

[A Simmons-Boardman Publication]

# AMERICAN BUILDER

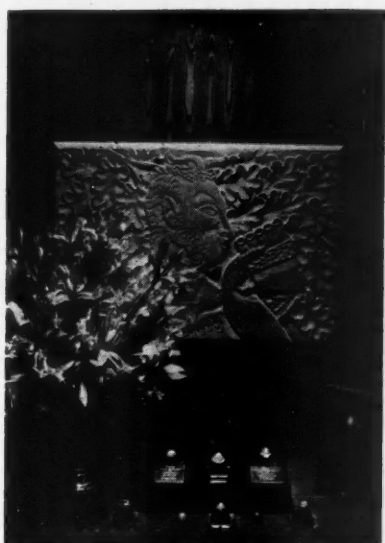
and Building Age

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JUNE, 1936

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Vol. 58—No. 6



SUGAR PINE wood carving used as decoration in the show window of a jewelry firm, Portland, Ore.

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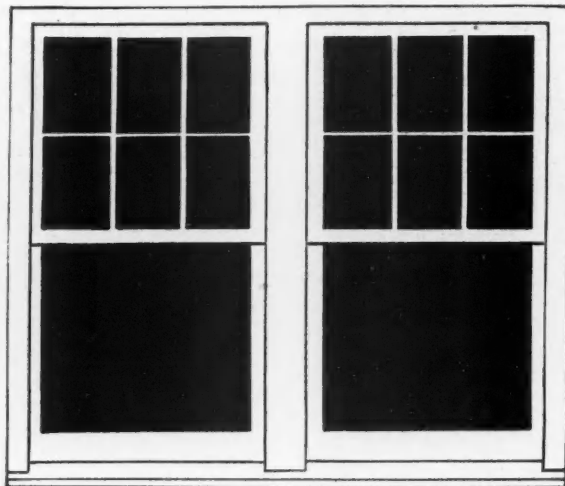
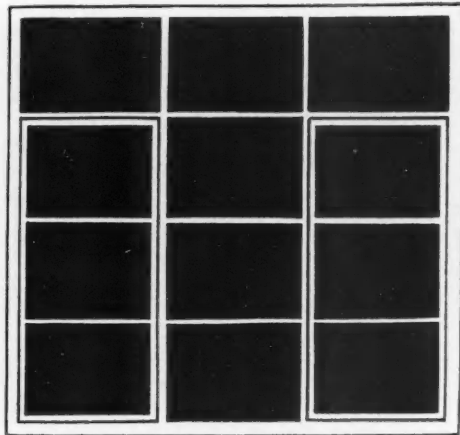
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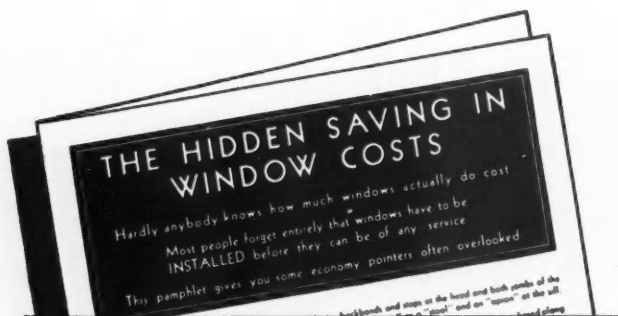


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BETTER WINDOWS THAT COST LESS

# Fenestra



# How to Revive Building and Employment

**T**HERE is universal agreement that full revival of building is the most essential thing required to end the depression and unemployment. Many views are expressed regarding the best means of stimulating the revival of building already under way.

We quote below one man's views:

"Prosperity does not depend upon the producer's ability to manufacture and his desire to sell, *but upon his ability and willingness to sell at a price that will induce the purse-string holders to purchase.* \*\*\* The actual responsibility for each of the checks to the industries, which comes from high prices, *rests solely with the individual who 'holds the purse-strings.'* \*\*\* The predominating motive which stimulates man's acts in originating, operating and enlarging the constructive enterprises is *the instinctive desire for gain.* \*\*\*

"A large percentage of the residences in cities, which are occupied by their owners, were originally planned and built in large blocks and in great numbers by capitalists or professional builders *for the purpose of renting or selling at a profit;* but even in the cases of the *houses built by their owners,* it is the instinctive desire for gain which stimulates the production of the iron, lumber, brick, stone, cement, etc., which enter into their construction. \*\*\* They (builders) *move cautiously as long as the future looks uncertain,* but when the business outlook is clear, and they see prospects of making construction investments *which promise steady profits, as well as security to their capital,* they act promptly and with vigor."

**S**OUNDS like propoganda against current proposals for reducing hours of work without reducing daily or weekly pay, and thereby increasing hourly wages, building and production costs and prices, doesn't it?

Well, it is not. The above quotations are from a book entitled "Industrial Depressions" written by George H. Hull, and published *thirty-five years ago.* In this book he reviewed all the depressions that had occurred in the world from 1803 to 1908. He concluded, (1) that all these depressions had been caused principally by *declines in construction* due to *increases in costs of construction* that made it *unprofitable;* and (2) that all depressions were ended principally by the reversal of these conditions.

**C**ERTAIN spokesmen of government and labor unions are constantly telling business men that it is the responsibility and duty of business to restore employment. Business *cannot* restore employment without co-operation from government and labor. People will not build unless confident they will *gain* by doing so. *Taxes and labor costs* principally determine the costs both of producing building materials and of erecting buildings, which, in turn, determine whether it will be *profitable* to build, and therefore *whether people will build.*

*Government and labor must quit handicapping business by increasing taxes and labor costs* if business is to be able fully to restore building, production and employment.

*Samuel O. Drumm,*

CHAIRMAN

AMERICAN BUILDER PUBLISHING CORPORATION  
SIMMONS-BOARDMAN PUBLISHING CORPORATION

# Our Hat is off TO THIS NICE JOB



The pleasing exterior finish of the Freeman Mortuary Building, Kansas City, Missouri, is California Stucco made with Atlas White portland cement. Architect, Harry Foster Almon—General Contractor, Harry S. White—Stucco Contractor, Cockerell Engineering & Fireproofing Company—all of Kansas City. Stucco furnished by California Stucco Products Company of Missouri.

**A** RCHITECT Harry Foster Almon designed this beautiful mortuary. We present it here as an excellent example of exteriors which architects and builders are achieving with stucco made with Atlas White portland cement. Consider some of the advantages that *White Cement Stucco* offers:

*Is it a durable finish?* Actually it is a thin but sturdy wall of concrete, with the permanence, weather resistance, and fire resistance of concrete.

*Can it be applied in any texture?* Yes—in whatever texture is best suited to the architectural design . . . smooth, semi-smooth, tooled, stippled, spatter-dashed, rough torn, and other pleasing textures.



*How about color?* Any color is available when *white* cement is used. And *only* white cement produces clean, beautiful colors—whether delicate pastel tints or rich deep tones.

*What about cost?* White Portland Cement Stucco is economical. Its first cost is low, and it is permanent. It endures in any climate.

Today, with new building and modernizing showing steady improvement, you will want complete information on the newest developments in stucco.

Write to—Universal Atlas Cement Company, 208 South LaSalle Street, Chicago. (United States Steel Corporation Subsidiary.)

**A FACTORY PREPARED STUCCO IS PREFERABLE**

STUCCO MADE WITH **Atlas White** PORTLAND CEMENT

## AMERICAN BUILDER AND BUILDING AGE

### FOOLS' PARADISE

**T**HE home building industry is a paradise indeed for people who elect to indulge in grandiose claims, misleading statements and impractical public dreaming. We refer particularly to the publication in newspapers and magazines of "charming little cottages," having only seven rooms, two baths, air conditioning, all-electric kitchens and a few other trifles for "well under \$5,000."

It is tough indeed for the builder and the lumber dealer who look through these lovely presentations in the high-hat magazines to see what remarkable things someone else—usually a long way away—can provide for \$5,000. It would be funny—if it were not so tragic when a real customer comes in, full of enthusiasm, ready to build this "inexpensive little cottage" and finds that no matter how anxious the local building men may be to serve him, it is impossible to build such a house for anywhere near that figure.

**H**OW long will it be before the consumer and architectural publications will learn that the publication of *misleading prices* in connection with a home not only does great harm to them but to the entire building industry? It must be said in justice to these editors and publishers that most of the misleading price data is either unintentionally misleading or based on the fantastic non-estimating conception of a dreamy-minded architect, who draws lovely pictures but does not know when he puts a line on a piece of paper what that means in actual cost to the home owner. Frequently they merely fail to mention that the heating plant, the electric equipment, the steel cabinets, or the contractor's overhead and profit or other important items are not included in the cost given. Whether the intention is misleading or not, the result is that the prospective home owner gets the impression that he can buy a house for \$5,000 that actually would cost somewhere between \$8,000 and \$12,000.

The common error that makes so much trouble for experienced small home contractors is the failure to mention all the costs involved. The prospective home owner is further misled because he does not realize that there are costs in addition to his actual construction costs.

The charges in connection with financing a loan, which, as pointed out in a recent editorial, run from \$200 to \$500 in most cases, come as a great shock. The inevitable result is that thousands of prospective home building customers are so disillusioned and scared, and in many cases angered, by the discrepancy between the

prices they have been led to expect and the actual cost when they come to sign a contract, that they denounce the industry and the whole idea of home ownership.

**T**HE policy of the *American Builder* in this respect should perhaps be again stated. The policy of this magazine is never to publish a price that cannot be fully and accurately justified on all grounds as being the whole cost. Because we feel that a price in one community is usually misleading to builders and home owners in another, the general policy is to omit prices wherever possible. In certain instances where a builder is constructing, advertising and selling a number of houses at a stated price, and the operations of this builder are of newsworthy value, the price is given; but it is clearly stated that this is a special price based on the peculiar ability of this particular builder to operate in a certain way. Even so, there are times when we ourselves have been misled and have published the advertised price quoted by a builder, and found, on later examination, that this did not include screens, storm windows, insulation, an oil burner, or some other equipment that should logically be considered part of the total cost. It is difficult, since national conditions vary so, to decide what items should be included in stating total cost.

**T**HE home building industry is peculiarly susceptible to wild exaggerations and claims because such claims are hard to disprove. Hardly a day passes but some type of new low-cost house is announced that will give twice the value for half the money. Usually, such houses never are built. When they are, the actual costs are not reported because "the house is not yet in mass production." To these visionary claims must be added the all-too-frequent misconceptions induced by certain types of advertising, which lead people to think that they can get expensive modern equipment at prices suitable for low-cost homes.

Because contractors and lumber dealers are so seriously affected by this matter of price misconceptions they should take steps to clarify the total of all costs involved in a home. The following list is an attempt to set down most of the costs, and it might well be handed to a prospective home owner who walks in with a pretty picture and an impossibly low, preconceived price idea. Just ask him whether the price he has in mind includes the following items—and there are probably many others that local conditions will suggest adding:



1. Cost of land.
2. Deed recording
3. Engineer's survey of lot
4. Architect's fee or cost of stock plans.
5. Contractor's bid price on construction. (Does it include screens, storm windows, screen and storm doors, hot water heater, light fixtures, garage, etc.)
6. Building permit and local utility connections.
7. Financing charges, including :
  - Appraisal fee
  - Broker's commission
  - Title search and insurance
  - Mortgage tax
  - Recording fee
  - Inspection fee
  - Legal fee
  - Survey.
8. Kitchen stove, refrigerator, shades, special equipment.
9. Walks, driveways, walls, fences, landscaping.

One solution to this problem that has been suggested is that all advertising men, editors, publishers and producers of building materials, be required by law to build at least one house for their own use, at a predetermined price within their budget. By the time they have completed this illuminating and educational endeavor they will either abandon the building field entirely or else restrain their tendency toward grandiose claims.

## Co-operation and Building Costs

**T**HE most frequent criticism home owners make about the home building industry is lack of co-ordination and co-operation. There is considerable justification for this complaint and builders may well analyze themselves and their business to see how they can secure a more smooth working building organization and lower building costs. It is because of the widespread interest in this subject that *American Builder* is giving particular prominence in this issue to the account of the successful home building and selling program of the Model Home Builders, Inc., in their Colonial Gardens project at Ridgewood, N. J. Here is a case where the builder, the lumber dealer, the architect and the real estate man co-operated in a highly successful way to produce a highly successful home building venture.

*American Builder* has frequently pointed out that it takes many different types of talent to produce a successful home. Architectural talent of a high order is required. A highly specialized and technical knowledge of building and construction is required. A lumber and building material supply that is reliable and co-operative is an absolute essential. Someone must arrange the financing, and last but certainly not least, an effective selling organization is required.

There is much to be said for the argument that is best stated by the slogan, "Builders build and realtors sell." Many builders have found that they make much better

progress when they concentrate on the close supervision of construction and place the highly specialized job of selling in the hands of a realtor or other qualified selling agency. Selling is a specialized job just as are design and construction. Our attention has been called to a very successful builder in an Eastern suburban community who has a splendid working agreement with a prominent real estate man in his town. The builder has drawings and photographs of houses he has built prominently displayed in the realtor's office. When the realtor finds a prospect, he turns him over to the builder who brings in an architect and works out a satisfactory house. The resulting sale is the result of the close co-operation of architect, realtor and builder, and it is a most successful co-operation.

There is an unfortunate and inevitable tendency in the building industry to run down the other fellow, whether he is a competitor or in another branch of the business. Many architects and architectural magazines have done their utmost through talking in a high minded way about the need for architectural supervision and the dangers of "Jerry building" to discredit the honest builder. They have apparently done all they could to create and foster public belief that every builder is a crook, and that a policeman in the form of an architect must be placed over him, club in hand, to keep him from stealing the unsuspecting home owner's shirt.

There is no lower degree of honesty or efficiency in builders than among architects or any other group. In fact, anyone who has gone through the process of building a home knows that in most cases the builder knows far more about small home construction than the architect. Never-the-less, the *American Builder* believes that a builder should have the benefit of architectural talent and advice.

The home building industry needs better co-operation and co-ordination, if for no other reason than to keep costs at a minimum. The *American Builder* believes that a bigger market and a better industry will result from eternal attempts to keep the final cost of a house to the home owner within the lowest possible brackets. The operations should more and more tend to be centralized fully in the hands of one responsible party — the general contractor or operative builder. He should obtain and pay well for the co-operation of all the other required talents which go into the making and selling of a house. But by centralizing and co-ordinating the various activities, including the arranging of financing, he can reduce the total cost of the home to an amazing degree. Especially in connection with financing, the man who knows the ropes can save the home owners great trouble and great expense.

For many years *American Builder* has urged upon its readers the value of the "turn-key" job. It is as true today as ever that the average person wants to deal with one responsible party, and he wants to obtain his home with a minimum of worry and effort. The building industry will continue to prosper and will make even greater strides if it can produce completed homes with a minimum of worry and effort for its customers.



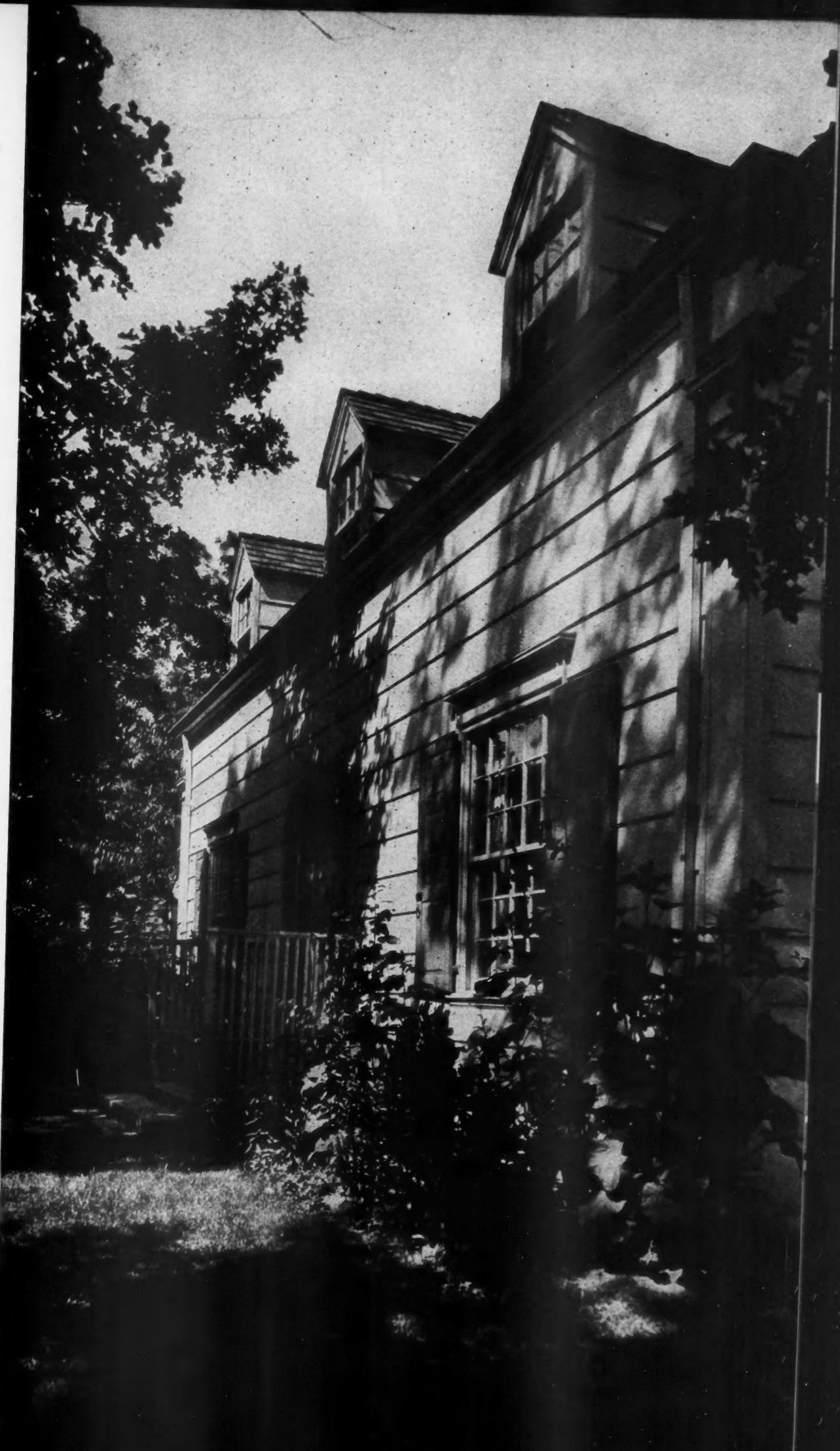
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An Illinois  
home designed  
by R. C. Hunter,  
Architect,  
New York City.



**NATURE  
JOINS  
BUILDER  
TO  
CREATE  
LOVELY  
HOMES**



Builder BLOMKVEST

FEATURING

# Colonial Charm

**T**HIS is a success story. It is the story of Elmer Blomkvest, a young New Jersey builder, who had the vision to start a building program ahead of the crowd. It is a particularly good success story because every one of the 30 houses Blomkvest built last year were sold, and he is now working on a new development.

Elmer Blomkvest is the son of a builder who has operated for many years in Bergen County, New Jersey, and has built hundreds of homes. Son Blomkvest is following the family tradition. But in the latter part of 1934, there was not much incentive to build.

Early in 1935, things looked better. At this time a unique, and what has proved extremely successful, home building program was organized. Blomkvest owned the land and concentrated on building good houses. He had the backing and support of Roy Sweeney, president of Passaic-Bergen Lumber Co. He brought in an architect of high standing, George Nordham, A. I. A., to create the designs. The Realty Exchange of Ridgewood, of which E. Roscoe Allen is president, was brought in as the sales organization. Emanuel London, president of the United Service Advertising Company, agreed to handle advertising and promotion necessary to interest the buying public.

Together these men worked out a plan for a development that would set a new note in good architecture, good construction and economical operation.

The result was Colonial Gardens, which has been a success from every angle, and on which the last house was sold early this year. The first model home was opened in April, 1935, and throughout the year the sales organization had orders ahead of construction at all times. A new high note in Colonial architecture was set and the development was the forerunner of Colonial developments in many other parts of the country.

The plan followed in the successful development and sale of Colonial Gardens homes is one to be highly recommended. In it each of the important groups involved specializes in his own field. Each retains his own identity and maintains his own offices, yet they cooperate in a most effective way. Here is how it works:

Elmer Blomkvest is president of Model Home Builders, Incorporated. He is a practical builder of wide experience. He knows construction from the ground up. He is on the job at all times and is proud of the quality work he and his men do. He says, "I take care of the building end; let someone else handle the selling."

Blomkvest feels that he can do a better job of building if he does not have to worry about sales. The selling





CLEAN, simple lines feature the homes above and on opposite page, built by Elmer Blomqvist in Colonial Gardens, Ridgewood, N. J.

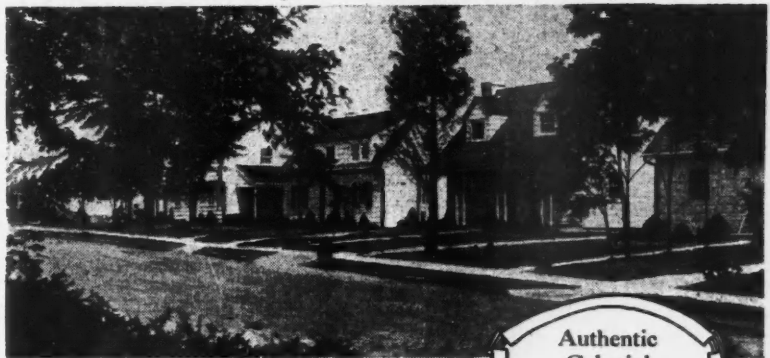
By JOSEPH B. MASON

**Unique builder, architect, realtor setup proves big success. Good architecture, popular. Every house in project sold.**

is in the capable hands of E. Roscoe Allen and his associates, who make up The Realty Exchange of Ridgewood, N. J. They are the exclusive sales agents and representatives of Colonial Gardens. They operate on a commission basis. They keep sales representatives on the job, take people out, secure prospects in many ways and handle all details in connection with the actual selling. That they handled this successfully is pretty well demonstrated by the fact that from the time a model home was opened in April until the last of the 30 homes in the development was sold this spring, they kept orders for houses ahead of actual construction. Thus it may be said that practically all of the houses in this development were sold before they were built.

A great deal of credit for the success of Colonial Gardens, of course, goes to George Nordham, the architect who conceived the general plan and designed houses that were architectural gems, as

*The Charm of a Colonial Village*  
in the smart  
suburban community of **RIDGEWOOD, N. J.**



**Colonial Gardens**

Reminiscent of early American days in their architecture—yet as modern as today's newspaper in their living conveniences and appointments—the new homes at Colonial Gardens appeal irresistibly to those who are sensitive to environment. All blend into a harmonious grouping of authentic Colonial homes. A typical Colonial Gardens home contains: vestibule, with roomy cloak closet, center hall, spacious living room, with log-burning fireplace and open porch adjoining, dining room, modern science kitchen in colored tile, two exceptionally large bedrooms, colored tile-bath, recreation room, OIL BURNER, hardwood floor, garage, good sized lot, graded, seeded and shrubbed. All this—in one of the choicest sections of RIDGEWOOD—for only \$6,150. Other Model Homes at \$6,650. Built by MODEL HOMES BUILDERS, INC., builders of over 1,000 homes in Bergen County. Drive out tomorrow and inspect these homes!

**The REALTY EXCHANGE of Ridgewood**  
Efficient Sales Agents  
69 North Broad St. (corner Franklin Ave.)  
RIDGEWOOD, N. J. Phone: Ridgewood 6-2869  
Open Sunday

Authentic  
Colonial  
Homes

**\$6150**

including OIL BURNER  
**\$46.75 MONTHLY**  
(after down payment of \$1500)  
Pays everything on F.M.A. plan  
including interest, taxes, insurance and paying all maintenance in 28 years.

**DIRECTIONS:**

George Washington Bridge to Route 4, turn right on Route 2 to Linwood Ave., turn left to North Pleasant Ave., left one block to property on Wall St., Ridgewood.

ADVERTISEMENTS such as the above feature the Colonial architecture. The price above is for one of the smaller models and was published in mid-summer last year. Prices have advanced since then.



THE Colonial interiors are colorful but very simple. Ornamental moldings are omitted, and the window trim, baseboard, mantle and other interior work is done in simple stock Colonial designs that are in good taste and not expensive.

well as practical in arrangement and economical to build. He showed that simple, well-proportioned Colonial homes are very popular and can be quickly sold. He evolved the idea of adding an open porch, with a bedroom above, at the rear of a conventional Colonial design. This made possible a very compact house of six rooms, with ample closets and good-sized rooms, at a remarkably low cost.

Even with all the above, a venture such as this cannot succeed without the right kind of advertising and publicity. It was the good work of Emanuel London, president of United Service Advertising, that brought many people out to see these charming homes. Extensive newspaper advertising playing up the Colonial charm of this community, and similar to the advertisement on page 41, was carried in New York and New Jersey papers.

Perhaps more important than any one thing was the spirit of cooperation displayed, in which all the diverse elements represented by the building industry pitched in and worked together to make the project a success. This spirit of cooperation existed throughout the job, according to Blomkvist, "including the craftsmen, who never found fault with what another trade was doing."

In the last analysis, of course, the success of any venture is based on the houses themselves. These are five and six room houses on 50 by 150 foot plots. The six room houses predominate and are of substantial frame construction, a large factor in making sales.

Architect Nordham suggested keeping all the houses in the same general style, so that the exteriors are for the most part 24 in. red cedar shingles laid 11 in. to the weather, painted white. A cut stone front was provided in some at \$150.00 extra cost. Heat stopping was provided by use of aluminum coated gypsum board lath as plaster base. Colonial pine windows, doors and outside trim were provided by Passaic-Bergen Company. All plumbing pipes in outside walls were insulated. Wherever framing was cut for plumbing or other purposes, wrought iron strips were used.

The heating equipment is a Thatcher insulated, oil burning boiler with a Universal De-luxe oil burner, complete with heat regulator, draft regulator and aquastat to supply hot water the year 'round.

The houses have fir gutters with copper leaders, Schlage colonial locks and hardware, concrete filled steel columns supporting interior beams, Kohler bathroom fixtures, tile kitchens and baths, three coat plaster jobs. The houses were so popular that a number of individuals asked Model Home Builders to erect them on their lots in other locations. Practically all the houses were sold under the Federal Housing Administration Financing Plan.

The happy ending of this success story is that the last of the houses was sold early this spring, and a new tract of land in a nearby community has been purchased in which is planned another development which will accommodate 68 homes.

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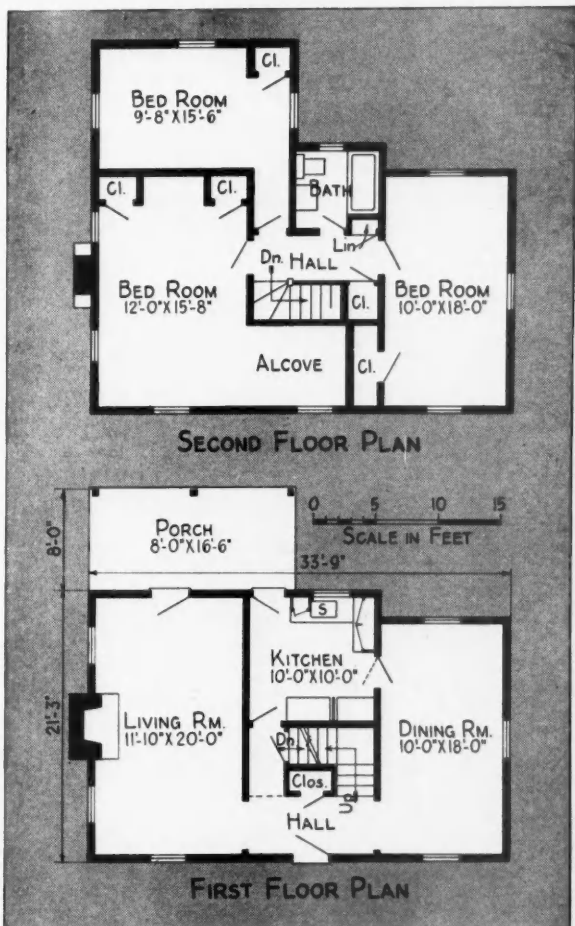
## A NEW HIGH IN SMALL COLONIAL HOME DESIGN AND CONSTRUCTION

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THIS popular six-room Colonial has an unusually attractive exterior and a good floor plan. The bedroom, below, is papered with colorful design. The basement room has a built-in bar of pecky cypress and decorated walls. Cost Key is 1.570-126-694-30-23-13.

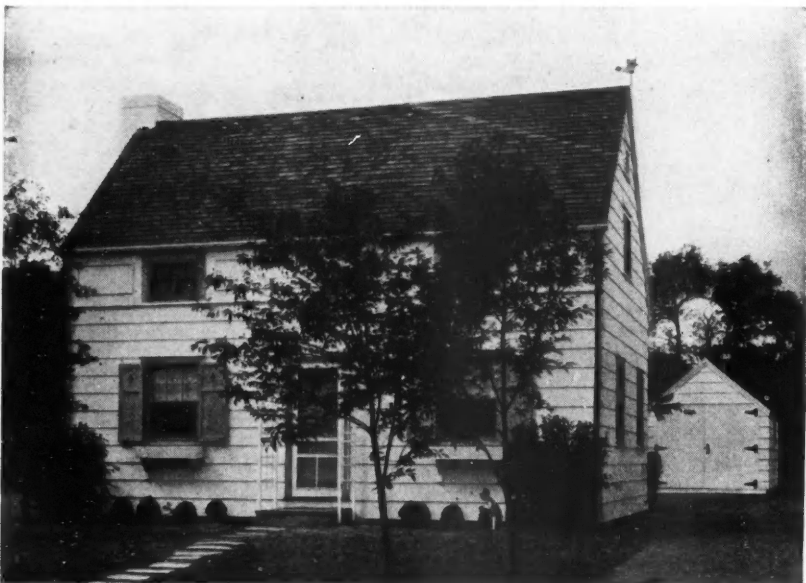




## 6 ROOM COLONIAL BY MODEL HOME BUILDERS

(Floor Plans on Opposite Page)

THE wide Colonial windows and simple trim, well proportioned chimney, 24" cedar shingles on exterior laid 11" to the weather are features of this and other small homes built by Model Home Builders, Inc., Ridgewood, N. J. Because all of the houses in the community are of the same general style a pleasingly harmonious neighborhood is established.



THE small Colonial at left has a somewhat different floor plan from the one above and on the opposite page, but again illustrates the fashion in which Model Home Builders, Inc., have produced simple, attractive Colonial designs that have proved extremely popular. Houses are equipped with oil burners and steam radiator systems. The house is delivered fully graded, seeded and with a few shrubs planted. A one-car garage is included in the sales price.



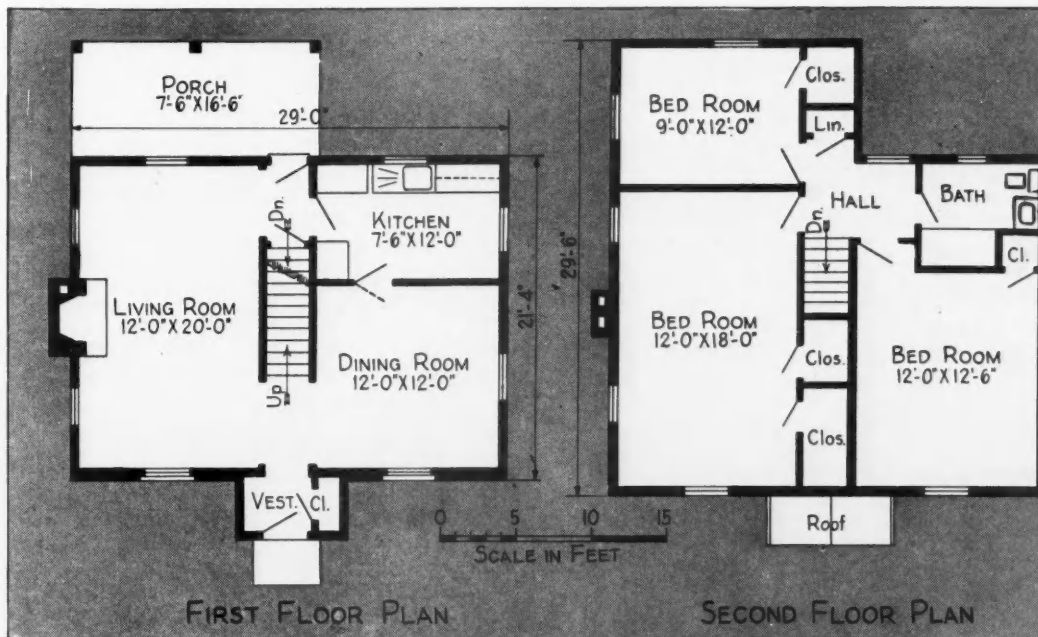


THIS is one of the most popular of the Colonial Gardens homes built by Elmer Blomkvest and his associates. The floor plan below is widely used and is interesting because of the fashion in which an extra bedroom has been provided over the open porch at rear. This plan is economical and very practical.

## EXTRA BEDROOM PLACED OVER PORCH AT REAR

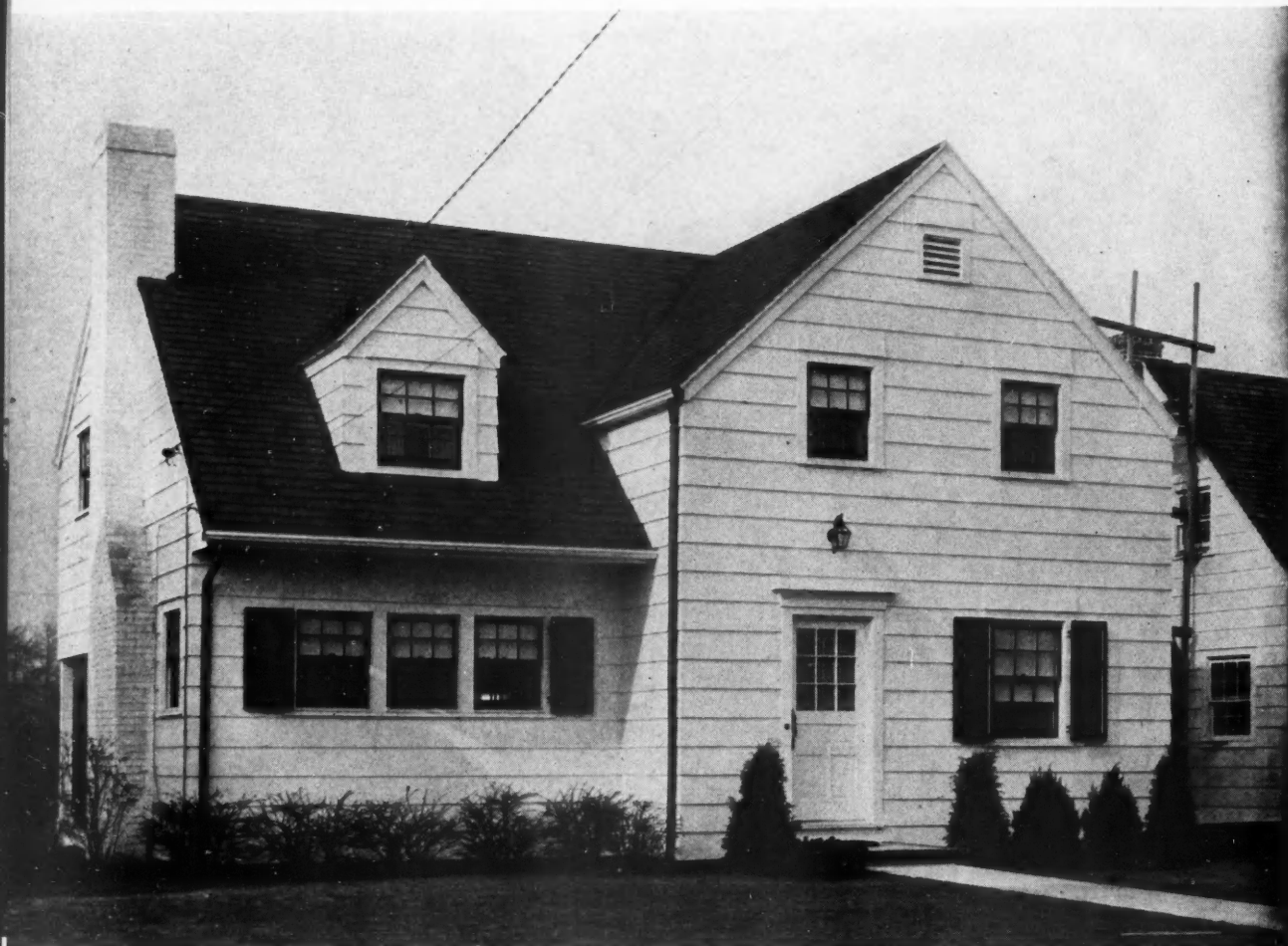
George Nordham, Architect

Waldwick, N. J.



COST KEY is 1.488-127-641-29-24-12.

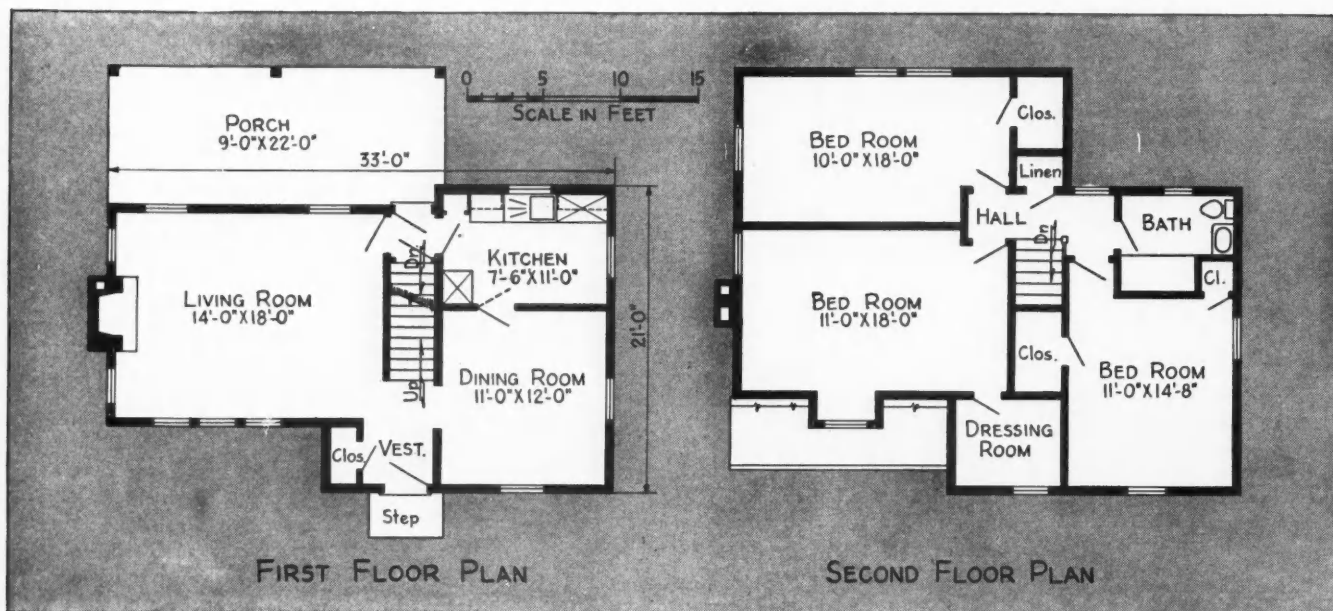
ROOMS are large, well lighted, well arranged, and the plan is economical in cost. Bedrooms upstairs are large with ample closet space, plenty of windows.



## COLONIAL GARDENS HOME WITH LARGE REAR PORCH

COST KEY is 1.529-122-593-27-21-13.

MODEL Home Builders, Inc., built this compact Colonial in Ridgewood, N. J., and found it a very popular design. The big porch at rear, with bedroom above it, is a good feature. Rooms are large and well arranged, and there is very little wasted space. The exterior is of 24" cedar shingles painted white and laid 11" to the weather. The architect is George Nordham, A.I.A., of Waldwick, N. J.





