

P. H. HEALY.

Machines for Forming Railway Coupling-Links.

No. 139,005.

Patented May 20, 1873.

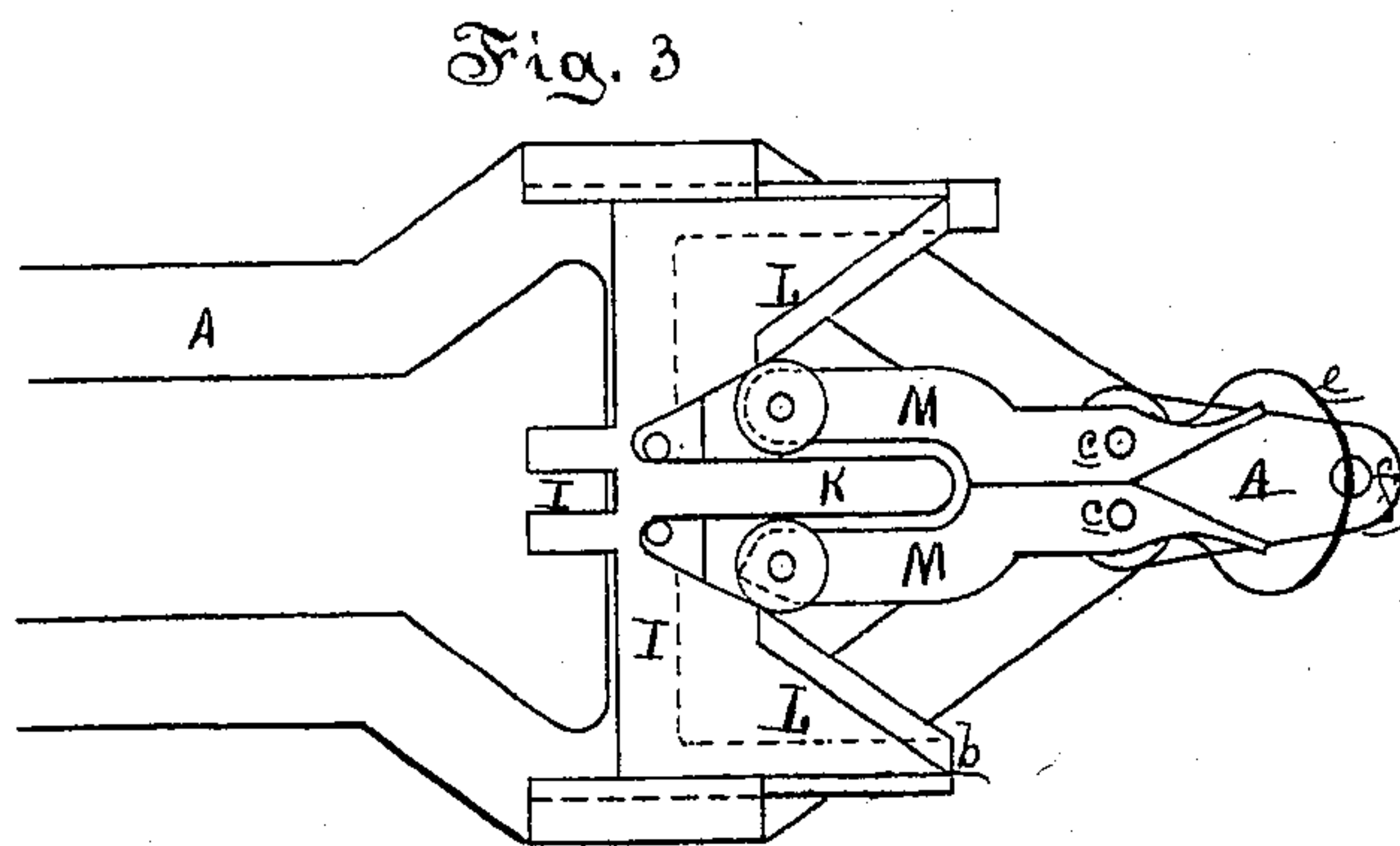
