April 21, 1953 G. H. HUNTINGTON 2,635,332

DEVICE FOR INSTALLING SHEET METAL ROOFING

Filed Feb. 2, 1951

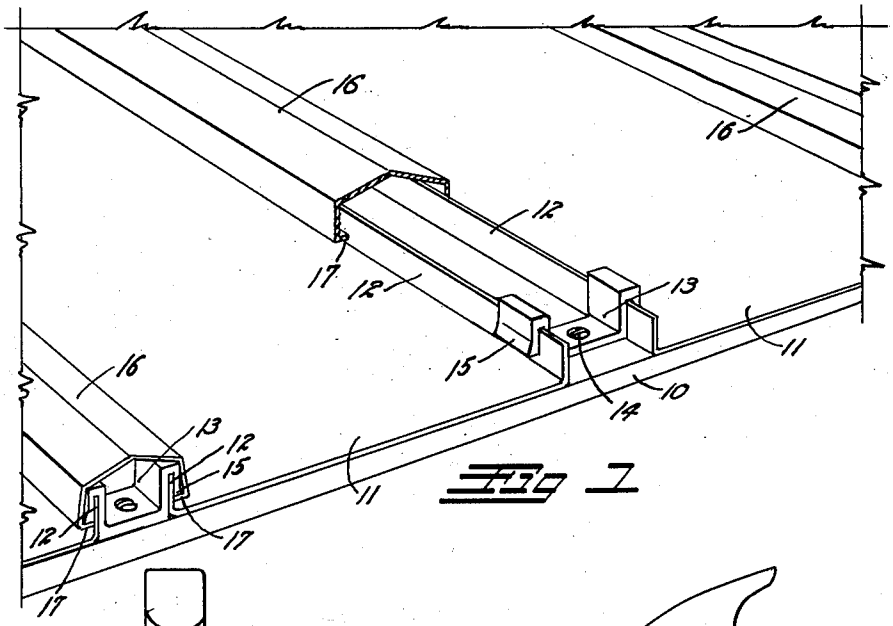


Fig 1

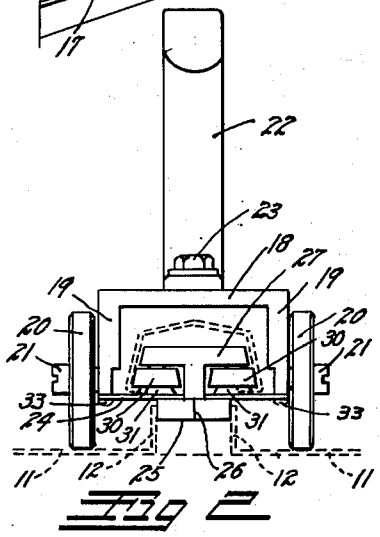


Fig 2

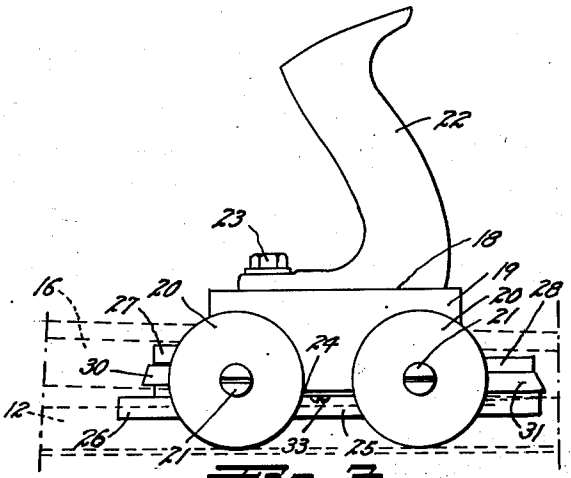


Fig 3

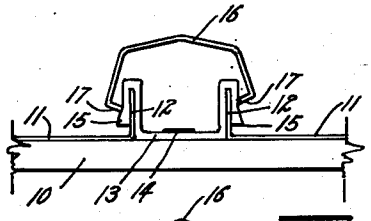


Fig 5

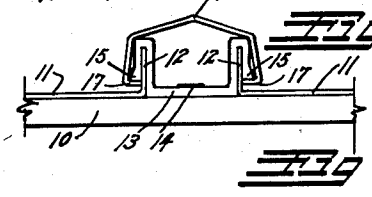


Fig 6

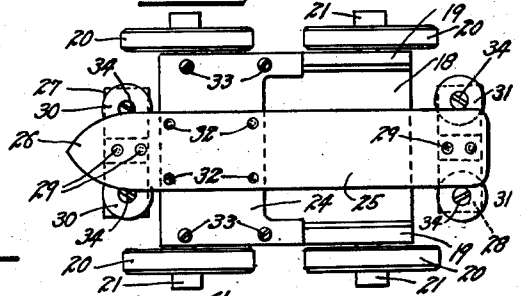


Fig 4

INVENTOR
GLEN H. HUNTINGTON
BY
ATTORNEY

Patented Apr. 21, 1953

2,635,332

UNITED STATES PATENT OFFICE

2,635,332

DEVICE FOR INSTALLING SHEET METAL ROOFING

Glen H. Huntington, Denver, Colo., assignor, by mesne assignments, to Roliton of America, Phoenix, Ariz., a corporation of Arizona

Application February 2, 1951, Serial No. 209,046

4 Claims. (Cl. 29—235)

1

This invention relates to a device for installing sheet metal roofing of the type illustrated in applicant's prior Patent No. 2,408,557, and more fully described in applicant's co-pending applications Serial Nos. 204,952 and 204,953.

Roofing of this type consists of a plurality of elongated roofing strips having parallel, upturned side edge flanges which are engaged by attachment clips for holding the strips against the roof sheathing. The open space between adjacent roofing strips is closed by an inverted, U-shaped batten strip which is forced down over the adjacent upturned flanges and the holding clips. It has been found exceedingly difficult to place the batten strips in place over the upturned flanges, due to the flexibility of the long batten strips and to distortions in the upturned flanges.

The principal object of this invention is to provide a simple, light-weight, highly efficient tool which can be forced by hand along the open joint between roofing strips, and which will apply the batten strips over the upturned flanges as rapidly as an operator can walk along the joint.

Another object of the invention is to provide a sheet metal roofing batten strip installing tool which will act to straighten all deformities and irregularities from the upturned flanges and from the batten strips before placing the latter over the former, and which can be easily carried by the installing mechanics without inconvenience.

