



MODERN SMALL HOMES



BEAVER LUMBER
COMPANY LIMITED

FOREWORD



During the past twenty-five years the Western Retail Lumbermen's Association, of Canada, has published fifteen Plan Books containing house designs varying in sizes from the smallest practicable cottage to houses of seven and eight rooms. Our experience in the production of Plan Books has proven to us that the ideal plan for even a small house is entirely a matter of individual taste or circumstances, and that the home builder generally has ideas on the subject of the house he wishes to build.

To meet these conditions, this Plan Book, entitled "MODERN SMALL HOMES", has been prepared. Included are seventy pictures of various types of bungalow designs one storey, and fifty-four floor plans, divided into seven different classifications according to the typical arrangement of the rooms in the plan. For instance, Group A plans have the main entrance and living-room at the front of the house, and are especially suitable for narrow lots. Group B plans have the main entrance in the front between the living-room and one of the other rooms. The characteristics of the other five plan types will be evident upon inspection.

It is stated on each page of design which particular series of plans are suitable, and the plans have similar information with reference to the designs. Thus the selection of plans can be approached either by first selecting the desired exterior appearance or the floor plan arrangement required.

In separating the house designs into seven classifications, the arrangements of features, such as gables and roof design, were the principal consideration and a certain amount of latitude is necessary in the arrangement of win-

dows. As for instance, a picture may show three or even four windows together, where only two or three may be shown on the plans specified as being adaptable to that particular design. Also, it is quite possible that some of the designs with slight changes could be used in connection with more than one type of plan. This will account for the fact that in some instances alternative designs or plans are specified as being suitable.

It will be noticed that floor plans are reversed as compared with the pictures, or vice-versa, so that instructions for the preparation of plans should definitely state whether the floor plan is to be the same way as in the book or reversed.

All rear entrances are shown as grade entrances and if not required, it is a simpler matter to change to the ordinary entrance at the ground floor level than to introduce a grade entrance, if provision has not been made for same.

Room measurements shown on the plans are the approximate inside sizes after allowing the necessary amounts for the thickness of the outside walls and partitions and the outside dimensions adopted are considered as the minimum that should be used to obtain rooms of practicable size for the purposes for which they are intended, so that any attempt to reduce these outside dimensions will unduly reduce the room sizes.

The floor plans were not in any case taken from those of any of the houses of which pictures are presented, so that houses planned by selecting design and plan with the aid of this book will be individual and not a copy of one already built.

Useful Information for Home Builders

During many years of experience in the preparation of plans, principally for home builders, it has become evident that some information as to the best methods of construction and other facts from a legal standpoint should be of the greatest assistance to the prospective builder.

The first consideration is the location of the house or other building, and every care should be taken in this matter. The limitations of City lots do not allow of much choice in this respect, but wherever possible the site chosen for a house should be well elevated to obtain good natural drainage, and not too close to the highway. If it is not possible to obtain an elevated site, make sufficient allowance for grading up the site when ready to put in the foundation. Large trees should be at some distance from the house, but shrubs near the house will make an effective setting. Buildings, such as the garage, milk-house and well-house, should not be in the barnyard, whilst barns and stables should be situated so that the most prevalent winds do not blow from them towards the house.

In connection with the actual erection of any building, one of the first questions to be considered is the source through which the necessary materials shall be obtained, and it is important that a reliable dealer be selected—and from every point of view your local lumber merchant is the logical one to fill this requirement. He has facilities for obtaining the necessary plans and quantities of materials for the size and style of building required, and can give assurance that there will be sufficient to complete the work, providing that the usual care and economy be exercised in construction.

The occurrence of shortages in the quantities of materials supplied for any building often leads to unnecessary disputes, but from the very nature of lumber and other building materials, it must be obvious that it is not possible to figure exactly the quantities of lumber, cement, bricks, plaster, etc., required for houses and other buildings. While there are well established standards as to the quantities of materials required for all classes of work in buildings, unavoidable variations exist which prevent absolute accuracy being attained in the figuring of materials and costs in building operations. On this account you will see that any dealer who will guarantee that certain quantities of building materials will be sufficient to complete any particular work must have included an unnecessarily large allowance of extra materials to take care of undue variations in workmanship or other factors.

With this in mind, you can rest assured that any estimate of the quantity and cost of materials as given to you by your local lumber dealer will be reliable and that if any extra materials are required, it will be due to unusual circumstances which could not ordinarily be foreseen. It would not pay your local lumber dealer to mislead you with an unreliable estimate, losing your goodwill and that of others in your community.

There is also the question of obtaining a price for the labor, and here again while it is advisable to obtain prices from various contractors, do not award the contract to the lowest tender unless submitted by a contractor with a reputation for good work and financially responsible.

The documents necessary for the execution of a building contract are proper working plans, specifications of materials and labor, and a building contract. Both owner and contractor should possess one complete set of each of these documents, fully signed by both parties to the contract. This assures the owner getting a building according to his desires, and the contractor knows exactly what his contract calls for. Each sheet of both plans and specifications should be signed.

From this it will be evident how important it is to be sure that the plans and specifications are prepared exactly as required before the contract is let or the work started, so that no subsequent alterations will be necessary. Such changes always involve what seems an unduly large amount of materials and labor, although the contractor's charges in respect of same may be quite reasonable. The fact remains, however, that many contractors will submit a very low figure to secure a contract, figuring that the amounts they will be able to charge for extra work will enable them to make a good profit in spite of their original low figure. If unavoidable changes become necessary, they should be covered by a written order from the owner, stating therein the cost agreed on same between owner and contractor, so that on completion the proper adjustments may be made.

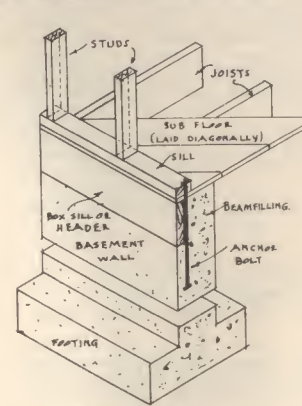


FIGURE No. 1
ALL CONCRETE
BASEMENT WALL

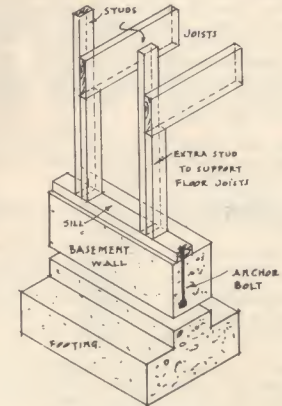


FIGURE No. 2
UPPER PART OF BASEMENT
WALL OF FRAME CONSTRUCTION

ALTERNATIVE METHODS FOR BASEMENT
WALL CONSTRUCTION.

In cases where the owner is buying the materials himself, the plans and specifications are just as necessary and all grades to be used should be clearly stated, as with some materials the use of the better grades will be compensated for by a saving of labor. The specification should state clearly which materials are to be supplied by the owner.

A reasonable time should be allowed in which to complete the work and so stated in the building contract.

To proceed to the actual building operations, the first part is the excavation. This should be made large enough to leave plenty of room for the erection of the concrete forming.

When the excavation has been made to the required depth, examine the subsoil to see if it is suitable for the footings, and should it be damp or wet, get expert advice if possible before putting in the concrete footings. In any case, excavate until a firm dry subsoil is encountered, as it is far better to spend a few dollars more for deeper excavation and extra concrete required for a sound foundation in the first instance than to underpin at some future date on account of settlement.

Be sure that your footings are plenty wide enough at the base to limit the weight on the subsoil to the safe bearing limit. The depth of the footings should at least be equal to or more than their projection from the face of the basement wall, and the bottom of the trench for the footings should be smooth and level before the concrete is placed. Specify the proportions of cement for the concrete, the minimum being a concrete which contains 4 bags of cement in each yard of concrete. As cement and gravel shrink when mixed and made into concrete, it takes 4 bags of cement and $1\frac{1}{4}$ yards of gravel mixed with the necessary water to make 1 yard of concrete. The gravel should be free from loam or clay, and should not have sand in a proportion of more than two-fifths of its content, the remaining three-fifths consisting of stone or pebbles to pass a 2 inch ring. If the gravel contains too much sand it should be screened and mixed again using 2 parts of sand to 3 parts of stones or pebbles. Gravel should be washed free of loam or clay before using for concrete.

