(No Model.)

C. P. TITTLE.

RAIL STRAIGHTENING MACHINE.

No. 283,535. Patented Aug. 21, 1883.

Fig. 1.

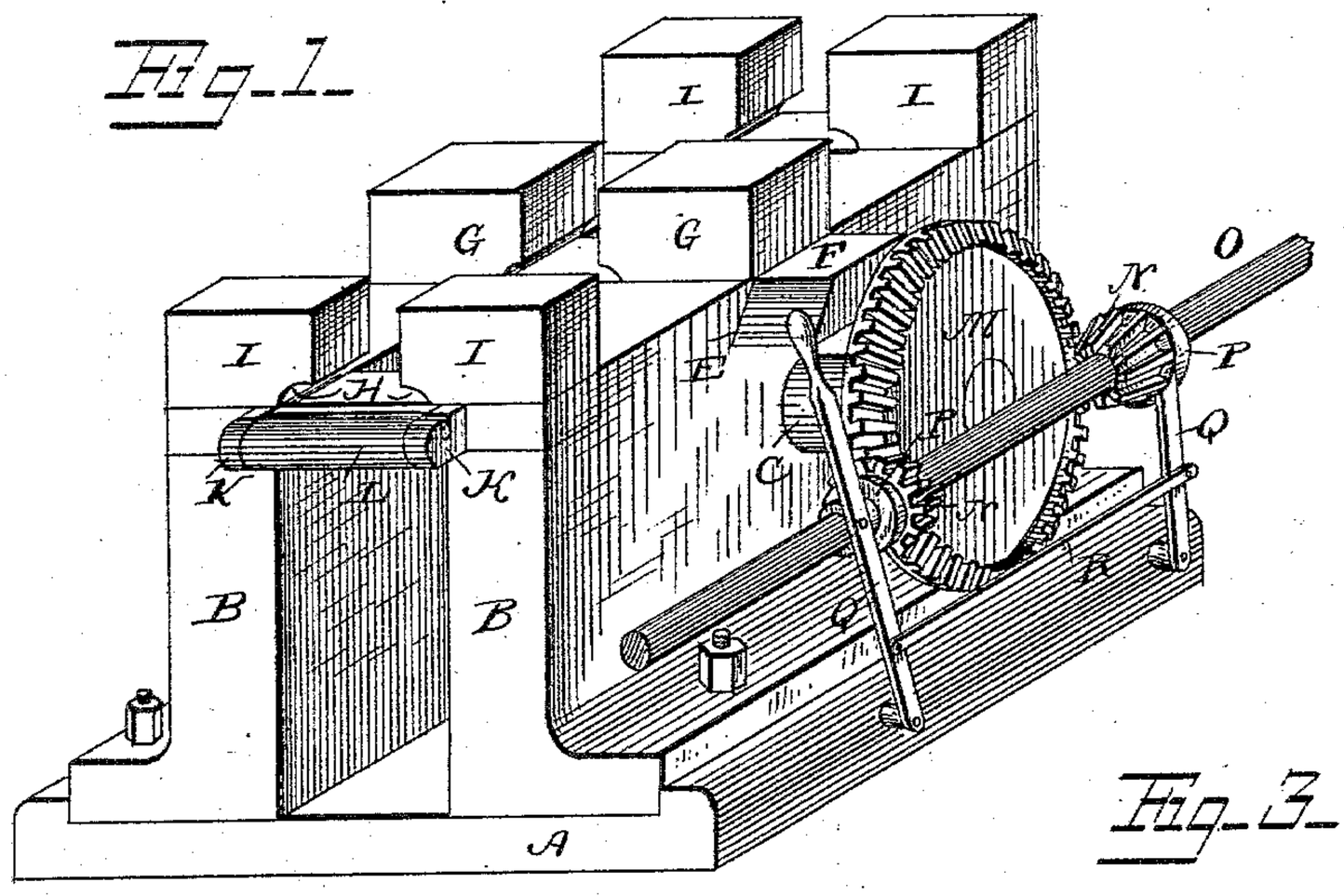


Fig. 3.

Fig. 2.