Other objects and advantages reside in the detail construction of the invention, which is designed for simplicity, economy, and efficiency. These will become more apparent from the following description.

In the following detailed description of the invention, reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing:

Fig. 1 is a fragmentary, broken-away, perspective view illustrating the type of sheet metal roofing to which the improved tool is applicable;

Fig. 2 is a front view of the improved batten strip installing tool;

Fig. 3 is a side view thereof;

Fig. 4 is a bottom view thereof;

Fig. 5 is an end view of a batten strip and its adjacent roofing strips, illustrating the position in which the batten strip is placed by the improved tool; and

Fig. 6 is a view similar to Fig. 5, illustrating the final position of the batten strip.

In Fig. 1 the sheathing of a typical roof is

2

indicated at 10, to which sheet metal roofing strips 11 are applied. The roofing strips 11 terminate at their side edges in upturned flanges 12. The flanges 12 are engaged by double-hook attachment clips 13 which are secured to the sheathing 10 by means of suitable nails or screws 14. The ends of the hooks of the clips 13 are widened to form wedge-like extremities 15. The open space between the adjacent strips 11 is closed by means of a batten strip 16 having an inverted, U-shaped cross-section with inwardly turned locking edges 17. The improved tool is designed for placing the batten strips 16 over the upturned flanges 12, as shown in Fig. 5.

The improved tool comprises a carriage member 18 from which two side frame members 19 project downwardly in parallel relation. Two supporting wheels 20 are attached to each side frame member 19 by means of suitable axle screws 21. A handle 22 projects upwardly from the carriage 18 and is secured to the latter by means of a suitable cap screw 23. A bottom plate 24 extends between the two side frames 19 adjacent the forward extremity of the carriage 18.

An elongated guide bar 25, having a pointed, plow-like forward extremity 26, is secured to the bottom of the bottom plate 24 by means of suitable screws 32.

