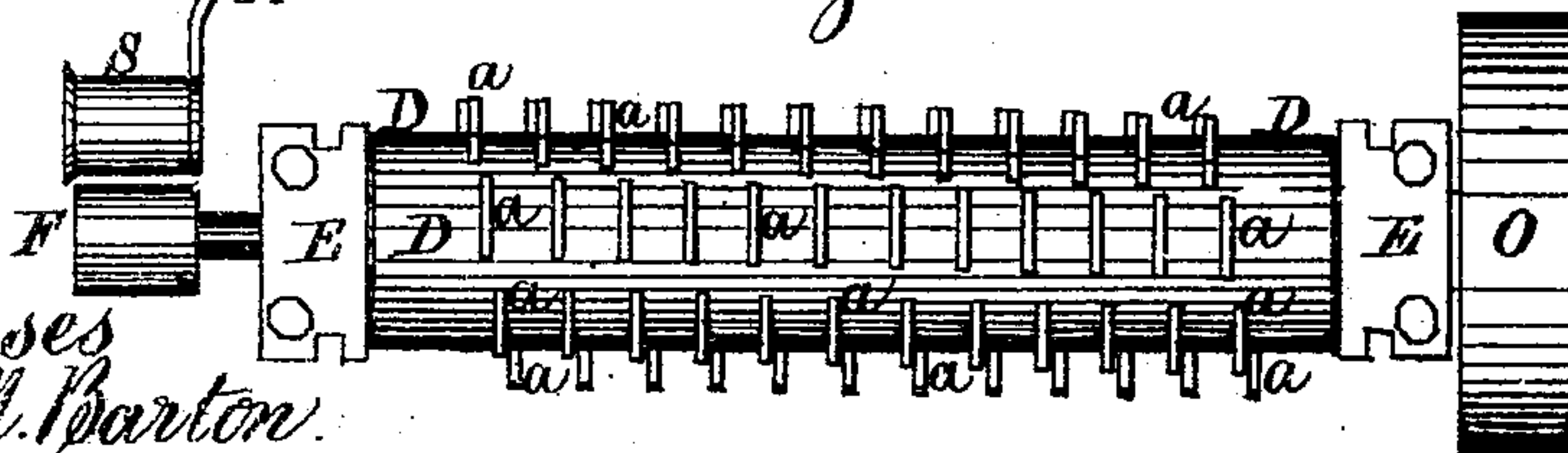
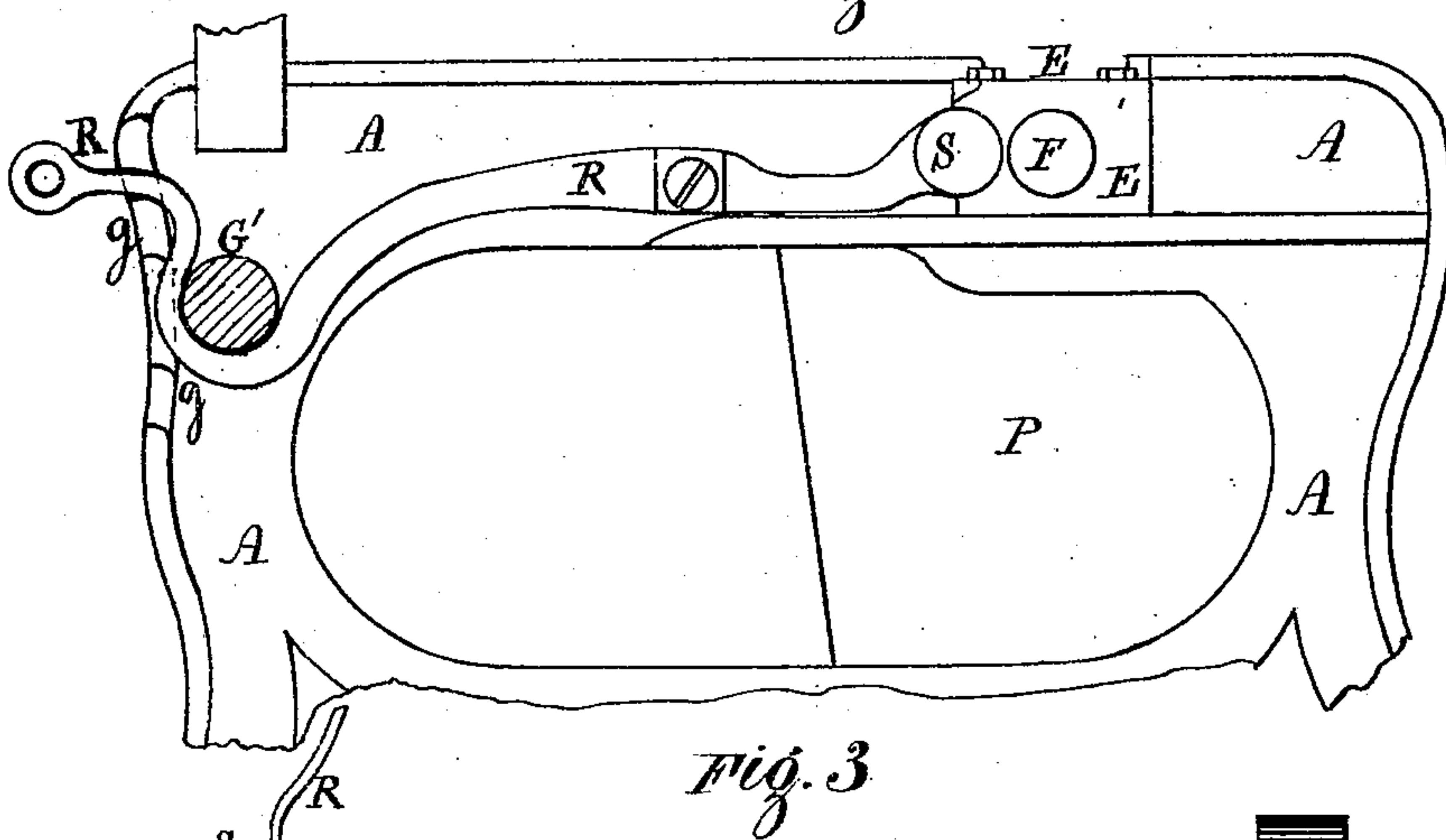
