June 1, 1943. W. C. PRESLEY 2,320,466

LOG CABIN CONSTRUCTION

Filed Dec. 13, 1939 3 Sheets-Sheet 1

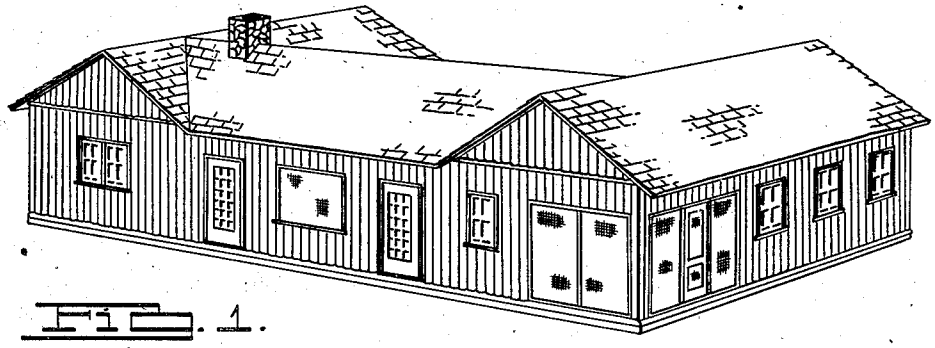


Fig. 1.

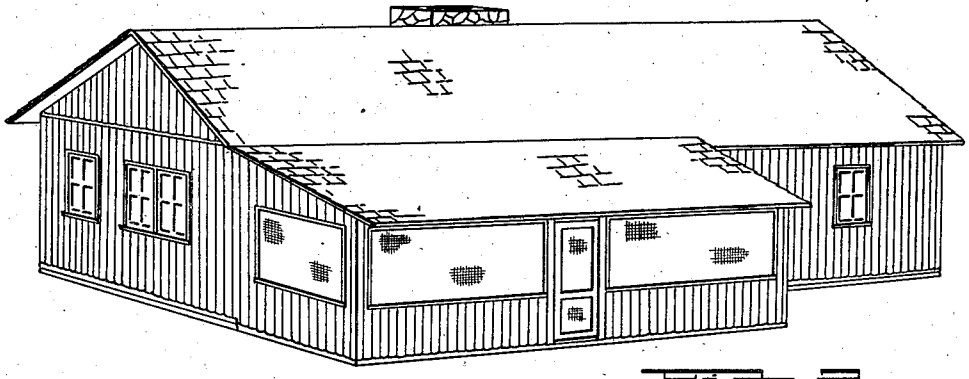


Fig. 2.

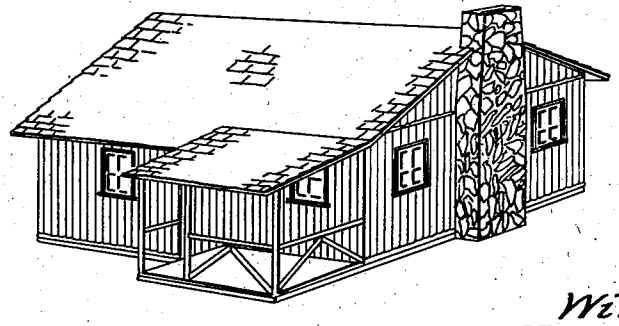


Fig. 3.

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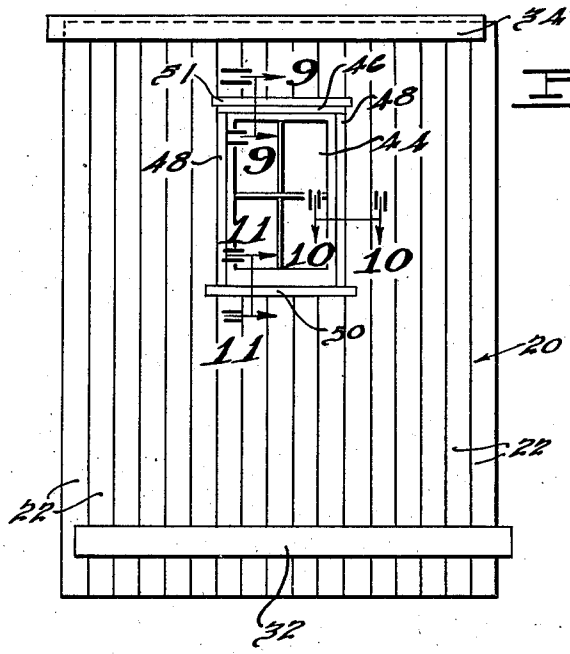


FIG. 4.

