A. J. O'LEARY & J. TURNER.

Machine for Welding Railway-Frogs.

No. 168,103. Patented Sept. 28, 1875.

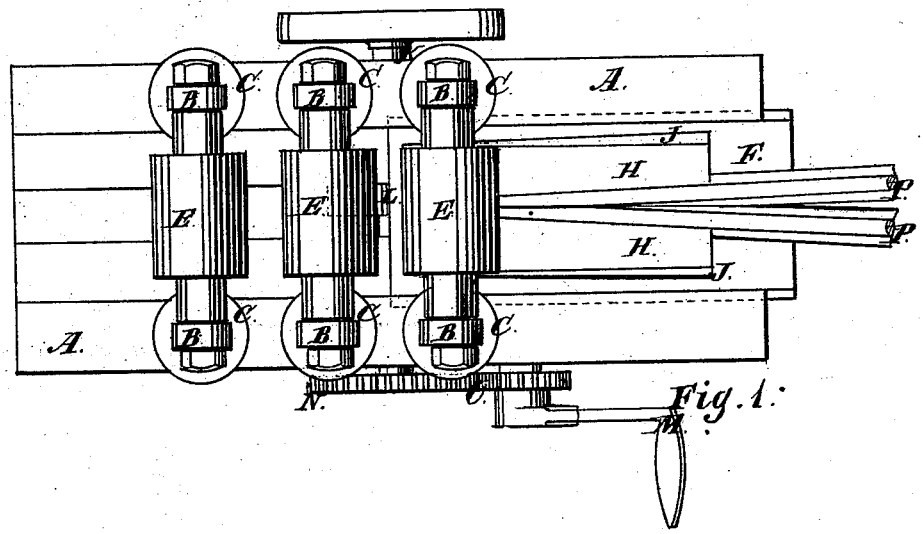

Fig. 1.

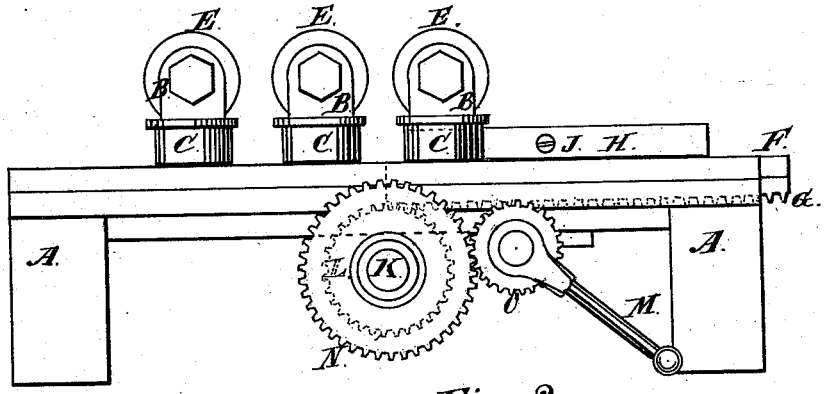

Fig: 2.

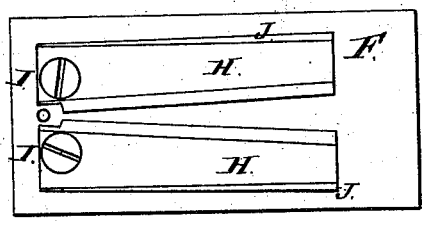

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

ARTHUR J. O'LEARY AND JOHN TURNER, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN MACHINES FOR WELDING RAILWAY-FROGS.

Specification forming part of Letters Patent No. **168,103**, dated September 28, 1875; application filed July 12, 1875.

To all whom it may concern:

Be it known that we, ARTHUR J. O'LEARY and JOHN TURNER, both of Chicago, in the county of Cook and State of Illinois, have invented a Machine for Welding Railway-Frogs, of which the following is a specification:

The object of our invention is to make a machine into which iron or steel railway-rails (being properly shaped at their ends to be placed side by side, and, by being welded together, will make the ordinary frog) can be placed and welded, and at the same time the rails kept in their proper shape, all as hereinafter fully described.

Our invention consists in the combination of dies and rollers.

In the accompanying drawing, Figure 1 represents a top or plan view of our machine; Fig. 2, a side elevation; and Fig. 3, a top view of the sliding block and pivoted dies, detached.

A represents a strong, substantial frame. B represents posts rigidly attached to the frame A. C are wheels or pulleys, which revolve on these posts; and E E E are pressure-rollers, having bearing in the top of the posts B. F is a sliding bed-plate, to which is solidly attached a rack, G. H H are dies, pivoted to the upper surface of the bed-plate F at I. The inner edges of these pivoted dies are of the shape to fit the outside of the prepared railway-rails. J J are thin pieces, which may be attached to the outer edge of these pivoted dies by means of screws. They are for the purpose of adapting the machine to the welding of frogs of different angles. K is a shaft, with bearings attached to the frame A. There is a cog-wheel, L, attached to this shaft, which engages with the rack G, so that the bed-plate is slid back and forth on the frame A by the turning of the shaft K. This shaft is turned by the crank M and the cog-wheel N O; or it may be driven by any ordinary application of power. P P are the rails which are to be welded to make the frog. They are placed on the bed-plate, between the pivoted dies H H. The sliding bed-plate is then carried forward between the rolls and pulleys. The side pulleys C close the dies H H, pressing against the side of them, while the pressure-rollers E E E roll the tread of the frog. The pressure produced by sliding this plate through the machine, and forcing the pivoted dies between the pulleys C C, welds the ends of the rails (which have been previously prepared) together, and makes the frog.

These dies are swung more or less on pivots, and adapted to making frogs of a greater or less angle by attaching or detaching the pieces J.

We claim—

The combination of the pivoted dies H, the sliding bed-plate F, and the pressure-rollers E, wheels C, and frame A, as described.

ARTHUR J. O'LEARY.
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Witnesses:
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