-acting door. Exit from the garage leads into a small rear entrance hall off which the downstairs lavatory is located. The Brennans believe in large kitchens, and this one is 12'-6" by 11'. The 19'-9" by 14' living room has an attractive bay window and fireplace. One of the most popular features of the house in the summer time is the screened-in porch opening off the dining room. Another popular feature is the large pine paneled basement recreation room which also has a good fireplace.

Upstairs there are four chambers and two baths, with ample closets in every room. In addition there is space for a maid's room and bath on the third floor.

All in all this is a substantial, livable home of the type that the American public approves and that experienced, reliable firms such as Brennan Brothers are so well able to produce.

PLANS OF THE FLETCHER-ROBERTS HOME, drawn by William R. Brennan, reveal the cumulative experience of many years in planning and building successful, salable homes. The 15' x 21' living room is spacious and attractive. The kitchen is large and cheerful. Downstairs lavatory is conveniently placed off garage and rear entrance hall. The enclosed porch is a particularly pleasing spot. There is a large recreation room in basement, space for maid's room and bath on third floor.
The training and experience of members of this firm enable us to render a complete, unified, "one stop" building service.

In choosing a building site—selecting the most desirable location—deciding about present prices and future real-estate values—type of soil—drainage—restrictions, our firm with twenty years' experience in real estare plus the actual experience of building over 300 homes can be of real assistance to you.

**SELECTING THE SITE**

Our planning service is in charge of Mr. Ira Payne Jones, licensed by the State Board of Licensed Architects & Engineers. Scores of attractive, well-furnished homes built in the Nashville area are his responsibility. He has had years of training and practical experience in planning houses that possess beauty, convenience, comfort and durability. Every effort is made to carry out to the fullest any ideas you wish to plan. The whole plan is submitted for your approval before any actual construction is started. Complete plans and specifications are furnished as part of our service and without extra cost.

**PLANNING YOUR HOME**

Unknot responsibility for the superintendence of actual construction of your home is centralized in the one firm that draws the plans and specifications. There is no hesitation or misunderstanding. The same people with whom you discussed your ideas are supervising your building. No extra costs are added to your bills. Every effort is made to carry out to the fullest your ideas. In this respect we believe this is the most responsible and efficient service in the field.

**AC TUAL CONSTRUCTION**

House on the site. House below, designed by Mr. Ira Payne Jones.

House of Mr. & Mrs. R. W. Curtis, located on North Cleveland Avenue.

The varied experience and training of the members of this firm enables C. B. Kelley & Company to offer a complete and unique home building service to customers.
plete, unified, "One Stop" service to the prospective home builder. This begins with aid in selecting a building site, includes a complete planning service, the actual building, complete insurance facilities offered through their insurance department, and financing arrangements made directly through their firm, through connection with one of the large life insurance companies. Both FHA and the usual long time insurance company loans are available. The Kelley system of building makes it simple, easy and pleasant for the customers of this firm to build a home. The whole transaction takes place with one firm, responsibility is centralized and only one profit is charged for the entire transaction.

The typical Kelley "Buyer-Approved" home illustrated below has the following construction features:

**FOUNDATION**: Footings 18 in., native stone, continuous. Walls—12 in. native stone.

**CONCRETE**: Basement floor—3 1/2 in. Monolithic. Post footings—18 in. sq. with 12 x 12 in. capping. All entrances, vestibules, and porches—5 in. reinforced concrete with granite dust used for a surface topping.

**EXTERIOR WALLS**: Wood lath and plaster, 2 x 4 studs. 1 x 6 No. 3 square edge pine sheathing. Jack Frost building paper. Brick or stone veneer.

**FLOOR CONSTRUCTION**: First floor—joists 2 x 10 in., 16 in. on center. 1 x 6 in No. 3 common square edge pine sub-floor. Jack Frost building paper. 13/16 x 2 1/4 Bruce selected red oak flooring, with finish of 2 coats Lignophol, L. Sonneborn & Sons. Inc. and 2 coats prepared wax, Johnson Wax Co.

**ROOF**: Construction—2 x 6 in. rafters, 24 in. o.c., each rafter braced by partition walls on second floor, No. 3 common 1 x 6 pine sheathing. Finished with Richardson’s Setab composition shingles.

**FLOOR COVERSING**: First floor—joists 2 x 10 in., 16 in. on center. 1 x 6 in No. 3 common square edge pine sheathing. Jack Frost building paper. 13/16 x 2 1/4 Bruce selected red oak flooring, with finish of 2 coats Lignophol, L. Sonneborn & Sons. Inc. and 2 coats prepared wax, Johnson Wax Co.

**ELECTRICAL INSTALLATION**: Wiring system—Romex. Switches—Bryant. Fixtures—Lightolier.


---

A TYPICAL C. B. Kelley five-room home is shown below, with floor plan at the left. It presents a good layout and attractive exterior.
Dropped Floor Living Room—Fits Hillside

This substantial New England Colonial type house can be seen at a glance to fit comfortably into its hillside location. Architect R. C. Hunter dropped the living room three steps and provided a beautiful bay window overlooking the down slope. The master bedroom over the living room is also dropped and is reached from the stair landing. The house was built by Contractor S. C. Sorenson of Hollis, L.I.

A most attractive covered porch connects house and garage and, in addition, provides protection for the rear entrance. A door leads from the front of the dining room to a canopied terrace alongside of entrance as seen above.
Nicely Protected Front Entrance

This is a spacious house with large rooms, large closets and an abundance of windows. There is a bath for each bedroom on the second floor. In addition there are a fourth bedroom, bath and maid's room on the third floor. Cubage is 37,700.

Modern equipment includes a Bryant air-conditioned gas fired unit, Standard plumbing fixtures and a G-E dishwasher sink. The house is insulated throughout with four inches mineral wool. The floors are of white oak with linoleum in the kitchen, sheet rubber in the baths.

The view of the rear entrance and backyard shows how skillful planning and layout can make this part of a house just as attractive as any other.
EARLY AMERICAN AND CAPE COD traditions embodied in 8-room home.

THIS livable, salable house designed by Henri C. Heps and built by Roy Edio in Westfield, N.J., was selected for the April American Builder front cover because it gives the owner a whole lot of modern livability for his money. Although the overall first-floor dimensions are only 41' by 27'-10", the house has eight good rooms and two baths. The master bedroom and bath are on the first floor—a feature desired by many people.

The house is located on a site which slopes sharply to the rear, so that the garage was placed underneath the house and it was possible to provide an attractive basement recreation room with full length windows.

Exterior is of Colonial type embodying some of the features of Early American and Cape Cod architecture, with red cedar shingle walls of old ivory color and shutters in Colonial blue-green.

Heating system consists of a Thatcher Oil Master air conditioning plant with forced warm air circulation, filtering and humidification. Cubic contents are 27,200 ft.²

WITH OVERALL DIMENSIONS of only 41' x 27'-10", this house provides 8 good rooms and 2 baths. The long living room has halls at rear. Garage is located under house—in basement which also contains a large well-lighted recreation room.
### Figures for American Builder Homes

#### HOME DESIGNS ON PAGES AS NUMBERED

<table>
<thead>
<tr>
<th>Unit of Construction</th>
<th>Apr. 70</th>
<th>Apr. 71</th>
<th>Apr. 72</th>
<th>Apr. 74</th>
<th>Apr. 75</th>
<th>Apr. 76</th>
<th>Apr. 77</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement Walls, lin. ft.</td>
<td>137</td>
<td>120</td>
<td>142</td>
<td>0</td>
<td>0</td>
<td>118</td>
<td>118</td>
</tr>
<tr>
<td>Trench Walls, lin. ft.</td>
<td>90</td>
<td>85</td>
<td>102</td>
<td>0</td>
<td>0</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Basement Floor, sq. ft.</td>
<td>1048</td>
<td>935</td>
<td>1184</td>
<td>0</td>
<td>0</td>
<td>321</td>
<td>200</td>
</tr>
<tr>
<td>Garage Floor, sq. ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Excavation per ft. deep, cu. yds.</td>
<td>2.87</td>
<td>2.145</td>
<td>2.171</td>
<td>1.787</td>
<td>2.026</td>
<td>1.004</td>
<td>1.31</td>
</tr>
<tr>
<td>HolloRate on following items</td>
<td>26.8</td>
<td>30.1</td>
<td>29.9</td>
<td>20.8</td>
<td>21.7</td>
<td>15.3</td>
<td>15.3</td>
</tr>
<tr>
<td>Outside Walls, square ft.</td>
<td>10.5</td>
<td>10.5</td>
<td>11.3</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>First Floor, square ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Second Floor, without Fin. Fig.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Roof Pitch, inches rise per ft. run</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Roof, square ft.</td>
<td>14.2</td>
<td>17.4</td>
<td>16.7</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hips and Valleys, lin. ft.</td>
<td>26.6</td>
<td>30.2</td>
<td>28.9</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Corridor, Type and lin. ft.</td>
<td>150</td>
<td>130</td>
<td>110</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Partition, lin. ft.</td>
<td>212</td>
<td>207</td>
<td>190</td>
<td>180</td>
<td>170</td>
<td>150</td>
<td>150</td>
</tr>
<tr>
<td>Inside Finish OS Walls, lin. ft.</td>
<td>390</td>
<td>310</td>
<td>270</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Front and Off French Doors, ops.</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Garage Doors &amp; Dr. ops.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Inside doors and Cased Ops. for</td>
<td>17</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Windows and Casements, ops.</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Gable Sash and Louvers, ops.</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Chimney, lin. ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Main Stairs</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Porch Floor, sq. ft.</td>
<td>1.4</td>
<td>1.7</td>
<td>1.7</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch Ceilings, ops.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch Beam, lin. ft.</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Porch and Balcony Post and Newels, No.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Porch Roof, sq. ft.</td>
<td>1.8</td>
<td>1.7</td>
<td>2.3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch Corr. OS Walls, lin. ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch and Deck Rail, lin. ft.</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

#### HOME DESIGNS ON PAGES AS NUMBERED (cont.)

<table>
<thead>
<tr>
<th>Unit of Construction</th>
<th>Apr. 77</th>
<th>Apr. 78</th>
<th>Apr. 80</th>
<th>Apr. 82</th>
<th>Apr. 84</th>
<th>Apr. 86</th>
<th>Apr. 95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement Walls, lin. ft.</td>
<td>114</td>
<td>0</td>
<td>136</td>
<td>157</td>
<td>132</td>
<td>138</td>
<td>166</td>
</tr>
<tr>
<td>Trench Walls, lin. ft.</td>
<td>40</td>
<td>164</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>Basement Floor, sq. ft.</td>
<td>800</td>
<td>0</td>
<td>800</td>
<td>1330</td>
<td>920</td>
<td>1000</td>
<td>1040</td>
</tr>
<tr>
<td>Garage Floor, sq. ft.</td>
<td>200</td>
<td>0</td>
<td>200</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Excavation per ft. deep, cu. yds.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HolloRate on following items</td>
<td>16.8</td>
<td>16.0</td>
<td>21.6</td>
<td>13.3</td>
<td>10.4</td>
<td>9.2</td>
<td>14.2</td>
</tr>
<tr>
<td>Outside Walls, square ft.</td>
<td>8</td>
<td>10.8</td>
<td>9.0</td>
<td>9.0</td>
<td>9.0</td>
<td>9.0</td>
<td>9.0</td>
</tr>
<tr>
<td>First Floor, square ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Second Floor, without Fin. Fig.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Second Floor, with Fin. Fig.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Ceiling, Type and lin. ft.</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Front and OS French Doors, ops.</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Porch and Balcony Post and Newels, No.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch Roof, sq. ft.</td>
<td>1.8</td>
<td>1.7</td>
<td>2.3</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch Corr. OS Walls, lin. ft.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Porch and Deck Rail, lin. ft.</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: Included with main roof and cornice. **(b)—Omitted in HolloRate on account of being so special**

### Necessary Home Equipment, Fixtures, Accessories, Extras

Since the above surveyed items cover only the actual superstructure of the house, you should figure and add the following items (and don't forget Overhead and Profit): Built-in Cabinets, Rail & Newels for Stairs and Stair Wall, Beamed Ceiling, Weatherstrips, Tile Work, Plumbing, Heating & Air Conditioning, Lighting, Terraces, Patio Walls or Fences, Sidewalks including Porch Steps, Driveways, Unattached Garages. Also add for painting and decorating if not included in Unit Costs.

The more I visit among readers of American Builder who are readers and thinkers and not mere "intenders" the more evidence I gather that TruCost is working for everyone whose desire for safer and easier estimating methods has "clicked." And every now and then I pick up some new slant on the potential value as well as the present value of TruCost.

"Confusion and more confusion" seems to describe what I have thought of the contracting end of this building business for many years, so before discussing the value of keeping records of one's own labor costs I must explain how I picked up a new idea from an architect who told me his story about as follows:

"I've been razzed and ridiculed for years by almost everybody in the building industry because my estimated costs of some proposed building project frequently miss the figure of the bids as submitted. I almost dread the opening of bids. Most of my brother architects feel the same way about it. It's not unusual for some chump to be 10 per cent below my estimate while the rest of the bidders are 10, 20 or even 30 per cent higher. Many's the time I've wondered if something could not be done about this. Recently I hit upon an idea for finding out.

"Along with my architectural profession I build a few houses for sale. I've been keeping my dollar records of costs of structural materials, labor, plumbing, etc., of each house; so I had a general idea as to what costs would be. But I never could be sure, until after the framework was completed, what price I could name for the house. Subsequent costs were largely sub-bids, but the costs to the point of plastering were always very uncertain. So I decided to find out where the trouble was; and I did it in this way:

"I designed a home and got prices of all materials and asked three good contractors to submit bids for all labor including forms for the foundation. Concrete contractors have a price per yard for their share; so I've never had any trouble to estimate foundation costs. With the lumber and millwork costing about $1,200 for this house, these three contractors offered, respectively to do all the work for $490, $595, and $715.

"Think of that for variations in bids! One man wanted about 50 per cent more than another. All were equally good contractors; and I knew that the low man would give me as good a job as the high bidder, even if he lost money. Why that variation of 40, 50, and 60 per cent of material costs? I decided to find out.

"Without telling any of them that I intended to give a stag party for all of us in my offices, I invited each one to meet me about 7:30 on a certain evening to discuss building this new house. You can imagine the first arrival's surprise when the second one arrived and all three wondered when the third one showed up. I soon put them all at ease, however, by telling them that I had decided to build three houses instead of one and that I was going to give one job to each of them on a cost-plus basis. That cheered all of them up and after some refreshments had been served we sat around the table while I outlined what I had in mind.

"Before showing them the plans of the other two houses, we discussed the plan they all had bid on. I told them of the great variation in their bids and reminded them, 'Suppose we figure the labor step by step, starting me on a certain store building a couple of years before when my estimated cost was considerably less than the bids submitted. They soon saw what I was up against and agreed that there was something wrong about their system of estimating. Then I told them that we were to be our own entertainment committee at this party of mine.

"'Since each of you is familiar with this plan,' I told them, 'Suppose we figure the labor step by step, starting with the forms. But we're going to cast secret ballots and nobody will know which of the other three votes belongs to each of the others. I'm going to vote too but mine will be only a guess. How about it, shall we see what our guesses are?'

"That's practically the way Mr. Architect told me of that buffet luncheon; and the rest of his account gave me the idea I wish to relay to others, whether dealers, sub-dividers or operative builders, as well as architects. Here's how the "balloting" was done.

"Mr. Architect gave each one a pad of blank paper and kept one himself. Each pad was of a different width so the estimate that each submitted could be listed in a separate column on the summary sheet which had been tacked to a drawing board which was leaned against the wall as a blackboard. Then each man simply jotted down the man-hours of labor he estimated for each operation starting with the forms and then proceeding with girders, joists, bridging, subflooring, etc., just as though each one were building the house. In less than an hour each had cast his "vote" and listed them on the summary form so all could see the results.

"Think of that for variations in bids! One man wanted about 50 per cent more than another. All were equally good contractors; and I knew that the low man would give me as good a job as the high bidder, even if he lost money. Why that variation of 40, 50, and 60 per cent of material costs? I decided to find out.

"Without telling any of them that I intended to give a stag party for all of us in my offices, I invited each one to meet me about 7:30 on a certain evening to discuss building this new house. You can imagine the first arrival's surprise when the second one arrived and all three wondered when the third one showed up. I soon put them all at ease, however, by telling them that I had decided to build three houses instead of one and that I was going to give one job to each of them on a cost-plus basis. That cheered all of them up and after some refreshments had been served we sat around the table while I outlined what I had in mind.

"Before showing them the plans of the other two houses, we discussed the plan they all had bid on. I told them of the great variation in their bids and reminded them, 'Suppose we figure the labor step by step, starting me on a certain store building a couple of years before when my estimated cost was considerably less than the bids submitted. They soon saw what I was up against and agreed that there was something wrong about their system of estimating. Then I told them that we were to be our own entertainment committee at this party of mine.

"'Since each of you is familiar with this plan,' I told them, 'Suppose we figure the labor step by step, starting with the forms. But we're going to cast secret ballots and nobody will know which of the other three votes belongs to each of the others. I'm going to vote too but mine will be only a guess. How about it, shall we see what our guesses are?'

"That's practically the way Mr. Architect told me of that buffet luncheon; and the rest of his account gave me the idea I wish to relay to others, whether dealers, sub-dividers or operative builders, as well as architects. Here's how the "balloting" was done.

"Mr. Architect gave each one a pad of blank paper and kept one himself. Each pad was of a different width so the estimate that each submitted could be listed in a separate column on the summary sheet which had been tacked to a drawing board which was leaned against the wall as a blackboard. Then each man simply jotted down the man-hours of labor he estimated for each operation starting with the forms and then proceeding with girders, joists, bridging, subflooring, etc., just as though each one were building the house. In less than an hour each had cast his "vote" and listed them on the summary form so all could see the results.

"Talk about a mess," Mr. Architect told me. "I never imagined that practical men could have the variations that those three good men had. It's surprising how much each one can learn from the others who may attend some meeting for the purpose of learning more and more about his business. Every class I conduct for lumbermen and their friends further convinces me that this confusion about labor costs must be eliminated. But when we discuss this phase of the building business the question always is: "What can we do about it?"

"As instructor at those classes my answer has always been the same and that is, "Let's find out—let's get records on a few jobs—let's know and quit guessing." That answer is always unanimously approved so I shall start the ball rolling or all by presenting the form that is similar to the one that my architect friend suggested to
<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Class of Work</th>
<th>Hours</th>
<th>From</th>
<th>To</th>
<th>Class of Work</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>FOUNDATION UNIT</td>
<td></td>
<td></td>
<td>CEILING UNIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Excavating</td>
<td></td>
<td></td>
<td>Framing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Formwork</td>
<td></td>
<td></td>
<td>Insulation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concrete Walls</td>
<td></td>
<td></td>
<td>Finishing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cement Floors</td>
<td></td>
<td></td>
<td>MAIN ROOF UNIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:00</td>
<td>10:30</td>
<td>Cellar Sash</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3:45</td>
<td>5:00</td>
<td>Fireplace</td>
<td>1.25</td>
<td></td>
<td>Sheathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chimney</td>
<td></td>
<td></td>
<td>Shingling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>FLOOR UNITS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Girders &amp; Post</td>
<td></td>
<td></td>
<td>DORMER EXTRAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10:30</td>
<td>2:30</td>
<td>Sills &amp; Joists</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:30</td>
<td>3:40</td>
<td>Bridging</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subfloor</td>
<td></td>
<td></td>
<td>PORCH UNITS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finish Floor</td>
<td></td>
<td></td>
<td>Floor &amp; Clg.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Beam</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OS WALL UNIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Framing</td>
<td></td>
<td></td>
<td>Porch Post</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sheathing</td>
<td></td>
<td></td>
<td>Rail, Sash &amp; Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finishing</td>
<td></td>
<td></td>
<td>OS DOORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>IS DOORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GARAGE DOORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PARTITION UNIT</td>
<td></td>
<td></td>
<td>WINDOWS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Framing</td>
<td></td>
<td></td>
<td>MAIN STAIRS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finishing</td>
<td></td>
<td></td>
<td>Baseboards</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>IS FINISH OS WALL UNIT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Insulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finishing</td>
<td></td>
<td></td>
<td>Total hours</td>
<td>8.0</td>
<td></td>
</tr>
</tbody>
</table>

SPECIMEN labor record form showing how Jim Smith started the day cutting rafters for the main roof and worked 3 hours framing a dormer, 1.25 hours on the cornice therefore and finished the day helping to sheath either the main or the dormer roof, as explained by text.
Principles of Well-Arranged Small Stores

This Second Article on Store Planning Presents Some Basic Considerations of Layout Which Are Fundamentally Sound As a Starting Point for Any Designer

The first article under the above title, as published in the February, 1939, American Builder, listed 23 characteristics of well-arranged small stores, presented certain general facts for the builder and designer to use in selling such jobs and gave figures to show how the merchant could profit by improving his premises. To complete this basic information which every builder may sometime need, this article tells how to lay out a small store and arrange it for proper merchandise display; again the Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, has supplied the facts used.*

In a general consideration, it must be pointed out that there is practically no limit to the number of things that can be done in laying out a store, and there is likewise unlimited opportunity for the merchant who chooses to experiment; but it is good business to limit experiments in layout to include only those features that have been found to be successful in selling particular kinds of goods.

The report on the drug store survey in St. Louis contains figures that show some of the effects of poor arrangement. The table at the bottom of this page indicates the effect of layout upon service efficiency, since it is obvious that more time is required to sell when articles are hard to find. The table shows that in some stores many sales were lost because the items requested could not be found. Every merchant has had this experience, but it occurs less frequently in well-arranged stores.

In addition, there is the loss resulting from sales not made because goods were not visible or accessible.

Much of this difficulty can be charged to the accumulation of unimportant changes that have in the end resulted in greatly confusing the store layout. Each small change that is made in an original store arrangement, although probably advisable when considered alone, may help to create this unbalanced and confused condition. Thus, the total effect of many necessary minor changes eventually calls for a complete reconsideration of the whole store layout. Many stores are at this stage of evolution. They require major layout improvements in order to bring their merchandise, their operations, their margins, and their expense into proper relationship.

The first thing to consider in planning a layout is the store building. The building comes first because it is least susceptible to change; therefore, other considerations must be adjusted to it.

The dimensions of the building determine two important considerations: (1) the number of cubic feet of space determines whether the business can be accommodated, and (2) the shape of that space determines the efficiency with which the display area can be laid out for the contemplated use.

When a store property is selected, a given cubic capacity is bought; as an inseparable part of the transaction, display surface is also secured. The ability to store a retail stock of goods in the property is so inherent that it is a secondary consideration. The main problem is, obviously, to secure sufficient display area and to use it to best advantage.

Display area of walls, windows, and floor has a natural attention value per unit of space in direct proportion to the number of people who can be led to or by it. But the value of each unit of space decreases as more units are used. For example, consider the attention value of one picture on a wall, as compared with the attention value of the picture in a group of many others. The display area of walls, windows, and floor also has a rental cost per unit that can be calculated.

The merchant's aim is to utilize available display area, and to increase its amount by the judicious use of fixtures introduced with the aim of exposing more of his goods to eye or hand.

From the combined viewpoint of storage, display, and circulation efficiency, the existing average retail property is fairly well shaped. The problem of the merchant is the proper utilization of this property.

Most small stores must be adapted to the rectangular shape and the approximately 2,000 square feet of ground area provided with the majority of retail store buildings. Buildings on such plots are far more numerous than buildings of other areas or shapes, because city lots are commonly laid out in this manner. Retailing adapts itself reasonably well to such buildings; but sometimes a business and a building may be unsuited to each other. In such instances, advantages of other sorts may outweigh the disadvantage of floor area or shape. Merchants must do the best they can with a space that is not ideally suitable from the viewpoint of either floor area or shape in order to capitalize the advantages they believe to exist.

