

(No Model.)

2 Sheets—Sheet 1.

E. J. & C. E. POPE.

MACHINE FOR SLITTING AND WINDING PAPER, &c.

No. 451,278.

Patented Apr. 28, 1891.

Fig. 1.

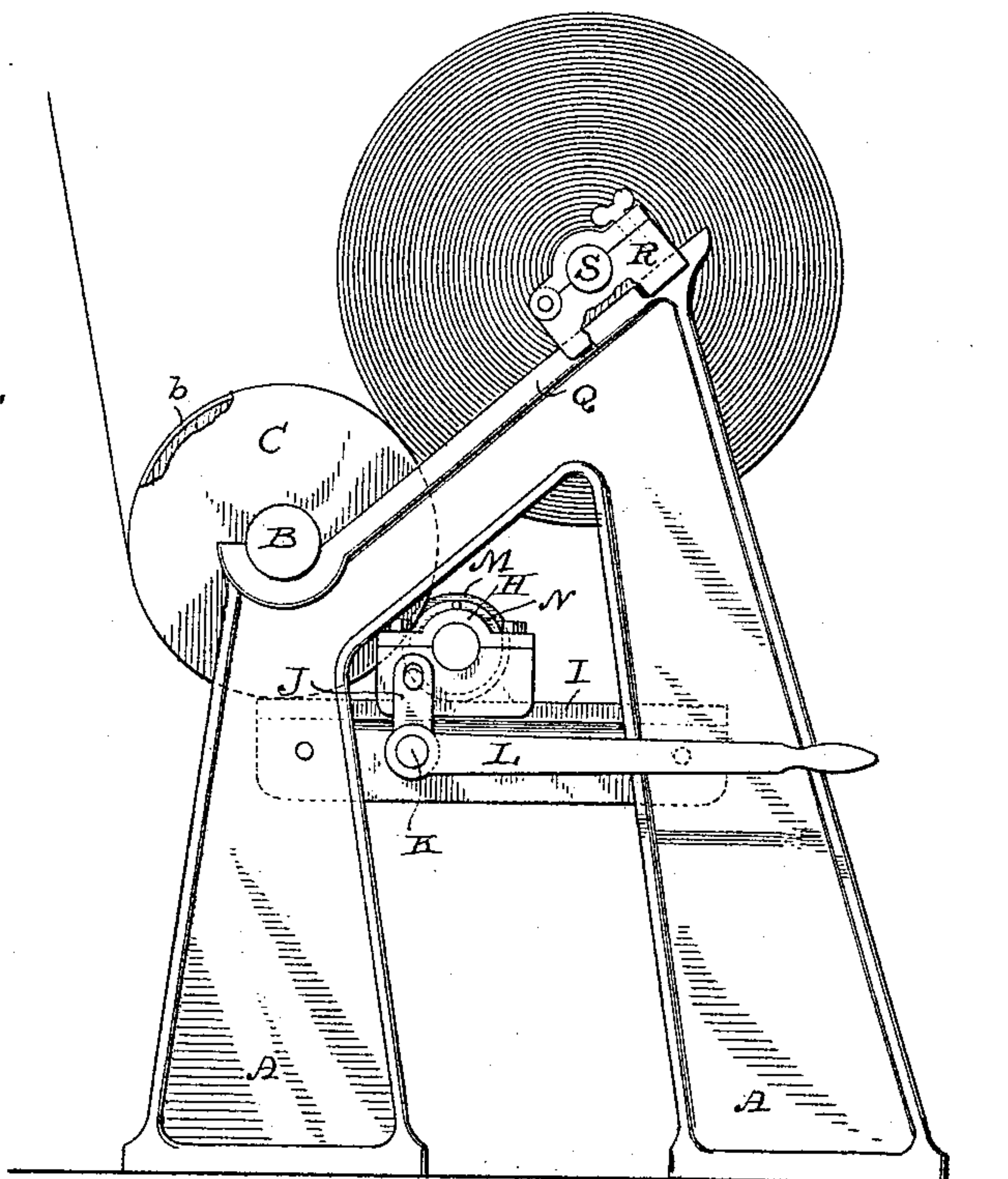
