

H. P. MINOT.
Extension Gearings for Machinery.

No. 134,304.

Patented Dec. 24, 1872.

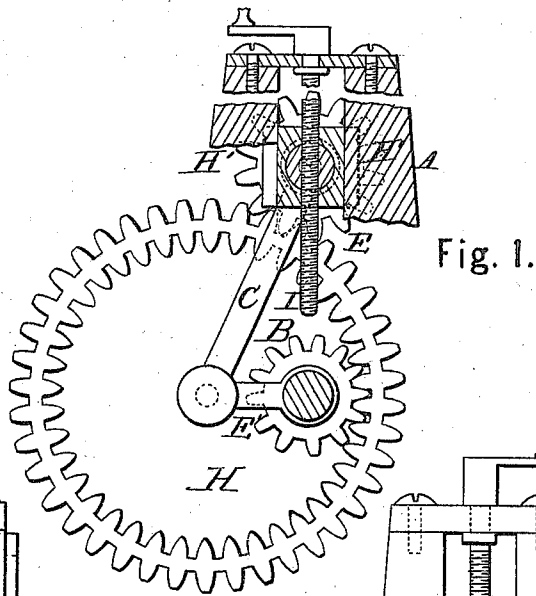


Fig. 1.

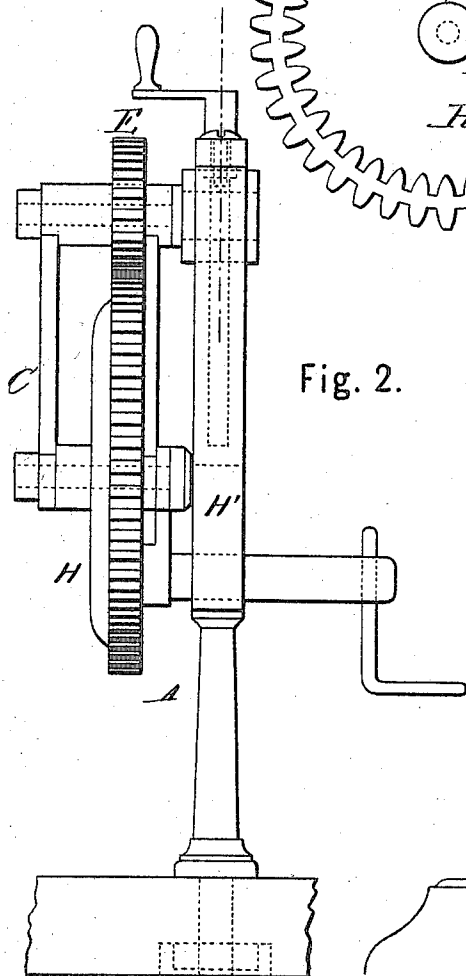


Fig. 2.

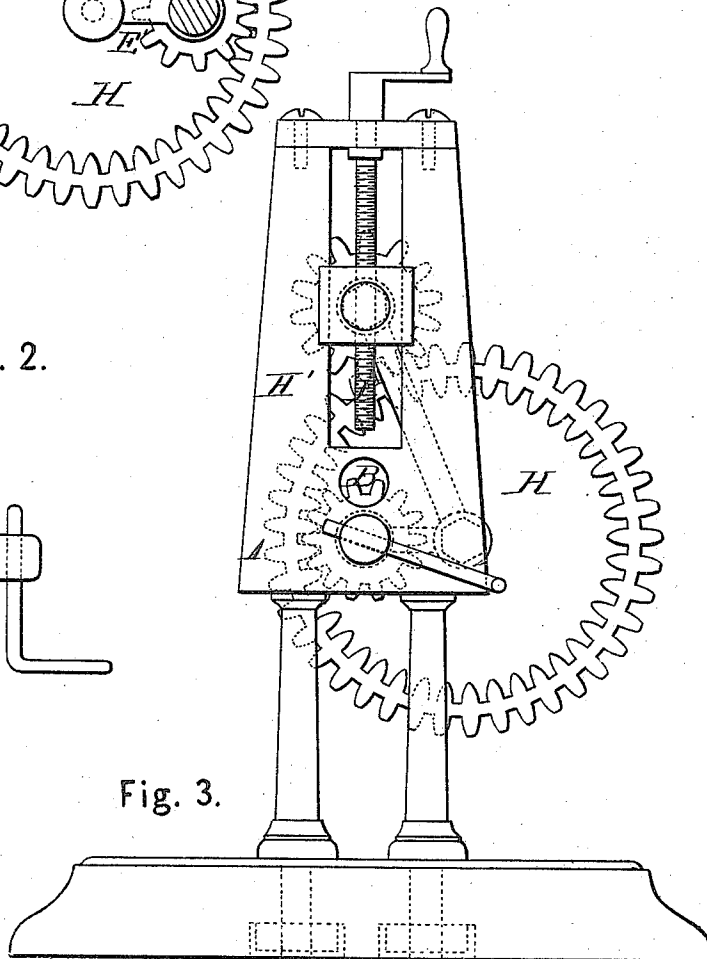


Fig. 3.

WITNESSES.

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HIRAM P. MINOT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN EXTENSION GEARINGS FOR MACHINERY.

Specification forming part of Letters Patent No. 134,304, dated December 24, 1872.

To all whom it may concern:

Be it known that I, HIRAM P. MINOT, of Chicago, in the county of Cook and State of Illinois, have invented a new and valuable Improvement in Extension Gearing; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view of my invention. Fig. 2 is a front view of the same.

This invention has relation to extension gearing for various kinds of machinery, and is designed especially to be used in connection with a pair of adjustable rolls; and it consists in the construction and novel arrangement of gear-wheels, connecting-links, and adjusting mechanism, all substantially as hereinafter more fully described.

A in the drawing represents the frame to which the extension gearing is attached. B represents a toothed wheel or pinion, used as a driver for the rest of the gearing, and arranged to engage with the internal teeth of an internally and externally toothed gear-wheel, H, which acts as an intermediate gear between the pinion B and the pinion E, the latter engaging with the external teeth of said

intermediate gear-wheel. The wheel B is on the shaft of the lower, and the wheel E on the shaft of the upper, roll. The wheel A is connected by means of a short link, E', to the short shaft of the wheel H, which is connected to the shaft of the wheel E by means of the long links or straps C. The boxes or bearings of the shaft of the wheel E have their positions in slots of standards H', and are connected to vertical adjusting-screws I.

According as the wheel E is raised or lowered by means of the adjusting-screw the wheel H is shifted to the right or to the left, thereby adapting itself to the change of position of the rolls.

The wheel E may, if desirable, be used as the driver, or the gearing, when necessary, inverted.

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

The externally and internally toothed gear-wheel H, pinions B E, links E' C, standard H', and adjusting-screw I, combined substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

HIRAM P. MINOT.

Witnesses:

C. J. CORSE,
S. N. CASTLE.