<table>
<thead>
<tr>
<th>Store No.</th>
<th>Total number of items sold during observation period</th>
<th>Number of items quickly found</th>
<th>Items not easily found</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>912</td>
<td>820</td>
<td>92</td>
<td>10.09</td>
</tr>
<tr>
<td>2</td>
<td>724</td>
<td>662</td>
<td>62</td>
<td>8.56</td>
</tr>
<tr>
<td>3</td>
<td>575</td>
<td>482</td>
<td>93</td>
<td>16.17</td>
</tr>
<tr>
<td>4</td>
<td>274</td>
<td>261</td>
<td>13</td>
<td>4.74</td>
</tr>
<tr>
<td>5</td>
<td>64</td>
<td>60</td>
<td>4</td>
<td>6.25</td>
</tr>
<tr>
<td>6</td>
<td>684</td>
<td>658</td>
<td>26</td>
<td>3.80</td>
</tr>
<tr>
<td>7</td>
<td>898</td>
<td>863</td>
<td>35</td>
<td>3.90</td>
</tr>
<tr>
<td>8</td>
<td>876</td>
<td>667</td>
<td>209</td>
<td>23.86</td>
</tr>
<tr>
<td>9</td>
<td>1,415</td>
<td>1,270</td>
<td>145</td>
<td>10.25</td>
</tr>
<tr>
<td>10</td>
<td>330</td>
<td>295</td>
<td>35</td>
<td>10.61</td>
</tr>
<tr>
<td>11</td>
<td>888</td>
<td>885</td>
<td>3</td>
<td>0.34</td>
</tr>
<tr>
<td>12</td>
<td>1,418</td>
<td>1,302</td>
<td>116</td>
<td>8.18</td>
</tr>
<tr>
<td>13</td>
<td>1,135</td>
<td>915</td>
<td>220</td>
<td>19.38</td>
</tr>
<tr>
<td>Total</td>
<td>10,193</td>
<td>9,140</td>
<td>1,053</td>
<td>10.33</td>
</tr>
</tbody>
</table>

*From booklet entitled, "Store Arrangement Principles"
Because the vast majority of retail store buildings are on such lots, practically all small stores, retail and service, have become fixed in that mold. Then, because few kinds of business require for selling space the full depth that is usually included in the building, a certain area in the rear is partitioned off and comes into use for storage, service space, living quarters, or other quarters.

How do various kinds of business adapt layout to this common 2,000 feet of available space? With few exceptions and almost without regard to the kind of business, merchants adapt their stores in basically the same way. Retail businesses are often first divided into three main departments. Merchants make this division to facilitate the keeping of records or to divide merchandise into general classes.

In every store, therefore, the problems of space and shape and of goods and records are present. In solving these problems, a more or less standard basic layout has developed.

Figure 1 shows the general shape of the property that is occupied by the typical retail merchant. At this stage of the arrangement problem all merchants have the same basic considerations to deal with. A merchant possesses or will obtain certain fixtures that are customarily used in the kind of business in which he is engaged or which he plans to enter. These fixtures and equipment consist of counters, platforms, shelves, racks, cases, bins, and machinery.

The way in which these equipment elements must be departmentalized depends upon the kind of business, the special skill of the merchant, and the general nature of the market that is served. But whatever the kind of business, whatever the quality or direction of the employed, there is a general tendency for the merchant to carry on much, if not most, of his services in the rear of the salesroom, or outside the salesroom in an area that is partitioned off from it. In order to stress certain services for advertising advantages, some may be placed in prominent positions, depending upon the kind of business and the merchant's skill. Such considerations as these may make a difference in the approach to a floor plan.

Figure 2 indicates the typical placement of broad departmentalization in three common kinds of business—the combination grocery store, the commercial type of drug store, and the hardware store.

Departure from the basic plan shown in the drawings is a product of the merchant's stress of his skill in various fields. All merchants divide their stock and activities into departmental groups. The number of groups or departments is usually dictated by the size of the business and the kinds of goods that are handled. Small businesses can be conveniently set up in three departments: (a) for record-keeping purposes, (b) for purposes of stock arrangement and display, and (c) for ease in servicing in view of customer wants and specialized skill of clerks.

In the small combination grocery store a common departmentalization groups the stock into three divisions—meats, groceries, and fresh fruits and vegetables. While the drawing shows the meat department to occupy the rear of the store (which is believed to be its typical location because of the size and shape of the fixtures), many merchants, wishing to lay heavier stresses on meat because of its profit-making potentialities or because they believe themselves to be specially skilled in handling meats, place this department forward, at the side of the store.

In the drug store the prescription department has traditionally been the back room. Usually separated from the other departments by a rear counter, behind which a partition closes off the actual manufacturing operation, the prescription department has recently been discovered to possess advertising advantages setting forth the professional character of the business and also making possible higher dollar gross margins for the store as a whole.

In the hardware store another set of considerations is found; but they vary greatly from store to store. Some hardware merchants stress wheel goods; others stress farm implements; and still others stress house furnishing and appliances. While their basic problems arise from the same considerations that affect layout in other kinds of stores, solution of their layout problem is more difficult because of the great number of items that are carried in the typical hardware stock.

These three samples will serve to show that each type of store will present its own problems in layout and display, while at the same time all small stores have certain common problems which must be met by the designer. The merchant must blend all these considerations, looking toward the utmost total advantage to his business as a whole. Some weight is given to each item, each department, and his own special abilities, to lead him to emphasize that in which he feels he excels.
WHENEVER there is an improvement in home building there is usually a corresponding increase in light load-bearing commercial structures, particularly shops and stores and other small business buildings. This has proved particularly true in the thriving community of Scarsdale, a suburb of New York in which last year several huge new apartment houses were built, a new 100-home Levitt and Sons development was completed, and numerous individual private homes were built. To meet the demand for new stores and shops to serve this growing community, the attractive five-shop building illustrated above was constructed by Henry M. Weitzner, Inc., New York builder, from plans by John H. Barry.

The building is provided with an attractive brick exterior with store fronts of simple but impressive design. Originally laid out as in above plan, it is possible to divide it into a larger number of units to meet the demand for small quarters and low rent. The clock tower was added to attract the attention of 2,500
commuters on their way to the station directly opposite.

Another and entirely different type of structure illustrated with this article is the new jewelry store of Marcus and Company on Fifth Avenue in New York City, which was designed along striking modern lines using the latest in building products and equipment. At the street level this building presents a severe front, with only three small openings, popularly called "invisible" windows. These are the type designed to focus attention on small and intimate displays. To the passerby the glittering jewels seem to be clearly within reach. However, the interior of the modern store requires ample daylight, and to meet this demand a large window of double-glazed Louvrex glass supplied by the Libbey-Owens-Ford Company was installed. The window is 10 by 20 feet in size, with a striking checkerboard appearance created by crossing the pattern of the glass. A single pane of the glass presents a horizontal or a vertical fluted effect with ribs every two inches. Daylight is diffused through the major part of the window, representing a warm, friendly lighting throughout.

To reach the clerical offices on the mezzanine, a striking spiral staircase has been constructed which occupies little space and yet is very decorative with its large panels of single-glazed Louvrex glass.
Architect Designs a Two-Flat for Himself

Dutch Colonial Residential Exterior
Contains 2 Apartments, Basement Office

Ervin F. Baur, Chicago architect, has recently completed one of these income properties for his own use. It contains a number of features which are quite unusual, the first of which is clever use of Dutch Colonial design for exterior treatment. The apparent size of this building is deceiving, and until the plans are studied, one would not think that it contained two five-room apartments, the one on the second floor being practically identical in size with the one below. The two-story stair hall, as detailed on the opposite page, is also most interesting. Architect Baur has also provided an office and drafting room for himself in the basement where he can practice his profession.

Construction features, materials and equipment are
as follows: Poured concrete foundations waterproofed with emulsified asphalt; exterior walls faced with Dunbrick cement brick over a common brick back-up, furred, insulated with Sprayo-Flake and finished with 3-coat plaster on USG perforated Rocklath; Corner-Rites in all vertical corners and junctions of partitions and ceilings; all furred ceilings metal lath; gutters, downspouts and flashings all of copper; Ruberoid “Slate Blend” 3-in-1 shingles used on roof; all double-hung windows are weatherstripped and equipped with Duplex sash balances; L-O-F D.S.A. glazing; one inch Balsam Wood placed over second floor ceiling; “Con-ser-tex” canvas deck over porch; Bruce block floors; Linowall wainscot and linoleum floors in kitchens and baths.

The heating and domestic hot water supply system consist of gas-fired National boiler connected to a one-pipe forced flow circulating hot water system with American Radiator convectors and radiators; the Bell & Gossett hot water heater is valved for summer use in connection with the boiler; installed in the kitchens are Whitehead “Duocrat” units consisting of Magic Chef range, sink and built-in cabinet space; Servel Electrolux refrigerators and Midwest kitchen exhaust fans. Kohler fixtures, Columbia medicine cabinets and “Hallmack” color chrome bath accessories in bathrooms; Bennett fireplace units and Earle cast bronze hardware are used. Sederberg & Storgaard, Chicago, were the contractors.
McClatchy Sells 6-Room 16' x 29' Row House Homes for $250 Down

In his Windsor Homes development in Philadelphia, John H. McClatchy has set a new precedent for making home ownership easy. The six-room and garage row house units are being sold for $250 down.

The plan under which this is made possible is the so-called Rental-Purchase Plan. The houses are in effect rented to the owner for the first 24 months, during which time he pays $8 per month extra in addition to the regular FHA carrying charges.

A blanket mortgage of $378,000 issued by Lincoln National Life Insurance Company covers approximately 80 percent of the cost of the land and construction of the 107 Windsor houses. The mortgage runs for 26 years at 4½ percent interest. When an owner accumulates his 10 percent down payment he buys the house under the regular FHA plan, and the blanket mortgage is reduced by that amount.

Few men in the building industry need to be introduced to John H. McClatchy, who is the pioneer developer of the 69th Street section of Philadelphia, a director of the Home Builders' Association in Philadelphia, and one of the best known builders in the country. Associated with him in Windsor project are his sons, John and Richard.

The Windsor homes are row houses of solid masonry with six rooms and garage. As shown in the floor plan below, the overall dimensions of a single unit are 16' by 29'. Each house has its own front and rear entrance, an oil burning hot water system with concealed radiators. The houses are unusually well equipped and attractively finished. The sales price ranges from $4,400 to $4,990. After a down payment of $250, carrying charges for the first two years are $41, then monthly payments drop to $33.74.

Maximum living space at minimum cost is provided in these Philadelphia row houses. The houses are only 16' wide x 29' deep, yet have 3 bedrooms and heated garage. There is a skylight in the bathroom. The down payment is only $250 and the monthly carrying charges $41. Each unit has an oil burning boiler.

Floor plans of a typical unit include a 12' x 15' living room, 3 bedrooms, one of which is 12' x 11', and a basement garage which is 9½' x 17½'. Chimney is built into front wall.
Under the able direction of Leo A. Kirk, district director of the FHA, residential construction has made vigorous strides in the Philadelphia area. The Windsor Park project was one of the first large developments in the country to adopt the Rental-Purchase Plan made possible under Section 210 of the Housing Act. The plan is extremely flexible in that it permits the builder to: (1) sell the houses outright; (2) rent them if he prefers; (3) sell them on the Rental-Purchase Plan in which the necessary down payment is accumulated over a period of months, which permits the builder to select persons with good jobs and credit rating and allows them to move in with a very small down payment, or none at all, if he chooses.

The floor plan of the Windsor Homes is remarkable in the fashion in which it produces a six-room and garage house in such small enclosed area. A brief outline of the specifications include the following:

HEATING—Richardson boiler with oil burner, by Richardson & Boynton Co., New York. Hot water system with Trane convectors. Copper pipe.

KITCHEN EQUIPMENT—Murphy cabinets, Mapic Chef Range, Victor exhaust fan, Witt underground garbage container, Sanitas washable wallpaper.

STEEL WINDOWS—Detroit Steel Products Co.

MEDICINE CABINETS—Columbia Metal Box Co.

VENETIAN BLINDS—Betsy Ross blinds by Carey-McFall Co., Philadelphia.

PARTITION WALLS—8" concrete masonry walls, concrete steps, walks and driveway, slate roof.

WALLS AND ROOF—8" brick masonry walls, concrete steps, walks and driveway, slate roof.

LESS THAN RENT BUYS THEM!

NEW McClatchy
WINDSOR HOMES
in 69th Street Section

Carrying Charges:

<table>
<thead>
<tr>
<th>Total monthly</th>
<th>After 2 Years:</th>
</tr>
</thead>
<tbody>
<tr>
<td>$274.70</td>
<td>$111.12</td>
</tr>
<tr>
<td>$266.85</td>
<td>$103.97</td>
</tr>
</tbody>
</table>

NET monthly $26.85 NET monthly $17.07

SAMPLE HOME 415 Glendale Road...

TO GET THERE...

Take trolley, bus or D in 69th St. Terminal. Walk one square to your office. 69th & Chestnut Sto.

John H. McClatchy - Builder of Homes for Over 40 Years

THIS CIRCULAR (size 9" x 12") played up FHA Rental Purchase Plan, with $250 down.

VIEW from the 12' x 15' living room into dining room. Houses are attractively decorated, have ample electric outlets, and are equipped with Venetian blinds.

BEDROOM CORNER, showing space-saving convector radiator, steel windows with screen, Venetian blinds.
WHEN the $3,500,000 Parkside housing project in Detroit was completed last fall, it was found that one of the most interesting phases of this PWA undertaking had been the performance of power tools on the job. Data released on comparative costs of cutting operations as confirmed by the builder, John Griffiths & Son Construction Co., nationally known general contractors, shows substantial savings; on such low cost housing projects these are naturally important.

The Parkside project provides housing for 776 families. The 59 buildings which comprise it consist of administration building and stores, service buildings, heating plants, 6 apartment buildings and 51 row houses and flats. They are grouped as seen in the aerial view below on an outlying site where sufficient space was available. One of the first jobs after the contract had been awarded and preliminary arrangements had been made was to give thorough consideration as to the type of equipment necessary for the framing of 51 brick veneer row houses and flats. It was finally decided that the work could be efficiently handled with radial saws, and two Wallace units of that type were selected. Then later, as production methods were developed and work got under way, three more of these same units were added, making five in operation on the project.

Lumber was delivered and distributed around various units, and because of the easy portability of the machines, they could follow up on each operation, cutting joists to length, cutting windows, door headers, cripples, and other framing. After this was in

AS SHOWN in the aerial view below, there are two general types of structure in the Parkside housing project in Detroit—row house buildings of the type indicated by (A) and apartment buildings such as type (B). Row houses consist of 4- and 5-room units similar to those shown in the plans at the left. The kitchens provide space for dining.
on Time and Cuts Costs with Power Tools

place, mitres were cut on the diagonal shiplap, 45 pieces being cut at one time before a batch of this material was passed up and nailed into place. The 5-inch material used for ribbons was cut from standard 6-inch stock and fitted into 5-inch mortise studding, tying the studs together and providing support for the second floor joists. A saving of material was possible through salvaging of short lengths of joists. Instead of lapping extra length joists over the beams, they were cut to exact lengths, and this salvage material was then run through the radial saws, ripping it into short 2 x 4's which were used for various purposes. W. A. Forshee, general superintendent on the job, states, "We found our framing stood up better and plumbed easier as all lengths were squared before being cut to length. On our trim operations we used a Wallace radial saw, together with a Wallace jointer to cut door frames and jambs to length, and used the...

ABOVE: Two radial saws in use on the Parkside housing project in Detroit. John Griffiths & Son Construction Co., the builder, used five of these saws on this job. The one in the foreground is cutting a mitre on the end of diagonal sheathing. The one in the background is performing a ripping operation.

FLOOR plan at the left shows a typical apartment building arrangement. Second floor repeats the first floor with two 4-room units and two 3-room units. Compact layout is planned for low-cost construction but offers plenty of livability, light and storage space. Basement extends under only part of each building for use as a meter room; heating is from a central plant, and laundry trays are part of the sink combination fixture.
jointer to smooth and bevel edges. This setup was portable to the extent that they were set up in a unit to work up stock for 8 or 10 buildings, then moved to another unit, thus keeping stock ahead of the carpenters. On all this work the power equipment gave uninterrupted service, and we feel that it helped us to fulfill the time element of our contract and enable us to turn over the completed project to the government.

The table at the right shows the time saved on some of these typical operations, and computations show the comparative costs which would have been experienced had this work been done by hand.

The apartment buildings in the Parkside project were of solid masonry and concrete construction. However, here again the saws were useful as the stairway walls were lined with Brazil Clay Company tile. This was cut and scored on these same saws, using abrasive wheels. Costs were reduced, as compared to hand methods, because of savings due to less breakage on this hard, expensive tile.

This job once more demonstrates the effectiveness of power equipment properly used to save time, material and assure completion on schedule. Other members of John Griffiths & Son Construction Co., responsible for this project are: V. A. Dillon, auditor; Wilbur M. Adams, assistant superintendent; Frank Engbreton, general carpenter foreman; and Edward Gibeau, assistant carpenter foreman.

The comparative costs shown in the table at the right were computed from the then current wage scale in Detroit of $1.25 per hour for carpenters and 70 cents per hour for helpers. The man-hour rate varies because two helpers are required to keep up with the carpenter using the radial saw. Only one helper is required by hand methods. BELOW: Scoring tile with a radial saw and cutting framing on Detroit housing project.
Probably the one most important characteristic any mortar can possess is plasticity. Within certain limits, plasticity is the greatest single factor not only in the economy of brickwork, but also in its strength (see page 5)*, its neatness (see page 12)* and its resistance to the passage of water (see page 9)*. For twenty-five years, bricklayers all over the United States have said that Brixment makes the most plastic and workable mortar they know. Its working qualities are comparable to straight lime putty. Because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.

But Brixment's plasticity cannot be proved with words. Realizing, as you do, the tremendous importance of this characteristic, we earnestly urge you to try Brixment on your next job—and see the difference for yourself.

* See further details in the Brixment Handbook.
Precut framing offers a practical solution to several important building problems. In the first place, it permits the use of No. 3 dimension lumber which is cut to exact lengths of higher grade by cutting out knots or other defects. The building industry is rapidly coming to appreciate that the problem of satisfactory use of No. 3 dimension is an important one. If the outlet for No. 3 dimension is reduced, it will mean higher prices for No. 1 grades.

From every point of view the precutting of framing members is a beneficial process. It enables the builder to use accurately cut and bundled framing members of standard size, which can be nailed into place without hand sawing. It forces the architect and builder to plan and schedule the construction job more carefully, which results in more accurate estimating. It considerably reduces waste on the job.

The first article on this subject (pages 80-81, March American Builder) describes the use of the precutting system in Southern California, where, under the direction of the West Coast Lumbermen’s Association, extensive experimental and field tests were conducted in conjunction with the Building Contractors’ Association of Southern California and the Lumber and Allied Products Institute of Los Angeles. Several local dealers set up power saws and agreed to deliver the precut framing at no increase in cost over stock mill length prices. Builders of a considerable number of houses and apartments adopted the system and accurate records of their costs were kept.

Instead of several thousand unassorted pieces of lumber, the builder is supplied with bundled, knockdown assemblies of framing members cut to exact length. In the March American Builder article charts and diagrams showing the standard precut framing units were presented together with formulas for figuring the standardized lengths. We will, therefore, now consider the estimating, listing and construction methods that have been developed for builders in the California territories.

Estimating and Listing

In preparing the builder’s estimate and framing list we are concerned with only six items for the walls: studs, windows, doors, fire blocking, bracing and plates. The listing of these, with complete accuracy, is quite simple.
WHY ARE SO MANY LIFE HOMES USING GAS FOR THE 4 BIG JOBS?

1. Because Gas is clean, silent, flexible and economical.
2. Because no space is required for fuel storage and more money is available for important living area. Its adaptability makes Gas the modern fuel for modern homes.
3. Because modern gas ranges, refrigerators, water heaters, and house-heating equipment are compact, beautifully designed, equipped with the latest automatic devices and work-saving features. Yet you realize substantial savings, both on first cost and installation cost, by specifying these up-to-the-minute appliances.

That's why Gas is playing such an important part in 1939 home-planning, building, and selling. Ask your gas company for full details.

AMERICAN GAS ASSOCIATION

MAIL ENTRY COUPON NOW!

Competition Director
American Gas Association, 420 Lexington Ave., N.Y. C.

Date

Last Name.......................... First

Address.......................... City State

I wish to enter A.G.A. Builders' Competition. I am a builder □

Note: Architects may enter homes in this contest with the written permission of the builder. Architect □

Kindly forward complete details.

Signature..........................

BUILDERS! ARCHITECTS!
ENTER $10,000 ALL-GAS HOME BUILDING COMPETITION NOW!

All types of homes, new or modernized, are eligible for big prizes. Simple rules. Worth your while!
In fact, quantities can be taken from the floor plan just as rapidly as they can be written.

First is the take-off of doors and windows. We are now dealing in terms of bundled assemblies of framing members, hence we need merely tally the number of windows and doors of each size, accounting for each opening. While doing this we will also list the number of full-length studs replaced by these openings, for later use. These are:

<table>
<thead>
<tr>
<th>Finish Width of Opening</th>
<th>No. Studs Replaced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1'-6&quot;</td>
<td>1</td>
</tr>
<tr>
<td>2'-0&quot; to 3'-0&quot;, incl.</td>
<td>2</td>
</tr>
<tr>
<td>3'-6&quot; to 4'-6&quot;, incl.</td>
<td>3</td>
</tr>
<tr>
<td>5'-0&quot; to 6'-0&quot;, incl.</td>
<td>4</td>
</tr>
</tbody>
</table>

Of several methods usable in counting the number of studs, the following has gained most favor. It is shown in outline form:

1. From the overall dimensions shown on the floor plan, compute the total linear footage of all walls and partitions. Convert this footage to standard 16-inch stud spaces—that is, multiply it by
   \[
   \frac{12}{16} = \frac{3}{4} = 0.75.
   \]

2. Count the number of corners, adding two studs for each corner, to allow for triple-stud framing.
3. Count the number of wall and partition intersections, adding one stud for each intersection, to allow for double-stud framing.
4. Deduct the number of studs replaced by openings. We have now accounted for every full-length stud required for the normal job.

Diagonal wall bracing is best computed by counting the number of "strings" or "runs" from an examination of the floor plan on which the logical placing of braces can be determined. List one bundle for each run of bracing required.

Fire blocking may be listed on the basis of one block

(Continued to page 154)
KEEPING damp winds out of a wall is an important, man-sized job. But Sisalkraft, the tough, waterproof, windproof paper will do it with one hand tied behind its back. It'll do it because its long-lasting asphalt is protected—not exposed to oxidation—and its sisal fibre reinforcement assures intact application. Sisalkraft protection is needed over all types of sheathing to seal up construction cracks, joints, and corners. Inside behind the plaster base it does a perfect job of keeping room vapor from entering the walls and causing condensation damage. Sisalkraft outside and inside is the answer to those sound, dry walls you like to give your clients.

CONCRETE CURING

AS sure as Sisalkraft keeps moisture out of a house—it keeps it in concrete, and that's exactly what is needed for strong, beautiful, dustless concrete floors, walks, and drives. Sisalkraft does a perfect curing job—at the same time it protects the surface from dirt, stains, and debris damage. This modern method of curing and protecting with Sisalkraft is an advantage that's becoming more and more popular—use it to build better concrete on everything from sidewalks—small-home basement floors—to skyscrapers.

COPPER-ARMORED SISALKRAFT

NOW! pure copper protection at a price you can afford to pay. You can use it for spandrel waterproofing, thru' wall flashing, moisture proofing foundations, shower stall pans, flashing walls and windows—every place you can find for the concealed use of copper. Copper-Armored Sisalkraft is lightweight pure electrodeposited copper bonded to tough Sisalkraft. It offers as much protection in concealed uses as heavy copper, at about 1/5 the cost. Lightweight copper must be reinforced to allow practical handling and intact application—that's why the sisal fibre reinforcement is so important. With this perfect, economical combination, you can have all the copper waterproofing you want—or need on every job. Copper-Armored Sisalkraft is available in weights of 1 oz., 2 oz., and 3 oz. of copper per sq. ft.

THE SISALKRAFT CO.
205 W. Wacker Drive, Chicago
NEW YORK • SAN FRANCISCO
SHOPCRAFTER'S Corner
Things To Build for Profit or Pleasure

Open Bookcase and Shelves

The Shopcrafter who likes to build useful items of furniture in his spare time will find the project presented on this page one of particular interest. Although fairly simple to construct, this Colonial bookcase fits into almost any household as a decorative and practical piece of furniture.

Dimensioned drawings below give necessary details and the bill of material lists pieces and sizes. The cut-out side panels, if made of 3-ply stock, resist breaking when the design is being cut out. Most any wood can be used, the selection being governed by the type of finish desired. To harmonize with the popular Early American style, maple finished with orange shellac will look well; other hardwoods or some of the softwoods stained dark, as shown in the illustration, give equally pleasing results with this design.

The drawer which makes a convenient place to keep small objects is 16½ inches long by 7½ inches wide (overall) and is 2 inches deep; front is ½-inch material, balance is ¼-inch.

