



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-BOARDMAN 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.



Samuel O. Dunn, *Chairman of Board*; Henry Lee, *President*; Bernard L. Johnson, Robert H. Morris and Delbert W. Smith, *Vice-Presidents*; J. S. Crane, *Eastern Manager*; Roy V. Wright, *Secretary*; Elmer T. Howson, *Assistant Secretary*; John T. De Mott, *Treasurer*.

Subscription price in the United States and Possessions and Canada, 1 year, \$2.00, 2 years, \$3.00, 3 years, \$4.00; foreign countries, 1 year, \$4.00, 2 years, \$7.00, 3 years, \$10.00. Single copies 25 cents each. Address H. E. McCandless, Circulation Manager, 30 Church Street, New York, N.Y.

Member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulation (A. B. C.)

(A Simmons-Boardman Publication)

AMERICAN BUILDER

and Building Age

NAME REGISTERED U. S. PATENT OFFICE AND CANADIAN REGISTRAR OF TRADE MARK

APRIL, 1939

61st Year

Vol. 61, No. 4

Front Cover Home in Westfield, N.J., as Photographed by Richard Averill Smith, Inc., New York City.....	1
Publisher's Page—Government Versus Private Housing Construction—by Samuel O. Dunn.....	57
Editorials.....	59
Public Subsidies and Private Housing What Do You Think? Building Leaders' Views Pro and Con on Public Subsidies.....	61
Signs—Slogans—Names That Sell.....	62
Tested Merchandising.....	66
Peter J. McKenna Describes Advertising Methods That Have Helped Sell \$100,000,000 Worth of Homes in 17 Years.....	66
Mortgage Interest Rates Cut Sharply.....	67
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.....	67
Home Owner Confidence Strengthened by Sane Promotion Methods.....	68
Buyer-Approved Home Designs Found Most Satisfactory—Freak Stunts and Sensationalism Prove Non-Productive.....	68
A New Idea—the "1939 Home Style Show".....	73
W. C. Tackett Opens Chicago Spring Market with 25 Buyer-Approved Model Homes.....	73
Service Guarantee Assures Buyer Approval.....	76
Kinsey of Los Angeles Builds Good Will and Reputation for Responsibility with Offer to Service New Homes for One Year.....	76
Three Livable Cottage Homes for Same Plan.....	78
Novel Oregon Home Is Built Air-Tight.....	80
20 Years of Reliable Home Building.....	82
Brennan Brothers Take the "Spec" Out of Speculative Building. Have Built 1 1/2 Million Dollars Worth of Houses in West Hartford, Conn.....	82
"Pay When We Deliver" Says Builder Kelley.....	84
Nashville, Tenn., Firm Offers a Complete and Unique Home Building Service to Customers.....	84
Dropped Floor Living Room—Fits Hillside.....	86
April Front Cover Home.....	87
TruCost Figures for American Builder Home Designs.....	88
Time Records for TruCost.....	90
A. W. Holt Explains How Labor Records, Easily Kept, Make Estimating Safe and Profitable.....	90
Principles of Well-Arranged Small Stores (Part II).....	92
Stores for City and Suburb.....	94
Architect Designs a Two-Flat for Himself.....	96
McClatchy Sells 6-Room Row Houses for \$250 Down.....	98
Builder Completes Detroit Housing Project on Time and Cuts Cost with Power Tools.....	102
Precut Framing (Part II).....	106
Shopcrafter's Corner.....	108
New Products Department.....	124
News of the Month.....	130
Letters from Readers.....	159
The 1939 Building Directory.....	174
Classified Directory and Buyers' Guide; Trade Name Index	
Index to Advertisers.....	

BERNARD L. JOHNSON
Editor

JOSEPH B. MASON
Eastern Editor

LYMAN M. FORBES
Research Editor

R. E. SANGSTER
Managing Editor

ROBERT H. MORRIS
Business Manager

L. E. ARENT
Art Editor

DOLA PARR
Associate Editor

A. W. HOLT
"TruCost" Editor

ADVERTISING: W. F. COLEMAN, L. B. CONAWAY, J. S. CRANE, J. C. JONES, J. R. PARROTT, E. J. REICH, D. W. SMITH, C. J. WAGEMAN

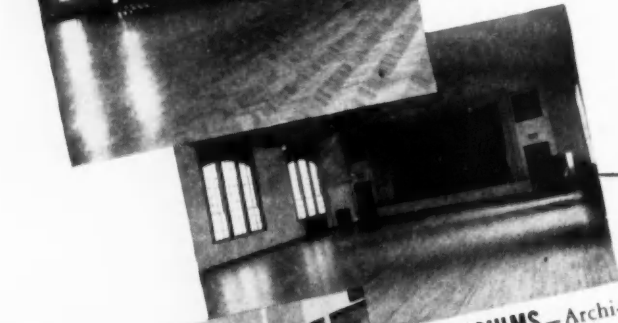
FIELD STAFF: L. O. ANDERSON, V. L. ANDERSON, C. L. CONLEY, C. R. W. EDGCUMBE, J. H. FREE, CHARLES R. HARTUNG, A. W. HOLT,

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

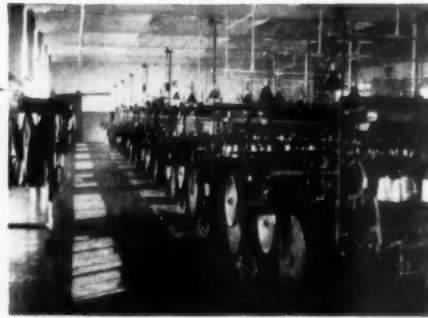


MFMA*

...The MARK that means
the floor will satisfy



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

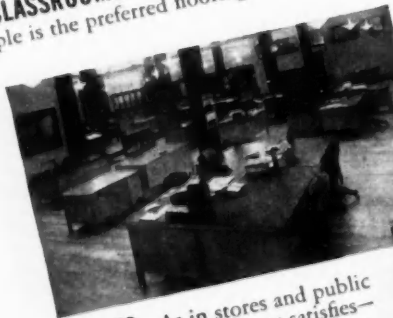


FACTORIES—"As sound as the day it was laid," says the mill superintendent, about this 22-year-old Maple floor.



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

...Protecting you on every flooring job



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.

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.

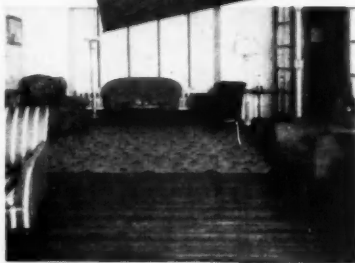
Second, when you order your Maple Flooring, be sure it's trademarked **MFMA***.

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.



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!"

*The **MFMA** trademark, indented and stamped on Maple flooring, guarantees it to be all Northern Hard Maple, graded and supervised in accordance with the Association's exacting standards.

MAPLE FLOORING MANUFACTURERS ASSOCIATION

1781 McCormick Building, Chicago, Illinois

See our catalog data in Sweet's, Sec. 11/77.

Our service and research department will gladly assist you with your flooring problems. Just write.

Floor with **MFMA** Maple

(N O R T H E R N H A R D)

PUBLISHER'S PAGE

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 peri-

ods of recovery indicates it would have been if the government had followed only policies of *encouraging private enterprise and investment*.

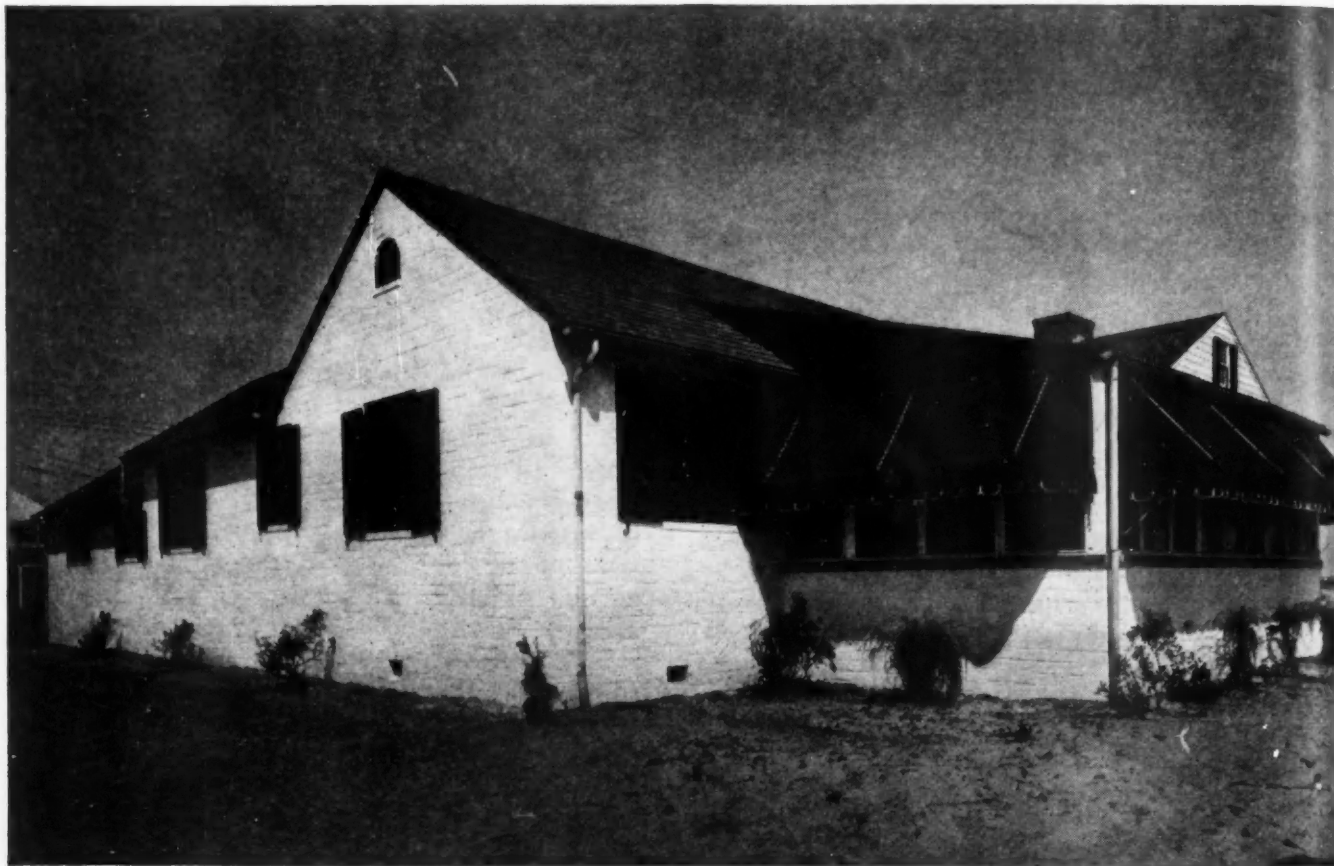
NOR is this all. Those responsible for government housing construction assume that all the poor housing needing replacement is in the congested parts of big cities. Every person familiar with the homes in smaller cities, in towns and on the farms knows this is not true. Millions of our people outside 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,

MR. JOHNSON PRACTICES WHAT HE PREACHES



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 water-tight 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.

Our experience with concrete is at your service. Address Lone Star Cement Corporation, Room 2232, 342 Madison Avenue, New York. *Reg. U. S. Pat. Off.

LONE STAR CEMENT CORPORATION MAKERS OF LONE STAR CEMENT • • • 'INCOR' 24-HOUR CEMENT

Sales Offices: ALBANY, BIRMINGHAM, BOSTON, CHICAGO, DALLAS, HOUSTON, INDIANAPOLIS, JACKSON, MISS.; KANSAS CITY, NEW ORLEANS, NEW YORK, NORFOLK, PHILADELPHIA, ST. LOUIS, WASHINGTON, D. C.

AMERICAN BUILDER

AND BUILDING AGE

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 3¾% 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 3¾% 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 3¾% 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, building and loan 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 the slum dwellers and, in fact, Administrator Straus has said publicly that, under the Act, he has no responsibility whatever for their rehousing and the proponents 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 a small home 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 build 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 or 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 Lumbermen's 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)

Tested Merchandising—

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

By J. B. MASON

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'."

APARTMENT BUILT INTO BUNGALOW



FULLY DETACHED ON 40x100 PLOTS

\$41.24 MONTHLY PAYS ALL

\$5390-\$590 CASH

LAST CALL! AT THIS LOW PRICE Come now and save \$200.

HART 17000 1 & 2 STORY HOUSES
Priced from \$4900

5 MINUTES FROM 4TH AV. BUS **26 MINUTES FROM TIMES SQUARE**
Telephone: Blanking 9-0001

PRESENTER: Grand Dealer Plans to Work for Best (Guaranteed) Deal. Offer not to be taken elsewhere. See A. J. Brown, 40 to 100 St. Building, 100 St. "Building for the World's Fair" Building, L. I. C. U. S. B. & W. Bldg. B., Flushing 1000 St. (corner 100th St.)

FHA

HORACE HARDING Homes
HORACE HARDING BOULEVARD 1000 NORTH 100th ST.
AT UTOPIA PARKWAY FLUSHING, L. I., N. Y.

GET MORE FOR YOUR MONEY

\$5490

GARAGE, PORCH & PLAYROOM

FHA 10% CASH

\$39.99 MONTHLY.

5c FARE 14 MINUTES from 100th Street, 2 BLOCKS WALK to BAYCH AV. Station.

From N. Y. Queens Blvd. to 100th St. turn right, continue three blocks to Hart St. turn right in Hart St. to Express Av. turn left. From Bays: Inter-urban Ferry to Oyster Hills St. turn left on Express Av. EXPRESS AV. & HART ST.

Insured HOMES IN RIDGEWOOD, N. Y. C.

2 SENSATIONALLY NEW MODELS OPEN TODAY!

OUTSELLING ALL OTHERS BECAUSE

AMERICA'S No. 1 Home Value!

20 MINUTES FROM BROADWAY
Adjoining 32-Acre Park Overlooking N. Y. Skyline

5c FARE
via 84th Ave. Subway to Woodlawn Bldg. Station

SOLID BRICK 2-STORY HOMES

FIREPROOF GARAGE

PORCH 15'x10'

RECREATION ROOM

with BAR and BASEMENT KITCHENETTE

with Gas Stove & Sink

PAVED STREETS

SEWERS

About **\$37.68** Monthly constant service charge

\$4990 10% CASH

JUNIPER PARK HOMES

Stewart Willey BUILDER

ELIOT (61st) AV. & 79th ST., ELMHURST, LONG ISLAND, New York City

BY CAR: Queens Blvd. to Woodlawn Blvd., turn right to 84th Ave., turn right to 170th St. THROUGH BRIDGE in Queens Borough, turn right, cross Queens Blvd. to 170th St.

ATTENTION-GETTING NEWSPAPER ADVERTISING gets results. Three advertisements above are for typical low-cost home developments which depend largely on local newspapers to bring crowds out.



PETER J. McKENNA, merchandising and advertising adviser to prominent operative builders. Ten of his clients sold more than 1,800 homes to home buyers last year.

"Selling Homes is the Most Interestingly Human Adventure in the Business World"

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

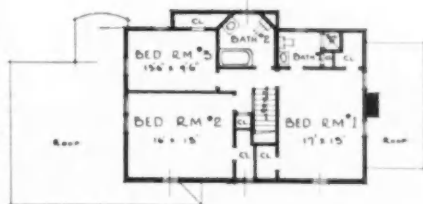
Any building project must have a character, setting and background that is suited to the type of persons who are expected to buy. The advertising counsellor



Early American Farmhouse... One-Third Acre... \$12,400



FIRST FLOOR



SECOND FLOOR

A GAYLY colorful garden of old-fashioned flowers surrounded by the familiar horizontal rail fence accentuates the hospitable atmosphere of this delightfully informal 18th century Long Island farmhouse. Refreshingly different, it adheres conscientiously to authentic design in every interior and exterior detail, departing from the traditional to include the most modern features and facilities. To the right of the center hall is the living room, its entire fireplace wall interestingly panelled in mellow pine. At the rear, is the dining room, with three windows overlooking the garden. Adjoining the model kitchen is a unique breakfast room, with a curved-wall of glass-brick. A maid's room and bath (an ideal guest suite, if you prefer), covered porch and two-car garage complete the lower floor. The second floor plan affords the maximum of usable space; each room has been arranged for most satisfactory placement of furniture, for proper ventilation, and most convenient distribution of closet space. There are two bathrooms, one with fully tiled stall shower and glass door. This picturesque Colonial home may be purchased for a minimum cash payment of \$2480, with \$95 gross monthly carrying charges, and a net cost of approximately \$53 per month. Mortgage interest is from 4%, and there are no fees

Newell & Daniel
Manhasset Woods Road and Dogwood Lane
FLOWER HILL, LONG ISLAND

QUALITY-TYPE ADVERTISEMENT prepared by McKenna featuring style, the large plot, and price. This type of advertisement first appears in a newspaper, is then reprinted as a "slip sheet," 8 1/2" x 11" in size, which is distributed to model home visitors and other prospects.

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-

COLLEGE ESTATES
Homes of Distinction

COLLEGE LAWN CORPORATION
100 COLLEGE ROAD
COLLEGE POINT, L. I.

A-2 5 Room Model Bungalow (\$5990)

In this home the charm and appeal of English architecture is combined with substantial and durable construction. The landscaping of its grounds of 4,000 square feet affords a natural quality which is in excellent accord with the residence and lawn. A terrace in the southeast corner fronts. Contains two well-appointed bedrooms, a spacious living room, a breakfast room, a kitchen in English style with a completely modern tile bathroom featuring the modern in color design. An attic large enough for two large rooms, garden shed.

R. H. A. SALES PLAN

FLOOR PLAN

B-1 5 Room Bungalow (\$6450)

This Colonial material includes beautifully landscaped grounds of 4,000 square feet. A pleasing feature is the trees which are furnished affording a natural shade. Contains a magnificent one stone wood burning fireplace gracing a large living room. An ornate dining room is separated entirely from the kitchen. Two well-appointed bedrooms, a completely modern colored tile bathroom. An attic for two future rooms; many closets.

R. H. A. SALES PLAN

FLOOR PLAN

R-2 6 Room Two Story Model (\$6800)

In this home the ultimate beauty and comfort of Georgian Colonial architecture is blended with the pleasing symmetry of progressively landscaped grounds of 4,000 square feet. The first floor has a large wood-burning fireplace, a separate dining room, a modern kitchen of latest pattern. The second floor consists of three well-ventilated bedrooms each with the beauty of the office, a bathroom of recent design, garden shed.

This residence is the crowning achievement in home comfort.

R. H. A. SALES PLAN

FIRST FLOOR
SECOND FLOOR

Bayside Hills
A
RESIDENTIAL PARK
GROSS-MORTON CORPORATION
The most famous builders in the United States

100 MODEL BUNGALOWS - \$5990

FIRST FLOOR

100 MODEL 2-STORY HOMES - \$5990

FIRST FLOOR
SECOND FLOOR

100 MODEL 2 STORY HOMES - \$6990

FIRST FLOOR
SECOND FLOOR

AT TOP—An inexpensive 8-page folder, 5 1/2" x 8 1/4", which gives complete information on development and shows 6 typical designs. BOTTOM—Accordion-type folder, 5 1/2" x 6 1/2", which shows 5 basic floor plans and 10 exteriors obtainable at Bayside Hills project.

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 salesman to sift out the actual prospects. An expert merchandising

counsellor aids the builder in picking the right kind of salesman and helps him in training them to handle customers skilfully. 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."

of 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)

JUNIPER PARK HOMES

AMERICA'S No. 1 HOME VALUE

BRICK • STONE • STEEL
MEANS MAXIMUM DURABILITY AT MINIMUM EXPENSE

ADJOINING A 52 ACRE CITY PARK

Here's a PARTIAL LIST OF SPECIFICATIONS AND FEATURES AVAILABLE ONLY AT JUNIPER PARK HOMES . . . MANY ENTIRELY NEW MANY NEVER BEFORE SEEN AT THIS LOW PRICE!

COMPLETE PRICE \$4990

INCLUDING:
 - Proposed Taxes
 - Beautifully Finished Reception Room with Kitchenette and Refrigerator for the Lady of the House
 - Full Bath
 - Full Kitchen
 - Full Living Room
 - Full Dining Room
 - Full Bedroom
 - Full Bathroom
 - Full Porch
 - Full Staircase
 - Full Carpeting
 - Full Draperies
 - Full Paint
 - Full Gas Range
 - Full Refrigerator
 - Full Sink
 - Full Stove
 - Full Water Heater
 - Full Sewer
 - Full Electric
 - Full Heating
 - Full Air Conditioning
 - Full Central Vacuum
 - Full Garage
 - Full Storage
 - Full Security

\$5590 \$6490

JUNIPER PARK HOMES
GOVERNMENT INSPECTED AND APPROVED TWO STORY HOMES

New Salem

A NEW ENGLAND VILLAGE
Re-created by
Williams-Harter CORPORATION

THE HOUSE
TOUR-TRIP

built by
SUPERB HOMES

GUTERMAN & MILLER
Builders of Fine Homes
8000 ST. AND BLVD AVE.
ELMHURST, L. I. N. Y. C.
N. A. S. • 4-10-10 • 4-8-37
MR. ROBERTS.

Stop!

PAYING RENT

you can BUY your home
FOR ONLY \$39.99 MONTHLY
and you pay it
AS YOU NOW PAY RENT

Insured HOMES IN RIDGEWOOD

In the Center of New York's
SUBWAY SYSTEM

14 Minutes from Union Square
2 Blocks Walk to 54th Street
Subway

YOU SIGN A LONG TERM LEASE ON

Happiness

WHEN YOU BUY YOUR OWN HOME at

Forest Hills Park

FIVE SUCCESSFUL FOLDERS. AT TOP is a red, white and blue creation, 5 1/2" x 9 1/2", giving complete specifications. MIDDLE: A quality-type folder on heavy deckle-edged paper, featuring Colonial charm and historic background, 9 1/2" x 7 1/2". BELOW: 3 smaller folders, each with a different theme appropriate to the development which it must properly present.

Mortgage Interest Rates Cut Sharply

4¼ Percent Interest Rate on FHA Mortgages Announced by Large Eastern Lending 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 towards 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 4¼ percent.

Bowery Savings Bank, one of the largest financial institutions in the country announced that it had \$10,000,000 to lend this year at this low 4¼ percent interest rate. Previously most of the home building in the New York area had been financed at 5 percent.

Another institution vitally interested in home financing, the South Shore Trust Company of Rockville Center, L. I., immediately followed suit by announcing that it had also reduced its general rate on single-family homes to

4¼ 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 4¼ 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 4¼ percent interest rate can be readily appreciated. On a 25-year loan the basic interest and amortization payments at 4¼ percent are reduced to \$5.42 per month per \$1,000. To this must be added the ¼ of 1 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.

ANNOUNCING 4¼% Interest Rate on F H A Mortgage Loans

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 4¼% per year.

Builders of group developments, as well as individuals

All FHA Advantages

Houses financed through the Bowery plan provide the home purchaser with every FHA advantage: small down payment, long-term loan, monthly payments which reduce principal and include insurance, taxes and other charges; elimination of second or third mortgages; FHA inspection on standards of construction and upon plan, design and neighborhood. In addition to all these benefits, the interest rate now is only 4¼% — which means a saving every month until the cost of the home is fully paid.

If You Are Building One Home Or Hundreds

You will find it to your advantage to talk

The Bowery wants to make loans — and is prepared to make them quickly. The Bowery also wants to help its present mortgagors having uninsured loans to refinance under the FHA plan. Please call, or address your inquiry to our Mort-

with the Bowery Savings Bank before you finance the construction. Under the Bowery's FHA plan each payment made by the owner or purchaser will meet interest and also cut down the principal of the loan. In this way the mortgage doesn't hang over the home forever. This plan, at the reduced rate of interest, compared with an old-style mortgage, will save the home owner many dollars.

If You Are Buying A Home

Save money by demanding a Bowery-financed house. It is our policy to keep all of our mortgages for permanent bank investments. We do not sell the mortgages to persons or corporations unknown to you. All through the life of the mortgage, you will have the satisfaction

who are planning to construct or buy their own homes, are invited to take advantage of this new, low interest charge.

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 home ownership!

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 4¼% 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 uninsured mortgages at the Bowery on one to four family dwellings, this Bank offers every assistance in refinancing the loans under the FHA plan at low interest rates. In cases which can qualify for FHA insurance, the cost for refinancing is moderate. See us for details.

gage Loan Department, 110 East 42nd Street, New York. Whether you need \$2500 for an individual home, or hundreds of thousands of dollars for a group development, it will pay you to see the Bowery first.

BOWERY SAVINGS BANK

Mortgage Loan Department • 110 East 42nd Street



A MUTUAL INSTITUTION CHARTERED IN 1864 TO SERVE THOSE WHO SAVE

\$10,000,000 TO LEND this year on FHA new home mortgages at the unprecedented low rate of 4¼ 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 4½ 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.

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

**FIRST WITH NEW
4¼% F. H. A. INTEREST**



\$5625 UP  \$565 CASH

Large plots, paved streets, sewers. 75 designs. 3 minutes to 8th Ave. Subway

GROSS-MORTON
Jamaica Estates
CORPORATION

Union Turnpike & 182nd St., Jamaica, L. I., N. Y. C.
Grand Central Plaza, 10 East 11, turn left to Union
Turnpike, right to North Square at 182nd St.
By the North Shore, see our BAYSIDE HILLS Community,
"Horse Mending Shop" and Bull Blvd., Bayside, N. Y. C.

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 shutters and cheerful roofs. Under the sane 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 house, which also includes a built-in garage. 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

NOT 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 about 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 detached 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 completion. However, possession will not be given on any of the twenty-five until May 1st. Meanwhile they are being shown and any of them will be duplicated within a radius of fifty miles of the Chicago Loop at a definite price.

THE construction views on the opposite page show some of the homes being completed for W. C. Tackett's 1939 Home Style Show. These 25 houses which are carefully designed to meet modern standards of livability cover a wide range of style and are from 6 to 8 rooms in size.



1939 HOME STYLE SHOW

25 Houses—In Scarsdale—All Different—6-7-8 Rooms—Price Range \$13,000 to \$20,000—Highest Quality and Maximum Value Through Close Co-operation of 23 Leading Local and National Firms.

SEE this \$350,000 Style Show in Scarsdale—Twenty-five of the most modern homes designed 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 specifications 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 own lot.

We have houses 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 all—each a masterpiece of design and layout—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 greatest value for that portion of your income you intend to invest. *We will assume your present lease.*

Twenty-eight of the most reliable and dependable material and equipment firms, both local and national, have co-operated to produce these homes. Our specifications include all kiln-dried lumber from Hines Lumber Co.; air conditioning by the Sunbeam Heating and Air Conditioning Co.; hard burned colorful exterior brick by Thos. Moulding Brick Co.; special electric conveniences by Shoreline Electric Co.; exclusively designed lighting fixtures by H. A. Framburg & Co. All color schemes, wall paper, tile linoleum, hardware and lighting fixtures are selected and installed under the direction of Vera Hutchinson, interior decorator.

In addition to the so-called standard, or expected, features in all new homes, all of our Scarsdale purchasers will enjoy the comforts, advantages and conveniences of the following special features:

- | | |
|---|--|
| Upholstered breakfast alcoves. | Square "D" circuit breaker. |
| Linoleum topped portable breakfast table. | General Electric kitchen wall clock. |
| Completely plastered basement ceiling. | Door chimes both front and rear. |
| Recreation room beautifully paneled in chestnut. | Cedar closets. |
| Attractive tile floor in the recreation room. | Full length mirrors. |
| All bathrooms have an auxiliary electric heater and hair dryer. | Landscaping and evergreens by Schroeder Nursery. |

SCARSDALE—A \$7,000,000 HOME BUILDING PROGRAM

Scarsdale—in Arlington Heights, twenty-six miles from the Loop—is the setting for this unique exhibition. Scarsdale itself is a model Residential Haven, exclusively protected in a community endowed with every advantage—highly rated public and parochial schools—new high school—high elevation, beauty and location—situated in the heart of the Northwest country club section with many fine golf courses.

NEW \$250,000 RECREATION CENTER with one of the state's finest swimming pools, 75x150; ultra modern clubhouse with showers, dressing rooms, and ballroom; hockey field; night lighted tennis courts; ice skating rink; well equipped children's play ground; football field and baseball diamond.

Charmingly landscaped, Scarsdale has winding paved avenues, ornamental street lighting, and separate storm and sanitary sewer systems. The minimum building restriction is \$10,000, the smallest homestead 50x152. Located five blocks from North Western Station—fifty-four fast trains daily—thirty minutes to the Loop. Friendly and congenial neighbors. A safe and ideal environment for children. Scarsdale has over 100 homes. We plan to build 100 more this year and another 350 within three years—see it in progress now!

DRIVE OUT TODAY. Visualize what you want in a home when ready for the ever romantic adventure of home ownership—one of life's most satisfying experiences. Inspect one home or twenty-five—complete, or in various stages of construction—without the least obligation of any kind. You may find to your surprise that a small down payment and your monthly rent check will prove amply sufficient to make one of these exhibition homes your own. What a surprise to find that you actually can own one without unduly burdening yourself. All Scarsdale Mortgages are FHA Insured Loans financed through the Home Federal Savings & Loan Association of Chicago. Come and see this unique home exhibition—the largest and finest since 1929.

DIRECTIONS: Drive out Northwest Highway, Route 14, to Arlington Heights. Turn left at first stoplight entering town, five blocks to Scarsdale.



W. C. TACKETT, Inc.
DESIGNERS AND BUILDERS
30 Cedar Street Phone DeL. 4015
CHICAGO

The process of Buying or Building a Home goes far beyond the plan and specifications; it seriously involves the character, integrity and financial stability of the Builder.

THE reproduction of the newspaper ad announcing the 1939 Home Style Show, as shown at the right, dominated the real estate page of a Chicago paper. The original was about four times this size. It presents the story of the homes and developments in a most interesting manner; layout is distinctive.

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.

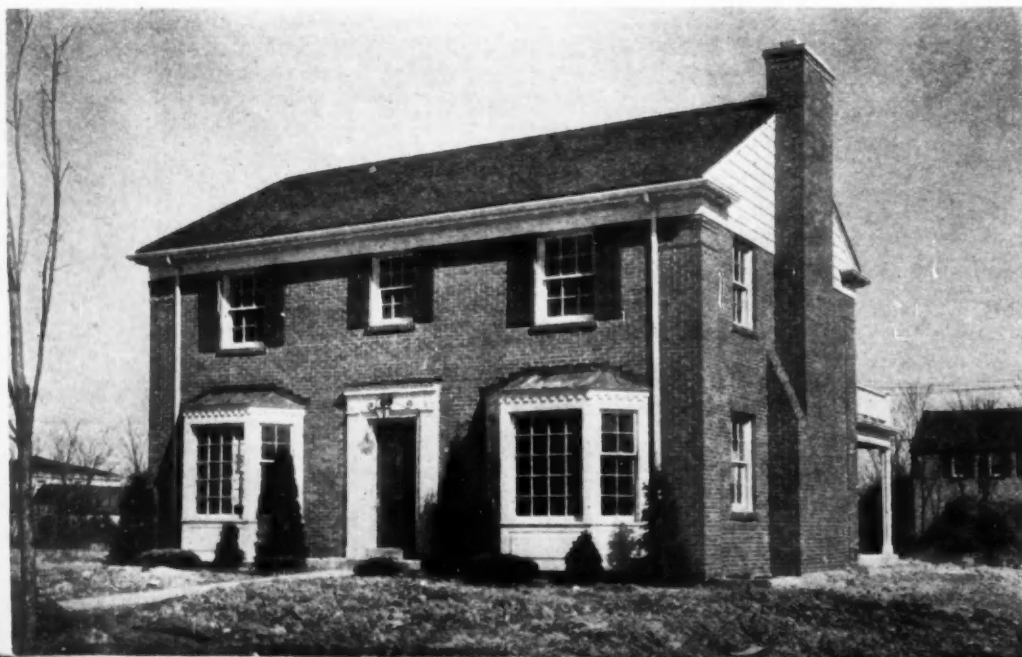
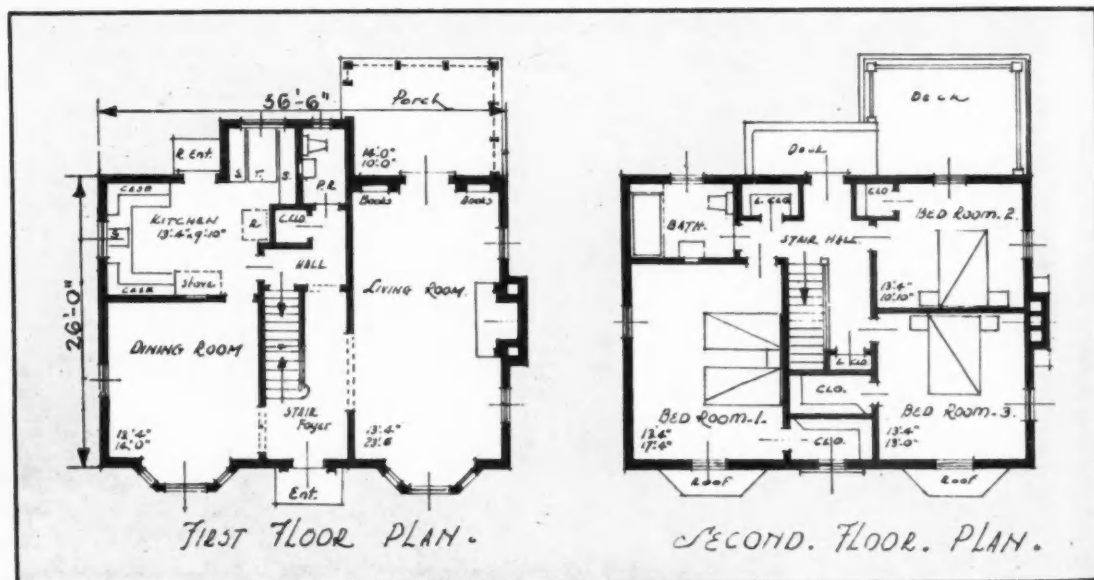
The proposed house has now been given the general approval of the office, and the architectural department proceeds to draw up the plans. As a last step before blueprints are ordered, Dave Marr, construction superintendent, checks them structurally and gives the final O.K.

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.

AMERICAN BUILDER
Pin Cost FIGURES
FOR THIS HOUSE
ON PAGE

87



THE 6-room Tackett house at the left is typical of many of the houses in this 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.

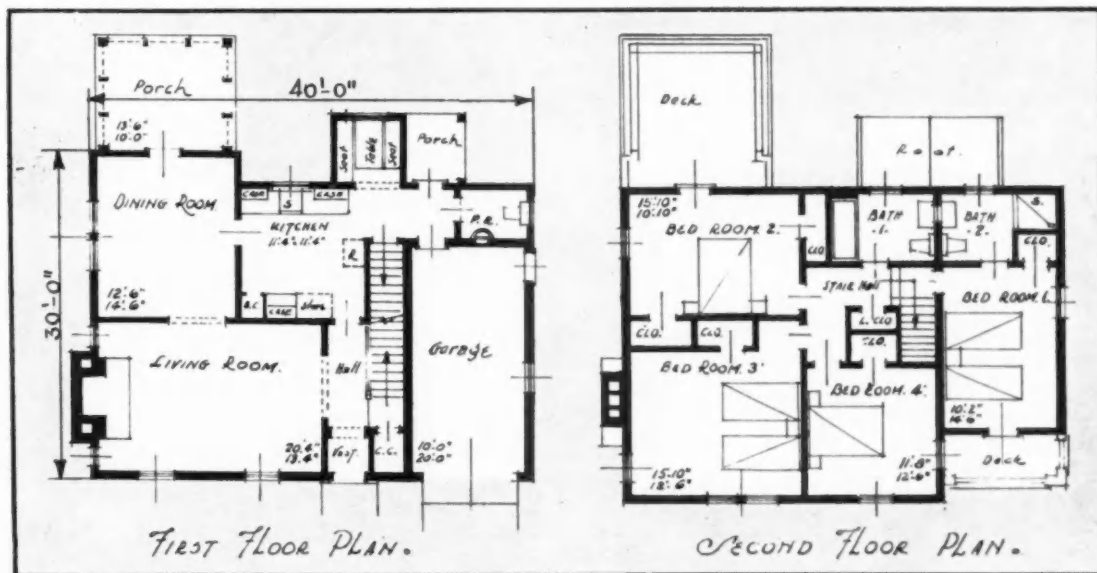
LATH and PLASTER—3 coats cement plaster on USG Rocklath. Metal lath ceilings and metal corner beads throughout. In baths, ceramic tile on cement base over metal lath.

INSULATION—Balsam-Wool between studs in side-walls where needed. J-M and USG rock wool batts 4 in. thick over second floor ceiling.

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

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

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



AMERICAN BUILDER
True Cost FIGURES
FOR THIS HOUSE
1 PAGE

87



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.

THE design at the left illustrates one of the popular 1939 Tackett model homes in the 8-room and 3-bath size. It is planned with dining room and living room overlooking yard to the rear; screened-in porch provides a spot for pleasant outdoor living. The study off the front hall can be used as a guest room. Built-in breakfast seat is at one end of the kitchen where it can be reached easily from the hall.

AMERICAN BUILDER
True Cost FIGURES
FOR THIS HOUSE
ON PAGE

87



glazing. All interior doors and window sash, $1\frac{3}{4}$ in. thick; all front doors, $2\frac{1}{4}$ in. thick. Windows fitted with interlocking weatherstrip and outside doors equipped with interlocking thresholds.

FLOORS—Double floor construction with deadening felt between. Clear red oak floors except Armstrong linoleum in kitchens and lavatories, and Standard Tile Co. tile in bath.

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.

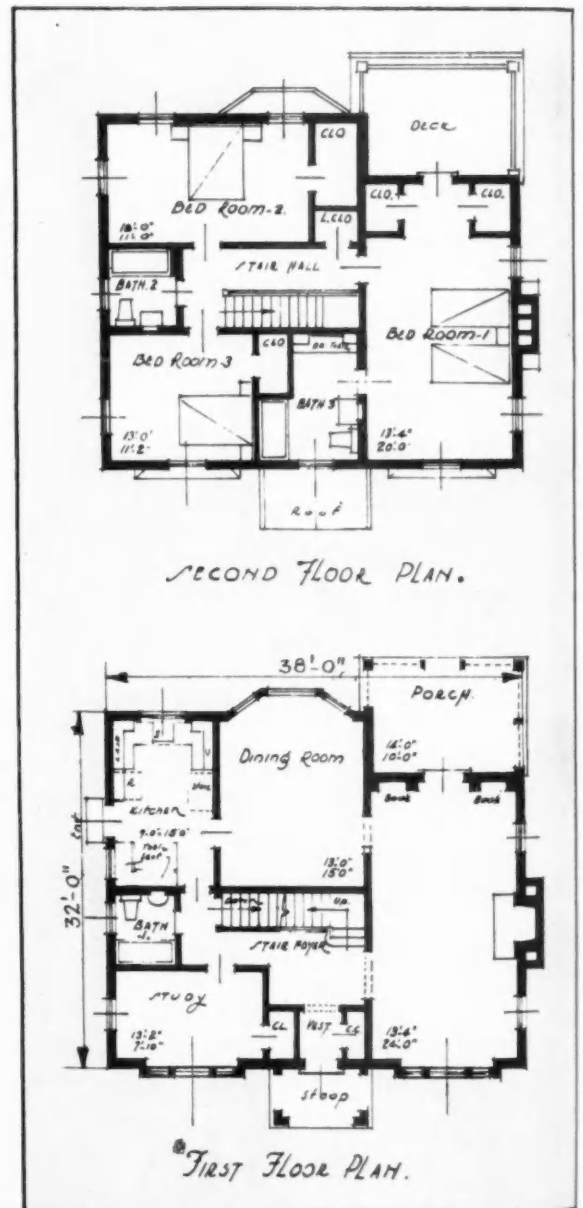
LIGHTING FIXTURES—Lightolier, Beardslee, and Framberg built to own design.

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 \$6900.

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.

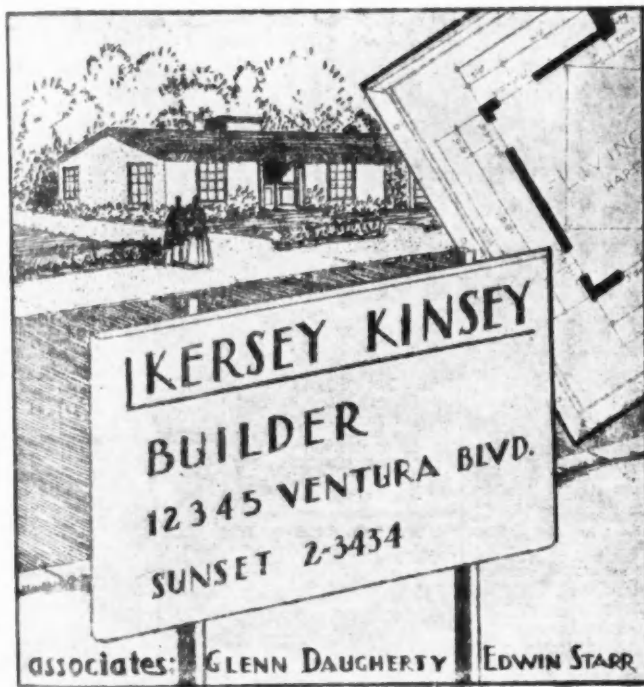
An analysis shows that most of Kinsey's clients come from satisfied home owners.

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 trade knowledge and ability to get along with people is responsible for this satisfactory state of affairs.

Planning and Designing Service

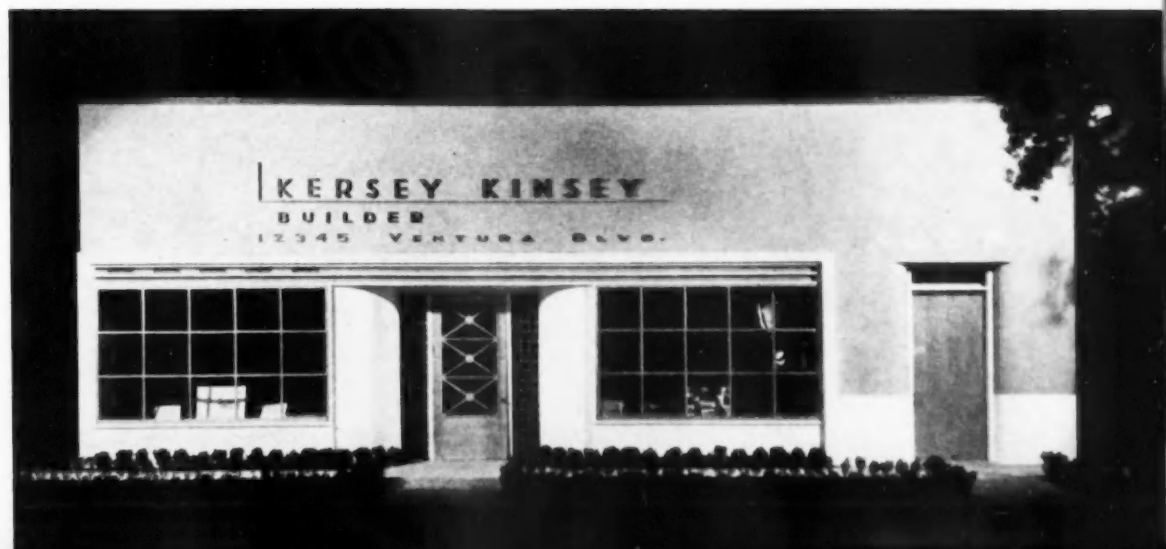
A complete architectural planning and designing service is offered to small home customers. This complete service is made possible through an arrangement worked out with a qualified A.I.A. architect, heretofore identified only with large public and private projects.

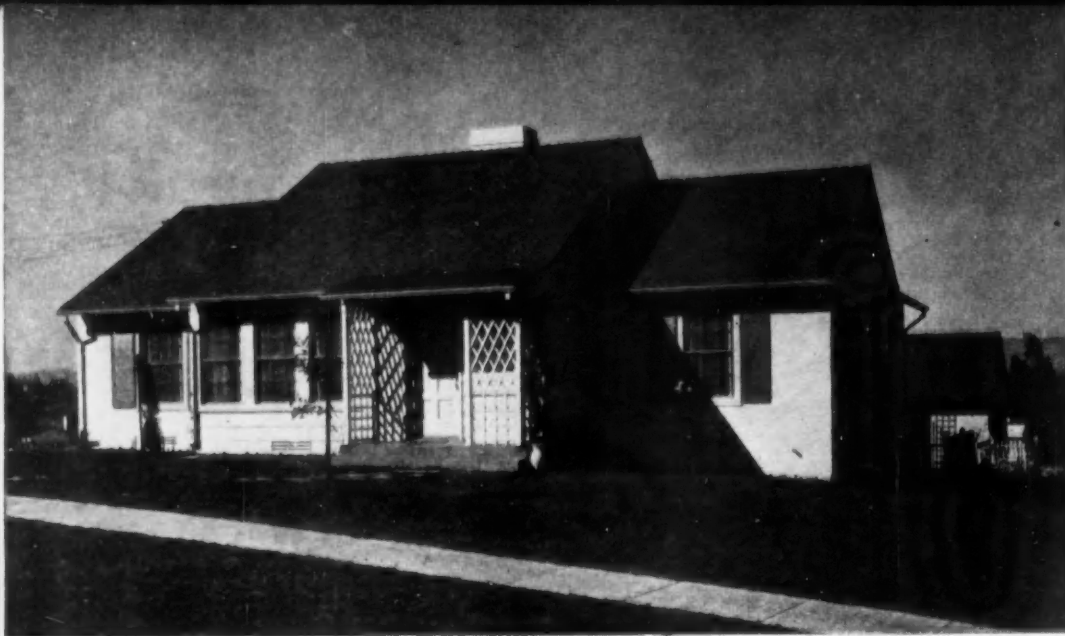
The setup is such that all interviewing is done by the builder or his associate, Edwin Starr. From these consultations preliminary plans are drawn, the builder acting as go-between for architect and client. All changes are made on these preliminary plans. Only when there is complete accord as to details, 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



ABOVE: Newspaper display advertising of Kersey Kinsey is distinctive in that it merely presents his stylized business card with a background of home exterior and floor plan sketches.

KINSEY'S new office building shown at right carries out the same clean-cut, dignified identification as is used in his ads.





LEFT: This Cape Cod design adapted to Southern California requirements and built by Kersey Kinsey has siding on the main portion of the house and two wings finished in stucco. The slightly overhanging roof is red cedar shingle and is particularly suitable to the hot summer sun.

FLOOR plan, below, of this California Cape Cod is also designed to fit local conditions. The combination den and extra bedroom is a feature of many small homes in this area; the extra bath is well located. Detached garage is detailed to harmonize with the design of the house.

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.

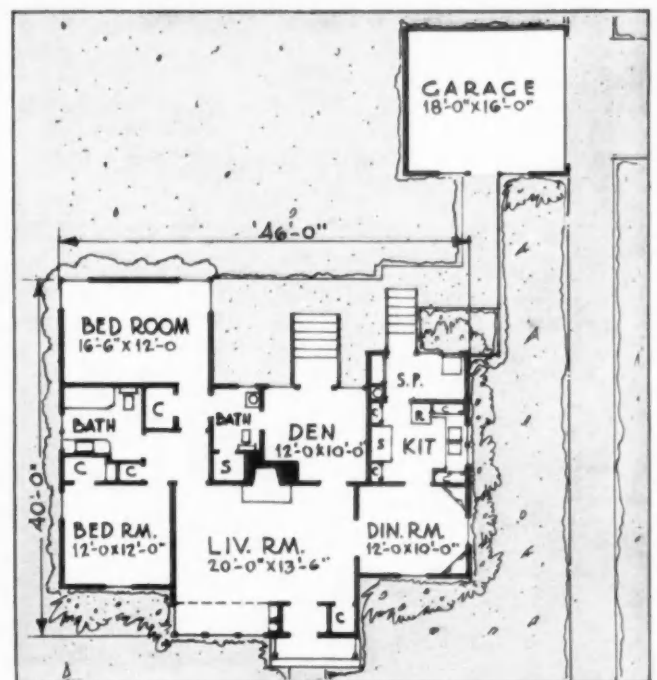
Plans are so carefully prepared and subcontractors so familiar with Kinsey's construction methods and standards of work, thereby requiring a minimum amount of supervision, that the architect feels well satisfied to turn over job supervision to Kinsey's construction department. This is headed by Glenn 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. Though they are stock molds they are not stock mill members, being made up in the mill for the builder's exclusive use, according to designs furnished by Kinsey.

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



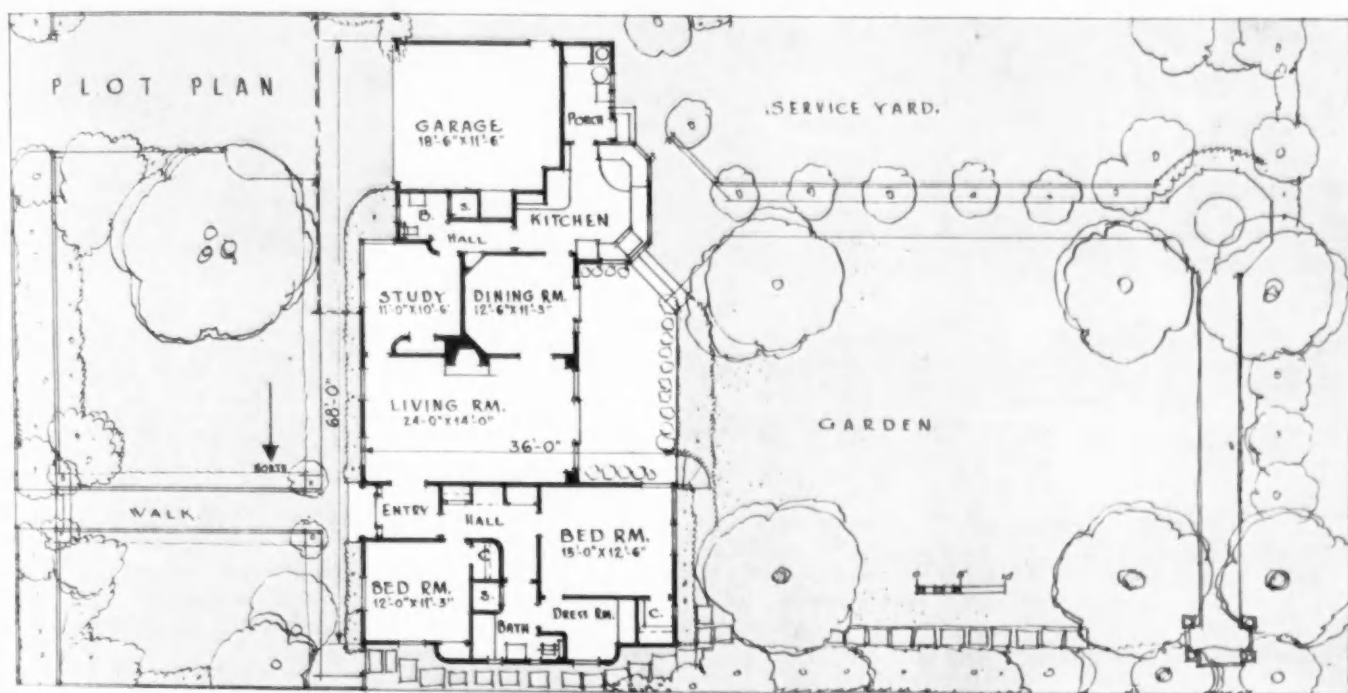
costs reduced, but there is no loss of time in training new crews. On this basis also, the builder can determine job costs almost to a fraction.

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)

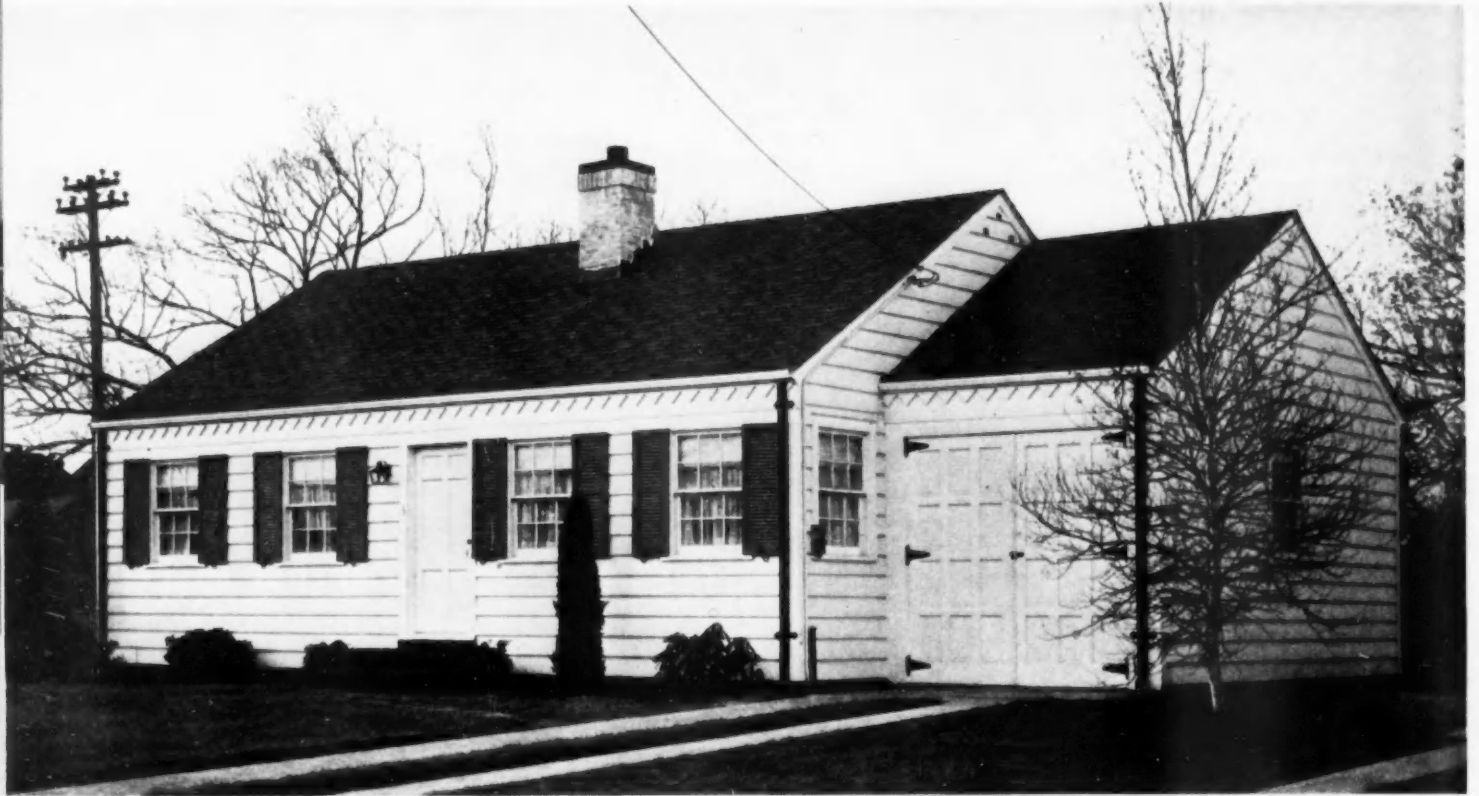


LAURELWOOD house, shown above with floor plan, is one of Kinsey's typical demonstration houses furnished by Bullock's of Los Angeles. Planning is complete in every detail, even to landscaping. Both the exterior and interior are designed in a modified California modern style. Notice in the plan that many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

AMERICAN BUILDER
The **Lowest** FIGURES
 FOR THESE HOUSES
 ON PAGE

87

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

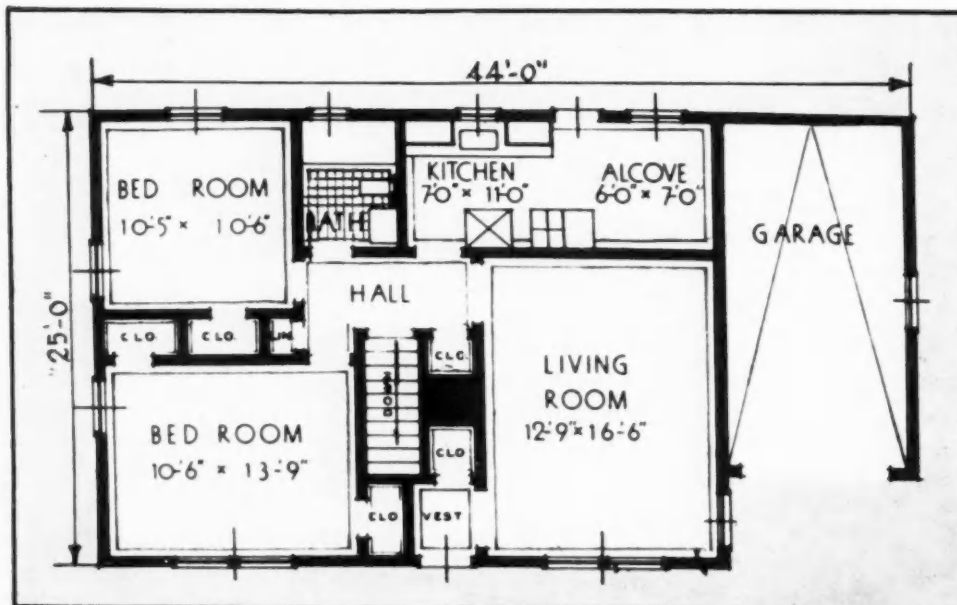
Built on Long Island by William R. Gibson; Designed by Architect Arthur E. Allen

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 predominantly 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



AMERICAN BUILDER
The Cost FIGURES
FOR THESE HOUSES
ON PAGE

87

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 panes 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.



m
sold
most
ized
and
aint
ove.
with
com-
9" x
master
ing 2
itchen
hically
6' x
spot.



