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 N E W P R O D U C T S • N E W

THIS ANNOUNCEMENT

is going to

Start Something!

THERE are a good many contractors and carpenters in this country who are sick and tired of waiting for "things to open up."

And perhaps there are just as many who are tired of chasing up blind alleys for jobs that people don't want done and couldn't pay for if they did.

Wood Conversion Company has a message for both these groups of men. It is about two lines of products... Balsam-Wool and Nu-Wood... materials good enough in 1932 to help make work for many contractors and carpenters.

And now for 1933 both lines have been vastly improved and enlarged to make them more desirable to building owners.

There are drastic price reductions. In the case of Balsam-Wool home insulation, as much as 30% to 40%.



Balsam-Wool

 THE FAMOUS INSULATING BLANKET • • • NOW IMPROVED

AMERICAN BUILDER AND BUILDING AGE

To Make Home Owning Desirable

THE high cost of home building and of home owning are, aside from the depression, the two big causes of the recent stagnation of the building industry.

The first has been made up of four elements—(1) high cost of land, (2) high cost of finance, (3) high cost of labor, and (4) high cost of materials. The second is made up of two elements—(1) high cost of maintenance and (2) high cost of taxes.

Considerable progress has been made during the past three years to remedy the first cause, that is to get building costs down. Improved vacant land can now be had at a mere fraction of its former price; building materials are down 30 per cent; and labor rates have been reduced 20 per cent. Financing costs alone remain unchanged, but with some prospect of eventually getting down onto the sane basis which the Home Loan Bank officials predict.

Taken all together, these elements of building cost have been reduced enough to make a real appeal to the prospective home builder or buyer.

As to the second element of cost—that of home owning—it is admitted that the men of the building industry customarily give little thought to it. In the very nature of their business, they give more study to

the building of houses than they do to their economic and satisfactory use after they are built and occupied—yet unquestionably house satisfaction is fundamental to this industry; a sentiment for home ownership be strong and active in a community before a construction program will be started.

Houses so poorly built that repair and upkeep costs are excessive, and taxes on homes so high that it is cheaper to rent than to own, create a situation in many communities that is extremely unfavorable to home building or even to home repairs and maintenance.

The crop of shoddily built houses which the speculative boom years produced is still with us, a "black eye" to the building industry, which must be wiped out now with work so carefully planned and so skillfully executed that the general buying public will note the difference and regain its confidence in builders and home building.

As to taxes, this publication has repeatedly called attention to the menace to home building interests of the huge governmental expenses, public expenditures, taxes and assessments which the politicians have incurred and levied against real estate.

Small wonder that home owning has lost favor or that home owners are disgusted and distraught over these ever

"Salesocracy"—Not Technocracy— Will Revive Business

Extracts from an Article by ROGER W. BABSON,
Eminent Authority on Business,
In Collier's Weekly, March 4, 1933

"What are we going to do about it?" * * * My answer is that we must immediately begin to talk about 'Salesocracy'—that is, the distribution of goods and the circulation of money. * * *

"The first step is to get people to pay their bills under the slogan, 'You pay me and I'll pay you.' There is money enough today for all to pay their bills if we could simply get money circulating by the substitution of confidence for fear.

"The next step would be to get vacant property occupied. Idle houses, stores and factories will never get us out of the depression. Yet everything will rent for some figure. * * * Only as money is being circulated in the payment of rent and interest, on some basis, will prosperity return. * * *

"We must, of course, give more attention to distribution, including selling and advertising. Probably one of the greatest causes of the business cycle is the disproportionate amount of energy, time and money expended relatively on production and distribution. * * *

"Business men must be convinced that their salvation depends upon increased expenditures on salesmanship, advertising and research. * * *

"All attempts at artificial price-fixing—or attempts to inflate the currency—are of no avail. Such plans are like giving a hot-water bag or a dose of dope to a man suffering from hunger. The nation needs today only orders for goods. This means that more efforts must be given to selling, advertising and research. Advertising must be encouraged in every possible way. Only by such plans can we hope to increase purchasing power.

"Purchasing power comes from a changed desire within the hearts of people. It is not more money that is needed today. There is practically as much money in the country today as five years ago. The difficulty is that this money is stagnant and is not normally circulating."

mounting, unpredictable and unescapable items of annual expense assessed against home ownership!

We are happy to report that during 1932 a start was made in curbing the costs of government and in bringing down real estate taxes. Powerful organizations are now enlisted in this fight. At the midwinter meeting of the National Association of Real Estate Boards, held in Washington the last week in January, a platform of specific proposals for tax action for the relief of real estate was adopted by the delegate body of the Association. The planks, six in number, give the following program of concrete proposals for immediate legislative action:

1. State control of local tax levies and bond issues, under proper safeguards.
2. Limitation of the property tax by state constitutional provision.
3. Spread of school costs to a wider tax base.
4. Expenditure of funds from state gas and vehicle taxes upon city streets as well as upon rural highways.
5. Restriction of use of special assessments for financing public improvements.
6. Consideration of the income or use value of property as one of the major factors in arriving at a fair assessment for tax purposes.

In most of the 44 states in which regular sessions of state legislatures are scheduled this year, it is already known that there will come up either from the governors, from state tax commissions or other special state bodies, or from industry groups, important tax adjustment measures. Many states are committed to find some means of relief to real estate, particularly homes and farms, from what is recognized as a present inequitable share of the tax burden. The proposals adopted by the National Association are designed to block out suggested fundamental lines of action which would, in fact, give substantial relief.

Constitutional Limitation for Property Tax

Proposal Two of this program offers perhaps the most immediate relief to property owners. In outlining this, the resolution states, "We propose that each state adopt a constitutional amendment specifically limiting the tax on property for all purposes, including debt service, to a fixed percentage of its true value. Ohio has had for two years a limitation of 1½ per cent. Michigan and West Virginia have recently adopted similar constitutional limitations. We believe that such enactments can be made effective by an aroused public opinion, and that they will serve to bring pressure for broadening the tax base."

Of great interest to urban and village property owners is the Fourth proposal of this program since it has to do with street improvement, that chronic source of special assessments. On this point the realtors' recommendation reads:

"We propose that funds obtained by state governments from gasoline taxes and motor vehicle taxes be used for the maintenance and construction of streets in

municipalities as well as for the maintenance and construction of rural highways. There is no sound reason why the municipalities should not participate equitably with non-urban sections of the states in the highway funds derived from gasoline and motor vehicle taxes."

Assessments Based on Use Value

Proposal Six is also of special importance, since it attacks the basis of assessed valuations. The resolution on this reads, "We propose that in valuing property for tax purposes, the income or annual use value of a property should be one of the major factors in the valuation, and that the tax laws of the various states be amended accordingly. The summation method, that is the adding together of the land value and the depreciated reproduction cost of the improvements, now in common use by assessors, is often incorrect and usually produces distorted valuations. The truest measure of the ability of real estate to pay taxes is its use value, and the laws should recognize this fact."

These three planks and the other three that constitute the program for tax legislation proposed by the realtors seem fair, reasonable and workable; and this publication is glad to endorse them. Their adoption by the States would do much to put home owning back into the ranks of the desirable. It is certainly good public policy to encourage home ownership rather than to penalize it.

The building industry can help itself by getting into this fight in every state and town, and by striving not only for lower costs of home building but also for lower costs of home owning.

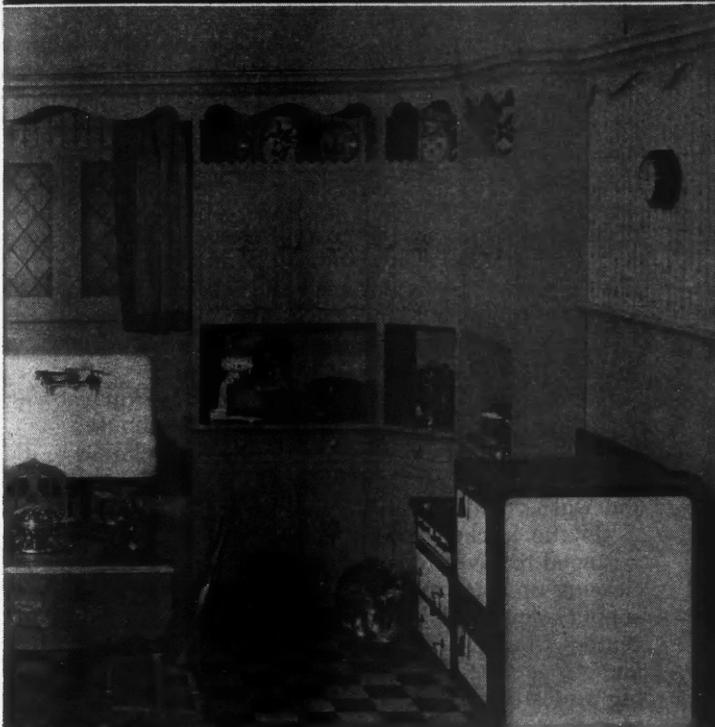
BETTER TO ENCOURAGE PRIVATE ENTERPRISE

A CURRENT news release from the Brookings Institute quotes Otto T. Mallery of the Unemployment Committee of the Philadelphia Chamber of Commerce as stating that most of the 2½ million workers normally employed in the construction industry would have been at work during the past year if the cities, counties and states had increased their public works by the same proportion as did the federal government.

Perhaps so.

But on the other hand, what if the additional taxation needed to put through such a public works program should still further dry up private capital and private work, "releasing" those workmen still employed on private construction—of which there is a record of over \$1,000,000,000 in contracts for 1932—would employment among building craftsmen really have been increased?

There is little to be gained by putting men to work on tax-supported construction and laying off those on private construction. It is by stimulating private construction and private business generally that normal employment and business will be regained.



THE MODERN KITCHEN— MOST IMPORTANT ROOM IN THE HOUSE

"GLORIFY the American Kitchen" might well be the slogan of builders this spring. Kitchen modernizing offers one of the most promising fields for immediate business. Today's housewife is seeking efficiency and beauty in her kitchen. She is spending more time there—doing more of her own work. She attaches so much importance to beauty and a work-saving plan that the modernized kitchen has become the most im-

portant room in the house, both to her and to the owner and builder with an eye for selling value.

AT THE top above is shown a gleaming modern installation having monel metal sinks and work areas which add to its efficiency and good looks. At the left below rubber tile provides a resilient, long wearing floor. Built in cabinets feature the cheerful kitchen at the right.

Consider the Housewife First!



The "woman's point of view" in kitchen improvement is given by Miss Abby L. Marlatt, home economics authority.

THE WORKER is worthy of (her) hire," but the housewife is neither listed in the census as a worker or as worthy of her hire. Little newspaper space is given to the over worked, under paid millions of housewives who have signed on to work as general utility head, purchasing agent, bookkeeper, banker, production manager, day laborer, teacher, and often buffer in life's social adjustments.

All that we owe to some woman's months of joy and often fear and then years of careful guidance. I cherish a letter written 19 years ago by Mayor Gaynor of New York City. He had received a letter asking "shall women be paid for their labor in the home and what shall be the rate of compensation—shall it be a weekly or an hourly wage and how much?"

His reply was "I think they ought to be paid by the minute at the rate of \$1,000,000 a minute." Woman's work in the home is above price.

In the daily kitchen round of planning, buying, preparing, serving and clearing away there are great possibilities of lessening the fatigue, the energy and time consumption through the better arrangement of work spaces and tool selection. The kitchen in which the worker spends often one half of her time and in some houses even three quarters of her time should be made as efficient as the best engineering layout can devise. The walking distances should be reduced to the least number

- - - and when you build kitchens, plan them to fit her work, says home expert. Better kitchen details given

By **ABBY L. MARLATT**

Director, Home Economics Department, University of Wisconsin and Chairman of the Committee on Kitchens of the President's Conference on Home Building and Home Ownership

of steps through the placing of equipment where it is needed. This should be planned after careful study of the house work schedule.

No one plan, no one work schedule, no one allotment of hours to tasks will meet every situation. Perhaps that is why it seems so difficult to standardize the dwelling, but standardize a part of it at least we must if the homemaker who does all her own work is to be helped in reducing her working hours to a reasonable schedule.

One comparative study on meal service indicates that more time is spent in putting away food after the meal than is spent in dishwashing. This is especially true when a wheel tray is not used and when the refrigerator is far from dining room, work table and sink.

A critical study of the kitchen should answer the following questions:

"Can the front door be reached from the kitchen without going through the other rooms of the house?"

"Is the kitchen conveniently located in relation to dining area, rest center, play space for children, laundry, and wash room?"

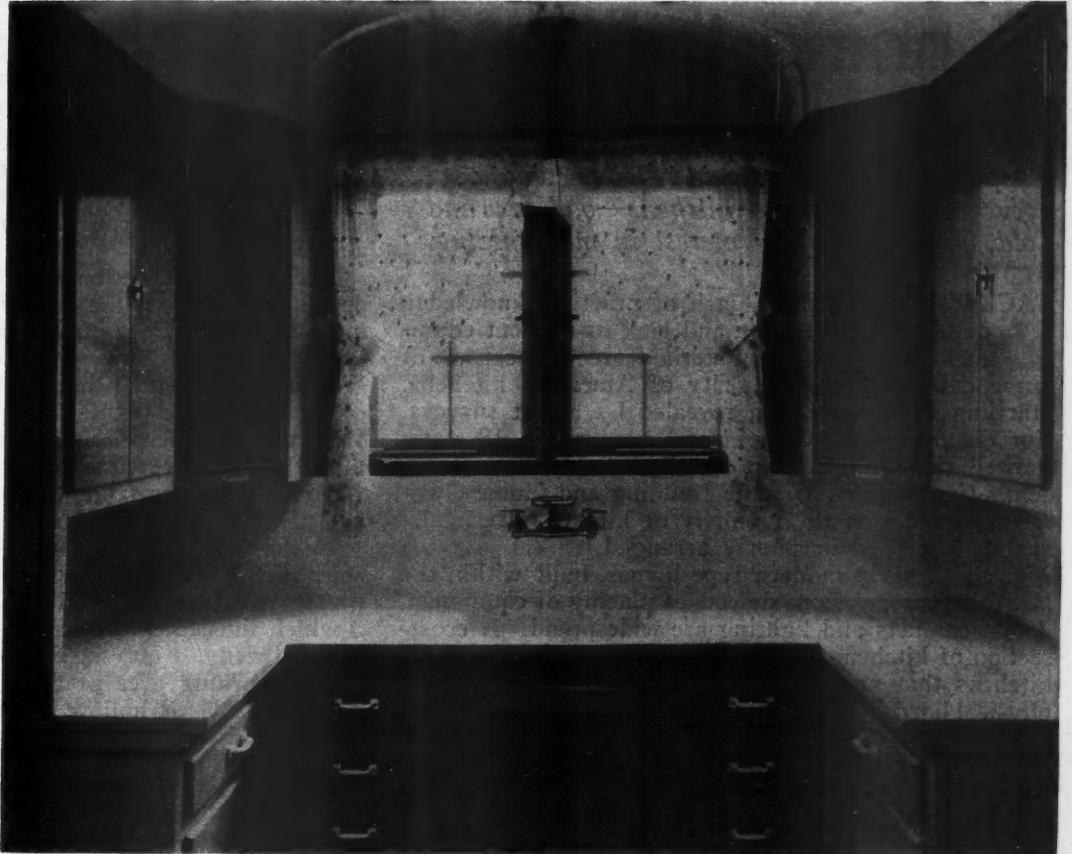
"Is the kitchen convenient? Is the large equipment arranged to save steps in preparing, cooking, serving and clearing up after meals? Are there storage facilities for supplies and small equipment, located at the working centers where they are used? Are the working surfaces and storage facilities at proper heights to minimize stooping and stretching? Is there sufficient working surface at each work center? Is there a convenient place for the deliveries of groceries and supplies? Is there provision for outside icing if ice is used? Is there a permanent drainage connection to carry away waste from an ice refrigerator? Is there a convenient and sanitary arrangement for disposal of garbage?"

"Can all doors be opened irrespective of the position of other doors? Do the doors swing in the right direction to give the most usable space? Are the doors located so that when opened they do not obstruct the light from windows? Are they placed so as to provide sufficient wall space for furnishings? Are the door knobs set in far enough to prevent bruising knuckles on door frame when closing door?"

"Do the windows provide adequate air, light and sunshine? Are the windows properly placed so that there is sufficient wall space for the placing of furnishings? Are the frames properly constructed so that water can not leak in and spoil interior finishes? Are the windows easily manipulated? Are they properly screened?"

"Are walls, woodwork and floors of a finish easily cleaned? Is the woodwork plain in design—free from

(Continued on page 50)



Kitchen cabinets such as these make the "home workshop" efficient. This U-shaped arrangement is excellent. The straight line working plan combining sink drainboard and work table, all close to the cabinets, is recommended. Cabinet units may be had to fit practically any kitchen.

Kitchen Modernizing Furthered By New Materials and Equipment



Above is shown the new fuseless circuit breaker located conveniently in the kitchen. A flip of the finger reestablishes the circuit.



At left—a corner detail with gas stove placed conveniently to sink drain board. The ventilating fan, shown above, provides needed circulation.



At far left—a spic-and-span kitchenette with almost as many facilities as a full sized kitchen. The plan is excellent; sink is of monel metal.

Planning the Modern Kitchen

RAPID progress is being made in kitchen planning and equipment. These new data are given to help sell better kitchens—both new and old, and to stimulate interest in modernizing.

LACK OF PLANNING, lack of practical knowledge of kitchen procedure, and lack of efficient equipment and modern materials are the causes of grave defects in the majority of American kitchens. Startling facts have been revealed by recent surveys. For example, a survey of rural kitchens in 18 states showed that only 50 per cent had sinks. The President's Conference on Home Building and Home Ownership found that the majority of kitchens are inadequately equipped or poorly arranged.

Even in fairly modern type homes, built within the last five years, obvious defects of placing of equipment, doors, cabinets and lighting are widespread. A cross-section of kitchens in any town shows dark, unsanitary kitchens that are causing the housewives mental and physical hardship.

All of this exists at a time when there is an abundance of new materials and equipment. Building men are discovering that kitchen modernizing constitutes one of the biggest single fields for business this year.

Selling kitchen modernizing calls for a knowledge of the most recent trends in design and equipment. The

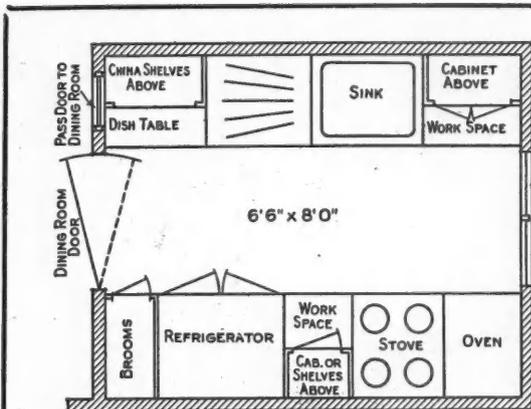
following data are presented, therefore, to be used not only in actual building operation but in selling kitchen improvements, to show the home owner what remarkable improvements can now be made at very reasonable cost.

The most important recent improvement in kitchen designing has been the "continuous counter" arrangement which provides an almost continuous work area between all the important pieces of equipment. The kitchen is laid out so that there is a natural movement of food from the point where it is taken from the refrigerator to where it is delivered to the dining room table, and the reverse process where the dishes are removed from the table and returned to their cabinets and the remaining food to the refrigerator.

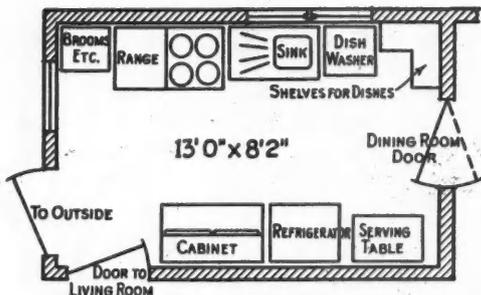
In the plans below, a number of the best and most scientifically designed new kitchen arrangements are given. An ideal size and arrangement is that of Plan 3 which illustrates the basic principles of kitchen design. Briefly, it may be described as follows:

The working area of the kitchen should be in the shape of a U or hollow square. The logical location for the sink is at the center of the U with the cabinet at the left of the sink, and the stove at the right of the sink. The refrigerator should always be placed conveniently close to the food cabinet and preferably at the left of the cabinet.

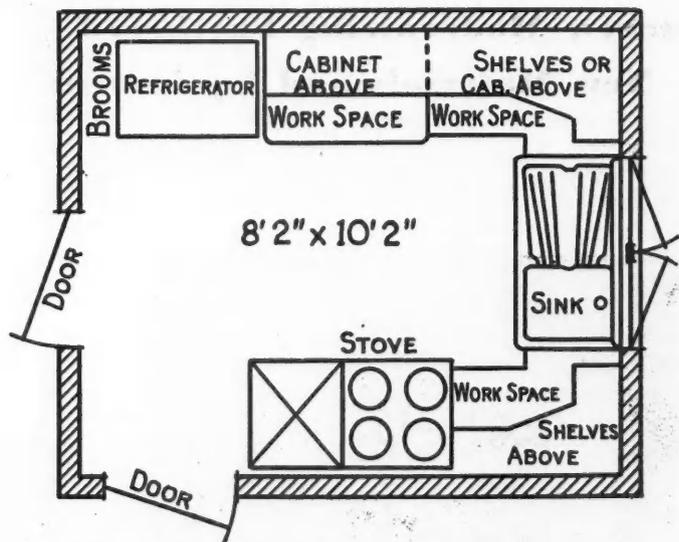
Let's see how this works out in plan 3. Food is re-



PLAN 1—FOR SMALL HOME. Dishes are passed from dining room through pass-door to table near sink. Note plenty of work space and shelves. Equipment is skillfully placed.



PLAN 2—FOR SMALL HOME. An excellent arrangement for convenient use. Range and sink are opposite work table, close to it. Refrigerator is next to cabinet, which is best position. China shelves are near dishwasher.



PLAN 3—IDEAL LAYOUT FOR AVERAGE HOME. (Above) A proven and practical arrangement in most modern manner. Continuous work area extends in U-shape around end of room. Shelves above and cupboards below provide convenient place for food and equipment. Note important work space next to stove.

Refrigerator is in best location at left of cabinet. Sink is half way between cabinet and stove and movement from refrigerator to cabinet to sink to range is logical and efficient. Doors do not interfere with work area. Large window above sink provides good light and cross ventilation.

Other recommended dimensions for small home kitchens are 6'6" x 8'; 7' x 8'6"; 8' x 13'; 6'6" x 10'6"; 7' x 12'. In big, old-fashioned kitchens a "work area" such as above may be laid out at one end or corner, and the rest used for other purposes than cooking.

moved from the refrigerator (door of which must open toward cabinet) and transferred to table top of cabinet. This table work space or counter extends clear around the room to the sink, and from the sink to the stove. Cabinets, cupboards or shelves are built above this work counter and storage cupboards below.

Pots and pans are kept on the shelves at the left of the range. When the wife starts her cooking, there is no lost motion in getting the pan, filling it at the sink, adding ingredients from the cabinet and placing it on the stove.

In this "ideal arrangement", a straight line movement is possible with an almost continuous arrangement of work table, shelves and cabinets extending in a U shape around the room, with the three important pieces of equipment—refrigerator, sink and range—strategically placed for kitchen use. A work table or counter space next to the stove is considered very necessary by the housewife.

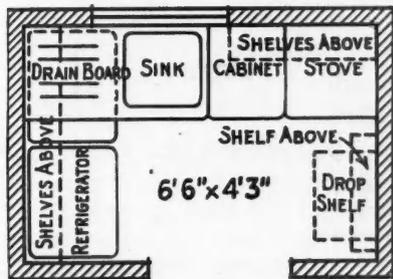
Surveys of existing kitchens show that it is not so much the size that is at fault as it is the arrangement. In the plans below, several shapes and arrangements are given, and yet the basic idea of continuous clock-wise placing of work counter, cabinet and equipment is maintained.

