March 6, 1934. W. W. LOY ET AL 1,949,426

BUILDING CONSTRUCTION

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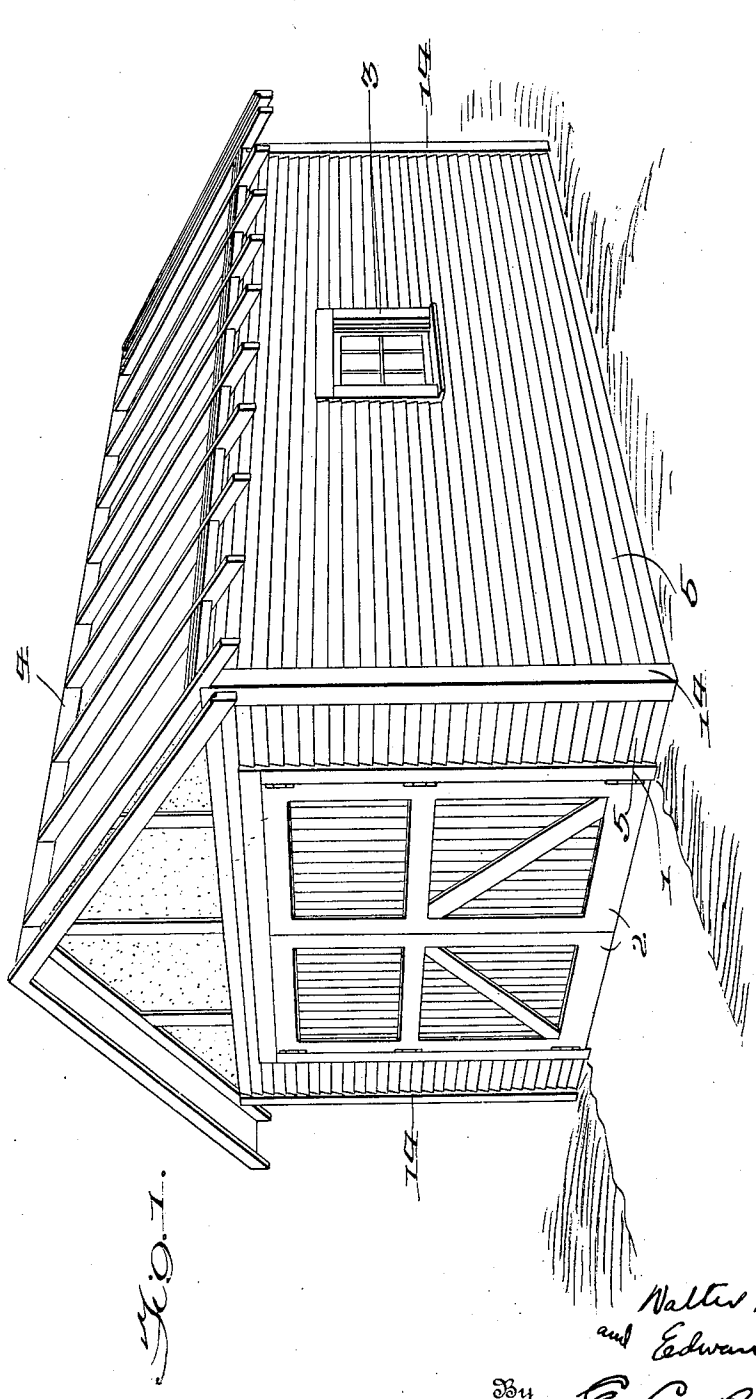


Fig. 1.

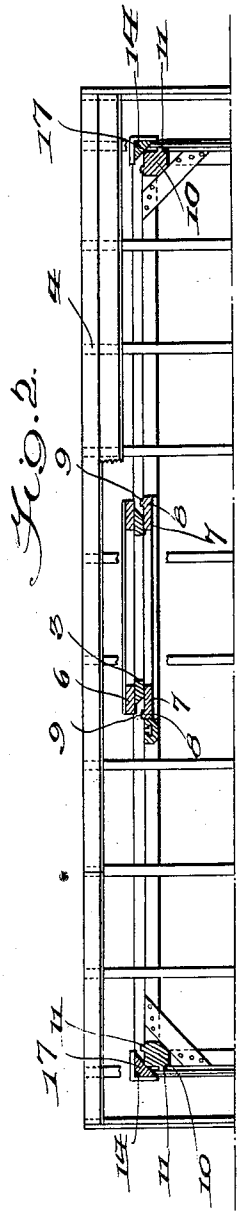


Fig. 2.

