

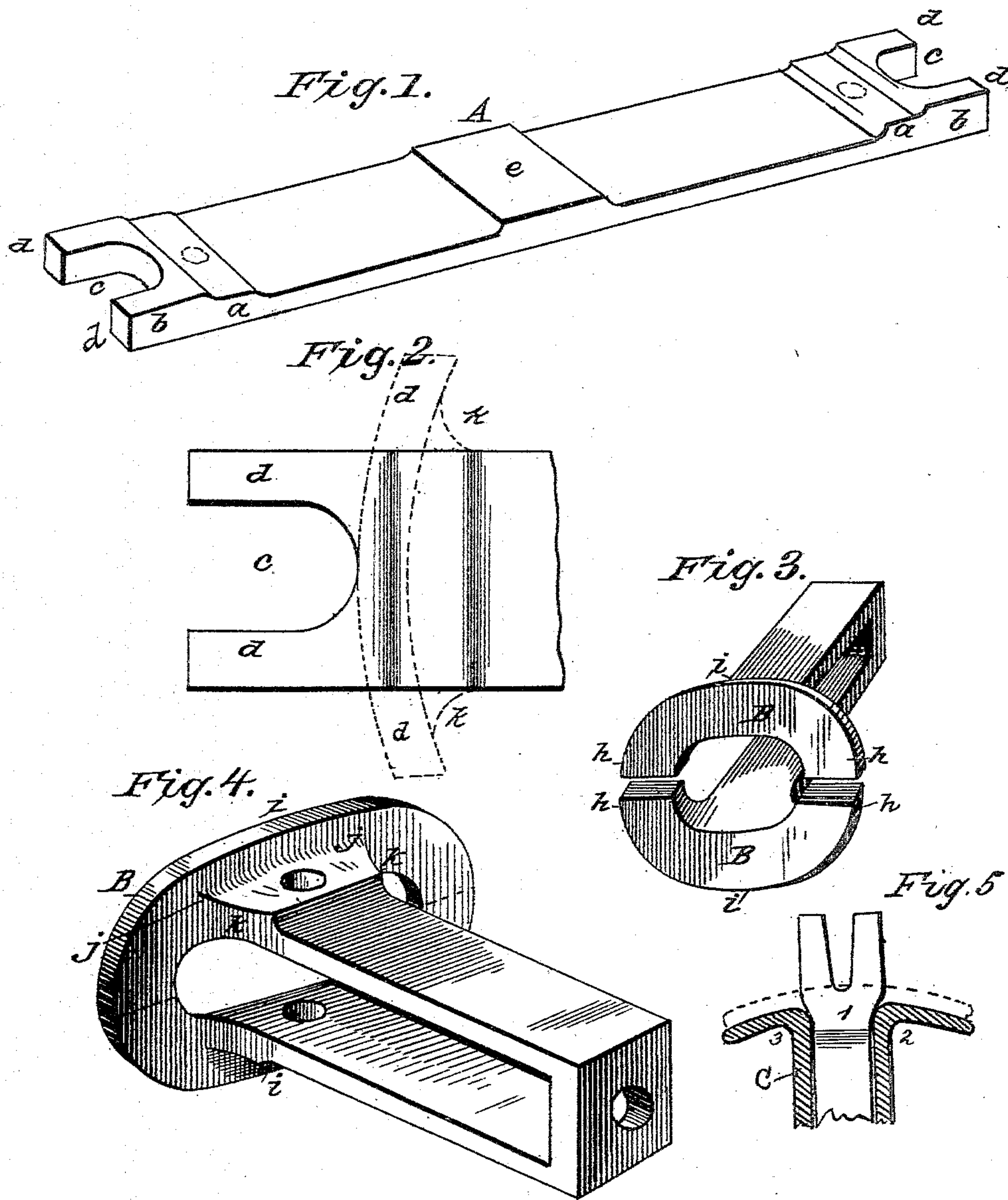
(No Model.)

J. T. WILSON.

MANUFACTURE OF DRAW BARS.

No. 356,812.

Patented Feb. 1, 1887.



Witnesses
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UNITED STATES PATENT OFFICE.

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TO THE PITTSBURGH FORGE AND IRON COMPANY, OF SAME PLACE.

MANUFACTURE OF DRAW-BARS.

SPECIFICATION forming part of Letters Patent No. 356,812, dated February 1, 1887.

Application filed September 21, 1886. Serial No. 214,178. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. WILSON, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in the Manufacture of Draw-Bars; 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 the manufacture of wrought-metal draw-bars, and has for its object the construction of a draw-bar in which there is a continuous fiber of metal between the body and the head of the bar.

The invention will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of a blank for forming draw-bars in accordance with my invention. Fig. 2 is a plan showing the separated end of a bar turned out laterally in dotted lines. Fig. 3 is a view illustrating the position of the two parts of the head preparatory to welding. Fig. 4 shows the completed head, and Fig. 5 represents a vertical section of part of a clamping die with one end of a draw-bar blank inserted.

Reference being had to the drawings and the letters marked thereon, A represents a blank which is forged thick at both ends, as shown at *a a b b*. The thick portion *a a* is for the purpose of strengthening the body of the draw-bar at the point through which the coupling-pin passes, and the portion *b b* for furnishing metal out of which the half-head B is formed. In each end of the blank A is cut a slot, *c*, of a depth sufficient to form arms *d d*, which are bent out laterally, as shown in dotted lines in Fig. 2, to furnish metal to form one half of the head of the draw-bar. The blank is also by preference provided with a central raised portion, *e*, for the purpose of forming the rear end of the draw-bar.

The operation of constructing a draw-bar

from my blank in accordance with my invention is as follows: The blank is heated at one end, the arms *d* bent out laterally, and the ends turned in, as at *h*, upon an anvil. The blank is then placed in a suitable die, C, such as shown in Fig. 5, or any other well known to the art, and one half of the head B formed by forging, either by hand or by a drop-hammer. In forming this portion of the head the metal from the broadest portions of the arms *d* is crowded or forged outward from the center of the die and forms the central portion, *i*, of the flange, which constitutes the head of the bar, and the fillets *j* and *k*. The opposite end of the blank is then treated in the same manner, after which the blank is heated in the center and bent to form the top and bottom bars or straps. The two ends of the blank, on which the half-heads B have already been formed, are then heated to a welding heat and the head welded in the usual manner.

By this construction a very superior draw-bar is produced, in which the metal presents a continuous fiber from one end of the bar to the other, and in which only one welding-joint is formed.

Having thus fully described my invention, what I claim is—

1. A blank for draw-bars, consisting of a bar of metal forged with thick ends and having a longitudinal slot in said ends, leaving arms on each side with sufficient metal to form one half of the head, substantially as described.

2. The method of manufacturing draw-bars, which consists in forging a blank with thick ends and slots in said ends; secondly, heating the blank and bending the projecting arms laterally; thirdly, forming the half-heads on each end of the blank in a die; fourthly, bending the body of the bar, and, finally, welding the head, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN T. WILSON.

Witnesses:

S. A. TERRY,
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