Size of the kitchen will depend on the size of the home, the family and its requirements. One reason why there was a reaction against the large kitchens of the past was that they were not scientifically arranged. The stove,

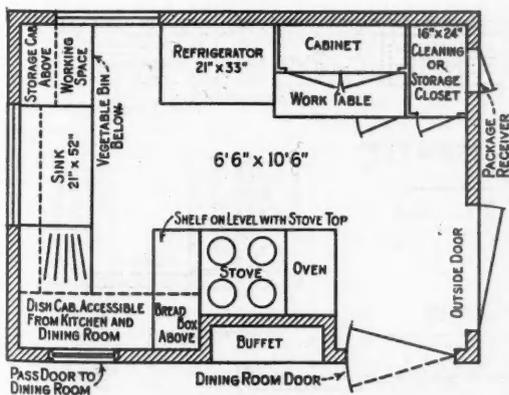
Kitchen Modernizing Check List

In planning a new kitchen or modernizing an old, check your prospect's kitchen against these items to find out how up to date it is. Does it have ?

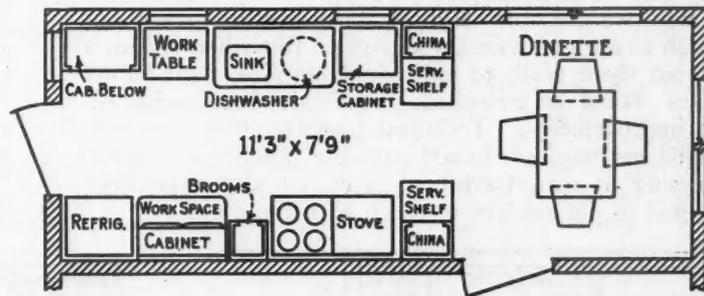
- Straight line arrangement...
- Continuous work area.....
- Modern refrigerator.....
- Refrigerator next to cabinet.....
- Compact, U-shaped work area.....
- Drain at left of sink.....
- Modern stove.....
- Stove at right of sink.....
- Sink in center of plan.....
- Four double outlets, electric.....
- Cross ventilation.....
- Sunlight.....
- Not more than 3 doors.....
- Pass-door to dining room for dishes.....
- Package receiver.....
- Ventilating fan.....
- Washable walls.....
- Resilient floor.....
- Modern kitchen cabinet.....
- Plenty of shelves.....
- Storage under work tables.....
- Doors swung right.....
- Kitchen size fits needs and habits of family.....
- Sink right height for housewife—32 to 37 in.....
- Work table right height.....
- Work space or table next to stove and same height.....
- Subdued color scheme.....
- Storage cabinet for brooms, ironing board, cleaning apparatus.....
- Sanitary cove base.....
- Non-staining sink and work table tops.....
- Space for table and chairs without interfering with work area.....
- Cheerful color scheme.....
- Improved sink.....
- Toe space.....
- Cabinet doors open toward direction of greatest use.....
- Circuit breaker.....
- Electric dishwasher (portable or built in).....
- Acoustic walls.....
- Cheerful breakfast nook.....
- Built-in table.....
- Incinerator.....
- Telephone and stand.....
- Milk receiver.....
- Water filter.....
- New type windows.....
- Rubber tile floors.....
- Garbage receiver.....
- Safety door lock.....
- Mixing faucets.....
- Automatic time and temperature control on range.....



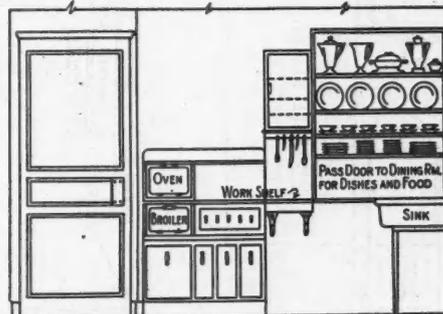
PLAN 4—VERY SMALL APARTMENT OR WALL TYPE. Equipment packed in efficiently. Open shelves on three walls.

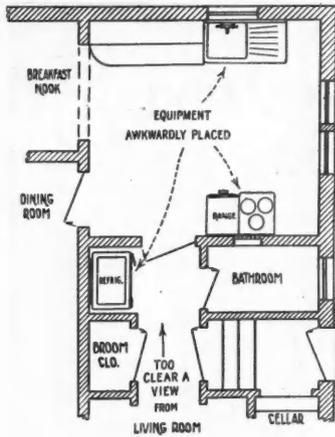


PLAN 5—FOR LARGER HOME—but one where housewife does her own work. Efficient layout illustrates also the pass-door from dish table (next to sink) to dining room. Refrigerator is next to cabinet where it belongs. Work or counter space is abundant, and plenty of shelves and cupboard space is conveniently located. Detail of pass-door is at right.

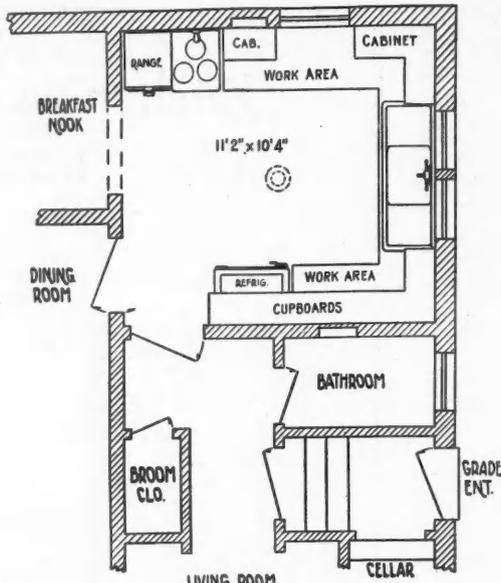


PLAN 6—DINETTE PLAN (above). A convenient but space saving plan for 4 to 6 room house. More work table area than usual in small kitchen; also good storage. Serving shelves next to dinette are useful. Top of stove is also used as convenient serving area close to dinette.

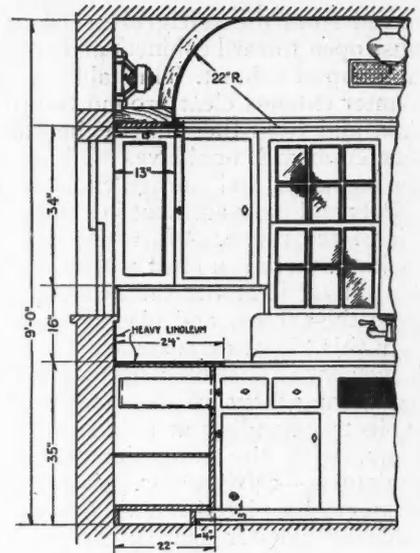




POOR ARRANGEMENT—a typical kitchen of the type that needs modernizing. Range stands alone, too far from sink and cabinet. Refrigerator is out in hallway where it is hard to get to. Kitchen lacks table or work space, especially next to stove. Direct view to living room is not desirable. At right is shown how this kitchen was rearranged and modernized in efficient fashion.



MODERNIZED KITCHEN—here is same kitchen after it had been scientifically re-planned and rebuilt. A continuous work table 24 inches wide connects range, sink, cabinet and refrigerator, and all of these units are convenient to each other.

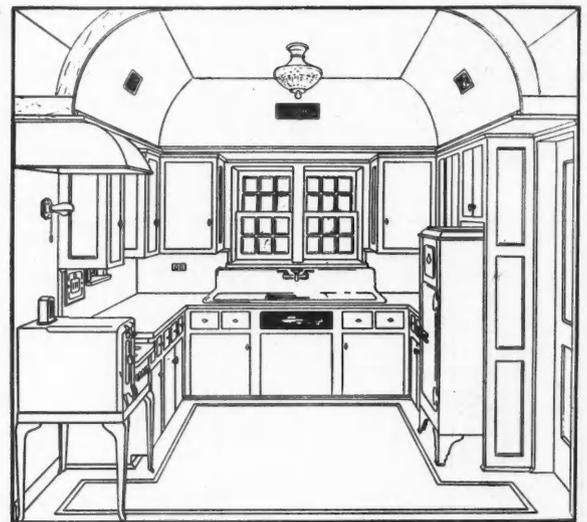


CROSS SECTION—showing construction details for domed ceiling, ventilating system and cupboards, of modernized kitchen at left. Fan is mounted behind dome, draws off odors through grilles.

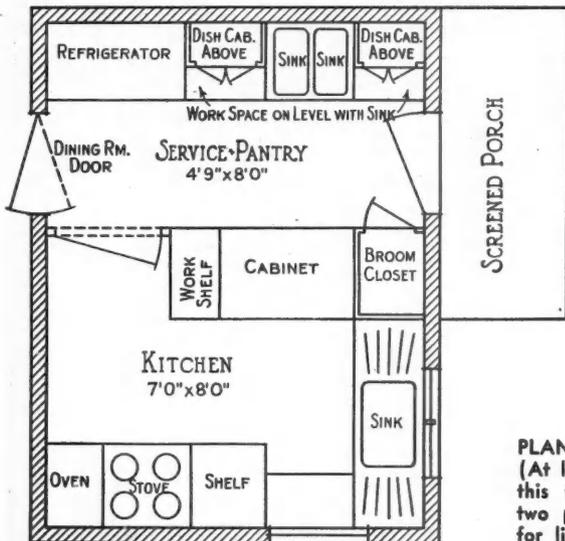
sink and refrigerator were widely scattered, probably on three opposite sides of a big room, and it required a great deal of extra walking to get back and forth between them.

Now it has been discovered that a large kitchen may be just as efficient as a small one. This is done by grouping the working area and important pieces of equipment at one end, or one part of the kitchen, leaving the rest for the placing of a dining room or breakfast table, or as a place for the children to play while their mother is working in the kitchen. In many families such space is desired for chairs to accommodate other members of the family who naturally gather in the kitchen, where the house wife necessarily must spend so much of her time.

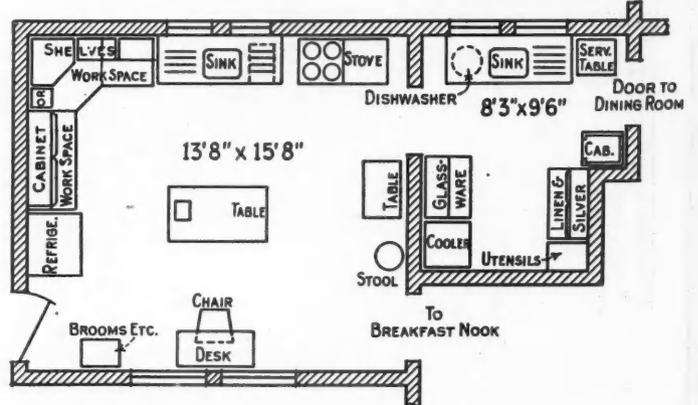
In other words, the actual building of a kitchen is a matter of the individual tastes and requirements of the family. The basic principles of design are universal, and that is why we are able to show scientifically worked out plans such as are given on these pages. But when it comes to applying these plans to individual families, their habits and tastes should be consulted. Study of these plans will suggest improvements. Technical planning help for individual kitchens may be obtained from the "kitchen engineers" of a number of manufacturers. The AMERICAN BUILDER will be glad to put readers in touch with these men.



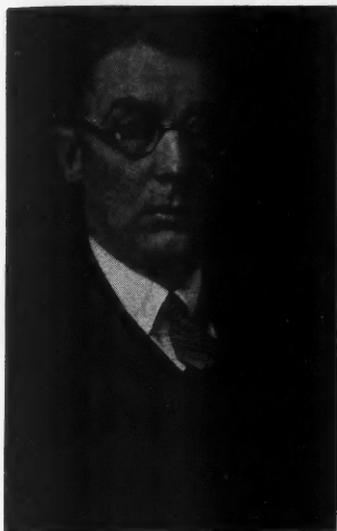
VIEW FROM BREAKFAST NOOK showing how the modernized kitchen looks. Domed ceiling reflects light properly and is attractive. Space outside of dome is air duct for ventilation. Fan draws off fumes through grilles. The U-shaped plan with continuous work space is very good.



PLAN 7—FOR HOUSE WITH MAID. (At left) A service pantry is needed in this type house, and work space for two people. Two sinks, ample storage for linen and silver are provided.



PLAN 8—LARGE HOME. Room for two to work is provided. Dishes are washed and stored in serving pantry; desserts are prepared there. An efficient plan which simplifies work.



What Should the Worker Demand in His House?

By W. F. SHAW

Manager, American Forest Products Industries, Inc.

Portions of an Address at
The Annual Convention of
The Ohio Association of
Retail Lumber Dealers

THE wage earner should not be content with a house that is not modern, nor should he be deluded into investing in any type of flimsy construction. Families have been forced to double up in living quarters. In this sense, every dwelling has become a potential tenement. When the depression lifts, there will have been created a great "saved up" reservoir of residential building for over 250,000 houses annually. The movement for slum clearance is slowly getting under way. Residential building is likely to hold the center of the stage for many years.

What is the wage earner entitled to receive if he buys a home? The man who is steadily employed even though he earns but \$2000 a year, can afford to pay, in monthly installments, \$35 per month, and \$80 per year for repairs and upkeep. Reputable home building and finance companies with a 15-year plan will help him buy about \$4000 worth of house to be built in accordance with his wishes.

What facilities, what measure of attractiveness and comfort, what sort of construction, should be included in this \$4000 house built for the wage earner who is able to make such an investment?

What Public Is Entitled To

He deserves a structure that is substantial, an architectural style that is not a novelty, an investment that will preserve a large part of its value 20 or 30 years after he buys it. While it is to the interest of business in this country that electric refrigeration, automatic heating, air conditioning, and many other similar conveniences should come within the reach of the large mass of consumers, at present these cannot be included in the purchase price of the well-constructed \$4000 house. Later, if the family budget permits, these may be installed at no greater cost. Such essentials of modern housing as plumbing, heating, and electric wiring should be built in when the house rises from its foundation. Other necessary items include an attractive design that will not go out of style, with convenient arrangement of interior space; sub-flooring, sub-siding, at least a good quality of building paper or insulation between sheathing and finish; rafters, studs, and joists on 16" centers; substantial outside wood trim; high quality wood shingle roof; three coats of the best grade lead and oil paint; a dry basement; heating plant, whether it be steam, warm air, or hot water, of sufficient size to insure maintaining an inside temperature of 70°F. in any weather; a modern bath-

room, porcelain kitchen sink with drain board and laundry facilities; a domestic hot water heater to operate at a cost of not over \$3.50 per month; sufficient windows to supply light and ventilation, equipped with full length screens; finished wood floors; properly constructed chimney; plenty of electric outlets, correctly installed; built-in wood cabinets in the kitchen, and ample closet spaces throughout the house.

These minimum standards are to be had in a \$4000 house today.

There has been an avalanche of publicity unloosed to support unlimited research effort to popularize a distinctly new trend in small house architecture. I could easily suggest half a dozen articles for a long winter night's reading which would leave you amazed at the ready facility with which plans are made to sweep aside the traditional and install a "moderne" style, which proposes to "create in the spirit of today." Competing groups—glass, steel, porcelain, concrete, rubber, cork, aluminum, and interesting combinations thereof—vie in deadly earnest to capitalize interesting uses of these materials. For the American Forest Products Industries to ignore this trend would be foolish. To follow it fatuously, forsaking our traditional heritages, would be even more foolish. If you have taken the prescribed reading course mentioned before, certain phrases and sentences readily come to mind:

"Houses should be built at low cost to be bought and sold like automobiles . . ."

" . . . a lot of glass filing cases placed end to end"

"It is low and flat, and, with its colored exterior, looks like nothing so much as an overgrown sardine can set down in the landscape."

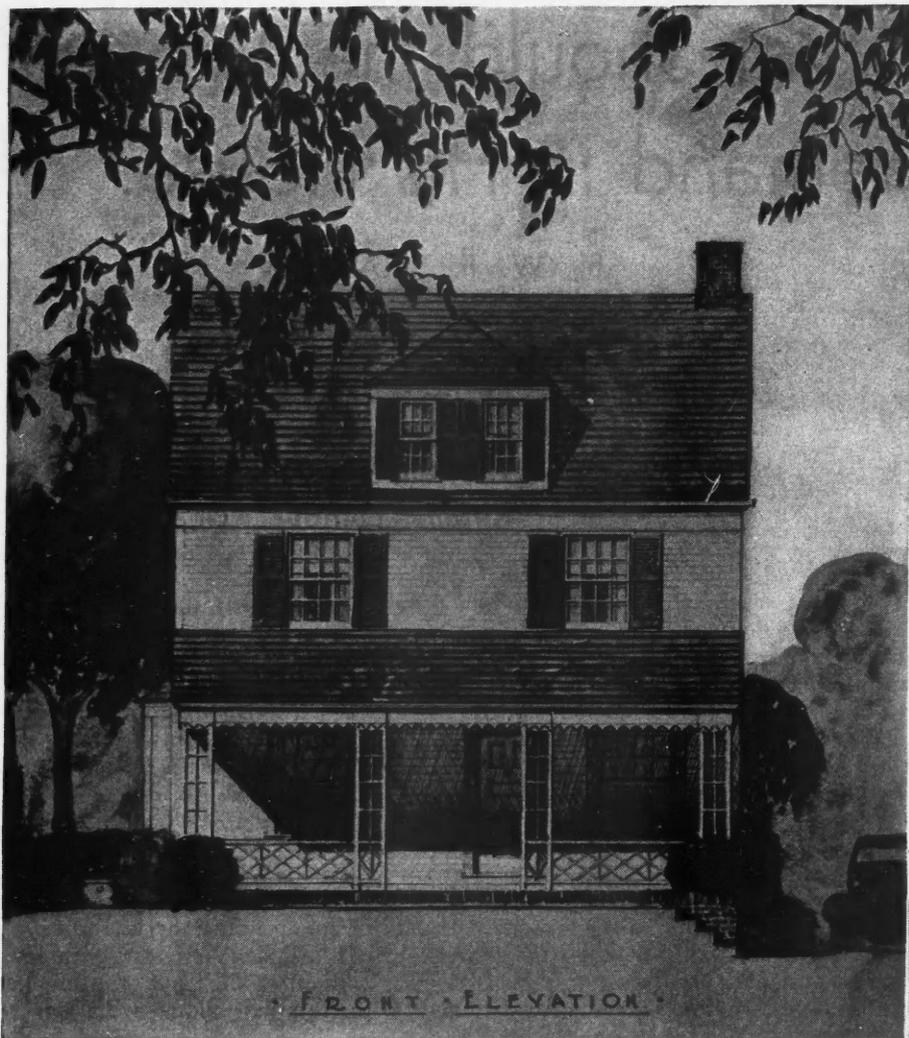
"To keep on building small houses just as they have been built for the last quarter of a century is to ignore the truth that *Utility is Beauty*." ". . . every inch of space, from foundation to, and including the roof itself, is planned for family comfort." "Mass production of small houses is the logical answer to economic necessities of today." "This house, ordered today, will be erected tomorrow wherever you say, and delivered to you complete in all essential details, the following day."

Construction Methods Due for Change

Undoubtedly we face changing conditions, beyond control of any one group, which will greatly influence trends in the field of small housing. It seems to us that

(Continued on page 54)

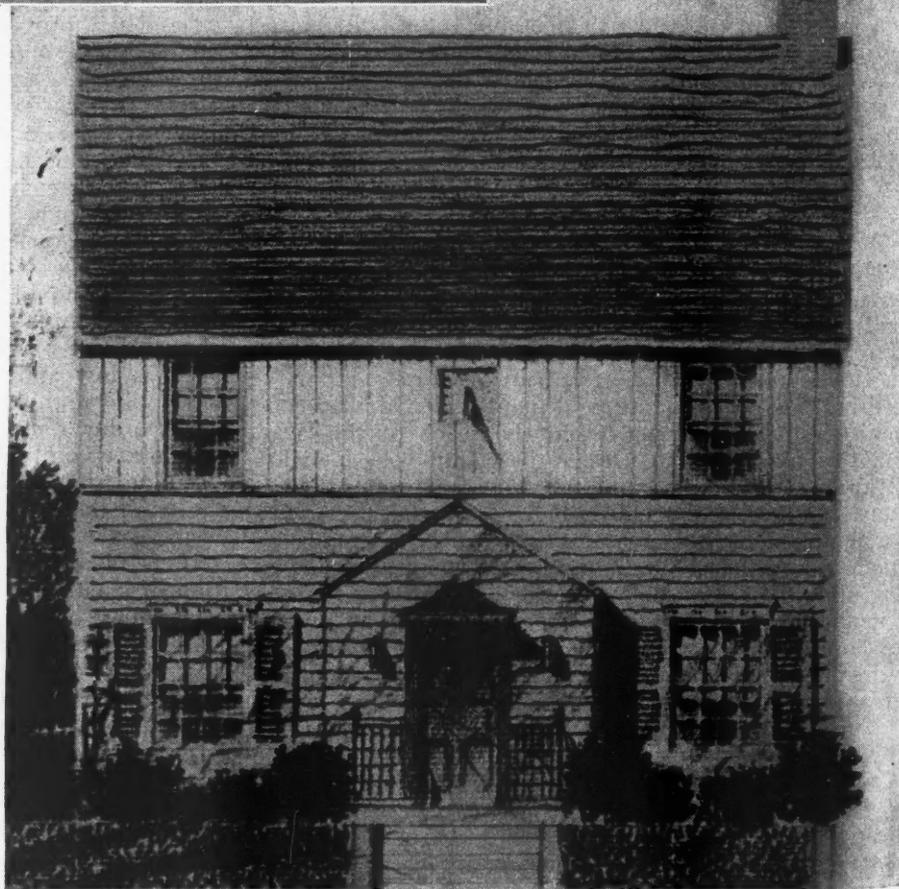
Cleveland L



This design by Austin Damon trims off the "gingerbread" without radical structural changes. The grade is raised by means of an earth terrace, while the porch is made more demure.

Sixty-five unemployed architectural draftsmen submitted designs for re-styling the old house selected by the Cleveland Building Construction Institute for demonstrating the latest ideas in renovizing.

Here are two of the prize winners selected by the judges.



A. E. Shrimpton's re-styling scheme was liked because it did away with the porch entirely, also with the roof dormer.

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and Launches Renovize Drive

Bankers, architects, dealers and builders unite to arouse the Cleveland market to present bargains in home improvements.

SPURRED on by recollections of the city-wide "renovizing" campaign of 1932, architects, building material and contracting interests of Cleveland have embarked on another endeavor to rouse the attention of owners of homes and commercial buildings to the need for immediate repairs and improvements to their properties. The movement, being conducted under the auspices of the Building Construction Institute, is proceeding swiftly along a well-mapped route laid down by the executive committee of the organization, whose first objective is the complete remodeling of an older house for demonstration purposes.

Believing a concrete example of the ideas advocated by the Institute to be the first practical step in interesting the home-owning public, co-operation of banking institutions was sought with the result that the modernizing of a somewhat deteriorated house will be done by the Cleveland Trust Company under a rather unique plan. The property, owned by the bank through a recently foreclosed mortgage, is located in a desirable neighborhood where the average valuation of homes is around ten thousand dollars. The house is perhaps twenty years old, and was chosen because of its special suitability for this purpose.

A committee of architects, appointed to inspect the house, reported that the following changes should be made:

Exterior remodeled, probably including removal of present porch; alteration of dormers, overhang of roof, etc.;

Add new chimney for kitchen range, and repair present chimney;

Modernize kitchen and bath;

Add first floor lavatory and toilet;

Refinish and decorate walls, ceilings and floors;

Paint the exterior;

Possibly re-arrange rooms on both first and second floors.

With these recommendations as the basic specifications for the renovizing of the house, a competition was conducted under the sponsorship of the local chapter of the American Institute of Architects, for a suitable design for the work, the cost of which was limited to fifteen hundred dollars.

Reproduced herewith are a photograph of the house as it was before the changes were made, and the two designs which won first and second prizes for suggested architectural treatment of the exterior of the old structure. These designs, which are the work of Austin Daman and A. E. Shrimpton, are to be combined by the two men into one which will contain the best features of each.

