

Jan. 31, 1950

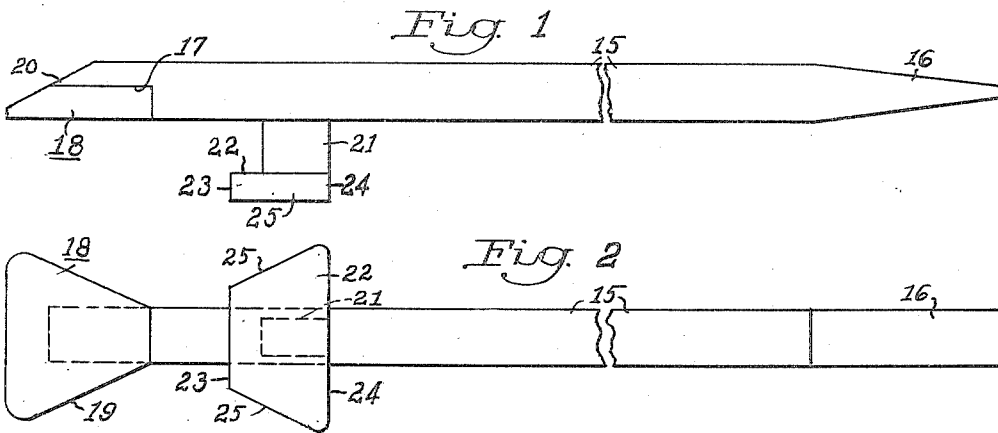
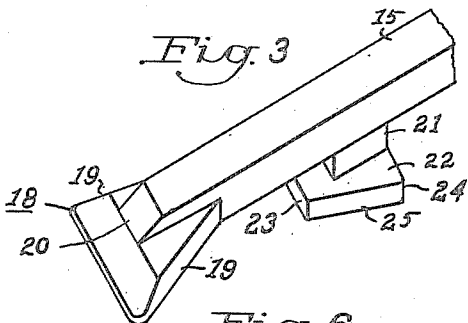
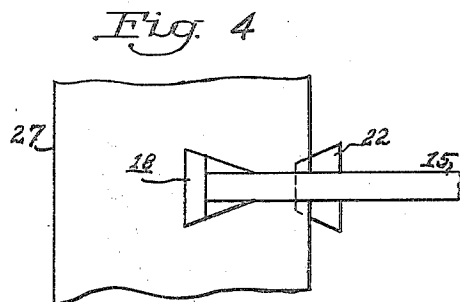
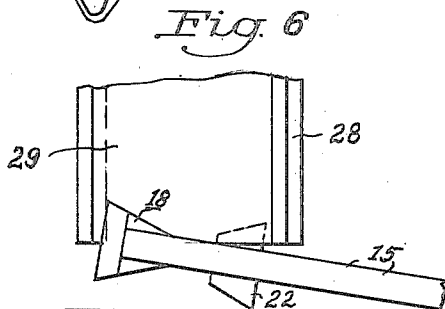
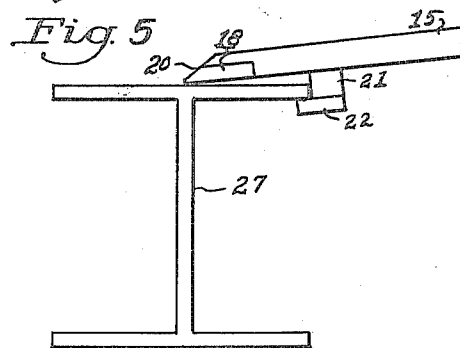
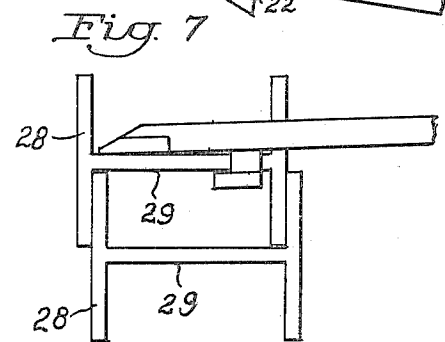
J. E. SEABERG

