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AMERICAN BUILDER

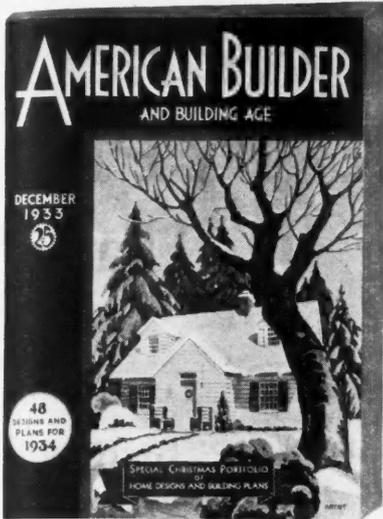
and Building Age

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The December American Builder will be a Special Christmas Portfolio of Home Designs and Building Plans. These long winter evenings are the time when plans are made for next Spring's building activity. The December design section will present 48 designs and plans for 1934 buildings. An Index of all of the designs published in the American Builder during 1933 will also be included in the December magazine.

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AMERICAN BUILDER AND BUILDING AGE

Federal Loans for Home Building

DURING the past month there has been a definite trend of sentiment toward direct federal loans to property owners for the purpose of building new homes or repairing and modernizing existing dwellings.

Surveys show that there is today a demand for new modern homes, totaling a million and a half units, which is waiting only for reasonable first mortgage money to be translated into immediate construction. This housing demand is widely scattered and represents the dreams and aspirations of thousands of newly married couples and of other, older, families—ambitious for “independence” and a better home.

In the four years since normal home financing was available this great potential demand has piled up; and it is available now to President Roosevelt's administration as a sound outlet for funds to give reemployment and to stimulate business.

This is in line with the principle stated in these columns in October, that a million small or average construction jobs (widely scattered) would do more for employment and prosperity for the whole people than the most stupendous of public works programs.

Why Federal Loans

The case for federal loans to home owners rests on several facts:

Such loans would be repaid—the security would be ample, the risk would be divided amongst a large number of the nation's best citizens, and the loans would, in the long run, impose little or no burden on the tax payers.

Such loans would release immediate employment, without the long delays and involved planning incident to big public works projects. Many of these home plans have already been prepared—work would start “tomorrow” if funds were available.

Such loans would release employment in every county of the United States and among the workers hardest hit by the depression, namely, the building trades. Four million men directly employed in building, and ten million others back in the factories and plants and serving this industry indirectly, would feel the immediate stimulation of this needed home building.

Such loans could be easily and inexpensively administered through existing agencies, such as the Home Owners' Loan Corporation.

Such loans would serve a very important social function in the nation by elevating living standards, encouraging family stability and removing the seeds of unrest.

Federal Loans for Home Modernizing

In addition to loans for new home building, funds should also be made available on reasonable terms to present home owners for the maintenance, repair and modernizing of well located old dwellings. The real wealth of America is the homes and the productive capacity of the people. Nothing is more in the public interest than to preserve and improve these homes.

Details of Plan Proposed

This publication believes that a program of federal loans, direct to lot owners, of 75 per cent of the cost of the building would give sound security, at the same time encouraging thrift and perseverance in retiring the loans. These funds should be offered without commissions or bonuses at from 4 to 5 per cent interest charge per annum, depending on locality and cost of servicing. Loans should be long time—20 to 30 years—and retired by regular quarterly payments.

A program of government loans until home building and home ownership can be put on a basis by the improvement of general business that will cause private investment funds to flow freely into this field is far more desirable than the halting and economically doubtful public works program that the government is trying to carry out.

Uncle Sam couldn't make a better investment.

HOLD THE COST DOWN!

THE active men of the home building industry must watch out lest material prices and wage rates are advanced so far and so fast as to kill off the market. It would be easy, using the Blue Eagle as an excuse, to raise home building costs above the ability or willingness of the prospective home owner to pay. In that case the Blue Eagle becomes a dead duck for building tradesmen.

Threat of increased costs has apparently put a damper on the hopeful increase in residential building which had begun to be observed in June, July, August and September. Residential building figures for the first half of October show only \$8,168,500 for contracts let in the 37 eastern states. This forecasts a residential total for October of about 16 million dollars as compared with 22 million for October last year. This is a disappointing showing after the good record of the four preceding months, and is probably due to recent price advances,

With union plasterers in Chicago now on strike for a \$12 a day wage, regardless of the number of hours put in, it is not difficult to picture the frame of mind of the prospective buyer in times like these. He has been told that now is the time to build; but he can easily change his mind.

A prominent builder of the central west reports, under date of October 11:

"Have just had figures on what it would cost to duplicate a house built in 1928. The house in question in 1928 cost \$11,500 to build. Last fall or this spring it could have been duplicated for \$8,000. The best figure we can get at the present time is \$10,700."

This publication favors continuous employment at fair wages for building craftsmen and building materials sold efficiently at a fair profit. Many prices have been too low during the past summer—but don't try to raise them all at once. The "buyers" in this field must still be encouraged to buy.

HOME BUILDERS AND THE CODE

ARGUMENTS still go on in Washington about the men who build houses, whether they should be classed with the heavy construction contractors under the Construction League Code, or whether they should be grouped with realtors under the Real Estate Code. So far, the house builders themselves have not been consulted; and it is doubted that they will be, since they are entirely without organization.

It is believed that to impose the heavy construction code on house builders will run up home building costs needlessly, and that to force a closer connection between house builders and realtors would again encourage speculative and "jerry" building.

The better course would be for house builders—the small construction industry—to have their own code. Steps should be taken at once to organize to that end.

Ross F. Tucker has pointed out that the proposed construction industry blanket code in trying to do too much, does too little. It strives to cover all of the elements of the industry, the architects, the engineers, the manufacturers of building materials and the builders. All of these groups, with the exception of the builders, are not employers of building trades labor, and have little in common with the builder. Their problems are different and their objectives are different. The builders are the men on the firing line. They employ the labor and buy the materials. They take the risks and carry the financial load, yet they have received but scant recognition in the making of this code.

The builders of this country should be organized under the authority of the NRA and become a going concern. A great opportunity presents itself whereby the builders could perform a great constructive work of value to the country and to themselves if they were organized so they could function.

ARE DEALERS' STOCKS FOR EMERGENCIES ONLY?

LUMBER for home building purposes may be produced in the pine forests of Georgia, the cypress swamps of Louisiana, the great fir districts of the Pacific Northwest. Brick, cement, steel, stone, insulation, and a myriad of other materials that are used in home building are produced in some quantity and form in every state of the Union. Some of this material is for local consumption, but a large percentage of it is for national distribution. Some of this material is produced for new construction purposes. Most of it is essential for *emergency* purposes. The local retail dealer, to serve his community, has, of necessity, to carry a sufficient inventory to satisfy both demands. If he is to supply the materials required to replace damages from unexpected causes—fire, water and storm—and to meet other emergencies, his business must be built on a foundation of steady patronage from his community that will enable him to carry an inventory sufficient to meet emergency demands.

Mail order competition, most of which is based on "off-brand" low priced materials, is making an exceedingly difficult problem for many dealers. Unchecked, this competition will continue increasingly dangerous to many well established dealers.

Problem for Builders as Well as Dealers

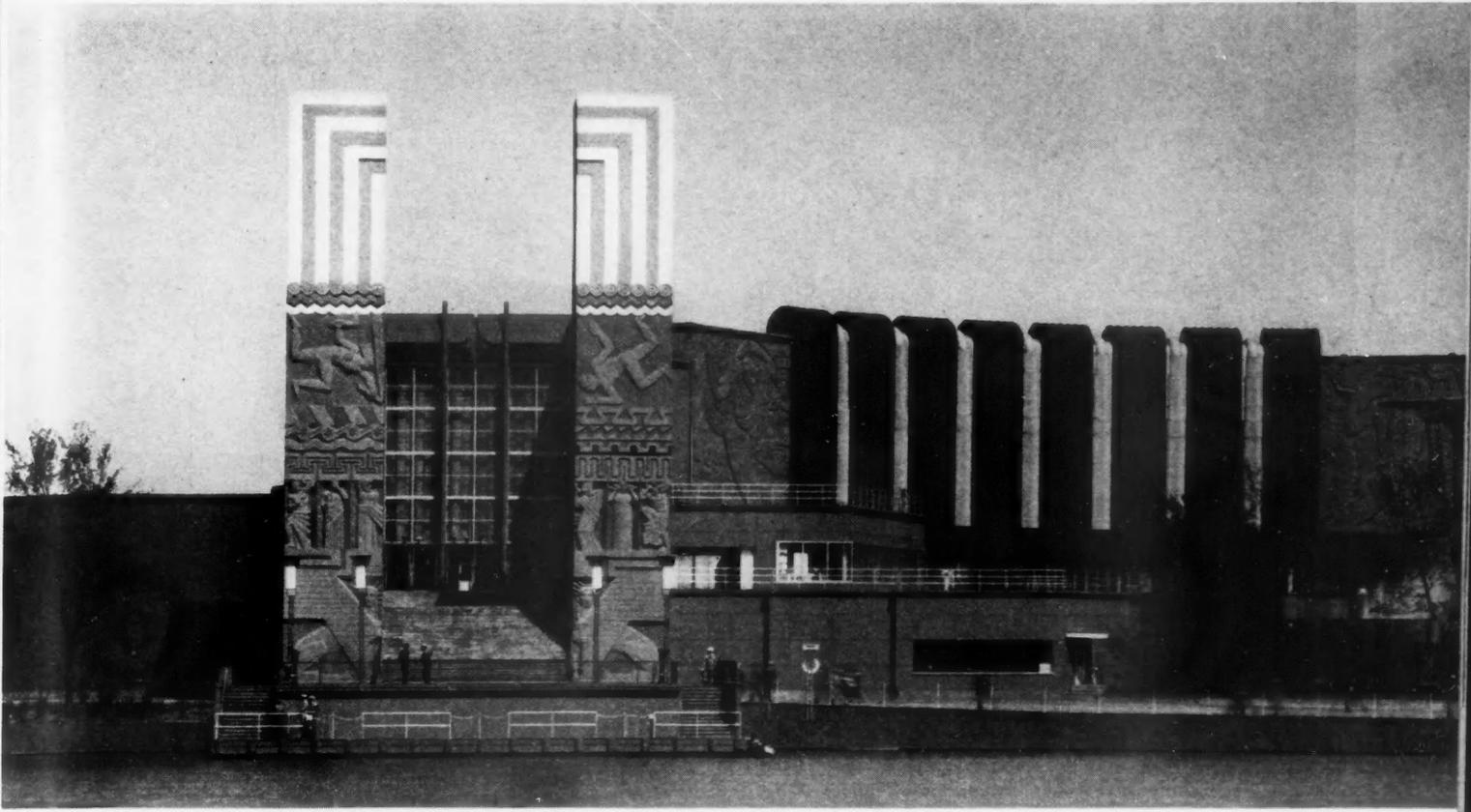
But the problem is not the dealer's alone. It is just as much the problem of local contractor-builders, architects, carpenters, masons and financial men. The local dealer feels the effect of this competition immediately. Eventually every factor in the community building profession and trades is hit.

The dealer warehouses the materials used and financed in local building. His establishment should be the rallying post for the local building interests in the drive to keep the building industry local. No opportunity should be overlooked by anyone at any time to impress on the minds of property owners and prospective home owners the necessity for supporting the local dealer as a responsible and important local merchant. If he is forced to curtail to extreme depths, local labor suffers. And in turn local architects and financial institutions suffer.

Local Institutions Deserve Local Support

There may be one dealer in a community or there may be twenty. Their yards may be owned and operated by local interests or they may be line yard branches. But they are local yards regardless of who the owners may be. They pay local taxes—much higher than the average retailer in a community. They hire local labor. They are important factors in the business life of the community. They deserve the support of the local building trades and professions.

The AMERICAN BUILDER is dedicated to the task of serving both builders and dealers by keeping building a local industry.



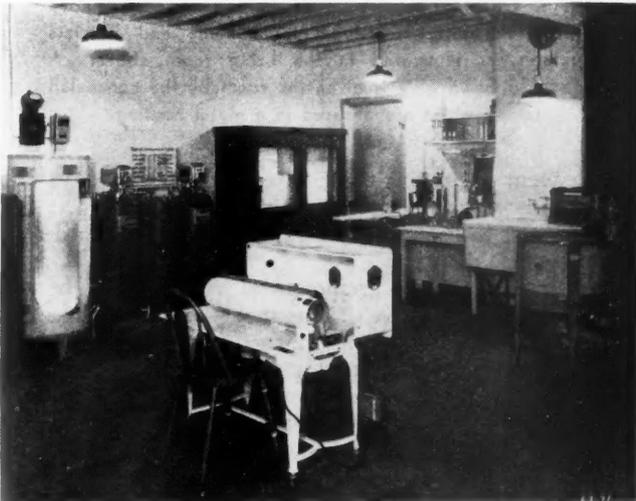
ELECTRICAL BUILDING at A Century of Progress Exposition which housed "Electricity at Work" exhibit.

New Ideas in Light and Power

Built-in Lighting, Better Wiring, Modern Equipment Make Business for Builders

By WILLIAM H. HODGE

Byllesby Engineering and Management Corporation



MODEL BASEMENT ROOM displayed in "Electricity at Work" exhibit at World's Fair, showing complete modern home laundry, water softening equipment, electric water heater, complete air conditioning.

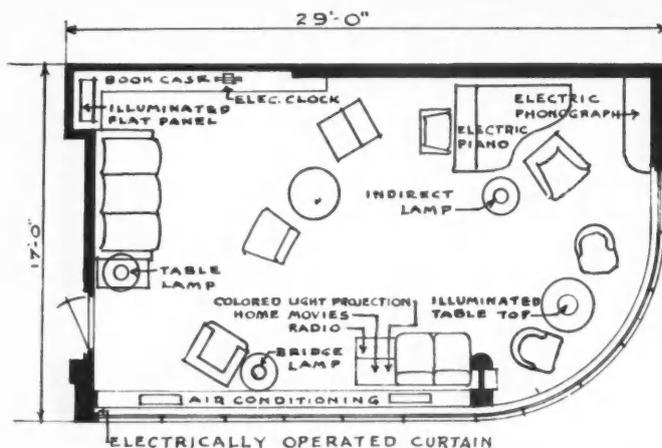
NEW business for contractors, home builders and architects is offered in the field of built-in lighting and electrical planning. This is clearly shown in the exhibit of "Electricity at Work" at A Century of Progress Exposition, sponsored by the Electric Light and Power Industry, which emphasizes the tremendous progress that has been made in the past few years in electricity in connection with building and construction.

This exhibit was planned by the Light and Power Industry primarily to show progress in the generation, transmission, distribution and utilization of electric power; some \$200,000 was spent in its preparation.

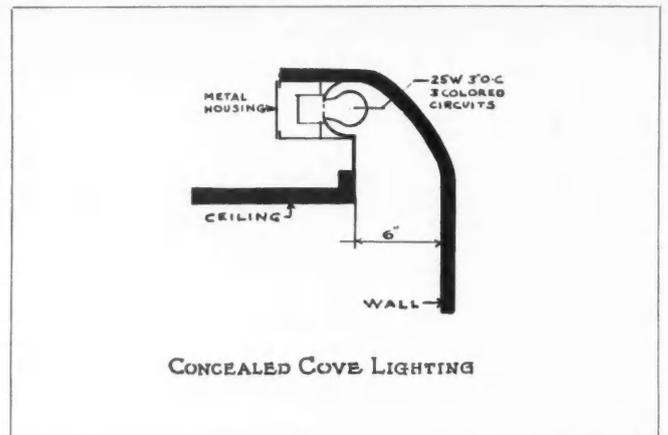
The interesting part about it is that the five million persons who visited this exhibit were not alone interested in the electrical equipment and lighting shown. They were keenly concerned with the architectural and construction setting. The new types of built-in lighting in the model structures attracted widespread attention.



CONCEALED COVE LIGHTING which is detailed below is the feature of this modern living room. This provides efficient illumination and gives tonality to the walls through use of various shades and colors, which may be adapted to the mood of the occupant.



PLANNED FOR FULL USE of modern electric light and power. The room is air conditioned, illuminated with indirect colored lighting. Equipment includes electrically operated curtains, illuminated table top, electric phonograph, radio and movie projector. The curved window is planned to overlook a garden.



CONCEALED COVE LIGHTING

DETAIL OF INSTALLATION of built-in concealed cove lighting, the latest development in home and business structures, as illustrated in the living room above. A friendly, diffused glow is given the room by the concealed lamps, which are encased in a metal housing.

ELECTRICITY AT WORK

PHOTOGRAPHS AND INSTALLATION DETAILS IN THIS ARTICLE ARE FROM THE "ELECTRICITY AT WORK" EXHIBIT OF THE ELECTRIC LIGHT AND POWER INDUSTRY AT A CENTURY OF PROGRESS.

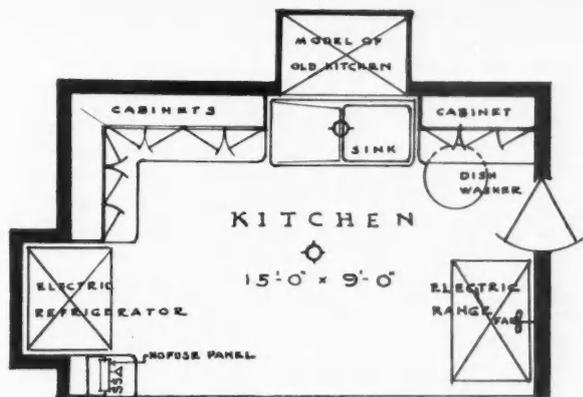
E. W. LLOYD, General Chairman
W. H. HODGE, Publicity Chairman
CHARLES G. BEERSMAN, Architect

People went through at the rate of 28,000 a day, and many thousands filled out registration cards, expressing their interest in the architectural and construction details of the electric display.

This interest in the architectural aspects of light and power gives proof of a development in the public mind that the power industry has already anticipated. Electricity and lighting are coming to play a greater part in the every day lives of the people. Because of this fact, the building industry is especially concerned with the latest details and developments shown in the World's Fair exhibit. The building industry is going to be called upon to provide the type of built-in electrical conveniences and lighting shown in this exhibit. Builders now have a chance to cash in on the educational work it has performed. There is business in this new line.



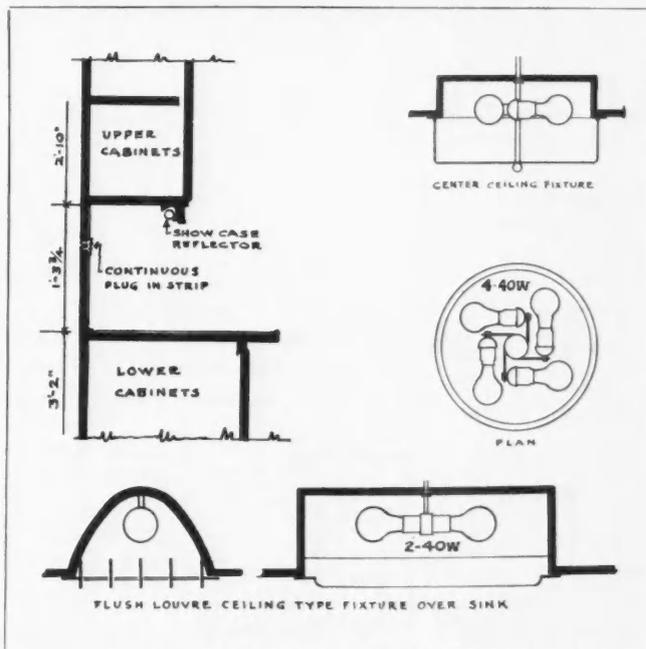
FOURTEEN ELECTRIC LIGHTS are in this model electric kitchen, yet not one is visible. Skillfully built in, as shown in the details below, they give glareless, shadowless illumination where it is needed in this work shop of the house. This is a new and important development.



ALL ELECTRIC CONTROLS are centered in the fuseless meter entrance switch panel above the telephone at left.

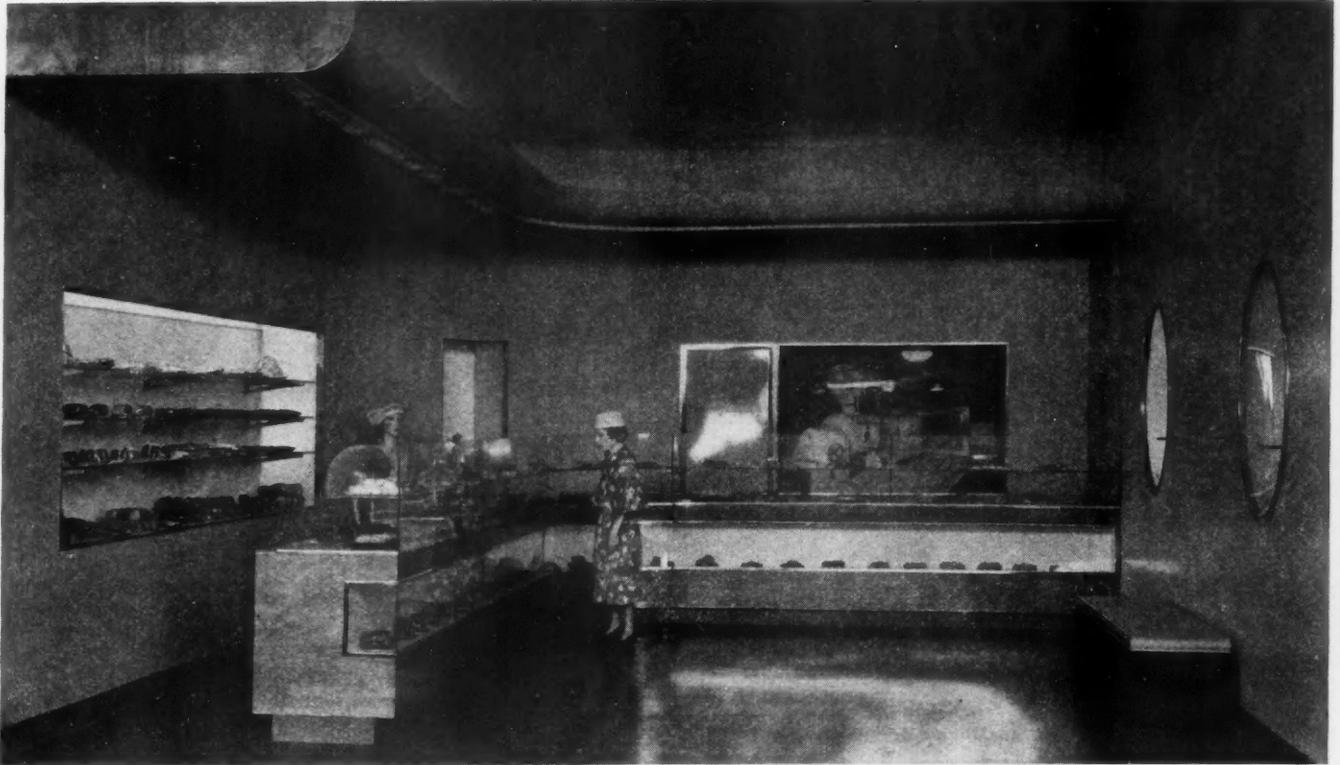
Contractors and architect-builders are the ones first consulted in much of the planning and building of new construction or remodeling. It is part of their job to suggest the newest methods of illumination and wiring indicated by the engineers who have studied the needs of the modern family and of business. In order to advise their customers correctly in matters of illumination and electrical wiring and equipment, they must know the latest developments in this field, and how to translate them into practical use in every day construction.

At the recent annual convention of the Illuminating Engineering Society, great emphasis was placed by engineers on illumination as a field of growing importance. The difficulty of reaching the architects and builders of the country who are responsible for the planning and construction of new homes as well as the modernizing of old ones, apartments, retail stores, etc., was stressed. Let me say that the power industry stands ready today

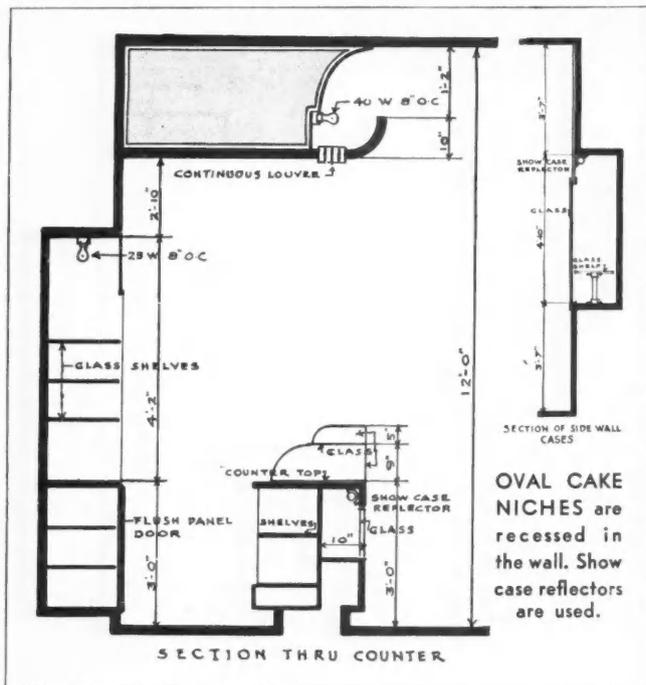


BUILT-IN DETAILS ABOVE show how the new type lighting is handled by architect and builder. Show case reflector is used in cabinet construction to throw light on work table. Ceiling fixtures above sink and in center of room are of latest type. A new feature is the continuous plug-in strip providing an outlet every foot.

CONSTRUCTION DETAILS OF A MODERN KITCHEN



A GLIMPSE of a model bakery with indirect cove type lighting which is detailed below. Display cases are built into the wall, with inside lighting that shows products in tempting fashion. Shop is electrically ventilated, with automatic temperature control.



CROSS SECTION of model bakery wall above shows how bread case is recessed and glass shelves above lighted. Of unusual importance and interest is the indirect cove type light detailed at the top which throws light up against ceiling where it is reflected and diffused to every corner. The glass louvre also allows light to fall on counters directly below. This makes the upper counter the focal point of attention of the room, but gives adequate light to every other part of the food display. It is a scientific plan.

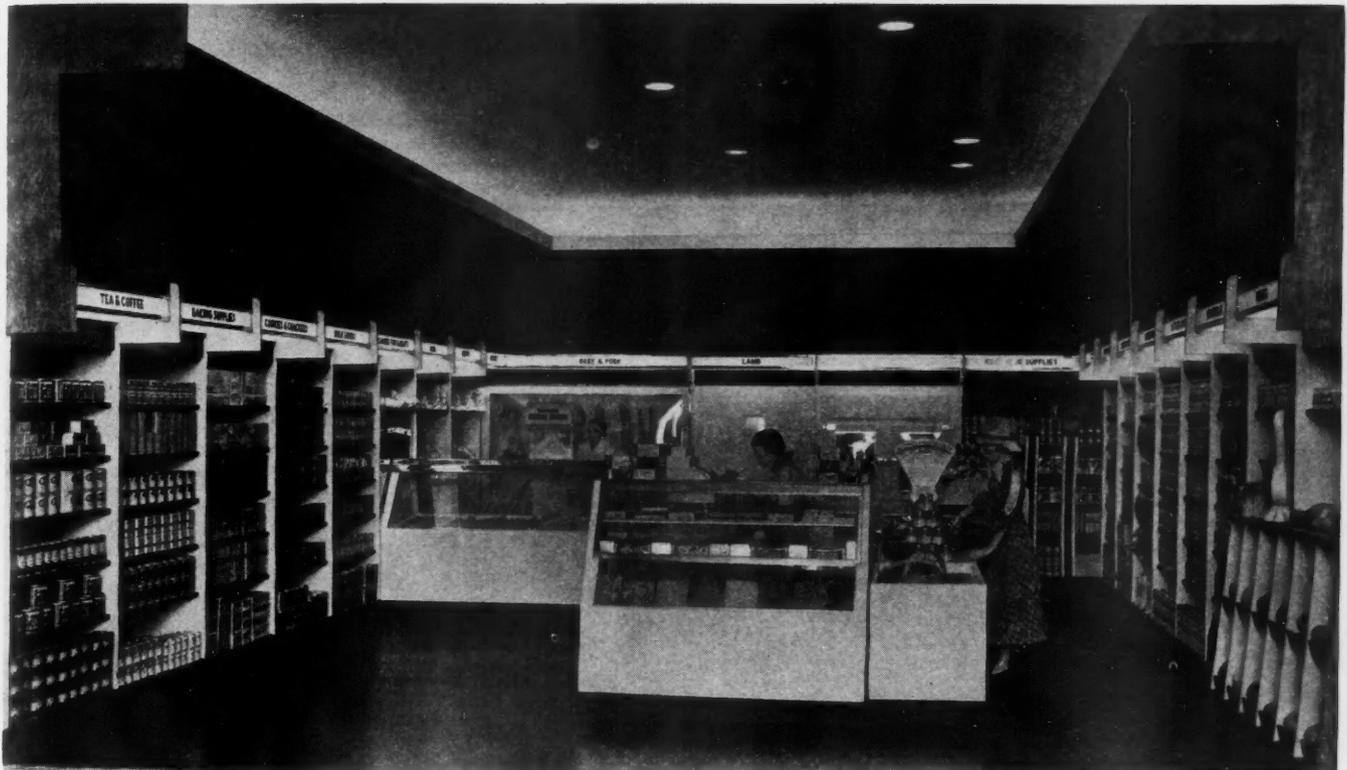
to co-operate with builders to help them provide the latest in electrical service. It is glad to co-operate with the Editors of the AMERICAN BUILDER in providing the carefully planned details of illumination and electrical installations as displayed in the models shown at the World's Fair and illustrated on these pages. The light and power companies of the country are prepared to work with builders to the extent of giving them free helpful engineering and architectural assistance in the planning and building of such electrical installations as are indicated in this article.