The Building Construction Institute, under whose auspices this campaign is being conducted, is composed of manufacturers of building products doing a nation-wide business; local organizations in the building industry such as the Builders Exchange; the Building Arts Exhibit, Inc.; retail material dealers, contractors, architects, banks and insurance companies. The president of the In-

stitute is G. R. Lewis, Cleveland, vice-president of the Johns-Manville Corporation. The purpose for which the Institute was organized is to promote a program of sales. Through a series of forums, held during the fall and winter by representatives of these units within the industry, it was determined that renovizing work offered the best possibilities for sales during the coming months. Therefore the renovizing campaign was decided upon.

The interest of banking and insurance companies in this movement is natural. They realize that older properties must be made to offer the same attractiveness, comfort and value that can be obtained in new homes. In the present Cleveland campaign announcement has already been made of a more favorable attitude on the part of financial institutions toward the home owner who is occupying his own home. Certain banks have made the definite statement that there will be no foreclosures in such cases. Others have expressed their willingness to go a long way toward meeting the problems of these owners; and all have declared their intention of giving every possible cooperation to the home owners whose properties are in need of repairs. Whether direct loans will be made for this purpose has not been determined, but it is the hope of all concerned that this will be made possible in further aid of the campaign.

The Institute now has under way plans for the organization of a central bureau which will act as a clearing house for the various types of service: inquiries for materials, architectural service and workmen; requests for estimates, applications for loans, etc. A considerable amount of publicity, intended to create interest and inform people generally what can be done, is being given the project, and frequent meetings of the members of the Institute are being held to consider suggestions, formulate plans and work out ideas. It is the present intention to continue the further renovizing of houses in various parts of the city, which will be used as demonstration houses and kept open for public inspection.



The above home, built more than twenty years ago, was selected as the subject for the Unemployed Draftsman's Architectural contest held under the auspices of the Cleveland Chapter, A. I. A., and the Building Construction Institute. The home located at 3356 Euclid Heights Boulevard, Cleveland, is owned by the Cleveland Trust Co.

Prize Winning Designs in Nation-Wide 1932 Better Homes Contest

A NNOUNCEMENT of winners of the 1932 Small House Architectural Competition conducted annually by Better Homes in America is an event of importance to all men interested in home building and design.

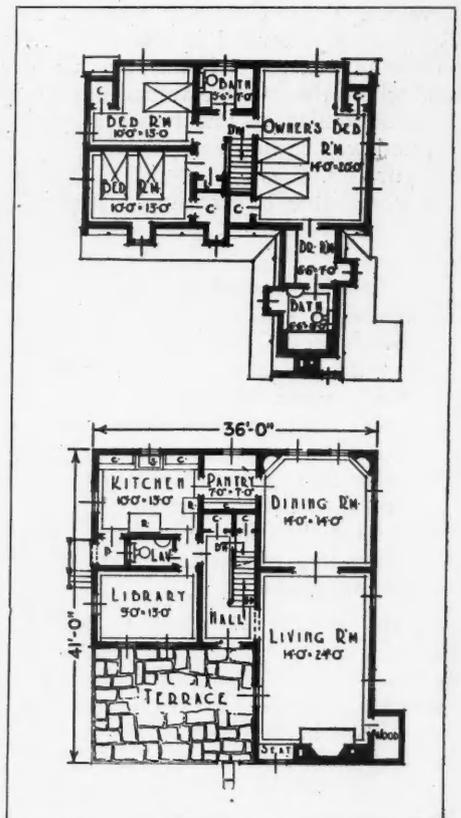
Because this is the most outstanding architectural competition in the small home field, and gives an important indication of the trend in architectural design, **AMERICAN BUILDER** is pleased to publish on this and the following pages six of the prize winning designs. The jury which made the selection was composed of Dwight James Baum, chairman, Edward L. Palmer, H. W. Peasles, Philip N. Stern and Waddy B. Wood.

The purpose of the contest, as announced by Better Homes in America, is to discover and call attention to the best small houses constructed during the past three years, and thus to stimulate interest in overcoming the

faulty design and construction of the really small house. Cubage of the houses above the level of the first floor is limited to 26,000 cubic feet for two-story houses, and 24,000 cubic feet for one-story houses.

Awards were made for three types: a, the two-story house; b, the story-and-a-half house; c, one-story house. The jury awarded a gold medal in the one-and-a-half story class to Royal Barry Wills, architect, of 3 Joy Street, Boston, for the house of Maurice A. Dunlavy at Brookline, Mass. This was the only gold medal award made this year.

On the following pages are given the names of five architects who were awarded honorable mention in the various classes, together with illustrations and floor plans of their designs. The designs are of an unusually excellent quality and show what splendid work the building industry is doing in the small home field.



GOOD PLAN—the jury which awarded the gold medal for this house remarked: "The plan is compact and well arranged. There is a fine relation of rooms, economical and efficient circulation. The library has real privacy; service portions are well arranged. The second floor hall occupies minimum space, and yet this small house has ample sized rooms." In regard to the entrance detail at left the jury said: "—there is a fine handling of the entrance terrace."

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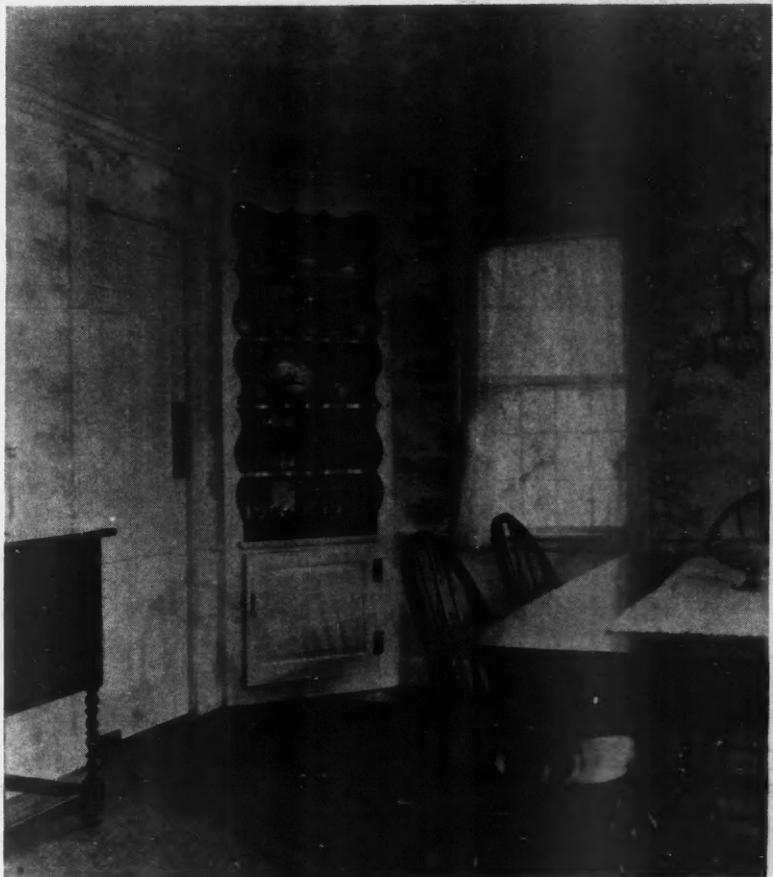
Gold Medal Award Story-and-a-Half Class

ROYAL BARRY WILLS, Architect
Boston, Mass.

Located at Brookline, Mass., this house was awarded the gold medal in the one-and-a-half story class in the Better Homes In America 1932 Small House Competition. The jury said that it felt "the house shows great charm, expresses the spirit of the locality, has fine scale and composition, and shows good use of materials."

This house, the jury said, "has an air of domesticity and shows great care in the manner in which all detail has been brought together. There is a good, frank use of the chimney." Cost Key of house is 2.089-154-1161-49-23-20.

ON THE FOLLOWING PAGES are shown other prize winning designs in the Better Homes in America contest. The committee calls attention to the fact that all designs are copyrighted and each is the private property of the architect who designed the structure.





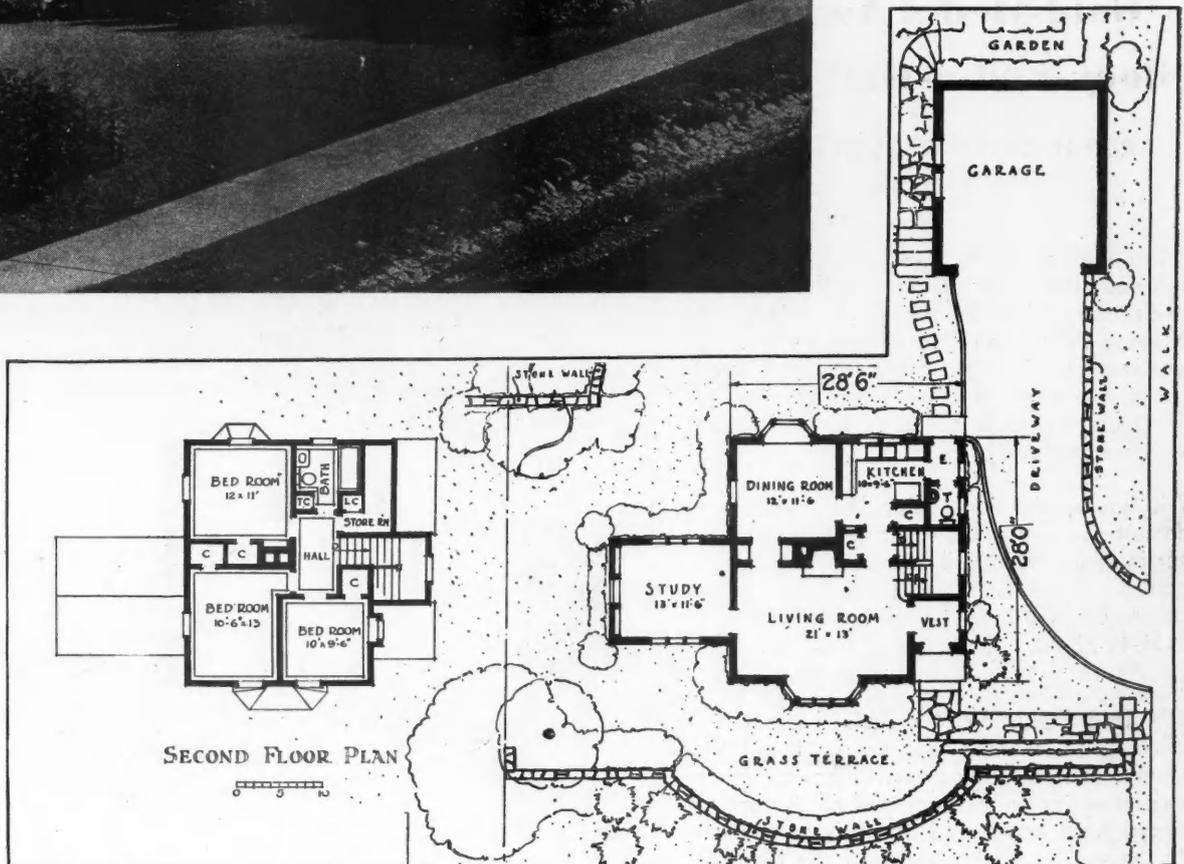
**Honorable
Mention
Two-Story
Class**

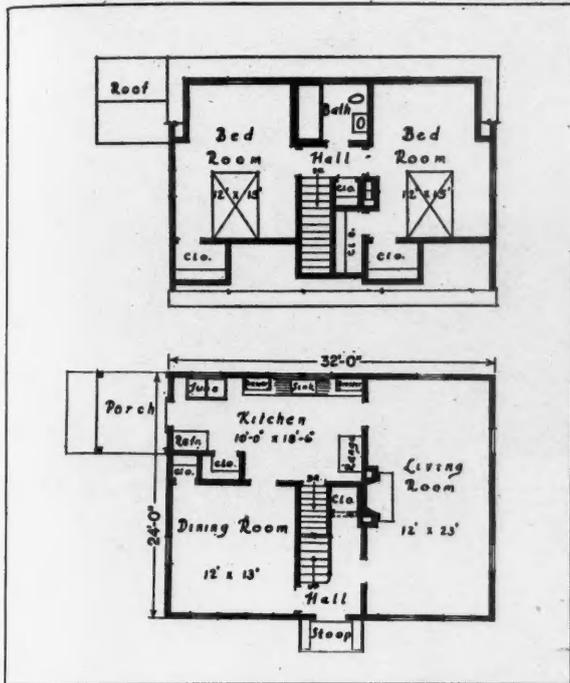
Better Homes in America
Small House Architectural
Competition for 1932.

**ROLLIN C. CHAPIN,
Architect**
Minneapolis, Minn.

The jury said, "This is a well
arranged, compact plan, espe-
cially on second floor. It
is very livable in character,
design and materials used.
However there is an unfortu-
nate relation between the
bedroom dormers and the
stair gable. Placing of study
wing is good."

Cost Key of House is 1.768-
148-980-42-22-17.



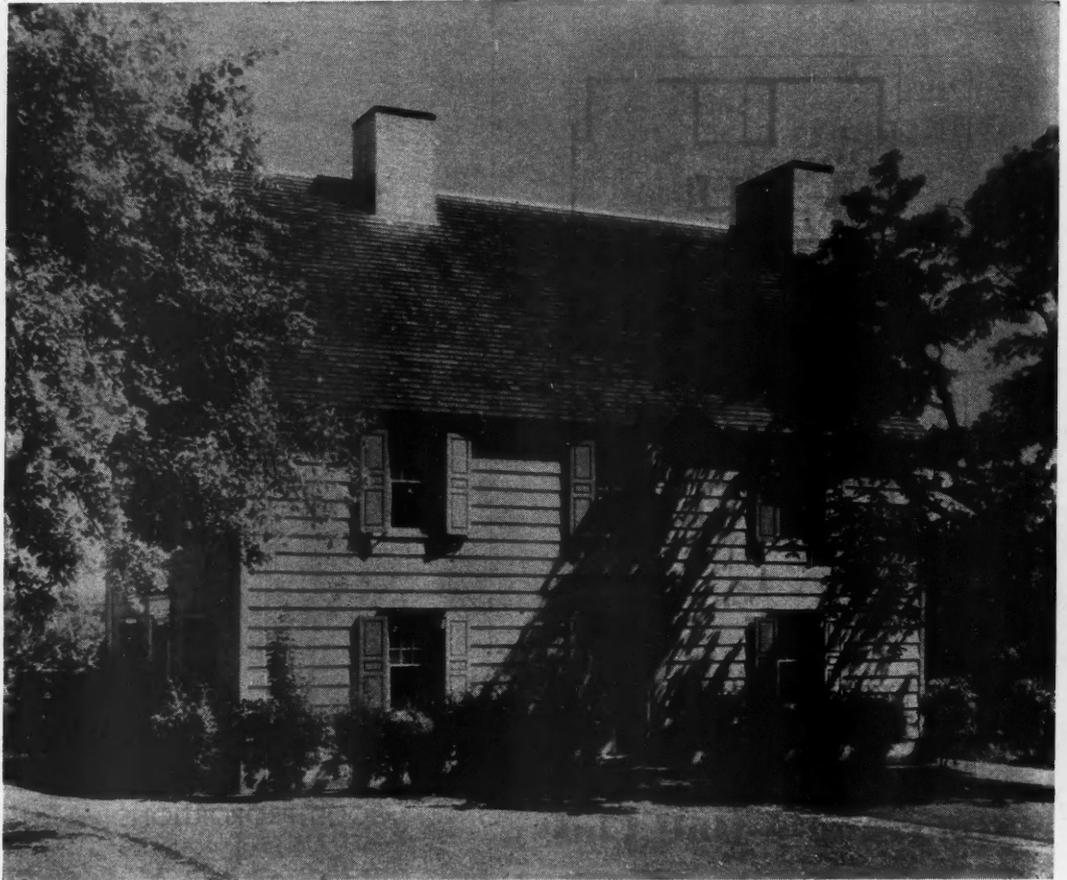


Honorable Mention
Story-and-a-Half Class

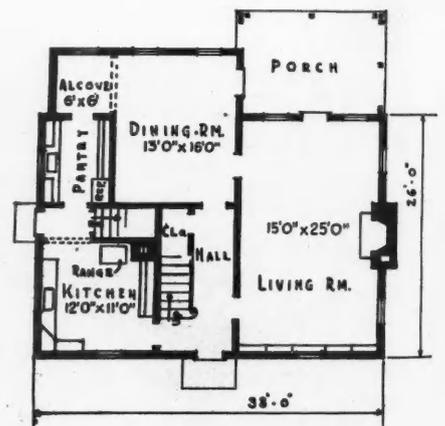
CHARLES S. KEEFE, Architect
New York, N. Y.

GOOD PROPORTIONS were admired by the jury in this small Colonial located at Darien, Conn. They commented on its good mass, simple materials, straightforward plan which makes the house easy to keep clean. The entrance above is pleasant and inexpensive. A large living room and ample bedrooms are desirable features. Cost Key is 1.322-112-768-33-16-12.





The charming Colonial entrance is an important feature. It is simple and well proportioned. The shuttered windows have great appeal.

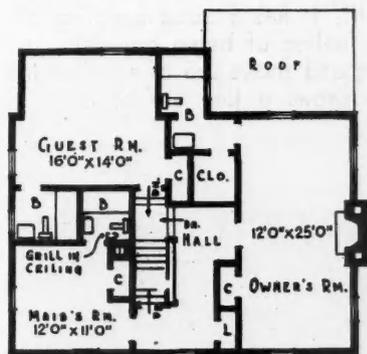


Honorable Mention
Two-Story Class

WILLIAM W. SUNDERLAND, Architect
Danbury, Conn.

Cost Key is 2.153-141-1118-47-29-20.

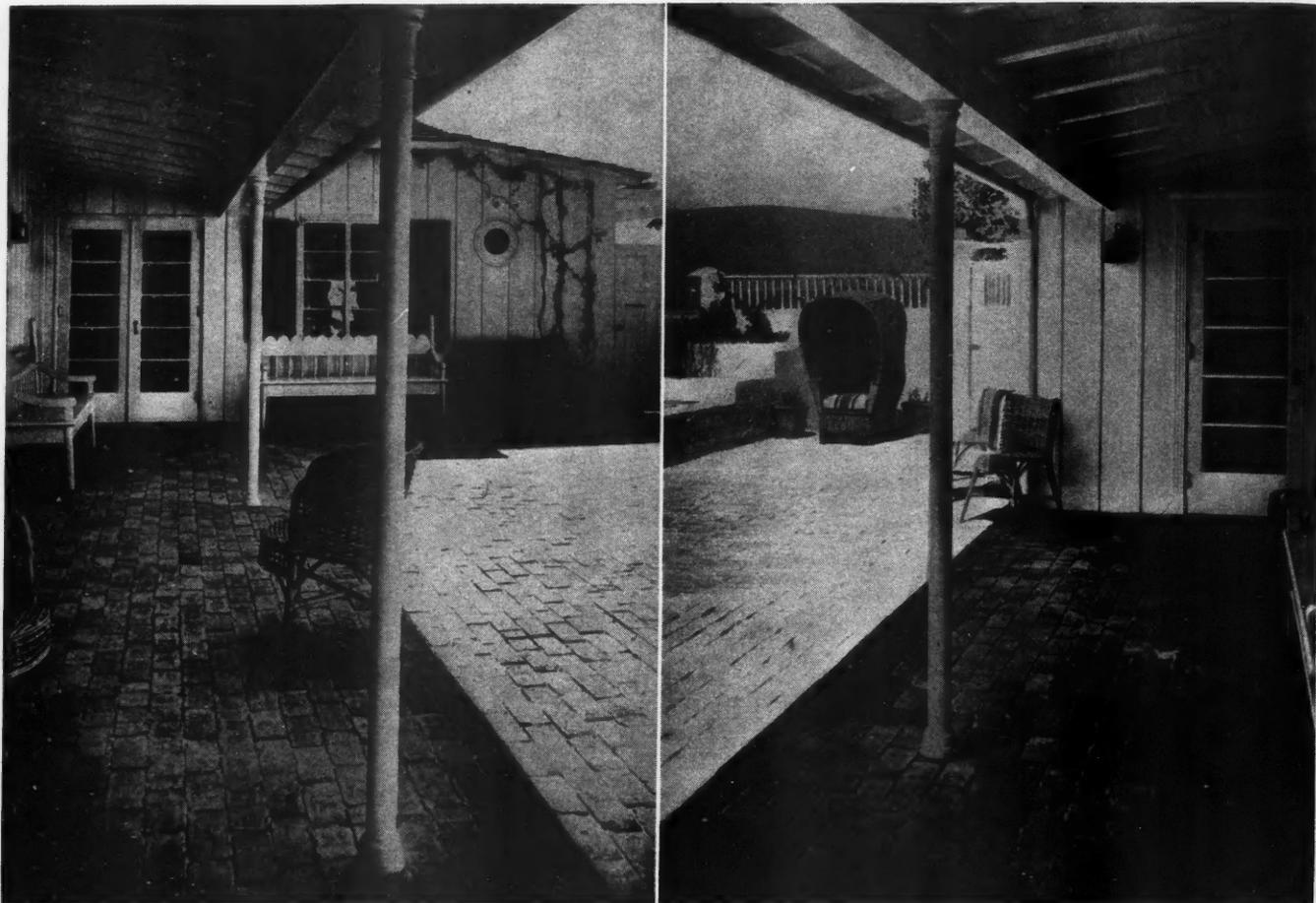
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Honorable Mention in the Better Homes In America Competition was given this house by William A. Sunderland at Newton, Conn. The jury said, "This shows a fine handling of traditional New England domestic architecture as to mass, fenestration and detail except for location of chimneys. We regret the placing of the interior bathroom."



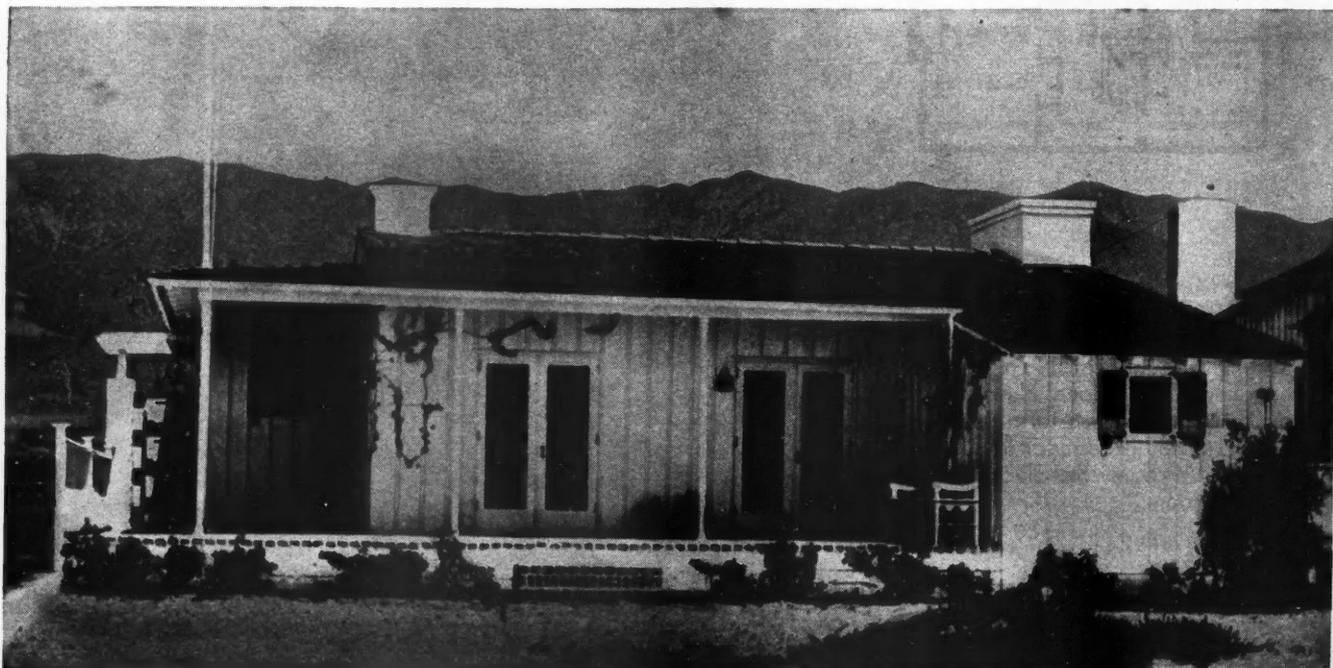
A simple Colonial fireplace is an important feature of the living room. Details and proportions are well handled and very effective.