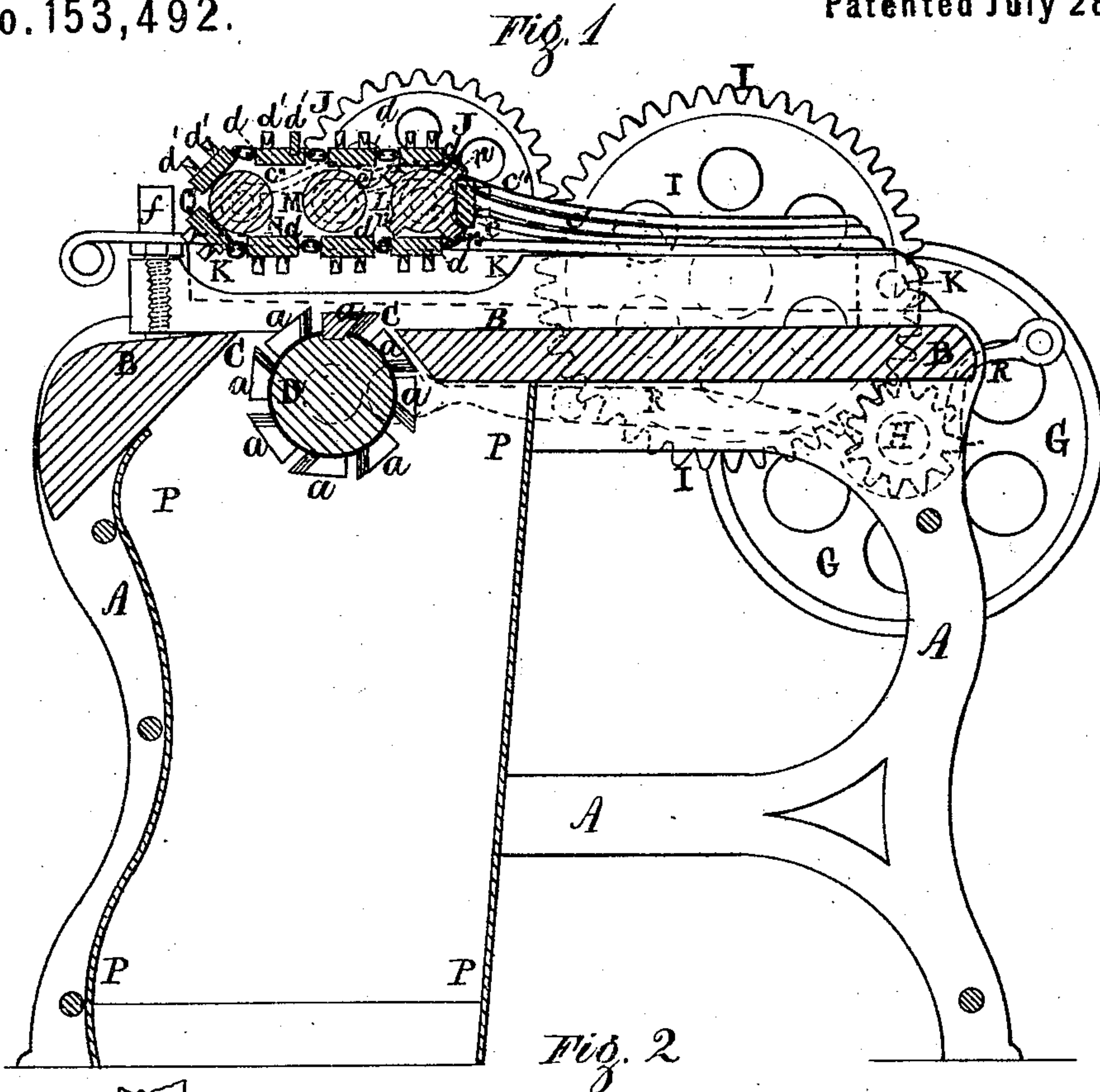