The footings and forms should be well wetted so that they will not absorb moisture from the concrete.

Concrete work should not be done in freezing weather unless it can be covered well enough to keep it from freezing until the setting action is well under way.

The following precautions must be observed in order to perform a good concrete job :—

The water must not be either very cold or hot.

Sand or gravel must not be frozen and must be free from loam or clay.

Keep exposed surfaces of new concrete wetted and protect from sun.

Do not remove forms before concrete is well set. This settling process takes a longer time in cold than warm weather.

A system of weeping drains should be placed around the basement walls with an outlet to some system of drainage. It is advisable to waterproof the outer portions of the basement wall below the grade with tar and pitch or some approved waterproofing compound.

If you are building a basement, make the height at least seven feet, or more if possible, from the concrete floor to the underside of the floor joists. This will allow sufficient height for the pipes of the heating system (whether hot air or hot water) and the necessary rise in the same.

Thimble openings for smoke pipes should be 12 inches from any woodwork; but where nearer, the woodwork should be covered with heavy asbestos paper and metal. Where woodwork is nearer than six inches to hot air pipes from furnace, it should be covered with heavy asbestos paper.

If possible, provide a double flue, one for the furnace or stove and the other for the kitchen range, and if there is a fireplace it should have a separate flue. These flues should all be lined with flue linings of the proper size extending from the points where the smoke pipes enter up to their highest point.

The footings under the basement posts should be at least two feet square and ten inches deep and on these footings should be a pier of concrete ten or twelve inches square extending to a point at least 3 inches above the finished basement floor. This will avoid the rotting of the feet of the basement posts, as often happens when they are sunk into the floor. The concrete for the basement floor should be at least three inches thick with a fall from all parts to the catch basin, and under this concrete floor should be a layer of gravel at least two inches thick well rammed. This will help considerably in keeping the basement free from damp.

The weight of a building is not in itself sufficient to hold it on the foundation against winds of unusual velocity, particularly in exposed open spaces, and anchor bolts $\frac{3}{4}$ inch in diameter and at least 18 inches long should be set in the foundation wall at about 8 feet apart. These extend through the sill and effectively tie the building down. These are indicated in Figures 1 and 2.

The spaces where the ground floor joists enter the basement wall should be well filled with concrete, (see Figure 1.) This will seal up the points where considerable cold may enter and also make the floor firm.

Where joists are trimmed for openings for stairs, etc., and where they occur under partitions running parallel to the direction in which they run, doubled joists should be used, and at every eight feet in their length they should be bridged, the bridging to be nailed solid after the floors are laid. (See Figure No. 3)

The sub-floors should always be laid diagonally, as in Figure 1, as this makes a more rigid job and ensures that the joints of the finished floor need not be in the same direction as those of the sub-floor.

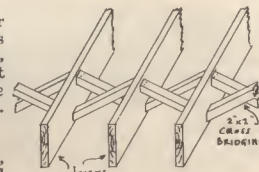
The top plates of the outside walls and all partitions should be doubled, and a row of headers or bridging between the studs of the outside wall will retard the spread of fire. This is shown as bridging in Figure 4.

Be sure your floor and ceiling joists are strong enough for the spans and loads they are to carry, otherwise while the floors may not fail, unsightly cracks may develop in the plastered ceilings.

Put a layer of heavy tar paper between the floors of the ground floor, this will prevent any dampness from the basement affecting the finished floors, particularly so in the case of hardwood floors.

In a frame house there should be one-ply each of heavy building and tar paper put on the outside shiplap before the siding or other finish is applied and particular attention should be paid to the joints around all windows and outside door openings, which should be tightly fitted and preferably caulked with oakum or asphalt mastic preparation.

The first ply of shiplap on the outside of the building is commonly nailed on horizontally. The building is strengthened and stiffened many times over if this is put on diagonally at an angle of 45 degrees to the studs, as in Figure 4. This shiplap, being continuous from ground floor joists and sill, ties the whole framework of the building together and when anchor bolts are used as in Figures 1 and 2, the utmost stability is obtained.



CROSS BRIDGING FOR FLOOR JOISTS.

FIGURE No. 3

Figure 2 shows a method of construction for basement and outside walls where the outside siding, shingles or stucco extends almost to the grade line. Objections are sometimes made to the upper portion of a basement wall being of frame construction from the standpoint of warmth, but the fact is that the ordinary well constructed frame wall conducts less cold than a solid concrete wall 10 or 12 inches thick.

On the inside of the outside wall studs and also on the underside of the ceiling joists next to the roof should be one ply of shiplap and one ply of heavy building paper or sheathing. This surface is then strapped with 1 x 2 at 16 inch centres ready for lath and plaster. This is very important where the ceiling is concerned, as during the winter a considerable amount of heat will filter through ordinary lath and plaster and disperse itself in the roof.

All joints in framing and boards to framing should be well nailed with suitable nails of the proper sizes. The strength of a frame building lies in the multiplicity of the nailed joints.

When the building is plastered, cover the window and outside door openings with muslin or other light cloth so that air currents and heat will not dry the plastering out too quickly or the finished surface will be checked. This, of course, particularly applies in hot weather. On the other hand, plastering should not be allowed to freeze before setting.

After the plastering is finished, allow enough time for it to dry thoroughly before nailing in place the inside finish, which would twist and warp if applied while the plaster was still damp.

The new building should not be allowed to stand for a long time unpainted. The first coat of paint for the outside should be the priming coat. This should consist of raw linseed oil, pure white lead and a proportion of turpentine, or ready mixed paint used in the proportions of one gallon of paint, one of pure raw linseed oil and one pint of pure turpentine. This forms a first coat which penetrates the pores of the woodwork and forms a foundation for the second and third coats. At least 40 hours should be allowed between coats of paint.

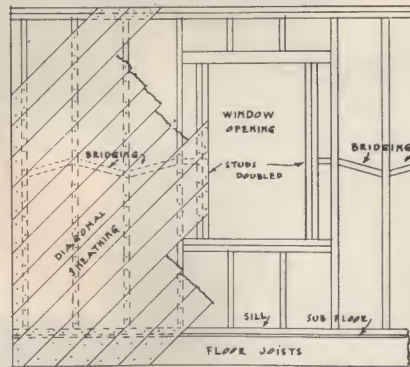


FIGURE No. 4
OUTSIDE WALL CONSTRUCTION SHOWING
DIAGONAL SHEATHING & FRAMING FOR OPENINGS.

WE STRONGLY RECOMMEND THE INSULATION OF EVERY HOME

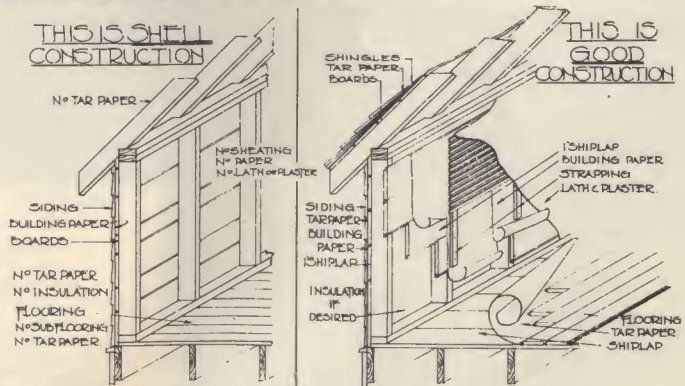
Think what it means to you to control the "weather" within your home and shut out transmission of noise from one room to another! Then add to this the fact that a half inch of insulating material is equal in insulating efficiency to twelve inches of solid concrete.

Also, when you take into consideration that the cost of completely insulating a home is only 1% of the total cost of the home and that this cost is returned to you within two years through savings in fuel in winter, to say nothing of the cool rooms you enjoy in the blazing heat of summer, we cannot understand why anyone who is building a home these days does not insist upon and use some form of insulation.

Your lumber dealer will be only too glad not only to advise you further regarding the insulation of your home, but also submit samples of insulating materials which he carries in stock and which are guaranteed to perform just the duties which we have above briefly related.