The guide bar 25 extends along the longitudinal axis of the carriage member and projects forwardly and rearwardly therefrom. The guide bar supports two T-shaped roller bracket members 27 and 28 which are attached on the guide bar by means of suitable cap screws 29. The forward roller bracket 27 supports two forward rollers 30, and the rear roller bracket 28 supports two rear rollers 31. The rollers are formed in the shape of a truncated cone, with their smaller diameters upward.

It will be noted that the forward bracket 27 is higher than the rear bracket 28, so that the forward rollers 30 are supported at a substantially higher elevation than the rear rollers 31.

In use, a batten strip 16 is passed beneath the carriage member 18, as indicated in broken line in Figs. 2 and 3, with the rollers 30 and 31 acting to spread the locking edges 17 outwardly, and the starting end of the spread batten strip 16 is slipped down over the first clip 13. The tool is then forced along the open joint between the roofing strips. The guide bar 25 engages the upstanding flanges 12 to straighten and bring the latter to a vertical position. The rollers 30 and 31 spread the sides of the batten strip 16 and force the locking edges thereof downwardly outside of the up-

turned flanges 12 to the position of Fig. 5. After the tool has passed, the operator presses the batten strip downwardly until the locking edges 17 thereof snap under the wedge extremities 15 of the clips, as shown in Fig. 6, to complete the installation.

It will be noted that the rollers 30 are spaced closer together than the rollers 31 so as to facilitate the insertion of the rollers 30 in the batten strip, and so that the rollers 31 will exert a spreading action on the sides of the batten strip as they pass therealong.

While a specific form of the improvement has been described and illustrated herein, it is to be understood that the same may be varied, within the scope of the appended claims, without departing from the spirit of the invention.

Having thus described the invention, what is claimed and desired secured by Letters Patent is:

1. A tool for applying inverted, U-shaped batten strips to upturned flanged edges on adjacent sheet metal roofing strips, comprising: a carriage; wheels supporting said carriage from said roofing strips; an elongated guide bar; means supporting said guide bar medially and longitudinally below said carriage so that it will extend downwardly between and separate said upturned flanges; a pair of rollers mounted on and extending upwardly from adjacent the forward and rear extremities of said guide bar, the rollers of each pair having substantially vertical parallel axes and being positioned on opposite sides of the medial center line of said bar in spaced-apart relation so as to engage the inside faces of said batten strips to separate the latter; and means for forcing said carriage along the adjacent upturned flanges.

2. A tool for applying inverted, U-shaped batten strips to upturned flanged edges on adjacent sheet metal roofing strips as described in claim 1 in which the guide bar is supported in a horizontal position and in which the rollers of the pair adjacent the forward extremity of said guide bar are positioned at a higher elevation above said guide bar than the rollers of the pair adjacent the rear extremity thereof so that the batten strip riding on said rollers will be supported in an inclined position.

3. A tool for applying inverted, U-shaped batten strips to upturned flanged edges on adjacent sheet metal roofing strips, comprising: a carriage; downwardly extending side frame members on said carriage; a pair of aligned supporting wheels mounted on each side frame member; a bottom plate extending across said carriage between said side frame members; an elongated, horizontal, medially-positioned guide bar supported from and suspended below said bottom plate so as to pass between said upturned flanged edges; and two pairs of laterally spaced-apart rollers supported from and extending upwardly above the plane of said bottom plate so as to engage inside the sides of said batten strip and support the latter above said bottom plate.

4. A tool for applying inverted, U-shaped batten strips to upturned flanged edges on adjacent sheet metal roofing strips, comprising: a carriage; downwardly extending side frame members on said carriage; a pair of aligned supporting wheels mounted on each side frame member; a bottom plate extending across said carriage between said side frame members; an elongated, medially positioned guide bar; means supporting said guide bar horizontally below said bottom plate, said bar having a pointed forward extermity adapted to pass between adjacent upturned flanges; a front roller bracket member mounted on and above the forward extremity of said guide bar; a rear roller bracket member mounted on and above the rearward extremity of said guide bar; and a pair of laterally spaced-apart rollers mounted on substantially vertical axes above said guide bar in each bracket member so as to engage inside the sides of a batten strip, the rollers in the front bracket member being supported at a higher elevation than the rollers on the rear bracket member.

GLEN H. HUNTINGTON.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
93,704	Glober	Aug. 17, 1869
1,543,335	Maise	June 23, 1925
2,171,297	Zahner et al.	Aug. 29, 1939