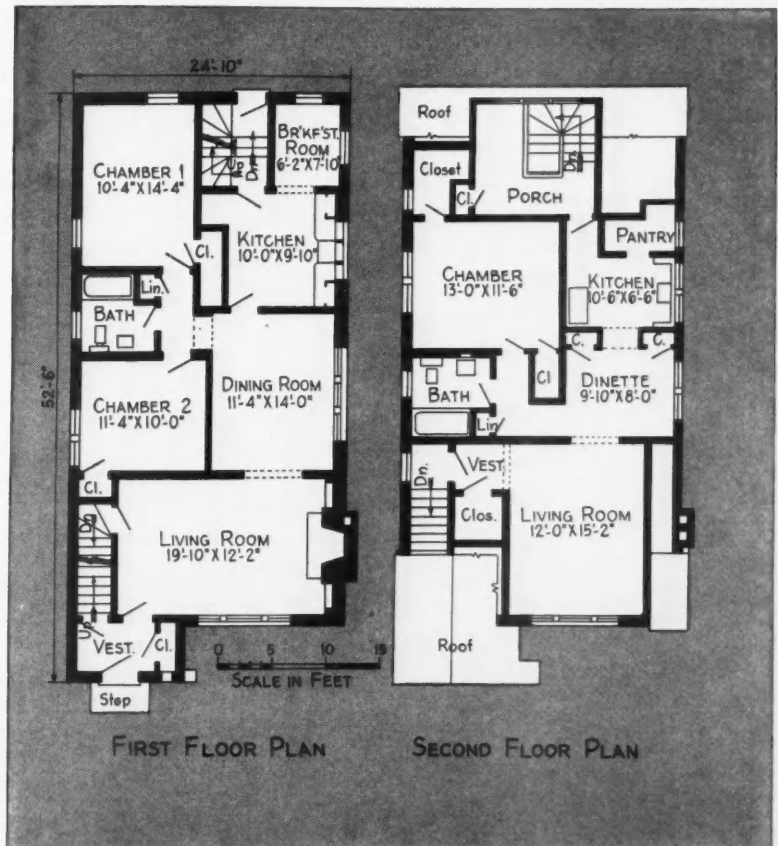


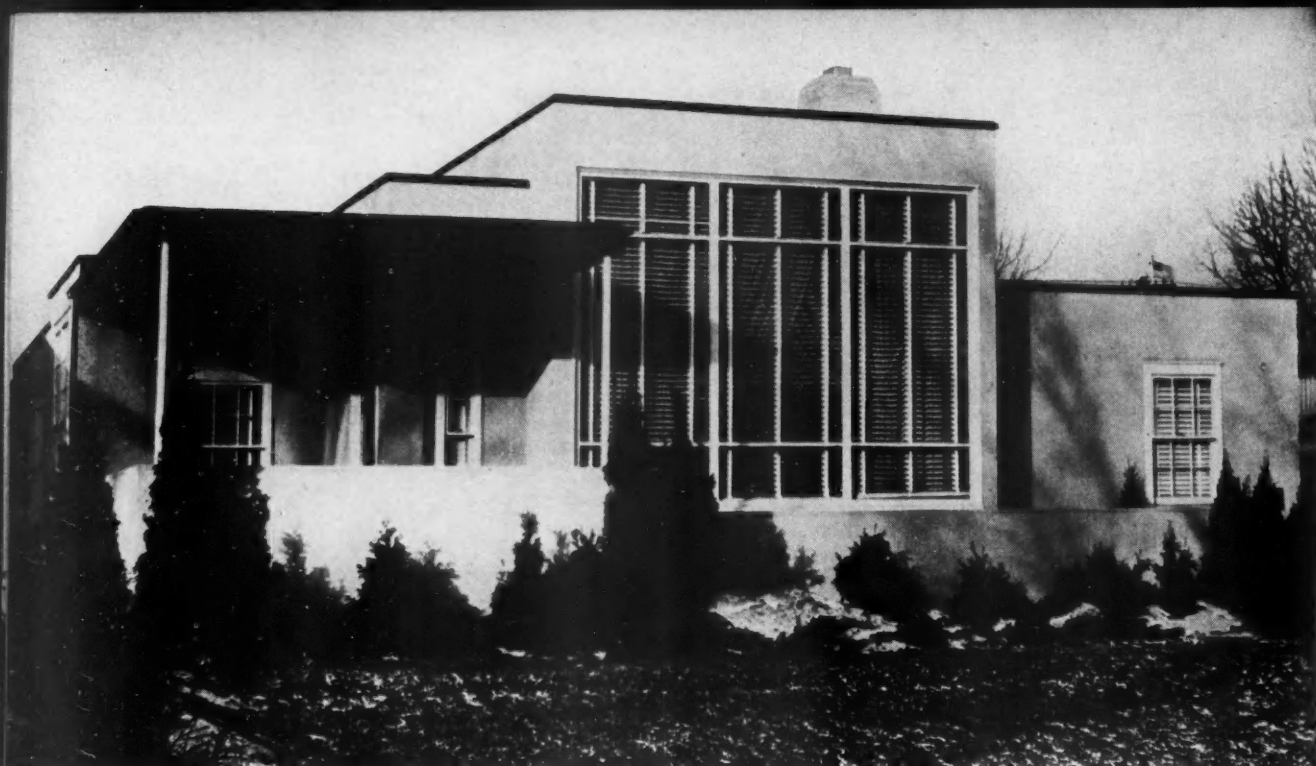
## TWO-FLAT IN ENGLISH STYLE

**Charles A. Kristen, Oak Park, Illinois, Architect.**

COST KEY is 2.276-154-1224-51-29-19.

HERE is a two-apartment building that looks like an old English cottage type home and which does not disturb the harmony of a street of single-family homes. Architect Kristen has given this Oak Park dwelling the charm of the popular English style by using a combination of stone trimmed brick with stucco and half-timber in the front gable. The plans at the right show two compact and economical floor layouts—first floor having five rooms, bath and breakfast nook; the second, a three-room, kitchen-dinette arrangement with inclosed rear porch and plenty of storage space.





## STEEL CHASSIS

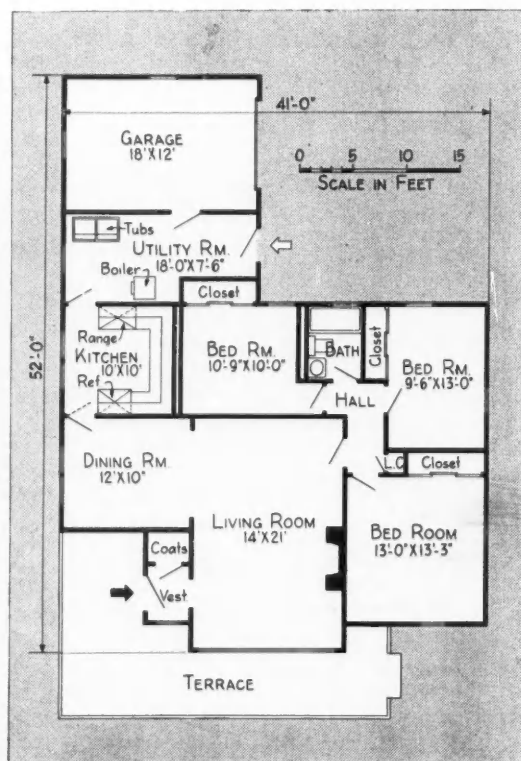
Fabricated by Insulated Steel  
Construction Co.

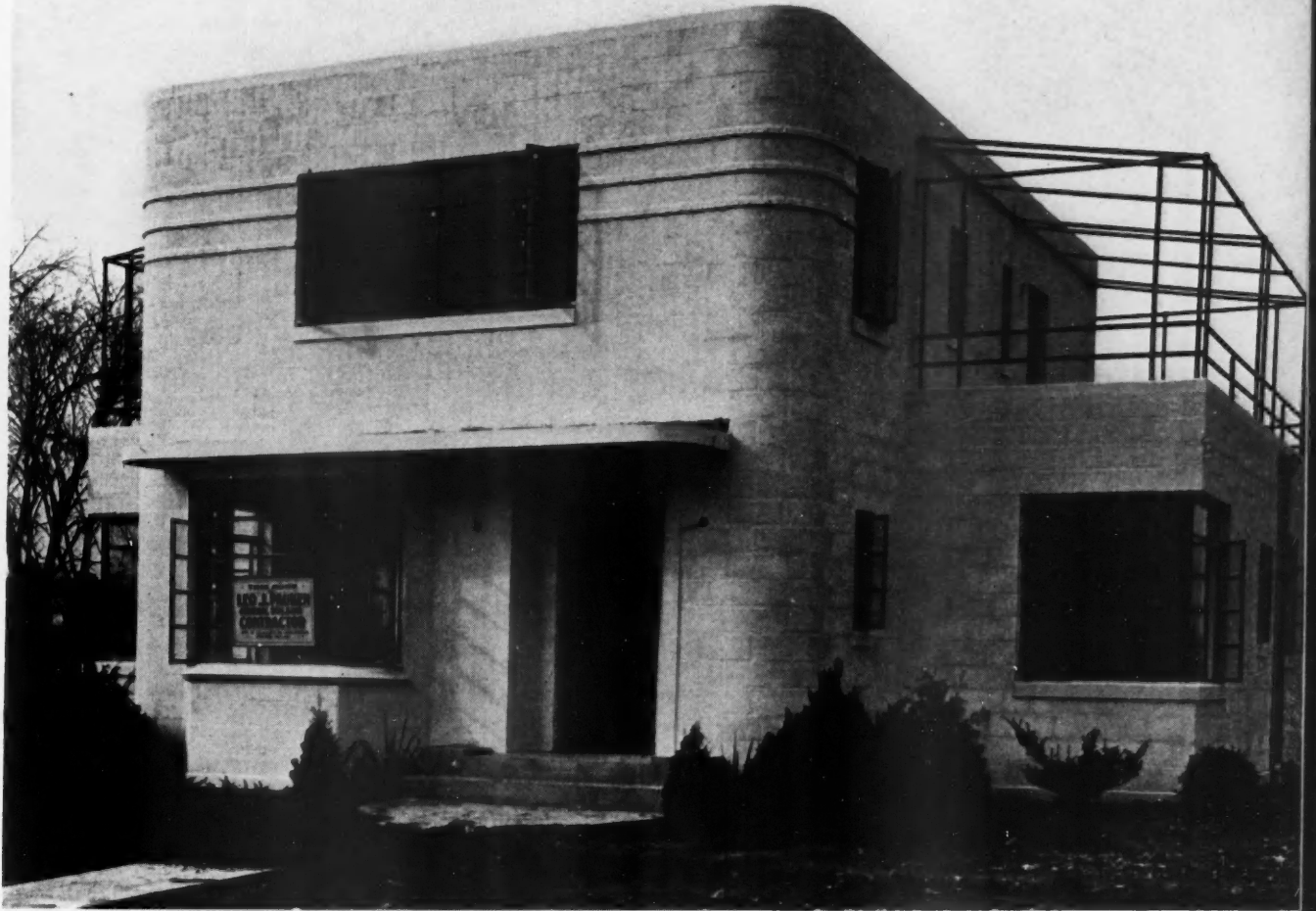
Nyeco Buildings, Inc., Buffalo, Builder

J. E. Wells, Jr., Architect

THE frameless steel cellular wall section of this Buffalo, N. Y., house serves as frame, walls and roof. These panels are 32 inches wide, 3 inches thick and filled with Vermiculite, a granular insulation; anchor bolts are set in the concrete foundation. Floors are sheet metal Z sections, and roof is of standard 3-ply built-up type. Portland cement paint used for exterior finish. Efficient floor plan is shown below; plenty of wardrobe space is provided; an extra large window lights the living room. Equipment includes Briggs plumbing fixtures, Airtemp conditioning system, Art Metal kitchen cabinets, Erie Enameling Co. porcelain walls in bathroom, floors and kitchen walls covered with Congoleum linoleum.

COST KEY is 1.783-186-(1272)-(54)-21-18



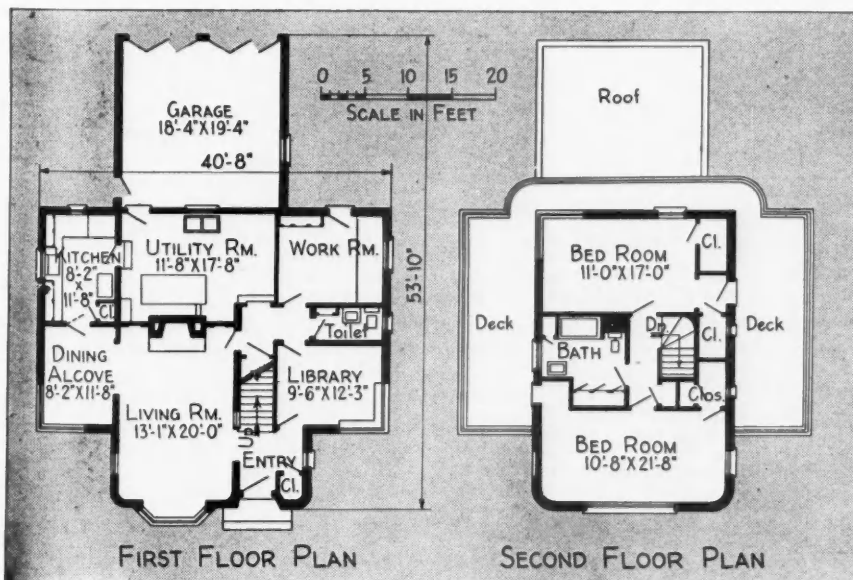


## MODERN IN LINE AND DETAIL

Stephen M. Jokel, Toledo, Ohio, Architect

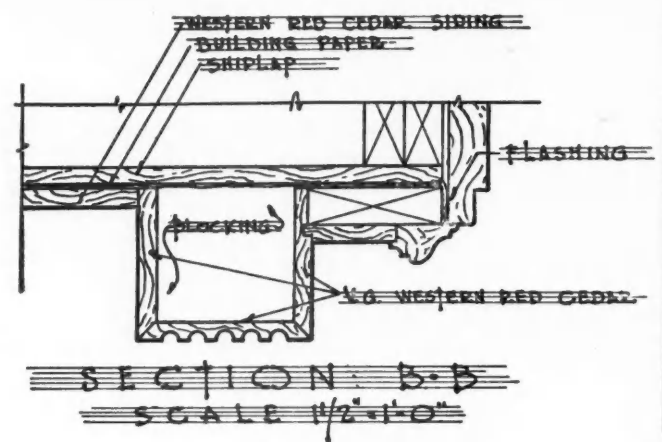
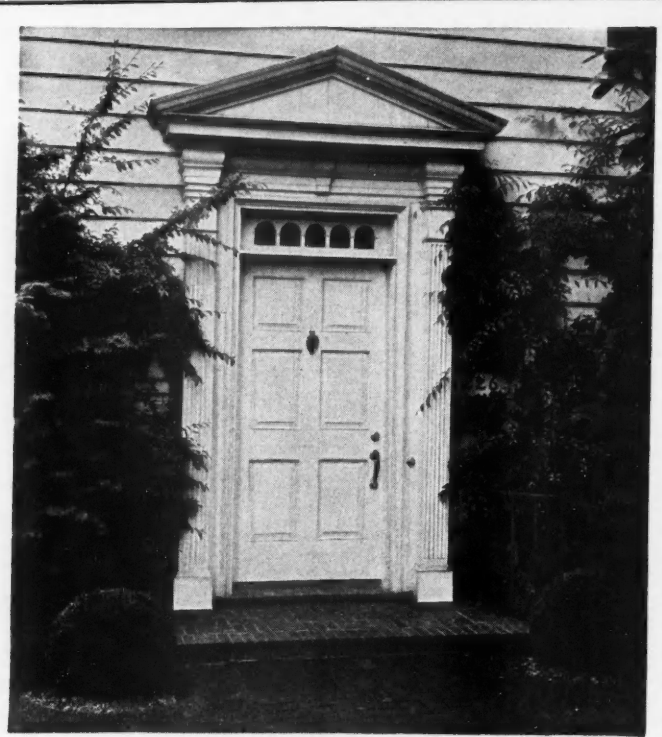
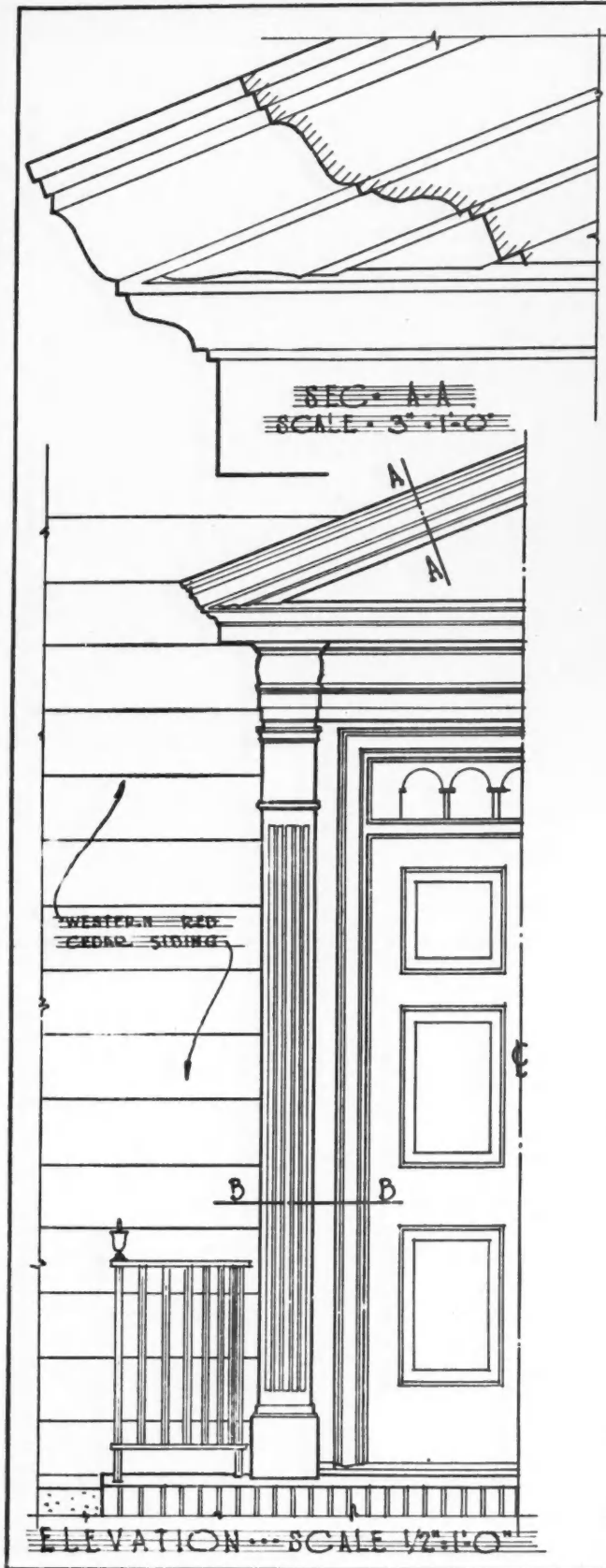
Leo J. Pauken, Builder

COST KEY is 2.242-189-1191-(51)-32-16



LOCATED at Maumee, Toledo suburb, this unusual home of modern design has walls of concrete masonry finished with portland cement paint on the exterior and furred and plastered inside. No basement is provided; first floor is a concrete slab. An interesting feature is the sun deck extending around three sides; awnings will cover the metal frame. In plan this home is equally modern — an alcove off the living room serves for dining; library is secluded on other side; both rooms have corner windows. Work room and utility room are of good size. A two-car garage is located in the rear. Bedrooms have access to sun decks and cross ventilation.



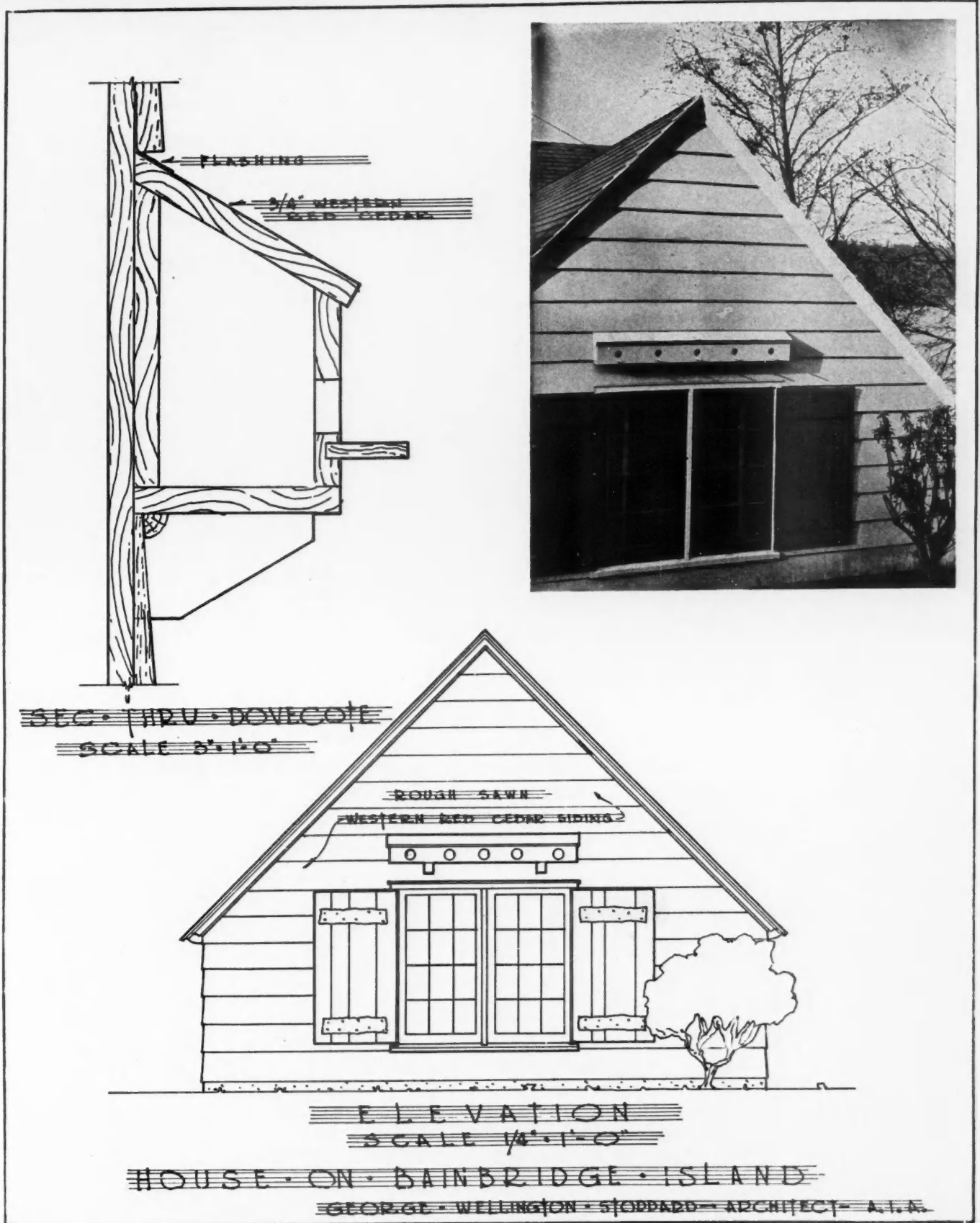


RESIDENCE AT BROADMOOR  
 SEATTLE • WASHINGTON  
 GEORGE WELLINGTON STODDARD  
 ARCHITECT — A. I. A.

No. 4 of a Series  
 of Architectural Details that help to sell Homes

COLONIAL ENTRANCE  
 Skillful Detailing Heightens Charm  
 of Authentic Period Domestic  
 Architecture

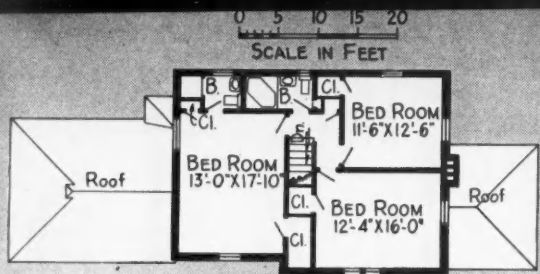




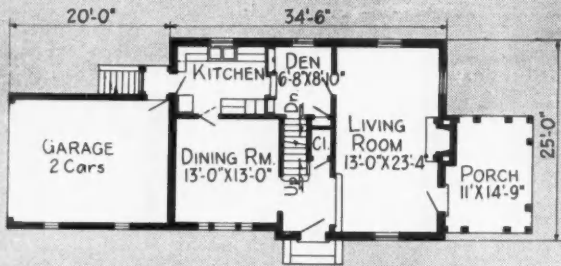
## DOVECOTE GABLE

Rough Sawn Siding, Shutters,  
Close Cornice, Bird Nesting—  
These Combine Here Quaintly

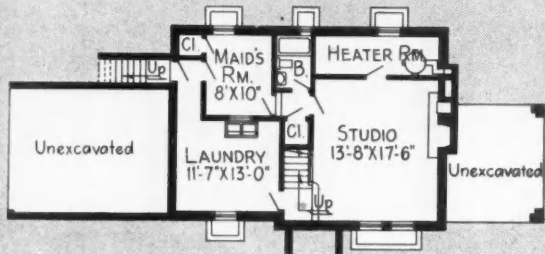
Measured Drawings of correctly detailed  
house construction



SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT PLAN

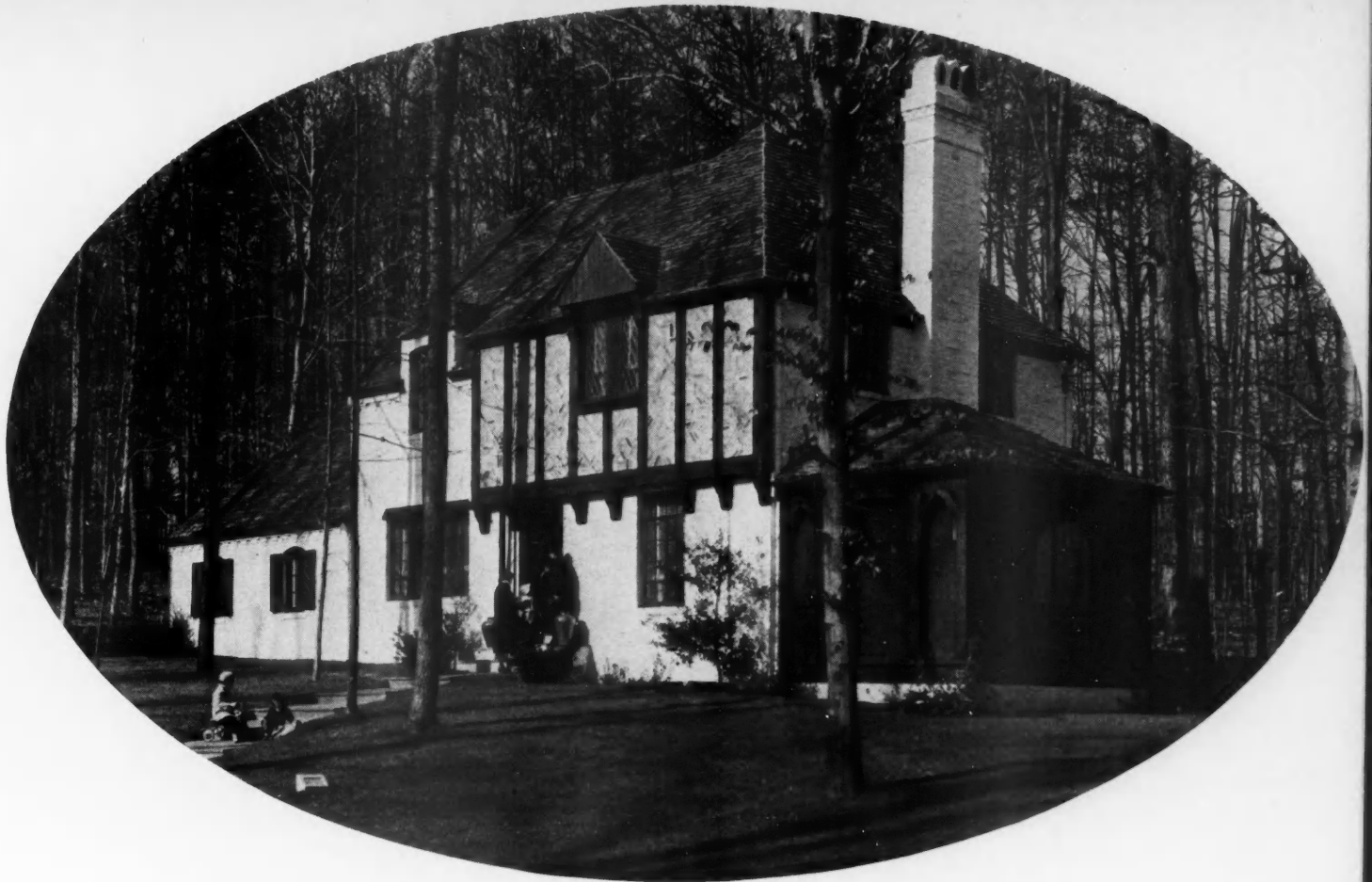
## WASHINGTON, D. C., MODEL HOME BY WAVERLY TAYLOR

COST KEY is 1.923-156-816-41-27-21

OF ALL the model homes opened last year this Norman style house was one of the most popular. It has been seen and admired by thousands of people. It was built late last year by Waverly Taylor, prominent Washington, D. C., builder, in his lovely Rollingwood section. The floor plans at left show an unusually commodious and comfortable house in which the entire ground floor is used. The house is air conditioned, has an all-electric kitchen and three bathrooms.

THE basement recreation room or studio shown below is paneled in knotty pine and has a simple, attractive fireplace. There is also a heater room, a laundry room and maid's room and bath on the ground or basement floor. The house is fully insulated with Rock Wool. Cubic contents are 30,252 cubic feet.



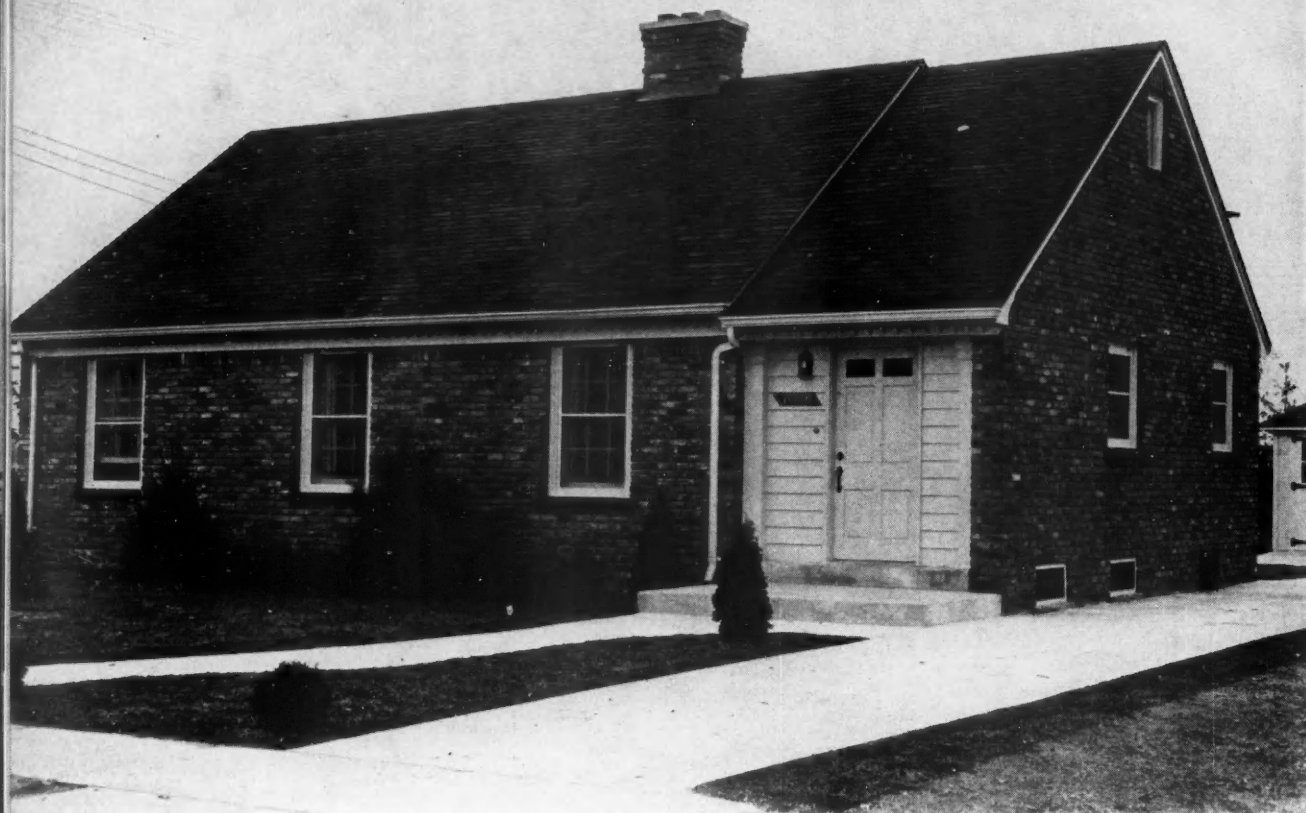


**E**XTERIOR walls are of brick laid in semi-skintled bond. The overhanging second story is half-timbered in hand adzed cypress with panels of old brick laid in random bond. Roof is of antique Norman tile in dark reds and maroons. The living room below is done in simple fashion and good taste.

53





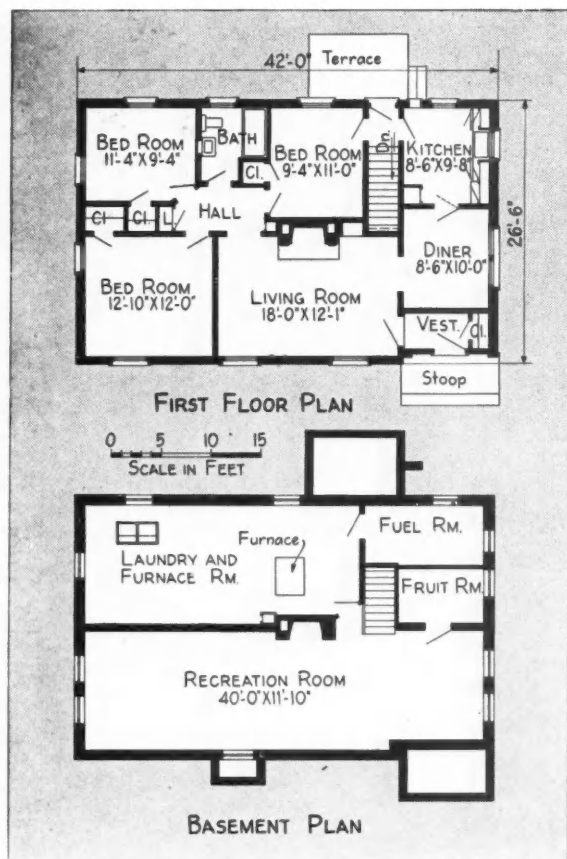


## WELL PLANNED CAPE COD COTTAGE

Built by Sheldon Land Co. in Rosedale Gardens, Near Detroit

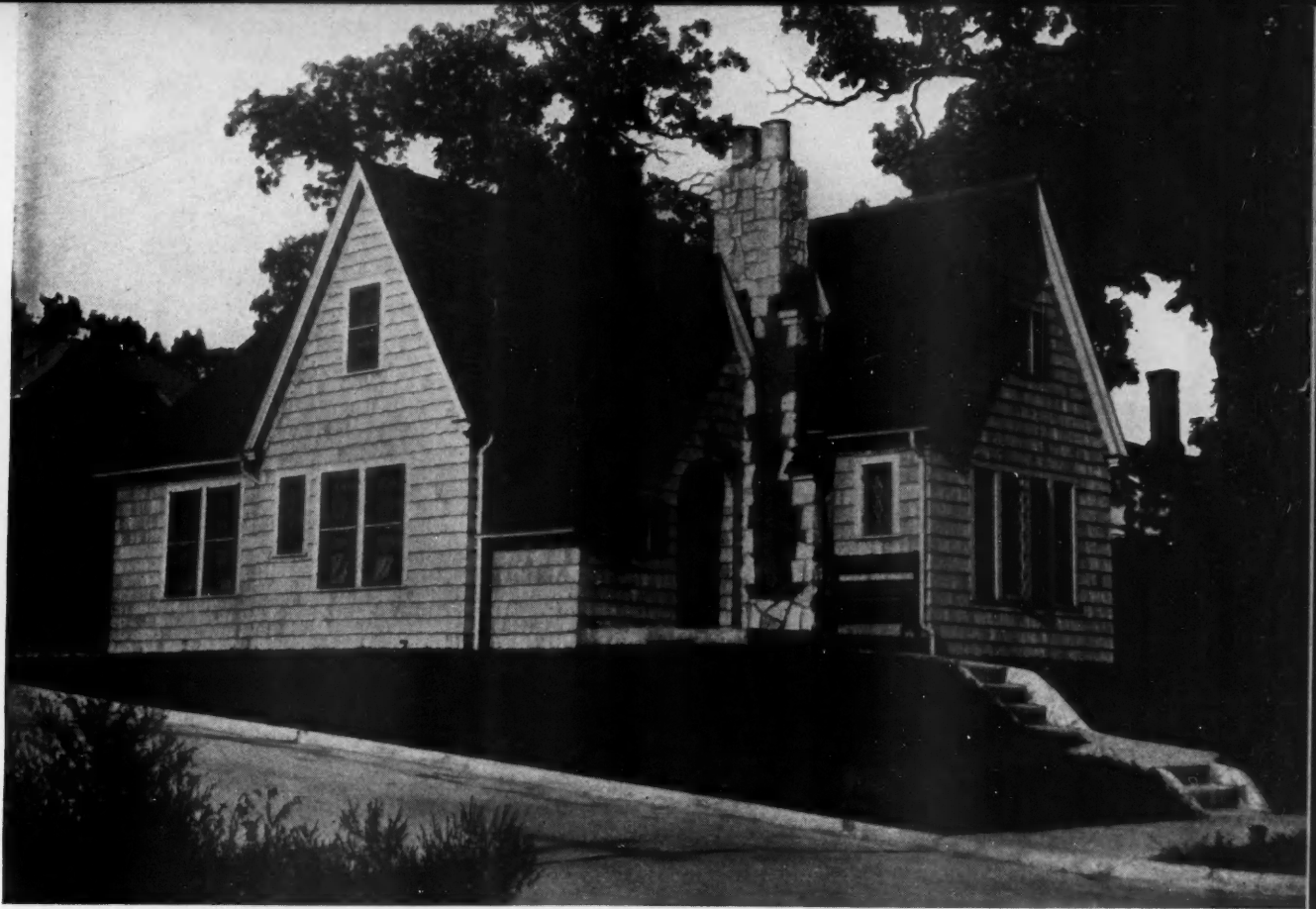
Chas. Horner and W. D. Knox, Architects

COST KEY is 1.241-137-1103-46-16-17



OF a favorite architectural style, the Cape Cod Colonial shown here is constructed according to present standards and is entirely modern in planning and materials. It is an ideal type for suburban communities but will be equally suitable on any lot of fifty feet or larger. Features include brick veneer over Stran-Steel construction, parquet floor laid on concrete base, rock wool insulation, stoker fired hot water heat, modern lighting, Crane fixtures and chrome hardware. The exterior could be painted white and colorful blinds added as an alternate treatment.

IN PLAN this house is conveniently arranged in a simple, rectangular shape which will lower building costs. Waste space is reduced to a minimum. If no basement is desired the stairs can be omitted and this area either made part of the kitchen or combined with the rear bedroom which becomes the utility room; boiler and laundry are then located in this room.



