May 18, 1937. T. L. OLSON 2,081,018

ASSEMBLY OF SHINGLES

Filed Aug. 10, 1936

Fig. 1.

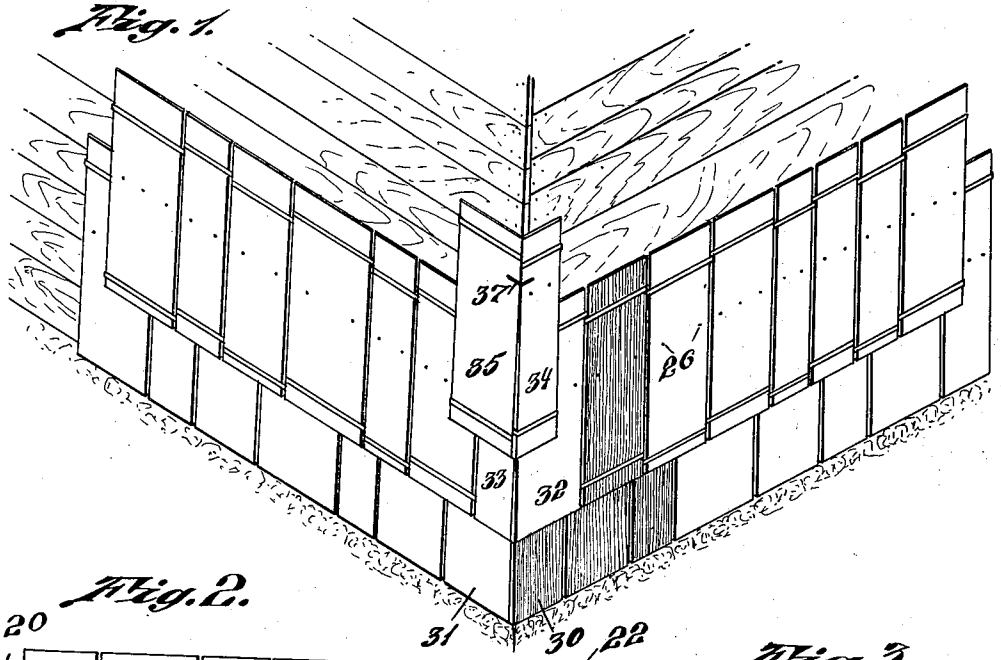


Fig. 2.

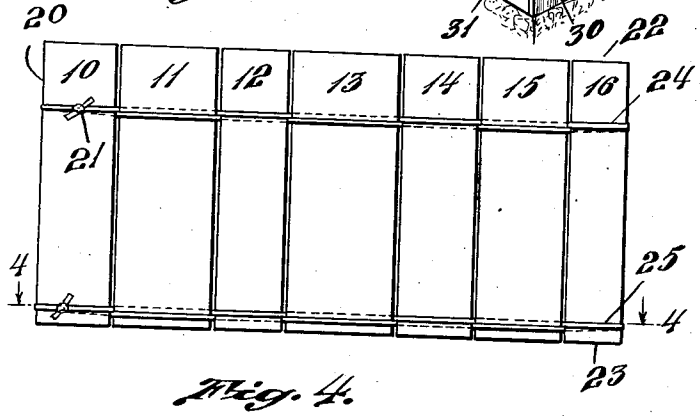


Fig. 3



Fig. 5.

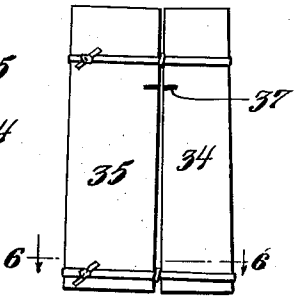


Fig. 4.



Fig. 9.

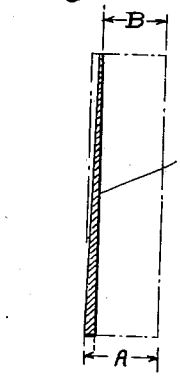


Fig. 12.



Fig. 8.

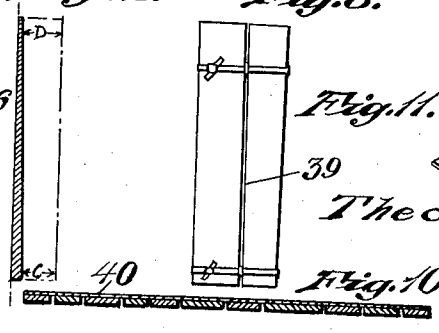
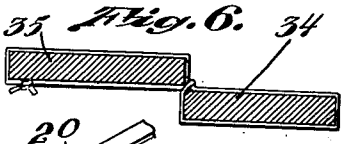


Fig. 11.

