Dec. 24, 1929. M. F. MARKS 1,740,825

CORNER BEAD TOOL

Filed March 5, 1928 2 Sheets-Sheet 1

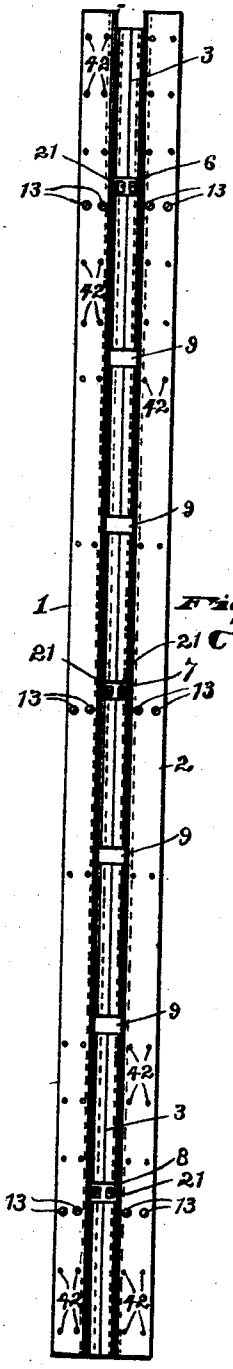


Fig. 1.

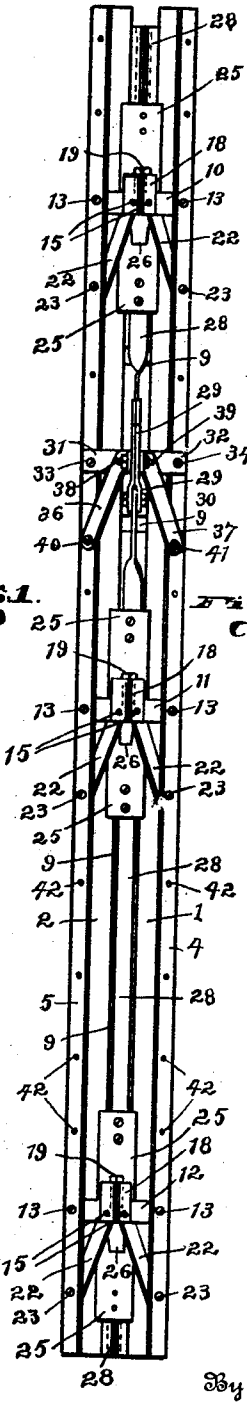


Fig. 2.

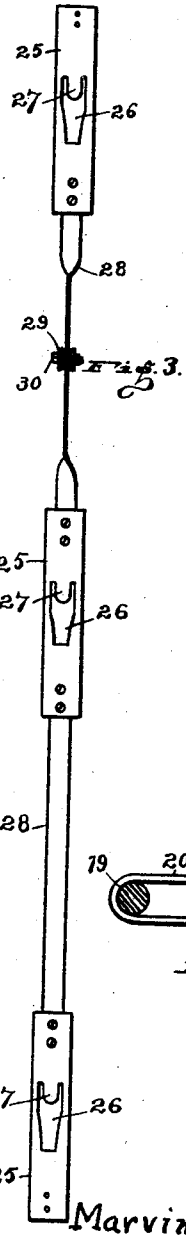


Fig. 3.

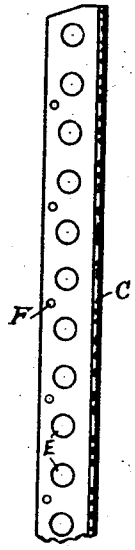


Fig. 4.

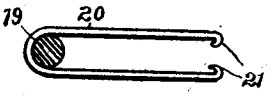


Fig. 5.

Inventor:
Marvin F. Marks;
By Robert W. Tindle,
Attorney.