The bill of material and working drawings below were furnished by Edward F. Worst for this combination open bookcase and shelves with a handy drawer, as shown at left.
Alert Barrett Dealer says:

"BUDGET BUILDING IS RIGHT UP MY ALLEY!"

Show builders how to avoid TOP-HEAVY Roofing Costs

"Why is my business booming? Because I tipped off the builders and architects in my town how to pare down building costs without cutting the corners on quality!"

You've guessed it! The answer is Barrett Shingles—handsome, fire-safe, economical—"the biggest money's worth in roofing!"

Show all the builders on your list how Barrett Shingles can stretch building money to accommodate the "extras" which every homebuyer wants to include. It's simple: The more you save on the roof, the more there is to spend on the rest of the house!

You'll ring up new sales highs, if you use Barrett Shingles as your key to the current low-cost home activity.

THE BARRETT COMPANY

40 Rector Street New York, N. Y.

2800 So. Sacramento Ave., Chicago, Illinois—Birmingham, Alabama

RIGHT in Price and Appearance

DUBLECOTE MULTI SHINGLES

A thick butt, heavy-duty shingle in several attractive colors. Double-asphalt-coated, double-mineral-surfaced where the wear is greatest. One of the best-selling Barrett Shingle designs.
New Contractor's Equipment Speeds Jobs; Better Products Add Greater Buyer Approval

New Saw Used Inside and Outside on California School Construction

The great flexibility of the new Multiplex saws made by Red Star Products, Inc., 12910 Taft Ave., Cleveland, Ohio, permits their use on outdoor work as well as for the usual and unusual inside jobs.

The Meyer Construction Company of San Francisco recently started construction on the Washington High School, a $350,000 job. While construction will be of steel and concrete, with many difficult framing operations, the job will use over 800,000 feet of lumber.

One of the first things the Meyer people did was to purchase a Multiplex saw. They selected a Multiplex because of the many exclusive features that would enable them to cut corners on difficult framing.

Better for You!

Satisfied customers mean more business for you. See the complete line of Maze Shingle Nails in Wire and Cut Styles at your lumber dealer's. Use them for more and better jobs! Also complete lines of Maze Nails for all metal roofings.

W. H. MAZE COMPANY - PERU, ILLINOIS

Zinclad NAILS
IMPACT TEST CONDUCTED BY
THE SCHOOL OF FORESTRY
UNIVERSITY OF WASHINGTON

A No. 1 16-inch Certigrade Cedar Shingle roof, laid five inches to the weather, was exposed to successive blows of a mechanical hammer weighing 7.33 pounds. These blows were increased a one-half foot at a time. At 66 foot-pounds (the capacity of the testing machine) there was NO discernible damage to roof section.

However, this same test applied to two non-wood types in general use punched through—one at 18.3 foot-pounds, the other at 29.3 foot-pounds.

One of the significant lessons learned from the New England hurricane of last September was the extraordinary resistance to storm damage of a genuine Cedar Shingle roof. Complete immunity from storm damage, from a practical point of view, can be obtained through the use of Certigrade Red Cedar Shingles when these are applied in the usual way, with the recommended weather exposures, or less, using hot-dipped zinc-coated nails.

To lift a shingle eight inches wide away from a roof covered with No. 1 16-inch shingles laid with a five-inch exposure requires a pull of 85 pounds—a force so much greater than a hurricane can exert that it can be conservatively stated that properly nailed genuine Cedar Shingles simply cannot be blown from a roof.

We will be glad to send you a copy of the Certigrade Handbook, mailed free on request. 100 pages detailing the uses, application and technical data on Certigrade Cedar Shingles. Write Red Cedar Shingle Bureau, Seattle, Wash., U.S.A., or Vancouver, B.C., Canada.
BIGGEST NEWS IN SMALL MIXERS!

End Discharge Trailer

JAЕGER “Speedster”

- Hundreds of Pounds Lighter, with Same AIR-COOLED Engine that We Use on JAЕGER Pumps

Contractors asked for it, now Jaeger has built it—a popular priced end-discharge 3½ S trailer with the dependable air-cooled engine used on thousands of Jaeger pumps. Compact design saves hundreds of pounds—perfect balance—fast to trail on Timkens, pneumatics and springs—handier to spot and pour from end discharge—Jaeger quality thruout, including patented “V” Bottom Drum that doubles the mixing action.

“UTILITY” 3½ S

30% TO 40% MORE YARDAGE due to Measuring Batch Hopper!

Load while you mix and discharge—fast as a power loader—mixes all the concrete most jobs can handle, at about ½ the cost of heavy SS non-tilts.

Get Our New Low Prices!

THE JAЕGER MACHINE COMPANY
521 Dublin Ave.
Columbus, Ohio

(Continued from page 108)

sanding disc is operating at a speed of 3,000 r.p.m.

Among other features are the larger, easy grip handles; the flat top of the Porter-Cable edger which permits the operator to stand the machine on its head (convenient when changing sanding discs); the built-in floodlight which brightly illuminates the working area, those dark corners, closets, stairs, etc.; the independent light switch; the adjustable caster in the rear which is designed to prevent the electric cable getting under the machine (avoids gouging the floor); the detachable cord, detachable at the edger.

IMPROVED rotary edger has new features for easier, faster sanding.

Electric Saw of Improved Design

A NEW electric saw, incorporating all the latest improvements in saw design and construction, has been placed on the market by the Syntron Company, 618 Lexington Avenue, Homer City, Pa.

This new Model 25-S saw has a cutting capacity of 2½ inch material at 90 degrees and of ½ inch material at 45 degrees bevel—the thickness of a finished 2x4. It can also use a thin abrasive disc to score or slot brick, tile, marble, etc.

An oversize, universal electric motor drives the arbor shaft through silent worm gears. Only precision ball bearings are used—three on the motor shaft, and two on the arbor shaft. The saw blade is totally enclosed in a telescoping safety guard that has the official approval of the most stringent state safety codes. Weighing but 19 pounds, it is an easy tool to handle with only one hand.

SAFETY electric hand saw.

Time-Saving Automatic Saw Filer

THE Foley automatic saw filer does a quick, perfect job of saw filing, better than the most expert hand filer can do. It is made by the Foley Mfg. Company, 11 Main Street N.E., Minneapolis, Minn., and files all band saws, cross-cut, circular saws up to 24 inches in diameter, and band saws ½ to 4½ inches wide. This work is all done by one machine, with fittings for holding each kind of saw. It uses a standard 3-cornered file.

The Foley joints the saw as it is filed, making all teeth equal in size. Every tooth is filed exactly uniform in height and spacing, so that a smooth, straight, clean cut is assured. The Foley keeps circular saws perfectly round and band saws with a true edge, thus prolonging the life of the saws and reducing breakage.

SAW filer gives increased cutting efficiency.
ELLIOX & KRANZ, progressive home builders, were quick to realize the extra sales value of DUNBRIK, and profited by fully meeting this preference for it among these buyers as stated in their letter. In DUNBRIK they also found their ideal requirements—a new standard of beauty in full range of shades and textures meeting any architectural requirement or individual taste.

ARTHUR B. SMITH in his letter states that in DUNBRIK he, too, found the ideal building unit—lighter weight—greater strength—all uniform in size, very straight and square, making it quick and easy to lay in the wall.

WHEN HOME OWNERS, BUILDERS AND MEN LIKE SMITH, THROUGH ACTUAL EXPERIENCE, FIND DUNBRIK THE IDEAL BUILDING UNIT WHEREVER MANUFACTURED, DOESN'T IT PROVE THE WONDERFUL OPPORTUNITY FOR YOU IN YOUR TERRITORY?

THIS OPPORTUNITY IS ALL READY FOR YOU to cash in on the great building upturn under way. It includes the essentials upon which sound and successful business enterprises are established. A product 20% lighter in weight—a product capable of meeting all known building requirements—one accepted by Government and City Building Departments—requiring 20% less materials—made by line production.

FULLY PROVEN by present DUNBRIK-DUNSTONE Manufacturers. Some are selling output at 100% over cost, others are getting as high as 80% of the business—others are rapidly expanding from earnings. WE EQUIP YOU with line production machinery—Large production—only one or two men. Equipment costs but fraction of other processes of equal capacity. Franchise granted covering your locality—protecting your market, business and future.

INVESTIGATE NOW. Fill out the “Show Me” Coupon and mail today. Get “4 Keys to Success”. It tells the complete story—how present manufacturers are making outstanding progress.—One that offers unlimited opportunity for growth, expansion and profit. Mail coupon now.


☐ Show me how I can build better buildings at lower cost, and how I can make more money as a contractor by using DUNBRIK-DUNSTONE through your free new books.

☐ Show me how average ability and some capital win manufacturing independence in supplying DUNBRIK-DUNSTONE—the earning power of an exclusive plant in my territory—through book “4 Keys to Success”.

Name: 
Address: 
City: 
State: 

This kitchen, too, has that "sales punch" for which Marlite is famous.

★ YOU, too, can get the "sales punch" that lustrous Marlite imparts—"sales punch" concentrated in two key spots—the KITCHEN and the BATHROOM—rooms that influence women prospects to buy.

Unquestionably, your houses will attract more interested prospects, sell quicker and bring better prices if you use Marlite. Marlite decorated kitchens and bathrooms survive critical comparisons—the inevitable test every house must pass—the test that demands all the attractiveness and moderate splendor you can give it. Marlite saves home owners hundreds of dollars in periodic renovating...it always stays new...needs but a damp cloth to keep it spotlessly bright. Exclusive construction features tend to reduce noise, make quieter rooms, more livable homes.

Marlite comes in large prefinished wall-size panels that can be easily and economically cut to size by carpenters. Its sixty-three charming color combinations make even standard-plan homes seem highly individual, affording buyers widest possible choice. Marlite is just as adaptable to the modest small home as it is to larger structures. Try Marlite in these two key spots of your next speculative house and see how quickly it imparts a "sales punch" out of all proportion to its moderate cost!

Write for FREE BOOKLET of beautiful home interiors created with Marlite—the wall material that moves mountains of sales resistance!

MARSH WALL PRODUCTS, INC.
43 MARSH PLACE DOVER, OHIO

Visit the Marsh Exhibit at NEW YORK WORLD'S FAIR, Building Materials Building

Marlite
FOR CREATING BEAUTIFUL INTERIORS
WALL-SIZE PANELS IN LUSTROUS COLORS AND PATTERNS

Combination Woodworking Machine

THE Homebuilder Jr. combination woodworker is a new development in the light weight low-cost saw rig field, by C. & E. Manufacturing Company of Milwaukee, Wis. This machine is used for all around woodworking on smaller construction jobs and in industrial plants.

The base machine is a rip and cross cut table; it can be powered with a variety of gasoline engine or electric motor power from 1 to 3 horsepower. It will rip up to 3½ inch lumber and carries a maximum saw blade of 12 inches. A V belt drive connects saw arbor and power unit.

The machine can be furnished with a variety of attachments including 20-inch band saw, 6-inch jointer and dado heads and all of molding cutters. Attachments run off the single power unit.

“Jack-of-All-Trades” Gas Engine Unit

THE Mall Tool Company, Chicago, Ill., has announced a new 1 H.P. gas engine flexible shaft machine, known as the “Jack-of-all-Trades.” Electric wires, generator sets, or air compressors are not necessary to operate it. The power is developed by the gas engine and delivered to the working tool by means of heavy duty flexible shafting. With its high power and variable speeds, there is practically no limit to its adaptability.

This tool has attachments for concrete vibrating, concrete facing, sawing, drilling, grinding, wire brushing, form work, and pumping. It is unusually light in weight, powerful and portable. It can be carried up a ladder by one man easily and placed on a scaffold or in confined places. It can also be operated while suspended from a rope or hook.
WERE IN THIS MODEL HOME
The First 10 Days Of The Golden Gate International Exposition

The Western Pine Association, through its model Cape Cod Cottage on Treasure Island will have played host to more than 2,000,000 persons, it is estimated, by the end of 1939.

This means that this great number of potential home builders will have seen for themselves the beauty, versatility, and practical value of the Western Pines.

All visitors to the cottage take away with them “The Western Pine Home,” an attractive and practical folder containing the floor plan of this Demonstration Home, photographs of the interior, building details, and information about the Western Pines.

Take advantage of this tremendous and proven interest in the Western Pines. Show your clients and prospects this helpful and interesting folder. You, too, will find many valuable ideas and suggestions in it. Write for your copy today to the Western Pine Association, Dept. 121-B, Yeon Building, Portland, Oregon. The house design by Architect Royal Barry Wills, is not a stock plan.

When you’re in New York, be sure to see the five “Typical American Rooms,” the Western Pine Association exhibit at the New York World’s Fair, in the Home Building Center.

Send for this interesting and informative folder—“The Western Pine Home.” Given to all visitors to the Western Pine Association’s Model Home, and sent to you without charge.

THE WESTERN PINES WILL DO YOUR NEXT JOB BETTER . . . TRY THEM

SPECIFY WESTERN PINES FROM ASSOCIATION MILLS
WESTERN PINE ASSOCIATION, YEON BUILDING, PORTLAND, OREGON

*Idaho White Pine
*Ponderosa Pine
*Sugar Pine

*THOSE ARE THE WESTERN PINES
This Fellow Makes
BIG MONEY
All the Year 'Round

AND YOU CAN TOO!

There are no seasonal slumps for this fellow—No Sir! He owns an American floor sander and if building "slows down" a little in the winter, he gets all the work he can handle resurfacing floors in the older homes. "New floors for old" is his motto.—And in spring his services are much in demand on new work. He is his own boss!

No experience is required to do floor surfacing work. Within a few hours you can run one as well as an "old timer." Stop working for somebody else on daily wages and start making all the profits for yourself. Own an American sander.

Get complete details, catalog and price without cost or obligation by signing and mailing in the coupon below.

Gentlemen:

Send complete details and prices on your American floor sanders without any cost or obligation to me whatsoever.

I am a contractor and want machine for own use.

I am thinking of getting into business for myself.

I already own one—quote trade-in value.

Name ...........................................
Street ...........................................
City ........................................... State ...........................................

FLGDR SURFACING MACHINE COMPANY
511 So. St. Clair Street - Toledo, Ohio

Electric Door Chimes

WITH the growing acceptance of electric door chimes as the most desirable type of home door signal, the A. E. Rittenhouse Company, Inc., Honeoye Falls, N. Y., has recently developed new models to complete its line of Rittenhouse electric door chimes. Now available are models ranging from small single bar chimes to the Ambassador types with four tubes, as illustrated.

The rich, clear tones of these chimes are the result of years of experimentation by this company's acoustic engineers. Tone quality due to this careful engineering is of foremost importance because it assures pleasant signaling.

The mechanism of Rittenhouse chimes is constructed to last a lifetime; there is nothing to replace or get out of order with normal use.

Styling is the work of a well known artist, assisted by architects and decorators, making them an attractive piece of household equipment. Special finishes to match any woodwork or scheme of decoration are available, in addition to stock designs.

Complete "Multichrome" Hardware Line

AFTER months of experimental work, The Stanley Works, New Britain, Conn., has announced a complete line of "Multichrome" hardware—hinges, latches and drawer pulls, finished in bright chromium with colored plastic inserts—for modern kitchen cabinets. Multichrome inserts are offered in five colors—red, ivory, black, blue or green. The colored plastic inserts can be applied easily.

The hardware is made of brass (hinges either brass or steel specified) with chromium finish. The colored plastic inserts will not chip, fade or peel and may be cleaned easily.

Gas-Fired Wall Heaters

THE Peerless Manufacturing Corp., Louisville, Ky., is offering a complete line of Peerless wall insert heaters for new or old homes to provide clean, healthful, economical heat for bathrooms, halls or other places where floor space is limited.

This wall type unit may be easily installed without elaborate framing and piping procedure, and is approved by the American Gas Association and Good Housekeeping Institute.

The improved type of construction embodied in the heater pro-

(Continued to page 116)
HOUSES SELL FASTER
...RENT EASIER

with modern, colorful floors
of Armstrong's Linoleum...

There's Sales Appeal in this eye-catching bathroom floor of Arm-
strong's Linoleum. The die-cut insets are White No. 23.

WHAT is it that sells one house against others in its price class? Builders know the answer: Special, distinctive features—for instance, a sparkling bathroom like this one with its modern floor of Armstrong's Linoleum.

A colorful floor attracts the customer's eye. Then if the salesman says: "This floor is Armstrong's Linoleum!"—it's an added inducement to buy. Prospects know that Armstrong stands for top quality and high style in floors. Years of national advertising have built up an acceptance that means easier sales for you.

You'll find Armstrong's Linoleum Floors reasonable in cost, even in special designs. They are inexpensive to install. And their five thicknesses make it easy to select a floor that fits every purpose and every budget.

Find out today how Armstrong's Linoleum can make your houses sell or rent faster. Write for a copy of our color-illustrated book of sales-building room designs. Armstrong Cork Company, Building Materials Division, 1218 State Street, Lancaster, Pennsylvania.

Armstrong also manufactures Asphalt Tile, Reinforced Rubber Tile, Cork Tile, Linotile (Oil-Bonded) Flooring, and Linowall Wall Covering.

This valuable new book—normally priced at $10.00 per copy—is privileged to established builders at $5.00 per copy. Use the coupon below—mail it in today—to make certain of getting your copy. Only one copy to a firm.

Weatherproof
HOMASOTE
Insulating and Building Board

HOMASOTE COMPANY, TRENTON, NEW JERSEY

I enclose check ( ) money order ( ) for $5.00 to secure one copy of TOMORROW'S HOMES.

( ) I would like further details about TOMORROW'S HOMES.

Name__________________________________________________________
Address__________________________City__________________________State____

( ) I enclose check ( ) money order ( ) for $1.

THIS BOOK PROVES...

THAT THE RIGHT WAY
TO BUILD AND SELL A HOUSE
IS THE PRECISION-BUILT WAY

Now for the first time, one book—fully illustrated—tells exactly how to build a house—the right way.

Fifteen years of research went into the preparation of this book. This research brings wholly new techniques to the building industry—with important cutting of costs. Here is invaluable aid to every builder—no matter how long he has been in the business.

TOMORROW'S HOMES is profusely illustrated with photographs and full construction details. Shows how to sell, fabricate and erect houses—in 17 to 30 days. Also provides a complete, accurate and rapid estimating system—with area, linear foot and cubic yard tables from 1' 0" x 1' 0" to 50' x 50'. There are more than 250 pages.

The Precision-Built System of Construction is thoroughly proved. Some $5,000,000 of architect-designed, Precision-Built Homes have already been erected.

This valuable new book—normally priced at $10.00 per copy—is privileged to established builders at $5.00 per copy. Use the coupon below—mail it in today—to make certain of getting your copy. Only one copy to a firm.

TOMORROW'S HOMES is profusely illustrated with photographs and full construction details. Shows how to sell, fabricate and erect houses—in 17 to 30 days. Also provides a complete, accurate and rapid estimating system—with area, linear foot and cubic yard tables from 1' 0" x 1' 0" to 50' x 50'. There are more than 250 pages.

The Precision-Built System of Construction is thoroughly proved. Some $5,000,000 of architect-designed, Precision-Built Homes have already been erected.

This valuable new book—normally priced at $10.00 per copy—is privileged to established builders at $5.00 per copy. Use the coupon below—mail it in today—to make certain of getting your copy. Only one copy to a firm.

Weatherproof
HOMASOTE
Insulating and Building Board

HOMASOTE COMPANY, TRENTON, NEW JERSEY

I enclose check ( ) money order ( ) for $5.00 to secure one copy of TOMORROW'S HOMES.

( ) I would like further details about TOMORROW'S HOMES.

Name__________________________________________________________
Address__________________________City__________________________State____

( ) I enclose check ( ) money order ( ) for $1.
Send FOR THESE BOOKS

Profusely illustrated with cutaways, charts, diagrams, with complete descriptions, beautifully printed in colors—These books give you inside information on the most superbly styled and correctly engineered line of winter air conditioners made today.

Moncrief Winter AIR CONDITIONERS

Gas, coal, or oil-fired... in all sizes and at all prices... for the mansion where every refinement is a requisite... for the cottage where low price and big value are prime considerations. The products of a firm forty-five years building quality heating equipment for the home, they include all that is best in winter air conditioning at low cost. There is a Moncrief dealer in your vicinity. Ask him; or write to this address for books fully describing these modern Moncrief Winter Air Conditioners.

THE HENRY FURNACE & FOUNDRY CO.
3479 E. 49th St.
CLEVELAND, OHIO

New Metal Venetian Blinds

The Chicago Venetian Blind Company, 3921 S. Michigan Ave., Chicago, is offering, in addition to a full line of wood slat blinds, two new metal slat blinds.

The “Color-Metal” blind is constructed of gracefully curved, baked enamel steel slats that are available in several standard colors. The beautiful, lustrous baked enamel finish will not chip or crack and is impervious to dirt, dust and moisture. A few strokes with a damp cloth keep the blind spotless. Periodical cleaning with a cloth keeps the blind fresh and beautiful and the attractive neutral gray finish will last indefinitely.

Kitchen Vent Fan Improved

Signal Electric Mfg. Company, Menominee, Mich., has announced an improvement in its de luxe line of automatic wall box kitchen vent fans. To the new automatic wall box kitchen vent fan has been added a baffle plate to materially increase the efficiency of the fan, enhance its appearance and provide greater air delivery by reducing the turbulence around the fan blade.

New venetian blinds with metal slats.
A tipped-over vase of flowers usually means a ruined wall. But not when that wall is surfaced with the new Masonite Colored Board. The smooth, satin-like color finish is a special Masonite process. A little water won't hurt it. In fact, it can even be washed with a neutral soap and damp cloth.

**NO HARM DONE!**

The base of Masonite Colored Board is Masonite Insulation. In addition to the beautiful lasting color, your clients get the valuable insulating properties of this durable, grainless board . . . the structural integrity that actually adds to the strength of the building. And there's a big saving in money, because Masonite Colored Board is quickly, easily applied in sections reaching from floor to ceiling.

**MASONITE COLORED BOARD IS WASHABLE!**

Masonite washable Colored Board is new and exclusive with Masonite. The special finish is already applied in either oyster white, green, ivory or buff . . . today’s most popular home colors. Delivered clean and fresh to the job. Mail the coupon today for free sample and full details.

---

Meet most of the people who can buy your homes! Meet them regularly in the pages of **BETTER HOMES & GARDENS**—starting with the May issue!

In this big issue we introduce a new book for home buyers, “How to Buy a Better Home.” It will be nationally advertised, sold on newsstands. It tells how you serve America—contains the most complete check list of things to remember in buying a home we’ve ever seen!

**BETTER HOMES & GARDENS** has consistently translated the problems of home purchase, home ownership, upkeep and gardening to the people who take pride in the homes they buy and live in. Now you and your work become an important addition to this policy.

We are selling you to America! You will want more details. Return this coupon today.

---

**BETTER HOMES & GARDENS**

Better Homes & Gardens, Dept. AB-4, Meredith Publishing Company, Des Moines, Iowa.

In 1938 I built . . . . . . . houses for resale.
Please send me a free copy of “How to Buy a Better Home” and tell me how I can use it in my own selling.

<table>
<thead>
<tr>
<th>Form Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
</tr>
<tr>
<td>City</td>
</tr>
<tr>
<td>By</td>
</tr>
</tbody>
</table>
This New Plan Book

Describes
Illustrates
Diagrams
"TruCosts"

96 Homes of Outstanding Popularity

Each Home Design
Is Accompanied by
COMPLETE TruCost Estimating Figures

making it quickly possible to quote an accurate price on any of these designs for construction in any locality, despite differences in local costs and local building methods.

Every design has been accurately surveyed by Mr. A. W. Holt, the inventor of this simple, practical, scientific system, and the unit figures for estimating are presented in six pages of TruCost tables at the end of the book.

In 27 illustrated pages Mr. Holt makes clear the theory and practice of TruCost and shows the importance of accurate cost record keeping and of systematized estimating.

This feature, exclusive with "Buyer-Approved Homes," multiplies its value to builders, contractors, dealers and architects, and vastly helps them in their service to their clients.

For some of the 96 Homes presented, and for details of the 27-page TruCost estimating section, see the following page.
copy of "American Builder Buyer-Approved Homes" is included with a paid-in-advance new or renewal American Builder subscription order, accompanied by $2 for one year, $3 for two years, or $4 for three years. To get YOUR copy use the form to the right.

Continued from preceding page.