Novel Oregon Home Is Built Air-Tight

Ventilating Louvres Under Windows Are Part of New Construction Method

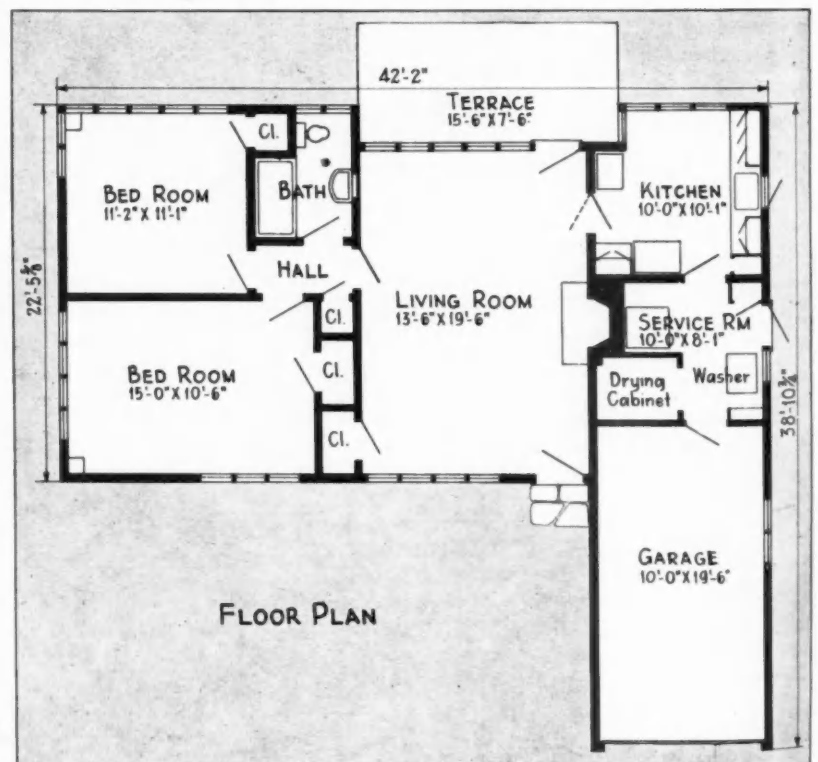
BY OFFERING increased value, a new home recently completed at Lake Oswego, Portland, Oregon, merits "Buyer Approval" on a number of counts. This five-room residence designed by John Yeon, and built by Burt Smith, Portland contractor, offers comfortable, adequate housing for the average family, embodies 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



AMERICAN BUILDER
The Cost FIGURES
 FOR THIS HOUSE
 ON PAGE

87

FLOOR PLAN of Oregon house shows extensive use of new type plate glass windows in all main rooms.

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 system. 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.

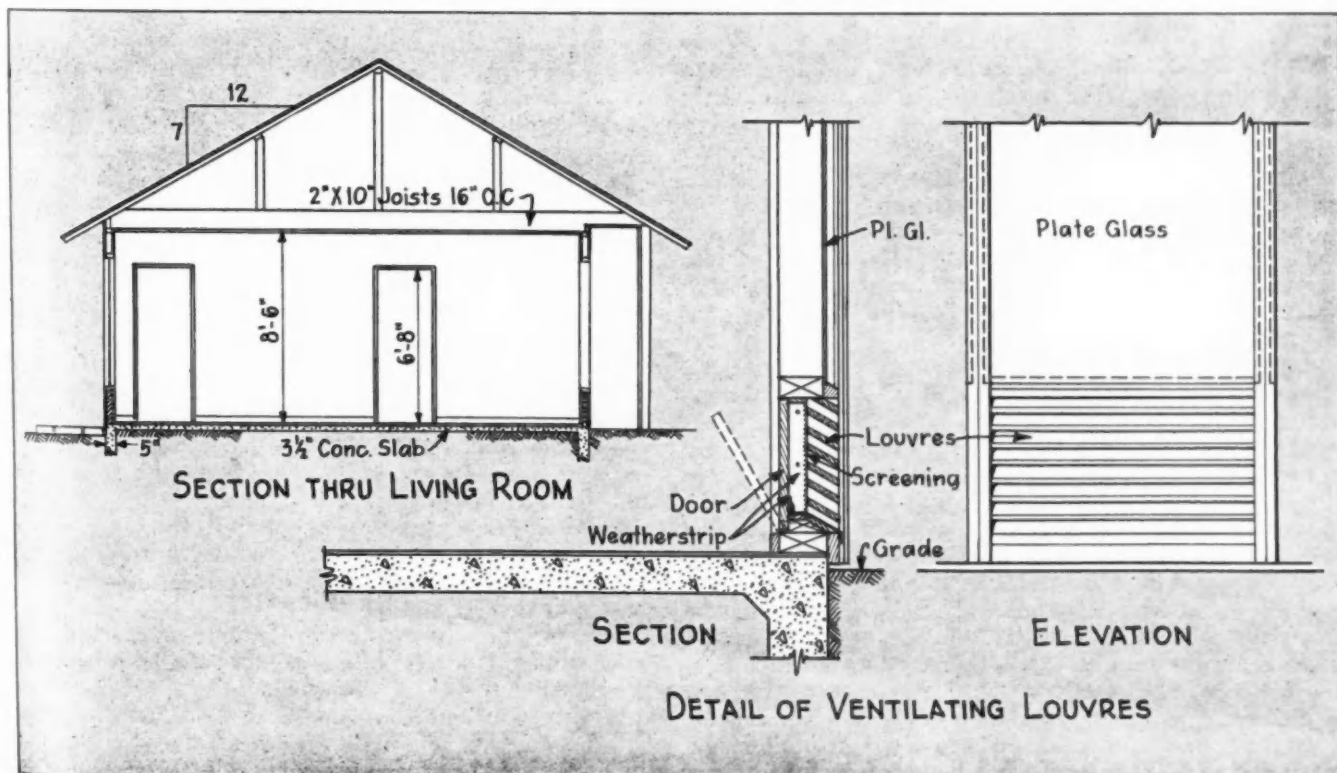
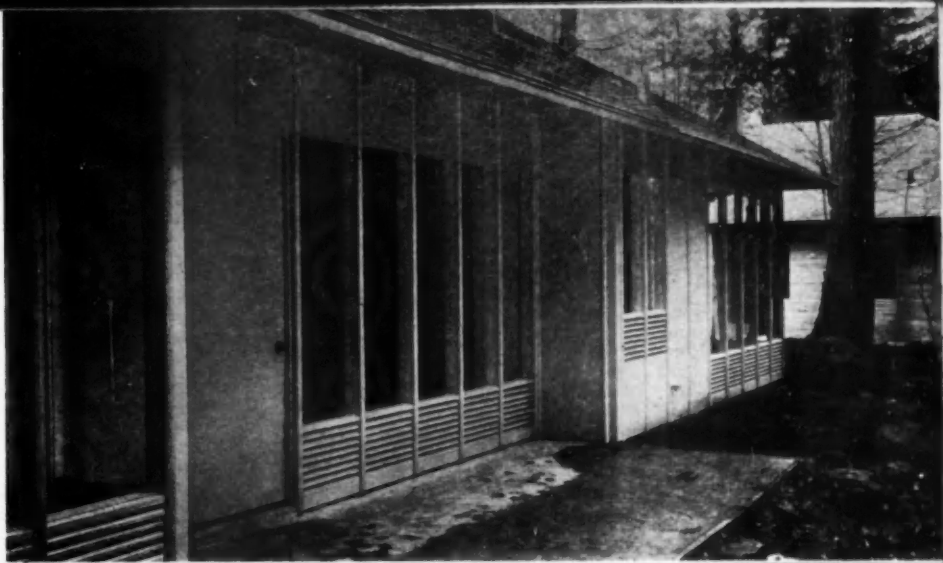




Photo by Geo. E. Meyers

SUBSTANTIAL, WELL PLANNED Fletcher-Roberts home, one of the recent Brennan-built residences in West Hartford.

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.

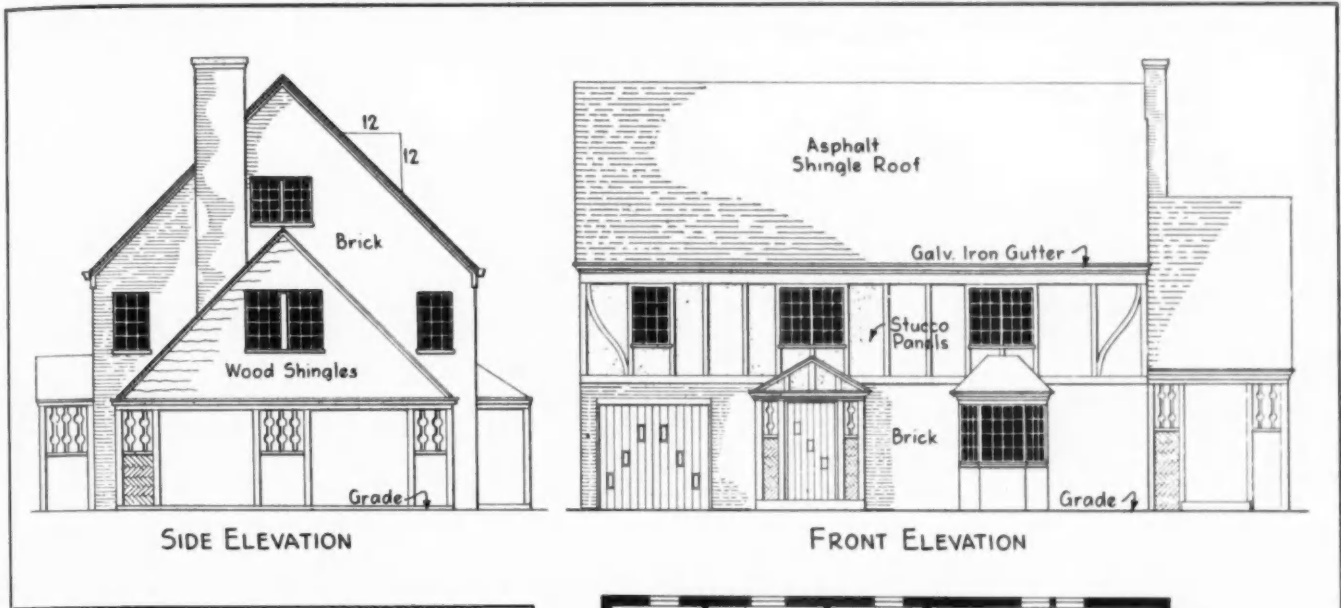
In the course of a year members of the firm interview from 400 to 500 prospects and listen carefully to their

Brennan Brothers Take the “Spec” Out of Speculative Building. Have Built 1½ Million Dollars Worth of Houses in West Hartford, Conn.

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.

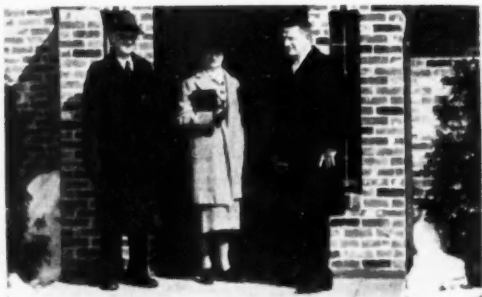
The continuous, reliable experience over a period of years enables them to keep constantly improving their houses on the basis of sound experience and approval by the owners.

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



SIDE ELEVATION

FRONT ELEVATION



THIS "family partnership" draws own plans based on customer approval. The firm does both contract and speculative work. Some 400 to 500 prospects a year are interviewed. Above, left to right, are Charles E. Brennan, Miss Katherine Brennan and William R. Brennan.

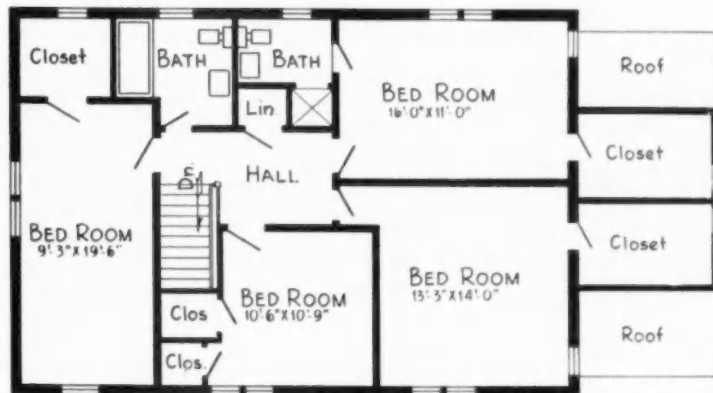
AMERICAN BUILDER
The Cost FIGURES
 FOR THIS HOUSE
 ON PAGE

87

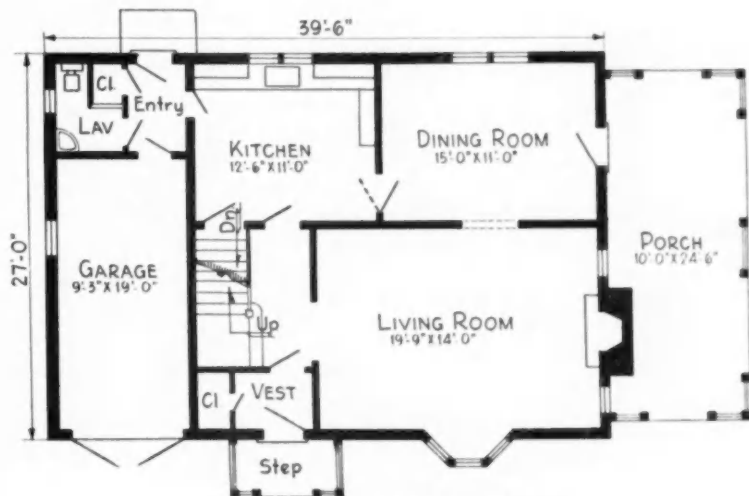
garage entrance is easy to get into and is equipped with Stanley Upward-acting door. Exit from the garage leads into a small rear entrance hall off which the downstairs lavatory is located. The Brennans believe in large kitchens, and this one is 12'-6" by 11'. The 19'-9" by 14' living room has an attractive 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.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

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.

Use the C. B. Kelley Complete Home Building Service for Safety, Satisfaction and Economy



Home of Mr. and Mrs. W. S. Cowan
located on Reynolds Drive



Home of Mrs. Wm. B. Martin, Sr.
located on East Clayton Avenue



Home of Mrs. Corbin Gant and Mrs.
Mary Gant located on Glen Leven Drive

SELECTING THE SITE

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

PLANNING YOUR HOME

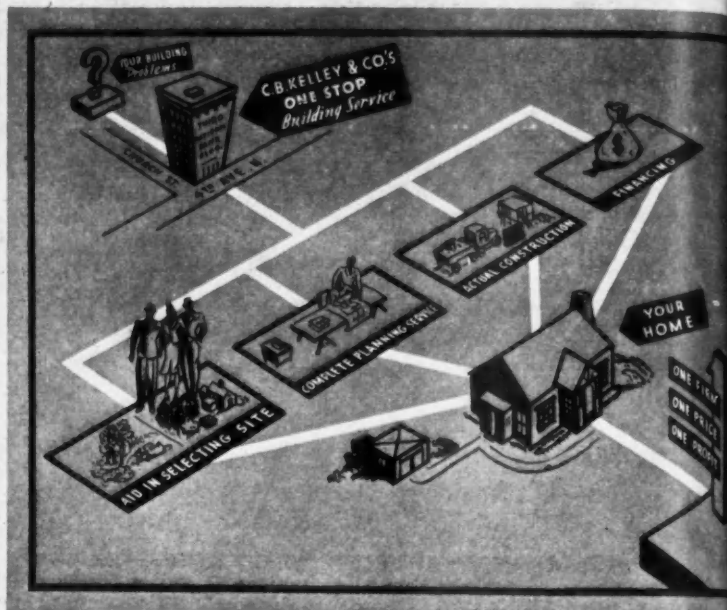
Our planning service is in charge of Ira Payne Jones, licensed by the State Board for Licensing Architects & Engineers. Scores of attractive, well-planned homes built in Nashville attest to Mr. Jones' skill and ability. He has had years of training and practical experience in planning houses that possess beauty, convenience, comfort and livableness.

Every effort is made to carry out to the fullest extent your ideas. We want to plan your home to suit you, at the price you want to pay. Sketches are submitted without cost or obligation, and estimates are guaranteed. Complete plans and specifications are furnished as part of our service and without extra cost.

ACTUAL CONSTRUCTION

Undivided responsibility for the supervision and actual construction of your home is centralized in the same firm that drew the plans and specifications. There is no lost motion, no misunderstanding. The same people with whom you discussed your ideas are seeing to it, through day to day inspections, that all of your ideas and wishes are becoming realities. Our expert experienced mechanics, using the best grades of materials furnished by responsible firms, perform every operation with skill and efficiency. Your home is well built and economically built.

The training and experience of members of this firm enable us to render a complete, unified, "one stop" building service... aid in selecting a site... preliminary sketches... complete plans and specifications... the actual building... insurance... and financing... the whole service centered in one firm, undivided responsibility, and a single profit for the whole transaction.



IN ABOVE brochure C. B. Kelley presents a most constructive, convincing sales story; contains six pages printed in two colors.

"Pay When We Deliver" Says Builder Kelley

Nashville, Tenn., Firm Offers a Complete and Unique Home Building Service to Customers

"KEEP your money in your pocket until *after* your building contract has been completed in every way."

"Don't pay a dollar until you have had an opportunity to inspect your home and see that every detail of plans and specifications has been complied with." "We pay all of our bills before we ask you to pay us." So says C. B. Kelley & Company to their customers.

On contracts under \$10,000.00, C. B. Kelley & Company, home builders, of Nashville, Tenn., carry the entire contract to completion and satisfy their customers that all bills for labor and material have been paid in full before any payment is required from the customer, either from his own funds or from mortgage loans. This arrangement eliminates for the customer practically every risk connected with the building of a house, as well as saving them substantial sums on construction loan brokerage and interest, and eliminating any necessity for performance bond.

In practically every transaction that the average man makes, payment is not required until the article is delivered or the service is performed. If he buys an automobile, he pays when the car is delivered. If he buys a house ready built, he pays after inspecting the house and being satisfied that the title to the property is good. So now in building a home the Kelley way, he is permitted to pay after he sees what he is getting and after he is

satisfied that all bills for labor and material have been paid by the contractor. C. B. Kelley & Company believes that this is just another way that the responsible contractor can make home building an easy, pleasant and satisfactory transaction for his customers. It requires adequate capital and borrowing from the contractor's bank, but the cost to the contractor is surprisingly small in interest charges and is more than offset by the confidence and good will created.

This is the 15th year C. B. Kelley & Company have been building good homes for Nashville families. This firm, confining its activities to the residence field exclusively, has built over 300 homes costing more than \$2,000,000.00. These homes range in price from \$4,000.00 to \$20,000.00. Most of the firm's work is contract jobs, but several houses are built each year to sell.

The firm is composed of C. B. Kelley, who has had twenty years' experience in building and real estate field, and Ira Payne Jones, a licensed engineer. Mr. Jones has had twenty years' experience in construction and closely allied lines.

The varied experience and training of the members of this firm enables C. B. Kelley & Company to offer a com-

plete, unified, "One Stop" service to the prospective home builder. This begins with aid in selecting a building site, it 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—3½ in. Monolithic. Post footings—18 in. sq. with 12 x 12 in. capping. All entrances, vestibules, and porches—5 in. reinforced con-

crete 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 2¼ 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.

SHEET METAL WORK: Flashing—30 lb. tin. Gutters—12 in. O.G., 28 gauge galvanized iron.

WINDOWS: Sash—wood, Roach & Musser, Muscatine, Ia. Frame—white pine, local mill. Glass—Libbey-Owens-Ford.

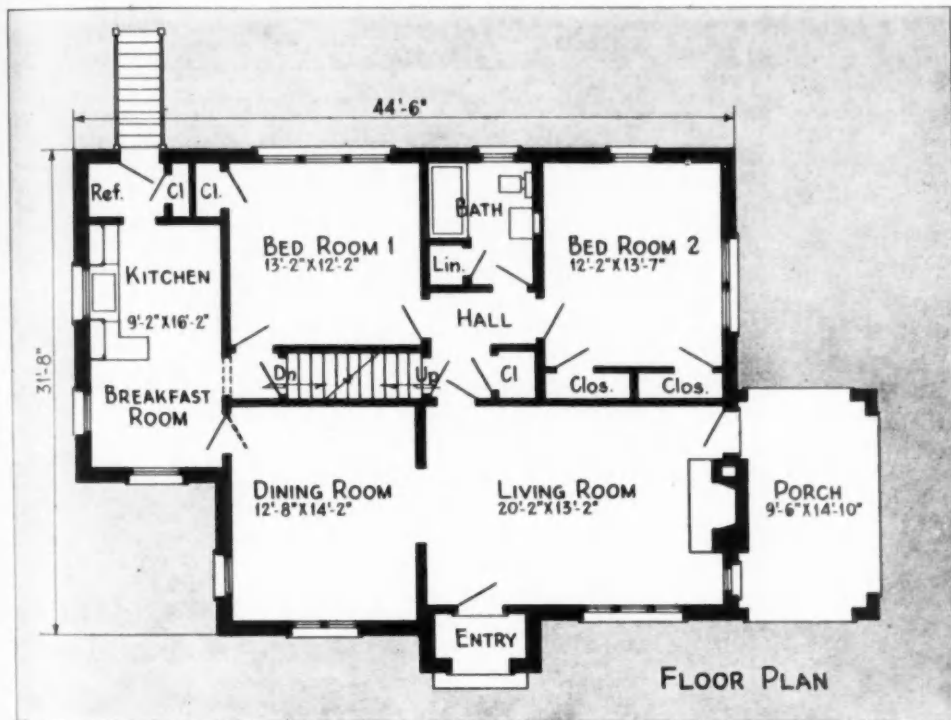
FLOOR COVERINGS: Kitchen, bath and entrance—Armstrong's linoleum.

WOODWORK: Interior frames, trim, base and cabinets—B & Better yellow pine, local mill. Doors—Norwood, 3 panel fir, Northwest Door Co.

HARDWARE: Interior—Yale & Towne Mfg. Co.

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

BATHROOM EQUIPMENT: Lavatory, tub, toilet—Standard Sanitary Mfg. Co. Seat—Church Mfg. Co. Cabinet—Curtis.



AMERICAN BUILDER
True Cost FIGURES
 FOR THIS HOUSE
 ON PAGE
 87

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

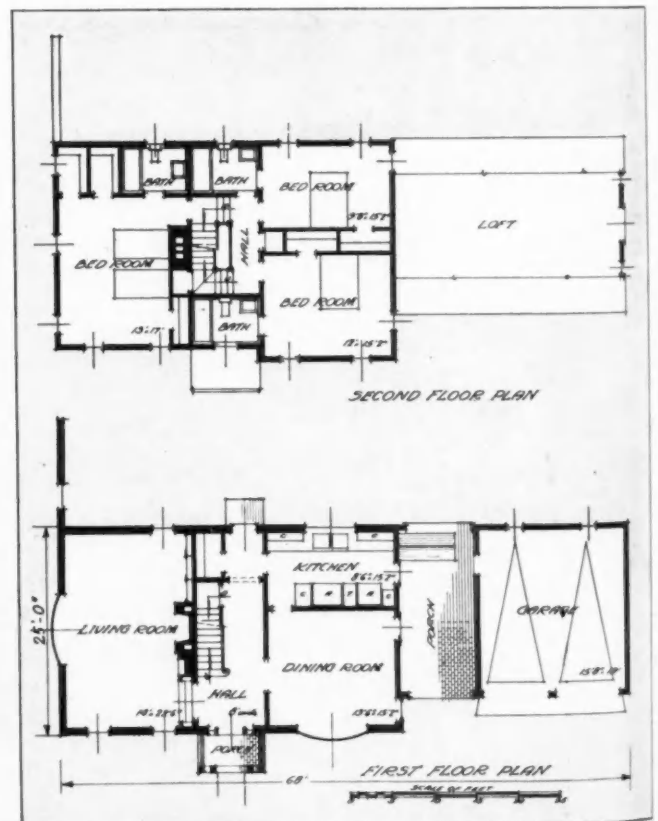
THIS substantial New England Colonial type house can be seen at a glance to fit comfortably into its hillside location. Architect R. C. Hunter dropped the living room three steps and provided a beautiful bay window overlooking the down slope. The master bedroom over the living room is also dropped and 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.



A BEAUTIFULLY DETAILED rear entrance treatment.



LARGE, LIVABLE ROOMS—a bath for every bedroom.

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.



GLASS and lattice work combine to give protection to the front entrance shown above. AT LEFT is view of spacious dropped-floor living room with simple mantel and three built-in bookcases.

AMERICAN BUILDER
ProCost FIGURES
FOR THIS HOUSE
ON PAGE

87



APRIL Front Cover Home

**Salable New Jersey
Colonial Has Master
Bedroom and Bath
on First Floor.
Cubage 27,200.**



EARLY AMERICAN AND CAPE COD traditions embodied in 8-room home.

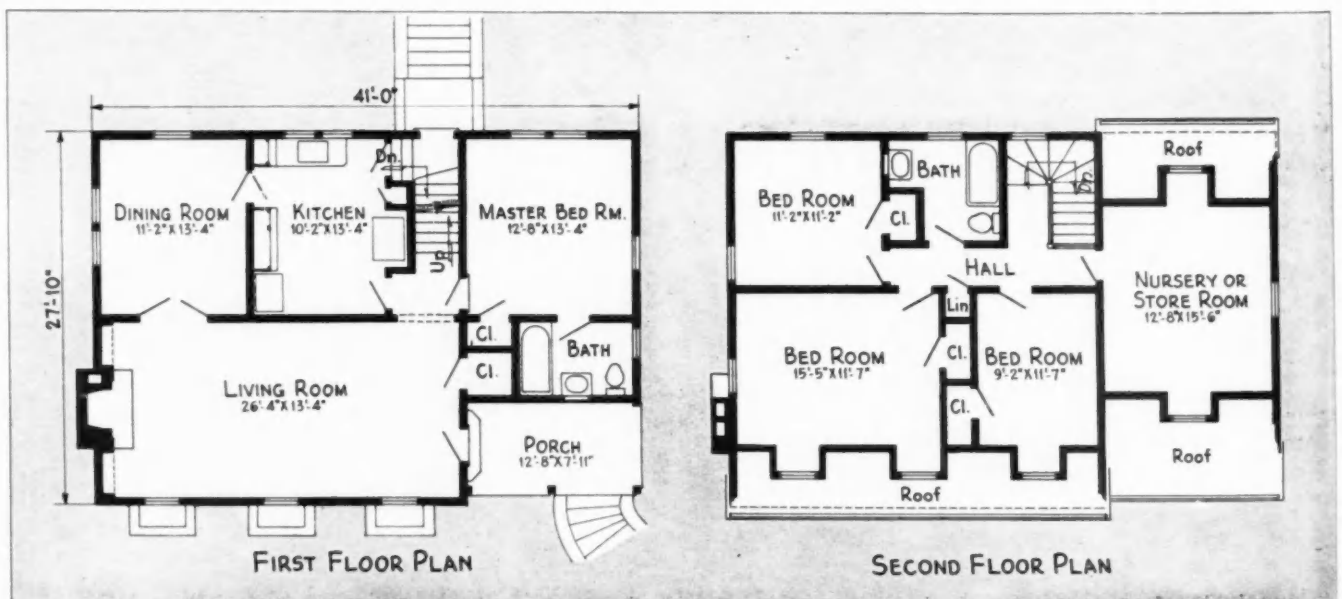
THIS livable, salable house designed by Henri C. Heps and built by Roy Edio in Westfield, N.J., was selected for the April *American Builder* front cover because it gives the owner a whole lot of modern livability for his money. Although the overall first-floor dimensions are only 41' by 27'-10", the 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.



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



Reg. U.S. Pat. Off.

Figures for American Builder Homes

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Apr. 70	Apr. 71	Apr. 72	Apr. 74	Apr. 75	Apr. 76	Apr. 77 Top
Basement Walls, lin. ft.	137	120	142	0	0	118	118
Trench Walls, lin. ft.	30	83	48	180	228	40	40
Basement Floor, sq. ft.	1049	935	1184	0	0	850	850
Garage Floor, sq. ft.	0	220	0	0	321	200	200
Excavation per ft. deep, cu. yds.	48	46	53	0	0	39	39
HoltRate on following items	1.897	2.145	2.171	1.571	2.026	1.090	1.084
Outside Walls, squares	26.8	30.1	29.9	20.8	21.7	15.3	13.1
First Floor, squares	10.5	9.4	11.8	14.6	16.7	8.5	8.5
Second Floor, with Fin. Flg., sqs.	9.5	10.5	11.3	0	0	0	0
Second Floor, without Fin. Flg., sqs.	0	0	0	0	0	0	0
Ceiling, sqs.	10.5	11.9	11.8	14.6	16.7	8.5	8.5
Roof Pitch, inches rise per ft. run	8"	10"	9"	8"	4"	8"	8"
Roof, squares	14.2	17.4	16.2	20.6	25.8	13.4	13.4
Hips and Valleys, lin. ft.	20	0	40	43	260	0	110
Cornice, Type and lin. ft.	C & F-104	C & F-110	C & F-128	C & F-120	24"-236	C & F-164	4"-142
Partition, lin. ft.	12"-80	12"-80	12"-68	24"-94	0	0	0
Inside Finish OS Walls, lin. ft.	212	267	254	177	266	151	151
Front and OS French Doors, opgs.	263	292	280	190	228	138	138
Rear and Grade Doors, opgs.	4	4	3	2	3	1	1
Garage Doors 8 ft. wide	1	2	1	1	2	1	1
Inside Doors and Cased Opgs., opgs.	0	1	0	0	2	1	1
Windows and Casements, opgs.	17	22	20	15	19	13	13
Gable Sash and Louvers, opgs.	20	19	25	20	29	12	12
Chimney, lin. ft.	1	1	3	2	0	1	0
Main Stairs	38	39	38	28	18	28	28
Porch Floor, sqs.	1	60	1	0	0	0	0
Porch Ceilings, sqs.	1.4	1.7	1.8	.2	0	0	0
Porch Beam, lin. ft.	1.4	1.7	1.8	.2	0	0	0
Porch and Balcony Post and Newels, No.	30	48	48	14	0	0	0
Porch Roof, sqs.	6	8	9	2	0	0	0
Porch Cornice, lin. ft.	1.8	1.7	2.3	(a)	0	0	0
Porch and Deck Rail, lin. ft.	32	34	52	(a)	0	0	0
	30	40	30	0	0	0	0

HOME DESIGNS ON PAGES AS NUMBERED

Unit of Construction	Apr. 77 Bottom	Apr. 78	Apr. 80	Apr. 83	Apr. 84	Apr. 86	Apr. 95
Basement Walls, lin. ft.	118	0	136	157	132	138	166
Trench Walls, lin. ft.	40	168	90	35	112	21	26
Basement Floor, sq. ft.	850	0	896	1330	1008	1040	1416
Garage Floor, sq. ft.	200	220	200	0	320	0	0
Excavation per ft. deep, cu. yds.	39	0	45	58	51	46	61
HoltRate on following items	1.172	---	2.134	1.575	2.326	1.840	2.670
Outside Walls, squares	16.6	16.0	26.4	21.6	35.7	23.0	33.6
First Floor, squares	8.5	8.4	9.0	13.3	10.1	10.4	14.2
Second Floor, with Fin. Flg., sqs.	0	0	10.8	0	10.4	9.2	14.2
Second Floor, without Fin. Flg., sqs.	0	0	0	0	0	2.3	0
Ceiling, sqs.	8.5	9.6	11.0	13.3	10.4	11.5	14.2
Roof Pitch, inches rise per ft. run	21"-7"	7"	12"	12"	12"	15"	9"
Roof, squares	17.3	17.0	16.6	20.1	24.2	18.2	20.2
Hips and Valleys, lin. ft.	0	85	0	40	52	50	38
Cornice, Type and lin. ft.	C & F-197	30"-168	C & F-168	C & F-213	C & F-276	C & F-267	12"-208
Partition, lin. ft.	0	0	0	0	0	8"-30	C & F-120
Inside Finish OS Walls, lin. ft.	151	126	280	187	234	212	364
Front and OS French Doors, opgs.	138	168	270	157	268	238	332
Rear and Grade Doors, opgs.	2	2	2	2	3	1	3
Garage Doors 8 ft. wide	1	1	1	1	2	1	1
Inside Doors and Cased Opgs., opgs.	1	1	1	0	2	0	0
Windows and Casements, opgs.	13	11	23	17	20	18	29
Gable Sash and Louvers, opgs.	12	32	27	17	30	23	38
Chimney, lin. ft.	1	0	4	2	5	2	3
Main Stairs	28	22	40	36	40	38	36
Porch Floor, sqs.	0	0	1	0	1	1	2
Porch Ceilings, sqs.	0	0	2.7	1.4	2.5	1.0	1.6
Porch Beam, lin. ft.	0	0	2.7	1.4	2.5	1.0	1.6
Porch and Balcony Post and Newels, No.	0	0	60	35	40	21	26
Porch Roof, sqs.	0	0	(b)	2	4	3	4
Porch Cornice, lin. ft.	0	0	4.3	2.3	(a)	(a)	2.0
Porch and Deck Rail, lin. ft.	0	0	75	32	(a)	(a)	0
	40	0	0	0	0	0	26

(a)—Included with main roof and cornice. (b)—Omitted in HoltRate 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 as specified or wanted (and don't forget Overhead and Profit):
 Areaways, Cellar Sash, Coal Chute, Basement Partitions & Doors, Attic Flooring, Attic Stairs, Blinds, Gutters & Downspouts, Fireplaces.

Built-in Cabinets, Rail & Newels for Stairs and Stair Well, 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.

Time Records for

TruCost

Reg. U.S. Pat. Off.

A. W. HOLT Explains How Labor Records, Easily Kept, Make Estimating Safe and Profitable

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 razed 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. But 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, subdividers 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 was a revelation to all of them, too. We had as great a laugh over this form of entertainment at my party as we had had at some of the larger stag parties we had attended. And we all learned a lot, the best of which being that we could learn from each other and that it is about time that every contractor kept records of his actual time on each phase of each building project so as to *know* instead of guessing at labor costs of subsequent jobs. All three of those men thanked me for starting these classes and we have had several meetings since."

That's how Mr. Architect reminded me to write about the value of getting together and learning from each other. It's surprising how much each one can learn from all 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

(Continued to page 152)

TIME RECORD OF Jim Smith for Apr. 18 1939.

Job No. 37 - John Doe Weather Fair

From	To	Class of Work	Hours	From	To	Class of Work	Hours
		FOUNDATION UNIT				CEILING UNIT	
		Excavating				Framing	
		Formwork				Insulation	
		Concrete Walls				Finishing	
		Cement Floors				MAIN ROOF UNIT	
		Cellar Sash		8:00	10:30	Framing	2.5
		Fireplace		3:45	5:00	Sheathing	1.25
		Chimney				Shingling	
		FLOOR UNITS				MAIN CORNICE UNIT	
		Girders & Post				DORMER EXTRAS	
		Sills & Joists		10:30	2:30	Framing	3.0
		Bridging		2:30	3:45	Cornice	1.25
		Subfloor				PORCH UNITS	
		Finish Floor				Floor & Clg.	
						Beam	
		OS WALL UNIT				Porch Post	
		Framing				Rail, Sash & Screen	
		Sheathing				OS DOORS	
		Finishing				IS DOORS	
						GARAGE DOORS	
		PARTITION UNIT				WINDOWS	
		Framing				MAIN STAIRS	
		Finishing				Baseboards	
		IS FINISH OS WALL UNIT					
		Insulation					
		Finishing				Total hours	8.0

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

*From booklet entitled, "Store Arrangement Principles"

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.

Store No.	Total number of items sold during observation period	Number of items quickly and easily found	Items not easily found	
			Number	Percent
1.....	912	820	92	10.09
2.....	724	662	62	8.56
3.....	575	482	93	16.17
4.....	274	261	13	4.74
5.....	64	60	4	6.25
6.....	684	658	26	3.80
7.....	898	863	35	3.90
8.....	876	667	209	23.86
9.....	1,415	1,270	145	10.25
10.....	330	295	35	10.61
11.....	888	885	3	.34
12.....	1,418	1,302	116	8.18
13.....	1,135	915	220	19.38
Total	10,193	9,140	1,053	10.33

TABLE at right shows the percentage of items difficult to procure in 13 drug stores in St. Louis, indicating need of better store layout in the average place of business.

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.

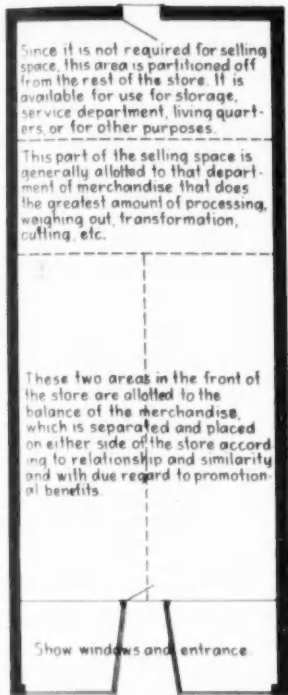


FIG. 1: Basic use of space in retail stores is shown to be divided into five areas for use according to the needs of the particular merchandise which is to be sold.

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 departmentized 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 departmentization 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 departmentization 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.

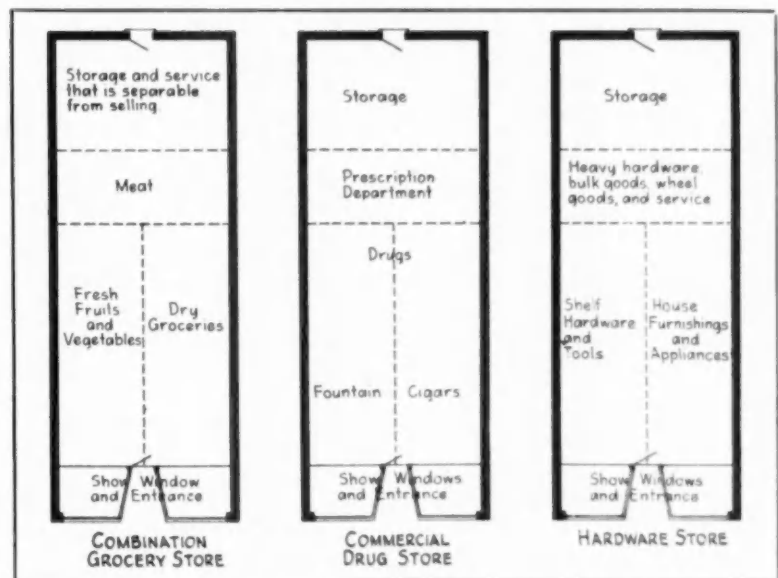
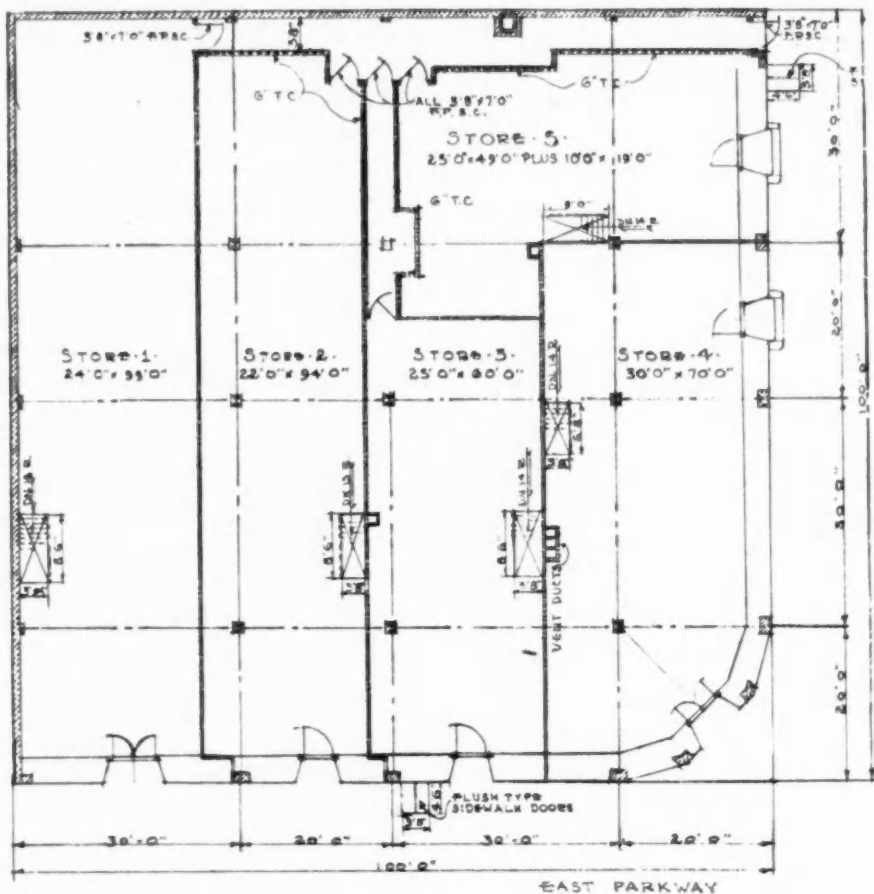


FIG. 2: Three sample layouts show how different kinds of business conform to the basic use of store space.



FOR THE THRIVING suburban town of Scarsdale, N. Y., Architect John H. Barry designed this attractive store building with space for 5 shops, each with attractive layout and location.

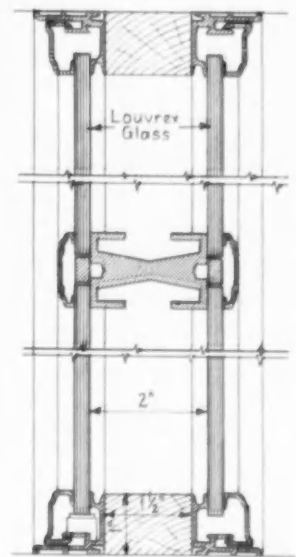
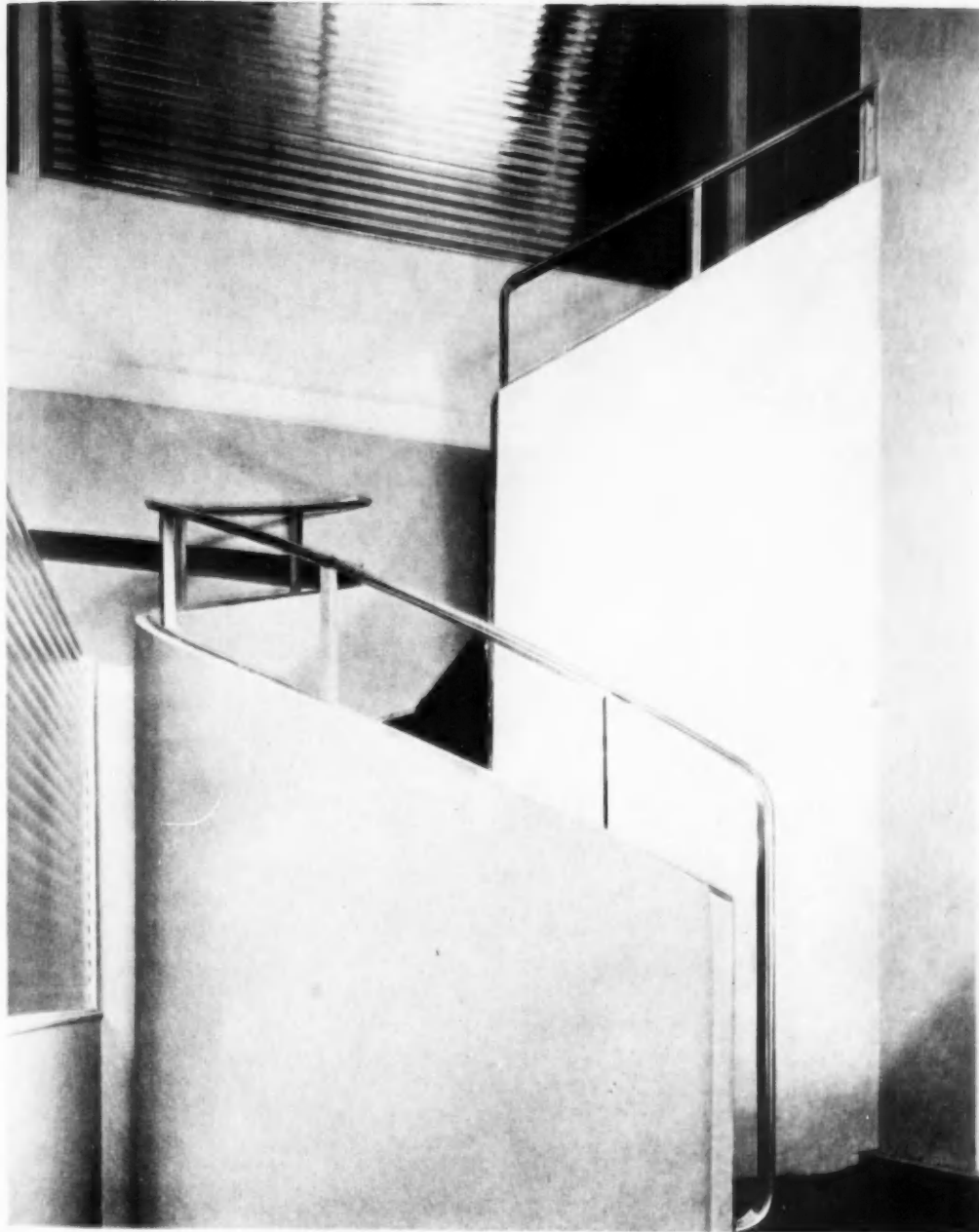


Stores For City and Suburb

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



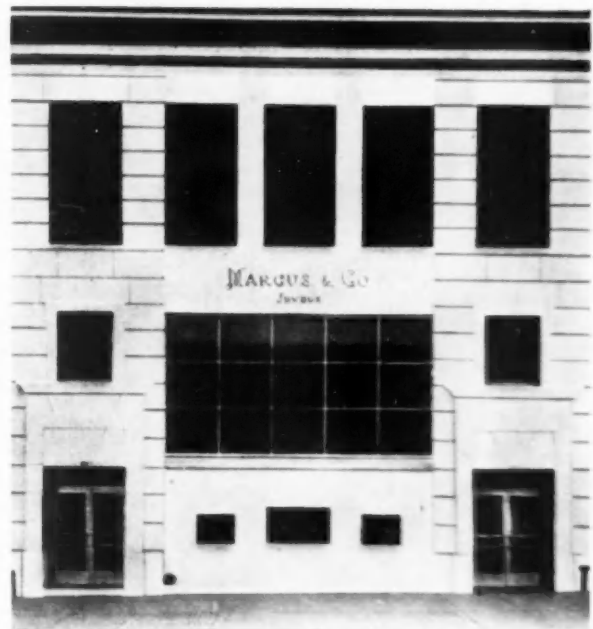
CONSTRUCTION DETAIL showing installation of new-type double-glazed glass which diffuses light, keeps out cold.

STAIRWAY in the new jewelry store of the Marcus Company, which is lighted by large panels of Louvrex glass executed in horizontal fluted effect, providing smart decorative effect and diffusing light in an attractive way. Below is seen exterior of store with new type "invisible" windows at street level, and above a 10' x 20' double-glazed Louvrex window.

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 store presenting 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

THE EVOLUTION in the design of multi-family structures which has taken place during the last ten years has not alone been confined to the larger types of houses such as row house and apartment projects, but also a good deal of thought has been given to the planning of two-family structures. One trend in this class of housing has been toward developing more residential-like exteriors so that these buildings might better fit into sections where homes predominate.

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

THE front elevation of this Chicago two-flat has the appearance of a good sized Dutch Colonial single-family house. It was designed by Architect Ervin F. Baur, Chicago.



WHEN seen from the side and rear the true size of this building is apparent. Porch and deck open off rear of living rooms and overlook the yard to the rear. Side entrance gives access to rear stair hall.



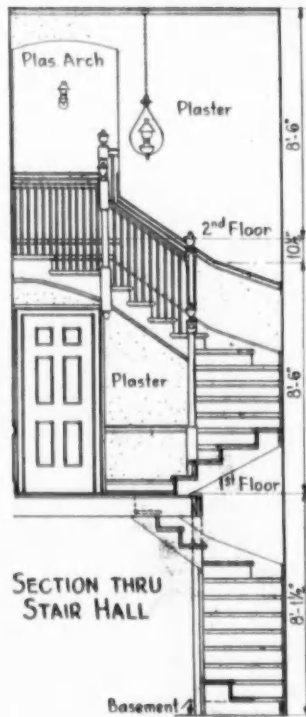
as follows: Poured concrete foundations waterproofed with emulsified asphalt; exterior walls faced with Dunbrik cement brick over a common brick back-up, furred, insulated with Sprayo-Flake and finished with 3-coat plaster on USG perforated Rocklath; Corner-Rites in all vertical corners and junctions 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-Wool 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.

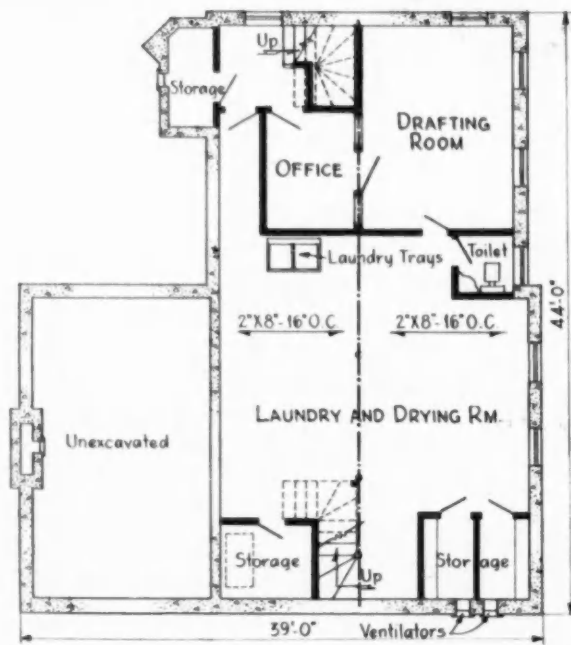
THE two-story open stair hall with winding letter S open stair gives an impression of spaciousness upon entering. This is a most unusual feature, and well handled from a design standpoint.



FLOOR plans indicate compact layout, unusual livability for this type of structure; master bedrooms have built-in wardrobe closets; cedar closets open off halls on both floors.



SECOND FLOOR PLAN



BASEMENT PLAN



FIRST FLOOR PLAN

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

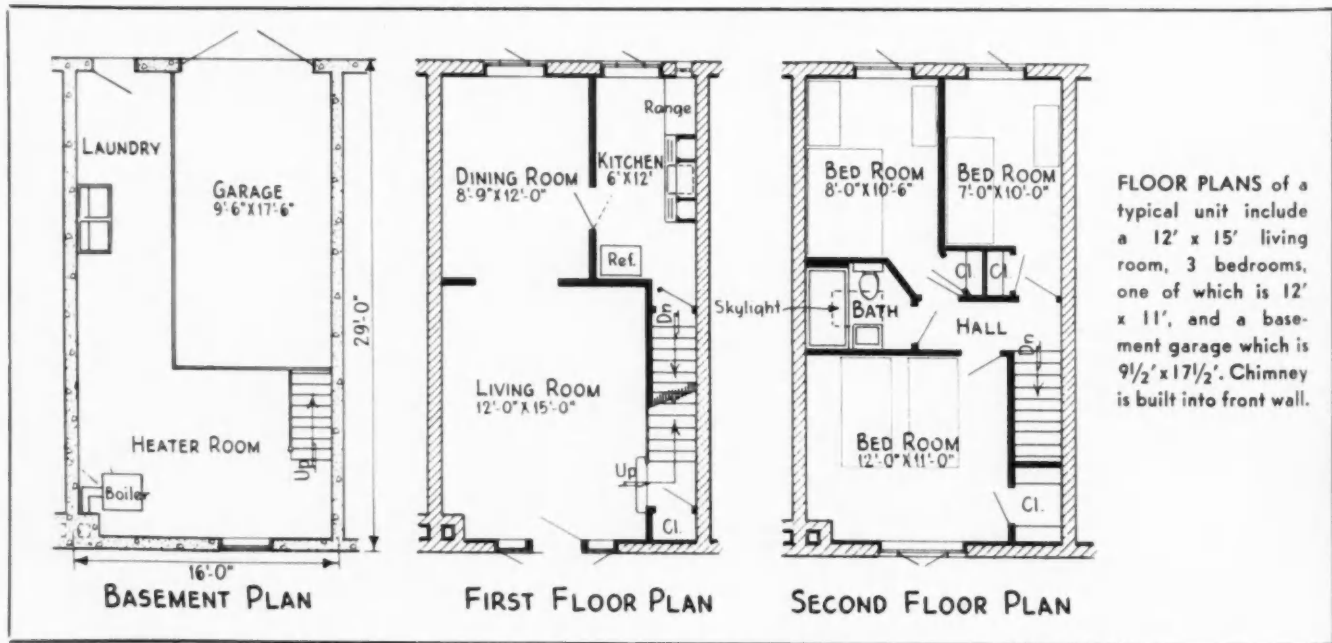
80 percent of the cost of the land and construction of the 107 Windsor houses. The mortgage runs for 26 years at 4½ percent interest. When an owner accumulates his 10 percent down payment he buys the house under the regular FHA plan, and the blanket mortgage is reduced by that amount.

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 convactor radiators. Copper pipe.

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

STEEL WINDOWS—Detroit Steel Products Co.

