June 23, 1925. 1,543,335

H. C. MAISE

TOOL FOR FORCING FASTENER CONCEALING STRIPS IN PLACE ON DRIP MOLDINGS OF VEHICLE BODIES

Filed June 11, 1923 2 Sheets-Sheet 1

Fig. 1.

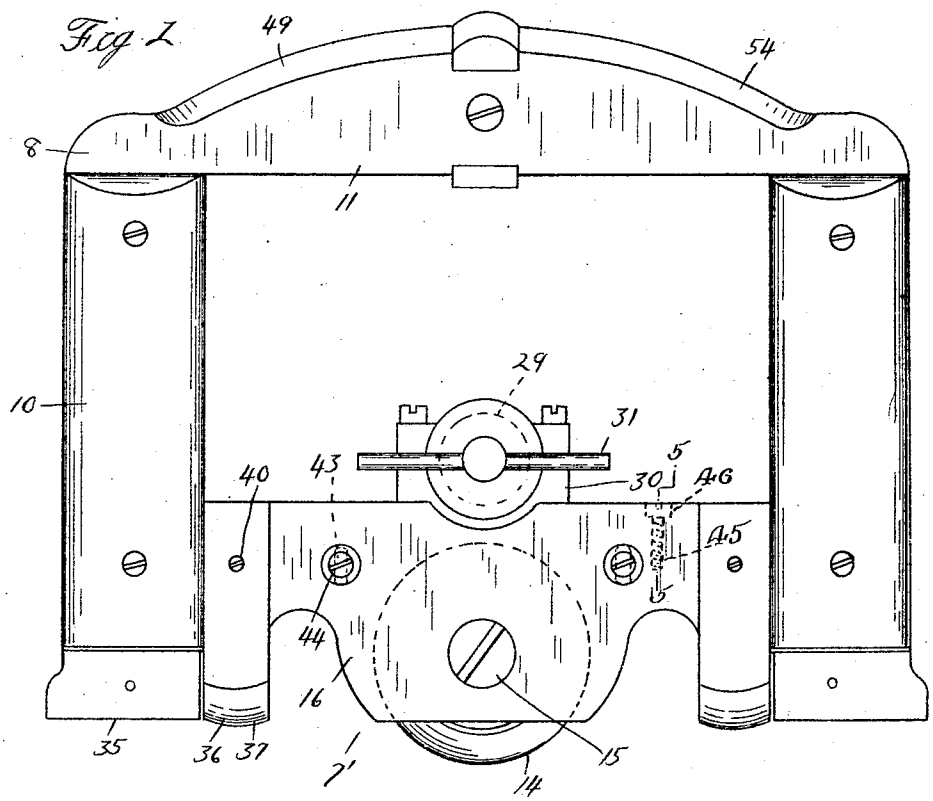


Fig. 5.

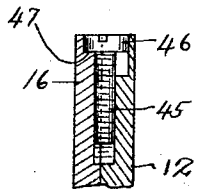
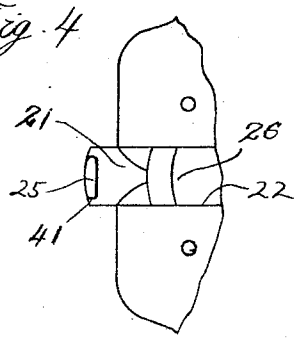


Fig. 4.



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Fig. 2.

