

J. TRUAX & J. MALLOY.

MACHINES FOR WELDING THE STRAPS UPON SHOVEL BLADE-
BLANKS.

No. 173,430.

Patented Feb. 15, 1876.

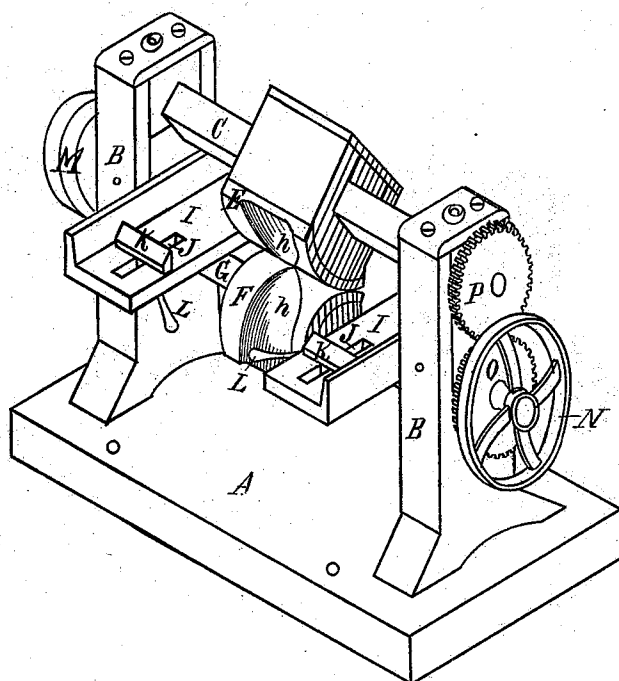


Fig. 1.

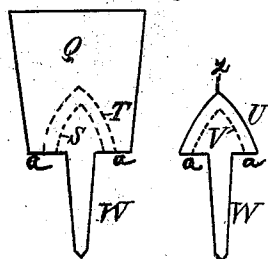


Fig. 2.

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UNITED STATES PATENT OFFICE.

JACOB TRUAX AND JOHN MALLOY, OF EASTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR WELDING THE STRAPS UPON SHOVEL-BLADE BLANKS.

Specification forming part of Letters Patent No. **173,430**, dated February 15, 1876; application filed January 15, 1876.

To all whom it may concern:

Be it known that we, JACOB TRUAX and JOHN MALLOY, of Easton, in the county of Bristol, State of Massachusetts, have invented a certain new and useful Improvement in Welding-Machines, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which our invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 a view showing a shovel-blank strap.

Like letters of reference indicate corresponding parts in the different figures of the drawing.

Our invention relates principally to that class of welding-machines which are employed in welding the straps onto shovel blanks or blades; and consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of our invention will be readily obvious to all conversant with such matters from the following description:

In the drawing, A represents the bed-piece; B B, the uprights or standards; C G, the shafts; E F, the dies; and K K, the gages. The shafts are journaled in the standards B B, one above the other, the upper shaft C carrying at its outer end the gear P, which intersects with a corresponding gear, O, on the lower shaft G. The welding-dies E F are like in form, being each provided with a semicircular or convex face, having a spade-shaped or triangular indentation, *h*, corresponding in contour with the dotted lines S V, Fig. 2. Attached to the inner sides of the standards B there are two horizontally-arranged rests, I I, provided with slots J J, in which the gages K K are secured and rendered adjustable by means of the cam-levers L L.

In the use of our improvement the strap W

is held upon the blade or blank Q in such a position that the edge U will correspond with the dotted line T. The blade is then laid upon the rests I I, the shoulders *a a* being placed against the inner faces of the gages, and the point *z* of the strap being on a line with the points of the indentations *h h*. If, now, power be applied to the pulley M on the shaft G, and the blade Q advanced, it will be caught by the dies and carried through them, welding that part of the strap W between the edge U and dotted line V to the blade Q, as shown by the dotted lines S T.

It will be understood that the strap and blade of the shovel are to be properly heated prior to the operation, and that the rests I I and gages K K must be so arranged and adjusted, and all the essential parts of the mechanism so timed, as to cause the dies in welding to act only upon that part of the strap located between the edge U and line V, which may be readily accomplished by means of the indentations *h h*, and other appliances described.

In applying power to the mechanism, the dies may be given a continuous rotary motion or reciprocating rocking movements, as preferred, the balance-wheel N acting to steady the same in the usual manner.

Having thus explained our improvement, what we claim is—

1. In a welding-machine, substantially such as described, the bed A, uprights B B, shafts C G, gears O P, and dies E F, provided with the indentations *h h*, constructed and arranged to operate substantially as and for the purpose set forth and specified.

2. In a welding-machine, substantially such as described, the rests I I and adjustable gages K K, arranged to operate in combination with the dies E F, substantially as and for the purpose set forth and specified.

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