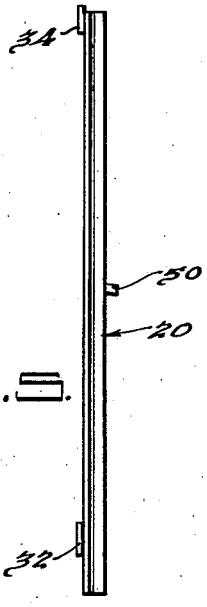


FIG. 5.

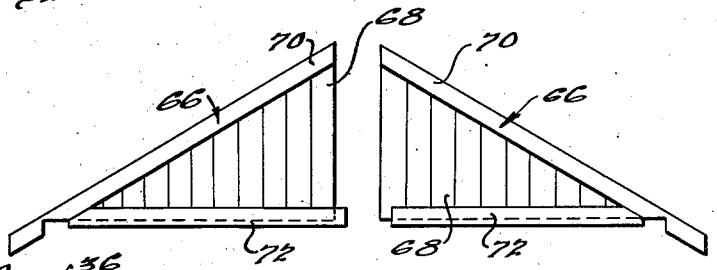


FIG. 6.

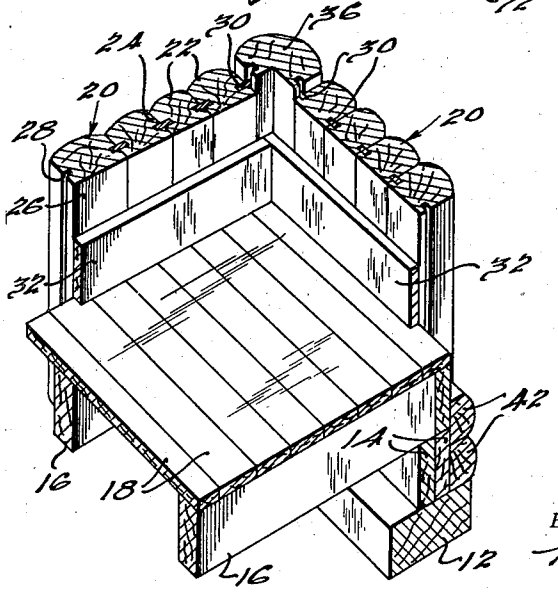


FIG. 7.

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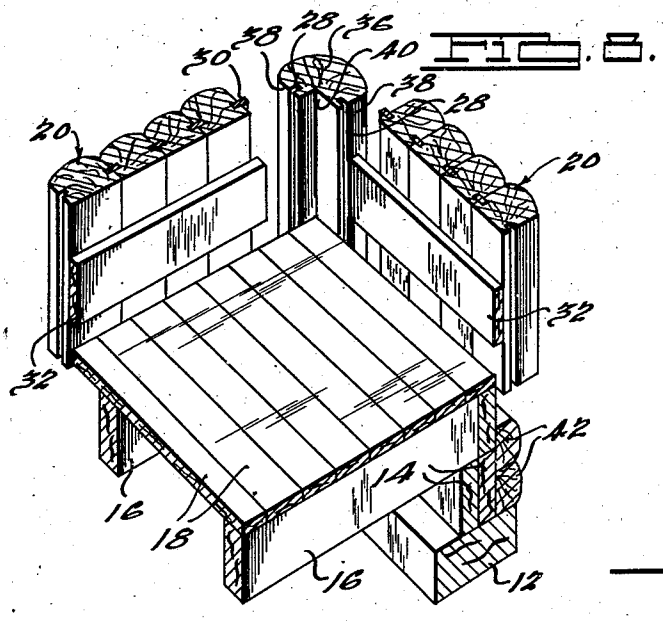


FIG. 8.

