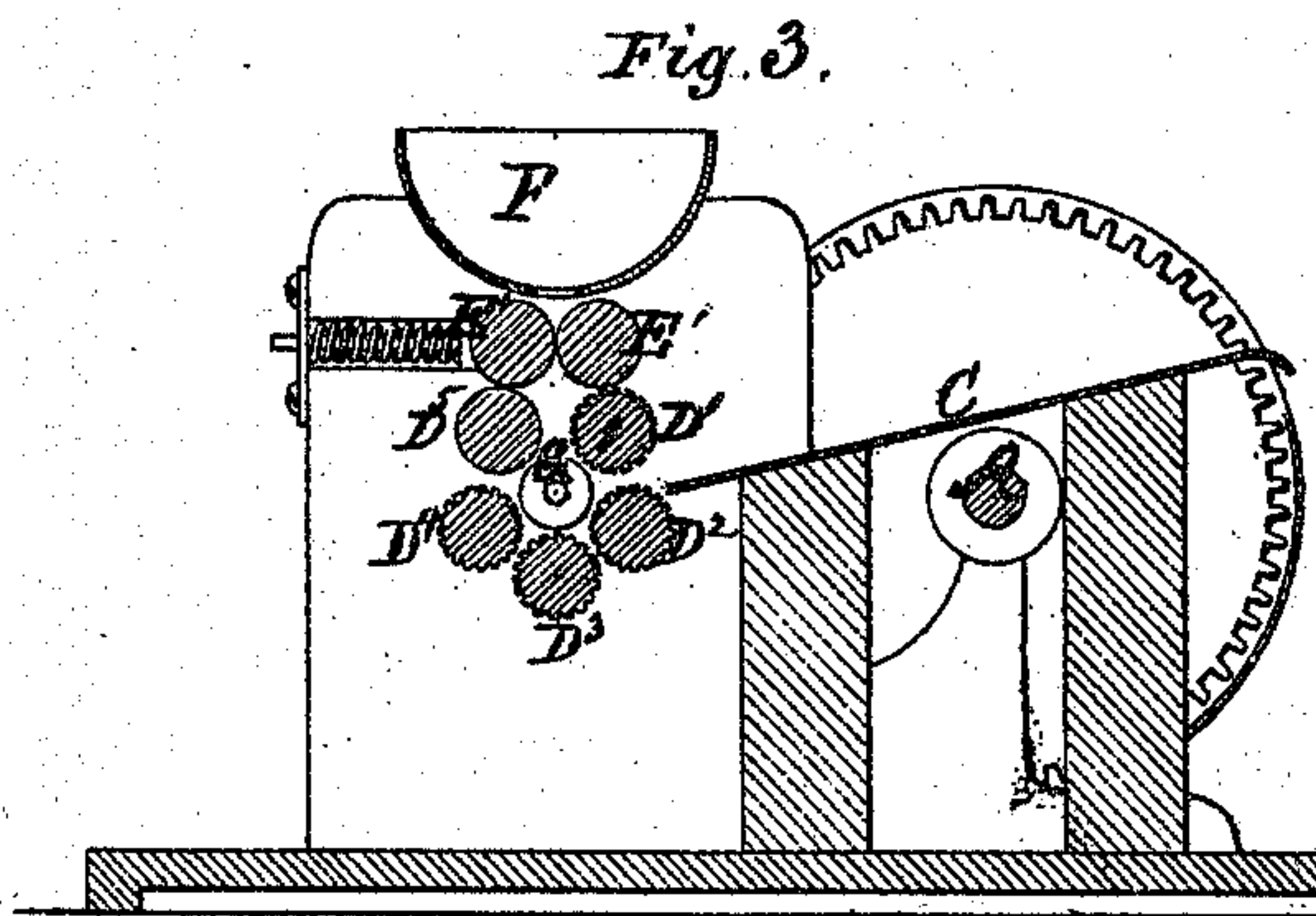
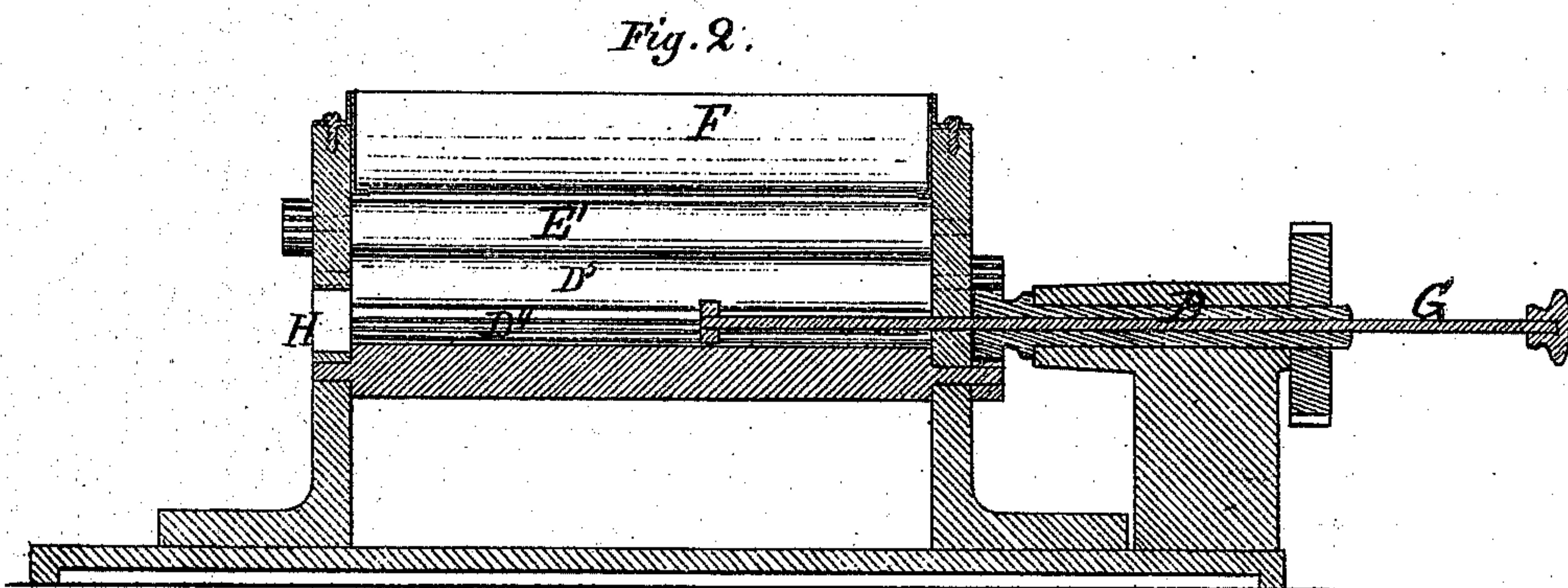
