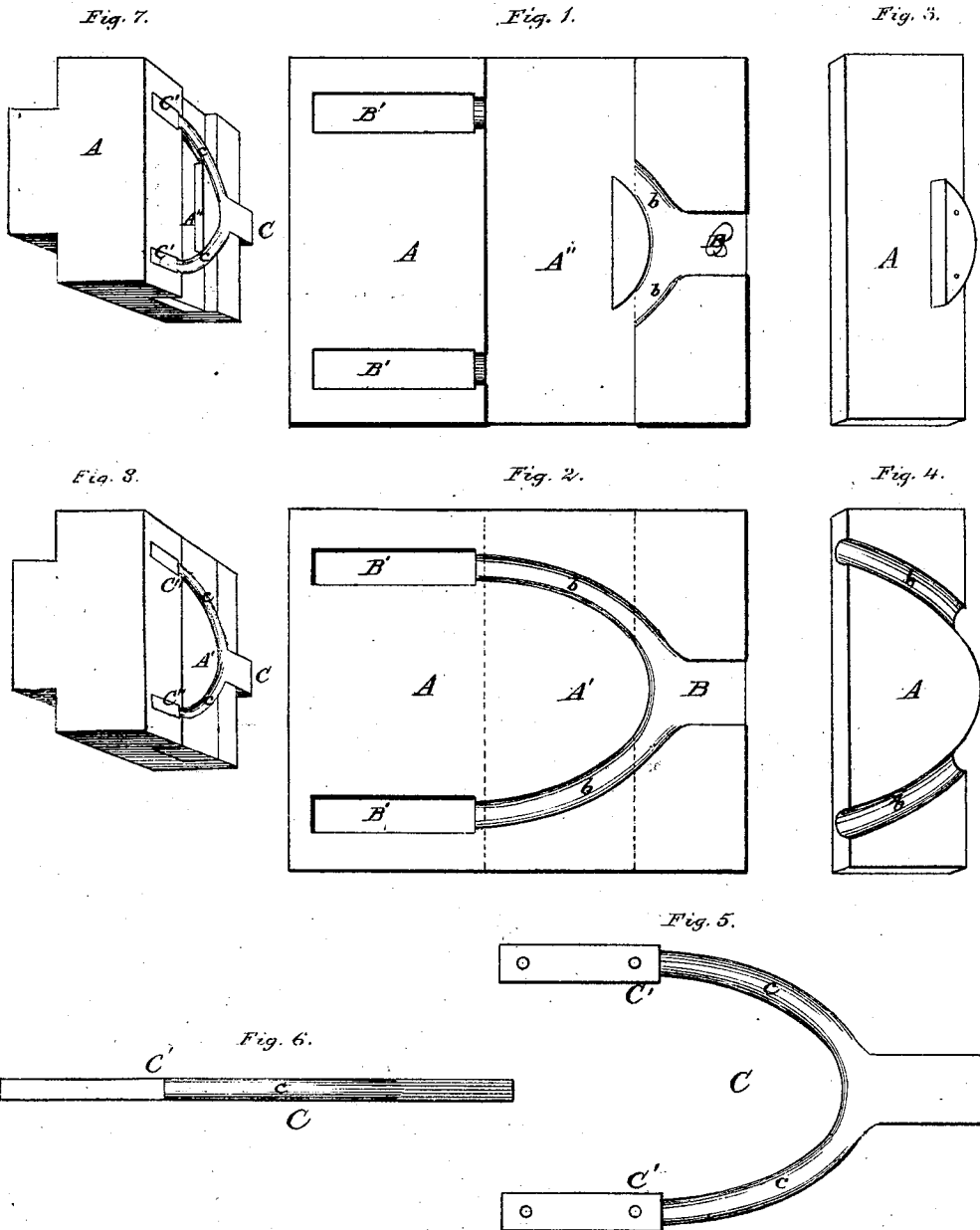


JOSEPH W. SHEPPARD.

Improvement in Dies for making Perch Bars.

No. 123,943.

Patented Feb. 20, 1872.



Witnesses.
C. A. Poole
John R. Young

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UNITED STATES PATENT OFFICE.

JOSEPH W. SHEPPARD, OF PLANTSVILLE, CONNECTICUT.

IMPROVEMENT IN DIES FOR MAKING PERCH-IRONS.

Specification forming part of Letters Patent No. 123,943, dated February 20, 1872.

To all whom it may concern:

Be it known that I, JOSEPH W. SHEPPARD, of Plantsville, in the county of Hartford and in the State of Connecticut, have invented certain new and useful Improvements in the Manufacture of Perch-Irons; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figures 1 and 2 are plan views of the upper side of the bottom die as arranged for forming a part or the whole of the device. Figs. 3 and 4 are perspective views of detachable portions used for converting said die into the forms shown. Fig. 5 is a plan view of the perch-iron formed in said dies. Fig. 6 is an edge view of the same; and Figs. 7 and 8 are perspective views, respectively, of the partial and complete dies, with the perch-irons in place.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to construct the rear or brace end of perch-irons in a cheaper manner and with greater uniformity than has heretofore been practicable; and it consists in the peculiar construction of the dies employed, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A represents a metal block, having any desired exterior shape, upon or within the upper plane surface of which is cut a right-angled groove, B, that, extending horizontally inward for a short distance from one edge of said block, intersects a smaller half-round groove, b, which from thence extends in a curve outward and forward, and at each of its ends connects with a short right-angled groove, B', placed in a line parallel with that of the first-named groove B, the lower side of the impression thus formed being upon a uniform plane. The die thus formed, in connection with a plane-faced die, is intended for use under or within a drop-press, trip-hammer, or any suitable mechanism, by means of which the contiguous faces of said dies may be caused to impinge upon each other. In constructing the perch-iron C, a piece of suit-

able iron, having a width slightly less than the width of the groove B, and a thickness somewhat greater than the depth of said groove, is split through its center to a sufficient distance to form the prongs or arms C' of said perch-iron, and said split portion bent outward so as to give to it the general shape desired, after which the metal is reheated, placed upon the die, and, by the impact of a suitable plane-faced die, caused to fill the impression. By reversing the perch-iron within the die, and subjecting it to one or more additional blows of the upper die, the rounded portions c of the prongs will be completed, after which the surplus metal, which has been forced outward in the form of a thin fin, may be trimmed off in the usual manner. If desired, the rounded portions c of the perch-iron may be finished under a suitable hammer, and only the rectangular portions of the device completed by or within the die, in which event the latter would be constructed in the form shown in Fig. 1. In order that the die may be capable of use in either of the ways named, the portion A' containing the rounded grooves may be made detachable, and a corresponding block, A'', shown in Fig. 3, inserted in its place. If desired, the die may be divided longitudinally and one-half only used, in which event but one-half of the perch-iron can be operated upon at the same time.

The especial advantages obtained by the use of the hereinbefore-described dies is, that the articles produced have perfect uniformity in size and shape, and cost less than would be possible were other means employed.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

The die A, constructed substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of January, 1872.

JOSEPH W. SHEPPARD.

Witnesses:

SIMEON H. NORTON,
JNO. D. QUILL.