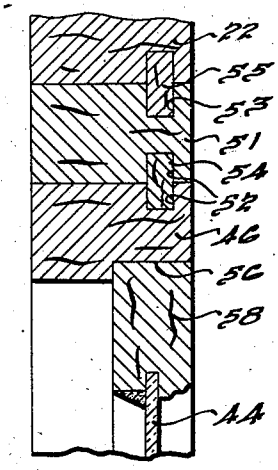


FIG. 9.

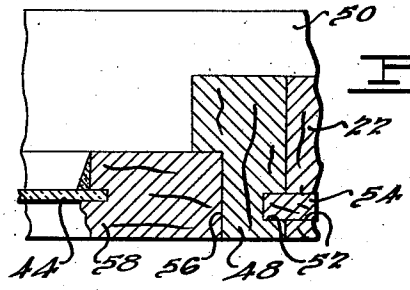


FIG. 10.

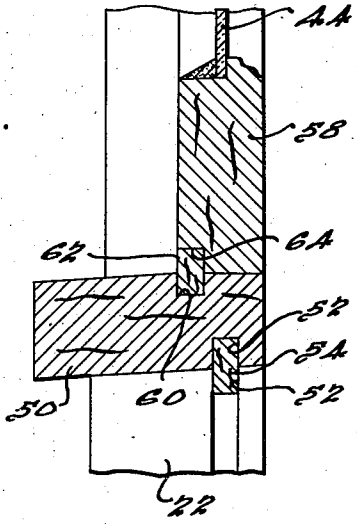


FIG. 11.

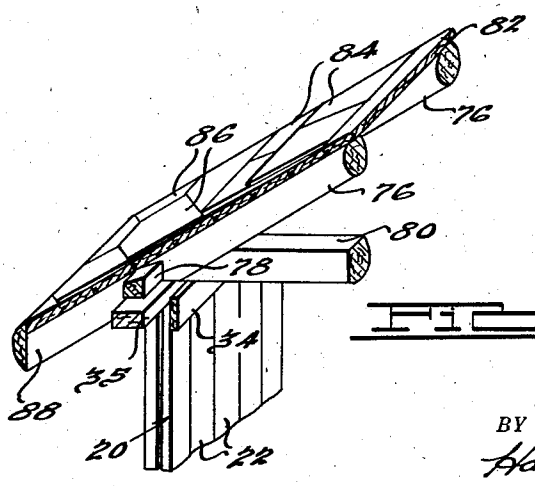


FIG. 12.

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UNITED STATES PATENT OFFICE

2,320,466

LOG CABIN CONSTRUCTION

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Application December 13, 1939, Serial No. 308,987

10 Claims. (Cl. 20—2)

The present invention relates to improvements in prefabricated houses, and particularly relates to improvements in prefabricated log cabin constructions.

One of the primary objects of the present invention is the provision of improved constructions of the type mentioned in which relatively inexpensive and plentiful, short timber, such as so-called fence post timber, may be utilized thereby providing inexpensive yet attractive and sound house constructions.

Another object of the invention is to provide improved structures of the type mentioned which are constructed from improved and simplified prefabricated sections which may be readily transported and assembled by unskilled persons.

Another object of the invention is the provision of improved and simplified prefabricated, standard sections whereby a variety of different size and shape cabins may be readily constructed by ready assembly of these standard sections.

A more specific object of the invention is the provision of improved cabins of the type mentioned in which the walls are formed of prefabricated sections with vertically disposed logs having a rough, natural exterior and a smooth, finished interior.

Another object of the invention is the provision of improved corner constructions whereby the sections are readily joined at the corners in a weather-proof joint.

Another object of the invention is to provide improved cabin sections of the type mentioned which may be more easily assembled than in prior constructions.

Other objects of the invention will become apparent from the following specification, the drawings relating thereto, and from the claims hereinafter set forth.

