ANNOUNCING

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The greatest architects of America are almost unanimous in endorsing these eternal materials. As William Orr Ludlow says:

"Copper, Brass and Bronze are accepted as practically standard equipment in all buildings where permanency is a primary requisite — public buildings, libraries, churches, etc. And it seems to us that the very qualities which make them suitable for use in buildings of these types should recommend them for use in private homes."

When you build, buy or remodel, insist on these materials. Other metals may resist rust for a few years. But Copper, Brass and Bronze are rust-proof. In the long run they are a very real economy.

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Considering their lifelong service and their absolute protection against rust, Copper, Brass and Bronze are not expensive even in the construction of small homes.

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FREE—booklets on how to enjoy real home comfort at a saving to you. Also complete estimate on Chamberlin Protection for ____ windows ____ doors. Address Chamberlin Metal Weather Strip Co., Inc., Detroit, Mich. Name _________ Address _______ FC __________
WHAT though the sun shines brightly and the balmy winds blow more and more frequently. With the memory of the long hard winter just past, many families are pondering seriously on the subject of heating plants. To heat or not to heat with oil! Says Mr. Steward in the May Issue: "The oil burner is just as effective in the small house as in the large." Also, "Most people who have used an oil burner are unwilling to go back to coal." With these points settled, the article continues, packed with information on all sides of the question. Both advantages and disadvantages are carefully taken into account, with authoritative information that is the result of many years of scientific experiment.

As everyone knows today, however, it is not enough to dance attendance upon the furnace. After this has done its work the heat generated must be hoarded in every possible way. Mr. Simons continues next month with his article on weathershipping begun in further reasons for the use of weather strips, and explains the different types now on the market.

MODERNISM as expressed in furnishings and decoration is a subject on which very few of us are capable of expressing an intelligent opinion. We may know what it is—indeed we can hardly help knowing something about it with the magazines full of literature and illustrations on the subject—but very few of us know why it is. On this bewildering subject Miss Amsdell writes for the next issue—the modern mode in furnishings and decoration, "the first fresh, creative thought in the world of decoration for one hundred years," as she terms it, and that is certainly food for thought. So, too, is the statement, "One of the ideas of modern decoration is that as nearly as we can we should get back to the beginnings of simple form, straight lines, structural honesty, and absence of meaningless ornament." Whether we like them or not, if we want to be up to date, we must know something of these new forms. Miss Amsdell's article sheds welcome light on the subject.

THIS is by no means all that is in store for our readers. Then, too, those who look forward to the interesting array of houses spread before them in each issue will not be disappointed.
THE SMALL HOME
FINANCING • PLANNING • BUILDING

WHEN AN ARCHITECT BUILDS A SMALL HOUSE
Home of Mrs. Benjamin F. Betts, Scarsdale, N. Y.

The small stone house, sympathetically handled, has a happy faculty of becoming part of the landscape. This one is an example of the case in point. Flowers and shrubs grow up about it as naturally as though their seeds had been carried there by birds and winds. Against its background of trees it reminds us, in truth, of the fairy tales of our childhood; the Red Ridinghood’s cottage, or the house of the elves which Snow White graced for a time.

The exterior walls have been roughly plastered so that much of the stone beneath is only suggested. Enough of the material shows, nevertheless, to give the finished walls a wealth of texture and color. In key with the general informality, the shingles of the roof have been laid without lines, although with such restraint that the result is not bizarre, but rather pure charm.

The windows are all that could be desired; casements, divided into many small lights, out of which fairytale faces might be expected to peer at our approach. No moulding or other ornamentation about the opening distracts the eye, but the sturdy lintel above is exposed. Those close beside
The most engaging features of the room are strictly architectural—the fireplace, the recesses for books, the small low seat and the windows with their deep reveals and wide sills.

The entrance have a narrow canopy, scalloped in picturesque fashion, in its place.

The entrance demands its own share of attention. Large flagstones of irregular shape form the walk and the small pavement before the door, the whole arrangement seeming just to happen. The door looks like the handiwork of some old time craftsman, as does the lantern which hangs from a hook above to light the arriving guest.

Open the door, and what do you think we find on this floor? Two rooms, no more, no less; at least no more than the front entry and stair hall. There is also an attached garage, but for the main floor proper there are just two rooms, a living room and kitchen. The living room is a host in itself, however, being 29 ½ feet long and 16 feet wide. This is what is possible when the dining room is eliminated, and the entire space thrown together unreservedly. Dining facilities are provided in the kitchen, which is a large, pleasant room, and also in one end of the living room, which opens directly from the kitchen.

No attempt is made to disguise the fact that at periodic and regular intervals the family has meals here. A long, narrow stretcher table and ladder back chairs with rush bottom seats occupy proud positions at this end of the room. A large Welsh dresser holding brilliant bits of china, pewter and pottery, stands close beside the door to the kitchen.

An old Paul Revere lantern hangs from the beamed ceiling at this end of the room, and another old fashioned lantern at the farther end. This end is the living room proper, and a real living room it is. The floor of the great room is of wide planks, and hooked rugs, little islands of color against this background, are used sparingly.

The fireplace is of quaint design, with a broad, rough hewn lintel spanning the opening. Recessed book shelves at one side, a small window seat at the other, and wide window ledges upon which stand potted plants and other ornaments are delightful features of this homey, picturesque room.

There are but three bedrooms on the second floor, so that after all the house only has five rooms. After seeing it can anyone doubt that the small home can have all the alluring beauty and genuine comfort of its larger relations?

The furniture is early American or harmoniously associated pieces. At the dining end of the living room we find furnishings ideally suited to such a “two in one” room.
A most unusual dining room furnished with genuine early American pine pieces. The chairs are often seen in reproductions but rarely the other pieces.

OUR HERITAGE OF FURNITURE

Second Period—From 1700 to 1800 and a little beyond

By Mehetabel Thankful Amsdell

Last month we saw how there are really but two possible forms in furniture design, straight line and curved, and we talked about the straight line rectangular furniture known in England as Jacobean. One thing I think I did not mention was that always in the early stage of a new epoch in art man makes straight line pieces first. As he becomes more proficient he introduces a subtle curve which is always more graceful than the more severe straight line. Then gradually becoming more clever and more skilful in handling his material he makes more and more curves until all character is lost and we see a decline in art.

Over and over we see this cycle repeated, the honest striving of the early period, expressed in rather severe straight lines with an absence of ornament; the magic moment when all parts are in beautiful harmony and balance; and then the slackening up and the decline when there is a weakening of the fine sense of form so slowly and so painfully acquired. We are seeing a demonstration of this in our own life today. During the 1900’s the world lost the precious sense of beauty of form it had so beautifully discovered during the four centuries from 1400 to 1800. The latter part of the 19th century witnessed a veritable debauch, an orgy of ugliness, and now in our time we are seeing the effort to pick up the threads again. To follow this would lead us into a discussion about modern art and modern furnishing which we shall talk about in the next article.

Briefly though in the modern furniture
of today we are seeing a return to the strength and honesty of the straight line. The thing really started with "mission" furniture, about 1900. Many of us, I am sure, will remember the weak sickly curves of the meaningless golden oak furniture of the latter part of the 19th century, and our return to the sturdy honesty of mission furniture was an unconscious protest.