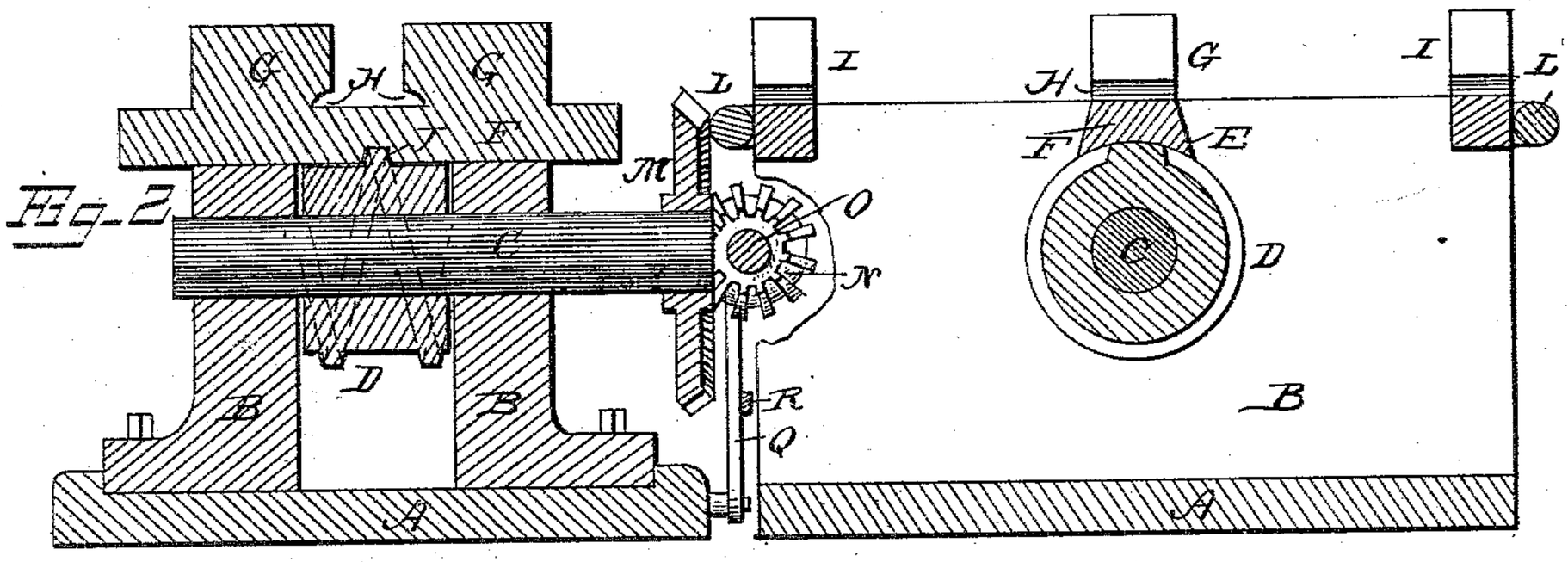
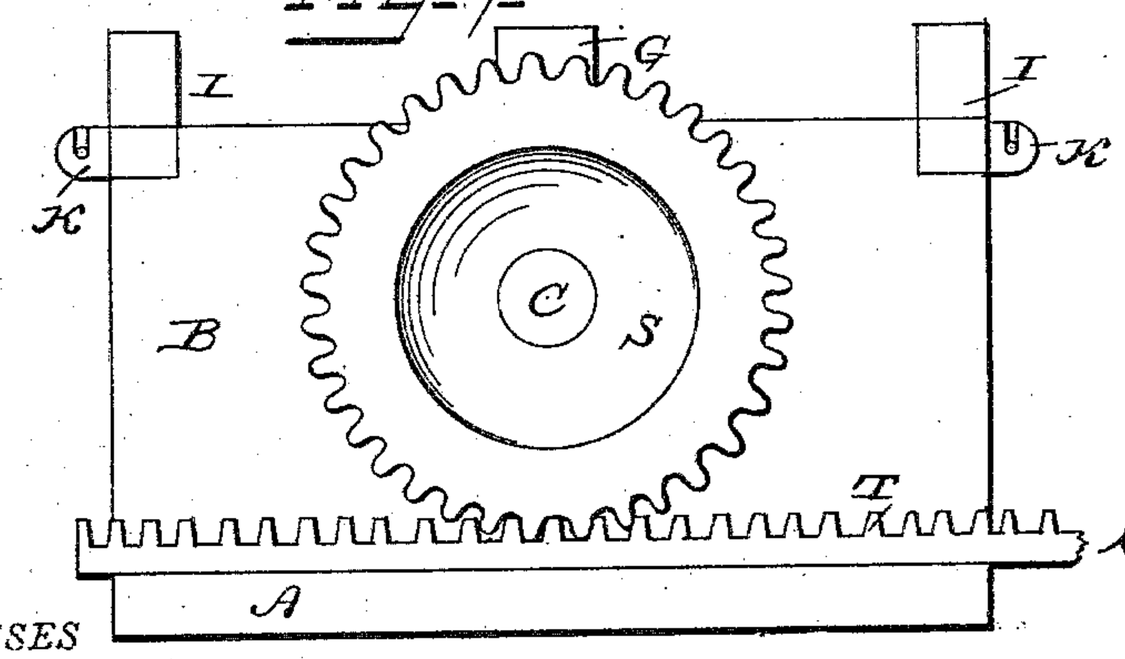