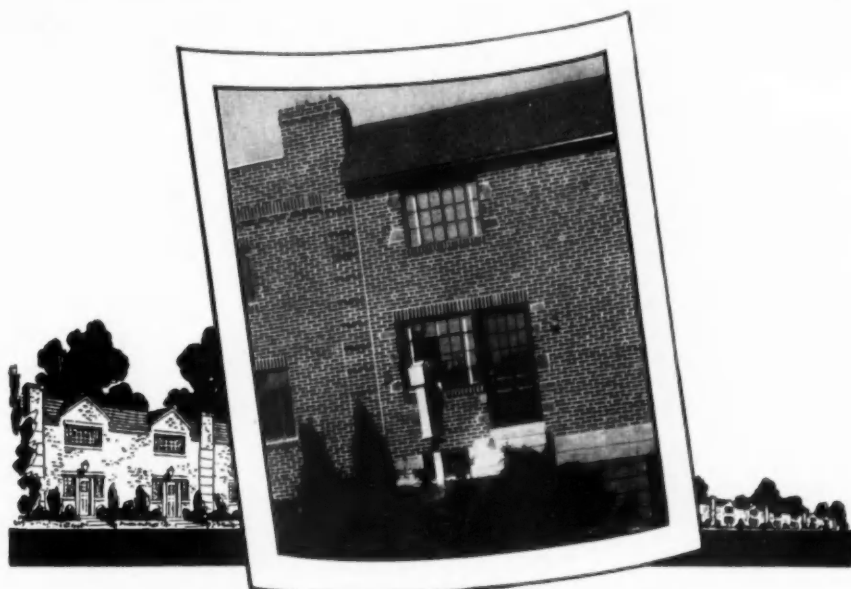
MEDICINE CABINETS—Columbia Metal Box Co.

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

PARTITION WALLS—8" concrete cinder block partition walls.

INSULATION—4" mineral wool insulation second floor ceiling.

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:	After 2 Years:
Total monthly \$41.00	Total monthly \$33.74
Saving monthly (average) \$14.18	Saving monthly \$16.67
NET monthly \$26.85	NET monthly \$17.07

SAMPLE HOME 415 Glendale Road...

TO GET THERE...

Take trolley, bus or El to 69th St. B Terminal. Walk one square to our office... 69th & Chestnut St.
Or take PRT Bus (Route D) out Walnut St. Get off at Glendale Road.
By auto... from 63rd & Spruce St. straight ahead on Spruce St (Marshall Road) to Glendale Road, just beyond 69th St.

ONLY
\$250
DOWN
Including Oil Burner
... 3 Bedrooms ...
Venetian
Blinds

Come out this week-end to see these amazing new-value homes. Be among the first to get first pick.

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.



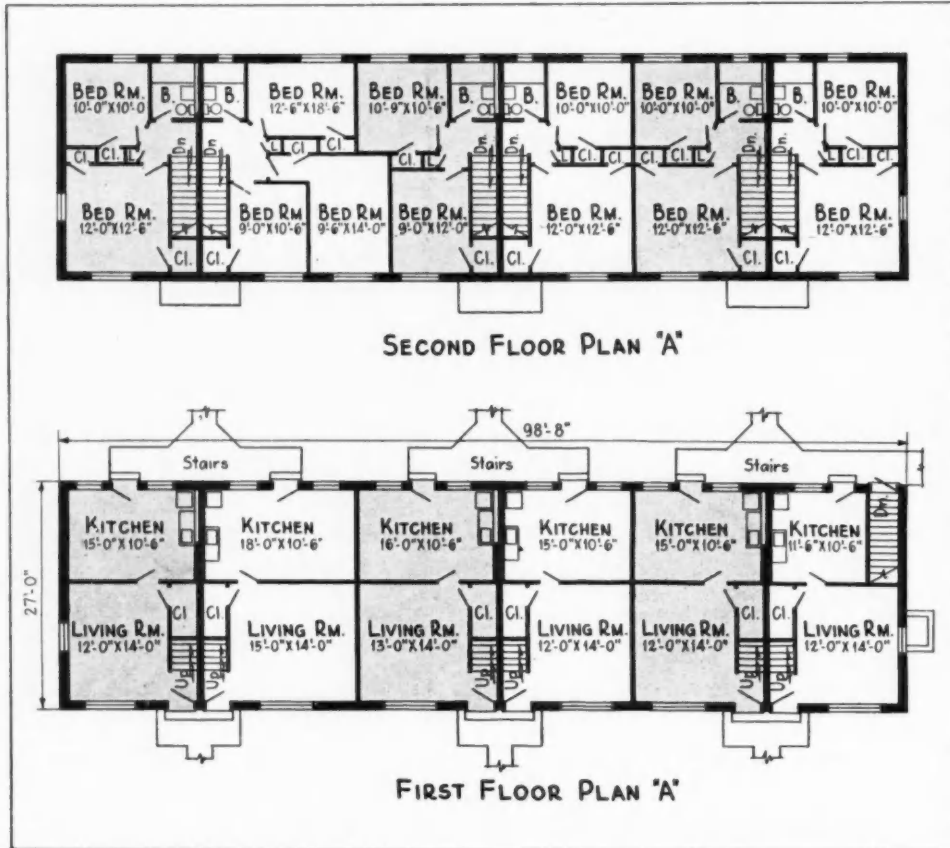
BEDROOM CORNER, showing space-saving convactor radiator, steel windows with screen, Venetian blinds.

Builder Completes Detroit Housing Project

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.

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

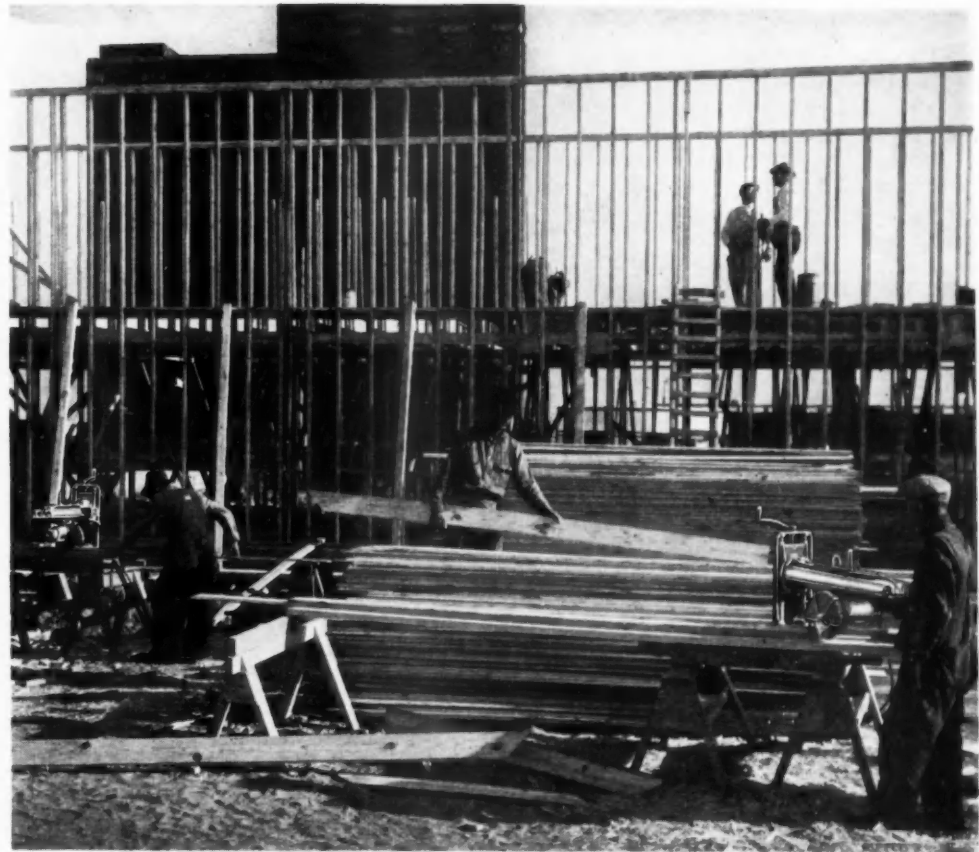


AS SHOWN in the aerial view below, there are two general types of structure in the Parkside housing project in Detroit—row house buildings of the type indicated by (A) and apartment buildings such as type (B). Row houses consist of 4- and 5-room units similar to those shown in the plans at the left.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

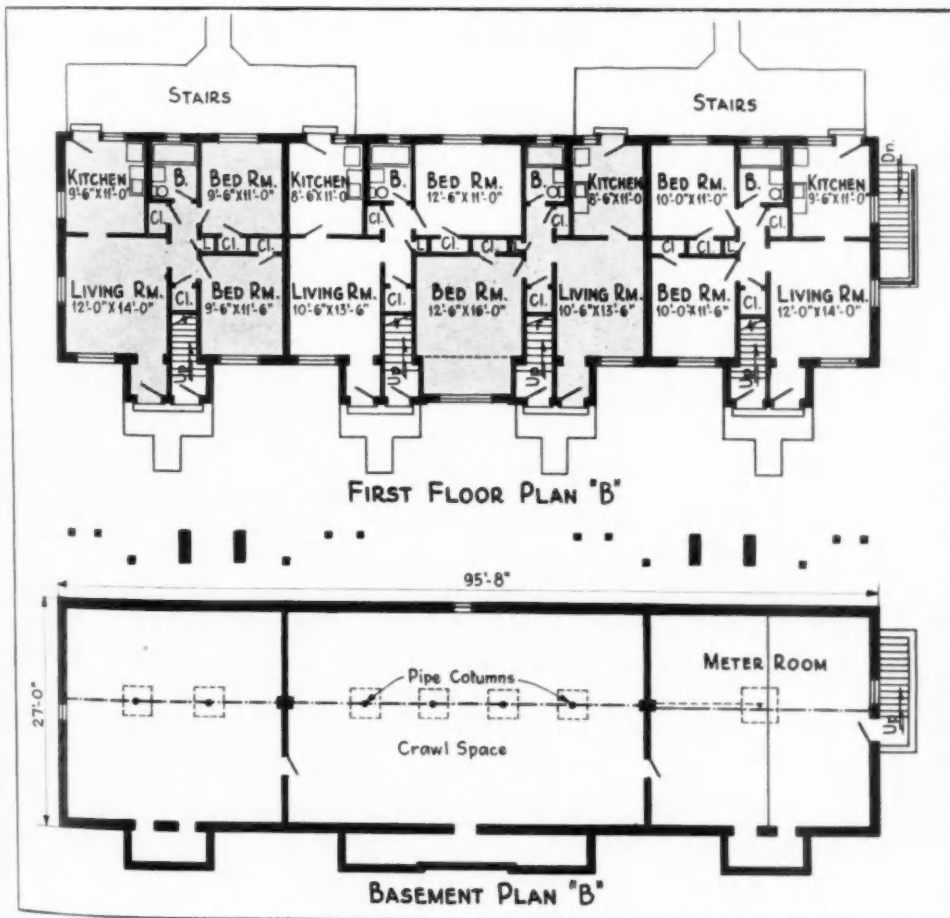


on Time and Cuts Costs with Power Tools

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.

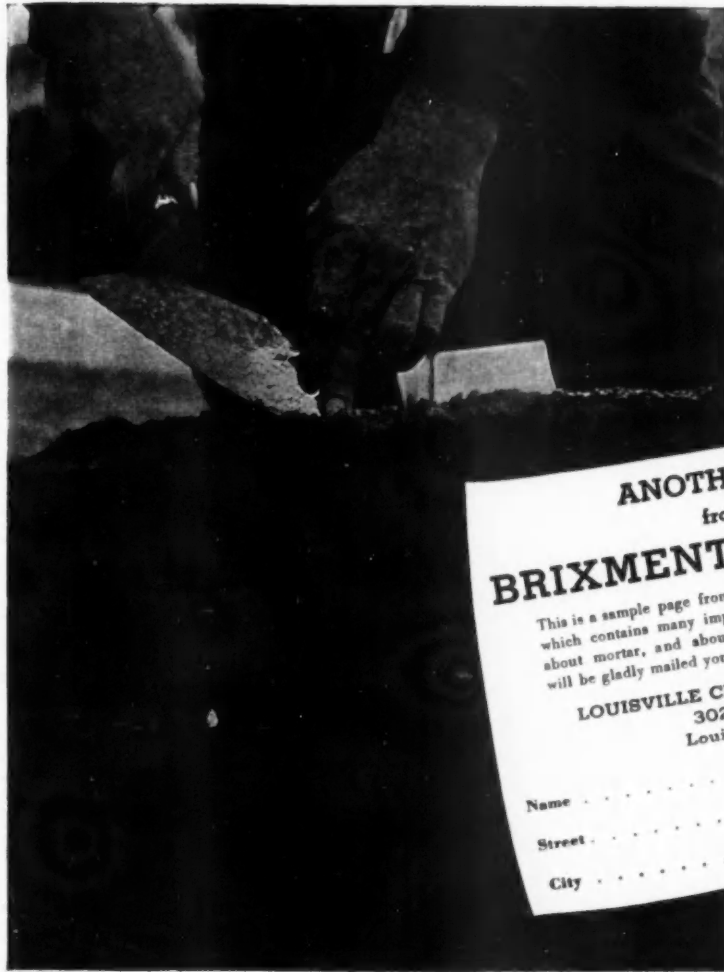
This job once more demonstrates the effectiveness of power equipment properly used to save time, material and assure completion on schedule. Other members of John Griffiths & Son Construction Co., responsible for this project are: V. A. Dillon, auditor; Wilbur M. Adams, assistant superintendent; Frank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

TYPE OF WORK	No. of Men	Hourly Output	Total Man-Hrs.	Wage Rate	Total Cost
OPERATION No. 1: One operator and two helpers ripped 2,000 ft. of 3/4" material in 3 hours from standard 6" stock to 5" in width, then fitted these boards into 5" mortises in the studding to support the second floor and roof joists, as follows:					
With Radial Saw.....	3	666 ft.	9	\$0.88	\$ 7.90
Would Take by Hand.....	2	120 ft.	33	.97	32.00
OPERATION No. 2: One operator and two helpers squared and cut to length in one hour's time, 1200 pieces of 2x4, 14 3/8" long:					
With Radial Saw.....	3	1,200 pcs.	3	\$0.88	\$ 2.60
Would Take by Hand.....	2	120 pcs.	20	.97	19.40
OPERATION No. 3: One operator and two helpers squared and cut to length, 80 pieces of 2x10 joists, 16' long, in one hour:					
With Radial Saw.....	3	80 pcs.	3	\$0.88	\$ 2.64
Would Take by Hand.....	3	40 pcs.	6	.88	5.28
OPERATION No. 4: One operator and two helpers squared and cut to length 250 pieces of 2x4 studding, 8' long, in one hour:					
With Radial Saw.....	3	250 pcs.	3	\$0.88	\$ 2.64
Would Take by Hand.....	3	90 pcs.	8	.88	7.04
OPERATION No. 5: One operator and two helpers cut a 45° mitre on one end of 600 pieces of shiplap in one hour:					
With Radial Saw.....	3	600 pcs.	3	\$0.88	\$ 2.64
Would Take by Hand.....	3	120 pcs.	15	.88	13.20

NOTE: The five examples given above are typical and picked at random from the operations of Johns Griffiths & Son Construction Co. on the Parkside housing project in Detroit. The total working time on the radial saw on these operations amounted to seven hours; the total savings amounted to \$56.50, or an average of \$8.07 per hour, and were made on the framing work only.





ANOTHER PAGE
from the
BRIXMENT HANDBOOK

This is a sample page from the Brixment Handbook—a book which contains many important, yet often little-known facts about mortar, and about brickwork in general. Your copy will be gladly mailed you, on receipt of this coupon. Address:

LOUISVILLE CEMENT CO., Incorporated
302 Guthrie Street
Louisville, Kentucky

Name
Street
City

BRIXMENT Mortar Is PLASTIC!

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 compa-

rable 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.



FRAMING MEMBERS are cut with accuracy, speed and precision.

Precut Framing

(PART II)

How to Prepare Builder's Estimate and Framing List. Further Details on Cost and Time-Saving Construction Methods Using a Power Saw

PRECUR 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.

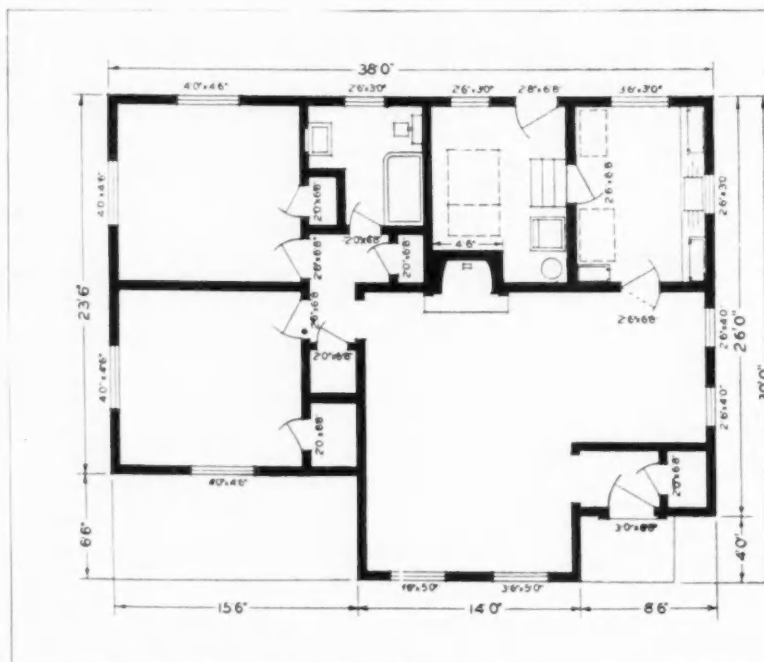
The first article on this subject (pages 80-81, March *American Builder*) describes the use of the precutting system in Southern California, where, under the direction of the West Coast Lumbermen's Association, extensive experimental and field tests were conducted in conjunction with the Building Contractors' Association of South-

ern 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.



SHORT LENGTH TAKE-OFF		Studs Replaced
Windows:	3—2'6" x 3'0"	6
	2—2'6" x 4'0"	4
	1—3'6" x 3'0"	3
	2—3'6" x 5'0"	6
	4—4'0" x 4'6"	12
Doors:	6—2'0" x 6'8"	12
	4—2'6" x 6'8"	8
	1—2'8" x 6'8"	2
	1—3'0" x 6'8"	2
Archways:	3—3'0" x 6'8"	6
		61
Partitions	- - - - -	114'6"
Exterior Walls	- - - - -	132'0"
Total Perimeter: 267'6"		
Studs: Walls	267'6" X 3/4"	= 201
Corners	9 X 2	= 18
Intersections	27 X 1	= 27
		<hr/>
Studs replaced		= 246
Total studs required		= 185
Diagonal corner bracing: 22 bdls.		
Fireblocking: 201—61 = 140 or 14 bdls.		
Plate stock: 267'6" X 3 = 803 ft.		

SIMPLIFIED METHOD for taking off framing for a typical residence.

WHY ARE SO MANY LIFE HOMES USING GAS FOR THE 4 BIG JOBS?



LIFE Home at Atlanta, Georgia.
Builder: Palmer & Sawtell, Atlanta, Georgia.
Designing Architect: Richard Koch, New Orleans, La.
Modified by Clem Ford, Atlanta, Georgia.

1st. Because Gas is clean, silent, flexible and economical.

2nd. 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.

3rd. 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

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!

MAIL ENTRY COUPON NOW!

B-6

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

Date.....

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

(Please Print)

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.....

LET
GAS
DO THE 4 BIG JOBS

COOKING
WATER HEATING
REFRIGERATION
HOUSE HEATING



To make the gas installation your facility bear the Approval Seal of the American Gas Association Testing Laboratory.

SISALKRAFT

"Better Building Paper"

for



DRY WALLS

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.

for Better



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

for **LOW COST WATERPROOFING**



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.

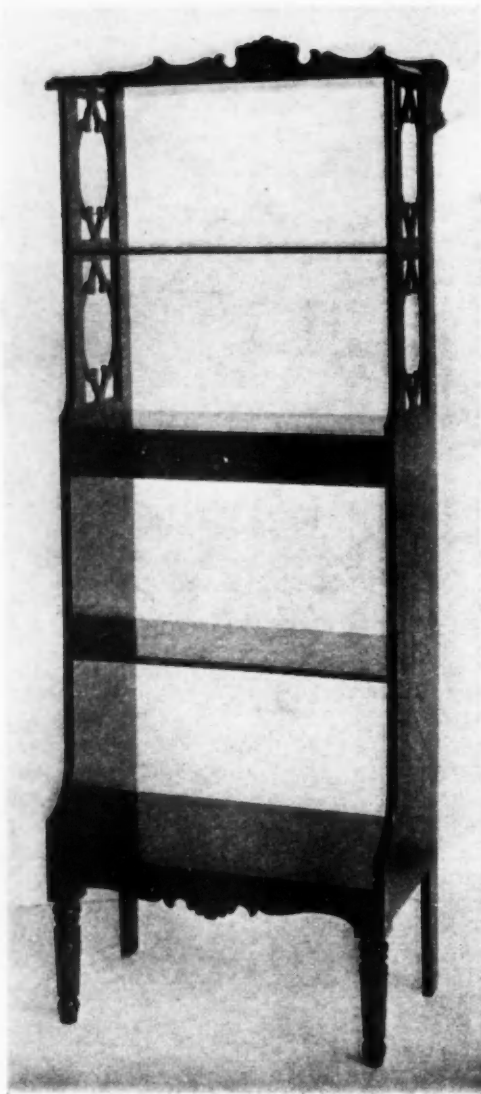
Copper-Armored Sisalkraft is lightweight pure electro-deposit copper bonded to tough Sisalkraft. It offers as much protection in concealed uses as heavy copper, at about 1/5 the cost. Lightweight copper must be reinforced to allow practical handling and intact application—that's why the sisal fibre reinforcement 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.

Write today for samples of Sisalkraft, Copper-Armored Sisalkraft, and literature showing applications of these "better building products."

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.

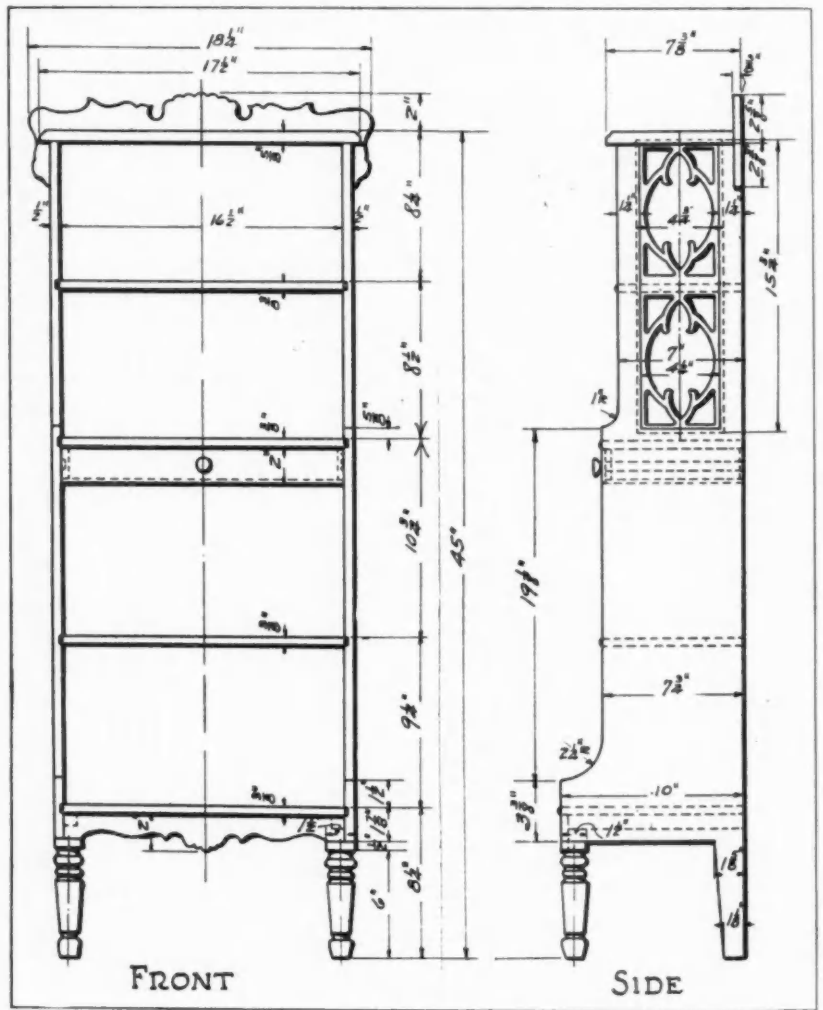
Dimensioned drawings below give necessary details and the bill of material lists pieces and sizes. The cut-out side panels, if made of 3-ply stock, resist breaking when the design is being cut out. Most any wood can be used, the selection being governed by the type of finish desired. To harmonize with 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.

BILL OF MATERIAL

No.	Name	Length	Width	Thick
1	Top	17½"	7"	⅝"
1	Shelf	17"	7⅛"	⅜"
2	Shelves	17"	7⅞"	⅜"
1	Shelf	17"	10⅛"	⅜"
2	Sides	45"	10"	½"
2	Legs (turned)	7"	1¾"	1¾"
2	Pieces	10"	¾"	¾"
1	Piece	17"	2"	⅜"
1	Piece	18½"	2¾"	⅜"
2	Pieces	2½"	1"	⅜"
2	Panels	15¾"	4¾"	¼"
1	Drawer (5 pieces and knob)			
2	Drawer Slides	7¾"	¼"	⅛"



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 home-buyer 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

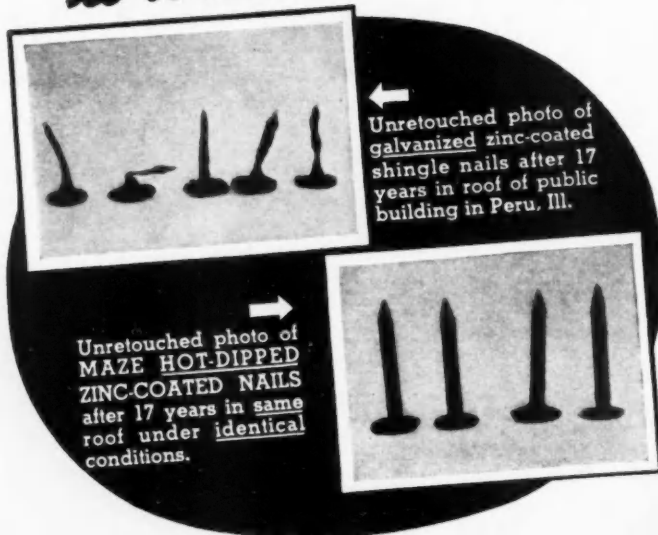
40 Rector Street
New York, N. Y.
2800 So. Sacramento Ave., Chicago, Illinois—Birmingham, Alabama

**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.

**Barrett
SHINGLES**

IT TOOK 17 YEARS
to write this ad!



CONCLUSIVE 17 YEAR TEST PROVES MONEY-SAVING SUPERIORITY OF MAZE HOT-DIPPED NAILS!

Two types of nails in the same roof—under the same conditions—for 17 years. What happens? Ordinary galvanized nails rust away—shingles are destroyed—expensive repair work is needed. Maze HOT-DIPPED Nails remain in perfect condition—preserve the roof—save many times their cost!

HOT-DIPPED—The Vital Difference!

Maze HOT-DIPPED Nails are actually *submerged* in molten zinc. They are *completely* coated—no thin spots where rust can begin. They get *heavier* coatings—two to three times heavier! Galvanized nails are merely sprinkled with zinc and then rolled or tumbled. Every man connected with roofing should recognize this vital difference! Every man should heed the warnings of Shingle Associations—use *only* HOT-DIPPED nails for shingle roofs! The photos above give the reasons why beyond the need for words!



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

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.



WORKMAN using saw on California school job.

The illustration, above, shows one of their experienced saw men on the job. He says he can do more and better work on the Multiplex. There are a number of arches and circles on the building and all circular cuts over three feet will be made on the Multiplex. Over 33,000 feet of chamfering strip were turned out on this machine in eight hours.

New Rotary Edger for Easier, Faster Work

MANY new features that are sure to please the users of edgers are included in the latest rotary edger announced by the Porter-Cable Machine Company, Syracuse, N.Y.

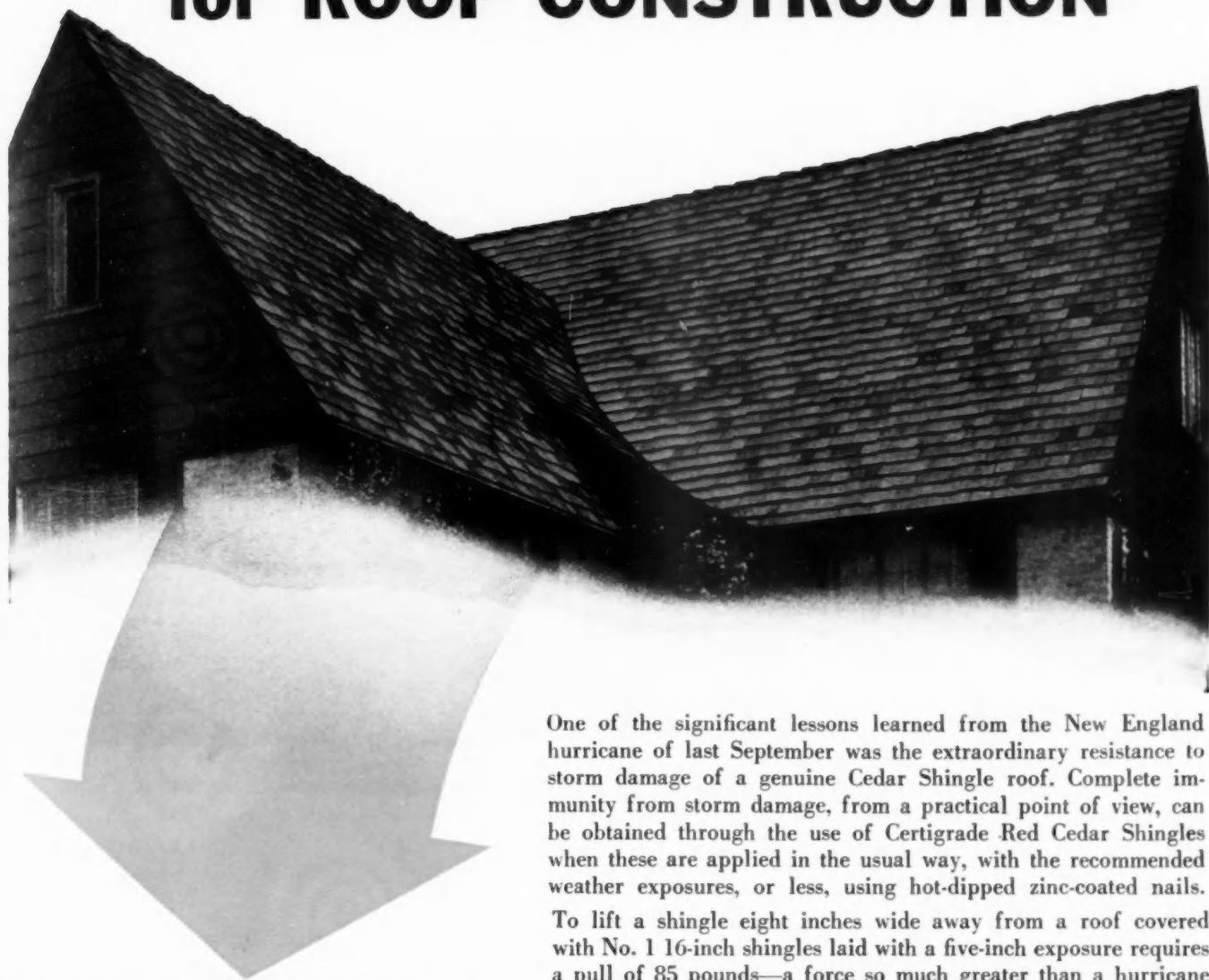
This new model is available in two sizes—7 inch and 8 inch. More than enough power is provided to maintain full speed of the sanding disc and the vacuum fan under severe loads; in fact, the manufacturer challenges anyone to stall the 1939 models.

These new Porter-Cable edgers are practically dustless. A scientifically designed intake which extends around three-quarters of the sanding disc leads the dust into the chamber where every particle is picked up and deposited in the bag by a larger fan of improved design. This fan runs at a speed of 12,000 to 15,000 r.p.m.

Quiet running helical cut gears of the same design used in the better automobiles, the elimination of all trace of vibration by scientifically balancing revolving parts, and the use of bearings larger by 50 per cent than usual, combine to make this new model edger a quiet, smooth running machine despite the fact that the

(Continued to page 110)

THE IMPORTANCE OF STRENGTH COMBINED WITH LIGHT WEIGHT for ROOF CONSTRUCTION



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

FOR GUARANTEED GRADES AND QUALITY, SPECIFY—

CERTIGRADE

Red Cedar Shingles

Certigrades pass official inspection for grade and quality. U. S. Government Standards.



Sold only by established lumber dealers.



BIGGEST NEWS IN SMALL MIXERS!

End Discharge Trailer



JAEGER
"Speedster"

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

Contractors asked for it, now Jaeger has built it—a popular priced end-discharge 3½S 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" 3½S

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



Get Our New Low Prices!

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 5S non-tilts.

We also build fast, popular priced end-discharge non-tilts in 7S, 10S, 14S sizes. Send for new Catalog SM-39.

THE JAEGER MACHINE COMPANY

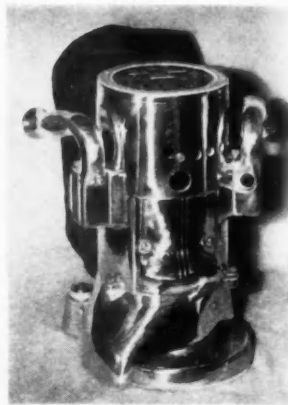
521 Dublin Ave.

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.

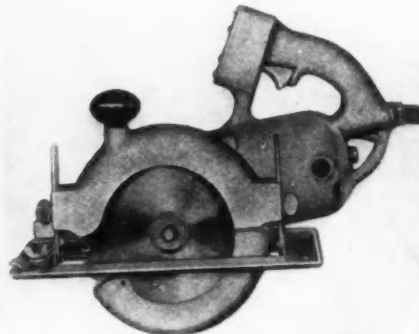
Electric Saw of Improved Design

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 1¾ 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 hand saws, cross-cut, circular saws up to 24 inches in diameter, and band saws ¼ 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.



39 out of 45 home owners SELECTED DUNBRIK

ELLIOT & KRANZ, INC.
HOME BUILDERS & SUBDIVIDERS
GENERAL REAL ESTATE
3549 BROADWAY
GARY, INDIANA,

DEVELOPERS AND
BUILDERS OF
VILLA SHORES

November 17, 1938.

W. E. Dunn Manufacturing Co.,
Holland, Michigan.

Gentlemen:

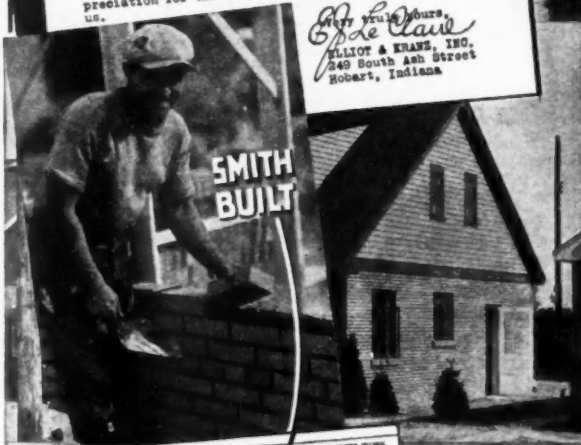
We thought perhaps you might be interested in knowing that thirty-nine of the forty-five homes built in our Villa Shores development have been built with DUNBRIK. We have found your product extremely satisfactory and very economical. The wide range of colors has made it possible for us to satisfy our most critical clients. In fact it has been the silent salesman in more than one of our sales.

Our masons say that they prefer it to the old type clay brick, saying that it is easier to handle and because of the uniformity of the brick they can turn out jobs of which they are proud.

Since using your brick we have been able to build a substantial home at a much reduced cost.

We take this opportunity to express our appreciation for the cooperation and courtesy extended us.

*Very truly yours,
Spae Clark*
ELLIOT & KRANZ, INC.
349 South Ash Street
Hobart, Indiana



ELLIOT & 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.

SMITH CONSTRUCTION CO.
217 Wisconsin Street
HOBART, INDIANA

November 4, 1938.

W. E. Dunn Mfg. Co.,
Holland, Michigan

Gentlemen:

I have used DUNBRIK in the construction of 27 houses in a subdivision in Hobart this summer, and am very well satisfied with them.

I have found them very straight, square, and uniform in size, making them quick and easy to lay in the wall. Their low cost, in comparison with clay brick, make them the ideal building unit.

Please send me complete information in regards to cost of machinery to manufacture this brick in this district. Please give this matter your early attention, and oblige,

Arthur B. Smith

STANDARDIZED DUNBRIK PLANT



W. E. Dunn Mfg. Co.
450 West 24th St.
Holland, Michigan.

"Show Me" Coupon

4-39

- 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".

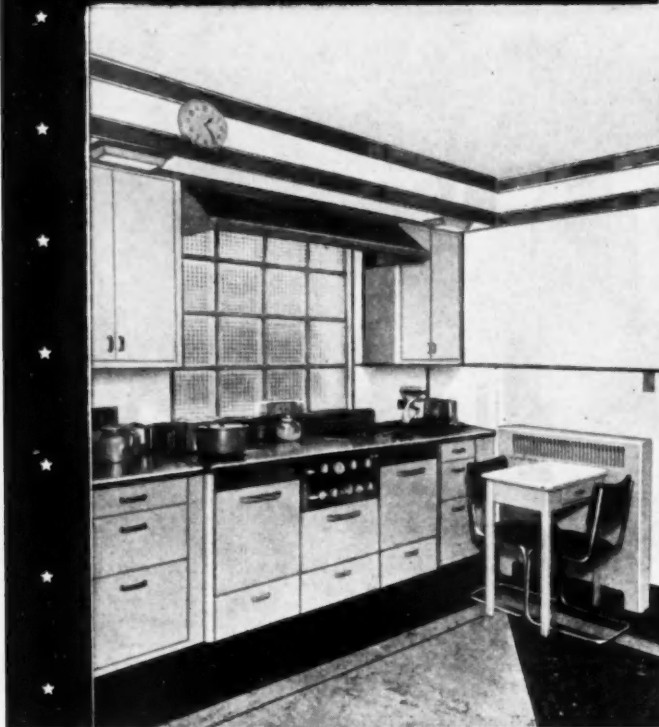
Name

Address

City..... State

MOTT BROS. FOUND

Marlite PUTS SALES PUNCH INTO
TWO KEY SPOTS IN EVERY HOUSE!



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

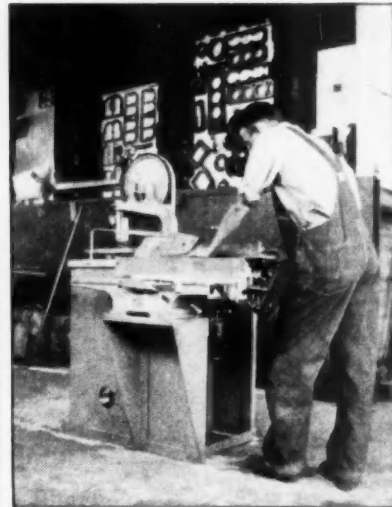
Marlite
FOR CREATING BEAUTIFUL INTERIORS
WALL-SIZE PANELS IN LUSTROUS COLORS AND PATTERNS

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 table saw, 6-inch jointer, borer and mortiser, dado heads and all types of moulding cutters. All attachments run off the single power unit.

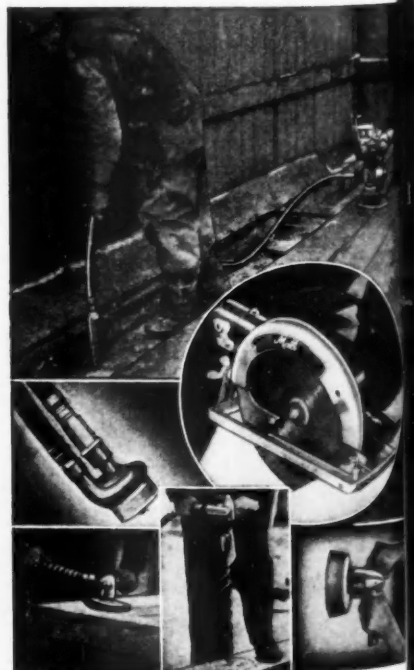


CRAFTSMAN using combination woodworker which handles numerous jobs run from a single power unit.

"Jack-of-All-Trades" Gas Engine Unit

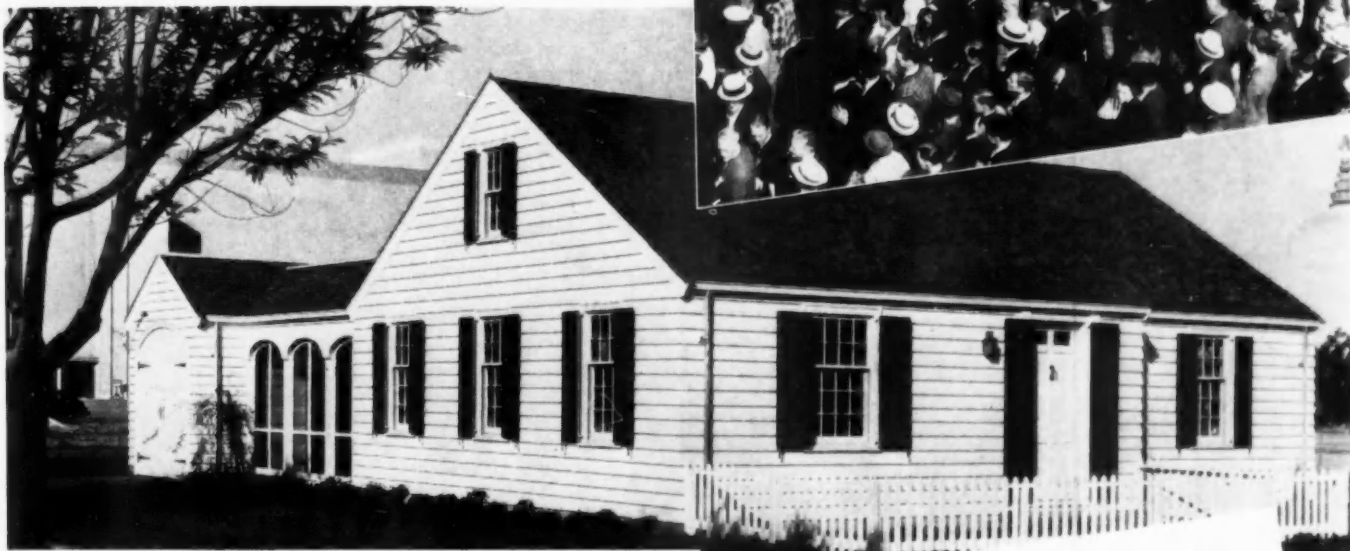
THE Mall Tool Company, Chicago, Ill., has announced a new 1 H.P. gas engine flexible shaft machine, known as the "Jack-of-All-Trades." Electric wires, generator sets, or air compressors are not necessary to operate it. The power is developed by the gas engine and delivered to the working tool by means 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 surfacing, sawing, drilling, grinding, wire brushing, form sanding 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.



PORTABLE gas engine unit, known as "Jack-of-all-Trades," takes attachments to do several kinds of construction work.

60,705



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

_____ ***THESE 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.

THE AMERICAN
FLOOR SURFACING MACHINE COMPANY
511 So. St. Clair Street • Toledo, Ohio

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.....

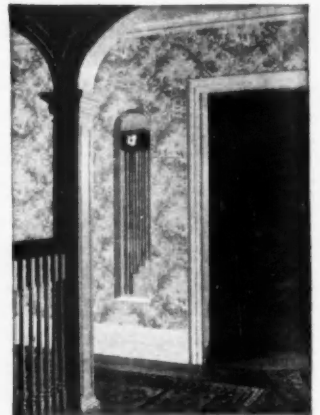
Electric Door Chimes

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.



ELECTRIC door chimes with two and four tubes.

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, as specified) with chromium finish. The colored plastic inserts will not chip, fade or peel and may be cleaned easily.



NEW line of chromium finished hardware with colored plastic inserts shown mounted on demonstrator.

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 Armstrong'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.



RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

Armstrong's **LINOLEUM**
and **RESILIENT, NON-CERAMIC TILES**

CORK TILE • LINOWALL • ACOUSTICAL CEILINGS

**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 com-

plete, accurate and rapid estimating system—with area, lineal 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 \$3,000,000 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

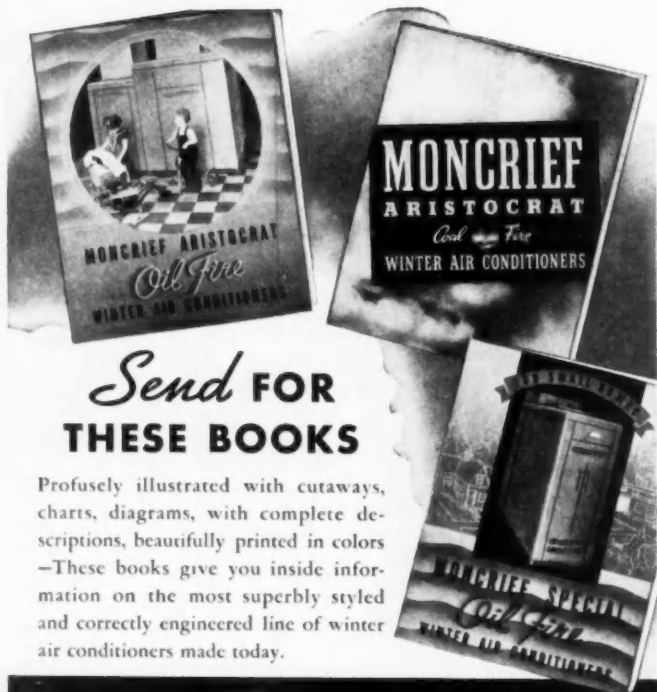
I enclose check () money order () for \$5.00 to secure one copy of TOMORROW'S HOMES.

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

Name.....

Address.....

City..... State.....



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.



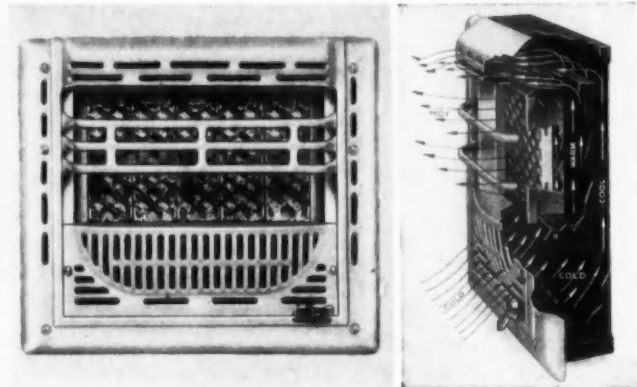
Moncrief Winter AIR CONDITIONERS

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

(Continued from page 114)

vides an outer jacket cooled by circulating air to give a high type of insulation (see cut-away view below). In addition to positive circulation, the radiation is intensified by the use of permanent lustre reflectors. All models are of the same style, the only difference being in the radiant capacity. They are available in white, mahogany porcelain enamel, and also may be had to match any Standard Sanitary or Crane Co. fixture color.



ABOVE, left: Large size radiant gas wall heater of double capacity for large- or full-size rooms. Right: Cross section view showing direction of air flow.

New Metal Venetian Blinds

THE Chicago Venetian Blind Company, 3921 S. Michigan Avenue, 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. Frequent cleaning will not injure the sparkling baked enamel finish; thus the need for painting or refinishing is eliminated.

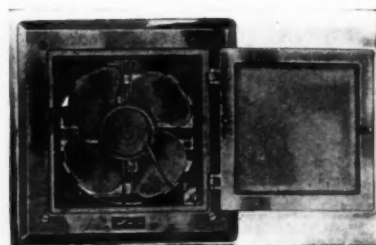
The "Alumilite" blind is composed of aluminum slats treated by the Alumilite process which eliminates all painting. Periodical cleaning with a cloth keeps the blind fresh and beautiful and the attractive neutral gray finish will last indefinitely.



NEW venetian blinds with metal slats.

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.



KITCHEN ventilating fan of increased efficiency.

SPLASH!



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 lustrous, 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 rigidity 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.

CLIP AND MAIL THIS COUPON FOR FREE SAMPLE

COPYRIGHT 1939. MASONITE CORPORATION

FREE!

It's Right
MASONITE

MASONITE

THE WONDER WOOD OF A THOUSAND USES
A MISSISSIPPI PRODUCT SOLD BY LUMBER DEALERS EVERYWHERE

MASONITE CORPORATION, Dept. AB-16
111 W. Washington St., Chicago, Ill.

Please send me a free sample of MASONITE COLORED BOARD in
 Oyster White Green Ivory Buff

Name _____
 Address _____
 City _____ State _____



WE'RE SELLING YOU TO AMERICA

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.

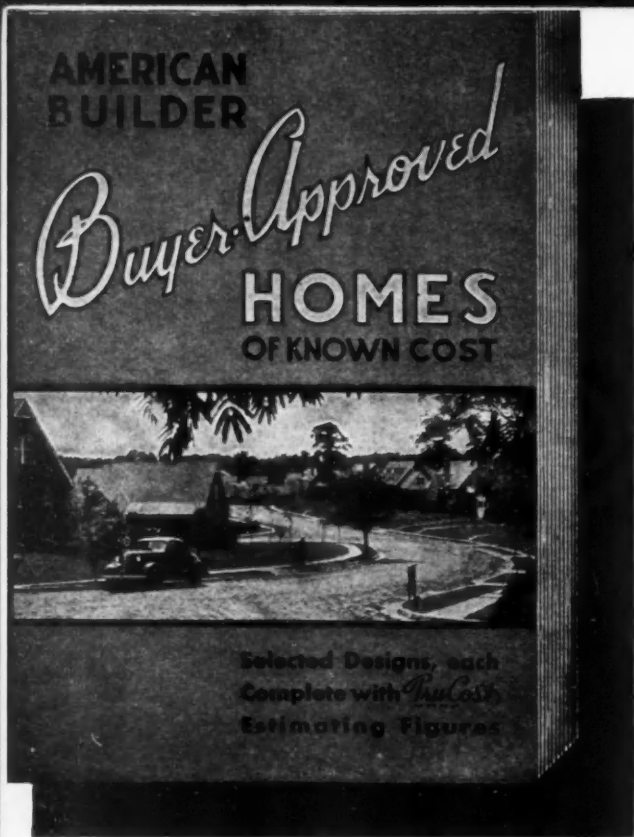
Please send me a free copy of "How to Buy a Better Home" and tell me how I can use it in my own selling.

Firm Name.....

Address.....

City.....State.....

By.....



This New Plan Book

Describes
Illustrates
Diagrams
"TruCosts"

96 Homes of Outstanding Popularity

Each Home Design
Is Accompanied by
COMPLETE TruCost Estimating Figures

In Two Groups

I

Medium Size and
Better Homes

II

Low Cost Homes

WITH ADDED
CHAPTERS ON

Duplexes and
Apartments
Summer
Cottages
Interiors
and Home
Arrangement,
including
Model Kitchens
Playroom Basements
Adequate Electric
Wiring, etc.

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

Modern Cottage with Plywood Interior

Early California Ranch House

Popular Detroit Style 6-room Home, one bedroom downstairs

Reading Triple-Insulated Home, with garage, extra bedroom and bath in Ell.

Impressive English Style Stucco Home at Cedar Rapids

Working Plans of W. C. Tackett Modernistic Home near Chicago

Modernism in Brick—advanced design in excellent taste

A Port Chester Cottage that Hugs the Ground

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

White Plains "Picture Home"

II—Low Cost Homes of Charm and Appeal

Small Colonial Beauty at Glastonbury, Conn.

Mass Production Methods at Clairton, Pa.

\$40,000 Quality in a \$6,000 House

The "Westminster" English Design

Attractive Shingled LaPointe Model Cottage

Low Cost Texas Home

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 eight pages of new ideas for Interiors—Kitchens, Basements, Bath-rooms, Stair Halls, etc. How Built-In Mirrors Build Up Profits for Builders. How Planning Saves on Plumbing Costs.

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, 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

4-39

*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
12. TruCost Estimating Tables for the Designs illustrated in "American Builder Buyer-Approved Homes"

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."

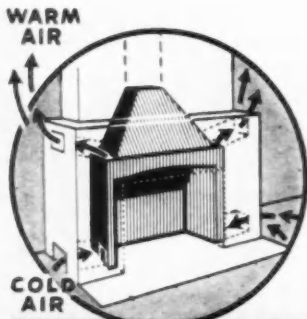
"Say, I discovered something that day. It was a lot easier for the masons. And it turned out to be the best fireplace they had ever built. Believe me, I build every fireplace I can around the Heatilator now. It ends all my worries about fireplace-smoking. And it pleases the house owner, too—because the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



HEATILATOR Fireplace

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

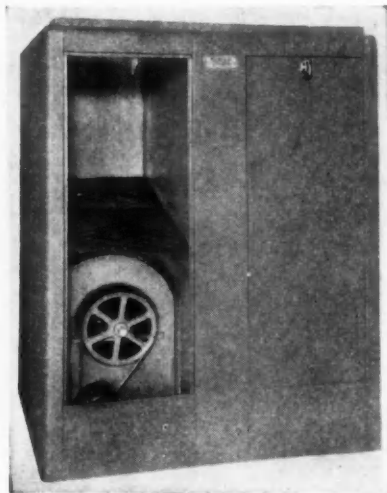
Please send me complete details and installation data for the Heatilator Fireplace.

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

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-crack 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.



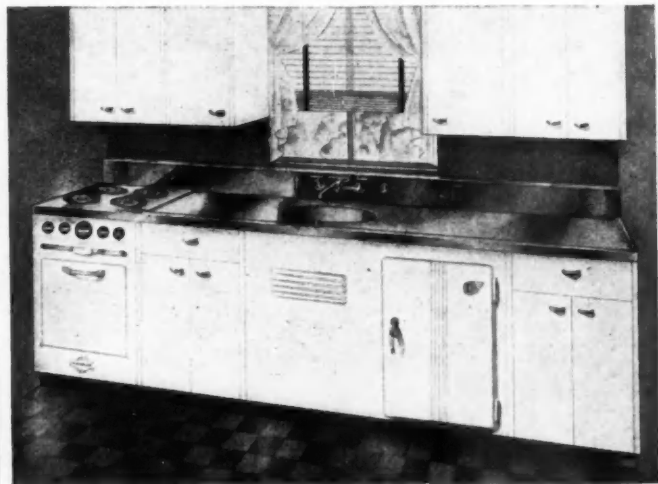
GAS-FIRED winter air conditioning unit with panel removed to show filters and fan.

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.



COMPLETE kitchen equipment combined in one unit.

YOU OUGHT TO SEE MY APARTMENTS...THEY'RE DECORATED WITH MODEX CASEIN PAINT

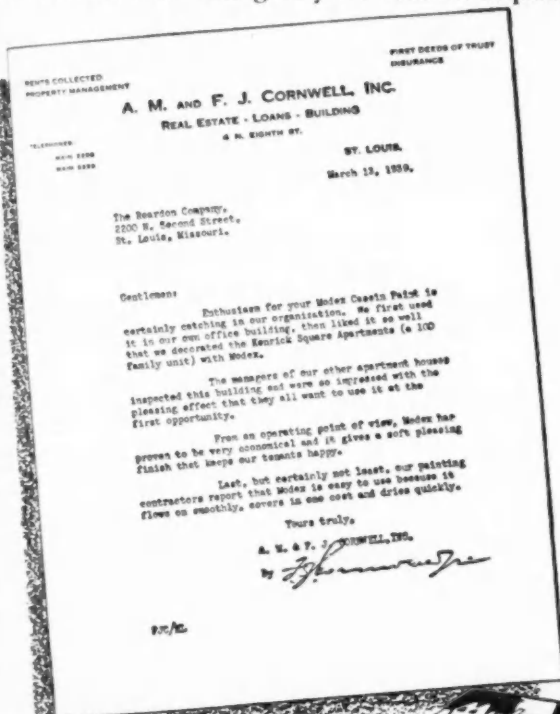


Lady Managers Praise Pastel Colors Owners Note MODEX Economy "Easy to Use"—Say Painters

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.



THE REARDON COMPANY
St. Louis • Chicago • Los Angeles • Montreal

Modex



THE CONCENTRATED CASEIN PAINT IN POWDER FORM

SAVE 20% TO 30% with this NEW, LOW-PRICED DE WALT 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 DeWalts—"DeWalt paid for itself right from the start!"

