(No Model.)

J. T. WILSON.

MANUFACTURE OF DRAW BARS.

No. 264,016. Patented Sept. 5, 1882.

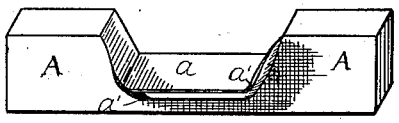

Fig. 1.

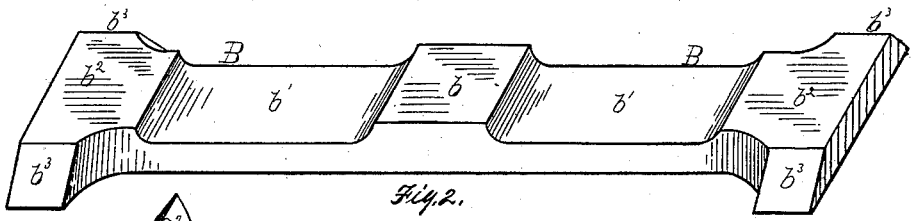

Fig. 2.

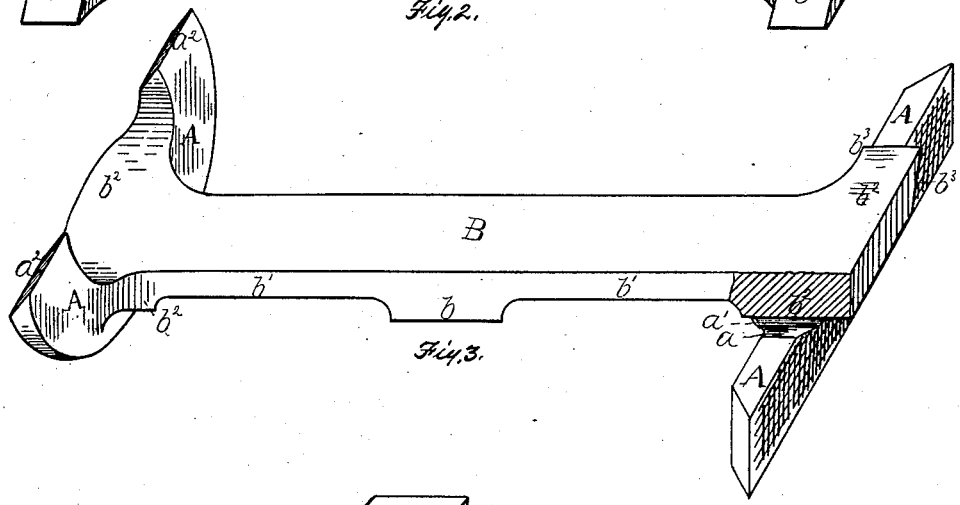

Fig. 3.

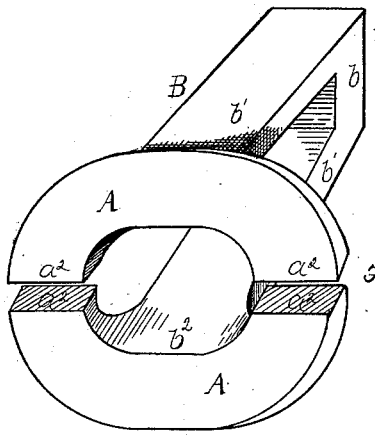

Fig. 4.

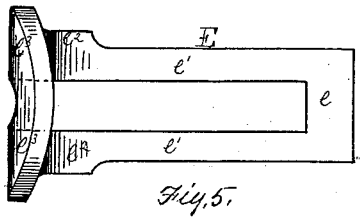

Fig. 5.

Witnesses
C. L. Parker
R. H. Whittlesey

Inventor
John T. Wilson,
by George H. Christy
his Atty

UNITED STATES PATENT OFFICE.

JOHN T. WILSON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO WILSON, WALKER & CO., (LIMITED,) OF SAME PLACE.

MANUFACTURE OF DRAW-BARS.

SPECIFICATION forming part of Letters Patent No. 264,016, dated September 5, 1882.

Application filed April 24, 1882. (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, county of Allegheny, State of Pennsylvania, have invented or discovered a new and useful Improvement in the Manufacture of Draw-Bars; and I do hereby declare the following to be a full, clear, concise, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—like letters indicating like parts—

Figure 1 is a perspective view of a blank employed in forming the head of the draw-bar in accordance with my invention. Fig. 2 is a similar view of a blank employed in forming the body part of the draw-bar. Fig. 3 is a perspective view illustrative of the manner of uniting the blanks, Figs. 1 and 2, by welding. Fig. 4 illustrates further the manner of binding and welding the blanks, and Fig. 5 is a view in side elevation of the finished draw-bar.