In the drawings, in which like numerals are used to designate like parts in the several views throughout:

Figures 1 through 3 are perspective views of house or cabin structures constructed of prefabricated sections according to the present invention;

Fig. 4 is an inside elevational view of a prefabricated wall section constructed according to the present invention;

Fig. 5 is an end elevational view of the structure illustrated in Fig. 4;

Fig. 6 is a separated, inside elevational view of prefabricated gable sections constructed according to the present invention;

Fig. 7 is a fragmentary perspective view, from the inside, of a corner constructed according to the present invention;

Fig. 8 is an exploded view similar to Fig. 7, illustrating the manner in which the sections are positioned and assembled;

Fig. 9 is an enlarged cross-sectional view taken substantially along the line 9—9 of Fig. 4;

Fig. 10 is an enlarged cross-sectional view taken substantially along the line 10—10 of Fig. 4;

Fig. 11 is an enlarged cross-sectional view taken substantially along the line 11—11 of Fig. 4;

Fig. 12 is a fragmentary perspective view illustrating the manner in which the wall sections are connected to the roof structure according to the present invention.

According to the present invention, house or cabin constructions are provided which are primarily adapted for use in low cost housing projects and as vacation or resort cabins. The houses are formed of prefabricated sections which may be readily set up by unskilled workers so that they lend themselves to use by the working man as year around living quarters, may be put up by himself, and are relatively inexpensive.

When used as recreational or vacation cabins, the structures of the present invention are particularly useful in that the prefabricated sections may be readily transported to locations which are ordinarily, relatively inaccessible and there assembled with the use of the simplest tools. In such places, skilled labor is usually scarce and one need not rely upon the supply of such skilled labor since the cabin can be erected by the ordinary person.

The houses formed according to the present invention are sound and may be used the year around for comfortable living quarters. While the present invention is described in connection with cabins, it will be readily appreciated that it may be used for other purposes such as playhouses, garages, store fronts, fences, grill rooms and panelling for attics and game rooms.

The sections are so constructed that the logs are vertically disposed so that an attractive stockade effect is produced. Logs such as those used to form the sections are of such a size that they are plentiful and inexpensive. The major portion of the cabin is formed in prefabricated sections and those parts which are not assembled in sections, such as the flooring and roofing, are cut to fit, bundled, and ready to be nailed together.

For a better understanding of the invention, reference may be had to the drawings. In Figures 1 to 3, different sizes and shapes of the

cabins are illustrated which are constructed according to the present invention. In viewing these figures, it will be seen that by the use of the prefabricated sections of the present invention, a variety of different sized and shaped cabins may be constructed.

Referring to Figures 4 through 12, the details of construction are illustrated.

A suitable foundation is provided and may include cedar piers 12 (Figures 7 and 8) which may be laid out to define the plan outline of the cabin. Upstanding sill members 14 are fixed to the top surfaces of piers 12 and have the floor joists 16 mounted and fixed thereon. The floor boards 18 are then nailed to the joists 16 in the usual way.

The wall members are formed of prefabricated sections such as the section generally indicated at 20. Such sections may be provided with window or door openings therein or may be plain to define the solid wall portions. Each of such wall sections 20 includes a plurality of vertically disposed logs 22 of equal length arranged side by side and having the adjacent sides 24 thereof finished and the inner faces 26 also finished leaving the exterior portion rough or in its natural form. The term "finished" used herein does not necessarily mean that the surface is dressed, but is intended to include such conditions as when certain portions of the log are removed, as by sawing. Longitudinally extending, complementary facing grooves 28 are formed in the adjacent sides 24 of the logs; and such grooves are adapted to receive elongated spline members 30 therein which serve to join the logs together and provide a weatherproof construction. The grooves are so formed that they are initially slightly larger than the spline members so as to allow for expansion of the splines. Upon expansion the splines fill the grooves, thus providing a weatherproof joint between the logs.