If you plan to build two 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

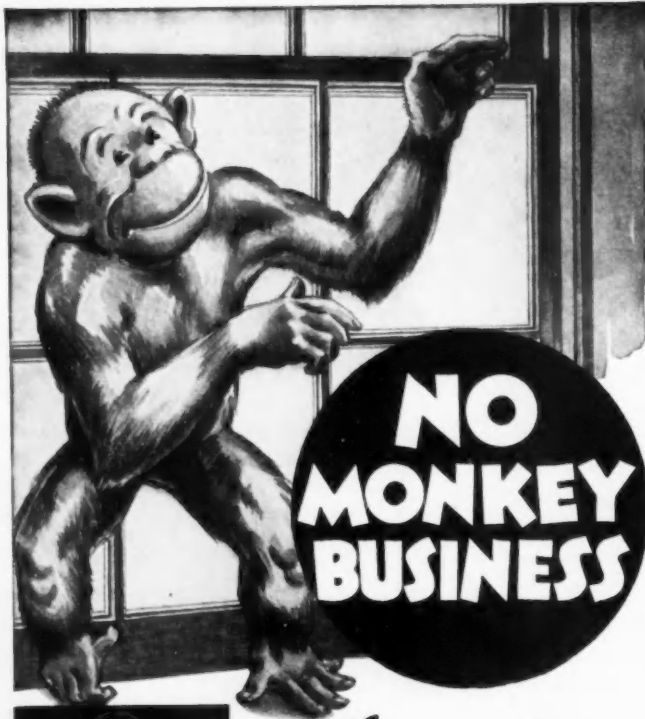
DE WALT
325 Fountain Ave. PENNA.
LANCASTER,

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



When You SPECIFY

"GRAND RAPIDS" STEEL SASH PULLEYS

for the New Narrow Trim or Standard Installations

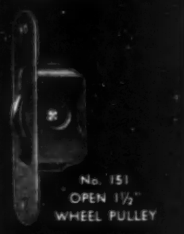
Assuring permanently smooth, easy, trouble-free operation of windows with narrow trim frames, presents no problem when "GRAND RAPIDS" specially designed sash pulleys are used. "Monkey work is out!"

These new "GRAND RAPIDS" pulleys are as dependable and practical as the nationally known standard "GRAND RAPIDS" line . . . designed and built by America's oldest and largest manufacturer of sash pulleys.

Send for a new bulletin we have just prepared on narrow trim pulley installation. It's complete and practical. Ask for bulletin No. NT-1.

Write for
SPECIAL BULLETIN ON NARROW TRIM INSTALLATIONS

GRAND RAPIDS HARDWARE CO. GRAND RAPIDS, MICHIGAN



"GRAND RAPIDS" STEEL SASH PULLEYS

The Standard of Quality for 40 Years

New Attic Fan Units

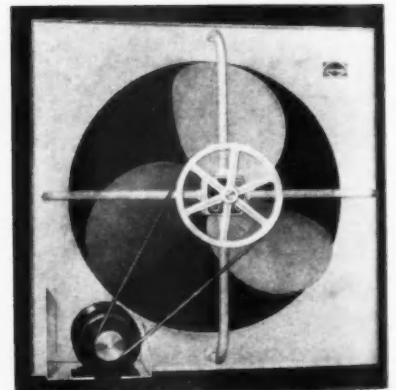
THE Dallas Engineering Company, Dallas, Texas, manufacturers of fine home cooling units, has recently introduced the Modern-air line of attic fan units, a much improved model over those previously made by them. This new attic fan unit has an all-steel welded frame construction; it cannot be bent or shaken, 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 Auto-vent 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.

PUTTY knife with long life.



Backed By A Nation-Wide Sales Installation Service



THE DOOR WITH THE

MIRACLE WEDGE

Blends with every type of construction

OVERHEAD DOOR CORPORATION

HARTFORD CITY, INDIANA, U. S. A.

CLIP THIS COUPON and MAIL NOW

MADE IN ANY SIZE AND FOR ANY OPENING.
ELECTRIC OR HAND OPERATION

Please send me literature and full information regarding your product.
I am interested in doors for the particular purpose as checked.

Name _____

Address _____

City _____ State _____

Mail to: OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.

PRIVATE GARAGE
PUBLIC GARAGE
WAREHOUSE
GREASING STATION
WOOD DOORS
STEEL DOORS
FACTORY DOORS
OTHER BUILDINGS
ELECTRIC OPERATORS
AB-4-39

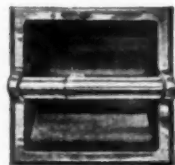
Beautify Bathrooms with MIAMI Cabinets

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 nicked, then covered with hard chromium. There is a Miami Accessory for every modern bathroom requirement, both recessed and projection types.



Model 6002
Paper Holder—
Chrome Roller



Model 5005—Soap Dish
Model 5006—Soap Dish
with Drain Holes



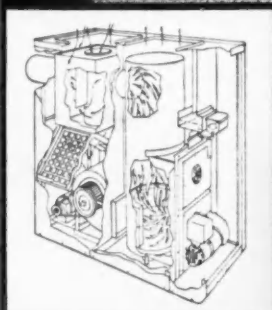
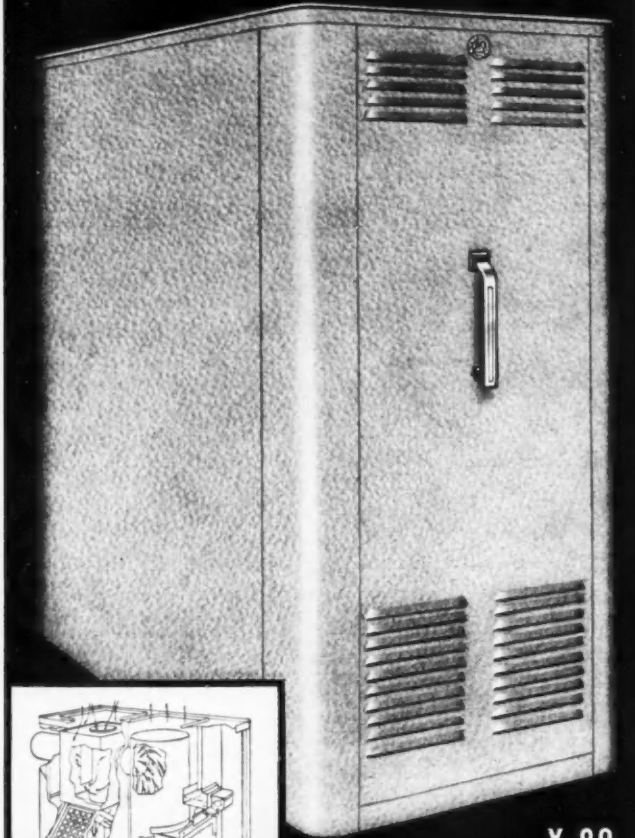
Model 5009
Tooth-Brush
Holder



Model 6004
Combination Soap
and Grab Bar

MIAMI CABINET DIVISION The Philip Carey Company MIDDLETOWN, OHIO

A GREAT ADVANCE In Small Home Heating



**X-80
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.



ROUND OAK

**STOVES • RANGES • FURNACES
OIL BURNERS • AIR CONDITIONERS**

The Round Oak Company, Dowagiac, Michigan—Dept. 439.
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. This total 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 combined 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 \$140,276,000, 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 public residential building."

The 1939 record of private residential construction reveals the fact that in the multiple-family dwelling type, comprising many large-scale rental housing projects insured by F.H.A., the cumulative dollar gain over last year at the end of February amounted to 176 per cent. For the same period, the dollar gain in the small house field consisting of privately-owned one 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, 1938 figure which amounted to \$102,990,000. The cumulative record 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:

37 Eastern States	Mar. 1-22, '39	Mar. 1-22, '38	March, 1938
Residential	\$ 82,421,000	\$ 50,916,000	\$ 79,390,000
Non-Residential	64,648,000	50,367,000	87,823,000
Public Works.....	41,440,000	29,909,000	49,005,000
Utilities	13,121,000	6,769,000	10,694,000

Total

\$201,630,000	\$137,961,000	\$226,918,000
---------------	---------------	---------------

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, is the announcement that California Redwood Distributors (Ltd.) 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, 122 East 42nd Street, New York City.

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

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

All present district managers, wholesalers, commission men and 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 will make possible better service to the trade under all conditions for, with their combined operations and timber resources, they

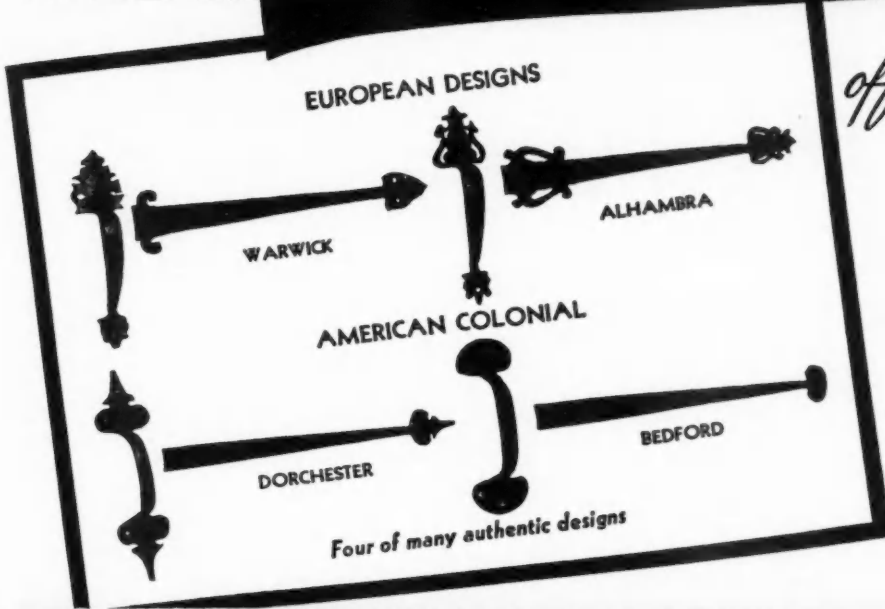
(Continued to page 126)



McKINNEY

**Forged Iron
HARDWARE**

offers Everlasting Beauty



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.

DESIGNERS AND MANUFACTURERS OF GOOD HARDWARE FOR 73 YEARS



**"PAID For ITSELF
...In Just FIVE DAYS!"**

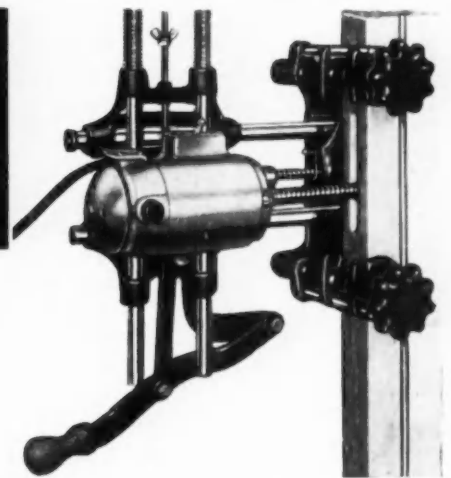
**How a Mid-Western Contractor
Is Piling Up BIG PROFITS
with a Carter Lock-Mortiser**

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.



**GET The FACTS On This
MONEY-MAKER Now!**

R. L. CARTER DIVISION, The Stanley Works,
133 Elm Street, New Britain, Conn.

Please rush complete literature on the
Carter Lock-Mortiser.

Name.....

Address.....

City..... State

★ Uniform Automatic Feed prevents overloading motor.

★ Just 4 quick adjustments for lock-size change-over.

★ Every mortise parallel with sides of stile, and exactly centered.

★ Just 30 seconds to cut —A mortise-a-minute, and only 90 seconds for complete change in size of mortise.

CARTER MONEY MAKING TOOLS

Help yourself to prosperity by mailing this coupon **NOW**

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



Kwic Kost

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 3/4" x 6 3/4" Looseleaf and contains all TruCost tables.

MAIL THE COUPON TODAY.

Money back if not satisfied.

Holt Publishing Company

LUMBER EXCHANGE, MINNEAPOLIS, MINN.

(Continued from page 124)

need never be a time when ample stocks and full assortments will not be available to the trade in any quantities desired.

California Redwood Distributors (Ltd.) enters the field with an outstanding personnel, the combinations of whose energy, knowledge and acquaintanceship should assure to the trade perfect service in every way. Carl Bahr, general manager, comes to the new organization from the California Redwood Association, which he has directed so successfully for the past three years. Frank R. Adams, as vice president and sales manager, has been the dynamic force behind the sales promotion effort of the Pacific Lumber Co. of Illinois for many years, and in this work has been ably seconded by Harold Bendorf, his assistant sales manager. W. E. Rutledge, of New York, as vice president and eastern sales manager, George Knab as central sales manager, and F. L. Brown, both of Chicago, have been in charge of eastern distribution for the Hammond Lumber Co. (Inc.) for a number of years, and through their efforts have made that company's name and product familiar to redwood buyers and users generally throughout the East.

Report on Pending FHA Legislation

REGARDING the status of FHA legislation, the House Banking and Currency Committee reported out to the House on Mar. 25 H. R. 5324, which takes the place of H. R. 3232. This bill has the following provisions:

1. Extension of Title I until July 1, 1941.
2. Extension of the restoration and rehabilitation clause of Section 6.
3. Limitation of the amount of insurance to \$2500 for both modernization and new structure loans.
4. Time limit of 3 years and 32 days on modernization loans. On new construction loans the time limit is left open, subject to regulations of the Administrator.
5. Premium charge not to exceed 1 per cent; the Senate subcommittee bill carries 1/2 of 1 per cent premium charge. The House committee bill, as reported out, states the premium shall not exceed 1 per cent.
6. Increase of mortgage insurance fund under Title II from three billion dollars to four billion dollars, subject to approval of the President.
7. Extension indefinitely of 25-year amortization period under Title II, by striking out "July 1, 1939."
8. Continuation of refinancing.
9. Removal of President's authority to terminate Title I, if he decides the emergency no longer exists.

Celotex Creates Dealers' Sales Service

THE Celotex Corporation has announced the appointment of David P. Livingston as manager of a newly created Dealers' Sales Service Department. Purpose of Mr. Livingston's activities and functions of the new department is to show dealers how to increase sales of company products by closely co-ordinating their sales efforts with company advertising and sales promotional activities. Among other functions, the department will act as a clearing house for sales ideas which have been gathered from the field.

The creation of this brand new department is thought to be a distinct departure in merchandising technique from usual methods now practiced by manufacturers supplying the building materials trade. Specifically, the department plans to study the problems of retail dealers in helping them move more merchandise from shelves to consumers. At the same time it is planned to dovetail dealer sales efforts and company promotional activities in order to produce the greatest volume of sales per dollar expended for sales promotion and advertising expenditures.



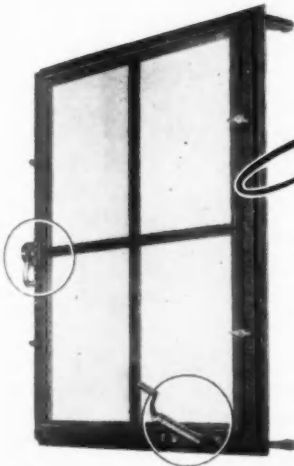
DAVID P. LIVINGSTON, manager of Celotex Corporation's newly created Dealers' Sales Service Department.



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!

Write today for the big, free Mesker Handbook of Steel Sash that makes it easy to buy and sell steel windows.

State whether you are a dealer or a contractor.

Mesker

SINCE 1879

MESKER BROS., 424 S. SEVENTH ST., ST. LOUIS, MO.

Houses Sell Faster with
RITTENHOUSE
ELECTRIC
DOOR-CHIMES



Photo shows President Model Rittenhouse Chime installed in House Beautiful's Bride's House. Also installed in P. E. D. A. C. House of Homes in Radio City, N. Y. Selected for "Homewood—the All-Gas-Good Housekeeping House" at the World's Fair.

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 P.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.

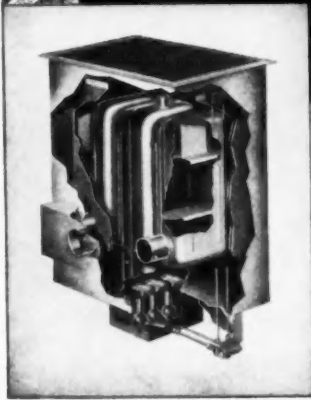
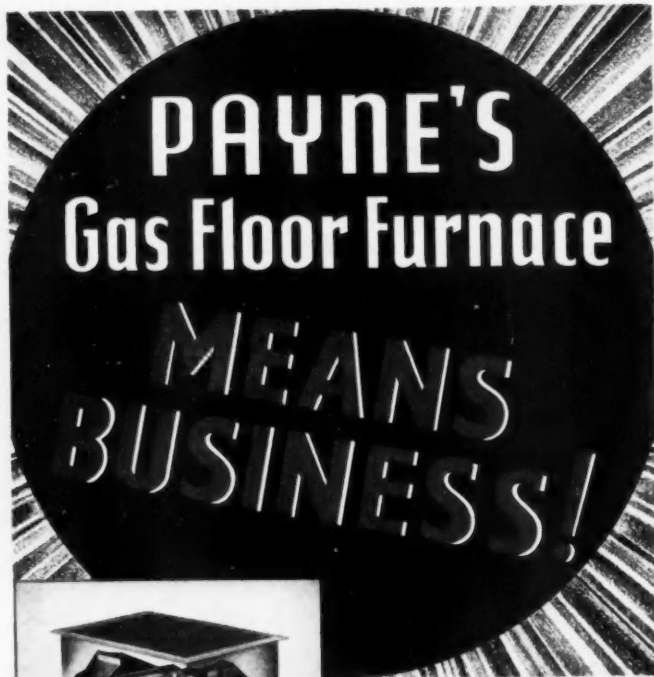
RITTENHOUSE
ELECTRIC DOOR-CHIMES

The A. E. RITTENHOUSE CO., INC.
Dept. 204, Honeoye Falls, N. Y.

Send folder describing complete line of Rittenhouse Door Chimes.

Name _____

Address _____



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.

Put Payne's gas furnaces to work for you. They'll help you to deliver the trouble-free comfort the home buyer 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 FURNACE & SUPPLY CO., INC.
BEVERLY HILLS • CALIFORNIA

FLOOR FURNACES • CONSOLES • FORCED AIR UNITS
DUPLIX FURNACES • UNIT BASEMENT FURNACES
WINTER AIR CONDITIONING EQUIPMENT

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 conceptions 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, Ill., 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.



City Hall, Denver, Colo.
Walsh Bros., Denver, Plastering Contractor. Ohio White Lime Finish and Ohio Ritewall Lime Plaster Used.

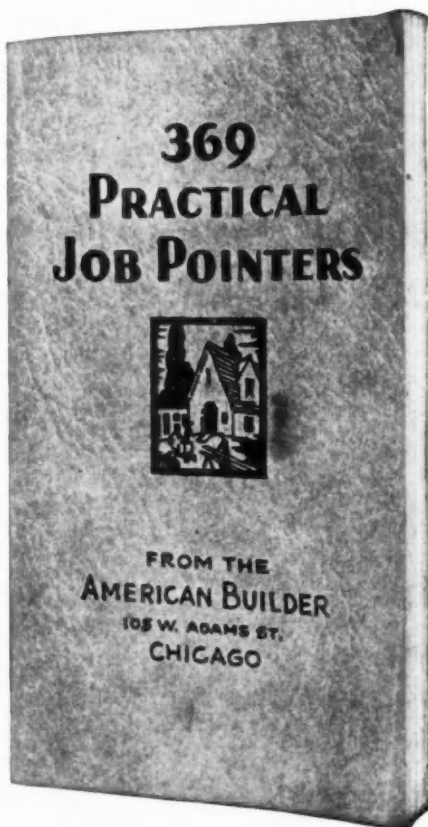
The Original OHIO WHITE LIME FINISH

Buildings of Distinction

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.

OHIO PRODUCTS SOLD EVERYWHERE IN FAMOUS ZIG ZAG BAGS
Ohio White Finish—Hawk Spread White Finish—Ohio Ritewall Fibered Lime Plaster—Ohio Sanlime Finish—Mastite Masonry Mortar—Ohio Masons Lime—Ohio Ground Lime.



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, 4 1/2 x 8 1/2, paper, \$.75.

BOOK SERVICE DEPARTMENT

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

Send for our Free BOOK GUIDE

WEISWAY

★ **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 leakproof 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, leakproof—and is low in cost. Mail coupon now for details.

MAIL THIS COUPON TODAY



HENRY WEIS MFG. CO., (Est. 1876)
401 Oak St., Elkhart, Ind.



Gentlemen: Without obligation please send information about [] Weisway receptor for stall showers [] Weisway Cabinet Showers.

Name _____

Street _____

City _____ State _____

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"—

Chicago, Ill.

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"

Xenia, Ohio

To the Editor:

Your editorial "Public Subsidies and Private Housing" is a splendid exposé 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 Bolsheviks, Fascists or Nazi, in which the majority of the citizens are owners of their own cottage homes and garden plots.

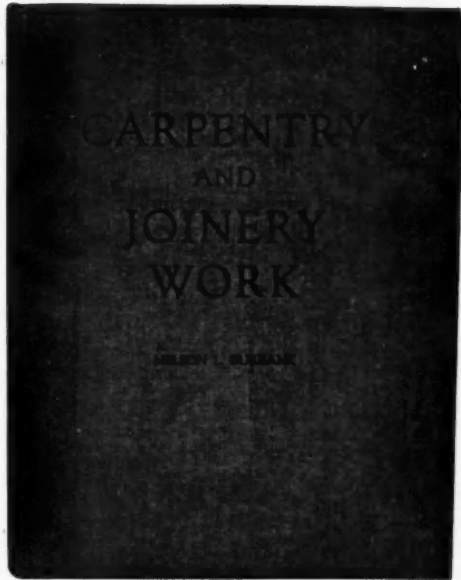
Multiple-unit housing does not supply the type of home which nurtured the qualities of citizenship and patriotism which have

(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.

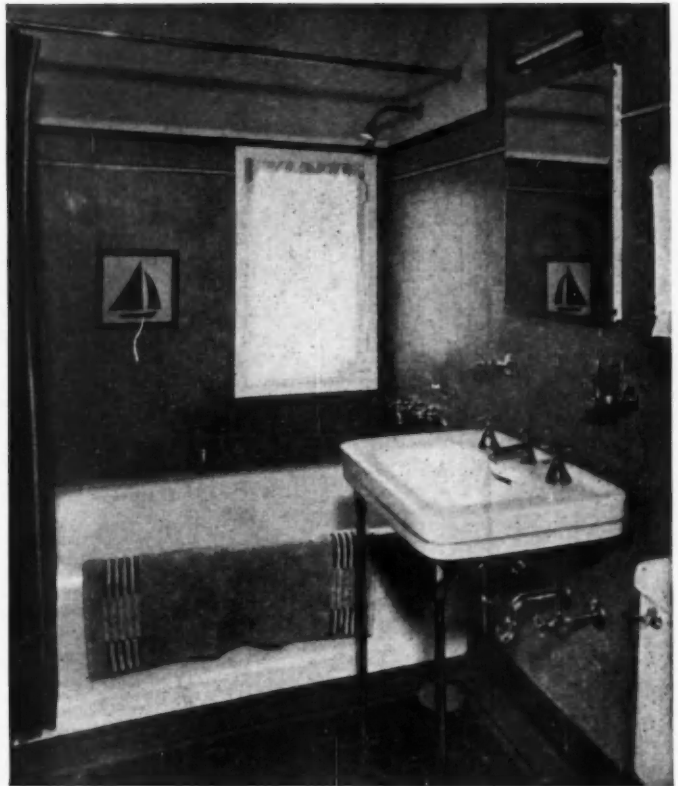
The program of study as presented in this latest textbook for students of carpentry work involves class discussion, practical job work and related studies. These include Architectural Drawing, Plan Reading, Carpentry Mathematics, Business English, Applied Science, Civics and First Aid.

280 pages, illustrated, 8 1/2 x 11 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.



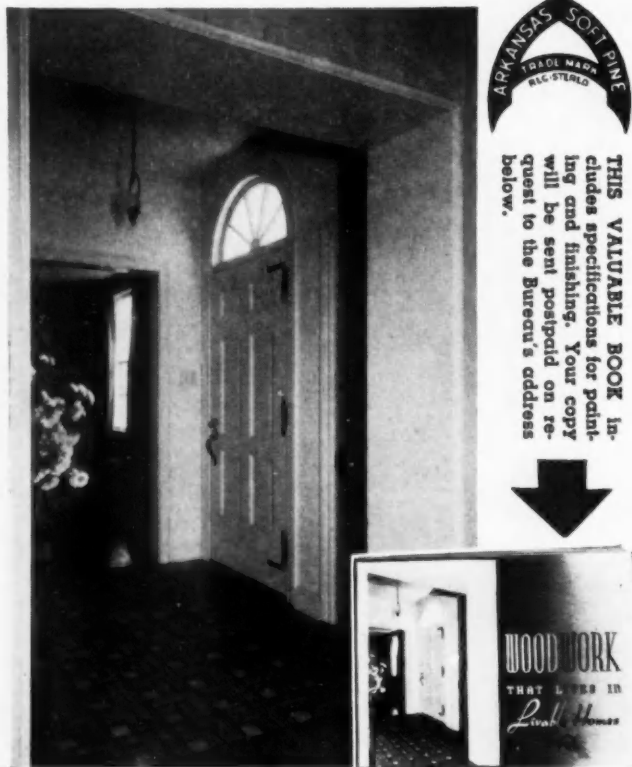
OR YOU MIGHT CARE TO REPRESENT US IN YOUR TERRITORY

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.....



THIS VALUABLE BOOK includes specifications for painting and finishing. Your copy will be sent postpaid on request to the Bureau's address below.

for Painted Woodwork that retains its life and color

SPECIFY

Arkansas Soft Pine *Satin-Like Interior Trim*

Produced from a superior quality of shortleaf (*Pinus Echinata*), distinguished for its soft texture, tough fiber and freedom from pitch and hard streaks.

Correctly dried and seasoned in controlled, humidified air to a definite moisture content, it stays put, with no tendency to shrink, swell or open up at miters.

Even absorbing qualities provide uniform "taking" of priming coat, so pigment and wood fiber become integral. Finishing coats thus are applied and rubbed down much closer to the wood than when otherwise built up on an undercoating of heavy shellac.

Retains the life and color of delicate pastel effects, with no likelihood of fading, discoloration or raised grain.

Grade and Trade Marked as makers' warranty which protects your specification and confirms identity at point of delivery.

Available in Standard moulded patterns, including narrow line trim, through local lumber dealers and millwork factories east of the Rockies, excepting the Gulf States east of the Mississippi.

Write for brochure illustrated above and Builders' Hand Book which will be sent on request.

ARKANSAS SOFT PINE BUREAU
439 BOYLE BUILDING LITTLE ROCK, ARKANSAS

GRADE **AB & BETTER** MARK
KILN DRIED

(Continued from page 130)

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 need careful nurturing if our country is to continue to mean all that its forefathers intended it to mean.

FINDLEY M. TORRENCE,
Secretary, The Ohio Association of Retail Lumber Dealers.

Fundamentally Opposed to Subsidies

Springfield, Ill.

To the Editor:

While fundamentally I am opposed to subsidies, yet you have hit a happy thought in this editorial. The waste and extravagance of the present system is deplorable and if subsidies are necessary, the system outlined by you would be far more preferable.

J. D. McCARTHY,
Secretary, Illinois Lumber & Material Dealers Association, Inc.

Private-Enterprise Should be Encouraged

Washington, D.C.

To the Editor:

As you know, I have stated on several occasions my belief that a greater contribution to decent national housing can be made through well-directed private building at \$500, \$600 or, in some places, \$700 a room than through public building at its anticipated \$1,000 to \$1,200 a room. Most of this, but not all, can be done without subsidy. Such subsidy as is necessary may just as well take the form of annual assistance on the interest, carrying and amortization costs as subsidy of the initial cost of construction. In fact, it may better take that form. The national housing dollar 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 \$2,500 modern Small Home into a practical, nation-wide reality.

The public housing dollar will carry much farther and in the long run provide much more of decent housing for people who by themselves cannot afford to provide it, if this trend in low-cost Small Homes through private-enterprise building is encouraged and facilitated. 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.

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

Agrees 100 Per Cent

Minneapolis, Minn.

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 Lumbermen's Association.



BUILDER GETTING MORE THAN HIS MONEY'S WORTH

HE'S MAKING A SALES POINT OF WOLMANIZED LUMBER*



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 use in putting the point over to prospects. AMERICAN LUMBER & TREATING COMPANY, 1406 Old Colony Building, Chicago.

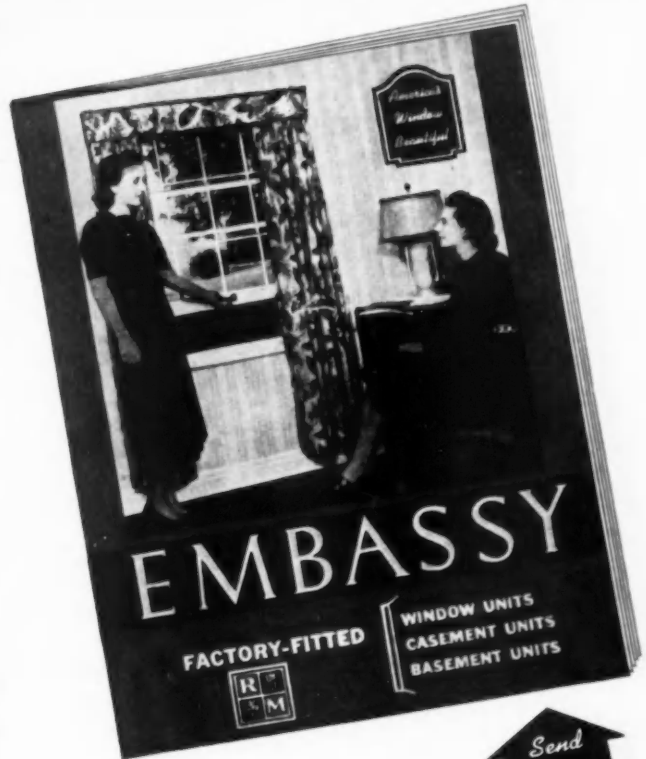
*Registered Trade Mark

WOLMANIZED LUMBER



NOW

The **EMBASSY LINE**
America's Window Beautiful
IS COMPLETE



FACTORY FITTED

WINDOW UNITS

The sensational new favorite for Beauty, Completeness, Economy. A new high in window progress. Quality for the finest buildings; Price for the modest home.

CASEMENT UNITS

A "by request" value that will "click" in a big way. You, too, will say, "the finest I ever saw." Double glazing optional.

BASEMENT UNITS

Modern "class" enters the basement. Complete. Weather-tight. Ventilation control. Aluminum primed. Selling like hot cakes ever since announcement.

ROACH & MUSSER CO., 664 Grand View Ave., Muscatine, Iowa

PLEASE SEND BOOK OF COMPLETE EMBASSY LINE

Name _____

Street _____

City _____ State _____



**Detroit
Builder finds
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.

UNITED STATES RADIATOR CORPORATION
General Offices: Detroit, Michigan
Branches and Sales Offices in Principal Cities

Finds Four Faults

New York, N.Y.

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?

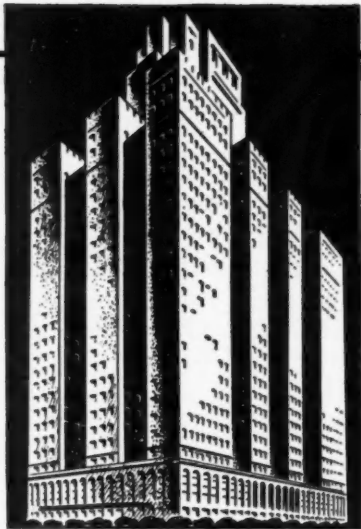
(3) You intend to spend only \$4,000 per house. But that isn't going to leave you much land space for playgrounds, breathing spaces, parks, landscaping, planning, etc. It is these latter phases that make the difference between a slum and "modern housing" in the minds of the social workers, many architects, 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 spaces*, 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 cooped-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 5 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.

WM. C. BOBER, Economist,
Johns-Manville Corp.

"THE WORLD'S GREATEST HOTEL"



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

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 RoL-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 — weathertightness — 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!

**MAKERS
OF THE FAMOUS
KINNEAR
Steel Rolling Doors
OFFER YOU
THE RIGHT TYPE OF
UPWARD ACTING DOOR
FOR ANY
BUILDING
NEED**

get this useful Reference Book

The KINNEAR
Manufacturing Company
1560 - 80 Fields Avenue
COLUMBUS, OHIO



Write for it Today

Factories: Columbus, O., and San Francisco, Cal.
OFFICE AND AGENTS IN ALL PRINCIPAL CITIES

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 leading 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 if it can win wide support among business men. It is not unlike the subsidies for working-men'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 best be 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 Lumbermen 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.

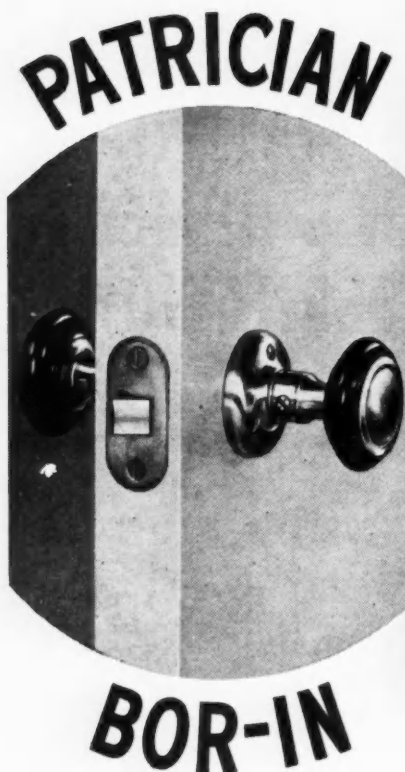
To the Editor:

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 total approximately 25 per cent of the intake of each contractor, it seems to me it should be sufficiently clear to contractors that, in order to protect their in-

(Continued to page 138)



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.

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



LOCKWOOD

HARDWARE MFG. CO.



Division of
INDEPENDENT LOCK CO., FITCHBURG, MASS.



Bore hole in edge of door



Bore hole in side of door



Slip Bor-in Set into place

(Continued from page 136)

vestments and to prevent further abuses, they should take an active part in politics.

All business men should insist that the Government should get out of business entirely, for the politicians never do anything except make a mess of such things.

Government of all kinds should be required to keep its hands off business except to the extent of providing for regulations that will make business operate along honest lines.

When the politicians go further than that they simply demoralize business and bring about conditions of unemployment, which becomes more and more acute with every attempted interference on the part of the politicians.

More strength to you in bringing these matters to the attention of contractors and other business men.

H. A. DANIEL, President,
Atlas Roofing Company.

Finds TruCost Helpful

To the Editor:

Kankakee, Ill.

I have been giving your *TruCost* some study lately, and I will state it is as near a true cost as anyone can make. I have adjusted losses in 14 states for the last 50 years, and I always figured everything by square feet, yards or cubic feet, and I found out it is about the only way to figure about the same as you do in *TruCost*.

Of course, anyone can make a mistake, and we all do. If one makes a mistake in squares it might make it large, but if you leave off a whole floor it amounts to the same.

If we could only get the contractors to units and get a stable price or way to figure more according to a system or true cost, some of us would own a home and have something left for old age.

J. P. PAULISSEN,
J. P. Paulissen & Sons,
General Contractors and Builders.

TruCost Figures Explained

To the Editor:

Meriden, Conn.

I was very much interested in some of the figures on estimating in the article, "What Is *TruCost* Estimating?" (published in the Feb. A.B.) Now don't get the idea that I am the best estimator alive, because I have argued about this as much as anybody, until I had it driven into my thick head. Take the bevel siding; I think if the gentleman who wrote the figures will go over them a little more carefully he will see his mistake:

- On 4" B.S. exposed 2 3/4 it will take 16 ft., to cover 11 ft. add 5/11 or 45%
- On 6" B.S. exposed 4 1/2 it will take 12 ft., to cover 9 ft. add 1/3 or 33-1/3%
- On 6" B.S. exposed 4 it will take 15 ft., to cover 10 ft. add 5/10 or 50%
- On 8" B.S. exposed 6 1/2 it will take 8 ft., to cover 6 1/2 ft. add 3/13 or 23%
- On 10" B.S. exposed 8 1/2 it will take 10 ft., to cover 8 1/2 ft. add 3/17 or 18%

I think that a good many contractors do not take the trouble to see just what it is all about when estimating; they look at some figures like these and take it for granted that they are all right. You can see what a licking they take on these percentage losses on material plus labor, as it means the same percentage loss on labor as material.

Please check these figures, and if you find I am right, please have the figures in *TruCost* changed as I think they are very misleading.

WILLIAM BLYTHE,
Carpenter and Builder.

Answer:

Mr. Blythe is correct provided NET wall surface to be covered with wall finishing is figured, but Fig. 1 on page 63 of February issue states specifically that 10 per cent was deducted to allow for door and window openings. Deducting 10 per cent from his quantities makes us check here.

Inasmuch as *TruCost* gives the GROSS wall area, as I stated at the top of page 64, deducting 10 per cent from the price per square allows about 6 per cent for waste because a survey of several typical houses proved that the area of openings was about 16 per cent of the GROSS wall area.

Congratulations to Mr. Blythe for proving my contention that all too many men in this building industry "do not take the trouble to see what it is all about," as he puts it, and therefore jump to conclusions that prove disastrous to many. Let's hear from others on this very important subject of dependable unit costs.

A. W. HOLT.

NEW-TYPE

142-FT.

SASH BALANCE
SPECIALLY 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 1/2", 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. Flat Top 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.

HOW TO PLEASE THE LADIES



GIVE THEM MODERN KITCHEN MAID CABINETS

Women invariably have the final word about the kitchen... and are often hard to please. But even the most exacting housewife gives enthusiastic approval to Kitchen Maid Cabinetry, because it is known the world over for beauty, convenience, efficiency. And today it is available in three price ranges to meet every building or remodeling budget. Write for catalog and details.

Located directly beneath the sink, this spacious Vegetable Bin is a welcome convenience for any housewife.

The Kitchen Maid Corp., 594 Snowden Street, Andrews, Indiana
Send new catalog and details on standard unit Kitchen Cabinetry.

Name _____

Address _____

- Architect
- Builder

- Dealer
- Owner



New Third Edition Now Ready

By FRANK R. WALKER

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 rec-

ords 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, 8 1/2 x 11 1/2 inches, flexible cloth binding, \$2.50.

Money Back if Not Satisfied
BOOK SERVICE DEPARTMENT

AMERICAN BUILDER and BUILDING AGE, 30 Church Street, New York, N. Y.



ONE SAW DOES THE WORK OF TWO
and Saves Investment Costs



6' - 8' - 10' - 12' sizes

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—see 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.

Porter-Cable Machine Company, Syracuse, N.Y. 1700-85 N. Salina Street,

Builders Say: "GAR WOOD EQUIPMENT Aids in Selling Homes."



The new Gar Wood Tempered-Aire gas- and oil-fired home units are supreme in mechanical excellence.

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, economy and operating efficiency of Gar Wood units. Protect your reputation—increase your business—by installing a Gar Wood.

GAR WOOD INDUSTRIES, INC.
Air Conditioning Division
7924 Riopelle Street • Detroit, Mich.



Finds He's Not "Slumming"

To the Editor:

Los Angeles, Calif.

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 recall brushing 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, the writer 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:

Ingleside, Ill.

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.

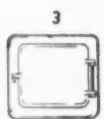
• KEWANEE • METAL BUILDING PRODUCTS



EARN PROFITS FOR YOU "THEY SATISFY"

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

Shown here are a few of the items in the KEWANEE line:

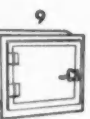


1. Utility Window
2. Basement Coal Chute
3. Clean-out Door
4. Mail Chute
5. Casement Window
6. Basement Window—"Standard"
7. Projected Window
8. Fireplace Damper
9. Package Receiver
10. Garbage Receiver
11. Pivoted Window
12. Basement Window—"Master"

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



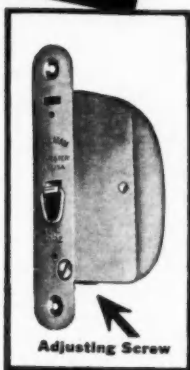
KEWANEE MANUFACTURING COMPANY
1644 Burlington Ave. Kewanee, Illinois





PULLMAN UNIT SASH BALANCES

NO—
WEIGHTS,
CORDS OR
PULLEYS



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, \$.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, \$.35. 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.



INCREASE THE SALES APPEAL OF THE HOMES YOU BUILD

WITH VICTOR In-Bilt VENTILATORS

"More sales punch per \$ of cost than any other single feature you can build into the modern home." That's what architects and builders all over the country are saying about Victor In-Bilt Ventilators. Women appreciate the freedom from cooking odors—the elimination of grease and smoke that lowers cleaning costs—the fresher air for the whole family that Victor In-Bilt provides. Every home needs at least an In-Bilt in the kitchen, and Victor's line includes a model for every size house—even low-cost homes. Put these profit-booster in your houses and see how they'll pep up sales!

WRITE FOR PRICES TODAY

Free Ventilation Data Book includes prices and all the exclusive In-Bilt features. Write today!



Banish Cooking Odors



Cut Cleaning Bills



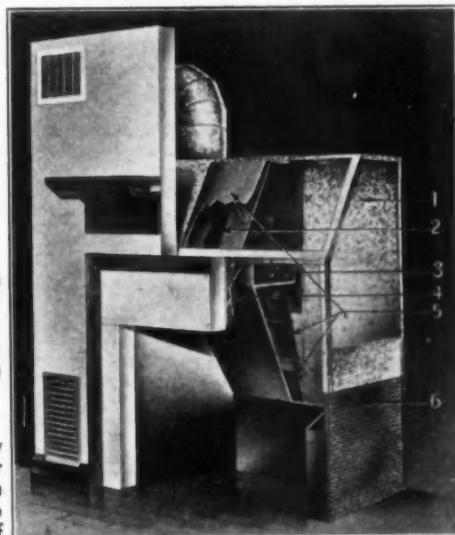
Keep Air Fresh



FREE!

VICTOR ELECTRIC PRODUCTS, INC.
3007 Robertson Ave., Cincinnati, Ohio

Showing Why the Heatsaver HEATS



● This cutaway view of the Heatsaver Fireplace helps you to realize the large heating capacity of the unit. Note (1)

How the large hot air chamber encloses ALL heated surfaces, including the smoke chamber. (2) Heat ducts that equalize the flow. (3) Heavy steel of smoke shelf. (4) Built-in Donley Damper, poker controlled. (5) Convection sheets that keep outer shell cool and add to heat delivery. (6) Large area cold air intake that permits freedom in placing of grilles. Write today for catalog and literature.



THE DONLEY BROTHERS COMPANY
13910 Miles Ave., Cleveland, O.

The DONLEY HEATSAVER FIREPLACE

SPEED UP Your Double Hung Window Installations With

DUPLIX ADJUSTABLE SASH BALANCES



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 glider hooks prevent rattling or jamming. Four sizes meet all standard requirements. Plaster-tight 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.

DUPLIX Inc. Box 666, West Branch LOS ANGELES, CALIFORNIA

Ask about our new **DUPLIX AUTOMATIC WINDOW LOCK!**

NEW EBCO
Dishwashing
SINK



THE SINK I'VE 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—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 enameled 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



Have You Learned About EBCO'S NEW SINGLE-BOWL SINK
It Offers A Number Of Novel Improvements!
Write Today

Wants to "Pass a Law"

To the Editor:

Pegreanock, 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 employe 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 sub-contractors 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. This 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.

FA 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 FA 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

A New Product

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 **ANACONDA** Waterbury, Conn.

31225-A

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

Mall HANDSAWS

Model 1B

Model 1B—Capacity 2 1/4"-8 1/2" Blade

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: 2 1/2", 2 3/4", 3 1/8", 3-13/16", 4 5/8".

MALL TOOL COMPANY
7737 South Chicago, Ave., Chicago, Illinois

Please send additional information on the Model 1B and other MALL electric handsaws.

Name _____
Street _____
City _____ State _____

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

Immediate shipment can be made from the following Superior Warehouse points. Send all orders and correspondence to our Los Angeles office.

- Birmingham, Ala.
- Phoenix, Ariz.
- Little Rock, Ark.
- San Francisco, Calif.
- Denver, Colo.
- Jacksonville, Fla.
- Boise, Idaho
- Indianapolis, Ind.
- Kansas City, Mo.
- St. Louis, Mo.
- Detroit, Mich.
- Minneapolis, Minn.
- Billings, Mont.
- Great Falls, Mont.
- Reno, Nev.
- Portland, Ore.
- Memphis, Tenn.
- Dallas, Texas
- Houston, Texas
- Salt Lake City, Utah
- Seattle, Wash.
- Milwaukee, Wis.

SUPERIOR FIREPLACE CIRCULATOR



SUPERIOR MODEL "A" HEAT CIRCULATORS

have the following exclusive advantages:

- More heat delivery—one-third to one-half more heating surface over which the air passes.
- More warm air circulation and uniform temperature because of greater cold air intakes and front warm air outlets.
- No dead air pockets. A series of air flues connecting lower back heating chamber with upper.
- Longer years of service because of patented reinforced firebox and 3/16" boiler plate back.
- Masonry down draft shelf—no exposed metal to rust.

48-page Fireplace Plan Book Mailed Upon Request.

SUPERIOR FIREPLACE CO.
1046 S. Olive St. Los Angeles, Calif.
Manufacturers of Superior Wood and Coal Burning Fireplace Circulators and Glo-Gas Fireplace Circulators.

Prefabricated Plywood Houses

Avon Lake, Ohio

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 front.

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 casein, 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 depended 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 veneer 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.

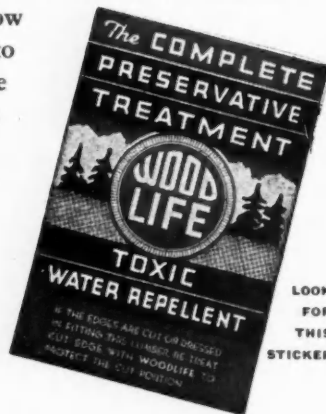
"Good Enough for Dad"



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?"



LOOK FOR THIS STICKER

Protection Products Mfg. Co.

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

Sour on FHA

Johnstown, Pa.

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, 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

Knoxville, Tenn.

To the Editor:

Beg to acknowledge receipt of your "Big Value Homes" book. 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.

Answer: "Yes, at \$1.00 each."

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.

ingly 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.

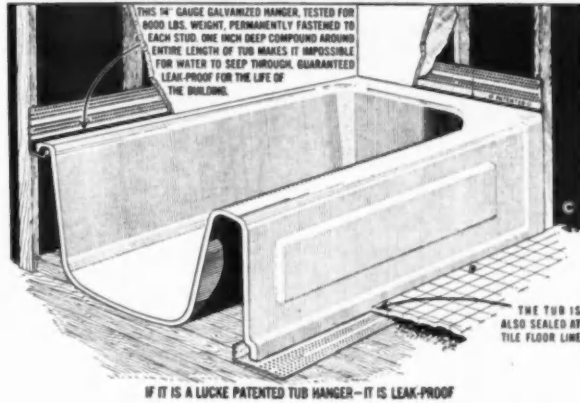
RELIABLE JACK CO., 1401 W. Second Street, Dayton, Ohio

RELIABLE

SCAFFOLDING BRACKETS

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
New York

Minneapolis
New Orleans

San Francisco
Los Angeles



Stanley W9 Electric Saw

... Yet it handles like a hand saw!

Rips through 3" timber, 10 feet per minute.

Bevel cuts up to 45° through 2 1/4" lumber.

One simple adjustment for depth of cut.

Rugged construction to stand heavy work.

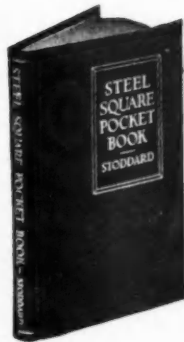
Saves a lot of hard work and time on every building job.

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"

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; Stair Problems; Siding and 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

★ **RED STAR** ★
PRODUCTS, INC.,
12910 Taft Ave., Cleveland, Ohio

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.

KWIK-MIX

MODERN 3 1/2-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.

SIDNEY 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 newsstand 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 newsstands. 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 sense, 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.

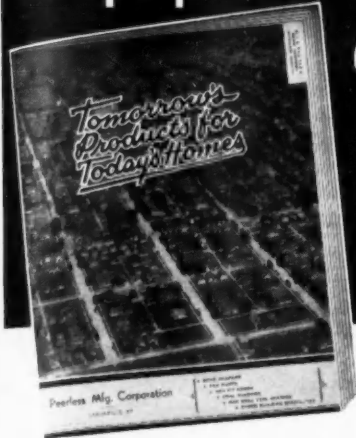
In the February issue I notice the house plan on page 48 and took quite a fancy to it, and having shown it to a prospect who is anticipating building, he has chosen this one from a number of plans that I have shown him. Is it possible to get prints for this house, and if so, at what cost?

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, 7 1/2 x 10, 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, 7 1/4 x 10 1/2, cloth, \$7.50

16-page descriptive circular on request

BOOK DEPARTMENT

American Builder and Building Age

30 Church Street

New York, N. Y.

Lasting

SAMSON SPOT CORD

used with the proper pulleys and weights assures more than 25 years of satisfactory service. There is only one quality of Samson Spot Cord — the best we can make after more than half a century's experience. Prevent substitution by specifying Samson Spot Cord and seeing that cord marked with our trade mark, the colored spots, is used. Write for samples and specification data.

SAMSON

CORDAGE WORKS

BOSTON, MASSACHUSETTS

SAVE 50% or More

of FINAL COSTS on

WOOD FLOOR FINISHING

WITH

LIGNOPHOL

LIGNOPHOL costs less than one cent per square foot. It is applied in one coat with a long handled brush—reducing labor to the minimum. The U.S. Forest Products Service says linseed oil does not even protect and—you know shellac and varnish are surface treatments that wear off.

When you use LIGNOPHOL there is nothing to wear off. Its ONE application gives smoother, harder, more attractive floors. Thousands of contractors are finding the LIGNOPHOL method of preserving and finishing floors (and trim) at 50% or more savings, the modern way to more profits and greater job satisfaction.

Find out more about advantages of LIGNOPHOL—

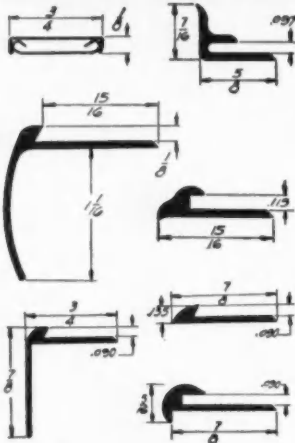
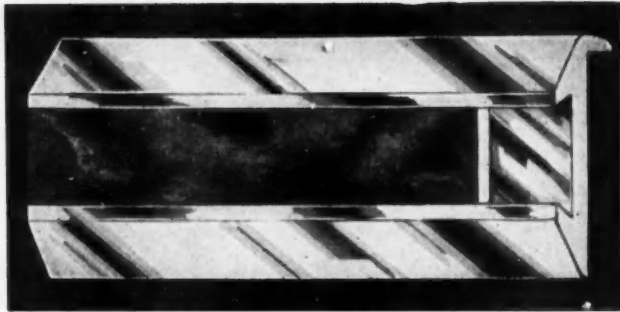
Illustration shows how LIGNOPHOL penetrates the wood.

MAIL THIS COUPON TO-DAY!

Dept. B-4, L. Sennekers Sons, Inc., 88 Lexington Ave., New York City

YOUR NAME _____ ADDRESS _____ CITY _____ STATE _____

Decorative Mouldings of Metal



Luxuriant, flashing, bright metal, with gay, colorful inserts of linoleum and special beadings. 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.

FOR FURTHER INFORMATION



HERRON-ZIMMERS

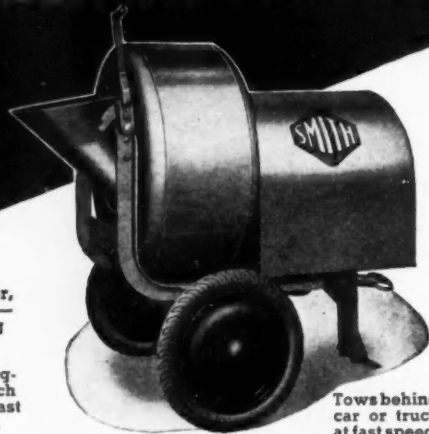
MOULDING COMPANY

3900 East Outer Drive

Detroit, Michigan

NOW—a Quality 3½-S Non-Tilter at COMPETITIVE LOW PRICE!

Big, waist-high feed chute makes shoveling easier.



Large diameter, narrow drum — Fastest mixing action.

Fastest discharging — Full batch discharged as fast as 4 seconds.

Simplified construction. No drum roller assembly.

Practically permanent lubrication.

Write for bulletin.



SMITH "BUDDY"

Now — for the price of an ordinary "tub" mixer—you can get this high grade half-bag mixer with the advantages of the bigger non-tilters. The Smith "Buddy" will put your small concrete jobs on a faster, more profitable basis. Low initial cost — practically no upkeep. Built and guaranteed by the manufacturers of the famous SMITH TILTERS.

THE T. L. SMITH COMPANY
2849 N. 32nd St. Milwaukee, Wisconsin

SMITH MIXERS

THE BOULDER DAM MIXERS

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: "a 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.

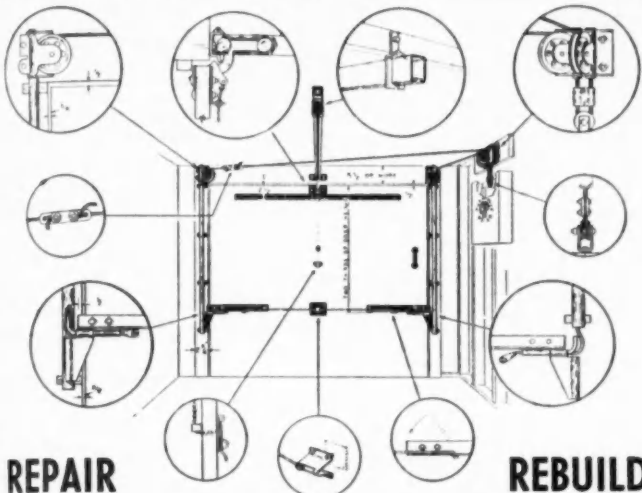
Typical Kinsey display advertising ties together the builder's name, a house sketch and portion of a floor plan in a dignified announcement. There is no descriptive copy. In his new office structure on Ventura Boulevard, North Hollywood, prospects find a press book well filled with testimonial letters 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 **REBUILD**
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.

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.
NORTH CHICAGO, ILLINOIS



**AND AUTHENTIC
PERIOD HARDWARE**

40 PLANS FOR LOW COST HOUSES

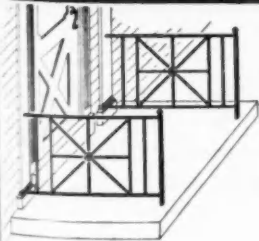
\$1. POSTPAID

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 40 house 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 of every description FOR INTERIOR & EXTERIOR USE



MADE TO SUIT YOUR REQUIREMENTS
WE MANUFACTURE DESIGNS SUITABLE FOR THE INTERIOR AND EXTERIOR
Also Iron & Wire Fence of every description. Swinging, Sliding and Folding Gates, Iron & Wire Window Guards, Grills, Area Gratings, etc.
Write for our latest Folder.
Send measurements.

CINCINNATI IRON FENCE CO., INC.
3411 SPRING GROVE AVE. CINCINNATI, OHIO



Be a Contractor— Make Big Money NOW

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 remodel from start to finish—do you know the tricks of estimating, laying out, etc.? Here's your chance to get 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. Remember these five big books Jiffy Index makes these facts available in a few seconds. Remember these five big books all shipped to You FREE for examination. 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.