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Fig. 3.

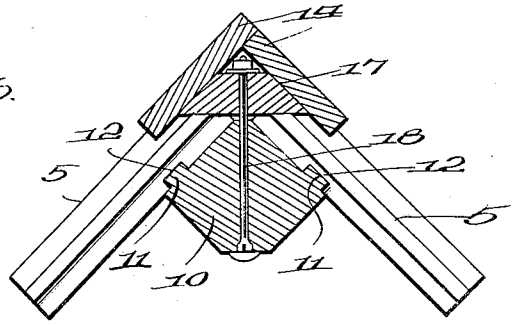


Fig. 4.

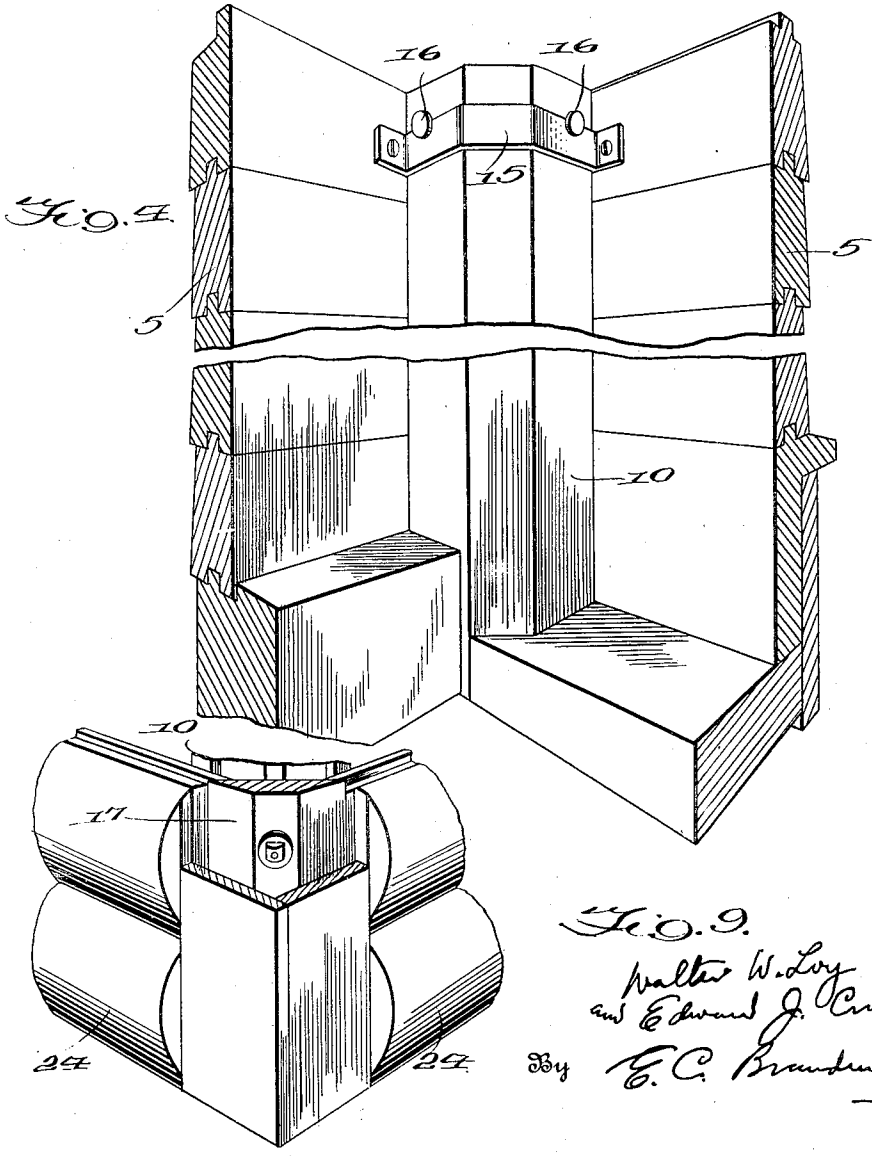


Fig. 9.