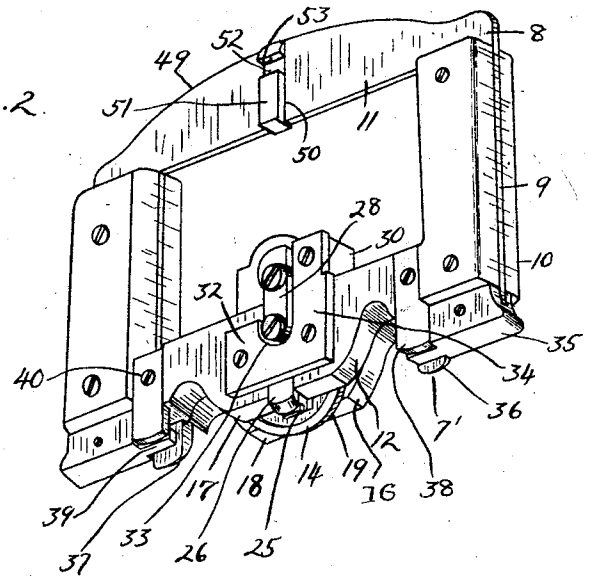
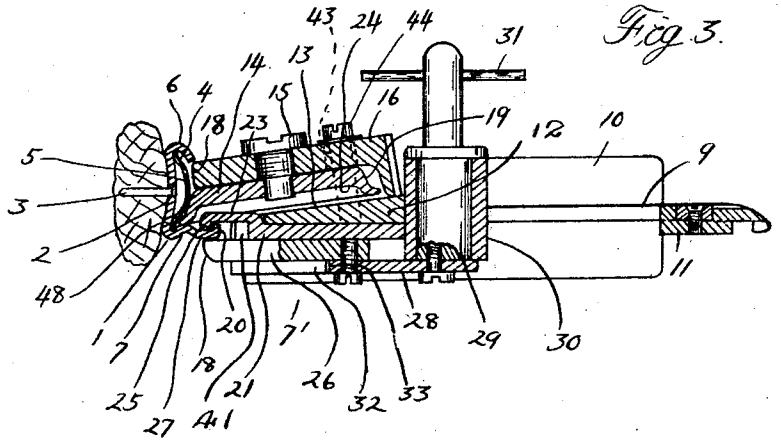


Fig. 3.



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UNITED STATES PATENT OFFICE.

HERMAN C. MAISE, OF DETROIT, MICHIGAN, ASSIGNOR TO BRIGGS MANUFACTURING COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

TOOL FOR FORCING FASTENER-CONCEALING STRIPS IN PLACE ON DRIP MOLDINGS OF VEHICLE BODIES.

Application filed June 11, 1923. Serial No. 644,690.

To all whom it may concern:

Be it known that I, HERMAN C. MAISE, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Tools for Forcing Fastener-Concealing Strips in Place on Drip Moldings of Vehicle Bodies, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to tools and refers more particularly to a tool having means for forcing a member into fixed position upon drip molding for concealing the securing means therefor.

An object of the invention is to provide a tool which is very simple in construction and which can be operated very easily.

Another object of the invention is to provide a tool which may be applied easily and quickly to the molding and which may be removed readily therefrom at any point thereof.

Another object is to provide a tool that is capable of forcing concealing members into position around square as well as rounded corners of the molding.

Another object is to provide a tool having means for forcing the free ends of the concealing member against the molding to produce a finished job.

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

In the accompanying drawings:—

Figure 1 is a side elevation of a tool embodying my invention;

Figure 2 is a perspective view thereof;

Figure 3 is a fragmentary sectional view through the tool and showing the same applied to a strip of molding.

Figure 4 is a fragmentary detail view;

Figure 5 is a detail vertical sectional view taken on the line 5—5 of Figure 1.

It is usually a practice to provide some form of drip molding for receiving and conveying away the water draining off from the top of a motor vehicle. Due to the convenience of applying the securing elements, I preferably employ a strip of molding 1 that is substantially L-shape in cross-section. However, with such constructions the heads 2 of the securing elements 3 are exposed and appear very unsightly, consequently, a suitable strip 4 is preferably used to conceal the securing means. The concealing strip is preferably curved transversely outward throughout its length intermediate the upper and lower edges thereof as shown at 5 so as to receive the heads 2 of the securing elements and is preferably retained in proper concealing position by means of an overhanging portion 6 and a longitudinally extending corrugation 7 of the molding. The strip 4 is preferably placed in proper concealing position by inserting the upper edge thereof by hand under the overhanging portion of the molding and then forcing the lower edge of the strip over the corrugation by means of a tool 7′ which is preferably hand-operated.

The tool preferably comprises a metallic frame 8 having parallel end bars 9 to which suitable grips 10 are secured, and parallel cross-bars 11 which are preferably formed integral with the end bars 9 at the ends thereof. The lower cross bar is preferably provided, intermediate the ends thereof, with an inclined outer face 13. A wheel 14 is preferably rotatably mounted upon a removable stud 15 extending inwardly through a recessed metallic plate 16 which is preferably detachably secured to the inclined face of the lower bar and which cooperates therewith to form a housing for the wheel. The wheel is adapted to force the concealing strip into proper position and for this purpose, preferably projects below the lower edges 17 and 18, respectively of the lower cross bar 12 and plate 16, and is preferably provided with a beveled peripheral surface 19 for engagement with the concealing strip 4 immediately below the transversely curved portion thereof.