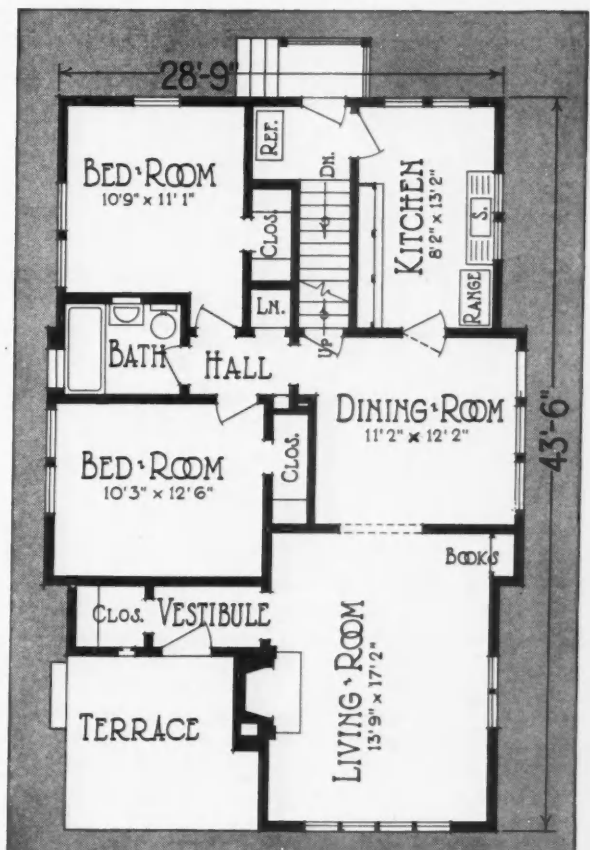
## GABLED ENGLISH HOME HIGH ON A HILLSIDE

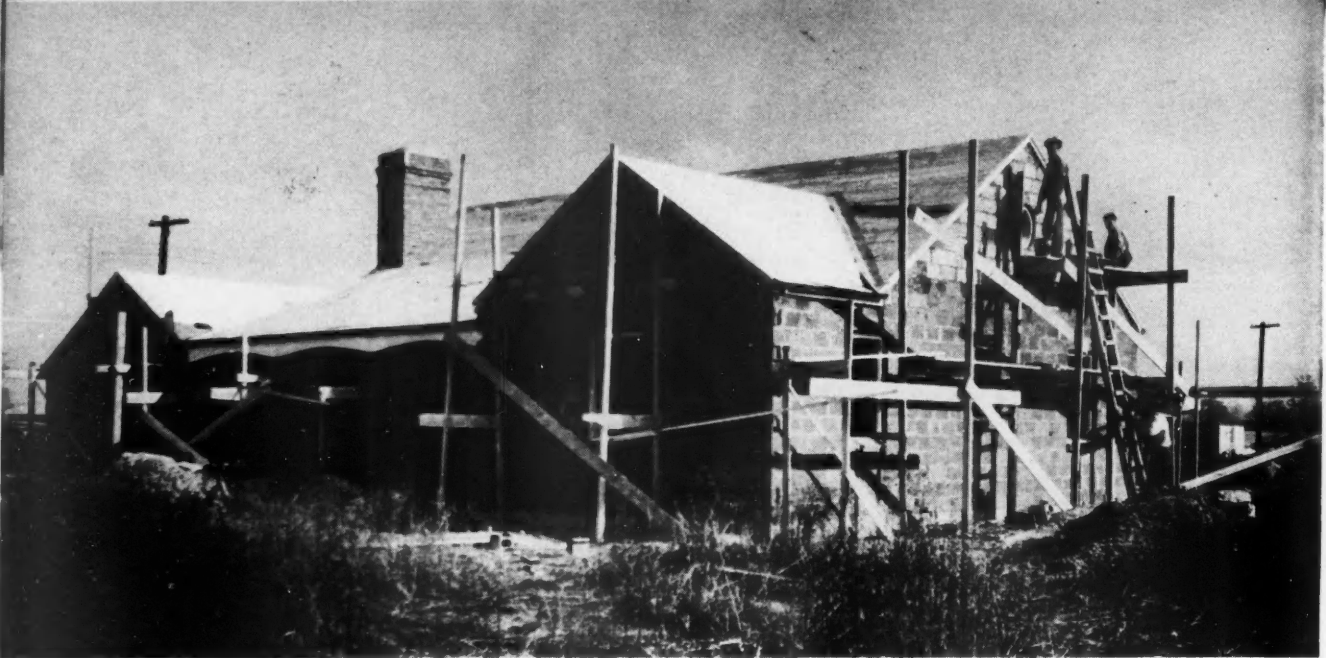
COST KEY is 1.466-146-1155-48-18-22

**Elmer A. Gylleck, Chicago, Architect**

**S**OME people prefer a home of the picturesque type — such is the five-room bungalow pictured above. It was built in Elgin, Ill., snugly fitting on a sloping site and overlooking the Fox River Valley. Shingled walls, a massive brick and stone chimney which fits into the terrace corner, leaded casements and unusual roof lines lend quaintness to the front elevation.

THIS little house is suitable for the growing family as the second floor can be left unfinished at first and one or two bedrooms completed later if more space is desired. The plan shows good sized closets throughout and little waste hall space. Although the refrigerator is shown in the rear entranceway, it can be located in the corner of the kitchen beside the sink, using the vacated spot for broom and storage cabinets. The front vestibule and closet are good features in northern homes; many Colonial houses have front entrances opening directly into the living room, which give little protection in cold weather.





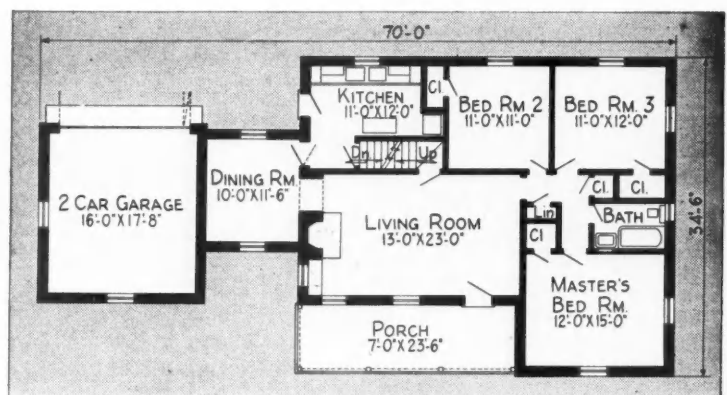
## CONCRETE DEMONSTRATION HOUSE

Built by Mayfair Acres, Inc., Developers, Yonkers, N. Y.

Earl Nelson, Architect

COST KEY is 1.746-214-1288-56-24-21

PICTURED above is the charming General Electric demonstration house erected at Greenburgh, near White Plains, N. Y. Top view shows the completed job with its fine lines, interesting porch detail and two-car garage; below, the concrete masonry walls before being stuccoed. The garage is finished with portland cement paint directly on the units. Hardwood floors are laid over precast joists and slabs; roof is slate. The area which generally serves as a passageway in this type of design has been cleverly used as dining space with windows on both sides. Three bedrooms are handy to the bath; hall and closets, well planned.







THE fine planning and detailing of this trim Colonial home built in Park Ridge, Ill., are outstanding factors in presenting it as the June House of the Month. Cornice, bay and recessed front entrance are very well designed and add to the exterior charm. Although this house does not appear large from the front elevation, the plans show generous sized rooms throughout. The library is attractively finished in knotty pine and has convenient built-in bookshelves; covered porch overlooking the rear garden for outdoor living has access from living and dining rooms. Ample closet space is provided.

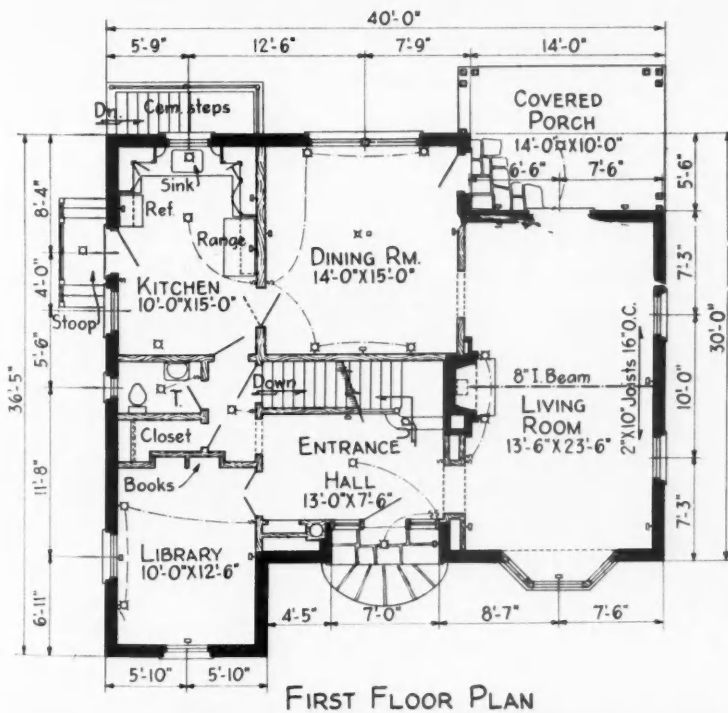
## TRIM COLONIAL

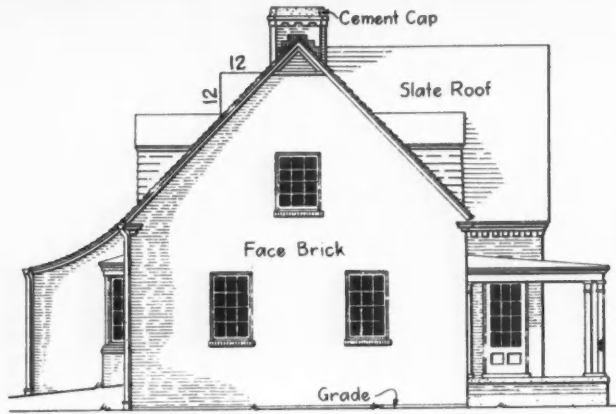
William H. Rix & Co., Chicago, Builder.

Robert D. Heth, Architect.

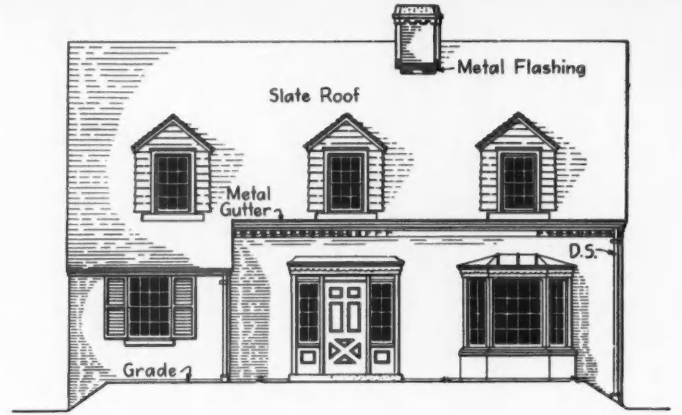
Details and Specifications on next two pages

COST KEY is 2.130-146-1203-50-23-21.

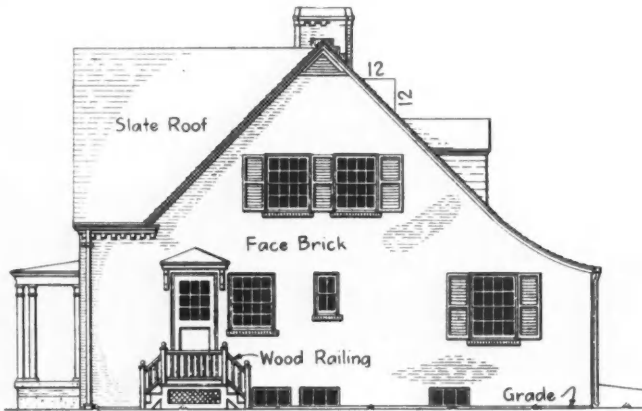




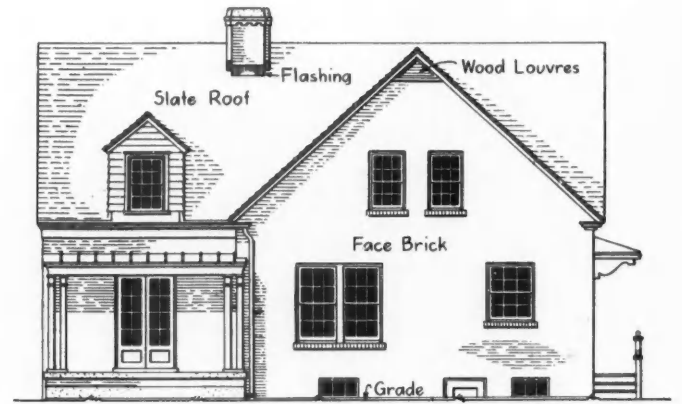
SOUTH ELEVATION



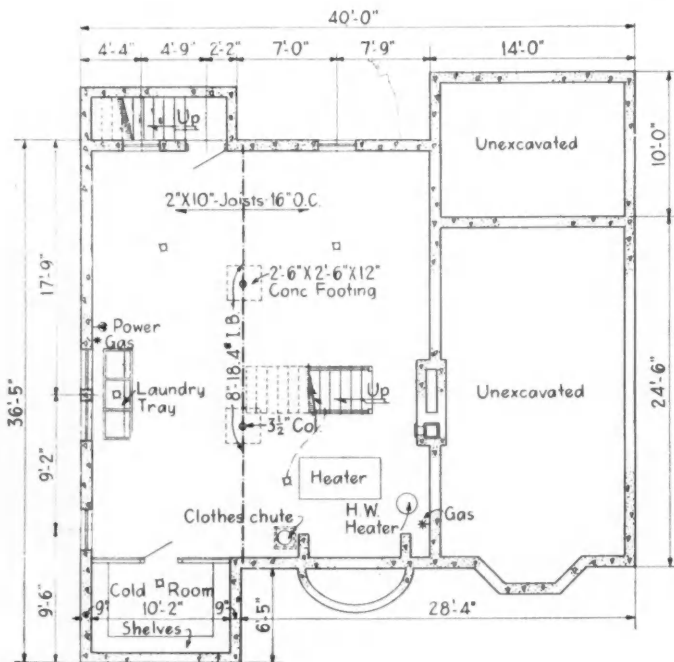
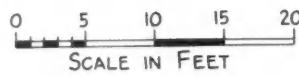
WEST ELEVATION



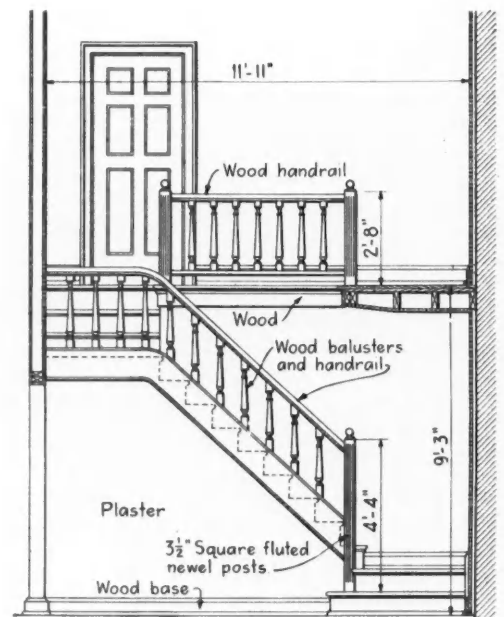
NORTH ELEVATION



EAST ELEVATION



BASEMENT PLAN



ELEVATION OF STAIRS

**HOUSE OF THE MONTH SPECIFICATIONS**

**For Colonial Residence Built at Park Ridge, Illinois.**

**William H. Rix & Co., Chicago, Builders.**  
**Robert D. Heth, Architect.**

**FOOTINGS AND FOUNDATION WALLS**—Foundation walls 13" poured concrete; footings 20" x 8". Exposed concrete work given one good brush coat white waterproof cement. Outside foundation walls dampproofed with heavy coat of pitch and tar mopped on hot.

**EXTERIOR WALLS**—Solid brick, colonial pressed brick facing, laid in strong cement mortar.

**CHIMNEY AND FIREPLACE**—Hardburned common brick, terra cotta flue lining, cement chimney cap. Colonial design mantle frame with black and gold marble facing.

**FRAMING LUMBER**—Sills, studs, posts, joists, and rafters all No. 1 fir, or No. 1 longleaf yellow pine.

**SUB-FLOORING**—No. 2 yellow pine 1 x 6 D & M.

**SHEATHING**—Sidewalls of dormers No. 2 yellow pine 1 x 6 D & M—and white Creo-Dipt cedar shingles. Roof boards No. 2 yellow pine 1 x 6 square edge.

**OUTSIDE WOODWORK**—Clear, well seasoned redwood or Ponderosa white pine. Ceilings of porches 7/8" Knotty Pine T and G.

**ROOFING**—Flintkote asphalt "Seal Tab" blue black slate shingles underlaid with 30 lb. saturated tarred felt.

**SHEET METAL**—No. 26 gauge Toncan rust resisting galvanized steel.

**FINISHED FLOOR**—Except in kitchen and toilet room 13/16" x 2 1/4" clear red oak, other floors 1" x 4" T & G clear fir flooring covered with Armstrong's inlaid linoleum and felt base.

**INTERIOR TRIM**—Specially designed and mitred trim of birch assembled at mill. 1 3/4" doors. Mill made kitchen cases with overlapping style doors. Linoleum covered working tops with metal edging. T & G Knotty Pine walls in Den.

**INSULATION**—Ceiling area of second floor covered with six inches of U. S. Gypsum "Red Top" Mineral Wool. Balance of outside walls lined with 1/2-inch "Balsam Wool" and plastered on 1/2-inch insulating lath.

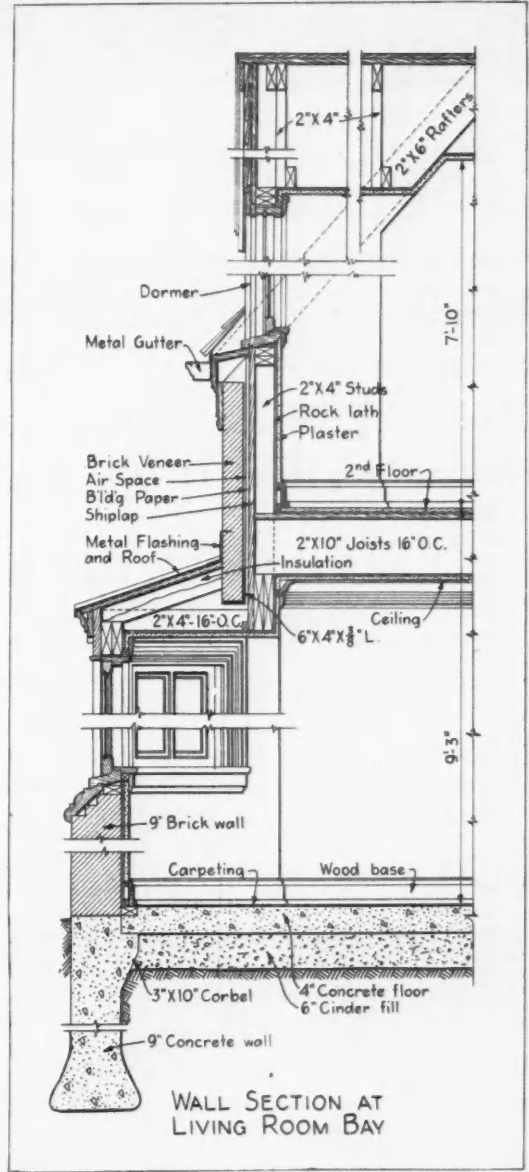
**WEATHERSTRIPPING**—Interlocking metal strips on all doors and windows.

**LATH AND PLASTER**—U. S. Gypsum Rocklath. Three coat work. Bathroom lathed with 3.4 lb. coated metal lath. Suspended clips in Living Room ceiling.

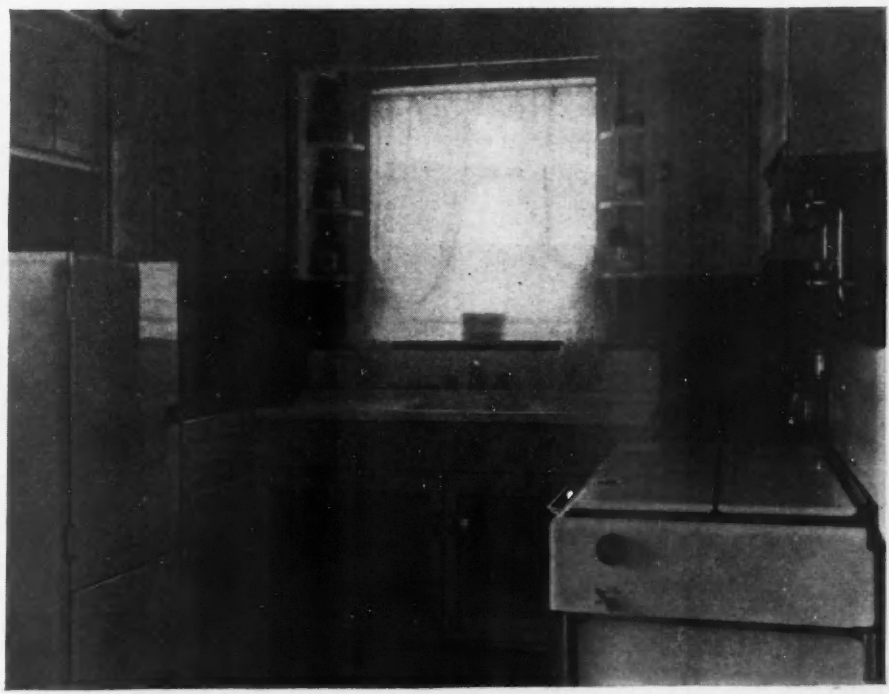
**TILE WORK**—Tile floor and base in bath with tile wainscot 4' high in bath and 6' high around tub.

**HEATING**—Bell & Gossett Company's triple duty "Monoflo" hot water heating system, which also furnishes domestic hot water with the same burner unit, using No. 11 American Radiator Company Oil Burning Boiler, and recessed type radiation, together with Weil McLain Radiant cabinet type.

**PLUMBING**—Kohler fixtures in kitchen, toilet and bath.



WALL SECTION AT LIVING ROOM BAY



VIEW of convenient U-plan kitchen; placing of all equipment for maximum efficiency with refrigerator at rear door and stove next to dining room.



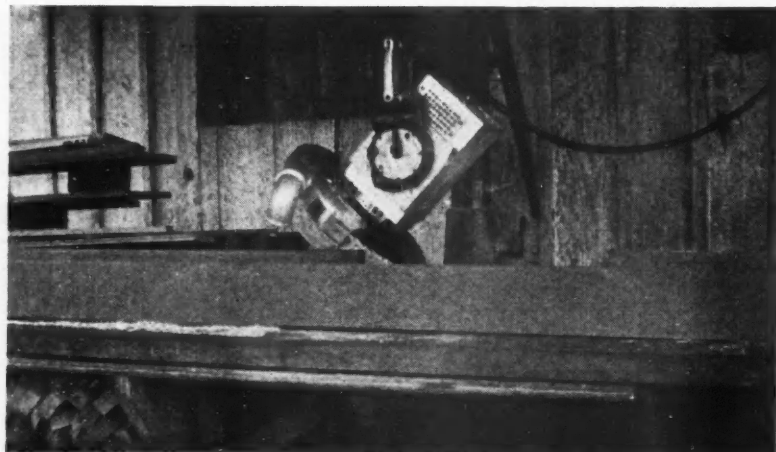
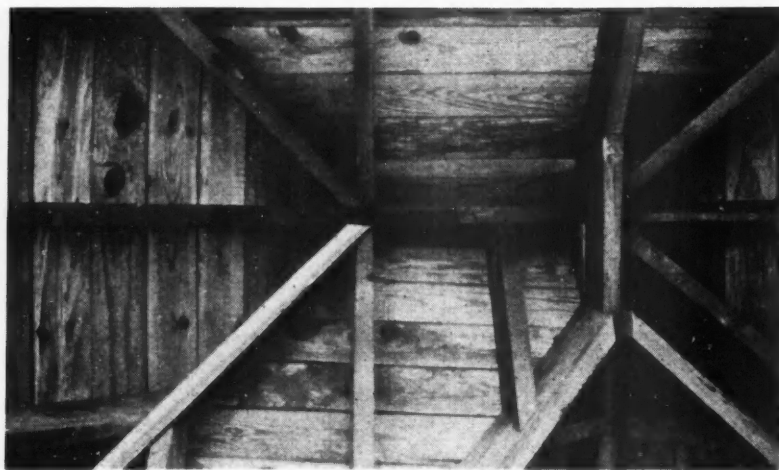
# Power Shop Fabrication—Part II

**Carefully Drawn Detail Sheets Give Saw Operator Exact Instructions in Cutting House Framing Members; Further Data on Fabrication and Erection Methods Used by W. C. & A. N. Miller, Washington, D. C. Builders**

By **MALCOLM B. BEATTIE**

Engineer and Yard Manager, the  
W. C. & A. N. Miller Company, Washington, D. C.

**I**N MY article last month I described the advance planning required for shop fabrication of house framing members. Carefully drawn joist layouts and transverse sections are prepared on each job. The next step is the preparation of detail sheets or cutting schedules for the use of the saw operator. Window and door headers and jacks are listed from the house plans.



Clearances around window frames and door jambs are standardized, so that a list showing sizes, sill heights, and partition thickness is sufficient for the cutting operator. This list of studs, taken from the plans, requires only the number and sizes. These schedules are then turned over to the operator for cutting, with notes as to the lengths of lumber which can most economically give the required lengths.

**FABRICATION**—The saw used is a DeWalt Type GM, permanently mounted with extension tables. It has a five horsepower motor which operates on a single phase, 220 volt current. Two 16-inch combination rip and cut-off blades are needed so that sharpening does not hold up operations. A dado head three-quarters of an inch wide is also used for housing, rabbeting and plowing. The saw and motor are mounted on overhead rollers in an overhead arm. For short cuts the saw blade is pulled through the cut, and for long, compound mitre cuts a detachable chain feed is used. In ripping, the saw is clamped parallel to the table and the work is fed to the blade.

The arm supporting the saw is cantilevered from a column at the back of the machine. The arm can be raised or lowered, and can be swung and clamped at any angle with the table. Adjustments in the roller carriage permit the blade to be swung at any angle from the vertical. No other equipment is required for the framing operations.

Before the work of cutting is done, a sample of each rafter and stud is made, and each member laid out in accordance with the section. A series of parallel 4 x 4's spaced about six feet apart, and raised slightly above the ground, is used to form a level platform for this purpose. When the layout has been checked with the actual house dimensions the schedules are known to be correct.

One operator and a helper do the cutting and handling of all lumber. From his schedules the operator makes all square cuts first, such as studs, joists, jacks and headers. The average rafter has seven cuts. The ridge cut and the cornice fascia cut are made first with the rafter lying flat on the table. The rafter is then turned on its top edge, and the plumb cuts for purlin, wall plate and cornice soffit are made. The rafter is then turned end for end on the table and the level cuts are made. Where the roof pitch is 45 degrees, two adjustments of the saw are required. For other pitches three adjustments are necessary. Two or three minutes are all that is required for adjustments.

**IN ADDITION** to an estimated 30 per cent saving in cost, the results of power shop fabrication of framing methods include more accurate cutting and better fitting parts. **AT LEFT, above,** is shown a view looking up at the ridge of a hip roof on a Miller-built home. Every joint and angle fits perfectly. **AT LEFT** is shown the 5 horsepower, 16 in. power saw set for making compound mitre cut.

Cuts are marked on only one of each size member. Butting blocks are secured on the table extensions, and the ends of rafters merely placed against these. The helper lays the material on the table, and the operator places it against the blocks and pulls the saw through the cuts. It is practical to cut only one piece at a time when they lie flat on the table, but edge cuts can be made in several pieces at one time.

On the house shown, 8.2 thousand board feet of lumber were assembled, cut and delivered. The time required was 21 hours for the operator and 28 hours for the helper, which included the time required for loading and unloading at the job. The total cost of these operations was \$3.55 per thousand feet board measure.

The operator and helper can cut and stack 1400 studs in an eight hour day. Three hours will generally cut all joists for a floor. The time required for rafters depends entirely on the type of roof.

Certain members can best be cut and fitted at the job. Hip and valley rafters are thrown out by very slight variations from the plans and the time required to adjust them is as long as that required to cut them in the first place. Small dormer roofs are also cut at the job, and gable studs. These items form a small part of the total framing and seldom require more than half a day for one carpenter.

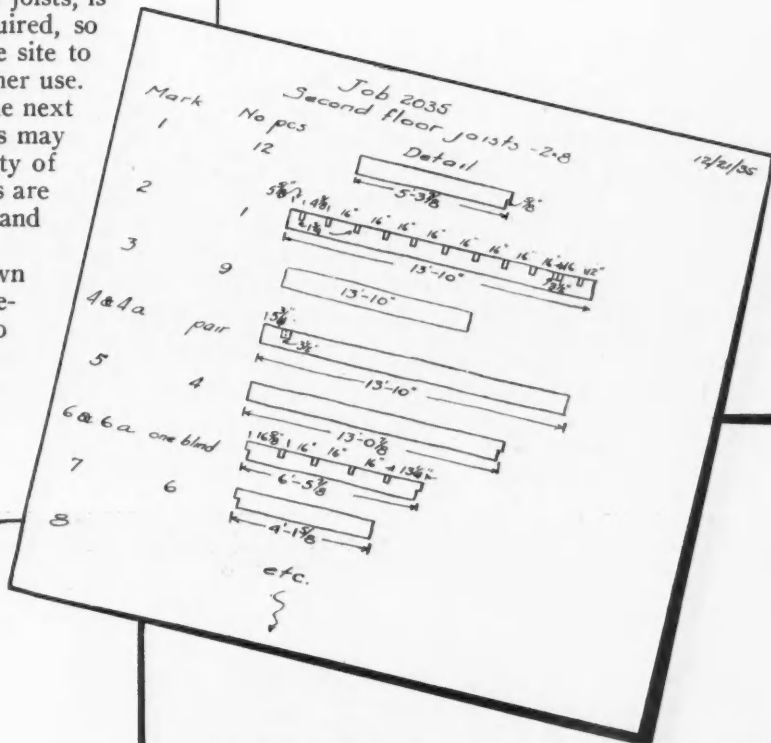
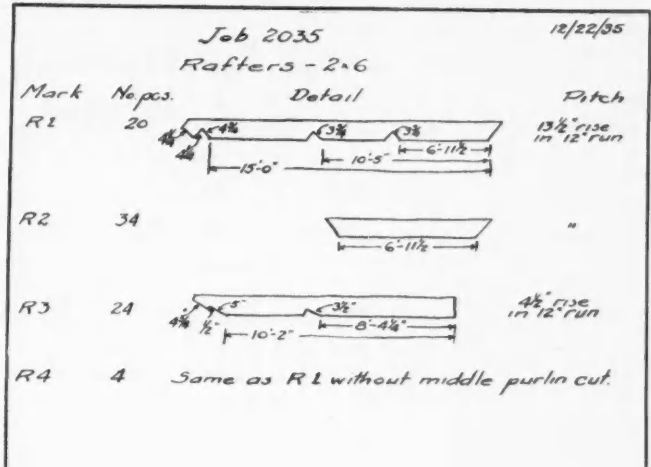
Marking the identification of members is a simple matter. Members are numbered, the different types seldom amounting to more than twenty. Each unit of construction, as, for instance, a set of joists, is sent to the job only when actually required, so that the material does not lie around the site to be mixed up or appropriated to some other use. Since a set of joists is in place before the next set arrives on the job, the same numbers may be used repeatedly without any possibility of confusion. As an added precaution joists are marked J 1, J 2, etc., studs with an "S" and rafters with an "R."

ERECTION — Experience has shown that a new type of erection crew is required for this type of work. There is no place for the older dyed-in-the-wool mechanic, whose preconceived ideas make him regard all innovations with distrust.

A foreman was first trained in the operation of the saw so that he would know its capacities. He was then sent out with a crew of four young carpenters and one laborer. This crew, with the saw operator, is capable of doing all framing on at least five houses a month and, with added experience, should do still better.

(Continued to page 106)

### No. 5 in a Series of Articles on Cost Cutting Methods



Job 2035  
1st Floor Studs

Location	No. pcs.	Length
Front wall	26	12'-0 3/8"
Side & rear walls	55	8'-6 3/8"
Bearing part	29	7'-8 3/8"
Non "	19	7'-10"

Plates		
2x4	4/20	2/22 6/20 4/10 4/8
2x2	3/12	

Headers & Jacks		
Door Size	No.	Part width
3/0 x 6/8	1	6"
2/0 x 6/8	1 pair	6"
2/6 x 6/8	1	6"
2/4 x 6/8	1	4"
2/2 x 6/8	1	4"
2/6 x 6/8	1	4"
4/0 x 6/8	2	6" (trimmed openings)

Windows			
Size	No.	Sill height	Type
3'-4 1/2" x 5'-2 1/4"	3	2'-4"	D.H.
2'-10 1/2" x 5'-2 1/4"	2	2'-4"	"
2'-10 1/2" x 3'-10 1/4"	1	3'-8 1/2"	"

THESE DETAIL SHEETS are made up for each job by Engineer Beattie for the use of the saw operator in cutting the members. Members are numbered and different types seldom amount to more than 20, according to Beattie. Joists are marked J 1, J 2, etc., studs with an "S" and rafters with an "R." The detail sheets above are made up by Beattie from large scale layouts and transverse sections drawn up by him and illustrated in the May AMERICAN BUILDER.

What are you doing to reduce construction costs? The practical prefabrication experiments of W. C. & A. N. Miller described in this article suggest one way. There are many others, and AMERICAN BUILDER invites its readers to tell what they are doing along this line.

# Chicago To Get Modern Duplex Type Building

**Construction Started on City's First Recent Large Apartment; Tenants Listed for All Units**

**H**OW will future apartment structures be planned? This is a question of interest to those who were once concerned with this phase of building. Revival in the field will come of course when rents reach the level at which new construction again proves a profitable investment. Present conditions make it necessary to utilize certain economies of design and, furthermore, something different must be offered tenants to obtain rents above today's level.

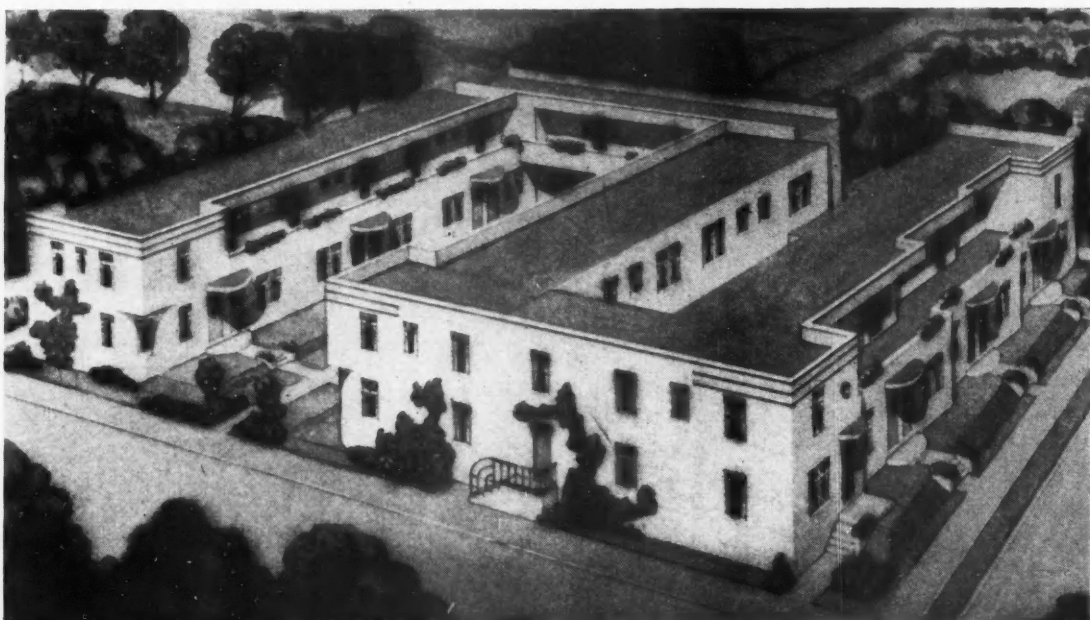
The building shown on these pages seems to have accomplished these points. This twenty-two unit structure is being erected in the Beverly Hills district of Chicago for the Beverly Hills Building Corporation. Fifteen of the smaller apartments have a dinette-kitchenette and living room on the first floor with the bedroom, bath and porch on the second. Distinctly modern in both exterior and interior appearance and planning, announcement of the project brought thirty-two applications for the twenty-two units before the work was scarcely under way. Rentals for the three room size will be \$65.00, larger units are correspondingly higher — rentals above the average prices which now prevail for these sizes. The site is valued at \$20,000; the building is to cost \$70,000. With 100 per cent occupancy assured, the costs are within necessary limits and prospects are for increasing revenue.