When the house or building is completed, before paying the contractor the amount of his contract in full, make sure that he has paid all accounts for material and labor and that all sub-contractors are paid in full. A responsible contractor will have no hesitation in producing all vouchers and receipts necessary and any reluctance in this respect should be regarded with suspicion; so in any case, absolutely insist on seeing all receipts and you will be saved the annoyance of finding that a lien or liens have been placed on your property.

In closing, too much emphasis cannot be placed on the fact that it is always the best policy to deal with a reliable dealer and put your contract in the hands of a trustworthy and responsible contractor at a fair price, even though his figure may not be the lowest you obtain.



[Protect yourself. Get good construction through your Home-Town Lumber Dealer]



Design 101



Design 104

For suitable floor plans refer to
Nos. A-1 to A-12, Pages 20 &
21.



Design 103



Design 102



Design 105



Design 106

For suitable floor plans refer to
Nos. A-1 to A-12, Pages 20 & 21
(Sun Room or veranda added
as shown).



Design 107



Design 109



Design 108



Design 110



Design 111



Design 114



Design 113



For suitable floor plans refer to
Nos. A-1 to A-12, Pages 20 & 21
(Sun Room or veranda added
as shown).



Design 112



Design 115



Design 116



Design 119

For suitable floor plans refer to
Nos. B-1 to B-8, Pages 22 &
23.



Design 118



Design 117



Design 120

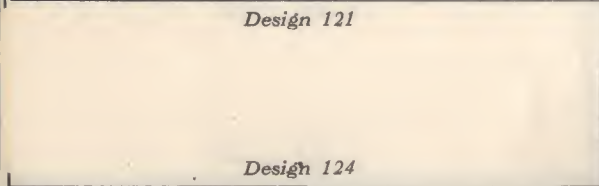


Design 121

For suitable floor plans refer to
Nos. B-1 to B-8, Pages 22 &
23.



Design 122



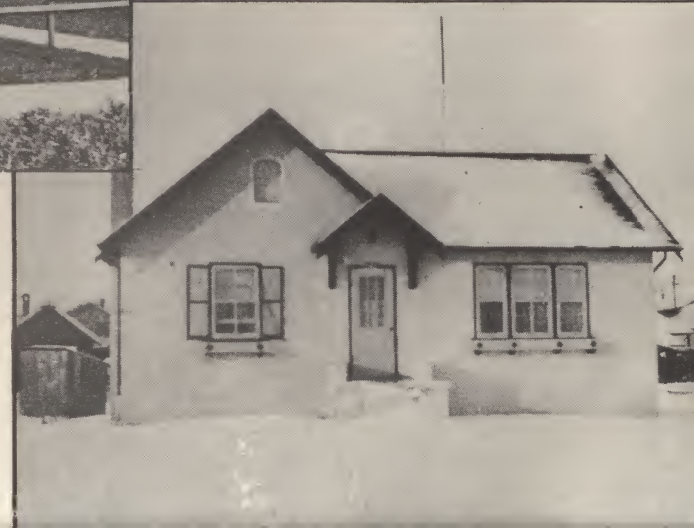
Design 124



Design 125



Design 123





Design 126

For suitable floor plans refer to
Nos. B-1 to B-8, Pages 22 &
23.



Design 127

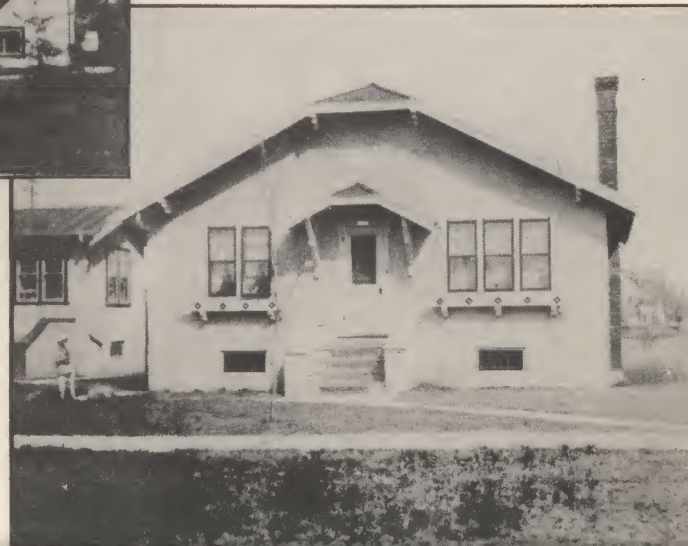


Design 128

Design 130



Design 129



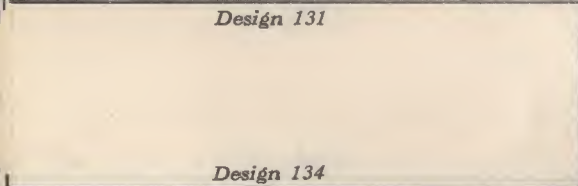


Design 131

For suitable floor plans refer to
Nos. B-1 to B-8, Pages 22 &
23.



Design 132



Design 134



Design 133



Design 135





Design 136

For suitable floor plans refer to Nos. B-1 to B-8, Pages 22 & 23, (Projecting vestibule, sun room or veranda to be added as shown).



Design 137

Design 139



Design 138

Design 140





Design 141

For suitable floor plans refer to Nos. B-1 to B-8, Pages 22 & 23, (Projecting vestibule, sun room or veranda to be added as shown).



Design 142



Design 144



Design 143



Design 145

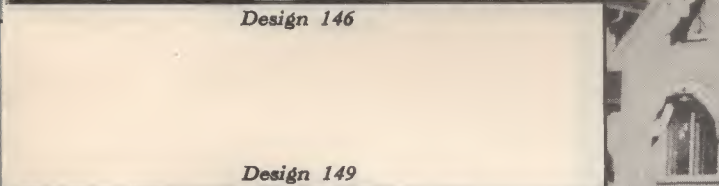


Design 146

For suitable floor plans refer to Nos. C-1 to C-4, Page 24 (Fireplace at front or side as desired). Floor plans, D-11 to D-14, Page 27, are also adaptable.



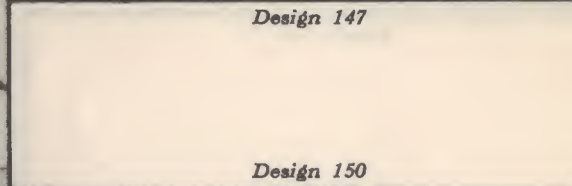
Design 147



Design 149



Design 148



Design 150





Design 151

For suitable floor plans refer to
Nos. D-1 to D-14, Pages 25 to
27.



Design 152



Design 154



Design 153



Design 155





Design 156

For suitable floor plans refer to
Nos. E-1 to E-6, Page 28.



Design 157

Design 159



Design 158

Design 160





Design 161



Design 164

For suitable floor plans refer to
Nos. F-1 to F-4, Page 29.



Design 163



Design 162



Design 165

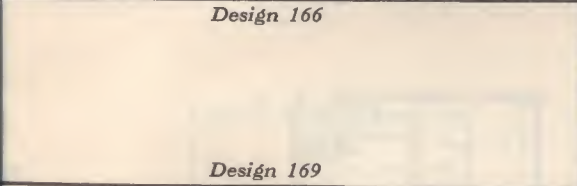


Design 166

For suitable floor plans refer to
Nos. G-1 to G-6, Page 30.