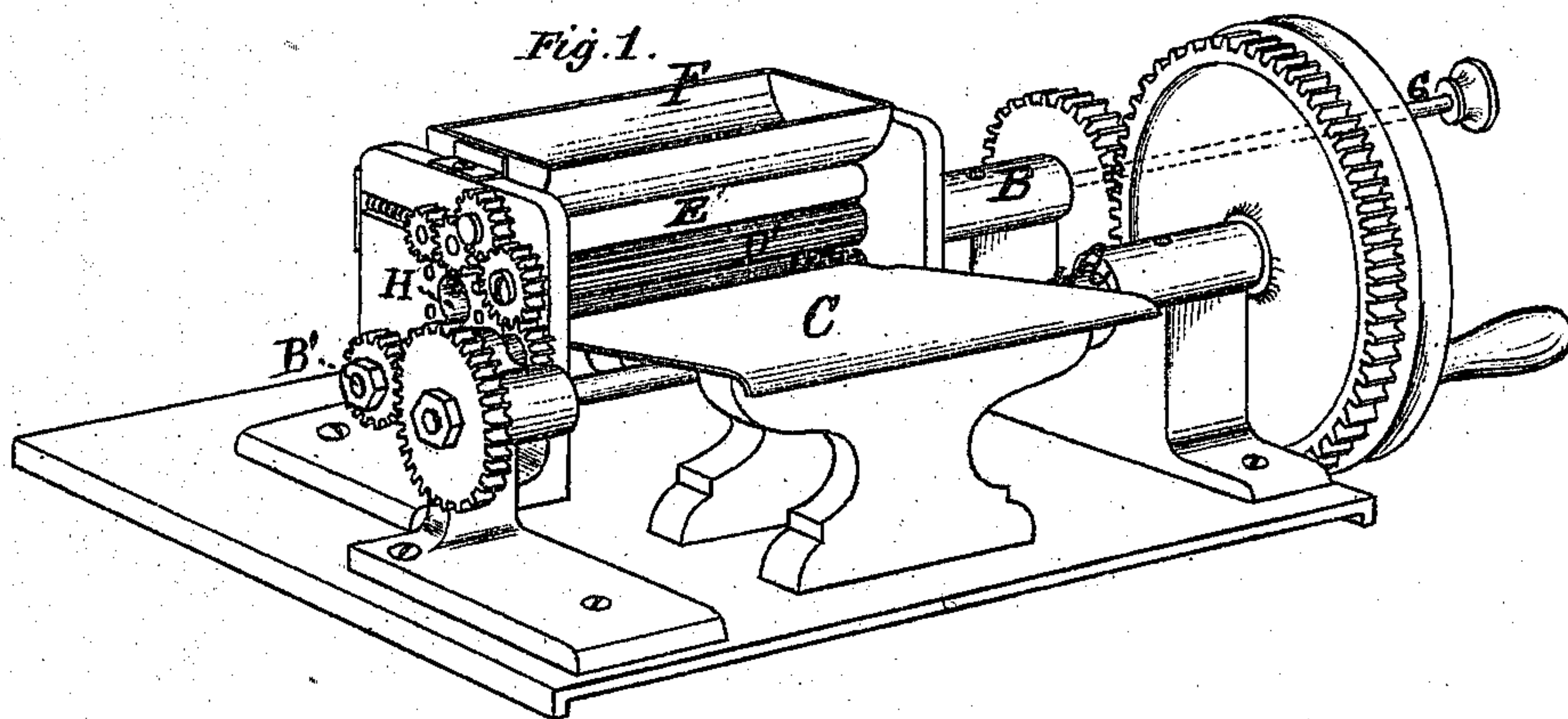