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BUILDING CONSTRUCTION

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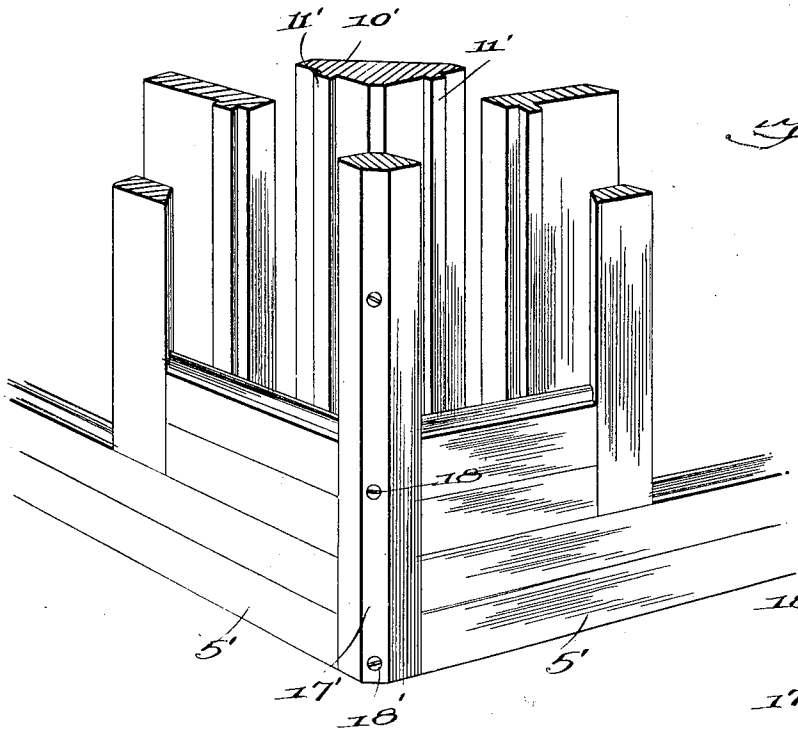


Fig. 5.

Fig. 6.

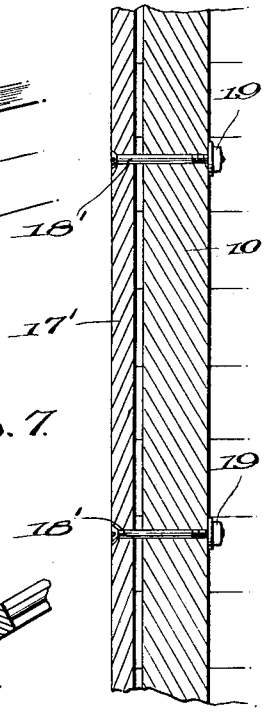


Fig. 7.

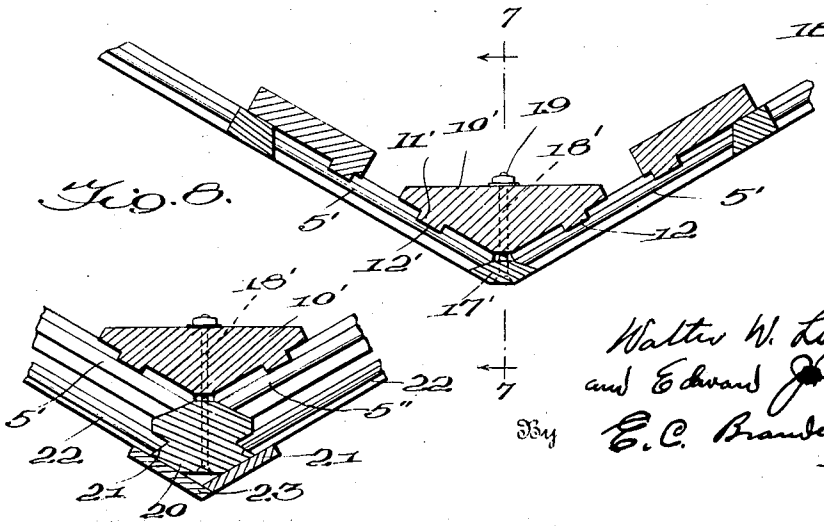


Fig. 8.