Just a Few of the 96 Buyer-Approved Homes Presented

I—In the Medium and Upper Cost Brackets

Two fine Modified French Norman Homes in River Forest, planned for Light, Air and View

Comfort Cottage Overlooking Lake Candlewood

All Hardwood Home Built for 300 Years

Well-Planned "Plymouth Haven" Small Houses Grouped About a Court

5-room California House on a Hillside

Three Exteriors for One Plan in Northwood Development at Baltimore

A Gem from the Old South

"Orchard House" from Mississippi

A Port Chester Cottage that Hugs the Ground

White Plains "Picture Home"

II—Low Cost Homes of Charm and Appeal

Small Colonial Beauty at Glastonbury, Conn.

Dry-Wall Homes for $43.85 per Month

Low Cost Home in High Class Westchester

Built for Lumber Workers by the Resettlement Administration

"The Greenfield"

5-Room Colonial

"The Williamsburg"

Colonial at White Plains

Low Cost Homes in Florida

Also

ten pages of New Ideas in Double Houses and Apartments

Also

eight pages of Summer Cottages and Vacation Cabins

Also


All of the Homes in this New Plan Book are thoroughly representative of the very best in today's home planning, construction, and equipment. They can be built anywhere. They are of the types that make clients' eyes glisten with delight and in pleasurable anticipation of owning without delay just such homes. The book has 180 pages, 8½ x 11½, is beautifully illustrated and most attractively covered.

American Builder, April 1939.

American Builder, New............

30 Church Street, Renewal...........

New York.

For the enclosed $.......................... enter

my subscription for 1 year, $2..............

2 years, $3.............. 3 years, $4..............

And Include AT NO EXTRA COST a copy of "AMERICAN BUILDER BUYER-APPROVED HOMES"

Name

Street

City

State

Occupation

This offer good only in United States, its Possessions and Canada

The Last 27 Pages

Present the only publication in book form of a full explanation of American Builder's system of quick, accurate estimating of house building costs for any and every community.

Under these Headings:

1. Announcing TruCost Estimating Service
2. TruCost "Master Sheets" for Estimating
3. How TruCost Prevents Expensive Errors
4. How TruCost Verifies Accuracy in Estimating
5. Holt's Basic House and "HoltRates" Explained
6. TruCost Detects Errors in List
7. Unit Costs for Brick Walls
8. Unit Costs for Tile Walls
9. How TruCost Figures Any House
10. TruCost Reduces Home Building Costs
11. TruCost Brings Order Out of Chaos

No building professional's working library can be complete and up to date without these priceless data.

Get YOUR Copy without Delay!
"Now I build Every Fireplace this Easier way!"

"Will Not Smoke Circulates Heat" says this builder

"I used to think that building a fireplace was a mighty particular job," this builder told us. "Then I found out about the Heatilator Fireplace.

"Say, I discovered something that day. It was a lot easier for the masons. And it turned out to be the best fireplace they had ever built. Believe me, I build every fireplace I can around the Heatilator now. It ends all my worries about fireplace-smoking. And it pleases the house owner, too—because the Heatilator Fireplace warms every corner of the room."

Provides a Metal Form for the Masonry

The Heatilator is a double-walled steel heating chamber that is inclosed in the fireplace. This heating chamber—which circulates heat by natural draft to all parts of the room, and even to adjoining rooms—serves as a form for the masonry. It assures a perfectly operating, smokeless fireplace. Complete from floor to flue—including the firebox, damper, smoke-dome and down-draft shelf—saves labor and materials. Puts no limit on mantel design, or the type of masonry used.

The Heatilator is sold by leading lumber and building supply dealers, with stocks in principal cities. Mail the coupon for complete details and installation data.

HEATILATOR COMPANY
824 E. Brighton Ave.
Syracuse, N. Y.

New Line of Steel Furnaces

THE Rudy Furnace Company, Dowagiac, Mich., has announced the introduction of a steel gas-heat air conditioner and steel coal fired gravity furnaces to be marketed under the trade names "Rudico" and "Rudisteel." Units are in addition to the regular line of Rudy cast iron equipment.

Rudico gas-heat air conditioners are furnished in square, satin-black green enameled casings with blower, filters, automatic humidifier, burners and gas valves. Units range in outputs from 79,000 to 155,000 BTU per hour. Gravity coal furnaces have round galvanized casings only. Dual flue outlets and direct fire damper are available in Rudisteel series.

Robot-Unit-Kitchen Combination

A UNIQUE and interesting development in the mechanization of the kitchen is offered by Robot Products Corporation, 1606 Industrial Bank Building, Detroit, Mich., which is offering a line of compact kitchen ensembles featuring appliances of nationally known manufacturers. Robot-Unit-Kitchens are special ensembles consisting of: Electric refrigerator (Universal Cooler Corp.), electric range (Electromaster, Inc.), Robot-duo-sink (sink and tub made of "Wear-Ever" aluminum), and work surfaces (Monel metal).

Of interest to architects and builders of low-cost housing projects, these units offer low cost and adaptability to a limited space; combinations for any size kitchen can easily be created. Basic designs include L-shaped ensemble, U-shaped ensemble, and two-wall ensemble, and many others are possible.

The appliances comprising any assembly are interchangeable; they may be varied in number and arranged according to the individual's preference. Each appliance within the group is designed and engineered as an integral part of the unit. Uniform finishes, hardware, etc., are employed.
YOU OUGHT TO SEE MY APARTMENTS...THEY'RE DECORATED WITH MODEX CASEIN PAINT

Lady Managers Praise Pastel Colors
Owners Note MODEX Economy
"Easy to Use"—Say Painters

Walls and ceilings perk right up with new charm and smartness when finished with Modex, the concentrated casein paint.

Note that word "concentrated." It means a real saving, as the cost of Modex includes only active ingredients in powder form—not one cent for water. This means that Modex costs at least 25% less than any casein paint prepared in paste form. For modern decorative effects—for economy and for ease of handling on the job, Modex is the standout among casein paints. New illustrated folder on Modex will gladly be sent on request.

SAVE
20% to 30%
with this NEW, LOW-PRICED
DEWALT WOODWORKER

Build more houses per year with the same crew . . . and save 20% to 30% in time and money! You can . . . with this new, lighter, all-purpose DeWalt Woodworker, Model "GP." Portable—it's easily transported. Flexible—takes less than a minute to change to any of the popular cuts—100% faster than the ordinary woodworking machine. Low-priced—it's within the reach of every builder! Put this DeWalt Wonder Worker on the job! See how easy it is to operate—how fast, accurate, powerful, safe it is! You'll say—as others say about DeWals—"DeWalt paid for itself right from the start!"

If you plan to build one or more houses, make this comparison. Build one house, using a DeWalt for sawing. Build the other, with any other method. See the difference. Know the difference in greater profits. We'll venture to say you'll never be without a DeWalt. Let us give you a demonstration of the DeWalt "GP." Mail the coupon today.

DE WALT PRICES START AT $175.00 F.O.B. FACTORY

WRITE TODAY FOR FULL FACTS

DE WALT
225 Fountain Ave. PENNA.
LANCASTER

Gentlemen: Send me full facts on how DeWalt can save me time and money.
I plan to build . . . . houses.

Name __________________________
Address ________________________

EASY TO OWN ON THE EASY PAYMENT PLAN
New Attic Fan Units

The Dallas Engineering Company, Dallas, Texas, manufacturers of fine home cooling units, has recently introduced the Modernaire line of attic fan units, a much improved model over those previously made by them. This new attic fan unit has an all-steel welded frame construction; it cannot be bent or shaken, and there are no bolts or screws to loosen; in addition, it is rust-proofed. It has rubber-cushioned ball bearings which eliminate all shock. A variable pitch pulley is used which will give a speed variation of approximately 30 per cent. Also, a two-speed electric control is available at a small extra charge. Other features are: rubber-cushion motor saddle to eliminate noise and vibration and give longer life; a sliding motor mounting for automatic, constant adjustment, insuring longer belt life; streamlined frame supports and silent air propellers with perfect static and dynamic balance. Rated according to the standard test code of American Heating and Ventilating Engineers and the National Association of Fan Manufacturers, the 36-inch fan has a rating of 10,000 c.f.m. and all other sizes are proportionately high.

Summer Comfort Cooling Fans

The new redesigned Coolvent attic fan developed by The Autovent Fan & Blower Company, Chicago, Ill., forms a basis for one of the most economical forms of summer ventilating systems available. The new unit is installed in the attic, connected to a ceiling grille, usually located in the upper hallway. The fan is placed in operation at the time of day when temperatures start to drop. Hot stagnant air is forced out of attic openings and a gentle air circulation is set up throughout every room of the home. When living room windows are left slightly open, cool air is drawn into the home providing a cool, comfortable living condition.

Quiet operation is obtained through special designed, 3-bladed fan construction, rubber pillow block bearings and a specially insulated motor mounted on an isolated bracket; "V" belt driven to assure low speed and prevent any possibility of vibration.

The units come in a wide range of fan diameters and are installed in accordance with air volume to be handled and number of air changes required.

NEW attic fan for ventilating and summer cooling.

Interior Concrete Waterproofing

The Kenny Products Company, 1722 Hennepin Ave., Minneapolis, Minn., is marketing a product called Contite, an interior transparent waterproofing material for concrete walls and basements. This product, applied to the interior of walls with a brush, penetrates the pores of concrete and eliminates dampness. Also as a base for paint surfaces, Contite keeps moisture from coming through all types of stone and brick walls above grade. It is acid- and alkali-proof and tends to prevent the unsightly efflorescence brought to the surface by moisture.

Red Tenite Handles for Putty Knives

NEW Red Devil P 13 putty knives and wall scrapers featuring indestructible handles of genuine red Tenite and blades of mirror polished tool steel have been introduced by the makers, Landon P. Smith, Inc., Irvington, N.J., and combine unusual appearance with added utility.
Backed By A Nation-Wide
Sales Installation Service

The "OVERHEAD DOOR"
THE DOOR WITH THE
MIRACLE WEDGE
Blends with every type of construction

OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA, U. S. A.

Beauty Bathrooms with MIAMI Cabinets

Attractive bathrooms help sell houses. Miami Cabinets and Accessories add the touch of quality that favorably influences home buyers. Over 140 cabinet models from which to select—from low cost housing types to Deluxe ensembles. Write Dept. F for catalog.

MIAMI BATHROOM ACCESSORIES

... retain their beauty and brilliance through years of wear and hard use. Made of forged brass, heavily nickleied, then covered with hard chromium. There is a Miami Accessory for every modern bathroom requirement, both recessed and projection types.
A GREAT ADVANCE
In Small Home Heating

OIL FURNACE AND AIR CONDITIONER

HEATS—HUMIDIFIES PURIFIES—CIRCULATES

The luxury of automatic heat is no longer limited to expensive homes. Today Round Oak offers a revolutionary new oil-fired winter Air Conditioning furnace, so low in cost and so efficient in operation that it is practical for low cost small homes. This X-80 is a special steel furnace with the famous Round Oak Contraflow burner and efficient circulating, filtering and humidifying units. It produces a maximum of 80,000 BTU's an hour. (Larger sizes available.) X-80 is compactly encased within an attractive steel cabinet of blue finish. Every part is built to the rigid Round Oak standards. See this advanced unit at your Round Oak dealer's or mail the coupon below.

Please send literature and complete information describing your
☐ X-80 AIR CONDITIONERS ☐ LARGER EQUIPMENT

Name__________________________
Street__________________________
City___________________________State__________________________

News of the Month
Building Activities and Meetings

Residential Building Volume at Highest Level for Any February Since 1929

At no time since 1929 has the February volume of residential building equaled the total for February, 1939. Residential contracts awarded in the 37 eastern states last month amounted to $79,020,000, according to F. W. Dodge Corporation, which represents a gain of 98 per cent over the February, 1938 total which amounted to $40,023,000.

It was stated by the Dodge Corporation that the composite total of residential contracts for the first two months of this year was more than twice the corresponding 1938 total, although the public housing program is growing in importance, it is significant," it was said, "that the greatest contribution to the residential building gains was made by private enterprise. At the end of the first two months of this year, private residential contracts amounted to $40,027,000, as compared with only $19,907,000 for public projects. The private residential total showed a gain of $65,561,000 over the first two months of last year as compared with a gain of $18,392,000 for private residential building.”

The 1939 record of private residential construction is the result of the fact that in the multiple-family dwelling type, comprising many large-scale rental housing projects insured by FHA, a cumulative dollar gain over last February of the amount of last February amounted to 176 per cent. For the same period, the dollar gain in the small house field consisting of privately-owned and two family residences amounted to 62 per cent.

Contemplated new residential building for February amounted to $169,854,000, a gain of 65 per cent over the February, 1939 figure which amounted to $102,990,000. The cumulative total of contemplated residential projects for the first two months of this year was 42 per cent ahead of the corresponding two months of last year.

Figures for the first 22 days of March, 1939, are as follows:

<table>
<thead>
<tr>
<th>Type</th>
<th>1939</th>
<th>1938</th>
<th>1939-38 Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>$82,421,000</td>
<td>$50,916,000</td>
<td>61.5%</td>
</tr>
<tr>
<td>Non-Residential</td>
<td>64,648,000</td>
<td>50,367,000</td>
<td>20.4%</td>
</tr>
<tr>
<td>Public Works</td>
<td>41,440,000</td>
<td>29,909,000</td>
<td>39.5%</td>
</tr>
<tr>
<td>Utilities</td>
<td>13,121,000</td>
<td>6,769,000</td>
<td>94.2%</td>
</tr>
<tr>
<td>Total</td>
<td>$201,630,000</td>
<td>$137,961,000</td>
<td>45.9%</td>
</tr>
</tbody>
</table>

New Company Formed to Give Perfected Service on Redwood

Of particular interest to buyers and users of redwood throughout the eastern part of the country especially in the announcement that California Redwood Distributors Inc. has succeeded The Pacific Lumber Co. of Illinois and Hammond Lumber Co. (Inc.), and has established general headquarters in the Pure Oil Building, 35 East Wacker Drive, Chicago, with additional offices in the Chanin Building, 12 E 42nd Street, New York City.

This new company will handle all sales in the thirty-seven eastern States for the two parent companies located in California. These companies operate four sawmills, two at Humboldt one at Eureka and one at Samoa, Calif., with a capacity of 300,000,000 feet of redwood annually. The present lumber stocks total 165,000,000 feet.

President of California Redwood Distributors (Ltd.), Leon Hammond, of San Francisco, with Carl Bahr as manager, who will make his headquarters in Chicago. Included in the new organization will be Frank R. Adams, Harold Bendorf of The Pacific Lumber Co. of Illinois, Harry E. Rutledge, New York, George Knab and F. Brown, Chicago, of Hammond Lumber Co. (Inc.)

All present district managers, wholesalers, commission field men and the Chicago and New York office staffs of the two companies will be retained.

The coalition of these two great redwood organizations makes possible better service to the trade under all conditions, with their combined operations and timber resources.

(Continued to page 126)
The true spirit of the time and country that gave it birth is retained in the design of every piece of McKinney Forged Iron Hardware. English, Spanish, Italian or American Colonial, McKinney designs are authentic designs, and the texture of the metal is maintained as it was by craftsmen of long ago.

Accurate for application and priced within the range of the most modest home owner. Write for details.

McKINNEY MANUFACTURING CO.
PITTSBURGH, PA.

April 1939.

How a Mid-Western Contractor Is Piling Up BIG PROFITS with a Carter Lock-Mortiser

Yes! This Carter Lock Mortiser actually paid for itself in just five days' use on a large Mid-West real estate development...and then went right ahead piling up profits for the contractor!

Surprising? Not at all. For this money-making tool is the fastest lock-mortiser in the world! Quickly set up, it cuts a finished mortise in just under 30 seconds! In continuous operation it will actually mortise a-door-a-minute, and its uniform automatic feed produces a smoother cut.

Four simple, easily accessible adjustments change over from one size lock to another in 90 seconds; and both knob and keyhole can be spotted with a single setting.

Send now for full literature on the fastest, lightest and most powerful lock-mortiser on the market.
HOLT PUBLISHING COMPANY
Lumber Exchange, Minneapolis, Minn.

Please send me one Holt's Kwic Kost Estimating Systems. I/We will pay the postman $7.00 plus postage (in full) upon delivery. And include without additional charge or obligation, one Holt's Roof-Rule.

NAME
ADDRESS
CITY
STATE

Here's another sale
I'd never have made
without Holts
KWICKOST

THE BOOK OF BOOKS FOR BUILDERS
Will save you time, work and worry—Will help you make more sales and more money. Estimate the quick, easy way. Prevent costly omissions in your bidding. Assure yourself of substantial profits. Hundreds of others have by using this new KwicKost book—The book of books for builders. This latest estimating guide is the perfected culmination of 30 years of experience by A. W. Holt, America's foremost instructor of simplified estimating. Handy pocket size 3 1/4"x6 3/4" Looseleaf and contains all TruCost tables.

MAIL THE COUPON TODAY.
Money back if not satisfied.

Holt Publishing Company
LUMBER EXCHANGE, MINNEAPOLIS, MINN.
THEY'RE Smart

"Mesker Guildhall Steel Casement Windows are smart looking," says Mr. Schneider, well known Cleveland builder, "and it takes a smart looking window to appeal to today's smart buying public."

We agree with you, Mr. Schneider

Smart Builders everywhere tell us they prefer Mesker Guildhall Casements because they're Smart Looking, they are easy to install, never swell or stick, but always open and close at a twist of the wrist.

Moreover, their cost is surprisingly low!

INSTALL THE DOOR CHIMES THAT BUILDING EXPERTS PREFER

There must be a good reason why nationally known building authorities select Rittenhouse Chimes for their model homes. Rittenhouse Chimes were chosen for exclusive installation in House Beautiful's Bride's House in New York... The F. E. D. A. C. House of Homes, Rockefeller Center, N. Y... "Homewood—the All-Gas-Good Housekeeping House" at the World's Fair.

There's only one reason. It's because Rittenhouse Chimes have superb tone, smart styling, rugged construction, and a variety of models and finishes suitable for any type home. List prices range from $1.00 to $50.00 including tubular and bar chime models.

Rittenhouse is the name the public knows; extensive national advertising has built up prestige based on quality performance in hundreds of thousands of homes.

Don't take any chances. Follow the opinion of building experts. Install Rittenhouse Chimes; guaranteed to give satisfactory performance.

At electrical and hardware wholesalers. Mail coupon for catalog of entire line.

THE A. E. RITTENHOUSE CO., Inc., Dept. 204, Honeoye Falls, N. Y.
Furnace & Supply Co., Inc. has, and most new home-buyers know it... by word-of-mouth recommendation from an army of satisfied Payne users... and from Payne's consistent national advertising program.

Put Payne's gas furnaces to work for you. They'll help you to deliver the trouble-free comfort the homebuyer insists on. Whether you're building to price... or for tip-top quality... it will pay you to specify the Payne Gas Floor Furnace... or one of the other superb Payne units. Good heat will sell more homes for you. And you'll never have any call-backs because of heating troubles. Payne furnaces mean business... more business for you.

Write for further information.

PAYNE'S Gas Floor Furnace MEANS BUSINESS!

The biggest factor in home-comfort is warmth... warmth that's economical, healthful, trouble-free, odorless... warmth that chases cold spots and frigid corners... warmth that maintains just the right humidity.

That's exactly what the Payne Gas Floor Furnace has. And most new home-buyers know it... by word-of-mouth recommendation from an army of satisfied Payne users... and from Payne's consistent national advertising program.

Greater Home Values at World's Fair

For the estimated millions of home owners, present and prospective, who will be visiting the World's Fair this summer, the most practical and extensive Home and Home Building exhibit ever developed will be presented.

Ten acres of the Fair are devoted to The Town of Tomorrow, a model community of twenty-one full size demonstration homes, planned to display the extraordinary developments of recent years in the field of small house construction.

Fifteen of these homes, in recognition of their greater demand, are planned at a construction cost of less than $10,000, and eight of these are in the $5,000 range. The surprisingly moderate cost of these homes by no means implies either inferior materials or standardization of design. The materials used are of a uniformly high quality, obtained from nationally known and established companies, and their cost was included in computing the cost of the finished house.

As for design, the twenty-one houses represent nearly as many different styles of architecture. Each has been designed by an outstanding architect; they are alike only in their charm and moderate cost.

The modernistic home is, of course, presented. Few other mediums are so readily adaptable to the "Tomorrow" theme of the Fair. The demonstration town is not, however, that of a visionary world centuries ahead. No futuristic concepts were planned or allowed in this exhibit. This is the city of the immediate tomorrow—practical, realistic and applicable today.

Wall Hanger Offered

A rather unusual advertisement, signed by the National Surety Corporation, appears in this issue. It shows a picture of an optimistic customer, his arms filled with tools and blueprints, who is saying, "$600 worth of lumber, please. I'm building the house myself," as he hands a long list to the astonished yardman.

National Surety Corporation is a large company, selling Fidelity and Surety Bonds, Burglary and Forgery Hold-up Insurance. But their purpose in the advertisement, which is one of a series, is not to sell insurance but to call attention to the fact that the local insurance agent, like the local contractor and master builder, the retail druggist, and the independent grocer, is a middleman.

He renders a service for a profit. He justifies that profit, sometimes many times over, in performing a service that no individual customer can perform as cheaply or as effectively for himself.

Because the building contractor or lumber dealer may find it profitable to display this testimonial to the very real service he performs in the community, National Surety Corporation is preparing for free distribution large blow-ups of this advertisement which may be had, on request to Advertising Department, National Surety Corporation, 4 Albany Street, New York City.

Harvester Continues Plant Modernization

A $3,000,000 modernization program for its Tractor Works in Chicago is included in the International Harvester Company's current schedule of plant rehabilitation and rearrangement. It was recently made known at the company's Chicago offices. The local plant modernization program, begun in 1938, will extend through this year and probably will not be completed until some time in 1940.

Including outlay for plant modernization programs already announced at Rock Island, III., and Milwaukee, Wis., and $1,000,000 for new construction in the recently announced motor truck engine plant in Indianapolis, the Harvester Company's present plant modernization and new construction schedule involves the expenditure of about $12,000,000.

Name New National Mortar Sales Manager

National Mortar and Supply Company of Pittsburgh, Pa., has announced that Mr. E. F. Kearins has been appointed sales manager of that company. Ed Kearins has had a wide range of merchandising experience. He has been with the National Mortar and Supply Company since 1924, and during the past twelve years has been western sales manager, working out of Chicago. His new responsibilities will take him into all territories, where he will cooperate with local Banner representatives.

American Builder, April 1939.
require the finest possible finish, inside and out. Plaster contractors build and protect their reputations by relying on the products listed at the right. Write for Free Booklet on Good Plaster...

The Ohio Hydrate & Supply Co., Woodville, O.

369 Practical Job Pointers

This collection of "Practical Job Pointers" contains some of the best of the kinks, tricks and ideas for short cuts published in the Job Pointer Department of American Builder and Building Age. Architects, contractors, material dealers, carpenters, job superintendents, shop foremen, cabinet makers and other men in the building industry have contributed these practical ideas out of their own experience.

Every pointer is clearly illustrated by a clear working drawing or photograph. Some pointers show alternate methods. An index facilitates quick reference to a particular problem. The book is roughly divided into three sections:

1. Ingenious methods or practical pointers on how to do it.
2. Clever tools, devices and kinks from experience.
3. Details of construction and recommended ideas.

The book is pocket size and can be slipped into the pocket and carried on the job.

192 pages, 275 illustrations, 4½ x 8½, paper, $.75.

BOOK SERVICE DEPARTMENT
American Builder and Building Age
30 CHURCH STREET NEW YORK, N. Y.

Send for our Free BOOK GUIDE
W S W A Y

Foot-Grip No-Slip
RECEPTOR

WEISWAY RECEPTOR WITH LINOLEUM WALLS

WEISWAY RECEPTOR WITH TILE WALLS

for Stall Showers,
All Kinds of Finish Walls

The famous vitreous porcelain Foot-Grip No-Slip receptor, exclusive feature of Weisway Cabinet Showers, is now available for stall showers with any kind of finish wall material, such as tile, glass, linoleum, rubber or marble.

The top of this receptor is so designed that adjoining finish wall materials are enclosed within a continuous rim, an integral part of the receptor body. This assures a leak-proof meeting joint at the point which has always been the danger zone in stall showers. Underpans and expensive special drainage fixtures are eliminated.

The Weisway receptor is safer, cleaner, easier to install, permanent, leak-proof—and is low in cost. Mail coupon now for details.

MAIL THIS COUPON TODAY

HENRY WEIS MFG. CO., (Est. 1898)
401 Oak St., Elkhart, Ind.