For Free Offer Use Coupon

American Technical Society,
Drexel Ave., at 58th St., Dept. G433, Chicago, Ill.

I would like to look at the five books described above. I will pay the few cents delivery charges only and will examine them thoroughly and return them in ten days unless I like them in which case I will send you \$2.00 and after that \$3.00 per month until the total price of only \$19.00 is paid. You are also to send me your book, "Blueprint Reading," and consulting membership certificate without extra charge.

Name _____

Address _____

Attach letter stating age, employer's name and address and that of at least one business man as a reference.

**DOES WHOLE JOB
from Start to Finish**

New Model "A" Planing Mill
Special



8 full-sized machines, each independently operated, equipped with high-grade ball bearings—that is the New Model "A". With this machine you are completely equipped—at moderate cost.

Send for catalog of individual and combination machines, priced as low as \$50.

PARKS
WOODWORKING MACHINES

Good Woodworking Machines Since 1887

THE PARKS WOODWORKING MACHINE CO.
DEPT. AB-4 1524 KNOWLTON ST. CINCINNATI, O.

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, marbled, 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, sturdily 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.



VENTILATING FAN

Sturdy design: Cast Aluminum frames and grill. Powerful Robbins & Myers Dust-proof Guaranteed Motor: 10" Fan Blade. Easily installed in wall or furring over Cabinets. Full Chain operates Motor and Shutters.

List Price \$25.00

KITCHEN FANS

RADIA

BATHROOM HEATERS

Selected for LIFE homes

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



for KITCHENS

... and will add definite utility and appeal to your homes. Favored for LIFE Homes and the choice of leading Builders and Architects everywhere. Unconditionally guaranteed. Liberal discounts to Builders.

Write for full details.

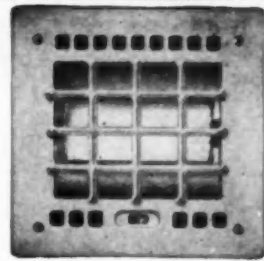
MANUFACTURED BY

F. W. SHEPLER STOVE CO.

1302 SHEFFIELD ST.



for BATHS



ELECTRIC HEATER

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

List Price \$12.00 up

In Chromium or White porcelain finish.

Stucco Spraying Machine



THIS MACHINE AND PROCESS fuses a waterproofed, mortar-like mixture on old or new masonry. It fills cracks and can be applied in any thickness desired. It offers a choice of 30 colors, shades and textures. Fully proven for over thirteen years' use under all conditions in every climate.

PROGRESSIVE BUILDERS ARE STRIVING for greater permanence, beauty and salability in their new construction at lower cost. Owners everywhere want to enhance present values and make their buildings more attractive and livable.

WITH COLORCRETE STUCCO you can cash in on both of these waiting markets, offering permanent, colorful surfacing at amazingly low cost. Operators report costs of 2c and up per sq. ft. and sell up to 7c. Some have paid for their equipment from first couple of jobs. Machine capacity up to 600 sq. ft. per hour.

GET THE FACTS. Write today for new COLORCRETE Books. They tell the whole story. It may mean business independence for you.

COLORCRETE INDUSTRIES, INC.
300 Ottawa Ave. Holland, Mich.



New! EXTENDA



The fine mesh bronze screen unit is quickly removable from the frame. Easily and inexpensively replaced if necessary.

Adjustable
ALL METAL WINDOW SCREEN

As easily adjusted as a curtain rod! Quickly installed from the inside without tools. Neat metal frames, finished like the barrel of a fine gun with Has-kelite, 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 out of square, or warped. Extenda means lower installation costs, smaller inventory, less storage space. Saves money on installation and maintenance, increases 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 \$3.00

Write Today

The Haskell Co.

211 Field Building, Birmingham, Mich.
Some desirable territories open for aggressive representatives. State lines handled and give full information in first letter.



Sure... I recommend Calbar

CAULK-O-SEAL

WITH CALBAR PRESSURE GUN

I recommend Caulk-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 sure easy to apply when you use the trouble-free Calbar pressure gun. I couldn't caulk without it. Caulk-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.,

6430 W. Huron St. Chicago, Illinois

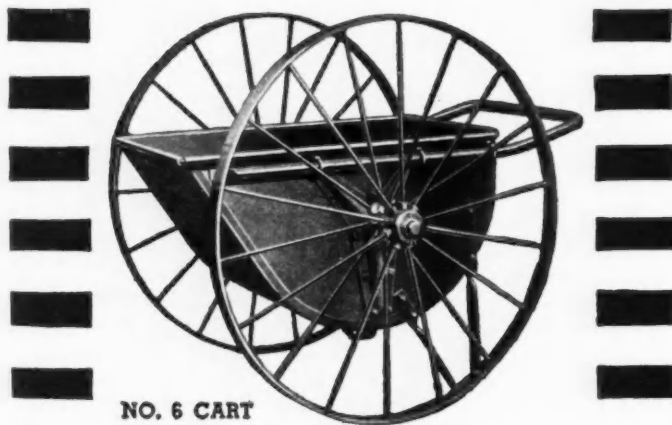


Jack built a new school
And followed his rule
Using shingles from Robert McNair
These grand insulations
Will last generations
Without any trouble or care.

ROBERT McNAIR SHINGLE CO.
VANCOUVER, BRITISH COLUMBIA
"OVER 400 DEALERS TO SERVE YOU"

Sterling CONCRETE CARTS

PLAIN OR ROLLER BEARINGS



THIS IS THE STRONGEST CART MADE

Tray is 12 Gauge — 6 Cubic Feet Capacity.
Wheels 42 Inches Diameter. Flat or Oval Tires,
with Plain or Roller Bearings. Trunnion Axles.

EASILY WHEELED • EASILY DUMPED

STERLING WHEELBARROW CO.
MILWAUKEE, WISCONSIN

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 foreman.

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.

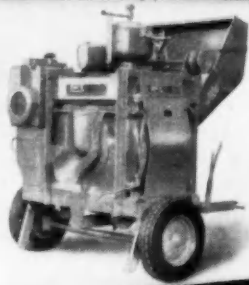
Observe that space is provided for recording extra cost of dormers. It is usually possible to determine this, but the only way to get records on hips and valleys is to compare records for framing cut-up roofs with those for plain roofs.

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.

REX 5S TWO-WHEELER BETTER ENGINEERED—BETTER BUILT



FIND OUT WHY!

Send for the new "Rex check list," the book prepared to give you a better basis for selecting 1-bag mixers! It tells you the complete story of Rex "quality" design and construction that brings you a stronger, faster, more complete 5S mixer for your money. See the many new features you get in the Rex 5S—features that include the Rex shimmy skip, Rex accurate water system, Rex positive Chabelec chain drive and many others. Send today—ask for the "Rex Check List for 5S Mixers." Address Chain Belt Company, 1621 W. Bruce Street, Milwaukee, Wisconsin.



MIXERS



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.



• Kees Catalog is full of little things that make homes more livable . . . that improve the building . . . reduce your cost! Send to-day. It's Free.

F. D. KEES MANUFACTURING CO.
Box 193 (Established 1874) Beatrice, Nebraska
Distributed thru Wholesale Hardware Trade

MEN WHO KNOW PREFER THE MASTER

Dependable, powerful, sturdy and versatile—The MASTER is the acknowledged LEADER among builders who know wood-working machines.

12 machines in 1

Will joint, crosscut, rip, bevel, dado, boring, mitering, tenon, rabbet, moulding, stair routing, etc.

5 sizes

The Original Universal Woodworker. Established 1917

The Master Woodworker Manufacturing Co.

Congress and Brush, Detroit, Mich.

Let MASTER make you GREATER profits.



Overhead Cross cut. Underslung rip. 5 SIZES—Gasoline or Motor Drive.

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 weathertight, 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. And 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 Bowers



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.

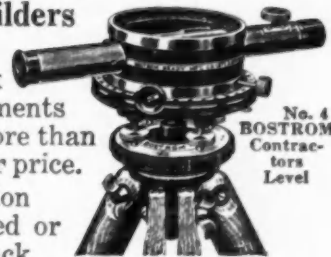
Write for complete literature and name of our distributor near you.

Bostrom-Brady Mfg. Co.

537 Stonewall St. ATLANTA, GA.



No. 5 BOSTROM Convertible Level (with Compass) (when desired)



No. 4 BOSTROM Contractor Level

Saw-Filing

Carpenters Make Big Extra Income in Spare Time

With a Foley Automatic Saw Filer you can file hand, hand and circular saws better than the most expert hand filer. Cash business, no canvassing. No eyestrain, no experience needed. Louis F. Wadwick, Ohio, says: "I have filed 764 saws in spare time and have earned \$850.00 in carpenter work due directly to my saw filing contacts." Send coupon for FREE PLAN, no obligation.

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.

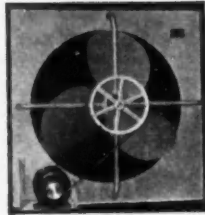
FOLEY MFG. CO., 424-9 Foley Bldg., Minneapolis, Minn.

Send Free Plan on Saw Filing business. Send contractor's information.

Name

Address



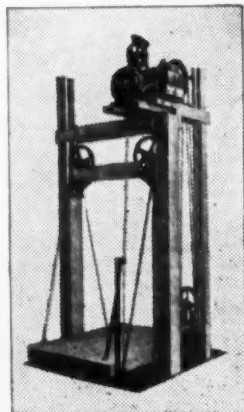


**COOLVENT
ATTIC FANS
The NEW 1939
COMFORT COOLING SYSTEM**

★ 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!

AUTOVENT FAN AND BLOWER CO.
1809-17 N. Kostner Ave. :: Chicago, Illinois



**KIMBALL
LIGHT ELECTRIC
ELEVATORS**

A line of powerful light electric elevators built for every purpose. Sawed, drilled and fitted for rapid assembly—strong—efficient and easy to install. Cost little to operate.

FREE Engineering Data

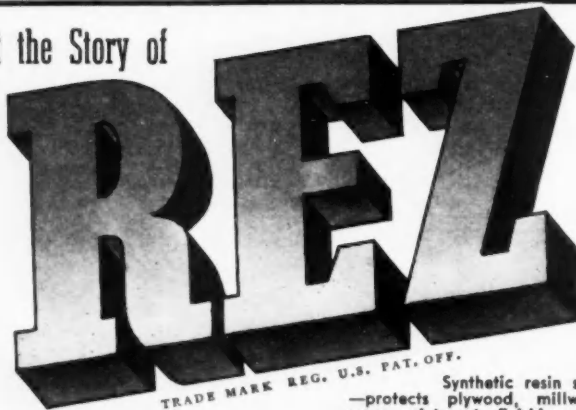
Present your elevator problem to us and let our engineers help. Descriptive literature on request.

KIMBALL BROS. CO.

915-989 Ninth St.

Council Bluffs, Ia.

Get the Story of

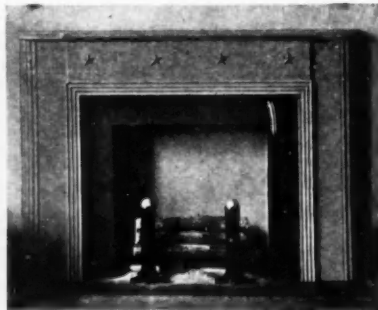


TRADE MARK REG. U.S. PAT. OFF.

I. F. LAUCKS, Inc.,

Synthetic resin sealer
—protects plywood, millwork—
saves paint—cuts finishing costs!
Seattle, Wash.; Lockport, N.Y.

**WOOD MANTELPIECES IN
AUTHENTIC PERIOD DESIGN**



This smart mantel design in the contemporary mode will harmonize with modern decorative treatments of room and furniture. We have a large number of other designs to go with any other period. The mantel shown is No. 788—67 inches long and 48 inches high. Write for literature. The reasonable cost of these authentic period mantel-pieces will surprise you.

THE BRECHER COMPANY
441 W. Jefferson Street
Louisville, Ky.

Precut Framing

(Continued from page 104)

for each full-length stud. Actually, fire blocks will not be required for additional studs at corners and intersections, hence the total may be adjusted accordingly. These blocks will normally be bundled in tens for convenient handling; full bundles should be listed.

Finally, plate stock should be listed. Plates are not precut, hence random lengths are used. Total linear footage is, conservatively, three times the total footage of all walls and partitions for the double top plate and single sole plate.

The foregoing procedure accounts for every framing member in normal wall construction. Incidental spacer blocks placed between pairs of studs, etc., are taken from joist and rafter ends or other scrap. Framing for bay windows or special framing which must be custom-built on the job should, of course, be given separate accounting.

The accompanying illustrations show estimating and listing procedure, from floor plan through final list.

**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 ties 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 toe-nailed 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 the customary manner.

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

(Continued to page 156)

ACCURATE

METAL WEATHER STRIPS

MAKE MONEY WITH ACCURATE

Get into the weatherstrip business. Stop drafty, leaky windows and doors, and reduce fuel bills for home owners everywhere. A real need exists. Become an Accurate installer. No previous experience or cash investment needed. You, too, will find it profitable to use this time-tested precision strip. A leader for 36 years. Full service cooperation and right prices. Make this your big year.

Write today for special proposition

—ACCURATE—

ACCURATE

METAL WEATHER STRIP CO.
218 East 26th St., New York

ACCURATE

"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.

Here's a "made to order" contractor's machine. In a flash, it's ready for cross-cutting, mitering, ripping, shaping, routing, dadoing,—every cut used in framing and fitting the modern home.

Write today for full facts about the Radial Saw,—and what other builders save with it.

J. D. WALLACE & CO.
136 S. California Ave.
Chicago, Ill.



THE BEST DEAL ON THE HANDIEST EQUIPMENT EVER OFFERED TO THE CONTRACTING TRADE—BAR NONE!

WILL YOU GRASP THIS OFFER . . . ?

A straight-from-the-shoulder offer every alert carpenter and contractor is bound to accept. We will deliver this Hi-Speed Light Weight Speed-O-Lite Sander or any other Lincoln Sander machine to you at once. You need make no time payments until May 15th! Then, easy terms to suit your convenience!

The BIG BUILDING BOOM will keep you busy earning quick money, with Speed-O-Lite putting a beautiful ballroom finish right up to the quarter round on any floorjob. Completely dustless. Easily carried by one man. Get it today!
Lincoln-Schlueter Floor Machinery Co., Inc.
222 W. Grand Ave. Chicago, Illinois



QUALITYBILT DISAPPEARING STAIRWAY

Here is the modern way to get more for your building dollar. Eliminate waste attic space by installing this perfectly balanced disappearing stairway. It is strong, rigid and non-folding, easily installed in new or old buildings. Rests on attic floor when not in use; does not take up valuable space in room below. Adds many times its cost to the value of the home by providing extra storage or livable space.

Ask your lumber dealer or write us for details
Address Dept. AB439



FARLEY & LOETSCHER MFG. CO.
BURDUQUE, IOWA

Specify MAIL-BOX

The Modern Built-in Mail Box

Handsome in design. Simple to install. Extremely flexible. Can be shaped to fit any type wall construction. Face plates of cast bronze, brass and aluminum in a wide range of patterns and finishes and styled to conform with any type of hardware trim.

Women in particular are quick to appreciate its convenience—quick to let the builder's thoughtfulness reflect itself in an easier selling job.

Mr. Dealer—write TODAY for Special Catalog sheets that will fit your binder—giving you details, descriptions and prices.
PENN-GREG MFG. CO.,



Minneapolis, Minn.

\$189.52 for 1939 BOSS 3 1/2 S

As illustrated

With cushion or pneumatic tires

Built to A.G.C. standards

2 H.P. Stover engine

Timken bearings

Heavy duty springs

New Boss catalog just off the press

All Sizes

Mixers—Hoists—Carts

Write today—save 25%

THE AMERICAN CEMENT MACHINE CO., Inc.

Dept. A, KEOKUK, IOWA

WAGNER

Folding Scaffold BRACKETS!

Safety for men! Easily and quickly installed—folds compactly. Attached with spikes or hooks furnished for attaching to studding. Holes provided for wires to eliminate side sway. Write for information on complete line of scaffold, ladder and roof brackets.

WAGNER MFG. CO.
Dept. AB-439
CEDAR FALLS, IOWA

FREE to BUILDERS and CONTRACTORS



Handy 48-page INSTRUCTION BOOK on the USE and ADJUSTMENT of the Sterling Convertible Level, Model No. 40.

This book simplifies your building problems. Helps you make better use of any make Level.

Prepare NOW for more business in 1939

Pin this coupon to your letterhead and mail today.

Warren-Knight Co., 138 N. 12th St., Philadelphia, Pa.

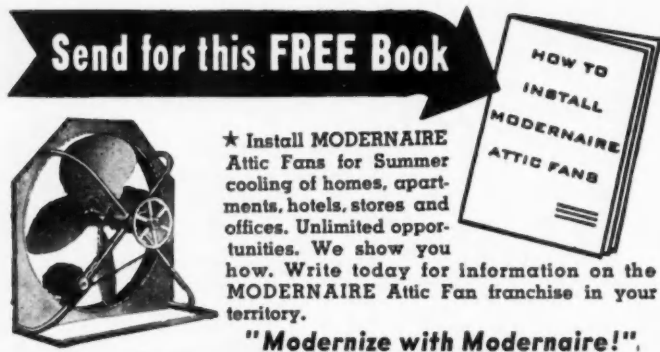
Send me Free Instruction Book, F-44, together with new descriptive circular on the Sterling Convertible Level, Model No. 40, and complete information about the ten-day free trial offer.

Position _____

Name _____

Address _____

Send for this FREE Book



★ Install MODERNAIRE Attic Fans for Summer cooling of homes, apartments, hotels, stores and offices. Unlimited opportunities. We show you how. Write today for information on the MODERNAIRE Attic Fan franchise in your territory.

"Modernize with Modenaire!"

DALLAS ENGINEERING CO.
1115 HALL ST. DALLAS, TEXAS

... THIS SEASON MAKE THAT EXTRA PROFIT

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 sinking your time and money in cumbersome wood staging! Start out on a sound paying basis—by using All-Steel TROUBLE SAVER Nail Attached Brackets. They're safe, strong and rigid. They cost only a fraction of the amount you spend on lumber, they're good for years of service, they make short work of erecting and dismantling—and are usable on every job!

A COMPLETE LINE FOR EVERY JOB

A complete line of "Trouble Saver" steel scaffolding helps you increase safety, step up efficiency and cut down expenses. It includes Nail-Attached, Bolt-on or Hook-on Scaffold Brackets, Roofing Brackets, Ladder Jacks, Tubular Scaffold, etc.

The STEEL SCAFFOLDING CO., INC.
402 Missouri St. Evansville, Ind.

Write for Catalog and Prices



QUICK-CHANGE from Level to Transit

Two motions shift it from level to transit. One-piece standard casting gives great rigidity and strength. Built especially for contractors.

Try the Universal Avoid Costly Errors

\$10 brings you the "Universal" Level-Transit. One hour teaches you how to accurately check up surveys, avoid costly errors. Money-back guarantee.

Easy Payments. Use instrument. If not satisfied, return and your money is refunded. Or keep on easy monthly payments. Particulars on request.

Ask for FREE booklet "How to lay out building lots"

DAVID WHITE CO.
311 W. Court Street, Milwaukee, Wis.

We Do Expert Repairing

Tapes Rods Supplies

Try it FREE

Only \$10 Down



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 thicknesses of mullions plus 1/2" 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, Homeland, Springwood Drive Homes, Personality Homes, Yorktowne 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, Middlesex, 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

"Silver Star Home," "Blue Ribbon Model," "Colonial Aristocrat," "House that Talks," "House of Glass," "Bride's Home," "Contentment Cottage," "House of Today," "House of Tomorrow," "Ideal House," "All-Gas Model Home," "All-Electric Model Home," "New American Model Home."

The Building Estimator's Reference Book

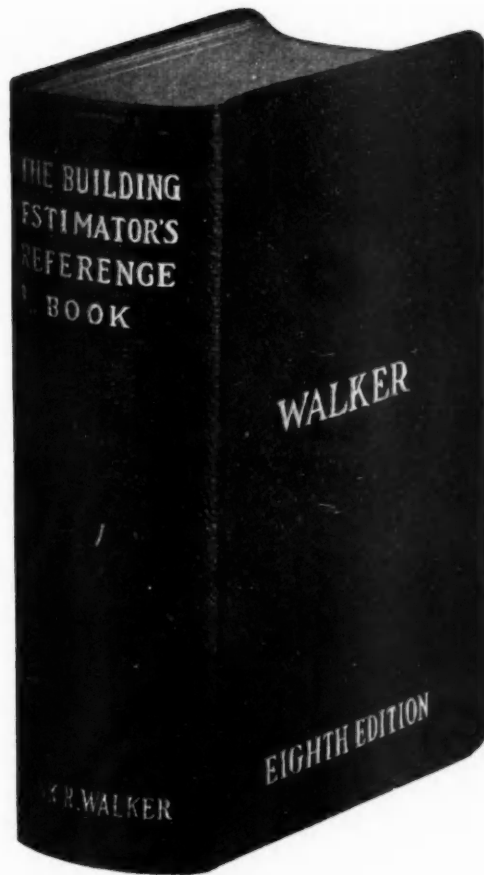
CONTAINING 1700 PAGES OF BRAND-NEW ESTIMATING AND COST DATA ON ALL THE NEW BUILDING MATERIALS AND METHODS DEVELOPED DURING THE PAST 6 YEARS. HERE IS INFORMATION THAT EVERY CONTRACTOR NEEDS TO KEEP ABREAST OF MODERN TIMES AND COMPETE FOR PRESENT DAY CONTRACTS.

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,
30 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 and 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.





Designed by
Robert Charles
Martin

★
Another big
development scores
a smash hit with
Concrete
★

Joshua M. Holmes, Jr., builder and developer, and Heyer-Kemner, Inc., realtors, used firesafe concrete to put over Fox Chase Manor

Just outside Philadelphia is 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.

- Please send booklet suitable for showing to prospects, "Why People Like Concrete Homes."
 Want literature on construction details.

Name.....

Address.....

City..... State.....

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., 420 Lexington Ave., New York City, N. Y., has a portfolio giving suggestions, rules, and prizes 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 house 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 pre-fit, stock entrance 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 bin, and heating plant in coal-heated homes, with and without basements. Portfolio includes construction details of modern, enclosed coal bins of lumber, plywood, concrete, 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, with construction details.

National Association of Woodwork Jobbers Inc., 140 S. Dearborn St., Chicago, Ill., has available data on widely varied stocks of woodwork jobbers, their locations, volume of business done, and the value of mass distribution services performed by these jobbers.

The National Oak Flooring Mfrs. Co., Dermon Bldg., Memphis, Tenn. provides booklets and folders on the principal types of oak flooring, with grading rules and specifications. 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 and loan associations. Literature 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 descriptions of the many uses of Western Pine in construction. Special booklets show applications in home construction, farm buildings, with suggestions for installing and finishing knotty pine interior paneling.

e

les
er-
m-
il-
on

a
be
lso
use

Y.,
for
ith
il-

ed
h-
on,

f.,
or
d-
or

as
d-
us
y-

al
a

us
r-
c-

t
t

a
n
-

t

A

L

T

fac
on
An
fun

Am
Lin
Mal
Call
Cert
Solv
Y

Arm
Celo
Cert
Gen
In
John
Y
Keas
Mas
Woo

Am
Auto
Cran
Dele
Henr
Holl
Mod
Maje
L. J
Payn
Roun
Gar

Cinci
Donle
Inter
Wagn

Donle
Cinci
Donle
Inter
Tru

Am.
N.
Walk
Edwa
Whee
Cinci

A
A
A
A
A
A

A
Celot
Phil
Flin
Insul
Keas
Rub
U. S

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.

ABRASIVES	
American Floor Surfacing Machine Co.....	114
Lincoln Schlueter Floor Machinery Co.....	155
Mall Tool Co.....	143
ACCELERATORS—CEMENT	
Calbar Paint and Varnish Co.....	151
Certain-Teed Prod. Corp.....	8-9
Solvay Sales Corp., 40 Rector St., New York, N. Y.	
ACCORDION DOOR HANGERS—See Hardware	
ACIDPROOFING—See Resistants	
ACOUSTICAL TREATMENTS	
Armstrong Cork Co.....	115-136
Celotex Corp.....	2
Certain-Teed Prod. Corp.....	8-9
Gen. Insulating & Mfg. Co., Alexandria, Ind.	
Johns Manville, 22 E. 40th St., New York, N. Y.	
Keasbey & Mattison Co.....	31
Masonite Corp.....	117
Wood Conversion Co.....	24
ADJUSTERS—CASEMENTS WINDOW—See Hardware	
AIR CONDITIONING EQUIPMENT	
American Radiator.....	46
Autovent Fan and Blower Co.....	154
Crane Co.....	39
Deleo Frigidaire Corp.....	16
Henry Furnace & Foundry Co.....	116
Holland Furnace Co., Holland, Mich.....	
Madine Mfg. Co.....	11
Majestic Co., Huntington, Ind.....	
L. J. Mueller Furnace Co.....	27
Payne Furnace & Supply Co.....	128
Round Oak Furnace Co.....	124
Gar Wood Industries, Inc.....	140
ANCHOR BOLTS—See Bolts	
ANCHORS—BUILDING	
Cincinnati Iron Fence Co., Inc.....	149
Donley Brothers Co.....	141
International Steel Co.....	137
Wagner Mfg. Co.....	155
ANCHORS—DOOR BUCK	
Donley Brothers Co.....	141
ANCHORS—JOIST	
Cincinnati Iron Fence Co., Inc.....	149
Donley Brothers Co.....	141
International Steel Co.....	137
Truscon Steel Co.....	3
ANGLE IRONS—See Irons, Angle	
ARBORS—SAW	
Am. Saw Mill Mach. Co., Hackettstown, N. J.	
ARCHES—CORRUGATED IRON	
Edwards Mfg. Co.....	143
Wheeling Corrugating Co.....	53
ARCHES—DRIVEWAY	
Cincinnati Iron Fence Co.....	149
ARCHITECTURAL IRON—See Iron, Architectural	
AREA GRATES—See Grates, Area	
ASBESTOS—CEMENT—See Cement, Asbestos	
ASBESTOS DOORS—See Doors, Asbestos	
ASBESTOS LUMBER—See Lumber, Asbestos	
ASBESTOS PAPER—See Paper, Asbestos	
ASBESTOS SHINGLES—See Roofing, Asbestos	
ASBESTOS SHINGLE CUTTERS—See Cutters	
ASBESTOS SIDING	
Celotex Corp.....	2
Philip Carey Co.....	37
Flintkote Co.....	14
Insulite Co.....	32
Keasbey & Mattison Co.....	31
Rubroid Co.....	43
U. S. Gypsum Co.....	35

ASH DUMPS—See Dumps, Ash	
ASHPIT DOORS—See Doors, Ashpit	
ASPHALT CEMENT—See Cement, Asphalt	
ASPHALT FELTS—See Felts, Asphalt	
ASPHALT SHINGLES—See Roofing, Asphalt	
ATTIC FANS—See Fans, Attic	
AUTOMATIC WATER HEATERS—See Heaters, Automatic	
AWNING CORD—See Cord, Awning	
AWNING ROPE—See Rope, Awning	
AWNINGS—CORRUGATED STEEL	
Edwards Mfg. Co.....	143
International Steel Co.....	137
Milcor Steel Co.....	48
BACKING BOARDS—See Boards, Backing	
BALANCES—SASH	
Caldwell Mfg. Co.....	139
Duplex, Inc.....	142
Pullman Mfg. Co.....	141
BANDSAWS—See Saws, Band	
BAR CUTTERS—See Cutters, Bar	
BARN DOOR RAILS—See Rails, Door	
BARN DOOR ROLLERS—See Rollers, Door	
BARN EQUIPMENT—See Equipment, Barn	
BARN VENTILATORS—See Ventilators, Roof	
BARS—GLASS BLOCK	
Owens-Illinois Glass Co.....	28
BARS—REINFORCING	
International Steel Co.....	137
Truscon Steel Co.....	3
BARS—WRECKING	
Stanley Works.....	23-145
BASE BEAD—See Bead, Base	
BASE—COVE	
Armstrong Cork Co.....	115-136
Bradley Lbr. Co.....	15
Congoleum-Nairn Inc.....	33
Frost Lumber Industries Inc., Shreveport, La.	
Curtis Companies.....	12
Keasbey & Mattison Co.....	31
Milcor Steel Co.....	48
U. S. Gypsum Co.....	35
Wheeler Osgood Sales Corp., Tacoma, Wash.	
BASE—INSULATING	
Celotex Corp.....	2
BASE MOULDING—See Moulding, Base	
BASE—PLASTER	
Armstrong Cork Co.....	115-136
Celotex Corp.....	2
Certain-Teed Prod. Corp.....	8-9
Flintkote Co.....	14
Masonite Corp.....	117
BASE SCREEDS—See Screeds, Base	
BASE—STUCCO	
U. S. Gypsum Co.....	35
BASES—COLUMN	
Donley Brothers Co.....	141
International Steel Co.....	137
Kewanee Mfg. Co.....	140
Majestic Co., Huntington, Ind.....	
Pacific Mutual Door Co., Tacoma, Wash.....	
BATHS—BUILT-IN	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
BATHS—FOOT	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
BATHS—SHOWER	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
Henry Weis Mfg. Co.....	130
BATHS—SITZ	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46

BATH TRAPS—See Traps, Bath	
BATH TUBS—See Tubs, Bath	
BATHROOM BRACKETS—See Brackets, Bathroom	
BATHROOM CABINETS—See Cabinets, Bathroom	
BATHROOM FIXTURES—See Fixtures, Bathroom	
BATTENS—METAL	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
BATTENS—WOOD	
Arkansas Soft Pine Bureau.....	132
Bradley Lbr. Co.....	15
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Florida-Louisiana Cypress Co., Jacksonville, Fla.	
Weyerhaeuser Sales Co.....	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	
BEAD—BASE	
Frost Lumber Industries Inc., Shreveport, La.	
Milcor Steel Co.....	48
Truscon Steel Co.....	3
U. S. Gypsum Co.....	35
Wheeling Corrugating Co.....	53
BEAD—CORNER (Metal)	
Farley & Loetscher Mfg. Co.....	155
Milcor Steel Co.....	48
Truscon Steel Co.....	3
U. S. Gypsum Co.....	35
Wheeler Osgood Sales Corp., Tacoma, Wash.	
Wheeling Corrugating Co.....	53
BENCH VISES—See Vises, Bench	
BENCHES—SAW—See Saw Rigs	
BEVELS	
Stanley Works.....	23-145
BIN GATES—See Gates, Bin	
BIT BRACES—See Braces, Bit	
BITS—SCREWDRIVER	
Stanley Works.....	23-145
BLACKBOARDS—COMPOSITION	
Certain-Teed Prod. Corp.....	8-9
BLACKBOARDS—MANUFACTURED	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
BLINDS	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	
Roach & Musser Co.....	133
BLOCKS—GLASS—See Glass Blocks	
Certain-Teed Prod. Corp.....	8-9
BLOWERS—VENTILATING	
Autovent Fan and Blower Co.....	154
BLUE PRINT PAPER—See Paper, Blue Print	
BOARDS—BACKING	
Harbor Plywood Corp.....	51
BOARDS—BULLETIN	
Armstrong Cork Co.....	115-136
Certain-Teed Prod. Corp.....	8-9
Congoleum-Nairn Inc.....	33
Knappe & Vogt Mfg. Co.....	137
BOARDS—DEADENING	
Armstrong Cork Co.....	115-136
Insulite Co.....	32
Masonite Corp.....	117
U. S. Gypsum Co.....	35
BOARDS—DRAIN	
Armstrong Cork Co.....	115-136
Bradley Lbr. Co.....	15
Crane Co.....	39
Farley & Loetscher Mfg. Co.....	155
Harbor Plywood Corp.....	51
Huttig Mfg. Co., Muscatine, Iowa.....	
Kitchen Maid Corp.....	139
Roach & Musser Co.....	133
Standard Sanitary Mfg. Co.....	46

Weyerhaeuser Sales Co.	6-7
BOARDS—DRAWING	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
Weyerhaeuser Sales Co.	6-7
BOARDS—INSULATING	
Armstrong Cork Co.	115-136
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Gen. Insulating & Mfg. Co., Alexandria, Ind.	
Homasote Co.	115
Insulite Co.	32
Keasbey & Mattison Co.	31
Kimberly Clark Co.	49
Masonite Corp.	117
Owens-Illinois Glass Co.	28
Sialkraft Co., The	105
U. S. Gypsum Co.	35
Wood Conversion Co.	24
BOARDS—IRONING, BUILT-IN	
Curtis Companies	12
Huttig Mfg. Co., Muscatine, Iowa	
Kitchen Maid Corp.	139
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
BOARDS—MORTAR (Steel)	
Donley Brothers Co.	141
BOARDS—PLASTER	
Certain-Teed Prod. Corp.	8-9
BOARDS—SHEATHING	
Armstrong Cork Co.	115-136
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Flintkote Co.	14
Frost Lumber Industries Inc., Shreveport, La.	
Harbor Plywood Corp.	51
Homasote Co.	115
Insulite Co.	32
Keasbey & Mattison Co.	31
Masonite Corp.	117
U. S. Gypsum Co.	35
U. S. Plywood Corp.	22
Weyerhaeuser Sales Co.	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	
BOARDS—WALL	
Armstrong Cork Co.	115-136
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Harbor Plywood Corp., Tacoma, Wash.	51
Homasote Co.	115
Insulite Co.	32
Marsh Wall Products Co.	112
Masonite Corp.	117
Pacific Mutual Door Co., Tacoma, Wash.	
Robinson Mfg. Co., Everett, Wash.	
Ruberoid Co.	43
U. S. Gypsum Co.	35
U. S. Plywood Corp.	22
Wheeler Osgood Sales Corp., Tacoma, Wash.	
Wood Conversion Co.	24
Yankee Fiber Tile Mfg. Co., 51 Selden Ave., Detroit, Mich.	
BOILER CEMENT—See Cement, Boiler	
BOILER COVERINGS—See Coverings, Boiler	
BOILERS—GAS-FIRED	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
L. J. Mueller Furnace Co.	27
BOILERS—HEATING PLANT	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
L. J. Mueller Furnace Co.	27
Gar Wood Industries, Inc.	140
BOILERS—HOT WATER SUPPLY	
American Radiator	46
Crane Co.	39
Gar Wood Industries, Inc.	140
BOILERS—OIL-FIRED	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
Gar Wood Industries, Inc.	140
BOILERS—RANGE	
American Radiator	46
Crane Co.	39
BOLTS—DOOR—See Hardware, Door	
BOLTS—EXPANDED METAL LATH	
U. S. Gypsum Co.	35
BOLTS—GARAGE DOOR	
Allith-Prouty, Inc.	149
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
National Mfg. Co.	Outside back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
BOLTS—SURFACE	
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
Stanley Works	23-145
BOLTS—TOGGLE	
Wagner Mfg. Co.	155
BOLTS—WINDOW—See Hardware, Sash	
BOND—PLASTER	
The Barrett Co.	107
Calbar Paint & Varnish Co.	151
Philip Carey Co.	37
U. S. Gypsum Co.	35
BOOKS—BUILDING	
Am. Technical Society	149
BOOKS—PLAN	

Frost Lumber Industries Inc., Shreveport, La.	
House of The Month Service	149
BORING MACHINES—See Machines, Boring	
BOWLS—CLOSET	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
BOXES—MAIL	
McKinney Mfg. Co.	125
Milcor Steel Co.	48
Penn-Greg Co.	155
BOXES—MAIL BUILT-IN	
Donley Brothers Co.	141
Majestic Co., Huntington, Ind.	
Penn-Greg Co.	155
BOXES—METER	
F. D. Kees Mfg. Co.	153
BOXES—MITER	
Stanley Works	23-145
BOXES—MIXING	
Donley Brothers Co.	141
Kewanee Mfg. Co.	140
Milcor Steel Co.	48
Truscon Steel Co.	3
BOXES—OUTLET	
General Electric Co.	36
BOXES—SWITCHES	
General Electric Co.	36
F. D. Kees Mfg. Co.	145
BOXES—WOODEN	
Frost Lumber Industries Inc., Shreveport, La.	
BRACES—BIT	
Stanley Works	23-145
BRACES—CORNER	
Frantz Mfg. Co.	137
F. D. Kees Mfg. Co.	153
McKinney Mfg. Co.	125
Stanley Works	23-145
BRACKETS—BATHROOM	
Knape & Vogt Mfg. Co.	137
Miami Cabinet, Division of Philip Carey Co.	123
Standard Sanitary Mfg. Co.	46
Stanley Works	23-145
BRACKETS—LADDER	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Coburn Trolley Track Co., Holyoke, Mass.	
Steel Scaffolding Co.	156
Wagner Mfg. Co.	155
BRACKETS—ORNAMENTAL	
Cincinnati Iron Fence Co., Inc.	149
Curtis Companies	12
Huttig Mfg. Co., Muscatine, Iowa	
International Steel Co.	137
BRACKETS—RAIL OR TRACK	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Allith-Prouty, Inc.	149
Cincinnati Iron Fence Co.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Curtis Companies	12
McKinney Mfg. Co.	125
National Mfg. Co.	Outside Back Cover
BRACKETS—ROOFING	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Stanley Works	23-145
Steel Scaffolding Co.	156
Wagner Mfg. Co.	155
BRACKETS—SCAFFOLD	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Reliable Jack Co.	145
Wagner Mfg. Co.	155
BRACKETS—SHEATHING	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Steel Scaffolding Co.	156
BRACKETS—SHELF	
Knape & Vogt Mfg. Co.	137
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
BRACKETS—WALL	
Ajax Building Bracket Co., 1551 Mt. Rydal Road, Cleveland Heights, Ohio	
Cincinnati Iron Fence Co.	149
Knape & Vogt Mfg. Co.	137
Steel Scaffolding Co.	156
BREAKFAST NOOKS OR ROOMS	
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	
BREAST DRILLS—See Drills, Breast	
BRICK CARRIERS—See Carriers, Brick	
BRICK COLORS—See Colors, Brick	
BRICK WATERPROOFING—See Waterproofing, Brick	
BRICKLAYERS CEMENT—See Cement, Masons	
BRIDGING—FLOOR	
Frost Lumber Industries Inc., Shreveport, La.	
Truscon Steel Co.	3
Weyerhaeuser Sales Co.	6-7
BRONZE DOORS—See Doors, Bronze	
BRONZE TABLETS	
Cincinnati Iron Fence Co.	149
BRUSHES—GLUE	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
BRUSHES—PAINT	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Sherwin-Williams Co.	25
BRUSHES—POLISHING	
Am. Floor Surf. Mach. Co.	114
BUBBLING FOUNTAINS—See Fountains, Bubbling	
BUCKETS—HOISTING AND DUMPING	
Chain Belt Co.	153
Jaeger Machine Co.	110
BUILDERS HARDWARE—See Hardware, Various Kinds	
BUILDING ANCHORS—See Anchors,	

Building	
BUILDING MATERIAL ELEVATORS—See Hoists	
BUILDINGS—PORTABLE	
Edwards Mfg. Co.	143
Harbor Plywood Corp., Hoquiam, Wash.	
BUILDINGS—STEEL	
Edwards Mfg. Co.	143
International Steel Co.	137
Truscon Steel Co.	3
BULLETIN BOARDS—See Boards, Bulletin	
BURNERS—CONVERSION GAS-FIRED	
Peerless Mfg. Co.	147
BURNERS—GARBAGE—See Incinerators	
BURNERS—RUBBISH	
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27
Wheeling Corrugating Co.	53
BUTT HINGES—See Hinges	
BUTTS—DOOR—See Hinges, Butt	
CABINETS—BATHROOM	
Crane Co.	39
Philip Carey Co.	37
Curtis Companies	12
Farley & Loetscher Co.	155
Huttig Mfg. Co., Muscatine, Ia.	
I-XL Furniture Co., Inc., Goshen, Ind.	
Miami Cabinet, Division of Philip Carey Co.	123
Roach & Musser Co.	133
CABINETS—DRESSING ROOM	
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	
Roach & Musser Co.	133
CABINETS—KITCHEN	
Crane Co.	39
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	
I-XL Furniture Co., Inc., Goshen, Ind.	
Kitchen Maid Corp.	139
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
Standard Sanitary Mfg. Co.	46
CABINETS—STORAGE	
Curtis Companies	12
Farley & Loetscher Co.	155
I-XL Furniture Co., Inc., Goshen, Ind.	
Kitchen Maid Corp.	139
CABINET HARDWARE—See Hardware, Cabinet	
CABINET HEATERS—See Heaters, Cabinet	
CABLES—ARMORED	
General Electric Co.	36
CABLES—ELEVATOR	
General Electric Co.	36
CALCIUM CHLORIDE	
Pittsburgh, Plate Glass Co., Pittsburgh, Pa.	
Solvay Sales Corp., 40 Rector St., New York, N.Y.	
CAPS—CHIMNEY	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
CAPS—POST	
Cincinnati Iron Fence Co.	149
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
Pacific Mutual Door Co., Tacoma, Wash.	
CARRIERS—BRICK AND TILE	
Donley Brothers Co.	141
Kewanee Mfg. Co.	140
Wheeling Corrugating Co.	53
CARRIERS—CLOTHES—See Fixtures, Wardrobe	
CARRIERS—OVERHEAD	
Allith-Prouty, Inc.	149
Chain Belt Co.	153
Coburn Trolley Track Co., Holyoke, Mass.	
Wagner Mfg. Co.	155
CARS—ELEVATOR	
Wagner Mfg. Co.	155
CARTS—CONCRETE	
American Cement Machine Co.	155
Construction Machinery Co.	45
Jaeger Machine Co.	110
Sterling Wheelbarrow Co.	152
CARTS—DUMP	
American Cement Machine Co.	155
Construction Machinery Co.	45
CASEMENT WINDOWS—See Windows, Casement	
CASEMENT WINDOW ADJUSTERS—See Hardware, Casement Window	
CASINGS—WINDOW	
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Mesker Brothers	127
Truscon Steel Co.	3
CASTINGS TO ORDER	
Crane Co.	39
CATCHES—CABINET—See Hardware, Cabinet	
CATCHES—DOOR—See Hardware	
CATCH BASIN FORMS—See Forms and Molds	
CAULKING MATERIALS—See Compounds, Caulking	
CEILINGS—METAL	
Edwards, Mfg. Co.	143
International Steel Co.	137
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
CEILINGS—SUSPENDED	
Milcor Steel Co.	48
U. S. Gypsum Co.	35
CEILINGS—TILE	
Armstrong Cork Co.	115-136
Flintkote Co.	14
Gibbs Boardtile Corp.	150

Insulite Co.	32
U. S. Gypsum Co.	35
CEILINGS—WOOD	
Bradley Lbr. Co.	15
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries Inc., Shreveport, La.	
Harbor Plywood Corp.	51
Weyerhaeuser Sales Co.	6-7
CEILING CLIPS—See Clips	
CEILING HOOKS—See Hooks, Ceiling	
CEILING PLATES—See Plates, Ceiling	
CELLAR DOORS—See Doors, Cellar	
CELLAR SASH FRAMES—See Frames, Cellar Sash	
CELLAR WALL GRATINGS—See Gratings, Wall	
CELLAR WINDOWS—See Frames, Cellar	
CEMENT—ASBESTOS	
Philip Carey Co.	37
Celotex Corp.	2
Crane Co.	39
Flintkote Co.	39
Keasbey & Mattison Co.	31
Pecora Paint Co., Inc.	153
Ruberoid Co.	43
The Texas Company, Chrysler Bldg., New York, N. Y.	
CEMENT—ASPHALT	
Armstrong Cork Co.	115-136
Barber Asphalt Corp.	41
Barrett Co.	107
Calbar Paint and Varnish Co.	151
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Pecora Paint Co., Inc.	153
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N. Y.	
U. S. Gypsum Co.	35
CEMENT—BOILER	
Barber Asphalt Corp.	41
Crane Co.	39
Gen. Insul. & Mfg. Co., Alexandria, Ind.	
Keasbey & Mattison Co.	31
Pecora Paint Co., Inc.	153
Monarch Waterproofing Co., Kansas City, Mo.	
Ruberoid Co.	43
CEMENT—FIBRE ROOF	
Armstrong Cork Co.	115-136
Barber Asphalt Corp.	41
The Barrett Co.	107
Calbar Paint Co.	151
Philip Carey Co.	37
Flintkote Co.	37
Pecora Paint Co., Inc.	153
Ruberoid Co.	43
Sherwin-Williams Co.	25
The Texas Co., Chrysler Bldg., New York, N. Y.	
CEMENT—HIGH EARLY STRENGTH, PORTLAND	
Lone Star Cement Corp.	58
Louisville Cement Co.	101
CEMENT—HIGH TEMPERATURE	
Armstrong Cork Co.	115-136
Philip Carey Co.	37
Pecora Paint Co., Inc.	153
Gen. Insulating & Mfg. Co., Alexandria, Ind.	
Keasbey & Mattison Co.	31
Monarch Waterproofing Co., Kansas City, Mo.	
Ruberoid Co.	43
CEMENT—MASONS	
Lehigh Portland Co.	47
Louisville Cement Co., Inc.	101
Medusa Portland Cement Co., Midland Bldg., Cleveland, Ohio.	
Ohio Hydrate & Supply Co.	129
Portland Cement Corp.	158
CEMENT—MASTIC	
Marsh Wall Products, Inc.	112
CEMENT—NON-STAINING	
Louisville Cement Co.	101
CEMENT—PLASTER	
Portland Cement Corp.	158
U. S. Gypsum Co.	35
CEMENT—PORTLAND	
Lehigh Portland Cement Co.	47
Lone Star Cement Co.	58
Louisville Cement Co.	101
Medusa Portland Cement Co., Midland Bldg., Cleveland, Ohio.	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Portland Cement Corp.	158
Universal Atlas Cement Co.	33
CEMENT—PORTLAND—(White)	
Medusa Portland Cement Co., Midland Bldg., Cleveland, Ohio.	
Portland Cement Co.	158
Universal Atlas Cement Co.	33
CEMENT—ROOFING	
Armstrong Cork Co.	115-136
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Milcor Steel Co.	48
Pecora Paint Co., Inc.	153
Ruberoid Co.	43
Sherwin-Williams Co.	25
The Texas Co., Chrysler Bldg., New York, N. Y.	
U. S. Gypsum Co.	35
CEMENT—SETTING	
Barber Asphalt Corp.	41
Pecora Paint Co., Inc.	153

CEMENT—SLATE	
Flintkote Co.	14
Pecora Paint Co., Inc.	153
CEMENT—TILE SETTING	
Armstrong Cork Co.	115-136
Barber Asphalt Corp.	41
Calbar Paint Co.	151
Ohio Hydrate & Supply Co.	129
Pecora Paint Co., Inc.	153
Portland Cement Co.	158
Wood Conversion Co.	24
CEMENT ACCELERATORS—See Accelerators, Cement	
CEMENT BRICK MACHINES—See Machines, Cement Brick	
CEMENT COATINGS—See Coatings, Cement	
CEMENT COLORS—See Colors, Cement	
CEMENT GROUTERS—See Grouters, Cement	
CEMENT HARDENERS—See Accelerators, Cement	
CEMENT MIXERS—See Mixers, Cement	
CEMENT REINFORCING—See Reinforcing, Cement	
CEMENT STAINS—See Stains, Cement	
CEMENT WATERPROOFING—See Waterproofing	
CESSPOOL TRAPS—See Traps, Cesspool	
CEMENT—WATERPROOFED PORTLAND	
Louisville Cement Co.	101
CHAINS—DOOR	
Lockwood Hdw. Co.	138
Overhead Door Corp.	123
Wagner Mfg. Co.	155
CHAINS—SASH	
Knape & Vogt Mfg. Co.	137
Lockwood Hdw. Co.	138
CHAINS—TRANSOM	
Lockwood Hdw. Co.	138
National Brass Co., Grand Rapids, Mich.	
CHANNELS—STEEL	
International Steel Co.	137
Knape & Vogt Mfg. Co.	137
Milcor Steel Co.	48
CHECKS—DOOR	
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
Stanley Works	23-145
Wagner Mfg. Co.	155
CHEMICAL CLOSETS—See Closets, Chemical	
CHISELS—CARPENTER'S	
Stanley Works	23-145
CHOCKS—DOOR	
Lockwood Hdw. Co.	138
Wagner Mfg. Co.	155
Frantz Mfg. Co.	137
CHUTES—COAL	
Donley Brothers Co.	141
Edwards Mfg. Co.	143
Holland Furnace Co., Holland, Mich.	
International Steel Co.	137
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
Mesker Brothers	127
Milcor Steel Co.	48
Truscon Steel Co.	3
Vento Steel Products Co., Muskegon, Mich.	
CHUTES—CONCRETE	
Jaeger Machine Co.	110
CHUTES—MAIL	
Donley Brothers Co.	141
CIRCULAR KNIVES—See Knives	
CIRCULAR SAWS—See Saws	
CIRCULATORS—GAS-FIRED	
Peerless Mfg. Co.	147
CISTERN COVERS—See Covers	
CLAMPS—BRICK—See Carriers, Brick	
CLAMPS—CARPENTERS	
Knape & Vogt Mfg. Co.	137
CLAMPS—COLUMN	
Sterling Wheelbarrow Co.	152
CLAMPS—FURNITURE MAKING	
Knape & Vogt Mfg. Co.	137
CLEANOUT DOORS—See Doors, Cleanout	
CLIPS—CEILING	
Armstrong Cork Co.	115-136
U. S. Gypsum Co.	35
CLOCKS—ELECTRIC	
General Electric Co.	86
CLOSERS—DOOR	
Frantz Mfg. Co.	137
Wagner Mfg. Co.	155
CLOSETS—CHEMICAL	
San-Equip Co., Syracuse, N.Y.	
CLOSETS—HANGING	
Crane Co.	89
Standard Sanitary Mfg. Co.	46
Crane Co.	89
Standard Sanitary Mfg. Co.	46
CLOSET BOWLS—See Bowls, Closet	
CLOSET LINING—CEDAR—See Lining, Cedar	
CLOSET SEATS—See Seats, Closet	
CLOSET TANKS—See Tanks, Closets	
CLOSET TANK FITTINGS—See Fittings, Closet Tank	
CLOTH—SCREEN	
Curtis Companies.	12
CLOTH—TRACING	
Keuffel & Esser Co., Hoboken, N.J.	
CLOTHES CARRIERS—See Fixtures, Wardrobe	
CLOTHES DRYERS—See Dryers, Laundry	
CLOTHES POSTS—See Posts, Clothes	
CLOTHES CLOSET FIXTURES—See Fixtures, Wardrobe	
COAL CHUTES—COAL—See Chutes, Coal	
COAL DOORS—See Doors, Coal	
COAL STOKERS	
Crane Co.	39

Delco Frigidaire Corp.	16
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
COAL STOVES—See Ranges	
COALHOLE COVERS—See Covers, Coalhole	
COATINGS—Asbestos Roof	
The Barrett Co.	107
Calbar Paint Co.	151
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Donley Brothers Co.	141
Flintkote Co.	14
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
The Texas Co., Chrysler Bldg., New York, N. Y.	
COATINGS—CEMENT	
Calbar Paint Co.	151
Celotex Corp.	2
Flintkote Co.	14
Medusa Portland Cement Co., Midland Bldg., Cleveland, Ohio.	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
The Reardon Co.	121
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N. Y.	
COATING—ROOF	
Barber Asphalt Corp.	41
The Barrett Co.	107
Calbar Paint Co.	151
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Ruberoid Co.	43
Sherwin-Williams Co.	25
The Texas Co., Chrysler Bldg., New York, N. Y.	
COLONIAL HARDWARE—See Hardware, Colonial	
COILS—HEATING AND COOLING	
Modine Mfg. Co.	11
COLONNADES	
Curtis Companies	12
Huttig Mfg. Co., Muscatine, Iowa.	
COLORS—BRICK	
Colorcrete Industries, Inc.	151
W. E. Dunn Mfg. Co.	111
Pecora Paint Co., Inc.	153
COLORS—CEMENT	
Colorcrete Industries, Inc.	151
Pecora Paint Co., Inc.	153
COLUMN BASES—See Bases, Column	
COLUMNS—BASEMENT	
International Steel Co.	137
Donley Brothers Co.	141
COLUMN CLAMPS—See Clamps, Column	
COLUMN COVERINGS—See Coverings, Column	
COLUMN FORMS—See Forms and Molds	
COLUMNS—METAL	
Donley Brothers Co.	141
Edwards Mfg. Co.	143
COLUMNS—PIPE	
Donley Brothers Co.	141
International Steel Co.	137
Kewanee Mfg. Co.	140
COLUMNS—WOOD	
Curtis Companies.	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa.	
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	138
Wheeler Osgood Sales Corp., Tacoma, Wash.	
COMBINATION SQUARES—See Squares, Combination	
COMPOUNDS—CAULKING AND OAKUM	
Accurate Metal Weatherstrip Co.	155
Allmetal Weatherstrip Co.	156
Armstrong Cork Co.	115-136
Calbar Paint & Varnish Co.	151
Donley Brothers Co.	141
Flintkote Co.	14
COMPOUNDS—GLAZING	
Calbar Paint Co.	151
Pecora Paint Co., Inc.	153
COMPOUNDS—SOLDERING	
General Electric Co.	36
CONCRETE BLOCK MOLDS—See Forms and Molds	
CONCRETE BLOCK MACHINES—See Machines, Concrete Block	
CONCRETE CHUTES—See Chutes, Concrete	
CONCRETE INSERTS—See Inserts, Concrete	
CONCRETE MIXERS—See Mixers, Concrete	
CONDUCTOR PIPE—See Pipe, Conductor	
CONTRACTION JOINTS—See Joints, Contraction	
CONTRACTORS' HOISTS—See Hoists, Building Material	
CONVEYERS—BELT	
Chain Belt Co.	153
CONVEYERS—PORTABLE	
Edwards Mfg. Co.	143
CONVENIENCE OUTLETS—See Outlets, Electric	
CONVERTIBLE LEVELS—See Levels	
COOLERS—ROOM	
Dallas Engr. Co.	156
Delco Frigidaire	16
Modine Mfg. Co.	11
COOLERS—WATER ELECTRIC	
Ebeo Mfg. Co.	142
COOLERS—WATER (Ice)	
Delco Frigidaire	16
Ebeo Mfg. Co.	142
Modine Mfg. Co.	11