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BUILDING CONSTRUCTION

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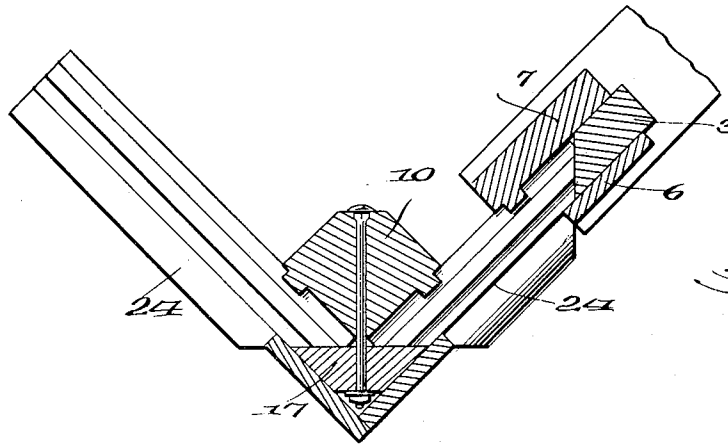
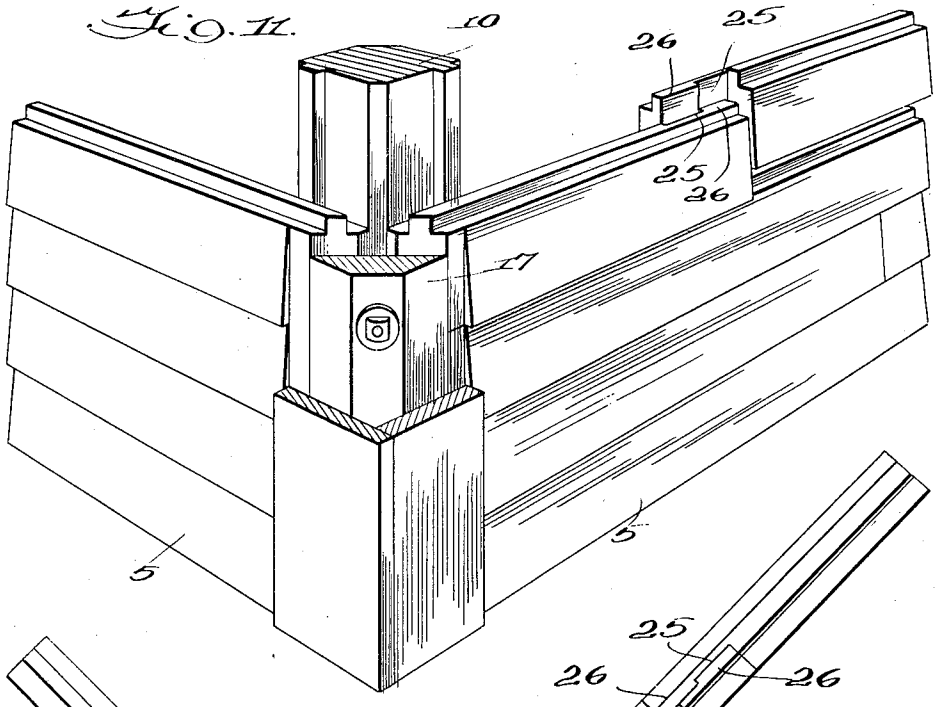


Fig. 10.

Fig. 11.