Design 167



Design 169

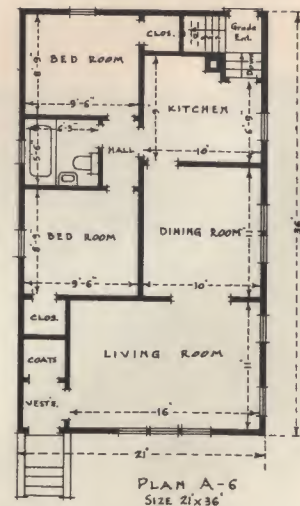
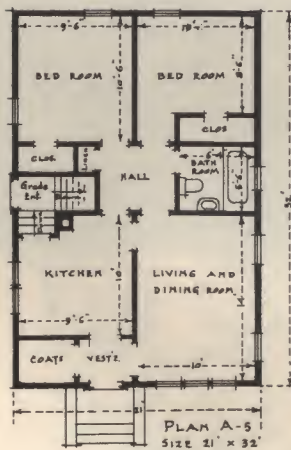
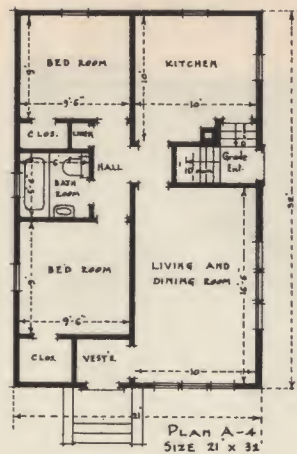
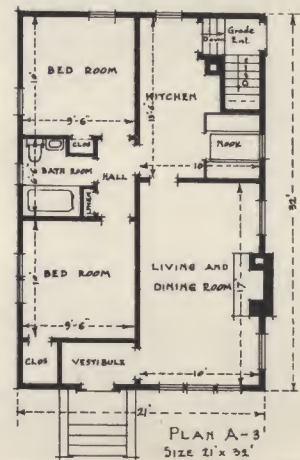
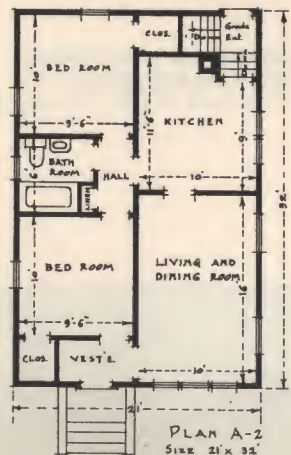
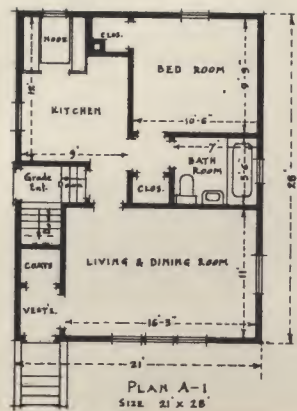


Design 170

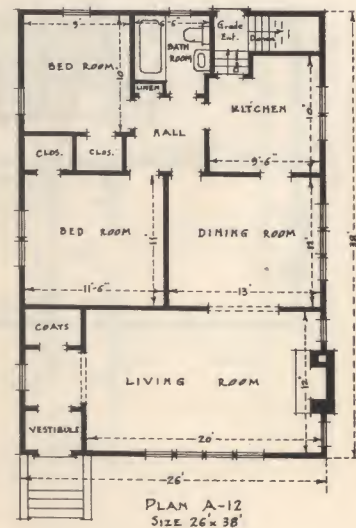
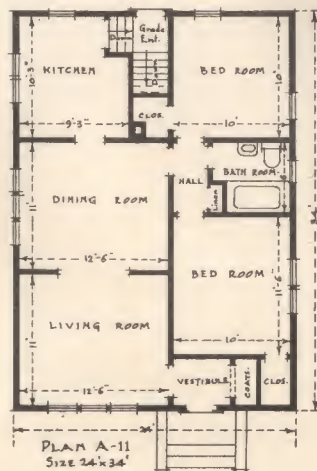
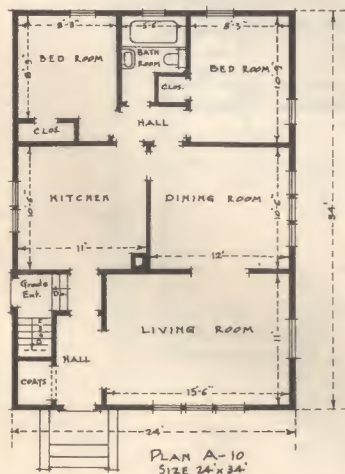
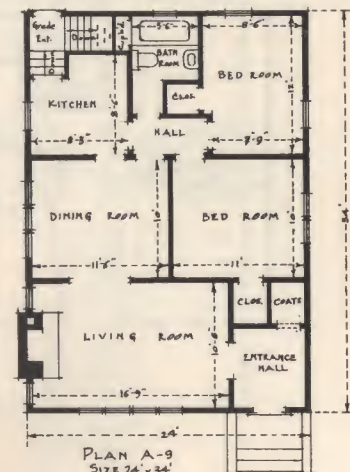
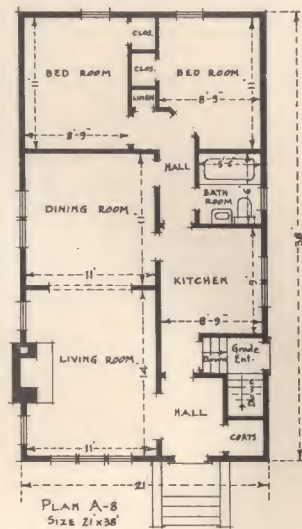
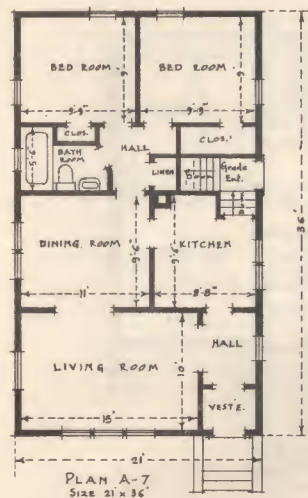


Design 168

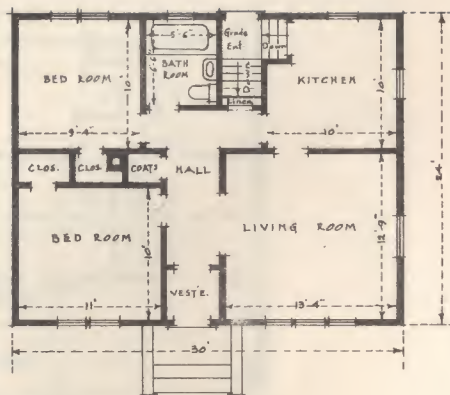




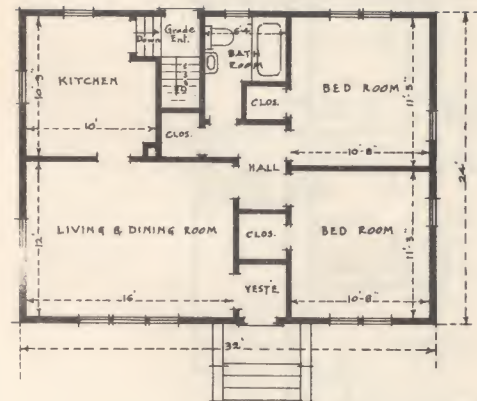
For designs suited to these floor plans, see Nos. 101 to 105, Page 6.
With addition of veranda or sun room, see Nos. 106 to 115, Pages 7 & 8



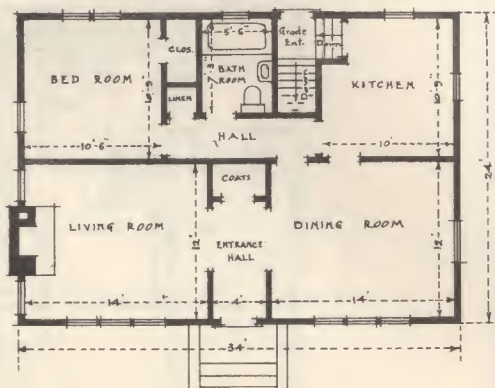
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With addition of veranda or sun room, see Nos. 106 to 115, Pages 7 & 8



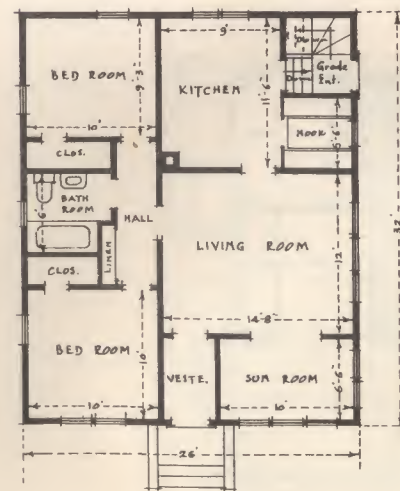
PLAN B-1
SIZE 30'x24'