Fig. 4.



WITNESSES

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CYRUS P. TITTLE, OF JOHNSTOWN, PENNSYLVANIA.

RAIL-STRAIGHTENING MACHINE.

SPECIFICATION forming part of Letters Patent No. 283,535, dated August 21, 1883.

Application filed May 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, CYRUS P. TITTLE, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Machine for Straightening Rails, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to machines for straightening railroad-rails; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claim.

In the drawings hereto annexed, Figure 1 is a perspective view. Fig. 2 is a transverse vertical sectional view. Fig. 3 is a longitudinal vertical sectional view, and Fig. 4 is a side view illustrating a modification in the mechanism for operating the machine.

The same letters refer to the same parts in all the figures.

A in the drawings designates the base, upon which two uprights or side plates, B B, are bolted or otherwise secured. Said side plates have bearings for a transverse roller, C, which is provided between the said side plates with a spiral flange or worm, D.

The upper edges of the side plates, B, are provided, directly above the roller C, with dovetailed recesses E, to receive a transversely-sliding plate, F, on the upper side of which are secured two blocks, G G, the lower inner corners of which have recesses H, adapted to receive the flanges of a rail, the web of which will fit between the inner ends of the blocks G. Similarly-constructed blocks I are secured upon the ends of the side plates, B, as shown.

The under side of the slide F is provided with a groove, J, to receive the spiral flange or worm D of the roller C. It will be seen that by operating the latter the said slide may be forced to either side, as desired. Friction-rollers may be arranged at the points of contact; but this is not essential.

The ends of the side plates, B, are provided with brackets K K, forming bearings for transverse rollers L, which serve to support the rail during the operation of straightening.

Power may be applied to the roller C by the following mechanism:

M is a bevel-gear secured upon the end of the said roller, and engaging pinions N N, which are mounted loosely upon the power-shaft O.

P P are friction-wheels sliding upon the shaft, upon which they are feathered in the usual manner, and adapted to engage recesses in the ends of the pinions.

The pinions may be simultaneously moved upon the shaft by means of levers Q Q, connected by a rod, R. It will be seen that by this mechanism either pinion may be operated, so as to revolve the gear-wheel and roller in either direction.

In Fig. 4 of the drawings I have shown a different mechanism for operating the roller C, which consists simply of a cog-wheel, S, secured upon the end of said roller, and engaging a longitudinally-sliding rack, T, operated by hydraulic power. By either of these means the movement of the roller may be readily reversed and the motion may be easily controlled. I do not, however, wish to be understood as limiting myself to either of these applications of power, as modifications might be made in this respect without departing from the spirit of my invention.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed. The rail to be straightened is run in upon the rollers L between the blocks G G and I I, and is held securely against lateral displacement by the end blocks, I I, while the slide carrying the blocks G G is moved in either direction by the described mechanism.

I claim as my invention and desire to secure by Letters Patent of the United States—

In a machine for straightening rails, the combination of the sides having fixed holding-blocks, the transversely-movable slide having suitable holding-blocks on its upper side, a spirally-flanged roller arranged under the said slide and engaging a groove in its under side, and mechanism for revolving the said roller in either direction, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

CYRUS P. TITTLE.

Witnesses:

EDW. A. BARRY,

ANDREW GARD.