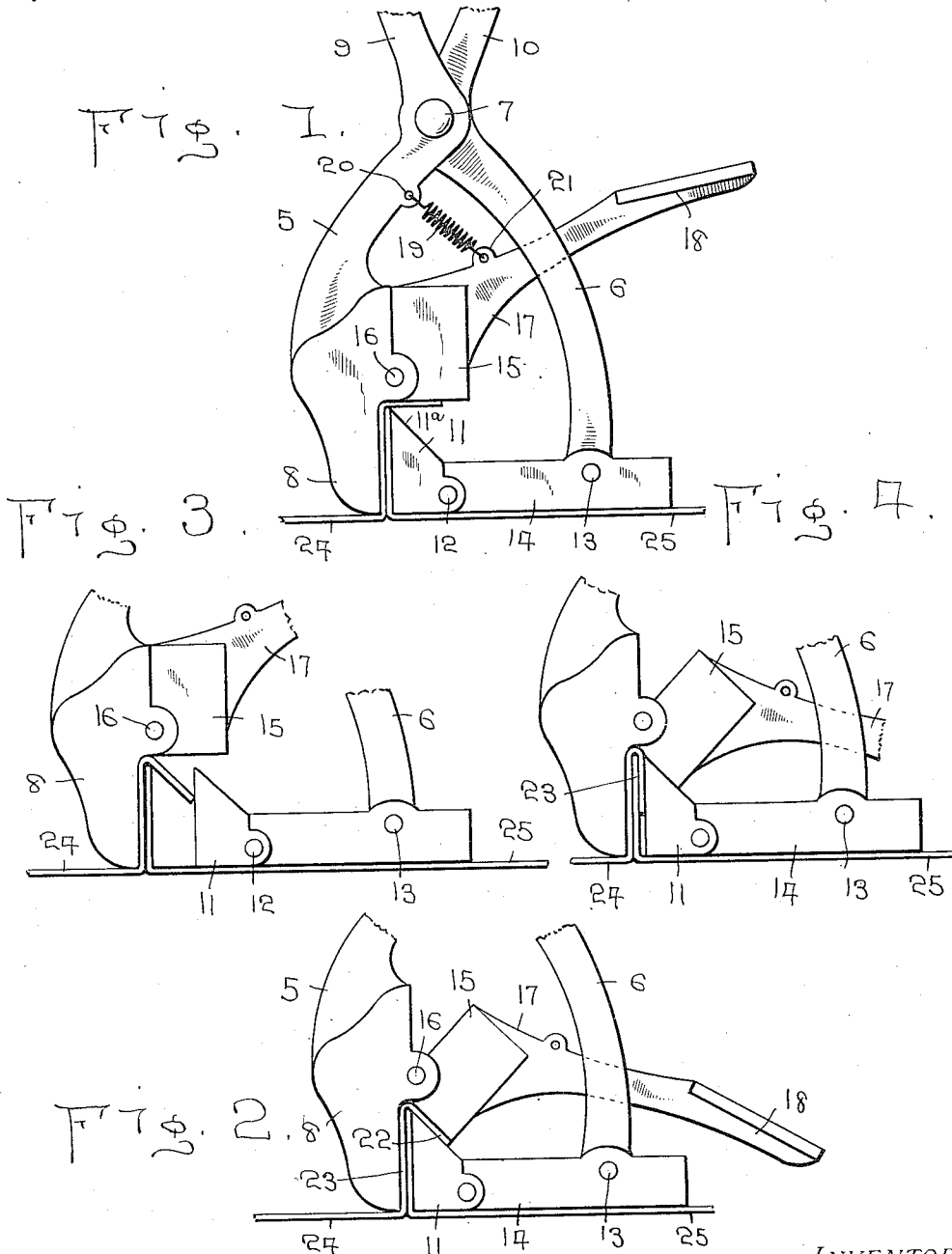


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TINNER'S TONGS.
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1,045,803.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

EARL ALLEN, OF GLEN EASTON, WEST VIRGINIA.

TINNER'S TONGS.

1,045,803.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EARL ALLEN, a citizen of the United States, residing at Glen Easton, in the county of Marshall and State of West Virginia, have invented certain new and useful Improvements in Tinner's Tongs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to tinner's tongs, and it more particularly relates to a combination clamping and seam-forming tool, intended more particularly for use in applying tin and other sheet metal to roofs.

An object of the invention is to provide certain new and useful improvements over certain seaming tools hitherto known and used.

Another object of the invention is to provide tongs of this character which, while clamping the adjacent upturned edges of tin together, turn one edge laterally over the adjacent edge in one operation, and by succeeding operations turn the lateral edge down and cause it to clamp said adjacent edge.

A further object of this invention is to provide a pedal for turning said lateral edge downward said pedal being in a more convenient operative position than similar pedals of devices heretofore used for the purpose.

A still further object is to provide a movable jaw over which an edge of the tin is bent downward, and which may be easily extricated from under the down-turned edge.

Further objects and advantages may be stated hereinafter and set forth in the claims.

In the accompanying drawings which form a part of this application, Figure 1 shows the tongs in working position, the handles or lever arms being broken away. Fig. 2 shows a similar view, the pedal being lowered and an edge of the tin being bent downwardly. Fig. 3 shows a similar view after the movable jaw has been extricated from under the downturned edge, and in position to clamp said edge upon the upstanding edge, and, Fig. 4 shows a similar view after said down-turned edge has been clamped by the movable jaw.