With Queen Anne we see the English craftsman being introduced to the secret and to the beauty of the curve in furniture construction, coming from France via Holland. Always in furniture design the French have had a more subtle touch than other designers, and it is not strange that under the encouragement of the reign of Louis XIV the artists attached to the court discovered the beauty of the curve. I always feel that with the Queen Anne style we have for the first time furniture that is really homey and comfortable. There is a charm about it that is undying. Even today a room furnished with pieces of this period cannot fail to have both comfort and dignity. For quite some time we have been having in commercial furniture "Queen Anne" dining room groups, but they have not been able to dim its glory.

In America the same style was of course soon being made. American styles closely followed the English, which was only natural. And right here we might do well to decide on what we mean by Early American. The term is used loosely, and probably most of us are not very sure about it. Briefly, the history of the American Colonies follows the stirring development of furniture forms during that period when they were most active. That was our good luck. Just think what our Early American would have been if we had come into being about the time of golden oak! We must at this time, too, decide what we mean by the term "Colonial," for the two terms are very closely related.

Properly of course there were no Colonies after the Revolutionary War, so our word Colonial should mean furniture made during the time we were Colonies, from the early 1600's to the 1770's. The one word Colonial is too limited to apply to all the forms that were evolved during that busy time. To be explicit we should think of Early, Middle, and Late Colonial. Early Colonial would mean our version of the Jacobean forms brought from England, Middle Colonial the more graceful and lighter forms that we are talking about in this story, that of the William and Mary and the Queen Anne styles. Later Colonial properly describes the very refined and elegant mahogany pieces of the
A fine example of Hepplewhite chair. The shield back is very characteristic.

A beautiful Sheraton chair. The grace of its lines and contour is unsurpassed.

The curve reappears in this Duncan Phyfe chair. Egypt was the source of this design.

A painted and decorated type of chair very popular about 1830.

A latter part of the 18th century. In my mind I always feel that true Early American comprises the furniture represented by Early and Middle Colonial, but not the late Colonial.

To me Early American is properly cottage furniture made of the woods the early settler found growing in the forests about him, oak, pine, maple, cherry, hickory, chestnut, apple, some of them quite new to his hand. The mahogany furniture of the latter part of the century represents an elegance that is quite different in my mind from the very simple homey earlier styles. So I would include no mahogany in my description and designation of Early American. The border line between it and the later style is a bit shadowy. Don’t ask me to be too definite about it.

Another term that we may as well mention while we are about it is "Georgian." This has no reference at all to our own state of Georgia, but to the fact that for over a hundred years from 1714 there was a series of King George’s on the throne of England, George I, George II, George III, and George IV. George III was reigning at the time of the Revolutionary War, and it may help us to remember that that very time represents the finest development of furniture and the related decorative arts that England has ever known. It helps if we remember that we were at that time fighting a very elegant and very beautiful England, albeit a most inelegant king. Because the George’s reigned for such a long time, we must again resort to the aid (Continued on page 28)

At the left is a French chair typical the middle eighteenth century. This chair furnished the inspiration for the Victorian furniture of the nineteenth century.

This table is typical of the graceful and dignified William and Mary style of furniture.

A beautifully carved tip-top table, made necessary by the introduction of tea and coffee.

With Queen Anne gracefully curved tables like these (above and right) came into vogue.

There is an unending charm about the Queen Anne style quite suitable for modest homes.
HARRS, LEDGES AND HECKS
Wherein is Set Forth the History and Substance of Doors
By H. Vandervoort Walsh
Professor in the School of Architecture, Columbia University

THERE is a door at the front entrance of a house in your neighborhood, that I would like to have you look at. You will find it on a new house, said to be designed in the English style. It looks as though it were built of boards, and swung upon long, and rather fancy strap hinges of wrought iron.

No simpler door can be made than this, and in fact, if you were given the job of building a door yourself, without elaborate tools, you would probably knock together one like it. You would lay, side by side, some heavy planks, and fasten them together with two cross timbers, one near the top of the door and the other near the bottom.

To hang this door, you would fasten, across the face of it, iron straps, the ends of which you would bend over like the letter P to hook upon pins which you had driven into the side of the door opening—pins shaped like the letter L with the lower leg driven into the wood jamb.

Everywhere throughout the world, when men have been faced with the problem of building a door, they have in the early stages constructed them like this. Perhaps, the first ones they made consisted of one solid plank of wood, but these had to be rather small so that when they wanted to make them larger, they built them of planks, fastened together by cross timbers. These cross timbers, in English,

became known as "ledges" and doors, built in this manner, are called ledged doors.

It is a curious fact, that when these ledges were nailed on with iron nails, in later times, the tops of them were chamfered into a diamond shape, in imitation of the method used to finish off the wooden pegs which were used before the nails came into existence.

Iron strap hinges were not used to swing the earliest types of doors, but the timber along the edge of the door was made thicker and shaped at the lower and upper end into pegs, which fitted into holes in the sill and the lintel of the door. These pegs were called "harrs" in old English. When iron came into general use, they were made of this material. To swing a door on harrs, it was necessary to set it in place, with lower harr in sill-hole, and then drop the lintel over the upper harr. On the other hand, the hinged door could be put up after the opening had been finished. Yet the great doors of the Roman temples and public buildings swung on harrs, and it is recorded that one of the ways to sneak into the building without making the door squeak, was to throw a little water on them. Maybe in Roman times, when hubby came home late
at night, he had a bowl of water hidden in one of the bushes near the front door, to keep it from waking his wife.

However, in the cottages of old England, from which we derive most of our traditions of construction, the strap hinges of wrought iron were used more than the harr. They were made to be things of beauty, with leaf patterns and scrolls, gracefully flowing over the timbers of the door. In our own Colonial times, the village blacksmith wrought some very lovely examples.

There is another type of door which was made to swing upon these strap hinges and which was constructed in the same manner. We call it the Dutch door, today. Many examples are to be found in Colonial houses of this type of ledged door which is really two doors, one for the bottom of the opening and the other for the top. In England, this was known as the "heck door." It must have had many advantages on the farm. The upper part could be opened for ventilation, but the lower, left closed, kept out the animals and the wandering stranger. The name heck was gradually applied to a sliding door, and today, we speak of the hatch on the deck of a boat, not realizing that this name came from the old heck door.

Both the double and the single ledged door with their ornamental strap hinges have a character of their own. They are primitive in their appeal to the imagination. In their construction, they are very honest and straightforward. As I said, they are the type of door which any man would make, if he were forced to construct one without adequate tools or knowledge of joinery.

In an old account, we read, that in the year 1477, an English carpenter, by name Galfrid, pared, hewed, and planed four boards and five ledges for a new door for the tenement of Richard Lacey, in half a day, for which he was paid three pence. He used a half a hundred board nails in making the door.

Return now, to your inspection of the door in the so-called English house, recently built in your neighborhood. From the outside, it has the appearance of being a ledged door hung upon rather ornate wrought iron hinges. Ring the door bell, and watch closely. As the door opens, you will notice that the ends of the hinges, which seemed to hold the door, are cut off, and the door actually swings on concealed hinges or butts fastened to the edge. The real working ends of the strap hinges swing merrily along with the door, showing their utter uselessness and their obvious loss of all reason for existing. They are nothing but strips of iron nailed to the outside.

Step inside, now, and you will see another strange thing. The battens which should be on the interior face of the door to hold the vertical planks together are not there, but the planks seem to be arranged as they were outside. The wonder is, if you stop to think, that a series of vertical planks can stick together so, but on closer examination, you soon discover that what seem to be planks are nothing but thin veneers marked with V-shaped grooves at intervals to suggest the joints between planks. I am going to put a question to you, now that you know how a real ledged door is constructed. Do you think this modern imitation of one justifies its existence as a thing of beauty, when it is such a fake?