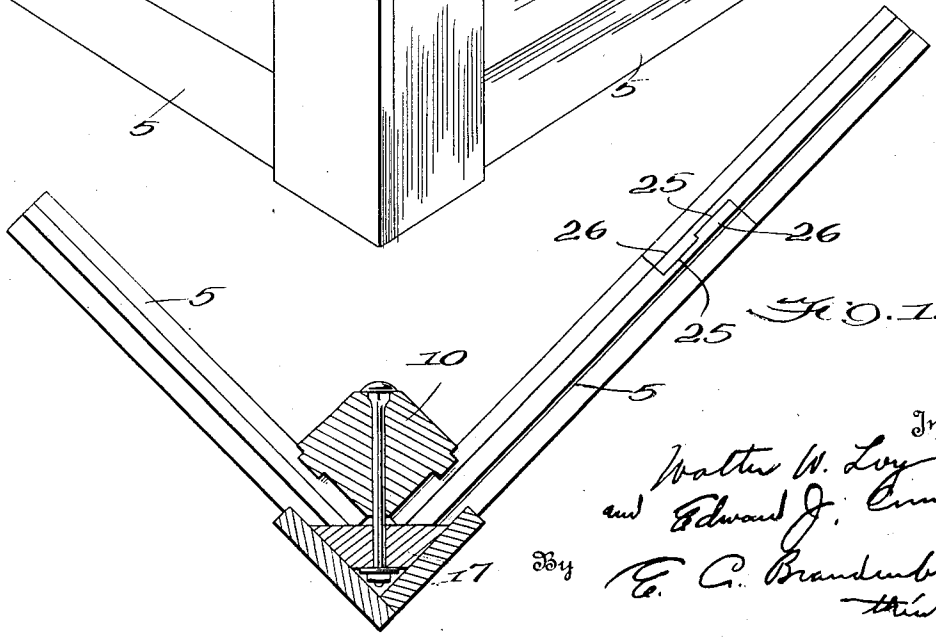


Fig. 12.

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Patented Mar. 6, 1934 1,949,426

UNITED STATES PATENT OFFICE

1,949,426

BUILDING CONSTRUCTION

Walter W. Loy and Edward J. Crum, Kalispell, Mont.

Application July 10, 1930, Serial No. 467,064

11 Claims. (Cl. 20—1)

This invention relates to an improvement in building constructions.

The object of the invention is to improve the manner of constructing buildings or the like, particularly at the corners and around doors and windows to securely fasten the siding together and to corner posts and frames, while at the same time permitting vertical expansion or contraction of the boards without causing cracks. For instance, when the siding contracts, the construction allows it to settle down, thus keeping the joints of the wall tight.

The invention is particularly adapted to the building of frame houses, garages, silos, grainaries or the like, and in fact wherever it may be convenient to use a structure of this character.

In the accompanying drawings:

Fig. 1 is a perspective view of a garage showing the invention applied;

Fig. 2 is a partial horizontal section through the incomplete building;

Fig. 3 is an enlarged horizontal sectional view showing the application of the invention to a corner post;

Fig. 4 is a partial perspective view of the same;

Fig. 5 is a detail perspective view partly in section of the application of the invention to a corner of a hexagonal building;

Fig. 6 is a horizontal sectional view through the same;

Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 6;

Fig. 8 is a view similar to Fig. 6 but showing the application thereof to a double wall;

Fig. 9 is a detail perspective view showing the application of the invention to log siding;

Fig. 10 is a horizontal sectional view therethrough;

Fig. 11 is a detail perspective view showing a wall splice used in connection with the construction; and

Fig. 12 is a horizontal sectional view therethrough.

In the form of building shown in Fig. 1, there is provided a door frame 1 for suitable doors 2, a window frame 3, a roof construction 4, and sidings 5, the latter of which may be the usual weather boarding or beams, tongue and groove boards, or of a suitable construction adapted for the purpose. As a means of fastening the siding 5 to the window and door frames, each of the latter is provided with front and back strips 6 and 7 respectively, as shown particularly in Fig. 2, which are spaced apart to receive the siding strips 5 therebetween.

Ribs 8 are formed on the face side of the back strips 7 to receive the grooves 9 formed in the face of the siding 5.

It will be noted that the ribs 8 are spaced from the edges of the back strips 7 sufficiently far to prevent the ribs from breaking off and, at the same time, to allow the strips 7 to engage the siding on both sides of the ribs and grooves, thus materially strengthening the construction.

At the corners, there are provided corner posts 10, as shown for instance in Figs. 3 and 4, which are of angular construction, depending upon the shape of the building, and each of the outer sides thereof is provided with a rib 11 located near the back edge but spaced a slight distance therefrom, so as to enter a groove 12 in the inner side of the siding. The siding strips 5 have beveled ends 5a, as shown in Figs. 3, 6, 10 and 12, and they are fastened together by a clamping strip, 17 abutting the beveled ends and held in place by a bolt 18 extending through the post 10. Preferably, corner trimming strips 14 are arranged on the outer sides of the joint.

The ribs 11 fit in the grooves 12 snugly but so as to allow the siding strips to slide down the corner posts 10 as shrinkage occurs, while being securely fastened together and maintaining the joints tight.