The exterior of the building will present broad sur-



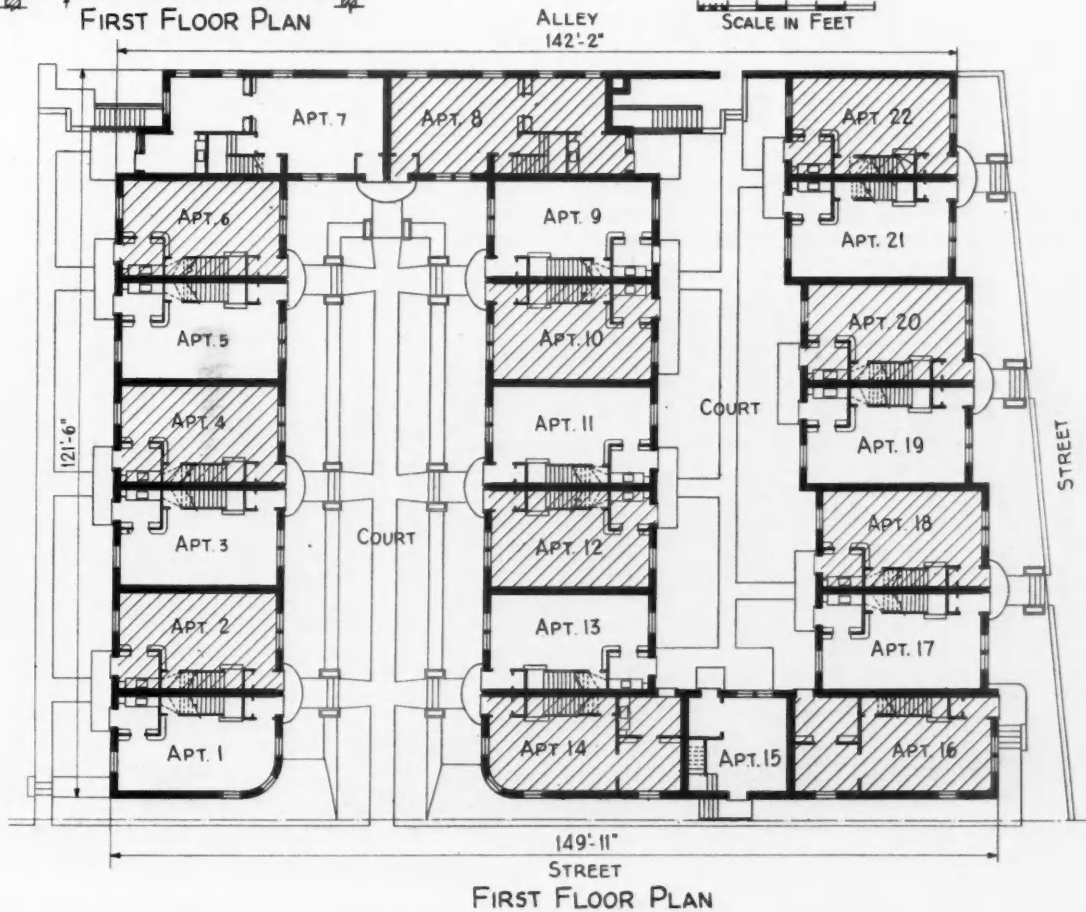
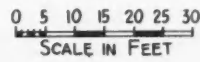
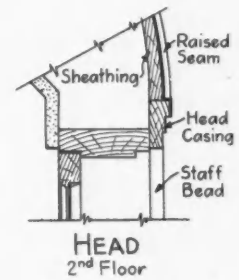
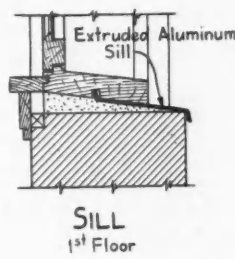
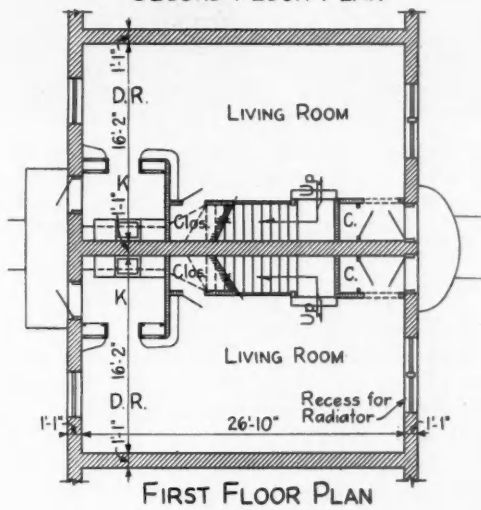
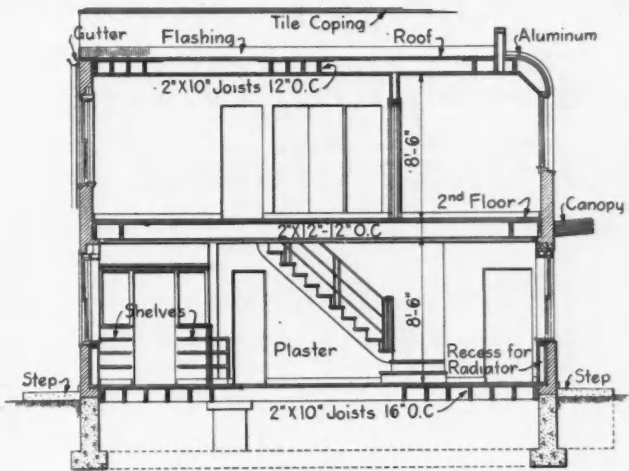
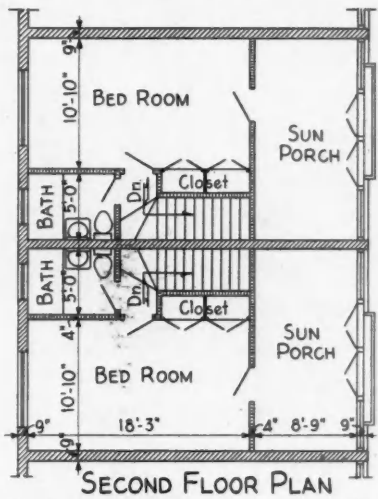
CONSTRUCTION view of court units in Beverly Hills project. Note separate entrance and covered sun porch for each apartment.

faces of common brick, painted white; aluminum wall copings and canopies emphasize the light tone of the modern design; painted entrances, bright flower boxes and landscaping are to provide the color. Plans on the opposite page show separate entrances to each of these two-story apartments. Light and cross ventilation, recessed radiation, modern metal handrails for interior stairways, compact kitchenettes, and large sun porches on the second floor are among the outstanding design features. According to Mr. Quinn, of Quinn and Christiansen, Chicago architectural firm and designers of the building, construction economies were possible by utilizing proper planning. This included using 8-inch brick walls due to 2-story units, whereas 3-story buildings require 12-inch walls; large property area for the relatively small number of families allowed for basement under about only one-third of structure, this space providing for two laundries, two storage rooms and boiler room. Grouping of kitchens and baths reduced plumbing stacks; symmetrical units made it possible to have the kitchen equipment, stairs, etc., all one standard size. Also specified were a minimum number of types of windows. Ecod metallated fabric as plaster base applied to furring serves as insulation. The general contractor is Samuel Goldberg of Chicago; the project is scheduled to be completed about midsummer of this year.



PERSPECTIVE of building as originally planned with open second floor terraces. Plans and details on opposite page show modern planning throughout.





# New "Stud-bat" House Costs \$1,300; O. K. for Warm Climate

By OSCAR G. KNECHT

Chief Building Inspector, San Diego, Calif.

THE attached drawings will illustrate a new type of construction recently adopted in Southern California. This method especially appeals to the working man desiring a home of his own, on account of the comparatively low cost, inherent beauty and permanence.

Without going into minute detail, describing the best methods of assembly, construction, arrangement, etc., this article will devote itself primarily to the new idea, as actually found and constructed on the building site, at this writing.

The wall construction proper is an evolution of the old board and batten type of house construction, which was none too attractive or substantial. The old warped battens and split boards have been entirely eliminated. The new type as illustrated is meeting with favor wherever introduced and has met with the approval of local architects, builders and mechanics.

Note that the walls consist primarily of grooved studs placed flatwise and spaced about thirteen inches on center, with vertical full height  $\frac{3}{4}$  inch by  $11\frac{1}{2}$  inch kiln dried knotty pine or red cedar boards between and snugly fitted into the grooved studs, the following paragraphs will explain more in detail.

Figure No. 1. This figure shows a typical cross section through the wall. Attic ventilation is usually provided with wire mesh located at (a). At (b) is shown a surfaced and rabbeted top plate which receives the roof rafters, ceiling joists and upper end of the vertical boards. The inner casing at (b) holds the board securely



INTERIOR of "Stud-bat" cottage showing smooth surface walls (like detail No. 10) produced by 12-inch vertical boards panel fitted into grooved 2x4 studs set flat. This feature is being patented by Klicka Lumber Co.

in the rabbet. The vertical boards and studs are securely face nailed to blocks cut in between the floor joist ends, the studs being notched at the floor line. This arrangement is shown at (c) and gives secure nailing and support. Note that the boards and studs also have support on the 6" x 4" sill (d).

The concrete footing blocks are 12" x 12" at bottom, 12" high, are usually placed about 5' o.c. and are provided with steel dowels.

Figure No. 2. Here we show the floor and sill construction where the joists run parallel to the wall. A  $1\frac{1}{2}$ " by 6 or 8 inch skirting board or sill (e) (which furnishes additional support to the vertical wall boards and studs) is securely spiked to the posts and joist supporting stringer beams. The letter (c) has the same meaning as explained for Figure No. 1.



"STUD-BAT" Cottage developed by George Klicka of San Diego; about 60 have already been sold, priced at \$1,300 each, ready to move into. Has tiled bath, model small kitchen, living room and two bedrooms.

Figure No. 3. Here is shown a similar arrangement as explained for Figures No. 1 and No. 2, excepting that a continuous solid concrete foundation is shown. A surfaced 6 x 3 sill is bolted to the foundation. This sill extends beyond the outer face of the concrete wall and furnishes added support for the vertical wall studs and boards. The latter of course are also securely nailed to the joists or blocks cut in between joists as shown at (c).

Figure No. 4. This is a typical window sill detail, showing casement sash and screen arrangement. (80 per cent of the smaller houses are provided with casement sash in lieu of double hung windows.) This detail shows a type of frame which can be assembled as a complete unit and placed in the wall opening, however, some frames are so arranged and rabbeted that they must be placed in the wall piecemeal as the wall is being constructed. The dotted line at (f) indicates a common type of sill with sloping bottom and is preferred by some builders. The sill shown is cut and molded from a rough 5" x 3" fir or redwood piece of seasoned lumber. Built up sills made from smaller members are also used occasionally.

Figure No. 5. This shows a typical type of window frame head jamb which goes with the sill detail shown in No. 4, note that a metal flashing is necessary. The head is made from a 4" x 3" fir or redwood piece of seasoned lumber. The inside head casing (j) is 1 5/8" in thickness and is frequently made from 4" to 9" in height, depending upon width of opening, as this head

casing is often called upon to be both head casing and supporting lintel.

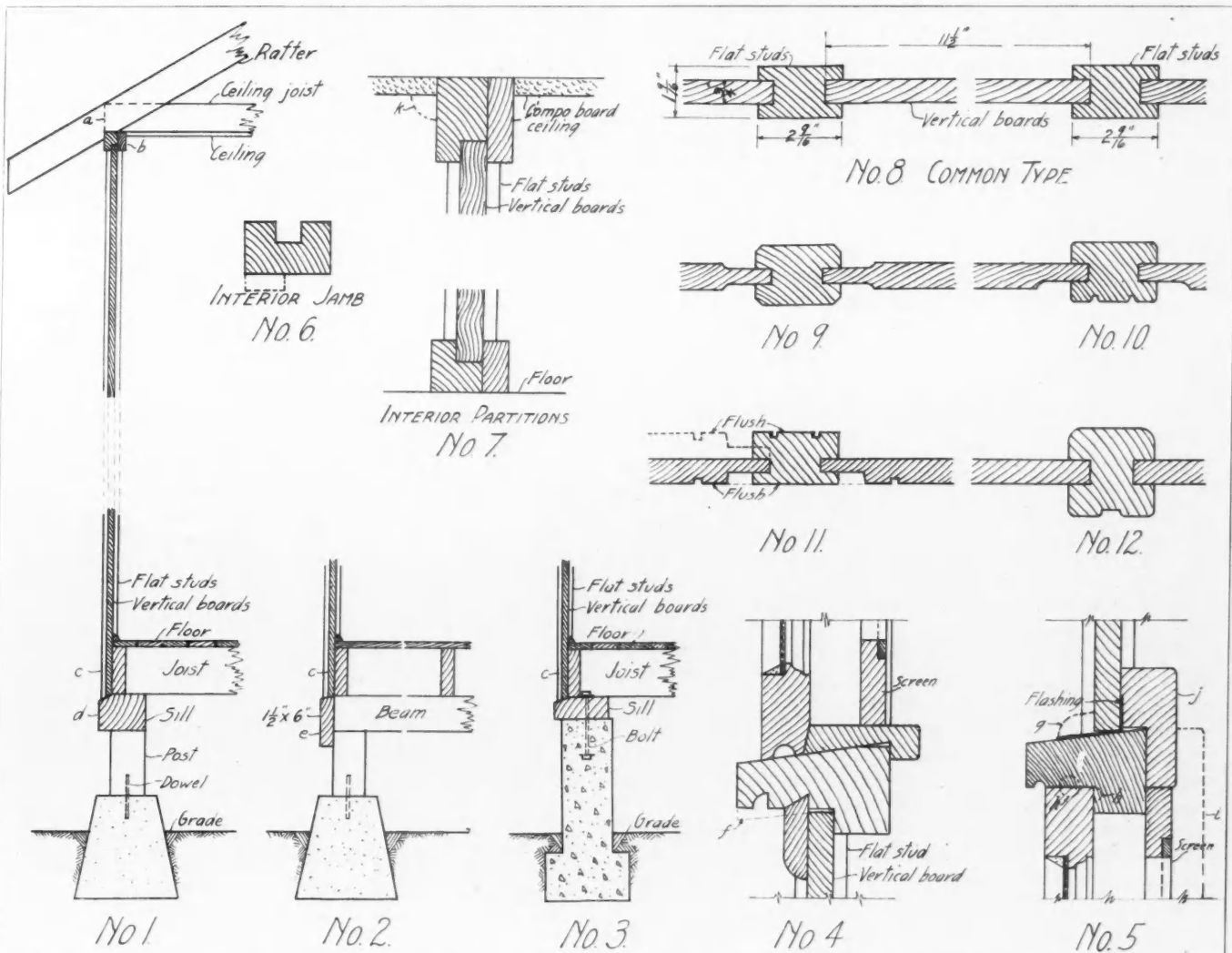
The side jamb is of similar design, excepting that the grooves (h) and the molding (g) is added. (i) indicates the stool when considering the detail as representing a side jamb.

Figure No. 6. Figure six is a detail of the side and head jamb often used around the interior partition doors. This detail is usually run from 2 x 3, 2 x 4 or 3 x 3 seasoned or kiln dried lumber, depending on size of opening and strength requirements. The floor detail shown in Figure 7 is also often used as a door frame. Stops are usually nailed, instead of being milled with the frame. The dotted line indicates a stop milled with the frame; in other words the frame is rabbeted to receive the door.

Figure No. 7. This is a typical top plate and sill detail for interior partitions. The moulding (k) may or may not be used. The top plate is similar to (b) Figure No. 1. Compo board, wall board and other similar building boards are usually used in lieu of lath and plaster for the ceiling finish.

Figure No. 8. This is the most commonly used type of interior and exterior wall construction. The studs are milled from select common fir, and the boards are kiln dried No. 2 knotty pine, either oiled, varnished or painted on the inside, and painted two or three coats on the exterior.

Figures No. 9 and 10. These show different methods (Continued to page 112)



DETAILS of Klick's "Stud-bat" construction as sketched by the author, Oscar G. Knecht, local building inspector chief, San Diego, Calif.



# Reinforced Thin-Brick Veneer Stimulates Modernizing

## Mason-Contractor Lost Too Many Good Brick Veneer Prospects Be- cause of Price; So He Developed New Products and Applications

**A**BOUT ten years ago A. J. Vertuno went into business for himself as a mason-contractor, in Maywood, Illinois. One of the first things he learned about selling residential brick veneer modernizing is that every job arouses considerable interest among neighboring home owners. Visitors would come from blocks around to watch the work in progress. Inquiries poured in, and the young contractor spent many evenings estimating prospective jobs. Many of these home owners seemed very anxious to have the work done—until prices were quoted. Then most of them lost interest.

As a result of this experience, Contractor Vertuno began to think about ways of applying brick veneer that would enable him to close a larger percentage of the inquiries received. He began experimenting after hours in a basement workshop. As he worked, other experimenters were also blazing pioneer trails in the same direction, towards the now-familiar thin-brick veneer.

At the time Vertuno's work began there were no thin-brick slabs, so the first models were molded in concrete. So absorbed did he become in this laboratory work that on one occasion he forgot a "heavy date" with the young lady who has since become his wife. This inventive preoccupation caused a rift that threatened the romance, but he did develop a satisfactory pattern for brick slabs, which were named Brixitt.

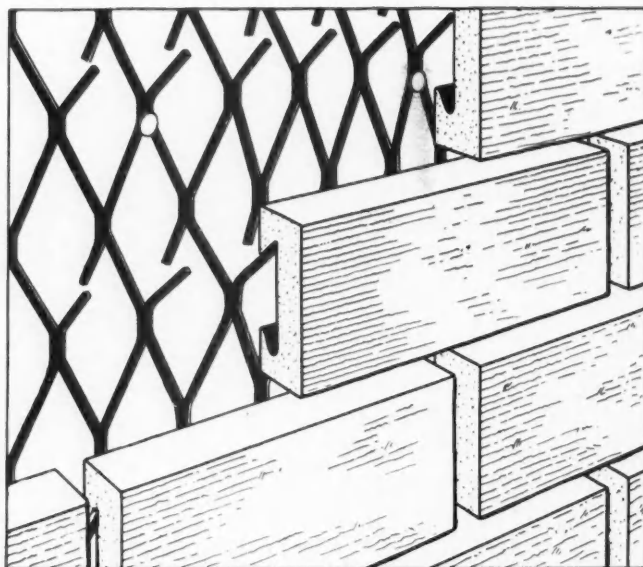
The Brixitt slab is made of the same materials, and in the same way as regular brick, in conventional face-brick colors and finishes. It has a 2½- by 8½-inch face, and is ¾-inch thick. A dovetail slot, running the long way of the slab, is cut into the back, and is centered so that bricks are reversible. Corner bricks are made in one piece with a 4-inch return. Each flat brick weighs approximately one pound.

The next step was to find a satisfactory way of "hanging" slabs on the wall to form a curtain. The first applications were made with woven wire mesh, which was nailed in place on the wall. Aligning hooks

were hung on the mesh, and brick slabs were set in mortar after being seated on the hooks. The next development was a special wire mesh with aligning hooks woven in. This method worked satisfactorily, but was replaced by the present improved mesh.

Brixitt slabs are now seated on a special expanded reinforcing metal called Brixteel, on which patent applications were filed about five years ago, and recently granted. A standard heavy-gauge, coarse-mesh, copper-bearing metal, weight 3.6 pounds to the square yard is used. Projecting metal prongs are formed from part of the strands. Slabs are seated on these prongs after the metal has been aligned and securely anchored to the wall.

The metal is stiff enough to be applied directly over beveled siding, if desired, without the use of furring strips. The surface to be veneered is first covered with a fibre-reinforced waterproof craft paper. Brixteel is then applied to the wall in 2- by 4-foot sheets, anchored with 1½-inch galvanized big-head roofing nails, spaced



DETAIL of Brixitt slabs, showing dovetail slots in back. The slab rests on prongs formed from strands of expanded metal.

## MODERNIZED BUILDINGS ARE MORE CHEERFUL, LIVABLE, SALABLE

six inches apart horizontally and nine inches vertically.

A sheet of Brixteel is first nailed at one corner, the prongs are leveled and aligned, then the nailing is completed. Dry bricks are hung on the prongs, conveniently spaced, so that they can be picked off and laid by a mason without stooping. Lime mortar, spiked with cement, is used. Mortar is trowelled into the metal reinforcing to form a plastic bed for the bricks, which are then pushed down until they are firmly seated on the Brixteel prongs. Spacing between courses is secured automatically. Bricks are seated with a full shove joint.

Mortar keys into the reinforcing metal, and into the dovetail slot in the brick, and is said to seal the wall at the same time. The surplus mortar that squeezes out as the brick is seated is cut off with a trowel and applied on end of brick just laid to form the next vertical joint. This is reported to be the only system that permits laying part of the head joints at the same time bed joints are laid. Efficiency of the system is indicated by the fact that the first installation is five years old and apparently has stood up to the complete satisfaction of all concerned.

Each brick rests on six Brixteel prongs, except when it bridges an interval between sheets of reinforcing metal, which need not be closely spaced, as is indicated by an accompanying illustration. The metal prongs are used principally for aligning, and are not considered essential after mortar has keyed into the bricks and hardened. When rowlock courses are laid, for instance, the metal prongs are hammered down, mortar is troweled into the reinforcing metal, and bricks are laid in this bed. The same method is employed when rubble stones are laid into a wall, as in the half-timbered sections seen in the "before and after" views on this page. Brixteel was applied with prongs to the wall, cement mortar was troweled in, and one-inch stones were laid. When the job was completed, before scaffolding was taken down, it was discovered that one stone projected noticeably. Efforts were made to dislodge it. A heavy mason jumped on one edge of the stone without being able to loosen it, and the piece finally was left in place.

The economies of thin-brick veneer are quickly recognized by prospective modernizers. The advantages of light weight, and the fact that a thin brick curtain can be applied to the wall without changing existing foundations makes a strong talking point. In addition

to the usual thin-brick veneer advantages, a number of claims are advanced for Brixitt. Its sponsors point out that the reinforced veneer adds considerable bracing strength to the wall; that windows and doors are caulked automatically as the bricks are applied; that the brick veneer wall is positively anchored to the building; that mortar is applied so that it seals the structure.

Appreciable fuel savings are reported by owners of houses that have been veneered and figures indicate that fuel and upkeep savings will pay for the average job in five years.

It is said that masons and carpenters who have no experience with the method can learn to apply Brixitt without special training and without delay. No special equipment or tools are required. In addition to a level, the only tools used are a hammer for attaching Brixteel to the wall, snips for cutting the steel around openings, and a mason's trowel.

The Brixteel prongs provide positive mechanical supports that grip, space, and align each brick. Openwork construction of the backing apparently permits a free flow of mortar, and the surplus can be used to lay bricks, to imbed steel, and to insure full shove mortar joints without danger of moving bricks that are already in place. The method does not slow down any customary bricklaying practice, and speeds up a number of operations.

The product is sold on a cost-per-square basis. Materials only, sell for \$17.50 a square, and include 550 bricks, necessary nails, and reinforcing metal. Prices applied, range from \$30.00 to \$40.00 a square (Chicago prices). Labor costs, when divided on a percentage basis, average about 60% mason labor and 40% carpenter labor. A mason will average 1½ squares a day, and one helper ordinarily takes care of three masons.



LEFT: Stucco was removed from this house before reinforced thin-brick veneer was applied.

ABOVE: View of same house from another angle, after application. Rubble stone was used on the half-timbered section, with thin-brick veneer over all other parts.

# The LAST WORD in Pre-Fabricated Houses!

**Featherweight—Solar Ray Heat  
—Overnight Construction—  
Delivered by Air Mail—We  
hope it's the last word.**

By L. J. MULHEARN

THE most amazing development in the field of pre-fabricated homes was partially revealed this week in a cryptic statement by Col. John Previu Smith, entrepreneur, operator in the fast moving field of overnight home building, and Chief Engineer of Overnite Houses, Inc.

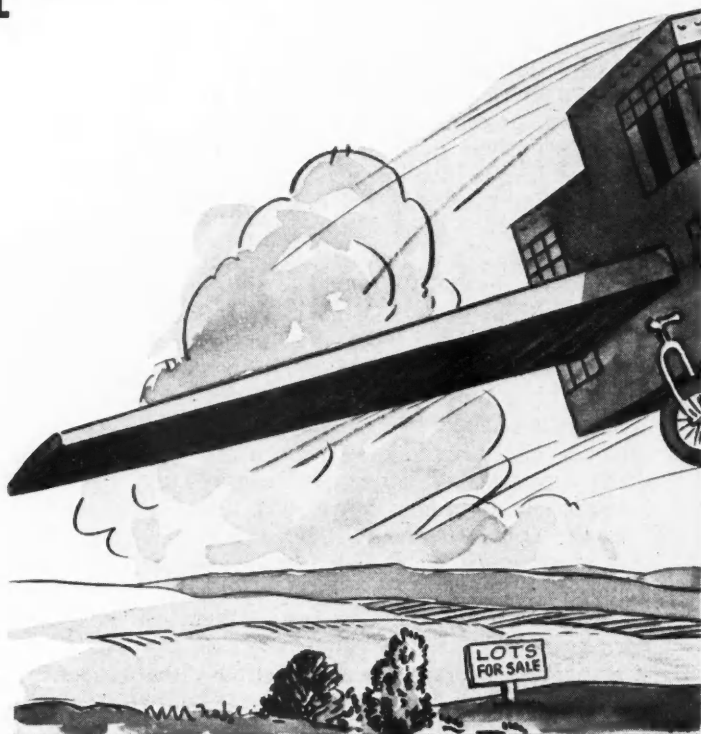
A world-famed big-game hunter, aviator, broad jumper and talking-doll salesman, Col. Smith turned his energies to the small-house field at exactly ten A.M. on February 15th of this year.

Long months of experience—particularly the long month of March—have proved to him the futility of the current, widely publicized systems of pre-fabrication. He ridiculed the idea of delivering pre-fabricated houses by truck and then parking a man and a half for a week and a half to erect the house. "Think," he sighed, "of waiting a week and a half while your house is being built. The very tragedy of such wanton delay is appalling."

His startled hearers begged for details. Usually reticent, as becomes a big-game hunter, Col. Smith finally broke down and—talked. His recital, guardedly given, is an epic of American courage, enterprise, vision, speed and that particular brand of efficiency that has made us the envy of nations, whether on or off the gold standard. In his swift analysis of the building situation and its imminent solution, the Colonel exhibited an utter absence of concern regarding the petty practical problems that harass the less gifted construction experts.

"By half past ten," he confided, "on the morning I turned my energies to the field of housing, I had completed a nation-wide survey of the small-house situation. Despite the so-called experts at Washington, I discovered in that half hour of study a shortage of nearly four million homes.

"During the next two hours, I learned more about small homes and their construction than an architect, an engineer and a building contractor together could possibly learn in a lifetime. The secret, of course, is that I have the lightning perception of the true promoter," he added modestly.



"After lunch on that memorable first day, I focused my attention on the widely discussed pre-fabricated house system. I found that tobacco and rubber companies, cooling and heating companies, steel and fibre companies, all were chipping in to buy a small-house deck and play small-house poker. But certain key industries had been overlooked by the promoters. I refer to textile and leather. I immediately resolved, as a measure of fairness, to give leather and textiles their rightful place in the development of construction materials to be used in housing the people of our great nation. By three P.M. I had evolved the house of the century."

Col. Smith stopped and gazed intently at his listeners. Then he spoke in lowered tones:

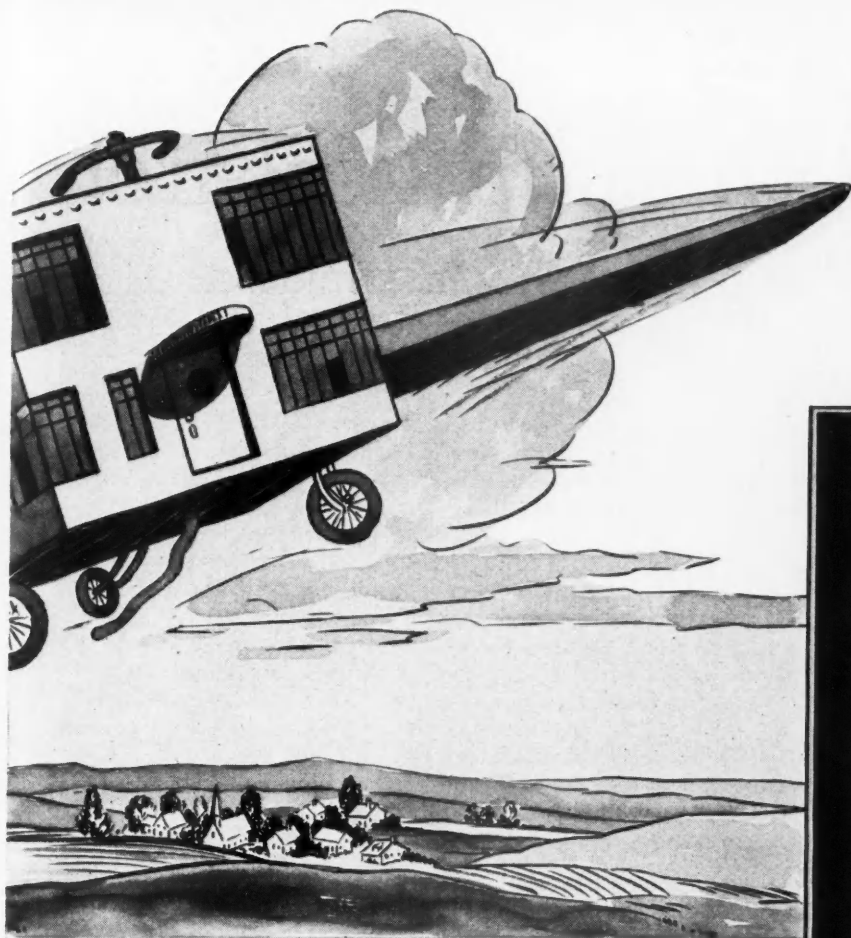
"Remember," he said, "that this house has been planned in secret. Sample houses have been erected in various places along the Eastern seaboard but I cannot divulge the locations. Can I trust you to maintain absolute secrecy concerning the construction of Overnite Houses?"

"Yes, yes, Colonel. Tell us about the house."

The Colonel struck a dramatic pose. "I have said," he began, "that this is the house of the century. It is the house of two centuries. I have evolved a featherweight, truly pre-fabricated house—a house so simple and so light that it can be equipped with wings and carried as a glider by airplane. Our Overnite Houses are so light they need no foundations. They can be mounted on wheels—not on a chassis, mind you, but on, let us say, discarded bicycle wheels. With an Overnite House you won't need to invite your guests to drop in on you for dinner. You can invite your house and dinner to drop in on your guests."

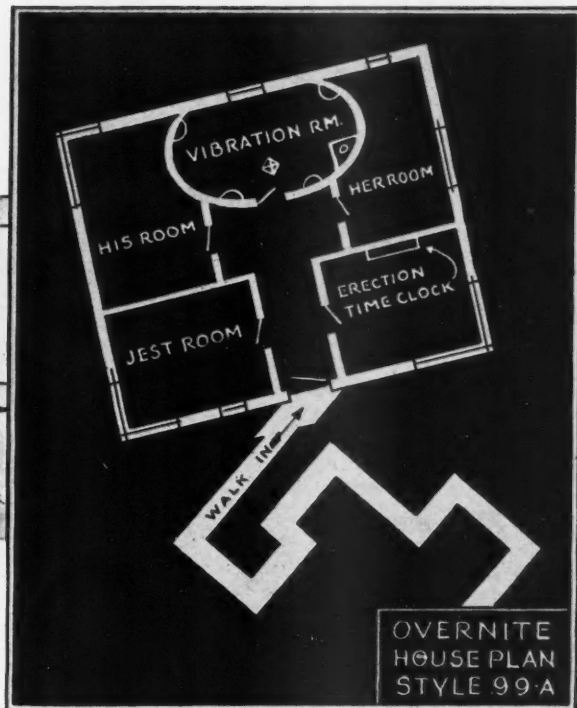
"What is the construction, Colonel?" asked an astounded listener.





**HERE is the final solution to the nation's house problem—the pre-fabricated house to end all pre-fabricated houses. Don't miss a word about this marvelous machine age house.**

COL. SMITH'S "House of Two Centuries" is so light it can be equipped with wings or bicycle wheels. A million orders are on hand. Floor plan at right reveals a new concept of factory built house planning.



"The walls are of sole leather," he replied, "one-quarter of an inch thick, surfaced with a material similar to rayon; of course, these materials undergo a special, secret treatment."

"Will the house be waterproof?" he was asked.

"You bet it will," he answered, blithely. "Waterproofing was one of our minor problems. We simply spray the exterior with a sort of liquid cellophane, either transparent or in beautiful rainbow colors—and forget it."

"How will the house be heated and lighted?" was another question.

"My dear fellow," said the Colonel, in his most soothing manner, "the era we have passed through will be known to history as the Dark Ages of Building. Our Overnite Houses will not be cluttered with a maze of pipes, conduits and wires. They are designed to take advantage of the beneficence of the Deity. The day of the mechanical heating plant, the cooking range and electric lighting is fast passing. The greatest known heating plant is the sun. Our Overnite Houses will be equipped with our own patent Solar Ray Reception system. By a simple contrivance, the heat-giving, life-giving rays of the sun will be caught and stored for the purpose of heating, cooking and lighting at the discretion of the house-owner. Our engineers estimate that a twelve hour day of sunshine in any latitude will generate, in our solar reception cells, enough heat, light and

power to supply the average family for a period of two months. These cells are vest-pocket size and may be inserted in the same manner as the old-fashioned base plugs. The sun rays enter through our transparent roof.

"And now, anticipating your question," continued the Colonel, "I wish to point to another achievement—our Self-Sanitizing System—by which we eliminate all plumbing fixtures and piping excepting, of course, the water piping from the street, spring or well.

"Take a look at this oval-shaped room," pursued the Colonel, pointing to a blueprint on his desk. "This is what we call the vibration room. A busy man of business enters this room at, we'll say, 8:15 A.M. Within ten minutes he emerges bathed, shaved, massaged and practically dressed. No effort on his part—it is all done by power. Our research engineers are now wrestling with another important item for this vibration room. We have not yet solved the problem of providing an automatic permanent wave for the lady of the house. And she, God bless her, is the alpha and omega of the entire housing research."

"Who will build the houses, Colonel?" inquired one of his auditors.

"No one," replied the Colonel, easily. "Each house will build itself. The house will be carefully wrapped at the factory, and can be sent, if desired, by parcel post. Simply select your site, mark the location of your house

*(Continued to page 108)*

# Summer Cooling— Our Help Through Research

By V. L. SHERMAN

Department of Mechanical Engineering  
Lewis Institute of Technology, Chicago

WITH the steady growth of building as at present under the good influences of the Federal Housing Administration there is no more important phase than that of research. It is likewise important that the building contractors and the large field of prospective owners understand that a wholesome relationship exists between reputable manufacturers and the ultimate users of the various sorts of mechanical equipment. This kinship may not be intimate, but it is closer than some of us realize.

At various times the American Society of Heating and Ventilating Engineers has been mentioned in these pages, and we have extracted quotations and diagrams from the pages of their annual "Guide." Figure 4, in this article, is a graph redrawn from one in their chapter on Ventilation and Air Conditioning Standards. The point which should be made is that through the medium of societies which are national, cooperating with engineering colleges and with their own research

laboratories, definite information is obtained which is beneficial to the user of equipment. But it is sometimes said that the user pays for these benefits in the long run. While there is truth in that, it is only through cooperative research that costs can be brought within reach of a growing market. If it were not for research the average home owner would not be in the market for much of the modern mechanical equipment. The home owner, then, is the one who profits most when he can assure himself of comforts which would otherwise be beyond his reach.

These engineering schools and engineering societies are active in their interest, not just passive. So it was that last week a large group assembled at the University of Illinois for two days to hear and discuss points in matters of air conditioning. The speakers had experience and authority and the listeners were eager and inquisitive. Presumably a non-technical meeting it became just technical enough to make it more interesting than a strictly technical one. It is to be hoped that future conferences in air conditioning at the university will take their cue from this first one.

Among the features of the conference was the inspection of a home in Urbana which is known as the Warm Air Heating Research Residence. The National Warm Air Heating and Air Conditioning Association in cooperation with the Department of Engineering Research at the University of Illinois provide this house for experimental purposes. The first floor area is a little greater than 1000 square feet. There is a full basement, first and second floor, and two bedrooms and a bath in the attic space. It is possibly a little larger than the average home, but it is so like the typical American home that experimental work within it can be directly applied. And it is used as a home, a very comfortable one.

But to get back to the subject of research. Figure 1 shows the entrance hall. You will see two portable thermometer standards with the thermometers placed so as to get readings at the floor level, the breathing level, and at the ceiling. On one is a recording thermometer. Since the whole project is for experiment it is not to be supposed that the equipment in the basement would appear to be the last word in arrangement. Figure 2 will show you that the basement is a work-room of importance, where equipment is tried and results are measured, where methods are as important as means. Lefthand picture shows a heating unit in the far background and a refrigerating unit with tanks in the foreground. Instruments for gathering all necessary information are in their places. The control board from the various stations is shown at the right.

It is important that we should know that past experimental work in heating and cooling and air conditioning was not carried on by these cooperative agencies in haphazard fashion, and that the work has come so

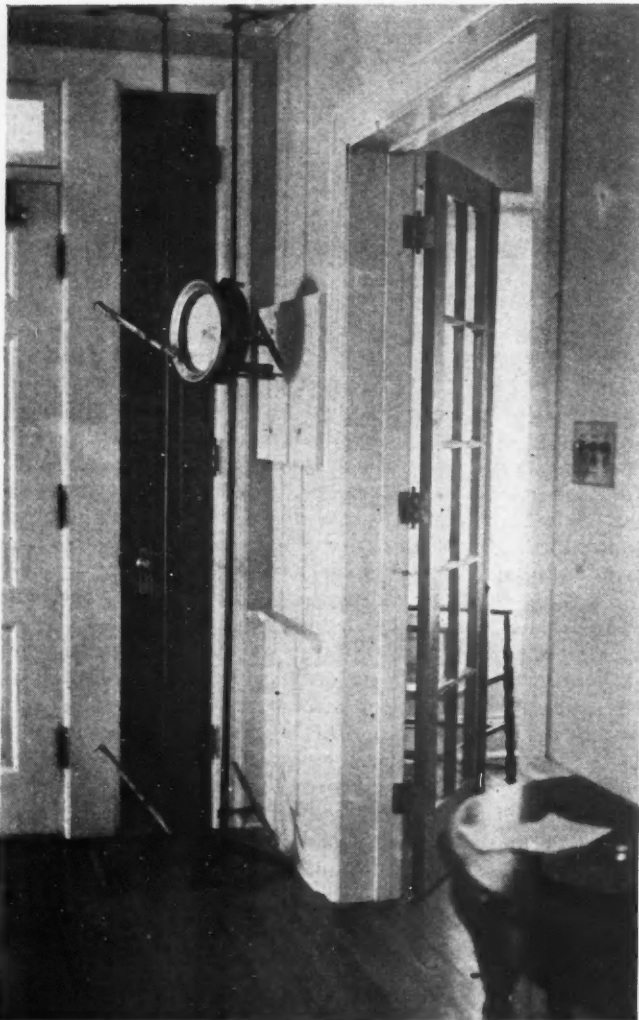
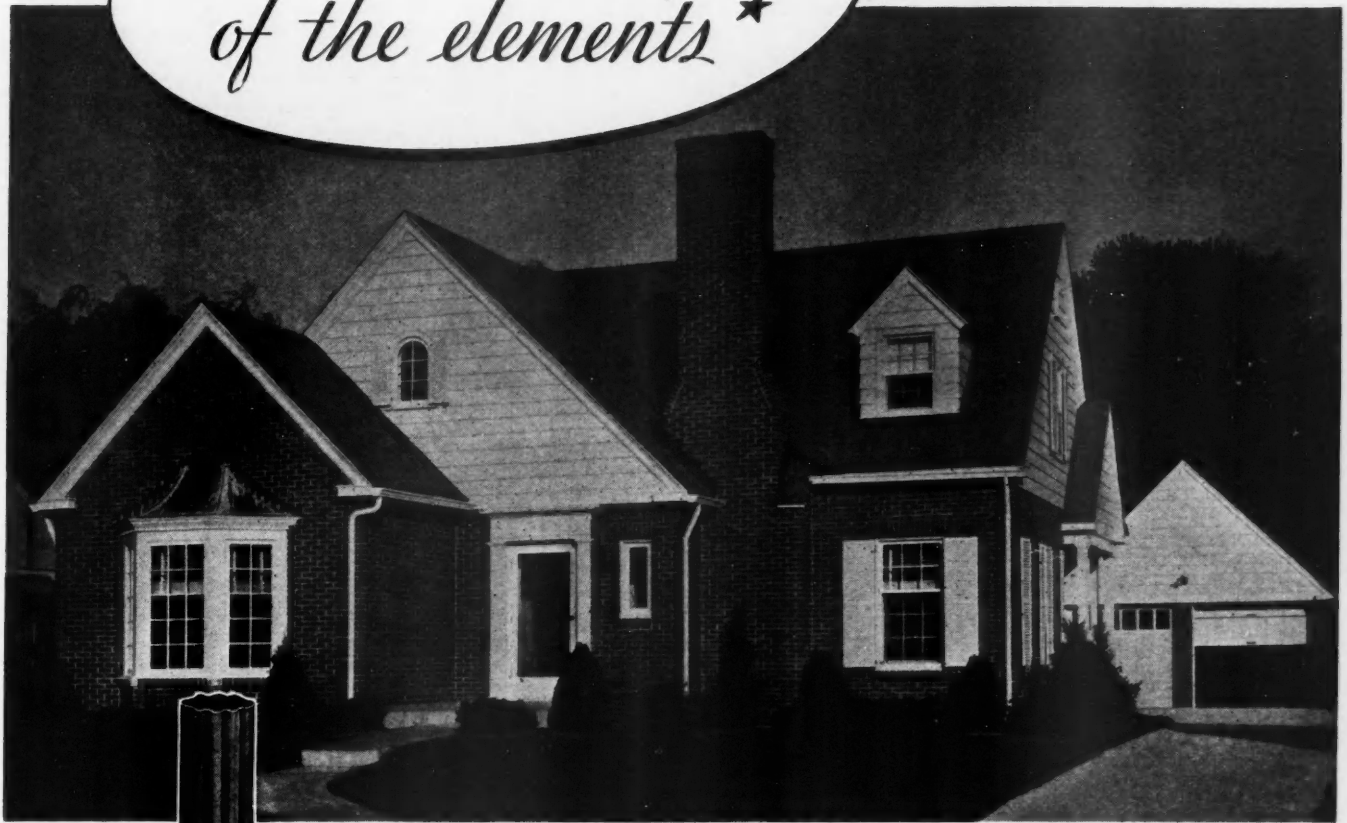
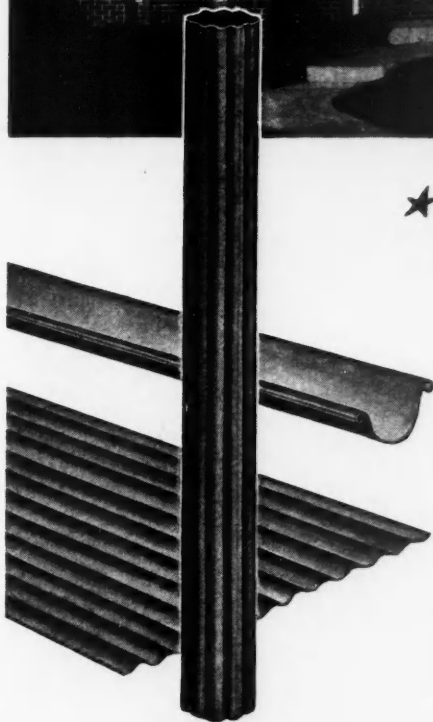


FIG. 1—Entrance hall in Warm Air Research Residence. Portable thermometer stands facilitate readings at various levels.