There is another type of door, which carpenters in Colonial times made frequently, that is not exactly a ledged door, but a step between a panelled door and a ledged door. Three planks were (Continued on page 30)
Sometimes, when the house is placed to one side of the lot, as it should be under ordinary circumstances to permit as large a private area as possible, there is a long barren strip between the lot line and the house. Here it has been converted into a delightful path lined with flowers.

THE THREE ROOMS OF A LOT

The Position of the House Determines Their Usefulness

By R. J. Pearse
Member American Society of Landscape Architects

There is architecture in the design of a lot as well as in the design of a house, and it is not curious to find that the principles are almost the same, at least with respect to the plan.

A well designed house is divided between living area and circulation or service area. The living area is composed of the living room, dining room, kitchen and bedrooms. The circulation or service area includes halls, stairways, entries, and storage places.

Now the well planned lot has these two areas and another—the public area. The service area of the lot consists of the driveway, the service entrance to the kitchen and the coal chute, the garage, and perhaps also a small drying or storage yard for garbage and ash receptacles. The service area, like the halls of the house, should occupy as little space as possible, so it will permit larger space for the more enjoyed living area.

The second portion of the lot is the public area. Perhaps this is something of a misnomer. It is the part of the lot which is open to public view, though, of course it is not for public use. It is the section of the lot that lies before the house, and being open to the gaze of passersby, is not as useful or as enjoyable as the living section, and like the service area should be kept as small as possible. The depth of this area is usually determined by conditions of the deed, and the home builder often cannot control it. The line may be established by the fronts of adjoining buildings. This area may be unduly deep, and will be so, unless the house occupies the full width of the lot or unless it is cut off by a hedge or wall.

The third area is the living area. This is the private or reserved part of the grounds. Romantic people even call it “outdoor living room.” It is the garden or other enclosure at the side or rear of the house. Manifestly it should be closely linked to the living portion of the house so that it is readily accessible and so that its beauties are apparent from the windows. By placing the house as far forward on the lot as possible, the maximum space at the rear may be obtained for this purpose. It may be found possible to place the kitchen at the front so that the living and dining rooms may overlook the garden at the rear and form an intimate connection with this private area.

Undoubtedly this area should be enclosed for privacy. It needs to be unified. A shrub border, a lattice fence, or a wall of some variety will help to bring all together.

Within this area we should find a shade tree, possibly two or three small fruit trees in the border planting. Perennials and annuals can be planted in beds just in front of the shrub borders. A sand box under the shade tree, a bird bath in the far corner of the area, a small fountain, seats under the trees or on the shady side of the house, stepping stones leading from one point of in-
terest to another, bird houses in the trees and on the garage, and a small children’s play house at the rear of the garage are a few of the units of interest and enjoyment that can easily be placed in this private or garden area.

The accompanying plans show how the same house can be located three ways on a lot 50'x150', but with three different results in the areas around the house. The original location of the house determines the size of these areas.

In lot A, the house is set too far back from the street, the driveway is much too long, the service and public areas are too large, leaving but a small private area.

The house in lot B is set too close to the right side of the lot, making the public area too large, and a portion of the private area is taken up with service area.

The house location on lot C makes an ideal arrangement, the service area is reduced to the minimum, leaving space at the rear of the garage for either a vegetable garden, play lawn, or a portion of the larger private area. The public area is very small and by means of shrub planting is practically enclosed and affords only a glimpse into the private area at the side and rear of the house.

A small formal garden beside the living room might be made very attractive with an enclosure of small evergreens, and a sundial in the center of the flagstone area. A small lily pool might be placed in this location with a central fountain rather than the area as outlined with flagstones.

The real private area to the right and the rear of the house is large enough to be used in a variety of different ways. Suggestions have already been given for the use of this area. The enclosure must come first and then other units and features can be added from year to year as funds and taste decide.

An ever changing picture can be obtained, with blossoms from early spring, bulbs until late Christmas, roses or chrysanthemums, with birds both summer and winter enjoying the bird bath in summer and the feeding trays in winter. Bright colored twigs and berries on the various shrubs with a few evergreens for variety make a wonderful changing picture for the full year. When these pictures are brought into intimate connection with the living room and the dining room, their value can only be estimated by a true appreciation of their worth.

Now that you know the important parts of the lot, what is the best way to arrange a division? Probably the best method is a graphic one. It is very simple. Follow this process. Lay out the shape of the lot at a scale of approximately one inch to ten feet. If your lot is fifty feet wide, your drawing will be five inches wide. Now cut a piece of cardboard to scale to the plan outline of your house. Shift it about the drawing of the lot. See how the lot is divided with the house in different positions. Try new locations for the house, but be sure to draw on your plan those things which are fixed, such as, for example, the present trees, shrubs, important changes in grade level, the outcroppings of rock.

(Continued on page 32)
WEATHER STRIPS FOR WILLFUL WINDOWS
If You Would Be Comfortable Next Winter Now is the Time to Think of Such Matters

By H. A. Simons

EDITOR'S NOTE

Mr. Simons, whose articles have been appearing in The Small Home from time to time, has again delved into statistics and scientific data and brought forth this article on conservation of heat by means of weatherstripping.

This month he tells about the exodus of heat around doors and windows—an amazing loss, even with the best fitting windows and doors. Next month he will describe a number of different types of weatherstripping.

A LL the heat generated in a home or other building is lost eventually. All that any material or system of construction can do is to retard its escape so that the cost of supplying more heat to take its place is not over-burdening.

Insulation is one of the important ways of doing this. But the emphasis placed upon insulation during recent years has tended to make most home-owners forget that there are other equally necessary ways of saving heating costs by construction.

At the last Summer meeting of the American Society of Heating and Ventilating Engineers C. G. Segler of the American Gas Association presented some figures which make this fact clear and impressive. He had analyzed some 200 homes, he reported, to find out just where the heat-losses occur. His analysis showed the percentages of the total for which the various parts of the house are responsible, as follows.

<table>
<thead>
<tr>
<th>Components</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Walls</td>
<td>27 per cent</td>
</tr>
<tr>
<td>Glass</td>
<td>26 per cent</td>
</tr>
<tr>
<td>Infiltration around windows and doors</td>
<td>26 per cent</td>
</tr>
<tr>
<td>Roofs</td>
<td>16 per cent</td>
</tr>
<tr>
<td>Doors (openings, etc.)</td>
<td>5 per cent</td>
</tr>
</tbody>
</table>

These new figures bring out two facts that are important to every home-owner.

First, while the transmission of heat through apparently solid walls and roofs is responsible for 43 per cent of the total heat-loss from a home, the infiltration of cold air around doors and windows is a much larger factor than usually is thought. Thorough and scientific insulation of walls and roof will retard some losses, but the expense of doing so is a considerable factor in home-building costs. On the other hand, it is comparatively inexpensive to weatherstrip all windows and doors, and this will prove a great economy by retarding the loss of 26 per cent of the total heat, caused by infiltration.