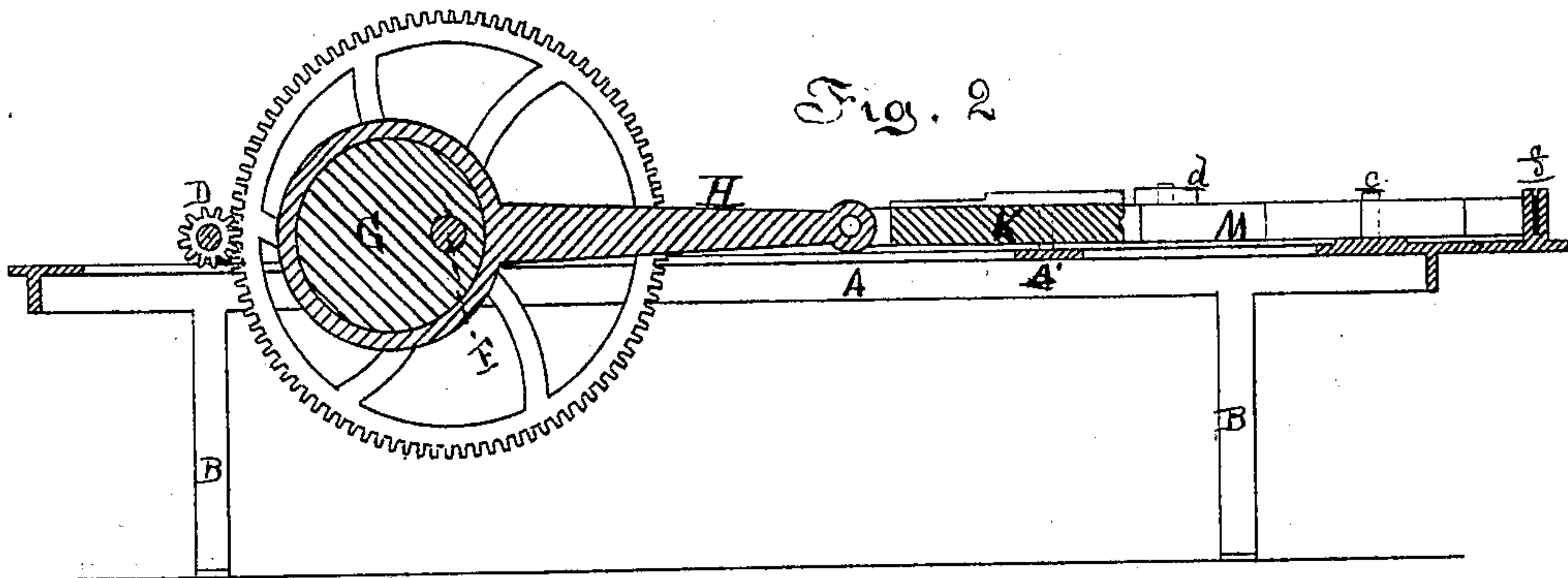
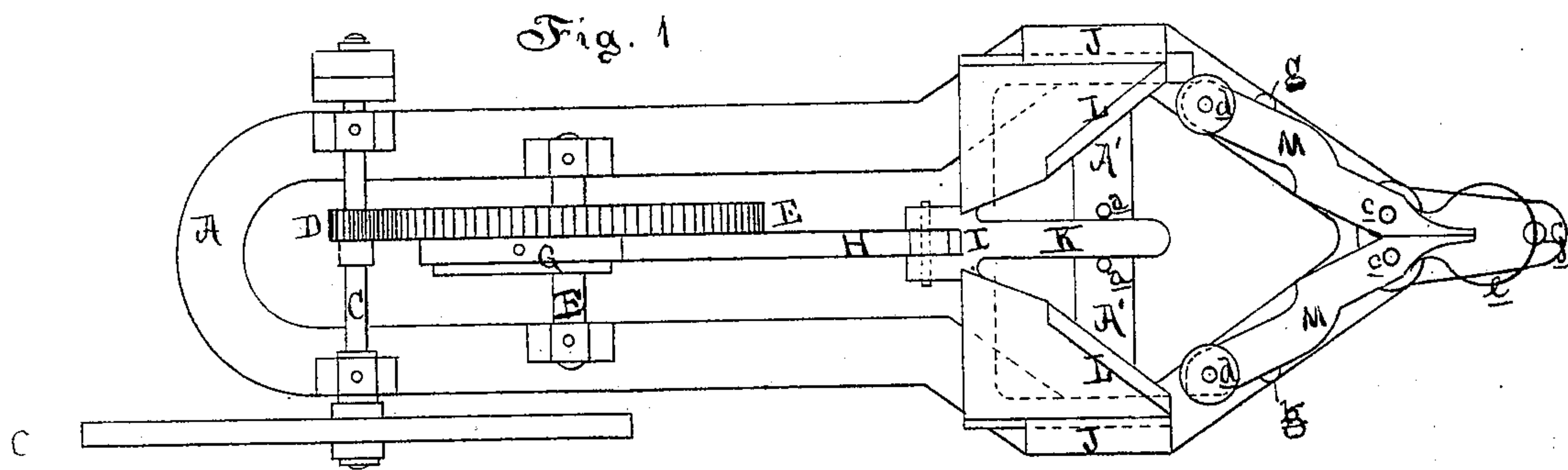
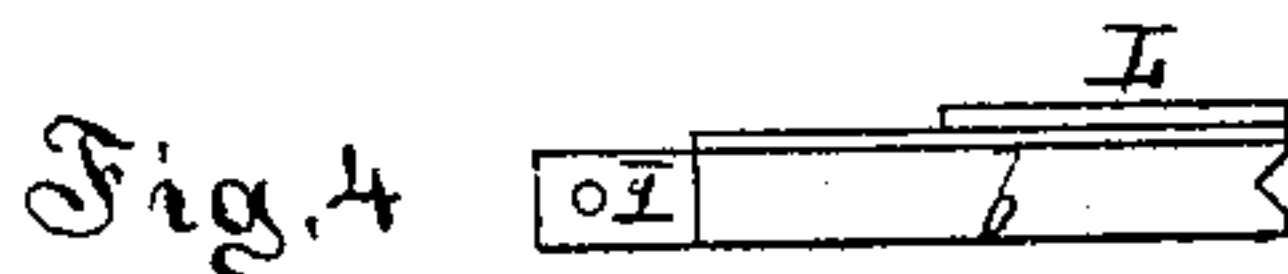
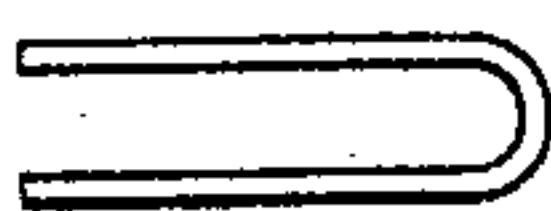