A new conception of illumination in homes, stores, shops and business structures has grown up. The architect and builder of today must consider light as part of the creation of his design. Illumination as merely a source of light alone is no longer considered enough. Light has architectural value. It has quality, color, tonality. It is more flexible than any building material, and it can be used to create effects in a way impossible by any other means.

The modern home, especially, is a field for use of the new developments and possibilities of lighting. Glare is eliminated through the use of concealed cove lighting. A diffused effect is achieved that is very pleasant. In addition, various color tones are possible with the concealed cove lighting and the new 3-circuit lamps so that the home owner may select soft shades in keeping with the moods or desires of the time. This is no theoretical dream but a practical, every day achievement which has been tried out in many structures. It has been clearly shown that white light is not the only one for all uses. Through use of skillfully blended colors and properly placed fixtures, pleasant interior effects are possible and the work of the builder and architect greatly enhanced.

Interior lighting has seldom been the equal of good

BUILT-IN LIGHTING SELLS MORE MERCHANDISE



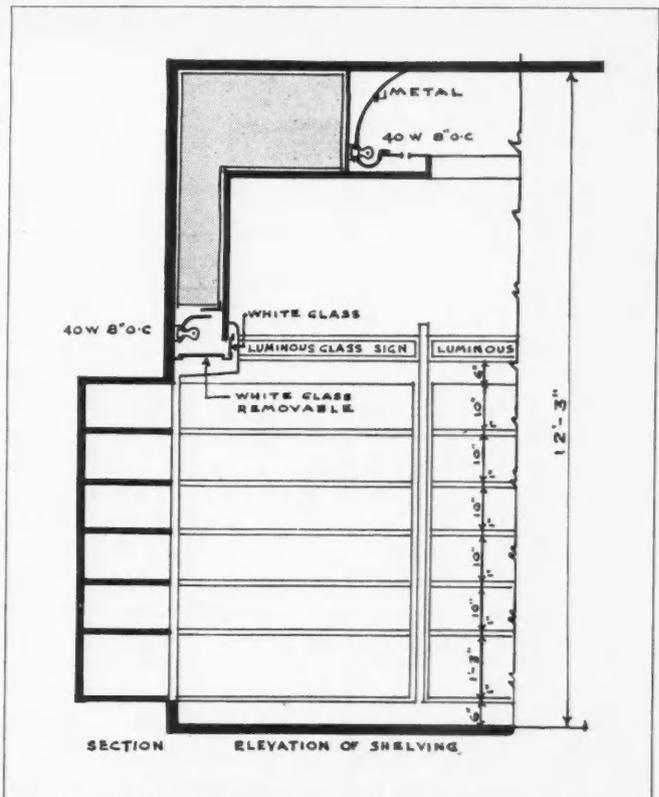
LIGHTING IN THIS WELL PLANNED FOOD STORE focuses attention on the products. It floods the shelves with soft and pleasant light, indexes the food department, and puts the spotlight on special displays. Ceiling illumination is of built-in type, with lamps hidden.

daylight. With the newly developed built-in and diffused lighting, it is possible to provide interior lights approaching sunshine, but without glare or eye discomfort. This is an extremely important development and it is of special interest to the building industry because such lighting is built in as a part of the house, and calls for the services of the architect and builder. He it is that makes the plans and calls for this type of installation.

Although I have been stressing the importance of illumination in particular since the electric light and power industry is now engaged in a new "Better Light—Better Sight" campaign throughout the country, this is of course not the only field of interest to the building industry. The tremendous advances in homes of electrical equipment of all kinds, calls for careful planning and wiring. Electricity and electrical appliances play such an important part in the modern home that every builder must take it into full consideration in doing his planning, building and modernizing.

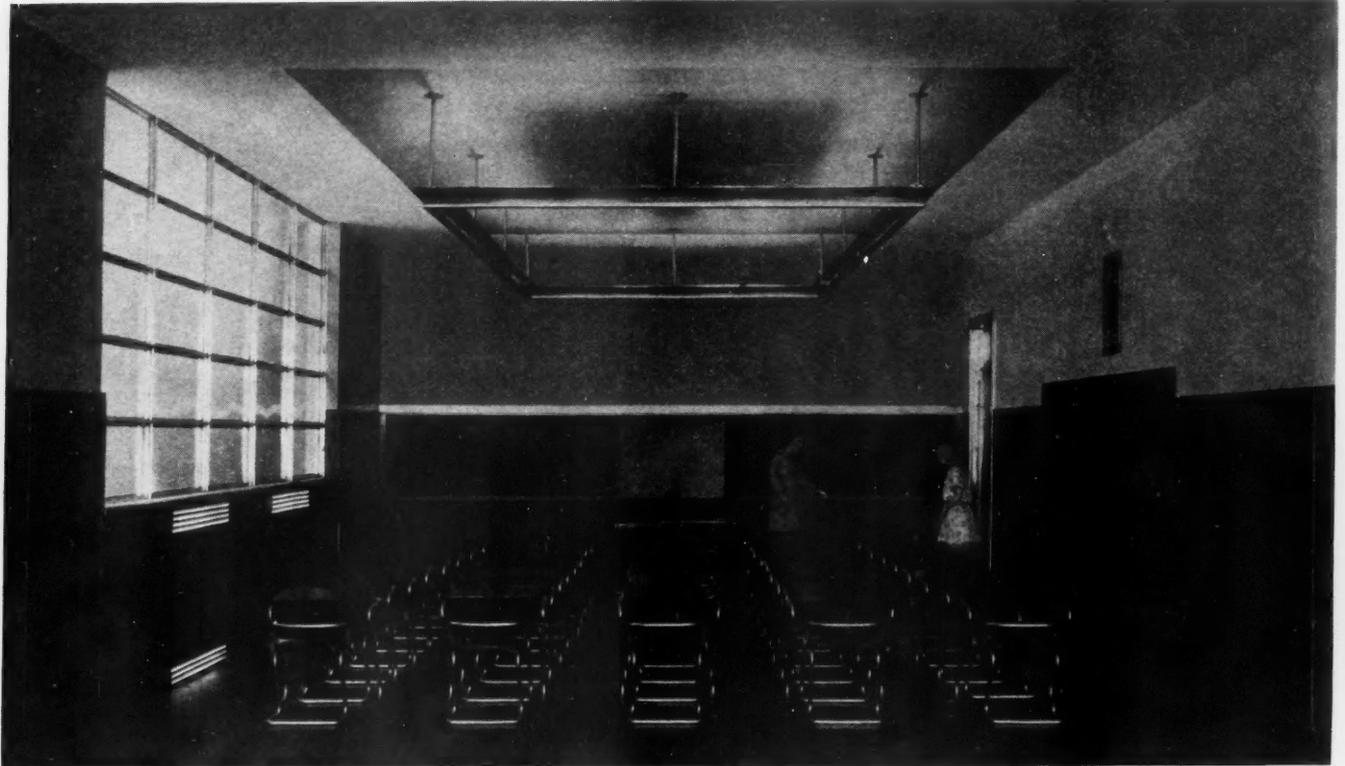
In the various model rooms and exteriors in the "Electricity at Work" exhibition at A Century of Progress, the latest developments in wiring, illumination and use of electrical equipment are shown. The photographs of these models which accompany this article illustrate more clearly than any amount of descriptive matter the new possibilities for the builder that lie in modern electrical development.

Numerous other opportunities for builders and the building industry are indicated in the "Electricity at Work" exhibit at the Fair, and in the assured progress that the light and power industry is making toward greater comfort, convenience and economy in modern homes and business structures. Briefly, a few of the important developments of special interest to builders, which mean future business for them, are as follows:

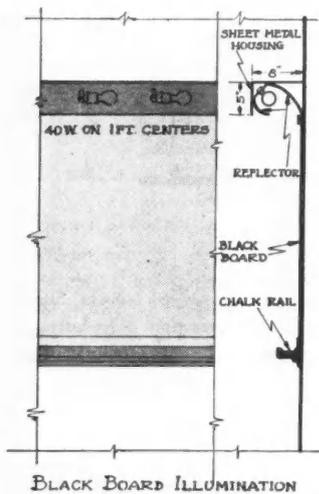
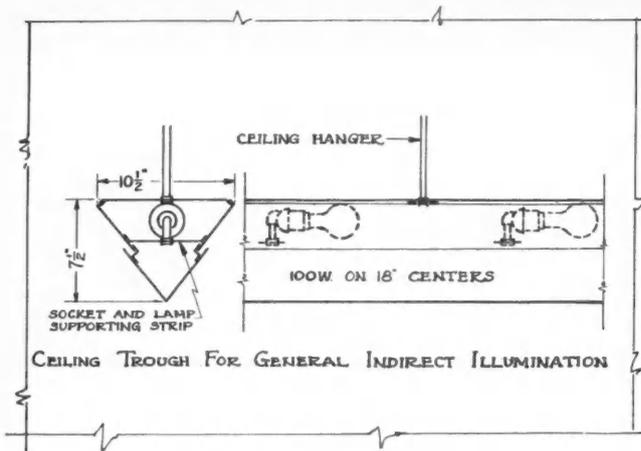


LEDGES RECESSED in the ceiling conceal the row of lamps. Shelves are set in wall and are lighted from an overhanging glass-bottomed ledge which projects out above the top shelf so that light floods down from it and also forward, illuminating the letters.

MODERN BUILDINGS NEED PLANNED LIGHTING



A SCIENTIFICALLY PLANNED SCHOOL ROOM with ample windows and diffused electric lighting. When daylight falls below a certain point, photo electric cell at right turns on illumination as needed. Overhead lighting is by trough type reflector suspended from ceiling.



THE CEILING TROUGH detailed above is the most efficient type of lighting for schools, and is extremely important it makes for better eyesight.

BLACKBOARD ILLUMINATION is performed by the reflector type construction detailed at left. A strong light is thrown on the blackboard without glaring in the eyes of the pupils. This device is simple to construct, yet represents an important school lighting advance.

Air Conditioning—Until contractors and builders are fully aware of the value of air conditioning equipment and its practicability for residential use, there can be little real progress in this field. We believe that the air conditioning equipment shown at the Fair demonstrates the value of this important new development for homes as well as business structures. Certain it is that the interest of the public is very keen.

In connection with air conditioning, I should like to point out one fact that builders may use in "talking it over" with prospects. The air conditioned home greatly reduces housework. Windows are closed and all air that enters the house is washed and filtered. This means the elimination of dirt and dust. It means that curtains and drapes and walls will stay clean for long periods. It reduces housekeeping costs and makes work less arduous for the housewife. This is only one of the many advantages of air conditioning, but I mention it because it has not been fully realized.

Refrigeration—Here the contractor and builder is extremely important because of his advisory capacity in relation to the home builder, and home owner undertaking modernizing. He can recommend sizes and types of installations and placing of equipment in relation to other units of the kitchen in a most efficient and satisfactory manner. In the past, contractors have been some of the best customers the electrical refrigeration industry has had, and we hope they will continue in this capacity as building construction revives.

The Electric Laundry—The first step in the creation of a modern home laundry is the thorough planning for it in the designing and building of the house. Here again, the contractor in his constant contact with the home owner is able to assist in the production of a thoroughly modern home laundry. In the exhibit at the Fair, an electric hot water heater which operates automatically and stores an abundant supply of hot water for instant use is in operation. Nearby are stationary tubs of modern design, an electric washer, drying cabinet, power

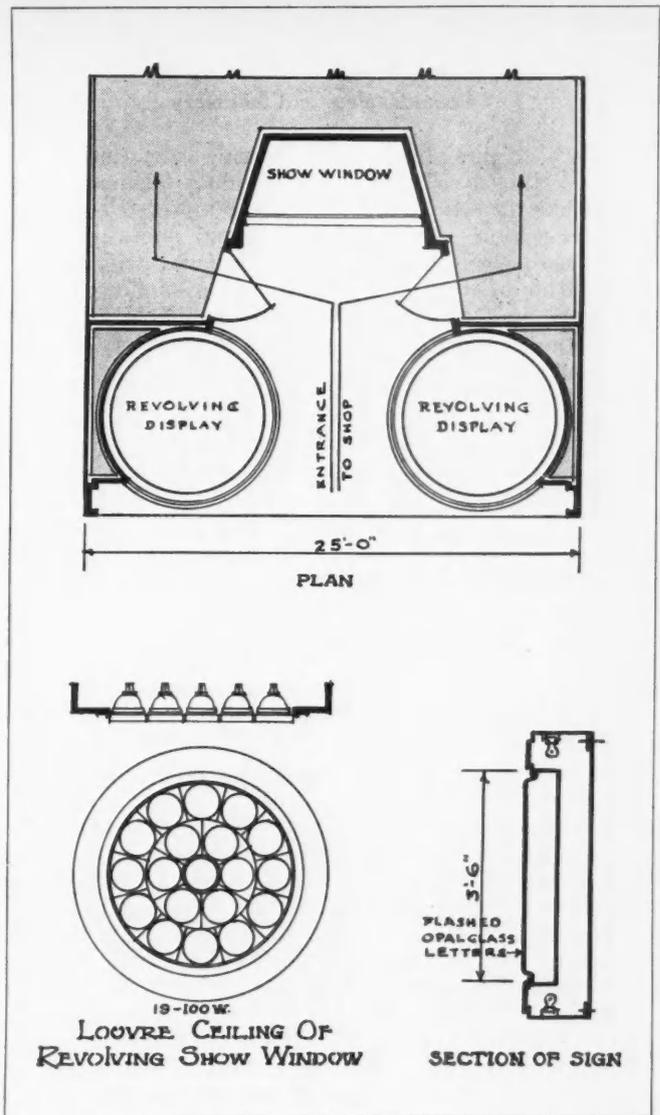


LATEST IDEAS in the use of electricity to attract attention of passers-by to merchandise are shown in this modern shop. The circular windows with revolving floors are bathed in a glow of light from a battery of reflectors in the ceiling, details of which are shown below. The large electric sign across front is worked out in flashed opal glass against a black background.

ironer and an iron for hand pressing, with heat under automatic control. These various items are placed for convenience in using so as to save steps and avoid all unnecessary effort. The builder in planning the laundry should point out to the home owner the types of equipment needed, locate them on the plans, then provide for their installation and proper wiring. Also, the setting for all this should be made attractive and pleasant. The laundry room should be clean, dry, well lighted and cheerful. Too often the laundry room of the past was in a dark, damp basement which the building industry has amply demonstrated is no longer tenable.

The Electric Kitchen—Probably more than any other room of the house, the kitchen is the one in which the contractor can make or mar the happiness and future welfare of the housewife and, incidentally, the placing of modern equipment and electrical services. For the modern kitchen requires thoughtful planning, with lighting, electrical outlets, arrangement, skillfully performed. Omitting of any one of numerous important items would make it very difficult for the housewife to have the best and latest types of modern equipment without unnecessary expense.

In the kitchen at the Fair, an entirely new feature is
(Continued to page 53)



NEW IDEAS FOR NEW OR OLD SHOPS AND STORES

The Opportunity and Responsibility of Local Dealers and Builders

By L. R. PUTMAN

"SELF-PRESERVATION is the first law of nature." That's the rule of the jungle. The lowest forms of animal life keep it uppermost in their minds, otherwise there wouldn't be any animal life. The strong ones would eat up all the weak ones. Translated into modern American, it means, "Every fellow for himself and the devil take the hindmost." And just between you and me, the devil has been getting uncomfortably close to a lot of us fellows in the rear ranks, during the past four years.

The story goes that some time back a bunch of our ancestors quit hanging by their tails and throwing cocoanuts at each other and came out of the jungle. After they got a taste of civilization and liked it, they accepted a new rule. It has been called the Golden Rule. Maybe you've heard it—"Do unto others as you would have them do to you."

Local Dealers and Builders

What's all this got to do with local dealers and builders? Well, I'll tell you. The building business is affected like all other business, except more so. For the past generation, so called business and political leaders have been passing up the Golden Rule and drifting back to the Rule of the Jungle. Whole nations followed them, and it wound up in the World War, the biggest fight civilization ever had. Did we learn anything from that? Not much.

We carried this jungle rule right on into business. Then in 1929 business blew up and here we are. Now we're trying to start all over again. Most of us busted and scared of our shadows. Why be scared? Well, we're afraid some cave man is going to slip up behind us and down us with a rock or a club. This game of business has had no rules except those of the jungle.

On March 4th we got a new referee who had been chosen by a big majority. Franklin Roosevelt was willing to try his hand on a set of new rules, although he put us on record that he might make mistakes; we told him to "go to it." And boy, he went and what's more, he's still going.

The New Deal for Banks

The first thing he did, you'll remember, was to shut up the banks and reopen them under new rules. That little chore out of the way, Frank washed his hands and sat down to write the rules for the balance of the mob.

Wanting his rules to cover all business, and thinking he might salvage something out of those now in effect, he sent out for the so-called leaders of all branches of business. In they came—these cave men—traveling under the better sounding classification of "rugged individualists." Each carried an armful of rocks and clubs and they no more than got off the train in Washington

than they chose sides and started the old time brawl. One side called itself "Capital," the other "Labor," and according to the papers, the bush whackers are still fighting out among the mines and mills. Frank decided the help he needed was brains instead of strong backs and weak minds, so he stopped the battle royal and sent the mob home.

The question then came up as to the best place to look for brains. Like all other questions, Frank had the answer to that, so he sent search warrants to the well known colleges and universities, known to some of the fighting mob as knowledge factories. So from the places where the Rugged Individualists send their sons to get learning came the Code advisers to the President. And oh! what a howl that brought from the cave men. "Brain Trust," they screeched as they beat their hairy breasts.

As a basis for all the codes, the President suggested they start with the Golden Rule, which seemed to work pretty well some years before. A search was made of the White House for a copy of that long forgotten document, but no luck. Finally, it was found away up in the attic among some old papers Abe Lincoln had left.

Opportunities for Local Team Work

Now, Mr. Builder and Mr. Dealer, here's the opportunity and responsibility you fellows have got. No generation before you ever had a better one. You see, the two always go together. That's what we all forgot. We took the opportunity and passed up the responsibility. If you get either one and keep it, you've got to also take the other. That holds good in the building business as much as, or more than, in any other. The building of a home is a mighty responsible undertaking. It may be the only one the owner builds in a lifetime. It may represent his life's savings.

Home building, as I see it, is a local business. It is now in the hands of the local building interests. The largest investments in potential local home building are carried by the local lumber and building material dealers. These local dealers offer the greatest encouragement for the early resumption of home building. Their stocks are ready for immediate use in small or large quantities and can be examined before purchase.

These local dealers have been paying local, state and government taxes on their plants and stocks right through the depression. They have furnished employment and a constant service to the community. They are worthy of every consideration from the community and especially the active men in the building trades. These building men know that to have materials available on a moment's notice is a great help to them in securing and turning out a satisfactory job.

As I have said, the building of a home is with most people the greatest financial undertaking of a lifetime. Naturally, therefore, we do not plunge into it as we

might in the purchase of all other things which do not entail so many considerations. When a man builds or buys a home, he has become dependent on the future of the state, the community, and a local means of livelihood. No other investment calls for so much local confidence. Right now the job for every local building industry is to re-establish local confidence.

With the adoption of a set of fair rules of business in the form of the Code, we have a starting place that we never before had. It is the job for each branch of the business to co-operate with the others in re-establishing confidence in home ownership and building as a safe and sane investment. When this is done, building will start. People invest their money in the things they want most. And they manage to get the money to pay for the things they think are worth the effort.

The President has decided to put in some real money and start the banks up again. This will put an enormous amount of money back into circulation. And that's all the building industry needs to get going. There never was such a building market ahead, as exists right now. There is a tremendous amount of repair and remodeling wanted by owners who would do it if they knew just how they could refinance their property when their mortgages are due. Thousands of the mortgages are due now. On Sunday night, Oct. 22, the President said in his radio speech that any home owner in distress could telegraph Washington and get help. He feels that if there isn't enough talent to run the banks and building and loan associations, the Government will have to take that work over because he proposes to get building going and stop the rugged individualists from robbing the people of their homes and farms.

Being an American citizen of some five or six generations, I feel competent to say that very few of us do much independent thinking. We, like the other animals more recently from the jungles, feel safer in herds or mobs, so we blindly follow the leaders. In the immediate past, these leaders have told us to put our life's savings into banks and stocks or give it to Sam Insull. They stood up before us and recklessly threw their own money into these places so that we could see how safe it was. So we, like children, laughingly and playfully ran up and threw ours in, too—and lost it.

We haven't been out of the jungle long enough to drop the herd and mob idea. Starting with Roosevelt, we are developing new leaders. As long as these leaders keep the Golden Rule in front of them, we are all right. There is just as much money and a lot more people in this country now than there were in 1929. These people are going to spend the money. How will they spend it in

your town? That depends on your local leadership and the co-operation you give. If the people can buy building materials and labor on today's value, you can easily show them building is the best possible investment.

Where will the building money come from? If the home financing concerns and insurance companies continue to refuse their co-operation and go on foreclosing and kicking out home owners and farmers, the President made it clear on the radio Sunday night that the Government will take that business on. Then there will be a lot more cave men beating their breasts.

Here's what the President intimates he's going to do. Instead of passing out money in billions for big projects, he's going to make it possible for you and me to borrow direct from the Government at a low rate of interest. Suppose the people in your town could get a reasonable loan at 5 per cent for twenty or thirty years. Wouldn't that start building? I'll say it would. Compare the good that plan would do, with the same amount loaned for big housing projects, dams, etc., here and there in the big cities or out in the mountains. Why, there is no comparison. The monthly, quarterly, semi-annual or annual payments would amortize these loans and the Government wouldn't lose a dime more than it will lose on the big projects. The Government home loan plan lets a man skip payments a year or so if he gets up against it. That's a human sort of banking that the cave men don't follow.

Let's talk this plan up. Suppose the Government could get out from under the influence of the rugged individualists long enough to lend \$1,000,000,000 for repairs and remodeling homes. That would allow \$1,000 each to fix up a million homes, or \$500 each for two million homes. If that were done, every community in the country would go to work and depression would end.

CARTOONS ARE SELLING GOODS

2nd of American Builder Series of Free Adv. Suggestions

DON'T LET IT GO



There's a heap of competition in renting or selling property these days. But we haven't got much patience with the folks who are running around complaining that they can't rent or sell their houses.

When a man lets his property run down, he's got to cut his price or lower his rent. A lot of our friends refuse to do either. They're taking advantage of our present prices of materials and labor and are fixing up their places.



CITY LUMBER CO.
711 MAIN STREET Telephone 333

Mr. Putman has written this local newspaper advertisement for any dealer or builder who wants to use it. Engrave the illustration direct from this proof.



"BETTER LIGHT —BETTER SIGHT"

By **GEORGE E. WHITWELL**

Chairman Sales Committee, Edison Electric Institute

Mr. Whitwell is Vice-President, in charge of sales, Philadelphia Electric Company. He extends an urgent invitation here to American Builder readers to take an active part in an important campaign.

DURING the last two or three years it has become customary on the part of the general public to save money by "cutting down" the supply of light. Sometimes this has been done by substituting bulbs of lower wattage, sometimes by cutting out alternate lights of a circuit; whatever the method, it is dangerous to lower personal efficiency through inadequate lighting.

Every good craftsman knows the importance of good light; in fact, for careful joinery, good finishing, ordinary safety in working with machinery and tools, good light is an absolute essential. It is therefore surprising that thrift in lighting has gripped many good building professionals; has endangered their eyesight—even their lives through accident hazards.

In homes, shops, factories and all other buildings the incandescent lamp furnishes adequate light at very low cost. When the entire nation is fighting to regain its prosperous business conditions, it is particularly important for each individual, in whatever line, to function with as few handicaps as possible. Poor lighting conditions are admittedly a great handicap.

In the past twenty-five years we have learned many things about the proper application of light, which have not been broadcast as fully as possible. For instance, lighting engineers have designed new installations, remarkable for both beauty and efficiency; but the general public, even many builders and architects, have not taken advantage of these newer ideas. However, the building contractor is usually one consulted on lighting plans. He should be familiar with what is correct, what is efficient, what is decorative illumination. He should be a leader in the parade of lighting progress.

In the new buildings, and in structures being modernized, it will be well to make sure that adequate lighting is provided. Usually this does not constitute any impor-

tant structural change or expense; but the building professional who looks after the eyesight of his clients and appreciates the direct relationship of correct illumination to more business in stores, greater efficiency of the factory workers, or greater comfort in the home, will certainly enjoy a constantly increasing prestige.

The Electrical Industry believes that now is the opportune time to urge the attention of the building industry, and all other electrical consumers, to the value of correct illumination and its direct relationship to better sight. The Edison Electric Institute is sponsoring a nation-wide program with these objectives.

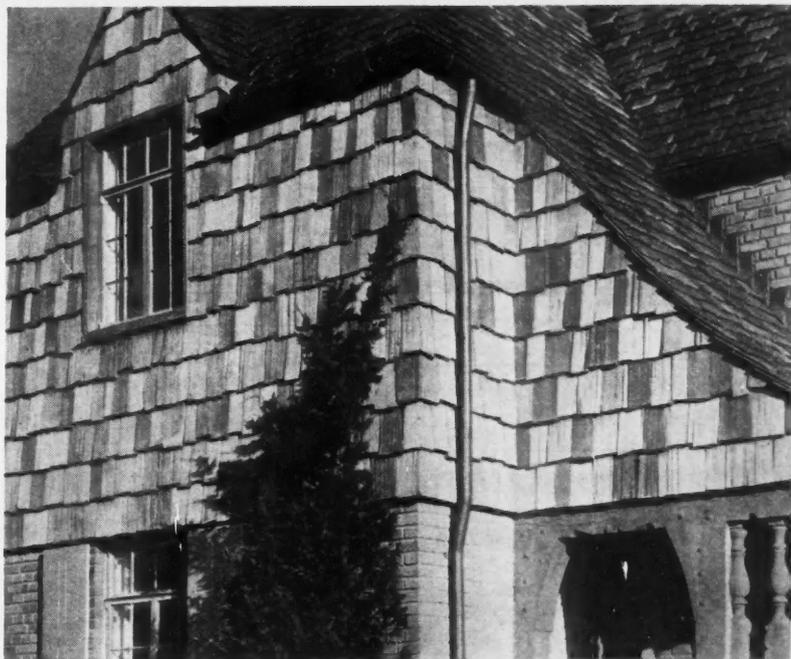
The Fall months have been selected for this better lighting drive. The major executives of practically every utility company in the country have been advised and their response has been tremendous. Manufacturers of lighting equipment are co-operating, through their local agencies, with the local utility companies. In this way a comprehensive program is under way, based entirely on local condition. The slogan which has been adopted to promote this activity is: "BETTER LIGHT—BETTER SIGHT." The opportunity for constructive public service is unlimited—from the most humble residence to the greatest skyscrapers; and the intelligent application of light will do much to relieve the strain on eyes that are already overworked.

In response to an invitation for a statement of our purpose, I am gratified, as Chairman of the Sales Committee of the Edison Electric Institute, to cordially invite readers of "American Builder" to participate in this program, and suggest that if you are in doubt as to how to go about it, you get in touch with your local utility company and find out how participation may be mutually helpful. Your cooperation will be welcomed by local power and light companies and electrical dealers.



WHITEWASHED BRICK is used to give a pleasant, friendly appearance to the cottage shown above which was designed by L. F. Bachman. Simplicity of treatment is an outstanding feature.