Secondly, these figures show why most of us are not smothered in our homes! When we go to the theatre or to school, or to work in office, store or factory, we take it for granted that clean air will be supplied to us. In such buildings, if they are up to modern standards, outdoors air is brought into the basement (or sub-basement), is washed and the filth it contains is dumped into a sewer; then the air is treated chemically, humidified, warmed to a comfortable degree, passed up to the occupied rooms and kept in motion there until it becomes polluted, whereupon it is thrown out. This is what the air-conditioning engineer calls "positive ventilation."

What a far cry from this to the conditions in our homes! The air in most homes during Winter is in a deplorable condition; but it would be much worse were it not for the infiltration of fresh outdoors air through the cracks around windows and doors. What are we to do then—weatherstrip the home so it is air-tight and then invest thousands of dollars in a complete air-conditioning system, or allow nature to freshen the indoors air by infiltration and pay the resultant high fuel-bills?

Choose a middle course—that's the way out of this dilemma, as in the case of so many others encountered in home-building. The middle course is to take advantage of the economy of weatherstripping, but so regulate the heating system and the opening and closing of windows that the air in the home will be reasonably clean and fresh. An exhaust fan in the kitchen, and perhaps another in the bathroom insures not only the necessary change of air in the house but also its proper conditioning.

Just what the economy of weatherstripping is likely to amount to can be learned with a few figures. Cracks between the frames and the sashes of double-hung wood windows vary in width from one sixty-fourth to one-quarter of an inch or more; one sixteenth of an inch may be taken as an average. Cracks around metal casement windows of good make are somewhat thinner.

Now, multiply one-sixteenth of an inch by 216 inches—the distance around a window of average size—and you get 13½ square inches. That is the size of the total opening around one window if the crack is of average width. In other words, the cracks around each window of an ordinary home are equivalent to a hole in the wall 13½ inches square.

How much air do you suppose leaks in through such an opening? It varies according to difference between the barometric pressure indoors and outdoors, and according to the velocity of the wind. When a cold wind is blowing from the West, for instance, it is found that cold air is pushing in through the window and door cracks on that side of the house and that warm air is being pushed out through the cracks on the East side. While many tests have been conducted on various types of windows to determine the infiltration in various conditions, the test-results have varied somewhat and it is impossible to give one figure that will cover all conditions. However, a moderate statement is that the leakage from the crackage around a single window of average dimensions is 35 cubic feet a minute, with wind blowing at the rate of 15 miles an hour.

Let's carry this one step further and find out what window-cracks mean in terms of coal consumption. Engineers have estimated that it takes 6.74 pounds of coal a day to heat the cold air leaking in through the cracks around one window to 70° when it is 0° outdoors. On the other hand, it has been estimated that only .79 pounds of coal a day are required to heat the in-leaking air around the same window in the same condition if the window is finely weatherstripped.

Even if you wish to regard these figures as only estimates—although they are based upon actual tests by impartial non-commercial laboratories—they are so striking as to leave no doubt as to the economy of weatherstripping. It is commonly asserted that good modern weatherstrips will prevent from 85 to 95 per cent of the infiltration around a window. Perhaps this is an over-statement; yet the U. S. Department of Agriculture joins other authorities in stating that from 15 to 25 per cent of the total heat-loss from a dwelling can be prevented by proper weatherstripping of windows and doors.
THE BUNGALOW YOU LONG TO OWN
Many Will Find It in this Design with Its Distinctive Exterior and Cheerful Roomy Plan

Four bedrooms are possible in this house, of which the two on the second floor may be finished off later. Dormers may be added for cross ventilation.

The wide cased opening between living and dining rooms gives an effect of greater size to both rooms. Seven windows light them brilliantly.

The side terrace was added by the owner, the door opening from it into the living room taking the place of the window shown in the plans.

The construction as shown on the drawings is frame with a shingle finish, but as one can readily see from the photograph, stucco is also quite suitable.
THE purpose of the architects in designing these attractive six room houses was twofold. They wished, by planning the smallest dimensions compatible with comfort, to keep the cost within the reach of families of moderate means. At the same time, the arrangement of the rooms must be efficient and convenient and the exterior pleasing.

Although the outside dimensions of design 6-G-6 are only 25' by 25', the compactness of the plan makes possible rooms of ample size and the inclusion of many features that make for comfort. There are closets for every need; a coat closet, one for brooms, one for linen, another for china, as well as a closet for each bedroom. All the halls necessary to good planning are here.

The austerity of the exterior is relieved by the bay window, the shutters, the open porch, the well proportioned doorway, the wooden quoins used instead of the corner boards generally found on clapboard houses. These are details which give distinction to what might otherwise have been a conspicuously plain house.

In spite of the idea of rigorous economy which the architects have carried out, the house has decorative properties inside as well as out. There is a handsome mantlepiece, a plastered archway connecting living room and dining room, and pleasant vistas.

The drawings of design 6-G-6 show wood construction, but the house would look exceedingly fine if built of brick.
ENGLAND COLONIAL FOR CHARMING HOME

Similar houses, with the overhanging second story ornamented with wooden drops, were common in the early period of our national existence. Considering their romantic background and their very real beauty they are far too uncommon today.

The plan is an approved type which home builders may accept knowing that thousands of homes have been built in accordance with the same scheme of rooms and found satisfactory.

The architects have provided all the facilities necessary for modern home making. The living room is of good size, and can be made still larger by omitting the wall between it and the hall. The broad porch is half enclosed. There are three excellent bedrooms and plenty of closet space. From one bedroom a stairway leads to the attic.

The drawings indicate an exterior finish of narrow siding.
A SUBSTANTIAL HOUSE FOR THE SUBSTANTIAL CITIZEN

Entrance to this house is by way of a small beamed porch. The walls are of solid brick, the roof of tile.

The interior is noted for the fine proportions of the rooms, the many windows, and the exceptionally complete built-in equipment provided. There are three fireplaces: in the large basement recreation room, in the living room, and in one of the bedrooms.
We Build a Two Story House
Choosing the Rectangular Plan for Its Lower Cost and Shingled Walls for Their Color and Texture

The homelike appearance of this roomy two-story house is made up of numerous details. The color and texture of its shingled walls must be taken into account, also the shutters used so extensively. The gabled porch and the entrance detail carried through two stories eliminate the monotony which houses of unrelieved rectangular form sometimes display. The arched and recessed entrance on this house was substituted by the owner for the Colonial entrance shown on the working drawings, but the two are equally attractive. The shingles of the walls should be of large size, with wide butts laid so that each course has at least ten inches exposed.

The dimensions of the living room, 13' by 22', may not mean much in the abstract, but compare them with some room with which you are acquainted and whose dimensions you know. This will give you an idea of the generous size of this room. Such comparison, too, will show how light and sunny a room with windows on three sides like this will be. The fireplace is of Colonial design, of brick and wood combined.

The porch which opens from the living room is as large as an ordinary room; a cool, airy spot when screened for summer use, a warm, sunny place when glazed for winter. The added expense which it entails is small compared to the comfort it affords, the increased living area it adds to the house, and the attractive addition it makes to the exterior.

The excellent size and proportions and the four windows of the dining room carry their own appeal. The kitchen has been skillfully arranged. Cabinets on either side of the sink make up one convenient working center. The range is but a short distance away, close to the dining room door. Above the refrigerator, which is equipped for outside icing, are more cupboard shelves, while beside it may be either a table or a cabinet with more counter space—another working center. The table may be used for occasional meals, as the kitchen is quite large enough for this purpose. A broom closet is located in the service entry adjoining.