Fig. 10.

Fig. 6.



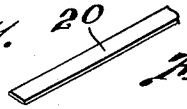


Fig. 7.

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ASSEMBLY OF SHINGLES

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Application August 10, 1936, Serial No. 95,140

4 Claims. (Cl. 108—33)

This invention relates to handling shingles for positioning upon the roof or side of a house or other structure; and has for one of its objects an arrangement whereby shingles may be more quickly laid and secured in position than is possible at the present time.

Another object of the invention is to provide shingles in strips so that a plurality of shingles may be picked up and secured in position at one time rather than the separate handling of each individual shingle.

Another object of the invention is the provision of shingles for corners, which may be preshaped by cutting the edges thereof by machine, if desired, for fitting one with the other about the corner to hasten or speed up the positioning of the shingles at the corner and thus avoid the usual cutting of the shingles to fit at the corner at the time of application.

Another object of the invention is the provision of a binding strip which may be slipped from the edge of the shingle where desired so that a plain surface may be presented as when shingles are usually separately applied.

Another object of the invention is the formation of a ribbon strip which will very effectively secure the shingles in desired relation.

With these and other objects in view, the invention consists of certain novel features of construction, as will be more fully described, and particularly pointed out in the appended claims.

In the accompanying drawing:

Fig. 1 is a perspective view of the corner of a house or building with shingles applied thereto;

Fig. 2 is a top plan view of a strip of shingles or a unit of my assembly;

Fig. 3 is a sectional view of two adjacent shingles showing the flexible means for connecting them together;

Fig. 4 is a sectional view on the line 4—4 of Fig. 2;

Fig. 5 is a top plan view of a pair of corner shingles held in related position by the flexible means;

Fig. 6 is a sectional view on the line 6—6 of Fig. 5;

Fig. 7 is a perspective view of a fragmental portion of the ribbon which is used for binding the shingles in related position;

Fig. 8 is an edge view of the shingles in package formation;

Fig. 9 is a diagrammatic view illustrating the manner of cutting one of the corner shingles for fitting with an adjacent corner shingle;

Fig. 10 is a sectional view showing a modified form of means for securing the shingles in related position;

Fig. 11 is a view similar to Fig. 5 of an inside corner pair of shingles;

Fig. 12 is a view similar to Fig. 9 showing diagrammatically the manner of cutting the inside corner shingle edge.

The usual wooden shingle is procured in packages which, when opened, leave each shingle to be handled separately. The handling of these shingles individually consumes a large amount of time and consequently is a large portion of the expense in shingling a building; and in order to reduce this expense, I have arranged the shingles in unit strip formation of desirable length so that a plurality of shingles may be picked up at one time, positioned against the house and nailed into position without the necessity of handling each shingle individually. Further, it is known that where a corner is present on a building, the shingles must be tapered in order to properly fit, the taper somewhat conforming to the reduction in thickness of the shape of the cross section lengthwise of the shingle except that it is curved somewhat to follow the formation of the shingle as it is applied to the building. In shingling a building, an expert must cut the shingles so as to fit the corners, and in order to speed up the operation at the corners I have provided pre-cut shingles which may be formed by machinery before delivered to the building where they are to be applied, and assembled in a definite relation with a mark to show the inside or outside of the cut shingle, whereby the work is largely speeded up and the cost may be reduced because of the pre-cutting in volume by machine operation. Further, less skilled labor need be utilized on the job than heretofore; and the following is a more detailed description of the present embodiment of this invention by which these advantageous results may be accomplished:

With reference to the drawing, there are a plurality of shingles designated 10, 11, 12, 13, 14, 15 and 16 which may be of the same or varying widths, when a variation occurs, the variation being preferably one inch and a half difference between shingles. These shingles are positioned in a side by side relation and some means of a flexible character is used to maintain these shingles in this side by side relation, such as shown in Figs. 2 and 10. This flexible means might be strip of paper 40 secured to the underside of the margins of adjacent shingles by an adhesive, as shown in Fig. 10, or as shown in Fig. 2,

comprises a ribbon 20, such as shown in Fig. 7, of a width greater than the thickness, such for instance as a cotton fiber tape known on the market, and is looped about the end shingle 16 and then passed in opposite directions through the space 18 between the shingle 16 and the shingle 15 crossing as at 19. The ribbon then extends across the corresponding opposite faces of the shingles 15 and is again crossed in similar relation between the shingles 15 and 14 and so on until the desired number of shingles are assembled and then one end is passed about the edge 20 at the opposite end shingle of the unit and fastened as at 21.