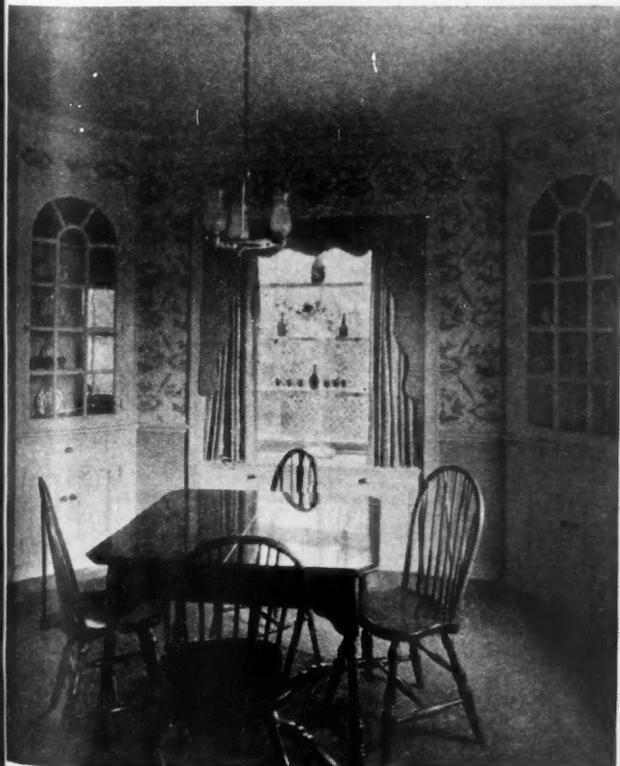
BRICK, HALF TIMBER AND HAND SPLIT SHAKES give attractiveness to the exterior detail at right of a Forest Hill, Cleveland, home designed by Andrew Thomas. Below is a charming dining interior with built-in cupboards, interesting window shelves and woodwork by Paul R. Williams.

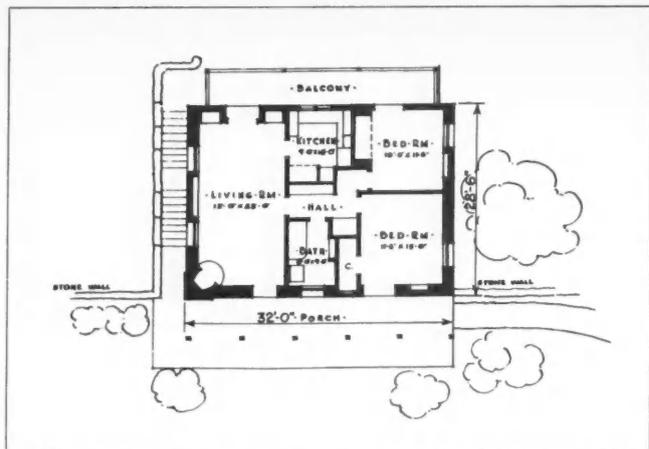


Plans and Designs

for

Better Homes





THIS SMALL HOME done in Mexican farmhouse style by one of Los Angeles' well known architects, Palmer Sabin, has many details worthy of study. The rough textured exterior, full length front porch, shuttered doors and windows, large corner fireplace are important details. The Cost Key is 1.172—121—912—38—12—15.

THE ENGLISH COTTAGE BELOW, located at Eagle Rock, Calif., has an old world charm that is very attractive. At the same time, the floor plan is one that makes a maximum use of the floorspace of what is a really small home. The bookcases and seats around the large fireplace are interesting. The architects are Newton & Murray, Los Angeles.



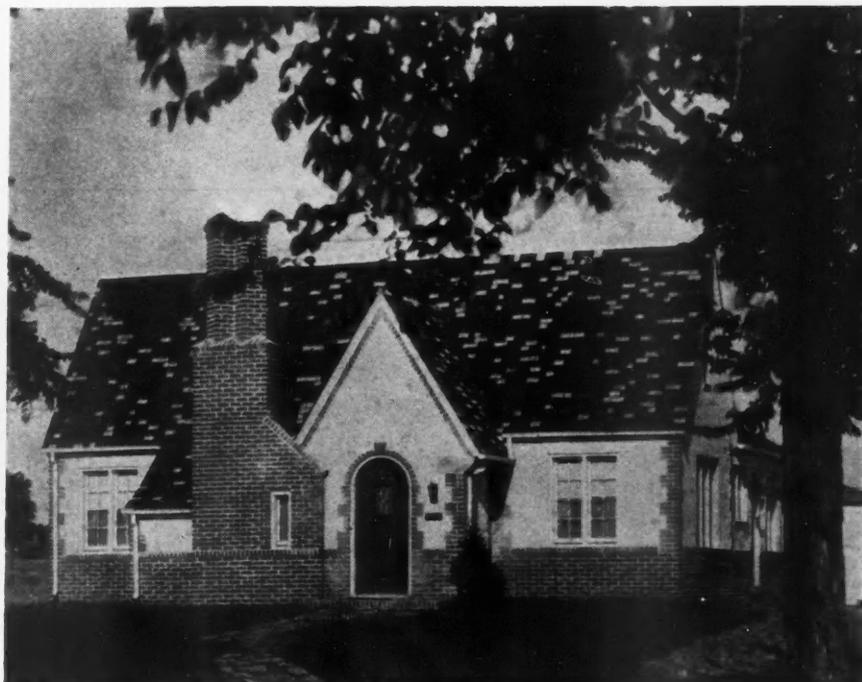
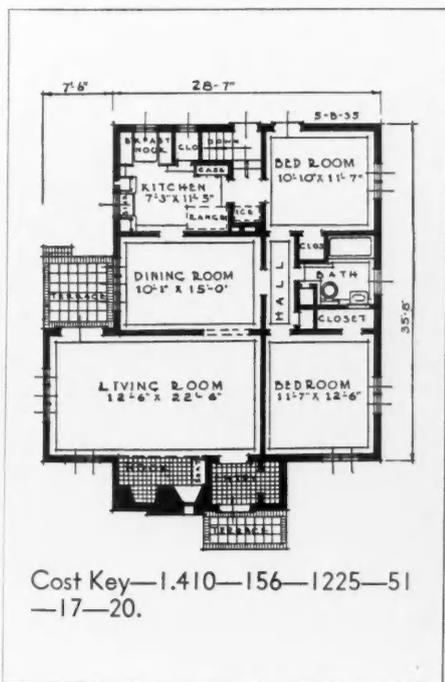
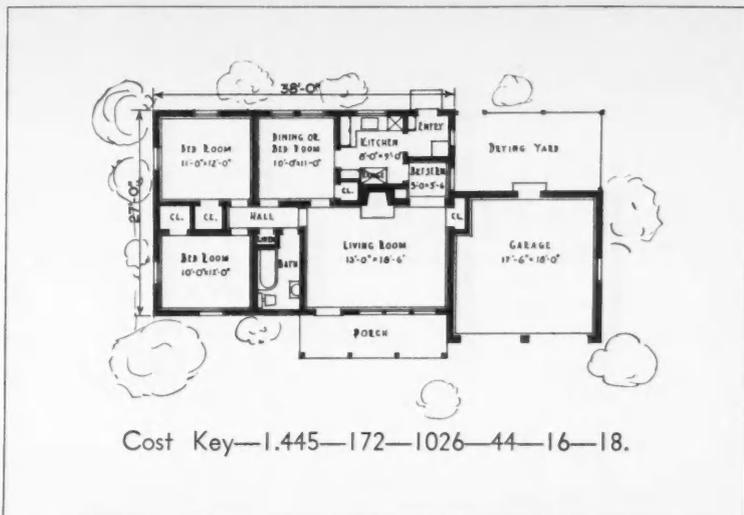
THE FLOOR PLAN has an unusual arrangement, but one that has many good points. Cost Key is 1.373—154—1107—47—14—15.

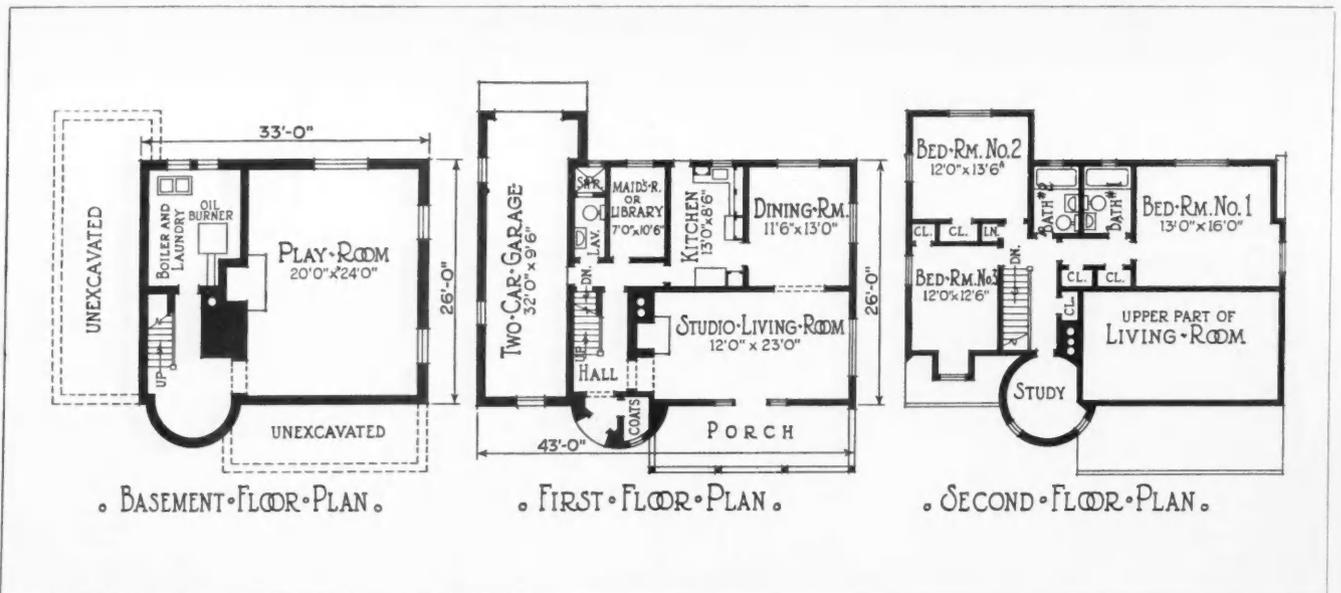


H. ROY KELLEY designed this small home located in Palos Verdes Estates near Los Angeles. The simple, direct treatment shows careful architectural planning of unusual merit in so small a home. Floor plan is practical, livable.

Skillfully Designed

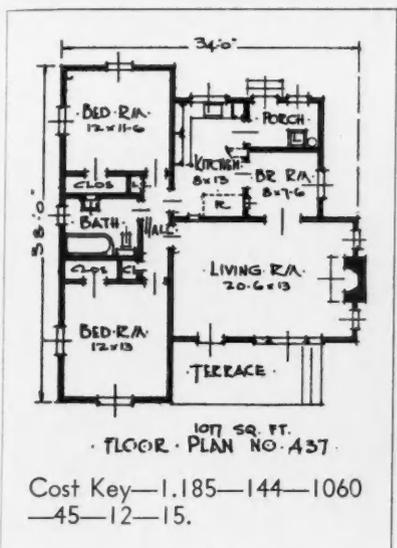
A POPULAR TYPE OF HOUSE that appeals to many people who like fancy effects is shown below. The floor plan is efficient, space saving. The large living room is good. Architects' Small House Service Bureau design No. 5-B-35.





RYE CONSTRUCTION COMPANY, New York, built this French Normandy type house which was designed by Nat. O. Matson, architect. It is an imposing looking house that appears much larger than it actually is. Roof is dark red tile, stucco is of oyster shell white, stone work is whitewashed and the timber weathered to a silver grey. The blinds are weathered to a peculiar shade of dull red, giving a pleasing and colorful effect.

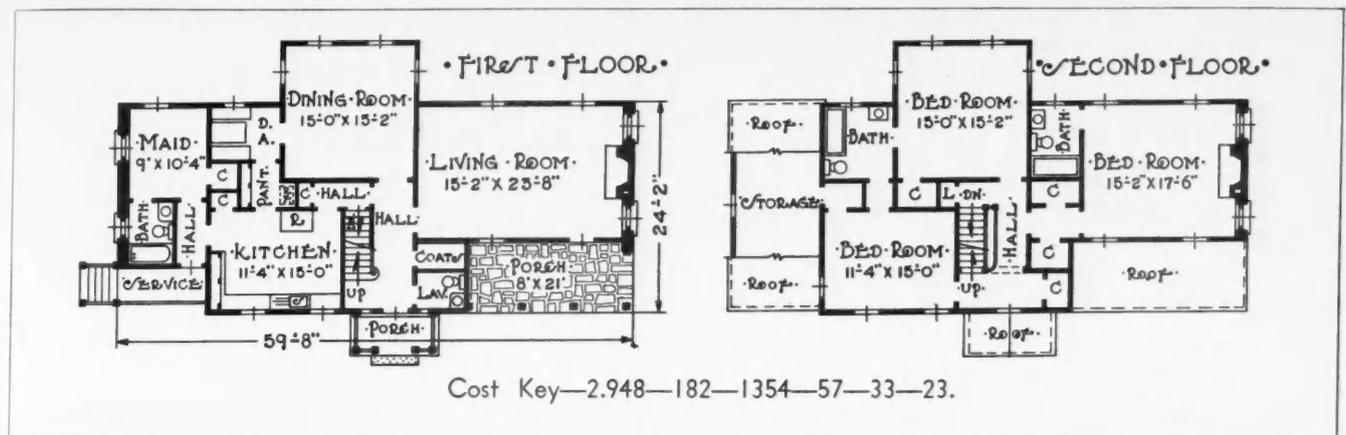
**Value Increased by
Better Architecture**



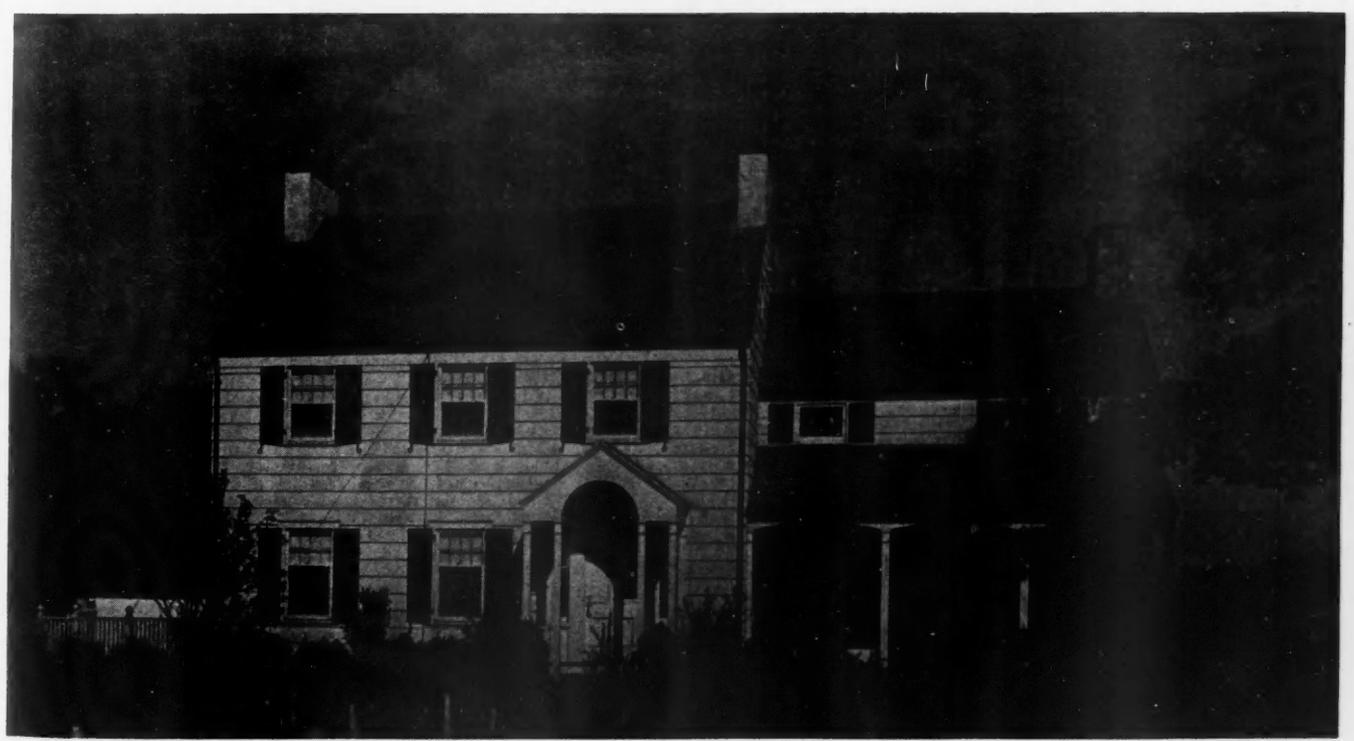
Cost Key—1.185—144—1060
—45—12—15.

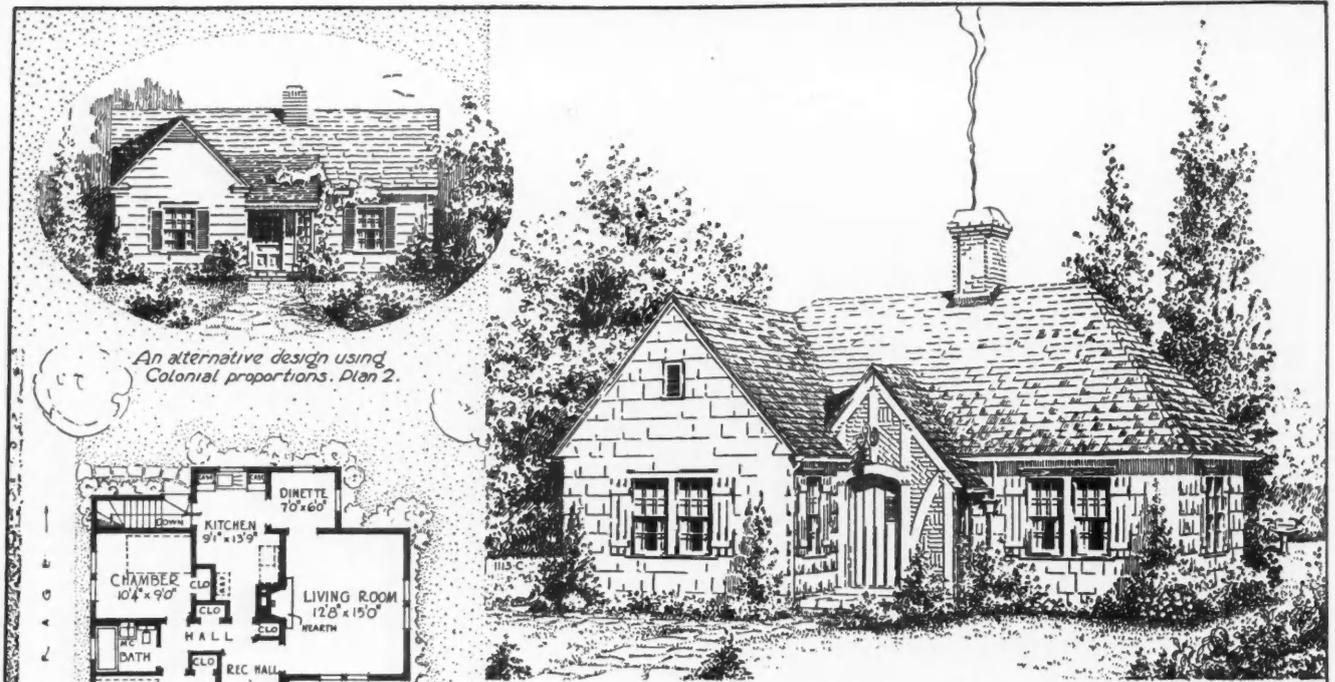


THE LITTLE HOUSE ABOVE cannot be classified as to a particular architectural style, but it is neat, attractive and appealing to many people. The floor plan is a practical arrangement that is widely used. A. B. Cleveland design.

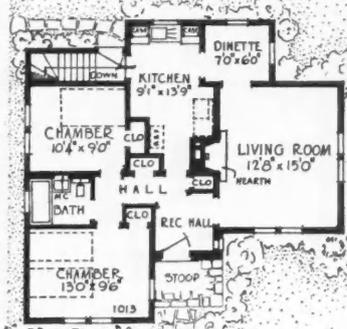


DIGNITY AND SIMPLICITY feature this home, designed by James J. Bevan, architect. Dark shutters contrast with the light shingled walls. The proportions are good, entrance very attractive. Cubage is 36,870.





An alternative design using Colonial proportions. Plan 2.

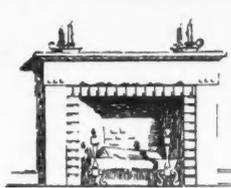


CHAMBER 10'4" x 9'0"
KITCHEN 9'1" x 15'9"
LIVING ROOM 12'8" x 15'0"
DINETTE 7'0" x 6'0"
BATH
HALL
REC HALL
STOOP
CHAMBER 13'0" x 9'6"

OF ENGLISH INSPIRATION

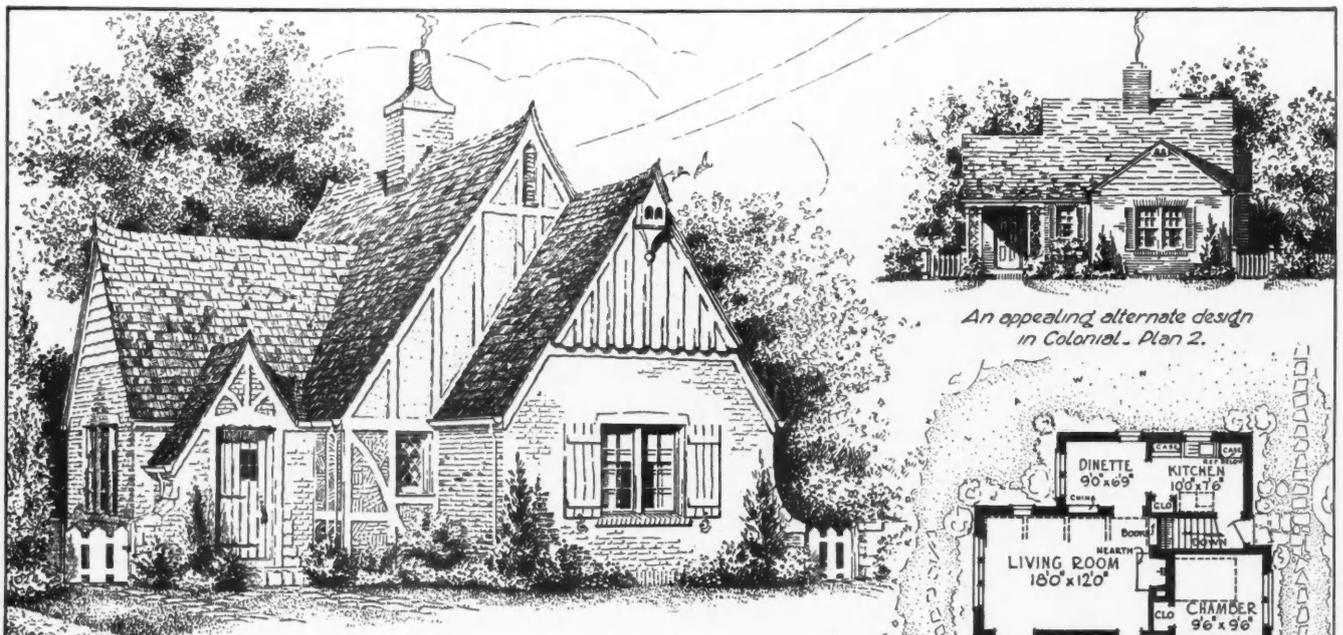
An American cottage with a touch of the English dwelling, this home offers a moderate investment, the utmost in economical layout and architecture.

DIMENSIONS
Size of Main Building 34'0" x 32'0". Size Over All 36'0" x 33'0".
Ceiling Height 1st. Floor 8'4". Ceiling Height Basement 7'0".
Total Cubic Contents 15600 Cu. Ft.



Cozy Fireplace

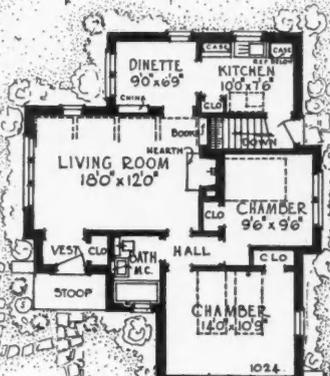
National Plan Service Design Number 1013-C. Cost Key is 1.138—132—842—35—13—15.



ENGLISH STYLE

The old-world charm of the exterior has not been achieved at any sacrifice in room arrangement. In the plan will be found all the essentials of modern living.

DIMENSIONS
Size of Main Building 30'0" x 36'6". Size Over All 33'0" x 38'0".
Ceiling Height 1st. Floor 8'6". Ceiling Height Basement 7'0".
Total Cubic Contents 16000 Cu. Ft.



LIVING ROOM 18'0" x 12'0"
DINETTE 9'0" x 9'9"
KITCHEN 10'0" x 7'0"
CHAMBER 9'6" x 9'6"
CHAMBER 11'0" x 10'9"
BATH
HALL
VEST
STOOP



End of Studio Living Room

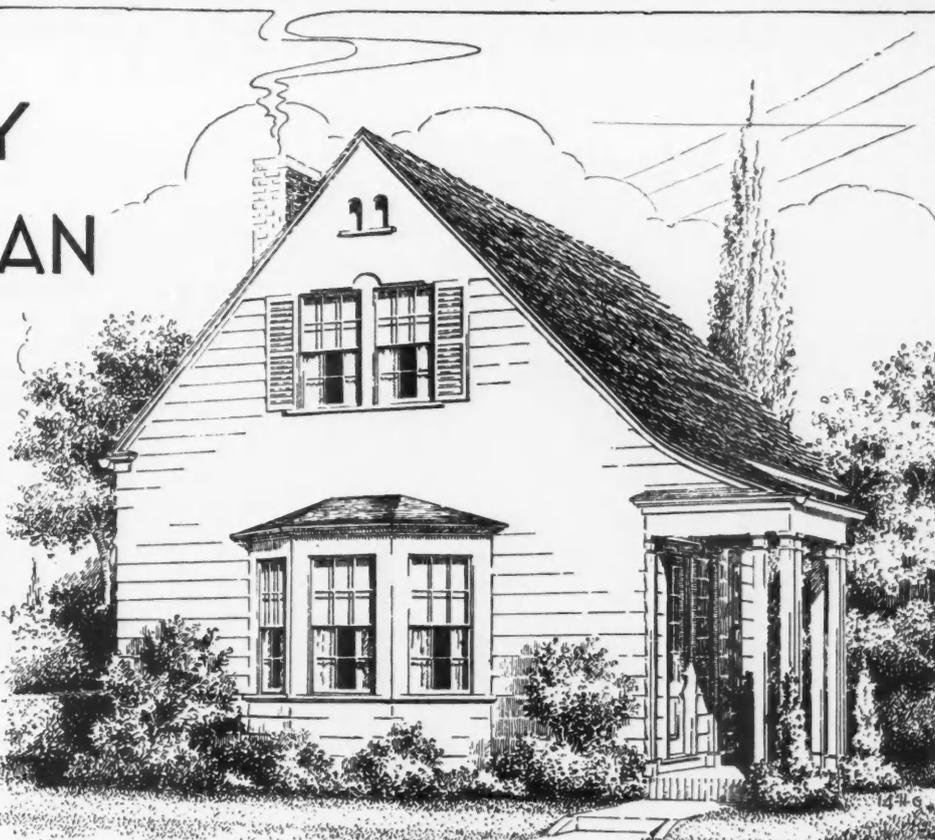
An appealing alternate design in Colonial. Plan 2.

National Plan Service Design Number 1024-C. Cost Key is 1.190—137—909—38—16—20.

EARLY AMERICAN

There is another charming Colonial "home that grows"—designed to meet the conditions of the wise builder who realizes that it is not a good investment to tie up finances in rooms and space at a time when such rooms and space will not be used or required until some time in the future.

This three room or seven room home will meet any financial or family requirement.



3 ROOMS ORIGINAL HOME SIZE 20'0" x 24'0"

If this original home meets your present needs, why build a larger home until you require it? In the meantime you can save money and interest for future use. This home is made for expansion at anytime in the future—the plans and illustrations will show you.



6 ROOMS SIZE 34'0" x 24'0"

Illustrating home with future No.1 additions and porches.

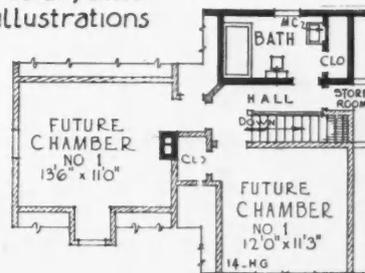


7 ROOMS SIZE 45'0" x 24'0"

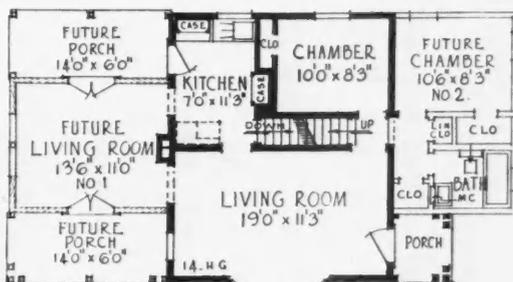
Illustrating home complete with all future additions and porches.

CUBIC CONTENTS

ORIGINAL HOME	8000 CU. FT.
FUTURE NO.1 ADDITIONS	6000 CU. FT.
FUTURE NO.2 ADDITION	2600 CU. FT.
TOTAL	16600 CU. FT.