*Arch-enemy  
of the elements* ★



## ★ REPUBLIC TONCAN IRON



● Whether your object in building is a house to rent, to sell or to live in, you should consider Toncan Copper Molybdenum Iron—the alloy of refined open-hearth iron, copper and molybdenum with the greatest resistance to rust of any ferrous material in its price class.

If you build to rent, Toncan Iron will save you money through its longer, trouble-free life and elimination of sheet metal repairs. If the house is built for resale, the quality that is added by Toncan Iron makes an outstanding selling point and helps bring a higher price. If it is a home for yourself, you want the best for your money, and more than 27 years of cost-saving service have proved Toncan Iron to be just that.

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## MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

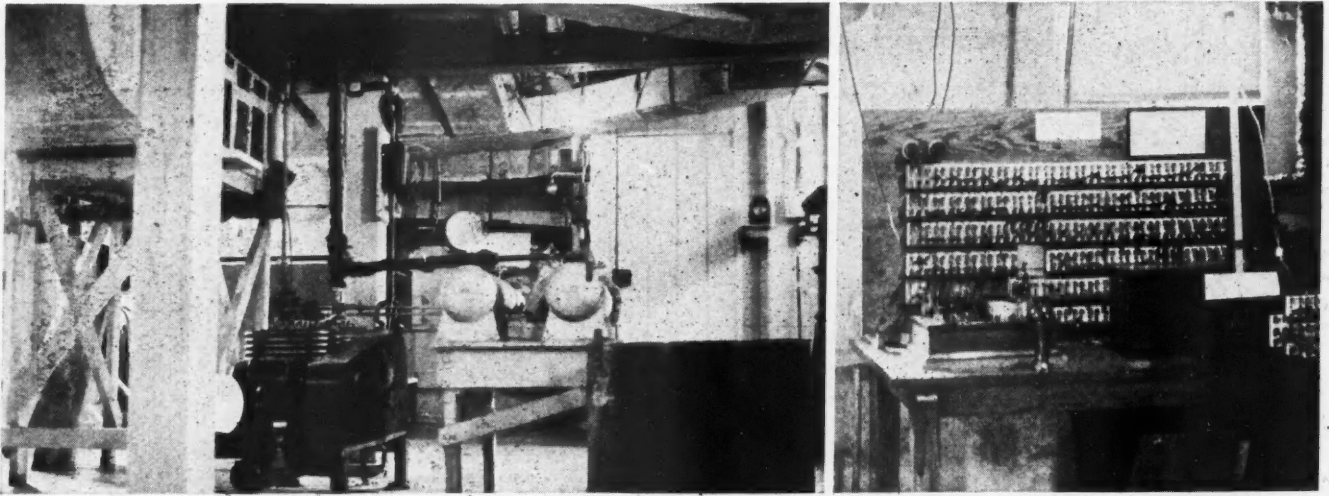


FIG. 2—Warm Air Research Residence. Basement arrangements provide for thorough tests of various equipment. Right, control and readings from all stations within the house.

far as to resolve itself into a question as to what really are the best conditions for comfort and health.

Among the papers presented at the meeting came the question of body heat-balance. To be comfortable a person's inner workings should not be too much disturbed in maintaining the normal body temperature. This calls for certain room temperatures in the winter which combine properly with the amount of moisture in the air and the rate of heat loss from the body by radiation and convection. If the air is too dry more of the skin's moisture will be lost to the air, and there will be heat lost by evaporation. If the air currents about the body are more than necessary there will be too much heat lost by convection. If the walls, windows, or any of the surrounding objects are cold there will be too much heat lost to them by radiation.

Figure 4 is redrawn from a chart in the A. S. H. & V. E. Guide. This chart shows the percentages of total heat loss by convection and radiation, on the left side, as compared to that lost by evaporation, on the right, in relation to the ordinary room temperatures and in quiet air. The most striking point in the chart is the steady increase in the percentage lost by evaporation for men who are working. If, for instance, a man is working to the extent of using up 16,538 foot-pounds of energy per hour his proportionate percentages would be the same at 57 degrees as for an idler at 70 degrees. An active body would require a more active skin to rid itself of the heat generated.

If a man seated at rest were placed in room temperatures below 70 degrees one can see that his skin and lungs take a smaller part in heat loss. An inactive skin might well mean a chilled skin.

But when we come to summer temperatures the curves show the necessary activity of the skin in providing a heat loss by means of perspiration. At 82.5 degrees more than 50% of the idler's heat loss must be by evaporation. At 90 degrees 73% of the heat loss is by evaporation. Of course there are numbers of angles to these questions of heat dissipation. For instance how much less heat loss is there from the lungs because of the increase in the temperature and humidity of the air we breathe in.

Unless air is provided which will insure comfort for our skin we certainly will be uncomfortable. Control of

the air temperatures and humidities during the summer heat is most necessary for our comfort. Authorities and localities differ somewhat as to what these conditions should be, but their control is essential. The old ideas of a year around condition being required for comfort has long gone by the board. Our dress for the summer and our physical state are quite apart from those in winter. The same temperatures and percentages of humidity at both extremes would not be comfortable or healthy provided artificially. But a little study of the chart, Figure 4, will give reasonable proof that comfortable and healthy conditions should not be gained merely by reducing the dry-bulb or ordinary temperature to an immediate sense of coolness without bringing the moisture content of the air to a point where the skin and lungs can operate in comfort.

Summer cooling is not just a dry-bulb temperature measure. And it is not the extreme measure so many

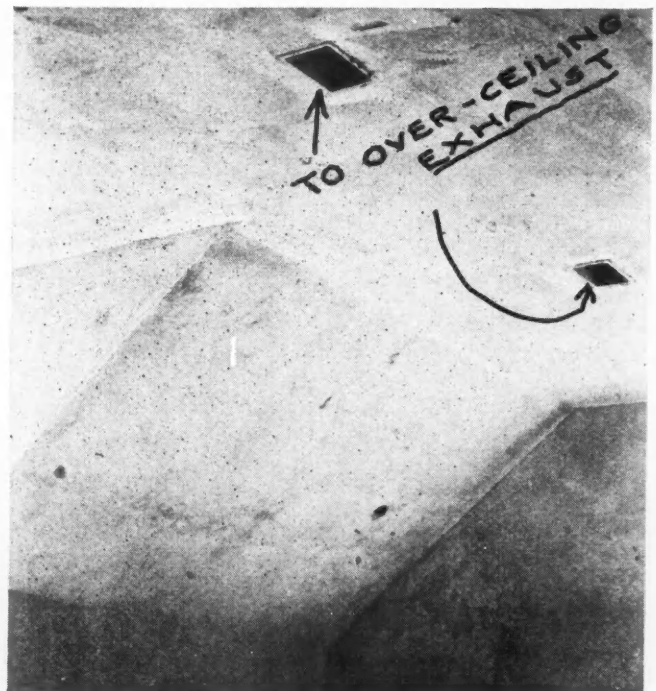


FIG. 3—Comfort assured in low ceilinged bedroom.

# DOOR ENGINEERS Build Wheeler Osgood LAMINEX and Woco 10-point DOORS — to Insure Satisfaction

## Check these 10 points of SUPERIORITY

**1** ABSOLUTELY SQUARE — NO SAGGING.



**2** No loose or torn grain.

**3** Perfect, uniform distribution of glue in dowel holes and corner joints.

**4** Smooth, clean mouldings around panels — no ragged edges.



**5** No warping or swelling in Laminex construction; and maximum resistance in Woco solid designs.

**6** No open joints.

**7** Heavy dowels to give 30% more glue contact area.

**8** Smooth, perfectly sanded finish.

**9** Carefully selected woods — scientifically dried — easy to mortise and gain.

**10** TRADE-MARKED, GUARANTEED AND BACKED BY MORE THAN 45 YEARS' EXPERIENCE.

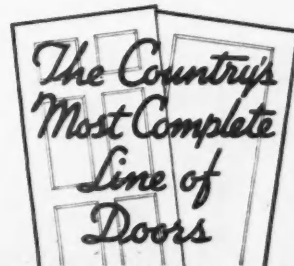


## Absolutely Square — No Sagging

This is one of the ten points of superiority assuring you freedom from trouble and complaints.

The point means what it says. Laminex and Woco doors are scientifically designed by door engineers of over 45 years' experience — long years of service result.

Builders, architects, and owners appreciate the importance of doors that not only look well, but work well. The answer is 10-Point Doors. Available in all accepted styles — both period and modern. Send the coupon today for further information.



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## HEATING—AIR CONDITIONING—PLUMBING AND WIRING

seem to think. It is largely a proper combination of temperature and humidity. In the northern sections where the total cooling loads are less we seem to need somewhat more of a drop than do those in the south where the cooling season is more protracted. On this point the departments in research are carrying on their work at widely spread stations to find the most desirable standards for comfort and health.

One point often discussed is the provision for cooling attic spaces in the summer. If, during the nights, air is allowed to circulate through the rooms and out of the house at the upper levels then the house will be much longer in heating up during the following day. A simple provision for getting the hot air out from under the ceilings by means of openings in the ceilings and fans ejecting the attic air through louvres in the upper gables may be an important feature. Such openings are shown in Figure 3 as they appear before the putty plaster coat is put on. This simple and inexpensive means for cooling or relieving the cooling load is being given careful attention by manufacturers. The old idea of placing thimbles in the fireplace flues at ceiling level is still being resorted to by some, but it is not a safe bet. There is ample evidence that collection of soot within the flue and upon projecting surfaces such as thimble openings provide is a fire hazard, more so if the thimble is not air tight during the heating months.

June is an appropriate month to talk of cooling. Summer, though, is not entirely given over to the work of staying comfortable. A greater portion of the time is spent in taking advantage of fine weather. We are coming more and more to using the out-of-doors. Porches and lawns away from the street are opening



FIG. 5—Out of doors illumination at night is an important accommodation for lighting various parts of the property.

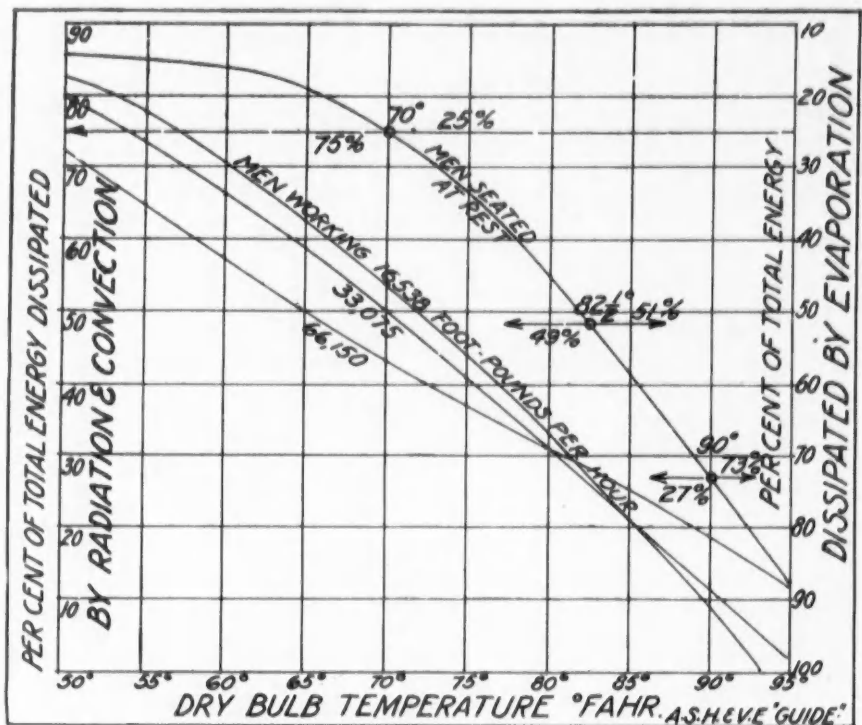


FIG. 4—Heat loss from the human body by evaporation, radiation and convection in relation to dry bulb temperature for still air conditions.

up the gardens back of the homes. The dusty highways are disappearing and the still air of the evenings isn't a thing to be avoided because of the dust. The hardware and fixture manufacturers are certainly helping to make these house adjuncts attractive. One rebuilt farm house has a summer and winter porch and house yard that is going to be very attractive. The photograph, Figure 5, shows the work progressing. Sash and door, in fact all of the hardware and fittings are substantial and attractive. And to provide further comfort for the mind a flood light is placed above the dormer which will adequately light all of the yard.

The present tendency to place investment in physical securities such as real estate seems to be growing. The tendency to lower the rate of return on housing loans encourages the prospective home owner to put his investments in this form of security. But he will want to be well protected both from depreciation in value and comfort. He is after more for his money than ever before and he is getting it from those building contractors who know the market.

On my way to the conference in air conditioning I passed through a small community which was not far from a very busy and congested locality. Houses were going up which were attractive and well adapted for comfort. On my return I discussed the project with the real estate editor of my acquaintance and later with the architect who is supervising the project. The houses are begun when the plans are satisfactory to the owner. The building operations are so well arranged to decrease the cost per home that, over a twenty year maturity of the Federal Housing Administration, the owner pays less per month to cover taxes, insurance, and coverage than he has paid for apartment rental. And he is getting so much more for his money that I think some of the owners are still in a partial trance.





*for the installed cost of Anaconda Copper Tubes and Fittings is scarcely any more than that of rustable piping*

TODAY home owners can have the advantages of copper piping . . . at a first cost nearly level with that of rustable material. Anaconda Copper Tubes, installed with Anaconda "Solder-Type" Fittings, offer outstanding value for these many uses:

**Plumbing:** Hot and cold water lines. Waste lines. Underground service lines. Lawn sprinkler systems. Fire sprinkler systems.

**Heating:** Low pressure steam lines. Hot water lines. Fuel lines.

**Refrigeration and Air Conditioning:** Refrigerant circulation lines. Humidifying apparatus.

The low cost of this non-rust piping is due to the fact that no threading is required for "solder" connections. Consequently both tubes and fittings may be made lighter in weight than standard pipe materials. Yet the

tubes and the joints provide more than ample strength for the conditions listed above.

*In 3 wall thicknesses*

Anaconda Copper Tubes are furnished in three wall thicknesses—Types "K," "L" and "M," which conform to U.S. Government Specification No. WW-T-799 and A.S.T.M. Specification No. B-88-33.

*A complete line of fittings*

The American Brass Company now furnishes a complete line of Anaconda Fittings for every copper tube requirement. "Solder-Type" Fittings may be had in either wrought copper or cast bronze; flared tube type fittings are cast bronze. All are furnished in elbows, tees, couplings and unions, including a complete range of reduction and adapter combinations.

3876A

**THE AMERICAN BRASS COMPANY**



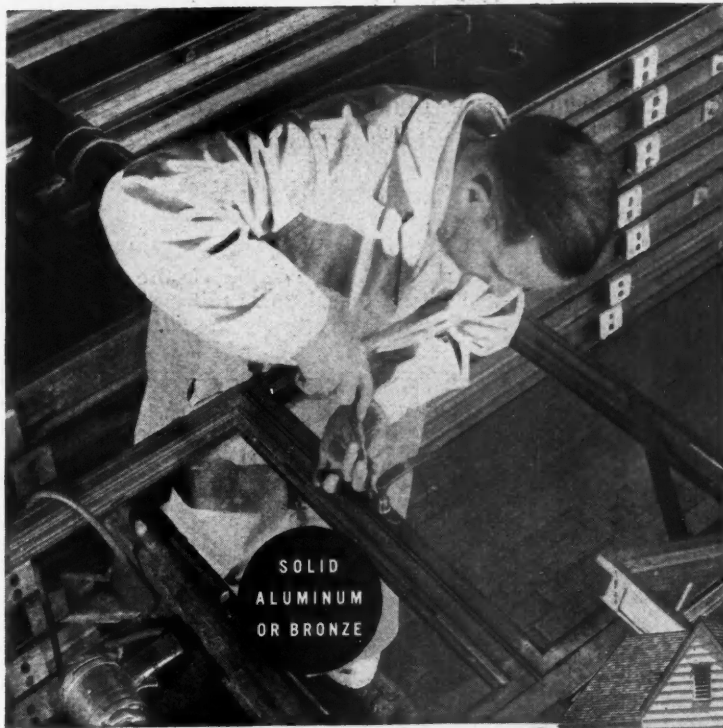
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# Kawneer

## SEALAIR

## WINDOWS

FOR THE  
AVERAGE HOME

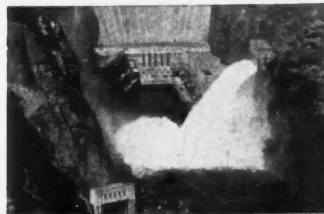


fabricated by the same skilled craftsmen who build windows for such projects as . . . . .

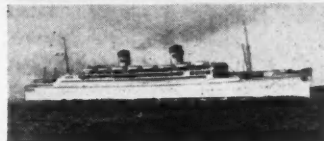
Now you can specify Kawneer aluminum or bronze windows for even modest homes and buildings, or for new stores to harmonize with Kawneer Store Fronts. In the Light Sealair and Medium Sealair Windows, Kawneer has developed a new and very practical type—designed in simple, striking lines, and sturdily fabricated with extruded shapes. Thus the obvious advantages of Sealair construction and of aluminum or bronze are introduced to a tremendously wider field.

These new windows, announced in January, 1935, have met with phenomenal acceptance. Many installations have demonstrated their beauty, utility, economy, and unusual appeal to the owner. PRICES HAVE BEEN DRASTICALLY REDUCED due to increased sales—so that installed cost is now only slightly more than that of ordinary windows. Complete data on request.

THE KAWNEER COMPANY, NILES, MICHIGAN



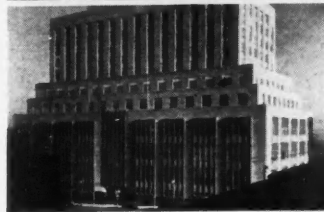
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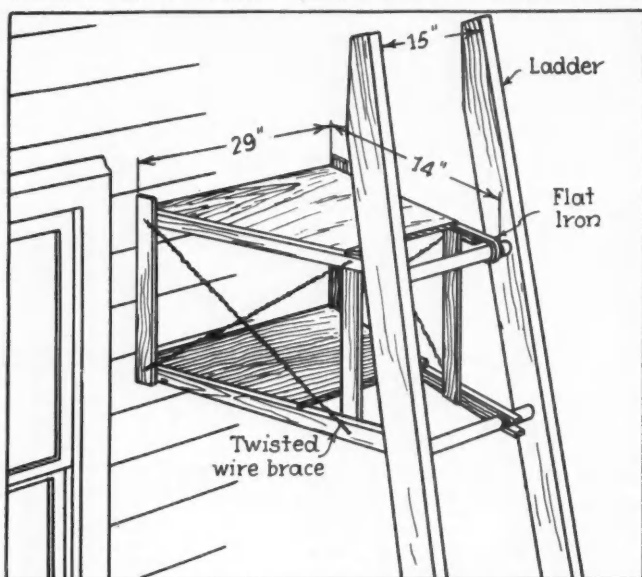


# PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to *American Builder* is paid for each item when published. State business connection or trade.

## Ladder Bracket for Painting

THIS bracket is very handy for painting horizontal siding, and for painting or washing windows and must be used on two top rounds of an extension ladder. It holds ladder away from building so you can stand on second round from top and paint as far as can be reached up and to each side and down to

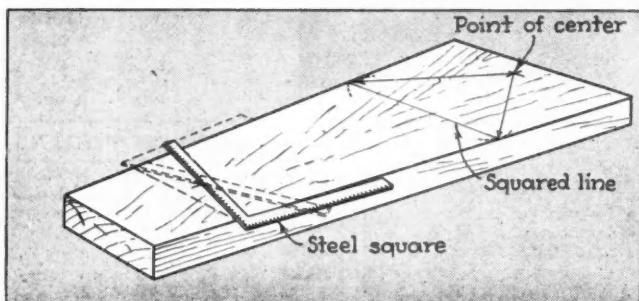


HANDY bracket for painting fastens on ladder.

bracket. It also makes a good place for bucket and tools. In painting, puttying or washing windows a tall window can be reached by setting this bracket against window sill. If made of light wood this bracket should not weigh more than 3 or 4 pounds.—S. PAUL SCHROCK, Carpenter, Shelbyville, Ill.

## Methods of Squaring Tapered Timbers

IN THE *American Builder* of June, 1935, there was shown one way of squaring a tapered timber by means of a bevel square. But the result can be obtained with an ordinary carpenter's steel or framing square which as a rule is always at hand, and doesn't need to be set or adjusted. Just square across, make a mark on this line where it crosses the center line of the timber, put the square on the opposite side and draw a line through

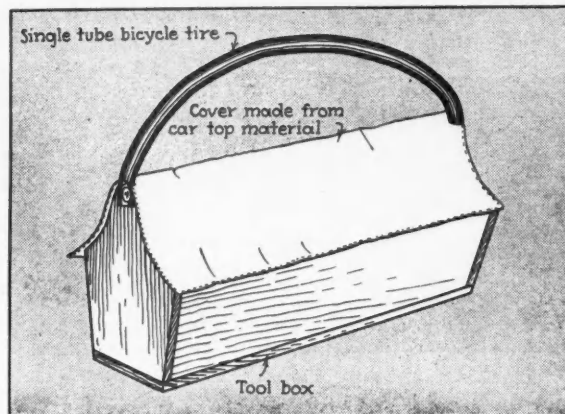


DRAWING showing two methods of squaring tapered timbers.

this center mark. Then draw a line across from the two outside points, as shown in diagram. A second method which can be used, in the absence of any square, is to make a point in the center of the column, and measure equal distances diagonally from the point made to the outsides; then draw a line across from these points.—NILS O. FAGERSTROM, San Francisco, Calif.

## Easy Carrying, Covered Tool Box

HERE is an idea for a tool box that is carried around on the job. The box is built the usual way with cross bar carrying handle. Then take a used single tube bicycle tire and nail to each end of box just long enough so as to hang box properly from shoulder. I find this very handy in construction work when climbing ladders to second floor or higher.



COVERED tool box has tire for shoulder strap.

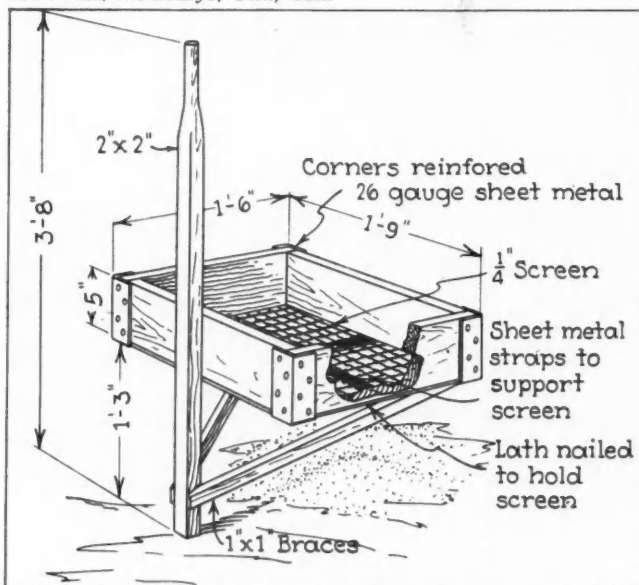
Also find a cover made from used car top materials hemmed on all four sides and tacked only top center of box with flaps on each side big enough to cover box. This gives protection to tools when working in a light rain.—DAVID O. LUCHTY, Builder, Berne, Ind.

## Improved Sand Sifter

ENCLOSED is a sketch of a sand sifter, and I think it is an improvement on the one pictured in February, 1936 issue.

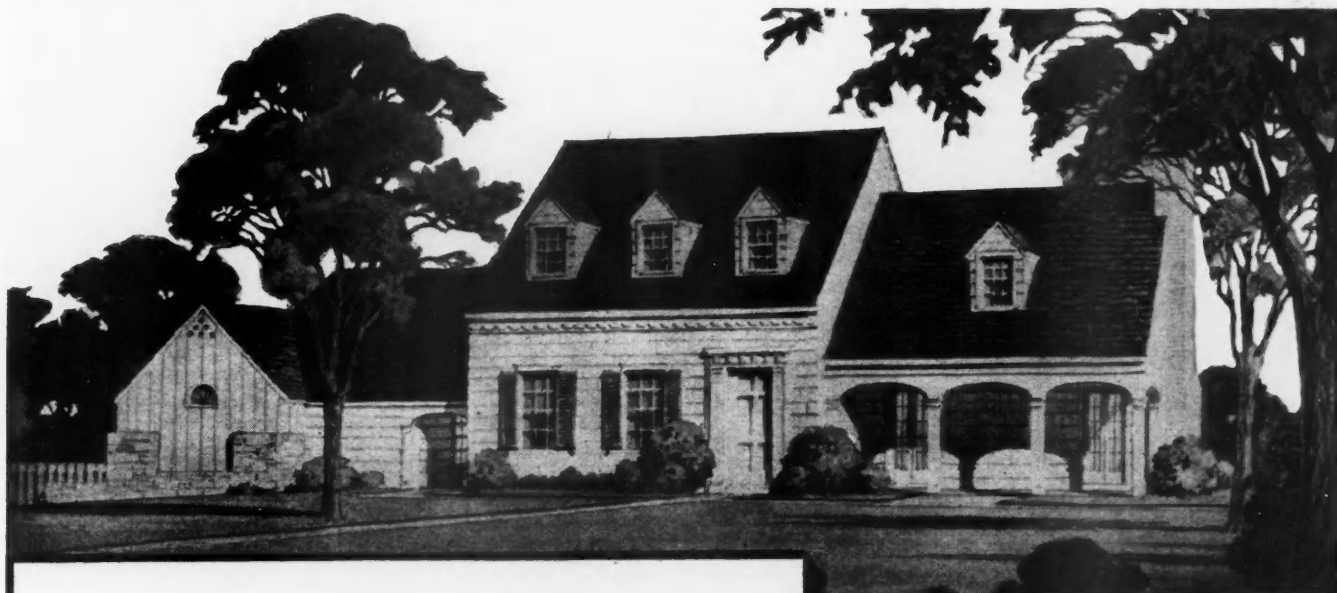
One can rest the front edge on the mortar box and shovel in the sand and then sift it by backward and forward motion of the handle. No weight is on the arms, and two men can sift one yard of dry sand in ten minutes, one sifting and one shoveling. Give the screen a toss and the siftings are thrown away—no back-breaking effort at all and no bending.

The drawing shows how it is built; the sheet metal straps support the screen. A sifter like this lasts for years.—A. W. HUETHER, St. Marys, Ont., Can.



IMPROVED sand sifter takes weight off arms.

R E S E A R C H   K E E P S   G - E   Y E A R S   A H E A D I



**AN EXCELLENT**

*"High Spot"*

**FEATURE**

One of the lovely Sunny Ridge Farmsteads built by H. & S. Sonn, Inc., at Harrison-Rye, N. Y. Every home in this community is equipped with a safe, dependable, economical G-E Oil Furnace.

**H. & S. Sonn, Inc.—Like Many Another Progressive Builder—Has Found That Houses Sell Faster When G-E Equipped.**

**N**O doubt you are familiar with the beautiful community of homes which H. & S. Sonn, Inc., is building at Harrison-Rye, N. Y. Homes of the Cape Cod Farm House type—each with a half-acre "farmstead". Comfortable homes built with skill and care and equipped with "the best of everything".

Every home at "Sunny Ridge" will be provided with a General Electric Oil Furnace. And every home purchaser—nearly a hundred of them!—will be able to enjoy the finest type of automatic oil heat that money can buy.

You ought to know all about this

better, different oil furnace. You ought to know how other builders are using it to speed up the sale of new homes.

Quick acceptance—enduring satisfaction—fewer complaints after houses are sold—these are but a few of the advantages you enjoy when you install G-E Oil Furnaces and other General Electric heating and air conditioning equipment. And—you can get all these advantages without increasing materially your "out-of-pocket" cost.

Mail coupon for further facts and figures.



**GENERAL  ELECTRIC**  
**OIL FURNACE**

**FOR STEAM, VAPOR AND HOT WATER HEATING SYSTEMS**

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Gentlemen: Please send me further information regarding the complete line of General Electric Heating and Air Conditioning equipment.

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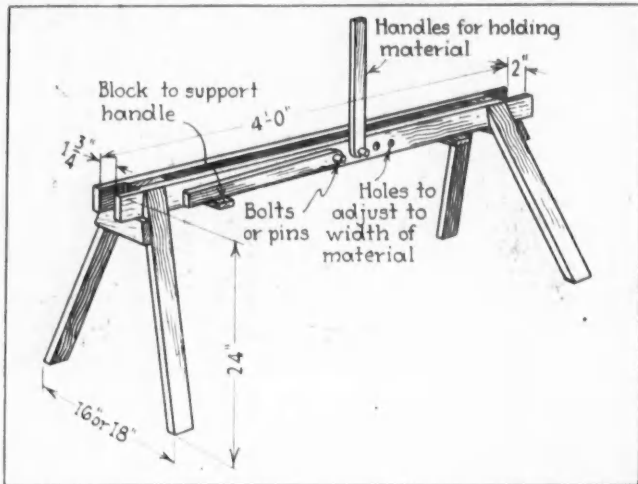
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City and State .....

### Handy Horses for Many Jobs

THE idea of these trestles is that you always have a place for your saw, instead of picking it up off the ground, and a means to hold windows and doors while planing them.

Material required to build a pair of them includes the following: 4 pieces 1"x4"—4' long for the side rails; 8 pieces 1"x4"—26" long for the legs, with bevels to suit width; 4 pieces 1"x4"—6" long to nail in between the side rails, to make space in which to drop the saw. These 6" blocks should be nailed 2½" from the end so as to leave room to cut the notches for holding

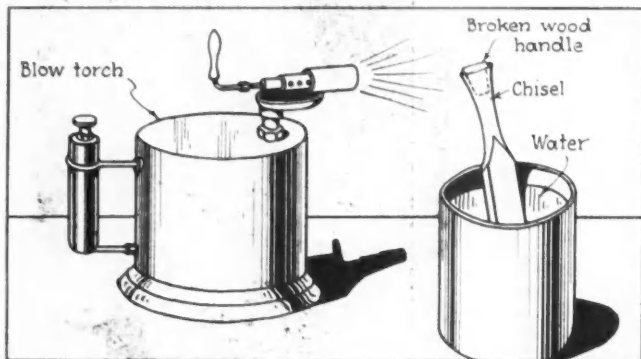


HORSES for holding doors and material while working.

doors and windows. Cut 4 pieces 1"x4" blocks to brace the legs. Bore a number of holes in the side rails to give adjustment of handles for various thicknesses; these handles are for holding materials while cutting miters, bevels, jack rafters, etc.—CURTIS O. NELSON, Contractor, Upland, Ind.

### Removing Broken Chisel Handles

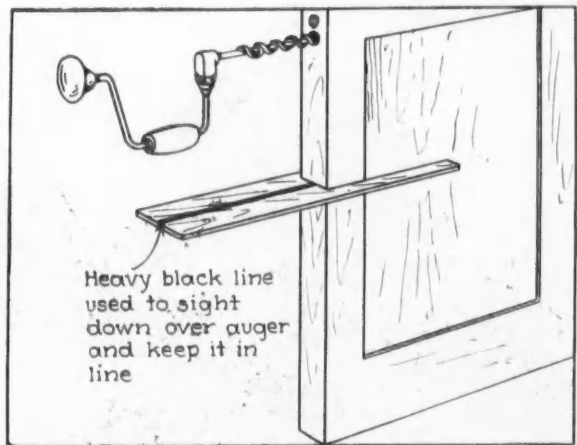
I HAVE found the following a handy way to remove broken off handles from chisel sockets. Soak the socket in water for a few minutes. Apply flame of blow torch to the chisel socket. The broken part of the handle will soon come out from the steam generated or the wood will soon become charred and can be shaken out. The lower part of the chisel should be placed in a can of water to avoid injuring temper of the steel.—FRED W. LEHNER, San Antonio, Tex.



METHOD of removing broken off chisel handles.

### Guide for Lock Mortises

HERE is an idea for a guide to slip on doors when boring for mortise locks. A handy size is 3¾x14 with a 7-inch slot cut so that it is just tight enough to stay in place. Then put it on door just about 10 inches below where mortise is to be made so you can look down over your auger and keep it in line with the heavy mark on the center of the guide. As a result your mortise in the stile is perfectly centered and square.—IRA G. SPRINGMAN, Montoursville, Pa.



GUIDE for squaring and centering lock mortises.

### Samples on Nail Cans

THE contents of covered cans are easily identified by attaching a sample of the nail or the screw to the outside of the can as illustrated. Make four small cuts into one side of the can, raise the two tabs thus made and insert a sample. This device saves time and shows just where the desired size can be found.—RAY J. MARRAN, Kansas City, Mo.

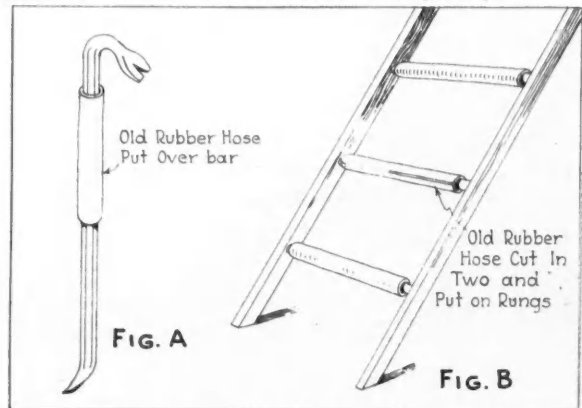


SAMPLE on covered can for identifying contents.

### Uses for Old Rubber Hose

I HAVE been using pieces of old hose cut in two and put on the rungs of roof ladders as pads to keep the knees from hurting when repairing old roofs and to make the rungs less slippery.

Another handy way to use hose is to slip a short length on a ripping bar; this serves as a grip and keeps the hands warm in cold weather.—JOHN KALAMEN, Perth Amboy, N. J.



TWO uses for short lengths of rubber hose.



# New AMERICAN RADIATOR CONDITIONING SYSTEMS

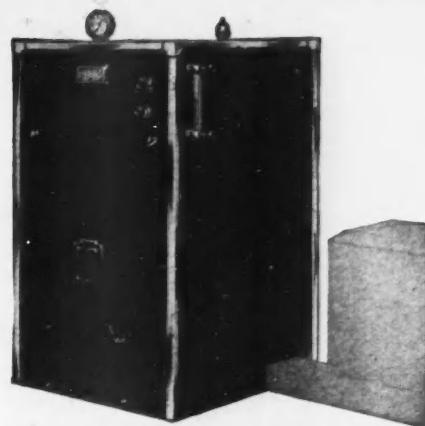
## 7 FUNCTIONS OF AMERICAN RADIATOR CONDITIONING SYSTEMS\*

- 1. **HUMIDIFICATION**... Restores proper moisture content to indoor air.
- 2. **AIR CIRCULATION**... Maintains stimulating, refreshing air motion.
- 3. **AIR CLEANING**... Filters dust, soot, pollen, etc., out of air in house.
- 4. **VENTILATION**... Brings in and distributes fresh air withing drafts.
- 5. **RADIATOR HEATING**... An independent heat source in each room.
- 6. **CONTROLLED HEAT DISTRIBUTION**... Assures warmth in every room of the house.
- 7. **YEAR-'ROUND DOMESTIC HOT WATER**

Mechanical summer cooling and dehumidification may be added if desired



- A. Conditioned air—humidified, filtered, circulated.
- B. Modern, sun-like radiant heat in each room.
- C. Controlled warmth for equal comfort everywhere.
- D. Built in year-'round domestic hot water supply.



IDEAL BOILER NO. 21 FOR STOKER

Burns Bituminous or Anthracite. Permanently insulated. Contact surfaces of cast iron sections machine ground for gas tight connection. Long flues get maximum of heat. Taco year 'round domestic hot water supply built in.



**W**HAT makes this new kind of air conditioning new — and better — is the fact that heating operates independently of the other functions of air conditioning. The conditioning unit ventilates the home with fresh air that has been filtered and humidified, even when the heating is off.

Heating is accomplished by a perfected radiator system. The model shown uses the Ideal Boiler No. 21 for stoker... new radiators which may be entirely concealed... new accessories for controlled heat distribution. Year 'round domestic hot water completes the list of benefits. American Radiator Conditioning Systems are priced for today's market,

for homes in every price range. There are systems for oil, coal or gas; completely automatic or manually operated.

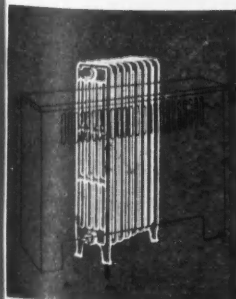
These conditioning systems have definite sales advantages for the houses in which they are installed. National advertising in newspapers, magazines and on the air is assuring public demand and acceptance. They are now the most talked of feature in new homes and remodeled homes for 1936.

## AMERICAN RADIATOR COMPANY

40 West 40th Street, New York, N. Y.

Division of AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

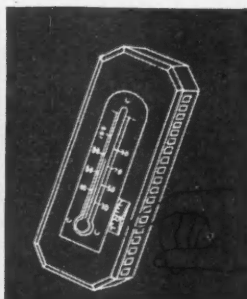
### THESE ARE PRODUCTS THAT BRING AMERICAN RADIATOR CONDITIONED COMFORT WITH AUTOMATIC COAL BURNING



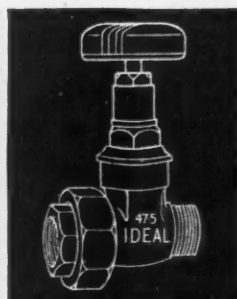
New, improved Radiators — entirely concealed or free standing.



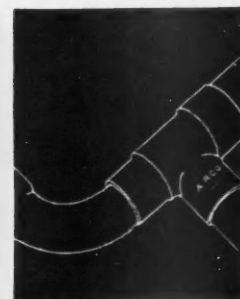
Ideal Variport Valve — regulates venting rate on 1 pipe steam or vapor jobs.



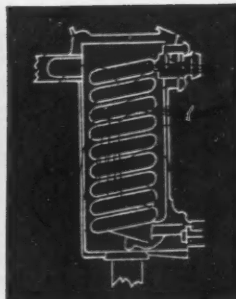
Automatic controls for every purpose: temperature, humidity, pressure.



New Packless Valves for every system. Never leak, never need repacking.



For rustproof, leakproof piping — Arco Wrought Copper Pipe and Fittings.



Equipment for domestic hot water supply — can be part of every system.

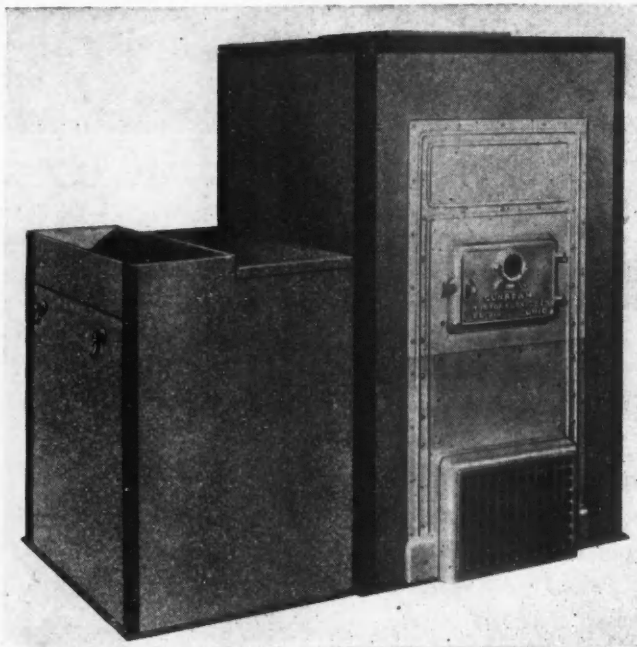
## NEW PRODUCTS

FOR INFORMATION ABOUT any new product write American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

### Conditioner for Low Cost Houses

A NEW Sunbeam air conditioning unit for small size and average size residences and buildings has been placed on the market by The Fox Furnace Company, Elyria, Ohio. This new unit heats, filters, humidifies and circulates the air in winter and provides cooling ventilation in summer. It is equipped with a rotary wall flame type oil burner which is completely assembled at the factory ready to be connected to the oil and electric lines. The simplicity of the installation assures perfect burner operation and consequently less need for servicing.