Name__________________________
Street________________________
City__________________________ State____________________

American Builder, April 1939.

LETTERS from Readers

on All Subjects

Facts, opinions and advice welcomed here

(Continued from page 60)

and moreover he would be paying his taxes in the meantime and would, to that extent, be carrying his own weight.

I am afraid, however, that your proposal will not get very far. The Federal Government is not disposed to give hand-outs to anybody except farmers and banks.

A cut of one percent in the interest rate on mortgages is equivalent to a 15% saving on the ultimate cost of purchasing a home. If, therefore, FHA mortgages could be made at 3%, the saving would be very great and the monthly payments would be considerably reduced. On the whole, there doesn't seem to be any good reason why mortgages which are guaranteed by the United States Government shouldn't carry almost as low an interest rate as Government bonds. After all, the only security behind the Government bond is that the Government guarantees it. If one guarantee is good, so is the other.

If in addition to this we could get a limitation on the real estate tax to one per cent of the value in any one year, we could make it possible, I believe, to give almost any family with an income of $60.00 or more a month a chance to buy a home of its own.

HERBERT U. NELSON,
Executive Vice President, National Association of Real Estate Boards.

"Much to Recommend"—

To the Editor:

While it is difficult to cover the many angles involved in the subject of your April editorial "Public Subsidies and Private Housing," I can assure you that there is much to recommend the viewpoint which you are presenting.

I presume you have discussed the question with those directly concerned with the USHA. If not, I suggest you do so as I am sure they will define their method versus yours on the basis of slum clearance, social and business management service to the less fortunate families, etc. However, I believe it is possible for you to show as good a case.

RUSSELL G. CREVISTON, President
Producers Council, Inc.

"Screw Ball Economics"

To the Editor:

Your editorial "Public Subsidies and Private Housing" is a splendid expose of the "screw ball" economics and short-sighted social planning of the Administration's Slum Clearance Program.

After its publication, I should like enough reprints to supply every newspaper in this state.

Collectivism, the basis of all of the other "isms" that are now threatening the collapse of civilization, is best fostered by collective housing.

As your editorial very accurately states, none of the various Government subsidized multiple-unit housing projects has been brought within the reach of the people who are being evicted in the Slum Clearance movement.

To the much-maligned private building industry is being left the task of providing shelter for the people whom the Government's housing bureaucrats are driving out of the slums; and the private building industry is doing the job with its usual quiet effectiveness.

It is significant that no nation has yet voluntarily succumbed to the blandishments of the dictator-tyrants, be they Bolshevists, Fascists or Nazi, in which the majority of the citizens are owners of their own cottage homes and garden plots.

Multiple-unit housing does not supply the type of home which nurtured the qualities of citizenship and patriotism which have

(Continued to page 132)
Carpentry and Joinery Work

By Nelson L. Burbank

Formerly Instructor, Building Vocational High School, Cincinnati, Ohio

The new second edition has been thoroughly revised.

The manuscript was carefully checked by a former contractor and ex-editor so that this book combines the practical outlook with the author's trade teaching experience. The cardinal principles of modern residential construction are set forth simply and logically with the aid of many photographs and line drawings. The Second Edition contains 90 revised pages with new illustrations and descriptions of new methods and materials.

The program of study as presented in this latest textbook for students of carpentry work involves class discussion, practical job work and related studies. These include Architectural Drawing, Plan Reading, Carpentry Mathematics, Business English, Applied Science, Civics and First Aid.

280 pages, illustrated, 8½x11 inches. Cloth Bound, $3.00

BOOK DEPARTMENT

American Builder and Building Age

30 Church Street New York, N. Y.

Let Tile-Tex Sell for You

One look at a colorful, modern bathroom, with resilient Tile-Tex floor and decorative Tile-Tex walls will convince your home-buying prospect of the plus value you build into a home.

Simple and easy to install, inexpensive to maintain, Tile-Tex walls and floors become a positive and active sales aid. They add real live color and up-to-the-minute modern designs to the key rooms of a house. They can make the homes you build possess that added "something" that closes the sale. Baths, kitchens, laundries, recreation rooms—these are the rooms that do much to sell a home—women in particular are fussy about these areas. Build these rooms better with Tile-Tex—make them different from your competitors, and watch your sales grow.

For new jobs or for modernization work, Tile-Tex walls and floors mean low first cost and high sales appeal. Our nearest approved contractor has a real fact story for you. Ask for his name and copies of the new Tile-Tex folders on floors and walls.

Tile-Tex Company

Chicago Heights, Illinois

OR YOU MIGHT CARE TO REPRESENT US IN YOUR TERRITORY

The Tile-Tex Company,

Chicago Heights, Illinois

If my territory is open, I would like to have complete information on the Tile-Tex Dealer's proposition.

Name:

Address:

A-4
made our country preeminent among the nations of the world.

How many of our presidents were reared in tenements? Yet the majority of them were born in cabins, possessing far fewer conveniences and affording less shelter than is available to the evicted slum dweller today from the private building industry for as little as 50 cents a day in amortized payments; and it is around the hearthstone of just such humble homes that little children become imbued with the ideals, the character, resourcefulness, self-reliance, independence and aspirations that will go farther if it does take that form. Government subsidies of construction cost have tended to perpetuate elements contributing to excessive construction costs which ought to be gradually eliminated and not further entrenched.

The insured single amortized mortgage fostered by the Federal Housing Administration is gradually substituting the high credit of the Government for the low credit of the individual householder of small or uncertain income. Standardization of materials and equipment and further partial pre-assembly are gradually reducing the job-labor time and the costs of building. The progress already made in that direction in Small Homes through the initiative of the National Small Homes Demonstration is a promise of much more progress still capable of being made if the opportunities for economies, especially through standardization and large-scale production of materials and equipment, are further diligently pressed.

These two factors together, of standardization and safe, long-term financing at low rates, will readily convert the $2,000 to $3,500 modern Small Home into a practical, nation-wide reality and facilitate. If, as appears, there must be subsidies, the systematic subsidizing of carrying costs should be just as effective as the subsidizing of construction costs and would lead to more decent homes for more people more quickly and, over a period of time, I believe at considerably less cost.

The insured mortgage interest rates should be eventually from 3 to 4 per cent, not 5 to 6 per cent, and I think they will be.

To the Editor:

WILSON COMPTON, Secy.-Mgr.,
National Lumber Manufacturers Association.

Agrees 100 Per Cent

To the Editor:

I have read your editorial to be run in the April American Builder entitled "Public Subsidies and Private Housing," and I agree with you more than 100 per cent. I have no criticisms or suggestions to make regarding the article, but I think it is splendid.

ORMIE C. LANCE, Secretary,
Northwestern Lumbermens Association.
The builder is telling Mr. & Mrs. Prospect why they should buy the house. At this point he's saying —

"Right here, beneath the brick, is a place where ordinary houses often require expensive repairs after a few years. Moisture gets to the structural lumber, decay and termite damage results. But not on this house! Joists, sills, and subfloors are made of Wolmanized Lumber, treated so insects and decay organisms can't feed on it. It costs a little more, but like proper insulation and other features you've seen, it can save lots more than it costs . . ."

That story makes a sales point well worth the "less than 2% added to the total cost of the house" — worth it to you in effective sales strategy; worth it to the home buyer in extra value. It's value which banks and financing agencies recognize. Ask us to send you the full story of this clean, convenient, easily handled material. We will send also samples of folders which you can in putting the point over to prospects. AMERICAN LUMBER & TREATING COMPANY, 1406 Old Colony Building, Chicago.

*Registered Trade Mark

WOLMANIZED LUMBER

USED FROM HERE TO HERE TO PROTECT THE WHOLE STRUCTURE

WOLMANIZED LUMBER
CAPITOLAIRE HEATING SYSTEMS

are IDEAL for moderate-priced Homes

SAMUEL E. ROWE, Sales Manager of the Jackham Company, Detroit builders, has standardized on U.S. heating equipment for their moderate-priced model homes. He finds that U.S. equipment can be installed at a cost of well under 10% of the total cost of the house.

Capitolaire units provide health, comfort and remarkable fuel economy. Mr. Rowe finds these features, plus the U.S. reputation for guaranteed quality products, are a definite help in selling his homes.

Before deciding on the kind of heating equipment for your new projects, talk to a U.S. representative. He can show you how to make your homes more salable at less cost.

Find Four Faults

To the Editor:

(1) The Brookings Institution's studies on "Capacity to Consume" and on "Incomes" suggests that the so-called "one-third" of a nation operates on a permanent deficit. According to these studies, this country had in 1929, 5,899,000 families which received an average annual per family income of only $492 but consumed $854 per family. The "subsidy" of course was furnished by a very large number of small retailers and other unfortunate business men who had to write off debts to this group, and as the Dun & Bradstreet figures show, the business mortality as a consequence was extremely high.

Of course since 1929 this "subsidized" class has enormously expanded numerically. The National Economic Council estimates that today "one-third of the nation" gets less than $750 a year, the reason being not so much low hourly wages as irregular income. The question at once arises can we regard a class already heavily subsidized by bankruptcy as having the capacity to take on such a financial obligation as homeownership. True, you frankly advocate very heavy subsidization, but people will ask why not frankly come out and say that these people are really being rented houses on a heavily subsidized basis. Therefore why keep up the fiction of home ownership?

(2) You say the subsidy will last only 25 years. But in effect every one knows that a PERMANENT, life-long subsidy will be required for every one of the above one-third of the nation who is going to live in your $4000 houses. As the house becomes old, repair bills will mount rapidly and these will have to be subsidized. The question arises—if the government (that is the public) is to continually and forever pay subsidies, pay taxes when these people are out of work (as they will be a large part of the time) pay repair bills, etc., why then should the public give up title to the houses? Why make the title over to a tenant who lives on the public purse? True, today they are being subsidized in rent payments through public relief. But they at least live in houses that they don't own and there is no hokum of "home-ownership" where none exists. Will not some people be ready to say that there is unnecessary hokum here which appears to have the intention of concealing the extent of the subsidization from the public that pays the bills?

(3) You intend to spend only $4,000 per house. But that isn't going to leave you much land space for playgrounds, breathing spaces, parks, landscaping, planning, etc. It is these latter phases that make the difference between a slum and "modern housing" in the minds of the social workers, many architects, all the city planners, and a rising percentage of the public generally. They will say if you propose to spend only $4,000 per house plus lot, you will have in a very short time a new slum. If you want to see what even $5,000 and $6,000 houses look like after 10 years or so of occupation by very poor people—if built side by side in close proximity without breathing space, well—I can take you to plenty of slums if you have any doubts of your own.

According to the view point of many modern-minded persons, the house itself is only a part of modern housing. To them the purpose of the latter is to do away with disease resulting from lack of air and sunshine, crime resulting from lack of playgrounds for children, and discontent resulting from people living in a crowded-up fashion generally. That viewpoint is going to be very strong in coming years and you will not be able to buck it. Unless you can show that you intend to build something in the nature of a modern neighborhood instead of just a new potential slum, you may have great difficulty in getting the subsidy you somewhat lightly assume you will get. Don't forget the public is only willing to pay such subsidies for a quid pro quo—and that is, less disease, less crime, less discontent to be exploited by agitators. They are not going to pay subsidies to establish new slums in 50 to 10 years.

(4) Who is going to service these loans? That is, collect the payments, see that repairs are made and paid for? I doubt very much if any bank, insurance company or building & loan association would touch such loans because they would require perpetual dunning. Perhaps a real estate agency, but they are going to demand money for such service. But the lending institutions are sure to look to the government, otherwise they will not touch such loans. In effect of course, you will have a perfectly empty fiction of homeownership.
EVEN The Small Home Can afford KINNEAR VALUE

Today no home is really complete without the year around convenience of an easy operating upward-acting garage door. And with the Kinnear Roll-TOP Door you can provide even the smallest home with greater door satisfaction. It offers you far more than a single construction feature. It gives you a combination of all the features you want in a door... perfect counterbalance — weather-tightness — attractive design — especially durable construction — and easy, economical installation. And why shouldn’t it? It is built by door specialists who have pioneered the upward-acting type of door... people who have led the field in design and who have a size, type and model of door suited to every building need or pocketbook. So, to be certain of getting an all around value, be sure to check with Kinnear before you buy doors. It will pay you from every standpoint!

THE SNE 25 ER:

The World’s Greatest Hotel fronts the waters of Lake Michigan, on beautiful Michigan Boulevard. It is ideally accessible to Chicago’s business district; and to that profusion of wonders—industrial, cultural, educational, and entertainment—for which Chicago is justly famous. The service is planned with care and discrimination.

Otto K. Eitel
Managing Director

THE STEVENS HOTEL
CHICAGO
Now you can offer customers
COLOR • NOISE QUIETING • INSULATION
in one material
TEMLOK DE LUXE

CEILING AND WALLS in the Emory Theater, Atlanta, Ga., are Temlok De Luxe for reverberation-control, attractive color (ash and cream), and fuel-saving insulation. Temlok Dealer: Willingham-Tift Lumber Company. General Contractor: Capitol Construction Company.

HERE'S a sales-building interior finish that catches customers' eyes! It's Armstrong's Temlok De Luxe, the smooth-surfaced insulating fibre-board that is factory-colored in six beautiful shades.

You meet three separate needs when you choose Temlok De Luxe! Insulation for fuel-saving and added comfort; color for beautiful decoration; and noise-quieting that absorbs unwanted sounds. All three at the cost of one material, one application!

Take your choice of six factory-applied colors—ash, coral, cream, green, walnut, and white. Temlok De Luxe is made in planks, panels, and boards; it's easily handled and quickly installed. Its smooth-textured surface stays clean longer than plaster, and is readily cleaned when necessary.

Use Armstrong's Temlok De Luxe for interiors of all kinds—public, commercial, residential—and in either new construction or remodeling.

Let us send you samples of this modern material. Color-illustrated booklets describe it fully. Write today to Armstrong Cork Company, Building Materials Division, 1218 Concord Street, Lancaster, Pennsylvania.

Armstrong's TEMLOK INSULATION
De Luxe Interior Finishes
TEMSEAL SHEATHING • LATH • MONOWALL

Not Intentionally "Ironical"

Washington, D. C.

To the Editor:
I am at a loss as to what to say about your April lending editorial on "Public Subsidies and Private Housing."

As a piece of ironical writing I think it rings the bell. As a serious proposal I doubt very much it if can win wide support among business men. It is not unlike the subsidies for workingmen's homes which the English government inaugurated after the war. They had a certain propelling force but as you know were later done away with and private enterprise continued the building program without subsidy. I don't think we need such subsidies to provide homes for self-supporting families and I am convinced the social problem of the poorest families can be best handled through rental subsidies, that is, as a part of a relief program, administered locally with such federal financial aid as may be needed.

F. STUART FITZPATRICK, Manager,
Construction and Civic Development Department, Chamber of Commerce of the United States of America.

Fears Tax Exemption on Big Projects

To the Editor: Milwaukee, Wis.

I know of no way in which the financial condition of a municipality can be more seriously jeopardized than by the exemption from local taxation of a large scale housing project. The finances of a municipality are a matter of serious import to the holders of municipal bonds. Certainly, tax exemption of large housing projects will not help municipal bonds, and if a municipality's credit is impaired, then what?

D. S. MONTGOMERY,
Secretary, Wisconsin Retail Lumbermens Assn.

Favors Licensing Carpenters

Joliet, Ill.

To the Editor:
I have been reading your magazine for over a year and find it contacts all the important people in the building industry—men who can figure building material to the inch, also labor costs to the penny—but no one ever stops to figure out anything for the carpenter. It is true organized labor strives for the betterment of the worker, but in these days and times the carpenter should express some of his feelings. I do not belong to any labor organizations, for our work is done mostly for farmers, within a radius of 40 miles, and these people do not approve of any $1.75 or $1.50 per hour which has been the downfall of the building industry. I am no rich man's son, neither are 90 per cent of all other carpenters.

What I would like to see is a state law making every carpenter take a state examination; also licensing all carpenters to show what line of work they do; also set a prevailing wage scale of $1.00 per hour and let us work from 8 to 10 hours per day including Saturdays. A carpenter averages around 8 months per year, so the other 4 months are tough going. Also limiting contractors and builders with strict licensing, and doing away with the home-made builders who are blotting our towns with these home-made shacks. In the State of Illinois it's against the law for any person to do their own plumbing. So why not license all contractors and carpenters and protect their knowledge and experience?

FRANK HORWATH, Carpenter.

Business Men and Politics

Newburgh, N. Y.

To the Editor:
In regard to your article on page 39, Feb. ("FHA and the New Deal") and the criticism written by the contractor and developer from a midwestern city, it seems to us that he does not realize the influence that political matters have on business affairs.

If the contractors and other business men of the country had been as vocal for the last few years as have the political farmers and the labor leaders, business would not be in as rotten a condition as it is.

Since taxes of one kind or another totally approximately 25 per cent of the intake of each contractor, it seems to us it should be sufficiently clear to contractors that, in order to protect their in-
K-VENIENCE CLOSET FIXTURES

Double Closet Capacity WITHOUT Increasing Closet Space

More than 40 modern fixtures scientifically designed to make systematic, practical use of every inch of closet space. Sturdily built, handsomely finished in chrome or nickel, easily attached clothing carriers, extension rods, garment brackets, shoe racks, tie racks, hat holders, hook strips, trouser and skirt hangers, umbrella and cane racks, and many others. For every item of the family wardrobe—every closet in the house. The ideal answer to the demand for greater closet capacity in homes, apartments, hotels, clubs, trailers, yachts, offices, dormitories, etc.

No closet is thoughtfully planned or properly equipped without K-Veniences. Specify and install them on your next job. Our Closet Planning Bureau will gladly help you make the most of available closet space—regardless of shape or size—and at absolutely no obligation. Write today sure for complete new catalog.

KNAPE & VOGT MANUFACTURING COMPANY
Dept. W-4 GRAND RAPIDS, MICHIGAN

NOW . . . Automatic Opening AT NO ADDITIONAL COST

It was hard to believe that yesterday's stream-lined, sweet-running motor cars could be improved. But look at the cars of today! ** And look at what Frantz has done for garage doors. The new 1939 model "Over-the-Top" Door Equipment now has, in addition to the many advantages that have brought it fame, full automatic opening. Simply loose the latch . . . the door starts, rises, stops without help from hands. This added luxury comes without added cost. Send today for full facts.

FRANTZ MANUFACTURING CO.
STERLING ILLINOIS

WHEN YOU NEED STEEL BUILDING MATERIALS, GET QUICK SHIPMENTS FROM INTERNATIONAL

International carries a vast stock of standard steel building materials. So—whether you want trusses for a garage, steel sash for an apartment, or all the steel for a large industrial plant—International can give you prompt delivery—at competitive prices!

International engineers will gladly co-operate with you in preparing detail drawings and estimates for any job requiring steel building materials. This service involves no obligation on your part.


INTERNATIONAL STEEL COMPANY
W. Tennessee Street Evansville, Indiana
PATRICIAN
BOR-IN

A Handsome Cost Saver

How much is it worth to you to save two hours' labor in installing a dozen locksets?

That's just part of the profit story for you in the new BOR-IN LATCHES by Lockwood. You please the customer with a well-made latch, ideal for all interior doors, and furnished with locking feature when required. You are able to employ metal or glass knobs—or best of all, Lockwood's Beautiful Patrician Knobs in colorful plastics to match all interiors.

You save money—the customer saves money—and you have a job with no headaches.

Patrician Line means knob bodies of durable plastic in seven tasteful colors.

LOCKWOOD
HARDWARE MFG. CO.
Division of
INDEPENDENT LOCK CO., FITCHBURG, MASS.
SASH BALANCE

NEW-TYPE

SPECIALY BUILT FOR PREFIT WINDOWS

New and improved is the Caldwell 142-ft. Sash Balance. Expressly built for prefit windows, it also meets the demand for a durable, compact and inexpensive sash balance to be mounted in the head jamb* of any double-hung window.

Compact: Face %", Depth 3". Capacity: Meets requirements of all residential window casings 1 or 2 Balances per sash. Durable: All 16 gauge pressed steel. Adjustable: For variation in sash weights. All working parts completely enclosed. All parts for easy installation, only one screw driven.

Special C. R. Steel Tapes—practically kink proof. Priced so as to be applicable to all types of jobs. Though this new improvement in design and construction means a real gain in value, there is no advance in price.

*Also made for side jamb installation.

Caldwell Sash Balances
THE CALDWELL MANUFACTURING COMPANY
Rochester, N.Y.

New Third Edition Now Ready

Practical Accounting and Cost Keeping for Contractors

This book tells and shows with many illustrations how to select the right bookkeeping system for your business. The author explains in contractors' language how to keep workmen's time, obtain labor costs, prepare "mistake-proof" estimates and submit proposals. Instruction is given on how to draw up contracts that are fair to the owner or sub-contractor and which give you protection when you need it. The book shows how to keep accurate records of "extra" work, keep labor and material reports and conduct your business in a business-like manner. The author, a practical contractor, has made a study of contractors' business methods for 25 years.

170 pages, 300 illustrations, 8½x11½ inches, flexible cloth binding, $2.50. Money Back if Not Satisfied

BOOK SERVICE DEPARTMENT

Speedmatic Electric Hand-Saw and Radial Arm

Here's a combination that saves a big share of the money you would ordinarily pay for two saws. First, a hand-saw you can take anywhere. Second, a parallel slide saw for scores of uses. Try the balance and light weight; SPEEDMATIC. See how easily, steadily, it handles in any position, with one hand. Then, in less than a minute, you can attach the saw to the radial arm. Swings to any angle, tilts up to 45° (as shown in illustration at left).

SPEEDMATIC is built to stand the gaff. It's the only saw with helical gear drive, delivering power to the blade with 98% efficiency. Less friction! No lubrication problem! Minimum wear and tear! Fast, dependable action!

Porter-Cable agencies in principal cities—new phone book. Or write direct for free illustrated booklet showing the many time-saving operations you can do with this double-duty hand-saw and radial arm. Arrange a demonstration now. No obligation.

1708-05 M. Salina Street, Syracuse, N.Y.
The new Gar Wood Tem- pered-Aire gas- and oil- fired home units are supreme in mechanical excellence. There is a Gar Wood system for every type of economy and operating efficiency of Gar home, large or small, costly or low-priced. Owners the nation over praise the performance, your business—by installing a Gar Wood. Protect your reputation increase

Aids in Selling Homes."

"GAR WOOD EQUIPMENT

Builders Say:

"GAR WOOD EQUIPMENT
Aids in Selling Homes."

Gar Wood home heating and air conditioning furnace-burner units led the nation and topped all leading brands in percentage of total sales in 42 key markets in the United States, for the last three consecutive years.

Write today for Bulletin B473 describing home air conditioning at its best.

There is a Gar Wood system for every type of home, large or small, costly or low-priced. Owners the nation over praise the performance, your business—by installing a Gar Wood. Protect your reputation increase

KEWANE "THEY SATISFY"

Metal Building Products

EARN PROFITS FOR YOU

"THEY SATISFY"

The superior design and construction of KEWANE Building Products will help you make sales...yes, and assure you of repeat business. The KEWANE dealer has a decided "edge" over his competitors, because KEWANE offers the greatest value possible for the $.

Show here are a few of the items in the KEWANE line:

1. Utility Window
2. Basement Coal Chute
3. Clean-Out Door
4. Mail Chute
5. Casement Window
6. Basement Window—"Standard"
7. Projected Window
8. Fireplace Damper
9. Package Receiver
10. Garbage Receiver
11. Pivot Window
12. Basement Window—"Master"

If you don't have a KEWANE Catalog, we'll gladly send you one on request. It will pay you to order from it regularly.

KEWANE PRICES ARE LOW.

KEWANE MANUFACTURING COMPANY

1644 Burlington Ave. Kewanee, Illinois

Find He's Not "Slumming"

To the Editor:

Knowing all too well the jeopardy in which I place myself and being fully aware of the probable consequences, nevertheless I must join the ranks of those who "take their pen in hand and write to the editor."

As one who has been reared in an atmosphere of architectural Catholicism and since early youth has been led to believe that only in the hallowed pages of the professional magazines can be found the true gospel, I must admit that the two issues of American Builder received so far have proved a very pleasant surprise, and valuable addition to my working library. When I paid for the subscription (out of my own pocket) I distinctly brushed aside the thought that I was doing a bit of "slumming" in the periodicals. Careful perusal of your magazine has shown me how erroneous was this first unfounded suspicion.