My invention relates to certain improvements in the art of making wrought-iron draw-bars of the class shown in Fig. 5; and it consists in forming separate blanks for the body and parts of the head or face-plate of the draw-bar, and uniting such parts by welding, as hereinafter more fully described and claimed.

In carrying out my present invention I form wrought-iron blanks of different parts of the draw-bar, as represented in the drawings, in which—

A, Fig. 1, represents a blank formed from a rectangular billet or bar by forging therein a central notch or depression, *a*, having by preference sloping side walls and a flat bottom; also, in forming this notch, the metal is drawn out laterally, forming a lip, *a'*, which increases somewhat the breadth of the bottom of the notch. This blank is designed to form one-half of the draw-bar head or face-plate e^3, Fig. 5, two of such blanks being used, which are duplicates in form.

B, Fig. 2, represents a blank used for forming the body part of the draw-bar. It is by preference forged from a bar or billet, so as to form thereon a central rectangular raised portion, *b*, designed to form the rear end, *e*, of the draw-bar E, Fig. 5, and from either side of the part *b* are extended straps or bars b' b' of less thickness, designed to form the top and bottom bars, *e'*, of the draw-bar. On the outer extremities of bars b' are formed widened and thickened ends b^2 b^2 for shoulders e^2 of the draw-bar. One side of this blank B (the under one in Fig. 2) is made plain and flat, and the thickened portions *b* b^2 are raised on the other or upper side. The side edges, b^3, of the ends b^2 are beveled, corresponding to the inclination of the side walls of notch *a* in blank A, and the width of the raised ends b^2 on the narrow face is equal or approximately equal to the length of the bottom of notch *a*, so that the raised face b^2 may be placed within the notch for welding the blanks A and B together, as illustrated at the right-hand end of Fig. 3. In thus placing these blanks the lip a' is brought on the inner side of A and under B, or on that side which will form the outside face of the draw-bar. In order to show this relationship clearly, I have broken away a portion of the front corner of the right-hand end, b^2, in Fig. 3. The purpose of the lip a' is in part to furnish a wider contact-surface between the two blanks than would be presented by the single thickness of blank A, and also to fill and round the angle between the blanks, thus securing greater strength and better finish. The ends of blank B and the center part of A, being properly heated, are welded together by a lap-weld in the relative positions represented at the right-hand end, Fig. 3, one blank, A, being thus welded to and across each end of blank B; also, the ends a^2 of each blank A are curved toward the plain side of B, forming them into half-ovals, as represented at the left-hand end of Fig. 3. This bending may be done at the same heat as the welding referred to, and either before or after such welding, though for convenience in doing the work I prefer to weld the blanks together first, and then bend the ends of A, and also work down the edges or corners of the faces b^3 and the lip a' to form smooth curves at the points of merging or connection between the blanks. Such bending and shaping may be done over, and by suitable forms or blocks, on an anvil adapt-

ed for such work, and thus the desired forms be secured with ease and precision. The straps b' b' are then bent at the points where they join the central piece, b, bringing their plain faces adjacent and parallel, thus giving a rectangular body-blank and lapping the ends of blanks A, as illustrated in Fig. 4, which shows such blank slightly sprung apart to show the lapping faces. These lapping ends may be welded in the usual way of doing such work, and the entire blank thus formed, finished, and shaped on an anvil, as illustrated in Fig. 5. The work of thus forming the blanks and welding and shaping the parts is simple, and each step is performed in such order as to secure the greatest simplicity and ease in accomplishing it. These features are of great advantage to the manufacturer of such articles on a large scale, as they are important factors both in determining the degree of skill required in the workmen and the expense or cost of manufacture.

The particular forms of blanks A and B shown and described are given with reference to making a finished draw-bar, E, of the usual shape. I do not wish, however, to limit my invention to blanks of these particular shapes, for they may be varied more or less in these particulars and still employ duplicate blanks for the head and a single blank for the body, and welding and bending them in the manner described.

I claim as my invention—

The method of manufacture of wrought-iron draw-bars herein described, consisting in forming duplicate notched blanks A for the head and a single blank, B, for the body of the draw-bar, welding the notched edges of blanks A to the face of blank B at both its ends, bending blanks A to half-oval form and blank B to rectangular form, as shown, and welding the meeting ends of blanks A, substantially as set forth.

In testimony whereof I have hereunto set my hand.

JOHN T. WILSON.

Witnesses:
C. S. PARKER,
R. H. WHITTLESEY.