Honorable Mention
One-Story Class

RALPH C. FLEWELLING, Architect
Beverly Hills, Calif.

"A successful handling of a special problem," the Better Homes In America jury remarked about this house by the sea near Santa Barbara, Calif. It has a good handling of a long narrow site without the feeling of being crowded. House is appropriate for seashore and shows use of simplest materials. Plan on page opposite shows a fine use of open porches.

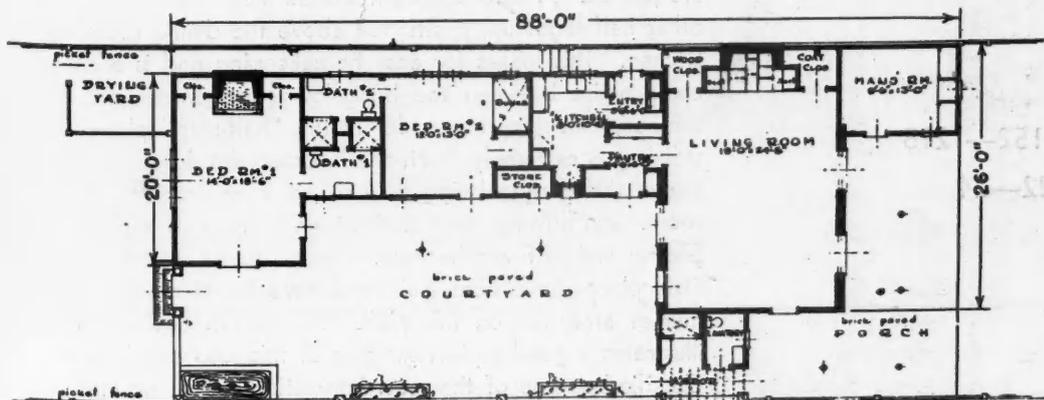
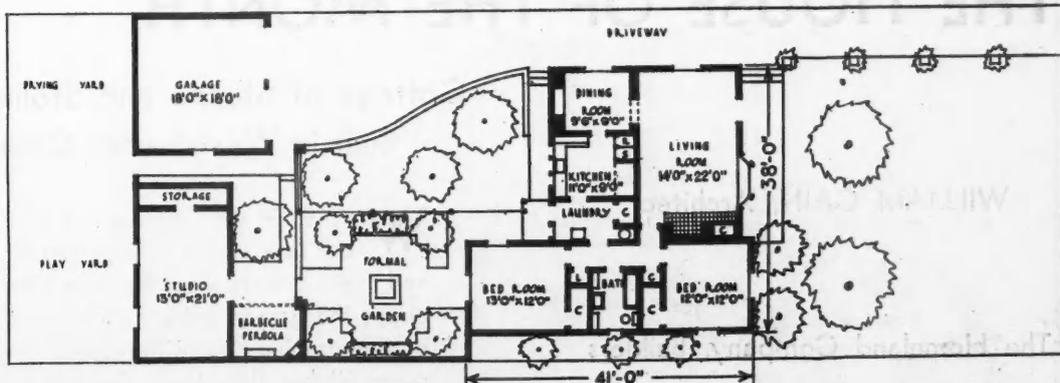




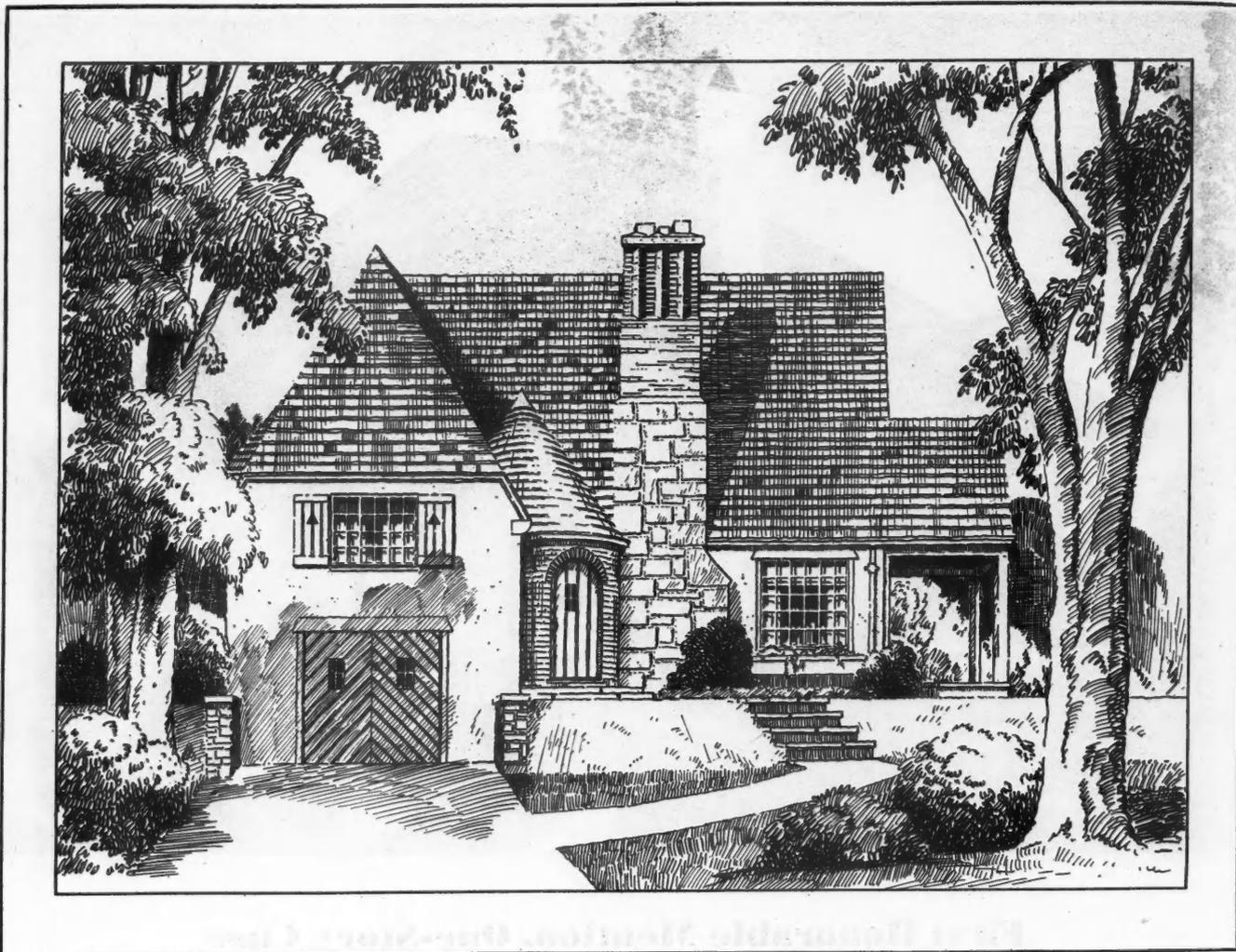
First Honorable Mention, One-Story Class

LELAND F. FULLER, Architect, Santa Monica, Calif.

Simplicity in mass and composition is achieved in this house, says the architectural jury. The architect has expressed in his own home individuality and character, with resulting great charm. Cost Key for the main house alone is 1.360-158, 1215-51-14-19.



This plan for the house designed by architect Flewelling on the opposite page, has a rambling plan suited for the location by the sea. Open porches and enclosed areas that lend themselves to seashore life are featured. Cost Key is 1.900-252-1622-69-23-24.



THE HOUSE OF THE MONTH

Cottage of Stucco and Stone in English Design
Built in Westchester County, New York

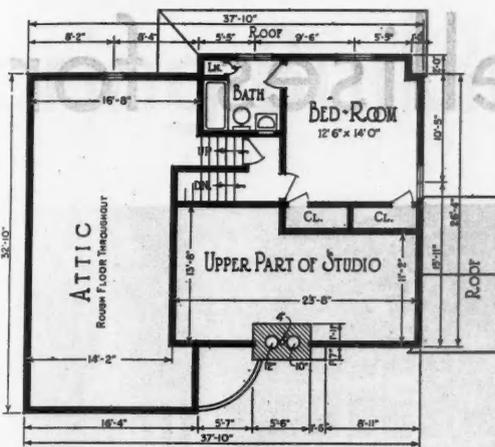
WILLIAM CAIN, Architect

The Homeland Company, Builders

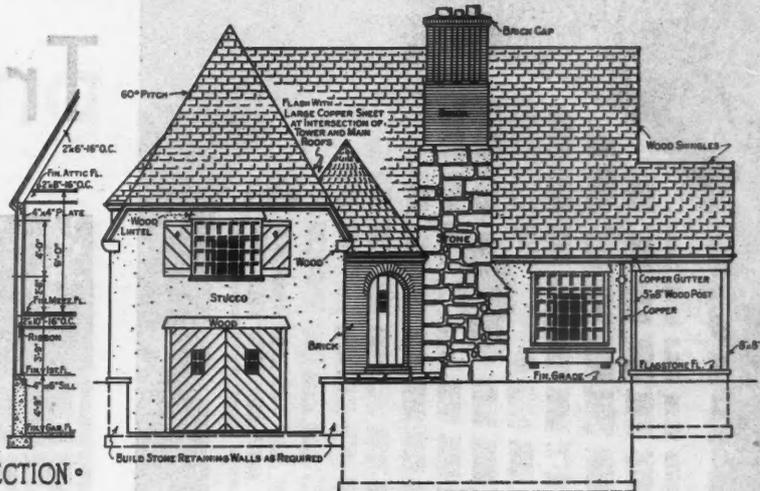
Cost Key 2.074—152—1215

—51—22—24

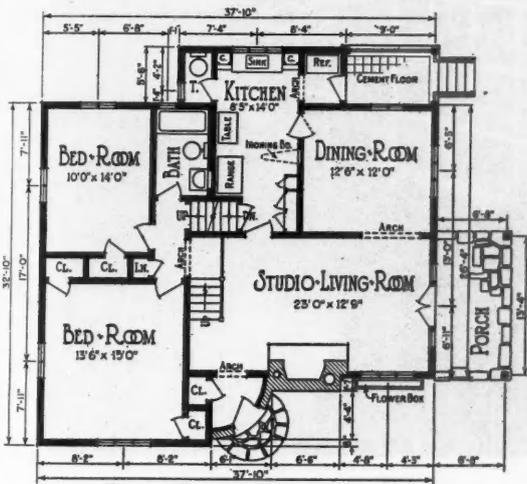
WHEREVER the building site is slightly rolling, it works out in a very practical way to have the living room and main entrance to the house on a level a half flight above the garage entrance level. Then above the garage, on a mezzanine floor with respect to the living room, dining room, kitchen floor level, the principal bedrooms and bath are placed. A third bedroom and bath can then be put another half flight up, positioned above the dining room and kitchen. This makes for easy housekeeping and is a clever compromise between the bungalow arrangement and the ordinary two-story house, for in this "half-step" plan, each stairway is extremely short, the bedroom level, for instance, above the garage being only six steps up from the living room. An arrangement of this type lends itself well to the English style of architecture. Many quaint and homelike little places have been built and have found a very ready market arranged on this plan. The accompanying design illustrates a good typical example of this idea and has been classified as one of the most interesting recent designs.



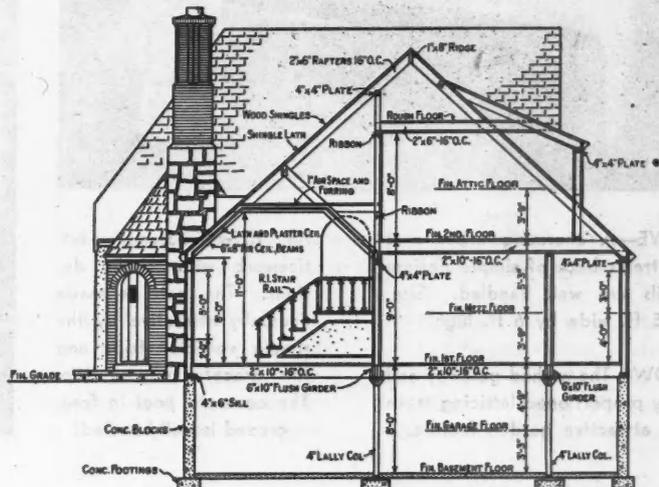
• SECOND FLOOR PLAN •



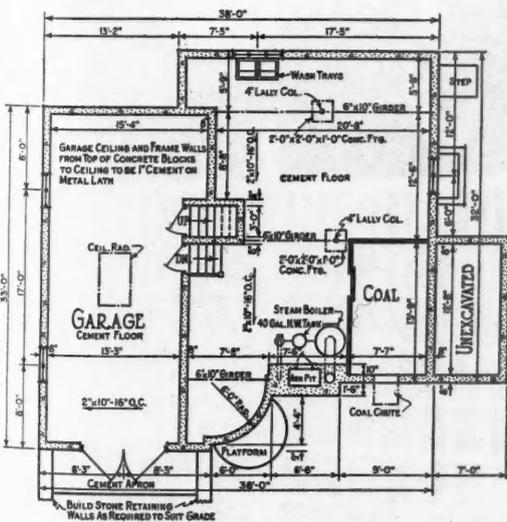
• SOUTH ELEVATION •



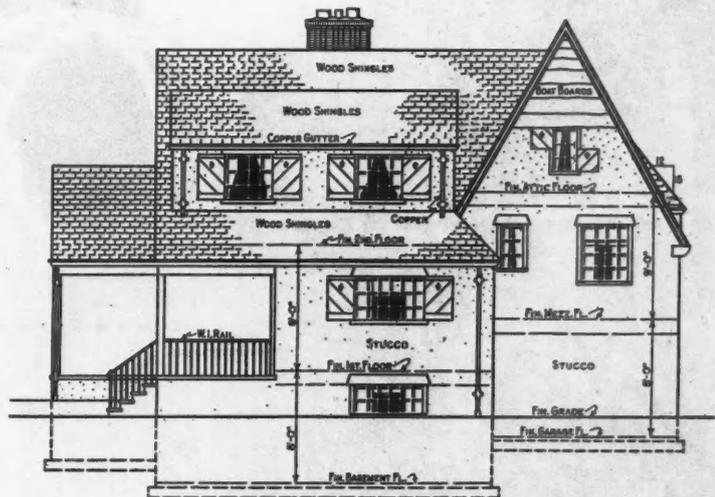
• FIRST FLOOR PLAN •



• SECTIONAL ELEVATION THROUGH STUDIO •



• BASEMENT FLOOR PLAN •



• NORTH ELEVATION •

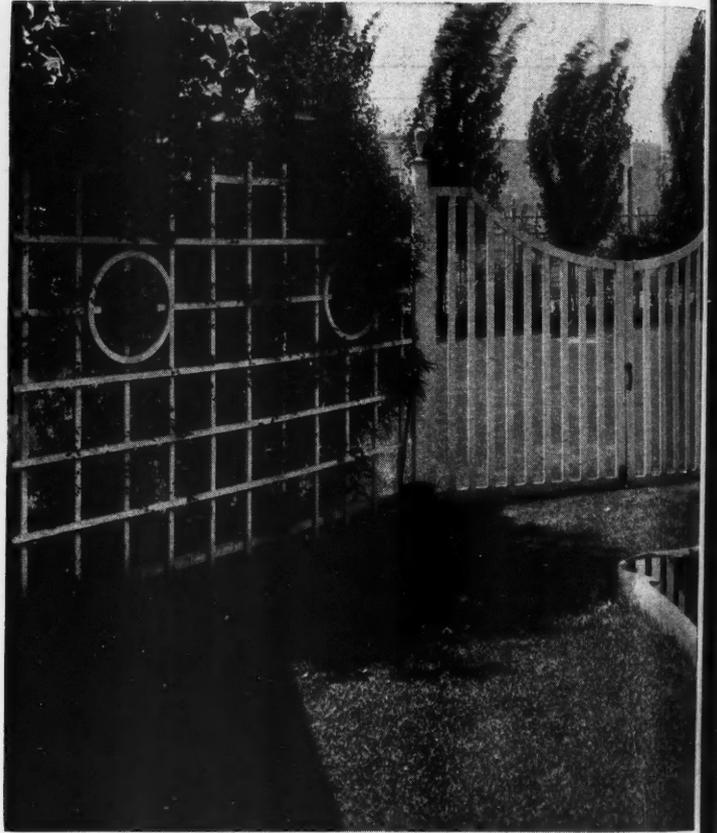
Working drawings of English cottage design with mezzanine floor arrangement, designed by William Cain, architect, and constructed by the Homeland Company.



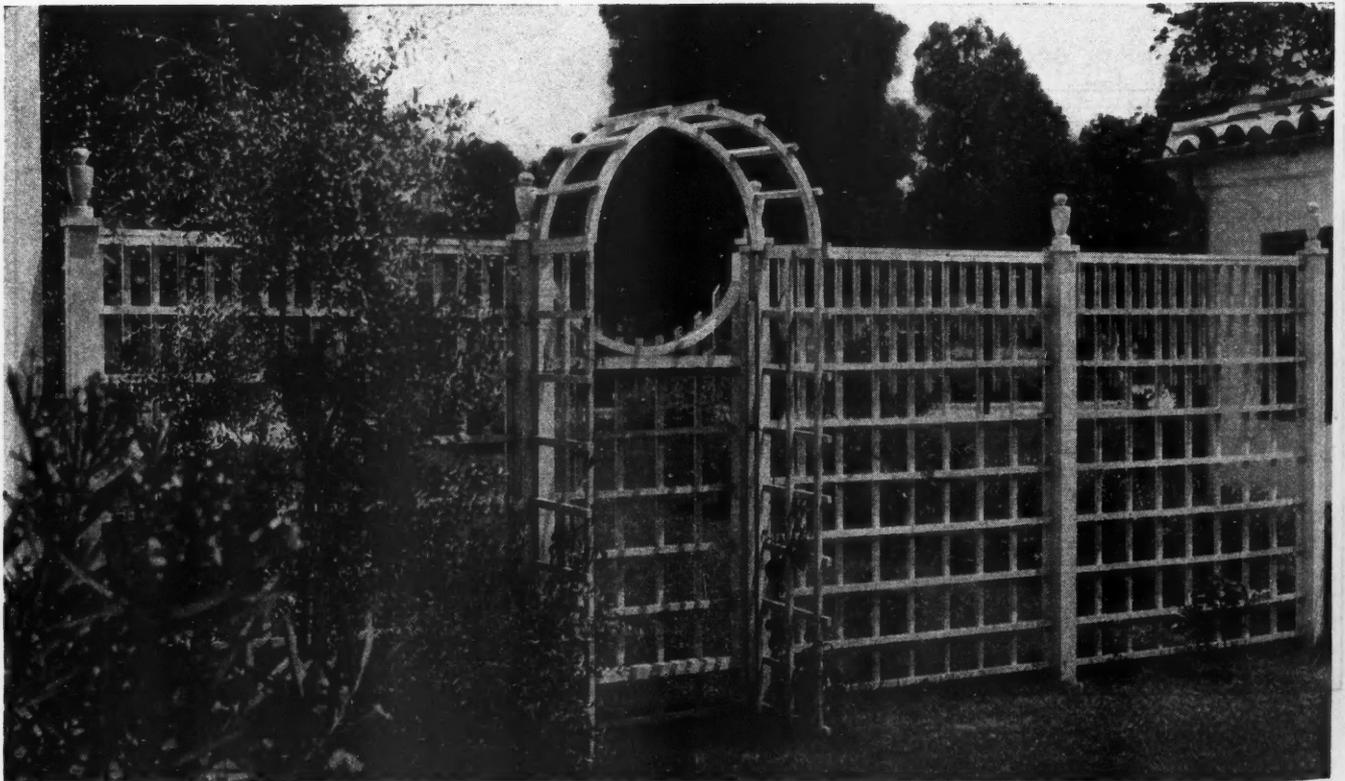
ABOVE—A charming arbor seat with trellis back of simple design. Details are well handled. Size, 5 ft. wide by 6 ft. high.

BELOW—The arched gateway and nicely proportioned latticing make an attractive garden feature.

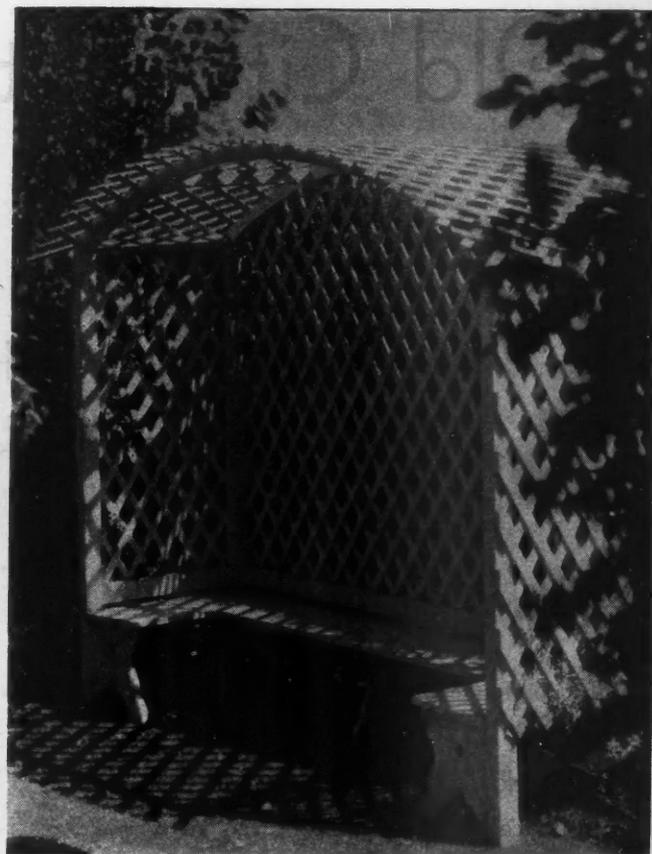
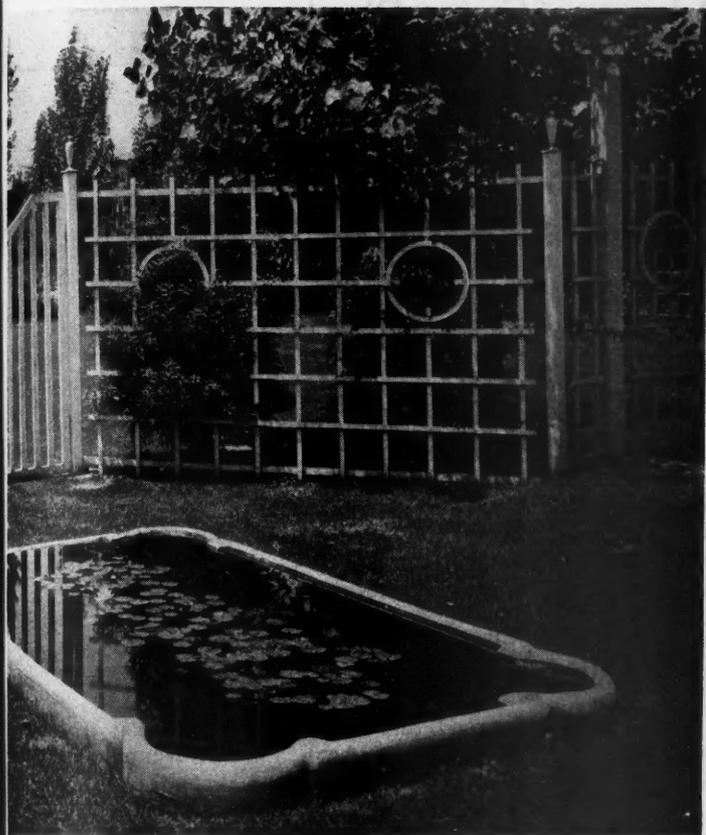
Trellises for S



AT RIGHT—Slender latticework with circle designs. The gate is made unusually attractive by the simple verticle strips and the graceful curved top. The concrete pool in foreground is well handled.