PLAN B-2
SIZE 32'x24'

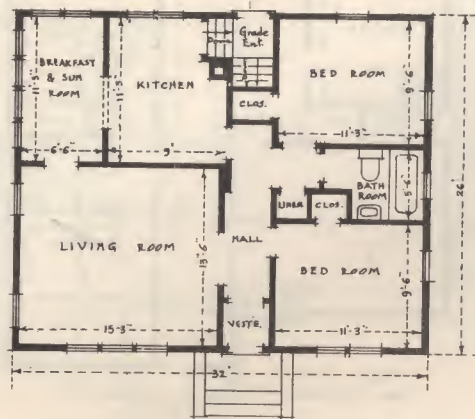


PLAN B-3
SIZE 34'x24'

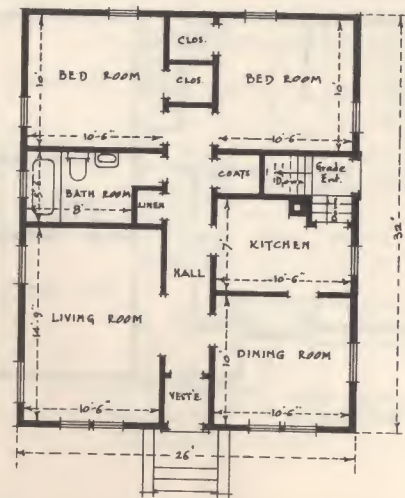


PLAN B-4
SIZE 26'x32'

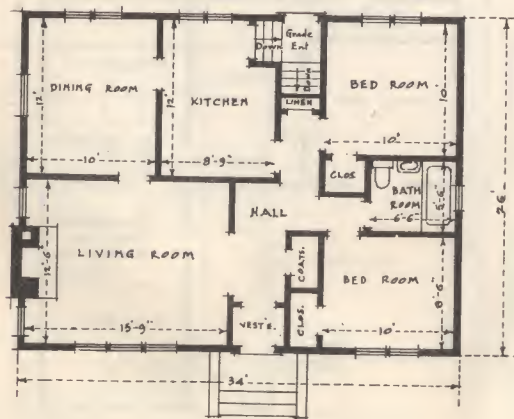
For designs suited to these plans, see Nos. 116 to 135, Pages 9 to 12.
With projecting porch, veranda or sun room, Nos. 136 to 145, Pages 13 & 14.



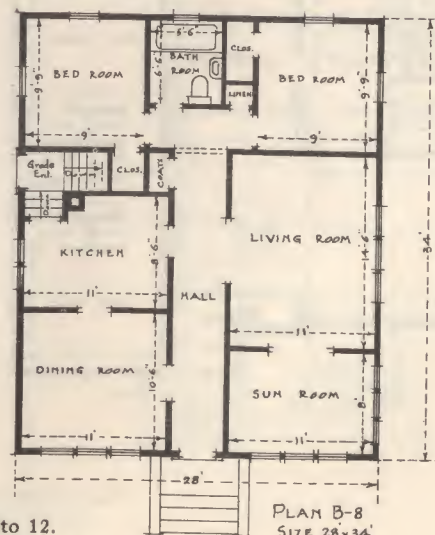
PLAN B-5
SIZE 32' x 26'



PLAN B-6
SIZE 26' x 32'

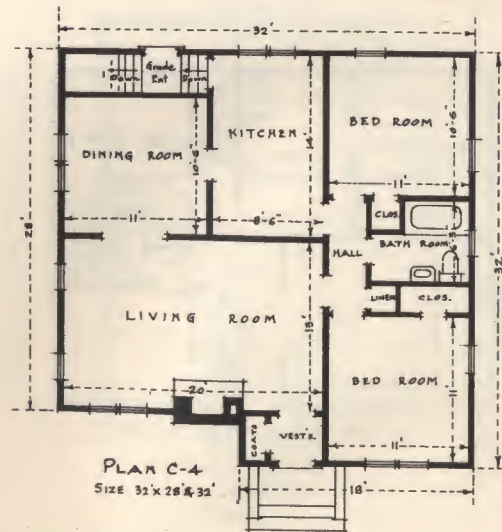
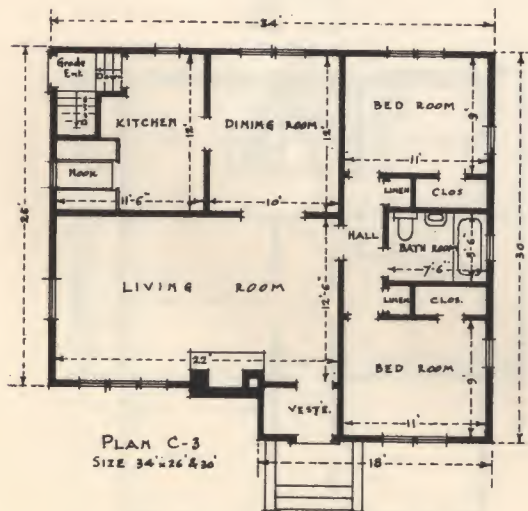
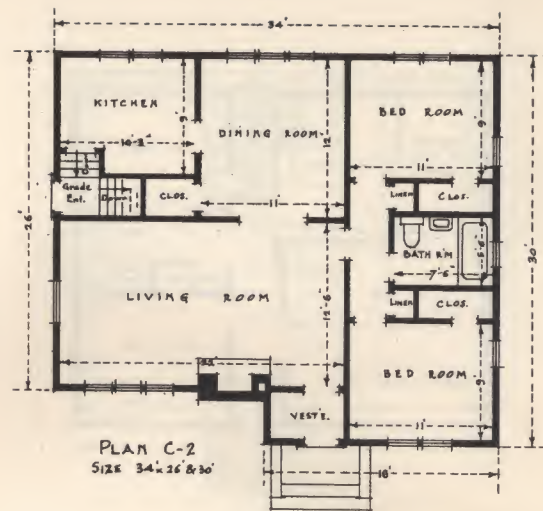
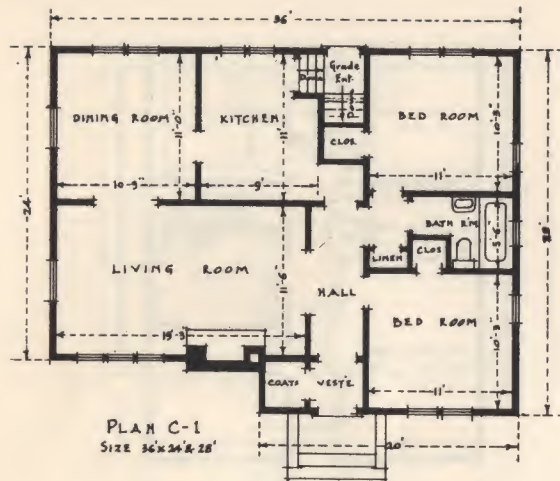


PLAN B-7
SIZE 34' x 26'



PLAN B-8
SIZE 28' x 34'