J. MOULTON.

Machines for Grinding and Rossing Bark.

No. 153,492.

Patented July 28, 1874.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN MOULTON, OF OSS�PEE, ASSIGNOR TO HIMSELF AND SAMUEL R. THOMPSON, OF PORTSMOUTH, NEW HAMPSHIRE.

IMPROVEMENT IN MACHINES FOR GRINDING AND ROSSING BARK.

Specification forming part of Letters Patent No. 153,492, dated July 28, 1874; application filed May 15, 1874.

To all whom it may concern :

Be it known that I, JOHN MOULTON, of Ossipee, in the county of Carroll and State of New Hampshire, have invented certain Improvements in Machines for Grinding and Rossing Bark, of which the following is a specification:

Figure 1 of the accompanying drawing is a central vertical longitudinal section of my improved machine. Fig. 2 is a side view, and Fig. 3 is a top view of portions of the same.

The present invention relates to certain new and useful improvements in machines for grinding and rossing bark, for tanning and other purposes.

The principal object of this invention is to effect a saving of time, labor, and expense in the operation of rossing bark; and to these ends my invention consists in the combination and arrangement, in a bark-rossing machine, of a drum having spirally-arranged cutters, adapted to shave the rind from the bark, with a hinged frame, provided with spring-arms, carrying the rollers of a spurred endless band, said frame being located above the toothed drum, and the spurred band carrying or feeding the bark over the same.