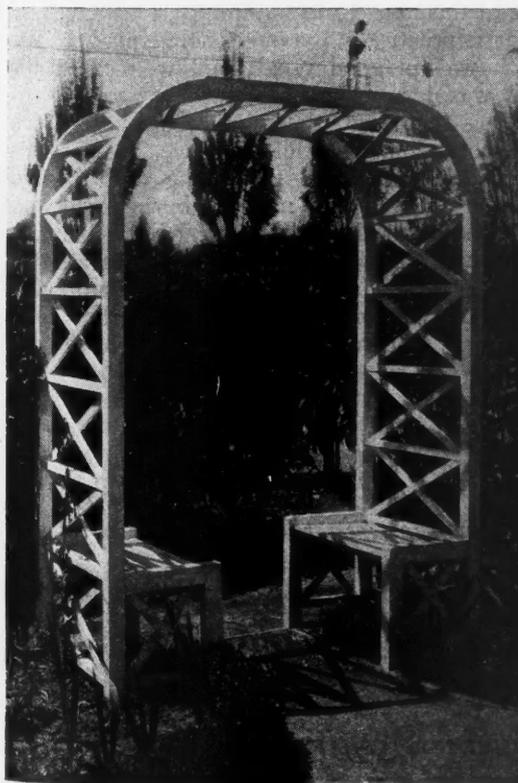
Spring Building



Close latticework and sturdy construction feature this pleasant arbor seat in the garden of Conrad Nagle, movie star.

AT LEFT BELOW—A popular type of rose arbor with seats. Rigid bracing is required for strength, and proper priming of materials to prevent decay.

BELOW—Lattice pergola in a Los Angeles home, protecting driveway to garage. This is a type of home improvement offering good spring market.



Old City Flats Modernized

Owners Profit by Maintained Rentals
One Job Leads to Others in Same Block
A Field That Has Hardly Been Touched
Much More Work Like This Predicted

By E. S. HANSON

THE building industry cannot afford to wait for new work to come to it. Modernizing city rental properties is work that can be done now, as the accompanying pictures show, because it more than pays its own way.

The increased rental value of remodeled buildings is becoming more and more apparent as the period of industrial and social readjustment advances.

And rental value is a yardstick which is definite and valuable. The sale value of a piece of property is affected by so many conditions that it is largely a matter of speculation; but a rent-roll is something which can actually be added up each month in dollars and cents and put in the bank.

Modernizing of city flats such as I am describing is just getting started. It will be one of the biggest sources of business for the next few years.

Especially does the remodeled building assume a position of superiority, both commercially and socially, when it has been originally one of a group of houses all built to the same design. Almost any city has block after block of such homes, monotonous and forbidding, even though some of them are brownstones of a former period of aristocracy.

If a building can be remodeled to look different from the others—to give it individuality, to make it stand out from the mass—it is to be expected that it will attract a better class of tenantry.

Brooklyn, New York, is perhaps an outstanding example of the persisting monotony of mass production of homes. But if it has sinned in the past, it is now endeavoring to atone for its faults and secure a more pleasing appearance for some of its older residence sections.

Scores of old city flats are being transformed. It is a field every builder can cultivate.

Re-styling and brightening the exterior is an important step, for it attracts passers-by. This is usually done by removing old fashioned, unnecessary bric-a-brac, replacing the entrance, refacing, painting, modernizing.

Inside walls and floors should be replaced, new wall and ceiling materials applied. A host of new building products that simplify modernizing are now available.

The house at 489 Monroe Street, Brooklyn, (Example 1) was recently largely remodeled, bringing its income up from \$50 per month to \$120. It now comprises an 8-room apartment on first floor and basement, 5-room

apartment on the second floor, and two 2-room apartments on top.

A good example of achieving a modern appearance by the most simple and direct means is the house of Mrs. C. Garlish, 552 Quincy Street, (Example 2). Up to a year ago this house was just like all its neighbors, its architecture dating back to the period immediately following the Civil War, and its siding and window caps showing serious decay. Replacements and repairs, together with the biennial bill for painting, were a heavy load.

The owner observed that negroes were moving into the vicinity in increasing numbers, and she wanted her house to emphasize by its appearance that it had not fallen into the hands of this class of tenantry. The modernizing work has not only succeeded in this, but by reason of giving the house some distinction has brought in and held a better class of white tenants.

In the case of this house, the addition of a brick veneer front and rear is practically the only change made. The interior which was in good repair and well cared for was left as it was.

In remodeling the front, the window frames, which were in good condition, were left in place, but the sills and caps were removed, also the siding and the old cornice. The brick used is a medium burned red textured brick, run up to the full height of the building and with a pediment added, giving it the appearance of somewhat greater height and dignity than the adjoining house, of which it was originally a counterpart.

The front steps, iron railing and forecourt have been

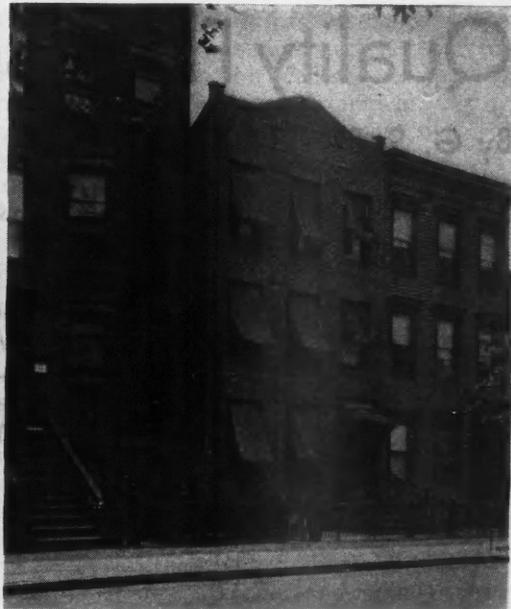
☞ *Thousands of flats such as shown on the next page need remodeling. Renters pass them by because they are out of date.*

☞ *Remodeling can be done in hard times because it puts these buildings on a paying basis.*

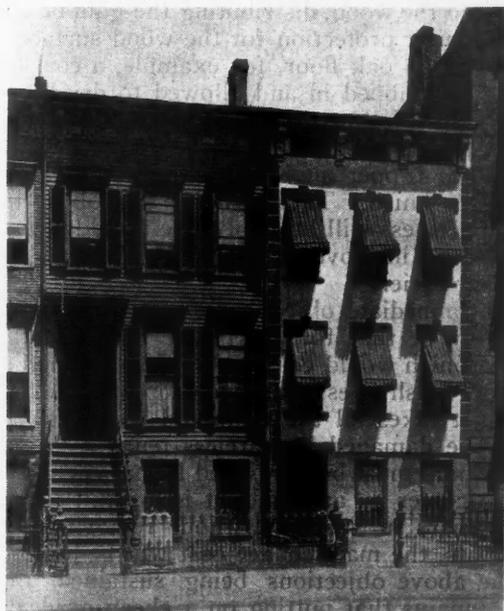
☞ *The business waits for the right kind of building salesmen.*



EXAMPLE 1—An entirely new front in modern style was added to the house at right. Rental income jumped from \$50 to \$120 per month as a result.



EXAMPLE 2—New brick veneer front on middle house put it in better rental class, boosted value.



EXAMPLE 3—Neighbors vacant, but the new stucco front brings in renters, even in hard times.



EXAMPLE 4—\$5,000 was spent on the building at right, making it a valuable property which stands out especially well. Many other buildings need similar attention.

left as in the original construction; but the brick has been carried to the ground, covering the original foundation brick instead of starting at the floor line.

This work was done by Aaron Klinofsky, Brooklyn contractor and builder, and cost less than \$1,200.

Across the way, at 529 Quincy Street, is the house of Mrs. A. Wolinsky (Example 3). The photograph tells only a part of the story, with its stucco front and its ground floor entrance, eliminating the long flight of front steps, such a notable feature of the construction of the latter half of the last century. The other part of the story is that Mrs. Wolinsky had the entire house modernized, with new floors, windows, doors, and adding some of the more modern accessories. She is beginning to realize the value of the improvement now because her rentable space is always occupied, and by prompt and responsible people, while other property in the vicinity is showing a large percentage of vacancies.

The house at 164 Monroe Street (Example 4) is owned by Robert Tarsy, a painter and decorator, who did much of this remodeling work with his own crew and secured favorable terms on the other parts of the work from his friends in the trades. The improvement adds two rooms and an upper balcony to the usable space, and includes a two-car brick garage. The cost of the entire improvement was about \$5,000.

These are just a few of the many examples of modernizing of city flats and apartment buildings that have already been performed and which indicate the possibilities in this field. A host of new products and building materials are on the market that make this type of work less expensive and more simple to perform than ever before. It is work that can be secured in practically only one way, and that is to make personal calls. By offering to save the owner money in repairs and upkeep, and increase his rental, sales can be made.

Quality Floor Surfacing Methods—PART II

By G. S. BARTLESON, Metropolitan Floor Surfacing Company

FOUR important points are stressed by the author in this concluding article. He urges (1) "Seal" finishes (2) Demonstration of quality with samples (3) Licensed contractors (4) Bonded guarantees of good workmanship.

METROPOLITAN
Floor Surfacing Company
1742 JUNEWAY TERRACE
CHICAGO

Will you let us help rent your vacant apartments?

Our business is sanding and resurfacing old apartment floors. We are doing this work at bargain depression prices. But we do more than that.

We can help you rent your apartments. In countless instances refinishing the floor was the ONE thing that rented the space.

When you show prospects a vacant room, 90 per cent of what they see is the floor. Make it look good.

Pay for floor sanding out of extra rental.

Attractive floors put idle apartments back to work. Property managers have repeatedly told us how it was the apartment with the RESURFACED floor that rented first.

We are confident that the attractive floors we produce will rent your apartments. The work can be paid for out of rental.

We do expert floor sanding. We do it cheap. We do it with the latest equipment - in a hurry.

Let us give you the details in person.

Just call Hollycourt 6920, or mail the coupon below.

Very truly yours,
G. S. Bartleson
Glenn S. Bartleson,
Metropolitan Floor Surfacing Co.

Metropolitan Floor Surfacing Company
1742 Juneway Terrace, Chicago, Ill.

I am interested in your floor sanding service.

Please call _____ (fill in date and hour)

Name _____

Address _____

FLOOR SANDING

METROPOLITAN FLOOR SURFACING CO.
1742 Juneway Terrace 6501 S. Rockwell
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Expert sanding - Fast work - Low prices.

We Specialize in RESURFACING Old Floors.

Apartments Residences - Public Buildings.

Let us give
you an estimate

(for your file)

TWO SELLING PIECES used by Contractor Bartleson in going after floor sanding business. The letter above was mimeographed (at a cost of about \$2 per hundred) and sent to owners and managers of apartments.

THE CARD BELOW is an unusually helpful idea—a standard 3 x 5 inch file card with the name, address and telephone number clearly shown. It is enclosed in letters, and left with prospects after calls.

AT THE end of last month's article I was discussing types of varnishes, and described the value of a good "spar" or waterproof varnish of elastic consistency.

A cheap varnish usually has a large percentage of rosin in it, which is brittle. The remainder of the composition is chiefly volatile thinner, which is required to thin up the rather heavy bulk of rosin. This thinner is largely of the natural or oleum spirit class, which will evaporate, leaving practically nothing of its composition behind of value.

The better spar or waterproof varnishes do not contain rosin, but instead have a different kind of gum in a much smaller percentage. Of the two best known gums, Congo and Kauri, the Kauri is the lightest and is usually considered the best. The high grade varnish contains only from 10 to 12 per cent of gum, with only a small amount of filler; the rest being largely China wood oil, which is made from the Tung nut. This vehicle sinks into the wood, distributing the gum better and leaving a denser protection for the wood surface.

Taking an oak floor, for example, a coat of filler, well rubbed in and allowed to dry thoroughly, and followed by at least two and preferably three coats of a good waterproof varnish applied at proper intervals, will give an excellent floor finish. Those who do not object to its slipperiness will probably like to add a coat of wax, to improve the luster and to make cleaning easier.

The immediate objection of the reader will probably be that for apartment house work, such a finish would cost too much. Further, a varnish finish is essentially on top of the wood where it takes all the wear and where it can easily be damaged by careless tenants. Also, since floors must be renovated before each new tenant comes in, and since it is difficult to remove mars in varnish without removing the old coats, the maintenance cost will be high.

The above objections being sustained, the fact remains that putting on a cheap grade of varnish over shellac with its consequent rapid deterioration and resultant frequent removing operations is also expensive as well as being very wasteful.

New Methods in Floor Maintenance

There is need for better workmanship and better or more suitable materials in the floor maintenance industry along with a reduction in expense.

It would be convenient to have a method in which the owner would be assured of good workmanship, where the thoroughness of all steps in the work would be apparent in the job at the time it is finished, and one that the owner could inspect and be satisfied with before the contractor leaves the work. With a poor sanding job and cheap varnish and shellac, bad work may not show up for several months.

Next it would be desirable to have a finish that would compare favorably with a filler job using three coats of high priced waterproof varnish and wax finish, but that could not be so easily damaged by rough or careless usage, that could also be patched in worn spots

without leaving tell-tale marks, and that could be renewed quickly and economically.

Without trying to pull rabbits out of the bag, it may be stated that such methods and materials may be produced and that in the main they are already perfected and have been given the trial of time. Results have been satisfactory to those that have tried them, but knowledge of them is not widespread, especially in areas where price cutting and shoddy workmanship are as prevalent as in Chicago.

There are on the market several finishes that will give these results. The exact composition of these materials is not as well known as that of varnish, since they are newer and the trade secrets are better protected. In general, the constituents are known to be largely China wood oil combined with various compounds of waxes.

It was seen in the case of varnishes that one of the big differences between the cheap grades and the high quality waterproof types was the use of China wood oil instead of volatile thinner. Partly to this difference may be attributed the waterproof quality, while the smaller quantity of better quality gum gives a thinner, more resilient surface shell which minimizes the danger of chipping and rapid wear.

With the "seal" finishes, this undesirable surface shell which may be so easily damaged is eliminated. The China wood oil penetrates deeply into the wood carrying some of the protective waxes with it, and effectively seals the surface. In general, filler is not required, but with an extremely large pored wood, the spirit filler is applied after the first coat of "seal" instead of before, thus keeping the waterproof treatment where it is needed most—in the wood surface.

"Seal" finishes give a hard, durable wearing surface and the application of a "luster finish" will give a polish equal to that of wax with the added advantage that it is not nearly so slippery.

The "seal" finishes are relatively inert chemically as alcohol varnish remover and hot water will not harm them. A carelessly dropped match will not blister them as it does varnish. The outstanding advantage is that the finish is *in* the wood instead of *on* the surface. For this reason, it is impossible for it to chip or wear off. It is also because of this that the polished floor is not as slippery as a waxed varnish. Further, the finish being just level with the wood and sealing the surface securely, dirt has no place to lodge. The result is that not much cleaning other than sweeping or wiping up with a dry dust mop is necessary.

From the owner's standpoint, the servicing of this type of finish is simple. Worn spots can be patched by brushing up the area with steel wool and applying another coat of "seal" which will blend with the old finish. If the floor has become dirty with scuffed-in grime, it only requires a scrubbing with steel wool and the application of another coat of the "seal" followed by the polish if desired. For small areas this maintenance work can be done by hand. For the larger areas, a floor maintenance machine will be much more efficient as well as giving a more uniform job.

Guarantee of Good Workmanship

Since this type of finish does not extend above the surface of the wood, it is impossible to cover up sloppy or rough floor surfacing marks by filling them up with a thick covering coat as in the case of varnish. Furthermore, for a good polished finish, it is necessary to carry the surfacing operations farther than in the case of a varnish job. Better work is called for all the way.

In changing the finish of a varnished floor to one of these seal finishes, a good resurfacing job is required, as the first step. This sanding job need not be repeated then until the floor becomes uneven from warping or wear or some unusually rough use such that dirt becomes deeply imbedded in the wood itself.

For residential work, it is advisable to carry the floor sanding down to No. 0 or No. 00 paper which is in itself a check on the intermediate steps of the surfacing job as the fine finish will show up scratches like a table top would.

In applying the seal coats, the surplus material should be wiped off before it has become dry and after drying the floor, should be buffed with steel wool to cut the finish right down to the surface of the wood, for best wearing results. This condition can be determined easily by observation, since there is thus no place to hide poor work except on top of the floor where it remains to be seen.

Another help towards quality work is the fact that one of the distributors of these new finishes, who is also a manufacturer of floor surfacing and maintenance equipment, is licensing only reputable floor surfacing contractors who are known to do only high quality work for this new type of floor finishing and maintenance work. This is an important step towards quality.

Comparison of Costs

Since general cost figures are very difficult to apply to a wide field, the comparisons given here will be from the Chicago field, based on current prices (January 15, 1933).

Few decorators keep unit costs on the different items of their work. In other words, few have figures as to just what proportion of the cost of a floor job applies to removing the old varnish and preparing the floor for the new coats, and the varnishing itself. They seem to shy at reducing these units to terms of so much per square foot. From general observations, however, it seems safe to set up the cost of a removing job at from 2½ to 3½ cents per square foot. Three cents would be a reasonable figure. The decorator adds his profit to that figure. Floor surfacing prices in Chicago at present can meet this competition. To the decorator who owns his own sanding machine and pays equal wages to machine operators and painters, the cost of sanding will be no greater than "removing." The average price to the customer is now somewhere between 3 and 4 cents per square foot. In the spring when there is a large demand for this work, the price will be somewhat higher, some asking and getting 5 cents. In general, however, it may be concluded that a good floor sanding job will cost very little more than a thorough removing job.

For one coat of shellac and one coat of cheap varnish, the cost will probably be somewhere near 1½ cents per square foot, and for a coat of filler and two coats of floor and trim varnish, the customer will pay around 2 to 2½ cents per square foot. A coat of wax in addition will raise the price to 3 cents or over. For a high quality of waterproof or "spar" varnish, the cost would be well over 4 cents per square foot. Retail prices of good quality "floor and trim" varnishes range from \$1.50 to \$2.50 per gallon, while the waterproof or "spar" varnishes cost from \$3.50 to \$6.50 per gallon.

In comparison, the cost of the good "seal" finishes is around \$4.00 per gallon with discounts to licensed floor contractors.

There is considerable more work to applying the

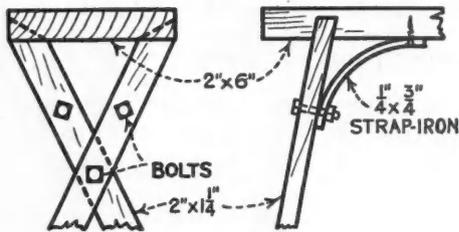
(Continued on page 52)

PRACTICAL JOB POINTERS

A readers' exchange of tested ideas and methods, taken from their own building experience. Two dollars will be paid for each contribution published.

Just a Saw Horse

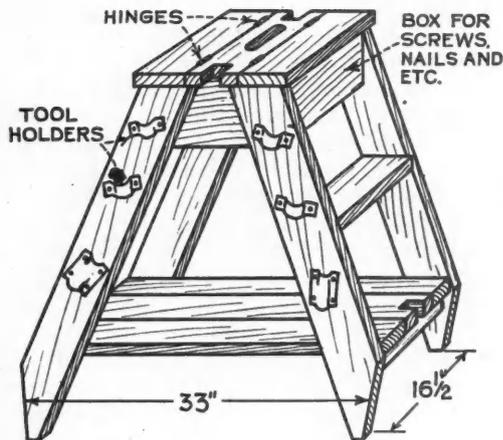
I AM enclosing a sketch of a handy saw horse that is easy to make and easy to use. The details for its construction are shown. The principle involved in this saw horse is the freedom one has in sawing straight down or in a vertical position, such as sawing wallboard, plywood, etc., as the legs do not interfere.—AUGUST WESSLIN, Barron, Wis.



Legs of this type of saw horse are conveniently out of way

For More Efficient Work

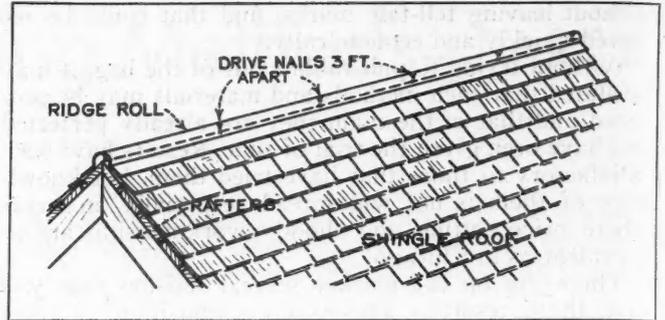
THE AMERICAN BUILDER has helped me with many valuable suggestions throughout the many years I have been reading it. Enclosed is a little pencil sketch of a what-not that has helped us make good workmen more efficient. It will be found handy for many classes of work. It is easily made from material found on



Handy "what not" has many uses

any job. (Usually scraps or broken pieces that are classed as kindling.) It is a double step ladder framed from 1x4 for side pieces and 1x6 treads, 16 1/2 inches long; 9-inch rise and 6-inch run for side pieces.

The frame work under the top step when covered on the under side makes a handy place for screws, nails, etc. The top step is made of three pieces of 1x4x19 inches. The center piece is notched at each end, a slot large enough to enter the fingers in the center, and firmly nailed in place. The two outside pieces are hinged to the center piece, forming a cover to the till. The first tread is made of three pieces of 1x6x33 inches, extending



Nails are driven in to provide ridge roll guide

between the two ladders and carried on 1x3 risers, thus forming a floor for tools. (Plane, saw, brace, hammer.)

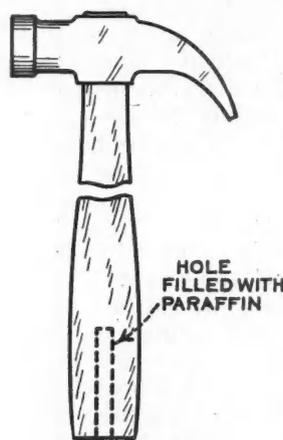
Four loops and two patches of leather nailed to side pieces form carriers for punch and screw driver. 3/8-inch and 3/4-inch bits, and two chisels. The notches in the first and last treads are used to hold sash and doors while fitting and mortising.—ASA E. SMITH, Winterset, Ia.

To Get a Straight Ridge Roll

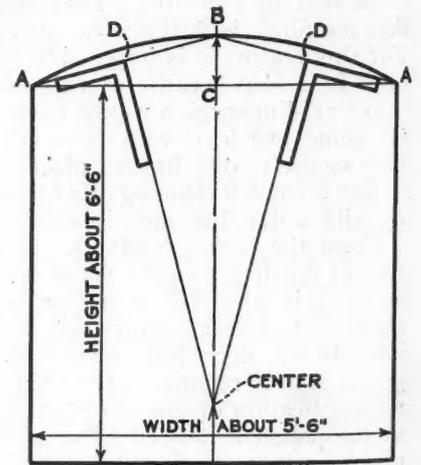
DRIVE a nail at each end of the building or roof and then stretch a mason's line at whatever height is required for the ridge roll you are using. Then for every three feet, drive nails directly under the line, and up to the line. By laying the galvanized iron ridge on the nails, you are able to get a perfectly lined ridge with a minimum of labor.—EUGENE M. SWENSON, Hazel Crest, Ill.

For Driving Nails in Hardwood

THE end of the hammer handle is bored and filled with paraffin. When nails bend and refuse to enter hardwoods, they are pushed into the paraffin, which lubricates them, making them go into the wood without difficulty. This method has been used by local carpenters and builders for many years.—EMERSON EASTERLING, Ashland, Ore.