Of the three bedrooms two are adequate for twin beds. The third room, although smaller, is still of comfortable size. Ample closets are provided. One of them, particularly capacious, makes use of the space above the porch.
THE central hall plan is excellent for the small home, as it permits a logical division of floor space without elaboration of construction. Here the stair hall is eight feet wide, and is separated from living and dining rooms by wide plaster arches.

NICETY OF DETAIL TEMPERS FORMALITY

A House of Distinguished Appearance Throughout

THIS view of the living room shows the fireplace with cast stone trim and brick in pleasant combination, as well as two of the room's four windows. The ornamental open stairway has a beautiful balustrade. Note from the plan the size of the coat closet.

The kitchen, worked out by experts, complies with the requirements of household economists. Here needed work can be done with minimum effort.

IT is easy to imagine the charm of the two bedrooms with their exceptional size and numerous windows. Fittings of the capacious closets may include—in addition to the rods and shelves indicated—enclosed compartments, trays and drawers which make the up-to-date closet so convenient.

The drawings show exterior walls of concrete masonry with stucco finish, roof of cement shingle tile.
The plans and illustrations of this house show the essential facts about it that the exterior is beautifully modelled, full of agreeable surprises of composition and window arrangement, also that the hooded entrance, the pigeon hole vents in the gable, and the broad chimney are all picturesque in conception.

The small illustration shows also the striking architectural treatment of the living room. The story height has been run through to the roof, with the under side of the rafters plastered. The impressive cast stone fireplace is flanked by high bookcases, with cupboards behind the paneled doors beneath. A low wooden wainscot runs around the room. Much of the actual beauty of the room must be imagined however, as nothing less than a completed house could convey it adequately. At the opposite end of the room is an archway leading to the dining room, with a similar archway above opening from the second story hall and overlooking the living room. This is guarded with a low railing of gracefully turned wooden balusters.

The kitchen, which occupies a position at the front, opens directly into the vestibule, and also into a service entry at the side. A dining room, a convenient bedroom, a bath, and several closets complete the first floor.

The construction of this house is the same as that of design 5-K-18 illustrated on the opposite page.

With A Studio Living Room
THE most marked innovation in interior decoration during recent years has been a universal demand for the thing that is different. Not long ago we were satisfied with a stereotyped kind of house. Exteriors and interiors alike lacked individuality. In architecture, color schemes, house plans, and even furniture we not only accepted but actually demanded precisely the thing that we saw at every turn.

The change has been complete. Spanish, Italian, Old English, and Norman architecture have now invaded our midst. Houses vie with one another in new and novel color combinations for the exterior. Unusual room arrangements seem endless in number. And in the furnishings and details of interior decoration there is no end to the variation and the individuality. Walls are decorated with Tiffany glazing, hand painted designs, lace stencils, paneling, scumbling, stippling and in a variety of other ways. Color and even decoration are used for the floors, and sometimes for the ceiling. The kinds of furniture which accord with present day styles are too varied to mention even casually. No item of the decorative scheme has failed to meet the new demand.

One essential feature, however, has perhaps lagged behind. In many instances but little attention has been given to the choice of wood finishes. The once universal natural and stained finishes have largely given way to color, it is true. But the novel finishes for woodwork are less well known.

One of the most pleasing finishes, especially as it fits in so well with the modern ways of decorating, is antiquing. This finish provides considerable richness of tone, in addition to having a quality that makes it harmonize with furnishings of almost any kind. With antiqued painted furniture it is especially good. The base of the finish is flat paint or flat enamel, over which a transparent glaze coating is applied, usually of raw or burnt umber. The glaze, while still wet, is wiped over lightly with a soft cloth so that it is largely removed. Just enough of the color remains, especially in the cracks and grooves, to give a pleasing dullness which simulates antique wood. Usually effective is a coating of this kind over an old ivory finish. The latter is obtained by tinting light ivory flat paint with a little raw umber.

An antique finish may be used over any color which is not too dark. While raw umber is the most popular for the glaze, any one of a great variety of colors may be used for this purpose. A darker shade of the base color is always a good choice.

Ebony is another trim which fits in well with fine furnishings. Its use, however, is more restricted. Ebony is too heavy for a large surface. Only where the wood trim is light, or in combination with another finish, is it a likely choice. An excellent combination is antiqued woodwork with a molding of ebony on the baseboard. With this

(Continued on page 50)
"This is a real housewarming Ed because you told us to install a Newport!"

"It's perfectly marvelous—our house at 70° all the time and even in the coldest weather—we only put coal in our Newport once a day. In milder weather, just two or three times a week."

This feature of heating convenience appeals strongly to the lady of the house where a Newport does its work. She is sure of constant warmth, without downstairs drudgery. Once-a-day fueling or less always provides enough fuel in the magazine of a Newport to maintain uniform heat for long periods without attention.

The head of the house, too, appreciates freedom from coal-shovel slavery, but in his role of Chief Bill-Payer he is keenly alive to the value of a heater which burns the smaller and so much more economical sizes of fuel. $5 to $7—that's what he saves per ton on fuel with a Newport because its modest appetite is satisfied with No. 1 Buckwheat coal that means a smaller fuel bill. As much in some cases as 50% less—which strikes him as extremely worthwhile.

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Our Heritage of Furniture

(Continued from page 13)

of the good words Early and Late. Early Georgian and mid-Colonial are about the same, and Late Georgian represents the same time as Late Colonial.

After the style of Queen Anne we see another change. Now for the first time we hear the names of the men who design and make furniture. Heretofore the individual designer has been anonymous and we have heard only of the monarch in power during a certain development. We now have the pleasure of meeting some of the great names in English furniture history.

The first is Thomas Chippendale, a man who made himself immortal. He took the contours of the Queen Anne and Early Georgian period and added much enrichment in the way of carving. There had been very little carving on either the Queen Anne pieces or the Early Georgian types, but now we see them bloom forth in a rich elegance and beauty different from anything before.

We are now entering the era of elegance, quite different from the simplicity of Early American.

In the same way Chippendale pieces do not lend themselves well to inexpensive reproduction, they are too rich and suffer dreadfully in being cheapened. Chippendale's style makes the most of the curve, sometimes he even reaches the point we have spoken of before when the style is weakened by too much curve.

In our country the best exponent of the Chippendale style was William Savery of Philadelphia. Unfortunately this man did not sign many of his pieces, and so we cannot be absolutely sure of but a few of his pieces. They are rich and wonderful in their form and workmanship, and rate him easily as one of the finest craftsmen America has produced.

Probably because Chippendale had done so much with the curve it is only natural that in the movement and swing of events the next great man in England's furniture history was an ardent exponent of great austerity and formality, expressed best of course by the upright straight line. With Robert Adam we see quite a change in the contour of furniture. He and his brother James were architects first, and they designed the furniture for the buildings they made. In this way they were sure to achieve the harmony they so much desired. They began working in England about 1770 after a period of study in Italy. The style they introduced dominated until the decline of the artistic spirit beginning about 1800, when however we see a return again to the introduction of the curve in the structural form.

The two great names after the Adam brothers are George Hepplewhite and Thomas Sheraton. Of these Sheraton had a more exquisite touch perhaps than Hepplewhite. In fact, in him furniture design reached such a fine point of excellence that beyond it there was nothing else. These men worked in mahogany. Chippendale had been the first to use the new wood extensively, and perhaps the fact that they had a wood they could do so much with had something to do with the beautiful things they made.