Dec. 24, 1929. M. F. MARKS 1,740,825

CORNER BEAD TOOL

Filed March 5, 1928 2 Sheets-Sheet 2

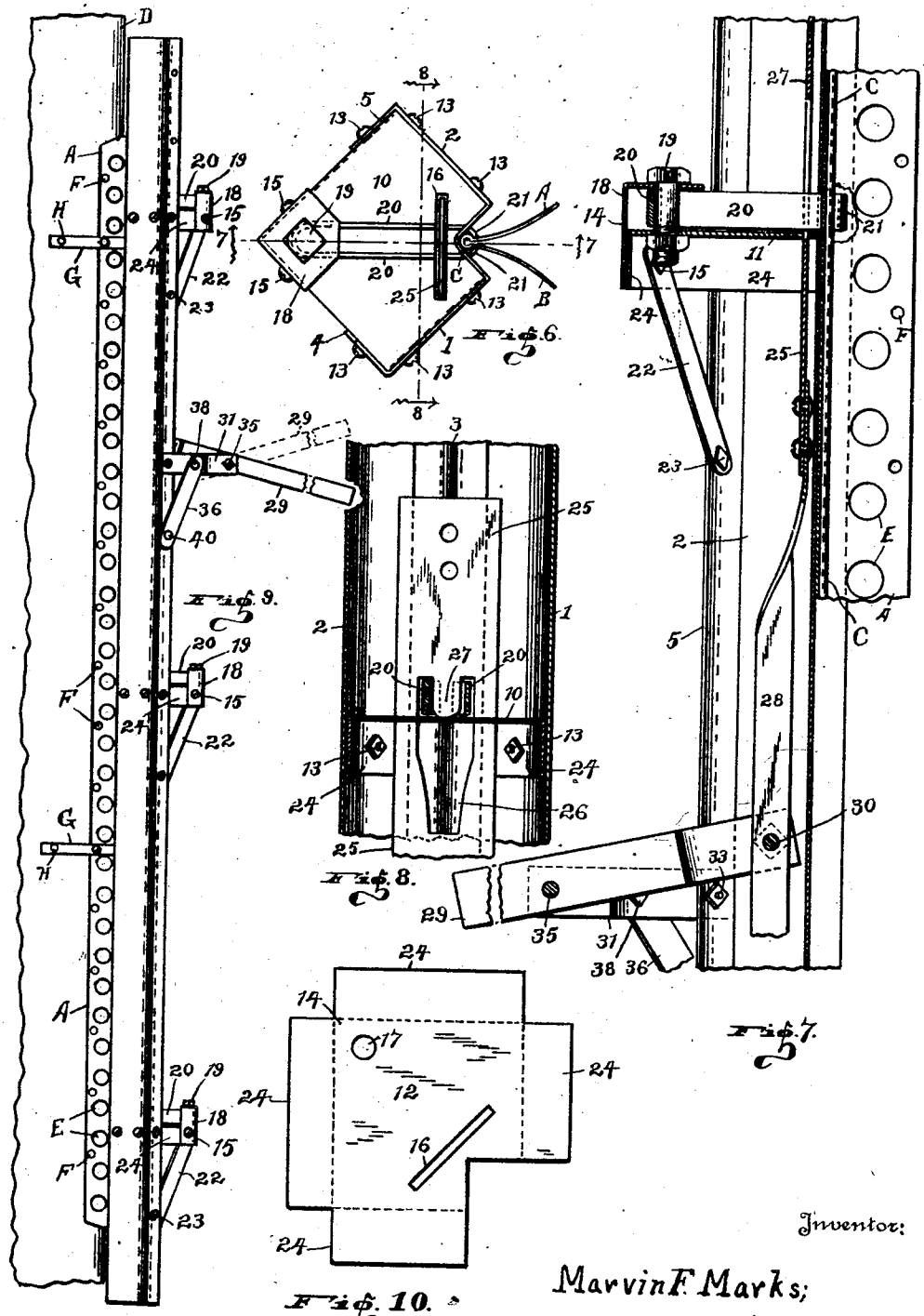


Fig. 6.

Fig. 9.

Fig. 8.

Fig. 7.

Fig. 10.

Inventor:
Marvin F. Marks;
By Robert W. Randle,
Attorney.

Patented Dec. 24, 1929 1,740,825

UNITED STATES PATENT OFFICE

MARVIN F. MARKS, OF ALBANY, INDIANA

CORNER-BEAD TOOL

Application filed March 5, 1928. Serial No. 259,076.

The object of my present invention, broadly stated, is to provide a corner-bead tool which is comparatively simple in construction, strong and durable in its several parts, easily operated and controlled, comparatively light in weight, and which can be manufactured and sold at a comparatively low price.

It should first be understood that it has recently become common in the formation of plastered walls in buildings, that where external corners are formed such corners are provided with a metal bead or corner strip, of angular shape in cross-section, secured thereto in order to protect such corners from damage. To such corner strips or beads I make no claim, but the specific object of this present invention is to provide an efficient tool or device by the employment whereof such corner beads or strips may be made straight and easily secured in place, but more especially insuring the bead thereof being absolutely straight from end to end thereof, regardless of any unevenness or imperfections in such corners, and also at the same time providing a plastering line by which the plastering on each side of the bead may be made absolutely true throughout its extent. Other minor objects and particular advantages of my invention will suggest themselves in the course of the following specification.