Makes nail go in easily



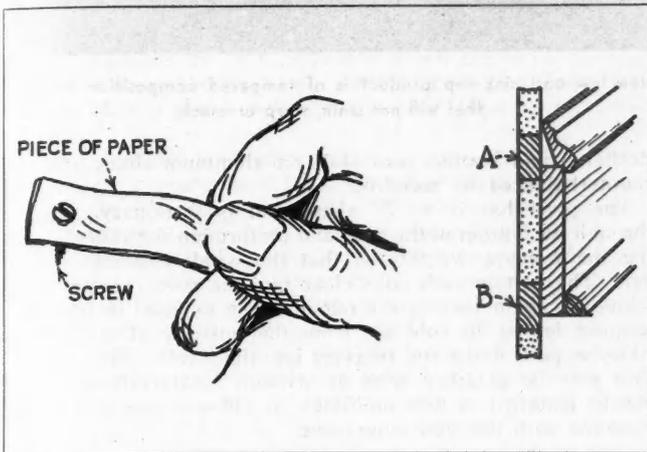
Quick way to lay out arch

Uses Square to Lay Out Arch

HERE is my way of drawing or laying out an arch with a steel square and a simple method of finding the center point. BC is the center and A the height of the arch. Just draw a line from A to B. Then find the center (D) on AB and use your steel square to draw lines at right angles until they meet, which is the center point. If this idea is published, renew my subscription to the AMERICAN BUILDER AND BUILDING AGE for another year, and I will pay 50 cents extra.—C. A. OSTIGNY, Granby, Que.

Grounds for Plaster Guide

YOU will notice in my sketch there are two grounds $\frac{3}{4}$ inches by $1\frac{1}{2}$ inches (A, B) nailed to the studding before plastering. This gives the plasterer a guide. Where a white or skim coat is used, the plasterer as a rule does not get very close to the floor because he is afraid of getting his trowel dirty. The result is that there will be no plaster within an inch or two, and this causes the base board to turn in at the bottom, out of plumb. It will also leave a crack between the base board and plaster on top of the board.—EDWIN W. HARRIS, Contractor and Builder, Sunbury, Pa.



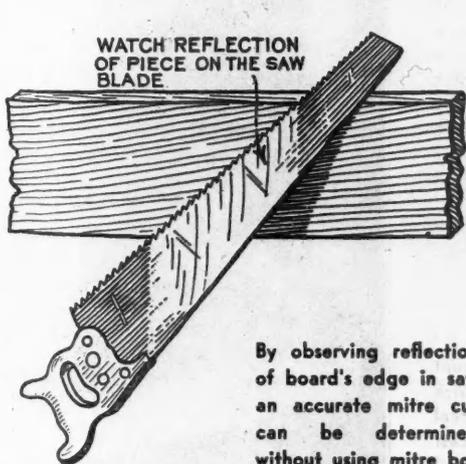
At left is a handy way to hold small screws when starting them. At right is method of placing double grounds

To Start Small Screws

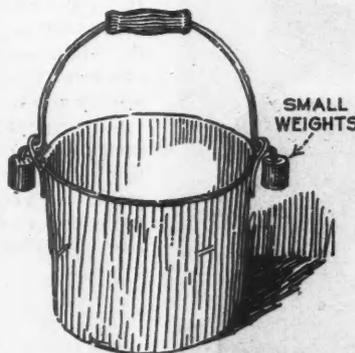
HERE is one for your "Practical Job Pointers" Department. This is how I hold small screws: just stick them through a heavy piece of paper and you always have them when you want them. When you are ready to use the screw, hold the paper in position so that the screw is where you want it, and give it a tap with hammer. When it is well started, just tear the paper off. Carpenters around here all like your magazine, but work has been slack.—HOWARD J. BRADLEY, Bridgeport, Conn.

Mitre Cuts Without Box

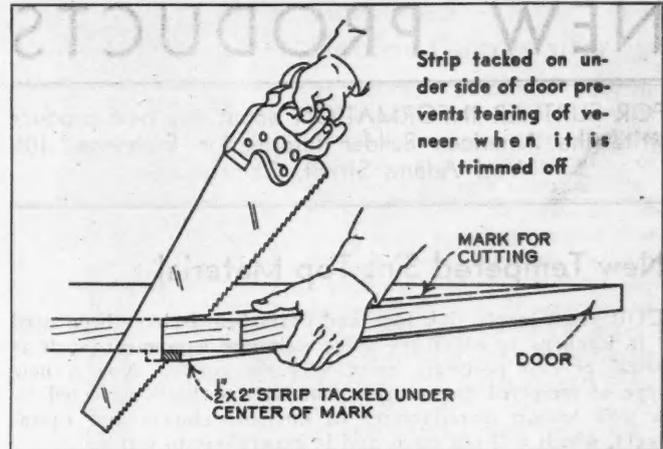
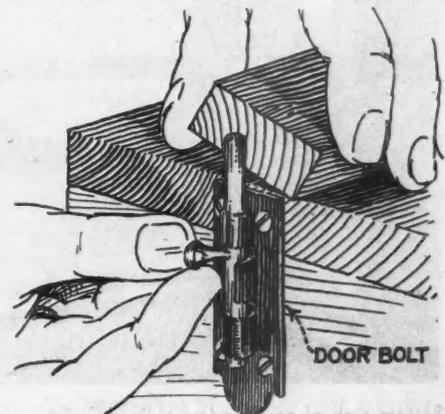
I AM SHOWING a sketch below that tells how I make mitre cuts without a mitre box. These cuts will be pretty close to correct even without the box. Set your hand saw on the material to be cut, as nearly plumb as possible. Now watch reflection of piece of wood in the saw blade. Pivot the saw blade right or left until the reflection of the edge of the board makes a right angle with the real edge. Then mark along back of saw and you have your mitre cut. A little practice will show you how and skill in judging cut will grow with experience.—C. E. LINDSTROM, Home Service Co., Minneapolis, Minn.



By observing reflection of board's edge in saw an accurate mitre cut can be determined without using mitre box



Above is shown method of weighting pail handle to keep it erect. At right is shown door bolt used as a bench stop



Prevents Tearing Veneer

ABOVE is my contribution to practical job pointers: some time ago I was called upon to trim a quarter of an inch off a veneered front door. This door was dragging over a heavy carpet. The painters had just finished graining the door. We all know that in ripping veneered wood, it is bound to tear on the opposite side. To avoid this, I tacked, with small brads, a one-half by two-inch strip on the opposite side of the door in the center of the mark. In ripping the door, you also rip the strip on the opposite side, which avoids tearing of veneered wood.—W. WESLEY FIELD, Antioch, Calif.

Holds Handle Up

THE handles of mortar pails have a tendency to fall back to the sides of the pail, causing them to get full of mortar. This makes it a disagreeable job to carry them. This problem was easily solved by a sheet metal worker. He shaped the handles of the pails as shown in my sketch, and added small weights to the ends. If the handle starts to fall to the side, the weights bring it upright again, as it is heavier at the bottom. This assures at all times a clean handle, and a firm grip. The weights are made by pouring hot babbit into a mold made of clay, and dipping the ends into them while the babbit is still hot.—A. S. WURZ, Jr., Rockyford, Alta., Can.

Door Bolt As Bench Stop

A BENCH STOP, to hold one end of a board being dressed with a plane or smoothed with sandpaper, can be made from an ordinary sliding door bolt. The bolt is fastened to one end of the work bench with the bolt end of the steel casing flush with the top of the work bench as shown. When in use the bolt is raised to stand above the bench top where the end of the board being planed is butted against it and held by the pressure of the plane dressing the lumber. When not in use, the bolt is lowered and remains below the top of the bench and out of the way of any work in progress.—RAY J. MARRAN, Kansas City, Mo.

NEW PRODUCTS

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

New Tempered Sink Top Material

FOR years maple sink tops and drain boards have been used in kitchens in which the more elaborate equipment, such as metal or cast porcelain units, was too costly. Now a new type of tempered composition material has been perfected by a well known manufacturer of kitchen cabinets and equipment, which will not stain, and is impervious to water.

The development of the modern kitchen has made necessary a kitchen sink and drain board unit that is easily installed, can be easily fitted at one or both ends to side walls or other units and that is flexible as to dimensions and makeup.

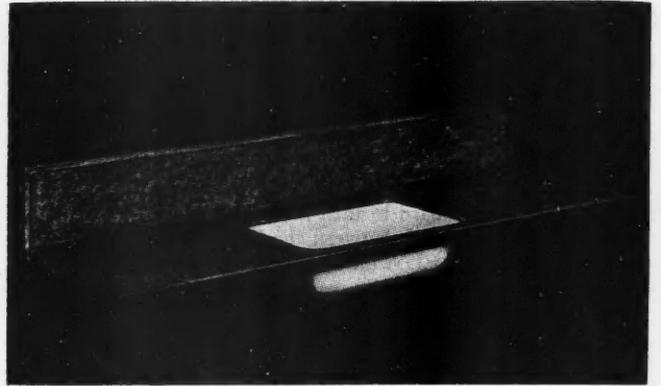
The new tempered top material is as flexible as maple but will not warp, crack, craze or deteriorate. It is tough enough to avoid damage under hard usage and yet resilient enough to overcome the difficulties of hard materials. Some of the features include: 1) Tempered composition material; 2) will not deteriorate in use; 3) cannot be dented with any ordinary hard blow; 4) not easily marred with a knife or sharp instrument; 5) is impervious to water or other liquid, and impervious to grease. 6) will not warp or split; 7) will not stain or spot when attacked by milk, vinegar, fruit juices or alcoholic liquors and very little damage will be done by strong soaps; 8) reasonably impervious to heat and cold and not easily damaged by hot vessels; 9) all outlets may be cut by plumbers on the job; 10) strong and rigid and can be made any length up to 120 inches, either with or without splash backs or ends; 11) no unsanitary joint between top and sink. This joint is thoroughly waterproofed, tight and close fitting.

Double-hung Window of New Type

OF INTEREST to builders and architects is a double-hung window that reduces the hazard of falling from windows, and exposure during the process of washing them. This new patented window has four brass spring locks, two on each sash, one on either side, and will lock either top or bottom sash in positions for ventilation with safety as they cannot be reached from the outside. The lower sash is worked on a pivot bar at the bottom and will pull out from the meeting rail at top to lock in position, giving ventilation without a draft.



Bottom sash of new window pulls clear into room, reverses and slides up again. Top sash likewise pulls down, reverses.



New low cost sink top product is of tempered composition material that will not stain, warp or crack.

Both top and bottom sash slide on aluminum slides and are counterbalanced by weights.

The pivot bar is a "U" shape and is stationary, running through the bottom of the sash and up through the slides, carrying the window weights so that the window swings on the bar. The bottom sash pulls clear into the room, reverses and slides up again leaving the outside pane exposed in the room without letting in cold air from the outside. The top sash likewise pulls down and reverses into the inside. The installation may be obtained with or without weatherstripping. It can be installed in new buildings, or old windows can be remodeled with this new equipment.

Steel Shower Bath Compartments

A SHOWER bath compartment having walls and top of stainless steel has been developed by a Chicago manufacturer.

The use of stainless clad steel enables the manufacturer to produce shower compartments with high corrosion resistance at a substantial saving to the user.

The shower compartments as shown in the illustration are of the knock-down construction, having interlocking leak-proof corner joints. The walls rest inside a steel flange imbedded in a one-piece, pre-cast terrazzo receptor or base. The entire unit forms a water-tight shower stall.

The walls are assembled at the place of installation. No. 16 gage stainless clad steel is used having a 20 per cent ply of 18-8 stainless steel bonded to a mild steel under surface. In the method of wall construction only the stainless surface can come into contact with water.

On account of their knock-down construction, the compartments are very adaptable for remodeling and modernization.

Shower compartment comes ready for quick assembly. Stainless steel is used with pre-cast terrazzo base.



New Fiber Base Toughens Roofing

THE story of what chemists and other research laboratory workers have discovered regarding new uses for wood, reads like a romance. A product resembling glass, but which allows vision in only one direction, so that one can look out but no one can look in, has been developed from wood. Tongues for shoes, tougher than leather, and otherwise more satisfactory, are being made from wood fibers. Many other products are in process of development and may be announced at any time.

It has been found that cellulose (wood) fibers, being spatular instead of tubular in shape, have unusual strength and are capable of manufacture into products like paper, textiles, etc., which are practically puncture-proof. Because these cellulose fibers are so very absorbent, on the other hand, they can be used to manufacture base materials which are to be impregnated with some other material. Laboratory tests indicate that cellulose fiber products will show unusual capacity for wear and use.

One of the most interesting recent developments along these lines is the announcement by a prominent Eastern manufacturer of the practical perfection of a base material for prepared roofings, made from cellulose (wood) fibers. It is claimed that prepared roofing using this new base will cost but a small fraction of a cent more per square foot; because of its absorbent qualities it is possible to obtain a very high degree of impregnation with such materials as asphalt, thus producing strip shingles or roll roofing of exceptionally high quality and waterproofness. And since the cellulose fiber base material is very tough and strong, sharp angles and corners may be roofed with practically no danger of splitting, cracking or breaking of the roofing material. Half a dozen of the largest roofing manufacturers in the country have already agreed to market shingles or roll roofing made with the new base material.

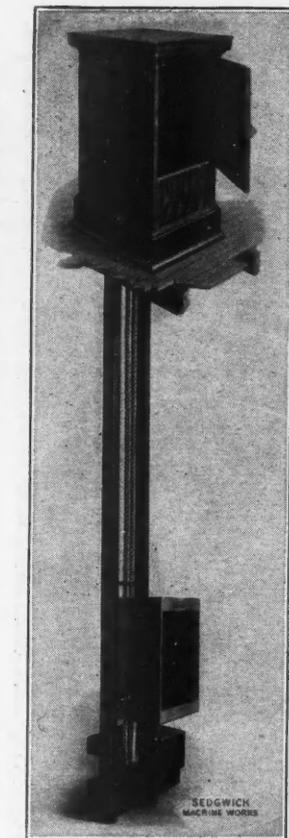
Brick Siding Popular for Modernizing

OWNERS of frame or stucco residences, faced with the necessity of painting, re-siding or re-stuccoing their dwellings, are discovering the economy of the new imitation brick sidings. A new and interesting siding made of asbestos and cement which resembles brick to a remarkable degree is on the market. It is easy to apply and fairly inexpensive. Contractors and dealers report that this is one of the products being sold today in the modernization and repair market which offers a clean-cut opportunity to building professionals willing to go out after the business.

The "before and after" photographs shown below illustrate the manner in which a stucco dwelling badly in need of repair can be repaired and modernized with the new asbestos cement brick-like siding material.



BEFORE—an old house with stucco exterior in bad shape, just as hundreds of homes in most communities are.



New automatic dumbwaiter has simplified design that cuts cost, makes it easy to install.

Simplified Electric Dumbwaiter

A NEW automatic electric dumbwaiter, much lower in cost than has been possible before, presents improved features of particular interest to the builder. It is designed for two-station work, such as basement and first floor, can be installed beneath a counter or cabinet without any danger of damage to surrounding woodwork because of an ingenious, positive control. It is simple in design and operation and comparatively easy to install.

Complicated design, costly construction and the number of parts which for many years have made electric dumbwaiters expensive have been simplified to a practical modern degree resulting in a low cost outfit.

Equipment is constructed and assembled so that it does not depend upon walls or shaft for support. All that is needed is the space to put it in and a hole through the floor. Not an inch of space above top of car at upper landing is needed.

The machine which consists of an electric motor, gearing, electro-magnetic brake, control switches and a sprocket wheel is mounted on steel platform attached to the bottom of the steel guide framework.

The energy of the electric motor is imparted to the car through a steel roller chain passing around the sprocket wheel mounted on motor shaft and over a sprocket pinion near top of steel guide framework.

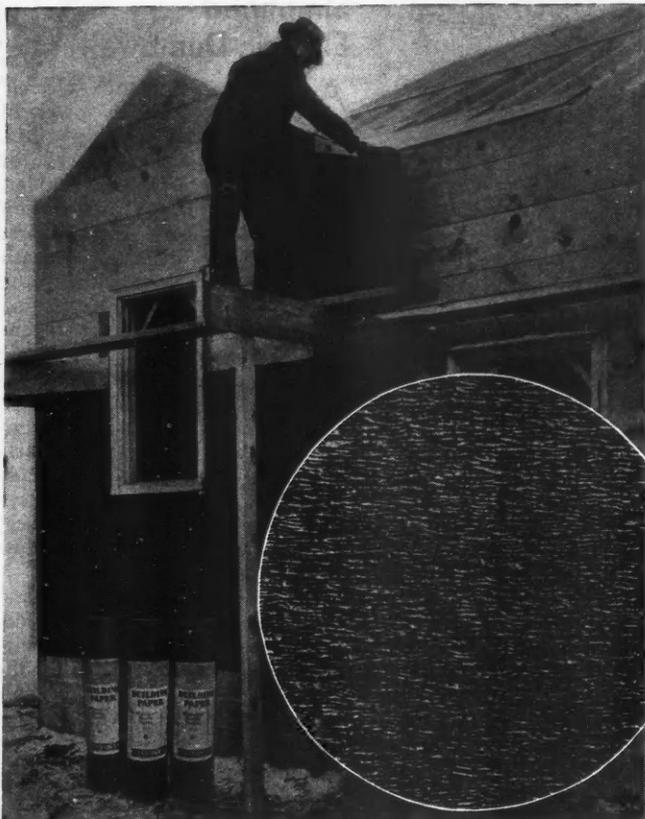
An operating push button and an emergency stop button are conveniently located at one or both terminal landings.

Car travels on steel guides. Steel roller guide shoes reduce friction and add to machine efficiency and capacity.

A landing switch automatically stops travel of car at correct levels. Steel connecting rods between car and chain, roller bearings, and wiring are supplied to complete the entire equipment required. Sizes and capacities supplied to suit service requirements. It is important for use in modernizing such structures as bakeries, banks, cafeterias, clubs, drug stores, factories, hotels, libraries, luncheonettes, markets, restaurants, etc.



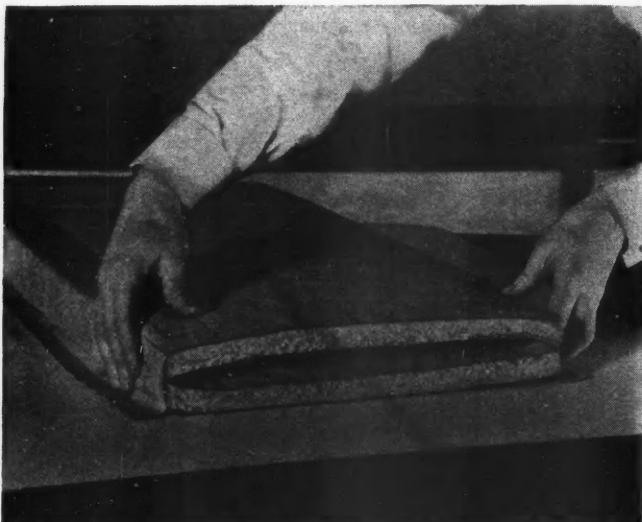
AFTER—same residence after application of new low cost asbestos cement siding that looks like brick.



New flexible building paper, being installed on a cold day, showing ease of application and freedom from puncturing. Insert: the creping which is applied by a patented process to one of the two component kraft layers of this building paper. (Creping is shown actual size.)

New Insulation Materials

TO MEET the rigid requirements of air conditioned homes, a prominent manufacturer has introduced a super insulation made from two thick layers of fluffy wood fibre with edges sealed against moisture and flanged to facilitate its application. These improvements are also features of the standard half-inch and full



The new wall-thick insulation, showing pocket enclosed between blanket layers which opens up to form sealed dead air space when blanket is tucked in between studs—thus giving insulating effectiveness the full depth of the wall.

one-inch thicknesses of this blanket insulation. The new wall-thick material is offered especially to meet any demands of air conditioning and heating engineers. It is windproof, sealed against air infiltration and moisture, will not settle or sift and is easily and cheaply applied.

Of special interest to the temporarily unemployed is a new use for insulation—an insulating jacket for residential water tanks. Many contractors are using this item as a “foot-in-the-door” interest getter in door to door solicitation of home owners. Not only does it create a profitable, easy-selling item but as a practical demonstration of the value of insulation, it builds up a list of potential buyers of attic insulation that can be followed up at some future time. Cases are on record of contractors selling a dozen installations in a day. As a “make-work” idea it is appealing to many who need an income.

Another new item from the same firm is a tough, high grade building paper, which is a combination heavy creped paper cemented to a plain sheet by means of asphalt. The result is a building paper which is flexible yet sufficiently stiff for easy handling and application. The contraction and expansion of building members will not cause tearing or splitting. The rough and smooth waterproof surfaces make it especially adaptable for conditioning concrete. Tests show that it does not become brittle in cold weather, nor limp on hot days. A 36-inch roll weighs 45 pounds. It can be obtained in any width up to 9 feet.

New Non-Splitting Nails Save Time, Money, Labor

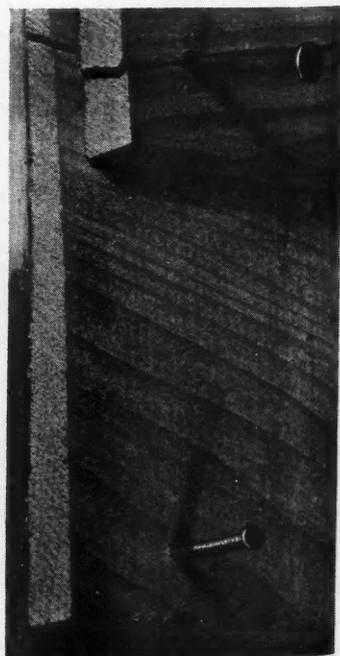
ONE of the products that is contributing to lower building costs is an oval shank, non-splitting steel nail. The fact that such a common, ordinary article as the nail has undergone radical changes is an indication of the progress and change that is taking place in building products.

The following points are claimed by the manufacturer: 1. Ten per cent more nails per pound. 2. From 50 to 70 per cent increased holding power. 3. Nail has oval shank with 7 cutting edges. 4. Nail has a sharp chisel point. 5. Made of high carbon steel content which tends to prevent soft nails and easy bending.

Of further interest to both builders and dealers is the fact that the nails are delivered in five-pound cartons which makes handling easy and saves time and waste. A special display stand for dealers has been developed which displays 140 five-pound cartons and requires very little floor space.

In describing the effectiveness of this nail, the manufacturer states: “The sharp chisel point of the non-splitting nail cuts cleanly across the grain and allows the flat smooth shank to enter the wood with the grain, free from inter-fiber distortion. This accounts for the easy driving. Instead of prying the wood apart as the common round nail does, the shank of the non-splitting nail lies steadfast with the grain, and invariably has more actual nail surface exposed to the inter-fiber of the wood. Thus, the holding power is from 50 to 70 per cent greater than that of the ordinary common round nail.”

The line includes nails for every purpose, such as flooring nails, siding nails, shingle nails, roofing nails, etc.



Round shank nail at top split both pieces while new oval type below penetrated cleanly.

NEWS—building activities of the month

Need More Owners of Low Cost Homes

FIVE MILLION American families are in a position to own homes valued between \$2,000 and \$5,000. This is the first conclusion reported by the Home Building and Home Owning committee of the United States Building and Loan League in its correlation of basic facts from which to start an aggressive home ownership drive.

The Committee points out that \$2,000 to \$5,000 homes constitute the great bulk of existing one-family homes within city limits today, and that the percentage of owner-occupancy is smaller in this group than in any other price range. An average of little more than one out of every three families economically able to own such homes actually have title to the property.

In the price range of \$5,000 to \$7,500 homes, three out of five city families are owner occupants, while in the class above \$7,500, four out of five are owners.

"Home ownership is just as desirable for those who pay \$20 to \$50 a month rent as it is for families in the next price range above," points out Philip Lieber, Shreveport, La., chairman of the committee.

"There are three and a half million city families which do own homes in the \$2,000 to \$5,000 class. These families have title to \$12,286,000,000 of the real wealth of the United States. In other words, by diligence, thrift, systematic payments on their home mortgages, these families with incomes around \$2,000 and \$3,000 a year have managed to become important sharers in the country's wealth. Contrast the absence of this wealth on the part of the renter whose monthly payments have gone to increase somebody else's income rather than to accumulate an equity for himself.