When the tool is moved by hand along the molding so that the wheel engages the

concealing strip, the flat lower edge 17 of the cross bar 12 travels along the up-turned flange 20 at the outer edge of the molding. For holding the tool to the molding, while it is moved along the same, I preferably provide a stationary jaw member 21 which is preferably detachably secured in a transversely extending recess 22 in the inner face of the cross bar 12 and which is preferably provided with a reduced inwardly extending offset portion 23 at the lower end thereof. This offset portion is preferably received in an annular groove or channel 24 in the inner side of the wheel 14 and is preferably provided with a horizontally disposed lug 25 that projects outwardly from the outer face of the offset portion at the extreme lower end thereof and that is adapted to engage the inner wall of the up-turned flange 20. Cooperating with the lug 25 of the stationary jaw is a reciprocatory jaw member 26 which is preferably slidably mounted upon the stationary jaw 21 in the recess 22 and which is adapted to engage the flat lower face of the horizontal portion 27 of the molding. The jaw 26 is preferably reciprocated by means of a link 28 that is eccentrically connected to the outer end of a suitable rock shaft 29 which is rotatably mounted in a bearing member 30 detachably secured to the upper face of the enlargement 12. A suitable handle 31 preferably extends transversely through a reduced portion of the shaft 29 and is adapted to rock the same.

A metallic plate 32 is preferably detachably secured to the outer face of the enlargement 12 and normally retains the sliding jaw 26 in the recess 22. The plate 32 is preferably provided with a recess 33 in the upper end thereof to receive the lower end of the link 28 and is also preferably provided with a narrow extension 34 which is preferably detachably secured at its free end to the bearing member 30 and which provides a stop for limiting the swinging movement of the link 28 in both inner and outer positions.

For guiding the tool while it is moving along the molding, I preferably provide a pair of substantially rectangular shaped runners 35 which are preferably located at the ends of the tool in alignment with the jaws 21 and 26 and which are adapted to engage the outer wall of the up-turned flange 20 of the molding to prevent the tool from rocking about the wheel 14. These runners are preferably pivoted intermediate the ends thereof to the end bars 9 of the frame so that they will be able to travel more readily over any irregular surface of the molding and therefore will not scratch or mar the same. To assist in guiding the tool I preferably provide a pair of fingers 36 which are disposed upon the outer face of the lower bar of the frame between the ends of the enlargement 12 and the grips 10 and which are adapted to engage the inner edges of the up-turned flange 20 of the molding when the tool is moved along the same. These fingers are preferably beveled at their lower ends as shown at 37 and preferably cooperate with fingers 38 disposed upon the opposite face of the lower bar to embrace opposed reduced extensions 39 of the runners 35. Suitable screws 40 extend through the lower bar of the frame and detachably secure the fingers 36 and 38 together.

It is sometimes necessary to use the tool upon molding that extends around square corners of a vehicle body and to avoid removing the tool from the molding I preferably provide the outer end of the stationary jaw 21 with an inverted substantially L-shaped recess 41 which will readily receive a corner of the flange 20 when the tool is moved by hand around the corner of the vehicle body. To this end I also preferably bevel the ends of the lug 25 as shown at 42 so that the tool may be moved more easily around the corner of the flange 20.

The tool is applicable to moldings of different widths and for this purpose the plate 16 is preferably adjustable transversely of the inclined face of the enlargement so that the wheel 14 enclosed by the plate may be moved either inwardly or outwardly to vary the distance between the lower edge thereof and the lower bearing edge 17 of the enlargement 12. The adjustment of the plate 16 is preferably accomplished by providing elongated slots 43 in the plate 16 to receive the screws 44 securing the same to the enlargement and by providing screws 45 which are threaded into the top of the enlargement at the inner edge thereof and which preferably have circular heads 46 that are adapted to engage shoulders 47 in the plate 16 for moving the latter outwardly. Thus, the screws 44 may be loosened so that the plate 16 may be moved outwardly by means of the screws 45, whereupon said screws 44 may then be adjusted to hold the plate in position. If it is desired to move the plate in the opposite direction, then both the screws 45 and 44 respectively will be adjusted so that the plate may be moved by hand, whereupon the said screws 44 may be adjusted to hold the same.