Each of the sections 20 is also provided with a horizontal base board 32 which has a length substantially equal to the width of each section but which is so positioned that it projects beyond one of the sides of the section so that when the sections are joined together, the base boards of adjacent sections overlap and are fixed to the adjacent section in order to fix such sections with respect to each other.

The base boards 32 are also spaced from the bottom edge of the sections a predetermined distance. By this feature, the base boards 32 serve as aligning means for properly and uniformly mounting the sections with respect to the floor and with respect to each other.

Viewing Figures 7 and 8, it will be seen that when the sections 20 are positioned with respect to the floor, the members 32 are set upon the floor along the side edges thereof. This not only serves to hold the sections temporarily while they are being secured together, but also gives assurance that all of the sections are uniformly disposed with respect to the floor and with respect to each other so that the top edges thereof are even.

Substantially horizontal cleats 34 are nailed to the top edge of the sections 20 and are of a length substantially equal to the width of the sections. The members 34 are so disposed that the upper edge thereof projects upwardly beyond the top edge of the logs 22 and also so that one end thereof projects beyond one of the end logs. It is preferred that this projecting end be on the side opposite to that of the projecting end of the member 32. That portion of the member 34 which projects above the upper ends of the logs 22 is adapted to overlap and be nailed to a horizontal top plate member 35 which rests upon the tops of logs 22 (Fig. 12).

When the sections are assembled, the projecting ends of members 32 and 34 overlap their adjacent sections and may be fixed to the adjacent sections in order to secure the sections with respect to each other. Also, the sections are secured to each other by the insertion of splines 30 in the facing grooves 28 of the adjacent sections.

The corners of the cabins are formed in an improved manner by the use of vertically disposed corner logs 36 having the sides 38 thereof finished and having an interior right angle corner 40 formed therein. Complementary grooves 28 are formed in the finished faces 38 of the corner posts 36 and are adapted to be splined to the adjacent logs of the sections 20 by means of splines 30. The finished corner 40 forms a continuation of the finished inner surfaces of the sections 20 so that a continuous, finished surface is provided throughout the interior of the cabin.

The ends of the members 32 overlap the interior corner portions of the corner post and are suitably secured thereto, as by nailing, in the relationship illustrated in Figs. 7 and 8.

Horizontal logs 42 are disposed on the piers 12 and serve to support the bottom edges of sections 20. Such logs also provide a decorative trim for the cabin.

The section 20 is illustrated as having a window 44 provided therein. Referring to Figures 4, 9, 10, and 11, the details of this construction are illustrated. A suitable opening is provided in section 20 and the window opening is defined by a head jamb member 46, side jamb members 48, and a sill 50. Each of these members and the adjacent log sections 22 are provided with facing, complementary grooves 52 for the reception of splines 54 in order to provide a weatherproof joint around the window. If desired, a transversely extending reinforcing member 51 may be provided above the head jamb 46, and is provided with a complementary groove for the splined connection between the head jamb and its bottom surface. The log members above the member 51 seat theeron, and the bottom ends are provided with transverse grooves which are complementary to the groove 53 formed in the top of member 51 for the reception of a spline connection 55. The members 46 and 48 are recessed at 56 for the reception of the window frame 58 therein. Sill 50 is provided with a transversely extending upwardly facing, channel-shaped groove 60 therein which is adapted to receive a sealing strip 62. The sealing strip 62 seats within an inwardly and downwardly facing recess 64 formed along the bottom edge of frame 58 so that a weatherproof seal is thereby provided.

Referring to Figure 6, prefabricated gable sections are generally indicated at 66. Such gable sections are formed in complementary halves and include vertical log members 68 which are of varying height but which are of the same form and joined together in the same manner as the log members 22 above described. Log rafters 70, having two faces thereof finished at right angles to each other, are secured to the inner faces of the logs 68 adjacent the tops thereof and define the upper edge of the gable sections. Horizontal cleat members 72 are secured to the lower ends

of log members 68 and are of such a length that the members 72 of one of the sections projects beyond the vertical side thereof; and the adjacent end of the other member 72 terminates short of its vertical side a corresponding distance, so that when the sections are assembled, the one member 72 overlaps its adjacent section. The adjacent logs 68 are also connected together through a spline similar to the construction and arrangement of the one 30 above described.