COPPER—ROLL AND SHEET
American Brass Co. 143
Edwards Mfg. Co. 143
Milcor Steel Co. 48
Sisalkraft, Inc. 105
**COPPER SHINGLES—See Roofing, Cop-
per**
CORD—AWNING
Samson Cordage Works. 147
CORD—DUMB WAITER
Samson Cordage Works. 147
CORD—SASH
Samson Cordage Works. 147
CORD—SHADE
Samson Cordage Works. 147
CORNER BEAD—See Beads, Corner
CORNER BRACES—See Braces, Corner
CORNERS—METAL
Edwards Mfg. Co. 143
Donley Brothers Co. 141
Frantz Mfg. Co. 137
F. D. Kees Mfg. Co. 153
Milcor Steel Co. 48
National Brass Co., Grand Rapids, Mich.
Wheeling Corrugating Co. 53
CORNICES—METAL
Edwards Mfg. Co. 143
International Steel Co. 137
Milcor Steel Co. 48
CORRESPONDENCE SCHOOLS—See
Schools
CORRUGATED IRON ARCHES—See
Arches
COUNTERSINKS
Stanley Works. 23-145
COUPLINGS—WROUGHT IRON
Crane Co. 89
COVE BASE—See Base, Cove
COVERINGS—BOILER AND PIPE
Armstrong Cork Co. 115-136
Philip Carey Co. 37
Crane Co. 89
Gen. Insulating & Mfg. Co., Alexandria,
Ind. 31
Keasbey & Mattison Co. 31
Ruberoid Co. 43
COVERINGS—FLOOR (Linoleum)
Armstrong Cork Co. 115-136
Congoleum-Nairn, Inc. 38
COVERINGS—FLOOR (Tile)
Congoleum-Nairn, Inc. 38
COVERINGS—TILE
Armstrong Cork Co. 115-136
Tile-Text Co. 131
COVERINGS—WALL
Armstrong Cork Co. 115-136
Bradley Lbr. Co. 15
Celotex Corp. 2
Congoleum-Nairn Inc. 38
Flintkote Co. 14
Gibbs Boardtile Corp. 150
Marsh Wall Products 112
Masonite Corp. 117
Ruberoid Co. 43
Tile-Text Co. 131
U. S. Plywood Corp. 22
Yankee Fiber Tile Mfg. Co., 51 Shelden
Ave., Detroit, Mich.
COVERINGS—WATERPROOF
Armstrong Cork Co. 115-136
Barber Asphalt Corp. 41
Donley Brothers Co. 141
Medusa Portland Cement Co., Midland
Bldg., Cleveland, Ohio 105
Sisalkraft Co. 105
COVERS—CISTERN
Donley Brothers Co. 141
Kewanee Mfg. Co. 140
Majestic Co., Huntington, Ind.
COVERS—COAL HOLE
Donley Brothers Co. 141
Majestic Co., Huntington, Ind.
COVERS—MANHOLE
International Steel Co. 137
Majestic Co., Huntington, Ind.
**COVERS—RADIATOR—See Enclosures,
Radiator**
CRAYONS—LUMBER
Keuffel & Esser Co., Hoboken, N. J. 155
Warren-Knight Co. 155
CULVERT PIPE—See Pipe, Culvert
CURTAINS—ASBESTOS
Keasbey & Mattison Co. 31
Edwards Mfg. Co. 143
CURTAINS—METAL
General Electric Co. 36
CUT-OUTS—ELECTRICAL
CUTTERS—ASBESTOS SHINGLES
Ajax Building Bracket Co., 1551 Mt.
Rydal Road, Cleveland Heights, Ohio 37
Philip Carey Co. 37
Keasbey & Mattison Co. 31
Ruberoid Co. 43
U. S. Gypsum Co. 35
CUTTERS—DADO
Am. Saw Mill Mach. Co., Hackettstown,
N. J. 121
DeWalt Products Corp. 121
Mall Tool Co. 143
Master Woodworker Mfg. Co. 153
Power King Tool Co., Warsaw, Ind.
Walker-Turner Co., Plainfield, N. J.
CUTTERS—SLATE AND TILE
Wodack Electric Tool Corp. 151
CUTTERS—TILE ELECTRIC
Wodack Electric Tool Corp. 151
DADO HEADS—See Heads, Dado
DAMPERS—FIREPLACE
Donley Brothers Co. 141
Kewanee Mfg. Co. 140
Majestic Co., Huntington, Ind.
Peerless Mfg. Co. 147
Superior Fireplace Co. 144
DAMPERS—FORM AND BLADE

Superior Fireplace Co. 144
DAMPING
Barber Asphalt Corp. 41
The Barrett Co. 107
Calbar Paint Co. 151
Philip Carey Co. 37
Donley Brothers Co. 141
Flintkote Co. 14
Monarch Waterproofing Prod. Co., Kansas
City, Mo. 153
Pecora Paint Co., Inc. 105
Sisalkraft Co. 105
DASH—STUCCO
U. S. Gypsum Co. 35
DEADENERS—SOUND
Armstrong Cork Co. 115-136
Certain-Teed Prod. Corp. 8-9
Insulite Co. 32
Wood Conversion Co. 24
**DEADENING BOARDS—See Boards,
Deadenig**
DEADENING FELTS—See Felts, Deadening
DECORATIONS—GARDEN
Cincinnati Iron Fence Co. 149
Farley & Loetscher Mfg. Co. 155
**DIMENSION STOCK—See Stock Dimen-
sion**
**DISAPPEARING STAIRS—See Stairs,
Disappearing**
DISK GRINDERS—See Grinders
DIVIDERS—See Instruments, Drawing
**DOME DAMPERS—See Dampers, Fire-
place**
DOMES—STEEL
Majestic Co., Huntington, Ind. 48
Milcor Steel Co. 48
DOOR CHIMES—ELECTRIC
A. E. Rittenhouse Co., Inc. 127
DOORS—ACCESS
Donley Brothers Co. 141
DOORS—AIRPORT
Kinnear Mfg. Co. 135
Mesker Brothers 127
Overhead Door Co. 123
Truscon Steel Co. 3
DOORS—ALUMINUM
Kawneer Co., Niles, Mich.
DOORS—ASBESTOS
Keasbey & Mattison Co. 31
Ruberoid Co. 43
DOORS—ASHPIT
American Radiator Co. 46
Donley Brothers Co. 141
International Steel Co. 137
Kewanee Mfg. Co. 140
Majestic Co., Huntington, Ind. 147
Peerless Mfg. Co. 147
Wheeling Corrugating Co. 53
DOORS—BRONZE
International Steel Co. 137
Kawneer Co., Niles, Mich.
DOORS—CELLAR (Metal)
Cincinnati Iron Fence Co. 149
International Steel Co. 137
DOORS—CELLAR (Wood)
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
DOORS—CLEANOUT
American Radiator Co. 46
Donley Brothers Co. 141
International Steel Co. 137
Kewanee Mfg. Co. 140
Majestic Co., Huntington, Ind. 127
Mesker Brothers 127
Milcor Steel Co. 48
Superior Fireplace Co. 144
Wheeling Corrugating Co. 53
DOORS—COAL
Donley Brothers Co. 141
International Steel Co. 137
Kewanee Mfg. Co. 140
Majestic Co., Huntington, Ind. 147
Peerless Mfg. Co. 147
U. S. Gypsum Co. 35
Wheeling Corrugating Co. 53
DOORS—FIRE
American Radiator Co. 46
Coburn Trolley Track Co., Holyoke, Mass.
Edwards Mfg. Co. 143
International Steel Co. 137
Kinnear Mfg. Co. 135
DOORS—FIREPROOF (Metal Covered)
Edwards Mfg. Co. 143
Truscon Steel Co. 3
DOORS—FOLDING
Farley & Loetscher Mfg. Co. 155
Huttig Mfg. Co., Muscatine, Iowa
Stanley Works 23-145
Truscon Steel Co. 3
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—GARAGE (Electric)
Overhead Door Co. 123
Rowe Mfg. Co. 20
DOORS—GARAGE (Metal)
Edwards Mfg. Co. 143
International Steel Co. 137
Kinnear Mfg. Co. 135
Mesker Brothers 127
Overhead Door Co. 123
Rowe Mfg. Co. 20
Truscon Steel Co. 3
DOORS—GARAGE WOOD
Crawford Door Co., 5300 St. Jean St.,
Detroit, Mich. 12
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Harbor Plywood Corp. 51
Huttig Mfg. Co., Muscatine, Iowa
Kinnear Mfg. Co. 135
Majestic Co., Huntington, Ind. 123
Overhead Door Co. 123
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133
Robinson Mfg. Co., Everett, Wash.
Rowe Mfg. Co. 20

Stanley Works 23-145
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—GRILLED
Curtis Companies 12
Pacific Mutual Door Co., Tacoma, Wash.
DOORS—HARDWOOD
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Harbor Plywood Corp., Tacoma, Wash.
Huttig Mfg. Co., Muscatine, Iowa
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133
U. S. Plywood Corp. 22
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—HOLLOW METAL
Mesker Brothers 127
Overhead Door Co. 123
DOORS—HOUSE
Robinson Mfg. Co., Everett, Wash.
DOORS—IRON
Cincinnati Iron Fence Co. 149
Edwards Mfg. Co. 143
Overhead Door Co. 123
DOORS—KALAMEIN
Edwards Mfg. Co. 143
Overhead Door Co. 123
DOORS—LAUNDRY CHUTE
Donley Brothers Co. 141
DOORS—OVERHEAD
Allith-Prouty, Inc. 149
Crawford Door Co., 5300 St. Jean St.,
Detroit, Mich. 12
Curtis Companies 12
Edwards Mfg. Co. 143
Farley & Loetscher Mfg. Co. 155
Frantz Mfg. Co. 137
Harbor Plywood Corp., Tacoma, Wash.
Kinnear Mfg. Co. 135
Majestic Co., Huntington, Ind. 127
Mesker Brothers 127
National Mfg. Co. Outside Back Cover
Overhead Door Co. 123
Pacific Mutual Door Co., Tacoma, Wash.
Rowe Mfg. Co. 20
Stanley Works 23-145
Truscon Steel Co. 3
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—OVERHEAD (Ventilating)
Overhead Door Corp. 123
DOORS—ROLLING
Huttig Mfg. Co., Muscatine, Iowa
Wagner Mfg. Co. 155
DOORS—ROLLING (Steel)
Edwards Mfg. Co. 143
International Steel Co. 137
Kinnear Mfg. Co. 135
Truscon Steel Co. 3
DOORS—SCREEN
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Harbor Plywood Corp. 51
Huttig Mfg. Co., Muscatine, Iowa
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133
Robinson Mfg. Co., Everett, Wash.
Vento Steel Products Co., Muskegon,
Mich.
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—SHOWER STALL
Crane Co. 89
Kawneer Co., Niles, Mich.
Henry Weis Mfg. Co. 130
DOORS—SIDEWALK
Cincinnati Iron Fence Co. 149
Curtis Companies 12
International Steel Co. 137
Majestic Co., Huntington, Ind.
DOORS—SLIDING
Cincinnati Iron Fence Co. 149
Curtis Companies 12
Edwards Mfg. Co. 143
Farley & Loetscher Mfg. Co. 155
Harbor Plywood Corp. 51
Huttig Mfg. Co., Muscatine, Iowa
Mesker Brothers 127
Truscon Steel Co. 3
Wagner Mfg. Co. 155
DOORS—SOFTWOOD
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Harbor Plywood Corp. 51
Huttig Mfg. Co., Muscatine, Iowa
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133
Wheeler Osgood Sales Corp., Tacoma,
Wash.
DOORS—STEEL
Cincinnati Iron Fence Co. 149
Edwards Mfg. Co. 143
Majestic Co., Huntington, Ind. 127
Mesker Brothers 127
Overhead Door Co. 123
Truscon Steel Co. 3
Vento Steel Products Co., Muskegon,
Mich.
DOORS—STEEL ACCESS
Majestic Co., Huntington, Ind.
DOORS—STORM
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Huttig Mfg. Co., Muscatine, Iowa
Mesker Brothers 127
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133
Wheeler Osgood Sales Corp., Tacoma,
Wash.
**DOORS—STORM AND SCREEN COM-
BINED**
Curtis Companies 12
Farley & Loetscher Mfg. Co. 155
Huttig Mfg. Co., Muscatine, Iowa
Pacific Mutual Door Co., Tacoma, Wash.
Roach & Musser Co. 133

Wheeler Osgood Sales Corp., Tacoma, Wash.	
DOORS—TINCLAD	
Coburn Trolley Track Co., Holyoke, Mass.	
Edwards Mfg. Co.	143
International Steel Co.	137
Overhead Door Co.	123
DOORS—VENTILATING	
Overhead Door Co.	123
DOORS—WIRE	
Curtis Companies	12
Edwards Mfg. Co.	143
DOOR BOLTS—See Hardware, Door	
DOOR BUTTS—See Hinges, Butt	
DOOR CATCHES—See Hardware, Door	
DOOR CHAINS—See Chains, Door	
DOOR CHECKS—See Checks, Door	
DOOR CLOSETS—See Closets, Door	
DOOR FRAMES—See Frames, Door	
DOOR GUARDS—See Guards, Door	
DOOR HARDWARE—See Hardware, Door	
DOOR HOLDERS—See Holders, Door	
DOOR JAMBS—See Jambs, Door	
DOOR KNOCKERS—See Hardware, Door	
DOOR LOCKS—See Locks, Door	
DOOR LOCK MORTISERS—See Mortis-ers, Door Lock	
DOOR OPENERS (Electric)—See Open-ers, Door	
DOOR PULLS—See Hardware, Door	
DOOR ROLLERS—See Rollers, Door	
DOOR SPRINGS—See Springs, Door	
DOOR STOPS—See Stops, Door	
DOOR TRIM—See Trim, Door	
DRAINS—FLOOR	
Donley Brothers Co.	141
Kowanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	46
Standard Sanitary Mfg. Co.	46
DRAIN BOARDS—See Boards, Drain	
DRAIN PIPE—See Pipe, Drain	
DRAIN PUMPS—See Pumps, Drain	
DRAIN—ROOF AND VENT CONNEC-TIONS	
The Barrett Co.	107
DRAIN TILE—See Tile Drain	
DRAIN TILE MACHINES—See Machines, Drain Tile	
DRAIN TILE MOLDS—See Forms and MOLDS	
DRAWERS—SLIDES	
Knap & Vogt Mfg. Co.	137
DRAWING INKS—See Inks, Drawing	
DRAWING INSTRUMENTS—See Instru-ments, Drawing	
DRAWING PAPER—See Paper, Drawing	
DRILLING MACHINERY—See Machin-ery, Drilling	
DRILLS—BENCH	
Mall Tool Co.	143
Walker-Turner Co., Plainfield, N. J.	155
Wallace Co., J. D.	155
DRILLS—BREAST	
Stanley Works	23-145
DRILLS—ELECTRIC	
Power King Tool Co., Warsaw, Ind.	143
Mall Tool Co.	143
Signal Elec. Mfg. Co., Menominee, Mich.	21
Skilzaw, Inc.	21
Walker Works	23-145
Walker-Turner Co., Plainfield, N. J.	155
Wadock Electric Tool Corp.	151
DRILLS—HAND	
Stanley Works	23-145
DRINKING FOUNTAINS	
Standard Sanitary Mfg. Co.	46
DRIVEWAY ARCHES—See Arches	
DUMBWAITERS	
Farley & Loetscher Mfg. Co.	155
Kimball Bros. Co.	154
DUMBWAITER CORD—See Cord	
DUMP CARTS—See Carts, Dump	
DUMPS—ASH	
Donley Brothers Co.	141
International Steel Co.	137
Majestic Co., Huntington, Ind.	46
Peerless Mfg. Co.	147
Superior Fireplace Co.	144
EAVES TROUGH	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
Weyerhaeuser Sales Co.	6-7
Wheeling Corrugating Co.	53
EAVES TROUGH HANGERS—See Hang-ers, Eaves Trough	
EAVES TROUGH OUTLETS—See Out-lets, Eaves Trough	
EDGE PROTECTORS—See Protectors	
ELBOWS—COPPER	
Crane Co.	39
Edwards Mfg. Co.	143
ELBOWS—SHEET METAL	
Holland Furnace Co., Holland, Mich.	48
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
ELECTRIC CUT-OUTS—See Cut-outs, Electric	
ELECTRIC DRILLS—See Drills, Electric	
ELECTRIC GLUEPOTS—See Gluepots, Electric	
ELECTRIC GRATES—See Furnishings, Fireplace	
ELECTRIC HOISTS—See Hoists, Electric	
ELECTRIC MOTORS—See Motors, Elec-tric	
ELECTRIC HAMMERS—See Hammers, Electric	
ELECTRIC OUTLETS—See Outlets, Elec-tric	
ELECTRIC PUMPS—See Pumps, Electric	
ELECTRIC SAWS—See Saws, Electric	
ELECTRIC SOCKETS—See Sockets, Elec-tric	
ELEVATORS—BUILDING MATERIAL—See Hoists, Building Material	
ELEVATOR CARS—See Cars, Elevator	

ELEVATOR DOOR HARDWARE—See Hardware, Elevator Door	
ELEVATOR GATES—See Gates, Elevator	
ELEVATORS—HAND	
Kimball Bros.	154
ELEVATING MACHINERY—See Machin-ery, Elevating	
ELEVATORS—SIDEWALK	
Kimball Bros.	154
ENAMELS	
The Barrett Co.	107
Calbar Paint Co.	151
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	25
Sherwin-Williams Co.	25
ENCLOSURES—PORCH (Glass)	
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Owens-Illinois Glass Co.	28
ENCLOSURES—PORCH (Screen)	
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	133
Roach & Musser Co.	133
ENCLOSURES—RADIATOR	
American Radiator	46
Crane Co.	39
Edwards Mfg. Co.	143
Majestic Co., Huntington, Ind.	46
ENGINES—GAS	
Delco Appliances Divn.	16
International Harvester Co., 180 No. Mich-igan, Chicago, Ill.	143
Mall Tool Co.	143
ENGINES—KEROSENE	
International Harvester Co., 180 No. Mich-igan Ave., Chicago, Ill.	143
ENTRANCES—HOUSE	
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Owens-Illinois Glass Co.	28
EQUIPMENT—BARN	
Cincinnati Iron Fence Co.	149
Wagner Mfg. Co.	155
EQUIPMENT—CLOTHES CLOSET	
Knap & Vogt Mfg. Co.	137
EQUIPMENT—SPRAY PAINTING	
Colorcrete Industries Inc.	151
EXPANDED METAL—See Metal, Ex-panded	
EXPANDED METAL LATH BOLTS—See Bolts, Expanded Metal Lath	
EXPANSION BOLTS—See Bolts, Expan-sion	
EXPANSION JOINTS—See Joints, Expan-sion	
FABRICATED STEEL—See Steel, Fabri-cated	
FACTORY WINDOWS—See Windows, Factory	
FANS—ATTIC	
American Radiator	46
Autovent Fan and Blower Co.	154
Dallas Engr. Co.	156
Delco Frigidaire	16
Majestic Co., Huntington, Ind.	46
Round Oak Co.	124
Victor Electric Products, Inc.	141
FANS—ATTIC VENTILATING	
American Radiator	46
Autovent Fan and Blower Co.	154
Dallas Engr. Co.	156
Delco Appliances Divn.	16
Majestic Co., Huntington, Ind.	46
Victor Electric Products, Inc.	141
Gar Wood Industries, Inc.	140
FANS—ELECTRIC	
Autovent Fan and Blower Co.	154
Dallas Engr. Co.	156
Delco Appliance Divn.	16
General Electric Co.	36
Signal Elec. Mfg. Co., Menominee, Mich.	141
Victor Electric Products, Inc.	141
FANS—FURNACE	
Autovent Fan and Blower Co.	156
Delco Appliance Divn.	16
Majestic Co., Huntington, Ind.	46
L. J. Mueller Furnace Co.	27
Round Oak Co.	124
Victor Electric Products, Inc.	141
FANS—KITCHEN—See Ventilators, Kitchen	
FARM LEVELS—See Levels	
FAUCETS	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
FELTS—ASPHALT	
Barber Asphalt Corp.	41
Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Flintkote Co.	14
Keasbey & Mattison Co.	31
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N.Y.	35
U. S. Gypsum Co.	35
FELTS—ASPHALT (Saturated)	
Armstrong Cork Co.	115-136
Barber Asphalt Corp.	41
Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Keasbey & Mattison Co.	31
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N.Y.	35
U. S. Gypsum Co.	35
FITTINGS—COPPER TUBE	
American Brass Co.	143
FITTINGS—ELECTRIC CONDUIT	
Aluminum Co. of America	3rd cover
General Electric Co.	36
FITTINGS—PIPE	
American Radiator	46
Crane Co.	39

Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Ruberoid Co.	43
FELTS—INSULATING	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
General Electric Co.	36
Ruberoid Co.	43
Standard Lime & Stone Co., Baltimore, Md.	43
FELTS—TARRED	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Ruberoid Co.	43
U. S. Gypsum Co.	35
FENCE POSTS—See Posts, Fence	
FENCE POST MOLDS—See Forms and MOLDS	
FENCES, IRON AND STEEL	
Cincinnati Iron Fence Co.	149
Edwards Mfg. Co.	143
FENCES—LATTICE	
Frost Lumber Industries, Inc., Shreve-port, Louisiana	58
FENCES—WOVEN WIRE	
Cincinnati Iron Fence Co.	149
Edwards Mfg. Co.	143
Wheeling Corrugating Co.	58
FIBRE BOARDS—See Boards, Fibre	
FIBRE TILE—See Tile, Fibre	
FILERS—BANDSAW	
Foley Mfg. Co.	153
FILERS—CIRCULAR SAW	
Foley Mfg. Co.	153
FILERS—HAND SAW	
Foley Mfg. Co.	153
FILERS—SAW—See Machines, Saw Filing	
FILERS—SAW AUTOMATIC	
Foley Mfg. Co.	153
FILERS—SAW ELECTRIC	
Foley Mfg. Co.	153
FILLERS—JOINT	
Barber Asphalt Corp.	41
General Electric Co.	36
I. F. Laucks, Inc.	154
U. S. Gypsum Co.	35
FILLERS—PAINT	
General Electric Co.	36
Pecora Paint Co., Inc.	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	25
Sherwin-Williams Co.	25
FILLERS—WOOD	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	25
Sherwin-Williams Co.	25
FILLETS—STAIR RAIL—See Millwork, Wholesale	
FILTERS—WATER	
Crane Co.	39
FINISH—FLOOR	
Armstrong Cork Co.	115-136
Am. Floor Surfacing Machine Co.	114
Bruce Co., E. L.	54
Calbar Paint Co.	151
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	25
Sherwin-Williams Co.	25
FINISH—WALL	
Armstrong Cork Co.	115-136
Calbar Paint Co.	151
Celotex Corp.	2
Frost Lumber Industries, Inc., Shreve-port, La.	117
Masonite Corp.	117
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	25
Sherwin-Williams Co.	25
U. S. Gypsum Co.	35
Yankee Fiber Tile Mfg. Co., 55 Selden Ave., Detroit, Mich.	117
FIRE DOORS—See Doors, Fire	
FIREDOOR HARDWARE—See Hardware, Fire-door	
FIREPLACES	
Brecher Co.	154
Curtis Companies	12
Donley Brothers Co.	141
Edwards Mfg. Co.	143
Majestic Co., Huntington, Ind.	46
Owens-Illinois Glass Co.	28
Peerless Mfg. Co.	147
Superior Fireplace Co.	144
FIREPLACE DAMPERS—See Dampers, Fireplace	
FIREPLACE FURNISHINGS—See Furn-ishings, Fireplace	
FIREPLACES—CIRCULATING	
Heatilator Co.	120
FIREPLACES—HEAT CIRCULATOR	
Superior Fireplace Co.	144
FIREPLACES—OUTDOOR	
Donley Brothers Co.	141
FIREPROOFING—HOLLOW TILE	
U. S. Gypsum Co.	35
FIREPROOFING—METAL LATH	
Milcor Steel Co.	48
Truscon Steel Co.	3
U. S. Gypsum Co.	35
FITTINGS—CLOSET TANK	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
FITTINGS—COPPER TUBE	
American Brass Co.	143
FITTINGS—ELECTRIC CONDUIT	
Aluminum Co. of America	3rd cover
General Electric Co.	36
FITTINGS—PIPE	
American Radiator	46
Crane Co.	39

Milcor Steel Co.	48
FITTINGS—TANK	
Crane Co.	39
FITTINGS—TOILET	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
FIXTURES—BATHROOM	
Crane Co.	39
Knappe & Vogt Mfg. Co.	137
Marsh Wall Products, Inc.	112
Standard Sanitary Mfg. Co.	46
FIXTURES—LIGHTING	
Knappe & Vogt Mfg. Co.	137
FIXTURES—MIRROR	
Knappe & Vogt Mfg. Co.	137
Miami Cabinet Division.	123
FIXTURES—PLUMBING	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
FIXTURES—SCAFFOLD BRACKET	
Steel Scaffolding Co.	156
Wagner Mfg. Co.	155
FIXTURES—STORE	
Knappe & Vogt Mfg. Co.	137
FIXTURES—WARDROBE	
Knappe & Vogt Mfg. Co.	137
Stanley Works.	23-145
FLASHING BLOCKS AND FORMS	
The Barrett Co.	107
FLOOR BRIDGING—See Bridging, Floor	
FLOOR CLIPS—See Clips, Floor	
FLOOR COVERINGS—See Coverings, Floor	
FLOOR DRAINS—See Drains, Floor	
FLOOR FINISH—See Finish, Floor	
FLOOR—FURNACES	
Am. Gas Prod. Co.	46
Payne Furnace & Supply Co.	128
FLOOR GRINDERS—See Grinders, Floor	
FLOOR HARDENERS—See Accelerators, Cement	
FLOOR HINGES—See Hinges, Floor	
FLOOR POLISHING MACHINES—See Machines, Floor Polishing	
FLOOR REGISTERS—See Registers, Floor	
FLOOR SURFACING MACHINES—Electric—See Machines, Floor Surfacing	
FLOOR TILE—See Tile, Floor	
FLOOR WAX—See Wax, Floor	
FLOORING—ASBESTOS	
Tile-Text Co.	131
FLOORING—ASPHALT MASTIC	
Armstrong Cork Co.	115-136
Barber Asphalt Corp.	41
Calbar Paint Co.	151
Flintkote Co.	14
Tile-Text Co.	131
FLOORING—ASPHALT PLANK	
Philip Carey Co.	37
FLOORING—COMPOSITION	
Armstrong Cork Co.	115-136
Celotex Corp.	2
Masonite Corp.	117
Tile-Text Co.	131
FLOORING—HARDWOOD	
Bradley Lbr. Co.	15
Bruce Co., E. L.	54
Chapman & Dewey Lbr. Co., Memphis, Tenn.	
Frost Lumber Industries, Inc., Shreveport, La.	
Wood Conversion Co.	24
FLOORING—LINOLEUM	
Armstrong Cork Co.	115-136
Congoleum-Nairn, Inc.	38
Frost Lumber Industries, Inc., Shreveport, La.	
FLOORING—OAK	
Bruce Co., E. L.	54
Chapman & Dewey Lbr. Co., Memphis, Tenn.	
Frost Lumber Industries Co., Shreveport, La.	
FLOORING—RUBBER TILE	
Armstrong Cork Co.	115-136
Wright Rubber Products Co., Racine, Wis.	
FLOORING—SLATE	
Truscon Steel Co.	3
FLOORING—STEEL	
Wheeling Corrugating Co.	53
FLOORING—WOOD	
Arkansas Soft Pine Bureau.	132
Bradley Lbr. Co.	15
Bruce Co., E. L.	54
Chapman & Dewey Lbr. Co., Memphis, Tenn.	
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries, Inc., Shreveport, La.	
Harbor Plywood Corp.	51
Weyerhaeuser Sales Co.	6-7
FLOORING—WOOD BLOCK	
Bruce Co., E. L.	54
FLUE PIPE—See Pipe, Flue	
FLUE THIMBLES—See Thimbles	
FOLDING DOORS—See Doors, Folding	
FOLDING GATES—See Gates, Folding	
FOOT BATHS—See Baths, Foot	
FORMS AND MOLDS—CATCH BASIN	
Colorcrete Industries, Inc.	151
FORMS AND MOLDS—CHIMNEY	
Colorcrete Industries, Inc.	151
FORMS AND MOLDS—COLUMN	
Colorcrete Industries, Inc.	151
FORMS AND MOLDS—CONCRETE BLOCK	
Colorcrete Industries, Inc.	151
FORMS AND MOLDS—CONCRETE CONSTRUCTION	
Colorcrete Industries, Inc.	151
Jaeger Machine Co.	110
Masonite Corp.	117
U. S. Plywood Corp.	22
FORMS AND MOLDS—CONCRETE	

CONSTRUCTION FORMS	
Harbor Plywood Corp.	51
FORMS AND MOLDS—DRAIN TILE	
Colorcrete Industries, Inc.	151
FORMS AND MOLDS—SEWER PIPE	
Colorcrete Industries, Inc.	151
FOUNTAINS—BUBBLING	
Crane Co.	39
Ebco Mfg. Co.	142
Standard Sanitary Mfg. Co.	46
FRAMES—BLUEPRINTS	
Keuffel & Esser Co., Hoboken, N.J.	
FRAMES—CELLAR	
Cincinnati Iron Fence Co.	149
Donley Brothers Co.	141
Majestic Co., Huntington, Ind.	127
Mesker Brothers.	127
Milcor Steel Co.	48
Curtis Companies.	12
FRAMES—CELLAR SASH (Steel)	
Curtis Companies.	12
Donley Brothers Co.	141
International Steel Co.	137
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
Mesker Brothers.	127
Milcor Steel Co.	48
Truscon Steel Co.	3
U. S. Gypsum Co.	35
Vento Steel Product Co., Muskegon, Mich.	
FRAMES—CELLAR SASH (Wood)	
Anderson Corp.	29
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries, Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa.	
Majestic Co., Huntington, Ind.	
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
FRAMES—DOOR (Steel)	
Coburn Trolley Track Co., Holyoke, Mass.	
Curtis Companies.	12
Donley Brothers Co.	141
Edwards Mfg. Co.	143
International Steel Co.	137
Knappe & Vogt Mfg. Co.	137
Truscon Steel Co.	3
Vento Steel Products Co., Muskegon, Mich.	
FRAMES—DOOR (Wood)	
Bradley Lbr. Co.	15
Anderson Corp.	29
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries, Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa.	
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
Wheeler Osgood Sales Corp., Tacoma, Wash.	
FRAMES—SASH (Steel)	
Curtis Companies.	12
Edwards Mfg. Co.	143
International Steel Co.	137
Kewanee Mfg. Co.	140
Mesker Brothers.	127
Pacific Mutual Door Co., Tacoma, Wash.	
Truscon Steel Co.	3
Vento Steel Products Co., Muskegon, Mich.	
FRAMES—SASH (Wood)	
Anderson Corp.	29
Arkansas Soft Pine Bureau.	132
Bradley Lbr. Co.	15
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries, Inc., Shreveport, La.	
FRAMES—WINDOW	
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Mesker Brothers.	127
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
FRONTS—STORE	
International Steel Co.	137
Kawneer Co., Niles, Mich.	
Libby-Owens-Ford Glass Co.	40
Owens-Illinois Glass Co.	28
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Zouri Store Fronts.	5
FURNACE FANS—See Fans, Furnace	
FURNACE PIPE—See Pipe, Furnace	
FURNACE REGULATORS—See Regulators, Furnace	
FURNACES—FLOOR (Gas-fired)	
Peerless Mfg. Co.	147
FURNACES—GAS-FIRED	
American Radiator.	46
Crane Co.	39
Delco Frigidare.	16
Henry Furnace & Foundry Co.	116
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27
Payne Furnace & Supply Co.	128
Gar Wood Industries, Inc.	140
FURNACES—OIL-FIRED	
Crane Co.	39
Delco Frigidare.	16
Henry Furnace & Foundry Co.	116
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27
Round Oak Co.	124
Gar Wood Industries, Inc.	140
FURNACES—STOKER-FIRED	
Crane Co.	39
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27

Round Oak Co.	124
FURNACES—WARM AIR—See Heating Systems	
FURNISHINGS—FIREPLACE	
Brecher Co.	154
Donley Brothers Co.	141
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
Peerless Mfg. Co.	147
F. W. Shepler Stove Co.	151
Superior Fireplace Co.	144
FURNITURE—BUILT-IN	
Farley & Loetscher Mfg. Co.	155
Kitchen Maid Corp.	139
FURNITURE—DRAFTING ROOM	
Keuffel & Esser Co., Hoboken, N.J.	
Warren-Knight Co.	155
FUSE PLUGS—See Plugs, Fuse	
GALVANIZED NAILS—See Nails	
GARAGE DOORS—See Doors, Garage	
GARAGE DOOR HANGERS—See Hardware, Garage Door	
GARAGE DOOR HOLDERS—See Holders	
GARAGE DOOR OPENERS—See Openers, Garage Door	
GARAGE HARDWARE—See Hardware, Garage	
GARBAGE BURNERS—See Incinerators	
GARMENT HANGERS—See Fixtures, Wardrobe	
GAS ENGINES—See Engines, Gas	
GAS LOGS—See Furnishings, Fireplace	
GAS RANGES—See Ranges, Gas	
GATES—BIN	
Jaeger Machine Co.	110
GATES—ELEVATOR	
Cincinnati Iron Fence Co.	149
GATES—FOLDING	
Cincinnati Iron Fence Co.	149
GATES—IRON	
Cincinnati Iron Fence Co.	149
Donley Brothers Co.	141
International Steel Co.	137
GLASS BLOCKS	
Owens Illinois Glass Co.	28
GLASS—LEADED	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
GLASS—PLATE	
Libby, Owens, Ford Glass Co.	40
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
GLASS—UNBREAKABLE	
Libby, Owens, Ford Glass Co.	40
GLASS—WINDOW	
Farley & Loetscher Mfg. Co.	155
Fourco Glass Co., Clarksburg, W. Va.	
Libby, Owens, Ford Glass Co.	40
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
GLASS—WIRE	
Libby, Owens, Ford Glass Co.	40
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
GLAZING COMPOUNDS—See Compounds, Glazing	
GLUEPOTS	
Wallace Co., J. D.	155
GRATES—AREA	
Cincinnati Iron Fence Co., Inc.	149
Donley Brothers Co.	141
International Steel Co.	137
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
GRATES—FIREPLACE WOOD AND COAL	
Superior Fireplace Co.	144
GRATING—CELLAR WALL	
Donley Brothers Co.	141
International Steel Co.	137
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
GRATING—IRON	
Cincinnati Iron Fence Co.	149
Donley Brothers Co.	141
International Steel Co.	137
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
GRATINGS—WIRE	
Edwards Mfg. Co.	143
International Steel Co.	137
GRILLES	
Duplex, Inc.	142
GRILLES—ALUMINUM	
Aluminum Co. of America.	
Inside Back Cover	
GRILLES—BRONZE	
Edwards Mfg. Co.	143
GRILLES—ROLLING (Steel)	
Kinnear Mfg. Co.	135
GRILLES—VENTILATING AND HOT AIR	
Dallas Engr. Co., Inc.	156
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27
Gar Wood Industries, Inc.	140
GRILLES—WIRE AND STEEL	
Cincinnati Iron Fence Co.	149
Edwards Mfg. Co.	143
International Steel Co.	137
L. J. Mueller Furnace Co.	27
GRILLES—WOOD	
Dallas Engr. Co.	156
GRINDERS—DISK	
Mall Tool Co.	143
Walker-Turner Co., Plainfield, N.J.	
GRINDERS—FLOOR	
Am. Floor Surfacing Machine Co.	114
Mall Tool Co.	143
Walker-Turner Co., Plainfield, N.J.	
GRINDERS—OIL STONE	
Wallace Co., J. D.	155
GRINDERS—PORTABLE ELECTRIC	
Wodack Electric Tool Corp.	151

GRINDERS—SAW	
Foley Mfg. Co.	153
GRINDERS—TOOL	
Mall Tool Co.	143
Skilaw, Inc.	21
Stanley Works	23-145
Walker-Turner Co., Plainfield, N.J.	
GROOVING SAWS—See Saws, Grooving	
GROUT MIXERS—See Mixers, Grout	
GROUTERS—CEMENT	
Calbar Paint Co.	151
Mall Tool Co.	143
GAUGES—BUTT	
Stanley Works	23-145
GUARDS—JAMB AND CORNER	
Donley Brothers Co.	141
Wheeling Corrugating Co.	53
GUARDS—DOOR	
Cincinnati Iron Fence Co.	149
International Steel Co.	137
F. D. Kees Mfg. Co.	153
National Brass Co., Grand Rapids, Mich.	
Stanley Works	23-145
GUARDS—RADIATOR—See Enclosures, Radiator	
GUARDS—SNOW	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
GUARDS—WHEEL	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	
Donley Brothers Co.	141
International Steel Co.	137
GUARDS—WINDOW	
Cincinnati Iron Fence Co.	149
Edwards Mfg. Co.	143
International Steel Co.	137
Milcor Steel Co.	48
GUIDES—LETTERING	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
GUMMERS—SAW	
Foley Mfg. Co.	153
GUTTER STRAINERS—EXPANDED METAL	
Milcor Steel Co.	48
HAMMERS—CARPENTERS	
Stanley Works	23-145
HAMMERS—ELECTRIC	
Mall Tool Co.	143
Stanley Works	23-145
Wodack Electric Tool Corp.	151
HANGERS—BATH TUB	
Wm. B. Lucke, Inc.	145
HANGERS—EAVES TROUGH	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
HANGERS—GARMENT—See Fixtures, Wardrobe	
HANGERS—PIPE	
American Radiator	46
Crane Co.	39
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
HANGERS—SCREEN	
F. D. Kees Mfg. Co.	153
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
HANGERS—SLIDING PARTITIONS	
Allith Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Wagner Mfg. Co.	155
HANGERS—SPRINKLER PIPE	
Crane Co.	39
HARDWARE—ACCORDION DOOR	
Allith Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
National Mfg. Co.	Outside Back Cover
Wagner Mfg. Co.	155
HARDWARE—BARN DOOR	
Coburn Trolley Track Co., Holyoke, Mass.	
Crawford Door Co., 5300 St. Jean St., Detroit, Mich.	
Frantz Mfg. Co.	137
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
HARDWARE—CABINET	
American Cabinet Hdw. Co., Rockford, Ill.	
Frantz Mfg. Co.	137
Knappe & Vogt Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
HARDWARE—CASEMENT WINDOWS	
Casement Hardware Co., 406 N. Wood St., Chicago, Ill.	
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
Mesker Brothers	127
National Brass Co., Grand Rapids, Mich.	
Stanley Works	23-145
Truscon Steel Co.	3
HARDWARE—COLONIAL	
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
Stanley Works	23-145
HARDWARE—DOOR	
Allith Prouty, Inc.	149
American Cabinet Hdw. Co., Rockford, Ill.	
Coburn Trolley Track Co., Holyoke, Mass.	
Crawford Door Co., 5300 St. Jean St., Detroit, Mich.	
Duplex, Inc.	142
Frantz Mfg. Co.	137
Knappe & Vogt Mfg. Co.	137
Lockwood Hdw. Co.	138
Majestic Co., Huntington, Ind.	
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Saber Lock Works	149

Stanley Works	23-145
Wagner Mfg. Co.	155
HARDWARE—ELEVATOR DOOR	
Coburn Trolley Track Co., Holyoke, Mass.	
Lockwood Hdw. Co.	138
Wagner Mfg. Co.	155
HARDWARE—FIREDOOR	
Allith Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
Wagner Mfg. Co.	155
HARDWARE—FURNITURE	
Knappe & Vogt Mfg. Co.	137
HARDWARE—GARAGE	
Allith Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Crawford Door Co., 5300 St. Jean St., Detroit, Mich.	
Frantz Mfg. Co.	137
Majestic Co., Huntington, Ind.	
National Mfg. Co.	Outside Back Cover
Overhead Door Co.	123
Wagner Mfg. Co.	155
HARDWARE—LAVATORY	
Crane Co.	39
Lockwood Hdw. Co.	138
Standard Sanitary Mfg. Co.	46
HARDWARE—SASH	
American Cabinet Hdw. Co., Rockford, Ill.	
Caldwell Mfg. Co.	139
Curtis Companies	12
Duplex, Inc.	142
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
HARDWARE—SCREEN DOOR	
F. D. Kees Mfg. Co.	153
Knappe & Vogt Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Wagner Mfg. Co.	155
HARDWARE—SHOWCASE	
Knappe & Vogt Mfg. Co.	137
HARDWARE—TRANSOM	
Lockwood Hdw. Co., Holyoke, Mass.	
McKinney Mfg. Co.	125
HEADS—DADO	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	
DeWalt Products Corp.	121
Master Woodworker Mfg. Co.	153
Power King Tool Co., Warsaw, Ind.	
HEAT CONTROLS	
American Radiator	46
Crane Co.	39
Holland Furnace Co., Holland, Mich.	
Superior Fire Place Co.	144
HEATERS—AUTOMATIC	
American Radiator	46
Delco Frigidaire Corp.	16
Gar Wood Industries, Inc.	140
HEATERS—BLAST	
Modine Mfg. Co.	11
HEATERS—CABINET	
American Radiator	46
General Electric Co.	36
Modine Mfg. Co.	11
Payne Furnace & Supply Co.	128
HEATERS—GARAGE	
Crane Co.	39
Shepler Stove Co., F. W.	151
HEATERS—GAS	
Crane Co.	39
Payne Furnace & Supply Co.	128
Shepler Stove Co., F. W.	151
Superior Fireplace Co.	144
HEATERS—GAS RADIANT	
Peerless Mfg. Co.	147
HEATERS—ROOM	
Frank Adam Electric Co.	143
Edwards Mfg. Co.	143
Phillip Carey Co.	37
Payne Furnace & Supply Co.	128
Round Oak Co.	124
HEATERS—SCHOOLROOM	
Crane Co.	39
L. J. Mueller Furnace Co.	27
Round Oak Co.	124
Shepler Stove Co., F. W.	151
HEATERS—TANK	
American Radiator	46
Crane Co.	39
L. J. Mueller Furnace Co.	27
HEATERS—UNIT	
Modine Mfg. Co.	11
HEATERS—WATER	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
Round Oak Co.	124
Gar Wood Industries, Inc.	140
HEATING PLANT BOILERS—See Boilers, Heating Plant	
HEATING PLANTS—HOT WATER	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
L. J. Mueller Furnace Co.	27
Gar Wood Industries, Inc.	140
HEATING PLANTS—OIL BURNERS	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
Henry Furnace & Foundry Co.	116
Holland Furnace Co., Holland, Mich.	
L. J. Mueller Furnace Co.	27
Round Oak Co.	124
HEATING PLANTS—PIPELESS FURNACES	
Henry Furnace & Foundry Co.	116
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27

Payne Furnace & Supply Co.	128
Round Oak Co.	124
HEATING PLANTS—STEAM	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
L. J. Mueller Furnace Co.	27
Gar Wood Industries, Inc.	140
HEATING PLANTS—VAPOR	
American Radiator	46
Crane Co.	39
Delco Frigidaire Corp.	16
Holland Furnace Co., Holland, Mich.	
L. J. Mueller Furnace Co.	27
Gar Wood Industries, Inc.	140
HEATING PLANTS—WARM AIR FURNACES	
Crane Co.	39
Delco Frigidaire Corp.	16
L. J. Mueller Furnace Co.	27
Payne Furnace & Supply Co.	128
Round Oak Co.	124
Superior Fireplace Co.	144
Gar Wood Industries, Inc.	140
HEATING SYSTEMS—OIL BURNER	
HEATING SYSTEMS—WARM AIR FURNACES	
Majestic Co., Huntington, Ind.	
Henry Furnace & Foundry Co.	116
Holland Furnace Co., Holland, Mich.	
HIGH TEMPERATURE CEMENT—See Cement, High Temperature	
HINGES—BLIND AND SHUTTER	
McKinney Mfg. Co.	125
Stanley Works	23-145
HINGES—BUTT	
American Cabinet Hdw. Co., Rockford, Ill.	
Frantz Mfg. Co.	137
Knappe & Vogt Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
HINGES—FLOOR	
Frantz Mfg. Co.	137
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
HINGES—GATE	
Frantz Mfg. Co.	137
National Mfg. Co.	Outside Back Cover
Wagner Mfg. Co.	155
HINGES—SCREEN DOOR	
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
Wagner Mfg. Co.	155
HINGES—SPRING	
Frantz Mfg. Co.	137
National Brass Co., Grand Rapids, Mich.	
HINGES—STRAP	
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
HINGES—SURFACE	
American Cabinet Hdw. Co., Rockford, Ill.	
Frantz Mfg. Co.	137
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
HOISTS—BUILDING MATERIAL	
Construction Machinery Co.	45
Jaeger Machine Co.	110
Steel Scaffolding Co.	156
HOISTS—ELECTRIC	
Jaeger Machine Co.	110
HOISTS—GASOLINE	
Construction Machinery Co.	45
HOISTING BUCKETS—See Buckets, Hoisting and Dumping	
HOLDERS—DOOR	
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
National Brass Co., Grand Rapids, Mich.	
National Mfg. Co.	Outside Back Cover
Stanley Works	23-145
Wagner Mfg. Co.	155
HOLDERS—DOOR CHECK	
Frantz Mfg. Co.	137
Wagner Mfg. Co.	155
HOLDERS—GARAGE DOOR	
Frantz Mfg. Co.	137
Wagner Mfg. Co.	155
HOLDERS—SASH	
Duplex, Inc.	142
McKinney Mfg. Co.	125
HOLLOW TILE MACHINES, CEMENT—See Machines, Hollow Tile	
HOME MODELS—TRU-STYLE HOME MODELS	
Holt Publishing Co.	126
HOOKS—CEILING	
Lockwood Hdw. Co.	138
HORSES, MASONS—See Trestles	
HOT AIR GRILLES—See Grilles, Hot Air	
HOT WATER HEATING SYSTEMS—See Heating, Hot Water Systems	
HOUSE MOVING ROLLERS—See Rollers, House Moving	
HYDRATED LIME—See Lime, Hydrated	
INCINERATORS—CHIMNEY FED	
Donley Brothers Co.	141
L. J. Mueller Furnace Co.	27
INCINERATORS—GARBAGE	
Majestic Co., Huntington, Ind.	
INKS—DRAWING	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
INSERTS—CONCRETE	
Donley Brothers Co.	141
Truscon Steel Co.	3
INSERTS—PRESSED STEEL	

Truscon Steel Co.	8
INSTRUMENTS—DRAWING	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
INSTRUMENTS—SURVEYING	
Bostrom-Brady Mfg. Co.	153
Warren-Knight Co.	155
David White Co.	156
INSULATING BOARDS—See Boards, Insulating	
INSULATING FELTS—See Felts, Insulating	
INSULATING LUMBER—See Boards, Insulating	
INSULATING PAPER—See Paper, Insulating	
INTERIOR TRIM—See Trim, Interior	
IRON DOORS—See Doors, Iron	
IRON GATES—See Gates, Iron	
IRON GRATINGS—See Gratings, Iron	
IRONING BOARDS—BUILT-IN—See Boards, Ironing	
IRON FENCE—(Plain and Oranamental)	
Cincinnati Iron Fence Co.	149
IRONS—ANGLE	
Donley Brothers Co.	141
International Steel Co.	137
Majestic Co., Huntington, Ind.	125
McKinney Mfg. Co.	125
Stanley Works	23-145
Wagner Mfg. Co.	155
IRON—ARCHITECTURAL	
Cincinnati Fence Co.	149
Edwards Mfg. Co.	143
International Steel Co.	137
IRONS—PLANE	
Stanley Works	23-145
IRONS—SOLDERING	
General Electric Co.	86
IRONS—SOLDERING—(Electric)	
Stanley Works	23-145
JACKS—LADDER	
Ajax Building Bracket Co., 1551 Rydal Mt. Road, Cleveland Hgts., Ohio	156
Steel Scaffolding Co.	156
JAMB—GUARDS—See Guards, Jamb	
JAMBS—DOOR	
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	152
Frost Lumber Industries, Inc., Shreveport, La.	152
Huttig Mfg. Co., Muscatine, Iowa	152
Pacific Mutual Door Co., Tacoma, Wash.	152
Roach & Musser Co.	133
Weyerhaeuser Sales Co.	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	6-7
JOINT FILLERS—See Fillers, Joint	
JOINTER HEADS—See Heads, Jointer	
JOINTER KNIVES—See Knives, Jointer	
JOINTERS—WOODWORKING	
American Saw Mill Mach. Co., Hackettstown, N.J.	143
Mall Tool Co.	143
Master Woodworker Mfg. Co.	153
Power King Tool Co., Warsaw, Ind.	153
Walker-Turner Co., Plainfield, N.J.	153
Wallace Co., J. D.	155
JOINTS—CONTRACTION	
Truscon Steel Co.	8
JOINTS—EXPANDED STEEL	
Milcor Steel Co.	48
Truscon Steel Co.	8
JOINTS—EXPANSION	
Philip Carey Co.	37
Celotex Corp.	2
Crane Co.	39
Truscon Steel Co.	8
JOIST ANCHORS—See Anchors—Joist	
JOISTS—STEEL	
International Steel Co.	137
Truscon Steel Co.	8
KALSOMINE	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	155
U. S. Gypsum Co.	35
KITCHEN CABINETS—See Cabinets, Kitchen	
KITCHEN CABINET HARDWARE—See Hardware	
KITCHEN SINKS—See Sinks, Kitchen	
KITCHEN VENTILATORS—See Ventilators, Kitchen	
KITCHENETTES	
Farley & Loetscher Mfg. Co.	155
I-XL Furniture Co., Inc., Goshen, Ind.	139
Kitchen Maid Corp.	139
KNIVES—BAND	
Wallace Co., J. D.	155
KNIVES—CIRCULAR	
Wallace Co., J. D.	155
KNIVES—JOINTER	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	153
Master Woodworker Mfg. Co.	153
Power King Tool Co., Warsaw, Ind.	153
Wallace Co., J. D.	155
KNIVES—MOULDING	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	153
Master Woodworker Mfg. Co.	153
Wallace Co., J. D.	155
LACQUERS	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	155
Sherwin-Williams Co.	25
LADDER BRACKETS—See Brackets, Ladder	
LADDER JACKS—See Jacks, Ladder	
LATH—EXPANDED METAL	
Certain-Teed Prod. Corp.	8-9
Milcor Steel Co.	48
U. S. Gypsum Co.	35
Truscon Steel Co.	8

Wheeling Corrugating Co.	53
LATH—GYPSUM	
Certain-Teed Prod. Corp.	8-9
U. S. Gypsum Co.	35
LATH—INSULATING	
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Insulite Co.	32
Flintkote Co.	14
Truscon Steel Co.	8
U. S. Gypsum Co.	35
Wood Conversion Co.	24
LATH—METAL	
Truscon Steel Co.	8
U. S. Gypsum Co.	35
Wheeling Corrugating Co.	53
LATH—REINFORCING	
International Steel Co.	137
Milcor Steel Co.	48
Truscon Steel Co.	8
U. S. Gypsum Co.	35
Wheeling Corrugating Co.	53
LATH—SHEATHING	
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
U. S. Gypsum Co.	35
LATH—WOOD	
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	152
Frost Lumber Industries Inc., Shreveport, La.	152
Robt. McNair Shingle Co., Vancouver, B. C.	6-7
Shevlin Pine Sales Co., Minneapolis, Minn.	6-7
Weyerhaeuser Sales Co.	6-7
LATHES—WOODWORKING	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	143
Walker-Turner Co., Plainfield, N.J.	153
Wallace Co., J. D.	155
LAUNDRY TRAYS—See Trays, Laundry	
LAVATORIES	
Crane Co.	39
Standard Sanitary Mfg. Co.	48
LAVATORY HARDWARE—See Hardware, Lavatory	
LEADED GLASS—See Glass	
LETTERING GUIDES—See Guides, Lettering	
LETTERS AND NUMBERS	
Edwards Mfg. Co.	143
LEVEL SIGHTS—See Sights, Level	
LEVELS—CARPENTERS	
Bostrom-Brady Mfg. Co.	153
Stanley Tools	23-145
LEVELS—CONVERTIBLE	
Bostrom-Brady Mfg. Co.	153
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
David White Co.	156
LEVELS—LINE	
Stanley Works	23-145
Warren-Knight Co.	155
LEVELS—MASONS	
Stanley Works	23-145
LIFTS—SASH—See Hardware, Sash	
LIFTS—TRANSOM—See Hardware, Transom	
LIGHTING FIXTURES—See Fixtures, Lighting	
LIGHTING SYSTEMS—ELECTRIC	
General Electric Co.	36
LIME—FINISHING	
Certain-Teed Prod. Corp.	8-9
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
LIME—HYDRATED	
Certain-teed Prod. Corp.	8-9
Louisville Cement Co.	101
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
LIME—LUMP	
Louisville Cement Co.	101
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
LIME—PREPARED	
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
LIME WATERPROOFING—See Waterproofing, Lime	
LINING—CLOSET (Cedar)	
Bradley Lbr. Co.	15
Bruce Co., E. L.	54
Frost Lumber Industries, Inc., Shreveport, La.	152
LINING—WALL	
Flintkote Co.	14
Frost Lumber Industries, Inc., Shreveport, La.	152
LINOLEUM—See Coverings, Floor	
LINTELS—STEEL	
Donley Brothers Co.	141
Majestic Co., Huntington, Ind.	125
Truscon Steel Co.	8
Vento Steel Products Co., Muskegon, Mich.	141
LOCKS—DOOR	
Duplex, Inc.	142
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
National Brass Co., Grand Rapids, Mich.	125
LOCKS—SASH	
Sager Lock Works	149
Duplex, Inc.	142
Frantz Mfg. Co.	137
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	125
National Mfg Co., Outside Back Cover	
LOCKS—VENTILATION	
Duplex, Inc.	142
LUMBER—ASBESTOS	
Philip Carey Co.	37
Homasote Co.	115
Keasbey & Mattison Co.	81
Ruberoid Co.	43

LUMBER—WHOLESALE	
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Chapman & Dewey Lbr. Co., Memphis, Tenn.	15
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	152
Robert McNair Shingle Co.	152
Weyerhaeuser Co.	6-7
MACHINES—BLOCK	
W. E. Dunn Mfg. Co.	111
MACHINES—BORING	
Master Woodworker Mfg. Co.	153
MACHINES—CEMENT BRICK	
Colorcrete Industries, Inc.	151
MACHINES—CONCRETE BLOCKS	
Colorcrete Industries, Inc.	151
MACHINES—DRAIN TILE	
W. E. Dunn Mfg. Co.	111
MACHINES—DRAIN TILE (Cement)	
Colorcrete Industries, Inc.	151
MACHINES—FLOOR POLISHING	
Am. Floor Surf. Mach. Co.	114
General Electric Co.	86
Lincoln-Schlueter Floor Machinery Co.	155
Porter-Cable Mach. Co.	139
MACHINES—FLOOR SURFACING	
Am. Floor Surf. Mach. Co.	114
Lincoln-Schlueter Floor Machinery Co.	155
Mall Tool Co.	143
Master Woodworker Mfg. Co.	153
Porter-Cable Mach. Co.	139
Skilsaw, Inc.	21
MACHINES—HOLLOW TILE (Cement)	
Colorcrete Industries, Inc.	151
MACHINES—MITERING	
DeWalt Products Corp.	121
MACHINES—MORTISING	
DeWalt Products Corp.	121
Mall Tool Co.	143
Master Woodworker Mfg. Co.	153
Wallace Co., J. D.	155
MACHINES—PAINT SPRAYING	
Colorcrete Industries, Inc.	151
MACHINES—ROOFING TILE	
Colorcrete Industries, Inc.	151
MACHINES—SANDPAPERING	
American Floor Surf. Mach. Co.	114
Lincoln-Schlueter Floor Machinery Co.	155
Porter-Cable Mach. Co.	139
Skilsaw, Inc.	21
Walker-Turner Co., Plainfield, N.J.	153
MACHINES—SAW FILING	
Foley Mfg. Co.	153
MACHINES—SHAPING	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	143
DeWalt Products Corp.	121
Stanley Works	23-145
Walker-Turner Co., Plainfield, N.J.	153
MACHINES—TAMPING	
Colorcrete Industries, Inc.	151
Mall Tool Co.	143
MACHINES—TERRAZZO RUBBING	
American Floor Surfacing Machine Co.	114
Mall Tool Co.	143
MACHINES—WALL (Cement)	
Mall Tool Co.	143
MACHINES—WAXING	
Am. Floor Surf. Mach. Co.	114
Lincoln-Schlueter Floor Machinery Co.	155
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	155
MACHINERY—BANDSAW	
American Saw Mill Machinery Co.	121
DeWalt Products Corp.	121
Master Woodworker Mfg. Co.	153
Power King Tools Co., Warsaw, Ind.	153
Walker-Turner Co., Plainfield, N.J.	153
MACHINERY—COAL HANDLING	
Chain Belt Co.	153
MACHINERY—DRILLING	
Mall Tool Co.	143
Walker-Turner Co., Plainfield, N.J.	153
MACHINERY—ELEVATING	
Chain Belt Co.	153
MACHINERY—WOODWORKING (Power Driven)	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	143
DeWalt Products Corp.	121
Lincoln-Schlueter Floor Machinery	155
Master Woodworker Mfg. Co.	153
Porter-Cable Mach. Co.	139
Power King Tool Co., Warsaw, Ind.	146
Red Star Products Co.	155
Walker-Turner Co., Plainfield, N.J.	153
Wallace, J. D., Co.	155
MACHINERY—WOODWORKING (Universal)	
Am. Saw Mill Mach. Co., Hackettstown, N.J.	143
R. L. Carter Divn.	125
DeWalt Products Corp.	121
Master Woodworker Mfg. Co.	153
J. D. Wallace Co.	155
MAIL BOXES, BUILT-IN—See Boxes, Built-in Mail	
MAIL CHUTES—See Chutes, Mail	
MANHOLE COVERS—See Covers, Manhole	
MANTELS, WOOD	
The Brecher Co.	154
Curtis Co.	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	152
Roach & Musser Co.	133
MARBLE, ARTIFICIAL	
Marsh Wall Products, Inc.	112
MASONS CEMENT—See Cement, Masons	
MASONS HORSES—See Trestles	
MASONS LEVELS—See Levels, Masons	
MASTIC, MIRROR	
Pecora Paint Co., Inc.	153
MASTIC, STRUCTURAL GLASS	
Pecora Paint Co., Inc.	153
MEDICINE CABINETS—See Cabinets,	