SECOND FLOOR PLAN



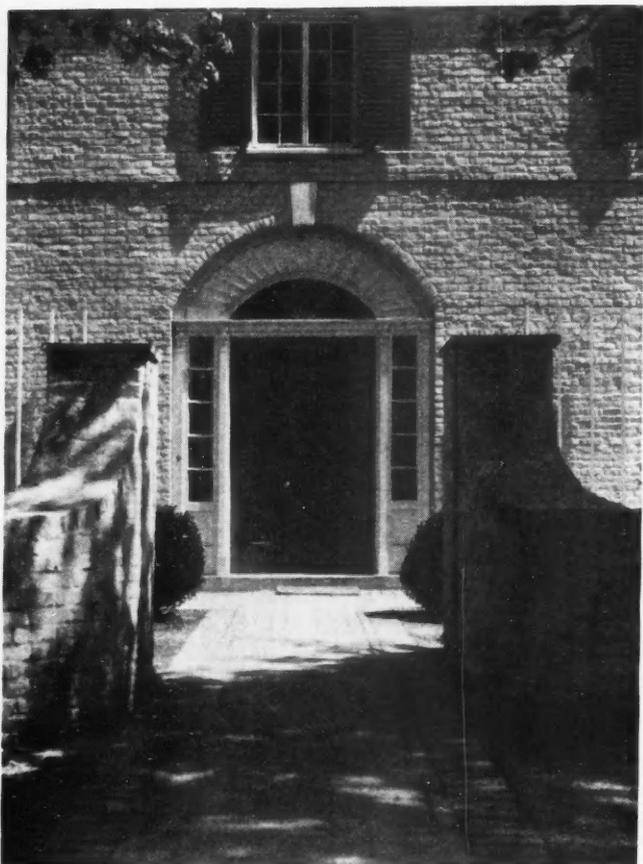
FIRST FLOOR PLAN

KEY
 - - - - - WALLS OF ORIGINAL 3 ROOM HOUSE
 - - - - - WALLS OF FUTURE NO.1 ADDITIONS
 - - - - - WALLS OF FUTURE NO.2 ADDITIONS

NO. 14 H-G. HOMES THAT GROW N.P.S.

Cost Key: Original—.852—88—492—22—12—8; No. 1—1.411—116—660—29—18—13; No. 2—1.674—138—858—37—21—16. Cost keys based on building originally. Add extra labor if future additions are added later.

Built to Demonstrate



NATIVE ANTIQUE BRICK used in the construction of "Tomorrow's House," Merion, Pa., is shown to good advantage in this charming entrance. The house was built to demonstrate a new type of automatic heating and cooling system using anthracite coal.

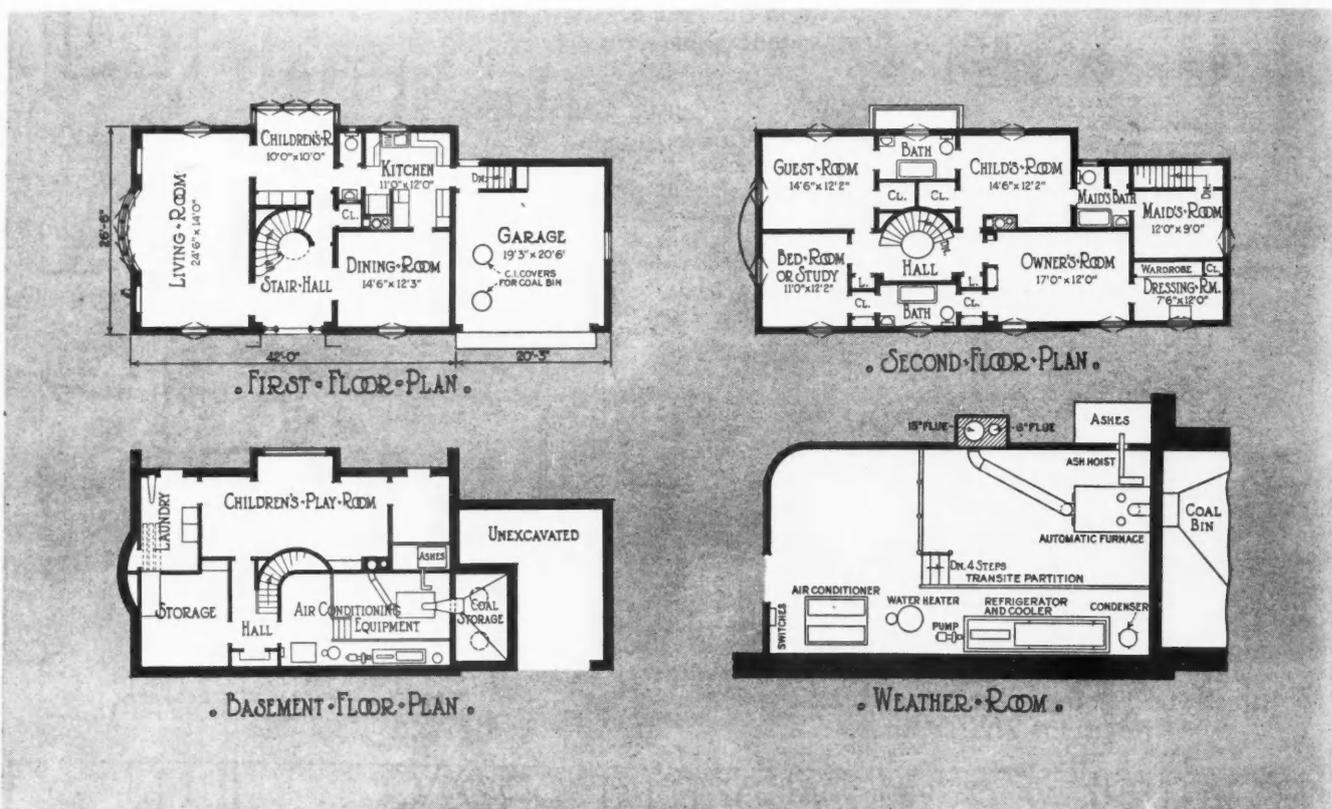
ON THE outskirts of Philadelphia, in the village of Merion, a thoroughly modern home has just been completed and given the title, "Tomorrow's House." The architect, W. Pope Barney, has provided in the planning, construction and equipment of this house the features that he believes will be found in modern houses "from now on."

Tomorrow's House was sponsored and built by the Philadelphia & Reading Coal & Iron Company to demonstrate a new hard coal burning furnace which has many unusual and advanced features.

As shown on the plans below, a "weather room" is provided which the architect terms "the heart of the house." The furnace burns chestnut size hard coal which is put into a bin underneath the garage floor by the coal man. The ashes are conveyed to a bin outside the furnace room from which the ash man hauls them away four times a year. The furnace produces steam which is used with latest type equipment to:

1. Heat the house in winter.
2. Cool the house in summer.
3. Humidify or dehumidify and clean the air that enters the home.
4. Provide domestic hot water all year long.
5. Provide running ice water to master's bathrooms and the kitchen during the summer.
6. Operate the domestic refrigerator in the kitchen.
7. Operate the clothes drier in the laundry.

The house is built with unusual strength and tightness to accommodate the steam-operated air conditioning equipment. The construction details on the opposite



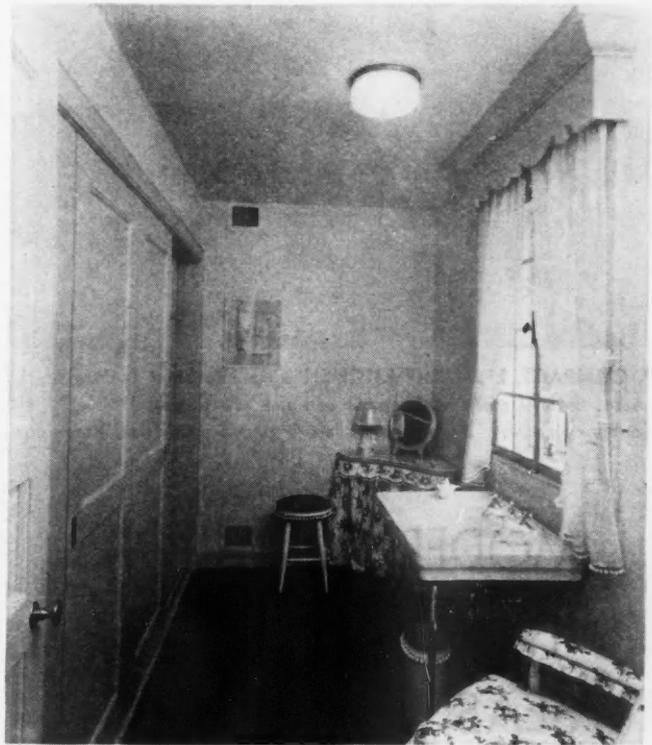
UNUSUALLY ADVANCED COMFORT DETAILS are illustrated in the floor plans of Tomorrow's House. The "weather room" features an automatic furnace using anthracite. The coal is placed in a storage hopper through manholes in the garage floor. Ashes are automatically removed to the ash storage which is emptied only four times a year. The central hall plan is attractive.

onstrate All-Season Comfort

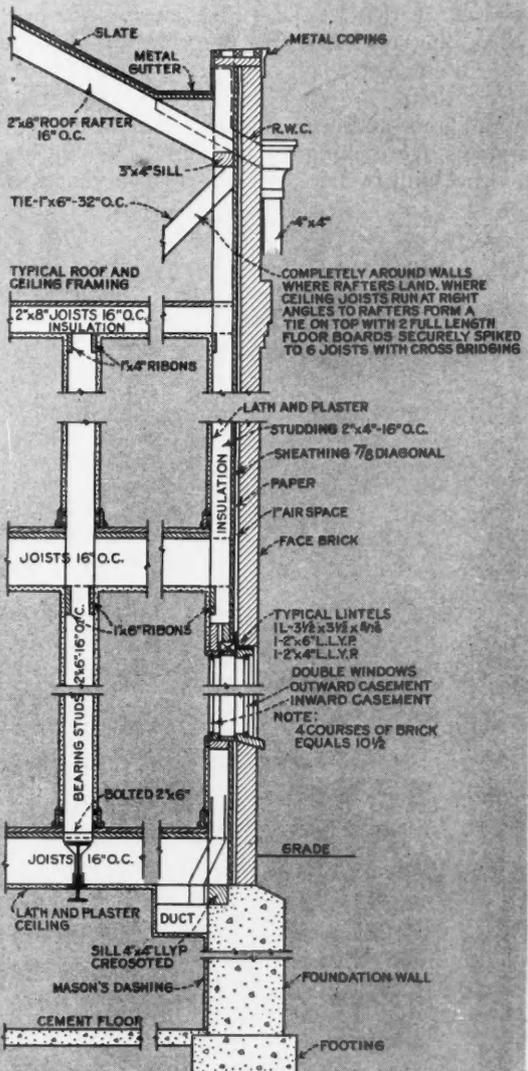
page illustrate this very well. Insulation is used in the walls and second floor ceilings. Double windows are used throughout, an unusual but effective feature. Two separate and complete casements are installed in each frame, with one opening outward and the other inward, and a 6-inch space between.

The floor plan on opposite page shows the coal bin built-in under the garage floor. The coal is dumped through a manhole and fed by gravity to the furnace. Ashes are raised mechanically and placed in a metal hopper in an ash room opening directly to the outside as shown on the plan.

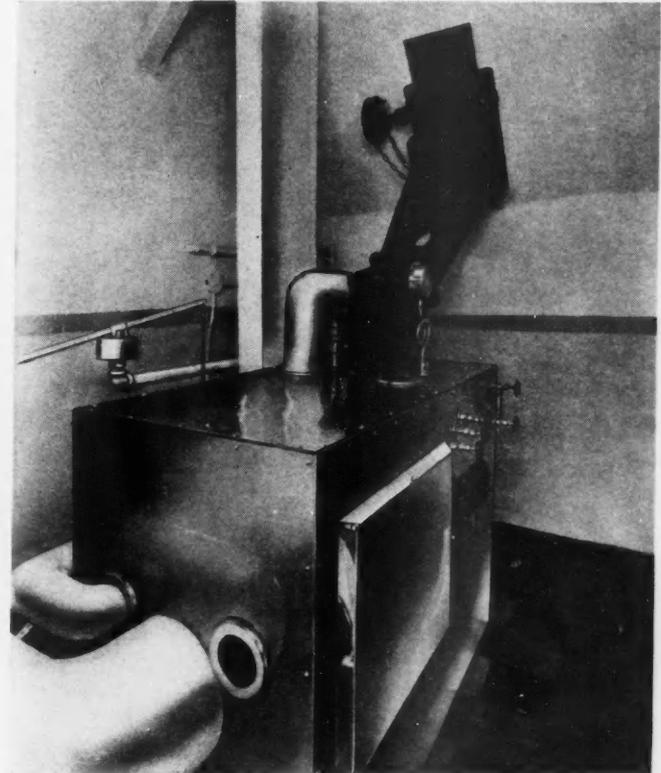
The furnace is built of electrically welded steel and has an unusually large area of heat-absorbing surface which utilizes the greatest possible number of heat units from the burning coal. The furnace has an efficiency



DOUBLE WINDOWS are used throughout the house with one set opening in and the other out. How attractively these are handled is shown in the dressing room above. The lavatory and large closet space have a special appeal for the housewife.



WALL SECTIONS.



THE HEART OF THE HOME is this new type hard coal burning furnace which is entirely automatic. Coal feeds in from bin underneath garage floor and ashes are conveyed outside.

CONSTRUCTION DETAILS of Tomorrow's House at Merion, Pa., show quality throughout, with due regard for insulation requirements of an air conditioned home. Double windows are used.



A COMPACT, EFFICIENT KITCHEN is an important feature of this house. Monel metal work space and sink are provided. Notice the double window. An insulated stove burns pea size hard coal.

MODERN INTERIORS IN HOUSE OF ALL- SEASON COMFORT

factor of 80 to 90 per cent at ordinary winter operating rates. Heating engineers of the Reading Company estimate that the furnace as installed in this house will heat the house in winter, furnish the heat factor for domestic refrigeration throughout the year and for the air refrigeration unit to cool the house in summer, dry the laundry, and furnish hot water every hour of the day and night, and supply ice water in the bedroom and kitchen throughout the summer with a fuel requirement of only 1½ tons of hard coal per month average over the year.

The operation of this anthracite fuel air conditioning plant is entirely automatic in its control of temperature and humidity, needing only the moving of one lever and one valve in the spring and in the fall to change from winter heating to summer cooling, and vice versa. Fresh air is constantly introduced into the system, and excess air passes off through the kitchen and bathroom ventilators, thus keeping the house free from odors.

In addition to this unique heating and air conditioning plant, the house contains many other features of design and construction that will give architects and builders an idea of what may be expected in "Tomorrow's House."

General layout—Use of the automobile in conjunction with living is taken for granted. Thus the garage, garage court and front entrance are connected into a harmonious whole. The two-car garage has one large automatically operated overhead door. The house is planned to eliminate undue hall space; the one central hall is very attractive and efficiently laid out.

Downstairs rooms—The 14' by 24'-6" living room is commodious and well lighted, with large ceiling height windows overlooking the gardens. The big bay windows and the built-in bookcases form the center of interest.

(Continued to page 54)



THE LIVING ROOM is centered around the bay windows which overlook the side garden. Like all other windows in this completely air conditioned house, they are of double construction with one set opening out and the other in. The inconspicuous lighting fixture illustrates a modern trend. The built-in book case is well handled and is a desirable feature.

MODERNIZATION

"which makes buildings of all kinds more cheerful, more livable and more salable"



THE "Mad House Of K Street" (described in this article) as it looks now, after treatment by Genevieve Hendricks. A splendid example of what can be done with a house built in 1802.

"Face-Lifting"

For Ancient Houses



BY GENEVIEVE HENDRICKS
Decorator, Washington, D.C.

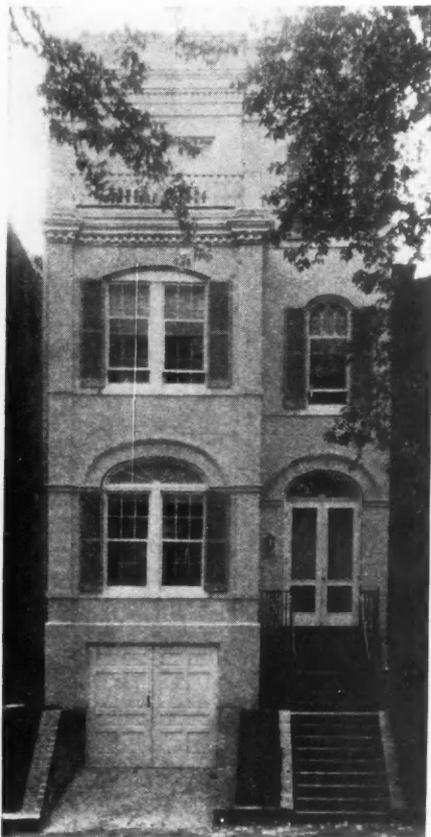
"PHYSICIAN to invalid houses" is the function today of many an architect, contractor and interior decorator. Like physicians, their work is lightened if they discover two basic values: a fundamental soundness of constitution (construction) in the "patient"; and available tonic remedies. Given the first in the form of sound timbers and the possibility of adapting arrangements, a splendid tonic value is found through the medium of color—the outstanding characteristic of most old houses is their dull colorlessness.

Fortunately for the beauty of this modern world, science has produced easily applied color in all shades and tints, so that ugly lines may be belittled and good points intensified. Three most interesting examples of the possibilities along these lines are given herewith.

The "Mad House" on K Street



BEFORE



AFTER

At left
THE historic old house which was sandwiched in between two other houses and presented a drab and uninteresting aspect before Miss Hendricks worked upon it. Very few major changes were made, as you can see; yet the photographs show the startling improvement that took place.

The first example, to use the physician's language, is that of a "psychopathic" case, a structure on Washington's K Street, where virtue struggled to look like vice and false coverings hid real worth.

Built in 1802 by careful designers, the house had good lines and excellent proportions; but along about 1890 something happened—a false front appeared, covering the brick facade. Hideous jigsaw and gingerbread adornments showed up. The yard grew matted, like a lunatic's hair. The doors hung awry and windows sagged. If, as some people claim, houses do have "facial expressions"—this one was an idiot! It had all the earmarks of a mad house during the last few years before its reincarnation; in fact, its only inhabitant for some time was a demented woman who lived there by squatter's rights!

But imagination, hard labor and paint converted this architectural specimen into a house which connoisseurs now consider unique. Off came the false fore and aft facade obstructions, to disclose time-mellowed brick walls. When the trash cluttering the front and back yards was consigned to the city dump, old stone terraces came to light.

The ugly brick walls were painted a dull red, to simulate weathered material, the shutters became blue-green, and the wood trim white. Timbers were found to be perfectly sound and, with the addition of some mill-work, this old eyesore became a charming and beautiful place.

Historic House Gets New Life

Do you have many houses in your neighborhood which were built in 1860? Then perhaps you can appreciate the dismal picture which was offered for decorative and architectural retouching, emerging in 1933 once again as a livable, likeable home. It is the story of a house which was wedged tightly in between two other houses, as you can see from the illustration at the left.

The foundations of this house were built before Abraham Lincoln entered the White House; its doors swung to the urgency of men and women harried by a civil war.

GENEVIEVE HENDRICKS is a Decorator of note in the nation's capital. In the ten years she has been in business the homes of many well known personages have come under the influence of her clever hand. She has remodelled almost three score of old houses in and about Washington, D. C., and Alexandria, making homes of beauty out of houses previously ugly and untenable. Her work is unique in that she acts not only as a Decorator but also supervises all details of construction, including plumbing, heating, lighting and carpentry. Her choice of occupation, she declares, was determined by her love of old houses.

The "Mad House of K Street," described in this article, is her own charming studio today.

Then for thirty years it knew only solitude, with silent halls and empty rooms. During those years its dull blue, brown and red papered walls became tattered and torn, its floors covered with undisturbed dirt, the homely black and brown marble mantels spotted with age.

Artistically, the house was impossible; but the ceilings were high and the rooms well proportioned. So the room arrangements were changed, several windows cut in, interior walls finished in light tinted paints which reflected all the light possible. Originally, living room, dining room and kitchen appeared from front to rear in the order named, with a large ell jutting from one side and cluttered with tiny rooms; in the new order breakfast room, kitchen and dining room appeared from front to rear, with the ell changed into a large and lovely living room.

The red brick exterior of this house was more than dismal—it was definitely depressing; under the onslaught of a determined paint brush, however, it became a warm yellow-cream. Doors and blinds were painted a soft blue-green, and the uncompromising cast iron steps gave way to colonial red brick with simple but well designed iron railings painted black. The success of this color scheme is indicated by the fact that it has been widely copied on renovated houses.

"A Career Blasted By Stained Glass"

This just missed being the epitaph of another building which today is a house of grace and charm. You can see from the photographs below that this structure was built for a home—but the builder (?) succumbed to some mystic liking for a profusion of stained glass windows.

Vintage of 1890, with typical narrow porch, columns all too slender to support the weight of roof, spindly chimneys and a roofline that looked like an over-stuffed coiffure, this building was completely uninteresting, both inside and out. The casual observer was discouraged with this empty and forgotten house, even though it was ideally located on the crest of a wooded hill. However, "remodelers" have to be optimists and remember that a bit of rearrangement and a little paint sometimes work miracles.

The house faced on an alley, despite the fact that there was a delightful view from the side; so the entrance was placed at the side, with the view as an asset. The interior was a series of unimaginative small rooms; so partitions were promptly ripped out to create large rooms with two fireplaces in each. What had been the kitchen emerged into a sunlit dining room with kitchen beyond.

Although the roofline was the chief flaw, this could not be altered to the extent of tearing it down, so the hair-pin chimneys were shortened and a two-story colonial porch with straight, unadorned columns was built. The high porch roof, topped by a balustrade copied from Mt. Vernon, both concealed the ugly stained glass windows and gave charm to the facade. A handsome fanlight with the sign of Caduceus, brought from the ruins of an old home in Belgium, was placed over the entrance door.

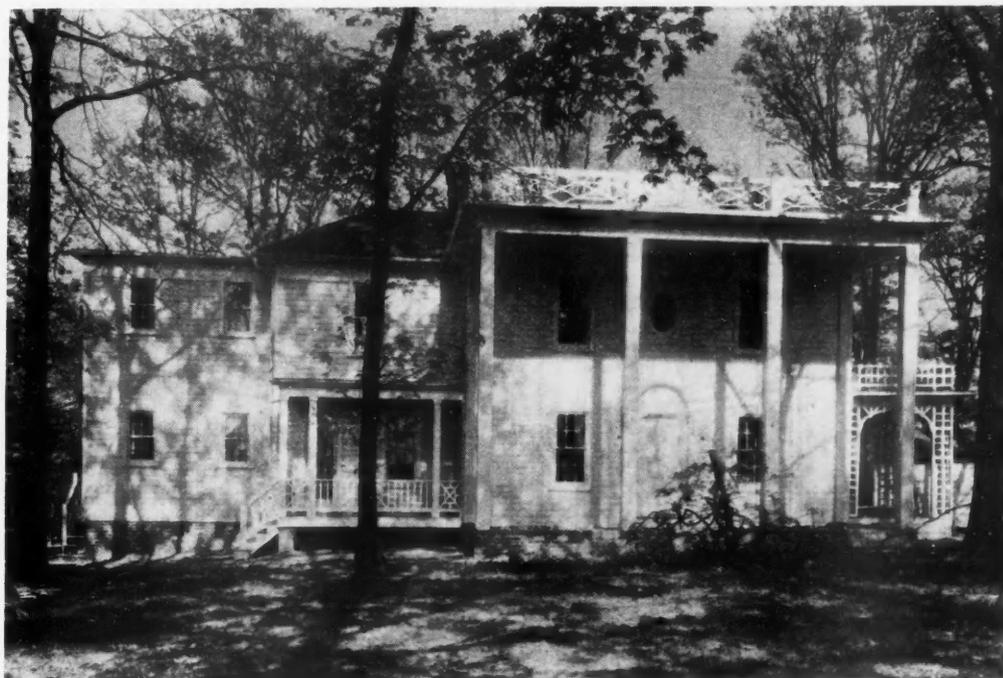
Then the colonial character of the house was carried out in the color scheme—white, with dark green blinds and a green roof. It's a show place now.



BEFORE

AFTER

You might not think this the same house as shown above, but it is! Through the removal of those once-so-fashionable excrescences of jigsaw and gingerbread, plus a few construction changes and the addition of color in harmony, this "forgotten house" has regained its popularity as a home.



Make It for Profit

Selected Designs from a New Manual Prepared for the Committee on Wood Utilization of the U. S. Department of Commerce

By H. CONRAD HOOVER

AT this time of year the home workshop has a stronger appeal for many than the golf course. Keen edged tools and well seasoned wood make a combination that is hard to resist. Their urge is toward making something—some piece of furniture or handy

series book have been selected. The drawings with their dimensions, and the detailed material lists should give tool lovers all the information they need to tackle any of these projects. More will be shown here next month. As a source of suggestions for winter work activity to yield a profit they should be helpful.

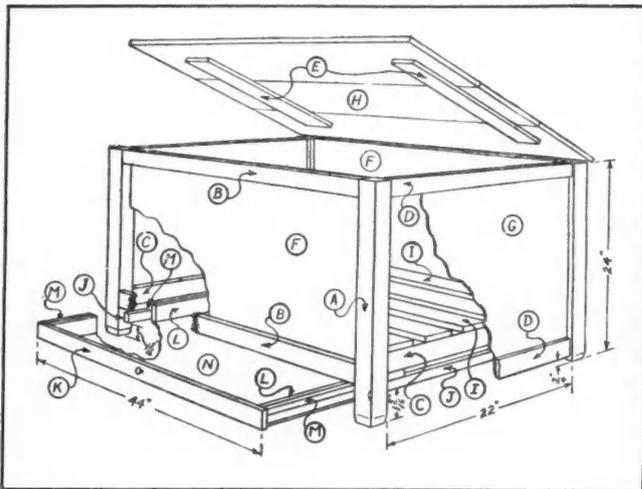


Fig. 1. Fireplace Wood Box

Fireplace Wood Box

The fireplace wood box and seat serves two purposes and can be made very attractive. See Fig. 1. The drawer in the bottom makes it easy to remove fine material which would otherwise collect in the bottom.

Material required.—Four pieces $2\frac{1}{2}$ by $2\frac{1}{2}$ by 24 inches, legs A. Four pieces $\frac{3}{8}$ by $2\frac{3}{4}$ by 44 inches, rails B. Two pieces $1\frac{1}{8}$ by $2\frac{3}{4}$ by 22 inches, rails C. Six pieces $\frac{3}{8}$ by $2\frac{3}{4}$ by 22 inches, rails D and cleats E. Two pieces $\frac{3}{8}$ -inch material for front and back panels, F, each $20\frac{1}{2}$ by 44 inches. Two pieces $\frac{3}{8}$ -inch material for end panels, G, each 22 by $23\frac{1}{4}$ inches. Sufficient $25/32$ -inch material for lid, H, 27 by $49\frac{3}{4}$ inches. Five pieces $1\frac{1}{8}$ by $3\frac{5}{8}$ by $46\frac{1}{8}$ inches, floor slats I. Two pieces $\frac{3}{8}$ by $1\frac{1}{8}$ by 25 inches, drawer runners J. One piece $25/32$ by $2\frac{3}{4}$ by 44 inches, drawer front K. Two pieces $\frac{3}{8}$ by $2\frac{3}{8}$ by 25 inches, drawer sides L. Two pieces $\frac{3}{8}$ by $25/32$ by 25 inches, drawer slides M. One piece $\frac{3}{8}$ -inch material for drawer bottom, N, 25 by $42\frac{7}{8}$ inches. One piece $\frac{3}{8}$ by $2\frac{3}{4}$ by $42\frac{7}{8}$ inches, drawer back.

Sewing Stand

A handy sewing stand with a tray and places for keeping all kinds of sewing materials is shown in Fig. 2.