There are two models attractively finished in red and black crystalline enamel. The 720-R-10 is for basement installations, and the 720-R-9 for installation above the basement. The 720-R-9 model is made specially compact so that it can be installed in a small amount of space on the first floor that will not accommodate the average unit. An arrangement of the blower compartment under the smoke pipe makes use of the space that must be provided for the smoke pipe elbow and outlet. The return air ducts can run under the floor and feed upward into the blower compartment.



AIR conditioning unit designed for small, low cost homes.

### Ventilating Safety Window

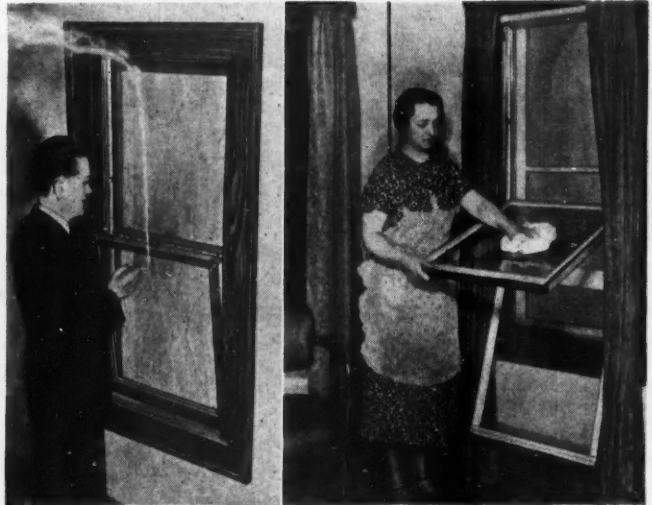
A NEW type window fixture has been devised by the Howard Safety Window Co., Inc., Milwaukee, Wis. This device permits the window to be swung into hitherto impossible ventilating positions and at the same time incorporates added safety features. It may be attached to any standard window frame and permits the sash to be tilted inward at the top and the midrail or to slide up and down like the conventional window.

When the lower sash is in the main ventilating position the window is closed at the bottom, preventing snow or rain from reaching the inside window sill and making the window burglar-proof.

The flexibility of the window is attained through a metal shoe which supports the window sash. This shoe slides in a channel, the edges of which are weatherproofed with heavy automotive felt. Conventional sash weights are attached to the sliding shoe, rather than to the sash. A pivot pin at the bottom of the shoe permits the sash to be swung inward to the main

ventilating position, a catch holding the sash so there is a three-inch opening at the midrail.

By a simple adjustment the window may be swung inward completely to permit both sides of the glass to be washed without leaning outside the window frame or disturbing screens or storm sash. The window may be withdrawn entirely from the frame also, converting a room into a sleeping porch in hot weather.



SAFETY window features draftless ventilation and ease of cleaning.

### Simplified Awning Sales System

UNDER a new and simplified system for measuring and pricing awnings, developed by the Crawford-Austin Manufacturing Co. of Waco, Texas, it is not necessary to have any special knowledge whatever to measure a window for awnings and arrive at the price of an awning to fit that particular window. By measuring the width and the height of a single pane of glass in the bottom sash of a window, an easily read table will indicate the actual cost of an awning to fit that particular window.

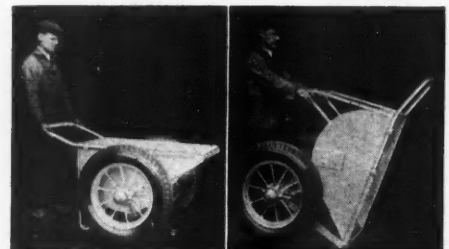
This system is based on the standard sash book, which is familiar to every lumber yard and builder, and eliminates all of the complicated measuring and tedious figuring necessary under the old system. It is especially adapted for the use of lumber yards who, by its use, can sell awnings whenever they sell windows, either on new houses or on renovating or repair jobs.

In other words, it gives every lumber yard a chance to be headquarters in their city for awnings, without having to employ trained men, and without having to carry any stock whatever, as all awnings are custom made in the firm's factory and shipped prepaid to the lumber yards.

### Improved Dumpover Cart

A NEW model called the "New CMC Dumpover" pneumatic tired cart is being marketed by the Construction Machinery Company, Waterloo, Iowa.

A development in the construction of the chassis allows the entire tray to be dumped as far over as needed without the wheels or axle moving from the ground, eliminating hoeing, shoveling and bumping. Rolling on Timken Bearings and balloon tired wheels, the ease of handling is increased. It is made in three convenient sizes—6½ cubic foot, 9 cubic foot, and 11 cubic foot capacity.



VIEWS showing action of improved "CMC Dumpover" cart.





PROSPECTS  
MAKE UP THEIR  
MINDS—

AND YOU LAND  
MORE CONTRACTS

*With the Lowe Brothers  
Pictorial Color Chart*

It is very helpful, in closing contracts for new or remodeling work, to show prospects complete color schemes for the painting and decorating. The most effective method is to show the Lowe Brothers Pictorial Color Chart, which contains actual painted reproductions of charming interiors and attractive exteriors.



When you show this chart, prospects make up their minds quickly about the color schemes . . . and the contracts are easier to close.

We invite you to visit your local dealer in Lowe Brothers painting and decorating materials. He will gladly loan you this chart to show to your prospects. He will also give you copies of the Lowe Brothers Specification Book which will help you prepare accurate bids and save time, money, and misunderstandings.

When submitting your bids tell your prospects why they can depend upon Lowe Brothers known quality for maximum economy and enduring beauty.

Get acquainted with your local Lowe Brothers dealer. He will gladly help you get more jobs and more profitable jobs. The Lowe Brothers Company, Dayton, Ohio.

*Lowe Brothers*

PAINTS • VARNISHES

Quality Unsurpassed Since 1869

## Reardon's BONDEX Exposes Building's Bad Habits in SATURDAY EVENING POST BETTER HOMES AND GARDENS



SHAMEFUL, isn't it? But don't despair. One complete treatment of Reardon's BONDEX Waterproof Cement Paint and the old trouble will never return. Your stucco building or treasured home will take on new life, finer appearance and a super-resistance to water, wind or weather. Ask your painter about BONDEX. He'll agree that here's a waterproof cement paint time can't touch. Costs little.

### REARDON'S BONDEX WATERPROOF CEMENT PAINT

*Dries Up Leaky Basements*

BONDEX will help make basement into the kind of place you can enjoy—playroom, billiard room, rathskeller, or clean dry area for laundry or workroom. Get BONDEX.

THE REARDON CO.  
CHICAGO ST. LOUIS LOS ANGELES

FOR INTERIOR WALLS AND  
CEILING USE \*R.W.K.

\*REARDON'S WASHABLE KALSOMINE  
LOW COST • PERMANENT • ATTRACTIVE

## Spring Rains Bring Flood of Pledges to Apply BONDEX

There's nothing like a horrible example of the "evils of drink" in the national magazines to get things stirred up—and there's nothing like Spring deluges to bring *Stucco indulgence* to light. Here's a condition home owners want cured quick—BONDEX will do it. You're the doctor. So get busy and get BONDEX Business.

Use **BONDEX** on  
STUCCO EXTERIORS  
LEAKY BASEMENTS  
SWIMMING POOLS



Manufactured Only by

**THE REARDON COMPANY**  
ST. LOUIS • CHICAGO • LOS ANGELES





## GLEAMING TILE WALLS AT LOW COST WITH MASONITE TEMPRTILE (WOOD-FIBRE BOARD)

• **BUILDING a new home?** See these beautiful bathroom walls even the most modest budget will buy—with **MASONITE TEMPRTILE**, a wood-fibre board. Does away with hours of cleaning. Makes the entire room cheerful, spotless, sanitary.

**And does it save money?** It comes in boards, already scored, and costs so little that it ordinarily doesn't amount to more than regular wall surfacing. A carpenter just cuts it to fit and nails it right into place. Then a painter comes in and finishes it. And that's all there is to it.

But that's just the start of the saving. **MASONITE TEMPRTILE** is grainless and moisture-resisting. It won't warp out of shape. The finish won't chip off and have to be touched up. And these walls will outlive lots of other materials.

No house is too large or too small to be equipped with **MASONITE TEMPRTILE** in bathroom and kitchen. In both new-building and remodeling, home owners, architects and builders alike find that their budgets go further . . . that they achieve better, more expensive-looking effects with this modern material. Mail the coupon for free sample and complete information.

**GENUINE  
MASONITE TEMPRTILE**  
TEMPERED PRESWOOD                      QUARTRBOARD  
STRUCTURAL INSULATION              INSULATING LATH



MASONITE CORPORATION, Dept. AB-6  
111 W. Washington St., Chicago, Ill.

Please send me a free sample and more details about **MASONITE TEMPRTILE**, the modern tile material.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

## New Model Electric Drills

**SKILSAW**, Inc., Chicago, Ill., has announced three new models of its line of Skilsaw drills. These latest additions to the line are a Special Duty  $\frac{1}{4}$ -inch drill and two new models to be known as Defender drills, offering quality construction in a lower price range.

The new  $\frac{1}{4}$ -inch and  $\frac{1}{2}$ -inch Defender drills have been developed to meet the demand for tools that are inexpensive, yet can give years of satisfactory service. The motor construction is identical with that in the regular, higher priced Skilsaw drills. The  $\frac{1}{4}$ -inch model is 12 inches long, weight  $4\frac{1}{4}$  pounds;  $\frac{1}{2}$ -inch Defender is  $13\frac{1}{2}$  inches long, weight  $9\frac{1}{4}$  pounds.

The new Model 40 Skilsaw special duty drill has a  $\frac{1}{4}$ -inch capacity in steel—length, 12 inches; weight,  $5\frac{1}{2}$  pounds.



MODEL 40

## New Waterproofing Liquid

**A** NEW waterproofing liquid, prepared from a combination of thermatically processed oils by a recently developed process, has been added to the line of Valentine and Company, New York City, and is now being marketed under the name of Val-Oil. Although designed primarily to prevent the oxidation of metals, this new product has many other uses and serves as a perfect protective coating for iron, wood, steel, cement, brick or stone. Moreover, it can be used as a primer and rust preventive on metal and as a sealer for wood or plaster.

Val-Oil is easily applied by spraying, brushing, dipping or wiping and may be air-dried or baked. It sets to touch in one to one and a half hours and dries to a hard, tough, but elastic film overnight. This new product will be very practical for use as a bronzing liquid, radiator finish or paint drier, as well as a vehicle for shingle stains.

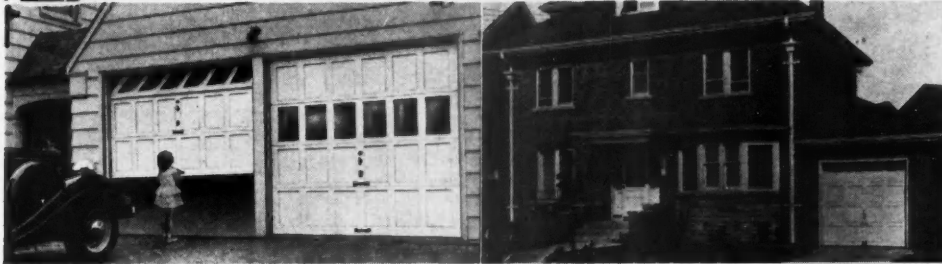
## Aluminum Alloy Wheelbarrow

**T**HE Hyb-lum wheelbarrow, made from a high strength nickel aluminum alloy, is being manufactured by the Sheet Aluminum Corp., Jackson, Mich. Through the use of this alloy for pan and structural type frame, a weight reduction of forty pounds has been achieved. It is pointed out that with average loads of 225 to 250 pounds, this allows an increase of fifteen per cent in the pay-load; the addition of pneumatic tires produces perfect balance and eliminates shock. Two sizes are available— $4\frac{1}{2}$  and  $2\frac{1}{2}$  cubic foot; weight 36 and 33 pounds, respectively.



WORKMEN using light weight, pneumatic tired wheelbarrows.

*Specify  
The* **"OVERHEAD DOOR"**  
WOOD OR STEEL  
HAND or ELECTRIC OPERATION  
FOR THE  
GARAGE—FACTORY—WAREHOUSE  
BACKED BY A NATION-WIDE  
SALES AND INSTALLATION SERVICE



The "OVERHEAD DOOR" is satisfactory because: It opens and closes easily, remains in working condition year after year and actually adds to the attractive appearance of your building.

A MILLION USERS THE BEST RECOMMENDATION

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

**CLIP THIS COUPON and MAIL NOW!**

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

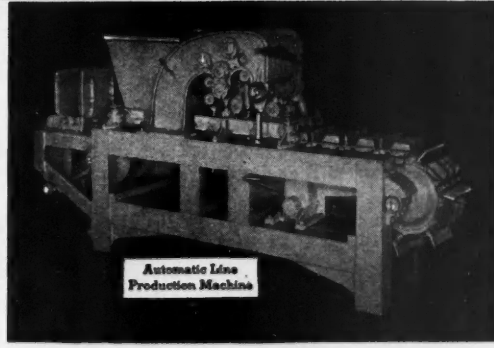
Please send me literature and full information regarding your product.  
I am interested in doors for the particular purpose as checked.

MADE IN ANY SIZE FOR ANY OPENING  
FROM A HANGAR TO A PRIVATE GARAGE

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

PRIVATE GARAGE  
PUBLIC GARAGE  
WAREHOUSE  
FILLING STATION  
HANGAR  
ROCKS  
STEEL DOORS  
FACTORY DOORS  
OTHER BUILDINGS  
ELECTRIC CONTROLS  
AB-6-36

# MACHINES of PROVEN EARNING POWER



Based on the operation of these machines and processes, sound business enterprises have resulted in various localities in this and foreign countries. For example, from Florida come reports of millions of units sold last few months—South Carolina manufacturer getting over 80% of the business in his territory—Kansas manufacturer dominating the material market—Michigan big orders for State work and similar reports come from England and South America.

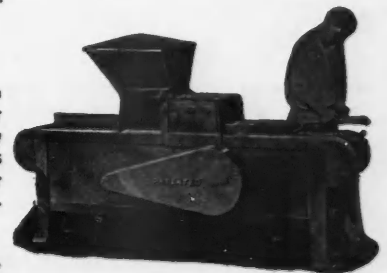
THIS EXCLUSIVE OPPORTUNITY is based on lowest manufacturing cost—products of 20% lighter weight—20% less material—one-fifth saving in cartage plus automatic line production. Your market includes common DUNBRIK for all structural purposes—face brick in 40 colors, shades and textures—DUNSTONE (multiple brick is 8x8 and 8x12 inch) for ashlar and hollow walls that have astounded the building trade for beauty and low cost.

Write today for book "4 Keys to Manufacturing Success" and learn about the great possibilities in this exclusive business for you in your territory.

## DUNTEX ROOF TILE MACHINE

With this machine you can dominate the vast roofing material market with a product unequalled in value, permanence, beauty and fire safety. Get the major share of the hundreds of both old and new buildings that must be roofed annually by supplying DUNTEX, the world's most beautiful roof. Your manufacturing costs are low, investment moderate and selling prices offer attractive profit. Send for "DUNTEX Survey and Manufacturer's Manual." It may mean manufacturing independence for you.

**W. E. DUNN MFG. CO., 450 W. 24th St., Holland, Mich.**



If you're interested in  
**Modern**  
Shower Cabinets—

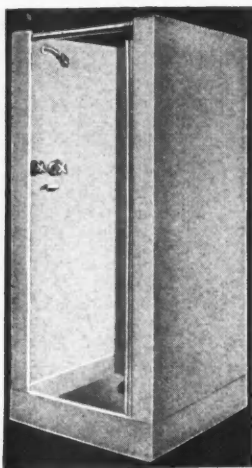
**You'll Want  
This Catalog**



In making plans—home owners, contractors, architects, builders will find this new catalog practical and helpful. For it contains pictures, prices, specifications, and complete information on the most MODERN shower cabinets in America. A letter or postcard to our factory will bring your copy by mail.

See how Bathe-Rite presents a full selection of models for every preference. With impressive beauty in finish and design—noteworthy improvements and conveniences—quick and easy one man installation—finest fittings as standard equipment at no extra cost.

Distributed by leading plumbing wholesalers everywhere.



**Model C—Bathe-Rite—Medium Price**

Size 36" x 36" and 32" x 32"

The national favorite. Handsome baked enamel finish, 18 gauge galvanealed walls, smooth inside surface easy to keep clean. Famous Ferrostone non-slip receptor, leak and waterproof. Instantly regulated, water saving shower head. Solid brass, chromium polished fittings. Strong, durable, built to last for years.

Model A and Model D—popular and lower priced units. Ideal for residences, summer homes, clubs, hotels, camps, resorts, where economy is important. Standard Bathe-Rite fittings and features at no extra cost.

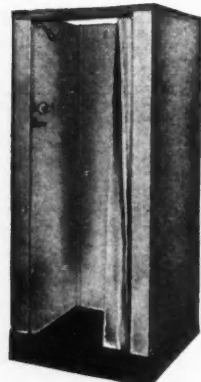
**For Every Requirement**

In addition to those pictured here, Bathe-Rite offers a full selection of models for private and public buildings of all types, large and small, new or remodeled. Shower cabinets with practical utility that fit into any plan. Easy to enter and exit—plenty of room for comfort—but not one inch of waste space.

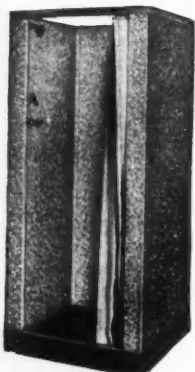
Write for your catalog now. Become acquainted with Bathe-Rite—MODERN cabinets that have popularized the luxury of the finest shower—by pricing them within everyone's reach.

**MILWAUKEE STAMPING CO.**

**MILWAUKEE, WIS.**



Model D—Size 36" x 36" and 32" x 32"



Model A—Size 30" x 30"

**BATHE-RITE**  
*Modern* **SHOWER CABINETS**

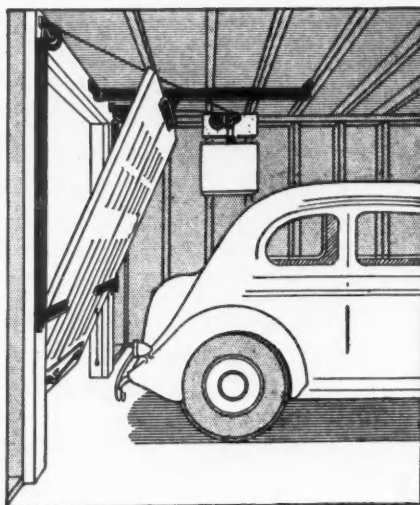
**"Push-Over" Garage Door Hardware**

LOW cost garage hardware for use on new or old doors and known as the "50-50" Push-Over Set is being marketed by Allith-Prouty Mfg. Co., Danville, Ill. Advantages of the device are listed as:

Permits design of door to harmonize with surroundings. Where special effects are not essential, stock design doors are advantageously used. On rebuilding or repair work the old doors can be converted into upward-acting doors. Nothing special required for framing of opening. Five and a half inches minimum headroom requirement in line with normal building design. Designed for use on openings 16 x 8 feet, or smaller. Clearance of turn over action more than ample for all present day cars, thus making additional depth or length of garage unnecessary. Ease of operation. Additional parts to give automatic opening can be furnished at a slight increase in price of set.

The working parts are simple and sturdy. The door operates quietly with cables; side-slapping is eliminated by guide wheels carried on floating shafts fitted into tubes electrically welded to angles. The counter-balance weight box can be placed anywhere in the garage with efficient results.

Any carpenter can follow the instructions which come with each set. The "50-50" Push-Over comes with all small parts packed in the weight-box, and one bundle of track. Shipping weight of set is just under 100 pounds.



OPERATING mechanism of "50-50" Push-Over Garage hardware set.

**Spinner Floor Edging Machine**

A NEW floor edging machine, the American Spinner Model B, has been announced by the American Floor Surfacing Machine Co., Toledo, Ohio. This machine has many improvements and new features. Its streamline body, exposing only the simple lines, makes the machine neat and attractive. The American Spinner is equipped with a larger, more powerful motor, as well as a somewhat enlarged dust pick-up system with a full vacuum skirt around the disc, which enables this new type of machine to pick up the dust much more efficiently.

A special built-in headlight floods the area in which the operator is working with a non-glaring yet efficient light. The machine will get right up to the edge of baseboards without need of removing the shoe strips. An extra set of handles set up higher on the machine is detachable.

Specifications include cast aluminum alloy construction; precision balanced disc, seven inches diameter, grooved resilient rubber pad vulcanized to steel disc by special rubber-to-metal process; disc speed 3,000 r.p.m.; approximately nine inches diameter by 14 3/4 inches high; weight, net 25 pounds, extra handle 1 3/4 pounds; heavy duty universal type motor, air cooled by special fan, operates at one H.P.



AMERICAN Spinner Model B, floor edging machine.





## Rain—Dust—Wind Cannot Penetrate A WEATHER-TIGHT RESIDENCE

Be Sure To Calk All Door  
And Window Frames With

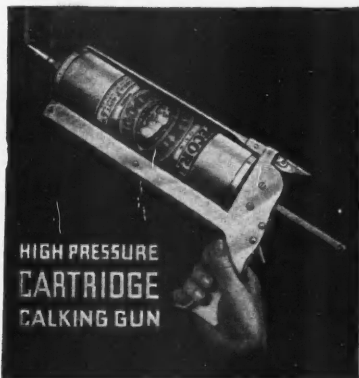


Calking is an essential operation in building construction. It prevents heat loss, avoids damage by water and dust—and is a "must" item in air-conditioning.

Many contractors are taking on calking jobs. With a thoroughly reliable product such as Pecora Calking Compound, calking is a profitable business-builder. Write for our dealer proposition.

### Unlike all other Calking Guns

This New Type, High-Pressure Cartridge Calking Gun (patent applied for) is a great Time and Material Saver. Specially designed for Pecora Calking Compound which is packed in Non-Refillable Cartridges of approximately One-Quart Capacity.



Write for Bulletin and Prices

**Pecora Paint Company, Inc.**  
4th Street and Reading R. R. PHILADELPHIA  
Established 1862 by Smith Bowen

**SASH PUTTIES** Also Makers of **SUCTION MASTIC**  
**MORTAR STAINS** for Structural Glass  
**ASBESTOS FURNACE CEMENT**  
**COLORLESS DAMPPROOFING**  
**PECORA PERFECT PATCHING PLASTER**  
**WEATHERITE LIQUID ROOF COATING**

A custom-cut design in an Armstrong's Linoleum Floor. Colors are silver gray, white, eggplant, and jade. Homes with floors like this are easy to rent or sell.



*Individuality in floors*  
costs little... earns much

"I'll take the place. That's the most attractive floor I've ever seen."


Oftentimes a floor that has taste, style, and *individuality* makes all the difference between a sale or no sale, a rental or no rental.

Floors of Armstrong's Linoleum can be as gay or as dignified as you wish. For high-class properties, they can be installed in special custom-built designs like the one above. Or you can choose from hundreds of standard patterns—all attractive, all durable, all easy and inexpensive to maintain. Send *ten cents* now for "Floors That Keep Homes In Fashion." Armstrong Cork Products Co., Building Materials Division, 1218 State St., Lancaster, Pennsylvania.



**Armstrong's**  
**LINOLEUM FLOORS**

*Here it is!*  
**A GREAT NEW**  
**SKILSAW**  
**MODEL**  
**77**



- 7-inch blade
- Cuts to a depth of 2 1/2 in.
- Cross-cuts 2-in. rough lumber
- Bevel-cuts 2-in. dressed lumber at 45°
- Only 18 in. long, weighs only 15 lb.

**SELLS FOR ONLY \$95**

**NEW!** Never before have you seen such a combination of advanced construction and mechanical refinements in an electric handsaw. This new SKILSAW—built by the world's leading manufacturer of portable electric handsaws—is more efficient, more powerful . . . compact, light in weight, well balanced, fast and accurate! It provides quicker adjustment for depth or bevel cutting. It is the ideal handsaw for construction work . . . an investment that will bring you dividends in lower costs and faster production.



• Trims a door for hanging in seven minutes! Equipped with finishing blade, it leaves edges smooth as if sandpapered. Scores of other time and money saving applications.

#### NOW 7 POWERFUL SIZES

See your dealer about SKILSAW 77 and the other six models and write for our new catalog.

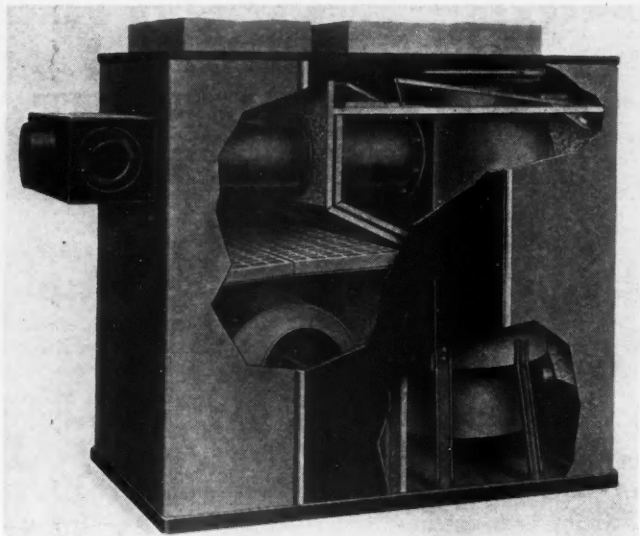
### SKILSAW, INC.

3314 ELSTON AVENUE, CHICAGO  
 210 E. 40th St., New York—52 Brookline Ave., Boston  
 312 Omar St., Los Angeles  
 Sales & Service for Canada—85 Deloraine Ave., Toronto

### Oil Burning Air Conditioner

THE Furnace Division of the Perfection Stove Company, Cleveland, Ohio, has announced restyled models of the Superfex oil burning air conditioning heating plants. The plants are complete in a compact unit, styled on modern lines, finished in orange-red and black "wrinkle" lacquer, stainless steel and chrome trim.

A system of burning oil without machinery, similar to that of Superfex radiating and circulating heaters, is used in which combustion of the oil is obtained by the introduction of air currents into the flame, and by a balanced draft which results from by-passing air from the blower and adjustment of the automatic draft damper. The heat is thermostatically controlled, and the heated air is automatically humidified and circulated by a blower. The blower is the only machinery; in case of the interruption of electric current it is possible to operate these plants as an ordinary warm-air furnace.



CUTAWAY view of Superfex oil burning air conditioning plant.

The Superfex air conditioning heating plants are made in several models with heating capacities of 140,000 B.T.U. and 85,000 B.T.U. per hour. Alternate finishes of plain black Japan with stainless steel and chrome trim also are available in addition to the colors mentioned.

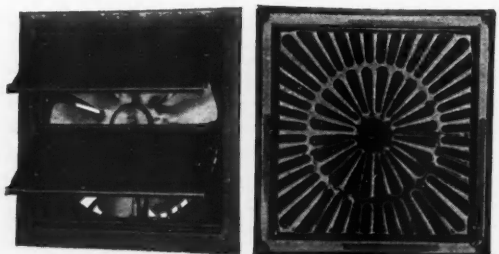
### Moderately Priced Ventilator

THE Electrovent, an electric ventilator, the shutters of which open when the motor starts, and close again when the motor stops, is being marketed by the Electrovent Corporation, Detroit, Michigan. The manufacturer states that it is built to meet the demand on the part of builders for a built-in unit that is not only attractive in appearance and dependable in operation, but also moderate in price.

It has a chrome-plated grille, aluminum blades, is of all-metal construction and completely rustproof. When a maximum of ventilation is required, it can be run at high speed to completely remove all cooking odors. When less capacity is required, it may be run at a lower speed. Its motor is of the induction type, free from radio interference.

In addition to being easy to install, it also has the advantage of being easy to keep clean. By unscrewing a single thumb nut on the face of the grille, the grille may be removed and the working parts made accessible.

GRILLE and self-operating shutters of electric ventilator.





## A Fitting Place for Her Finest China

Two weeks after this photograph was taken, Mrs. Huntington Brownlee moved into her new home. Of all the details she watched during the construction of her home, one seemed to be especially important. She paid particular attention to the china closets. These had been designed especially for her collection of colorful china and glassware. Would these closets do justice to this valuable collection? The answer was—YES. The builder had suggested the use of Western Pines for all interior trim. He knew from experience that these dependable softwoods could be used throughout the interior with perfect results.

The plans called for a great many built-in fixtures such as bookcases, dressing tables, linen closets, telephone cabinet, kitchen cupboards, and a dining room with Knotty Pine Paneling. This wise builder took no chances. He played safe. He wanted to be sure that the finished work would be a thing of beauty. He wanted to be sure that doors would stay in place and open easily and that joints would stay tight. So, he specified Western Pines.

If you are not thoroughly familiar with Western Pines and the various uses for which these woods are adaptable, send for the free illustrated book entitled "Western Pines." Send your request to Dept. B-4, Western Pine Association, Yeon Building, Portland, Oregon.

# WESTERN PINES

Idaho White Pine • Ponderosa Pine • Sugar Pine



The Unit Air Conditioner takes up no more room than a grille-enclosed radiator. It is 24 inches high and 12 inches deep. Can be recessed.

## Simplified Radiator Heat That Air Conditions

**No Ducts**

**No Registers**

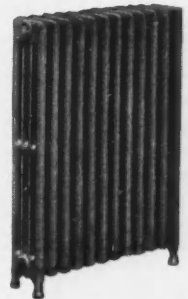
**No Grilles**

ALL the economies of installation and heating efficiency of radiator heat, plus a simple, easy-to-install air conditioning feature. The one boiler furnishes both heat and hot water supply. Complete heating and air conditioning system costs no more than warm air. No ducts to fill up basement.

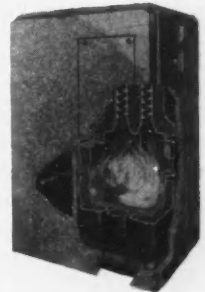
Radiators are the Burnham Slenderized which are 40% smaller and heat 40% quicker than conventional tube ones. Can be recessed between studs under window and not extend beyond wall.

Three Conditioner cabinets which are practically no larger than the usual grille-enclosed radiators will take care of a 7-room house. They filter-clean the air, heat, humidify and circulate it. Cabinets are very attractive in design. Each Conditioner has its own separate thermostat control. Also hand control for running fan to stir up dead Summer air.

Here at last is a simple, every way practical, low cost Air Conditioning system that any heating contractor can install. Send for full particulars.



Four-tube Slenderized Radiator is less than 5 inches deep. Can be recessed and left open, or a Burnham Panel Front used, giving both radiant and convected heat.



Any Burnham Boiler can be used. Oil, coal or gas.

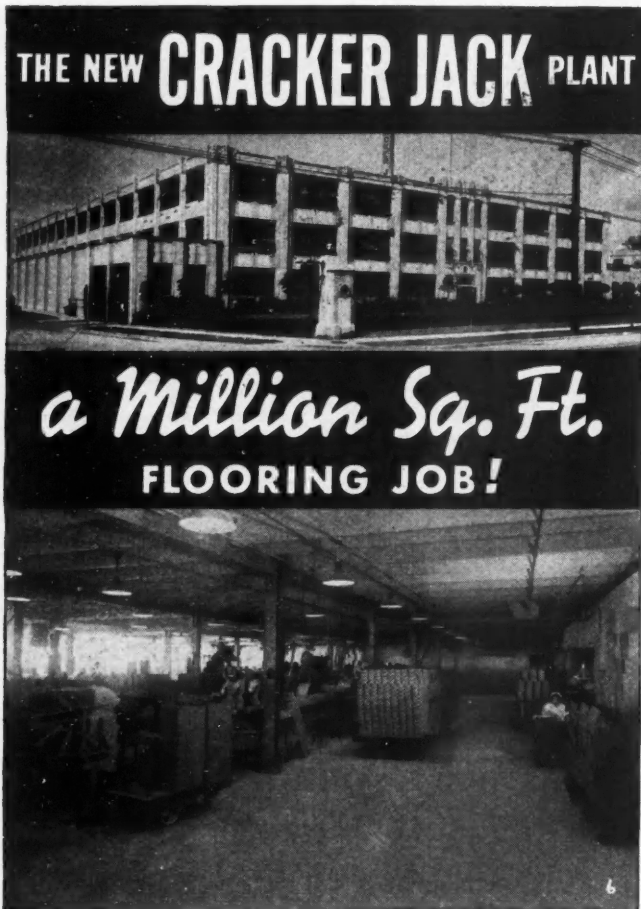
## Burnham Boiler Corporation

Irvington, New York

Zanesville, Ohio

Representatives in All Principal Cities of the United States and Canada





**THE NEW CRACKER JACK PLANT**

*a Million Sq. Ft.*  
**FLOORING JOB!**

**W**HAT flooring material would insure satisfaction in a plant where production must be especially fast and economical and yet highly sanitary?

Those interested in this big flooring job knew there was only one answer to this requirement—Northern Hard Maple!

Hard Maple's tough fibre and tight grain will effectively resist abrasion—retain its smoothness despite Cracker Jack's rolling trucks. Dirt will find no lodging places in its surface; no dust will be created. Its resilience and warmth will aid workers' efficiency. Alterations will be simplified. Treated with the penetrating heavy-duty finishes—brushing alone will keep it clean and sanitary. Through its years of service, Hard Maple's lower maintenance cost will result in unequalled economy.

These qualities of Hard Maple insured satisfaction for the Cracker Jack Company. And these qualities plus Maple's natural beauty insure satisfaction in schools, stores, office buildings, homes, factories, mills, warehouses and similar buildings. Everywhere, Northern Hard Maple gives you a more profitable job because it protects your reputation for laying floors that satisfy.

**MAPLE FLOORING MANUFACTURERS ASSOCIATION**

1781 McCormick Building, Chicago, Illinois

See our catalog data in Sweet's, Sec. 15/53. Let our service and research department assist you with your flooring problems. Write us.

**Floor with Maple**

The letters **MFMA** on Maple, Beech or Birch Flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**



**NEWS of the MONTH**  
**Building Activities and Meetings**

**Wenzlick Predicts Big Activity In Real Estate and Building**

**R**OY WENZLICK, president of Real Estate Analysts, Inc., and a research consultant for the National Association of Real Estate Boards, created nation-wide interest among real estate and building men with the predictions he set forth in a 48-page pamphlet recently published and entitled, "The Coming Boom in Real Estate—and What to Do About It." Statements found in this publication point out factors important to contractors, builders, dealers, finance men, and all others in the building field, and furnish powerful selling ammunition and information that may guide them during the next eight or ten years.

Mr. Wenzlick believes that the public fails to recognize conditions that produce real estate booms because the cycle is so long that few are able to apply what they learned during one cycle to corresponding conditions in the next one. The coming boom will be no exception to previous ones. The first stage, to quote Analyst Wenzlick, will be a housing shortage during which vacancies decrease and rents rise rapidly. This will be followed by a building boom resulting from the housing shortage. The next step will be a commercial property boom which will arrive "probably not until 1943 or 1944." The period of recession, marked by increasing vacancies and lower rents, is probably ten years away.

The second half of the book, "What To Do About It" takes up many timely questions and problems. Persons who now rent dwelling space and decide to buy a home are advised to select a house in a restricted, developing neighborhood, and to select a building slightly below the average of the neighborhood rather than one above. Those who buy for a rising market are advised to make only a small down payment and allow mortgages to run. Mortgages should not be paid off, according to Mr. Wenzlick. The author believes that greater profits can be made by buying another mortgaged house that can be rented until height of the boom. "When everyone is convinced that real estate is the best of all possible investments, sell it and pocket your profit."

Suggestions are offered for those who rent or own stores in good or poor locations, those who own apartment buildings, land close to a big city, and farm land. Suggestions are offered for owners of mortgages and real estate bonds. Ownership of real estate is described as the best possible hedge against inflation.

**Building Volume Continues Upward**

**C**ONSTRUCTION contracts for April, according to F. W. Dodge figures, were higher than any month since October, 1931, with the exception of last December. April awards amounted to \$234,806,300 in the 37 states east of the Rocky Mountains as contrasted with \$198,978,300 for March and only \$124,020,000 for April, 1935. All major branches of construction shared in the general gains, with non-residential building and heavy engineering projects showing the best relative improvement over a year ago.

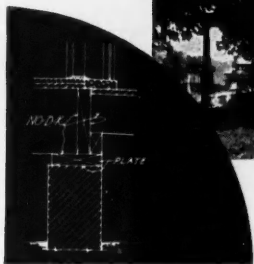
37 Eastern States	April, 1936	April, 1935	March, 1936
Residential .....	\$ 67,151,000	\$ 42,202,800	\$ 55,220,600
Non-Residential .....	94,242,800	41,328,100	81,460,300
Public Works and Utilities .....	73,412,500	40,489,100	62,297,400

Total .....\$234,806,300 \$124,020,000 \$198,978,300

Improving conditions in the construction industry as compared with a year earlier were noted by the Dodge organization in each major geographic district. The most pronounced April gains over last year occurred in New England; the Pittsburgh area (Western Pennsylvania, Ohio, West Virginia, and Kentucky); the Southeast (the Carolinas, Georgia, Florida, Alabama, and Eastern Tennessee); the St. Louis territory (E.

(Continued to page 92)

Protection against  
**TERMITES**



IS SIMPLE WITH  
**NO-D-K**

Exposed timbers of every new house can be made more secure from the ravages of decay and dry rot by a very simple treatment with Eastman NO-D-K Wood Preserver. The cost is small compared to repair bills due to rotted out subflooring or foundation timbers. NO-D-K may be applied with a brush or spray to the wood during the construction of the building. It has a penetrating action which readily follows the wood fibers and affords resistance to both fungi, which causes decay, and to boring insects, particularly termites. It is four times more toxic to decay and termites than ordinary coal tar creosote, yet it will not burn the skin of workmen.

**Low Cost Treatment**

NO-D-K protection adds very little to the original cost of the building. One gallon of NO-D-K will cover sixty to eighty square feet with two coats. The retail price is approximately one-fourth the cost of good paint. NO-D-K imparts a dark brown finish to wood. This makes it well suited for treatment of log houses and half-timbered work. It will not crack, chip or peel off as it penetrates readily into the timbers. Due to the insolubility of NO-D-K, it is not readily leached, or soaked out of the wood by rain or exposure to the weather.

To better inform you as to the places open to attack from decay fungi as well as termites, we have prepared a preservation guide. Use the coupon below and it will be sent together with our 16-page booklet entitled "Preservation with NO-D-K."

NO-D-K is stocked by lumber yards, hardware and paint stores everywhere. If your local dealer does not stock NO-D-K, have him write us for complete information.

**PRESERVATION GUIDE FREE**

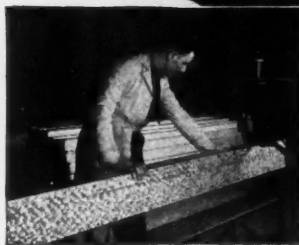
Tennessee Eastman Corporation,  
Kingsport, Tennessee.

Send at once your preservation guide and booklet  
entitled "Preservation with NO-D-K."

Name .....

Address .....

City .....



*Gar Wood*

**FACTORY-BUILT DUCTS**  
mean  
**BETTER AIR CONDITIONING**

The big, outstanding fact about the new Tempered-Aire pre-fabricated duct system is that it *works* better. Many architects and builders regard it as the year's biggest contribution to domestic air-conditioning. • Certainly, it takes the worry and uncertainty out of installation work. • This new system brings factory methods to field work. It goes together like the pipes of a water system—an assembly of uniform, standard parts and fittings, made for each other and built to standard building measurements. • No "tailor-made" trunk lines. Very little hand fitting. Every Gar Wood Branch has parts in stock and can make snappy delivery of all parts for every job. And our field inspectors assume full responsibility for figuring the job, supervising installation and finished performance. • Write for full details.