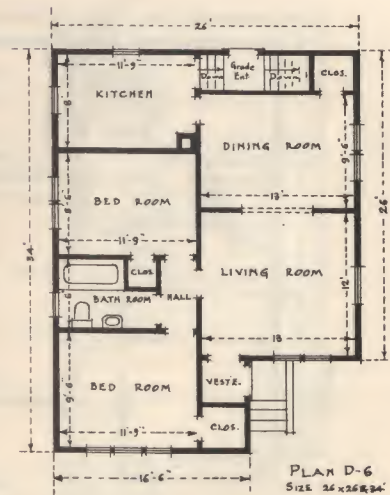
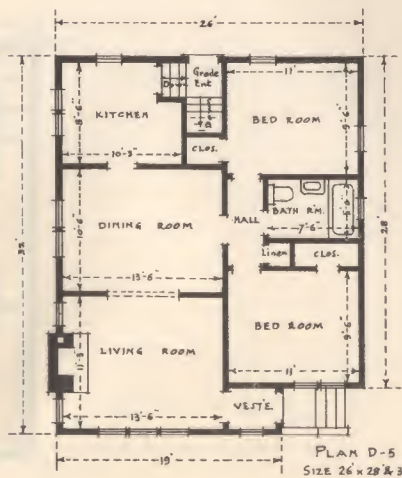
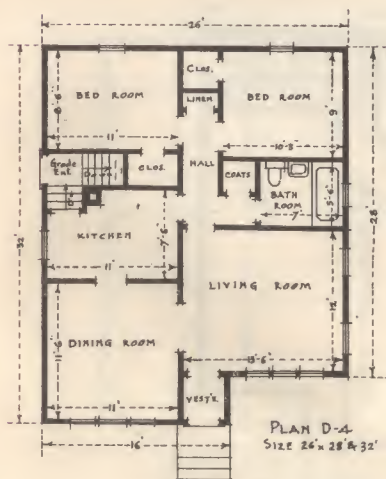
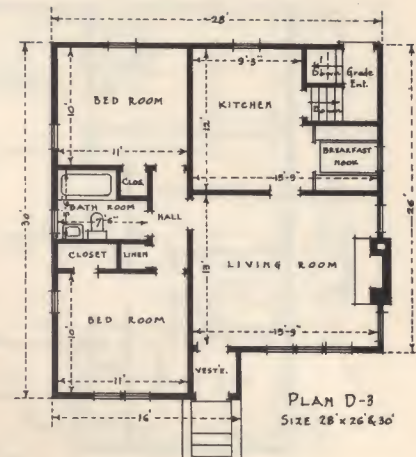
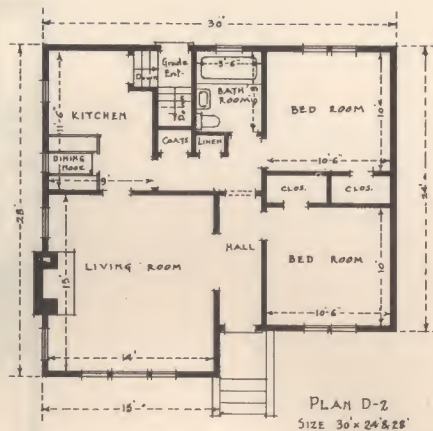
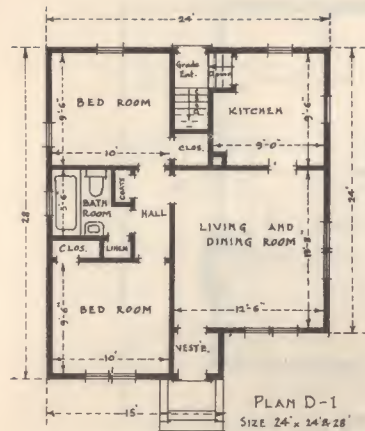
For designs suited to these plans, see Nos. 116 to 135, Pages 9 to 12.
With projecting porch, veranda or sun room, Nos. 136 to 145, Pages 13 & 14.



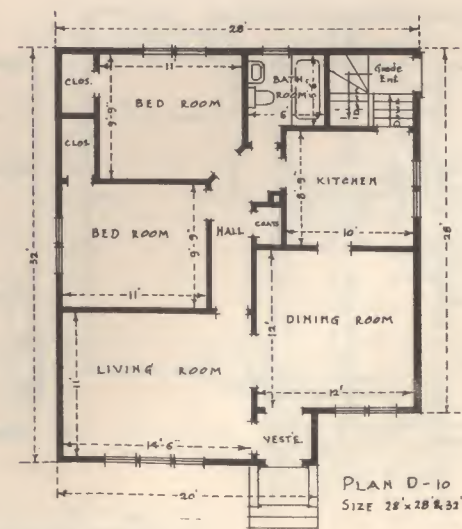
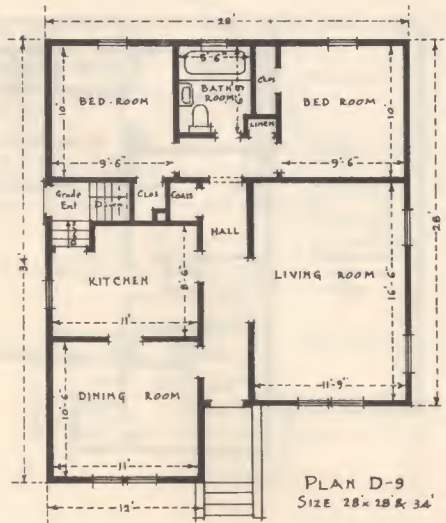
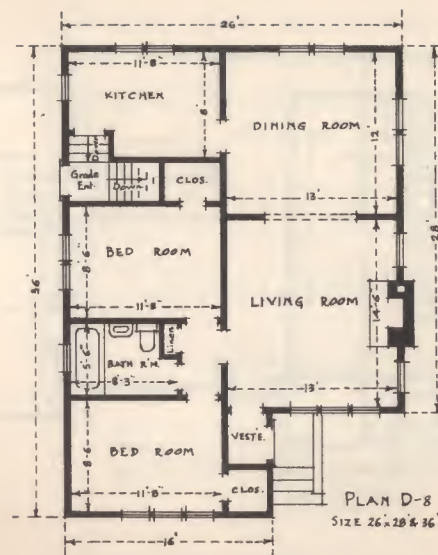
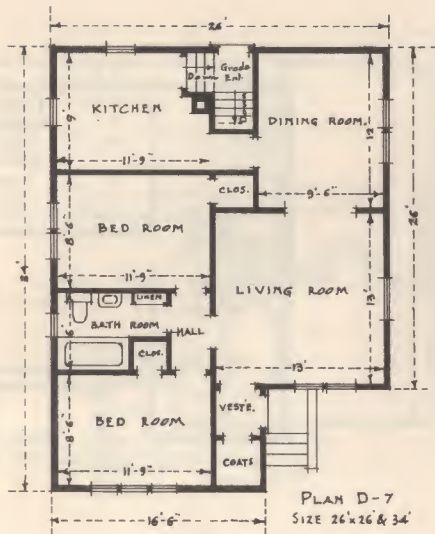
For designs suited to these plans, see Nos. 146 to 150, Page 15.

Front or side fireplace as shown, or desired.

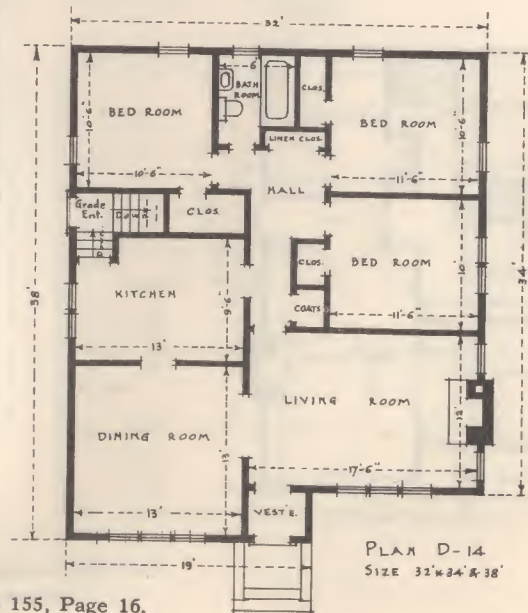
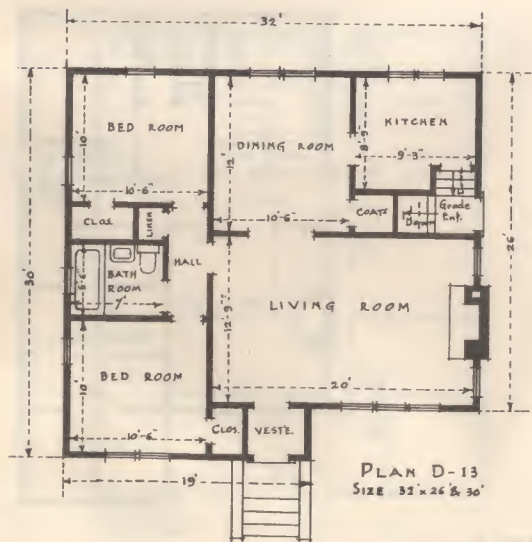
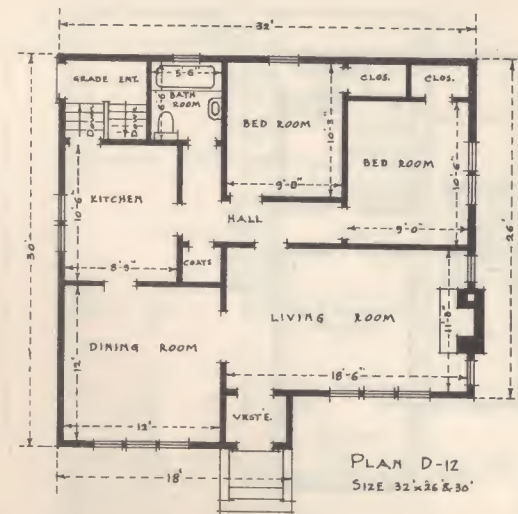
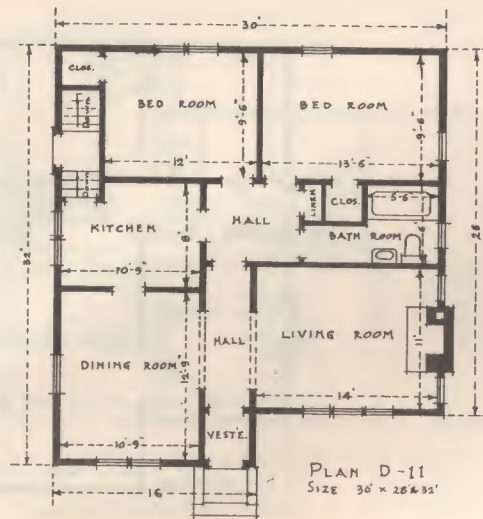
(Designs 151 to 155, Page 16, are also adaptable)