You are to be congratulated upon being able to produce so much uniformly good material, and avoid so much of the "tripe" that infests the average technical publication. It could almost be said with certainty that were you only to print on heavier, glossier paper with nice shiny spiral wire binding, and double your subscription price, you might even be accepted into the better architects' libraries. Or would this be any distinction?

I must especially commend you for your admirable tact in writing heads in your "Letters from Readers" column.

In the January, 1939, issue you modestly state that Mr. R. W. Thompson, president, Lakewood Lands Company of Tacoma, Wash., "Wants a Lot in House Plans."

Now I do not know this gentleman at all but in appreciation of the entertainment his complaint has given me, I am enclosing specifications and plans of just the house for his requirements and price limit; especially his price limit. I shall depend upon you to forward them to Mr. Thompson as you neglected to give his address. (Maybe next time you will print addresses and save yourself a repetition of this.)

Also please suggest to Mr. Thompson, with my compliments, that there really are innumerable competent architects and designers who can design a house around a fireplace as he recommends. If he has difficulty in locating any in Tacoma, this House will be glad to give a demonstration (for a nominal fee, of course). Possibly also a good designer could cure some of the other ills complained of, such as being "tired of trying to make over plans that were evidently based on making the exterior attractive."

For the past five years (ever since escaping from a high-class architect's office) it has been my privilege to act as chief designer for the largest building company specializing in residential work on the West Coast. During this period I have been given every opportunity that sympathetic executives, skilled technicians and unbiased estimators can offer in evolving the "perfect low cost small house." Sadly I must admit that even with all our combined brain power we cannot produce the house Mr. Thompson dreams of at the stipulated price of $2500, or less. We can and do build a very nice small two-bedroom home complete with garage (and all gadgets) for this price, but I fear it would fall a little short of Mr. Thompson's expectations.

I assure you that when we do accomplish this master stroke we shall promptly inform you (after we have made our own little private killing) and furnish you with complete details.

HANS WALLNER,

Pacific System Homes, Inc.

P.S. The burlesque plans mentioned above were made up last year by the writer as place-cards for a quarterly staff banquet of the sales department and local officials of the Federal Housing Administration. Making up these place-cards is only one of the extra curricular activities of the chief designer when not immediately engaged on "Homes the People Desire."

Valuable as Reference

To the Editor:

I am a subscriber to American Builder and consider it the most important publication I receive; in fact, I am constantly referring to back numbers for some particular or other.

R. M. HICKS,

Northwestern Home Service.

American Builder, April 1939.
Perfect Window Control

All pressed steel construction—all moving parts entirely encased and protected. Light in weight and non-breakable, tension of inside coiled spring is quickly changed with an ordinary screw driver, without removing balances, insuring smooth, easy and quiet operation impossible with any other type of adjustment. This is the greatest improvement in sash balances in 50 years. Guaranteed for the life of the building—easy to install—Ask your dealer or write us.

Write for FREE LITERATURE

PULLMAN MFG. CORPORATION
Established 1886
A Half Century of Progress

1180 University Ave. Rochester, N.Y.

TWO GOOD ESTIMATING FORMS

The Old Builder’s Estimator

A complete estimating form for one residential job, with a 300 item check list, 7 pages of estimating data and memo sheets for use on the job. With this booklet you can prepare a complete, itemized accurate estimate. Three columns are provided for checking every line of the detailed estimate. The forms follow the order in which a residential job progresses.

48 pages, 4 x 7 1/2, stiff paper binding, $2.25
5 for $1.00 or 12 copies for $2.50

The Small Job Estimating Kit

This Kit contains 10 complete sets of forms for quickly and accurately estimating 10 modernization, repair, maintenance or other small job projects costing under $500. You fill out the list of items covering labor, materials, sublet, etc., and when the estimate is complete you transfer the figures to the detachable form which is the Letter of Proposal. This is given to the prospect. The record of actual costs of each job is kept on the back of the stub which remains in the Kit.

10 sheets, 11 x 8 1/2 inches, folding to 4 1/4 x 8 1/2, stiff paper cover, $3.50. 4 Kits for $1.00; 12 Kits for $4.00.

BOOK SERVICE DEPARTMENT

AMERICAN BUILDER AND BUILDING AGE
30 Church Street New York, N.Y.
Duplex is simpler to install—eliminates weights and pulleys. One Duplex Balance does the work of two ordinary balances. Duplex may be adjusted to perfect balance after installation.

Builders everywhere are taking advantage of these time-saving and cost-saving features of Duplex Adjustable Sash Balances. It is the only sash balance on the market which offers this three-point superiority—plus flat installation within an opening in the pulley stile, which allows narrow mullions and casings.

And That’s Not All!

Duplex’ patented slider hooks prevent rattling or jamming. Four sizes meet all standard requirements. Flatter-right steel casing. Permanently lubricated. Duplex is guaranteed for the life of the building. Duplex costs less than sash weight installations or non-adjustable single spring balances.

Write now for further details.

DUPEX INC. LOS ANGELES, CALIFORNIA

NEW EBCO DISHWASHING SINK

The sink you always wanted

FOR ANY CABINET TOP . . . in home or apartment

America’s most talked-about sink! A beautiful, new, work-saving sink that appeals instantly to every woman. Two compartments make dishwashing amazingly simple—to every woman. Two compartments make dishwashing amazingly simple—no dishpan or tea kettle needed! Racked and rinsed in rubber-dipped drain basket, the dishes steam dry themselves. But also look at these unique features! Concealed spray and swing-spout mixing faucet is mounted on back ledge which also contains integral soap dish. This eliminates in-the-wall piping, and simplifies installation. Flat rim also insures watertight fit with tile, linoleum, metal or composition sink tops. Made of genuine cast iron, porcelain enamelled in a choice of colors. Large sediment-filtering duo strainer! A sink sensation moderately priced!

Write for details! DISTRIBUTORS WILL ALSO FIND THEM INTERESTING

The
EBCO MFG. CO.
401 W TOWN ST. COLUMBUS, OHIO

Wants to “Pass a Law”

To the Editor:

Pegranack, N. J.

The time has come when all legitimate builders and contractors should organize and fight the “bootleggers” who are ruining a good legitimate business. When I use the word “bootleggers,” I refer to persons and organizations who misrepresent themselves as builders and contractors. This group I will attempt to describe more clearly as I proceed.

If a man is a doctor, a lawyer, a dentist or even a civil service employee he has to study for that particular job or profession. In addition to that he has to pass an exam to prove his capability. Also there is a certain code of ethics that must be followed or he loses his license or job.

Why not protect the buyer, the legitimate contractors and subcontractors by requiring the builders and sub-contractors to prove their capability by rigid federal exams.

If a law was passed that any person or persons taking contracts where an FHA loan was concerned had to pass an exam it would put a lot of incompetents out of business. It would put a lot of so-called modernizing firms out of business who ply their trade by means of high pressure sales on the gullible public. I know of two firms that are composed of high pressure salesmen which are getting away with murder. The men working for these companies get starvation wages.

In almost all communities a plumber has to pass an exam in order to get a license. Is it not important that the builder prove his worth?

I personally am a young man who has grown up in the business. It is in my blood. My father was a builder before me. I honestly feel that no man who knows the business would object to an exam.

It most certainly would put an end to a lot of cut throat competition. An investigation would prove that most of the cut throats are incompetents. These are termites that should be exterminated.

This would be an act if made into law that would not violate states’ rights, yet it would protect and benefit each and every one of us.

Also, if lumber yards were forbidden to sell to the public at the same price that contractors pay it would aid materially in doing away with chiseling. Lumber yards are killing the goose that laid the golden egg and cutting their own throats by doing so. They are also guilty of aiding and abetting the incompetents by making up material lists for them.

In elimination of “ham” or “jerry” builders, contractors would once more be able to make a legitimate profit and the tradesman would profit by drawing a decent wage.

In the case of a group or large organization each and every member should prove his capability. This would keep real estate men, doctors, lawyers, shoe makers and the like, out of the business where they do not belong. A real estate man is supposed to sell; not to build.

The way it is today anyone with money can build on speculation. That I maintain is the cause of the tradesmen’s sorry plight. An incompetent person has to live. The workmen suffer because this man chisels a living out of the job.

There are two laws which I feel should be enacted by Congress. One is that all contractors and sub-contractors prove their capability by federal examination.

The second is that all material houses concerning or affecting the building industry be forced by legislation to charge anyone not having a contractor’s license a minimum of ten per cent more.

At one time this condition used to exist but a certain type of people put an end to this practice. I say this with malice toward none, however, and feel that a law with a heavy penalty would put an end to this form of chiseling.

A contractor today has practically no chance at all to make a profit on labor and most surely is entitled to a legitimate profit on materials.

Would not such laws as I mention be a God-send to the industry as well as to each and every home buyer? I sincerely would like to hear how the Editor and readers of American Builder feel about this matter.

THOS. A. CURTIS, JR.

Dealer Sings Praises

To the Editor:

Osseo, Minn.

The American Builder is a mighty fine magazine, and the contractors have found many helpful ideas in it.

OSSEO LUMBER COMPANY.
AC Circuit Breaker Type Service Equipment

**MUCH HANDIER**

**for the HOME OWNER**

"When the Lights Go Out"

In addition to their unusually neat appearance, these AC Circuit Breaker Type Service Equipments are much handier to operate "when the lights go out"... When a short circuit or overload occurs, the circuit breaker automatically trips and causes the operating handle to move to the "OFF" position... The thermal element resets itself automatically — so that when the cause of the short circuit or overload has been removed, service is restored merely by returning the handle to the "ON" position... Operates like an ordinary tumbler switch.

For 120 volt AC service, with main lugs, up to six circuits... Single pole for Lighting and Branch Circuits — Double pole for Range, Water Heater and Sub-feeder Circuits.

Write for full information — ask for Bulletin No. 58.

---

**Frank Adam**

**ELECTRIC COMPANY**

**ST. LOUIS**

---

**ANACONDA ELECTRO-DEPOSITED**

**Pure Copper Sheets**

**BONDED TO**

**Building Paper**

Widths up to 60" and in rolls of long lengths. Thicknesses of copper — 1-oz. and 2-oz. per sq. foot (approximately .0015" and .0029").

**NON-POROUS...DURABLE**

Damp-proof, wind-proof, dust-proof and exceptionally durable.

**NAMES OF MANUFACTURERS UPON REQUEST**

THE AMERICAN BRASS COMPANY

Department AB Waterbury, Conn.

---

**YOU WIN**

**Both Ways**

**Volume and Profits**

The "pegged" prices of many high quality roofings are so high that you can't get volume, while prices of most "competitive staples" are so low that you can't make any profit on your sales.

**EDWARDS TROFSEAM**

**STEEL ROOFING**

has all the best features of high priced metal roofings; protection from fire, lightning, wind and weather, ease of application, long life, extra high seams and an inner trough that makes leakage impossible. Yet Trofseam is priced to get volume sales, with a good margin of profit on your turnover.

Write for Demonstration Outfit and Catalog 92

THE EDWARDS MANUFACTURING CO.

542-562 Eggleston Avenue Cincinnati, Ohio

---

**POWERFUL HANDSAWS THAT WILL SPEED UP YOUR WORK**

For every job there is a MALL handsaw that will save you money and speed up your work. Cutting capacities: 21/2", 21/4", 31/4", 3-13/16", 45/8".

MALL TOOL COMPANY

7737 South Chicago, Ave., Chicago, Illinois

Also, write for complete data about door mortisers, door planes and drills.

Please send additional information on the Model 18 and other MALL electric handsaws.

Model 18—Capacity 21/2"-51/2" Blade
"Good Enough for Dad"

But I Want a 1939 Model

THIS IS NOT A MOTOR CAR AD but the idea seems sound. Progressive car manufacturers have made us demand improvements. Now let's apply the same idea to millwork—give your trade the best that science affords—that makes progress and progress makes business and profits.

Get the facts about this new development in the building business. Write for folder "Who Uses WOODLIFE and Why?"

Protection Products Mfg. Co.

Mfrs. of PRESERVATIVE SOLUTIONS for 17 Years
Research Laboratory and Plant KALAMAZOO, MICH.

Prefabricated Plywood Houses

To the Editor:

Having done considerable experimenting with glued plywood construction, I found much of interest in your December number of American Builder.

I am designing a prefabricated basic house with a standard rear and changeable front, the former to get quantity prices and production and the latter to accommodate neighborly competition which is mostly frontal.

My present problem is glue and I thought you might like to forward inquiries to manufacturers and be interested in the problem.

I have been using cassein, taking what I could get because the dealer knew nothing of its composition. The Forest Products Tests show what we have known, that it is not waterproof, but I have protected my joints where possible to avoid the severity of their tests.

At Fort Wayne, I found them using Casco resin 21 with hardener K6R which belongs to the class of urea resins according to Forest Products Lab., but this particular combination was not included in tests reported by Mr. Champion, published in your magazine.

Other reports by Don Brouse, Engineer, deal with glue used to make the plywood where the hot press has produced a superior product. I want the best glue that I can use to make the plywood stick to structural members and guarantee endurance of the strength obtained and depend upon in choosing these members.

I. F. Laucks, Inc., are located among the plywood manufacturers and I presume most of their problems have been to develop glues for water adhesion. In advertising their "Rezited" process they advise their No. 302 U to offset the closed pores. I would not know how to tie that in with the test data available. They advertise waterproof glues but that may again refer to the hot press application.

The Casco hardener is applied to the plywood and the resin to the studs. What an advantage it would be if the hardener could also form a moisture barrier, but that is probably asking too much.

I suggest that you write Casco and Laucks to see what they recommend for field use with and without priming because others are probably interested in this subject.

If we substitute 2" x 6" joists with glued plywood for 2" x 10" and the additional strength fades away after a year, either plywood gets a black eye or the factor of safety in the 2 x 10's was too great.

Just any old glue is not good enough with plywood construction being added to building ordinances.

H. B. FOOTE, Engineer.

Sour on FHA

To the Editor:

I would like to see you submit a questionnaire to the contractors, operative builders and material dealers as to the effect of the FHA on their business. I am of the opinion that few are in favor of continuing the same. It is driving the small operative builder out of business. It has developed into a racket. It is creating a depressed real estate market, that within the next few years will make the last one look like a piker. I am forty-two years old, depressed real estate market, that within the next few years will make the last one look like a piker. I am forty-two years old, have been an operative builder for twenty years, served two years as appraiser and inspector with the HOLC.

P. C. ALBERT YOUNG.

Likes Our Home Design Books

To the Editor:

This is the best book of its kind we have seen in many a day. Due to the expected increase in business we are wondering if several copies of this book may be purchased, and if so, at what price.

FRED E. HICKS.

Building Construction.
RELIABLE SCAFFOLD BRACKETS

SAVE YOU MONEY

Have PROVED to be Safe, Strong, Dependable

Thousands of Builders and Painters in the last 25 years have found that Reliable Brackets cost less and are easier to erect and remove. They are far less bulky to handle. Can be used on wood or stucco with infinite ease. Are amazingly superior in every way to wooden scaffolding. The savings to you are obvious.

GUARANTEED. All “Reliable” brackets are sold on one basis only—“Satisfaction Guaranteed or Your Money Back.”

WRITE TODAY for FREE descriptive literature.

RELIABLE JACK CO., 1401 W. Second Street, Dayton, Ohio

RELIABLE SCAFFOLDING BRACKETS

3 1/4" CUTTING CAPACITY...

...Yet it handles like a hand saw!

Rips through 3" timber, 10 feet per minute.
Several cuts up to 45° through 2 1/4" lumber.
One simple adjustment for depth of cut.
Rugged construction to stand heavy work.
Saves a lot of hard work and time on every building job.

Ask your Stanley Distributor for a demonstration on your own class of work. Or write for literature. Stanley Electric Tool Division, The Stanley Works, 133 Elm Street, New Britain, Connecticut.

STANLEY ELECTRIC TOOLS "COST LESS PER YEAR"

STANLEY ELECTRIC TOOLS "COST LESS PER YEAR"

YOU CAN TIE

This Leak Proof Protection Into your Bathroom At small additional cost

If it is a Lucke Patented Tub Hanger—It is Leak Proof

No more cracks at tub rims. No more leaks. Guaranteed for the life of the building because Hanger is built into wall and holds tub securely for its entire length.

The exclusive leak-proof filler seals the tub edges, makes water penetration impossible.

THE LUCKE LEAK-PROOF BATH TUB HANGER

Manufactured exclusively by

WILLIAM B. LUCKE, INC. WILMETTE, ILL.
Boston Minneapolis San Francisco
New York New Orleans Los Angeles

New Fifth Edition

STEEL SQUARE POCKET BOOK

By Dwight L. Stoddard

This concise and handy little reference book illustrates and describes the best practical methods of using the carpenter's steel square in laying out all kinds of carpentry work, including common, hip or valley rafters for different shaped roofs, jack rafters and roofs of uneven pitch.

CONTENTS

Description of the Steel Square; Practical Applications of the Square; Laying Out Different Figures by Using the Steel Square; How to Find Different Pitches and Degrees; Laying Out Common Rafters; Problems in Hipped Roofs; Octagonal, Hexagonal and Circular Roofs; roofs of Uneven Pitch; Miscellaneous Roof Problems; Towers; Siding Problems; Shingling; Calculating by the Square; Miscellaneous Problems.

189 pages, 184 illustrations, 4 x 6 inches, flexible binding, $1.00.

BOOK SERVICE DEPARTMENT

AMERICAN BUILDER and BUILDING AGE
30 Church St. New York, N.Y.
UNEQUALED PERFORMANCE
28 DISTINCT OPERATIONS
on the new MULTIPLEX SAWs

The many exclusive features of design make Multiplex Saws outstanding in operation, flexibility and economy.
The precision adjustments are made quickly and easily—both dials are in plain sight.
High speed operation results in exceptional profits.

Starting with one model 10 years ago the Multiplex line now consists of 3 models in 11 different capacities. Prices start at $265.00.
Builders, contractors, wood workers, lumber dealers owe it to themselves to investigate Multiplex Saws at once. Write for literature and information.

SOME DEALER TERRITORIES STILL OPEN

EXCLUSIVE OPERATIONS
Found only on a Multiplex
Left hand mitre.
Left hand bevel mitre.
Left hand dado mitre.
Cuts angles full length of track at any degree.
Circle routing.

MODERN 3½-S TRAIL-MIX
LESS WEIGHT — END DISCHARGE
COMPACT — AIR-COOLED ENGINE
FASTER WHEEL BARROW LOADING
ANTI-FRICTION BEARINGS

WRITE FOR BULLETIN TODAY!

KWIK-MIX CONCRETE MIXER CO.
PORT WASHINGTON . . . WISCONSIN

Ideas Exported to England
London, Eng.
To the Editor:
In writing, we should like to take the opportunity of telling you that we consider your paper to be a valuable medium for keeping our staff up to date with current ideas, and that each issue when received is circulated among our managerial staff.
SIDI VANDEN BERGH LIMITED.

Eight Years of "Text Books"
Englewood, Colo.
To the Editor:
I am sending in a renewal subscription to American Builder for three years. We have all the copies for American Builder for several years, more than eight years. We've enjoyed every copy and they are well worn with use by our friends and acquaintances. The Wise, Ferguson Lumber Company of Englewood started our subscription and it has been a real pleasure and help to us. Mr. Jensen is always interested in new and modern building of any description. He has been building for 25 years and is planning on contracting in the near future. He goes to school whenever possible and is educating our son to be a builder also.
MRS. JAMES C. JENSEN.

Wants Store Plans
Clinton, La.
To the Editor:
I get the American Builder each month from the newstand in Baton Rouge, La. I wish you had some plans of stores in the American Builder. I am building a large garage of concrete blocks, the first of the kind in town, and I have some people who want estimates on some stores.
C. A. ASH, Contractor.

Why Not Subscribe?
Kitchener, Ont., Can.
To the Editor:
I think that you have the finest magazine of this type on the market and it is regrettable that it is so difficult to obtain copies at the newstands. The Public Library seems to be the only place here where it can be seen.
L. R. BENDER,
c/o Electrolux (Can.) Ltd.

Three Stars
Memphis, Tenn.
To the Editor:
Today I received my first issue of my year's subscription to the American Builder, and I enjoyed it very much. Of all the building magazines I have ever read, the American Builder seems to me the most logical, common sensed, and helpful. I especially enjoyed the "letters to the editor."
WALKER HALL,
H. M. Hall & Company.

No Stock Plans For Sale
New Lisbon, Ind.
To the Editor:
I am a subscriber to your magazine, and as a contractor find it very interesting and beneficial.
In the February issue I notice the house plan on page 48 and took quite a fancy to it, and having shown it to a prospect who is anticipating building, he has chosen this one from a number of plans that I have shown him. Is it possible to get prints for this house, and if so, at what cost?
HARRY BRENNER, Contractor.

Answer:
From the architect or builder who designed that house. American Builder has no plans for sale; home designs of merit are illustrated solely for their suggestive value to our readers.—EDITOR.
Keep Up With The Times
Get this BOOK FREE

This valuable book is yours for the asking—It contains complete detailed drawings on how to build natural wood-burning fireplaces that always work.

No more back drafts—smoke, or heat loss when you build the fireplace the PEERLESS WAY. PEERLESS DOME DAMPERS are essential to efficient fireplace operation. They give added comfort to any home, and are built for a lifetime of service.

The Peerless Coal Window affords the needed protection to the building when coal delivery is necessary.

The neat, sturdy construction enhances the appearance of the building. And in addition is Burglar Proof. Write us today for free catalog.

Peerless Manufacturing Corp.
1400 W. Ormsby Ave., Louisville, Kentucky

MODERN PRACTICAL STAIRBUILDING
By George Ellis

A thorough, comprehensive and up-to-date English work on stairbuilding. Illustrated with 51 one and two-page plates of photographic views, working drawings, diagrams, details and features. Describes the methods of constructing and erecting various types of wooden stairs, with examples of iron, stone, concrete and marble staircases. Practical directions for taking dimensions, setting out, planning, erecting and finishing are given in detail.

210 pages, 51 plates, 7¼x10, cloth, $4.50
16-page descriptive circular on request

MODERN PRACTICAL MASONRY
By E. G. Warland

The author is instructor in masonry at the London School of Building. In this book he covers all branches of the craft—general, monumental, marble and granite. Methods are described with the aid of many detailed drawings, including large and clear isometric drawings and photographs showing step-by-step methods of doing various jobs.

373 pages, 597 illustrations, 7¼x10½, cloth, $7.50
16-page descriptive circular on request

BOOK DEPARTMENT
American Builder and Building Age
30 Church Street
New York, N. Y.
Decorative Mouldings of Metal

Luxuriant, flashing, bright metal, with gay, colorful inserts of linoleum and special headings. Ideal for use with modern wall and floor covering materials.

Here is a complete line, to meet every architectural requirement. Ideal for bathrooms, kitchens, lobbies, restaurants, clubs, bars, recreation rooms, theatres, beauty salons, shops and rest rooms.

Write for Catalog

Shows actual installations, types of mouldings and hundreds of sectional views. Now available to architects, contractors and distributors of building materials.

HERRON-ZIMMERS
MOULDING COMPANY
3900 East Outer Drive
Detroit, Michigan

Service Guarantee

(Continued from page 74)

from architectural design, location, floor plan, landscaping and price, to interior trim and fixtures. The demonstration house is not just another speculative home dolled-up to move quickly, but is considered from the standpoint of prestige to both co-operating agencies. The result, again taking the Laurelwood house as an example, is an integrated unit, representing quality planning, designing and building throughout. Laurelwood sold almost immediately after it was opened. Of this phase of building operations Kinsey says: "This demonstration house has to be a good merchandising proposition for both sides because the small home buyer today has been educated to high standards of design and construction and expects something new, something different. That is what we aim to provide."

Experience has shown that prospects are not developed immediately through featured homes of this character, but over a period of time and that the bulk of this builder's contacts come through banks and loan companies, but more especially through satisfied clients. In fact, about 90% of the contract business is attributed to this source.

Service, however, is the keynote of this building organization and is carried through to such an extent that the service department becomes a sales medium and every satisfied home buyer a self-appointed salesman. With each Kinsey-built home goes a service guarantee of at least a year. Just as any reputable utility dealer, in the interest of customer confidence and goodwill, guarantees to service an installation, so does this building firm assume the responsibility of servicing a newly built home for at least a year after its construction, making any minor adjustments that may arise from faulty work or materials. As may happen in new houses, windows, doors, drawers or locks stick and need some attention or paint needs retouching in places. Such adjustments are made in order that complete, "Buyer-Approved" satisfaction may be assured.