2,495,987

HAND BAR

Filed April 1, 1947

2 Sheets-Sheet 1



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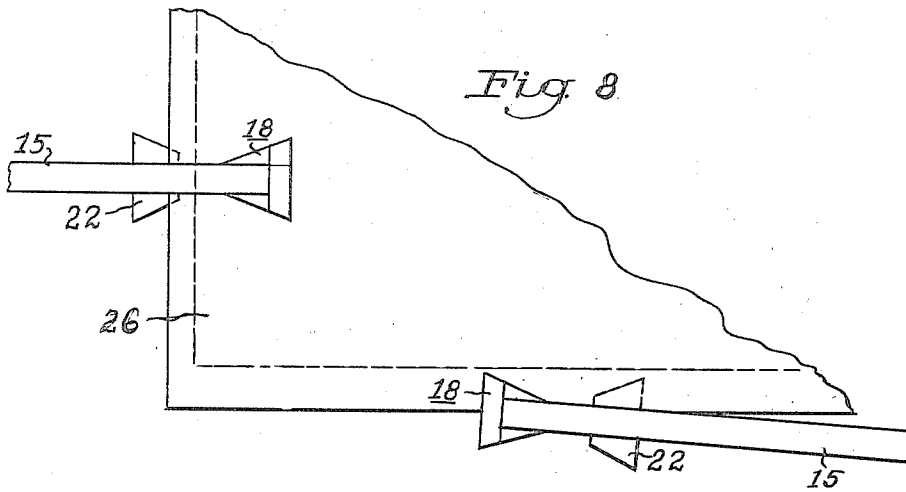
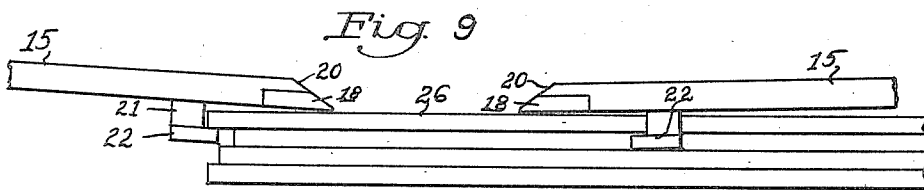
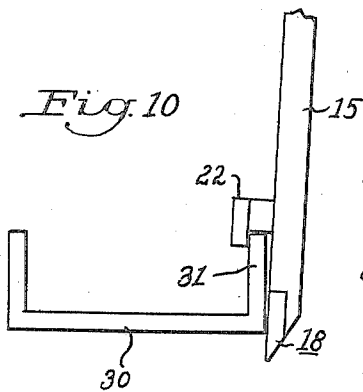
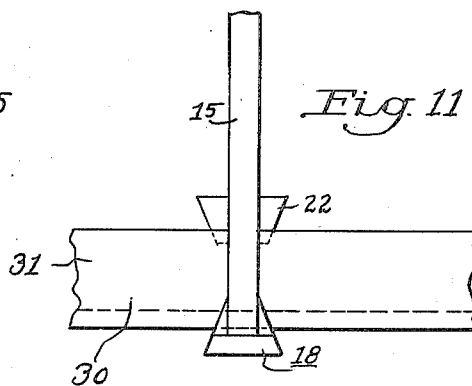
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,495,987

HAND BAR

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Application April 1, 1947, Serial No. 738,675

1 Claim. (Cl. 294—15)

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The present invention consists in a new and improved tool for turning, separating and lifting and handling metal shapes of various kinds.

While it is useful in handling railway rails, it is more particularly designed for turning heavy plates, I beams, channels, angles and other shapes.

Generally speaking the tool comprises an extended shaft or handle, preferably of rectangular cross-sectional shape and having its top and bottom surfaces converging at one end to form a blade which may be inserted between piled plates and the like and which at its other end is provided with a downwardly tapered nose having a flat laterally extended under surface to bear downwardly against the object which is to be turned, and a claw formed of a plate spaced below the shaft and supported from the underside of the latter at a point spaced from the nose end of the bar, which claw is provided with portions extending forwardly toward the nose and laterally of the sides of the bar which are designed to be inserted under the object to be lifted or to bear against the surfaces of an object to be turned.

In the accompanying drawings wherein is illustrated the principles of my invention and several of the many purposes to which it may be applied in use,

Fig. 1 is a side elevation of the tool;

Fig. 2 is an inverted plan view of the same;

Fig. 3 is a partial perspective of the same;

Figs. 4 and 5 are, respectively, a plan view and an end elevation showing an I beam with which the tool is engaged;

Figs. 6 and 7 are, respectively, a plan view and a side elevation showing an H beam with which the tool is engaged;

Figs. 8 and 9 are, respectively, a plan view and a side elevation of the tool as used in two ways to lift plates from a pile of the latter; and

Figs. 10 and 11 are, respectively, a plan view and an end elevation showing a channel with which the tool is engaged.

Referring, first, to Figs. 1, 2 and 3 of the drawings, 15 indicates the elongated shaft or handle portion of the tool, preferably of rectangular, such as square, cross-sectional shape. At one end, the right end in Figs. 1 and 2, the upper and lower surfaces of the shaft converge to provide a blade 16 adapted for insertion between piled plates or other shapes to move the latter. Or the blade 18 may be formed by sloping either the top or under surface of the shaft.