In America in New York City contemporary with Sheraton there was working a little Scotchman who left an indelible impress on American furniture style. Duncan Phyfe had a large and busy workshop in downtown New York, and for many years he was quite the vogue. It is easy to trace the pieces he made for they are still in the same families for whom they were made. For that reason we have perhaps a more
HERE is a booklet filled with practical ideas for making interiors attractive and beautiful.

It is profusely illustrated with plates showing various types of equipment that go to make the home a place of beauty and convenience. You are sure to find this book one of the most valuable ever offered from the Lumber Library.

As an example: the plate illustrated (Number VIII) shows a modernistic corner arrangement of a kitchen—one room that every woman wants "just perfect." No less interesting are the other suggested arrangements for dining rooms, bedrooms, living rooms.

This booklet has been prepared under the direction of Richard G. Kimbell, Architectural Adviser of the National Lumber Manufacturers Association.

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NEW FINISHES FOR WOODWORK

(Continued from page 26)

...and what about the PORCH?

NO less an authority than Ross Crane tells us that each room in the Home should be so furnished and arranged as to have its own individual charm and appeal.

How well this applies to the Porch! What offers keener enjoyment than to select furnishings and fitments for your "outdoor living room." whether the choosing be guided by artistic sense or by the need of economy. Then select your set of WARREN'S PORCH SHADES and the thing is quite complete. Perhaps your Porch is small and requires only the narrower widths (Warren's Shades come in all widths from 3 to 12 feet). Quite likely you are carrying out a certain color scheme (Warren's Shades are furnished in several delightful soft colors).

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Good lumber dealers can supply you with INSULITE Building Board for sheathing or for use as wall board; INSULITE Plaster Base; INSULITE for lining attics and garages—for roof insulation in old or new buildings, etc. Ask your architect and builder about it. And let us send you a free booklet, "Increasing Home Enjoyment."

INSULITE is all wood—plus the fabricating process which increases many times the natural insulating quality of wood fibers. Wood thus fabricated not only possesses great ability to resist heat, cold and noise, but has unusual strength and will withstand the action of time over long periods.

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THE THREE ROOMS OF A LOT
(Continued from page 17)

You will find that the combinations are distinctly limited by the shape of the house. If, however, your choice of house shapes is flexible, many different arrangements are possible. You will arrive at the conclusion that the allocation of spaces on the lot depends definitely on the shape of the house, and that you may miss a good deal by not studying both at the same time. Certainly the ideal arrangement can be obtained only when all the facts of the lot are known by the architect.

When a house and lot arrangement is worked out in this manner, it is remarkable how much space may be reserved for the private or garden area. Many times this space is larger on a small lot well arranged than on a large lot with poor house location.

OUR HERITAGE OF FURNITURE
(Continued from page 28)

complete record of his work than of any other craftsman, although there were others who made equally if not even greater contributions to our furniture glory. Up in Rhode Island there was a man named Goddard who was a consummate artist. His block front desks are easily the finest that have been made.

With the beginning of the Queen Anne style there followed the introduction of many small tables, such as of course we are very familiar with today—drop-leaf and tip-tops with both plain and pie-crust edge. Also the card table as such appeared about this time. And just why did these small tables appear at this time? Because people had just been introduced to tea, coffee, and chocolate. In such fashion does the growth of furniture forms follow human needs.

A parallel in the life of today is the elaborate smoking arrangements necessary in modern furnishing, because of the increase of the smoking habit. It almost seems today that convenience in smoking is the real aim of modern furnishing.

(Continued on page 34)

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For Homes & Apartments

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Send me your booklet "Which Heating Plant for my Home?" I am interested.

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We shall recall that the early furniture we discussed last month was straight line and rectangular in contour, and here in 1800 we are back to the same lines again, but with what a difference! Besides a difference in the woods used, the early furniture being of oak and walnut, the craftsman of the Jacobean style was anything but economical with his material. He worked from great pieces of wood and the furniture he made was heavy and solid. Much of it could hardly be lifted. By 1800 we see such a mastery over the materials used. The fine, delicate exquisite mahogany or satinwood pieces made at that time are combined with the least amount of material the most perfect form. Thus in the space of four centuries did furniture design evolve. While the finest pieces of the late 18th century are necessarily very costly there are many pieces that can be made today at surprisingly moderate cost. Their beauty of form Is a constant delight. I said before that after the straight line Sheraton style there was a swing again to the curve in furniture contours. As usual France was the inspiration, and the furniture is known as the Empire style. This was because it was the fashion after the downfall of the French monarchy and the rise of the Empire under Napoleon. And now an interesting thing happens. Napoleon had been fighting down in Egypt, and in looking for new ideas his designers seized upon the furniture found in some of the pyramid tombs—furniture made 1500 years before the Christian era! Thus do we go round and round. This furniture is beautiful and was quite worthy of being copied again.

Empire furniture in the beginning was very delicate and very beautiful, but the artistic spirit was burning out, and we see in a relatively short time a falling off in design, until gradually furniture becomes heavier and heavier. After 1825 the decline is pretty rapid. In America we have a great deal of American Empire. It was very much used up until about 1850, and in many homes all over the United States there are examples preserved and cherished.

(Continued on page 38)
There is something distinctive about TRUSCON STEEL CASEMENT WINDOWS

The charm and attractiveness which Truscon Casements give to the home are not their only distinctive features. The inherent quality which is built into these windows by superior design and workmanship is evident in their clean-cut lines and dependable service. With all their advantages, Truscon Casements are so moderately priced as to make them practical for the most modest home.

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He Says:- She Was To Blame
She Says:- He Was
What Do You Say?

Of course you and I must be chivalrous and give to Her the opportunity of presenting her side first.

So here is Her say so, word for word just as she wrote it in the Witching House Book.

A Man ashamed to admit it, but certainly did lose my temper. I went right at Jim hammer and tongs, and told him how when he bought a car, he made all sorts of investigations, even to finding out how many teeth the labelo gears had, - whatever the labelo is, if at all. But when it came to deciding on a heating outfit, on which so much of our comfort and contentments depended, he off-hand just decided on some kind of a system or other. He had a lot to say about its certain trick valves and whatnots. But not a word of the heart and lungs of the system—the boiler.

Of course you and I must be chivalrous and give to Her the opportunity of presenting her side first.

So here is Her say so, word for word just as she wrote it in the Witching House Book.

"Man like, he wouldn't admit not knowing even the boiler's name. Neither would he tell me what it was. Why are so many men that way?"

"It's not my purpose to air here, any family differences. But after we had had our 'little friendly discussion,' there were certain conclusions arrived at.

"Being not without their saltiness—yes and humorous side—the Burnham people asked me to tell about it all, so you can save yourself, what we so surely saved ourselves. Money and other things."
One of the largest and finest houses of the Georgian period was built by the son of the George Read who signed the Declaration of Independence. It stood a close neighbor to the father's house near New Castle, Delaware. Ten years were required for the building of it, so carefully was every brick laid and so studied was every wood detail.

One of the most distinguished architectural elements of this magnificent home was its stairway—and that stairway can be reproduced today by any homebuilder, with the Curtis stair parts shown here! And these parts can be purchased from Curtis dealers at a price much less than is often asked for similar material that possesses none of the grace and beauty of this Curtis stairwork.

Other Historical Reproductions

Other reproductions of famous old pieces of woodwork included in the Curtis line are: mantels from the Webb house, 1752, and the Vernon house, 1758; stairwork from the Burlington County Court House, 1796, and the William Judson house, 1723; also mantels, entrances and stairwork drawn from English inspiration.