Each run of the ribbon securing means is positioned inwardly from the opposite edges 22 and 23 of the shingles, the ribbon 24 being positioned inwardly from the upper edge 22, while the ribbon 25 is positioned more closely adjacent the thicker edge 23 of the shingle. To position these shingles upon a house, it is merely necessary to grasp one of them and lift them into position, such as shown in Fig. 1, where nails 26 are used to secure them in place. Thus, it is unnecessary to handle each shingle as has heretofore been necessary.

As previously pointed out when the corner shingles as 30, 31; 32, 33; 34, 35 are positioned from separate shingles, it is necessary to cut at least one edge of these shingles so that its upper end B, as shown in Fig. 9, will be narrower than its lower end A, in Fig. 9, by an amount equal to the variation of the thickness of the shingle which it adjoins. Further, the line 36 will be somewhat curved to conform to the curvature of the shingle when bent and nailed in position on the house. Where an inside corner is required the cut edge of the shingle will be as at 39 in Fig. 11, tapered in the opposite direction with the thicker edge narrower as at C in Fig. 12 than the thinner edge D. Cutting the shingle to this shape previously had to be done by the carpenter on the job, but with my improved means I may do this by machine as contrasted with doing it by hand, and then secure together two shingles 34, 35, see Figs. 1, 5 and 6, so that their edges will be properly related; and I may mark the outside edges as at 37 so that it may be known which is the outside and which the inside as the shape of the cuts vary and the shape of the shingles vary whether they be outside or inside in the formation shown. By this arrangement, in shingling, the corner shingles 30, 31; 32, 33; or 34, 35 will be positioned on the corner and the next strip picked up and laid with the edge against the edges of the respective corners, and then another strip continuing from there, etc., along the house. Then again, where an inside corner is provided the curvature in the other direction but of complemental form will be used.

I find it particularly desirable to utilize a ribbon such as cotton tape for the purpose of securing the shingles in desired position. The splinters of the shingles work themselves into the tape and assist in holding it in position. The ribbon may be cut by the insertion of a knife between the edges of adjacent shingles or broken for removing it from the lower edges of the shingles, or in some cases it may be slid off the ends of the shingles so that this tape will not mar the appearance of the work when completed.

In packaging, although the shingles may be folded one over the other due to the weaving relation of the ribbon, it is preferabe to pack each unit which will be of a definite length such for instance as from thirty to thirty-six inches flat with the thin and thick ends in opposite relation, as shown in edge view in Fig. 8, and some sort of means may be wrapped about the bundle so prepared for holding the shingles in bundle formation.

By the pre-arrangement of the shingles in this manner a great time saving is effected in the application of the shingles to a building and less skilled labor is necessary for doing the same character of work because of the pre-shaping of the shingles to fit about the corners.

The foregoing description is directed solely towards the construction illustrated, but I desire it to be understood that I reserve the privilege of resorting to all the mechanical changes to which the device is susceptible, the invention being defined and limited only by the terms of the appended claims.

I claim:

1. As an article of manufacture, a series of individual shingles, each shingle being of greater thickness at one end than at the opposite end, all the shingles of the series being arranged with the corresponding thickness in juxtaposition and in slightly separated relation, flexible means interlaced between the shingles at the points of smaller thickness thereof, and flexible means interlaced between the shingles at the points of greater thickness thereof, all of said flexible means being so arranged as to maintain the adjoining edges of said shingles in parallel relation, whereby series of shingles may be stacked one upon another in bundles with the thick and thin ends in opposite relation.

2. An article of manufacture as set forth in claim 1, wherein the flexible means each consists of a single ribbon having its free ends tied against one of the shingles.

3. As an article of manufacture, a pair of shingles, adapted to be used as preformed corner elements, each shingle being of greater thickness at one end than at the opposite end, flexible means for maintaining said shingles in angular lapping relation, with the portions of each shingle of smaller thickness in juxtaposition and the portions of each shingle of greater thickness in juxtaposition, and the lapping shingle having its lapping edge cut to match the tapering edge of the cooperating shingle.

4. As an article of manufacture, a series of individual shingles, each shingle being of greater thickness at one end than at the opposite end, all of the shingles of the series being arranged with the corresponding thickness in juxtaposition and in slightly separated relation, means for maintaining the shingles in parallel relation including a flexible connection interlaced between the shingles.

THEODORE L. OLSON.