April 30, 1929. V. H. ROSS 1,710,897

SHINGLE PACKING FRAME

Filed June 14, 1927

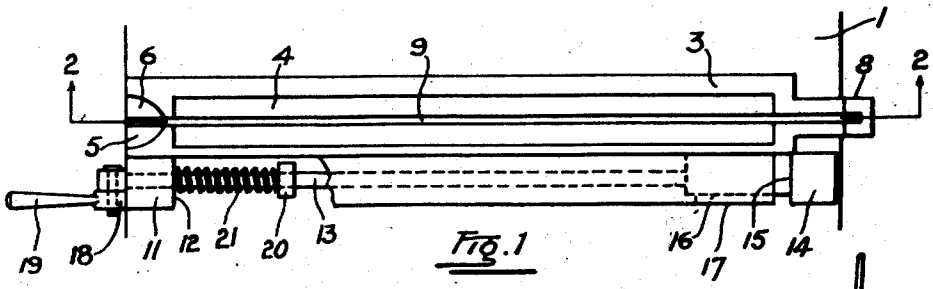


Fig. 1

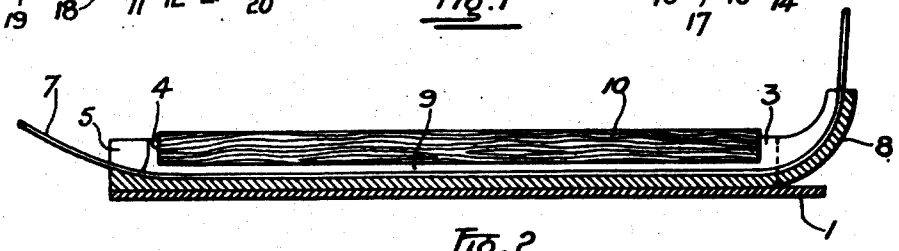


Fig. 2

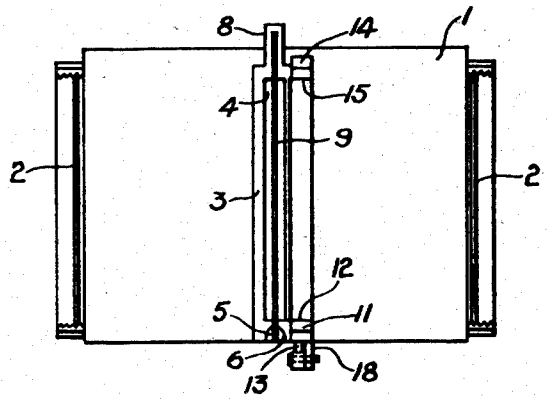


Fig. 3

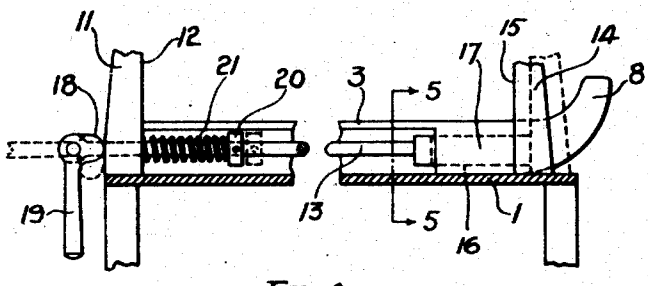


Fig. 4

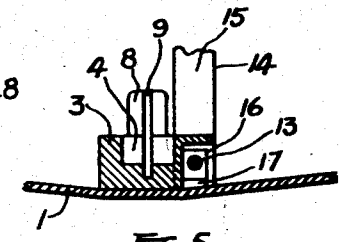


Fig. 5

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SHINGLE-PACKING FRAME.

Application filed June 14, 1927. Serial No. 198,720.

My invention relates to improvements in shingle packing frames which are particularly adapted for use in connection with shingles to be bound together by wire. The objects of the invention are to provide a simple and economical construction from which foot and power operated compressing media are eliminated, and to provide means whereby the wire for tying the bundle may be readily threaded in its appointed position under the bundle and its outer end so disposed as to be within easy reach of the operator. A still further object is to provide means for quickly releasing the side guides of the packing frame from the bundle when tied, that it may be easily removed from between them.

The invention consists essentially of a cleat carrying member adapted to be mounted transversely of the table bed, said member having a wire groove and means at one end for deflecting the wire passed into the groove in an upward direction, a pair of guides at opposite ends of the member, and means for increasing the intervening space between said guides, as will be more fully shown in the accompanying drawings and described in the following specification, in which:—

Fig. 1 is a plan view of the invention.

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1.

Fig. 3 is a plan showing the disposition of the invention to a packing table.

Fig. 4 is a fractionated side view.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4.