A metal plate anchor 15 is shown in Fig. 4 as extending around the back of the corner post 10 and has its ends secured to anchor plates or the sidings 5 at the top of the post, to further hold the parts in place and to render the structure more rigid, particularly for high winds. This serves to effectively anchor the plates and roof together.

Nails 16 are shown as extending outward from the corner post 10 above the anchor plate 15, so as to hold the parts in proper relation but not interfering with the settling down of the siding to compensate for shrinkage.

The form shown in Figs. 5 and 6 is adapted more particularly for a polygonal shaped structure, particularly of the nature of a silo, grainary or the like, which are usually constructed in the general shape of a hexagon.

In this construction, the corner post 10' has ribs 11' to enter grooves 12' in the siding strips 5', in the manner above described. The ends of the siding strips 5' are beveled to engage the inner side of a clamping strip 17', which is spaced slightly from the outer edge of the corner post 10' to receive the siding strips 5' therebetween and to effectively overlap and embrace the ends of the siding strips to hold them in place.

Bolts 18' may be employed to secure the clamping strip 17' to the post 10' and, as shown in Figs. 6 and 7, these bolts 18' extend through the strips 10' and 17' and have nuts 19 secured thereon for securely holding the parts together.

In Fig. 8 is illustrated the application of the invention to a double wall construction by means of a clamping strip 20, which is spaced from the corner post 10' to receive the beveled ends of the siding strips 5' and which clamping strip 20 is secured thereto by the bolts 18'. This clamping strip 20 has grooves 21 in the sides thereof to receive the additional siding strips 22, the ends of which are received in the grooves 21, as shown in Fig. 8. Trimming strips 23 may be arranged on the outer side of the clamping strip if desired.

To change the construction to provide the double wall, it is only necessary to replace the clamping strip 17' with the clamping strip 20 and to merely insert the additional strips 22. This corner construction may be made to conform to the contour of any suitable angle according to the requirements for the building under construction.

In Figs. 9 and 10 is shown the application of the invention to the use of tongue and grooved log siding 24 with semi-rounded outer sides. The corner post 10 and clamping strip 17 are the same as shown in Fig. 3. At the window opening, the window frame 3 has the front and back strips 6 and 7 respectively, as shown in Fig. 2.

In Figs. 11 and 12, the siding strips 5 are held together by the corner post 10 and strip 17, as shown in Fig. 3. The tongue and grooved strips 5 are provided with an interlocking joint formed by providing notches 25 in the ends to receive the hook-shaped overlapping ends 26 of the cooperating strips. The tongue and grooved connections between the edges of the strips 5 together with the staggered relation of the joints securely holds the strips in place and permits the use of short strips.

In constructing the building to utilize this invention, it is only necessary to arrange on the sills the door frames and corner posts 10 or 10', after which the siding strips may be applied thereto and to the window frames, which will be assembled as the construction proceeds. The siding strips may be applied piece by piece merely by placing one in line above the siding which is in place, with the grooves fitting over the ribs, and lower it into proper position. The siding strips may be nailed or secured, as found desirable, but they are preferably bound on the outer side either by the clamping strips 17 or the like, or by trimming strips, and when assembled the corner posts extend vertically throughout the corners of the building to effectively hold the siding in place and to provide a secure and rigid structure.

We claim:

1. In a building construction, the combination with adjacent sides, each having a plurality of superimposed boards assembled to form a corner joint and having adjacent ends thereof beveled, said boards having grooves therein adjacent said joint, of a corner post having the sides thereof fitting said corner joint and being arranged on the inner side thereof, said post having ribs adapted to register and engage with the grooves to effectively hold the boards in place, and means arranged approximately at the outside of the joint in abutting relation against the beveled surfaces of the boards and cooperating with the post to maintain the interfitting relation between the ribs and grooves, the space between the post and last-mentioned means providing for settling down of the boards of each side relative to the post.

2. In a building construction, the combination with adjacent sides, each having a plurality of superimposed boards assembled to form a corner joint and having adjacent ends beveled on the outside of the joint, said boards having grooves therein adjacent said joint, of a corner post arranged on the inside of said joint and approximately conforming to the angle thereof, said post having ribs on the outer sides thereof near the back edges and spaced from said edges to engage in the grooves, said post overlapping the boards on the opposite sides of the grooves, and a strip abutting the beveled surfaces of the boards and extending parallel with the corner post on the outside of the corner joint and cooperating therewith to hold the boards in place, said post and strip being spaced apart sufficiently to allow the boards of each side to settle down relative to the post.