RICH in historical memories are the new woodwork designs by CURTIS

MASTER designers in wood such as no other age has equalled... craftsmen skilled in the use of the chisel and plane as no others ever were—such were the builders of pre-Revolutionary houses.

Naturally, the Curtis Companies turn to the work of these famous artisans for designs of Curtis Woodwork. Many of their doorways, mantels and stairways are reproduced from houses rich in historical memories that have stood the criticism of nearly two centuries. The stairwork in the George Read II house, illustrated above, is an example.

And Twentieth Century production processes enable you to buy a complete stair like this for no more than you would have to pay for stairwork without the beauty and quality that you see here.

Curtis makes these reproductions in limited quantities, so if you plan to build or remodel within the next year or two, place your order now. The leading dealer in woodwork in your town (if you live east of the Rockies) is probably a Curtis dealer. He will be glad to explain the many quality points of the Curtis line, to show you the Curtis catalog.

If you do not know the Curtis dealer serving your community, please ask us who he is. Use the coupon and we will send you free beautiful descriptive literature of Curtis stairwork, including many other designs.

Visit Curtis Woodwork, Inc., Display Rooms and Sales Office, Room 201, 9 East 41st St., New York City. Chicago Display Rooms, Curtis Door & Sash Co., 1414 S. Western Avenue, Chicago, Ill.

The Curtis Companies Service Bureau
904 Curtis Building, Clinton, Iowa

DOORS—Every house must have them

Even to those everyday items of woodwork which every house must have—windows, doors, frames, trim—Curtis applies the same care in design and manufacture. This Curtis door C-3020 is an example. It is an excellently proportioned design based upon the best Colonial traditions. It is made in several forms: in white pine, with thick raised panels and two types of molding; a similar door with flat panels is made in white pine and birch with ovolo molding. They come in sizes suited to every practical purpose, in both 1/2-inch and 3/4-inch thicknesses.

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OUR HERITAGE OF FURNITURE  
(Continued from page 34)

Many people know it as "Colonial," which properly it is not. The usual pieces of American Empire are pedestal tables, both dining and living room; sideboards; chests of drawers; secretaries; and beds. Most of the examples are rather heavy, with no feeling for delicacy or proportion. The mahogany used is beautiful, and it is a pity it was not put to a better use. At its best American Empire is handsome and livable. As it is usually large and heavy, it quite overpowers small rooms. It does not lend itself well at all to reproduction. The attempts to do so have been quite unsuccessful.

This then is our furniture heritage. It is a bit surprising that it can be compressed into the space of about four hundred years. We today live under very different conditions, and it is hard for us to make our furnishings as sincere as the earlier homemaker did. Now we have spread before us a confusing array of examples from all the different styles, and it is difficult at times to create harmony out of them. One thing to guide us is a feeling of what styles will go together. The heavier, sturdy, early forms of oak or walnut do not combine well with the delicate contours of the 18th century mahogany. In general one can arbitrarily say that oak and mahogany should not be used together. Walnut in certain styles may be used with either, but there is too big a gap in feeling between oak and mahogany for them to be harmonious.

One interesting thing about combining types is that almost always examples of the same general contours, but from different countries can be combined very satisfactorily. For instance Early English harmonizes well with Early Italian or Early French. French Provincial furniture is to France about what our Early American is to us, the simplified version of the elegant furniture of the French nobility. It is strictly cottage and farmhouse furniture. For that reason it combines beautifully with Early American. Just as soon as we get a “feel” for the different styles it is very fascinating to build harmonies out of friendly types.
Concrete Masonry Homes

are superior because they are built of a material that is beautiful, permanent, economical and firesafe.

Concrete block have made it possible for the home owner of average income to enjoy the benefits of fine masonry construction. The units may be exposed in the wall surfaces, with merely a cement wash finish, giving textures of great interest and charm; or they may form the backing for portland cement stucco.

PORTLAND CEMENT ASSOCIATION
Chicago
A National Organization to Improve and Extend the Uses of Concrete
OFFICES IN 32 CITIES
If you seek originality in your roof, remember this picture of the tilling station of Milan! Bros, at Mt. Prospect, Ill., roofed with Winthrop Tapered Asphalt Shingles.

The many ways in which you can lay Winthrops with their twenty colors—solid or blended—result in thousands of individual and original roofs.

Here the Greenfield Blend was used by the architects, Zook & McCaughhey. Some of the shingles are cut in odd sizes. Occasionally a few are bunched up—emphasizing the effect.

Permanency is here along with originality. The thick butts of Winthrops double the thickness of the exposed portions. The colors of Winthrops are non-fading because Winthrops are surfaced with crushed slate of natural and not artificial colors. Winthrops do not curl. They can not rot, rust, split or crack. They bear the Class C Label of Underwriters Laboratories.

Bulletin A-19
Most good lumber dealers carry Winthrops, but we would like to send you illustrated literature on these exclusive shingles. Write us, asking for Bulletin A-19 and mention, please, if you would like a sample of Argotex Building Felt, noted for its insulating value.

BECKMAN-DAWSON ROOFING COMPANY
223 W. Jackson Blvd.
CHICAGO, ILL.
Factories at Chicago, Detroit and Lockport, N. Y.

HARRS, LEDGES AND HECKS
(Continued from page 15)
used in its construction and the joints between these planks were emphasized with a bead, so that as the joints opened up by the shrinking of the wood, they would not show any more than they did when made new. Two wide planks were used for the sides and one narrow for the middle. Now these planks were fastened together on the opposite side with ledges which were placed along the upper and lower edge of the door and one or two across the middle portion. Along both edges vertical planks the same thickness as the ledges were fastened, so that the door, from this side, seemed to be built with panels. To emphasize this effect, a small moulding was fastened around the border line of the panels. The door, thus, was on one side a plank door and on the other a panel door. Actually it was built like a ledged door. This type represents the effort of a carpenter to build a panel door, when he has not the equipment to construct a good one. In itself, it is neither a ledged door nor a panel door, and certainly is not to be copied as a good example.

(Continued on page 42)
WHAT'S BEHIND THE CURTAIN OF BEAUTY?

More than beauty is at stake for those who are planning a home. The comfort of walls insulated against heat, cold and moisture, and the protection of fire-proof construction are essential to American standards of home life. The permanence of a well-built house, the security of investment, too, has a place of importance in home planning and building.

These things, all of them, and many other advantages of beauty, comfort, safety and economy, are assured through the use of Structural Clay Tile. Interesting literature describing the characteristics and use of this versatile building material awaits your request.

STRUCTURAL CLAY TILE ASSOCIATION
Formerly Hollow Building Tile Association
1401 ENGINEERING BUILDING
CHICAGO, ILLINOIS
No Painting Expense On Tile Homes

You will be happily free from painting and upkeep expense if you build with tile. The ordinary home has to be painted every three or four years—the tile home, never! Insurance rates on it are lower because it is fire-safe. Tile is practically "everlasting."

Tile keeps the home warmer in winter and cooler in summer. If you ever want to sell, you will find buyers more plentiful and willing to pay a higher price for your tile home.

Yet tile construction costs no more completed than when ordinary materials are used. Ten years from now it will have actually saved you money.