Material required.—Four pieces $25/32$ by $2\frac{3}{4}$ by $34\frac{7}{8}$ inches, A. Four pieces $25/32$ by $2\frac{3}{4}$ by 14 inches, B. Sufficient $\frac{3}{8}$ -inch material for two panels, marked C, each 14 by 36 inches. Four pieces $\frac{3}{8}$ by $2\frac{3}{4}$ by $12\frac{1}{8}$ inches, shelves D. Two pieces $\frac{3}{8}$ by $1\frac{1}{8}$ by $12\frac{1}{8}$ inches, E. One piece $\frac{3}{8}$ by $9\frac{1}{2}$ by $12\frac{1}{8}$ inches, drop leaf F. Five butts (hinges). Fine chain to support drop leaf F. Two handles.

device around the house; or in these thrifty times something that can be sold to a neighbor or given to a friend. What to make is the question, and to answer it these six clever designs from our latest "You Can Make It"

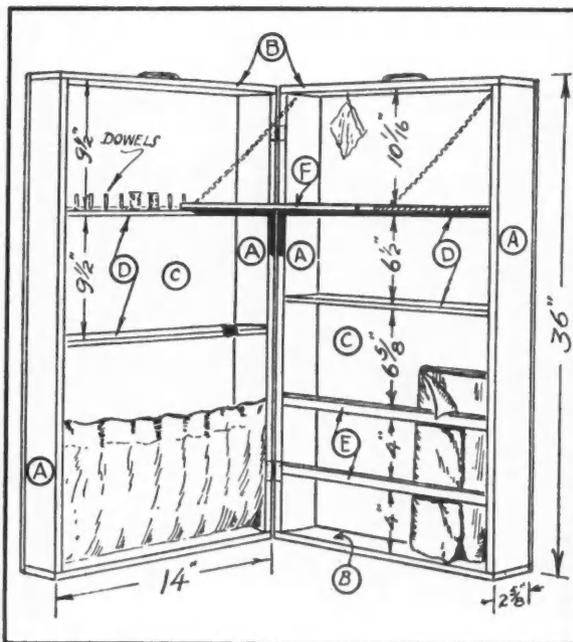


Fig. 2. Sewing Stand

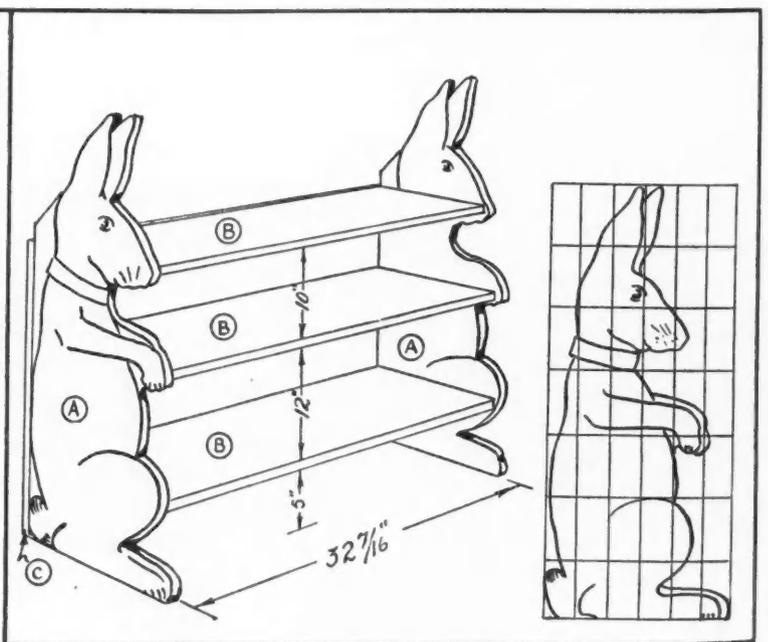


Fig. 3. Bunny Bookcase

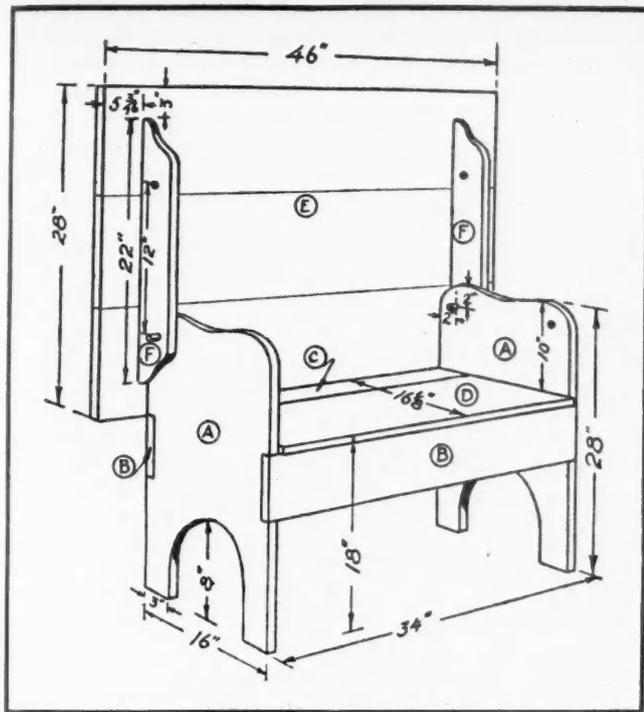


Fig. 4. Fireplace Settle and Table

Bunny Bookcase

Children are delighted with furniture in which animal figures are used. Fig. 3 shows a bunny bookcase.

It would be a bright addition to a child's room, especially if cleverly painted to bring out the coloring and features of the rabbit at each end.

Material required.—Two pieces 25/32 by 11½ by 40 inches, ends A. Three pieces 25/32 by 9½ by 32⅞ inches, shelves B. Sufficient ⅞-inch material for back panel, C, 29¾ by 34 inches.

To enlarge figures for scroll-saw work or wood cut-outs, lay out a rectangle on the material to be cut out using the overall enlarged length and width. Block out this rectangle as shown. Now, lay out the same number

of similar rectangles on the figure to be enlarged. Next sketch the outline of the figure on the enlarged rectangles so the lines pass through the same places in the enlarged rectangles as they do on those of the original.

Fireplace Settle

The settle shown in Fig. 4 placed near the fireplace will introduce a little of the atmosphere of the time in which our forbears lived. A handy table may be provided by lowering the top. Many uses will be found for the convenient compartment under the seat.

Material required.—Sufficient 25/32-inch material for two legs, A, 16 by 28 inches. Two pieces 25/32 by 7½ by 34 inches, rails B. One piece 25/32 by 4¾ by 32⅞ inches, C. One piece 25/32 by 11½ by 32⅞ inches, D. Sufficient 25/32-inch material for seat bottom 14⅞ by 32⅞ inches. Sufficient 25/32-inch material for top, E, 28 by 46 inches. Two pieces 25/32 by 3¾ by 22 inches, top cleats, F. ¾-inch dowels for pins.

Pier Cabinet

A convenient place for books, bric-a-brac, or decorative novelties is the pier cabinet shown in Fig. 5.

Material required.—Two pieces 25/32 by 9½ by 65⅞ inches, A. Five pieces ⅞ by 18 inches, shelves B. One piece ⅞ by 7½ by 19⅞ inches, C. One piece ⅞ by 11½ by 18 inches, door D. Sufficient ⅞-inch material for top, E, 81⅞ by 19⅞ inches. Sufficient ⅞-inch material for back panel, F, 19⅞ by 61½ inches. Two butts (hinges).

Rack for Canned Goods and Vegetables

This rack provides just the place for storing preserves or canned goods. The bottom section may be divided into storage bins for vegetables. See Fig. 6.

Material required for rack.—Six pieces 1¾ by 3¾ by 62 inches, legs A. Four pieces 25/32 by 11½ inches by 9 feet 2⅞ inches, shelves B. Four pieces 1¾ by 3¾ by 49¾ inches, C. One piece 1¾ by 3¾ inches by 9 feet 2⅞ inches, D. Nine pieces 25/32 by 1¾ by 14¾ inches, cleats E. Two pieces 1¾ by 1¾ by 20¾ inches, F.

Material required for vegetable bins.—Twenty-eight pieces ⅞ by 2¾ by 16¾ inches, rear slats G. Twenty-eight pieces ⅞ by 2¾ by 20¾ inches, front slats H. Eight pieces ⅞ by 2¾ by 17¼ inches, side slats I. Eight pieces ⅞ by 2¾ by 18¼ inches, side slats J. Eight pieces ⅞ by 2¾ by 20 inches, side slats K. Sixteen pieces ⅞ by 1¾ by 24 inches, front and rear cross pieces L. Eight pieces ⅞ by 1¾ by 11 inches, bottom end cross pieces M. Eight pieces ⅞ by 1¾ by 11¾ inches, top end cross pieces N. Twelve pieces ⅞ by 2¾ by 24 inches, bottom slats P. Four pairs butts (hinges).

Each of the four vegetable compartments shown will hold approximately 1¾ bushels. If desired, the shelf section may be inclosed. The bin sections should be left open to permit air circulation.

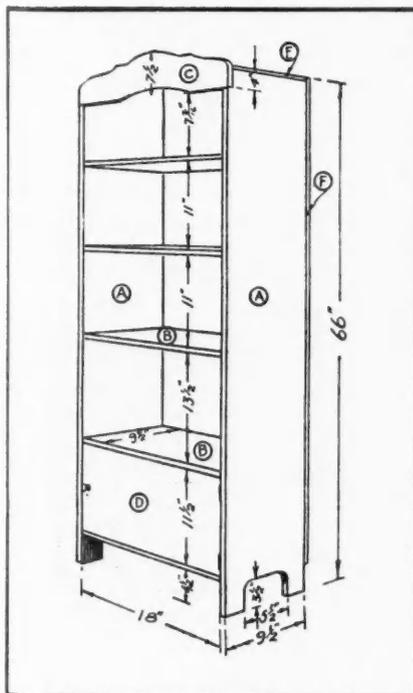


Fig. 5. Pier Cabinet

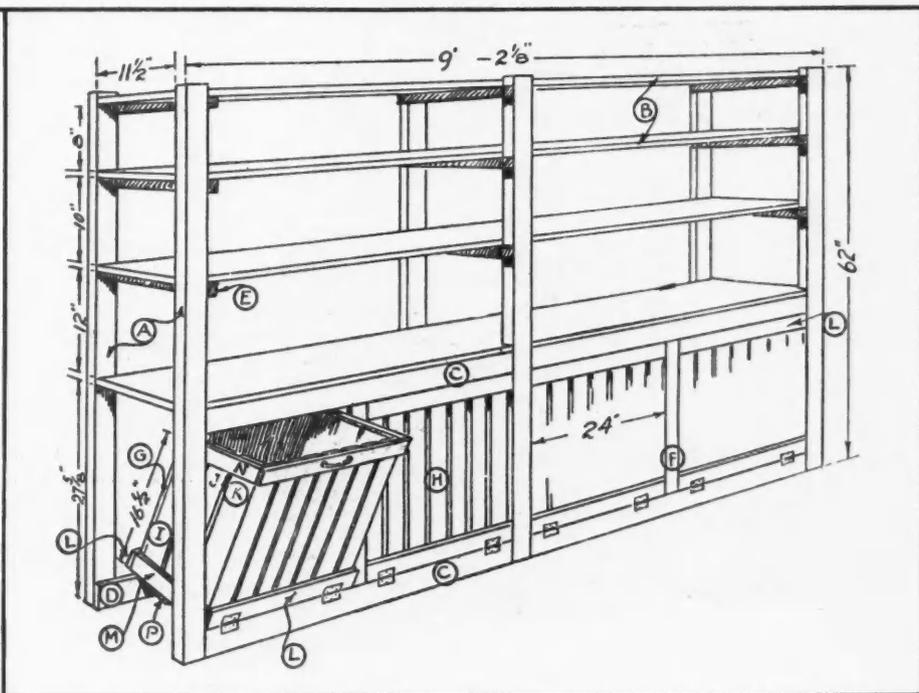


Fig. 6. Cellar Rack for Canned Goods and Vegetables

Precast Joists Make Low-Cost Floors

By HENRY W. SCHLUETER

Schlueter Foundation Co., Los Angeles, California

ABOUT the first of January, 1933, our company began the manufacture of precast concrete joists for the construction of concrete floors. To date, we have sold 12 residence jobs for this type of construction. These installations have attracted the attention of architects, contractors and prospective home builders, all of whom are interested in the multitude of advantages provided by concrete construction. The low cost of reinforced concrete floor construction made possible thru the use of our method is the clinching argument thru which we expect to build a large market.

Contrary to the general accepted understanding of considering only the footings and below grade walls of a building as the foundation, we feel that the first floor, regardless of whether a basement is provided, is truly an integral part of the foundation and should be so considered. When the first floor and the walls, beams and footing below the floor are built of concrete, then we have a real foundation on which to construct a building.

As a part of our efforts to impress this fact upon the minds of the building public, we style the name of our firm The Schlueter Foundation Co., and as further indicated, we take contracts for all of that part of a structure comprising what we consider to be the foundation, i.e., the footings, piers, walls or girders and the floor.

The same type of precast concrete joist or beam employed to support the concrete floor slab is also employed for girders or "grade beams." After footings are placed, concrete piers on about 8 foot centers are brought to the grade line and used to support precast concrete girders, which in turn serve as supports for precast concrete joists and the concrete floor slab. These girders consist of two precast beams placed side by side. They are reinforced

with steel bars in accordance with the loads to be carried. Reinforcing steel is cast into the piers, the ends of the bars are projected above the top of the pier so as to engage the concrete placed between the girder beams. This reinforcement, together with the anchorage provided by the recess in the sides of the girders and the natural bonding of the freshly placed concrete with the precast beams, results in a homogeneous mass that functions as a unit.

On these girder supports, precast concrete joists are placed, generally spaced on 32-inch centers. The joists are 4 x 6-inch in cross sections and weigh 21 lb. per foot when rock and sand aggregate is used. Between the joists, wood spreaders (or, as we call them, "putlogs") are placed to support the slab forms. The spreaders are supported by being notched to fit the 1/2" recess provided in the joist sides. One-inch sheathing is then laid over the putlogs, no nails being used. Slab reinforcement and electrical conduit are placed. The job is now ready for placing of the slab concrete.

The design of the concrete floor is based upon standard principles for the design of reinforced concrete floors. As will be seen in the accompanying details, the forms are constructed so that the slab concrete is dropped about 1 1/2 inches below the top of the joist, effecting good lateral support or bridging. Standard T-beam principle of reinforced concrete design is employed, the joist and slab functioning as a monolithic unit. For the purpose of insuring adequate bond between the precast concrete joist and the freshly placed concrete slab, we originally placed bent wires into the top of the joist at the time of casting. The projected prongs anchored into the concrete slab, together with the natural effective bond between the precast joist and the fresh slab concrete provided the unit action required for T-beam design. As shown in the photograph, these bond ties are not now employed because through load tests made upon specimen panels, it was found that the carrying capacity of these floors greatly exceeded the rated load with usual safety factor requirements. The bond between the newly placed slab concrete and the precast concrete joist is effective so as to provide the desired unit action between slab and joists.

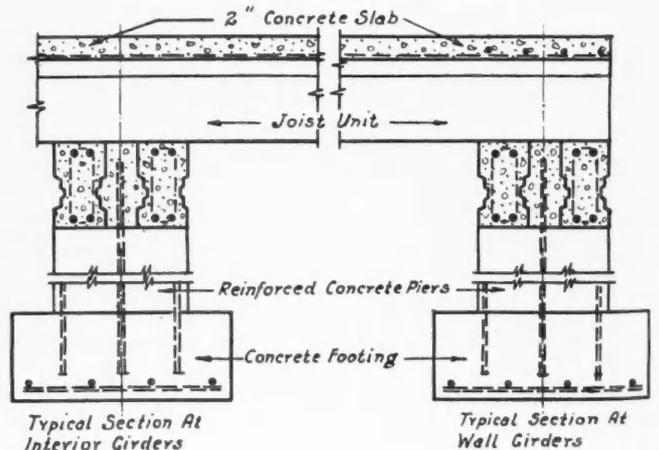
Speed of Erection—The joist and beams being manu-
(Continued to page 54)



Construction view showing Joist being set and in place. Spreaders and Slab Forms in Place. To right are shown details of Girder, Joist and Slab construction.



TYPICAL SECTION THROUGH JOISTS AND SLAB



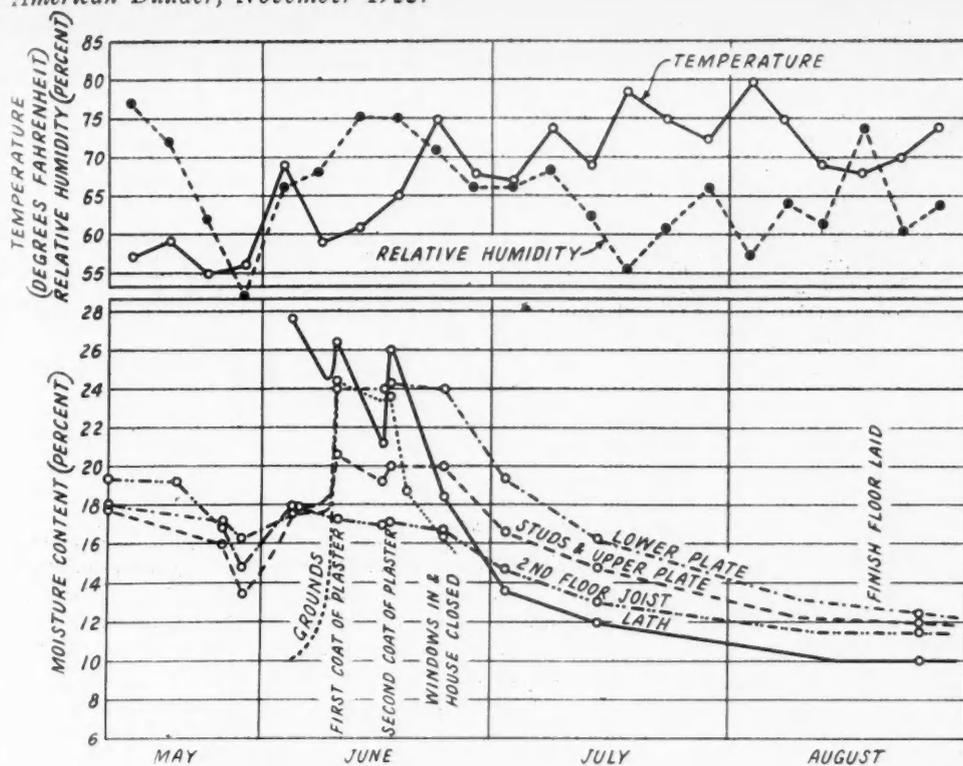


DIAGRAM showing average outside atmospheric temperature and humidity and average moisture content of various construction items in house built during summer.

Plastering and Moisture in Woodwork

By L. V. TEESDALE,

Senior Engineer, Forest Products Laboratory

DURING the plastering operation a large amount of water is brought into the building under construction. Most of this water evaporates from the plaster directly into the air and escapes from the building through open doors and windows, but some is absorbed by the studs, joist, and other wood members. Under favorable conditions of drying, the moisture evaporates rapidly from the plaster, so that a week after the last coat is applied the wood trim and finish might be applied, in so far as the condition of the plaster itself is concerned. The plaster, however, is actually drier than the wood grounds and door and window jambs against which the trim will be placed, and it is the moisture content of such wood items rather than of the plaster that should be used as a criterion for determining when it is safe to install the interior finish.

In 1930 tests were conducted by the Forest Products Laboratory in a dwelling in Madison, Wis., to determine the moisture content of various lumber items during the construction period. The effect of the plastering operation on the moisture content of various rough lumber items is illustrated on the accompanying diagram. The joints and studs were of air-dried material and the record shows that late in May these items were affected by a period of low humidity, the studs dropping to 14 percent moisture content. During a wet spell early in June, just before lathing, the same items picked up to about 18 percent.

The laths were green when applied, but the grounds were of kiln-dried material. The first coat of plaster had a marked effect upon the lath, grounds, lower plate, and

studs but little effect upon the joints. In the week between the first and second coats of plaster the lath dried considerably but regained almost all of the loss from the second coat. The other items dried but little between coats and were not materially affected by the second coat. The lower plates picked up from the two coats about 10 per-

cent more than the studs and upper plates and subsequently dried out rather slowly. The extra moisture was undoubtedly taken up from the plaster that passed through the lath and dropped off in the space within the wall. Both the thick deposit of plaster and subsequently the installation of the baseboard would tend to hold the moisture in the lower plates, thus accounting for their slower redrying in comparison with the studs and upper plates.

Tests made on the plaster 10 days after the final coat indicated the presence of about 2 percent of moisture. As no interior finish was installed for at least a week after the plastering was completed, the plaster itself could not have added moisture to the finish. The slower drying items of wood, however, could have contributed to moisture gain wherever the finish covered it. This applies particularly to the base, most of which was placed about the middle of July, when the moisture content of the lower plate (see diagram) averaged about 16 percent. During the following heating season some shrinkage developed in the base. Moisture tests on the base before installation indicated about 7 percent, which was quite satisfactory, but the shrinkage showed conclusively that there had been a marked moisture pick-up after installation. The evidence clearly points to the lower plate assembly as the source of the trouble.

What Happens When House Dries Out

The conditions in this house may be considered typical or average for summer-built houses, particularly north of the Ohio River. During damp or cold weather the drying would be correspondingly retarded, and if the plaster dries slowly there is all the more opportunity for moisture to be absorbed by the wood. Adequate ventilation should, of course, be provided at all times of the year, as the evaporated moisture is air borne, and a large amount of air is required to carry away the amount of water involved. During cold weather, when the heating system or portable heaters are used to prevent freezing of plaster and to hasten its drying, the windows should be properly adjusted to allow the escape of the evaporated

(Continued to page 55)

Maintained at Madison, Wis., by the Forest Service, U. S. Department of Agriculture, in cooperation with the University of Wisconsin.



ENGLISH SMALL HOME

Not an inch of space wasted here, yet every room is large enough to be cozily comfortable and the interior is particularly well planned.

DIMENSIONS

Size of Main Building 22'0" x 20'0". Size Over All 25'6" x 29'6"
 Ceiling Height 1st Floor 8'7". Ceiling Height 2nd Floor 7'8"
 Ceiling Height Basement 7'0". Total Cubage 10,400 Cu. Ft.

French Cottage - Alternate Exterior - Plan 2.

THE HOUSE OF THE MONTH

PEOPLE everywhere are saying, "We want really low cost homes—and by that we mean well under \$5,000." If that is what is wanted, here it is—a charming English type that looks big but is actually only 22 x 20 feet, with a cubage of only 10,400 cu. ft.

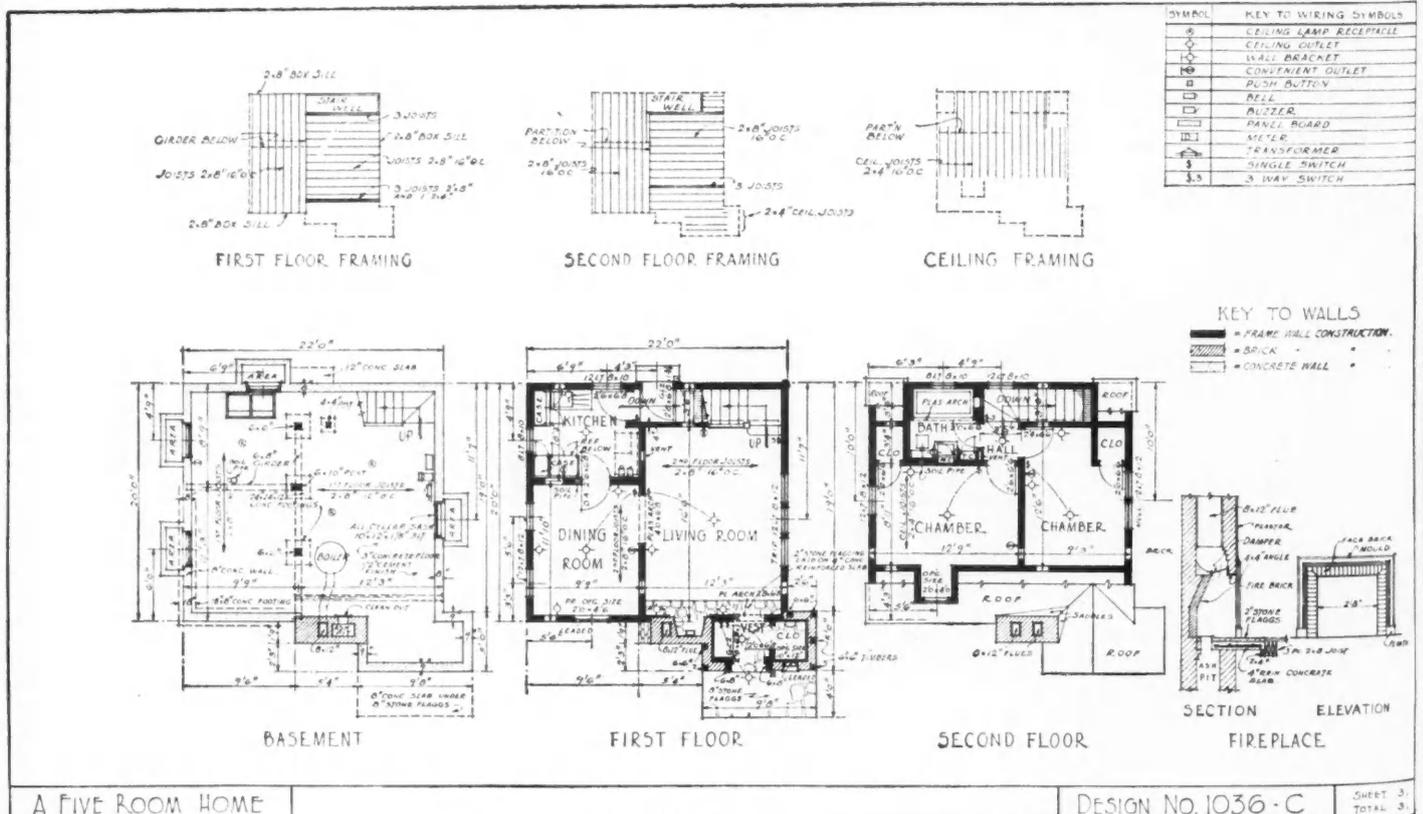
Yet in spite of this, there are five good-sized rooms and ample living accommodations for a small family. The secret is that the house is so skillfully planned that every inch is used space. No area is wasted in halls, nooks or dead corners.

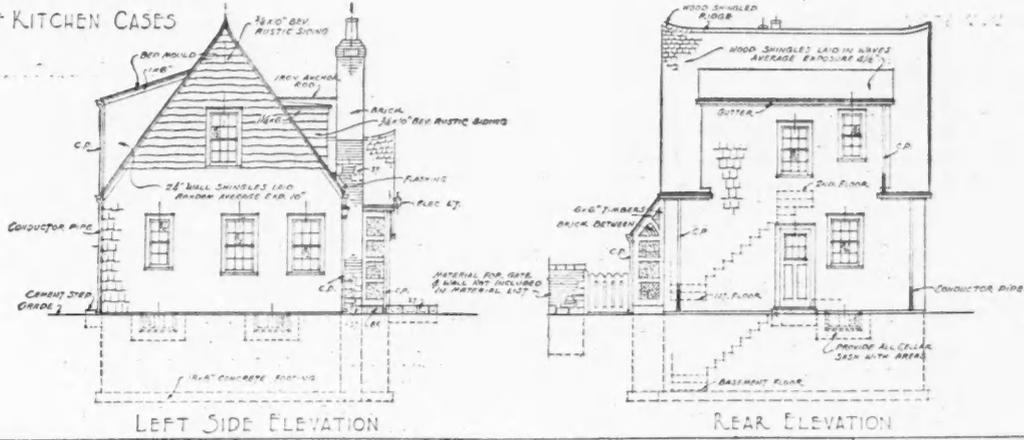
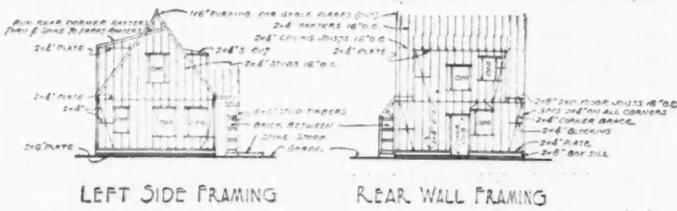
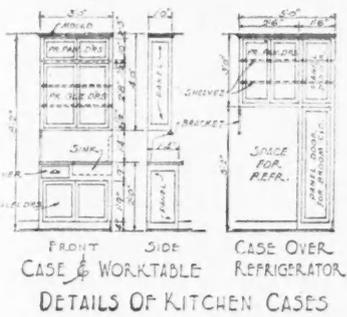
The exterior is given charm by the brick and half timber entrance, the well placed chimney and the nicely proportioned windows. Exterior is of shingles with waved siding across the gables.

Incidentally, while you are admiring this design, take a look at the careful workmanship and completeness of the detailed drawings, which are exact copies of the full-sized working blueprints prepared for this house by the National Plan Service Inc. of Chicago.