Bathroom	
METAL EXPANDED	
International Steel Co.	137
Milcor Steel Co.	48
Truscon Steel Co.	3
U. S. Gypsum Co.	35
METAL CEILINGS—See Ceilings, Metal	
METAL COLUMNS—See Columns, Metal	
METAL CORNERS—See Corners, Metal	
METAL FABRICATED	
Edwards Mfg. Co.	143
METAL LATH—See Lath, Metal	
MILLWORK—WHOLESALE	
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Cincinnati Iron Fence Co.	149
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	112
Pacific Mutual Door Co., Tacoma, Wash.	3
Roach & Musser Co.	133
MINERAL WOOL—See Wool, Mineral	
MIRROR FIXTURES—See Fixtures, Mirror	
MIXERS—CEMENT	
American Cement Machine Co.	155
Construction Machinery Co.	45
Colorcrete Industries, Inc.	151
MIXERS—CONCRETE	
American Cement Machine Co.	155
T. L. Smith Co.	148
MIXERS—CONCRETE (Batch)	
American Cement Machine Co.	155
Chain Belt Co.	153
Construction Machinery Co.	45
Colorcrete Industries, Inc.	151
Jaeger Machine Co.	110
Koehring Co.	146
T. L. Smith Co.	148
MIXERS—CONCRETE (Continuous)	
American Cement Machine Co.	155
Chain Belt Co.	153
Construction Machinery Co.	45
Jaeger Machine Co.	110
T. L. Smith Co.	148
MIXERS—GROUT	
Chain Belt Co.	153
Construction Machinery Co.	45
Jaeger Machine Co.	110
T. L. Smith Co.	148
MIXERS—MORTAR AND PLASTER	
Chain Belt Co.	153
Construction Machinery Co.	45
Jaeger Machine Co.	110
Koehring Co.	146
T. L. Smith Co.	148
MIXING BOXES—See Boxes, Mixing	
MORTAR BOXES, STEEL—See Boxes, Mixing	
MORTAR—BRICK	
Louisville Cement Co.	101
MORTAR COLORS—See Colors, Mortar	
MORTAR—HOLLOW TILE	
Louisville Cement Co.	101
MORTAR—LIME	
Louisville Cement Co.	101
Ohio Hydrate & Supply Co.	129
MORTISERS—DOOR LOCK	
R. L. Carter Divn.	125
Mall Tool Co.	143
MORTISING MACHINES—See Machines, Mortising	
MOTORS—ELECTRIC	
Delco Frigidaire Co.	16
Master Woodworker Mfg. Co.	153
Signal Elec. Mfg. Co., Menominee, Mich.	11
MOTOR TRUCKS—See Trucks, Motor	
MOULDING—BASE	
Aluminum Co. of America	Inside Back Cover
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	15
Frost Lumber Industries, Inc., Shreveport, La.	112
Huttig Mfg. Co., Muscatine, Iowa	112
Marsh Wall Products, Inc.	112
Milcor Steel Co.	48
Pacific Mutual Door Co., Tacoma, Wash.	3
U. S. Gypsum Co.	35
Weyerhaeuser Sales Co.	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	133
Yankee Fiber Tile Mfg. Co., 55 Selden Ave., Detroit, Mich.	24
MOULDING	
Allmetal Weatherstrip Co.	156
Aluminum Co. of America	Inside Back Cover
Herron Zimmer Co.	148
Knappe & Vogt Mfg. Co.	137
Marsh Wall Products, Inc.	112
Masonite Corp.	117
Milcor Steel Co.	48
U. S. Gypsum Co.	35
Yankee Fiber Tile Co., 55 Selden Ave., Detroit, Mich.	24
MOULDINGS—PICTURE	
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Frost Lumber Industries, Inc., Shreveport, La.	112
Huttig Mfg. Co., Muscatine, Iowa	112
Milcor Steel Co.	48
Roach & Musser Co.	133
U. S. Gypsum Co.	35
Weyerhaeuser Sales Co.	6-7
Wheeling Corrugating Co.	53
MOULDINGS—WOOD	
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	15

Frost Lumber Industries, Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Marsh Wall Products, Inc.	112
Pacific Mutual Door Co., Tacoma, Wash.	3
Shewlin Pine Sales Co., Minneapolis, Minn.	6-7
Weyerhaeuser Sales Co.	6-7
Wood Conversion Co.	24
Yankee Fiber Tile Mfg. Co., 55 Selden Ave., Detroit, Mich.	24
MOULDS—FENCE POST	
Colorcrete Industries, Inc.	151
MOVABLE STAIRS—See Stairs, Movable	
NAILS—ALUMINUM	
Aluminum Co. of America	Inside Back Cover
NAILS—CUT	
Maze Co., W. H.	108
Wheeling Corrugating Co.	53
NAILS—GALVANIZED	
Edwards Mfg. Co.	143
Maze Co., W. H.	108
Ruberoid Co.	43
U. S. Gypsum Co.	35
Wheeling Corrugating Co.	53
NAILS—LEAD	
Edwards Mfg. Co.	143
Maze Co., W. H.	108
NAILS—ROOFING	
Celotex Corp.	2
Edwards Mfg. Co.	143
Maze Co., W. H.	108
Milcor Steel Co.	48
U. S. Gypsum Co.	35
Ruberoid Co.	43
Wheeling Corrugating Co.	53
NEWELS—WOOD	
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	112
Pacific Mutual Door Co., Tacoma, Wash.	3
Roach & Musser Co.	133
Wheeler Osgood Sales Corp., Tacoma, Wash.	133
NUMBERS—HOUSE—See Letters and Numbers	
OIL BURNERS—See Heating Systems	
OPENERS—DOOR (Electric)	
Crawford Door Co., 5300 S. Jean St., Detroit, Mich.	137
Frantz Mfg. Co.	20
Rowe Mfg. Co.	123
Overhead Door Co.	123
Stanley Works	23-145
Wagner Mfg. Co.	155
OPENERS—GARAGE DOOR	
Frantz Mfg. Co.	137
Overhead Door Co.	123
Rowe Mfg. Co.	20
Stanley Works	23-145
Wagner Mfg. Co.	155
OPERATORS—SASH	
Duplex, Inc.	142
Truscon Steel Co.	3
Vento Steel Products Co., Muskegon, Mich.	3
ORNAMENTAL BRACKETS—See Brackets, Ornamental	
ORNAMENTS—COMPOSITION	
Celotex Corp.	2
ORNAMENTS—SHEET METAL	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
ORNAMENTS—WALL	
Celotex Corp.	2
Cincinnati Iron Fence Co.	149
OUTLET BOXES—See Boxes, Outlet	
OUTLETS, EAVES TROUGH	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
OUTLETS, ELECTRIC	
General Electric Co.	86
OVERHEAD CARRIERS—See Carriers, Overhead	
OVERHEAD DOORS—See Doors, Overhead	
PACKAGE RECEIVERS—See Receivers, Package	
PACKAGE—TRIM	
Frost Lumber Industries, Inc., Shreveport, La.	112
PAINTS—ALUMINUM	
Aluminum Co. of America	Inside Back Cover
Calbar Paint Co.	151
Pecora Paint Co., Inc.	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
Protection Prod. Mfg. Co.	144
Sherwin-Williams Co.	25
PAINTS—ASPHALT	
Barber Asphalt Corp.	41
The Barrett Co.	107
Calbar Paint Co.	151
Philip Carey Co.	37
Flintkote Co.	14
Pecora Paint Co., Inc.	153
Ruberoid Co.	43
Sherwin-Williams Co.	25
The Texas Co., Chrysler Bldg., Chrysler Bldg., New York, N. Y.	35
U. S. Gypsum Co.	35
PAINTS—BARN	
Calbar Paint Co.	151
Sherwin-Williams Co.	25
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
PAINT BRUSHES—See Brushes, Paint	
PAINTS—CEMENT AND STUCCO	
Calbar Paint Co.	151
I. F. Laucks, Inc.	154
Medusa Portland Cement Co., Midland Bldg., Cleveland, Ohio	153
Pecora Paint Co., Inc.	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
Protection Prod. Mfg. Co.	144
The Reardon Co.	121

Sherwin-Williams Co.	
PAINT FILLERS—See Fillers, Paint	
PAINTS—HOUSE	
Calbar Paint Co.	151
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
Sherwin-Williams Co.	25
U. S. Gypsum Co.	35
PAINTS—METAL	
The Barrett Co.	107
Calbar Paint Co.	151
Edwards Mfg. Co.	143
Flintkote Co.	14
Pecora Paint Co., Inc.	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
Ruberoid Co.	43
Sherwin-Williams Co.	25
PAINT REMOVERS—See Removers, Paint	
PAINT SPRAYING MACHINES—See Machines, Paint Spraying	
PAINTS—WATER	
Calbar Paint Co.	151
I. F. Laucks, Inc., Seattle, Wash.	129
Ohio Hydrate & Supply Co.	129
Medusa Portland Cement Co., Cleveland, Ohio	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
The Reardon Co.	121
Sherwin-Williams Co.	25
U. S. Gypsum Co.	35
PAINTS—WATERPROOFING	
Barber Asphalt Corp.	41
The Barrett Co.	107
Calbar Paint Co.	151
Philip Carey Co.	37
Donley Brothers Co.	141
Flintkote Co.	14
Medusa Portland Cement Co., Cleveland, Ohio	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	151
Pecora Paint Co., Inc.	153
Protection Prod. Mfg. Co.	144
The Reardon Co.	121
Sherwin-Williams Co.	25
PANELS—FORMICA	
Farley & Loetscher Mfg. Co.	155
PANELS—METAL INSULATING	
Truscon Steel Co.	3
PANELS—PLYWOOD	
Farley & Loetscher Mfg. Co.	155
Harbor Plywood Corp.	51
Pacific Mutual Door Co., Tacoma, Wash.	3
Robinson Mfg. Co., Everett, Wash.	22
U. S. Plywood Corp.	22
Wheeler Osgood Sales Corp., Tacoma, Wash.	133
PANELING—WALL (Oak, Gum, Pine)	
Bradley Lumber Sales Co.	142
PANELS—WOOD (Solid)	
Frost Lumber Industries, Inc., Shreveport, La.	112
PAPER—ASBESTOS	
Philip Carey Co.	37
Crane Co.	39
Johns-Manville, 22 E. 40th St., N.Y.C.	31
Keasbey & Mattison Co.	31
Ruberoid Co.	43
PAPER—BLUE PRINT	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
PAPER—DRAWING	
Keuffel & Esser Co., Hoboken, N.J.	155
Warren-Knight Co.	155
PAPER—FELT	
Kimberly Clark Corp.	49
Wood Conversion Co.	24
PAPER—INSULATING	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
General Electric Co.	86
Gen. Insulating & Mfg. Co., Alexandria, Ind.	86
Johns-Manville, 22 E. 40th St., N.Y.C.	31
Ruberoid Co.	43
Sisalkraft Co.	105
U. S. Gypsum Co.	35
PAPER—ROOFING AND SHEATHING	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Insulite Co.	32
Ruberoid Co.	43
Sisalkraft Co.	105
U. S. Gypsum Co.	35
Wood Conversion Co.	24
PAPER—SAND	
Porter-Cable Mach. Co.	139
Am. Floor Surf. Machine Co.	114
PARTITIONS—EXPANDED METAL	
Milcor Steel Co.	48
U. S. Gypsum Co.	35
PARTITIONS—GLASS BLOCK	
Owens-Illinois Glass Co.	28
PARTITIONS—HOLLOW TILE	
U. S. Gypsum Co.	35
PARTITIONS—METAL	
Cincinnati Iron Fence Co.	149
PARTITIONS—METAL LATH	
Milcor Steel Co.	48
Truscon Steel Co.	3
U. S. Gypsum Co.	35
PARTITIONS—ROLLING AND FOLDING	
Allith-Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	149
PARTITIONS—WOOD	
Bradley Lumber Co.	15

Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries, Inc., Shreveport, La.	
PASTE—ALUMINUM PAINT	
Aluminum Co. of America, Inside Back Cover	
PAVERS—CONCRETE	
American Cement Machine Co.	155
Koehring Co.	146
T. L. Smith Co.	148
PICTURE MOLDINGS—See Moldings, Picture	
PIPE—ALUMINUM	
Aluminum Co. of America, Inside Back Cover	
PIPE—CHIMNEY	
Milcor Steel Co.	48
PIPE COLUMNS—See Columns, Pipe	
PIPE—CONDUCTOR COPPER	
Edwards Mfg. Co.	143
Wheeling Corrugating Co.	53
PIPE—CONDUCTOR (Sheet Metal)	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
PIPE COVERINGS—See Coverings, Boiler and Pipe	
PIPE—CULVERT	
Wheeling Corrugating Co.	53
PIPE—DRAIN	
American Radiator Co.	46
Crane Co.	39
PIPE FITTINGS—See Fittings, Pipe	
PIPE—FLUE	
Milcor Steel Co.	48
Payne Furnace & Supply Co.	128
PIPE—FURNACE	
Henry Furnace & Foundry Co.	116
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
Milcor Steel Co.	48
L. J. Mueller Furnace Co.	27
Payne Furnace & Supply Co.	128
Wheeling Corrugating Co.	53
PIPE HANGERS—See Hangers, Pipe	
PIPE—PLUMBING (Brass and Copper)	
American Brass Co.	143
Crane Co.	39
PIPE—SEWER	
Crane Co.	39
PIPE—STOVE	
Milcor Steel Co.	48
Wheeling Corrugating Co.	53
PIPE—WROUGHT IRON	
Crane Co.	39
PIPELESS FURNACES—See Heating Systems	
PLANES—PORTABLE ELECTRIC	
R. L. Carter Division	125
PLASTER BOARD—See Boards, Plaster	
PLASTER CEMENT—See Cement, Plaster	
PLATE GLASS—See Glass, Plate	
PLASTER—GYPSUM	
Certain-Teed Prod. Corp.	8-9
U. S. Gypsum Co.	35
PLASTER—INTERIOR	
Certain-Teed Prod. Corp.	8-9
National Mortar & Supply Co., Pittsburgh, Pa.	
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
PLASTER—LIME	
Ohio Hydrate & Supply Co.	129
PLASTER—PATCHING	
Pecora Paint Co., Inc.	153
PLASTER—WALL	
Certain-Teed Prod. Corp.	8-9
Kimberly Clark Corp.	49
National Mortar & Supply Co., Pittsburgh, Pa.	
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
PLATES—CEILING	
Crane Co.	39
Edwards Mfg. Co.	143
PLATES—GAS, HOT	
Peerless Mfg. Co.	147
PLATES—SWITCH	
General Electric Co.	86
PLUGS—WALL	
Donley Brothers Co.	141
General Electric Co.	86
F. D. Kees Mfg. Co.	153
Wheeling Corrugating Co.	53
PLUMBING FIXTURES—See Fixtures, Plumbing	
PLUMBING PIPE—See Pipe, Plumbing	
PLYWOOD PANELS—See Panels, Plywood	
POINTS—GLAZIERS	
Maze Co., W. H.	108
POLISHING BRUSHES—See Brushes, Polishing	
PORCH BASES—See Bases, Porch	
PORCH ENCLOSURES—See Enclosures, Porch	
PORCH SCREENS—See Enclosures, Porch	
PORTABLE BUILDINGS—See Buildings, Portable	
PORTABLE CONVEYORS—See Conveyors, Portable	
PORTLAND CEMENT—See Cement, Portland	
POST BASES—See Bases, Post	
POST CAPS—See Caps, Post	
POSTS—CLOTHES	
Donley Brothers Co.	141
Weyerhaeuser Sales Co.	6-7
POSTS—FENCE	
Chapman & Dewey Lumber Co., Memphis, Tenn.	
Cincinnati Iron Fence Co.	149
Frost Lumber Industries, Inc., Shreveport, La.	
Weyerhaeuser Sales Co.	6-7
Wheeling Corrugating Co.	53
POWDER—ALUMINUM PAINT	
Aluminum Co. of America, Inside Back Cover	

PRESERVATIVES—WOOD	
American Lumber and Treating Co.	133
The Barrett Co.	107
Calbar Paint Co.	151
Curtis Companies	12
Frost Lumber Industries, Inc., Shreveport, La.	
Protection Prod. Mfg. Co.	144
Ruberoid Co.	43
Sherwin-Williams Co.	25
PROTECTORS—EDGE	
Truscon Steel Co.	3
PULLEYS—SASH	
Andersen Frame Corp.	29
Duplex, Inc.	142
Grand Rapids Hdw. Co.	122
Knappe & Vogt Mfg. Co.	137
Stanley Works	23-145
PUMPS—CONTRACTORS	
Chain Belt Co.	153
Construction Machinery Co.	45
Jaeger Machine Co.	110
PUMPS—DRAIN	
Construction Machinery Co.	45
Jaeger Machine Co.	110
PUMPS—ELECTRIC	
Construction Machinery Co.	45
Crane Co.	39
Delco Frigidaire Corp.	16
Jaeger Machine Co.	110
PUMPS—FORCE	
Construction Machinery Co.	45
Crane Co.	39
Jaeger Machine Co.	110
PUMPS—GASOLINE	
Construction Machinery Co.	45
Crane Co.	39
PUTTY—BOILER	
Pecora Paint Co., Inc.	153
PUTTY—METAL SASH	
Calbar Paint Co.	151
Pecora Paint Co., Inc.	153
Truscon Steel Co.	3
PURTY—ROOFING	
Barber Asphalt Corp.	41
Calbar Paint Co.	151
Philip Carey Co.	37
Flintkote Co.	14
Pecora Paint Co., Inc.	153
The Texas Co., Chrysler Bldg., New York, N.Y.	
PURTYLESS WINDOWS—See Windows, Puttyless	
RADIATORS—HOT WATER AND STEAM	
American Radiator Co.	46
Crane Co.	39
Modine Mfg. Co.	11
RADIATOR VALVES—See Valves, Radiator	
RAILS—BARN DOOR	
Allith-Prouty Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Frantz Mfg. Co.	137
McKinney Mfg. Co.	125
National Mfg. Co., Outside Back Cover	
Wagner Mfg. Co.	155
RAILS—PORCH	
Bradley Lumber Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries, Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Roach & Musser Co.	133
Weyerhaeuser Sales Co.	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	
RAILINGS—BRASS	
American Brass Co.	143
Crane Co.	39
RAILINGS—PIPE	
Aluminum Co. of America, Inside Back Cover	
Cincinnati Iron Fence Co.	149
Crane Co.	39
RANGE BOILERS—See Boilers, Range	
RANGES—COAL	
Round Oak Co.	124
RANGES—GAS	
Round Oak Co.	124
RECEIVERS—GARBAGE	
Donley Brothers Co.	141
Majestic Co., Huntington, Ind.	
RECEIVERS—PACKAGE	
Donley Brothers Co.	141
Majestic Co., Huntington, Ind.	
Milcor Steel Co.	48
RECEPTACLES—CONDUIT BOX	
General Electric Co.	36
RECEPTACLES—FLOOR	
General Electric Co.	36
Frank Adam Electric Co.	143
RECEPTACLES—OUTLET BOX	
Frank Adam Electric Co.	143
General Electric Co.	36
RECEPTACLES—SHOWER	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
Henry Weis Mfg. Co.	130
REGISTERS—FLOOR	
Majestic Co., Huntington, Ind.	
L. J. Mueller Furnace Co.	27
REGISTERS—WALL	
Majestic Co., Huntington, Ind.	
Milcor Steel Co.	48
L. J. Mueller Furnace Co.	27
Payne Furnace & Supply Co.	128
Gar Wood Industries, Inc.	140
REGULATORS—FURNACE	
Crane Co.	39
Holland Furnace Co., Holland, Mich.	
Majestic Co., Huntington, Ind.	
Payne Furnace & Supply Co.	128
Round Oak Co.	124
REGULATORS—TEMPERATURE	
Crane Co.	39
Holland Furnace Co., Holland, Mich.	

Majestic Co., Huntington, Ind.	
REGULATORS—WATER	
Crane Co.	39
REINFORCING BARS—See Bars, Reinforcing	
REINFORCING CEMENT AND STUCCO	
Milcor Steel Co.	48
Ruberoid Co.	43
Truscon Steel Co.	3
U. S. Gypsum Co.	35
Wheeling Corrugating Co.	53
REINFORCING LATH—See Lath, Reinforcing	
REMOVERS—PAINT AND VARNISH	
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Sherwin-Williams Co.	25
RESISTANTS—ACID	
The Barrett Co.	107
RETROOTHERS—SAW	
Foley Mfg. Co.	153
RIDDING—ASBESTOS	
Philip Carey Co.	37
RODS—ALUMINUM	
Aluminum Co. of America, Inside Back Cover	
RODS—BRASS	
American Brass Co.	143
Knappe & Vogt Mfg. Co.	137
RODS—COPPER	
American Brass Co.	143
RODS, HANGER—See Fixtures, Wardrobe	
RODS—LEVELLING	
Bostrom-Brady Mfg. Co.	153
Warren-Knight Co.	155
David White Co.	156
ROLLERS—DOOR	
Allith-Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Frantz Mfg. Co.	137
Knappe & Vogt Mfg. Co.	137
McKinney Mfg. Co.	125
National Mfg. Co., Outside Back Cover	
The Stanley Works	23-145
Wagner Mfg. Co.	155
ROOF COATINGS—See Coatings, Roof	
ROOF TRUSSES—See Trusses, Roof	
ROOF VENTILATORS—See Ventilators, Roof	
ROOF WINDOWS—See Windows, Roof	
ROOFING—ALUMINUM	
Aluminum Co. of America, Inside Back Cover	
ROOFING—ASBESTOS	
Philip Carey Co.	37
Flintkote Co.	14
Insulite Company	32
Keasbey & Mattison Co.	154
Ruberoid Co.	43
U. S. Gypsum Co.	35
ROOFING—ASBESTOS SHINGLES	
Celotex Corp.	2
Flintkote Co.	14
Keasbey & Mattison Co.	31
Ruberoid Co.	43
ROOFING—ASPHALT (Ready)	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Monarch Waterproofing Prod. Co., Kansas City, Mo.	
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N.Y.	
U. S. Gypsum Co.	35
ROOFING—ASPHALT SHINGLES	
Barber Asphalt Corp.	41
The Barrett Co.	107
Philip Carey Co.	37
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Ruberoid Co.	43
The Texas Co., Chrysler Bldg., New York, N.Y.	
ROOFING—BLENDED SHINGLES	
Barber Asphalt Corp.	14
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Philip Carey Co.	37
Flintkote Co.	14
The Texas Co., Chrysler Bldg., New York, N.Y.	
ROOFING—BUILT UP	
Barber Asphalt Corp.	41
Philip Carey Co.	37
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
The Texas Co., Chrysler Bldg., New York, N.Y.	
Truscon Steel Co.	3
U. S. Gypsum Co.	35
ROOFING BRACKETS—See Brackets, Roofing	
ROOFING—METAL	
ROOFING—METAL (Corrugated)	
Aluminum Co. of America, Inside Back Cover	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
ROOFING—DRIP EDGE	
Barber Asphalt Corp.	41
ROOFING—METAL (Corrugated)	
Aluminum Co. of America, Inside Back Cover	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
Wheeling Corrugating Co.	53

ROOFING—METAL (Sheets)	
American Brass Co.....	143
Edwards Mfg. Co.....	143
International Steel Co.....	137
Milcor Steel Co.....	58
Wheeling Corrugating Co.....	58
ROOFING—METAL SHINGLES	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
ROOFING NAILS—See Nails, Roofing	
ROOFING PAPER—See Paper, Roofing	
ROOFING—ROLL	
Barber Asphalt Corp.....	41
The Barrett Co.....	107
Philip Carey Co.....	37
Celotex Corp.....	2
Certain-Teed Products Corp.....	8-9
Edwards Mfg. Co.....	143
Flintkote Co.....	14
Milcor Steel Co.....	48
The Texas Co., Chrysler Bldg., New York, N.Y.....	48
Wheeling Corrugating Co.....	58
ROOFING—SLATE SURFACED	
Barber Asphalt Corp.....	41
The Barrett Co.....	107
Philip Carey Co.....	37
Certain-Teed Prod. Corp.....	8-9
Flintkote Co.....	14
The Texas Co., Chrysler Bldg., New York, N.Y.....	14
ROOFING—STAINED SHINGLES	
Weyerhaeuser Sales Co.....	6-7
ROOFING—TILE	
The Barrett Co.....	107
ROOFING TILE MACHINES—See Machines, Roofing Tile	
ROOFING—TILE METAL	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
ROOFING—TIN	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
ROOFING—WOOD SHINGLES	
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.....	3
Robt. McNair Shingle Co.....	152
Weyerhaeuser Sales Co.....	6-7
ROOFING—ZINC	
Milcor Steel Co.....	48
ROOFS—INSULATED	
Barber Asphalt Corp.....	41
Philip Carey Co.....	37
Celotex Corp.....	2
Certain-Teed Prod. Corp.....	8-9
Flintkote Co.....	14
Gen. Insulating & Mfg. Co., Alexandria, Ind.....	3
Truscon Steel Co.....	3
U. S. Gypsum Co.....	35
ROPE	
Samson Cordage Works.....	147
ROPE—AWNING	
Samson Cordage Works.....	147
ROUTERS	
R. L. Carter Division.....	125
RUBBISH BURNERS—See Burners, Rubbish	
RULES—CALIPER	
Stanley Works.....	23-145
RULES—EXTENSION	
Stanley Works.....	23-145
RULES—INSIDE MEASURE	
Stanley Works.....	23-145
Warren-Knight Co.....	155
RULES—LUMBERMAN'S	
Stanley Works.....	23-145
Warren-Knight Co.....	155
RULES—SLIDE SCALE	
Stanley Works.....	23-145
Warren-Knight Co.....	155
RULES—SPRING JOINT	
Keuffel & Esser Co., Hoboken, N.J.....	155
Stanley Works.....	23-145
Warren-Knight Co.....	155
RULES—STEEL	
Stanley Works.....	23-145
Warren-Knight Co.....	155
SALAMANDERS	
Danley Brothers Co.....	141
Edwards Mfg. Co.....	143
SANDERS—FLOOR—See Machines, Floor Surfacing	
SANDERS—WOODWORKING	
Am. Floor Surf. Mach. Co.....	114
Am. Saw Mill Machinery Co., Hackettstown, N.J.....	153
Master Woodworker Mfg. Co.....	153
Porter-Cable Mach. Co.....	139
Walker-Turner Co., Plainfield, N.J.....	139
Power King Tool Co.....	139
SANDERS—WOODWORKING PORTABLE ELECTRIC	
Wodaek Electric Tool Corp.....	151
SANDPAPER—See Paper	
SANDPAPERING MACHINES—See Machines, Sandpapering	
SANITARY CLOSETS—See Closets, Chemical	
SASH BALANCES—See Balances, Sash	
SASH CHAINS—See Chains, Sash	
SASH CORD—See Cord, Sash	
SASH, BASEMENT—See Frames, Cellar Sash	
SASH FRAMES—See Frames, Sash	
SASH HOLDERS—See Holders, Sash	
SASH—HOLLOW METAL	
Aluminum Co. of America.....	Inside Back Cover
Edwards Mfg. Co.....	143
Mesker Brothers.....	127
SASH LIFTS—See Hardware, Sash	
SASH LOCKS—See Locks, Sash	
SASH OPERATORS—See Operators, Sash	
SASH PULLEYS—See Pulleys, Sash	

SASH—STORM	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	127
Mesker Brothers.....	127
Pacific Mutual Door Co., Tacoma, Wash.....	133
Roach & Musser Co.....	133
Stanley Works.....	23-145
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
SASH WEIGHTS—See Weights, Sash	
SAW ARBORS—See Arbors, Saw	
SAW FILERS—See Machines, Saw Filing	
SAW RIGS	
Am. Saw Mill Machinery Co., Hackettstown, N.J.....	153
Walker-Turner Co., Plainfield, N.J.....	139
SAW SETS—See Sets, Saw	
SAW TABLES	
Construction Machinery Co.....	45
Mall Tool Co.....	143
Master Woodworker Mfg. Co.....	153
SAWMILL MACHINERY—See Machinery, Sawmill	
SAWS—BAND	
American Saw Mill Mach. Co., Hackettstown, N.J.....	121
DeWalt Products, Inc.....	121
Master Woodworker Mfg. Co.....	153
Power King Tool Co., Warsaw, Ind.....	139
Walker-Turner Co., Plainfield, N.J.....	139
Wallace Co., J. D.....	155
SAWS—CIRCULAR	
American Saw Mill Machinery Co., Hackettstown, N.J.....	121
Master Woodworker Mfg. Co.....	153
Power King Tool Co., Warsaw, Ind.....	139
Walker-Turner Co., Plainfield, N.J.....	139
Wallace Co., J. D.....	155
SAWS—ELECTRIC	
Am. Saw Mill Mach. Co., Hackettstown, N.J.....	121
Mall Tool Co.....	143
Master Woodworker Mfg. Co.....	153
Porter-Cable Mach. Co.....	139
Power King Tool Co., Warsaw, Ind.....	139
Skilsaw, Inc.....	21
Stanley Works.....	23-145
Walker-Turner Co., Plainfield, N.J.....	139
SAWS—GROOVING	
Am. Saw Mill Mach. Co., Hackettstown, N.J.....	121
Wodaek Electric Tool Corp.....	151
SAWS—PORTABLE POWER	
Am. Saw Mill Mach. Co., Hackettstown, N.J.....	121
Construction Machinery Co.....	45
Mall Tool Co.....	143
Master Woodworker Mfg. Co.....	153
Porter-Cable Mach. Co.....	139
Power King Tool Co., Warsaw, Ind.....	139
Skilsaw, Inc.....	21
Stanley Works.....	23-145
Wappat, Fred W., 7323 Penn Ave., Pittsburgh, Pa.....	147
SAWS—RADIAL	
Wallace Co., J. D.....	155
SAWS—SPECIAL	
Mall Tool Co.....	143
Master Woodworker Mfg. Co.....	153
SAWS—SWING	
Porter-Cable Machine Co.....	139
SAWS—UNIVERSAL	
Wallace Co., J. D.....	155
SCAFFOLD BRACKETS—See Brackets, Scaffold	
SCAFFOLDS—STEEL	
Ajax Building Bracket Co., 1551 Rydal Mt. Road, Cleveland Hgts., Ohio.....	156
Steel Scaffolding Co.....	156
SCHOOL ROOM HEATERS—See Heaters	
SCHOOLS—CORRESPONDENCE	
Chicago Technical College, Chicago, Ill.....	156
SCREENS—BASE	
Frost Lumber Industries Inc., Shreveport, La.....	48
Milcor Steel Co.....	48
Truscon Steel Co.....	3
U. S. Gypsum Co.....	35
SCREEN DOORS—See Doors, Screen	
SCREEN DOOR CHECKS—See Checks, Door	
SCREEN DOOR HINGES—See Hinges, Screen Door	
SCREEN DOOR SETS—See Hardware, Screen Door	
SCREENS—PORCH	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Roach & Musser Co.....	133
SCREENS—WINDOW AND DOOR	
Farley & Loetscher Mfg. Co.....	155
Mesker Brothers.....	127
Roach & Musser Co.....	133
Vento Steel Products Co., Muskegon, Mich.....	3
SCREENS—WINDOW METAL ADJUSTABLE	
Haskel Co., The.....	151
SCREWDRIVERS	
Stanley Works.....	23-145
SCREWDRIVERS—ELECTRIC	
Stanley Works.....	23-145
SEATS—CLOSET	
Crane Co.....	39
Standards Sanitary Mfg. Co.....	46
SEPTIC TANKS—See Tanks, Septic	
SETS—CELLAR WINDOW	
Frantz Mfg. Co.....	137
Huttig Mfg. Co., Muscatine, Iowa.....	127
Majestic Co., Huntington, Ind.....	125
McKinney Mfg. Co.....	125
National Mfg. Co.....	Outside Back Cover
Stanley Works.....	23-145
SETS—SAW	
Am. Saw Mill Mach. Co., Hackettstown,	

N.J.	
Foley Mfg. Co.....	158
Stanley Works.....	23-145
SEWAGE DISPOSAL PLANTS	
Aluminum Co. of America.....	Inside Back Cover
Crane Co.....	39
San-Equip. Co., Syracuse, N.Y.....	37
SEWER PIPE—See Pipe, Sewer	
SEWER PIPE MACHINES—CEMENT—See Machines, Sewer Pipe	
SEWER PIPE MOLDS—See Forms and Molds	
SEWER PIPE STRAINERS—See Strainers, Sewer Pipe	
SHEATHING—ASBESTOS	
Philip Carey Co.....	37
Johns-Manville, 22 E. 40 St., N.Y.C.....	31
Keasbey & Mattison Co.....	31
SHEATHING BOARDS—See Boards, Sheathing	
SHEATHING—GYPSUM	
Certain-Teed Prod. Corp.....	8-9
Ruberoid Co.....	43
U. S. Gypsum Co.....	35
SHEETS—ALUMINUM	
Aluminum Co. of America.....	Inside Back Cover
SHEETS—ASBESTOS	
Philip Carey Co.....	37
Johns-Manville, 22 E. 40 St., N.Y.C.....	31
Keasbey & Mattison Co.....	31
Ruberoid Co.....	43
SHEETS—BRASS AND COPPER	
American Brass Co.....	143
Sisalkraft Co., The.....	105
SHEETS—COPPER ALLOY	
American Brass Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
SHEETS—GALVANIZED	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
SHEETS—IRON AND STEEL	
Edwards Mfg. Co.....	143
International Steel Co.....	137
Wheeling Corrugating Co.....	58
SHUTTERS—ROLLING	
Edwards Mfg. Co.....	143
SHEETS—TIN	
Edwards Mfg. Co.....	143
Milcor Steel Co.....	48
Wheeling Corrugating Co.....	58
SHELF BRACKETS—See Brackets, Shelf	
SHIELDS—RADIATOR—See Enclosures, Radiator	
SHINGLES—See Roofing	
SHINGLE NAILS—See Nails, Roofing	
SHINGLE STAINS—See Stains, Shingle	
SHINGLING BRACKETS—See Brackets, Shingling	
SHUTTERS—STEEL	
Cincinnati Iron Fence Co.....	149
Edwards Mfg. Co.....	143
SHOWER BATHS—See Baths, Shower	
SHOWER STALLS—See Stalls, Shower	
SHOWER STALL DOORS—See Doors, Shower Stall	
SHUTTERS—WOOD	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Roach & Musser Co.....	133
SIDEWALK DOORS—See Doors, Sidewalk	
SIDEWALK ELEVATORS—See Elevators, Sidewalk	
SIDING—ASPHALT	
Barber Asphalt Corp.....	41
The Barrett Co.....	107
Celotex Corp.....	2
Certain-Teed Prod. Corp.....	8-9
Flintkote Co.....	14
Ruberoid Co.....	43
The Texas Co., Chrysler Bldg., New York, N. Y.....	48
SIDING CLIPS—See Clips, Siding	
SIDING—INSULATING IMITATION BRICK	
Insulite Co.....	32
SIDING—PLYWOOD	
U. S. Plywood Corp.....	22
SIDING—YELLOW PINE	
Frost Lumber Industries, Inc., Shreveport, La.....	48
SIDING—ZINC AND COPPER	
Milcor Steel Co.....	48
SIGHTS—LEVEL	
Bostrom-Brady Mfg. Co.....	153
Keuffel & Esser Co., Hoboken, N.J.....	155
SILLS—WINDOW	
Aluminum Co. of America.....	Inside Back Cover
Bradley Lbr. Co.....	107
Farley & Loetscher Mfg. Co.....	155
Frost Lumber Industries, Inc., Shreveport, La.....	48
Huttig Mfg. Co., Muscatine, Iowa.....	6-7
Weyerhaeuser Sales Co.....	6-7
SINKS—KITCHEN	
Crane Co.....	39
Ebeo Mfg. Co.....	142
Farley & Loetscher Mfg. Co.....	155
I-XL Furniture Co., Inc., Goshen, Ind.....	139
Kitchen Maid Corp.....	139
Standard Sanitary Mfg. Co.....	46
SITZ BATHS—See Baths, Sitz	
SKYLIGHTS	
Aluminum Co. of America.....	Inside Back Cover
Edwards Mfg. Co.....	143
Huttig Mfg. Co., Muscatine, Iowa.....	137
International Steel Co.....	137
Milcor Steel Co.....	48
SLATE CEMENT—See Cement	
SLIDING DOOR TRACK—See Track, Sliding Door	

SLIDING PARTITION HANGERS—See Hangers	
SNOW GUARDS—See Guards, Snow	
SOCKETS—ELECTRIC	
General Electric Co.	86
SOFTENERS—WATER	
Crane Co.	39
SOLDERING COMPOUNDS—See Compounds, Soldering	
SOLDERING IRONS—See Irons, Soldering	
SPANDRELS—ALUMINUM	
Aluminum Co. of America	Inside Back Cover
SPRINGS—DOOR	
Frantz Mfg. Co.	137
National Mfg. Co.	Outside Back Cover
Overhead Door Co.	123
Wagner Mfg. Co.	155
SPRING HINGES—See Hinges, Spring	
SQUARES—COMBINATION	
Stanley Works	23-145
SQUARES—STEEL	
Stanley Works	23-145
SQUARES—TRY AND MITRE	
Stanley Works	23-145
STAINED SHINGLES—See Roofing	
STAINS—CEMENT	
Peora Paint Co., Inc.	153
STAINS—SHINGLE	
The Barrett Co.	107
Calbar Paint Co.	151
Pittsburgh Plate Glass Co., Pittsburgh, Pa.	
Protection Products Mfg. Co.	144
Sherwin-Williams Co.	25
STAINS—WOOD	
Sherwin-Williams Co.	25
STAIRS—DISAPPEARING	
Farley & Loetscher Mfg. Co.	155
STAIR TREADS—See Treads, Stair	
STAIRS—STEEL	
Cincinnati Iron Fence Co.	149
Truscon Steel Co.	3
STAIRWAYS—WOOD	
Farley & Loetscher Mfg. Co.	155
Huttig Mfg. Co., Muscatine, Iowa	
Roach & Musser Co.	133
STALLS—SHOWER	
Crane Co.	39
Henry Weis Mfg. Co.	130
STALLS—TOILET	
Crane Co.	39
Ebeo Mfg. Co.	142
Henry Weis Mfg. Co.	130
STALLS—URINAL	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
STANCHIONS—COLUMN	
Donley Brothers Co.	141
STEAM HEATING PLANT—See Heating Systems	
STEEL DOORS—See Doors, Steel	
STEEL—FABRICATED	
Edwards Mfg. Co.	143
International Steel Co.	137
Truscon Steel Co.	3
STEEL—STRUCTURAL	
International Steel Co.	137
Truscon Steel Co.	3
STOCK—DIMENSION	
Bradley Lbr. Co.	15
Frost Lumber Industries Inc., Shreveport, La.	
Weyerhaeuser Sales Co.	6-7
STOCK—LADDER	
Frost Lumber Industries, Inc., Shreveport, La.	
STOCK TANKS	
Harbor Plywood Corp.	51
Weyerhaeuser Sales Co.	6-7
STOPS—DOOR	
Bradley Lbr. Co.	15
Coburn Trolley Track Co., Holyoke, Mass.	
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Frantz Mfg. Co.	137
Frost Lumber Industries Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Lockwood Hdw. Co.	138
McKinney Mfg. Co.	125
National Brass Co., Grand Rapids, Mich.	
Wagner Mfg. Co.	155
Weyerhaeuser Sales Co.	6-7
STORAGE CABINETS—See Cabinets, Storage	
STORE FRONTS—See Fronts, Store	
STORM DOORS—See Doors, Storm	
STORM DOOR CHECKS—See Checks, Door	
STORM SASH—See Sash, Storm	
STOVES—COAL—See Ranges, Coal	
STOVES—GAS—See Ranges, Gas	
STOVE PIPE—See Pipe, Stove	
STRAIGHT EDGES	
Jaeger Machine Co.	110
STRAINERS—SEWER PIPE	
Donley Brothers Co.	141
STRAP HINGES—See Hinges, Strap	
STRUCTURAL STEEL—See Steel, Structural	
STUCCO	
Certain-Teed Prod. Corp.	8-9
Johns-Manville, 22 E 40 St., N.Y.C.	
Louisville Cement Co.	101
Medusa Portland Cement Co., Cleveland, Ohio	
Ohio Hydrate & Supply Co.	129
U. S. Gypsum Co.	35
STUCCO DASH—See Dash, Stucco	
STUCCO—WATERPROOFED	
Louisville Cement Co.	101
Medusa Portland Cement Co., Cleveland, Ohio	
Colorcrete Industries, Inc.	151
Ohio Hydrate & Supply Co.	129

STUDS—STEEL	
Milcor Steel Co.	48
Truscon Steel Co.	3
SUN DIALS	
Colorcrete Industries, Inc.	151
Majestic Co., Huntington, Ind.	
SUPPORTS—BATH TUB	
Wm. B. Lucke, Inc.	145
SURFACE BOLTS—See Bolts, Surface	
SURFACE HINGES—See Hinges, Surface	
SURVEYING INSTRUMENTS—See Instruments, Surveying	
SUSPENDED CEILING—See Ceilings, Suspended	
SWING SAWS—See Saws, Swing	
SWITCH BOXES—See Boxes, Switch	
SWITCH PLATES—See Plates, Switch	
SWITCHES—ELECTRIC	
General Electric Co.	86
TABLES—DRAFTING—See Furniture, Drafting Room	
TABLES—SAW—See Saw Rigs	
TAMPERS—CONCRETE—(Machine)—See Machines, Tamping	
TANKS—ALUMINUM	
Aluminum Co. of America	Inside Back Cover
TANKS—CLOSETS	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
TANK FITTINGS—See Fittings, Tank	
TANK HEATERS—See Heaters, Tank	
TANKS—STOCK—See Stock Tanks	
TANKS—SEPTIC	
Crane Co.	39
Donley Brothers Co.	141
San-Equip Co., Syracuse, N. Y.	
TANKS—STEEL AND IRON	
Crane Co.	39
Edwards Mfg. Co.	143
San-Equip Co., Syracuse, N. Y.	
TANKS—WATER	
Crane Co.	39
Edwards Mfg. Co.	143
Standard Sanitary Mfg. Co.	46
TANKS—WOOD	
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
TAPES—MEASURING	
Warren-Knight Co.	155
TARRED FELTS—See Felts, Tarred	
TERRAZZO RUBBING MACHINES—See Machines, Terrazzo	
TERMITE CONTROL	
American Lumber & Treating Co.	133
Bruce Co., E. L.	154
THERMOSTATS	
Crane Co.	39
Holland Furnace Co., Holland, Mich.	
THIMBLES—CHIMNEY	
Donley Brothers Co.	141
Holland Furnace Co., Holland, Mich.	
F. D. Kees Mfg. Co.	153
Kewanee Mfg. Co.	140
Majestic Co., Huntington, Ind.	
Milcor Steel Co.	48
Peerless Mfg. Co.	147
THIMBLES—FLUE	
Donley Brothers Co.	141
F. D. Kees Mfg. Co.	153
Majestic Co., Huntington, Ind.	
Milcor Steel Co.	48
THRESHOLDS—METAL	
Accurate Metal Weatherstrip Co.	155
Allmetal Weatherstrip Co.	156
Aluminum Co. of America	Inside Back Cover
American Brass Co.	143
Donley Brothers Co.	141
Edwards Mfg. Co.	143
THRESHOLDS—WOOD	
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries, Inc., Shreveport, Louisiana	
Huttig Mfg. Co., Muscatine, Ia.	
Roach & Musser Co.	133
Weyerhaeuser Sales Co.	6-7
TIES—WALL	
Donley Brothers Co.	141
Duplex, Inc.	142
Edwards Mfg. Co.	143
F. D. Kees Mfg. Co.	153
Milcor Steel Co.	48
Truscon Steel Co.	3
U. S. Gypsum Co.	35
Wheeling Corrugating Co.	53
TIES—WIRE	
Truscon Steel Co.	3
TILE—ASBESTOS	
Ruberoid Co.	43
Tile-Tex Co.	131
TILE CEILINGS—See Ceilings, Tile	
TILE—FIBRE	
Celotex Corp.	2
Certain-Teed Products Corp.	8-9
Flintkote Co.	14
Gibbs Boardtile Corp.	150
Insulite Co.	32
Marsh Wall Products, Inc.	112
Masonite Corp.	117
U. S. Gypsum Co.	35
Wood Conversion Co.	24
TILE—FIREPROOF	
U. S. Gypsum Co.	35
TILE—FLOOR AND WALL	
Celotex Corp.	2
Certain-Teed Prod. Corp.	8-9
Flintkote Co.	14
Gibbs Boardtile Corp.	150
Masonite Corp.	117
Tile-Tex Co.	131
U. S. Gypsum Co.	35
Yankee Fiber Tile Mfg. Co., 55 Shelvin Ave., Detroit, Michigan	
TILE—FLOORING—CORK COMPOSI-	

TION	
Congoleum-Nairn Inc.	85
TILE—GYPSUM	
Certain-Teed Prod. Corp.	8-9
U. S. Gypsum Co.	35
TILE—INTERLOCKING	
Wood Conversion Co.	24
TILES—PARTITIONS	
Certain-Teed Products Corp.	8-9
Owens-Illinois Glass Co.	28
U. S. Gypsum Co.	35
TILE ROOFING—See Roofing, Tile	
TILE-STEEL	
Edwards Mfg. Co.	143
Milcor Steel Co.	48
TINCLAD DOORS—See Doors, Tinclad	
TOGGLE BOLTS—See Bolts, Toggle	
TOILET STALLS—See Stalls, Toilet	
TOOLS—CARPENTERS'	
Bostrom-Brady Mfg. Co.	159
Mall Tool Co.	143
TOOLS—GLAZIERS	
Maze Co. W. H.	108
TOOLS—MASONS'	
Stanley Works	23-125-145
TOOLS—WEATHERSTRIP	
Accurate Metal Weatherstrip Co.	155
Allmetal Weatherstrip Co.	156
Stanley Works	23-125-145
TOPS—COUNTER AND TABLE	
Bradley Lbr. Co.	15
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries, Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
U. S. Plywood Corp.	22
TOWERS—CONCRETE PLACING	
Jaeger Machine Co.	110
TOWERS—STEEL	
Truscon Steel Co.	3
TRACING CLOTH—See Cloth, Tracing	
TRACK BRACKETS—See Brackets, Track	
TRACK—SLIDING DOOR	
Allith-Prouty, Inc.	149
Coburn Trolley Track Co., Holyoke, Mass.	
Frantz Mfg. Co.	137
Knape & Vogt Mfg. Co.	137
McKinney Mfg. Co.	125
National Mfg. Co.	Outside Back Cover
Stanley Works	23-125-145
Wagner Mfg. Co.	155
TRANSFORMERS—ELECTRIC	
A. E. Rittenhouse Co.	127
TRANSITS	
Bostram-Brady Mfg. Co.	159
Keuffel & Esser Co., Hoboken, N. J.	
Warren-Knight Co.	155
David White Co.	156
TRANSOM CHAINS—See Chains, Transom	
TRANSOM HARDWARE—See Hardware	
TRAPS—BATH	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
TRAPS—CESSPOOL	
Crane Co.	39
Majestic Co., Huntington, Ind.	
Peerless Mfg. Co.	147
TRAYS—LAUNDRY	
Crane Co.	39
Standard Sanitary Mfg. Co.	46
TREADS—STAIR	
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Roach & Musser Co.	133
TRESTLES—STEEL	
Steel Scaffolding Co.	156
TRIANGLES—See Instruments, Drawing	
TRIM—DOOR	
Aluminum Co. of America	Inside Back Cover
Arkansas Soft Pine Bureau	132
Bradley Lbr. Co.	15
Curtis Companies	12
Farley & Loetscher Mfg. Co.	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
Frost Lumber Industries Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
Knape & Vogt Mfg. Co.	137
McKinney Mfg. Co.	125
Marsh Wall Products Inc.	112
Milcor Steel Co.	48
Pacific Mutual Door Co., Tacoma, Wash.	
Roach & Musser Co.	133
Weyerhaeuser Sales Co.	6-7
Wheeler Osgood Sales Corp., Tacoma, Wash.	
TRIM—INTERIOR	
Arkansas Soft Pine Bureau	132
Farley & Loetscher Mfg. Co.	155
Frost Lumber Industries, Inc., Shreveport, La.	
Knape & Vogt Mfg. Co.	137
Wood Conversion Co.	24
TRIM—INTERIOR—(Cypress)	
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.	
TRIM—INTERIOR—(Hardwood)	
Bradley Lbr. Co.	15
Curtis Companies	12
Frost Lumber Industries Inc., Shreveport, La.	
Huttig Mfg. Co., Muscatine, Iowa	
TRIM—INTERIOR—(Metal)	
Aluminum Co. of America	Inside Back Cover
Libby, Owens, Ford Glass Co.	40
Marsh Wall Products, Inc.	112
Milcor Steel Co.	48
Roach & Musser Co.	133

TRIM—INTERIOR—(Pine)	
Arkansas Soft Pine Bureau.....	132
Bradley Lbr. Co.....	15
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Frost Lumber Industries, Inc., Shreveport, La.....	24
Huttig Mfg. Co., Muscatine, Iowa.....	9
TRIM—INTERIOR—(Slate)	
Marsh Wall Products, Inc.....	112
TRIM—INTERIOR—(Tile)	
Marsh Wall Products, Inc.....	112
TRIM—WINDOW	
Aluminum Co. of America.....	48
Inside Back Cover	
Arkansas Soft Pine Bureau.....	132
Bradley Lbr. Co.....	15
Farley & Loetscher Mfg. Co.....	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.....	148
Frost Lumber Industries, Inc., Shreveport, La.....	24
Huttig Mfg. Co., Muscatine, Iowa.....	9
Marsh Wall Products, Inc.....	112
Milcor Steel Co.....	48
Roach & Musser Co.....	133
Weyerhaeuser Sales Co.....	6-7
TRUCKS—MOTOR	
Chevrolet Motor Co.....	26
Ford Motor Co.....	30
General Motors Corp.....	34
International Harvester Co., 180 No. Michigan Ave., Chicago, Ill.....	155
Mack Trucks, Inc.....	44
TRUSSES—ROOF, STEEL	
Edwards Mfg. Co.....	143
International Steel Co.....	137
Truscon Steel Co.....	3
TUBE—COPPER	
American Brass Co.....	143
TUBS—BATH	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
TUBS—LAUNDRY	
Crane Co.....	39
UNBREAKABLE GLASS—See Glass, Unbreakable	
URINALS	
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
URINAL STALLS—See Stalls, Urinal	
VALVES—RADIATOR	
American Radiator Co.....	46
Crane Co.....	39
Edwards Mfg. Co.....	143
VALVES—WATER MIXING	
American Radiator Co.....	46
Crane Co.....	39
Standard Sanitary Mfg. Co.....	46
VAPOR SYSTEM HEATING PLANTS—See Heating Systems	
VARNISH REMOVERS—See Removers, Varnish	
VARNISHES	
Calbar Paint Co.....	151
General Electric Co.....	36
Pecora Paint Co., Inc.....	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.....	147
Sherwin-Williams Co.....	25
veneers—WOOD	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Frost Lumber Industries, Inc., Shreveport, La.....	12
U. S. Plywood Corp.....	22
Wheeler Osgood Sales Corp., Tacoma, Wash.....	155
VENTILATING GRILLES—See Grilles	
VENTILATORS—KITCHEN	
Autovent Fan and Blower Co.....	154
Crane Co.....	39
Delco Frigidaire.....	16
Majestic Co., Huntington, Ind.....	151
Shepler Stove Co., F. W.....	151
Signal Elec. Mfg. Co., Menominee, Mich.....	139
Victor Elec. Prod., Inc.....	139
VENTILATING—LOUVRES OR SHUTTERS	
Autovent Fan and Blower Co.....	154
VENTILATORS—ROOF	
Autovent Fan and Blower Co.....	154
Donley Brothers Co.....	141
Edwards Mfg. Co.....	143
International Steel Co.....	137
Milcor Steel Co.....	48
VENTILATORS—WALL	
Autovent Fan and Blower Co.....	154
Dallas Engr. Co.....	156
Delco Frigidaire Corp.....	16
Donley Brothers Co.....	141
Duplex, Inc.....	142
Kewanee Mfg. Co.....	140
Majestic Co., Huntington, Ind.....	151
Shepler Stove Co., F. W.....	151
Victor Elec. Prod., Inc.....	139
VENTILATORS—WINDOW	
Autovent Fan and Blower Co.....	154
Delco Frigidaire Corp.....	16
Signal Elec. Mfg. Co., Menominee, Mich.....	139
Victor Elec. Prod., Inc.....	139
VIALS—LEVEL	
Bostrom-Brady Mfg. Co.....	153
Warren-Knight Co.....	155
David White Co.....	156
VISES—BENCH	
Crane Co.....	39
Stanley Works.....	23-145
WAINSCOTING—MARBLE—(Reproductions)	
Gibbs Boardtile Corp.....	150
Tile-Text Co.....	131
WAINSCOTING—WOOD	
Frost Lumber Industries, Inc., Shreveport, Louisiana.....	155
WALL BOARDS—See Boards, Wall	

WALL BRACKETS—See Brackets, Wall	
WALL COVERING—See Coverings, Wall	
WALL FINISH—See Finish, Wall	
WALL FORMS—See Forms and Molds	
WALL LINING—See Lining, Wall	
WALL ORNAMENTS—See Ornaments, Wall	
WALL PLASTER—See Plaster	
WALL PLUGS—See Plugs, Wall	
WALL REGISTERS—See Registers, Wall	
WALL TIES—See Ties, Wall	
WALL TILE—See Tile, Wall	
WALL TINTS—See Tints	
WALL VENTILATORS—See Ventilators, Wall	
WAINSCOTING—TILE	
WALL WINDOWS—See Windows	
WARDROBE FIXTURES—See Fixtures, Wardr.	
WARM AIR FURNACES—See Heating Systems	
WASHSTANDS	
Crane Co.....	89
WATERCLOSETS—See Closets, Water	
WATER HEATERS—See Heaters, Water	
WATER MIXING VALVES—See Valves, Water Mixing	
WATER REGULATORS—See Regulators, Water	
WATER SOFTENERS—See Softeners, Water	
WATER TANKS—See Tanks, Water	
WATERPROOFED STUCCO—See Stucco, Waterproofed	
WATERPROOFING—BRICK	
Barber Asphalt Corp.....	41
Calbar Paint Co.....	151
W. E. Dunn Mfg. Co.....	111
Flintkote Co.....	14
Medusa Portland Cement Co.....	49
Monarch Waterproofing Prod. Co., Kansas City, Mo.....	153
Pecora Paint Co., Inc.....	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.....	144
Protection Prod. Mfg. Co.....	121
The Reardon Co.....	48
WATERPROOFING—CEMENT	
Barber Asphalt Corp.....	41
Calbar Paint Co.....	151
Flintkote Co.....	14
Medusa Portland Cement Co.....	49
Lincoln-Schluter Floor Machinery Co.....	58
Lone Star Cement Co.....	112
Marsh Wall Products, Inc.....	112
Monarch Waterproofing Prod. Co., Kansas City, Mo.....	153
Pecora Paint Co., Inc.....	153
Pittsburgh Plate Glass Co., Pittsburgh, Pa.....	144
Protection Prod. Mfg. Co.....	121
The Reardon Co.....	48
The Texas Co., Chrysler Bldg., New York City, N.Y.....	107
WATERPROOFING—IRON	
The Barrett Co.....	107
Flintkote Co.....	14
Monarch Waterproofing Prod. Co., Kansas City, Mo.....	144
Protection Prod. Mfg. Co.....	144
WATERPROOFING—LIME	
National Mortar & Supply Co., Pittsburgh, Pa.....	129
Ohio Hydrate & Supply Co.....	39
WATER SUPPLY SYSTEMS	
Crane Co.....	39
WAX—FLOOR	
Am. Floor Surf. Mach. Co.....	114
Bruce Co., E. L.....	54
Pittsburgh Plate Glass Co., Pittsburgh, Pa.....	131
Tile-Text Co.....	131
WAXING MACHINES—See Machines, Waxing	
WEATHERSTRIPS	
Accurate Metal Weatherstrip Co.....	155
Allmetal Weatherstrip Co.....	156
Anderson Corp.....	29
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
WEATHERSTRIP TOOLS—See Tools, Weatherstrip	
WELDERS—ELECTRIC ARC	
General Electric Co.....	36
WHEEL GUARDS—See Guards	
WHEELBARROWS—ALL KINDS	
Construction Machinery Co.....	45
Sterling Wheelbarrow Co.....	152
WINDOWS—ALUMINUM	
Kawneer Co., Niles, Michigan.....	127
WINDOW CASINGS—See Frames, Sash	
WINDOW CATCHES—See Hardware, Window	
WINDOW FRAMES—See Frames, Sash	
WINDOW GLASS—See Glass	
WINDOW GUARDS—See Guards, Window	
WINDOW SCREENS—See Screens, Window	
WINDOW TRIM—See Trim, Window	
WINDOW VENTILATORS—See Ventilators, Window	
WINDOW—ALUMINUM CASEMENT	
Aluminum Co. of America, Inside Back Cover	
WINDOWS—ALUMINUM DOUBLE-HUNG	
Aluminum Co. of America, Inside Back Cover	
WINDOWS—BRONZE	
Kawneer Co., Niles, Mich.....	127
WINDOWS—CASEMENT—(Steel)	
Mesker Brothers.....	127
Curtis Companies.....	12
Huttig Mfg. Co., Muscatine, Iowa.....	137
International Steel Co.....	137
Kewanee Mfg. Co.....	140
Truscon Steel Co.....	3