In the drawings, A represents the sides of an iron or other suitable open frame, having a top bed-plate, B, formed with a transverse mouth or opening, C, near one end, beveled on the under side, or otherwise formed to allow the rotation of a transverse cylinder or drum, D, of wood cased with metal, or otherwise constructed, and provided with teeth or cutters *a*, beveled from the inner top edge downward to the bottom, which is left of sufficient size to be held in the drum or cylinder, or otherwise suitably formed, and arranged spirally around its periphery. The axle of the cylinder or drum D turns in suitable boxes, E, and at one end, outside the frame A, is provided with a wheel, O, and at the other end is provided with a belt-pulley, F, that connects by a suitable belt with a driving-wheel, G, turning on an axle projecting from the side of the other end of the frame, and having an interior cog-wheel or pinion, H, that engages with and operates a cog-wheel, I, meshing with a cog-wheel, J. The cog-wheel

I turns on an axle projecting from a longitudinal bar, K, or side of a frame, hinged or pivoted at the rear end so as to be raised from or lowered on the frame A, which has an opposite similar hinged or pivoted bar, or side of a frame, to the top of which bars K or frame are attached the rear ends of bent spring-bars *c c' c''*, located one above the other, and formed at the forward ends to hold and allow the turning the axles or journals, respectively, of a transverse cylinder, L, whose axle receives and is turned by the cog-wheel J and rollers M N. Over the cylinder or drum L and rollers M N is a series of transverse bars, *d*, connected, by chain or otherwise, to form an endless band, and provided with sharpened prongs or spurs *d'*. The forward ends of the bars or frame K are formed to receive screws *f*, that engage in the top of the sides of the frame A; or the bars or frame K may be otherwise arranged to be held and released as desired to adjust the bars or band *d* to different thicknesses of bark, or to allow the raising of the bars or frame K to give access to the cylinder or drum D. Extending downward from the bottom of the bed-plate B, at the forward portion of the frame A, is a chute, P, for conducting the rind, as it is separated from the ross, to the floor, or to any receptacle; or any suitable receptacle for collecting the rind as it falls from the cylinder or drum D may be attached to the machine. The side of the frame A, at the rear end, is formed with a notched flange, *g*, or is provided with a ratchet-bar, or otherwise arranged to receive and hold at different elevations the handle end of a curved or other suitable lever, R, pivoted to the side of the frame, and connecting at the other end with a regulating belt-pulley, S. The cylinder or drum L is provided with blocks or bars *n*, or may be otherwise arranged, to receive and carry endless bars *d*.

The operation of my invention is as follows: The bark is placed with its ross upward on the bed-plate, where it is taken by the spurs *d'* of the bars *d* and fed along by the rotation of the cylinder or drum L over the opposite rotating cylinder D, whose teeth or cutters act upon the under side of the bark and take off

and grind the rind, which drops through the mouth C down the chute P, while the ross is carried along by the feed-bars and is deposited from the end of the machine, the bark thus passing between the feed-bars and cylinder or drum D, whose cutters, being arranged spirally to act to the best advantage on the bark, ross the latter, and separate and grind its rind at one operation in an expeditious and effective manner, at a great saving of time, labor, and expense over the ordinary method of rossing bark by hand.

By means of the spring-bars *c c' c''*, holding the axles of the cylinder or drum L and rollers M N, the required yielding movement is allowed to the feed-bars *d*; or the cylinder or drum L and rollers M N may be arranged with any other suitable yielding bearings that may be preferred.

Having thus fully described my improve-

ments, what I claim as my invention, and desire to have secured to me by Letters Patent, is—

In a bark-rossing machine, the combination of the drum D, having spirally arranged cutters and journaled in the bed-plate B, with the hinged frame K, having screws *f* and spring-bars *c c' c''*, the latter carrying the drum L and rollers M N of the spurred bars *d*, the drum D being rotated in an opposite direction to the rotation of the drum L and rollers M N, substantially as described, for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN MOULTON.

Witnesses:

SANBORN B. CARTER,
MARK RANDALL.