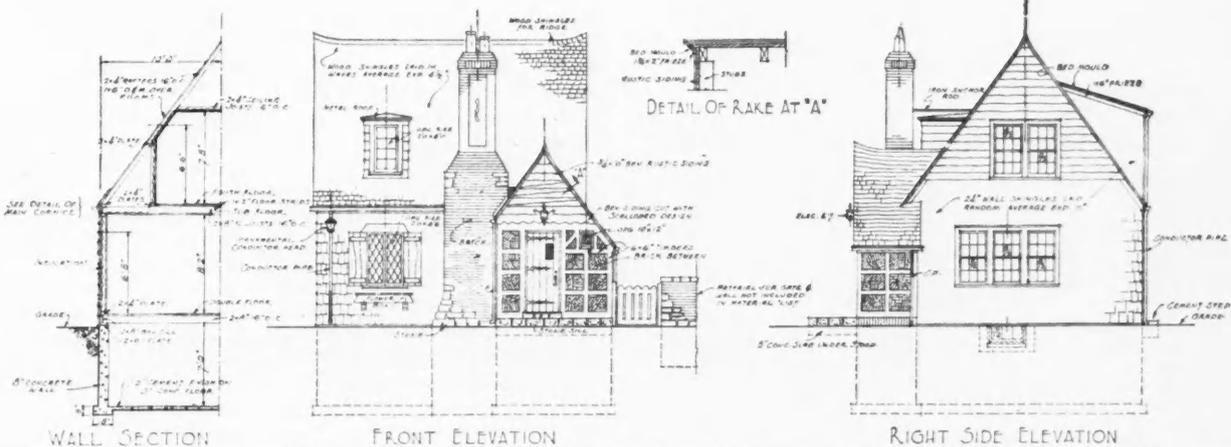
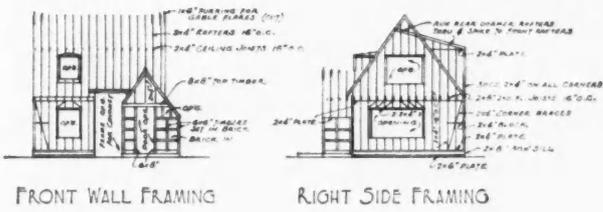
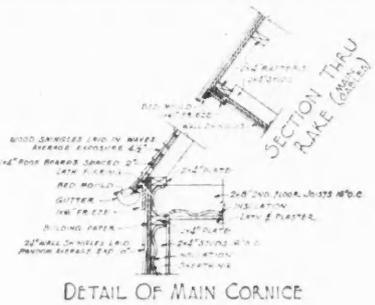
No Space Wasted in This Well Designed House by the National Plan Service

Cost Key 1.045-96-472-21-14-9





A FIVE ROOM HOME DESIGN NO. 1036-C SHEET 2 TOTAL 3



A FIVE ROOM HOME DESIGN NO. 1036-C SHEET 1 TOTAL 3

DETAILED DRAWINGS OF A SMALL ENGLISH TYPE HOUSE THAT CAN BE BUILT AT LOW COST

PRACTICAL JOB POINTERS

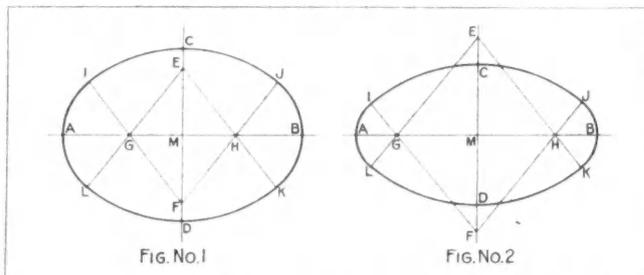
A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to American Builder is paid for each contribution published.

To Lay Out Small Ellipse

THE following is the method I use to lay an ellipse for such work as letting a 4½ inch sill pipe through a roof. The accompanying diagrams show the use of four arcs.

Instructions: Make two lines at right angles. On one lay off the major axis A B; on the minor axis lay off C D equal to the length and width of ellipse desired. Then from M lay off on the minor axis points E and F, each equal in length to the difference of the major and minor axis. On the major axis lay off from M, G and H, three-quarters of the length from M to E. Draw the lines from E and F through H and G to an indefinite length, then with compass set at length ED, describe arc LDK. Likewise from F describe arc ICJ. Then with compass set HB, make arc JBK; also from G make arc LAI.

It will be seen by observing diagram No. 2 that whereas in No. 1 all points are contained within the ellipse, in No. 2 which is for a roof of 18" rise to the foot run, points E and F on the minor axis are at a distance somewhat outside of the ellipse. This method should not be used where the major axis is more than twice the length of the minor axis, therefore I do not suggest its use for laying out an ellipsis arch.—CHARLES W. HARTUNG, Pontiac, Mich.

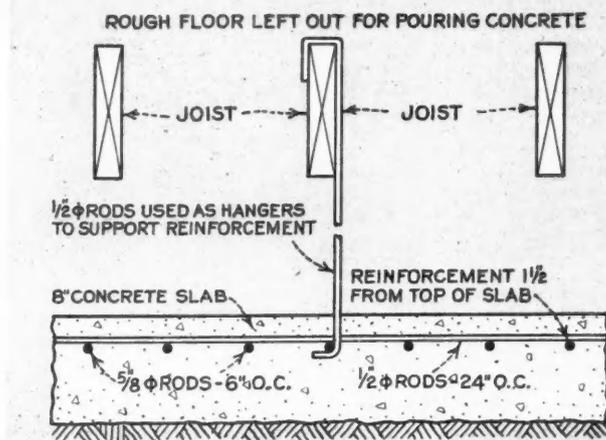
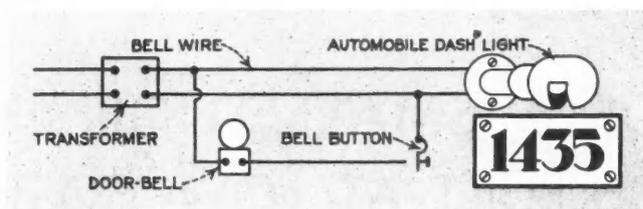


Two methods for laying out an ellipse are shown.

Illuminated House Number

ILLUMINATED house numbers are both attractive and convenient. The current cost is negligible. Here is a cheap and practical method of illumination which can sometimes be used on old houses:

From an automobile parts store, get an automobile dash light and 12-15 volt bulb. Fasten it to the wall or post just above the house number, and connect with bell wire direct to the bell transformer. The light should not be in series with the bell although three wires are sufficient. If the dash light is not tight, it can be wrapped with a bit of electrician's tape at the joints. A 6-8 volt bulb will burn out in a few days whereas a 12-15 volt bulb will last from six months to two years.—R. R. FLING, Columbus, O.



Basement reinforcing is held up by rods hooked over first floor joists.

Holds Reinforcing

RECENTLY I was putting in a concrete cellar floor slab eight inches thick. As there was a water condition due to a head of water creating pressure, it necessitated the use of reinforcement, to be 5/8" rods, 6" on centers with 1/2" rods two feet apart at right angles to main reinforcement. It was necessary to keep this reinforcement 1½" from top of slab. If this steel were to be blocked up with brick or in similar method, the brick would have to be removed after the pouring of concrete and it would have been difficult to locate and dig out the brick.

As the rough flooring above had been left out for pouring, leaving only the joists, I used some of the 1/2" reinforcing rods, bending as per sketch and suspended the reinforcement from the joists above. By making enough hangers for a small section and moving them ahead, as poured, the steel at all times remained in required location and the complete result desired was accomplished easily and quickly.—JOHN R. BERNARD, White Plains, N. Y.

Sharpening Chisels

THE Practical Job Pointers has interested me very much of late. I wish to submit an idea which I have used for many years on sharpening chisels.

My first experiment was with a framing chisel. Most authors, on sharpening tools, recommend that about a 25 degree angle is the best for sharpening a framing chisel. I have found that a combination of angles gives a faster and easier cutting edge and stands up well also. This is my idea:

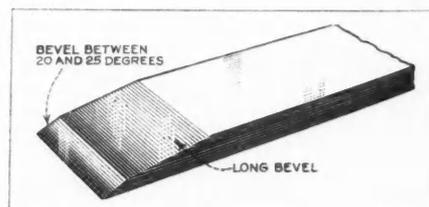
First grind a long bevel; no particular angle is advocated. Do not grind this bevel to meet the back side of chisel. After this grind another bevel anywhere between 20 and 25 degrees. A few trials of sharpening will soon show the best bevel to give according to the grief the chisel is to stand.

This method of grinding serves another purpose as well as making the chisel cut faster and easier. When grinding the long bevel, the thick edge at the point does not heat and burn as easily as when one bevel method is used.

Chisels done by this method do not need grinding as often and are easier to whet to a keen edge. It may be used on all chisels and is exceptionally fine for paring wood.—CHARLES E. WHITMORE, Elmira, N. Y.

Inexpensive house number light is made from auto light.

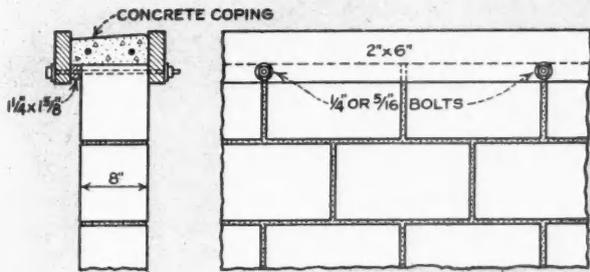
Best results achieved by giving two bevels to chisel edge.



Concrete Coping Forms

I AM enclosing drawing showing coping forms for casting concrete coping in place. We know this system works as we have just completed a job where it was used. The bolts should be laid in the vertical mortar joints when the wall is erected and before the mortar is set they should be rotated until loose enough so that there will be no trouble in removing them after coping is finished. The small holes left after bolts are removed can be pointed up with the same kind of mortar as used in building the wall. As noted, you will see how we prevented excess water from the concrete leaking down through the cracks between form and wall. A little careful attention to this item will prevent water stains that are very hard to remove after they are dry.

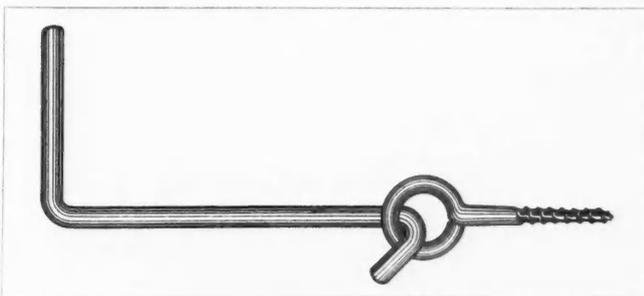
These forms were quickly erected and taken down, some of them being used three times. The bolts clamp the form pieces quite tightly against the faces of the wall. In case form pieces require lining up, it can be done by loosening bolt and wedging form to true line. On the above job we wished to prevent cement water from running through cracks between form and wall and thereby staining the faces of the tile wall. This was done by filling the cracks with lime and cement mortar such as was used in laying the tile, just before concrete was poured, and as soon as forms were removed the small "fins" were gently cut away which left a neat job, especially on the flush face.—FRANK M. HAMLIN, Hamlin Sons, Lake Villa, Ill.



Forms may be used several times; make good coping.

Screw Eye Twister

ON page 45 of your August number, you show a contrivance to turn in screw eyes. For years I have used something much simpler—a piece of wire about 1/8 inch in diameter, bent two ways as shown above. It simply hooks into a screw eye and turns it in like a crank handle. This is about 3 inches long and is easily carried in the hand, pocket or apron. There is no need to use a big bit brace for such simple work. I hope you can publish this in your next issue.—L. B. HARMON, Somerville, Mass.



Twisted wire turns screw eyes quickly and easily.

Cutting Opening in Brick

WHEN cutting openings in brick walls, I find this a quicker way of doing it. Using two eight-inch channel-irons for ten or twelve-foot openings, three-quarter holes are bored about 2 1/2 feet apart. Three rows of bricks are removed on one side and the channels set in, "flanges in."

Any loose brick above the channel are reset. Then the same is done on the opposite side, lining up the holes. Put three-

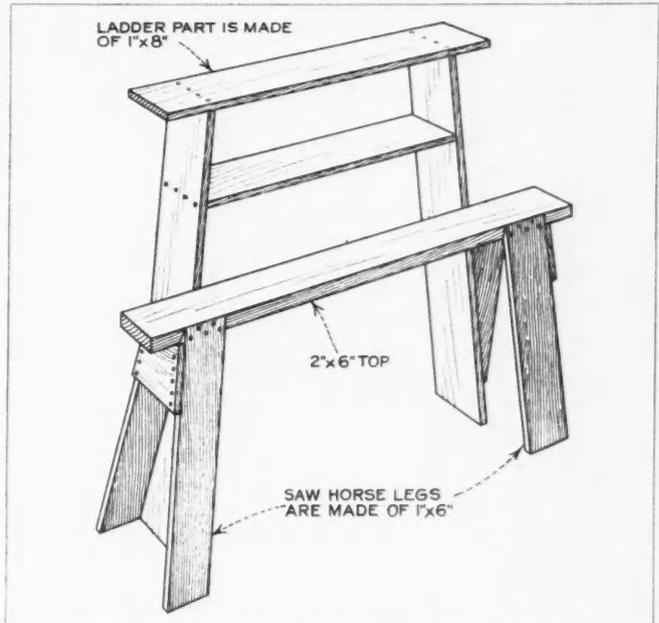
quarter-inch bolts in, pour a cement grout between the channels.

On 13-inch walls leave center course in. The brick below will act as a form; let set until the next day, draw up on bolts, then knock out brick below channel. I have used this method for some time, finding it very successful.—LEONARD J. SEECE, Vassar, Mich.

Ladder from Saw Horse

I AM sending in a drawing showing how I make a scaffold or ladder out of a saw horse which is easy to move about and is quick to build. By keeping the ladder side next to the wall or whatever you are working on, it will not turn over.

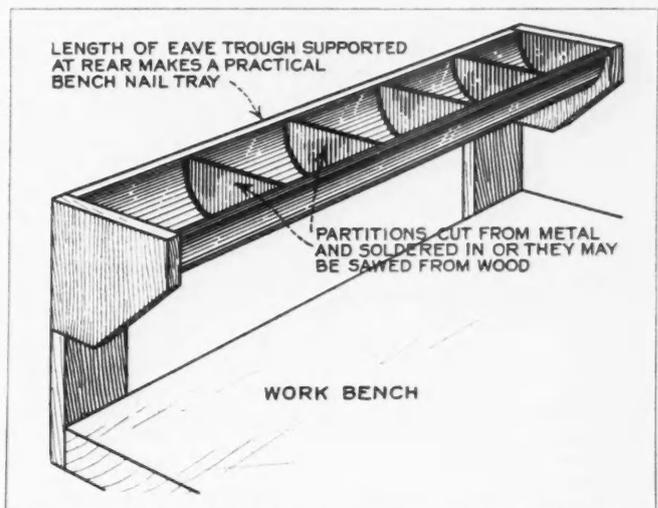
The saw horses I use are of 2x6 top with 1x6" legs. The ladder parts are of 1x8, any length up to four feet, and you can add as many steps as needed.—IRA H. BARCLAY, Winner, S. Dak.



Short ladder made out of saw horse is useful.

Tray for Bench

A LENGTH of ordinary eaves trough makes a handy nail tray when supported at the rear of the work bench as shown. Partitions may be sawed from wood or they may be cut from metal and soldered in. The curved bottoms of the compartments make the removal of nails or screws an easy matter. This isn't a new idea but it is practical and widely used.—LESTER P. YOUNG, Culver, Ind.



Metal eaves trough used for storage of nails and screws.

NEW PRODUCTS

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

Portland Cement Paint

PORTLAND cement paint is now made and stocked in ten attractive shades, in addition to white and black. It contains Portland cement combined with pigments ground in treated oils. The result is a paint with a film so hard that it carries all the virtues of cement, yet retains a high degree of elasticity. It produces a close grained, flat finish of cement-like texture.

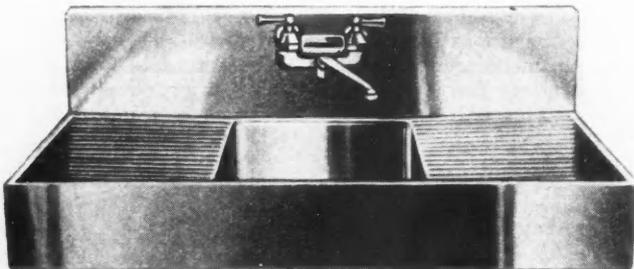
The new Portland cement paint is a heavy bodied paint, but it has the easy working and brushing qualities common to high grade oil paints. It dries flat, with a hard film that will not chip or crack, and it has unusual tenacity and hiding power. When applied to wood surfaces, it reduces fire hazard and prevents ignition of wood and other combustible building materials. This fire resistance is gained without sacrificing wearing or protective qualities.

This paint can be applied to new galvanized iron without the use of special priming coats or chemicals. As a protective coating for galvanized iron, it adheres firmly to the surface, and stands up under severe climatic conditions. It renews masonry surfaces. The hard drying finish preserves the surface and does not permit the absorption of moisture, dirt or dust, thereby preventing discoloration. It also beautifies and protects wood surfaces, and offers a fire retardant coating.

Custom-Made Metal Sinks

A NEW line of custom-made stainless metal residence sinks, which can be made according to the individual desires of architect, builder or owner to fit the space available in a particular kitchen, is now offered the home building industry.

These residence sinks are fabricated of extra heavy 14-gauge stainless metal with all welded construction, with all joints ground and polished, giving the fixture the appearance of being constructed of one piece of metal. These sinks have lifetime dura-



Stainless metal used in new custom-made sink.

bility, with a permanent satin-like finish, require minimum effort to keep clean. All horizontal and vertical corners are covered to a 3/4-inch radius, leaving no corners to accumulate grease or dirt, assuring sanitation.

The photograph shows one of the sinks for center installation, with high splash back, returned at the ends. This is turned back into the wall to allow proper space for concealing water pipes, making a complete and finished unit. The drain boards are ribbed and pitched to the sink basin to insure proper draining.

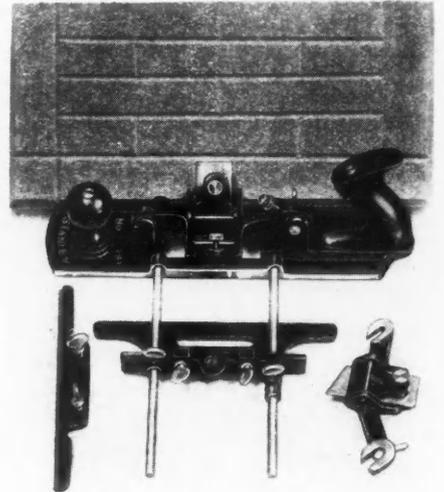
When installed in cabinets, the sinks often have the apron omitted to permit the cabinet to extend directly up to the underside of the sink rim. The back and end splash can be omitted or rearranged as the case may require. In a center installation no end splash is needed; in a corner installation only one end splash is necessary.

Fibre Board Cutter

A NEW tool that slits, bevels and grooves wall boards and fibre boards like Nu-Wood, Celotex, Masonite, etc., has just been brought out by a well known eastern tool maker.

This tool known as a fibre board cutter will appeal to every carpenter and lumber dealer. Cutting off or slitting fibre board with it is much easier and faster than sawing and it leaves smooth edges. In addition it can be used to bevel the edges, cut beveled edge battens, cut grooves, make decorative designs such as squares, bricks, parallel lines and similar patterns.

It is made of smooth, strong castings and is fitted with a rose-wood handle and knob. The cutters are made from special tool steel, correctly hardened and tempered to hold a keen cutting edge



New tool built for cutting and trimming fibre and wall boards.

and they can be resharpened and honed the same as a regular plane iron. Complete, easy-to-understand directions for using are packed with each tool. Full information will be sent on request.

Cushion-Grip Vise

DESIGNED as aids to the craftsman who takes pride in his work, a new vise and wrench that will hold any material without scratching, crushing, or injuring it has recently been placed on the market by a Michigan firm.

Each tool employs the principle of cushioning its grip on materials by the use of wood jaws which grip the full surface of the material. Jaws are interchangeable in vise and wrench and are made of standard 2 x 4 lumber. They are treated to prevent checking or shrinking, lock in position when pressure is applied, and release when lightly tapped.

The vise consists of a two-part malleable iron frame, a set of cushion jaws for standard size materials as ordered, and a screw yoke. The lower part of the frame forms the base, 5 inches by 10 inches, with one-half inch bolt holes for fastening in position. In one end of this base is pivoted the screw yoke and to the other is hinged the upper half of the frame. The method of operation is obvious. The wrench also has a two-part frame, but depends on a cam action for its grip. The handle is so placed with relation to the two halves of the frame that the greater the pressure applied on the handle, the tighter the material is gripped. It will not release from work until opened by the operator, yet takes a new hold with but little movement of the handle. Both tools open in a wide angle for easy clearance of materials and operate in any position. Jaws for clamping special irregular shaped materials are easily made with a saw and chisel, or they may be ordered from the factory.



Use of wood grips in vice protects surfaces.

Portable Electric Grinder

FOR rough, off-hand grinding, for touching off parts, tools and dies, and for varied grinding and sharpening jobs, a new high-speed portable electric tool is now available.

As the accompanying picture shows, the power grinder is compact, well-balanced and light, yet powerful, with stamina needed for all day long grinding. With a suitable grinding wheel or cutter inserted in the chuck, this tool works at any angle, getting into and around corners, into irregularly shaped holes and other



High speed grinder gets into irregularly shaped holes and hard to reach places.

hard-to-reach places. Grinding, polishing and cutting are accomplished with a minimum of time and labor.

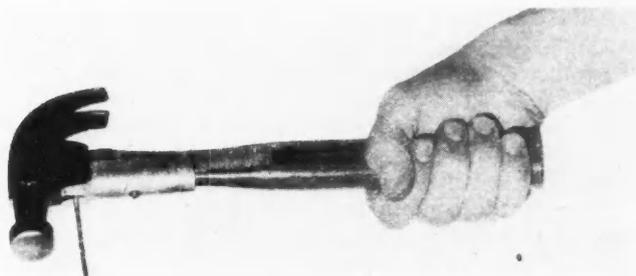
Three grinding wheels are furnished with the tool, and over 100 shapes and sizes of grinding wheels are available to meet practically every need, thus providing a multiple-service tool at a low one-tool cost.

Nail Holder for Hammer

A HAMMER attachment especially designed for difficult nailing is now on the market. This attachment consists of three simple parts: (1) the nailholder; (2) a spring; and (3) a wood-screw. (See picture of assembly.) Its greatest value lies in the fact that a nail can be entirely driven with only one hand, the other being free for other uses, such as support. In this way much needless stretching from the tops of ladders, chairs and tables is avoided with the desirable result of eliminating the possibility of bruised fingers, and many precarious moments when there is danger of support falling.

As the picture shows, a nail is inserted between the claws of the nail-holder and the hammer head, the latter temporarily replacing the ball of the head. After the first blow, which securely drives the nail at the desired point, the nail automatically slips from the holder and driving is completed with the ball of the hammer. This process simplifies considerably the process of nailing at more or less inaccessible points.

The entire assembly weighs only a few ounces and is approximately 3/4 inches long. For further details write the AMERICAN BUILDER.



New grip helps carpenter reach difficult spots when nailing.

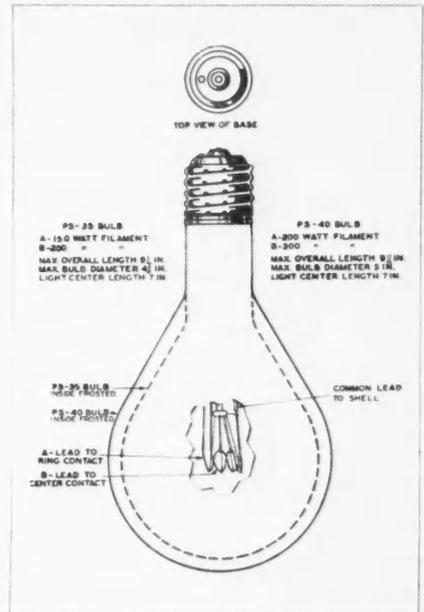
Two-Filament Lamp

A REVOLUTIONARY new electric lamp that provides three different levels of illumination from a single bulb, thereby affording a flexibility in general lighting never before possible, has been announced. The lamp contains two filaments, each of which may be burned either singly or in combination with the other. At present it is being made in two sizes; one containing 150- and 200-watt filaments, and the other, 200- and 300-watt filaments. The smaller size combination employs the same size bulb as is used in the regular 300-watt lamp, and the larger size combination uses the same size bulb as does the regular 500-watt lamp.

Each of these lamps is equipped with a mogul screw base which has an additional center contact in order to permit separate control of each filament.

The new lamp will find its first application in the field of commercial lighting particularly the small and medium-sized stores which have definite peaks and low points. During the slack period, many stores desire to have their lighting systems turned on as an indication that they are open for business, but the lighting requirements are not particularly exacting. For the active business periods the majority of these stores might well use considerably more illumination than they have at present. It will be possible to use the lower wattage filament alone for minimum requirements, the higher wattage filament for average requirements, and the two together to supply the high level illumination needed for active shopping periods.

There are two wiring methods which may be used in installing the new lamps: (1) to run a third wire from the lighting unit to the wall switch, thereby controlling both filaments from the wall; (2), to locate a canopy switch on the ceiling at each fixture.



Two filaments in new bulb provide three intensities of light.

New Screen Metal

MANUFACTURERS of wire cloth have begun the production of a new type of screen for household purposes, which, it is indicated by laboratory and service tests, will resist discoloration and corrosion. It requires no paint and practically eliminates upkeep and maintenance cost.

The screen is made of a new alloy containing approximately 80 per cent pure nickel, 12 to 14 per cent chromium, and about 6 per cent iron. Originally developed for use in the construction of certain items of dairy equipment exposed to the corrosive action of lactic acid and brine, it has been found to be almost entirely proof against staining, corrosion, or other deterioration from atmospheric conditions. It is silvery white in color and when drawn into wire it possesses tensile strength more than sufficient for the requirements of wire fabric.

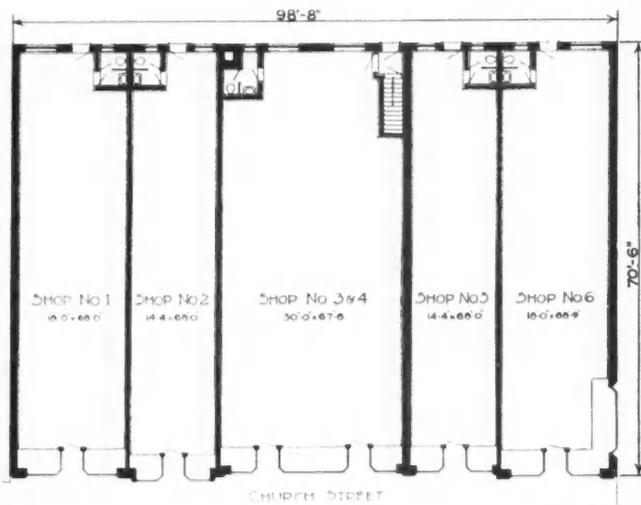
Samples of screening made of the new metal alloy have been exposed to salt water atmosphere and industrial chemical discharges on Staten Island, New York, since July 31, 1931. These samples to date show no trace of discoloration, no corrosion, and no leaching. With practically the same results it has been exposed to salt water spray at Barnegat, N. J.; to fume-laden air in Pittsburgh, next to the Pennsylvania Railroad, and on a porch overlooking the Baltimore and Ohio Railroad Yards also on Staten Island.



VIEW OF NEW TUDOR SHOPS BUILDING, Evanston, Ill., designed by Maher & McGrew, Architects.

Fully Rented Before Completion

New Shop Building Air-Conditioned,
Attractively Styled, Proves Profitable



FLOOR PLAN of the Tudor Shops Building, showing size of shops and window arrangement which proved so successful.

BUILDINGS that are properly designed, properly placed, and equipped with the latest the construction industry has to offer can be erected profitably and rented satisfactorily, the experience of Smart & Golee, Evanston realtors, shows.

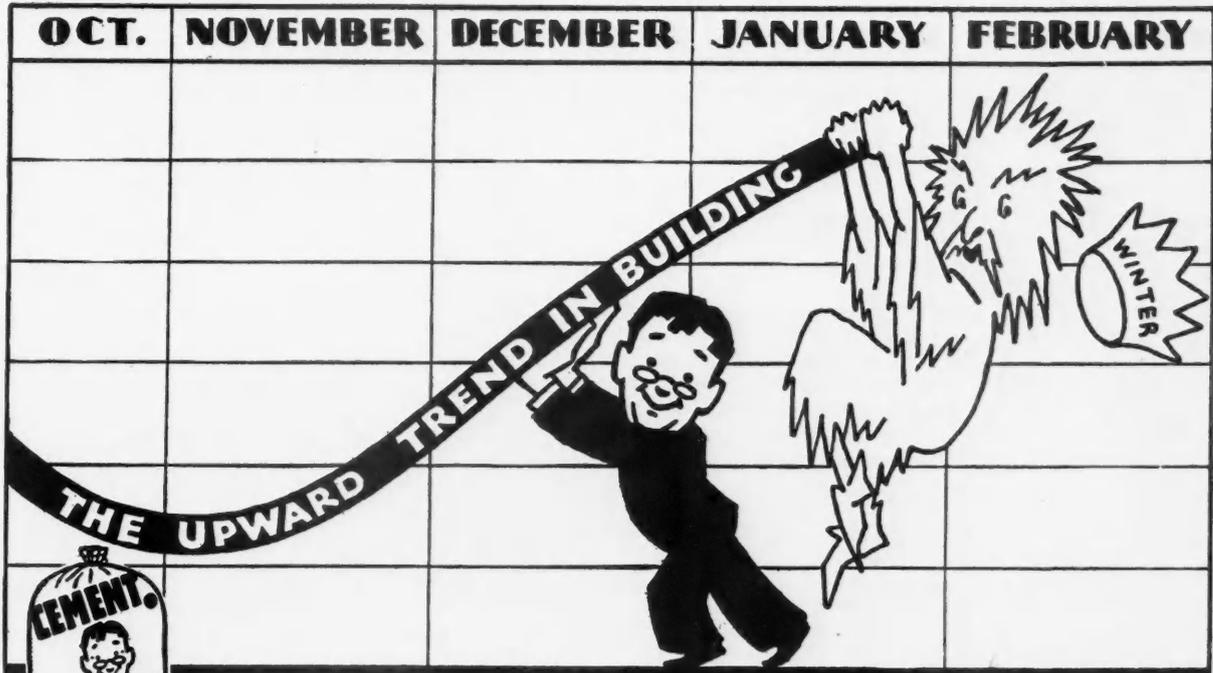
This firm just completed a smartly attractive shop and store building at Evanston, Ill., which was rented at attractive figures sixty days before it was completed.