"We should be able in the next three years to raise the percentage of home ownership in the \$2,000 to \$5,000 home group to 60 per cent home ownership now characteristic of families which can afford the \$5,000 to \$7,500 home."

Home Loan Enabling Law Passed By Montana

HOME FINANCING institutions in the state of Montana, eligible for membership in the Federal Home Loan Bank system under the act creating it, but ineligible heretofore because of State laws, may now join the system. A bill passed by the Montana Legislature, lifting the State ban on membership in the system, has been signed by Governor J. E. Erickson.

Montana is in the Eleventh Federal Home Loan Bank District, which comprises, in addition, Washington, Oregon, Idaho, Utah, Wyoming and Alaska, and is served by the Federal Home Loan Bank of Portland, at Portland, Oregon.

The Portland regional bank is capitalized at \$6,000,000.

Montana is the first of the states in the Eleventh District to enact enabling legisla-

BUILDING STATISTICS FOR JANUARY

JANUARY contracts for all classes of construction awarded in the 37 Eastern States totaled \$83,356,000, according to reports by the F. W. Dodge Corporation.

This is a contrast with \$81,219,300 for December, 1932, and \$84,798,400 for January a year ago. Gains over December were shown in non-residential building and public utilities of sufficient size to more than counteract declines in residential building and public works.

Building permit figures in 531 cities and towns of the United States during January, 1933, amounted to \$33,701,343, according to S. W. Straus & Co. This figure represents an increase of 21 per cent over December, 1932, when the volume for these cities was \$26,329,495. Permits issued during January, 1933, fell 30 per cent below the same month of 1932.

San Francisco has a long lead over all other cities with \$14,557,555, which is 43 per cent of all the building reported, due to vast projects recently announced. California, was thrown into the lead of all

states for the month with \$16,627,249 or nearly half of all building reported.

The 25 cities reporting the largest volume of permits for January, 1933, with comparisons, are as follows:

	Jan., 1933	Jan., 1932
1. San Francisco.....	\$14,557,555	\$ 606,149
2. New York, N. Y....	2,670,832	15,018,586
3. Cincinnati, O.....	1,697,890	701,460
4. Albany, N. Y.....	1,593,458	329,152
5. Philadelphia, Pa....	955,968	500,000
6. Los Angeles, Calif.	704,248	1,862,171
7. Baltimore, Md.....	590,880	964,200
8. Boston, Mass.....	404,361	979,324
9. Washington, D. C.	392,080	1,304,725
10. Durham, N. C.....	326,075	3,550
11. Sacramento, Calif..	322,910	79,613
12. Houston, Tex.....	258,547	359,093
13. Binghamton, N. Y.	238,341	73,328
14. Seattle, Wash.....	234,905	1,750,510
15. Nashville, Tenn....	186,038	97,757
16. Detroit, Mich.....	181,847	358,806
17. Dallas, Tex.....	170,006	278,819
18. Greenwich, Conn...	169,200	128,000
19. Chicago, Ill.....	169,100	329,800
20. Denver, Colo.....	166,760	315,080
21. Oklahoma City.....	161,904	107,489
22. Cleveland, O.....	151,608	2,901,900
23. Long Beach, Calif.	144,910	227,745
24. Milwaukee, Wis....	135,810	132,436
25. Yonkers, N. Y.....	132,850	226,890
Totals	\$26,717,975	\$29,636,583

tion. The law went into effect immediately on signing by the Governor.

World's Fair Houses—Construction of the exhibit houses and the special exhibition buildings in the Home and Industrial Arts Exhibit of Chicago's 1933 World's Fair is being speeded so that every structure and exhibit will be complete and in place on opening day, June 1.

On February 1, four exhibit houses and three exhibition buildings in the show were under way—the Masonite house, the Stransteele house, the Moore "Designed for Living" house, the Common Brick Manufacturers house and Home Planning Hall, the Johns-Manville Building and the Southern Cypress house.

Contracts called for construction to begin on five other units in the exhibit by February 15. These were: the Rostone-Indiana Bridge Co. house, the Lumber Industries house, the American Rolling Mill-Ferro Enamel Corporation house, the home which General Houses, Inc., will build, and the special house which the state of Florida will erect.

Because of the rapidity of construction by the use of pre-fabricated materials in most of the houses and exhibit buildings, it is expected that the structures in this group will be completed and ready for the installation of interior equipment and exhibits by April 1.

Rosenthal Elected—At the annual convention of the Illinois Builder's League Jan. 25, Oscar W. Rosenthal was elected president for the fifth consecutive time. C. A. Petry of Champaign was re-elected vice-president and William Y. Brownlie of Chicago treasurer.

Report Shows Large Farm Building Needs

THE importance of the farm building market is graphically shown in a report just made by C. F. Miller, agricultural engineer of the American Forest Products Industries. His report points out:

(a) On some 6,000,000 farm units there are \$12,000,000,000 worth of buildings, annually needing ordinary repair and replacement work.

(b) The "Back to the Soil Movement" is creating additional demand for new farm construction, repair and replacement work.

(c) All farmers are not "broke." Some 58 per cent of the owner-operated farms in the United States are free from mortgage indebtedness.

"To house 32,000,000 rural people," says Mr. Miller, "to shelter 200,000,000 farm animals; to protect 700,000,000 fowls from changing temperatures; to have storage space for hay, grain and other feeds to be used in caring for this livestock and poultry; to provide storage space for fruits, vegetables, and other foods grown and consumed on the farm; to protect an enormous investment in machinery and equipment; and to provide temporary and permanent storage or handling facilities for practically all foods to be ultimately consumed in the United States, with from 8 to 10 per cent surplus for exportation, is a housing problem of the first magnitude."

Myers & Co. Head—Announcement has been made of the election of John C. Myers as president of F. E. Myers & Bro. Co., makers of water systems and power pumps. He succeeds the late Philip A. Myers who died last August.

Real Estate Survey Shows Lack of Financing, Growing Home Shortage

THE abnormal present condition as to money supply for real estate mortgage loans has reached this point:

In 91 per cent of the principal cities of the country, loans are seeking capital. In only 2 per cent is mortgage money supply greater than demand. That is the outstanding fact revealed in the 20th semi-annual survey of the real estate market, covering 307 cities, released by the National Association of Real Estate Boards Feb. 20.

Actual stringency is even greater than the above figures indicate, since the only cities reporting any excess capital are cities of under 100,000 population, a detail that in itself is a striking indication of the situation.

Further, the 2 per cent of cities reporting any money available are confined to three geographical sections of the country, the Middle Atlantic section, the East North Central section and the South Atlantic section. In 7 per cent of the cities reporting there is a normal condition or equilibrium between financing supply and financing demand.

In cities of over 500,000 population, the normal money centers, in no case is capital seeking mortgage investment. In 82 per cent of them loans are seeking capital. Cities of from 200,000 to 500,000 population report 100 per cent that loans are seeking capital.

Shortage Coming in Dwellings

As has been consistently indicated by recent surveys, residential structures are the group in which demand may first be expected in new construction. In 7 per cent of the cities reporting there is already a shortage of single family dwellings; 76 per cent report a supply about balanced with demand.

From the survey, therefore, a condition of shortage would immediately prevail in 83 per cent of these 307 cities as soon as general business conditions recover to such degree that families now "doubled up" may begin to undouble. In some cities reporting, it is pointed out that from 3 to 5 families are occupying space intended as a single-family unit.

As to apartment buildings, supply is balanced with demand in 60 per cent of the cities reporting. Actual shortage already exists in 3 per cent of the cities.

Business property supply is normal in 51 per cent of the cities; is in excess of present demand in 48 per cent of the cities; is even now showing shortage in 1 per cent of the cities.

Cities of under 100,000 population show much the healthiest use or present absorption for all types of properties, business properties, apartments and single-family dwellings. Of cities under 25,000 population, 13 per cent report a present actual shortage of single-family dwellings.

While rents are predominantly down in all groups of properties, apartment and business space show this tendency most uniformly. In only 76 per cent of the cities

are rents lower in single-family dwellings, 22 per cent of the cities show a stationary condition here in spite of the downward pull of the past year's general business situation.

The down tendency in rents is reported for apartment property in 90 per cent of the cities; for two-family dwellings in 89 per cent of the cities; for downtown business property in 82 per cent of the cities; for outlying business property in 93 per cent of the cities; for downtown office space in 91 per cent of the cities; for office space in outlying business sections in 82 per cent of the cities.

Cities of over 500,000 show greatest rent deflation, reporting a down trend in two family houses, apartments and business buildings. In 37 per cent of these cities however, single family dwelling rents are stationary. Cities under 100,000 show the greatest rent stabilization. The report also shows that cities between 25,000 and 100,000 show strongest stabilization of subdivision activity. In 20 per cent activity is at same level as last year.

Interest Rates

Recent indication that interest rates are falling is little reflected in the survey reports, which, however, were sent in by the member boards before the present movement got under way. The reports show interest rates steady in 69 per cent of the cities; falling in 4 per cent; actually rising still in 27 per cent of the cities.

A fall in rates had reached only five geographic sections at the time the reports were sent in. These were the Middle Atlantic section (7 per cent of the cities); the East North Central section (3 per cent of the cities); the South Atlantic section (9 per cent of the cities); the Mountain section (6 per cent of the cities); the Pacific section (2 per cent of the cities). The smallest cities, those under 100,000 population, show the greatest disposition to falling interest rates.

Forecasts Air Conditioning—Air conditioning will be the generally accepted standard in the future, according to Elliott Harrington of the General Electric Company, speaking before the Franklin Institute in Philadelphia, January 26. Apparatus for conditioning air, said Harrington, will be installed even in small homes, with the same nonchalance that electric lighting and modern plumbing are now specified. He said:

"The air conditioner for the home will be a single unit installed much as a boiler is now placed in the basement. It will be a perfectly standardized article, manufactured in large quantity, relatively light in weight and purchasable at a reasonable price. It will not only provide the four essential elements of air conditioning (simultaneous control of temperature, humidity, air movement, and purity), but will take care of additional factors yet to be discovered, to produce in the home a degree of comfort and health as yet unknown.

"Heating contractors will cease to exist. In their place will be the air conditioning contractor, skilled in application engineering, as well as in the merchandising of his product."

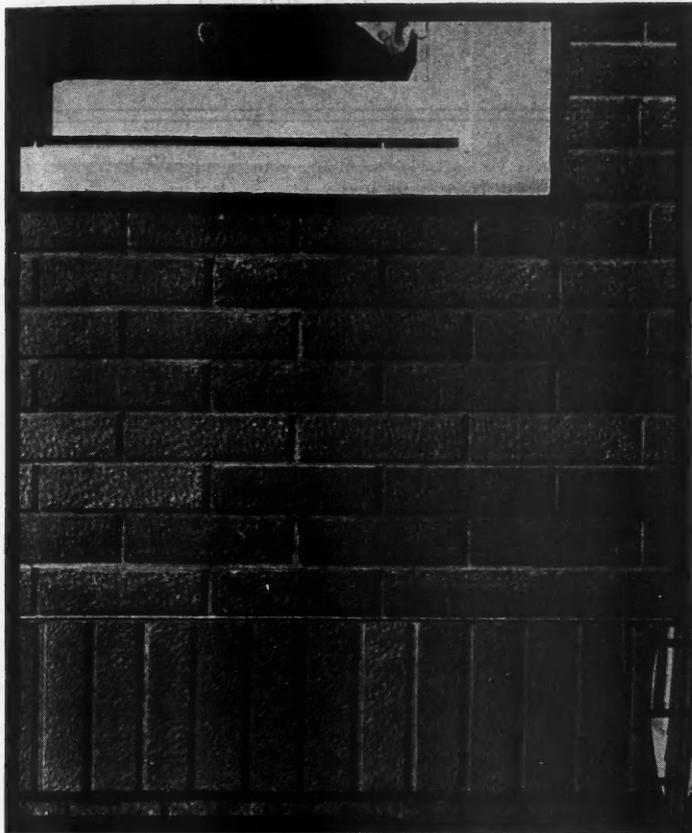
Reorganization Loans—The Republic Realty Mortgage Corporation of Chicago announced on Feb. 16 that it will actively enter the business of loaning money on apartment buildings for reorganization purposes. Loans will be made on first mortgage trust deed or master's certificate and may be procured by property owners, by bondholders committees, and by attorneys, for the purpose of avoiding or of completing foreclosures, funds to be used for taxes, foreclosure costs, receivers dismissal, payments to bondholders, and repairs necessary to restoration of income.

Officers and directors are: Gordon Strong, chairman; B. F. Affleck, vice-chairman; H. L. Schmitz, president; B. J. Rosenthal, and Edward A. Renwick, vice-presidents; R. B. Beach, treasurer; Alexander Konkle, secretary; George S. Kelly, assistant secretary; and H. H. Blum, Philletus W. Gates, Sangston Hettler, W. J. Kelly, John E. MacLeish, J. R. Magill, William Schlake, Walter Dill Scott, and W. S. Underwood, directors.

PERCENTAGE OF CITIES REPORTING OVERBUILDING, NORMAL SUPPLY OR SHORTAGE IN SINGLE-FAMILY DWELLINGS, APARTMENTS AND BUSINESS PROPERTY

Section and Size of City	Single-Family Dwellings		Apartments		Business Property				
	Over	Short	Over	Short	Over	Short			
Totals for U. S. and Canada.....	17	76	7	37	60	3	48	51	1
New England.....	7	72	21	31	69	---	36	64	---
Middle Atlantic.....	13	85	2	35	61	4	46	54	---
East North Central.....	23	72	5	38	59	3	49	51	---
West North Central.....	11	84	5	35	65	---	50	50	---
South Atlantic.....	9	88	3	30	67	3	53	44	3
East South Central.....	20	80	---	70	20	10	70	30	---
West South Central.....	35	55	10	50	45	5	67	33	---
Mountain.....	20	80	---	50	50	---	31	69	---
Pacific.....	69	21	10	24	71	5	43	52	5
Canada.....	33	67	---	67	33	---	33	67	---
Over 500,000.....	29	71	---	86	14	---	86	14	---
200,000 to 500,000.....	20	70	10	74	26	---	83	17	---
100,000 to 200,000.....	21	73	6	53	47	---	65	35	---
25,000 to 100,000.....	19	76	5	37	60	3	42	57	1
Under 25,000.....	12	75	13	14	83	3	39	58	3
District and County Boards.....	11	83	6	31	60	9	44	56	---

Contractors Enthusiastic About



Eternit

Asbestos-Cement "BRICK-TYPE" SIDING

Outstanding Features and Big Sales Opportunities of this Rigid Three-In-One Strip* Quickly Sensed.



RUBEROID'S recent announcement of its ingenious Asbestos Cement Brick-Type Siding, textured like rough natural brick, has been enthusiastically received by carpenters and contractors.

This unique, inexpensive, age enduring siding, provides tremendous sales possibilities. Every owner of a weather-worn frame or stucco building, and every builder of a modest home, is an Eternit Brick-Type Siding prospect.

Picture after picture of jobs are coming in. Enthusiastic letters from property owners, contractors and dealers, all prove that Eternit Brick-Type Siding with its many distinctive features will be a 1933 sales leader.

Investigate this newest Eternit triumph. Study its sales features. Note its ease of application. Put this non-competitive, profit-making, modernizing product to work. Samples and further information gladly forwarded upon request.

* Patent Nos. 1,888,405 and 1,770,599

The RUBEROID Co.

ROOFING MANUFACTURERS FOR OVER FORTY YEARS

ETERNIT DIVISION. Offices: BALTIMORE, MD., CHICAGO, ILL., ERIE, PA., MILLIS, MASS., MOBILE, ALA., NEW YORK, N. Y.

Factory: ST. LOUIS, MO.

FEATURES

- 1 **Ageless and Fireproof**—Ingredients: Portland Cement, reinforced with Asbestos Rock Fibres.
- 2 **Tapered Construction**—Brick faces slightly elevated so that finished job looks like real brick. Strips 6" x 30" contain 3 Bricks 2½" x 9½".
- 3 **Rough Brick Texture**—Exposed area of siding faithfully reproduces rough brick.
- 4 **Brick Colors**—Redtone and Buff with Dark Gray mortar joints. The mineral oxide colors are an integral part of the siding.
- 5 **Ease of Application**—Self-spacing, self-aligning. Soldier courses for base and over windows—corner pieces mitered for perfect fit.
- 6 **Double Market**—A volume producer for re-siding work, but equally efficient for new construction.

4-3-33

ETERNIT, Division of THE RUBEROID Co.,
95 Madison Avenue, New York City, N. Y.

Please send full particulars about Eternit Asbestos Cement Brick-Type Siding. Check below if you also wish information about:

- | | | | | | |
|----------------------------|--------------------------|-----------------------------|--------------------------|-------------------------------|-------------------------------------|
| Asbestos Stone-wall Siding | <input type="checkbox"/> | Gothic Asbestos Shingles | <input type="checkbox"/> | Asphalt Roofings and Shingles | <input type="checkbox"/> |
| Asphalt Brick Style Siding | <input type="checkbox"/> | Timbertex Asbestos Shingles | <input type="checkbox"/> | Safe-n-Dry Sheathing Paper | <input checked="" type="checkbox"/> |

Name of Contractor.....

Street Address.....

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

LETTERS

from Our Readers

You are invited to write your views on any subject of interest to the building industry. 300 words should be enough!

Loyal to Building Industry

Kent, Ohio

To the Editor:

Here is an idea which I wish to submit: that you take your readers (in a figurative sense) on personally conducted tours to some of our great building material producing plants, to show that our industry is not the backward and degenerate "brother" that it has been described as being.

The vogue, in current discussions relating to this industry, is to berate and deplore this supposed backwardness. To the extent that this is true, the criticism is justified, of course. But beyond that point it is not justified. Representations that lead to distorted, unfair conclusions, conclusions that are highly detrimental to the trade as a whole, should not be allowed to pass unchallenged.

In no other field is competition more active than in this one. Nor is there another field in which the incentive for the application of ingenuity, for enterprise, for progress is greater. It should be our purpose to give evidence of this, not through boasting but through simple and convincing presentation of facts. New materials will continually be tested out, and they will be accepted as they prove their worth; and so with new methods. But the change will be by way of gradual development, rather than any sudden and blind revolution. If prospective home owners could have a look at some of our lumber mills, brick plants, etc., they would take less seriously the "ox-cart" line of talk.

HOWARD H. CLARK, Mason Contractor

Condemns Shop-Built Houses

Marion, Iowa

To the Editor:

Shop-built houses are damaging to any dealer. In the first place, they cut his outlet for material; and the fact that every section has a surplus of carpenters who need the work, should make the local dealer greatly interested in seeing that as much labor is given them as possible. Shop-built houses positively eliminate lots of labor where the local dealer is; and it is much to our interest, also the community's, to furnish and create as much work for home labor as possible. We shall do all we can to defeat the plan you describe in your February issue, and believe we will be able to compete and keep the business where it belongs.

C. R. BIDDICK,
The Biddick-Eastman Lumber Co.

Says Erie Is Not a "Bright Spot"

Erie, Pa.

To the Editor:

I am writing you regarding an article appearing in the January issue of your magazine under the caption of "Bright Spots."

In this article your magazine quotes: Erie contemplates erection of 4500 to 6000 houses in 1933. I do not know where your information came from, but I do know that this is untrue, also unfair to local contractors and men employed in the building industry in this city.

First, there are plenty of empty houses also all kinds of store and industrial buildings available and have been for some time.

Second, I have at hand several letters from out of town contractors requesting information regarding this subject, also men coming here expecting to find work when 80 per cent of building trades men here are walking the streets.

Third, you yourself know from your readers what effect untrue statements have, and I sincerely hope you will correct this statement and prevent any re-occurrence of the same.

G. A. McCULLOCH,
Secretary Local No. 81, United Brotherhood of Carpenters and Joiners of America.

Approves the Cost Keys

Klamath Falls, Ore.

To the Editor:

I notice that in the last few issues of the AMERICAN BUILDER you have presented houses designed by the Architectural Guild of Small Home Design, Inc. With these houses you have included the Cost Key.

This cost key idea has impressed me as a very worth while method of quickly arriving at home costs, and I have induced our leading retail lumber yard to adopt it. I am also familiar with the method and am using it.

The work of the Architectural Guild of Small Home Design interests me greatly and I consider their work to date a decided advance, and should be an inspiration to small home ownership. I am registered with the Guild and have received their first published volume, and am anxious to obtain Cost Keys for all of the designs therein. Can you furnish these Cost Keys or tell me where and how I may obtain them?

For the past ten years I have received the AMERICAN BUILDER and wish to take this opportunity of expressing my appreciation of the advance you have made in the last year or so in the quality of the houses shown and in the worth of your articles.

HOWARD R. PERRIN, Architect

Old-Time Papers Discovered

Mamaroneck, N. Y.

To the Editor:

We have been subscribers to your magazine for many years and found same very interesting. We ask that you publish the following letter in your "Letters from Our Readers" column:

I have in my possession a contract-specification written in long hand dated October 20, 1860, for labor and materials for the carpenter work for a store and six-story building on lot 354 Broadway, New York City, prepared by John Kellum & Son, Architects; John R. Lawrence, Esq. was the owner and A. G. Bogert & Brother were the Contractors.

I would appreciate any information regarding the above by any relatives who may be interested.

ROBERT V. ACAMPORA, Pres.
Acampora Brothers Contractors, Inc., Builders

An Estimating Short Cut

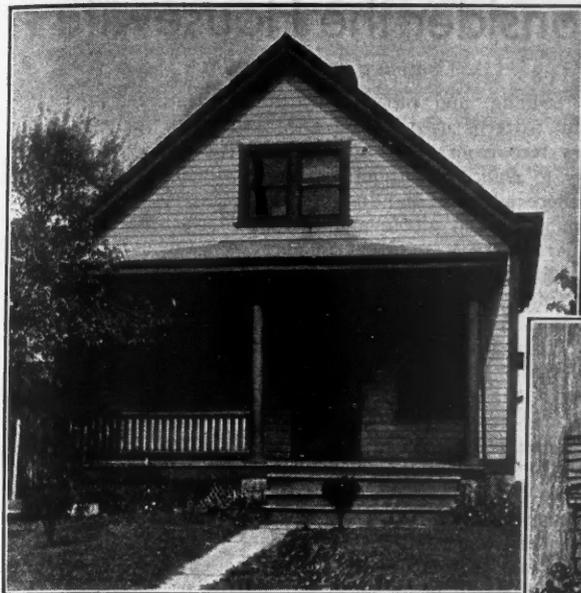
Norwich, Connecticut

To the Editor:

As we are all interested in time saving methods in making estimates, we are glad to pass along an idea which we have used in figuring plans where the scale is either $\frac{1}{4}$ or $\frac{1}{8}$ inch to the foot and where the studding or joists are placed 16 inches on centers.

In order to get the number of joists or studs required and using an ordinary carpenter's rule instead of a scale, you measure the length of the wall or floor as shown on the plan with the rule and multiply the number of inches shown on the rule by 3 if the plan is $\frac{1}{4}$ inch scale or by 6 if the plan is $\frac{1}{8}$ inch scale and add whatever pieces are required for starters or doubling up. For example: using a $\frac{1}{4}$ inch scale—if the floor was 16 feet long, it would scale 4 inches and multiplying 4 by 3 gives us 12 joists which would be the number required for a 16 foot span, then adding one or more for starters as required.

W. S. SPENCER, Builder



Careystone
"MADE OF ASBESTOS AND CEMENT"



The illustrations show the old, commonplace house (above) and at the right the architect's conception of how it can be restyled and modernized with Careystone Colonial Clapboard and Cape Cod Shingles.

Re-styling Old Houses is Profitable

New houses for old! That's what Careystone Modernizing Units mean to home owners. When the old structure is restyled and protected with Careystone Colonial Clapboards, Normandy Brick Siding or Cape Cod Shingles, the exterior is literally new. More than that, the cost of the improvement is paid for by the ending of painting expense. Careystone Units are made of asbestos and cement—they are as weatherproof and fireproof as stone.

