J. L. & E. W. BACKUS.

MACHINE FOR CUTTING IRON.

No. 188,089. Patented March 6, 1877.

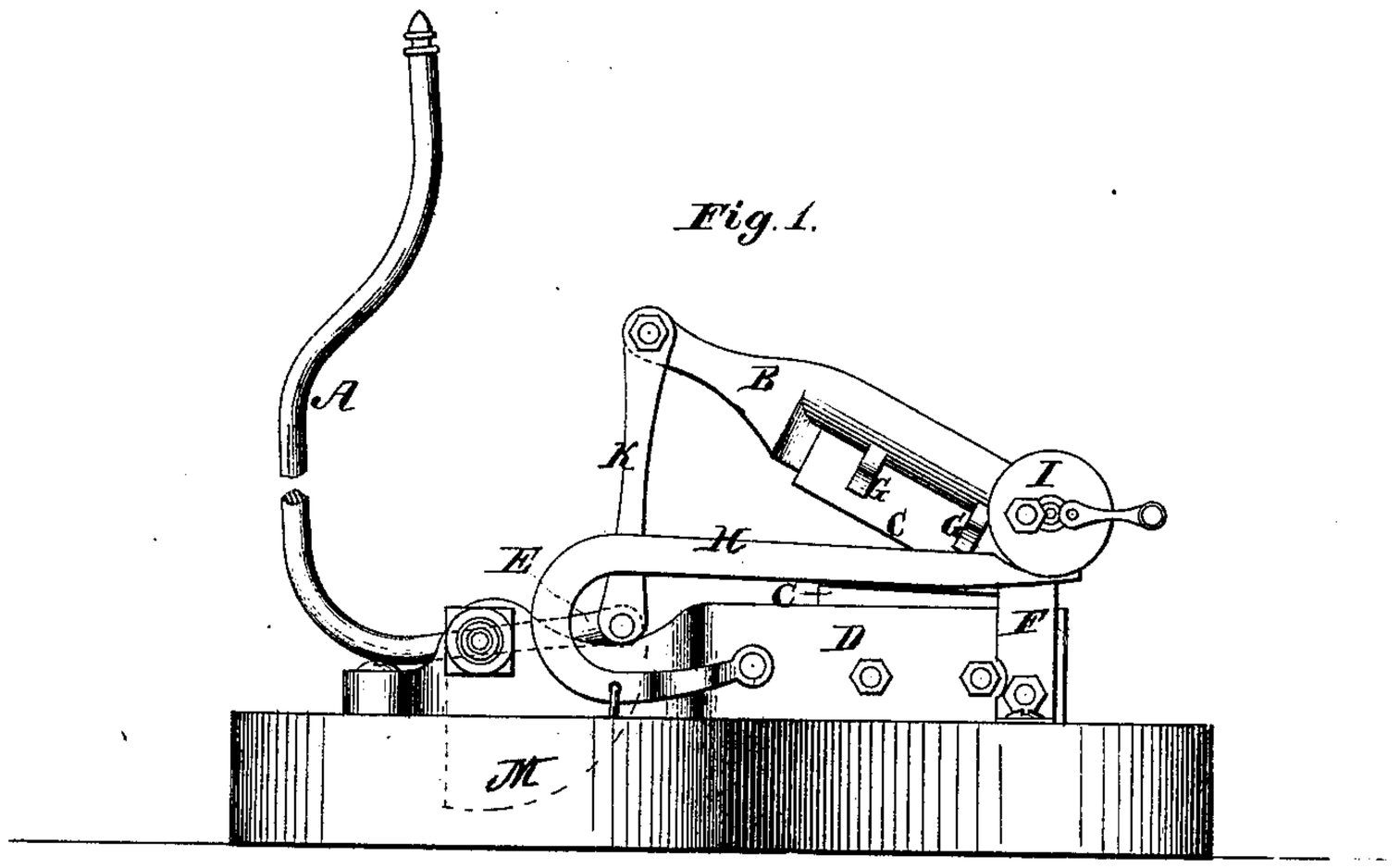

Fig. 1.