"Shortly after the bank moratorium," says Mr. Golee, "figures were taken for a one-story building as shown on the accompanying plan and photograph. A one-story building was decided upon because second and third floor space is not in demand.

"As soon as ground was broken, inquiries started to pour in from brokers and prospective tenants and it remained only to select those who, in the opinion of the agents, would be most likely to succeed. Two stores having a floor area of 2100 square feet were leased to Tatman, Inc., one of the largest dealers in china and glassware in this country. A similar place was leased to Blum's, Inc., which firm has been a leader in the sale of women's apparel in Chicago for more than twenty years. A small store being 14 x 50 was leased to Cushman Shoe Stores, Inc., who operate a chain of shoe stores. Another store 18 x 70 was leased to Fine & Bernstein for ladies' wearing apparel.

"Due to the conditions of the renting market during the past three years, the owners decided to install a complete air conditioning system. There is no doubt that this system proved to be one of the deciding factors in the tenants selecting this building over other properties."

He'll help you beat that winter slump



The Cement Service Man is eager to go to work for you. Ask him for his aids that will help you make more sales and make 'em faster.

This year, of all years, selling—and still more selling—is the cue to speeding up Recovery *in your shop*: it's the building industry's big opportunity to beat that dreaded winter slack.

Dollars are beginning to loosen up. People are wanting, as they've never wanted before, a host of indoor improvements. Repairs are past due.

Here's a growing demand that can be converted into jobs with a little sales pressure. Now is the time to sell.

- Sell* basement repairs
- Sell* recreation rooms in basement or attic
- Sell* new plaster for those cracked walls
- Sell* bathroom improvement
- Sell* garage floors

We'll help you. Write the Cement Service Man today for samples of the literature, the mailing pieces, the advertisements that are ready to help you sell more people and sell them sooner.

PORTLAND CEMENT ASSOCIATION

ROOM 1511—33 W. GRAND AVENUE - CHICAGO, ILLINOIS

This Ad in your newspaper will help bring you business



IN YOUR BASEMENT?

You don't have to put up with the discomfort of flooded basements. A little inexpensive concrete work done now, when prices are low, may be all that's needed to make your basement dry, clean, and sanitary. We'll be glad to inspect your basement and quote prices for needed repairs.

CONTRACTOR'S NAME
Address
TELEPHONE

DO IT NOW!
WE WORK ALL WINTER

Write today for examples of the special advertisements prepared for contractors. There's a new series on winter work—just out.

NEWS—building activities of the month

September Home Building Shows 20.8% Increase Over August

HOME BUILDING has shown increases the past five months which culminated in September with an increase of 27.7 per cent in indicated expenditures over September last year.

The U. S. Bureau of Labor Statistics reports for 764 cities having a population of 10,000 or over also show a 20.8 per cent increase in expenditures for residential building in September over August this year. This is significant because building economists point out an increase in fall building is usually followed by greater activity the next spring.

F. W. Dodge Corporation reports for the month of September are equally encouraging. They state that September construction contracts in 37 states covered by the reports amounted to \$122,615,700, a gain of almost 16 per cent over the August, 1933 total of \$106,131,100 and but slightly below the September, 1932 total of \$127,526,700. This is the first month in which the 1933 construction total practically equalled the corresponding month of 1932.

Residential building in 37 Eastern states during September amounted to \$23,889,300 as compared with \$21,937,000 for August and \$22,803,900 for September, 1932.

Of further significance was the total of new construction projects contemplated. Since last March there has been a continued and rapid increase in new work planned. The September total amounting to \$846,726,700 represented the largest monthly total since April, 1930. This is a most favorable augury pointing toward continued construction improvement. The territories in which the largest gain occurred included the Southeastern States, Chicago Territory, Southern Michigan, St. Louis Territory, Kansas City Territory, New Orleans Territory and Texas.

Adolph Pfund Appointed Manager

WITH the official approval of the Code of Fair Competition for Retail Dealers in Lumber, the Lumber Institute of Allegheny County, covering Pittsburgh and surrounding area, has organized on new lines. Adolph Pfund, formerly secretary-manager of the National Retail Lumber Dealers Association, has been appointed managing director of the Institute with offices at 409 Flannery Building, Pittsburgh.

Mr. Pfund brings with him to this new field of work under the NRA set-up a long experience in organization work, first as secretary of the Wisconsin Retail Lumbermen's Association from 1913 to 1917; then as secretary of the Northwestern Lumbermen's Association from 1917 to 1921 and thereupon as secretary-manager of the National Association from 1921 to 1933. The new activities of the Lumber Institute of Allegheny County were inaugurated with a meeting on Oct. 10 registering almost a one hundred per cent attendance of dealers in the Pittsburgh



Pneumatic tired wheel barrows are being used for the first time in construction of the Field building, Chicago. Eastholm-Melwin, concrete contractors, says they eliminate laying planking over tile floors.

area. On this occasion Elmer A. Diebold, chairman of the board of the Institute, E. Bruce Hill, chairman of the Executive Committee, and Manager Pfund addressed the assemblage outlining the proposed organization activities.

Gibbons' NRA Broadcasts Extended

FLOYD GIBBONS' up-to-the-minute NRA news and graphic interpretations of the recovery campaign will continue for another three weeks. The series of Monday evening broadcasts, originally scheduled to end October 23, has been extended through November 13 by the Johns-Manville Corporation, sponsor of the program.

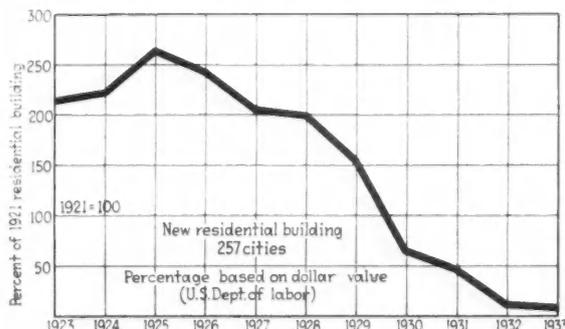
The headline hunter is heard at 8:30 P. M. (EST) on a WEAf-NBC network, with Victor Young and his Blue Eagle orchestra as guest conductor on a half-hour program.

Gibbons has been acting as war correspondent of the campaign against depression, aided by NRA leaders in Washington to supply him with telegraphic "communiques" giving the latest news. Another section of his broadcast deals particularly with the "home front" and the opportunities for giving employment through repairs and modernization of the home.

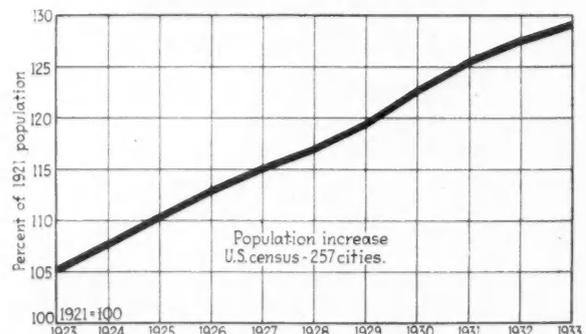
The decision to continue the series was reached after a telegraphic poll of Johns-Manville dealers and district agents had shown an overwhelming demand for continuance.

(Continued to page 50)

House Supply on Decrease



Population Continues Increase



The U. S. Bureau of Labor Statistics for 257 cities of 25,000 population or over (representing 45,000,000 people) show the building and population trends pictured above. Home building in 1933 is running about 8 per cent of 1921. Population continues to increase, and at the end of 1932 the index number stood at 127.5 as compared with the 1921 base of 100.

EFFECTIVE INSULATION IN A NEW, ECONOMICAL FORM!

An average 7-room
House can be
insulated for as little as

\$54

with Reynolds Metallation ★



REYNOLDS METALLATION uses an entirely new insulation principle—reflection. Its polished surface turns back 95% of all radiated heat that strikes it, making the house much warmer in winter and cooler in summer.

High cost is one thing that has retarded the use of insulation in home building. Today, with Reynolds Metallation, high cost is no longer the problem. An average 7-room house can be provided with this entirely new and different and extremely efficient type of insulation for as little as \$54.

Reynolds Metallation consists of polished sheet aluminum cemented to one or both sides of heavy kraft paper. It is not only a uniquely efficient insulation, but is wind-proofing,

★*Metallation is the trade-name for a highly polished sheet of aluminum made only by the Reynolds Metals Company, Inc.*

moisture-proofing, vermin-proofing, and fire-resisting. Combines in one thin, light, easily handled sheet all the vital essentials of home insulation and protection.

Send for samples, price lists and booklets. The insulation of the future is Metallation, available *today* to make all new homes truly modern.

REYNOLDS METALLATION★

Made in three types, for applications between or against framing members (studs, joists, rafters) or over sheathing and rough flooring. Type "A" provides insulation equivalent to 1 1/4 inches of cork, 20 inches of brick or 40 inches of concrete. Type "C" provides insulation equivalent to 3/4 inch of cork, 12 inches of brick or 20 inches of concrete. An entirely new and unique material that brings efficient insulation within reach of all new homes.

REYNOLDS METALS COMPANY, INC., 19 RECTOR STREET, NEW YORK CITY

GET ONE OF THESE WITH YOUR AMERICAN BUILDER



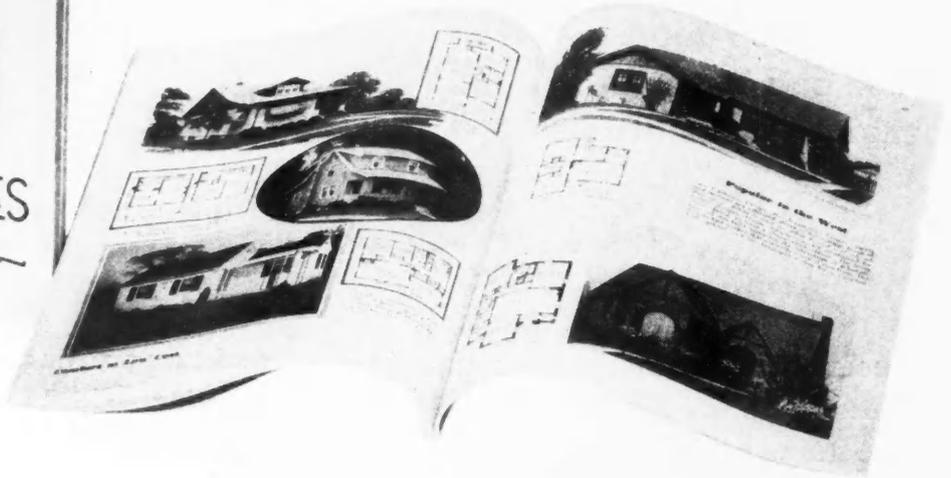
SMALL HOMES OF CHARM contains more than 75 designs of popular low-cost homes; printed on good stock; has an attractive paper cover; size 8½ x 11½—eight pages of colored art inserts. Sent free with a regular paid up subscription

Small Homes of Charm

A collection under one cover of more than 75 small homes—the very last word in small house design—the pick of the work of leading architects and design agencies—attractively bound—divided into six sections for quick reference. Contains one or more examples of the principal styles of domestic architecture with floor plans—six complete working plans—details of good construction—home garages—suggestions for arrangement of modern bathrooms, kitchens, basements, etc. The most practical design reference book published in recent years. **AND AT NO EXTRA COST WHATSOEVER BEYOND THE REGULAR ONE, TWO OR THREE YEAR SUBSCRIPTION PRICE.**

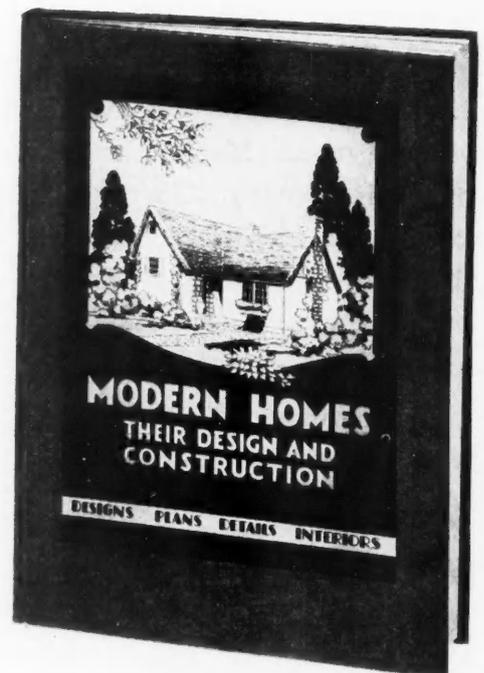
A CHOICE OF TWO FINE DESIGN BOOKS

of popular low-cost homes
TO HELP YOU SELL



Modern Homes

A beautiful, elaborately illustrated book of 272 pages showing 122 home designs in 12 leading PERIOD STYLES—complete with all interior furnishings and interior detail. There are 85 exterior and 79 interior views; 181 illustrations of fittings and furnishings. In addition there are more than 50 pages of specifications; details of good construction in lumber, brick, steel and stone; heating, plumbing, electrical work and painting. This book is a wonderful aid as a reference medium—a real credit to any office or home library. **AND AT JUST 50c BEYOND THE REGULAR ONE, TWO, OR THREE YEAR SUBSCRIPTION PRICE.**



MODERN HOMES, THEIR DESIGN AND CONSTRUCTION, a handsome, attractive book—printed on heavy coated stock—cloth bound—size 9¼ x 12¼—10 or more designs of each of 12 leading Period Styles—sent for just 50c more than the regular paid up subscription

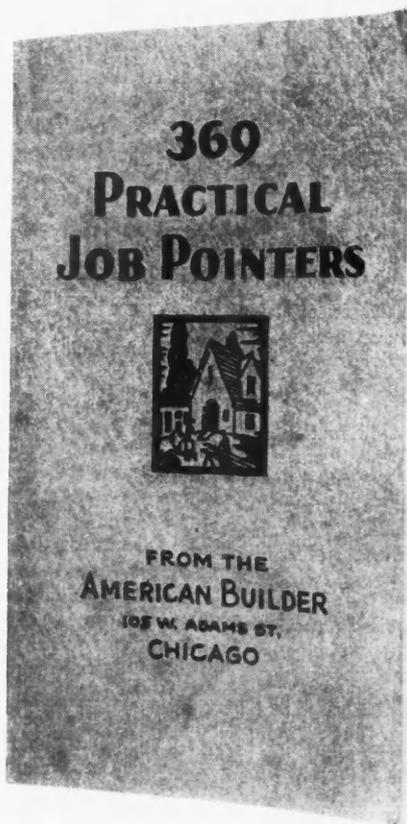
VERY USEFUL BOOKS NEW OR RENEWAL SUBSCRIPTION

OR A PRACTICAL JOB POINTERS MANUAL TO HELP YOU CUT COSTS ON THE JOB

369 Job Pointers

A collection of some of the best of the kinks, tricks, and ideas published during the past few years in the JOB POINTERS DEPARTMENT of the AMERICAN BUILDER. Practical men, scores of them, from every section of the country have made this book possible. Architects, contractors, dealers, carpenters, superintendents, shop foremen, cabinet makers, and other construction minded men have all made useful contributions.

There are 76 pages devoted to ingenious methods on "HOW TO DO IT"; 66 pages of "CLEVER TOOLS AND DEVICES" which can be made by any craftsman; 54 pages of "DETAILS OF CONSTRUCTION AND RECOMMENDED IDEAS." All carefully indexed to assist the user in locating the answer to some problem or construction kink that is bothering him. No laborious study required to solve any of these POINTERS. They are all based on actual experience in the building field.



369 JOB POINTERS, handy pocket size 4½ x 8½; has attractive heavy paper cover—printed on good stock—fully illustrated

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NEWS OF THE MONTH

(Continued from page 46)

U. S. Asked To Loan Billion To Finance Small Home Building

A PLAN under which the R. F. C. or the Public Works Administration or both would loan a billion dollars for the first mortgage financing of new, low cost homes, taking over 300,000 houses as security, was outlined in Cleveland Oct. 9 before the opening session of a two-day meeting of home builders and land developers.

Don A. Loftus, president of the Permanesque Homes of America, Inc., with offices in 62 cities, chairman of the national committee of builders and developers, presented the plan for the immediate financing of the 300,000 homes in 1,000 cities where he stated construction is delayed only because of the lack of first mortgage money.

The building of these homes would mean direct employment to more than 2,000,000 building trades workers, a total direct and indirect pay roll of nearly \$1,000,000,000 in the next twelve months and would give an enormous impetus to the railroad and transportation companies. The homes would all be in the \$5,000 class or under.

A resolution was adopted and sent to President Roosevelt asking a billion dollars from the R. F. C. for conservative loans, from unallocated appropriations, to builders and developers who have good, improved residential tracts in areas throughout the country.

The 300,000 homes for which the public has made application, according to Mr. Loftus, represents only 60 per cent of our normal annual residential building program. He described what this campaign would mean in the rehabilitation of the entire country, translating 300,000 structures into jobs and money. He said:

"There is a housing shortage of 1,350,000 structures right now. Home builders throughout the nation have definite orders in their offices from families that want new homes and have the customary amounts to spend. All in the world that is stopping a perfectly gigantic revival in this key industry is the lack of first mortgage financing—and plenty of money for that has already been appropriated in Washington.

"With six billions of dollars unallocated in the R. F. C., the P. W. A., and other appropriations, it is reasonable for this industry to ask that the government do for it at least a part of what it has done to aid other industries, with this industry ready to do in return for the country what the railroads and the banks could never do.

"We have our orders for new homes and we can get many, many more. We own the land, thousands of acres of improved real estate, all ready for these homes.

"If we can get \$1,000,000,000 for this program, we can put 2,134,228 men directly to work building these homes. A quarter of a million more men would be used in transporting and distributing materials."

A poll of the cities represented at the meeting showed a total of \$268,250,000 wanted immediately in twenty-seven cities to finance construction of new moderately priced dwellings for which orders are said to be on hand.

AGC Will Urge Winter Work

ELIMINATION of the traditional winter lag in both private and public construction, so that employment upon the \$3,300,000,000 national construction program will not be interrupted but steadily gain impetus, will be one of the major objectives of the Fall meeting of the governing and advisory boards of the Associated General Contractors of America, to be held November 13 and 14, at the Willard Hotel, Washington, D. C.

Urgent representations will be made to the Public Works Administration advocating the launching of construction projects at an accelerated speed regardless of the seasonal tradition and pointing out the tragic and unnecessary waste of man power and wage earning resulting from seasonal operations, Edward J. Harding, managing director of the Association, states.

"Investigations by the industry and by the Government, itself, have shown that the winter lag in construction is almost wholly

a matter of tradition," Harding said. "With the national unemployment situation still unrelieved to any appreciable extent and with the certainty of more acute suffering as winter approaches, there can be no justification for holding back until Spring the great majority of the projects contemplated."

Leaders in the industry believe, he said, that the Government can perform a valuable service by demonstrating upon a large scale that most types of construction can be economically launched at any season of the year, thereby eliminating the drastic seasonal fluctuations in employment that are typical of the industry even in normal times.

Foreclosures on Homes Decrease

A DECREASE nationally in real estate foreclosures of 9.2 per cent in September, as compared with August, was announced Oct. 18 by the Division of Research and Statistics of the Federal Home Loan Bank Board and Home Owners' Loan Corporation, which made public an analysis of reports from 1,037 communities that include 54.1 per cent of the population of the United States.

The 1,037 communities reporting, which in most instances are counties, reported 16,161 foreclosures in September as compared with 17,802 in August, and 20,067 in June. In September, 1932 the number of foreclosures in these identical communities totaled 19,696. The decrease in the number of foreclosures in September reported by these communities was 19.5 per cent as compared with June of this year, when the number of foreclosures reached the highest volume of any month on record.

Foreclosures in the communities covered by this survey were 17 per cent lower in September of this year as compared with September, 1932. The decline in foreclosures is general throughout the United States, as evidenced by the fact that decreases in September as compared with August were reported from 34 states.

It was stated also that the reports showed that 51,730 individual applications for mortgage loans from the Corporation, to a total figure of \$149,114,877 had been tentatively approved by the 257 branch and state offices of the organization in the 48 states and the District of Columbia.

A total of 537 loans with dollar volume of \$1,515,592, had been completely paid out on Oct. 6 and the respective transactions closed on the Corporation's books. Many thousands of other applications received by the offices are being acted upon, in process through the initial steps of appraisal and negotiation.

Of the total of 51,730 approvals reported, 1,774 have been approved with a reduction of the initial mortgage. This figure is in contrast to the figure of 49,956 homes in the approved status on which no reduction of the principal of the mortgage was necessary in connection with the refunding operation.

A total of 7,626 applications to a dollar volume of \$45,168,183 had been rejected before appraisal as ineligible under the Act, it was announced, and 1,887 properties, to a dollar volume of \$1,301,770, had been similarly rejected after appraisal. Of the loans in the "paid out" status, a total of 514 to a dollar volume of \$1,515,592 were made in the form of the 18-year 4 per cent bonds of the Corporation, on which interest is guaranteed by the United States Government. The figure represents 95.7 per cent of the transactions in the "paid out" status, the bonds being taken by the former holder of the mortgage and a new mortgage on the property being written between the Corporation and the home owner.

C. C. C. Helps Building

AN estimate was made public Oct. 8 by Wilson Compton, who has been co-operating with Robert Fechner, director of the Emergency Conservation Work, that approximately \$25,000,000 will be expended within sixty days on building materials and labor in providing the 1466 Civilian Conservation Camps with suitable winter quarters. In addition to 250,000,000 or 300,000,000 feet of lumber, there will be an enormous quantity of millwork. There will, for instance, be approximately 26,000 doors and 175,000 windows in these camps. The doors alone will require seven miles of a single variety of moulding strip. While the lumber and millwork will cost around \$10,000,000, fully as much more will be expended on other accessory materials, equipment and labor. It is calculated that about 45,000 carpenters, other skilled workmen and common laborers will be employed.

Purchases are being made through the Quartermaster at each Army Corps Area headquarters.

Slum Clearance Corporation

A HUGE federal slum clearance corporation, similar to that set up by the Federal Relief Administration, probably will be formed under the Public Works Administration, Secretary Ickes announced recently.

This corporation, the extent of whose operations is still being worked out, would be designed to buy or acquire by right of eminent domain slum areas in cities throughout the country, including Washington. Upon these properties it would build modern housing units which could be either sold or leased by the federal corporation to tenants.

While it has not been definitely decided to form the corporation, Ickes indicated it probably would be formed, and that large sums of public works money would be spent in this manner.

Hard Board Patents Upheld

RECOGNIZING the validity of Masonite Corporation's patent in the manufacture of hard boards, an agreement has been reached between Masonite Corporation and the Celotex Company, under which Masonite will manufacture hard board and hard board products for distribution by the Celotex Company under the latter's trade name, James P. Gillies, vice president and general manager of Masonite Corporation has announced. Mr. Gillies said that this would materially supplement the present production of the Masonite plant. Negotiations for similar agency agreements with other companies are now under way.

San Francisco Apartments

APPROVAL of a tentative allocation of \$3,230,000 to the Roosevelt Terrace Housing Development for a low cost housing project in San Francisco has been announced by Harold L. Ickes, Administrator of Public Works.

This project is to be built on a site of approximately 19.5 acres, ideally located for low cost housing. The Limited Dividend Corporation is headed by Henry E. Monroe and has on its board of directors W. H. McCarthy, Postmaster, Alfred G. Swinerton, Atholl McBean, Edward H. Heller and other prominent citizens of San Francisco.

This project will provide approximately 886 apartments, totaling 3,048 rooms, which will rent at an average of \$11.00 per room. The project is composed mainly of four-story walk-up apartment buildings grouped around a court which is dominated by a central six-story elevator building, all of fireproof construction. The percentage of land coverage is approximately 28 per cent of the site. Work can be started on this project in about 30 days and will give employment to approximately 1,200 men directly on the job for a year, while as many additional men will be employed in the manufacture of materials.

Stainless Steel Sheets

THE American Rolling Mill Company, Middletown, Ohio, will manufacture and distribute stainless steel sheets, strips and plates, according to an announcement by W. W. Sebald, vice president of the Company. For some time it has been known that experimental work on stainless steel alloys was in process in Armco plants and that special stainless production equipment was being designed and built. Armco plants have been producing stainless steel sheets, strips and plates for some months for the account of the Rustless Iron Corporation.

Chase Acquires Erskine

THE Chase Brass and Copper Company, Waterbury, Conn., and the Erskine Copper Radiator Corporation, have been consolidated and the Erskine business established as a division of the Chase Brass & Copper Co., it was recently announced. For the past two years Chase has been manufacturing for the Erskine Copper Radiator Corporation of New York copper radiators, humidifiers, electric radiators, and copper hot water heaters.

The purchase of the Erskine business by Chase is a logical absorption, as both companies manufacture allied products for the building industry which sell through architects, heating engineers and plumbers.

General office for Erskine Radiator division will be at Waterbury, Conn., and will be under the supervision of Mr. H. F. Hutzler, Manager. Officials of the Chase Brass and Copper Co. are F. S. Chase, president; R. L. Coe, vice president; E. F. Copp, general manager of manufacturing.

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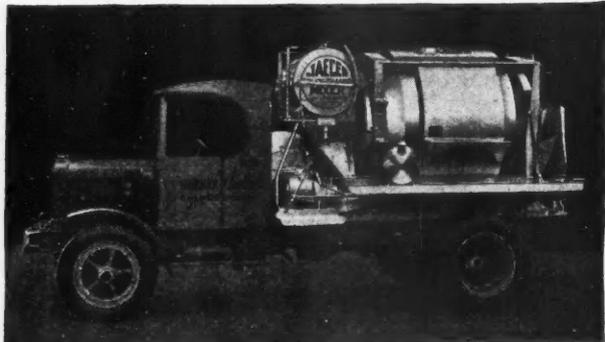
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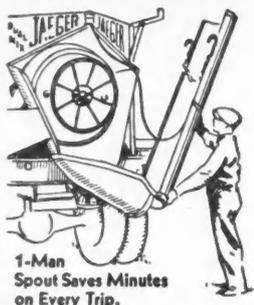
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LETTERS From Our Readers

Color Schemes Bring Paint Business

To the Editor:

Baltimore, Md.

Here is something we have worked on for the past 3 years and I believe this alone is responsible for many paint and repair orders. In conjunction with our new work we run a repair department for painting, alterations, etc., and three years ago we decided to make our work look "different." When we received a paint order we sent out an experienced old man, one with nice judgment, to look over the job. If the house was one of a row we had him list the painting for three houses each side—thus—red brick with white striping and oak wood work. With this before us and his suggestion for our work we could always assemble the material quickly. On suburban work we have him list the color schemes for a block on both sides. With this knowledge we are always able to do a job just a little bit better than anyone else, at no additional expense to our customer—this forethought has been profitable. The old man's salary has been covered by a saving of time among the painters debating what colors to put on. Our work has begun to possess individuality which is bringing in real profits.—E. BRENTON, 2229 Eutaw Place.

Proposes Building Underwriters Board

To the Editor:

Philadelphia, Pa.

Government supervision over speculative building may remedy the evils of the "jerry builder." How can we bring about a regulation which will give confidence to the future reconstruction, especially in the small home?

With the "New Deal" in banking regulations, a similar movement could be attached to building regulations. A National Building Code has been advocated for many years by the various technical societies. I propose A National Building Underwriters Board, very similar to the present Fire Underwriters Board, which was organized in 1897 by the Fire Insurance Companies in co-operation with the technical societies and allied trades. With the large insurance companies sponsoring such a movement, the difficulty of united action of the allied trades may be more easily accomplished. Some protection should be provided to the home purchaser and mortgage investor in our future building. Some assurance should be accurately certified to bring quality of materials and workmanship, better design, durability against weather, climate, fire, shrinkage, wear and tear and obsolescence, into the construction of the small house.

Classification of the construction, routine inspection as work progresses, required by law, would enable the Building Underwriters Board to issue a certificate setting forth in detail the quality of construction entering the respective home. Penalties for poor construction would reduce the amount of mortgage granted and the builder would be encouraged to include sound construction, rather than cover up poor construction with the usual gadgets and veneer of good looks. New gadgets and innovations are highly advertised and the builder is required by the sway of public opinion and demand to include them in order to be successful and still remain under the price demand.