In the drawings like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates generally the bed of a shingle packing table (see Figure 3) which is provided with demountable end stops 2 in the manner common to shingle packing frames in general use. Mounted upon and transversely of the bed 1 is a transverse cleat carrying member generally indicated by the numeral 3, which is provided with an elongated longitudinal recess 4, see Figures 1, 2 and 5, into which one of the cleats used in the packing of the bundle of shingles is adapted to be placed. The inner end of the member 3 is provided with a wire receiving pocket 5 which is bell mouthed at its outer end as at 6 for convenience in entering a tie wire 7. At the outer end of the transverse member a curved upturned lip 8 is provided for the purpose of deflecting the wire 7, as it is fed to the device, from a horizontal to a vertical position, so that its outer end is disposed within convenient reach of the operator. A groove 9 is formed longitudinally of the receiving pocket 5, the cleat recess 4 and preferably on the inner face of the lip 8, but this can be omitted if desired. The groove serves as a guide for the wire that it may be readily passed under the longitudinal centre of the cleat 10 disposed in the recess 4 and so held during the tying of the bundle.

Extending from the side of the member 3 adjacent its inner end is a guide 11 having a vertical face 12, against which one side edge of the outermost shingles is adapted to be placed when packing, so that the side of the bundle shall be accurately aligned. The base of the guide 11 also forms a bearing for an endwise movable rod 13 which is adjustably connected at its outer end to a further guide 14 having a vertical face 15 against which the other side of the bundle is adapted to be formed. This guide is provided with a horizontal base 16 which is adapted to be endwise movable in a channel 17 extending from the side adjacent the outer end of the member 3. The inner end of the rod 13 is fitted with a cam 18 having a lever 19, which cam is adapted to bear against the inner end of the member 3 as the lever 19 is depressed and to move the guide 14 towards the centre of the bed 1 as shown in Figure 4. A collar 20 is secured to the rod 13 between which and the guide 11, a compression spring 21 is mounted for the purpose of thrusting the guide 14 rearwardly when the lever 19 is raised to withdraw the cam 18 from its engaging position.

Having thus described the several parts of my invention I will now briefly explain its use.

In setting the frame for packing, a cleat 10 is laid into the recess 4 and the lever 19 lowered to dispose the guides 11 and 14 to their closest relation. The shingles are then placed in position with their butts to the end stops 2 and their tips extending inwards and overlying the cleat 10, successive tiers of shingles are thus built up, with the outer edges of the outermost shingles in contact with the guides 11 and 14. When a sufficient number of shingles has been formed up a second cleat is placed transversely thereon directly above the first, and a wire 7 thrust into the receiving

pocket 5, along the groove 9 and the upturned lip 8, thus disposing its outer end in a vertical position above the top of the bundle. The ends of the wire are brought into parallel relation above the bundle and along the top of the upper cleat and are fitted into the jaws of a suitable wire tying machine, which imparts a tensional strain thereto to compact the bundle, finally twisting the said ends together and severing any excess length therefrom. The vertical compression of the bundle sometimes produces a slight transverse expansion thereto, which causes the bundle to bind between the guides, in which case the lever 19 is raised to release the cam 18 from its point of bearing, when the spring 21 forces the guide 14 away from the bundle, thus releasing the binding effect above mentioned so that the bundle may be easily removed from the packing frame.

What I claim as my invention is:

1. In a shingle packing frame having a bed, a transverse member adapted to support a cleat upon which a bundle of shingles is adapted to be formed, and means for guiding a wire under the longitudinal centre of the cleat.

2. In a shingle packing frame having a bed, a transverse member adapted to support a cleat and having a groove through which a tie wire is adapted to pass below the cleat and the shingles packed upon the bed.

3. In a shingle packing frame having a bed, a transverse member adapted to support a cleat and having a groove through which a tie wire is adapted to pass below the cleat and the shingles packed upon the bed, and an arcuate tip at one end of the member for directing one end of said wire in a vertically upward direction.

4. In a shingle packing frame having a bed, a transverse member having a groove through which a tie wire is adapted to pass below the shingles packed upon the bed, a pair of vertical guides adjacent opposite ends of the member, and means for increasing the space between the guides.

5. In a single packing frame having a bed, a transverse member having a groove through which a tie wire is adapted to pass below the shingles packed upon the bed, a pair of vertical guides adjacent opposite ends of the member, means for adjusting the spacing between the members, and means for moving one of the members a predetermined distance.

6. In a shingle packing frame having a bed, a transverse member having a groove through which a tie wire is adapted to pass below the shingles packed upon the bed, a pair of vertical guides adjacent opposite ends of the member, one of said guides having sliding engagement with the member, spring means for moving the said guide in one direction, and a cam for moving and locking it in the opposite direction.

In testimony whereof I affix my signature.

VAUGHN H. ROSS.