The gable sections 66 are adapted to be disposed above certain of the wall sections 20 and rest upon the members 35. The members 72 project below the bottom edges of the logs 68 of the gable section and overlap the inner side of the member 35 in abutting relation with the top edges of members 34. The members 72 may be nailed to the members 35 so that the gable sections are securely fixed to the sections 20 when the sections are assembled.

The roof is formed of a plurality of log rafters 76 having the upper sides thereof finished to provide flat surfaces upon which the roofing elements may be disposed. Such rafters are disposed so that they meet at a peak in the usual way and are fastened together at such peak in the usual way. The lower ends thereof are fixed to the members 35 and are spaced from each other by spacing members 78 which extend longitudinally of the members 35 and are fixed thereto. Such spacing members 78 have the top surfaces thereof finished to the angle of the roof so that such members close the space between the roofing elements and the members 35 to provide a weatherproof construction.

Horizontal log collar ties 80 extend transversely of the cabin beneath the rafters 76. Such ties are suitably spaced, and the ends thereof rest upon members 35 and are fixed thereto.

The roof may be formed of any one of a number of different materials. Tongue and groove roof boards 82 are nailed to the rafters to enclose the roof, and wood shingles 84 or ordinary asphalt shingles 86 may be mounted on such roof boards. A facia member 88 is fixed to the roofing members adjacent the lower edges thereof around the cabin to provide a decorative trim. Such member 88 in the embodiment illustrated comprises a half log having a finished interior and a rough or natural exterior.

From the above description it will be seen that houses, cabins, or the like may be readily formed from inexpensive prefabricated sections. Also, by the use of the present invention a house or cabin may be formed of one size and additions may be made thereto by merely adding to the standard sections, as taught by the present invention.

Formal changes may be made in the specific embodiments of the invention described without departing from the spirit and substance of the invention, the scope of which is commensurate with the appended claims.

What I claim is:

1. In a prefabricated building construction, a floor, wall sections formed of a plurality of logs joined together in weather-tight joints, a horizontal member secured to each of said sections located adjacent the lower ends thereof and spaced upwardly from such lower ends a predetermined distance, said members seating upon said floor adjacent the edges thereof with said sections projecting below said floor when the sections are assembled, whereby said members serve as locators and supports for ready assembly of such sections.

2. In a prefabricated building construction, a floor, wall sections formed of a plurality of vertically disposed log members, said members being joined together by vertically extending splines disposed within cooperating grooves formed in said log members, a horizontal member secured to each of said sections located adjacent the lower ends of said log members and spaced upwardly from such lower ends a predetermined distance, said horizontal members seating upon said floor adjacent the edges thereof with the lower ends of said log members projecting below said floor when the sections are assembled, whereby said horizontal members serve as locators and supports for ready assembly of said sections.

3. In a prefabricated building construction, a floor, wall sections formed of a plurality of vertically disposed logs positioned side by side in abutting relationship and joined together in weather-tight joints, a horizontal member secured to each of said sections located adjacent the lower ends of said log members and spaced upwardly from said lower ends a predetermined distance, said horizontal members seating upon said floor adjacent the edges thereof with said log members projecting below said floor when the sections are assembled, whereby the said members serve as locators and supports for ready assembly of said sections, and an upper horizontal member secured to each of said sections located adjacent the upper ends of said log members, said last-named horizontal members projecting above the upper ends of said log members along the length of said last-named horizontal members.

4. In a prefabricated building construction, a prefabricated wall section formed of a plurality of vertically disposed logs, said logs being joined in abutting relationship in weather-tight joints, a horizontal member fixed to said log members and located adjacent the lower ends thereof and spaced upwardly from such lower ends a predetermined distance, said horizontal member being of such a length with respect to the width of said section that one end thereof is spaced inwardly from one side of said section and the other end thereof projects beyond the opposite side of said section, another horizontal member disposed adjacent the upper ends of said log members and secured thereto, said last-named horizontal member being of such length with respect to the width of said section that one end thereof is spaced inwardly from one side of said section and the other end thereof projects beyond the other side of said section.