*Tempered-Aire Model 102*

Air Conditioning Division,  
**GAR WOOD INDUSTRIES, INC.,**  
DETROIT, MICHIGAN



# SISALKRAFT is used on the job

The man who works with SISALKRAFT likes it. Because its tough it handles rough. He doesn't have to waste time babying it for fear it will rip, tear or puncture while he is putting it in place. He doesn't have to waste time patching up holes because SISALKRAFT goes into place without a scar on its surface.

Battens do not have to be used to keep SISALKRAFT in place. That saves time and material, too. SISALKRAFT is self-sealing about the nail shanks. The tacky composition of the quality of asphalt used is such that it hugs the shank of the nail and seals the hole so that SISALKRAFT goes into place as an unbroken wind and waterproof membrane which is an effective "stop" to dust, wind and water.

The man who puts SISALKRAFT into place is the man who most truly appreciates what it offers in home protection. He is quick to realize its stamina, why it is long-lived and will stay in place for the lifetime of the home.

Perhaps he doesn't know that part of its unusual strength is due to the more than half a mile of non-elastic sisal fibres used in each square yard.

Show your clients a sample of SISALKRAFT. Have them treat it rough—tear it up—rag it around. The chances are that they will want to know all about SISALKRAFT and it is probable that you will have performed a worthwhile life-time service for them.

*Sold by Lumber Dealers Everywhere*

The Sisalkraft Co., 203 W. Wacker Drive, Chicago, Ill.	June, 1936
Please send me new self-demonstrating samples and full information.	
Name.....	
Address.....	
City.....	State.....

## News

(Continued from page 90)

Missouri, So. Illinois, Arkansas, Western Tennessee); the Kansas City district (W. Missouri, Oklahoma, Kansas, Nebraska); and Texas. In each of these territories the April construction totals were substantially more than twice as large as their respective figures for April, 1935.

Outstanding April gains over a year ago in residential building alone occurred in New England, the Pittsburgh area, Southern Michigan, the New Orleans area (Louisiana and Mississippi), and Texas.

For the first four months of 1936, construction contracts for all classes in the 37 eastern states totaled \$780,627,600, making a gain of 85 per cent over the total of \$421,781,500 for the corresponding four months of 1935.

### Announce Formation of Glass Institute

FORMATION of the Pittsburgh Glass Institute as an authoritative agency to which members of the building industry may resort for information on the increasingly versatile uses of glass as a construction and decorative material has been announced by E. L. Patton, representative of the sponsoring group. Operations of the Institute will begin at once.

Mr. Patton is to be Director of the Institute, which will have an advisory board comprised of eight members, each a leading expert in one particular phase of the industry. Offices will be established in 30 Rockefeller Plaza, New York City.

"The primary purpose of the Pittsburgh Glass Institute," Mr. Patton declared, "is to assemble and coordinate all available data on the many uses and applications of glass that have been developed through modern manufacture.

"Architects and builders today stand in urgent need of such a service. It has been repeatedly called to our attention that no recognized standards exist for using built-in glass construction and that such construction has always been haphazard, according to the individual architect's or builder's ideas. Our aim is to correlate all essential material and to develop authoritative standards."

### Lumber Consumption Shows Increase

IN ITS 20th quarterly report to the Department of Commerce the Special Lumber Survey Committee revealed the U. S. lumber consumption since 1929 in the following figures:

	First Six Months Board Feet	Second Six Months Board Feet	Total Year Board Feet
1929.....	18,823,000,000	16,984,000,000	35,807,000,000
1930.....	14,739,000,000	11,759,000,000	26,498,000,000
1931.....	10,270,000,000	8,800,000,000	19,070,000,000
1932.....	6,780,000,000	6,325,000,000	13,105,000,000
1933.....	6,968,000,000	8,180,000,000	15,148,000,000
1934.....	7,814,000,000	7,653,000,000	15,467,000,000
1935.....	8,615,000,000	9,620,000,000	18,235,000,000
1936.....	10,650,000,000		

Consumption during the first half of 1936 indicates at least 20 billion feet for the year, which would make 1936 the best year since 1930.

### Ruberoid Completes Building Survey

A SURVEY of opinions by representative distributors of builders' supplies in forty-two states recently completed by the Ruberoid Co., indicated that the dollar volume of sales of materials for repairs and new construction in private building operations in the United States will show an increase of more than fifteen per cent in 1936 over 1935; that the preponderance of private building activity in the first quarter of 1936 was in residential construction, and that much more money was spent during this period for home repairs and modernization than for new residential construction.

An incidental finding of the survey was that in the selection of materials for home building women are most influenced by appearance and men by first cost. Approximately fifty-five per cent of the reporting dealers said that the final decision rested with men. Approximately thirty-three per cent believed that the wife's choice was most likely to be the deciding one, while about twelve per cent indicated that the final selection was ordinarily a fifty-fifty compromise.





**HOW THICK SHOULD INSULATION BE?**

**YOU Are the Best Judge**

● Two buildings—one in Northern Minnesota and the other in Oklahoma. Would you use the same thickness of insulation for both? Certainly not, because you know—and we know—that climate has a lot to do with the thickness of insulation needed.

We believe you are the best judge of the amount of insulation needed. And so we make Balsam-Wool SEALED Insulation in THREE thicknesses to fit every condition. You are never obliged to waste the owner's money by specifying *too much* insulation, when you use Balsam-Wool. You need never specify too little. You can put the *right* amount of insulation in the right place.

Every important test which an insulating material must meet has been anticipated by the manufacturers of Balsam-Wool. Balsam-Wool is really two separate materials made into one. Its body is one of the most efficient insulations known to man . . . its shields are the utmost in moisture and wind protection. Highly fire-resistant, windproof, moistureproof and non-settling, Balsam-Wool gives the owner a permanent return on his investment. Complete information about Balsam-Wool is yours for the asking.



**WOOD CONVERSION COMPANY**  
Room 119  
First National Bank Bldg.  
St. Paul, Minn.

**BALSAM-WOOL**  
PRODUCT OF  **WEYERHAEUSER**



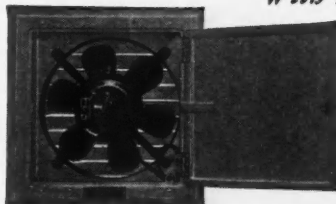
**Yes Sir, and Get Genuine EMERSON Quality, Too!**

Ventilating equipment has become a modern "comfort" necessity. In homes, retail stores, offices—wherever better ventilation contributes to comfort, efficiency or safety—ventilating fans are insistently demanded. Fully aware of this demand, architects, builders and realtors everywhere are writing ventilation into all of their modernization and new building plans.

Emerson and Emerson Seabreeze Ventilating Fans have proved their ability to move large volumes of air. Their low cost now brings positive ventilation within reach of everyone. Write for complete information.

**New, Popular Priced Kitchen Ventilator The EMERSON Seabreeze**

*With Adjustable Wall Box*

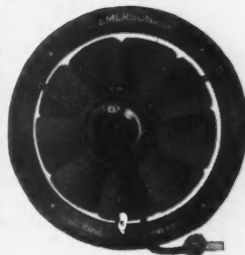


Built-in type (10-inch size) for permanent installation, it is telescopic in design, adjustable to wall thickness, 7" to 13½". The exposed parts of the wall box are built of rust-resisting steel (Galvanneal),

electrically welded. Automatic jamb switch, controls fan operation by opening and closing the door. Easily installed in homes under construction or already completed.

**A Complete Line of 2-Speed Ball Bearing Exhaust Fans**

Emerson Exhaust Fans, in 12-inch to 30-inch sizes, were especially designed and engineered to quietly, quickly and economically remove bad air, excessive heat, and offending odors from homes, apartments, and commercial buildings. Easy to install. Used extensively in homes for summer (attic) ventilation.



*Write for Folder 58-J*

*"How to Select Emerson Exhaust and Ventilating Fan Equipment"*

**THE EMERSON ELECTRIC MFG. CO.**  
ST. LOUIS • Branches—New York • Detroit • Chicago

**EMERSON ELECTRIC**

MOTORS - FANS - APPLIANCES  
Leaders in the Fan and Motor Industry Since 1890

# KINNEAR

## Rolling Doors

**STEEL ROLLING DOORS**

(Also Wood)

**LABELED FIRE DOORS**

**MOTOR OPERATED DOORS**

**STEEL BIFOLDING DOORS**

(Also Wood)

**SECTIONAL Upward-Acting DOORS**

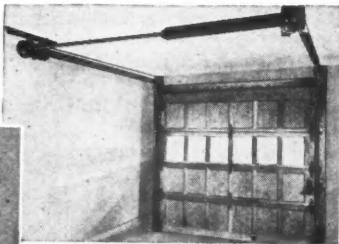
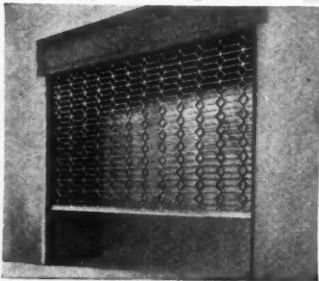
(Wood or Steel)

**SUB-LET YOUR DOOR WORRIES**

*To Door Specialists.*

Right! Kinnear builds a wood sectional upward-acting door—the Kinnear Rol-Top Door. And it's a dandy for many classes of work. Thousands of builders will tell you so. But Kinnear also builds many other types of upward-acting doors . . . types that better suit certain jobs. So why spend time "shopping" or worry around on the door subject? Put your door problem up to door specialists—people who have specialized in upward-acting doors for 40 years. When you do, you get unbiased recommendations—a product that has proved its quality for years—cooperation of a nation-wide organization—on-time delivery and doors that are economical to install. You'll quickly see that Kinnear gives the best all-around value.

**RIGHT:—The Deluxe Model Rol-Top Door.** Single-torsion spring counterbalance, continuous angle mounted track, malleable iron hardware, free-floating rollers and a keystone sealing device.



**LEFT:—The Kinnear Metal Rolling Grille.** Works like a window-shade. Provides protection against burglary or trespassing with advantages of air, light and vision. Built in any size for doors or windows. You'll find many use it.

## The KINNEAR MFG. CO.

1560-80 Fields Ave. Columbus, Ohio

Send along your complete catalog on Kinnear Upward-Acting Doors. No obligation!

Name .....

Address .....

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

### Air Conditioning Institute Organized

JOHN T. FULLER, well known heating and air conditioning engineer, and F. E. Ritzenheim, branch manager of Gar Wood Industries, Inc., were elected president and vice president, respectively, of the newly formed Air Conditioning Institute at its first meeting held at the Seward Hotel, Detroit, on May 4.

The Air Conditioning Institute is a non-profit corporation created for the sole purpose of promoting the use of air conditioning, and for establishing definite standards and uniform practices of installation and engineering for the benefit of the public and the air conditioning industry in general. "The scope of activity and purpose is similar to that of other associations conducted by other leading industries. It has been proved in the past that every successful industry requires an unbiased group of men to form standards and practices for the benefit of all," according to Mr. Fuller.

Headquarters of the Air Conditioning Institute have been established at 7621 Woodward Avenue, Detroit. Other officers are E. L. Boyd, secretary, and T. F. Leeson, treasurer. All men of the Institute are prominently identified with the air conditioning industry. Membership in the Institute constitutes any corporation, firm or individual actively engaged in the air conditioning business. It is expected that plans will be formed to make the Institute national in scope.

### Kahn Now with Republic Steel

JULIUS KAHN, who has been president since his founding of Truscon Steel Corporation 33 years ago, has resigned his position to become vice-president in charge of Product Development of Republic Steel Corporation, Cleveland, Ohio.

Forrest H. Ramage has been promoted from assistant manager of the Republic Steel Advertising and Sales Promotion division to sales promotion manager and will work in conjunction with the new Product Development division.

Stanley A. Knisely, formerly manager of the Advertising and Sales Promotion division, has been named director of advertising with direct supervision of all advertising of the Corporation and its subsidiaries. Chester W. Ruth has been made assistant director of advertising.

### Syracuse University Offers Summer Courses

THE Department of Architecture, College of Fine Arts, Syracuse University, will conduct courses in Architecture for a limited number of students during the Summer Session of 1936. Collaborative work in design and construction will be stressed together with a study of existing Early American Architecture in the Central New York Area. The session will begin July 6 and will cover a six weeks period of study.

The following courses will be offered: Elements of Design and Theory of Architecture; Introduction to Construction; Materials of Construction, and Architectural Design.

### FHA Booklet on Small Houses\*

A BOOKLET entitled, "Principles of Planning Small Houses," has been published by the Federal Housing Administration to provide practical guidance and suggestions to persons contemplating construction of homes in a \$1,200 to \$2,500 price range. It was prepared because of "widespread interest in dwellings which will be suitable and within a rental or purchase range appropriate to the majority of families in the country."

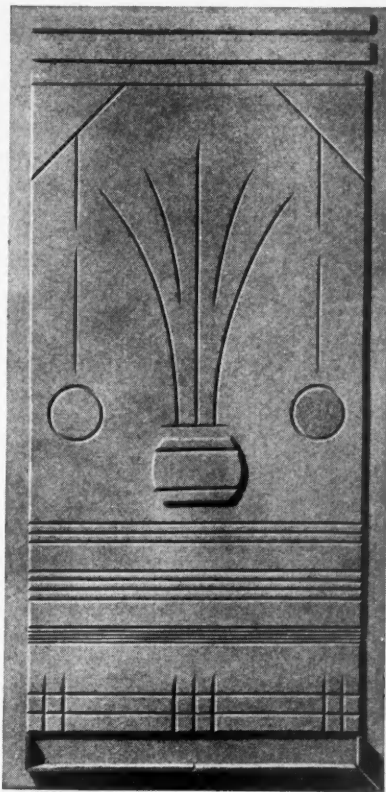
It is emphasized in the booklet that the Federal Housing Administration will not furnish any "stock" plans for low priced houses. The booklet is merely suggestive and educational. It contains five perspective drawings and floor plans of homes that may be constructed for between \$1,200 and \$2,500. The examples shown are illustrative and suggestive only. They represent a starting point from which amplification and improvements can be made as circumstances permit or as local conditions demand.

\*Copies are available at all FHA field offices. An article summarizing the contents of this important booklet will appear in an early issue of *American Builder*.



# LOOKING FOR EXTRA JOBS?

*These Tools Will Get Them For You!*

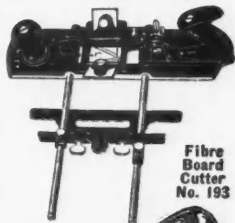
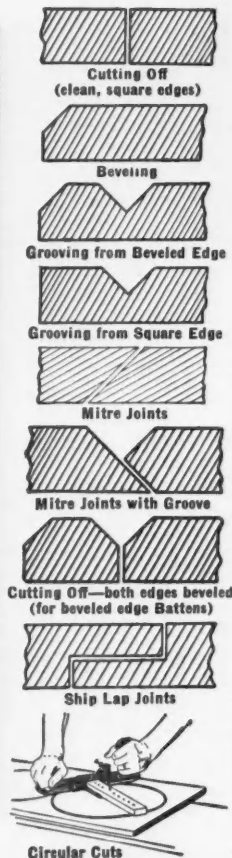


(Size of Panel 4' x 8')

Look at the decorative effects on the panel of Fibre Board shown above! You can make them all—as well as the various cuts illustrated—with the Stanley Fibre Board Cutter No. 193, pictured here. Cutter No. 194 is used for chamfering only, Fibre Board Knife No. 199, with replaceable blades, for cutting and trimming.

These new decorative possibilities mean new jobs and new profits for you! Profits that will pay the cost of these Stanley Tools in a very short time. See them at your dealer's, or write—today—for descriptive circular.

**STANLEY TOOLS**  
New Britain, Conn.



Fibre Board Cutter No. 193



Fibre Board Knife No. 199



Fibre Board Cutter No. 194

Holder for Honing Razor Blades No. 198

**"OK BILL — HACK US OFF A NICE SMOOTH ONE!"**



**S**URE thing, you *could* cut your building stone right on the job . . . but we'd hate to think of where your costs would go. Same thing with windows. You can cut and trim to fit 'em on the job. But you don't *have* to do it. Not since Curtis introduced the Silentite in which every part—frame, sash, trim, storm sash and screen—are all pre-fit at the factory. This means a big saving in installation time.

But you save time and money in other ways when you install Silentite. The complete window unit is delivered from a single source of supply. All necessary hardware is packed in handy packages marked to identify them for the proper windows.

Here's a chance to cut your costs . . . and boost your profits . . . with a window that has real appeal to home owners. Silentite is so weather-tight that it actually has demonstrated fuel savings up to 25%. It's dipped to prevent rot. It has no sash cord, no weight, no pulleys to cause trouble. It's cleaner, neater, and a heap sight better looking than old-fashioned cumbersome windows.

Send the coupon below for more complete information on Silentite . . . the window that eliminates "puttering" costs in installing.

- CURTIS BROS. & CO., CLINTON, IOWA
- CURTIS & YALE CO., WAUSAU, WIS.
- CURTIS SASH & DOOR CO., SIOUX CITY, IOWA
- CURTIS DOOR & SASH CO., CHICAGO, ILL.
- CURTIS-YALE-PURVIS CO., MINNEAPOLIS, MINN.
- CURTIS COMPANIES INC., CLINTON, IOWA
- CURTIS, TOWLE & PAINE CO., LINCOLN, NEB., TOPEKA, KAN.

Curtis Woodwork is available through the following distributors:

- Allen A. Wilkinson Lumber Co., Indianapolis, Ind.
- Rust Sash & Door Co., Kansas City, Mo.
- Morrison-Merrill & Co., Salt Lake City, Utah
- Hallack & Howard Lumber Co., Denver, Colo.
- Campbell Coal Company, Atlanta, Ga.
- Jacksonville Sash & Door Co., Jacksonville, Fla.
- W. P. Fuller & Co., Boise, Idaho



**THE "INSULATED" WINDOW**

Other Curtis products:

- Exterior and Interior Doors • Frames • Trim • Entrances • Moldings
- Panel Work • Kitchen Cabinets • Cabinet Work • Mantels
- Stairways • Shutters • Screens • Storm Doors and Windows
- Garage Doors • Mitertite Door and Window Trim
- "Curtis Woodwork in Walnut"

CURTIS COMPANIES SERVICE BUREAU  
Dept. 506 Curtis Building, Clinton, Iowa  
Please send me complete information on Curtis Silentite, the "insulated" window.

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



# AUNT MATILDA



*was  
completely  
won over*

It's the little things that count—the little bit of extra beauty that catches the eye and increases the saleability of your houses.

Patrician, the two-tone hardware, offers that added touch. The plastic knob material is available in black, ivory, Chinese red, mahogany, or delicate pastel tints—ideal for color schemes that must be true to the last detail.

Patrician is also practical and durable, for the plastic knob material does not tarnish or fade and is unaffected by moisture or perspiration.

Patrician proves its value and the wisdom of those who select it. See your builders' hardware dealer or write for printed matter.



Patrician Sectional Set No. 3652 with solid brass face and French shank, cast brass rose and key plate, lock No. 3126. Solid Plastic may be in ivory, black or other suitable tints or colors, which are interchangeable.

*Patrician*  
**HARDWARE**

*Exclusively by*

**LOCKWOOD HARDWARE MFG. CO.**  
DIVISION OF INDEPENDENT LOCK COMPANY  
**FITCHBURG, MASS.**

## Prepares Pine Paneling Details

TO assist dealers and millwork plants whose customers are interested in selecting popular and authentic patterns in knotty pine paneling which has shown increasing popularity, the Western Pine Association has compiled a group of thirty such patterns. These are full size details on a single sheet; outline drawings include patterns with T&G and shiplap joints, some having the detail run on moulding strips and others on the edges of the boards.

Four patterns—Hart House, Hampton, Capen House and Millbach—are adapted from authentic designs in Early American rooms. Included in the group are some designs that are suitable for horizontal boarding installations. All patterns are of designs that are in use.

## FHA Plans Bonus Campaign

IN AN educational campaign to those veterans who cash their I bonds, the FHA has adopted the slogan, "Think of your homes first!" The Housing Administration plans to do its utmost to direct the largest share possible of the compensation payments to homes and to the products which go into homes.

The educational program of the Housing Administration is timed for release on the eve of the payment. It will include direct mail, posters, co-operative newspaper advertisements for dealers' use, radio and an extensive schedule of addresses to veterans' organizations and their auxiliaries.

Four printed pieces are planned, the first and most important, a four-page illustrated circular, containing a personal letter from the Federal Housing Administrator; reproductions of letters from the National Commanders of the three major service organizations; a complete, easily understandable explanation of the Single Mortgage System and of the Modernization Credit Plan; illustrations of homes built with Housing Administration Insured Mortgages, together with explanatory data of monthly costs and terms of payment. This circular will be made available in sufficient quantities to supply every member of a veterans' service organization and as many non-members as can be reached.

Every veterans' post will be addressed in a direct mailing, with outline plans for campaigns by local units. This mailing will contain a poster for display at headquarters, samples of Housing Administration literature for requisition by local posts, and will request the appointment of a liaison officer to consult with members who may consider buying or building homes of their own or modernizing their present homes. It will also suggest a special meeting to be addressed by a Housing Administration Field Representative or by some other competent speaker.

## Exhibit Colorful Concrete

A TRAVELING exhibit of Color in Architecture with Concrete is now demonstrating the possibility of the colorful city of tomorrow which has been made practical through development of methods to obtain a complete range of color in concrete. As a result, "colors which blend harmoniously from one shade to another may be used for the entire facades of buildings. Or we may see colorful outdoor murals in concrete substituted for large expanses of plain, unadorned walls."

It is pointed out that most important in making this development practical is the use of crushed glass and vitrified tile for concrete aggregate in place of sand and gravel without changing the essential characteristics of the concrete. After the concrete has hardened the surface is washed with acid, revealing the beautiful colors of the aggregate as an intricate mosaic pattern.

Samples of this startling development in concrete, and of unusual colors in which this work is being done, will be shown in Philadelphia, Washington, D. C., Atlanta, and Houston during June and in Kansas City the first week of July.

## A.S.H.V.E. Meets in June

THE Semi-Annual Meeting of the American Society of Heating and Ventilating Engineers will be held at The Inn, Buck Hill Falls, Pa., June 22-24.



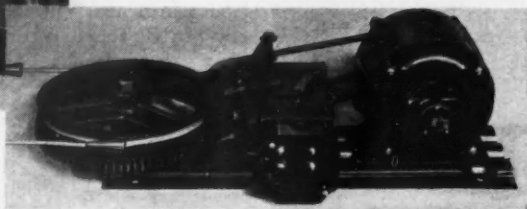
**RO-WAY**  
*Electric*  
*Operators*  
FOR  
**GARAGE DOORS**

*Not Only Give*  
**"OPEN - CLOSE - STOP"**  
**CONTROL**

**but also Instant Reversal of Direction!**

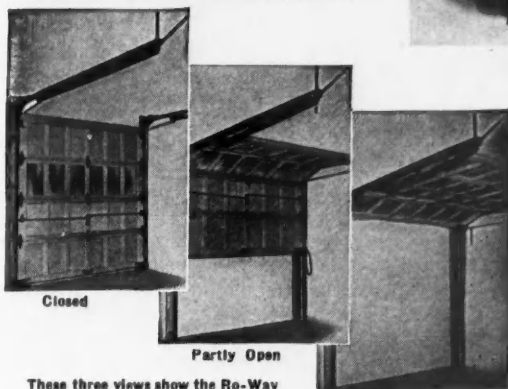
No electric operator has ever before provided such complete and convenient control. The safety factor of instant reversal of direction is a value every car owner immediately appreciates. A simple two-button station instantly changes the travel of the door . . . no matter at what point of opening or closing it may be.

The Ro-Way Line covers every type of operation from small residential installations to large commercial jobs. Choice of these types of control are offered: Button Switch; Ceiling Pull Switch; Toggle Switch; Constant Pressure Switch; Momentary Contact Switch; Key Operated Exterior Wall Switch; Key Operated Exterior Driveway Post Switch; Photo Cell; Floor Treads; Magnetic Automatic Driveway Control. Prices of all Ro-Way Electric Control Operators are surprisingly low.



Note the compact design of the Residential Ro-Way Electrical Control Unit.

Key operated switch located conveniently on the driveway post enables operator to open and close door without leaving the car.



These three views show the Ro-Way Door in various positions, from fully opened to tightly closed.

**RO-WAY** Doors for every Garage Requirement

16 different types for every commercial, industrial and residential use are offered. All are priced right. Less headroom is needed for installations . . . as little as 8½ inches for residential garages. In old buildings, this means a decided saving in alterations.

The Exclusive Ro-Way "Seal-Tite" Molding provides a weather-tight fit.

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735 Holton St.

Galesburg, Ill., U. S. A.

New Edition (April, 1936)

**"Ramsey-Sleeper"**

**ARCHITECTURAL GRAPHIC STANDARDS**

This book contains all the essential factual references needed by the architectural draftsman in his day's work. It consists of drawings of construction details, without text. The drawings are large enough to be easily studied and the lettering is clear. They represent latest standards and good construction practice. A 21-page index covering 3600 items enables the user to quickly locate almost any detail, fact or standard likely to be needed.

Included in the new edition are details of glazed brick and hollow tile; brick courses; wood flooring; mill construction; commercial projected steel windows; revolving doors; grilles; structural glass; wall paper; venetian blinds; metal wall moulds; awnings; minimum size bathroom; radiators; insulation; bath houses; residential kitchen planning; restaurants, cafes, bars; overhead garage doors, etc.

2nd Ed. 284 pages, 260 plates, 9¼ x 11½ inches, cloth, \$6.00

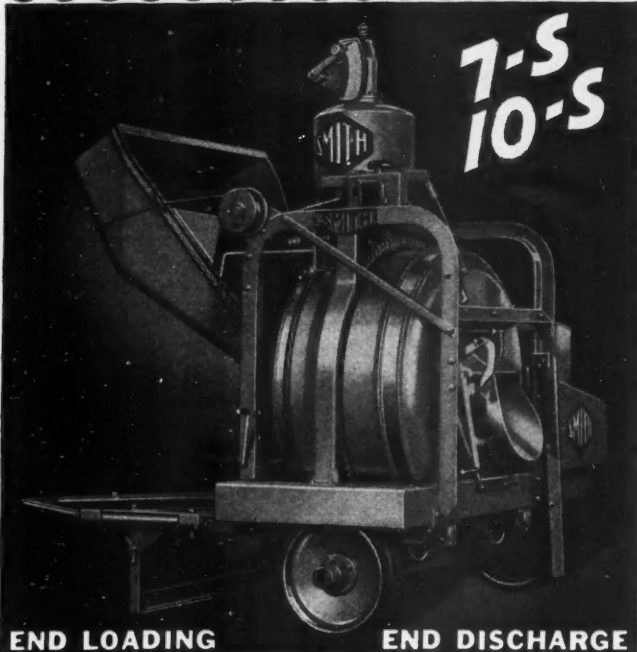
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LEADERS FOR 36 YEARS



END LOADING

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## TRAIL-SMITH

### Handy 2-Wheel Trailer-Type Mixer

● Combines all the famous SMITH features plus the added advantages of quick portability and ease in "spotting". Low—compact—lightweight—well-balanced. Built to meet today's job requirements. Spring-mounted axle. Roller bearing rubber tired disc wheels. Automatic skip vibrator. Multiple V-belt drive. Enclosed gear reduction unit. Machine-cut gears running in oil. Anti-friction bearings throughout. One man end control. A faster, better, more dependable mixer. Available in 7-S and 10-S sizes. Mail coupon for literature.

**MOVE IT FAST—MOVE IT OFTEN**

# SMITH



# MIXERS

THE BOULDER DAM MIXERS

The T. L. Smith Co., 2849 N. 32nd St., Milwaukee, Wis.

Please send literature on the new TRAIL-SMITH

Name \_\_\_\_\_

Address \_\_\_\_\_

## LETTERS from Readers on All Subjects

Facts, opinions and advice  
welcomed here

### Roof Framing for Beginners

Peoria, Ill.

To the Editor:

Just received my February Builder and must say that it is full of good things; one of the best that I have ever received.

Looking through the pages I find a lesson in roof framing by Mr. B. T. Allyn for the young mechanics. I think Mr. Allyn has started the first lesson too far up the scale for the beginner or student. It would be better for the young apprentice to start him on the very first step—how to find the length of a common rafter for a given width and difference in length for different rise. Then when he has had time to master this, start him on valleys and hips, then on up to roofs of unequal pitches, etc. Would be glad to pass on all I know in roof framing to the apprentice and how I had to learn it.

THEO. A. SWANSON, General Contractor.

### Favors Concrete Masonry

Topeka, Kans.

To the Editor:

To produce a home in keeping with the times, our experience and judgment convince us that a far more general use of materials of a more permanent nature should be used, materials that are economical and adaptable for use in smaller type structures and adhering to the conventional styles of architecture. Materials should be of such physical characteristics as to be of long life, fireproof, termite-proof, unaffected by temperature and weather changes. Using these materials a home consisting of five major rooms with attached garage in the \$2,500 to \$4,500 price range will reach and be decidedly attractive to the great potential market.

In order to meet the extreme competition, which will be encountered in the coming expansion of residential building, it is our opinion that participants in the building business will have to have a wide knowledge of the materials used in the various items of a modern home, their costs and labor required to handle. In the application and use of concrete joists and sub-floor with joists manufactured in plant to exact dimensions as to length, lettered and delivered on job as they are to be installed in the building it is our experience that this type of floor is installed at same cost as if 2 x 10's with ship-lap were used.

In the wall construction high quality Dunbrik units are used, producing a wall of practically any architectural design and an unlimited color range in the mat-glazed units for exterior color. This type of wall competes closely with walls of studs, boxing, metal lath and stucco, and in several instances is cheaper than various other types. We cannot conceive of any type of walls and flooring superior to this type as to initial cost, durability, attractiveness and long life.

H. D. BEIGHTLER, Residential Dept.,  
The Topeka Dunbrik Co.

### "Hard to Keep at Home"

Cottage Grove, Ore.

To the Editor:

I heartily disagree with Evert A. Carlson whose letter appears on page 114, March issue (inferring that "New Era Home Designs" is a back number). He certainly had better do some reading in the Builder and then he can do something besides criticize; or maybe his business is like his ideas of the Builder and "New Era Home Designs and Modernization Plans" which I find hard to keep at home for it seems someone wants it most all the time to help them select some plan, room arrangement or some other phase of home building.

HENRY M. LAKE,  
Designer and Draftsman.



## Contractors Say, WILLIS SKYLIGHTS

because they're dependable. Made only of the best materials, with experienced workmanship, all bars constructed with condensation gutters and guaranteed not to leak. Designed for a maximum of light and perfect ventilation. Why not show your clients how they can utilize the cheapest of all light—daylight—both in new building and remodeling—with WILLIS SKYLIGHTS.

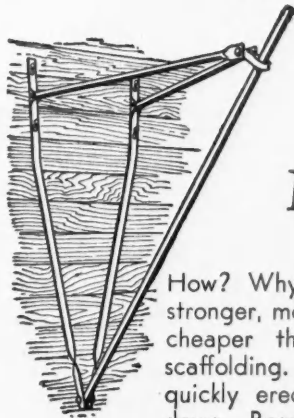


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for  
our  
Sky-  
light  
Catalog

STANDARD  
For Almost  
Half a  
CENTURY

The WILLIS Manufacturing Co.  
Galesburg, Illinois

## Reliable Scaffold Brackets



SAVE  
YOU  
MONEY

How? Why? Because they are stronger, more dependable and cheaper than costly wooden scaffolding. Because they are quickly erected, quickly taken down. Because you can use

them on wood or stucco. No wonder they soon pay for themselves. Thousands of builders have used them for years.

Let us prove their value. Send for catalog—then ask us to ship first pair C.O.D. for your inspection and trial.

Reliable Jack Company, 1401 West Second St., Dayton, Ohio

**RELIABLE**  
SCAFFOLDING BRACKETS



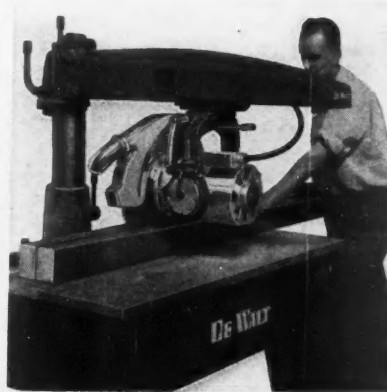
BECAUSE Shingle Bureau inspectors are hard to please, you know that CERTIGRADES are exactly as labeled! The Bureau sets rigid grading rules—and its own independent inspectors see that these standards are maintained. When you buy CERTIGRADES No. 1,

... and remember, CERTIGRADE national advertising in "Saturday Evening Post" and other magazines, is making new customers for you!

No. 2 and No. 3, you know what you are getting!... Red Cedar Shingle Bureau: Headquarters, Seattle, Wash.; Canadian office, Vancouver, B. C.



## "The SAVING on the first job more than PAID FOR THE SAW"

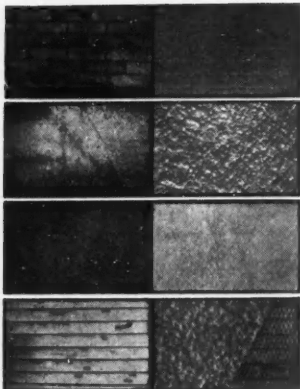
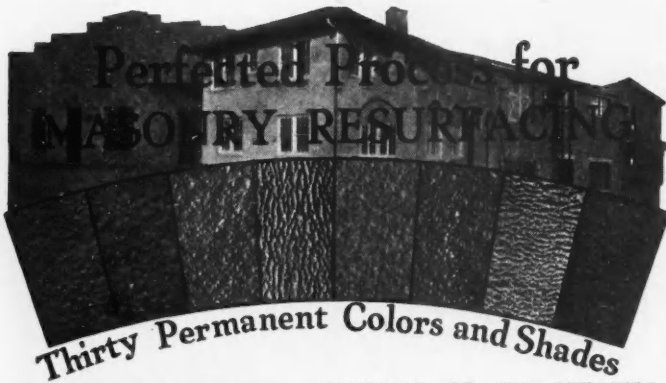


• A prominent Carpenter and Builder writes: "When I bought your Saw I was starting five houses. . . . On those five houses I averaged a saving of \$125 each—of course, this more than paid for the Saw."

THAT'S how we sell DeWalt Woodworking Machines to alert builders and contractors. A DeWalt will pay for itself (often on the first job) by the time and labor it will save. DeWalts cross-cut, rip, bevel and miter. Only a few seconds are required to change operations.

Write today for circular, describing DeWalt Wood Cutting Machines in detail.

**DEWALT** PRODUCTS CORPORATION  
260 Fountain Ave., Lancaster, Pa.



HUNDREDS OF OLD BUILDINGS everywhere need beautifying and preserving. Their owners are ready buyers when shown the attractive and permanent surfaces that Colorcrete will give their old buildings. In new construction the demand today is for low-cost masonry which needs Colorcrete to give it beauty at low cost.

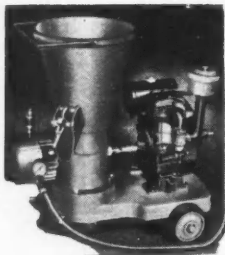
THIS MACHINE APPLIES Colorcrete waterproofed material in a plastic mortar-like mixture that fuses with all masonry surfaces. It waterproofs and fills all cracks and checks and can be applied in any thickness desired. It is fully proven by over 12 years of actual use under all conditions and in every climate.

COLORCRETE IS PROFITABLE and easy to apply. The machine is simple. Operators report

costs of 2c and up per sq. ft. and sell up to 7c. Machine capacities up to 1,000 sq. ft. per hr. Some have paid for their equipment from first few jobs.

GET THE FACTS. Colorcrete books tell the whole story. Learn of the immense market for Colorcrete in your community, its profit possibilities and how we help you start with a modest investment. Write today.

**COLORCRETE INDUSTRIES, INC.**  
505 Ottawa Ave. Holland, Mich.



## CONTRACTORS WHO HAVE TRIED THEM ALL NOW USE A SPEED-O-LITE

Try this revolutionary machine for 5 days AT OUR EXPENSE. Test it on the toughest job you can find. Compare it with every other floor sander on the market for cutting speed—economical operation and dust-collecting performance. You, too, will be quickly convinced that this light-weight machine (80 lbs.) is years ahead of anything that has been developed.

You'll like the way the SPEED-O-LITE, operating from any convenient outlet, works right up to the quarter-round and leaves a ballroom finish on every floor.

Don't delay! Arrange now to take advantage of our 5-Day FREE TRIAL OFFER.



Sold Complete and Guaranteed For One Year Including Motor

### MAIL COUPON TODAY

LINCOLN-SCHLUETER FLOOR MACHINERY CO. 636  
224 W. Grand Ave., Chicago, Ill.

Send full details on your 5-DAY FREE TRIAL SPEED-O-LITE OFFER. Also tell me how I can own it.  Interested in time payments.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

## Letters Dept.

(Continued from page 98)

### Wants More Details

Watertown, South Dakota

To the Editor:

In your March issue you feature "How Largest Home Builders in the U. S. Get Costs Down." This article shows photographs of houses to sell for \$4,990.00. If possible we wish you would advise us if the following items are included in sale price:

- Electric fixtures.
- Power wiring.
- Basement cement floor.
- Garage, one or two stalls.
- Insulation for roof and walls.
- Fruit room in basement.
- Screens, storm sash and screen and storm doors.
- Laundry room and laundry tubs.
- Stone work shown on photographs. Is this stone or is it plaster marked off into stone?
- Are sidewalks installed, also sidewalks around house and is street paved and paid for?

A line from you at your early convenience will be appreciated.

MAJERUS COMPANY,  
General Contractors.

### Answer

Dear Mr. Majerus:

I am glad to give you the following information concerning the Gross-Morton Bayside Hills story, published in our March issue, in response to your questions:

The electric fixtures are included in the \$4,990 sales price.

Standard wiring, with B-X concealed cables as described in the specifications on page 124, is included. Power wiring, by which I suppose you mean special wiring for electric range, is not.

Good quality cement basement floors, properly drained, are included in the price.

Garages are not included but will be built for a very reasonable additional cost.

No insulation is provided in these houses.

There is space for a fruit room in the basement, but none is included in the advertised price.

Screens, storm sash and screen and storm doors are not included in the \$4990 price.

Inexpensive laundry tubs on a raised platform are included in the sales price.

The stone work is real Long Island stone and is a standard feature of the houses at no extra cost.

This development is complete in every way, with sidewalks, pavements, all utilities in and paid for. There will be no future assessments.

While the houses are of standard design as described in the article, the owner may pick his own interior color schemes and finishes within reasonable limits.

The guaranteed heating system, with Thatcher insulated boilers, is, of course, a part of the \$4990 sale price. The Delco oil burner, however, is considered extra equipment, and an additional charge (which is surprisingly small) is made for it.

I hope you understand that in presenting this story we were not in any way implying that the average builder in a small town necessarily could, or should, attempt to provide the same type of home and equipment at the price Gross-Morton does. We described their operations because they are very well known operators and are selling many homes. You might, if you are interested in obtaining plans and specifications of these or smaller type homes, get in touch with Architect Arthur E. Allen, 9004—161st St., Jamaica, Long Island, N. Y., who, I feel sure, would be willing to cooperate with you.

I would be very glad to hear your reactions to this story, and to learn what you can build a similar type house in your community for. In fact, if you figure this house for some local customer, why not send us a story on it, giving your cost breakdown and showing how you would build this house in your community?

JOSEPH B. MASON,  
Eastern Editor.

## Veribrite SINKS



## FOR MODERN KITCHENS

**ANY SHAPE TO FIT ANY SPACE  
ANY SIZE OR COLOR**

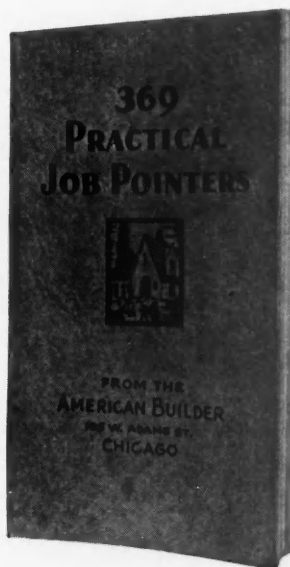
Veribrite Sink-Tops are of integral, one-piece construction. No joints to pull apart—no cracks to catch dirt or hold water. Smooth work areas, all at one level, are thus provided—bright modern colors—pastel shades to harmonize with any desired color scheme. The acid resisting porcelain enamel surfaces on heavy gauge Armco Iron lend distinction and will prove an added attraction to any kitchen.