The preferred means for carrying out the objects of my invention in a practical and economical manner is shown in the accompanying two-sheets of drawings, in which—Figure 1 is a front outside elevation of my tool. Figure 2 is a rear and inside elevation of the same. Figure 3 is an elevation of the sliding locking member of the tool. Figure 4 is side elevation of a portion of a corner strip to be placed in position by means of my tool. Figure 5 is an edge view of one of the clips alone. Figure 6 is an upper end plan view of my tool and of a corner strip locked into connection therewith. Figure 7 is a vertical central section of a portion of my invention, and a portion of a corner strip attached thereto, as taken on the line 7—7 of Fig. 6. Figure 8 is an enlarged detail vertical section of a portion of my tool, as taken on the line 8—8 of Fig. 6. Figure 9 is a side elevation of my tool with a corner strip locked into connection therewith. And Figure 10 is a plan view of one of the horizontal plates.

Similar indices denote like parts throughout the several views.

In order that the construction, the operation, and the several advantages of my invention may be more fully understood and appreciated, I will now take up a detailed description thereof, in which I will set forth the same as comprehensively as I may.

The invention includes the body or shell, the same being formed of sheet-metal pressed into substantially the shape as shown in cross section in Fig. 6, and it consists of the two sides 1 and 2, which are located at right-angles to each other and connected by the reverse right-angular portion 3 formed at the juncture of the members 1 and 2, with the sides of said channel 3 integral with each other and with the sides 1 and 2, substantially as indicated.

The outer edge portions of the members 1 and 2, that is the edges which are most remote from the channel 3, are turned inward at right-angles to their respective members 1 and 2, forming the wing portions 4 and 5 which, primarily, are for the purpose of stiffening said members and, incidentally, the sides of the channel 3 also act for the same purpose, and the whole forming an enclosure with a maximum of rigidity, for the enclosure of the locking mechanism.

Formed through the combined sides of the channel 3, and spaced apart along the length of said body member are, in this instance, three oblong active apertures 6, 7 and 8, which are for the purpose hereinafter explained. Other like, but inactive, apertures 9 are formed exactly like the first mentioned apertures, but they are not employed in this instance, as they may be used in place of the apertures 6, 7 and 8.

Fitting in said body member are three sheet metal plates, which are substantially horizontal, that is they are at right-angles to the body member. Said plates are designated by the respective numerals 10, 11 and 12, and they are identical with each other, therefore

certain parts thereof will be designated by like numerals. The shape of said plates is shown in Fig. 10. Each of said plates has a flange 24 extending down from its edges and which contact with the members 1, 2, 4 and 5, to which they are secured each by a set of bolts 13. The shape of said plates being substantially square, a projecting corner 14 is formed, for purpose hereinafter stated.

The upper surface of said plates are located even with the lower edge of the respective apertures 6, 7 and 8. Formed diagonally through the inner corner portion of each plate, centrally of the channel 3, is a slot 16. And formed through the corner portion 24 of each plate is an elongated aperture 17, as shown in Fig. 10.

Each of said plates 10, 11 and 12, has a bracket 18 attached to its outer corner 14, by means of the respective sets of bolts 15. Each of said brackets is composed of two relatively right-angular sides which fit around the corner 14, and a top which is located above the respective plates at a distance which is substantially the same as is the vertical diameter of the apertures 6, 7 and 8.

Said brackets are further supported each by a pair of braces 22. The upper ends of said braces are attached by the bolts 15 and their lower ends are attached to the wings 4 and 5 by the bolts 23.

A large bolt 19 is inserted through the aperture 17 and through a corresponding aperture formed through the top of the bracket 18.

Resting on each of said plates is a spring clip 20, of the shape shown in Fig. 5, which has a loop portion at one end and jaws 21 at its other end, with said jaws located and operative in the channel 3.

Said bolt 19 passes through the loop of the clip 20 whereby said clip is retained pivotally in position, as shown in Fig. 6.

The sliding locking member comprises a plurality of oblong flat strips 25, corresponding in number with the number of plates 10, 11 and 12, and therefore with the number of clips 20.

Each of said strips has a Y-shaped aperture 26 formed through its central portion which, by reason of their shape, form a downwardly extending tongue 27. Each two of said strips are connected by a bar 28 to space them apart, whereby one of the tongues 27, when raised, will be immediately above one of said clips 20, or when pressed down will wedge in between the two prongs of the clip, as in Fig. 8, and force them slightly apart, that is it will force the jaws 21 apart, for the purpose hereinafter set forth. Each of said strips 25 is slidably fitted in one of the slots 16, which slots act as guides therefor and prevent them from springing laterally.