5. In a prefabricated building construction, a prefabricated wall section formed of a plurality of vertically disposed logs, said logs being joined in abutting relationship in weather-tight joints, a horizontal member fixed to said log members and located adjacent the lower ends thereof and spaced upwardly from such lower ends a predetermined distance, said horizontal member being of such length with respect to the width of said section that one end thereof is spaced inwardly from one side of said section and the other end thereof projects beyond the opposite side of said section, another horizontal member disposed adjacent the upper ends of said log members and secured thereto, said last-named horizontal member projecting above the upper ends of said log members along the length of said last-named horizontal member, said last named horizontal member being of such a length with re-

spect to the width of said section that one end thereof is spaced inwardly from one side of said section and the other end thereof projects beyond the other side of said section.

6. In a prefabricated building construction, a prefabricated wall section formed of a plurality of vertically disposed logs, said logs being joined in abutting relationship in weather-tight joints, a horizontal member fixed to said log members and located adjacent the lower ends thereof and spaced upwardly from such lower ends a predetermined distance, said horizontal member being of such length with respect to the width of said section that one end thereof is spaced inwardly from one side of said section and the other end thereof projects beyond the opposite side of said section, another horizontal member disposed adjacent the upper ends of said log members and secured thereto, said last-named horizontal member being of such length with respect to the width of said section that one end thereof is spaced inwardly from said other side of said section and the other end of said last-named horizontal member projects beyond said one side of said horizontal section.

7. In a prefabricated building construction, prefabricated wall sections formed of vertically disposed log members having finished interior surfaces and rough exterior surfaces, said log members being joined together by vertically extending splines disposed within cooperating grooves formed in said log members, a vertically disposed corner post having a rough exterior and an interior, finished corner, the adjacent wall sections abutting said corner post and being joined thereto by vertically extending splines disposed within cooperating grooves formed in said corner post and the abutting logs of the adjacent log sections, the surfaces of said finished corners being flush with the finished interior surfaces of said log members of the adjacent log sections.

8. In a prefabricated building construction, a gable construction comprising a pair of complementary gable sections, each of said sections being generally triangular in shape and comprising a plurality of vertically disposed log members having finished interior surfaces and natural exterior surfaces, an inclined rafter member fixed to said log members adjacent the tops thereof, and a horizontal member fixed to the bottoms of said log members, said horizontal member projecting below the lower ends of said log members along the length of said horizontal member.

9. In a prefabricated building construction, a gable construction comprising a pair of complementary gable sections, each of said sections being generally triangular in shape and comprising a plurality of vertically disposed log members having finished interior surfaces and natural exterior surfaces, an inclined rafter member fixed to said log members adjacent the tops thereof, and a horizontal member fixed to the bottoms of said log members, said horizontal member projecting below the lower ends of said log members along the length of said horizontal member, the horizontal member on one of said gable sections being of such length that it projects beyond the side of said one of said gable sections and the horizontal member on the other gable section being of such length that it terminates short of that one of its sides adjacent said one of said gable sections whereby said one of said horizontal members overlaps said other of said gable sections when said gable sections are assembled.

10. In a prefabricated building construction, a wall section formed of a plurality of vertically disposed logs, said logs being disposed in abutting relationship and joined together in weather-tight joints, a horizontal member secured to said log members located adjacent the lower ends thereof, another horizontal member secured to said log members and disposed adjacent the upper ends thereof, said another horizontal member projecting above the upper ends of said log members along the length of said another horizontal member, a top member disposed on the tops of said log members so constructed that said another longitudinal member overlaps said top member, a gable section including a plurality of vertically disposed log members joined together in weather-tight joints, another horizontal member secured to said last-named log members and projecting below the bottom ends throughout the length of said last-named another member, said gable section being disposed on said top member, the construction and arrangement being such that said last-named another horizontal member overlaps said top member and abuts against said first-named another horizontal member.

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