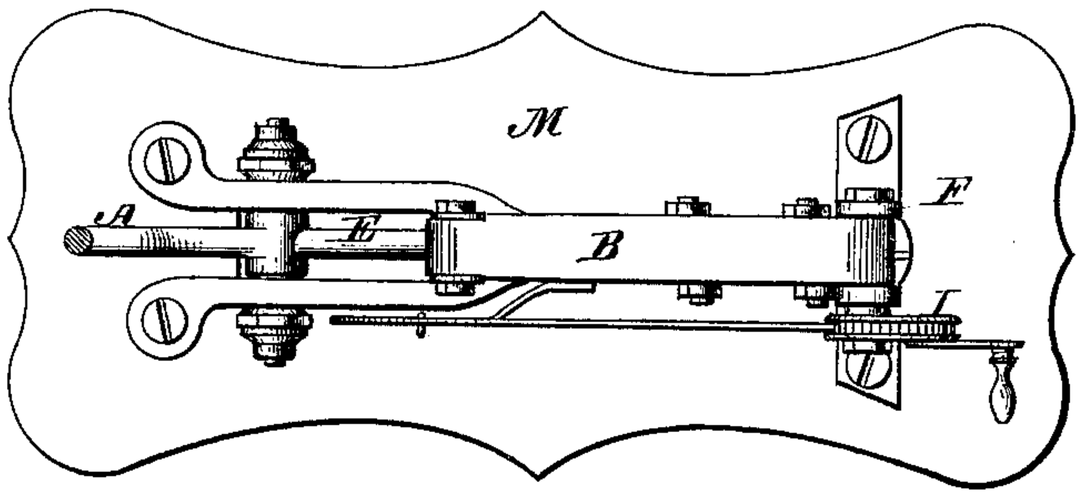

Fig. 2.

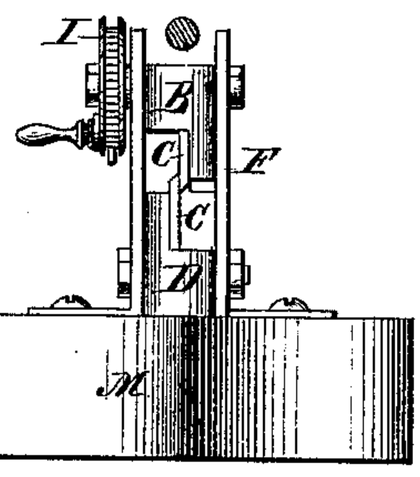

Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE

JAMES L. BACKUS AND EMMITT W. BACKUS, OF ROCK FALLS, ILLINOIS, ASSIGNORS OF ONE-THIRD OF THEIR RIGHT TO JAMES R. GILCHRIST, OF MOUNT PLEASANT, IOWA.

IMPROVEMENT IN MACHINES FOR CUTTING IRON.

Specification forming part of Letters Patent No. **188,089**, dated March 6, 1877; application filed August 11, 1876.

To all whom it may concern:

Be it known that we, JAMES L. BACKUS and EMMITT W. BACKUS, of Rock Falls, in the county of Whitesides and State of Illinois, have invented a new and useful Improvement in Cold-Iron-Cutting Machine, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation view of a cold-iron-cutting machine. Fig. 2 is a plan view of said machine. Fig. 3 is a rear sectional view of the same.

The object of our invention is to furnish a superior cold-iron-cutting machine. A is the power-lever. E is a foot or a right-angle extension of lever A, connected to the knife-lever B by straps K K. The knife-lever B is fastened with bolt at the rear end of the machine, between two straps, F F, which are fastened to the rear end of the base-bar D with bolt. The base-bar D is a solid iron bar with forked front end to admit the lever A at the fulcrum point, near where the foot or arm *e* is formed by a right-angle bend. The knives C C are fastened with clamps G, that pass through base-bar D, and two of them through the knife-lever B, two of them through base-bar D, entirely below the back edge of the knife, and the other two through the knife-lever B, entirely above the back of the other knife.

The clamps have each a projection of sufficient length to hold the knives in place, substantially as shown in Fig. 1, requiring no hole in either knife.

The base-bar D and the knife-lever B are recessed to allow the knives to occupy about the center of the base-bar D and of the knife-lever B, thus avoiding any wrench or torsional strain on the machine, substantially as shown in Fig. 3.

The guard H is secured to the base-bar D by means of a bolt, and is adjusted easily and instantly to iron of various size by means of an eccentric ratchet, I. The guard H is held in place constantly against the lower edge of ratchet I by means of a coil-spring, which is secured in plank M. The spring operates on guard H with a hook, substantially as shown in Fig. 1.

The machine as a whole is secured to plank M, substantially as shown in Fig. 2.

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

1. The construction and arrangement described and shown of the base-bar D, blade-lever B, vertical standards F, and shear-blade C, said bar and lever being in the same vertical plane, one above the other, and the shear-blades occupying central positions in them, respectively, in virtue of which torsional strain on either bar or lever is avoided.

2. The combination, as described and shown, of the curved lever A, with the blade-lever B.

3. The combination, as described and shown, of the shear-blade and its support on lever, and the clamps G.

4. The combination, with the shearing devices, of the guard H and the eccentric I, as described and shown.

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Witnesses:
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