There is profitable Careystone Modernizing business waiting for dealers and builders everywhere. Think of the unattractive old frame houses in your own community—every one of them will ultimately be a real prospect. We have perfected a plan which is turning these prospects into satisfied customers wherever it operates. If you are interested in making real profits in 1933 instead of wishing for them, write for full details.

THE PHILIP CAREY COMPANY • Lockland, Cincinnati, Ohio
Branches in Principal Cities

BUILT-UP ROOFS
ASPHALT PRODUCTS
ELASTITE EXPANSION JOINT
WATERPROOFINGS
ROOF PAINTS

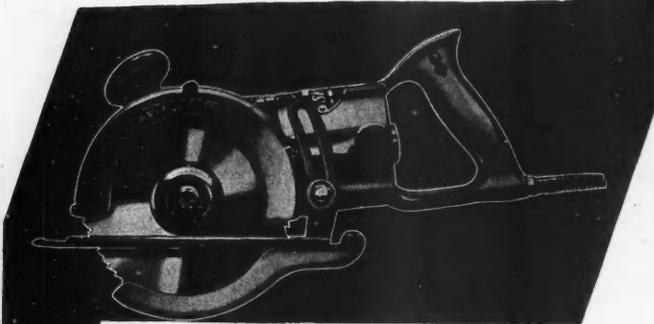
Carey
PRODUCTS

HEAT INSULATIONS
ASBESTOS-MATERIALS
CORRUGATED-ASBESTOS SIDING
ASFALSLATE SHINGLES
ROLL ROOFINGS

THE SAW EVERY BUILDER WANTS HI-POWERED • FINER QUALITY

—Now priced sensationally low!

The original "old reliable" . . . the sturdier saw, with more motor power for the size . . . priced so low it pays for itself on the FIRST JOB! Now you can have that Portable Electric Hand Saw you have always wanted!



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This Company also manufactures U S S STAINLESS and Heat Resisting Steel Sheets and Light Plates for all uses to which these products are adapted.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

(SUBSIDIARY of UNITED STATES STEEL CORPORATION)

Consider the Housewife

(Continued from page 16)

grooves, beading, and other soil catching features? Are the colors and patterns used restful and pleasing to the eye? Are the floors free from seams and dust collecting crevices? Are they easy to walk on without danger of slipping?

"Are there adequate lighting facilities . . . ? Is the lighting free from glare and gloom and from shadows on working surfaces? Are there a sufficient number of switches? Are they at such a height to avoid cord tangling, reaching and stooping, in connecting electric appliances or lamps? Are they the double type so that appliances can be attached without disturbing the lighting connections? Are the lighting fixtures suitably and simply designed free from ornate soil-collecting features? Is the telephone centrally located? Is there provision for privacy in conversation? Is an extension needed for saving steps? Are the telephone and door bell audible in all parts of the house?"

Today the efficient kitchen provides a separate working surface for each general type of work as work table for mixing or preparing raw foods; range and a serving table where the food is cooked and prepared for service; a sink with its drain board or drain boards and side table for holding soiled dishes used in the cooking processes or during the preparation of food and its removal after the meal is served. Storage area must be provided for dishes and foods put away for future use as well as for general storage cupboards for supplies which are bought in large quantities. The relation of these centers to each other is very important if the worker is to save time and energy.

For right handed people the route of preparation should be from left to right:—refrigerator, work table, sink, range, service table, dining room or dinette area. For clearing away the reverse routing is used,—from the table to the sink, to the dish cabinet. If there is a connecting pass window to the dining room, the dish cabinet and the sink should be in close connection on the same side of the wall. Otherwise a wheel tray should be used to convey the dishes and food from the dining table to the storage and sink area.

In planning a kitchen to fit the worker the right relationship of working heights as well as the relation of working areas is important. Today the suggestion is that in the same kitchen there be a work preparation area where the worker may be seated in an ordinary chair with knee room as found in desks; that there be a second working height where food preparation requiring movements as kneading and rolling may be carried on; that there be a third area where the worker stands easily without bending over or raising her shoulders in the use of equipment. This last working area should be on the level with the rim of the sink.

Where there is a single worker and the dinette is not part of the kitchen, a work room 7 feet by 7 feet is adequate for the average family. In this the window should be over the work table area and close to the sink so that daylight is available. There should be an exhaust fan to remove excess heat and moisture either by driving force or by suction, but so arranged that the cooking unit is not cooled unduly.

Where cost is restricted, the sink should always have at least the left drain board or on the left a table area which is covered with a rubber draining mat leading into the sink. Over the sink should be narrow shelves holding cereal jars, the double boiler, the coffee and coffee pot, the tea and tea pot, the cocoa and cocoa pot, and suspended on hooks under these shelves should be all the small utensils used in connection with the work at the sink and adjacent work table. An electric light should be at the left of the sink above the eye level but not so that a shadow will be thrown upon the sink. The utensils used at the stove should be stored on hooks back of the range and at the side of the range where they can be reached from both range and sink. Dishes should be stored either in a cupboard in the wall near the sink between the dining room and the kitchen or else across from the sink area. The distance between the sink and the china cupboard should be not more than 30 to 36 inches. The refrigerator should stand as near the work table, the sink and the dining room door as the wall space will admit.

Fresh vegetable storage may be on shelves with slated front under the drain board of the sink, an adjustable opening on the outside will keep the area cool without freezing. Food storage cupboards should be near the work table—above and under it.

(Continued to page 52)

EARN BIG MONEY MAKING COLORCRETE PRODUCTS

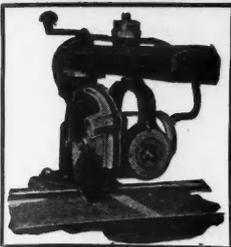


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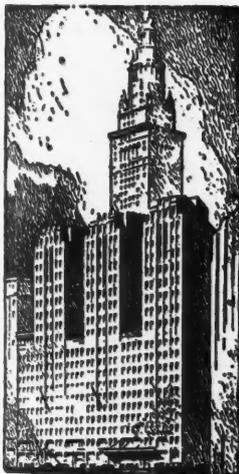
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On NEW MACHINES while they last.

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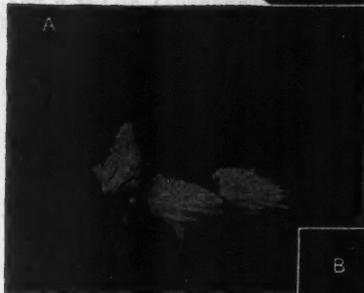
The NEW PRODUCTS Area AT THE BUILDING ARTS EXHIBIT

In times like the present, many manufacturers are adding new products to their lines and alert builders and architects are keeping closely in touch with these new developments and the advantages they offer. • In the Cleveland territory, the New Products Area at the Building Arts Exhibit affords an excellent opportunity for actual inspection and study of new and approved products in the building and allied fields. It will give you new ideas and worthwhile suggestions. • Make it a point to inspect this, and other features of this Exhibit, when in Cleveland.



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BUILDERS EXCHANGE BUILDING
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A. Six weeks old—sick, weak, and victims of rickets . . . because they were raised under ordinary glass . . . Four of the original seven died.



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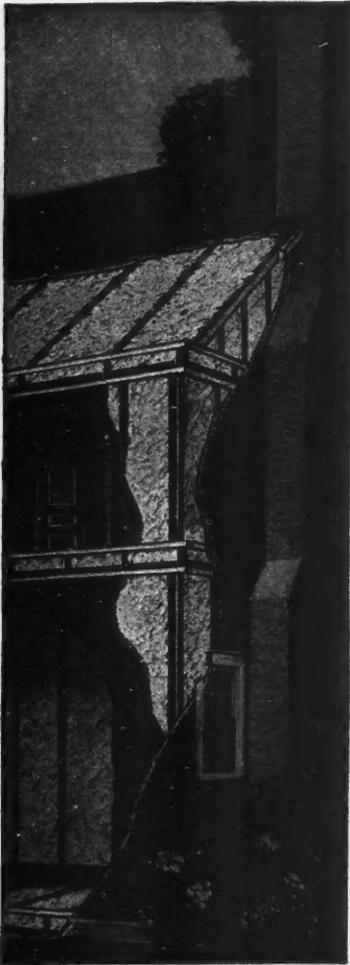


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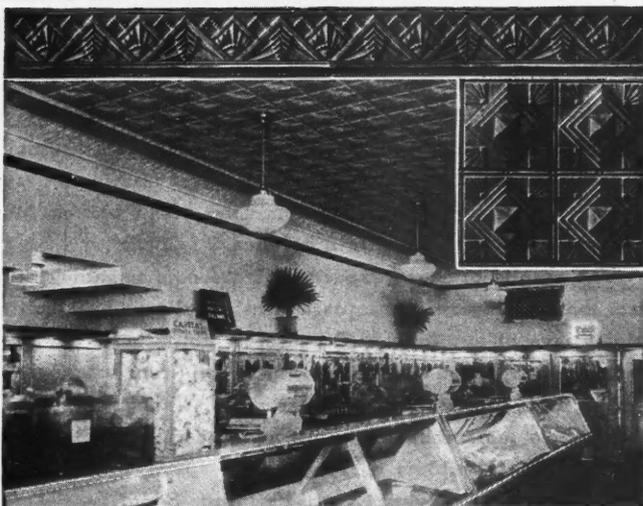
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Cincinnati, Ohio

World's leading Manufacturers of Sheet Metal Building Material

(Continued from page 50)

Floors should be as nearly one unit as possible—either concrete covered with rubber tile or linoleum or wood or composition flooring with impervious surface. The smaller the open floor area to be cleaned the better. The area under the range may be utilized for a storage area if the top can be made fire proof and used as a table on which the legless range is placed.

The oblong kitchen where one end is used for a dining area should have the window end for the kitchen work area and the dining end near the entrance hall so that the work area is not a passage way to other rooms of the house. Where small children are in the family and the mother wishes to keep within sight and sound of them, the dinette area of the oblong kitchen may be a play place for the children who love to help with the food preparation and the food clearing away. In this training they can be made extremely happy as well as fairly efficient. It is part of a child's "right to count in the family life." There is no better way for the children to feel as if they belonged and are needed than to work with the mother in the simpler routine of food preparation and food service. In this same dinette area there should be a desk or low work table where household accounts may be kept and where books may be stored so that the homemaker can read as she waits for certain processes in food preparation to be completed. Many homemakers have an easy chair and if possible a couch in this area.

The square kitchen as such no longer meets the modern needs, and the large kitchen with the butler's pantry is a waste of space, a waste of capital investment and except where there is a retinue of house workers is psychologically unfortunate as it isolates the housewife, placing several doors between her and the family.

By using a ventilating fan the odor of cooking need not be marked even when the kitchen leads directly into the living area. In fact in the smaller apartment today the wall kitchen is built as part of the division wall between the living room and other rooms of the house. With the colorful equipment on the market it may be a part of the decoration of the apartment living room or it may be closed off with folding doors when not in use. The ready to install wall kitchen has been made by many of the companies who build standardized equipment for the kitchen. The law of sequence of refrigerator, work table, draining board, sink and range should be obeyed even in the wall kitchenette.

In planning for the new house or apartment or remodeling the old house the kitchen should be adjusted to fit the worker rather than make the worker adjust to the kitchen and its equipment. The newer architecture is installing standardized kitchens assembled in the shop and dropped into place in the house or the apartment. The women whose workshop this is to be should early have their say. To this end architects, builders and homemakers must get together to develop a more nearly efficient plan.

Quality Floor Surfacing Methods

(Continued from page 39)

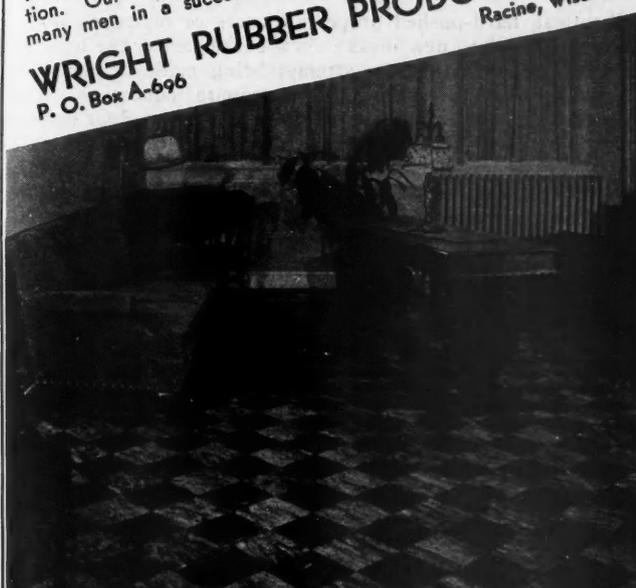
initial "seal" finish. There is a steel wooling operation after each of the two first coats with a polish operation after the finish coat. At present prices, this finish can be obtained at from 3 to 4 cents per square foot. The more careful sanding job necessary for this sort of work will cost the owner around 4 cents per square foot.

A "removing" job with shellac and cheap varnish will thus cost around 5 cents per square foot. Since these materials are not durable, this expense can be figured upon yearly. With good varnish, the cost will be around 6 cents per square foot with about a 2½ cent cost every other year when the base coat does not need to be removed but merely scrubbed thoroughly. For the high quality varnish job, the price will range from 7 cents up. In apartment houses where rough use is likely, the renewal cost for two or three years will be around 3 cents per square foot, after which the job will probably have to be done over.

For the new type "seal" finish, the original cost, including a high grade surfacing job, will run around 9 cents per square foot. This should last for several years with yearly maintenance costs of about 2 cents per square foot. Since the finish is in the surface instead of on top, the floor should not need

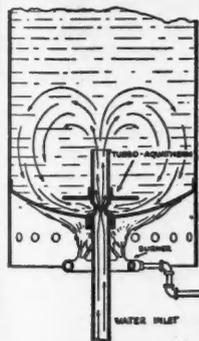
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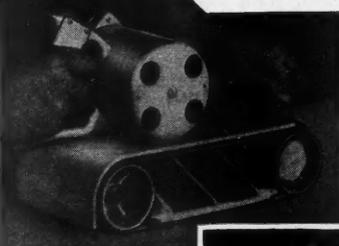


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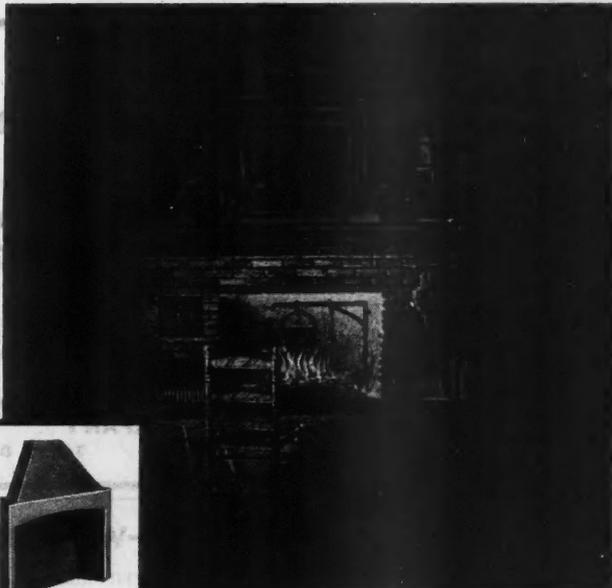
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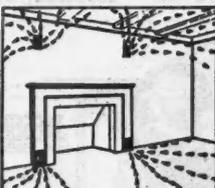
"I MAY be wrong, but it seems to me that many builders haven't altered their sales story for years. It's the same old song and dance about the closets, the plumbing, the bathroom and the kitchen. Heatilator changed my methods, I can tell you—made me realize that a living room, Heatilator equipped, is one of the best selling bets I can have.

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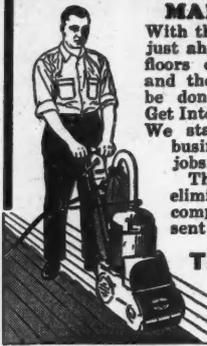
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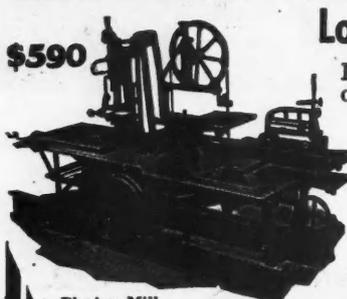


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Rip and cross-cut saw, 22" band saw, 12" jointer, tenoner, hollow chisel, Mortiser and borer, swing cut off saw, reversible spindle shaper and sand disc.

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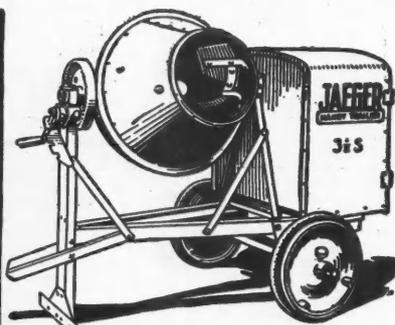


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to be resurfaced until excessive wear has made it rough or until it has had some unusual injury. Over a period of, say, five or six years, this type of finish should cut floor maintenance costs approximately 50 per cent. At present, it is planned by enterprising floor contractors to offer the customer a bonded floor job, guaranteeing the maintenance service cost for a period of years.

Problems of Marketing

Skeptical, hard-pushed property owners or managers do not readily succumb to new ideas. As a consequence, the new idea is being pushed slowly, no attempt being made in general to put it over with pressure and inadequate education. Each prospective customer is shown samples of various floor finishes, and the striking qualities of the new finish demonstrated to him as far as possible. There is the alcohol test, the varnish remover test, the resistance to foot track dirt test, and the test of holding a burning match close to the overturned surface of the wood. In addition, the customer is invited to examine a floor with this type of finish on it if one is conveniently near. Finally, if he is skeptical about a whole job being done at present, he is encouraged to try a small area where it will have a good chance to demonstrate its superiority.

The uses of this new type finish are many, being applicable with good results to wood, linoleum, cork, tile, cement, terrazo, asphalt and rubber tile floors, or nearly anywhere that a polished, durable, easily cleaned floor is desirable.

Like most good improvements, this new era in floor maintenance is taking root widely, and in spite of the difficulties of developing a new field at this time, its progress is assured, and the new finishing methods are here to stay.

What Should the Worker Demand in his House?

(Continued from page 21)

our job is to plan and produce the small house that Americans want, with costs lowered by better planning, and built with crafts and wage standards and distribution channels unimpaired. There is more to this problem of low cost housing than the fact that an inventor states a five-room house of electrically welded steel and glass can be erected in nine days (Chicago Tribune, April 23, 1932) and that later when machine mass production gets into full swing, it will require only two days. This savors of packing house methods but it by no means assures consumer acceptance of the house and willingness to live in it and call it home.

Requirements to Be Met by Low Cost Housing

By and large, those who want low cost houses, and their name is legion, will accept limited space accommodations. Furniture is becoming smaller and less ostentatious; radios replace large pianos; small seats replace davenports. Families are smaller. Less time is spent at home. Servants are harder to get; the family washing is done elsewhere. The automobile is now standard home equipment. A house is less a matter of pride and sentiment, and much more a utility service. All they ask is that the low cost house shall be of good appearance, easily cleaned and maintained and adequate to its service requirements. Many a bad house, with cheap lumber and bad plaster, has been sold because of a clever folding ironing board that cost \$9.00.

Lumber-Construction Has Tremendous Advantage

All the new types of low-cost houses that may be invented and fabricated will not change the fact that a low-cost house must be capable of being bought and sold or rented and vacated at little or no sacrifice. It must have a free market and a liquid value. The population that wants low-cost houses is perforce migrant. It is here today and there tomorrow in pursuit of opportunity. Fundamentally, to enjoy a free market a house must be portable.

This problem cannot be met by drastic construction economies alone. Recourse must be had to construction types, to methods of distribution, and methods of ownership to meet the

250 Short Cuts for Builders

Every one of the kinks given in this practical volume is different from those given in our other book entitled Kinks for the Builder. Every one is unusual, every one helpful on the daily job, and any one worth ten times the price of the book when applied to your work.

Like Colwell's Kinks for the Builder these were gathered from the practical methods suggested by builders throughout the country because they save time and material over the usual methods of doing work.

Even in these days when jobs are scarce the man who saves time and material is ahead of the other fellow both through the greater profit on that job and in being able to use the extra time in chasing up another job.

Lack of space prohibits our listing the 250

different short cuts but here are a few of them, so that you may see what a wide field is covered:

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Forms for the April Number of the American Builder and Building Age will close promptly on March 15. New copy, changes, orders for omissions of advertisements must reach our business office, 105 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 15th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

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Look into the attractive possibilities of a Rol-screen franchise. Rolcreens of Pella are by all odds the leaders in rolling screens. Eight years of constant improvement and increasing popularity make them the easiest selling on the market. They'll far outlive their *Ten-year Guarantee*. They make yearly screen costs less than old-fashioned flat types. They increase property values.

Rolcreens are being widely advertised in choice public magazines . . . have been for years. Protected dealerships. *Your territory may be open. Mail the coupon.* Rolscreen Company, Pella, Iowa.

ROLSCREENS

• O F P E L L A •

ROLSCREEN COMPANY, 333 Main Street, Pella, Iowa

If my locality is still unassigned territory, please send me full details of your proposition.

Name _____

P. O. Address _____

(Continued from page 54)

changing requirements. Lumber is now, and will continue to be, much better adapted than any other generally available material to meet these requirements. Its distribution methods must be revamped to capitalize this advantage.

If people must have cheaper houses, then they must be smaller, and many must be portable. Concrete cannot meet this situation. Nor can brick or stone or stucco meet it. Steel can be made portable, but it is heavy and expensive. Lumber alone is ideally adapted to answer this problem, and strangely enough, competing materials guided by advices from their research laboratories, have more confidence in lumber's natural advantages to capture this market than have the lumbermen themselves.

Low Cost Housing from a Structural Standpoint

A modern architect planning a lumber-built house to meet the newest competition would, for example:

1. Eliminate the basement, relying on floor insulation to maintain comfort underfoot.
2. Plan for construction in units capable of ready transformation into such assemblies of utility quarters, and living quarters, as may be desired.
3. Plan for complete manufacture and sale by local dealers, independently of land values, transported to place, moved for customers as desired, traded in for newer or different models on a reasonable adjustment basis, and provided with a free market, exactly like automobiles.
4. Provide complete and effective insulation.
5. Eliminate plaster in favor of sawn-board interior finish or plywood.
6. Provide livable roof decks.
7. Provide ready-finished flooring with a base that will not permit of shrinkage cracks and squeaks.
8. Eliminates the pulley box window frame in favor of simpler methods of counterbalancing.
9. Employ base outlets only for lighting.
10. Provide unit type, solid panel partitions readily movable by the occupants.

11. Provide an exterior finish of sawn lumber that combined in plies to permit of prepainting and application in large sheets in a single operation.

Impractical! Impossible! do you say? Well, suppose instead of debating the point now, we lay this statement aside and read it again, say in five years, when we will have visible means of checking each of the above eleven points and others not yet developed.

One other point must not be overlooked, viz., easily twice the current ten year averages for small houses could be built and sold if present unnecessary financial obstacles are removed. Behind every story of modern design there is also a story of modern merchandising—if the design has proved successful.

Resume of Advantages and Disadvantages

The present stationary position of lumber and wood products, while no different from other competing materials in many respects, has certain important elements which may well be emphasized. Lumber enjoys an advantage gained from producing a vastly improved product; it has lost none of its natural characteristics which appeal so strongly to hordes of imitators seeking to increase sales; it has today more alert selling organizations, and better distributors than ever before. It is also in an improved position for the very reason that it realizes its weaknesses and seeks to remove their causes.

It possibly suffers heaviest loss of markets today because almost every wood is manufactured into "almost every size and seeks almost every market." It also suffers from the suicidal competition in prices which always appears when succeeding waves of cheaper merchandise appear in the markets, generating a lowered business standard among even the most responsible dealers who sell day after day at a loss to meet a competitor's prices. This of course is not business competition; it is competition in folly. It also has the unhappy effect of causing many lumber distributors to appear to have lost respect for their own merchandise.

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