Fig. 5



Attest:
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 By *Atty.*
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UNITED STATES PATENT OFFICE.

PATRICK H. HEALY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO WM. H. BRYANT, OF SAME PLACE.

IMPROVEMENT IN MACHINES FOR FORMING RAILWAY COUPLING-LINKS.

Specification forming part of Letters Patent No. **139,005**, dated May 20, 1873; application filed
August 6, 1872.

To all whom it may concern:

Be it known that I, PATRICK H. HEALY, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in a Machine for Forming Railway Coupling-Links; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a plan of the machine ready to receive a bar for cutting and forming a link. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a plan of the operative parts in position after having formed a link. Fig. 4 is a side elevation of the bar-shear, and Fig. 5 is a plan of the link formed by this machine.

Like letters refer to like parts in each figure.

This invention relates to a machine designed for shearing off from a heated bar of iron blanks of proper length, which it afterward forms into railway coupling-links, leaving, however, one end open, to be closed and welded by hand. The invention consists in the construction and arrangement of the operative parts, as more fully hereinafter set forth.

In the drawing, A represents the metallic frame of my machine, supported near each end by the legs B. C is the driving-shaft, journaled in bearings placed transversely across the rear end of the frame. To this shaft is keyed a pinion, D, which meshes with and gives motion to a spur-gear, E, keyed on a counter-shaft, F, transversely journaled in the frame A parallel with and in advance of the driving-shaft. On the counter-shaft is keyed an eccentric, G, to which is strapped one end of a rod, H, whose other end is pivoted in the jaws of a forked cross-head, I, and by it reciprocated in guides J on the forward part of the frame. Projecting horizontally forward from the center of the cross-head is a former, K, reciprocating between a pair of stripping-studs, a, rising from a transverse girt, A', of the frame. The cross-head is in the form of three sides of a parallelogram, its two arms moving between the guides J; and the front end of one of them is shorter than the other, and is faced with steel, as at b, Fig.

4, to form a shear. Over each half of the cross-head is laid a wedge or plate, L, the two converging toward the base of the former K. M M are two jaws, independently pivoted at c c to the frame A near its apex or front end, their rear ends carrying each a friction-roller, d, which roll along the edges of the plates L as the latter are advanced with the cross-head, and thus bring the ends of the jaws toward the former K, as seen in Fig. 3. A spring, e, secured to a stud, f, at the extremity of the frame, compresses the short arms or front projecting ends to spread the rear ends of the jaws apart when released by the wedge-plates. When so released they are allowed to spread but a given distance by stops g g, Fig. 1, on the frame. In this position one of them serves as a stationary shear for the shear b of the limb of the cross-head of the same side.

In operation, a heated bar is introduced at h, Fig. 1, and passed across the frame until arrested by the other and longer arm of the cross-head. As the cross-head is advanced by the eccentric the shear b, forcing the bar against the stationary end of the adjacent jaw, severs a piece, and in the continued advance of the cross-head the former bends it in the middle while the jaws compress the ends against the sides of the former, making a U-shaped link, as seen in Fig. 4. As the cross-head retracts the studs a strip the link from the former and allow it to drop to the ground, when it may be reheated for closing and welding by hand.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a link-forming machine, the combination of the following instrumentalities, to wit: Means for cutting the iron rod to length; means for bending the middle of the same to form one of the semicircular ends of the link; and means for rolling or pressing the ends to a parallel with each other; all the parts constructed, arranged, and operating substantially as described, as herein shown and set forth.

PATRICK H. HEALY.

Witnesses:

WM. H. BRYANT,
WM. H. LOTZ.