Vento Steel Products Co., Muskegon, Mich.	
WINDOWS—CASEMENT—(Wood)	
Andersen Corp.....	29
Farley & Loetscher Mfg. Co.....	155
Florida-Louisiana Red Cypress Co., Jacksonville, Fla.....	133
Huttig Mfg. Co., Muscatine, Iowa.....	133
Roach & Musser Co.....	3
WINDOWS—CELLAR—See Frames, Cellar Sash	
WINDOWS—COTTAGE—(Steel)	
International Steel Co.....	137
Mesker Brothers.....	127
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—COTTAGE—(Wood)	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
WINDOWS—DOUBLE-HUNG	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
Mesker Brothers.....	127
Truscon Steel Co.....	3
WINDOWS—FACTORY—(Steel)	
International Steel Co.....	137
Mesker Brothers.....	127
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—GARAGE—(Steel)	
Donley Brothers Co.....	141
Mesker Brothers.....	127
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—GARAGE—(Wood)	
Anderson Corp.....	29
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
WINDOWS—GLASS BLOCKS	
Owens-Illinois Glass Co.....	28
WINDOWS—HOGHOUSE—(Steel)	
Milcor Steel Co.....	48
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—HOLLOW METAL	
Donley Brothers Co.....	141
Edwards Mfg. Co.....	143
Truscon Steel Co.....	3
WINDOWS—PIVOTED	
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—PUTTYLESS	
Farley & Loetscher Mfg. Co.....	155
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—REVERSIBLE—(Metal)	
Mesker Brothers.....	127
WINDOWS—ROOF—(Steel)	
Mesker Brothers.....	127
WINDOWS—ROOF—(Wood)	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
WINDOWS—WALL—(Steel)	
Mesker Brothers.....	127
Truscon Steel Co.....	3
Vento Steel Products Co., Muskegon, Mich.....	3
WINDOWS—WALL—(Wood)	
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
Roach & Musser Co.....	133
Robinson Mfg. Co., Everett, Wash.....	155
WIRE DOORS—See Doors, Wire	
WIRE GLASS—See Glass, Wire	
WIRE GRATINGS—See Gratings, Wire	
WIRE—INSULATED	
General Electric Co.....	36
WIRE SCREENING—See Cloth, Screen	
WIRING—TELEPHONE	
General Electric Co.....	36
WOOD—ARTIFICIAL	
Marsh Wall Products, Inc.....	112
WOOD CEILING—See Ceilings, Wood	
WOOD COLUMNS—See Columns, Wood	
WOOD FILLERS—See Fillers, Wood	
WOOD PRESERVATIVES—See Preservatives, Wood	
WOOD REPRODUCTION	
Gibbs Boardtile Corp.....	150
WOOD SHINGLES—See Roofing	
WOOD STAINS—See Stains, Wood	
WOODWORK	
Bradley Lbr. Co.....	15
Curtis Companies.....	12
Farley & Loetscher Mfg. Co.....	155
Huttig Mfg. Co., Muscatine, Iowa.....	137
Roach & Musser Co.....	133
WOODWORKING JOINTERS—See Jointers	
WOODWORKING MACHINERY—See Machinery, Woodworking	
WOOL—MINERAL	
The Barrett Co.....	107
Insulate Co.....	32
Philip Carey Co.....	37
Flintkote Co.....	14
Gen. Insulating & Mfg. Co., Alexandria, Ind.....	31
Keasbey & Mattison Co.....	48
Ruberoid Co.....	48
Standard Lime and Stone Co., Baltimore, Md.....	35
U. S. Gypsum Co.....	35
WROUGHT IRON TRELLIS	
Cincinnati Iron Fence Co.....	149
WRECKING BARS—See Bars, Wrecking	
ZINC NAILS—See Nails, Roofing	
ZINC PAINT PASTE—See Paste, Zinc Paint	

TRADE NAMES OF ADVERTISERS

- A-ONE SIDING, Milcor Steel, Milwaukee, Wis.
 "A" LATH, Lath, Truscon Steel Co., Youngstown, Ohio
 ABSORBEX, The Celotex Corp., Chicago, Ill.
 AC Circuit Breaker Type Light and Appliance Branch Circuit Panelboards, Frank Adam Electric Co., St. Louis, Mo.
 ACCURATE Metal Weatherstrip Co., New York, N. Y.
 ACME, Gypsum Plaster, Certain-Teed Prod. Corp., N. Y. City
 ACOUSTI-CELOTEX, The Celotex Corp., Chicago, Ill.
 ACOUSTILITE, Fiber Tile Board for Acoustical correction, Insulite Co., Minneapolis, Minn.
 AEROLITE, Safety Glass, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 AGATITE, Gypsum Plaster, Certain-Teed Products Corp., N. Y. City
 AIR-SLAB, Veneered Doors, Farley & Loetscher Mfg. Co., Dubuque, Ia.
 AJAX, Ladder, Roof and Shingling Brackets, Ajax Building Brackets Co., Cleveland Heights
 AKLO, Heat-Absorbing Plate Glass, Libby-Owens-Ford Glass Co., Toledo, Ohio
 ALBRON, Pigments for Aluminum Paint, Aluminum Co., of America, 1841 Gulf Bldg., Pittsburgh, Pa.
 ALFRESCO, Cold Water Paints, Reardon Co., St. Louis, Mo.
 ALLIGATOR, Sliding Door Locks and Latches, Allith-Prouty, Inc., Danville, Ill.
 ALLMETAL, Weatherstrip, Allmetal Weatherstrip Co., Chicago, Ill.
 ALPINA, Roof Ventilators, Milcor Steel Co., Milwaukee, Wisconsin
 ALUMINUM WATERPROOF PRESERVATIVE PAINT, WOODYOUTH base, Protection Prod. Mfg. Co., Kalamazoo, Mich.
 AMERICAN BLACK DEMON, High Speed and Combination, Floor Sanding paper, American Floor Surfacing Machine Co., Toledo, Ohio
 AMERICAN DE LUXE 11", 13", Floor polisher, American Floor Surfacing Machine Co., Toledo, Ohio
 AMERICAN, Hardware, Cabinet, Am. Cabinet Hdw. Co., Rockford, Ill.
 AMERICAN PENTRA SEAL, penetrating floor wax, American Floor Surfacing Machine Co., Toledo, Ohio
 AMERICAN SANDERPLANE (belt sander), Am. Floor Surf. Mach. Co., Toledo, Ohio
 AMERICAN, Saw Mill Machinery, Amer. Saw Mill Machinery Co., Hackettstown, N. J.
 AMERICAN SPINNER (disc floor edges), Am. Floor Surf. Mach. Co., Toledo, Ohio
 AMERICAN STANDARD 8" and 12", Floor sander, Am. Floor Surf. Mach. Co., Toledo, Ohio
 AMERICAN TERRAZZO GRINDERS, Amer. Floor Surfacing Machine Co., Toledo, Ohio
 AMERICAN, Tin Plate, Carnegie-Illinois Steel Corp., Pittsburgh, Pa.
 AMERICAN WAX, American Floor Surfacing Machine Co., Toledo, Ohio
 ANACONDA, Trade Names for all products, The Am. Brass Co., Waterbury, Conn.
 ANCHOR, Asphalt Paint and Roofing, The Barrett Co., 40 Rector St., N. Y. City
 ANCHOR, Lead Head Nails, W. H. Maze Co., Peru, Ill.
 ANDERSEN, Basement Window; Casement Window; Master Frames, Andersen Corp., Bayport, Minnesota
 ANDERSEN NATTOLINE DOUBLE HUNG WINDOWS, Andersen Corp., Bayport, Minn.
 ANDERSEN SILVERSEAL DOOR WEATHERSTRIP, Andersen Corp., Bayport, Minn.
 ANVIL, Drawing Instruments, Keuffel & Esser Co., Hoboken, N.J.
 APOLLO, Drawing Instruments, Keuffel & Esser, Hoboken, N.J.
 ARCHLATH, Wheeling Corrugating Co., Wheeling, W. Va.
 ARMSTRONG, Linoleum, Armstrong Cork Co., Lancaster, Pa.
 AROUND THE CORNER, Garage Door Sets, Frantz Mfg. Co., Sterling, Ill.
 ARROW, Drawing Instruments, Keuffel & Esser Co., Hoboken, N.J.
 ATLAS, Lumite Cement; Portland Cement; Unaflo Oil-Well Cement; Waterproofed White Portland Cement; White Portland Cement, Universal Atlas Cement Co., Chrysler Bldg., New York City
 BALSAM-WOOL Sealed Insulating, Wood Conversion Co., St. Paul, Minn.
 BANNER, Finishing Lime-Hydrated; Base Coat Lime, Fibered, National Mortar & Supply Co., Pittsburgh, Pa.
 BANNER BOY, Household Lime 5 lb.- 10 lb.- 25 lb.-Bags, National Mortar & Supply Co., Pittsburgh, Pa.
 BAR-X-LATH, Wheeling Corrugating Co., Wheeling, W. Va.
 BARRETT HOLT, Roof Connections, Barrett Co., 40 Rector, N. Y. City
 BEAVER, Board; Gypsum Lath, Sheathing, Gypsum Plaster, Certain-Teed Corp., N. Y. City
 BESTWALL, Gypsum Wallboard, Certain-Teed Prod. Corp., N. Y. City
 BILDRITE, Sheathing, Wood Fiber Board, for Exterior Sheathing, Insulite Co., Minneapolis, Minn.
 BONDEX, Waterproof Cement Paint, Primer, The Reardon Co., St. Louis, Mo.
 BOSS, Mixers, Pavers, Hotlats, Dump Bodies, American Cement Machine Co., Keokuk, Iowa
 BOSTROM, Levels, Bostrom-Bridg. Mfg. Co., Atlanta, Ga.
 BRIKLITE, Insulated Brick Siding, Insulite Co., Minneapolis, Minn.
 BROAD SHADOW, Singles, The Barrett Co., 40 Rector, N. Y. City
 BROILOASTER, Charcoal Broilers, Majestic Co., Huntington, Indiana
 BRUCE, Strip Flooring; Finished Blocks; Solid Oak Planks; Floor Finishes; Tuf-Lustre; Paste Wax; Ced'line, E. L. Bruce Co., Memphis, Tenn.
 C & D Brand Oak Flooring, Chapman & Dewey Lbr. Co., Memphis, Tenn.
 CALBAR, Aquarium Cement, Calbar Paint & Varnish Co., Philadelphia, Pa.
 CALDWELL, Door Holders; Sash Balances; Window Screen Springs, Caldwell Mfg. Co., Rochester, N. Y.
 CALICEL, The Celotex Corp., Chicago, Ill.
 CALISTONE, The Celotex Corp., Chicago, Ill.
 CALK-SCREW, Roofing Nails, W. H. Maze Co., Peru, Ill.
 CAPITOL, Rock Wool Home Insulation, Portland Cement, Standard Lime and Stone Co., Baltimore, Maryland
 CARBOSOTO, Wood Preservers, Barrett Co., 40 Rector, N. Y. City
 CAREY, Bathroom Cabinets, Miami Cabinet Divn. of Philip Carey Co., Middletown, Ohio
 CAREY, Cork Insulated Shingles, The Philip Carey Co., Lockland, Ohio
 CAREYSTONE, Asbestos Cement Shingles; Scored Sheathing, The Philip Carey Co., Lockland, Ohio
 CARSTENITE, Wall Covering, Marsh Wall Products, Inc., Dover, Ohio
 CEMENT WATERPROOF PRESERVER, Protection Products Mfg. Co., Kalamazoo, Mich.
 CEMESTO, Asbestos-cement clad insulating cane fibre wall board, The Celotex Corp., Chicago, Ill.
 CERTAIN-TEED, Roofing and Shingles; Structural Insulation; Gypsum Plaster, Certain-Teed Prod. Corp., N. Y. City
 CHALLENGE, Drawing Instruments, Blueprint Paper, Keuffel & Esser Co., Hoboken, N.J.
 CHALLENGE, Drawing Instruments, Blueprint Paper, Keuffel & Esser Co., Hoboken, N.J.
 CIRCULAR FIREPLACES, Majestic Co., Huntington, Indiana
 CLEAROLIN, Linoleum Varnish, Sherwin-Williams Co., Cleveland, Ohio
 CLINCHER, Conductor, Pipe, Milcor Steel Co., Milwaukee, Wisconsin
 C.M.C., Bituminous Mixers; Dual Prime Contractors Pumps; Builders Hoists; Saw Rigs; Concrete Carts; Wheelbarrows, Construction Co., Waterloo, Iowa
 CMC NON TILING CONCRETE MIXERS, Construction Machinery Co., Waterloo, Iowa
 COBURN, Overhead Door Hardware; Heavy Industrial Hinges; Folding Partitions Hardware; Door Hangers; Sliding Door Hardware, Coburn Trolley Track Co., Holyoke, Mass.
 COLONIAL, Bathroom Cabinets, Miami Cabinet Divn., Middletown, Ohio
 COLOR-TONED, Display Panels; Kitchen Cabinet Hardware; Reversible Cabinet Catch; Flush, offset and semi-concealed cabinet Hinges, National Brass Co., Grand Rapids, Michigan
 COLORED PLATE GLASS, Libby-Owens-Ford Glass Co., Toledo, Ohio
 COLUMBIA, Blueprint Paper and Cloth and Drawing Paper, Keuffel & Esser Co., Hoboken, N.J.
 COLUMBIA, Portland Cement, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 COMBI, Combination Electric 2 Speed Drill and Grinder, Wodack Electric Corp., Chicago, Ill.
 CONCRETE CLINCH, Waxes and Waterproofing Material, Lincoln-Schluter Floor Machinery Co., Chicago, Ill.
 CONTICO, Asphalt and Tar Products, Ruberoid Co., New York City
 CONTROL-O-GAS, Furnace Regulators, Payne Furnace & Supply Co., Beverly Hills, Calif.
 COOL SPOT, models of desk type fans, Signal Electric Mfg. Co., Menominee, Mich.
 COOLVENT, Attic Fans, Autovent Fan & Blower Co., Chicago, Ill.
 COPPER ARMORED SISALKRAFT, light weight copper backing for Sisalkraft, Sisalkraft Co., 205 W. Wacker Drive, Chicago, Ill.
 COP-R-LOY SHEETS, Wheeling Corrugating Co., Wheeling, W. Va.
 CORKAUSTIC, Acoustical Treatment of Cork, Armstrong Cork Co., Lancaster, Pa.
 COVER THE EARTH, Paint and Varnish Removers, Sherwin-Williams Co., Cleveland, Ohio
 CRAW-FIR-DOR, Upward working Garage Door, Crawford Door Co., Detroit, Mich.
 CRAWFORD, Door, Crawford Door Co., Detroit, Mich.
 CROSOTED LUMBER
 CRIMPEDGE, Eaves Trough, Milcor Steel Co., Milwaukee, Wisconsin
 C-X, Rock Wool Products, The Celotex Corp., Chicago, Ill.
 DAISY, Barn Door Latches, Wagner Mfg. Co., Cedar Falls, Iowa
 DALLAS Airplane Fans, Dallas Engr. Co., Inc., Dallas, Texas
 DANDIE MIXERS, Small Cheap Concrete Mixer, Koehring Co., Port Washington, Wisconsin
 DELUXE, Hardware, Cabinet, Am. Cabinet Hdw. Co., Rockford, Ill.
 DELUXE, Kitchen Units, Farley & Loetscher Mfg., Dubuque, Iowa
 DEWALT, Woodworking Tools, DeWalt Prod. Corp., Lancaster, Penna.
 DEXTER, Builders, Cabinet & Refrigerator Hardware, National Brass Co., Grand Rapids, Michigan
 DO-ALL, Combination Electric Hammer and Drill, Wodack Electric Tool Corp., Chicago, Ill.
 DUBBRACK, Circuit Breaker Type Light and Appliance Branch Circuit Panelboards for AC and DC Service, Frank Adam Electric Co., St. Louis, Missouri
 DUNBRIK, Brick, W. E. Dunn Mfg. Co., Holland, Mich.
 DUNSTONE, Machine, W. E. Dunn Mfg. Co., Holland, Mich.
 DUNTEX, Roof Tile Machine, W. E. Dunn Mfg. Co., Holland, Mich.
 DUPRO, Reproduction Tracing Cloth, Keuffel & Esser Co., Hoboken, N.J.
 DURALIN, Door Trim (Color); Display Panels; National Brass Co., Grand Rapids, Mich.
 DUSTLESS DISC SANDER, Sandpapering and Steelwooling Material, Lincoln-Schluter Floor Machinery Co., Chicago, Ill.
 EBCO, Products named, The Ebeco Mfg. Co., Columbus, Ohio
 ECONOMY HI-GLOSS, Fiber Tile, Yankee Fiber Tile Mfg. Co., Detroit, Mich.
 ECONOMY, Kitchen Cabinets, Farley & Loetscher Mfg. Co., Dubuque, Iowa
 ELEVEN-EIGHTY, Garage Door Hardware, Allith-Prouty, Inc., Danville, Ill.
 EMBASSY FACTORY-FITTED BASEMENT SASH AND WINDOW UNITS, Roach & Musser Co., Muscatine, Iowa
 EMPIRE, Door Holders, Sash Locks, Caldwell Mfg. Co., Rochester, N.Y.
 EMPIRE, Wallboard, The Celotex Corp., Chicago, Ill.
 ETERNIT, All Asbestos Products, Ruberoid Co., New York City
 EVERBOND X Mastic, E. L. Bruce Co., Memphis, Tenn.
 EXCELSIOR, Drawing Instruments and Tapes, Keuffel & Esser Co., Hoboken, N.J.
 EXTENDA, all metal adjustable window screen, The Haskel Co., Birmingham, Michigan
 EXTRUDALITE, Store Front Metal, Libby-Owens-Ford Glass Co., Toledo, Ohio
 E-Z-GLAZE, Puttyless Sash, Farley & Loetscher Mfg. Co., Dubuque, Iowa
 E-Z-VENT, Storm Sash, Farley & Loetscher Mfg. Co., Dubuque, Iowa
 FAVORITE, for Tapes, Drawing Instruments, Slide Rules, Thumb Tacks, Drawing Boards, Drawing Tables and Farm Levels, Keuffel & Esser Co., Hoboken, N.J.
 "50-50," GARAGE DOOR HARDWARE, Allith-Prouty, Inc., Danville, Ill.
 FARLO UNIQUE, Window Frames, Farley & Loetscher Mfg. Co., Dubuque, Iowa
 FERROBOR, Roofing, Insulated Steel, Truscon Steel Co., Youngstown, Ohio
 FERROCLAD, Siding, Insulated Steel, Truscon Steel Co., Youngstown, Ohio
 FIBEROCK, Rock Wall, Insulite Co., Minneapolis, Minn.
 FLEXCELL, Expansion Joint, The Celotex Corp., Chicago, Ill.
 FLEXWOOD, Wood Veneer for Wall Covering, U. S. Plywood Corp., New York City
 FOLEY, Filer Saw Automatic; Retooler; Saw Set; Saw Grinder, Foley Mfg. Co., Minneapolis, Minn.
 FRANTZ, Builders Hardware, Frantz Mfg. Co., Sterling, Ill.
 FROSTBRAND OAK FLOORING, flooring, Fort Lumber Industries, Inc., Shreveport, La.
 FROST PINE, Lumber, Frost Lumber Industries, Inc., Shreveport, La.
 FULTON, Drawing Tables, Keuffel & Esser Co., Hoboken, N.J.
 GENUINE WATERPROOF GLUED DOORS, Huttig Mfg. Co., Muscatine, Iowa
 GIMCO, Rock Wool Products; Sealall Bats; Savall Pipe Covering; Flex-Felt Boiler Coverings, Gen. Insulating & Mfg. Co., Alexandria, Indiana
 GLIDE, Barn Door Hangers, Overhead Trolleys & Tracks, Frantz Mfg. Co., Sterling, Ill.
 GLO-GAS, Fireplace Heat Circulators, Superior Fireplace Co., Los Angeles, Calif.
 GOLD STRIPE, Brushed, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
 GRAND RAPIDS, Sash Pulleys, Grand Rapids Hdw. Co., Grand Rapids, Mich.
 GRAYLITE, Fiber Tile Board in medium Gray, Insulite Co., Minneapolis, Minn.
 HARBORD, Plywood; Sheathing; Wallboards; Plycrete (for concrete forms); Industrial Plywood; Luan Plywood; Sugar Pine Plywood, Harbor Plywood Corp., Hoquiam, Wash.
 HARBORD TENNIS TABLES, Harbor Plywood, Hoquiam, Wash.
 HARBORDSIDE, Harbor Plywood Corp., Hoquiam, Washington
 HAWK SPREAD, Finishing Lime, Ohio Hydrate & Supply Co., Woodville, Ohio
 HEATILATOR, Fireplaces, Heitlitor Co., Syracuse, N.Y.
 HEATSAVER, Circulating Fireplaces, Donley Brothers Co., Cleveland, Ohio
 HELIOS, Blueprint Paper, Keuffel & Esser Co., Hoboken, N.J.
 HERCULES No. 10 and 13, Floor Polisher, Amer. Floor Surfacing Machine Co., Toledo, Ohio
 HERRINGBONE, Mesh, Truscon Steel Co., Youngstown, Ohio
 HESSLER, THE, Roof Flange, San-Equip Co., Syracuse, N.Y.
 HILO, Barn Door Hangers, Overhead Trolleys & Tracks, Frantz Mfg. Co., Sterling, Ill.
 HI-SPEED, Lime Mortar; Lump Lime; Hydrated Lime; Louisville Cement Co., Louisville, Ky.
 HOLT'S KWICKOST, Estimating Systems, Holt Publishing Co., Minneapolis, Minn.
 HOMASOTE, Building Board, Insulation Lath, Flooring, Etc., Homasote Co., Trenton, N.J.
 HUDSON, Drawing Tables, Keuffel & Esser Co., Hoboken, N.J.
 IMPROVED SCHLUETER, Sandpapering and Steel-wooling Machines, Lincoln-Schluter Floor Machinery Co., Chicago, Ill.
 I-XL (I-Excel), Sinks, Built-in Kitchen Cabinets, Portable Kitchen Units, I-XL Furniture Co., Inc., Goshen, Ind.
 I-XL SERV-YOU-WELL, Built-in Kitchen Cabinets, Sinks, Portable Kitchen Units, I-XL Furniture Co., Inc., Goshen, Ind.
 INS-LITE, Fiber Tile Board; Fiber Board Plank, Fiber Building Board, Insulite Co., Minneapolis, Minn.
 INSULMESH, Lath, Truscon Steel Co., Youngstown, Ohio
 INTERLOCK, Joint, Milcor Steel Co., Milwaukee, Wisconsin
 INTERNATIONAL, Motor Trucks; Industrial Tractors and Power Units, International Harvester Co., Chicago, Ill.
 JUPITER, Drawing Instruments, Keuffel & Esser Co., Hoboken, N.J.
 K&E, for all products, Keuffel & Esser Co., Hoboken, N.J.
 K-V, Handy Clamps, Knappe & Vogt Mfg. Co., Grand Rapids, Mich.
 K-VENIENCE, Clothes Closet Fixtures, Knappe & Vogt Mfg. Co., Grand Rapids, Mich.
 KEES, Building Corners, F. D. Kees Mfg. Co., Beatrice, Nebr.
 KEY, Drawing Instruments, Keuffel & Esser Co., Hoboken, N.J.
 KIMSUL, Expanding Blanket Insulation, Kimberly Clark Corp., Chicago, Ill.
 KITCHEN MAID, Kitchen Units, Kitchen Maid Corp., Andrews, Indiana
 KOLOR-TRIM, Pre-Decorated Mouldings, Wood Conversion Co., St. Paul, Minn.
 KUEHNS, Lath, Special made and Gutter, hanging, Milcor Steel Co., Milwaukee, Wisconsin
 KWIX-MIX MIXERS, concrete mixer, Koehring Co., Port Washington, Wisconsin
 LAUX CASEIN GLUE, I. F. Laucks, Inc., Seattle, Washington
 LAUX CASEIN SIZE, I. F. Laucks, Inc., Seattle, Washington
 LAUXLITE, Synthetic Resin Paint (Water), I. F. Laucks, Inc., Seattle, Washington
 LAUX REZ, Sealer and Primer for Wood, I. F. Laucks, Inc., Seattle, Washington
 LAUXTEX, Plastic Paint (water), I. F. Laucks, Inc., Seattle, Washington
 LAUXTINT, Kalsominer (water), I. F. Laucks, Inc., Seattle, Washington
 LEHIGH, High Early Strength Portland Cement; Mortar Cement; Portland Cement, Lehigh Portland Cement Co., Allentown, Pa.
 LIGHT EIGHT, Floor sander, Am. Floor Surf. Mach. Co., Toledo, Ohio
 LIMEIGHT, Cold Water Paint, Ohio Hydrate & Supply Co., Woodville, Ohio
 LINCOLN, Auto-Scrubber, Scrubbing, Waxing, & Polishing Machines; Single Disc, Twin Disc, Lincoln-Schluter Floor Machinery Co., Chicago, Ill.

LITHWOOD, Doors, Farley & Loetscher Mfg. Co., Dubuque, Iowa
LITTLE AMERICAN AND CHAMPION, floor sanders, Am. Floor Surf. Mach. Co., Toledo.
LOCKJOINT, Joint of Stove Pipe, Milcor Steel Co., Milwaukee, Wisconsin
LOCKWOOD, Door and Drawer Knobs, Lockwood Hdw. Co., Fitchburg, Mass.
LOF, Sheet Glass, Libby-Owens-Ford Glass Co., Toledo, Ohio
LOK-JOINT Lath, Wood Fiber Board which has plaster base, Insulite Co., Minneapolis, Minnesota
LONG STAR, Portland Cement, Lone Star Cement Corp., New York City
LOW BOY AND DUPLEX, Floor Polishers, Amer. Floor Surfing Machine Co., Toledo, Ohio
LUCRE LEAK-PROOF, Bath Tub Hanger, Wm. B. Lucke, Inc., Wilmette, Ill.
LUMINITE & ALFRESCO, Kalsomine, Cold Water Paint, Tecture Paint, Wall Size, Water Putty, Patching Plaster, Patching Cement, Spackling Compound, The Reardon Co., St. Louis, Mo.
LUSTER-CHROME, Cabinet, Hardware, Am. Cabinet Co., Rockford, Ill.
MACK, Trucks, Mack Trucks, Inc., Long Island City, N.Y.
MAIL-BOX, Penn-Greg Mfg. Co., Minneapolis, Minn.
MAIL-CHUTE, Penn-Greg Mfg. Co., Minneapolis, Minn.
MARLITE, Wall Covering (tile), Marsh Wall Products, Inc., Dover, Ohio
MAIL, Door Planes, Electric; Concrete Vibrators, Mail Tool Co., Chicago, Ill.
MARLITE HEATEX, Wall Covering, Marsh Wall Products, Inc., Dover, Ohio
MARSH, Mouldings; Bathroom Accessories; Mastic; Marsh Wall Products, Inc., Dover, Ohio
MASTER, Hardware, Cabinet, Am. Cabinet Hdw. Co., Rockford, Ill.
MASTER, Septic Tank, San-Equip Co., Syracuse, N.Y.
MASTER, Woodworking Machinery, Master Woodworking Machinery Co., Detroit, Mich.
MASTITE, Masonry Mortar, Ohio Hydrate & Supply Co., Woodville, Ohio
McCORMICK-DEERING, Gasoline and Kerosene Engines, International Harvester Co., Chicago, Ill.
MEDUSA, Gray Portland Cement Waterproofer Gray Portland Cement, White Portland Cement, Waterproofer White Portland Cement, Waterproofer Powder, Concentrated Waterproofer Paste, Stonest, Briks, Portland Cement Paint, Portland Cement Co., Cleveland, Ohio
MESKER, "Gulldahl Casements," "Feathertouch Fasteners," "Metropolitan Casements," "Master Casements," "GWI Sills," Mesker Brothers, St. Louis, Mo.
METROPOLITAN, Kitchen Dressers, Farley & Loetscher Mfg. Co., Dubuque, Iowa
MIAMI, Bathroom Cabinets, Miami Cabinet Divn., Middletown, Ohio
MIAMI CAREY, Chromium Plated Bathroom Accessories; Chrome Framed Mirrors; Steel Framed Mirrors, Miami Cabinet Divn., Middletown, Ohio
MICARTA, Molded Plastic Panels, U. S. Plywood Corp., New York City
MODERNAIRE, Fans, Dallas Engr. Co., Inc., Dallas, Texas
MODEX, Casein Paint, The Reardon Co., St. Louis, Missouri
MONARCH, Liquid Roof Coating, Plastic Roof Cement, Asphalt Metal & Roof Paint, Caulking Compound, Metallic Waterproofing, E. A. Floor Patch, Boiler Wall Coating, Hot Surface Paint, Gilsomite Paint, Plaster Bond, Transparent Waterproofing, Aluminum Paint, Monarch Waterproofing Prod. Co., Kansas City, Mo.
(MONARCH MAINTENANCE MATERIALS)
MONARCH, Wallboard, The Celotex Corp., Chicago, Ill.
MONARCH, Woodworking Machine, Amer. Saw Mill Mach. Co., Hackettstown, N.J.
MONCRIFF, Air Conditioning Systems for Coal, Gas and Oil; Warm Air Furnaces for Registers and Furnace Pipe, Henry Furnace & Foundry Co., Cleveland, Ohio
MONOCORK, Plastic Flooring of cork and rubber, Armstrong Cork Co., Lancaster, Pa.
MONOWALL, Decorative Wall Panels, Armstrong Cork Co., Lancaster, Pa.
MULTI-PURPOSE, Sandpapering & Steelwooling Machines, Lincoln-Schlueter Floor Machinery Co., Chicago, Ill.
NAIRN, Battleship and Plain Linoleum; Veltone Linoleum; Jasper Linoleum; Inlaid Linoleum; Linoleum Treadlite Tile Wall Linoleum; Cork Carpet for Bulletin Boards Congoleum-Nairn Inc., Kearny, N.J.
NORMAL, Drawing Paper, Keuffel & Esser Co., Hoboken, N.J.
NU-AIR, Ventilators for Schools, Offices, Milcor Steel Co., Milwaukee, Wis.
NU-ALPINA, Revolving Ventilators, Milcor Steel Co., Milwaukee, Wis.
NUTEX, Smooth Surfaced Roofing; 75 lb. Mineral Surfaced Roofing, The Texas Co., Chrysler Bldg., New York City
NU-WOOD, Interior Finish, Wood Conversion Co., St. Paul, Minn.
OHIO, Ground Lime; Masons Lime; Exterior Stucco; Finishing Lime, Ohio Hydrate & Supply Co., Woodville, Ohio
OHIO RITEWALL, Lime Plaster, Ohio Hydrate & Supply Co., Woodville, Ohio
OHIO SANDLEME, Plaster Finish; Interior Sand Finish, Ohio Hydrate & Supply Co., Woodville, Ohio
ON-THE-WALL, Ironing Boards, Farley & Loetscher Mfg. Co., Dubuque, Iowa
OVER-FOLD, Garage Doors, Farley & Loetscher Mfg. Co., Dubuque, Iowa
OVERHEAD DOOR, Electric, Overhead Door Co., Hartford City, Ind.
OVERHEAD DOOR, Overhead Door Co., Hartford City, Indiana
OVER THE TOP, Garage Door Overhead Acting Hardware, Frantz Mfg. Co., Sterling, Ill.
PARAGON, Drawing Paper, Drawing Instruments, Drafting Machines, Drawing Pencils, Scale Protractors, Keuffel & Esser Co., Hoboken, N.J.
PARAMOUNT, Double Hung Hollow Metal Windows, Willis Mfg. Co., Inc., Galesburg, Ill.
PARAPHINE, Blueprint and Drawing Paper, Keuffel & Esser Co., Hoboken, N.J.
PATCHING PLASTER, I. F. Laucks, Inc., Seattle, Wash.
PATRICIAN, Plastic Door Knobs, Lockwood Hdw. Co., Fitchburg, Mass.
PAYNE, All Furnaces and Heating Plants, Payne Furnace & Supply Co., Beverly Hills, California
PAYNE, "A" Gas Vent, Gas Flue Pipe, Payne Furnace & Supply Co., Beverly Hills, Calif.
PENN VERNON, Window Glass, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
PERFECT-LAP, Inlap Ornamental for Two-Drain Channel Roofing, Milcor Steel Co., Milwaukee, Wisconsin
PHAROS, Drawing Instruments, Keuffel & Esser Co., Hoboken, N.J.
PHONIX, Sash Cord; awning cord or rope, Samson Cordage Works, Boston, Mass.
PINE, Henderson, Sugar, Northern White, Norway, Shevlin Pine Sales Co., Minneapolis, Minnesota
FITCO, Storefront Metal; Storefronts, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
PITTSBURGH, Paint, Smith as Glass, Pittsburgh Plate Glass Co., Pittsburgh, Pa.
PIVOT-LIFT, Garage Door Equipment, Frantz Mfg. Co., Sterling, Ill.
PLASTEREZ, Wall Coverings for interior plywood surfaces, I. F. Laucks, Inc., Seattle, Washington
PLASTEX, Plastic Texture Paint, The Reardon Co., St. Louis, Mo.
PLASTO MOULAGE, Materials for reproductions of facades, and mouldings, Warren Knight Co., Philadelphia, Pa.
PLUMBING FIXTURES, Hospital, Marine, Railroad, Standard Sanitary Mfg. Co., Pittsburgh, Pa.
POLISHED PLATE GLASS, Libby-Owens-Ford Glass Co., Toledo, Ohio
POLYTEX, Door Knobs, Lockwood Hdw. Co., Fitchburg, Mass.
POPULAR, Drawing Tables, Tapes, Tracing Paper, Keuffel & Esser Co., Hoboken, N.J.
PORTER-CABLE, Combination Steel Wooling; Sanding and Polishing Machine for Floor; Fiber Edgers, Porter-Cable, Syracuse, N.Y.
POTTSO, Lightweight concrete aggregate, The Celotex Corp., Chicago, Ill.
POWER KING, Power King Tool Corp., Warsaw, Indiana
PRESWOOD, Hardboard; Panels, Masonite Corp., Chicago, Illinois
PRES-RE-TREATED LUMBER, American Lbr. & Treating Co., Chicago, Ill.
PRESTO, Disappearing Stairs, Farley & Loetscher Mfg. Co., Dubuque, Iowa
PROUTY, Barn Door Latches, Allith-Prouty, Inc., Danville, Ill.
PUSH-OVER, Overhead Acting Garage Door Hardware, Allith-Prouty, Inc., Danville, Ill.
Q-T BURLINER, The Celotex Corp., Chicago, Ill.
QUAKER, Felt Base Rugs and Floor Coverings, Armstrong Cork Co., Lancaster, Pa.
QUALITY-BILT, Woodwork, Farley & Loetscher Mfg. Co., Dubuque, Iowa
RADIA, All Products named thusly, Shepler Stover Co., F. W., Pittsburgh, Pa.
REARDON'S WASHABLE, Kalsomine, The Reardon Co., St. Louis, Mo.
RED EYE ROT-PROOF WINDOWS, Huttig Mfg. Co., Muscatine, Iowa
RELIABLE, Fire Door Fixtures, Barn Door Hangers, Rolling Store Ladders, Overhead Trolleys and Trolley Tracks, Allith-Prouty, Inc., Danville, Ill.
RELIABLE, Scaffold Bracket, Reliable Jack Co., Dayton, Ohio
REXICIDE, Synthetic Resin Paste Paint (water exterior), I. F. Laucks, Inc., Seattle, Wash.
REZITEK, Wall Coating for Wood, I. F. Laucks, Inc., Seattle, Wash.
RITEWALL, Base coat lime plaster, Ohio Hydrate & Supply Co., Woodville, Ohio
ROBIN BRAND, Douglas Fir Lumber, Plywood, Wallboard, House Doors, Screen Doors, Garage Doors, Sash, Windows, Robinson Mfg. Co., Everett, Wash.

ROLLAWAY, Barn Door Hangers, Overhead Trolleys, Tracks, Frantz Mfg. Co., Sterling, Ill.
ROLL-N-FOLD GARAGE DOORS, Majestic Co., Huntington, Indiana
ROOF INSULATION, Wood Fibrewood, Masonite Corp., Chicago, Ill.
RO-WAY, Garage Doors, Rowe Mfg. Co., Galesburg, Ill.
ROYAL FLUSH DOORS, Door without paneling, Roach & Musser Co., Muscatine, Iowa
RUBBER-GLO, Waxes and Waterproofing Material, Lincoln-Schlueter Floor Machinery Co., Chicago, Illinois
RUBEROID, Asphalt and Tar Products, Ruberoid Co., New York City
RUNWELL, Barn Door Hangers, Overhead Trolleys, Tracks, Frantz Mfg. Co., Sterling, Ill.
SAFEKOTE, Reinforced building paper, Ruberoid Co., New York City
SAG-NOTT DOORS With Cotter-Keyed Joint, Harbor Plywood Corp., Hoquiam, Wash.
SAMSON, Wire Center Sash Cord; Dumb Waiter cord or rope; shade cord; venetian blind cord; masons line, Samson Cordage Works, Boston, Mass.
SAMSON SPOT, Cord, Sash, Samson Cordage Works, Boston, Mass.
SAN, Solvent, San-Equip Co., Syracuse, N.Y.
SAN-EQUIP, Drain Pool; Grease Trap; Septic Tank, Siphon; Tank Septic, Vertical; Toilet Systems, Septic; Waterless Toilets; Basement Tanks for oil and gas; Underground Tanks for oil and gas, San-Equip Co., Syracuse, N.Y.
SAWMASTER, Tile Cutting Machines, Master Woodworker Machinery Co., Detroit, Mich.
SEALSLAB-COLD STORAGE INSULATION, Asphalt sealed wood fiber cold storage insulating board, Insulite Co., Minneapolis, Minn.
SECTIONROLL, Garage Doors, Farley & Loetscher Mfg. Co., Dubuque, Iowa
SELOC, Chalkboard Glass, Permanent Glass Blackboard, Pittsburgh Plate Co., Pittsburgh, Pa.
SERV-U-WELL, Portable Kitchen Units, Sinks, Built-in Kitchen Cabinets, I-XL Furniture Co., Inc., Goshen, Ind.
SHEDWELL, Barn Door Hangers, Overhead Trolleys and Tracks, Frantz Mfg. Co., Sterling, Illinois
SHINGLE STAIN, WOODLIFE with color pigments, Protection Products Mfg. Co., Kalamazoo, Mich.
SHUTLBRAK, Safety Type Enclosed Switches, Frank Adam Electric Co., St. Louis, Mo.
SIGNAL, Electric fans, ventilators, motors, and drills, Signal Elec. Mfg. Co., Menominee, Michigan
SIMPLEX, for Drawing Paper, Cross-Section Paper and Section Liners, Keuffel & Esser Co., Hoboken, N.J.
SISALKRAFT, Waterproof Building Paper, Sisalkraft, 205 W. Wacker Drive, Chicago, Ill.
SK DOUBLE DUPLEX, Duplex Papers with no reinforcing, Sisalkraft Co., 205 W. Wacker Drive, Chicago, Ill.
SKILSAW, Drills, Sanders (Belt-Disc & Floor type), Blowers, Grinders, Skilaw, Inc., Chicago, Ill.
SKILSAWS, Portable Electric Blowers, Skilaw, Inc., Chicago, Ill.
SMITH Mixers and Pavers, T. L. Smith Co., Milwaukee, Wisconsin
SMITH-MOBILE, Truck Mixers, and Agitators, T. L. Smith Co., Milwaukee, Wis.
SPAX, for Spackling, Wood Filler, I. F. Laucks, Inc., Seattle, Wash.
SPEED WATERPROOFED, Lime, Portland Cement, Louisville Cement Co., Louisville, Ky.
SPEEDMATIC, Floor Sanding Machines; Electric Hand Saws, Porter-Cable Machine Co., Syracuse, N.Y.
SPEED-O-LITE, Sandpapering and Steelwooling Machines, Lincoln-Schlueter Floor Machinery Co., Chicago, Ill.
SPIRAL, Roofing Nails, W. H. Maze Co., Peru, Ill.
STANDARD, Cabinet, Hardware, Am. Cabinet Hdw. Co., Rockford, Ill.
STANDARD, Hydrated Lime, Standard Lime and Stone Co., Baltimore, Maryland
STANLEY PANS, Stanley Works, New Britain, Conn.
STAY-PUT, Ash Dumps; Cleanout Doors, Superior Fireplace Co., Los Angeles, Calif.
STERLING, Transite and Levels, Warren-Knight Co., Philadelphia, Pa.
STERLING, Wheelbarrow, Sterling Wheelbarrow Co., Milwaukee, Wis.
STONEMASONS BRIXMENT, Cement, Louisville Cement Co., Louisville, Ky.
STUDING SOCKETS, insures anchorage of nails and resisting outward pressure, Wagner Mfg. Co., Cedar Falls, Iowa
SUPER-HARBOR, Plywood (in all grades—in panels as large as 8x16 feet); Plycrete (for concrete forms); Luan Plywood; Redwood Plywood, Harbor Plywood Corp., Hoquiam, Wash.
SUPERIOR, Fireplace, Heat Circulars; Fireplace Dampers, Fireplace Grates, Superior Fireplace Co., Los Angeles, Calif.
TAKE-ABOUT, Portable Belt Sanders, Porter-Cable Machine Co., Syracuse, N.Y.
TEMLOK, Lath; Deluxe Insulating Interior Finishes, Armstrong Cork, Lancaster, Pa.
TENSEAL, Sheathing, Armstrong Cork Co., Lancaster, Pa.
TEN-EIGHTY, Garage Door Hardware, Allith-Prouty, Inc., Danville, Ill.
TEMPRYTE, Storm Window, Truscon Steel Co., Youngstown, Ohio
TEN-TEN, Barn Door Hangers, Allith-Prouty, Inc., Danville, Ill.
TERMINIX, Termite Preventative, E. L. Bruce Co., Memphis, Tenn.
TEXACO, Asphalt Shingles, Mineral Surfaced Asphalt Roll Roofing, Smooth Surfaced Asphalt Roll Roofing, Asphalt Saturated Felt, Solid Roofing Asphalt, Asbestos Fibre Roof Coating, Liquid Asphalt Roof Coating, Plastic Asbestos Roof Cement, The Texas Co., New York City
TEXACO Asbestos Fibre Roof Coating, The Texas Co., New York City
TEXACO Asphalt Saturated Felt, The Texas Co., New York City
TIGER Smooth Surfaced Roofing, The Texas Co., New York City
THE TILE-TEX, Asbestos; Asphalt Flooring; Flexible Asbestos Wall Tile; Asphalt Cove and Straight Bases; Water Wax and Cleaners; Adhesives for Installing Tile-Tex Products, Tile Tex Co., Chicago Heights, Ill.
THERMAX, Insulation material, The Celotex Corp., Chicago, Ill.
TITLELOCK, Hanging Gutter, Pipes for stove and furnaces, Milcor Steel Co., Milwaukee, Wisconsin
TREATED WOOD POSTS
TRIMPAK, Package Trim, Fla-La Red Cypress Co., Jacksonville, Fla.
TUFFLES, Tuff-Wood, Wood Conversion Co., St. Paul, Minn.
TUFFLEX Tempered Plate Glass, Libby-Owens-Ford Glass Co., Toledo, Ohio
TWO-DRAIN, 3 V-Two Drain Channel Roofing, Milcor Steel Co., Milwaukee, Wisconsin
UNIBLADE, Blowers, Ventilating, Autovent Fan and Blower Co., Chicago, Ill.
UNIFAST, Lock Sets, Lockwood Hdw. Co., Fitchburg, Mass.
UNIPAK, Casements, Farley & Loetscher Mfg. Co., Dubuque, Iowa
UNIPAK UNIQUE, Windows, Farley & Loetscher Mfg. Co., Dubuque, Iowa
UNIVERSAL, Drawing Paper and Proportional Dividers, Keuffel & Esser Co., Hoboken, N.J.
UNIVERSAL Portland Cement, Universal Atlas Cement Co., New York City
VELLO, Casein Paint (Water), I. F. Laucks, Inc., Seattle, Wash.
VENOSTONE, Primer, The Reardon Co., St. Louis, Mo.
VIBRAFRAM, The Celotex Corp., Chicago, Ill.
VICTOR, Attic Fans; In-Built Ventilators; Heat Boosters; Clean-Air Ventilators, Victor Elec. Prod., Inc., Cincinnati, Ohio
VICTOR, Disappearing Stairs, Farley & Loetscher Mfg. Co., Dubuque, Iowa
VITROLITE, Structural Glass Black Board, Libby-Owens-Ford Glass Co., Toledo, Ohio
VITROLUX, Color Fused Tempered Plate Glass, Libby-Owens-Ford Glass Co., Toledo, Ohio
VULCANITE, Roofing and Shingles, Certain-Teed Prod. Corp., New York City
WASHINGTON, Mason's Cement, Finishing Lime, Standard Lime and Stone Co., Baltimore, Maryland
WATCO, Asphalt and Tar Products, Ruberoid Co., New York City
WEISTEEL, Toilet Compartments, Hospital Cubicles, Henry Weis Mfg. Co., Elkhart, Ind.
WEISWAY, Cabinet Showers, Foot-Grip, No-Slip Receptors, Henry Weis Mfg. Co., Elkhart, Ind.
WELDBORD, Hardwood Structural Plywood Panels, U. S. Plywood Corp., New York City
WELWOOD, Plywood, Waterproof, U. S. Plywood Corp., New York City
WHEELING, Building Products, Wheeling Corrugating Co., Wheeling, W. Va.
WOLMANIZED FROST PINE, Lumber, Frost Lumber Industries, Inc., Shreveport, La.
WOLMANIZED LUMBER
WOLMANIZED POSTS
WONDER, Tilting Concrete Mixers; Plaster Mixers, Construction Mach. Co., Waterloo, Ia.
WOOD FIBERBOARD, Panels, Masonite Corp., Chicago, Ill.
WOODLIFE, Toxic Water Repellent for Wood or used as a prime solution, Protection Prod. Mfg. Co., Kalamazoo, Mich.
WOODYOUTH, Water Repellent for Wood, Protection Products Mfg. Co., Kalamazoo, Mich.
WYTFEACE, for Measuring Tapes, Keuffel & Esser Co., Hoboken, N.J.
YANKEE FIBER TILE, Yankee Fiber Tile Mfg. Co., Detroit, Mich.
ZIGZAG, Finishing Lime, Ohio Hydrate & Supply Co., Woodville, Ohio
ZINCLAD, Zinc-coated nails for Roofing, W. H. Maze Co., Peru, Ill.

INDEX TO ADVERTISERS

APRIL, 1939

A		Lincoln-Schlueter Floor Machinery Co., Inc.....	155
Accurate Metal Weather Strip Co.....	155	Lockwood Hardware Mfg. Co.....	138
Adam Electric Company, Frank.....	143	Lone Star Cement Corporation.....	58
Allith-Prouty, Inc.....	149	Louisville Cement Co., Incorporated.....	101
Allmetal Weatherstrip Co.....	156	Lucke, Inc., William B.....	145
Aluminum Company of America.....	3rd Cover	M	
American Brass Company, The.....	143	Mack Trucks, Inc.....	44
American Builder.....	50-52-118-119-129-131-141-145-147-157	Mall Tool Company.....	143
American Cement Machine Co., Inc., The.....	155	Maple Flooring Manufacturers Association.....	56
American Floor Surfacing Machine Company, The.....	114	Marsh Wall Products, Inc.....	112
American Gas Association.....	103	Masonite Corporation.....	117
American Lumber & Treating Company.....	133	Master Woodworker Mfg. Co., The.....	153
American Radiator & Standard Sanitary Corporation.....	46	Maze Company, W. H.....	108
American Technical Society.....	149	McKinney Manufacturing Co.....	125
Andersen Corporation.....	29	McNair Shingle Co., Robert.....	152
Anthracite Industries, Inc.....	13	Mesker Bros.....	127
Arkansas Soft Pine Bureau.....	132	Miami Cabinet Division.....	123
Armstrong Cork Company.....	115-136	Milcor Steel Company.....	48
Autovent Fan and Blower Co.....	154	Modine Manufacturing Company.....	11
B		Mueller Furnace Co., L. J.....	27
Barber Asphalt Corporation.....	41	N	
Barrett Company, The.....	107	National Coal Association.....	4
Better Homes & Gardens.....	117	National Manufacturing Company.....	4th Cover
Bostrom-Brady Mfg. Co.....	153	National Oak Flooring Manufacturers' Assn.....	18
Bradley Lumber Company of Arkansas.....	15	National Surety Corporation.....	10
Brecher Company, The.....	154	O	
Bruce Co., E. L.....	54	Ohio Hydrate & Supply Co., The.....	129
C		Overhead Door Corporation.....	123
Calbar Paint & Varnish Co.....	151	Owens-Illinois Glass Company.....	28
Caldwell Manufacturing Co.....	139	P	
Carey Company, The Philip.....	37-123	Parks Woodworking Machine Co., The.....	150
Carter Division, R. L.....	125	Payne Furnace & Supply Co., Inc.....	128
Celotex Corporation, The.....	2	Pecora Paint Company, Inc.....	153
Certain-teed Products Corporation.....	8-9	Peerless Manufacturing Corp.....	147
Chain Belt Company.....	153	Penn Greg Mfg. Co.....	155
Chevrolet Motor Division.....	26	Porter-Cable Machine Company, The.....	139
Cincinnati Iron Fence Co., Inc.....	149	Portland Cement Association.....	158
Colorcrete Industries, Inc.....	151	Protection Products Mfg. Co.....	144
Congoleum-Nairn, Inc.....	38	Pullman Mfg. Co.....	141
Construction Machinery Company.....	45	R	
Crane Co.....	39	Reardon Company, The.....	121
Curtis Companies Service Bureau.....	12	Red Cedar Shingle Bureau.....	109
D		Red Star Products, Inc.....	146
Dallas Engineering Co.....	156	Reliable Jack Co.....	145
Delco-Frigidaire Conditioning Division.....	16	Republic Steel Corporation.....	3
De Walt Products Corporation.....	121	Rittenhouse Co., Inc., The A. E.....	127
Donley Bros.....	141	Roach & Musser Co.....	133
Douglas Fir Plywood Association.....	17	Round Oak Company, The.....	124
Dunn Mfg. Co., W. E.....	111	Rowe Manufacturing Co.....	20
Duplex Inc.....	142	Ruberoid Co., The.....	43
E		S	
Ebco Mfg. Co., The.....	142	Sager Lock Works.....	149
Edwards Manufacturing Co., The.....	143	Samson Cordage Works.....	147
F		Shepler Stove Co., F. W.....	151
Farley & Loetscher Mfg. Co.....	155	Sherwin-Williams Co., The.....	25
Flintkote Company, The.....	14	Sisalkraft Co., The.....	105
Foley Mfg. Co.....	153	Skilsaw, Inc.....	21
Ford Motor Company.....	30	Smith Company, The T. L.....	148
Frantz Manufacturing Co.....	137	Sonneborn Sons, Inc., L.....	147
G		Stanley Electric Tool Division.....	145
General Electric Home Bureau.....	36	Stanley Works, The.....	23-125-145
General Motors Sales Corporation.....	16-26	Steel Scaffolding Co.....	156
General Motors Truck & Coach Division.....	34	Sterling Wheelbarrow Co.....	152
Gilbs Boardtile Corporation.....	150	Stevens Hotel, The.....	135
Grand Rapids Hardware Co.....	122	Superior Fireplace Co.....	144
H		T	
Harbor Plywood Corporation.....	51	Tile-Tex Company, The.....	131
Haskel Co., The.....	151	Truscon Steel Company.....	3
Heatilator Company.....	120	U	
Henry Furnace & Foundry Co., The.....	116	United States Building and Loan League.....	42
Herron-Zimmers Moulding Company.....	148	United States Gypsum Company.....	35
Holt Publishing Co.....	126	United States Plywood Corporation.....	22
Homasote Company.....	115	United States Radiator Corporation.....	134
House of the Month Service.....	149	United States Steel Corporation Subsidiaries.....	33
I		Universal Atlas Cement Co.....	33
Insulite Company, The.....	32	V	
International Steel Company.....	137	Victor Electric Products, Inc.....	141
J		W	
Jaeger Machine Company, The.....	110	Wagner Mfg. Co.....	155
K		Wallace & Co., J. D.....	155
Keasbey & Mattison Company.....	31	Warren-Knight Co.....	155
Kees Manufacturing Co., F. D.....	153	Weis Mfg. Co., Henry.....	130
Kewanee Manufacturing Company.....	140	Western Pine Association.....	113
Kimball Bros. Co.....	154	Weyerhaeuser Sales Company.....	6-7
Kimberly-Clark Corporation.....	49	Wheeling Corrugating Co.....	53
Kinnear Manufacturing Company, The.....	135	White Co., David.....	156
Kitchen Maid Corp., The.....	139	Wodack Electric Tool Corp.....	151
Knappe & Vogt Manufacturing Company.....	137	Wood Conversion Company.....	24
Kwik-Mix Concrete Mixer Co.....	146	Wood Industries, Inc., Gar.....	140
L		Y	
Laucks, Inc., I. F.....	154	Yellow Truck & Coach Mfg. Co.....	34
Lead Industries Association.....	19	Z	
Lehigh Portland Cement Company.....	47	Zouri Store Fronts.....	5
Libbey-Owens-Ford Glass Company.....	40		

NOTICE TO ADVERTISERS—Forms for the May number of the American Builder and Building Age will close promptly on April 15. New copy changes, order for omissions of advertisements must reach our business office, 105 West Adams St., Chicago, not later than the above date. If new copy is not received by the 20th 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.

155
138
58
101
145

44
143
56
112
117
153
108
125
152
127
123
48
11
27

4
Cover
18
10

129
123
28

150
128
153
147
155
139
158
144
141

121
109
146
145
3
127
133
124
20
43

149
147
151
25
105
21
148
147
145
45
56
52
35
44

31
3

42
35
22
34
33
33

41

55
55
55
30
13
7
13
16
1
4
0

4

5

7
1