The means for moving said sliding locking member comprises a lever 29, whose inner end is forked and strides a bar 28, to which it is pivoted by the bolt 30. The fulcrum for said lever comprises the two arms 31 and 32, which are secured at their inner ends to the respective wings 5 and 4 by means of the respective bolts 33 and 34, from which they extend outward, convergently, and contact with the sides of said lever, to which they are connected by the pivot bolt 35. Supporting said fulcrum are the two braces 36 and 37, which are secured at their upper ends to the respective members 31 and 32 by the bolts 38 and 39, and at their lower ends they are secured to the wings 5 and 4, respectively, by the bolts 40 and 41.

It is to be noted that the upper and the lower portions of the body members have a plurality of bolt-apertures formed therein, some of which are indicated by numeral 42, the purpose of which are for the attachment of other sections, not shown, but which are identical with section herein shown and described.

The corner strip to be applied by my tool is formed of a single length of sheet metal bent centrally and longitudinally to form the two wings A and B, which are identical with each other, and they normally stand at an acute angle with relation to each other.

At the juncture of said wings a bead C is formed, which is substantially round in cross section, that is as if it were formed around a wire or rod, whereby the interior of said bead is a hollow circle, with said wings radiating divergently therefrom.

Letter D denotes the corner portion of a wall, to which the corner strip is to be secured by my tool.

Through each of said wings a plurality of large apertures E are formed, which enable plaster to clinch to said strip.

Also in each wing of said strip a number of small apertures F are formed, to receive nails for securing the strip to the wall D.

Also extension bars G may be riveted to said wings, with nail apertures H formed in their outer ends, whereby the corner strip may be secured at points remote from the immediate corner of the wall.

In practice the corner strip shown in Fig. 4 is first cut to the desired length to extend from end to end of the entire corner to which it is to be applied. The tool is then made to correspond with, more or less, the entire length of the corner strip, by means of said extensions, if required. The lever 29 is then raised to its limit, as indicated by its position shown by dotted lines in Fig. 9. This position will cause the tongues 27 to spread the jaws 21 apart. The bead C may now be entered between all of said pairs of jaws, after which the lever is to be turned downward, as shown in full lines in Fig. 9, which will withdraw the tongues 27 from the clip 20 thereby allowing said jaws to clamp the bead C and

thereby securely hold the corner strip in connection with the tool. The tool is then brought to the corner D, with the wings A and B striding the corner D, and then by pressing against the tool the said wings will be forced further apart tightly engaging the sides of the corner D. Nails may then be inserted in the apertures F or H, or both, and driven into the wall, which manifestly will secure the strip in its final position where, by reason of its connection with the tool, will be perfectly straight regardless of the inequalities in the wall.

As soon as the strip is secured in position with the wall then the lever 29 may be turned upward again, which will release the bead C from the jaws 21 and permit the tool to be removed.

I desire that it be understood that various changes may be made in the several details of construction, from that herein shown and described, without departing from the spirit of the invention and without sacrificing any of the advantages thereof which are new and useful and which involve invention.

Having now fully shown and described my invention, what I claim, and desire to secure by Letters Patent of the United Stated, is—

1. A corner strip tool comprising a sheet-metal body which is right angular in cross section and having a right-angular channel formed reversely of main portion of said body and located at the juncture of the sides of said body, clips located in said body with the jaws of said clips projecting into said channel, means for opening said jaws at one time to permit the insertion therebetween of the bead of a corner strip, and a lever forming means for closing said jaws at one time whereby the corner strip will be held straight while it is being secured in its final operative position.

2. A tool adapted to be used in connection with attaching corner strips, including a hollow body having a right-angular channel formed in its face extending from end to end thereof, a plurality of spring clips located in said body with a pair of coacting jaws on each clip and with said jaws extending into said channel and adapted to grasp the bead of the corner-strip and hold it straight while it is being attached to a corner, and a single lever adapted when moved in one direction to open all of said jaws and when moved in the opposite direction to permit all of said jaws to close.

3. A corner-strip tool comprising a sheet-metal shell consisting of two sides at right angles to each other and connected by a reverse right-angular channel portion at the junction of the side members, wings turned at right-angles to the free edges of the side members, there being a plurality of slots formed through the said channel portion, a plurality of horizontal plates secured in said shell to retain the members of the shell in proper relation to each other, a spring clip resting on each of said plates and each projecting into one of said slots, a bolt pivoting each of said clips to its plate, a sliding locking member operative in slots formed through said plates and comprising locking strips carried thereby and forming a part thereof, a tongue formed in each of locking strips and adapted when moved in one direction to open the jaws of all of said clips to release them from the corner strip, and when moved in the other direction to cause them to engage the corner strip, substantially as set forth.

In testimony whereof I have hereunto subscribed my name.

MARVIN F. MARKS.