May we send you the illustrated circular, "How to Use Denison Load-Bearing Tile"? Many small-home builders have found it valuable as well as helpful. No obligation—just write—

Mason City Brick & Tile Co.
314 Denison Bldg.
Mason City, Iowa

Brighten Your Kitchen!

You will appreciate Ambler Asbestos "WALTILE," which is made in pleasing, cheery colors. It has a brightly glazed finish, and is easy to clean with a damp cloth.

Add color to your home by using Ambler Asbestos "WALTILE." Every member of the family will like it.

Used for kitchens, pantries, dinettes, bathrooms, sunporches and cellars. Adaptable to new or old homes. Made of asbestos fibre and cement: fireproof and enduring.

Write for Folder No. 237.

AMBLET ASBESTOS
SHINGLE, SLATE & SHEATHING COMPANY AMBLER, PENNA.

HARRS, LEDGES AND HECKS

(Continued from page 40)

The real panel door is a joiners product, and when properly built represents the highest development of door construction. In the older days, before machines were invented to cut the wood for such doors, they were looked upon as a luxury. Today, they are very easy to obtain, for machines can be used to cut the panels, shape the sides, top and cross rails, and cut the dowels, mortises and tenons which fasten the parts together. The construction of the panel door is the cabinet makers answer to the problem of how to build a wide, thin screen of wood which will not split and warp.

Wood shrinks readily across the grain, but not so much with the grain. Hard woods, like oak, not only shrink but split and twist out of their plane. Doors made of solid oak cannot be made to resist this action, but doors made of soft pine cores, veneered over with oak will stand up, for soft woods are not so apt to split under the swelling and shrinking action of our climate, for the structure of the soft woods is very much simpler than that of the hard woods.

(Continued on page 44)
Dependable Oil Heat

Here is everything you look for in the very finest type of oil burner—positive electric ignition, quiet atomization, perfect combustion, approved automatic controls—all developed to their highest degree in a burner designed especially for home heating requirements and readily adaptable to any size or style of heating plant, old or new.

The most modern principles in home heating engineering embodied in the Wayne Oil Burner continue to prove its outstanding acceptance as the best means of heating the modern home.

Let the Wayne Dealer explain how quickly and easily your present heating plant can be converted into carefree, automatic Wayne Oil Heat. A demonstration of the perfected oil burner in actual operation will not obligate you in any way.

THE PERFECTED
Wayne Oil Burner

THE LUXURY
of even, moist, heat, making Summer in the home throughout the Winter, is obtained with the

HESS
ELECTRICALLY WELDED
STEEL FURNACE

at a remarkably low cost for installation and fuel. Guaranteed leak-proof as long as it shall stand. The lowest possible price is obtained by buying DIRECT FROM THE MAKERS.

Send us a sketch of your building requiring heat and we will make a detailed heating plan, with estimate of cost of the complete equipment, laid down at your door.

Ask for our 48 page illustrated booklet, with supplement showing our latest 1929 model furnaces.

HESS WARMING & VENTILATING COMPANY
Furnace Makers Since 1873
1225 South Western Avenue, Chicago, Illinois

Makers of Hess Snow-White Steel Medicine Cabinets.
No Small Home Should be Built without Space Saving Closets and K-V Fixtures!

It is imperative in this day of space economy to cut down on the size of clothes closets. Space wasting clothes closets are as old fashioned as tin bath tubs. But the housewife must have storage capacity for garments. The small, properly constructed clothes closet, when equipped with K-V Clothes Closet Fixtures, will hold more clothing and keep it in better condition than the old style "roomy" closet twice the size.

Send for our booklet "The Small Home and Order!" and get the entire story of this modern method.

Made in sizes from 12 to 60 inches to fit all clothes closets in new homes or old.

HARRS, LEDGES AND HECKS

(Continued from page 42)

Now by building a rigid frame of soft wood, which is fastened together by dowels at the corners and across the middle by bracing rails, panels of wood can be fitted into grooves, made by moldings along the edges of the styles of the door. The panels are not fastened into these grooves rigidly, and so as the wood swells and shrinks, it is free to move. Cracks are not so apt to develop as a result.

Some of our finest modern doors do not have the panels made of single boards of wood, but with three layers of wood, each layer having its grain at right angles to the next. These layers are glued together under pressure into a board that will resist warping and shrinking better than any solid board. The outer veneer of wood may be a veneer made from a specially selected piece of hardwood with a beautiful grain. Doors constructed in this manner can stand the drying effect of steam heated rooms and the dampening effect of our summer months. They do not warp and do not require planing to keep them from sticking in the damper days of spring. Any sticking of the doors in the frame will be due entirely to the shrinkage of the timbers in the house, which cause the frames to become distorted.

Building up the panels of the door with layers of wood placed so that the grain of one layer is perpendicular to that of the next layer is an old idea, but it was never applied with great success until machines were invented to cut thin veneers cheaply and presses were built that could compress these layers together under great pressure. Old English and Colonial doors were built in layers, but were not fastened together perfectly. Vertical boards on the outside, diagonal ones on the interior, and horizontal ones on the inside face were fastened together with nails arranged in diagonal rows. These nail-studded doors are very effective. If you have ever visited New England, you were probably captured by their charm. But after all, the modern layer built door is constructed better than any of the old doors, no matter how charming in their primitive form they may be.

ARE YOU GOING TO BUILD?

Save your walls and curtains from ruin stop infiltration

Cheap, poorly-made window frames cost more in the end. They allow wind, dust and water to filter in between frame and wall. How to be sure of weather-tight frames is explained in our booklet, "How to Make Your New Home More Comfortable." We shall send it upon request.

Andersen WINDOW AND DOOR FRAMES

Send for this Free Booklet. Sign your Name and Address in Margin of Page and Mail to Box No. A54 BAYPORT, MINN.
This Heat Saver is an essential part of the modern Heating Equipment. Put into your new home as fine a boiler as you please—and the newest and best radiators. If you stop there the heating equipment is not complete. The boiler makes heat—lots of it, perhaps, and economically. The radiators put it into the rooms. But a third or more of it leaks out through the walls and roof. Costs you money. Does you no good. The modern complete heating system does not waste heat in this way. To the boiler and radiators it adds the final essential—the Balsam-Wool Blanket which saves the heat—keeps it indoors.

And such a modern complete heating system costs little or nothing extra. A smaller boiler is required. Fewer or smaller radiators. The saving pays all or at least a large part of the cost of the Balsam-Wool Blanket.

Balsam-Wool is thick—you can get it in the recommended full inch thickness as well as the half inch. It is flexible. It tucks in—between the rafters, around doors and windows. It does the job thoroughly—stops heat as no thin, rigid "insulating board" can do it.

Balsam-Wool is sold through retail lumber dealers. You should know more about it. Send the coupon today for free sample and instructive free booklet.

WOOD CONVERSION COMPANY
CLOQUET, MINNESOTA

Makers of Balsam-Wool, the Flexible Insulating Blanket. Also Makers of No-Wood—the All Wood Insulating Wall Board and Lath

Sales Offices in Principal Cities

WOOD CONVERSION COMPANY
Dept. 86, Cloquet, Minn.

Gentlemen: Please send free sample of Balsam-Wool and booklet "House Comfort that Pays for Itself." I am interested in insulation for

□ A new house  □ The attic of my present one

Name
Address
City
State
Of What Are Houses Made?

The Booklets and Pamphlets below describe in an interesting helpful way materials, equipment, and furnishings that you will want to consider for your home. They will be sent for the asking.

### Building Materials

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