3. In a building construction, the combination of adjacent sides, each having a plurality of superimposed boards having beveled outer ends extending together at an angle, a corner post arranged on the inner side of said beveled ends, a clamping strip abutting the beveled surfaces of the boards, and means joining the corner post and strip together to embrace and hold the ends of the boards together, said post and strip being spaced apart sufficiently to allow the boards of each side to settle down relative to the post.

4. In a building construction, the combination of adjacent sides, each having a plurality of superimposed boards having beveled outer ends arranged at an angle to form a corner joint, a corner post at the inner side of said beveled ends, a clamping strip abutting the beveled surfaces of the boards, and bolts extending between the corner post and strip to embrace and hold the ends of the boards together, said post and strip being spaced apart sufficiently to allow the boards of each side to settle down relative to the post.

5. In a building construction, boards assembled with interfitting tongue and grooved joints at the side-edges thereof, at least one of said boards having portions thereof overlapped lengthwise of the board to form an interlocking joint in the board and held in place by the edge, tongue and groove joints.

6. In a building construction, the combination of boards asembled to form an upright wall, said boards having interfitting tongue and groove joints at the side edges thereof, at least one of said boards being sectional, the sections having the end portions thereof overlapped lengthwise of the board, the overlapped portions having interfitting connection, and cooperating with the edge tongue and groove joints to hold the sections together and in place.

7. In a building construction, the combination of superimposed boards asembled to form an upright corner joint and having grooves in the inner edges thereof adjacent said joint, a corner post fitting the joint on the inner side thereof, said post carrying ribs engaging in the grooves to hold the boards in place, said cooperating ribs and grooves being constructed and arranged for freely sliding vertical movement of the boards, a strip arranged on the outer side of the joint to maintain the interfitting relation between the ribs and grooves, the ends of the boards being unsecured and vertically slidable between the post and said

strip to permit free settling down of the boards.

8. In a building construction, the combination of boards assembled to form an upright corner joint and having grooves in the inner edges thereof adjacent said joint, a corner post fitting the joint on the inner side thereof, said post carrying ribs engaging in the grooves to hold the boards in place, the outer ends of the boards being beveled, a strip on the outer side of the joint in abutting relation with the beveled surfaces of the boards to maintain the interfitting relation between the grooves and ribs, and means extending between and connecting the strip and post together, the ends of the boards being unsecured and vertically slidable between the post and said strip, to permit free settling down of the boards.

9. In a building construction, the combination of boards asembled to form an upright corner joint and having grooves in the inner edges thereof adjacent said joint, a corner post fitting the joint on the inner side thereof, said post carrying ribs engaging the grooves to hold the boards in place, the outer ends of the boards being beveled, a strip on the outer side of the joint in abutting relation with the beveled surfaces of the boards to maintain the interfitting relation between the grooves and ribs, and means extending between and connecting the strip and post together, the ends of the boards being unsecured and vertically slidable between the post and said strip to permit free settling down of the boards, the sides of the strip having grooves formed therein to receive the ends of auxiliary siding strips and hold said strips in place.

10. In a building construction, the combination of boards of adjacent sides assembled to form a corner joint, and having grooves in the inner faces thereof adjacent said joint, a corner post approximately fitting the joint on the inner side thereof and having ribs extending in the grooves of the boards, the outer ends of the boards of the adjacent sides being beveled in a common vertical plane, and a strip having a flat side abutting against said beveled ends of the boards of the adjacent sides and secured to the corner post.

11. In a building construction, the combination of adjacent sides, each having a plurality of superimposed boards assembled to form a corner joint, said boards having grooves in the inner faces thereof adjacent said joint, a corner post approximately fitting the joint on the inner side thereof and having ribs extending loosely in the grooves of the boards, the outer ends of the boards of the adjacent sides being beveled in a common vertical plane and a strip having a flat side abutting against the beveled ends of the boards of the adjacent sides and secured to the corner post, said strip and post being so spaced from each other as to allow settling down of the boards of each side while said boards are held against displacement during settling down by the ribs of the post and cooperating strip.

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