A new service list is compiled and checked every week on the theory that it is better to take the initiative than to wait until some defect is reported. A monthly amount is set aside to run the service department, being apportioned to service rather than to advertising or promotion, since the service feature is considered an investment that produces tangible results in the shape of new business directly traceable to satisfied clients. Typical Kinsey display advertising ties together the builder's name, a house sketch and portion of a floor plan in a dignified announcement. There is no descriptive copy. In his new office structure on Ventura Boulevard, North Hollywood, prospects find a press book well filled with testimonial letters regarded by the builder as excellent silent salesmen.

Another feature of organization which fosters satisfactory relations and good will among construction crews, especially, is monthly meetings held in the builder's offices and conducted by the construction superintendent. They provide the various building trade foreman on Kinsey jobs and subcontractors with an opportunity to discuss common problems; to make suggestions that might facilitate construction operations and iron out any differences, either between construction crews or the management. As many as 50 representatives attend these monthly meetings. One of the primary objects too, is to give the men a perspective of the project as a whole rather than only their part in it.

Kinsey is a graduate of the Harvard School of Business (Continued to page 150)
ALLITH
50-50 PUSH-OVER

REPAIR
AND FOR NEW WORK

50-50 is easy to install and adjustable for openings from 7' 0" wide by 7' 0" high to 8' 11" wide by 8' 0" high. Use your own doors, either old or new. So it's just the thing for Spring business.

ALLITH-PROUTY, INC., DANVILLE, ILL.

40 PLANS
$1. POSTPAID

Get this book of 40 Plans today—Be prepared for the spring building rush. Give your clients what they want in a home—Good Architecture—Practical Plans—Sound Construction—Economy in Building—These 60 home plans are designed by a Master architect with years of experience in the Home Building field. They meet the present-day demand for fine living at lower cost. Send $1. today.

HOUSE OF THE MONTH SERVICE
307 N. Michigan Ave., Chicago, Ill.

IRON RAILING
FOR INTERIOR 
& EXTERIOR USE

MADE TO SUIT
YOUR REQUIREMENTS
WE MANUFACTURE DESIGNS SUITABLE
FOR THE INTERIOR AND EXTERIOR
Also Iron & Wire Fence of every de-
scription. Swinging, Sliding and Folding Gates, Iron & Wire Window Guards, Grills, Area Gratings, etc.

CINCINNATI IRON FENCE CO., INC.
2411 SPRING GROVE AVE. 
CINCINNATI, OHIO

WHAT MAKES
A HOUSE
a Home

It's the "final touches"—like Sager Period Hardware—that give a new house the warmth, dignity, and friendliness of a home long lived in. And that's why so many home buyers find Sager-equipped homes so hard to resist. Its period patterns are authentic, distinctive, and ring true with the period portrayed by the architect. To sell homes faster, build-in Sager Hardware. Write today for interesting literature.

SAGER LOCK WORKS
Division of The Yale & Towne Mfg. Co.
50 N. Michigan Ave., Chicago, Ill.

Be a Contractor—Make Big Money

Uncle Sam will help you make money if you are ready. Billions of dollars are being used to make jobs and the Home Building Program offers the biggest chance to make money carpenters have ever known. ARE YOU READY? Can you supply the men and materials needed to turn out this work? Here's your chance to get into these facts—quickly, easily, without study or work—just put your finger on what you want to know instantly. Don't miss the building boom.

5 Big Books Shipped FREE

for examination. 2400 Pages, hundreds of diagrams, estimate sheets, etc., instructions on blueprint reading, estimating framing, construction, architectural drawing, plumbing, heating, etc., make these books invaluable to any carpenter who wants to Cash in NOW on today's opportunities. This may be the chance of a lifetime. Fifty Index makes these books available in a few seconds. Remember these five big books are available FREE! Send the coupon, there is no obligation. Get these books and be ready to bid on ANY building or modernizing job NOW.

Consulting Membership FREE!

Privilege of consulting experts of million-dollar American Technical Society on any building problem for one year without extra charge, if you mail coupon immediately.

5 Big Books Shipped FREE

for examination. 2400 Pages, hundreds of diagrams, estimate sheets, etc., instructions on blueprint reading, estimating framing, construction, architectural drawing, plumbing, heating, etc., make these books invaluable to any carpenter who wants to Cash in NOW on today's opportunities. This may be the chance of a lifetime. Fifty Index makes these books available in a few seconds. Remember these five big books are available FREE! Send the coupon, there is no obligation. Get these books and be ready to bid on ANY building or modernizing job NOW.

Consulting Membership FREE!

Privilege of consulting experts of million-dollar American Technical Society on any building problem for one year without extra charge, if you mail coupon immediately.
Modern walls and ceilings must

CLEAN EASILY

The demand is for gleaming hard surfaces, lustrous, glass-like finishes that clean by wiping with a damp cloth, like

**GIBBS BOARDTILE**

In stores, restaurants, institutions—in home bathrooms and kitchens, Gibbs Boardtile offers durability plus beauty and color. Water and steam resisting. Eighteen colors, white, black, marbleized, wood-grain effects. You can apply easily without plasterer, tilesetter or painter. Use our planning department for estimates, layouts, suggestions. Write for bathroom color plan suggestion circular.

**GIBBS BOARDTILE CORPORATION**

624 N. Aberdeen St., CHICAGO

**Service Guarantee**

(Continued from page 148)

ness Administration and brings to this home building organization training in business management and experience in the building field. Associated with him are Edwin Starr, co-builder and direct contact man; Glenn Daugherty, Construction Superintendent; James White, head of the Auditing Department, and Maude Humm, office manager.

A compact organization such as the one described, offers sufficient proof that it can profitably compete with larger companies in making available to the small home customer a complete planning and building service.—S. A. Lewis.

**Tested Merchandising**

(Continued from page 65)

let is intended for the prospect to take with him after he has visited the house.

The design and layout of folders and booklets is again a matter of fitting the advertising to the type of house and the type of person. A quality residential development in the higher range will be represented by an expensive deckle-edged folder with artistic illustrations. On the other projects where a mass market is appealed to, the "blacksmith" type is used. In recent months the practice has grown for showing drawings or photographs of a number of the homes together with floor plans. Some of the best recent McKenna folders show all the basic floor plans and elevations of the builder's houses so that a visitor can take these home and pore over them until he makes up his mind which he wants.

McKenna believes that the merchandising and selling of homes is a specialized business that calls for a thorough knowledge of public tastes and of building industry practices. His most valuable contributions to selling have been learned through practical experience. Certain types of houses and certain advertising methods get results, and these are the ones to stick by. He is always in search of new ideas that may be adapted to the home building business. Perhaps that is why he continues to consider selling homes "the most interestingly human adventure."

**Novel Oregon Home**

(Continued from page 79)

thick Thermax insulating material. Records kept during the past 30 days show that the house is extremely economical to heat, reports Smith. "Because of the extremely rigid construction of this house over a four inch thick concrete slab, the possibility of cracks ever appearing in it are practically nil," Smith explains. "Furthermore, such construction insures perfect, non-sticking doors at all times." All interior doors are of Rezo panels, sturdy made, practically warp-proof. All cupboard doors are of M and M patented, flush-wall panels. In line with modern interiors, casings at doors and windows are eliminated, the plaster being applied flush to all window and door jambs over metal casings. Entire exterior is finished with 3 coats of exterior paint, finished in a soft, green, stippled effect. All interior plaster is treated with two finishing coats and is washable. All trim, kitchen and bathroom are finished with three coats of paint, the final a semi-gloss. Interiors vary from off-white to cream, a color scheme which achieves a feeling of spaciousness throughout the house.
KITCHEN FANS

RADIA

SELECTED FOR LIFE HOMES

IN RICHMOND, PHILADELPHIA, PITTSBURGH, BALTIMORE, MILWAUKEE, BOSTON, CHICAGO, LOS ANGELES AND SAN DIEGO

VENTILATING FAN


List Price $25.00

1302 SHEFFIELD ST.

MANUFACTURED BY

F. W. SHEPLER STOVE CO.

PITTSBURGH, PA.

BATHROOM HEATERS

ELECTRIC HEATER

Instantly supplies the "extra" heat needed for bathing and dressing. Hourly operating cost only 2¢ for average bathroom. Installation inexpensive. Long-life heating element. Styles, sizes and finishes for all requirements.

List Price $12.00 up

New!

EXTENDA

Adjustable

ALL METAL WINDOW SCREEN

As easily adjusted as a curtain rod! Quickly installed from the inside without tools. Next metal frames. Finished like the barrel of a fine gun with Haskelle, require no painting or maintenance.

More Profits in Screens

7 sizes fit 28 openings! Meet all demands from 7 stock sizes instead of 28. Extensions operate both vertically and horizontally with 2° adjustment. Installation requires no fitting or trimming, even though openings are cut of square, or warped. Extenda means lower installation costs, smaller inventory, less storage space. Saves money on installation and maintenance, Incrermes resale profits. Perfect protection from insects, with full sash operation.

Literature Free

Full information, prices and discounts on request.

Low Prices

Standard from $1.95

De Luxe from $3.80

Sure... I recommend Calbar CAULK-O-SEAL

WITH CALBAR PRESSURE GUN

I recommend Calk-O-Seal because I've learned that it does the best job. It's super-plastic, weatherproof, doesn't stain, chip or crack. Altogether— it's the finest caulking compound I've ever used. And it's easy to apply when you use the trouble-free Calbar pressure gun. I couldn't caulk without it. Calk-O-Seal comes in Tubes, Cans, Drums and CARTRIDGES. Black and 12 colors.

CALBAR

PAINT & VARNISH CO.

Manufacturers of Technical Products

2612-26 N. MARTHA ST.

PHILADELPHIA, PA.

You Need It - - You Expect to Get It!

Why wait? Begin now to make a profit on concrete drilling. The WODACK "DO-ALL" is the electric hammer that combines a hammer, a drill and a grinder. 3 tools in 1. Drills concrete for expansion bolts 10 to 20 times faster than with hand tools. Drills metal and wood, grinds, brushes and buffs. Greatest electric tool value. Used by leading contractors. Satisfaction guaranteed. Ask for folder and prices.

Wodack Electric Tool Corp.,

4630 W. Huron St.

Chicago, Illinois
Time Records for TruCost
(Continued from page 88)

those three contractors who attended his stag party. The form presented is self-explanatory when one assumes that Jim Smith put in 8 hours of time on a certain day and his “time card” was filled in as shown to illustrate how simple it is to departmentalize his time.

One form should be made out for each man each day by himself or the foreman. Note that space is provided for recording the time when each man starts and finishes some certain job. This is very important. Don’t depend upon memory. It’s hard enough to remember the things that one should remember without burdening one’s mind with things that can be jotted down so quickly. Merchants who fail to enter a charge as a delivery is made usually go broke. So keep records.

Weather conditions influence labor costs; so space is provided for stating whether the day was good, fair, windy, raining, etc. This record may come in handy at some future time in case one wishes to know why unit records may vary on some job and between different crews or foremen.

This same form can be used as a summary form when a job is completed. By showing the squares of walls, floors, roof and other units of construction and dividing each into its respective total hours for all workmen for each class of work, the desired hours per unit can be easily ascertained. Then a several-columned “Master Sheet” should be used with a column for each job so the variation between jobs and crews or foremen can be seen at a glance after each job is finished. That will be the most interesting part of this kind of record keeping, just as the Profit and Loss Statements are to all successful business men.

Observe that space is provided for recording extra cost of dormers. It is usually possible to determine this, but the only way to get records on hips and valleys is to compare records for framing cut-up roofs with those for plain roofs.

The form illustrated is offered as a suggestion to be changed as one deems best. With the advent of another building season there never was a better time to start keeping scientific records that can be reduced to TruCost units when the job is finished. It is hoped that a few of my readers will submit their own summary of labor costs on some job with their own form that they have used to keep records so other systems of such bookkeeping can be presented in the near future. I know of a few other forms for recording labor records and shall be glad to answer all inquiries.

The most important thing to remember about labor costs is that nobody’s records are dependable until checked by one’s own actual results. My new book gives labor records on the same unit basis as TruCost and hundreds of men use my records but add or deduct a certain percentage to equalize the variation between my records and their own actual costs on some job. It isn’t what Tom, Dick or Harry may say the labor will cost on some job that YOU hope to build—it’s for YOU to know YOUR OWN costs.

TruCost is based on my other systems that have been positively proved by more than 20 years of use by thinking men everywhere. But TruCost incorporates the refinements. It has already proved to be a good “beacon light” for builders who wish to clear the top of that hazardous mountain, Mt. Estimating. And TruCost can be that “good old lamp-post” for those that are still staggering along on the walks of haphazard estimating methods, thereby making everybody happier and promoting the building of better homes. So Keep Records and Avoid Confusion.
American Builder, April 1939.

REX 5S TWO-WHEELER
BETTER ENGINEERED—BETTER BUILT

Send for the new "Rex check list," the book prepared to give you a better basis for selecting 5-sack mixers! It tells you the complete story of Rex "quality" design and construction that brings you a stronger, faster, more complete 5-sack mixer for your money. See the many new features you get in the Rex 5S—features that include the Rex shimmy skip, Rex automatic water system, Rex positive Chabot chain drive and many others.

Send today—ask for the "Rex Check List for 55 Mixers." Address Chain Belt Company, 1621 W. Bruce Street, Milwaukee, Wisconsin.

MR. KEES SAYS:
"LET ME SEND YOU A FREE SET OF KEES OFFSET HANGERS."

These hangers are specially designed for screens or storm sash where the frame is not so thick as the casing...and for frames that have little head-room. Send for Free Sample and see how convenient Kees Offset Hangers really are.

F. D. KEES MANUFACTURING CO.
Box 192 (Established 1874) Beatrice, Nebraska
Distributed Thru Wholesale Hardware Trade

PECORA INTRODUCES—
NEW 1939 STREAMLINE HIGH PRESSURE CARTRIDGE CALKING GUN

It's new, it's improved, it's the best calking gun that practical experience has developed for present day use. With this gun, the calking compound is forced under high pressure (the only way to get really good calking results) into building joints, especially the openings around window and door frames. Stops drafts, helps make homes weather-tight, and reduces fuel bills.

Pecora Calking Compound in non-refillable metal cartridges holding approximately one quart, is available for this gun. Cartridges can be changed in a matter of seconds. No messy refilling of cylinder. No waste. No loss of time. Architects and builders will tell you that money cannot buy a better calking compound.

This Gun
With 3 Nozzels and
4 Cartridges of approx. 1 qt. each
Shipped Express Collect for $7.00

PECORA PAINT COMPANY, INC.
Member of Producers' Council, Inc.
Established 1862 by Smith Bowen
Fourth St. & Reading R. R. Philadelphia

ALSO MORTAR STAINS • SASH PUTTIES • ROOF COATING • PECOMASTICS FOR STRUCTURAL GLASS INSTALLATION

2 NEW BOSTROM LEVELS
Especially designed for Contractors and Builders to do the same work as Instruments costing more than twice their price. Satisfaction guaranteed or money back.

Write for complete literature and name of our distributor near you.

Bostrom-Brady Mfg. Co.
537 Stonewall St. ATLANTA, GA.

Let MASTER make you GREATER profits.

MEN WHO KNOW PREFER THE MASTER

Dependable, powerful, sturdy and versatile—The MASTER is the acknowledged LEADER among builders who know woodworking machines.

12 machines in 1
Will joint, crosscut, rip, bevel, dado, boring, mitering, tenon, rabatet, moulding, stair routing, etc.

5 sizes
The Original Universal Woodworker. Established 1917
The Master Woodworker Manufacturing Co.

Saw-Filing

Carpenters Make Big Extra Income in Spare Time

With a Foley Automatic Saw Filer you can earn this hand, hand and circular saws hate! No skill at all—no hours to lose. Business, no canvassing. No system...no expense...no previous skill. Foley Filer does it all! Foley Filer wins! Foley Automatic Saw Filer is the key to your spare time cash business. No skill to learn. Foley Automatic Saw Filer is the key to your spare time cash business. No skill to learn. Foley Automatic Saw Filer is the key to your spare time cash business. No skill to learn. Foley Automatic Saw Filer is the key to your spare time cash business. No skill to learn.

FOLEY MFG. CO., 424-9 Foley Bidg., Minneapolis, Minn.

Large Contractors and Builders who have many saws to file can increase production, do better work and reduce filing costs with a Foley Saw Filer. Soon pays its cost. Get the facts.

FOLEY MFG. CO., 424-9 Foley Bidg., Minneapolis, Minn.

Name
Address
* Installed in the attic, this NEW type ATTIC FAN forces out the hot stagnant attic air and draws cool out-door evening air into the home. Complete installation can be made by builder with his own building materials. WITH COOLVENT, builders can equip homes with summer comfort-cooling systems at prices within the means of everyone. New, illustrated bulletin containing installation details, construction drawings, performance data, etc., sent on request!

* Learn how COOLVENT makes homes more saleable—write today!

KIMBALL

LIGHT ELECTRIC

ELEVATORS

A line of powerful light electric elevators built to the job and the floor structure has been completed, ready to receive walls and partitions. Bundles of precut framing, appropriately tagged as to their contents, have been delivered ready for use. Bundles are distributed to the locations of their respective openings. From this point on, the builder is encouraged to employ whatever method of erection he has found best for his own operation. Once tiles are removed from bundles, construction of walls is merely a matter of assembly. From this point on, the builder is encouraged to employ whatever method of erection he has found best for his own operation. Once tiles are removed from bundles, construction of walls is merely a matter of assembly. Some builders prefer to frame the wall sections complete, with exception of bracing, on the subfloor and then plumb and brace the sections after they have been raised and stay-braced. Others complete the rough frame, including plumbing and bracing, prior to raising. Still others lay out and assemble studs, upper headers and upper cripples only on the sub-floor, and assemble remaining members after the skeleton wall has been raised, secured and set true. The latter method is most used.

Whatever the method, cripples are spiked to top plate after being toe-spiked to their respective headers at the points where normal stud spacing would intersect plates and headers. Sill-headers for windows are through-nailed to lower cripples which in turn are toenailed to the sole plate. Trimmers are slipped into position and either nailed fast or left to be brought snug against the finished frames when these are inserted. Bracing and blocking is distributed in bundles to approximate places of use or taken a bundle at a time and worked into proper place by the workmen.

Construction Procedure with Precut Framing

In sequence with listing and ordering, we come to the assembly work in the building itself. Let us assume that materials have been delivered to the job and the floor structure has been completed, ready to receive walls and partitions. Bundles of precut framing, appropriately tagged as to their contents, have been delivered ready for use.

Bundles are distributed to the locations of their respective openings. From this point on, the builder is encouraged to employ whatever method of erection he has found best for his own operation. Once tiles are removed from bundles, construction of walls is merely a matter of assembly.

Some builders prefer to frame the wall sections complete, with exception of bracing, on the subfloor and then plumb and brace the sections after they have been raised and stay-braced. Others complete the rough frame, including plumbing and bracing, prior to raising. Still others lay out and assemble studs, upper headers and upper cripples only on the sub-floor, and assemble remaining members after the skeleton wall has been raised, secured and set true. The latter method is most used.

Whatever the method, cripples are spiked to top plate after being toe-spiked to their respective headers at the points where normal stud spacing would intersect plates and headers. Sill-headers for windows are through-nailed to lower cripples which in turn are toenailed to the sole plate. Trimmers are slipped into position and either nailed fast or left to be brought snug against the finished frames when these are inserted. Bracing and blocking is distributed in bundles to approximate places of use or taken a bundle at a time and worked into proper place by the workmen.

In large housing projects, or where several dwellings are being constructed simultaneously, the loading of delivery trucks can be arranged to carry only the requirements of each building site, as needed.

The illustrations of job-assembly processes indicate the simplicity which characterizes them. Properly scheduled and prepared, precut framing requires only the tools of assembly, as all measuring, cutting and fitting on the job is eliminated.

Versatility of Precut Framing

The following items which, strictly, are at variance with the established standards, can be handled easily with standard bundles. These apply to windows:

- Casement Windows. The rough opening of the corresponding finish size of double-hung window is ample to receive swing-in or swing-out casements. Trimmers can be nailed against the finish frame as for double-hung windows.

- Change of Header Height. It is sometimes necessary to increase the framing height of the header. An example of this is the typical raising of the window opening over a kitchen sink. If desired, the opening can be either raised or lowered by...
“Mister, You Ain’t Got A Saw!”
Whether you use the “elbow grease” variety or an electric handsaw,—you don’t know what economies are until you’ve tried a Wallace No. 1 Radial Saw.

WRITE TODAY for full facts about the Radial Saw,—and what other builders save with it.

R. D. WALLACE & CO.
136 S. California Ave.
Chicago, Ill.
QUICK CHANGE from Level to Transit™,

Send for this FREE Book

* Install MODERN AIRE Attic Fans for Summer cooling of homes, apartments, hotels, stores and offices. Unlimited opportunities. We show you how. Write today for information on the MODERN AIRE Attic Fan franchise in your territory.

"Modernize with Modernaire!"

DALLAS ENGINEERING CO.
1115 HALL ST.
DALLAS, TEXAS

GET YOUR SHARE of the WEATHERSTRIP BUSINESS
... with ALLMETAL

New building and remodeling jobs are creating big demands—the time is right for quick action. Team up with easy-to-install, always satisfactory, ALLMETAL WEATHERSTRIP Write now for price list and free display charts. Over 20 years satisfactory service

ALLMETAL WEATHERSTRIP CO., 231 W. Ohio St., CHICAGO, ILL.

Be SAFE ... Be SAVING ... with

"TROUBLE-SAVER" NAIL-ATTACHED BRACKETS

Don't risk the profits you've got coming to you with this season's building revival—by wasting time and money in cumbersome wood stapling! Start now on a sound paying head-off by using ALLMETAL TROUBLE-SAVER Nail Attached Brackets. They're a snip, storing comfortably in your pocket. Then, with the amount you save on lumber, nailing and labor, install these easy-to-apply, handy little nailing—and they enable you to:

A COMPLETE LINE FOR EVERY JOB

For Attic Fans, Steel Scaffolding, Roofing Brackets, Ladder Jacks, Tubular Ladders, etc.

The STEEL SCAFFOLDING CO., INC.
402 Missouri St.
Evansville, Ind.

Precut Framing

(Continued from page 154)

means of introducing one or more pieces the same length as the sill header, either above or below. Cripples will then be sawed to fit.

Multiple Windows. Wherever windows are required to be pairs or triples, with mullions between, the header must span the entire opening. Structural mullions are identical with trimmers (both size and length). For precut framing, width of multiple windows is equivalent to the combined width of windows plus combined thickness of mullions plus ½" fitting space for each mullion.

A Tested Procedure

Precutting framing has now been tried out extensively enough to be more than an experimental matter. The builders who used this idea in building houses in the vicinity of Los Angeles have given very favorable reports as to the speed, convenience and the quality of the resulting job.

On the first trial job using shop cut, bundled precut framing, 75 carpenters showed an average saving of $30 per five-room house. This amounted to $10 per MBM of wall framing. A minimum of 20 minutes was saved in framing each door or window. The precut studs plus bundled short framing resulted in a saving of 40 percent in labor costs in wall construction.

The saving in lumber costs was also considerable. The reclaim from No. 3 dimension was over 90 percent. Since the cutting included a large number of short cuts, such as bridging, bracing and fireblocks, it was possible to get this high percentage of higher quality lumber from the No. 3. The small amount of waste left over was largely knot cutouts and pieces split by shake.

While in these preliminary jobs the framing was cut on order, it is thought that with further standardization and adoption by additional builders, retail lumber dealers will carry a stock of the major precut items, bundled, labeled and ready for delivery on order.

* * *

Signs—Slogans—Names

(Continued from page 61)

selected names in use in various metropolitan areas:

Development Names

Capitol View Homes, Chevy Chase Gardens, Spring Lawn Homes, Mount Vernon Parkway Homes, Foxcroft Heights, Forest Hills, Edgewood, Dumbarton, Hampshire Hills, Glen Cove, River Terrace, Brookdale—"A community of distinctive small homes," Kenwood, Home- land, Springwood Drive Homes, Personality Homes, Yorktowner Village, Crestwood, LaSalle Park.

Mountain View, Hilltop Homes, Permanesque Homes Village, Beverly Hills, Lee Heights, Jamaica Estates, Strathmore Homes, Strathmore-Vanderbilt, Insured Homes, Sterlingshire, New Salem, Chester Hill, Garden City, Flower Hill, Green Park Estates, Surrey Estates, County Homes, Beacon Hill, Brookline, Roxbury, Middle- sex, Greenwich Forest, Wakefield, Studio Homes.