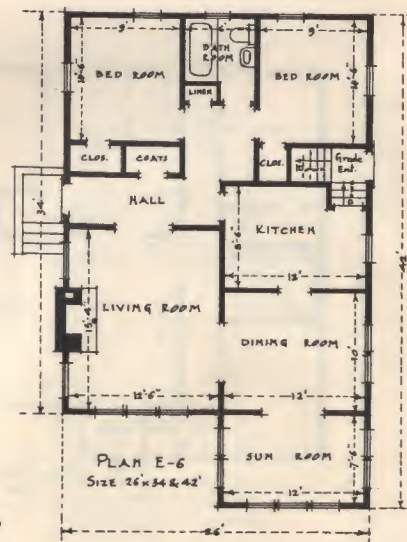
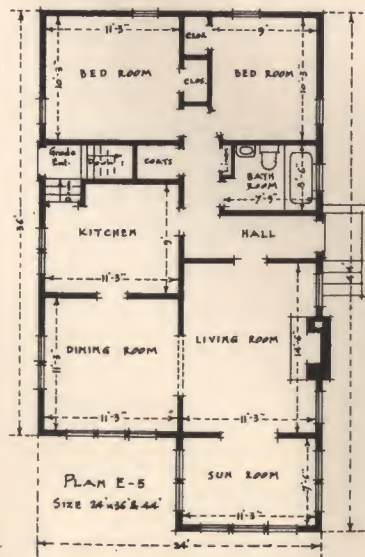
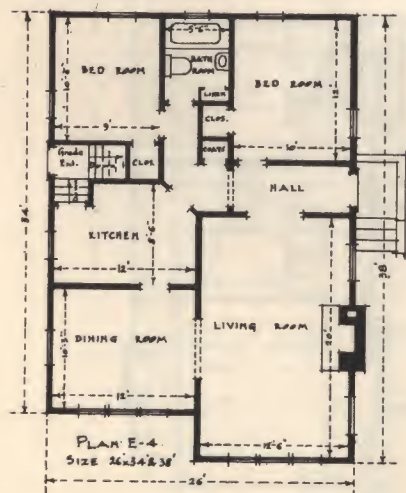
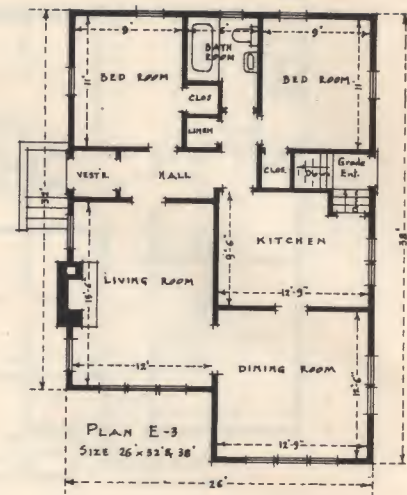
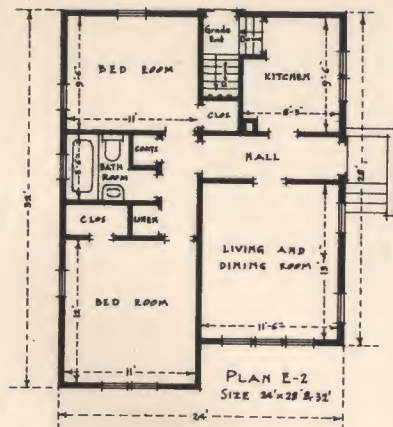
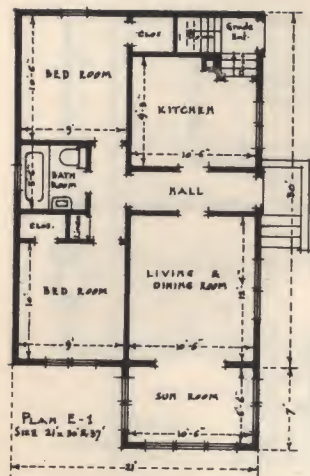
For designs suited to these plans, see Nos. 151 to 155, Page 16.



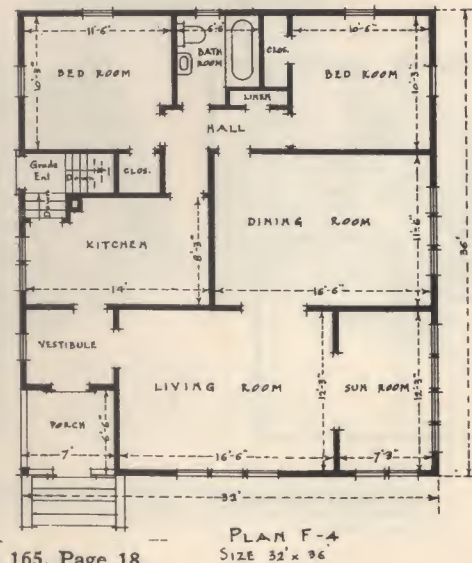
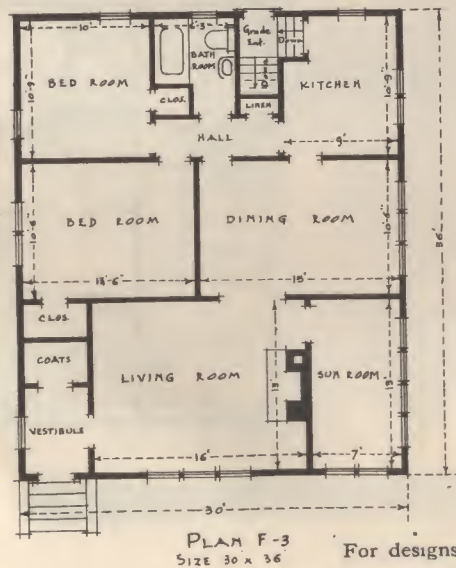
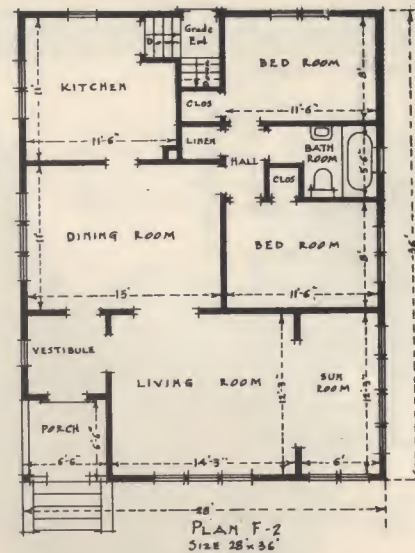
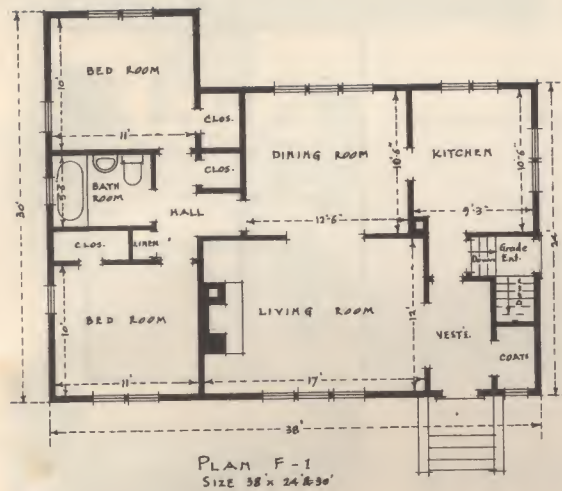
For designs suited to these plans, see Nos. 151 to 155, Page 16.