Due to the fact that the concealing strip is applied to the molding after the same is secured to the vehicle body it sometimes happens that there are protruding ends that have to be pressed inwardly against the vertical portion 48 of the molding to produce a finished job. To accomplish this, I preferably provide the upper cross bar of the frame with an outwardly curved outer edge 49 and a transversely extending recess 50 midway of the ends thereof that receives a

narrow metallic pivot member 51 that is preferably rigidly secured to the upper bar. This pivot member is preferably provided with a transversely extending slot 52 which is adapted to receive the up-turned flange 20 of the molding when the curved edge 49 of the bar is moved to force the free or protruding end of the concealing strip against the vertical portion 48 of the molding. The outer wall of the transverse slot 52 in the pivot member is preferably curved in the arc of a circle, as shown at 53, so as to engage the inner wall of the flange 20 when the tool is swung by hand in either direction upon the pivot member. The inner face of the upper bar is also preferably beveled along the curved edge portion thereof as shown at 54 so as to engage the transversely curved portion of the concealing strip.

In use, the handle 31 is operated to move the jaw 26 inwardly so that the lug 25 may be engaged over the up-turned flange 20 of the molding, whereupon the sliding jaw 26 may then be moved outwardly to engage the horizontal portion 27 of the molding to hold the tool thereto. Thus, the tool cannot become accidentally disengaged from the molding while it is being moved along the same. The wheel 14 engages the concealing strip immediattely below the transversely extending portion thereof and forces the said strip over the corrugation of the molding as the tool is moved along. Should it be desired to move the tool from the molding intermediate the ends thereof, the handle 31 may be operated to retract the jaw 26, whereupon the lug 25 may be disengaged from the flange 20 of the molding. When the tool is moved along the molding, the fingers 36 will travel along the upper edges of the flange 20 while the rings 35 will travel along the outer face of the flange and will guide the tool in its movement.

While it is believed that from the foregoing description, the nature and advantages of the invention will be readily apparent, I desire to have it understood that I do not limit myself to what is herein shown and described and that such changes may be resorted to when desired as fall within the scope of what is claimed.

What I claim as my invention is:—

1. A tool having a bar, means carried by said bar for forcing a member into fixed positinon upon drip molding for concealing the securing means therefor, and means carried by said bar for detachably holding the means aforesaid in engagement with said concealing member.

2. A tool having a frame, means carried by said frame for forcing a member into fixed position upon drip molding for concealing the securing means therefor, means carried by said frame for detachably holding the means aforesaid in engagement with said concealing member, and guide means for said tool carried by said frame.

3. A tool having a bar, means carried by said bar for forcing a member into fixed position upon a drip molding for concealing the securing means therefor, and guide means for said tool carried by said bar.

4. A movable tool having a bar, means carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, and fingers carried by said bar engageable with said molding for guiding the movement of said tool.

5. A movable tool having a bar, means carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, and runners carried by said bar engageable with said molding for guiding the movement of said tool.

6. A tool having a bar, means carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, means carried by said bar for holding the means aforesaid in engagement with said concealing member, the second-mentioned means being adjustable whereby the first-mentioned means may be disengaged from the concealing member at any point along said molding.

7. A tool having a bar, means carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, and cooperating jaws carried by said bar for holding the means aforesaid in engagement with said concealing member, one of said jaws being adjustable whereby the first-mentioned means may be disengaged from the concealing member at any point along said molding.

8. A tool having a bar, an element carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, and means carried by said bar and engageable with the molding for holding the element in engagement with the concealing member when said tool is moved around an angular corner of said molding.

9. A tool having a bar, an element carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, and cooperating jaws carried by said bar for holding the element in engagement with said concealing member, one of said jaws having a recess therein adapted to receive a corner of said molding when said tool is moved around the same.

10. A tool having a plurality of bars, and means carried by one of said bars for forcing a member into fixed position upon drip molding for concealing the securing means

therefor, the other bar being provided with means for forcing the free ends of said concealing member against said molding.

