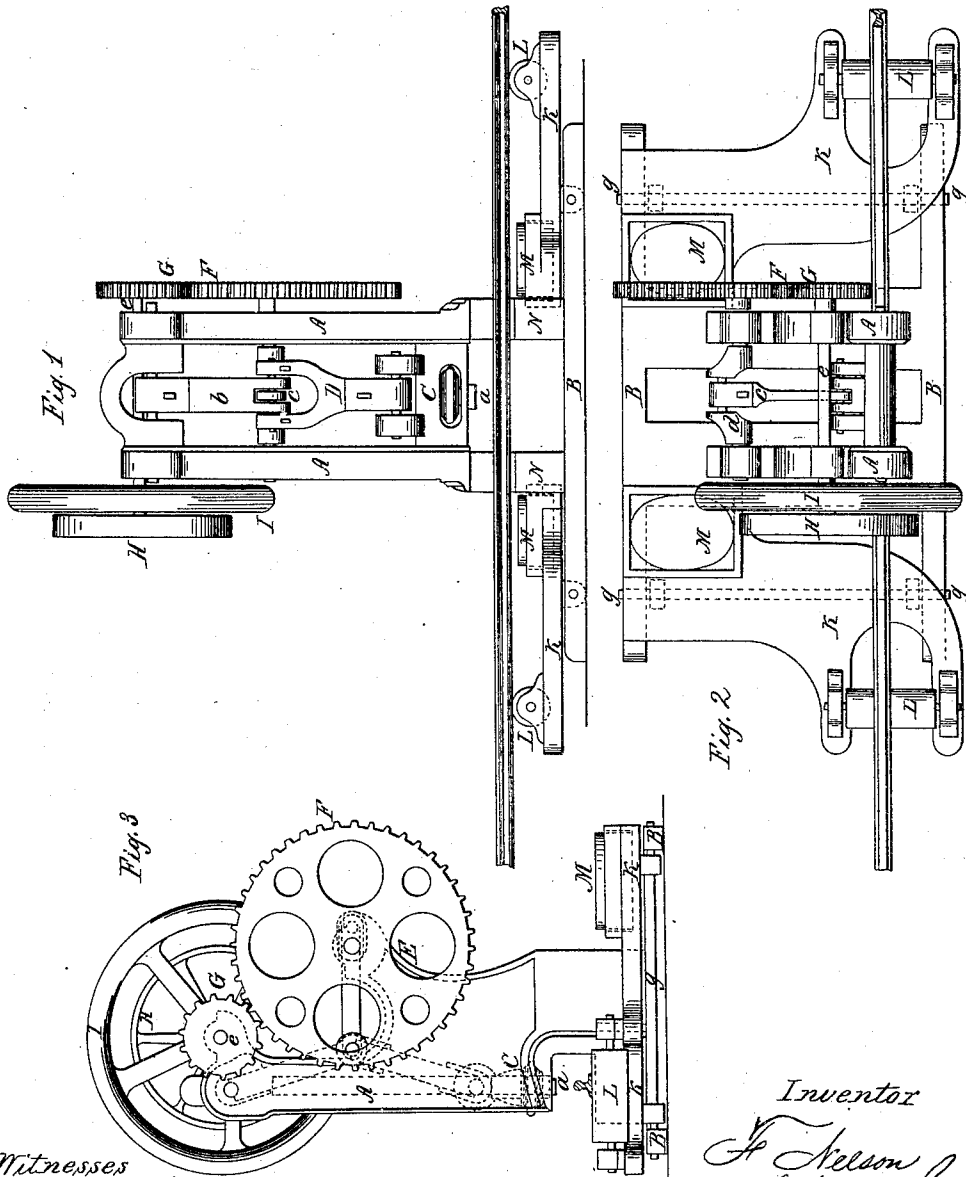


F. NELSON.
STRAIGHTENING RAILROAD RAILS.

No. 62,669.

Patented Mar. 5, 1867.



Witnesses

J. A. Jackson
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Inventor

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FRANKLIN NELSON, OF WYANDOTTE, MICHIGAN.

Letters Patent No. 62,669, dated March 5, 1867.

IMPROVEMENT IN STRAIGHTENING RAILROAD RAILS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, FRANKLIN NELSON, of Wyandotte, county of Wayne, and State of Michigan, have invented a new and useful Improvement in Rail-Straightening Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of the machine for straightening rails of my invention.

Figure 2 is a plan or top view of the same.

Figure 3 is a side view of the same.

The object of this invention is straightening rails or iron bars of a similar character, when bent, and it consists of a strong cast-iron frame carrying a sliding press-drop attached to an oscillating pendant or link operated by a crank with a knee-joint connection, in such a manner that the greatest average power is applied when it is most needed, the whole arrangement being exceedingly simple and powerful.

Similar letters of reference indicate like parts.

A A are standards of an upright cast-iron frame resting on a heavy base, B, on the inner side of which standards are grooves in which is fitted to slide up and down, a strong block or press-drop, C, provided with an adjustable die, *a*. The drop C is suspended to a link, D, the upper forked end of which forms a toggle or knee-joint connection with two links, one of which, *b*, is pivoted at the upper end to the top of the standards A A, and the other, *c*, is hung upon its outer end to a crank, *d*, as shown in figs. 1 and 2. The crank *d*, which hangs in brackets E E, on the standards A A, receives its motion from a spin-wheel, F, which engages in a pinion, G, on the driving-shaft *e*, actuated by the pulley H, and carrying the fly-wheel I. On the base B, are placed frames or platforms, K K, on each side of the standards A A, which vibrate on pivot-rods, *g g*. Upon the front sides of the frames are hung rollers, L L, which are balanced with weights, M M, placed at the opposite sides of the frames, K K. The rollers L L, are set so as to turn in line with the blocks N N, at the foot of the standards A A, which support the iron rail or bar which is to be placed under the press-drop C, for straightening. It is manifest that if a rail is placed so as to rest on the supporting blocks N N, and upon the rollers L L, and the die is adjusted properly, that the motion of the crank *d* will cause the press-drop C to descend and bear upon the rail, so that any bend or crook in it and under the die *a*, will be forced down until the rail is made straight. The rail is first rested on the rollers, but if the weights are removed the rollers will drop with the platform, so that the rail shall rest only on the blocks N N, for straightening short bends.

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

The sliding press-drop C, connected by a toggle-joint with the crank *d*, in combination with the vibrating roller frames K K, constructed and operating substantially as herein described.

The above specification of my invention signed by me this 6th day of October, 1866.

FRANKLIN NELSON.

Witnesses:

LEANDER FERGUSON,
EUNICE BOGETT.