Write us for free descriptive literature and prices—

## Veribrite Products

Division of  
**General Porcelain Enameling & Mfg. Co.**  
4137 West Parker Avenue Chicago, Illinois

**NEW  
LOW  
PRICE**



**NOW  
\$0.75**

369 Job Pointers is a collection of practical ideas by building men. With graphic illustrations these show short cut and better methods for handling lumber, brick, stone, etc. Novel means for remedying stuck windows, repairing leaks in roofs and walls are brought together in this handy "troubleshooter" book. An index enables quick reference. 1934. 192 pages, illus., 4 1/2 x 8 1/2, paper, \$0.75.

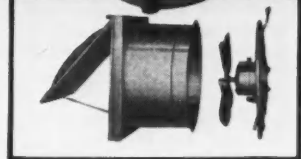
Book Service Department  
**AMERICAN BUILDER AND BUILDING AGE**  
30 Church Street, New York, N. Y.



• There's no question about it—homes with Victor Ventilated kitchens are easier to sell! And, no wonder—with leading architects specifying ventilation and today's home buyers hearing all about air conditioning at every turn. Victor Kitchen ventilators not only do a real job of keeping the woman's "workshop" clean, cool and comfortable, but they provide that extra something that reduces sales resistance and closes deals.

No other ventilator has all the features of the Victor In-Bilt, which include: smart styling, rust-proofed finish, quiet, efficient operation, automatic control, one-shot lubrication, streamlined weather-tight shutter, open or concealed wiring, etc. And, the price is right! Investigate today. Write for new catalog showing Victor's complete line of ventilators and fans.

**VICTOR ELECTRIC PRODUCTS, INC.**  
707 Reading Road, Cincinnati, O.

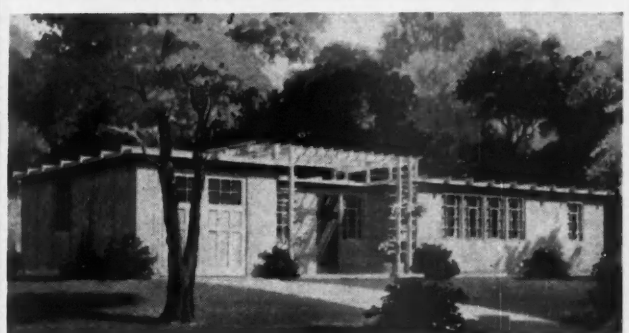


Victor In-Bilt construction makes installation easy in walls of any type or thickness. Wall sleeve and shutter are one assembly; fan and grill another.

### DEALERS

Here's an unusual opportunity to add to your sales volume and profits. Cash in on the growing demand for ventilated kitchens. Stock and display the Victor In-Bilt. Investigate Victor's outstanding line and merchandising support. Write today for details.

*Kitchens SELL Homes - Ventilators SELL Kitchens*



## AN OPPORTUNITY For Builders and Dealers

**GENERAL HOUSES, INC.**, of Chicago, pioneer in prefabrication, wants progressive local representatives to distribute its new line of steel-frame dwellings.

Priced from \$2500 to \$5500, erected and equipped, approved for F H A mortgage loan insurance purposes—attractive, modern and convenient, **THIS IS THE HOUSE THAT SCIENCE BUILT**—for better living. Investigate our proposition.

Special attention to large building developments.

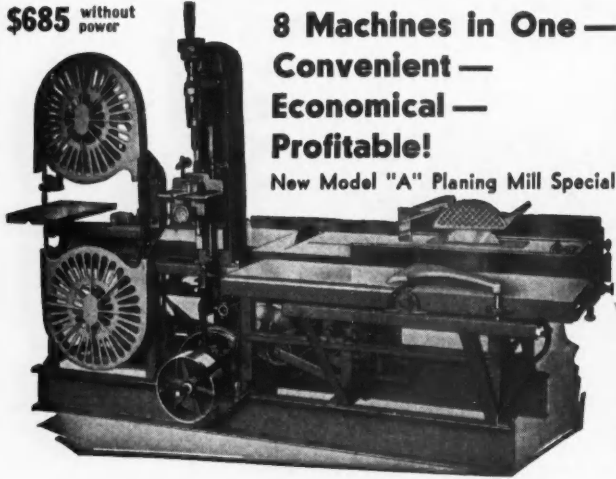
**GENERAL HOUSES, INC.**  
620 N. Michigan Ave., Chicago, Ill.

(106)

Please send, without any obligation on my part, complete details concerning your new line of steel-frame houses and your dealer franchise.

Name \_\_\_\_\_  
Address \_\_\_\_\_



**\$685** without power

**8 Machines in One —  
Convenient —  
Economical —  
Profitable!**

New Model "A" Planing Mill Special

Compact and sturdy, each of the 8 machines in the New Model "A" is full-sized and independently operated. Does whole job from rough lumber to finest trim and finish.

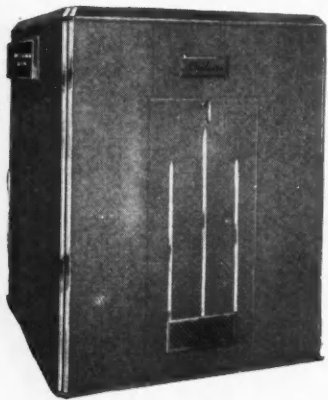
Low operating cost. Built for lasting service.

Send for catalog of our complete line of individual and combination machines priced as low as \$50

**THE PARKS WOODWORKING MACHINE CO.**  
Dept. BL-6 1524 Knowlton Street Cincinnati, Ohio

**PARKS**  
WOODWORKING MACHINES

## Dailaire PIONEERED 80% Heating Efficiency for The HOME



When Dailaire was placed on the market six years ago no other heating plant with large radiating surfaces and 80 percent efficiency was available, since that time many attempts have been made to duplicate Dailaire's phenomenal fuel saving record. But Dailaire still continues to lead, and now for 1936 Dailaire has developed a new counter-flow principle of air travel that increases Dailaire's previous efficiencies.

When you want the last word in heating efficiency and fuel saving and latest in design Dailaire will please you better than all others.

Write for full details.

**DAIL STEEL PRODUCTS CO.**

1500 Main St., Lansing, Mich.

*Dailaire Heating and Air Conditioning*

## Letters Dept.

(Continued from page 100)

### Asks Lower Interest Rates

To the Editor:

Marion, Ohio

In the April issue of the *American Builder and Building Age* there is an editorial on How to Increase Employment. . . . There is also another important factor that is holding up home ownership. This is the high cost of interest. Unless a man can pay almost the entire cost of buying or building a home, he cannot afford to pay interest charges. On a \$5000 investment, with a \$4000 loan, the interest charges at 6 per cent would be \$240. He could get 3 per cent on \$1000, or \$30, by depositing his cash funds in a building and loan association. His taxes and insurance would be from \$50 to \$75 more. If we allow \$15 for upkeep, we have a total of \$360 per year or \$30 per month. At that rate it is just as cheap to rent.

If the interest rates were cut to at least 4 per cent, the cost of owning this \$5000 home would be lowered over \$6.50 per month. No doubt the taxes on building and loan association have a great deal to do with these high rates of interest. If the government intends to give any subsidies for home ownership, it should give such subsidies direct to the individual home owner by loaning money at 4 per cent or less. Furthermore all taxes on money or property should be graduated with very low rates on the lower brackets, and with an exemption on at least the first thousand. In Florida and some other states there are exemptions of \$5000 on homes.

There is an adequate supply of money at high interest rates but there is very little demand for this money at these high rates. All high costs will have to come down to meet the lower incomes of the wage earners and the unemployed who are living on their meager savings or on the "dole."

CLIFFORD L. SNYDER.

### Can House Construction Be Patented?

To the Editor:

Urbana, Ill.

Sometime ago I read an editorial in your magazine regarding the practical impossibility of producing a complete modern \$2,000 home for the average American family.

I have been a builder for twenty-four years. I can produce a \$2,000 modern house.

Would you be kind enough to advise me? If a house could be put into production is there any way for the builder to protect himself from the duplication of his efforts by others that do not know how to produce said house?

I was recently unsuccessful in an attempt to secure a patent upon a house built of straw. However, this house is built at a low cost by the elimination of duplication of effort and only contains a few original ideas.

There is no profit in building one new house for \$2,000 and then letting every Tom, Dick and Harry come in and duplicate it for ten dollars less.

May I add, partly as a digression, I recently saw in \_\_\_\_\_ magazine a \$7,000 house for which the builder was allowed a paltry \$350 for his profit. How far can anyone get at that price?

I would appreciate a word from you even if there is no encouragement.

HENRY B. STEIN, Builder.

### Approves Timber Connector Story

To the Editor:

Freeport, Ill.

Your splendid publication has come to me through the courtesy of Sanford-Zartman Lumber Co. for the past few years.

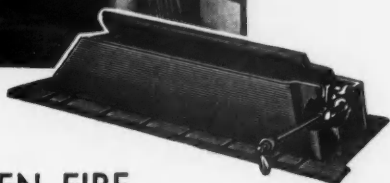
"New Connectors Make Strong Joints" in this April issue is the greatest thing I have read in any building magazine. Perhaps your own staff of editors and publishers does not appreciate the importance of this device nor realize the field it opens and reclaims. Would you kindly send me the address of contributor Frank P. Cartwright? Also any other information or literature you would care to direct my way.

R. C. FINLEY, Carpenter.

## When Winter Winds Blow



A BOOK, A  
COZY NOOK  
BESIDE AN OPEN FIRE



# PEERLESS *dampers*

Assure perfect operation of wood or coal burning fireplaces and that means satisfied customers for you. A Peerless Dome Damper in the fireplace is as important as weatherstrips on windows. It prevents unhealthful drafts and heat loss when the fireplace is not in use. Built of heavy stove plate cast iron they will give life time service. You have three models to choose from—Rotary—Poker or Chain Control.

### OTHER PEERLESS PRODUCTS

Fireplace fixtures—ash dumps—coal windows—ash pit doors—garbage receivers, radiant gas heaters, Gas Conversion Burners and Stokers.  
Details and prices on request.

**PEERLESS MANUFACTURING CORP.**  
1400 W. Ormsby Ave. Louisville, Ky.

**Let Your Customers  
See How  
WEATHERBEST  
Homes Actually Look**

Seeing is believing—so the 1936 WEATHERBEST Sales and Service Plan includes the distribution of nearly a million photographs — attractive, persuasive full color illustrations of actual WEATHERBEST Stained Shingled homes.

A set of 4 varied examples is ready now for each of your prospects who plan to build, modernize or restrain their homes this year.

They're sent free in quantities to qualified WEATHERBEST dealers and contractors.

**WEATHERBEST CORP.**  
179 Main St.,  
N. Tonawanda, N. Y.

I'd like to see your complete 1936 Sales and Service Plan—without obligation.

FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_

**Weatherbest  
STAINED-SHINGLES**  
For Roofs and Side-Walls

## CMC

NEW TWO WHEELERS  
WITH  
PNEUMATIC  
TIRES  
AND  
TIMKEN  
BEARINGS

SEND FOR  
FREE  
BULLETIN  
ON THESE  
LATEST  
IMPROVED

» 7S and 10S machines or other MASTER and SILVER-STREAK Non-tilts from 3½S to 28S, WONDER Tilters from half-bag to two-bag capacity, also CMC Hoists, Plaster and Mortar mixers, Pumps, Saw Rigs, BETTER BILT Wheelbarrows, Concrete and Material Carts with steel wheels or pneumatic tires. » » » »

**CONSTRUCTION MACHINERY CO., WATERLOO, IOWA**

## MAKE BIG MONEY WITH THIS FLOOR SANDER

Yes sir, men, and here's the machine that will do it for you—the American Light Eight Floor Sander. This floor sander is just the right size and weight for the fellow starting in the business and does a great amount of floor sanding at a minimum of expense.

The profits you make in Floor Sanding depend upon getting the right machine to do the job and this American Floor Sander is right there with the goods. It comes equipped with Dust Bag, Belt Guard, 50 feet of trailing wire, and can be operated from any electric light socket. One man can do all his work and no helpers are needed.

Right now is the time to start floor surfacing work. It is pleasant and easy and we help you get under way with advertising help and an easy payment plan. Don't fail to send in the coupon below and information will be sent to you without any obligation whatsoever.

A free demonstration will be gladly arranged at your request.

## AMERICAN

Floor Surfacing Machine Co.  
511 S. St. Clair St., Toledo, Ohio

**Return - COUPON - Now**

Send me more information without obligation on how to make big money surfacing floors.

Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

**"TAKE ME  
WITH YOU  
TO THE  
JOB!"**



This modern, ball-bearing money-maker does the work of FIVE ordinary machines—eighteen or more of your everyday jobs—and does them faster; better. Portable? You can take it to any job—even through a 24 inch opening—by simply removing five bolts.

Cross-cutting	Ripping
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Economical; efficient; invaluable for the Spring pick-up—sash work, sills, window frames, screens, and so on. Write today for the attractive price and full details. Use the 20th Century Woodworker for

Routing	Jointing
Sanding	Dadoing
Planing	Rabbeting
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**AMERICAN SAW MILL MACHINERY CO.**  
61 Main Street Hackettstown, N. J.

**THE 20<sup>th</sup> CENTURY  
WOODWORKER**

## OUR DEALERS ARE MAKING MONEY

MURAL-TONE is selling and repeating. Dealers and master painters are making money with it. The appeal of low-cost decoration with MURAL-TONE is sweeping the country.

The reasons are plain to see. "Economy" is something everyone understands. "Beauty" hits the hard-boiled business man just as it pleases women. "Speed" is the order of the day.

Master painters are even more enthusiastic over MURAL-TONE than "package buyers" because they understand the advantages of easy-flow, more thinner, and labor saving.

The perfected blending of casein and lithopone is the secret of MURAL-TONE's success—plus powerful advertising every month in the right national magazines and newspapers.

Play the winner and make money. Please address THE MURALO Co., INC., 568 Richmond Terrace, Staten Island, N. Y. Branches: Atlanta—Chicago—Boston—San Francisco.



Founded  
1894

BETTER WHITE  
BETTER LIGHT

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The Money-Saving Paint

in the Orange Can

- DRIES IN FORTY MINUTES
- ADHERES TO UNSEA-SONED PLASTER
- ONE COAT COVERS AND HIDES
- WILL NOT LIME-BURN
- CUTS COSTS 25%



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American Builder • American Paint & Oil Dealer • Factory • Architectural Forum • Pencil Points • Buildings & Building Management • National Painters Magazine • Sweet's Catalog

**A MURALO PRODUCT**

## Letters Dept.

(Continued from page 102)

### Uses Large, Welded Slabs

St. Louis, Mo.

To the Editor:

In the November, 1935 issue, on page 37, you published a list of companies engaged in recent developments on house construction and a description of the construction offered.

In the description of the "Haco" construction there were two errors. Please print this letter so that your readers will notice the corrections.

The "Haco" construction consists of large precast stone slabs, reinforced and encased in a steel channel frame, which is welded to the structural steel framework of the building.

In our report, which is on file in your office, you will notice that due to our engineering principles, and because we use the process of electric arc welding at all connections, we produce a structure which is rigid, and one which can withstand the forces of nature, such as tornadoes and earthquakes.

HACO CONSTRUCTION,  
By Mrs. Bertha Cole, Technical Manager.

### Thank You, Doctor

Silver Spring, Md.

To the Editor:

A copy of your article, "Keeping Costs Down," should be in the hands of every builder, and officers of every company interested directly or indirectly in the industry—also should be read by every prospective home owner. If the recommendations regarding keeping costs of construction low are made effective, the results attained will not only be a tremendous boon to the industry and in large measure solve the unemployment problem, but will furnish a classic example of the value and the importance of bringing the costs of goods into line with ability of consumers to purchase them.

I trust your efforts along this line will be fruitful. They cannot be too highly commended.

GEORGE D. HOLDT, M. D.

### Air Conditioned Homes?

Chicago, Ill.

To the Editor:

I wish to commend you for the editorial in your April issue entitled, "Be Careful How You Use the Term 'Air Conditioning.'" "

I agree with you that the term "air conditioning" without qualification as to winter or summer air conditioning should not be applied to equipment which does only a partial job.

In line with the definition of the Better Business Bureau which you quote with approval, don't you think the headline on pages 62 and 63 should read: "Winter Air Conditioned Homes for \$6500," instead of "Air Conditioned Homes for \$6500"?

In the article Mr. Mason explains that the equipment is for winter air conditioning only. Those who turn through the magazine glancing only at the headlines would get the impression that the builder is offering fully air conditioned homes for \$6500.

It seems to me that much of the misunderstanding about air conditioning is due directly to the loose use of the term "air conditioning" as noted in your headline.

NORMAN J. RADDER, Secretary,  
Plumbing and Heating Industries Bureau.

### Wants Auto Court Suggestions

Nogales, Ariz.

To the Editor:

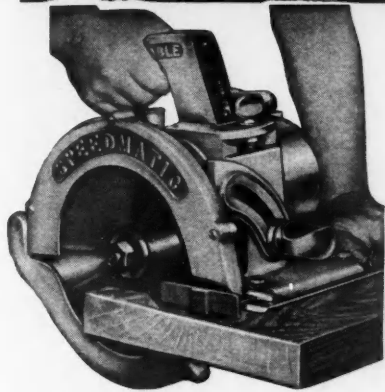
I am interested in building a new Auto Court and would like you to recommend to me a book or pamphlet containing plans of the latest developments along that line.

I am a carpenter by trade and always find a great deal of interesting and instructive information in your magazine, which I read regularly.

J. A. MCGIMSEY.



# R-R-RIP



**YOUR  
WAY TO  
BIGGER  
PROFITS**

*with Speedmatic Saws*

For absolutely **guaranteed** cutting speed and dependability in a saw—Speedmatic is the buy. Its performance on wood, metal, stone, tile and composition **will actually amaze you.**

Ask for the Speedmatic details and your **FREE** copy of the Manual on the Use of Electric Hand Saws in House Building. It describes and illustrates many time and money saving methods every builder should have for reference.

Write today!

*for dependability*  
LOOK FOR  
THE LABEL  
PORTER-CABLE

Also a complete line of floor sanding machines and sanding equipment.

**The PORTER-CABLE MACHINE COMPANY**  
1721-6 North Duane Street Syracuse, New York

## AT HALF PRICE Portfolios of Small Homes

These two portfolios contain much of the best work of R. C. Hunter, a New York architect who for many years has specialized in designing small homes. They show one and two-story homes in a wide assortment of styles that have been popular in recent years. Each home is sketched with its setting and floor plans and the cubic content is given.

### ONE HUNDRED AND ONE SMALL HOMES

These homes are finished in stucco, shingle, siding and brick. They range from four to eight rooms. Some have garages attached. Plans and specifications are available.

In portfolio, 8½ x 11 inches, \$2.50

### FIFTY NEW SMALL HOMES

The second collection consists mostly of small two-story houses that meet suburban conditions. In portfolio, \$1.50.

The Two Portfolios, Banded Together for \$2.00

*Money Back If Not Satisfied*

BOOK SERVICE DEPARTMENT

**AMERICAN BUILDER AND BUILDING AGE**  
30 Church St., New York, N. Y.



## It's the KITCHEN that Sells the House...

In modernizing old homes or building new ones, you cannot lose sight of the fact that the modern housewife looks to the kitchen **FIRST** before deciding on the purchase of a home.

### ELKAY "Sturdibilt" STAINLESS STEEL KITCHEN SINKS

Add that last touch of refinement and elegance to the modern kitchen. They instantly attract the modern housewife by their lustrous, glimmering stain-proof surfaces and help **CLINCH** the sale.

Send us your Specifications for **FREE** Estimates and Plans

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### To Manufacture and Control This Amazing Short-Cut

With **BRICKRETE** veneer you can sell attractive, permanent masonry at one-half of ordinary materials. Hundreds of old frame and stucco buildings in every territory need overcoating. Their owners want permanent, insulated masonry walls in choice of beautiful colors and textures. **BRICKRETE** jobs pay for themselves in few years through savings effected in reduced maintenance and fuel bills plus increased resale values.

### CASH IN ON TODAY'S DEMAND

In new construction as well as in modernizing, the demand today is for permanence and beauty at prices that the big masses can afford. With **BRICKRETE** Six-In-One, you can supply common or faced units in an unlimited range of color and shades. A product that cuts costs in all handling and laying as well as mortar requirement and still offers a substantial profit to yourself.

### INVESTIGATE TODAY

If you want an exclusive business—make a material that every builder wants—where each job sells others—a profitable business that can be started with modest investment,—then write today for complete information while your territory is still open.

**CONCRETE EQUIPMENT COMPANY**  
624 Ottawa Avenue Holland, Michigan



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## BRAND OAK FLOORS

In old homes or new, whether for renting or selling, "PERFECTION" BRAND Oak Floors give service and satisfaction. The greatest value for the money.

Take advantage of the new Housing Administration Act and sell good Oak Floors on your modernizing jobs.

"PERFECTION" BRAND Oak Flooring as furnished by your local dealer is carefully manufactured from selected timber, scientifically seasoned and kiln dried, easily finished. Ask your dealer today to show you the "PERFECTION" BRAND.

Complete information is yours for the asking. Write us today. Sold only through retail lumber dealers.



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PINE BLUFF ARKANSAS

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*Air Conditioning*  
*Sells homes!*

Cleaned  
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**AIR**

Year  
round  
**HOT WATER**  
SUPPLY  
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Economical  
Steel  
Boiler  
**HEAT**

All in one compact unit—and a beautiful unit at that—the small home can now have conditioned air, steel boiler heat, and year-round domestic hot water supply with no storage tank needed.

THE FITZGIBBONS BOILER-AIR CONDITIONER requires no more floor space than an ordinary heating boiler. Even the oil burner may be concealed inside the jacket.

Works with any oil burner. Also built in types for use with automatic stokers and gas burners.

For larger homes, the FITZGIBBONSAIRE gives the same complete service as the smaller unit.

Write NOW for all the facts.

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General Offices:

ARCHITECTS BLDG., 101 PARK AVE., NEW YORK, N. Y.

Works: OSWEGO, N. Y.

Branches and Representatives in Principal Cities

## Power Shop Prefabrication

(Continued from page 61)

One of the features of this system that is at once apparent is the lack of lost motion. Carpenters do not look for pieces to cut, wait until a laborer has brought them, and then go through the processes of handling, marking and cutting. It is the foreman's job to keep all members at their proper location as they are needed, and, with the exception of such details as cornice work, a carpenter requires only a hammer and nails. The past year's experience has carried this crew to a point of high efficiency.

The distribution of the crew is roughly as follows: All hands are engaged in setting joists until about two-thirds of them are placed. Two men are then started on bridging while the second pair finish the joists. Sub-floor is then laid while the foreman and a helper lay out the plates and mark off the studs. When part of the studs are erected and braced in position the foreman, with his joist plans, lays off the joists for the next floor. The crew may then put on sheathing, if the house is frame, or proceed with the next set of joists. The erection of rafters follows the same procedure.

Partition bridging and backing up are left until the house is sheathed in, and generally require several hours for the entire crew.

By following this procedure a frame house can be roughed-in completely in from four to six days. The remaining items of carpentry, such as stairs, cornice, sliding, furring and jambs, are done while the plumbing, heating and wiring are in process.

The whole item of rough framing is treated practically as a sub-contract and is charged to the job as a lump sum on completion.

It is evident as this work progresses that there is still much to be learned. Each new job has some lesson in it. The writer's experience so far has made certain things evident.

In general, the quality of the work is greatly improved. Timbers fit smoothly and accurately. Timbers which are checked or injured in handling are cut into short members and are thereby saved. Joists and rafters are more carefully selected. Examples of the fit and uniformity of cuts are shown in the photographs.

No lumber is bought for jamb blocks, partition bridging, or joist bridging. All of this material is obtained by cutting up ends of timbers cut for joists, rafters, etc. Since the work is all scheduled well in advance of construction, and samples actually made and checked, there is very little lumber wasted due to incorrect cutting. If mistakes are made in cutting samples, the lumber can always be used again down to the point where its length is eight inches. Due to these savings, waste has been practically eliminated. Lumber bills have been reduced as much as fifteen per cent.

Savings in the cost of erection are not made until the erection crew is thoroughly familiar with the idea and its possibilities. The latest houses show an average saving of twenty per cent in erection costs even after adding the cost of cutting the framing lumber. The saving in time of completion of the house is immediately apparent. With the proper cooperation of the various trades, as much as a week's overhead and interest charges may be saved.

In operation, all of these functions are grouped in a separate division of the company. A stock of framing lumber is kept at the yard. The size of this stock varies with the construction requirements, but in general all

(Continued to page 108)



**ACCURATE METAL WEATHER STRIP**

**BUSINESS IS BETTER With Accurate Installers Everywhere**

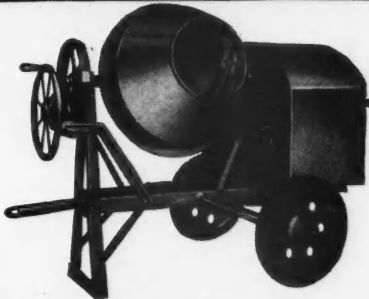
Build a business quickly with this precision strip that has been a leader for 30 years. One job recommends another. Installations guaranteed for life of building. Write today for complete details.

*Jobbers Wanted. Valuable territory open*

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**KWIK-MIX**

Full anti-friction bearing. Light weight. Skip shaker. Automatic water tank. Spring mounting. Sizes: 3 1/2-S, 5-S, 7-S, 10-S.



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PORT WASHINGTON . . . WISCONSIN

**This WAPPAT Electric Handsaw was Built for YOU**

Large enough to cut hip jack rafters. Light enough to take up on the roof—accurate enough to do your closest work and safe enough to be used by a boy. Moderately priced, yet on your work, twice as fast as a table or radial saw.



*Write for full details.*

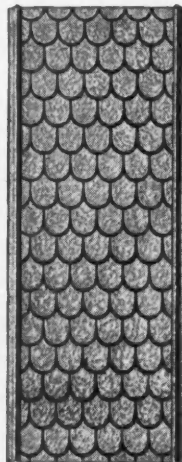
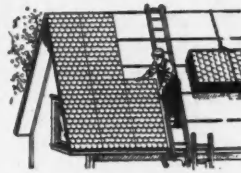
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**Reo Cluster Shingles**

**Lay 100 Shingles at a Time!**



**EDWARDS** Steel Reo Cluster Shingle roofs installed nearly forty years ago are still giving 100% perfect service. Heavily galvanized with 16 lbs. high grade zinc spelter to every 100 sq. ft., these roofs have withstood all extremes of weather. Wind storms have failed to loosen them; their interlocking seams still hold with water-proof tightness. Properly installed and grounded, they protect from lightning. Their fire-protecting efficiency is reflected in low insurance rates.

When your customer demands the best possible roof for his money, sell him Edwards Reo Cluster Shingles. Your margin of profit is liberal and our guarantee protects both of you.

*Write for Roofing Catalog No. 91*

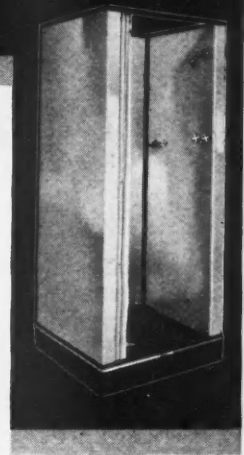
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the simplest mechanism . . . the easiest to install and operate . . . ever conceived.

For your own satisfaction, compare "Over-the-Top" door equipment with any of its varied imitations . . . see why builders are cashing in on its rapidly growing popularity. Write for complete information today.

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By now it's an accepted fact that the public **WANTS** garage doors that open over head. That's why you should recommend the equipment that offers the greatest possibilities for profit.

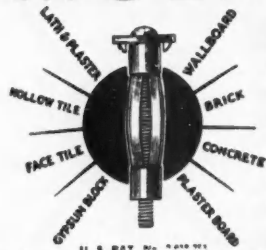
"Over-the-Top" door equipment hits the nail on the head. It is the **FIRST** and **ONLY** device that doesn't require special doors . . . that can be quickly applied to vertical doors, used or new. It is



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Saves time and money when installing stair rails, shelves, cabinets, spandrels, steel window casings, sinks, awnings, fixtures, etc. Contractors, tile setters, plumbers, electricians, maintenance men—all are loud in their praise of the outstanding features of the Molly Universal Screw Anchor.

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FOR INTERIOR AND  
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showing your require-  
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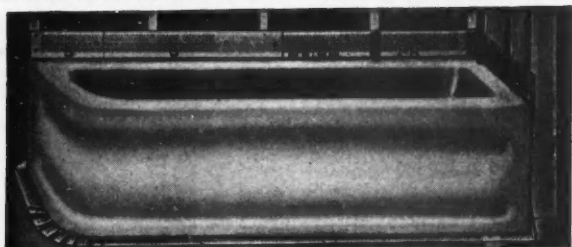
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for a complete leak-proof seal along the edges of your tub. No  
Cracks—No Leaks—Tub stays built-in—does not separate from  
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No more weights, pulleys or cords  
to break; no more spring bolts.  
A sample pair of Austral Sash  
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Please send me a  
sample pair of  
**AUSTRAL SASH  
SUSTAINERS** for  
which I enclose 50c  
(this covers only actual  
cost and postage).  
Name \_\_\_\_\_  
Address \_\_\_\_\_

(Continued from page 106)

materials for a house or a group of houses is on hand well in advance of the start of the construction. Since storage space is available it has been found economical to handle such items as flooring, insulation, lath, etc., in larger quantities at the yard. Another function is the storing and handling of construction tools and equipment which are supplied to different jobs on what amounts to a rental basis.

The firm of W. C. & A. N. Miller has built 36 detached houses, varying in price from \$10,000 to \$40,000 by this method during the past year. They have been built partly in groups, partly in single locations. Since the same erection crew does all the work, the advantage in cost of a group erection is only a slight one. The cost of framing has been successively lower on each group built.

Much of this work has been groping and experimenting, and to a lesser degree will continue to be so. But the quality is improved, the present economical advantages are sure, and the future possibilities are indeed promising.

## The Last Word

(Continued from page 69)

on your plot and Uncle Sam does the rest. The postman will deliver the house, place the package where indicated, set the erection time clock as per directions and walk away to deliver his letters or perhaps another house nearby. Then, within one hour by an ingenious arrangement of springs, cams and ratchets, the house will spring into shape—actually build itself. As soon as erection is complete an automatic short wave sending set notifies the plumber and the house-owner. The plumber immediately proceeds to hook up the water connection, which under our specifications and skilled management requires exactly twenty-two minutes. Within two hours after postal delivery, gentlemen, the Overnite House is ready for occupancy. We have every confidence that we can reduce this to one hour.

"Incidentally, our Overnite House standard equipment includes a two months' supply of pre-digested food for a family of four, a three months' supply of pre-cleansing soap and pre-drying towels, two pre-slept-in beds, two pre-sat-on couches, a pre-wound electric bedside clock and a carton of pre-smoked cigarettes. For a nominal charge we provide a pre-fed canary, a pre-put-out cat and pre-lost front door keys. We have overlooked no detail of intimate, lovely living."

"How about prices and financing?" someone asked.

"No financing—all cash," responded the Colonel.

"The prices are within reach of all. Our nine room house costs just one cent less than One Thousand Dollars or \$999.99, to be exact. A six room house costs \$666.66 and so on up and down at the rate of \$111.11 a room. In fact, we considered naming them the One Eleven Eleven Houses or the Solar Unit Houses, but finally decided to call them Overnite Houses."

"Have you any prospects who wish to build these houses?" asked an enthusiastic listener.

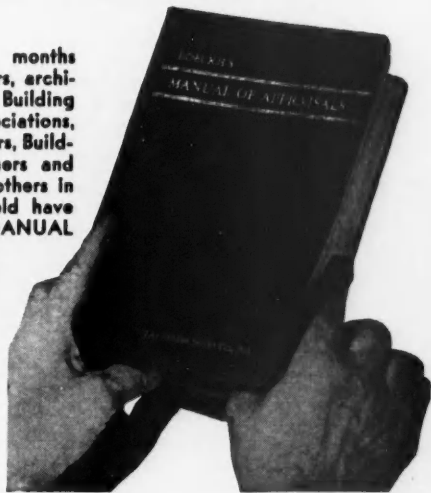
"At 9:27 this morning," beamed the Colonel, "our orders totalled exactly one million houses; and in spite of our well known policy of secrecy and no advertising, orders stream in at the rate of ten thousand a day. We decline to make commitments until after May 1st of next year when we shall be producing houses at the rate of twelve thousand per day. We shall have thirty plants each with its own post office.

(Continued to page 112)

# MAKE QUICK, CLOSE ESTIMATES

of Building Costs  
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Within six months 2,500 contractors, architects, banks, Building and Loan Associations, HOLC appraisers, Building Commissioners and Assessors, and others in the building field have adopted the MANUAL and its method. This is a new SECOND EDITION.



With the new BOECKH MANUAL OF APPRAISALS you can in a few minutes estimate closely the cost of constructing a building. In an hour or so, you can make an accurate, detailed appraisal that will stand up when checked by the HOLC or FHA. Handy Work-Sheets insure complete inspection and appraisal.

The MANUAL'S cubic foot tables assure a precise cost figure for practically any building. They cover 97 specified and illustrated types of buildings, in 3,000 sizes. A simple system of credits and deductions corrects them for hundreds of variations in specifications.

It gives data and instructions necessary for appraising property on the basis of Market and Income Values, and an original scientific method for valuing land. Percentage figures from inexpensive new Index Control Number service quickly convert MANUAL base prices into present prices of materials and labor in your locality.

1935. 272 pages, illustrated, 5 1/2 x 8 1/2 inches, flexible Fabrikoid. MANUAL with pad of Work-Sheets, \$5.00. Money back if not satisfied.

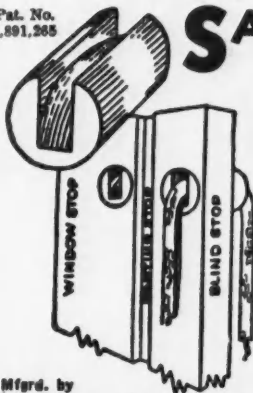
Book Service Department

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40% less weight. Saves labor—merely bore 1" hole and drive Saddle in. Requires less stock of window weights.

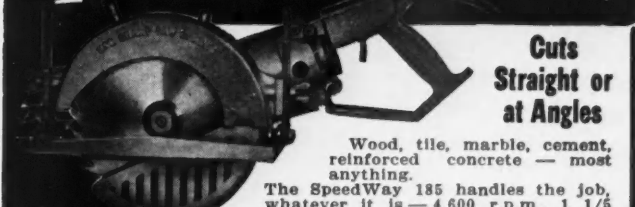
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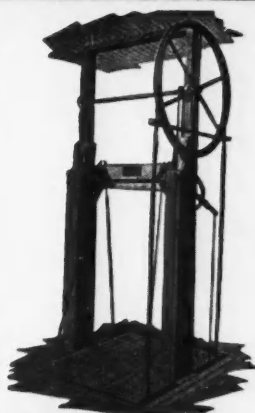
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## HOME EQUIPMENT

**343—Buffalo Air Conditioners**—"Buffalo Type PC Cabinets for Air Conditioning" is a 24-page handbook with numerous temperature charts and other tables valuable in the study of air conditioning, and complete details of the Buffalo central conditioning cabinet.—BUFFALO FORCE CO., Buffalo, N. Y.

**343A—Kewanee Steel Boilers**—New 14-page booklet on steel heating boilers of more compacted shape contains much new information about boiler ratings. Tables give useful specifications and data on coal, oil, gas or stoker firing; illustrations and drawings show construction and engineering details.—KEWANEE BOILER CORP., Kewanee, Ill.

**344—Home Water Systems**—New folder No. 1060 describes and illustrates various water systems for farm and home use. Technical bulletins on water softeners and filters are also issued, describing the hand operated and semi-automatic systems.—FT. WAYNE ENGINEERING & MFG. CO., Ft. Wayne, Ind.

**345—New Style Gas Ranges**—A two-color catalog presents the complete line of Roper 1936 models. Front section points out general features while range models are in pocket at back.—GEO. D. ROPER CORP., Rockford, Ill.

**346—Residence Casements**—"Vento Steel Casements," a 36-page catalog fully illustrating and describing casements and containing full details on Insulpane, Vento's new casement storm sash.—VENTO STEEL SASH CO., Muskegon, Mich.

**347—Bathroom Cabinets**—"Lawco Bathroom Cabinets," a concise presentation of the Lawco cabinet line showing more than fifty styles and designs.

Information also available on Lawco wall hung mirrors, both framed and Venetian.—THE F. H. LAWSON CO., Cincinnati, Ohio.

**348—Door Locks, Cylindrical**—New Schlage catalog is a big one of 184 pages showing lock types, trims, designs and finishes.—SCHLAGE LOCK CO., San Francisco, Calif.

## BUILDING MATERIALS

**349—Glasiron Roofing, Tiling and Panels**—Descriptive pamphlets containing illustrations and specifications of Glasiron porcelain enamel building products offered as permanent, colorful, fireproof.—WOLVERINE PORCELAIN ENAMELING CO., 3350 Scotten Ave., Detroit, Mich.

**350—Gypsteel Plank**—"Gypsteel Plank for Modern Fire-Safe Homes"; complete information regarding these precast units of nailable gypsum bound with steel, tongued and grooved like lumber, for fire-safe floors and roof decks.—STRUCTURAL GYPSUM DIV., American Cyanamid & Chemical Corp., 30 Rockefeller Plaza, New York City.

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American Builder,  
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(June, 1936)

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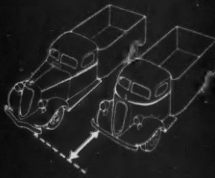
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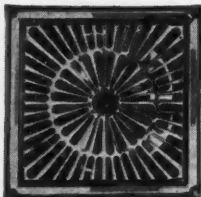
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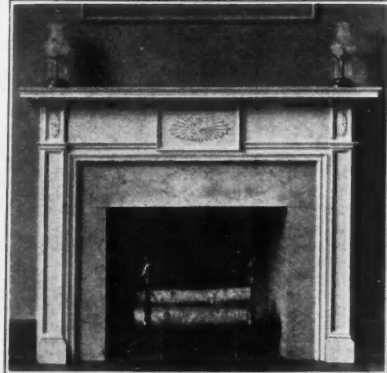
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(Continued from page 108)

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"But why two months?" pursued his questioner, "I thought you said it only required two hours."

"That's a secret, my boy," interrupted the Colonel; "also it is promoter's privilege. Remember that term—'promoter's privilege.' But I must hurry away. The problem of finding enough unimproved land for the millions of Overnite House owners has me worried. Breathes there a man of so little importance that he has not, at some time or other, hurried to Washington for a secret conference with an official high in the Housing Administration? But, before leaving for our nation's capital I want to urge you to buy any available land anywhere and sell, rent or lease it to happy owners of Overnite Houses. Farewell, gentlemen!"

"Wait a minute, Colonel," shouted an excited listener, "Suppose some of these Overnite house owners should reverse the Erection Clock, fold up the house and mail it or fly it away as an airplane glider, without paying any land rent or taxes?"

"Catch 'em when they light," returned the Colonel, moving toward the door. Then as though struck with a brand new inspiration, he stopped.

"Young man," he said, addressing his questioner, "you're right. Flying houses, trundled houses and houses sent through the mails present a real problem. By George, I have the solution! Issue Federal license plates for the houses and fingerprint the owners! I shall take the matter up at my secret conference with high officials in Washington."

And Col. John Previu Smith was on his way.

## "Stud-bat" House

(Continued from page 65)

of molding the boards and the studs. Other and similar designs are often used also.

Figure No. 11. Here we show another type. The principal distinction is the fact that one side (inside face) of the stud and the inside face of the board is flush. In order to make both sides of the interior partitions flush with the face of the studs, the boards must be doubled as indicated by the dotted lines. A local company has applied for a patent covering this flush idea.

Figure No. 12. Detail No. 12 shows the latest idea out. The studs are molded from 3 x 3 or larger redwood, which is oiled or finished natural. The redwood being dark provides an artistic and marked contrast between the dark redwood studs and light knotty pine vertical boards which are finished natural.