At the other extremity of the shaft 15, the under portion is provided with a rectangular seat 17. 18 is the nose plate which fits in the

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seat 17 and is permanently welded in place. Or the nose plate may be formed as an integral part of the shaft instead of being welded thereto. The under face of the nose plate lies in the plane of the under surface of the shaft 15. The side edges 19 of the nose plate diverge forwardly from the planes of the side surfaces of the shaft and the front edge of the nose plate is positioned forwardly of the extremity of the shaft. The front ends of the shaft and the nose plate are forwardly and downwardly bevelled in a common plane to form the continuous inclined surface 20.

Stepped back from the said extremity of the shaft 15 a post 21 is welded to and depends from the under surface of the shaft, the transverse width of said post being less than the width of the shaft, as indicated in Fig. 2, and the claw 22 is welded onto the lower end of the post or may be of one piece therewith.

The claw 22 is in the form of a plate which is preferably of isosceles-trapezoidal shape with its parallel edges 23 and 24 disposed transversely to the axis of the shaft 15 and its nonparallel side edges 25 converging forwardly toward the nose of the shaft and extended laterally beyond the side surfaces of the shaft. Also the post 21 is stepped rearwardly from the front edge 23 of the claw plate. Thus the upper surface of the claw plate provides flat lifting or bearing surfaces extending beyond the sides of the shaft and forwardly of the post with clearances above said surfaces to permit the claw to be inserted under a shape either forwardly or from either side to bear against the surface of the latter.

In Figs. 8 and 9 two ways in which the tool lifts a steel plate 26 from a pile of the latter are illustrated. At the left of Figs. 8 and 9 the tool is shown engaging the end of the plate 26, the nose 18 bearing downwardly on top of the sheet, the post 21 being in position to engage the edge of the sheet and the claw 22 engaging the sheet from beneath. At the right of Figs. 8 and 9 the tool is shown engaging the sheet from the side of the latter, a portion of the nose 18 bearing on the top of the sheet, the side of the post bearing against the edge of the sheet and the claw 22 underlying the under surface of the sheet.

In Figs. 4 and 5 the tool is illustrated in engagement with the I beam 27, the nose 18 bearing upon the top surface of the top flange of the I beam, the post 21 bearing against the longitudinal edge of the top flange of the beam, and the claw 22 engaged under said top flange.

In Figs. 6 and 7 the tool is shown engaging an H beam 28, at the end of the latter, the nose 18

overlapping from above the central web 29 of the H beam, the post 21 bearing against the end of said web and the claw 22 extending under the web and bearing upwardly against the latter.

In Figs. 10 and 11 the tool is illustrated in engagement with a channel beam 30, the nose bearing against the side flange 31 of the channel beam, the post resting on the top edge of said flange and the claw bearing against the inner face of said flange.

The novel feature of the extension of the side edges of the claw beyond the planes of the side surfaces of the shaft has an important advantage. It enables an object such as a plate as illustrated in Figs. 8 and 9 to be gripped along its side, the nose of the tool engaging the object from above and the claw engaging the under surface of the object. Furthermore the extended contact surfaces of the nose and the claw of the tool prevent twisting or rotary motion between the tool and the object engaged thereby and thus provide a firm gripping action.

It is obvious that in all of the positions of the tool shown a firm grip is obtained on the object to be lifted or turned. To one skilled in the art other methods of engagement of the tool with objects to be handled will be apparent.

The safety of my improved tool compared to other tools for similar purposes is a marked advantage. For instance, when a piece which is being handled shifts abruptly or rolls over of its own accord, the tool is automatically freed from the piece, and thus the operator of the tool may maintain hold of the latter and is not dragged over with the tool, nor is he forced to release his grip on the tool as frequently is necessary, to

avoid accident in the use of tools now in use for like purposes.

I claim:

A tool for the purposes described comprising an elongated shaft and a nose portion integrally connected to one end of the shaft, said nose portion having a flat under surface disposed in the plane of the under surface of the shaft, and said nose portion extending laterally at both sides of the shaft and forwardly from the end thereof, the forward edge of the nose portion being disposed at right angles to the axis of the shaft, a post integrally connected to and depending from the shaft at a point spaced along the shaft from its nose-end, and a claw plate fixedly attached to the lower end of the post and disposed at a level below that of the nose portion and extending outward forwardly and laterally beyond the sides of the post whereby one surface of a plate or shape to be turned or moved may be engaged by the under side of the nose portion of the shaft and an opposed surface thereof may be engaged by the claw plate.

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