Tanner & Bliss,

Cigar Machine.

No. 105,859.

Patented July 26, 1870.



Witnesses
Phil. M. Larnes.
Frank A. Jackson

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GEORGE W. TANNER AND FRANCIS D. BLISS, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 105,859, dated July 26, 1870.

CIGAR-MACHINE.

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

To all whom it may concern:

Be it known that we, GEORGE W. TANNER and FRANCIS D. BLISS, both of the city and county of Providence, and State of Rhode Island, have invented a new and useful Cigar-Machine.

Our invention relates to the forming of the filler from loose tobacco, and the application of the binder thereto; and consists in certain novel combinations and arrangements of feed and forming-rollers; and we do hereby declare the following specification, taken in connection with the drawing furnished and forming a part of the same, to be a true, clear, and exact description thereof.

Reference being had to the drawing—

Figure 1 represents one of our machines in perspective.

Figure 2 represents the same in longitudinal vertical section.

Figure 3, the same in cross vertical section.

Same letters of reference used in all the figures.

A is the main shaft, to which power is to be applied.

B and B' are counter-shafts, geared to the main shaft at each end.

C is the smoothing-plate, upon which the binders are prepared.

D¹, D², D³, D⁴, and D⁵ are the forming-rollers, all of which, excepting D⁵, (which is smooth,) are fluted, and arranged to revolve in the same direction, by gearing operated by the counter-shaft B. These forming-rollers are so placed with relation to each other, that the longitudinal space between their peripheral surfaces corresponds to the length and diameter of the cigar desired. It is not absolutely essential that any of these rollers be fluted, although we prefer such to smooth ones.

E and E' are the feed-rollers, which are mounted above and parallel with the forming-rollers D¹ and D⁵. These rollers are revolved by gearing operated by counter-shaft B'. They are arranged to revolve toward each other, and at a speed slightly less than the forming-rollers. The feed-roller E' is mounted in horizontal slide bearings, to which a compressing spring is applied, to secure a proper degree of pressure between the contact-surfaces of the feed-rolls.

F is the hopper. It has a longitudinal slot extending its entire length, which is immediately over and in relation with the point of contact between the feed-rollers E.

G is a forcing-rod extending longitudinally through the counter-shaft B. It is provided with a handle at its outer, and a head at its inner end, which nearly fills the interior space between the forming-rollers.

H is the vent from which the bound filler is discharged.

The operation of our machine is as follows:

The forcing-rod C is drawn out, as shown in fig. 2.

A quantity of loose tobacco, sufficient to form the cigar, is placed in the hopper and delivered to the feed-rollers, which, when the machine is in operation, force it gradually, piece by piece, down between the forming-rollers D¹ and D⁵, into the forming-space. When all the tobacco has been thus delivered, the binder, spread on the smoothing-plate and properly gummed, is fed between the forming-rollers D¹ and D², (which are not in contact,) until the end of the binder is engaged between the filler and roller D², when it is drawn in and wrapped around the filler.

After being revolved a few times, to secure it in place, the forcing-rod is pressed inward, and the filler is discharged from the vent H.

Having thus described our invention,

We claim as new—

1. The combination of feed-rollers E and forming-rollers D, substantially as shown and described.
2. In combination with the feed and forming-rollers of a cigar-machine, the hopper F, arranged with relation to the feeding-rollers, substantially as shown and described, for the purposes specified.
3. The forcing-rod G, in combination with the forming-rollers D, substantially in the manner and for the purposes specified.

GEORGE W. TANNER.
FRANCIS D. BLISS.

Witnesses:

HENRY MARTIN,
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