Referring more particularly to Fig. 1 of the drawings, the principal member or lever 5 of the tongs has an auxiliary mem-

ber or lever 6 pivotally connected therewith at 7. The principal member essentially comprises a fixed lower jaw 8 and a handle member 9, while the lever 6 has a handle member 10. The movable jaw 11, in this preferred form and embodiment of my invention is pivotally connected, at 12 and 13, to the lever 6 through the medium of a connecting bar 14, but while the pivotal connection 13 is preferable, it is not particularly essential; since, the device could obviously be operated if the lever 6 were rigidly connected with the connecting bar 14.

The presser bar 15, pivotally connected to the fixed jaw at 16, carries a supplemental lever 17, which extends at right angles to the length of the bar 15, in a substantially horizontal direction. This lever is provided at its free end with a pedal 18, whereby it is adapted to be forced downward against the action of a spring 19, the latter being secured to eyes 20 and 21, of the members 5 and 17 respectively.

Any proper means (not shown) may be employed for retaining the movable jaw 11 in the normal position shown in the drawings, the same being adapted to yield and allow said jaw to swing on its pivot 12 while being extricated from under the edge 22 of the standing seam 23. In the figures the adjacent sheets or strips of tin on to which seam is being formed, are designated 24 and 25 respectively.

In operation, sheets of tin are secured together forming strips and having two upstanding edges of different widths drawn thereon, in the usual manner. These strips are cut into proper lengths and placed side by side on the sheathing of the roof, a wide edge of the strip 24 being adjacent to a narrow edge of the strip 25. The narrow edge is then secured to the roof, in the usual manner, and the tongs are then placed upon the roof with the fixed jaw adjacent to the wider strip and the movable jaw in contact with the narrower strip. The handles 9 and 10 are then separated, thereby forcing the fixed jaw into contact with the wider edge 23. While the fixed jaw is moving toward the wider edge the presser bar 15 is in contact with the upper portion of the edge of the sheet 24 and forces it into the horizontal position shown in Fig. 1. It is seen that the movable jaw has a longitudinal surface 11^a, inclined at an angle of approximately forty-

five degrees, and this provides a vacant space between the horizontal edge 22 and the inclined surface. At this stage of the operation the tinner or operator, places one foot upon the pedal 18 and causes the latter and the presser bar 15 to assume the position shown in Fig. 2. Upon releasing the lever 17, it will return to the position shown in Fig. 3, by the action of the spring 19. The operator then tilts the handles 9 and 10 slightly to the left and then brings them into proximity, thereby separating the jaws 8 and 11, and in doing so, the edge 22 is raised slightly by the movement of the bar 14 on the pivot 13, and is again slightly raised by the rotary movement of the movable jaw 11 on its pivot 12, while being extricated from under said edge. In this latter stage of the operation, the top of the jaw 11 is retarded by its contact with the edge 22, and the pivot 12 is raised, while the bar 14 moves on its pivot 13. The edge 22 is only raised a distance equal to that of a line that would bisect the lower left angle of the jaw 11 and meet the inclined surface thereof at right angles. The inclined edge 22 now stands approximately at an angle of forty-five degrees, as shown in Fig. 3. At this stage of the operation, the movable jaw is forced against the inclined edge 22, and said movable jaw having returned to its normal position, its vertical edge comes into contact with the inclined edge and acts as a cam to force said inclined edge into the depending position shown in Fig. 4, and in order that the same may be made sufficiently compact, with the least possible effort, the bar 15 may then be brought into forceful contact with the inclined surface of the member 11, thereby auxilliating the handle members 9 and 10 and supplementing the pressure exerted by said handle members.

It is obvious that by employing two separate devices of this character and of different sizes, the seam 23, as shown in Fig. 4 may be operated upon in a manner similar

to that described for the seam shown in Fig. 1, and the two strips of tin are thereby promptly locked together.

I do not limit my invention to the exact details of construction and combination of parts as herein described and shown, but my invention is limited only by a reasonable interpretation of the appended claims.

I claim:

1. In combination, a lever having a fixed jaw thereon, a second lever pivoted to the first said lever and having a bar pivoted thereto, said bar having a jaw pivoted thereto and adapted to coact with the first said jaw for clamping adjacent edges of sheet metal, the second jaw having an inclined surface, and means coacting with the jaws for turning one of said adjacent edges down over the inclined surface, the pivotally connected jaw being adapted to swing on its pivot and to thus be allowed to move from under the down-turned edge, substantially as specified.

2. In combination, a lever carrying a fixed jaw, a second lever carrying a jaw having an inclined surface and coacting with the first said jaw for clamping adjacent edges of sheet metal, means for turning one of the adjacent edges down on the inclined surface, and means connecting the movable jaw with the second lever and coacting therewith for withdrawing the movable jaw from under the down-turned edge of metal, said movable jaw being adapted to coact with the first said jaw for forcing the down-turned edge against the adjacent edge of metal, the first said means being adapted to supplement the levers and to coact with the jaws for auxilliating the pressure upon said adjacent edges, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EARL ALLEN.

Witnesses:

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J. I. ELBIN.