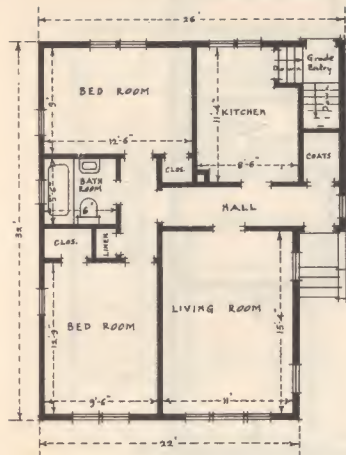
For designs suited to these plans, see Nos. 151 to 155, Page 16.
(Designs 146 to 150, Page 15, are also adaptable)



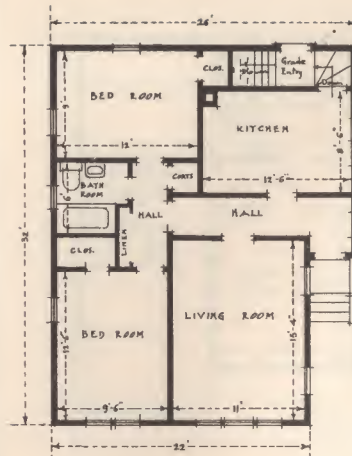
For designs suited to these plans, see Nos. 156 to 160, Page 17.
(Designs 107 to 110, Page 7, are also adaptable)



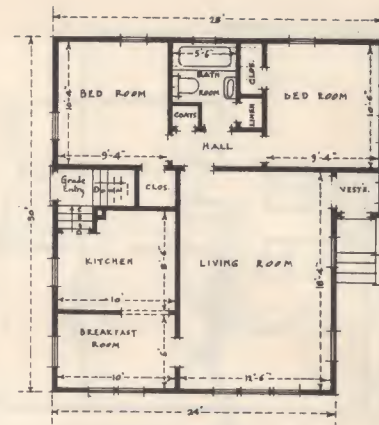
For designs suited to these plans, see Nos. 161 to 165, Page 18.



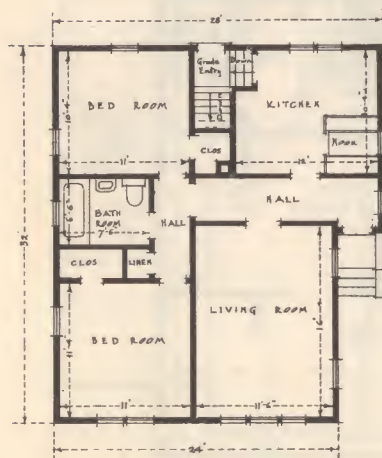
PLAN G-1
SIZE 22' x 32'
(36' WIDE AT REAR)



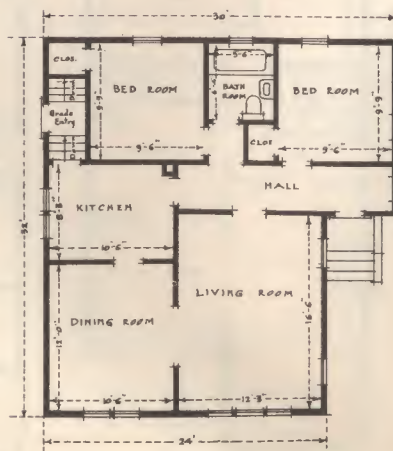
PLAN G-2
SIZE 22' x 32'
(26' WIDE AT REAR)



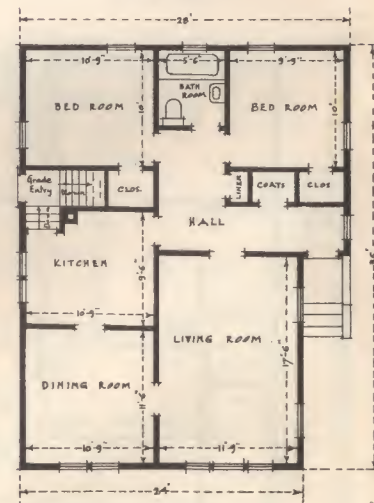
PLAN G-3
SIZE 24' x 30'
(28' WIDE AT REAR)



PLAN G-4
SIZE 24' x 32'
(28' WIDE AT REAR)



PLAN G-5
SIZE 24' x 32'
(30' WIDE AT REAR)



PLAN G-6
SIZE 24' x 36'
(28' WIDE AT REAR)

For designs suited to these plans, see Nos. 166 to 170, Page 19.

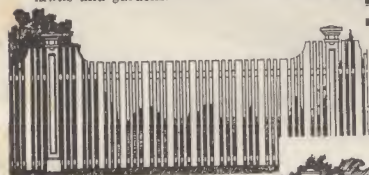


MODERNIZE WITH LUMBER



SLAB PICKET WOOD FENCE

We here illustrate a few ornamental wood fences as suggestions to those who would beautify their lawns and gardens.

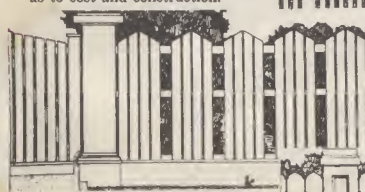


WOOD PICKET FENCE

A good idea is to separate the flower garden from the vegetable garden with a lattice fence over which vines can grow.

SLAB PICKET WOOD FENCE

If you have special ideas of your own which you want worked out, we will be glad to advise you as to cost and construction.

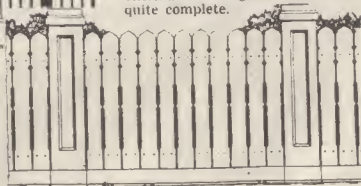


ORNAMENTAL WOOD FENCE

Without a garden or lawn round the home is never quite complete and without attractive enclosures the garden is never quite complete.

WOOD PICKET FENCE

Showing the home at its best is accomplished only by careful preparation of the lawn and garden with appropriate fences and enclosures.



ORNAMENTAL SLAB WOOD FENCE

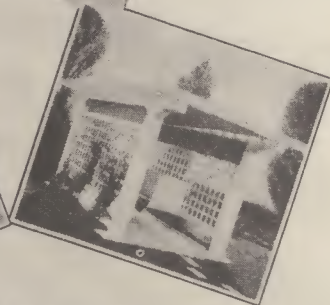
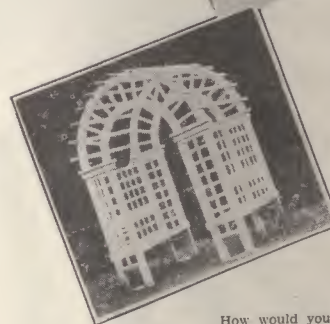
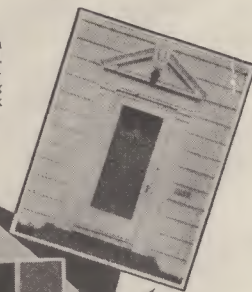
Let Us Help You Modernize



MODERNIZE WITH LUMBER



MODERNIZING can add a porch pergola, lattice fence or summer house — making your home look doubly attractive.



How would you like to have one of these improvements added to your home? Let us figure you the low cost of making your home surroundings real attractive.

Let Us Help You Modernize



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Jim Draeger