J. W. & R. JOHNSTON.

MACHINE FOR SHEARING BOILER-PLATES.

No. 190,763. Patented May 15, 1877.

Fig. 1.

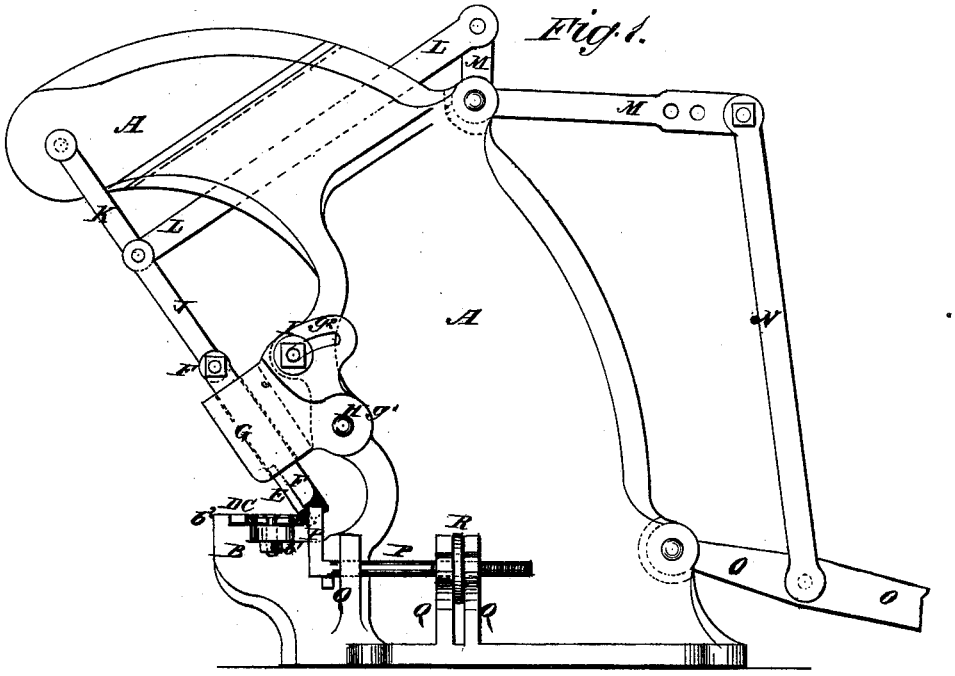
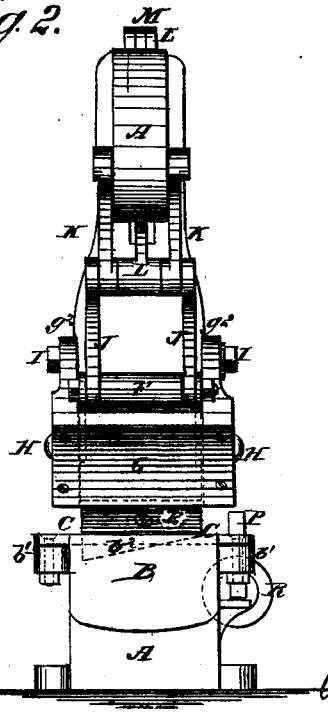


Fig. 2.



WITNESSES:

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JOHN W. JOHNSTON AND ROBERT JOHNSTON, OF FERRYSBURG, MICH.

IMPROVEMENT IN MACHINES FOR SHEARING BOILER-PLATES.

Specification forming part of Letters Patent No. **190,763**, dated May 15, 1877; application filed March 12, 1877.

To all whom it may concern:

Be it known that we, JOHN W. JOHNSTON and ROBERT JOHNSTON, of Ferrysburg, in the county of Ottawa and State of Michigan, have invented a new and useful Improvement in Boiler-Plate Shears, of which the following is a specification:

Figure 1 is a side view of our improved shears. Fig. 2 is a front view of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish improved boiler-plate shears, which shall be more solid, less liable to get out of order, and more expeditiously changed to give any desired bevel upon different thicknesses of plate than the shears heretofore constructed.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A is the standard, and B is the bed-plate of the shears. C is the stationary blade, in the ends of which are formed countersunk slots to receive the bolts by which it is secured to the lugs b^1 formed upon the side edges of the bed-plate B.

The blade C is held against the outward pressure by a wedge, D, driven between its outer edge and the flange b^2 formed upon the outer edge of the bed-plate B.

E is the movable blade, which is bolted to the holder F. The holder F works in a guide-socket, G, upon the lower part of the rear side of which are formed lugs g^1 to receive the bolt H that passes through the standard A and connects the said guide-socket G to said standard.

Upon the upper rear part of the socket G are formed lugs g^2, in which are formed curved slots to receive the bolts I, which pass through the standard A, or through lugs or flanges formed upon said standard, so that by loosening the bolts I the guide-socket G may be adjusted to give any desired bevel to the cut.

To the upper corners of the holder F are hinged the lower ends of two bars, J, the upper ends of which are hinged to the lower ends of two bars, K. The upper ends of the bars K are hinged to the opposite sides of the upper end of the standard A.

To the bars J K, at their point of meeting, is hinged the end of a connecting-bar, L, that passes back through a slot in the upper part of the standard A, and its rear end is hinged to the end of the short arm of the bent lever M. The lever M is hinged at its angle to the rear part of the standard A, and to its long arm is hinged the upper end of the connecting-bar N.

Several holes are formed in the long arm of the lever M to receive the connecting-bolt of the bar N, so that the machine may be adjusted to increase the power or the speed, as may be required.

The lower end of the connecting-bar N is hinged to the lever O, the inner end of which is hinged to the lower rear part of the standard A.

The machine may be operated by hand-power, or by other power, as may be desired or found convenient.

P is a bar that works in standards Q formed upon the base of the standard A, and upon the rear part of which is cut a screw-thread to fit into the screw-thread of the hand-nut R, which is placed between two of the standards Q, so that by turning the said hand-nut R the bar P may be moved forward and back, as required.

The forward part of the bar P is bent upward at right angles, to serve as a guide to keep the plate parallel with the blade while being cut.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The guide-socket G, hinged and secured adjustably to the standard A, in combination with the holder F, of the movable blade E, substantially as herein shown and described.

2. The combination of the adjustable guide-bar P and the adjusting hand-nut R with the blades E C and the standard A, substantially as herein shown and described.

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ROBERT JOHNSTON.

Witnesses:
HENRI J. W. CAMPMAN,
ANDW. THOMSON.