The conscientious speculative builder cannot compete with the jerry builder, and unless the merits of good sound construction are under national control, the evils of the past will continue.—HAROLD P. MUELLER, Builder.

Who Can Diagnose This One?

Far Rockaway, N. Y.

To the Editor:

I have just finished stuccoing my house and find underneath the windows a greenish stain, evidently from copper screening.

Can you let me know what to do to remedy this condition?—JOSEPH NOLAN, with Mullan Construction Corp.

Good the World Around

To the Editor:

Buitenzorg, Java.

Your article, "A Marketing Plan That Follows Through" has expressed the very needs of the building industry in my country. I have studied the article with great interest and am convinced that if your five planks are worked out in practice, our building industry will see better days.

I cannot as a reader but feel thankful for an article so expressive of our needs and so stimulating and certainly of great monetary value. THE AMERICAN BUILDER is an asset in my business. For just a subscription fee, I get new ideas and new methods which might have cost you lots of time, money and energy.

In previous issues of AMERICAN BUILDER, I have also noted with deep interest the development in home financing. We have not made such a stride in the matter of financing as you have. But the signs are indicating that we are nearing it.

TAN BOCK SENG

Wants Practical Basement Ideas

To the Editor:

Ossining, New York.

I have been a subscriber and a reader of your magazine for a number of years and of late I have looked through the magazine at the different plans and suggestions for alterations, etc.; but as yet you have not published anything in the way of finishing off cellars so they may be used as an extra room. I have noticed a few pictures placed in your magazine by manufacturers of different materials. They fail to take the real facts into consideration; they never show any pipes such as heater, gas, water and sewer, etc. I have never seen any suggestions on how to cover up a stone wall foundation or how to treat a rough concrete floor. Of course it must be considered that the expense of this type of job must be kept very low.

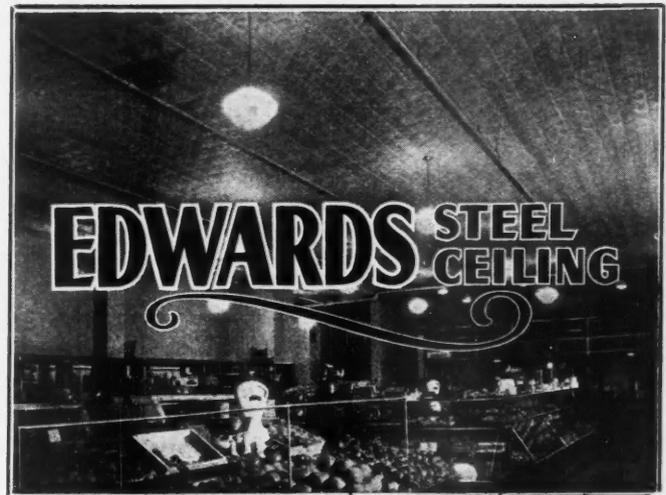
If you have any information on these lines I would be very much pleased to see it in a future publication.—W. S. SMITH with Westchester Heavy Hardware Co., Inc.

New Ideas in Light and Power

(Continued from page 17)

the continuous plug-in strip that extends along the entire work table space. This provides a convenience outlet for every foot of length. Electric equipment includes the range, refrigerator, dish washer, food mixer, waffle iron, griddle, bottle warmer, egg cooker, toaster, ventilating fan, water kettle, clock, percolator, midget clothes washer, and the fuseless meter entrance switch panel shown immediately above the cradle telephone.

Wiring and Outlets—Built-in illumination calls for planning on the part of the contractor and a more extensive knowledge of wiring and electrical control. While the technical installation of the work is in the hands of the electrical subcontractor, the ultimate control is in the hands of the general contractor or builder who is in a position to advise the home owner and point out wiring and electrical needs. A new development shown at the Fair is the continuous plug-in strip which may be used in any room of the house. It makes possible the maximum use of the many electrical appliances that now play such an important part in the modern home. Another important feature is the fuseless load center or meter switch panel pictured in the model kitchen above the desk and telephone. All electrical equipment for the house centers in this panel and is practically automatic. The old fuses that were blown out periodically have been done away with, and replaced by a new device which automatically breaks the circuit when there is an overload. The circuit is re-established by simply throwing a switch. The radio, the home movie projector and the hundreds of new electrical appliances and equipment call for a completely wired home with numerous convenience outlets. The building industry has already made great progress in changing the habits of the past where one outlet in a room was considered enough. The builder can do much in today's market to see that the homes of the present are scientifically and safely wired to handle increased electrical needs.



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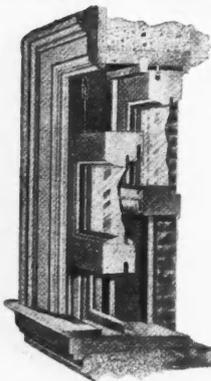
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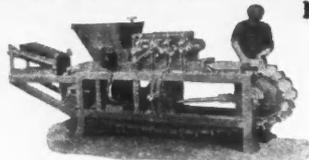


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All-Season Comfort

(Continued from page 30)

The children's room between the living room and kitchen is a place where the children can play or have their food without disturbing the rest of the family. This room may also be used as a breakfast room or a study when the children have outgrown it.

The kitchen—The kitchen is compact, very efficiently planned in an "L" shape with one arm devoted to cooking and one to the serving of meals so that two persons can work freely. Work area and sink are of monel metal. Metal cabinets are installed. An unusual feature is the coal-burning cooking stove which is heavily insulated to conserve heat, burns pea size coal which the Reading engineers state can be supplied at a cost of about 3 cents per day.

Second floor plan—a glance at the layout of the second floor of Tomorrow's House shows how thoroughly the requirements of pleasant living have been considered. Sliding doors on the closets save space. Each bedroom has access to a bathroom without use of a hall. The master's bedroom is very spacious, and the dressing room opening from it is very desirable with its wash stand for the housewife and built-in closets and drawer space. The children's room is located so that the maid will be near should the owners be out for the evening.

General features—Housekeeping expenses in Tomorrow's House are reduced because all the air is washed frequently and the dirt removed. Windows do not need to be open, so that street dust is eliminated. No dirt comes from the furnace. Hangings and furnishings last longer and need less cleaning. Electric lighting, except in work spaces, is almost entirely done by table or floor lamps as the architect feels that permanent decorative fixtures rarely have a distinction of design that will stand the test of years. Telephone and radio outlets, call bells and burglar lights are carefully located.

Precast Joists Make Low-Cost Floors

(Continued from page 36)

factured in advance, they are quickly set in place after delivered to the job. Time required for the building of forms is eliminated. For an average size concrete floor of about 2100 square feet, the following erection schedule is typical:

	Man Hours	Total Elapsed Time-Days
Placing Grade Beams	6	1/4
Placing Joists	38	1 3/4
Setting Spreaders	4	
Laying Slab Forms	46	2
Placing Slab Reinforcement	2	
Mixing and Placing Concrete Slab	56	1
Total	152	5
Removing Slab Forms	16	1

(6 days after concrete is placed)

Economy—Schlueter concrete floors are low in cost because the use of precast beam and joist sections eliminates the most expensive part of the form work required for monolithic concrete. The simple forms required for the slab are easily and quickly placed. Loss of form material, a substantial item where forms are built for monolithic concrete, is almost entirely eliminated.

Typical Costs for Schlueter type concrete floors are about as follows:

	Cost per square foot
Concrete Joists, 4"x6", 32" spacing	.069c
Setting Concrete Joists, Labor	.0125c
No charge for use of Spreaders	
Setting Spreaders, Labor	.001c
*Charge for use of Slab Form Lumber	.0125c
Laying Slab Forms	.019c
Slab Reinforcement in place	.018c
*Concrete Slab 2" thick, Materials 1-2 1/2-3 1/2 Mix	.055c
Mixing and Placing Labor	.018c
Removing Forms, Labor	.005c
Total Cost of Slab in Place (Including Overhead and Profit)	.21c

*Cost of slab form lumber is based upon new cost less salvage value. Lumber is finally used for roof sheathing or as a sub-floor, laid in mastic, as a base for finished hardwood floor.

**Costs are based upon a rodged finish to the concrete floor. Where openings in the floor are required for stair wells they are provided by girders, cantilever joist or special slab, depending on conditions.

Plastering and Moisture in Woodwork

(Continued from page 37)

moisture. Even in the coldest weather the windows on the leeward side of the house should be opened two or three inches, preferably from the top. The maximum amount of ventilation is required immediately following fresh coats of plaster. After the bulk of the water is evaporated the amount of ventilation might be reduced to permit of higher temperatures.

The use of heat in houses during the plastering operation should not be considered only a means of preventing freezing of the plaster. It has several other equally important functions, particularly when the temperatures maintained are adequate. It hastens the drying of the plaster, of green masonry, and of the moisture absorbed in the wood frame and sheathing.

In view of the relative drying rates of structural parts after the plaster has dried, as shown by the chart, it is obvious that door and window trim should be placed first and the base should be the last item, so as to allow the longest possible time for the drying out of the lower plate. It is preferable, in fact, not to place the base until after the finish floor is laid. Where this precaution is taken there will be a minimum of shrinkage in the base, and the shoe or quarter-round can be nailed to the floor instead of the base.

Back painting of the trim to protect it from moisture absorption is a relatively common practice. Although this idea has merit, the methods generally used are relatively ineffective. It tends to cause false security in the assumption that the protection offered permits the erection of the trim before the walls are sufficiently dry. A thin coat of lead and oil offers so little resistance to the penetration of moisture that when used for back painting it is essentially a waste of time and money. A coat of cheap rosin varnish or of asphaltic paint is much more effective and, because of the protection it affords against absorbing moisture unequally on opposite faces, is of particular value when the interior trim receives part of the finishing before delivery. There is no practical method of back painting, however, that will protect the dry wood finish against moisture absorption when placed against damp wood or plaster.



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STATEMENT of the ownership, management, circulation, etc., required by the Act of Congress of August 24, 1912, of AMERICAN BUILDER AND BUILDING AGE, published monthly at Chicago, Illinois, for October, 1933.

State of Illinois } ss.
County of Cook }

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Bernard L. Johnson, who, having been duly sworn according to law, deposes and says that he is the editor of the AMERICAN BUILDER AND BUILDING AGE and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor and business managers are:

Publisher, American Builder Publishing Corp., 105 West Adams St., Chicago.
Editor, Bernard L. Johnson, 105 West Adams St., Chicago.
Managing Editor, Joseph B. Mason, 105 West Adams St., Chicago.
Business Manager, Robert H. Morris, 105 West Adams St., Chicago.

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BERNARD L. JOHNSON,
Editor.

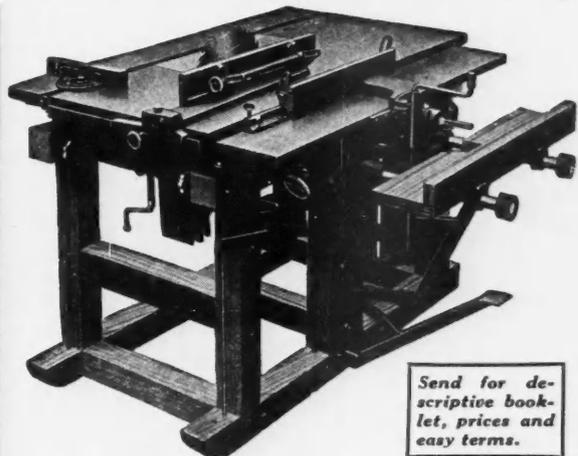
Sworn to and subscribed before me this 29th day of September, 1933.

ANNA A. BOYD,
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[Seal]

(My commission expires Dec. 10, 1935.)

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CATALOGS FOR BUILDERS

Publications listed on these pages may be secured without cost by filling in their numbers or names on the coupon at right below and sending to American Builder, 105 W. Adams St., Chicago.

WALL, FLOOR, ROOF MATERIALS

1—FIBER BOARD INTERIORS

"Interiors That Speak of Charm and Comfort" is an illustrated specification manual of decorative interior finishes for homes and offices, now available from the Celotex Co., 919 N. Michigan Ave., Chicago.

2—WATERPROOF BUILDING PAPER

Catalog sheet which is both a sample of Sisalkraft waterproof building paper and a description of its uses and advantages. Details of waterproofness, toughness, pliability and long life given. Sisalkraft Co., Chicago, Ill.

3—FINANCING PLAN

"A Million Dollars to Lend," a booklet describing the new Johns-Manville non-recourse deferred payment plan for financing home modernizing work and improvements. The Johns-Manville Corp., New York City.

4—BRICK TYPE SIDING

"Eternit Brick Type Siding for Modernizing," information on asbestos cement siding applied in 6" x 30" strips, colored and textured like brick. The Ruberoid Co., New York City.

5—BETTER MASONRY

"Brixment for Better Masonry," a description of mason's cement and its uses. Louisville Cement Co., Louisville, Ky.

6—FIREPROOF CONCRETE HOUSES

An attractive book of concrete house designs in modern style showing floor plans. These are low cost houses ranging from \$2,700 to \$6,000. Portland Cement Assn., Chicago, Ill.

7—FORMICA FOR BUILDING

A folder describing uses of Formica for wall covering, window stools, cabinet tops and many other buildings and architectural uses. Contains helpful color chart and detailed drawings of installation methods. The Formica Insulation Co., Cincinnati, O.

8—BETTER ROOFING

"New Standards of Roofing Quality for Asphalt Shingles and Prepared Roofings," describes a product supplied to leading roofing manufacturers to make good roofs better, by the Brown Co., Portland, Me.

HOME EQUIPMENT

9—AIR CONDITIONING HEATERS

The Sunbeam air conditioning unit is fully illustrated and explained in a catalog in colors, "Modern Heating," offered by the Fox Furnace Co., Elyria, O.

10—MONEL METAL KITCHENS

A special builders' edition of an unusual book, "The Trend of Profits," is available from the International Nickel Co., Inc., 67 Wall St., New York City.

11—AUTOMATIC STOKERS

Bulletin S-1 gives detailed information of the Peerless Auto-Fyre, the low cost, automatic coal stoker offered by Peerless Mfg. Corp., Louisville, Ky.

12—BATHROOM CABINETS

A booklet describing line of bathroom cabinets, including mirror door cabinet with side lights. The F. H. Lawson Co., Cincinnati, O.

13—HOME TELEPHONES

Planning for home telephone conveniences is described in a 52-page booklet by the American Telephone and Telegraph Co., New York City.

14—WINDOW GUARDS

Folder describing the Shur-Lock Window guard which makes the home safe for women and children, and prevents window accidents. Shur-Lock Window Guard Corp., New York City.

LUMBER AND MILLWORK

15—HOUSE FRAMING

"Standard Specifications for House Framing," a comprehensive handbook of details, drawings and specifications for modern frame construction. Prepared by architects and engineers of General Timber Service, Inc., St. Paul, Minn.

16—SOFT PINE LUMBER

The Arkansas Soft Pine Bureau, 907 Boyle Bldg., Little Rock, Ark., offers valuable information on knotty pine panels and soft pine clear finish for homes and offices. Special follow-up and sales aids also available to lumber dealers.

17—OAK AND BEECH FLOORING

Special circular describing and illustrating Bradley oak and beech block flooring and nail-seated flooring. Also special profit opportunities for dealers. Bradley Lumber Co. of Arkansas, Warren, Ark.

18—PHEMALOID COMPOUND LUMBER

Details of phemaloid in large size panels and the new fields and new profits it opens to carpenters and to dealers. Haskelite Mfg. Corp., 208 W. Washington St., Chicago.

INSULATION MATERIALS

19—REYNOLDS METALLATION

Full particulars of the entirely new, low cost insulation of aluminum and fiber offered by Reynolds Metals Co., Inc., 19 Rector St., New York City.

20—INSULATION ON THE FARM

A 48-page handbook of farm building facts prepared by the National Committee on Wood Utilization, is obtainable from the Insulite Co., Builders Exchange Bldg., Minneapolis.

21—NU-WOOD INSULATION

Booklet describing insulating products combining insulation, noise hushing, wall finish, decoration at low cost. Wood Conversion Co., Cloquet, Minn.

22—MINERAL WOOL INSULATION

A booklet describing house insulation against heat and cold. Offered by the U. S. Mineral Wool Co., New York City.

23—ALL YEAR COMFORT

The uses and description of Celotex, described in a booklet offered by the Celotex Co., Chicago, Ill.

STEEL PRODUCTS

24—STEELTEX DETAILS

A booklet of specifications of Pittsburgh Steeltex and also Pittsburgh reinforcing. Of particular interest to builders and architects for specification writing. Includes detail drawings. Pittsburgh Steel Co., Pittsburgh, Pa.

25—STEEL CEILINGS

"Modernistic Steel Ceilings," catalog of steel ceilings with suggestions for modernizing work. Edwards Mfg. Co., Cincinnati, O.

26—OPEN TRUSS JOISTS

Booklet presenting information on shop fabricated, light weight steel joists with or without nailer strip. Also "Insulmesh," a plaster base that insulates and reinforces. The Truscon Steel Co., Youngstown, O.

27—STEEL SHEETS

"Apollo Best Bloom and Keystone Copper Steel Galvanized Sheets," a booklet for builders; "Better Buildings," a booklet on farm and industrial buildings; and "Steel Sheets Applied to Modern Construction," a booklet on heating and ventilating. American Sheet and Tin Plate Co., Pittsburgh, Pa.

28—STRAN-STEEL FRAMING

A folder presenting the advantages of the new steel frame type of construction, emphasizing the ease with which nails can be driven into the steel members. The Stran-Steel Corp., Detroit, Mich.

29—STEEL BUILDING PRODUCTS

Products of the Truscon Steel Co., described in a booklet covering the complete line of steel building products. Especially useful data on window construction and installation details for residences. The Truscon Steel Co., Youngstown, O.

30—PORTABLE CORN CRIBS

Complete details of the Denning portable corn crib, a fast selling item to farmers. Also of the Denning portable silo. Illinois Wire & Mfg. Co., Joliet, Ill.

31—STEEL JOIST CONSTRUCTION

Handbook of Kalmantruss joists and Macmar truss joists with suggestions for their specification and use. Kalman Steel Corp., Subsidiary of Bethlehem Steel Corp., Bethlehem, Pa.

32—SANITARY METAL TRIM

Illustrated catalog of the Knapp line of corner beads, grounds, casings, etc., for every purpose. Knapp Bros. Mfg. Co., 607 W. Washington Blvd., Chicago.

GLASS AND PAINTS

33—VITA GLASS

"Dead Light or Vital Rays" and their effect on poultry are discussed in Bulletin No. 22 of the Clay Equipment Corp., Cedar Falls, Ia.

34—GOOD GLASS

"Selecting the Right Glass," a description of flat glass, flat drawn, polished plate, safety, figured and wire glass for all uses. Libbey-Owens-Ford Glass Co., Toledo, O.

35—MODERNIZING WITH GLASS

"The Sunny Side of the House," a portfolio of remodeling suggestions showing what can be done by building glazed porches, bay windows and solarium. The American Window Glass Co., Pittsburgh, Pa.

36—STORE FRONT DETAILS

Products of Pittsburgh Plate Glass Co. described in 18-page booklet on latest types of glass. Features store front details for modernizing. Pittsburgh Plate Glass Co., Pittsburgh, Pa.

37—ALUMINUM PAINT

Uses and application of aluminum paint described in a handbook prepared by the Aluminum Co. of America, Pittsburgh, Pa.

BUILDERS HARDWARE

38—FLOAT-OVER DOORS

Illustrated circular and specifications of new galvanized tubular steel overhead-acting garage doors. Cornell Door Works, Inc., Long Island City, N. Y.

39—CRAWFORD COMPLETE LINE

Crawford Door Co., 7881 Conant Ave., Detroit, Mich., offers details to solve every garage door problem. Also special franchise offer to dealers.

40—MCKINNEY HARDWARE

Complete catalogs of ornamental forged iron hardware, garage hardware and hinges. McKinney Mfg. Co., Pittsburgh, Pa.

41—PROTEX WEATHERSTRIP

Interesting proposition to carpenters and builders on new type metal weatherstrip for wood sash. Protex Weatherstrip Mfg. Co., 2306 W. 69th St., Chicago.

42—FLOORING NAILS

"Rico Flooring Nails," information on specially hardened and tempered wedge-shaped nails. Reading Iron Co., Philadelphia, Pa.

43—GARAGE HARDWARE

"National Garage Hardware," a booklet on garage hardware offered by the National Mfg. Co., Sterling, Ill.

44—OVER-THE-TOP DOORS

Folder describing the latest types of garage door equipment with which any set of old doors can be remodeled into upward-acting type, or equipment for new garages. Frantz Mfg. Co., Sterling, Ill.

45—ACCURATE WEATHER STRIPS

Data on metal weather strip installation with details of various types and methods of installation for all kinds of wood, metal or metal covered windows and doors. Accurate Metal Weather Strip Co., New York City.

46—WEATHERSTRIPPING

A complete sales kit including charts showing standard material and installation of Allmetal Weatherstrip; also giving details and data showing advantages of weatherstripping windows and doors. The Allmetal Weatherstrip Co., Chicago, Ill.

CONTRACTORS' EQUIPMENT

47—FLOOR SANDER PROFITS

Mechanical specifications with full details of Dreadnaught sander and rental service plan. Dreadnaught Sanders, Dept. A-1033, Muskegon, Mich.

48—COMPLETE PLANING MILL

Circular 250 illustrates and describes in detail the combination woodworking machine, 7 machines in 1, offered by the Electric Carpenter, Inc., Packard Bldg., Philadelphia.

49—RENTAL SANDERS

Details of the Reid-Way Floor Ace, with suggestions for building up a rental floor sander business. Reid-Way Corp., 2955 First Ave., Cedar Rapids, Ia.

50—GAS ELECTRIC SET

Westinghouse gas electric sets in numerous sizes are presented in a new pamphlet by the Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.

51—CONCRETE MACHINES

"Four Keys to Success," presenting opportunities in cement brick. The W. E. Dunn Mfg. Co., Holland, Mich.

52—AMERICAN SANDERS

Folders on American high production floor sander, spinner disc edge sanding machine, low boy maintenance machine, and Pentra-Seal permanent floor finish. The American Floor Surfacing Machine Co., Toledo, O.

53—WOODWORKING EQUIPMENT

A booklet offered by the American Saw Mill Machinery Co., Hackettstown, N. J.

54—PORTABLE HANDSAW

"Skilsaw Portable Electric Hand Saw," a folder on new low priced saw made in six sizes. Also, "Portable Sander" describing a new 18-lb. sander with noser attachment. Skilsaw, Inc., Chicago, Ill.

55—LIGHT TRUCKS

Trucks for all-round light hauling and pick-up work are described in a booklet offered by the International Harvester Co., Chicago, Ill.

56—BLAW-KNOX BUCKETS

"Clamshell Buckets," a folder offered by the Blaw-Knox Co., Blawnox, Pa.

57—JAEGER MIXERS

A new catalog on tilters and non-tilters, all sizes, trailer and power loader types, offered by the Jaeger Machine Co., Columbus, O.

58—FAST WOODWORKERS

"De Walt Saws and Woodworking Machines," details of equipment for today's fast work. The De Walt Products Co., Lancaster, Pa.

59—PARKS MACHINES

A complete catalog of woodworking machines that do the work at lowest cost. The Parks Woodworking Machine Co., Cincinnati, O.

60—SPEED MACHINES

"Speed-O-Lite Floor Surfacing Machines," a folder describing light weight, high speed machines at low cost. Also "Lincoln Twin Disc Floor Machine." The Lincoln-Schlueter Floor Machinery Co., Inc., Chicago, Ill.

61—GARDEN FURNITURE

"Molds for Pottery & Garden Furniture," and "Profitable Home Industry for Contractors & Builders." Offered by Colorcrete Industries, Inc., Holland, Mich.

62—EQUIPMENT FOR CONTRACTORS

"Contractor's Catalog for Builders, Contractors, Lumber Yards," describing machinery and tools offered by the Porter-Cable-Hutchinson Corp., Syracuse, N. Y.

ELECTRICAL EQUIPMENT

63—BUILT-IN RADIO

Specifications and details for RCA centralized radio system for hospitals, schools, hotels, apartment buildings, etc., offered by the RCA-Victor Co., Inc., Camden, N. J.

64—X-RAY REFLECTORS

Handbook 25 is a 90-page indexed manual of commercial lighting practice, prepared by Curtis Lighting, Inc., Chicago, Ill.

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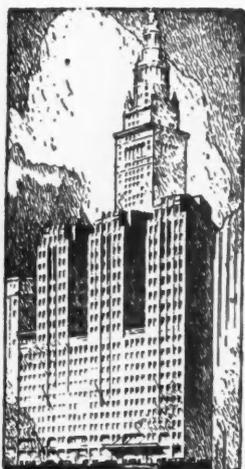
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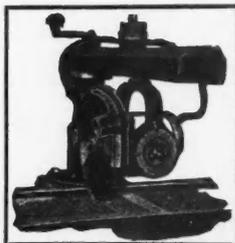
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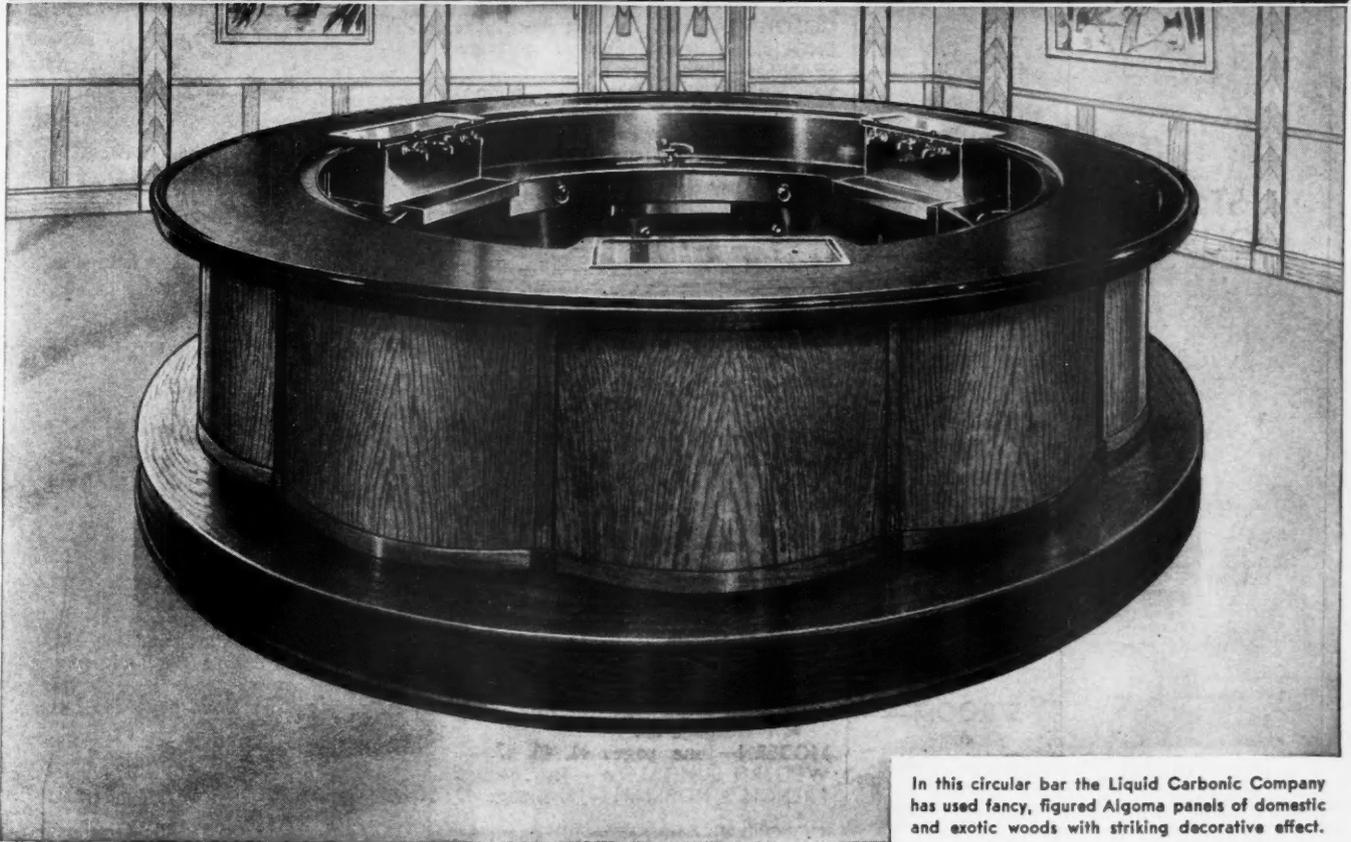
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NOTICE TO ADVERTISERS

Forms for the December Number of the American Builder and Building Age will close promptly on November 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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INDEX TO 1933 HOUSE DESIGNS AND PLANS

ALL HOUSE DESIGNS AND FLOOR PLANS published in the American Builder during the year 1933, including December, are listed and classified in this index. Month and page number on which each house appears are given opposite name of each type, such as Colonial, English, Spanish, etc.

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