11. A tool having a plurality of bars, and means carried by one of said bars for forcing a member into fixed position upon drip molding for concealing the securing means therefor, the other of said bars having a curved edge for forcing the free ends of said concealing member against said molding.

12. A tool having a plurality of bars, an element carried by one of said bars for forcing a member into fixed position upon drip molding for concealing the securing means therefor, the other of said bars having a curved edge for forcing the free ends of said concealing member against said molding, and a pivot member carried by the last-mentioned bar engageable with said molding when the curved edge of said bar is in engagement with said concealing member.

13. A tool having a bar, and an element adjustably mounted on said bar having means for forcing a member into fixed position upon drip molding for concealing the securing means therefor.

14. A tool having a bar, means carried by said bar for forcing a member into fixed position upon drip molding for concealing the securing means therefor, cooperating jaws carried by said bar for holding the means aforesaid in engagement with said concealing member, and means for adjusting one of said jaws whereby the first-mentioned means may be applied to or disengaged from the concealing member at any point along said molding.

15. In a tool of the class described, the combination with a frame, of a plate adjustably mounted on the frame, and a rotatable element mounted between the plate and frame adapted to force a concealing strip between portions of drip molding.

16. In a tool of the class described, the combination with a frame having a cross bar, of a plate adjustably mounted on the cross bar, and an element rotatably mounted on the plate adapted to force a concealing strip between portions of drip molding.

17. A tool of the class described having a frame provided with end bars and cross bars extending between the end bars, a plate mounted on one of the cross bars, an element mounted on the plate adapted to force a concealing strip between portions of drip molding, and a hand-grip secured to one end bar.

18. A tool of the class described having a frame provided with end bars and cross bars extending between the end bars, an element mounted upon one of the cross bars adapted to force a concealing strip between portions of drip molding, and a hand-grip secured to one of the end bars.

19. In a tool of the class described, the combination with a frame, having a cross bar, of an element mounted on the cross bar adapted to force a concealing strip between portions of drip molding, and cooperating jaws engageable with the molding also mounted on the cross bar.

20. In a tool of the class described, the combination with a frame having a cross bar, of a plate adjustably mounted upon the cross bar, a rotatable element mounted on the plate adapted to force a concealing strip between portions of drip molding, and means for adjusting said plate.

21. In a tool of the class described, the combination with a frame, having a cross bar, of an element mounted on the cross bar adapted to force a concealing strip between portions of drip molding, a stationary jaw member on the cross bar, a cooperating jaw member movable transversely of the cross bar, a link connected to the movable jaw, and an eccentric for actuating the link.

22. In a tool of the class described, the combination with a frame having a cross bar, of an element mounted on the cross bar adapted to force a concealing strip between portions of drip molding, a stationary jaw on the cross bar, a cooperating jaw member movable transversely of the cross bar, and means for actuating the movable jaw member including a link connected thereto, a bearing member detachably secured to the cross bar, and a rock shaft mounted in the bearing eccentrically connected to the link.

23. In a tool of the class described, the combination with a frame having a cross bar, of a rotatable element mounted on the cross bar adapted to force a concealing strip between portions of drip molding, and guide means for the element including members engageable with the molding and pivoted to the cross bar in advance and in rear of said element.

24. In a tool of the class described, the combination with a frame, of an element carried by the frame adapted to force a concealing strip between portions of drip molding, a grip secured to the frame whereby the element may be moved longitudinally of the concealing strip, and guide means for the element including runners engageable with the molding connected to the frame in alignment with said element.

25. In a tool of the class described, the combination with a frame, a rotatable element mounted on the frame adapted to force a concealing strip between portions of a strip of molding, runners secured to the frame for guiding said element, and means cooperating with the runners for guiding the element, including members extending transversely of the frame adjacent to the runners engageable with the molding.

26. In a tool of the class described, the combination with a frame member, of a plate

adjustably mounted on the frame member, and means carried by said plate adapted to force a concealing strip between portions of drip molding.

27. In a tool of the class described, the combination with a frame member, of a jaw element carried by said frame member adapted to travel along drip molding, and means carried by said frame member adjacent to said jaw element adapted to force a concealing strip between portions of said drip molding.

In testimony whereof I affix my signature.

HERMAN C. MAISE.