Trumpp Homes, Longview Gardens, Garden City Terrace, Juniper Park, Bellerose Manor, Utopia Cottages, Addisleigh Park, Tru Homes, Fairway Homes, Aristocratic Homes, Independence Homes.

Model Home Names

The Building Estimator's Reference Book

CONTAINING 1700 PAGES OF BRAND-NEW ESTIMATING AND COST DATA ON ALL THE NEW BUILDING MATERIALS AND METHODS DEVELOPED DURING THE PAST 6 YEARS. HERE IS INFORMATION THAT EVERY CONTRACTOR NEEDS TO KEEP ABREAST OF MODERN TIMES AND COMPETE FOR PRESENT DAY CONTRACTS.

Use *American Builder* "TruCost" estimates for accurate quantities, and Walker's "Building Estimator's Reference Book" for accurate labor costs and material prices. It contains complete detailed estimates on all classes of building construction, including everything from Excavating to Painters' Finish.

**COVERS**

Excavating  
Concrete Foundations  
Reinforced Concrete  
Rough Carpentry and Timber Framing  
Millwork and Interior Finish  
Lathing and Plastering  
Painting and Decorating  
Glass and Glazing  
Structural Steel and Iron Work  
Masonry in all its Branches  
Sheet Metal and Duct Work  
Marble, Tile and Linoleum Floors  
Heating, Air Conditioning  
AND HUNDREDS OF OTHER IMPORTANT SUBJECTS

**NEW ESTIMATING AND COST DATA ON**

Concrete Joist Floors  
Glass Blocks  
Reinforced Brickwork as Laid in Earthquake Zones  
How to Frame a "Shrink-Proof, Crack-Free" House at the Cost of Ordinary Platform Framing  
Water and Dampproofing  
Ready-Mixed Concrete  
Concrete Admixtures  
Wallboard and Metal Trim  
Insulating Plank and Tile  
Rock Wool Insulation  
Sheet Foil Insulation  
Building Board, Flexible Insulation  
Built-up Roofing  
Modern Store Fronts  
EVERYTHING FROM EXCAVATING TO PAINTERS' FINISH

**FILL OUT THIS GUARANTEED ORDER FORM**

American Builder and Building Age,  
90 Church Street, New York, N.Y.  
Enclosed find $10 for which send me a copy of the New Eighth Edition of The Building Estimator's Reference Book, and a copy of The Vest Pocket Estimator FREE. If I do not find the books entirely satisfactory I may return them within 5 days of receipt and you are to refund my $10.

Name  
Address  
City  
State  
A.B. 4-39

**FREE**

With Building Estimator's Reference Book  
The New Vest Pocket Estimator  

This is one of the most popular little books contractors have ever used. Contains 220 pages of up-to-the-minute estimating and cost data in condensed tabular form. Fits in the vest pocket and can be instantly referred to on the job or in the office.
Joshua M. Holmes, Jr., builder and developer, and Heyer-Kemner, Inc., realtors, used firesafe concrete to put over Fox Chase Manor, another residential development which has cashed in on the appeal of better construction and the growing popularity of concrete.

A Cape Cod demonstration home, completed September 18, brought 52 sales before the year was out...and 100 more homes are planned for this year. Base price of the house with lot, including full basement, was $4,225. And concrete was featured.

Over 35,000 home buyers have chosen concrete in the past three years. Concrete offers beauty, adaptability to any architectural style—year ’round comfort—protection against fire, storms and decay—low first cost, low upkeep and high resale value—in short, a better built home for the money.

Concrete will help put your houses over. Write us for helpful literature.

PORTLAND CEMENT ASSOCIATION
Dept. A4-3, 33 W. Grand Ave., Chicago, Ill.

Yes, I am interested in the profit possibilities of featuring concrete home construction.

Name
Address
City
State

American Builder, April 1939.

Sources of Technical Literature

A major activity of trade associations includes the preparation and distribution of technical literature on uses of products or services of their members. Each of the following associations has available up-to-date, attractively-presented information that will be sent on request.

- American Gas Assn., 430 Lexington Ave., New York City, N. Y., has a portfolio giving suggestions, rules, and prices for All-Gas Homes to be entered in the Association’s Competition for Builders and Architects. Also has literature on World’s Fair Houses, and on the use of gas for home heating, cooking, water heating, and refrigeration.

- Anthracite Industries, Inc., 405 Lexington Ave., New York City, N. Y., issues literature showing approved Anthracite-burning equipment for residential and commercial heating, hand-firing, automatic firing, with or without ash removal features, domestic hot water, and various auxiliary uses of Anthracite.

- Arkansas Soft Pine Bureau, Boyle Bldg., Little Rock, Ark., has published a number of booklets on uses of Arkansas Soft Pine for framing, finishing, and interior paneling, with useful suggestions on sound construction, and finishing of interior paneling.

- California Redwood Assn., Financial Center Bldg., San Francisco, Calif., issues technical booklets on the durability and uses of Redwood for framing, siding, trim, etc. Other literature shows the beauty of Redwood when used for interior paneling, and includes suggestions for various decorative treatments.

- Douglas Fir Plywood Assn., 810 Tacoma Bldg., Tacoma, Wash., has available extensive files of technical data on Douglas Fir Plywood grading, specifications, production, and uses, with booklets showing numerous new applications. Data includes suggestions on proper types of plywood for various uses, suggested thicknesses, grades, etc.

- Fir Door Institute, Tacoma Bldg., Tacoma, Wash. New literature shows prefabricated entry doors, and describes the Association’s commercial standards or grade marks for stock doors. Other literature describes a new line of upward acting garage doors of Douglas Fir.

- Lead Industries Assn., 420 Lexington Ave., New York City, N. Y., has available booklets and technical data on the many protective, decorative, and structural uses of lead products in all types of structures, with particular attention devoted to the value of white lead for interior and exterior painting.

- Maple Flooring Mfrs. Assn., 332 S. Michigan Ave., Chicago, Ill., Technical Literature shows grades and the purposes for which each is best suited, with data on durability, and suggestions for proper laying, finishing, and decorative effects in various types of applications.

- National Coal Assn., 307 N. Michigan Ave., Chicago, Ill.—804 Southern Bldg., Washington, D. C., has available a 1939 Basement Plan Book showing proper locations of driveways, coal bins, and heating plant in coal-heated homes, with and without basements. Portfolio includes construction details of modern, enclosed coal-heated homes, with coal-crepe, and masonry tile, and suggestions for construction of sloping floor bins.

- National Door Mfrs. Assn., 332 S. Michigan Ave., Chicago, Ill., has published a handbook of specifications for Pine Doors, showing standard types of door sticking and panels; construction details for Pine Stock Doors, and specifications for veneered doors. Literature includes suggestions on laying and finishing of oak floors in homes, commercial, and public buildings.

- Portland Cement Assn., 33 W. Grand Ave., Chicago, Ill., Research laboratories are constantly at work on improved production and use of Portland Cement. Both technical and non-technical literature is available on the mixing, pouring, reinforcing of concrete, with valuable pointers on form work, hardening, finishing.

- Red Cedar Shingle Bureau, White Bldg., Seattle, Wash., has literature on the grade marking of Certigrade Red Cedar Shingles. Plans and pictures of low-cost Certigrade homes are available. Literature includes data on proper laying of wood shingles of side-walls and roofs, with suggestions for remodeling.

- United States Building and Loan League, 333 N. Michigan Ave., Chicago, Ill., publishes booklets and folders offering helpful suggestions on financing of new homes and home modernization through local building loan associations. Literature is also available on the importance of good construction to assure lasting value in homes.

- United States Building and Loan League, 333 N. Michigan Ave., Chicago, Ill., publishes booklets and folders offering helpful suggestions on financing of new homes and home modernization through local building loan associations. Literature is also available on the importance of good construction to assure lasting value in homes.

- Western Pine Assn., Yeon Bldg., Portland, Ore. Literature includes data on the size and scope of the industry, with suggestions of Western Pine in construction. Special booklets show applications in home construction, farm buildings, with suggestions for installing and finishing knotty pine interior paneling.
CLASSIFIED DIRECTORY AND BUYERS' GUIDE

Listing the Manufacturers of Materials and Equipment Used in Building

THIS Classified Index and Buyers’ Guide is arranged from A to Z according to NOUN names. Under each classification the names of manufacturers appear alphabetically, followed by page number on which their advertisement appears in this issue of the American Builder.

The manufacturers listed below will be pleased to furnish complete information on any product that appears in connection with their names, although they may not be advertising those particular products in this April number. Do not hesitate to write them to forward catalogues, prices and the names and locations of their nearest dealers.

To find the manufacturer of an article under a special Trade Name or brand look for the Trade Name desired in the alphabetical list immediately following this Classified Index.

| ABBRASIVES | American Floor Surfacing Machine Co. | 114 |
| | Lincoln Schlueter Floor Machinery Co. | 185 |
| | Mall Tool Co. | 22 |
| ACCELERATORS-CEMENT | Cebal Paint and Varnish Co. | 187 |
| | Certain-Teed Prod. Corp. | 8-9 |
| | Dolce Frigidaire Corp. | 16 |
| | Farley & Loetscher Mfg. Co. | 155 |
| | Gar Wood Industries, Inc. | 140 |
| | Owens-Illinois Glass Co. | 28 |
| | Truscon Steel Co. | 8 |
| | U. S. Gypsum Co. | 35 |
| ACCELERATING-DOOR HANGERS—See Hardware | American Plywood Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | Johnsville, 22 E. 40th St., New York, N. Y. | 19 |
| | Keckley & Mattison Co. | 81 |
| | Masonite Corp. | 112 |
| | Wheeling Corrugating Co. | 68 |
| ADJUSTERS-CASEMENT WINDOWS—See Hardware | ABRASIVES | American Floor Surfacing Machine Co. | 114 |
| | American Builder, April 1939. | 159 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | International Steel Co. | 137 |
| | Midland Mfg. Co. | 91 |
| | Standard Sanitary Mfg. Co. | 46 |
| AIR CONDITIONING EQUIPMENT | Sabbath Dumps, Ash | 23-145 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 8-9 |
| | Johnsville, 22 E. 40th St., New York, N. Y. | 19 |
| | Keckley & Mattison Co. | 81 |
| | Masonite Corp. | 112 |
| | Wheeling Corrugating Co. | 68 |
| AIR CONDITIONING HARDWARE | ABRASIVES | American Floor Surfacing Machine Co. | 114 |
| | American Builder, April 1939. | 159 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | International Steel Co. | 137 |
| | Midland Mfg. Co. | 91 |
| | Standard Sanitary Mfg. Co. | 46 |
| ANCHORS-DOOR HANGERS—See Hardware | ABRASIVES | American Floor Surfacing Machine Co. | 114 |
| | American Builder, April 1939. | 159 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | International Steel Co. | 137 |
| | Midland Mfg. Co. | 91 |
| | Standard Sanitary Mfg. Co. | 46 |
| ANCHORS-DOOR HANGERS—See Hardware | ABRASIVES | American Floor Surfacing Machine Co. | 114 |
| | American Builder, April 1939. | 159 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | International Steel Co. | 137 |
| | Midland Mfg. Co. | 91 |
| | Standard Sanitary Mfg. Co. | 46 |
| ANCHORS-DOOR HANGERS—See Hardware | ABRASIVES | American Floor Surfacing Machine Co. | 114 |
| | American Builder, April 1939. | 159 |
| | Armstrong Cork Co. | 116-125 |
| | Armstrong Cork Co. | 2 |
| | Certain-Teed Prod. Corp. | 9 |
| | International Steel Co. | 137 |
| | Midland Mfg. Co. | 91 |
| | Standard Sanitary Mfg. Co. | 46 |
**ROOFING—METAL (Sheets)**
- American Brass Co. 143
- Edwards Mfg. Co. 143
- International Steel Co. 143
- Wheeling Corrugating Co. 143

**ROOFING—METAL SHINGLES**
- Edwards Mfg. Co. 143
- Wheeling Corrugating Co. 143

**ROOFING NAILS—See Nails, Roofing**

**ROOFING—ROLL**
- Bailey Corp. 41
- The Barrett Co. 107
- Philip Carey Co. 37
- Certain-Teed Prod. Corp. 8-9
- Pilkington Bros. 14
- The Texas Co., Chrysler Bldg., New York, N.Y.

**ROOFING—STAINED SHINGLES**
- Wheeling Corrugating Co. 58

**ROOFING—SLATE SURFACED**
- Bailey Corp. 41
- The Barrett Co. 107
- Philip Carey Co. 37
- Certain-Teed Prod. Corp. 8-9

**ROOFING—STEEL**
- The Barrett Co. 107
- Wheeling Corrugating Co. 53

**ROOFING—METAL WOOD SHINGLES**
- Florida-Louisiana Red Cypress Co., Jacksonville, Fla.
- R. R. McNeill Shingle Co.
- Wheeling Corrugating Co. 53

**ROOFING—ZINC STEEL**
- Wheeling Corrugating Co. 58

**ROOPS—INSULATED**
- Bailey Corp. 41
- Philip Carey Co. 37
- Certain-Teed Prod. Corp. 8-9

**ROOPS—CORRUGATING**
- Truscon Steel Co. 5
- U. S. Gypsum Co. 35
- ROOF—TILE**
- Crane Co. 39
- Edwards Mfg. Co. 143
- Wheeling Corrugating Co. 53

**ROOF TILE MACHINES—See Machines, Roofing**

**ROOFING—METAL**
- Edwards Mfg. Co. 143
- Milecor Steel Co. 48
- Wheeling Corrugating Co. 53

**ROOFING—WOOD SHINGLES**
- Florida-Louisiana Red Cypress Co., Jacksonville, Fla.
- Bart. McNeill Shingle Co.
- Wheeling Corrugating Co. 53

**ROOFING—ZINC**
- Wheeling Corrugating Co. 53

**ROUSSES—INSULATED**
- Bailey Corp. 41
- Philip Carey Co. 37
- Certain-Teed Prod. Corp. 8-9

**ROUSSES—CORRUGATING**
- Truscon Steel Co. 5
- U. S. Gypsum Co. 35

**RULES—CALIPER**
- Stanley Works 23-145

**RULES—EXTENSION**
- Stanley Works 23-145

**RULES—INSIDE MEASURE**
- Stanley Works 23-145

**RULES—LUMBERMAN’S**
- Bostrom-Brady Mfg. Co. 153
- Kodak Camera Co. 75

**RULES—PIER SCALE**
- Rhode Island Engineering Co. 3-12

**RULES—WINDOW**
- Stanley Works 23-145

**RULES—STEEL**
- Stanley Works 23-145

**SAFETY GLASS**
- National Glass Co. 103

**SAWS—BAND**
- Wheeling Corrugating Co. 58

**SAWS—CIRCULAR**
- Full Size Printers, Inc.
- Porter-Cable Mfg. Co.

**SAWS—ELECTRIC**
- Walling & Turner Co.

**SAWS—RADIAL**

**SAWS—PORTABLE POWER**

**SAWS—SPECIAL**
- Porter-Cable Mfg. Co.

**SHEATHING—ASBESTOS**
- Certain-Ted Prod. Corp.

**SHEATHING—BOARD**
- Certain-Ted Prod. Corp.

**SHEATHING—Gypsum**
- Certain-Ted Prod. Corp.

**SHEETS—IRON AND STEEL**
- Edwards Mfg. Co. 143
- Milecor Steel Co. 48

**SHEETS—GALVANIZED**
- Milecor Steel Co. 48

**SHEETS—STEEL**
- Milecor Steel Co. 48

**SHEETS—ALUMINUM**
- American Aluminum Co. of America, inside Back Cover

**SHEETS—BRASS AND COPPER**
- American Brass Co. 143
- Inland Brass Co.

**SHEETS—CAST IRON**
- American Steel Pipe Co.

**SHEETS—ECONOMICAL**
- Sheet Metal Contractors Association

**SHEETS—ECONOMICAL**
- Sheet Metal Contractors Association

**SHEETS—INSULATION**
- American Insulation Co.

**SHEETS—STEEL**
- Milecor Steel Co. 48

**SHEETS—TIN**
- Milecor Steel Co. 48

**SHEETS—STORM**

**SHEETS—STORM—See Storms, Hinges**

**SHEETS—STORM—See Storms, Hinges**

**SHEETS—STORM—See Storms, Hinges**

**SHEETS—STORM—See Storms, Hinges**

**SHEETS—STORM—See Storms, Hinges**

**SHIELD—RADIATOR—See Enclosures, Radiator**

**SHIELDES—SHEET**
- American Steel Pipe Co.

**SHIELD—RADIO**
- American Steel Pipe Co.

**SHINGLES—See Roofing**

**SHINGLES—NAIL**—See Nails, Roofing

**SHINGLES—STEEL**—See Steel, Roofing

**SHINGLES—BRICK**—See Bricks, Shingles

**SHUTTERS—STEEL**
- Cincinnati Iron Foundry Co., Dayton, Ohio

**SHUTTERS—STEEL**
- Cincinnati Iron Foundry Co., Dayton, Ohio

**SHUTTERS—STEEL**
- Cincinnati Iron Foundry Co., Dayton, Ohio

**SHUTTERS—STEEL**
- Cincinnati Iron Foundry Co., Dayton, Ohio

**SILLS—WINDOW**
- Aluminum Co.

**SITZ BATHS—See Baths, Sitz**

**SKYLIGHTS**
- Aluminum Co.

**SKYLIGHTS**
- Aluminum Co.

**SLIDING DOOR TRACK**—See Track, Sliding Door

**SLIDING DOOR TRACK**—See Track, Sliding Door

**SLIDING DOOR TRACK**—See Track, Sliding Door

**SLIDING DOOR TRACK**—See Track, Sliding Door

**SLIDING DOOR TRACK**—See Track, Sliding Door
ROLL-N-FOLD GARAGE DOORS, Majestic Co., Huntington, Inda.
RUBBER DOORS, Door without Hinges, Reinhold & M. Co., Muskegon, Illa.
RUBBER-GLO, Waxes and Waterproofing Material, Lincoln-Schlueter Floor Machinery Co., Chicago.
RUBEROID, Asphalt and Tar Products, Ruberoid Co., New York City
RUNWELL, Burn Door Handlers, Crevice-Filling Compound, Beacon, N.Y.
RUSSEL, Hold Down Devices, Burns & Co., Memphis, Tenn.
RUF-VAC, Improved building paper, Ruberoid Co., New York City
RUST-OFF DOORS With Color-Blended Joint, Harbor POWER Corp., Hornell, Wash.
RUPIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSSELL, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
RUSTIC, Wire Center Box (Comb.): Domestic; Domestic; Domestic (Tinplate), Illinois Cement Co., Marion, Illa.
INDEX TO ADVERTISERS

APRIL, 1939

A

Accurate Metal Weather Strip Co. 155
Aaronsc Electric Company. 139
Allith-Presty, Inc. 149
Allmetal Weatherstrip Co. 156
American Aluminum Company of America 133
American Brass Company, The 133
American Fence Machine Co., Inc. 155
American Floor Surfacing Machine Company, The 114
American Gas Association 103
American Lumber & Timber Company 131
American Radiator & Standard Sanitary Corporation 46
American Technical Society 149
Andersen Corporation 29
Anthractie Industries, Inc. 13
Arkansas Soft Pine Bureau 132
Armstrong Cork Company 115-136
Avco Fane and Blower Co. 154

B

Bacher Asphalt Corporation 41
Barrett Company, The 107
Better Homes & Gardens 117
Bostrom-Brady Mfg. Co. 153
Bradley Lumber Company of Arkansas 15
Brecher Company, The 154
Bruce Co., E. L. 54

C

Callar Paint & Varnish Co. 151
Calwell Manufacturing Co. 139
Carey Company, The Philip 17-123
Carver Division 128
Celotex Corporation, The 2
Certaineed Products Corporation 8-9
Chas. E. Shreve & Co. 153
Chevrolet Motor Division 26
Cincinnati Iron Foundry Co. 149
Cokecrate Industries, Inc. 151
Concrete-Nairn, Inc. 28
Construction Machinery Company 45
Crane Co. 39
Curtis Companies Service Bureau 117

D

Dallas Engineering Co. 156
Delco-Frigidaire Conditioning Division 16
De Walt Products Corporation 121
Donley Bros. 141
Douglas Fir Plywood Association 27
Dunn Mfg. Co., W. E. 111
Duplex Inc. 142

E

Eben Mfg. Co., The 142
Edwards Manufacturing Co., The 143

F

Farley & Leecher Mfg. Co. 155
Flemming Corporation, The 114
Foley Mfg. Co. 153
Ford Motor Company 122
Franz Manufacturing Co. 157

G

general Electric Home Bureau 36
General Electric Sales Corporation 16-26
General Motors Truck & Coach Division 34
Gibbs Radio Company 156
Grand Rapids Hardware Co. 122

H

Harbor Plywood Corporation 51
Haskel Co., The 151
Heilbroner Company 120
Henry Furnace & Foundry Co., The 116
Herren-Zooming Molding Company 148
Holt Publishing Co. 126
Homac Company 115
House of the Month Service 119
Insulite Company, The 33
International Steel Company 137
J

Jaeger Machine Company, The 110

K

Krause & Mattison Company 153
Kuex Iron Works Company, F. D. 153
Kneen Manufacturing Company 140
Kimball Bros. Co. 154
Kimberly-Clark Corporation 49
Kinman Manufacturing Company, The 115
Kitchen Mfg. Co., The 119
Knipe & Vogt Manufacturing Company 137
Kwik-Mix Concrete Mixer Co. 146

L

Laucks, Inc., I. F. 154
Lead Industries Association 30
Lehigh Portland Cement Co. 47
Libby-Owens-Ford Glass Company 152

M

Mack Trucks, Inc. 44
Mall Tool Company 158
Maple Flooring Manufacturers Association 56
Maier Valve Products, Inc. 138
Masonite Corporation 157
Michigan Wagoner Mfg. Co., The 108
Mize Company, W. H. 128
McKinney Manufacturing Co. 159
McNair Mfg. Co., W. J. 147
Memorandum Bureau 103
Miami Cabinet Division 152
Milot Steel Company 48
Moding Manufacturing Company 147
Mussler Furnace Co., L. J. 27

N

National Coal Association 126
National Manufacturing Company 46
National Oak Flooring Manufacturers’ Association 15
National Sanitary Corporation 10

O

Ohio Hydrate & Supply Co., The 120
Overhead Door Corporation 123
Owens-Illinois Glass Company 28

P

Parks Woodworking Machine Co., The 159
Payne Furnace & Supply Co., Inc. 151
Pecoia Paint Company, Inc. 132
Peerless Manufacturing Company 143
Penn Greg Mfg. Co. 155
Preston-Cable Machine Company, The 158
Portland Cement Association 158
Protection Products Mfg. Co. 144
Pullman Mfg. Co. 148

R

Rearco Division 13
Red Cedar Shingle Bureau 109
Red Star Products, Inc. 146
Reedie Mfg. Co. 121
Republic Steel Corporation 2

S

Sager Lock Works 169
Samson Cordage Works 161
Shearer Storey Co., F. W. 151
Sherwin-Williams Co., The 32
Silasdraft Co., The 105
Skenders, Inc. 21
Smith Company, The T. L. 148
Southward Sons, Inc., J. 148
Stanley Electric Tool Division 145
Stanley Works, The 23-123-145
Stainless Steel Co. 156
Sterling Wheelbarrow Co. 152
Stout Hotel, The 143
Superior Fireplaces Co. 144

T

Tile-Tex Company, The 131
Truscan Steel Company 3

U

United States Building and Loan League 42
United States Gypsum Company 35
United States Plywood Corporation 22
United States Steel Corporation Subsidiaries 32
Universal Atlas Cement Co. 33

V

Vicker Electric Products, Inc. 141

W

Wagner Mfg. Co. 155
Wallace & Co., J. D. 138
Warenee-Knight Co. 155
Wells Mfg. Co., Henry 154
Western Pine Association 113
Weyerhaeuser Sales Company 55
Wheeling Corrugating Co. 55
White Co., David 156
White Star Electric Tool Corp. 24
Wood Conversion Company 24
Wood Industries, Inc., Gar. 14

Y

Yellow Truck & Coach Mfg. Co. 54
Z

Zouri Store Fronts 5

NOTICE TO ADVERTISERS—Forms for the May number of the American Builder and Building Age will close promptly on April 15. New con-

changes, order for omissions of advertisement must reach our business office, 165 West Adams St., Chicago, not later than the above date. If new ad-

change is required, it will not be taken beyond the 26th of the month preceding date of publication. The publishers reserve the right to repeat last advertisement on all 

unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.