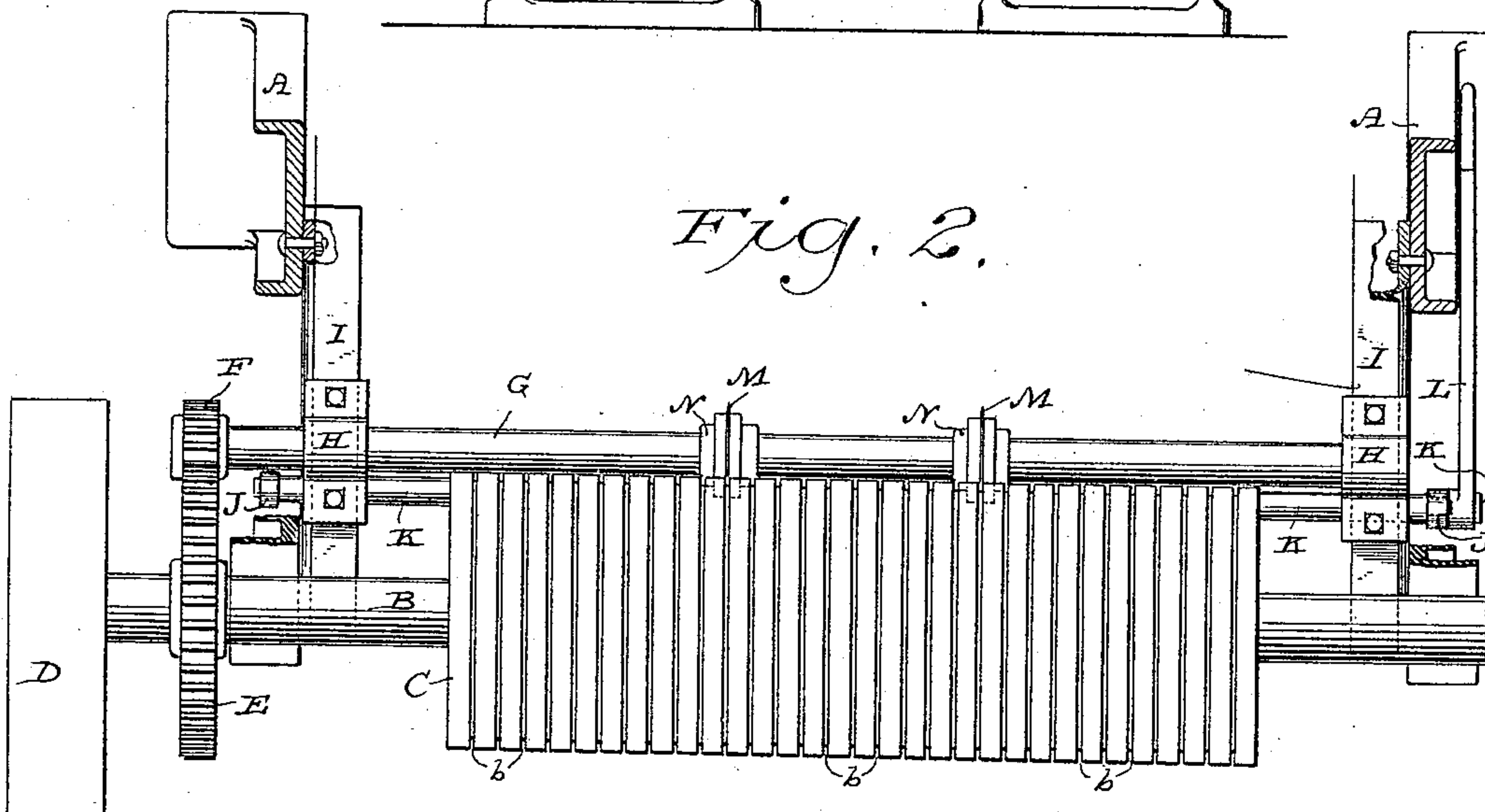


Fig. 2.



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2 Sheets—Sheet 2.

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Fig. 3.

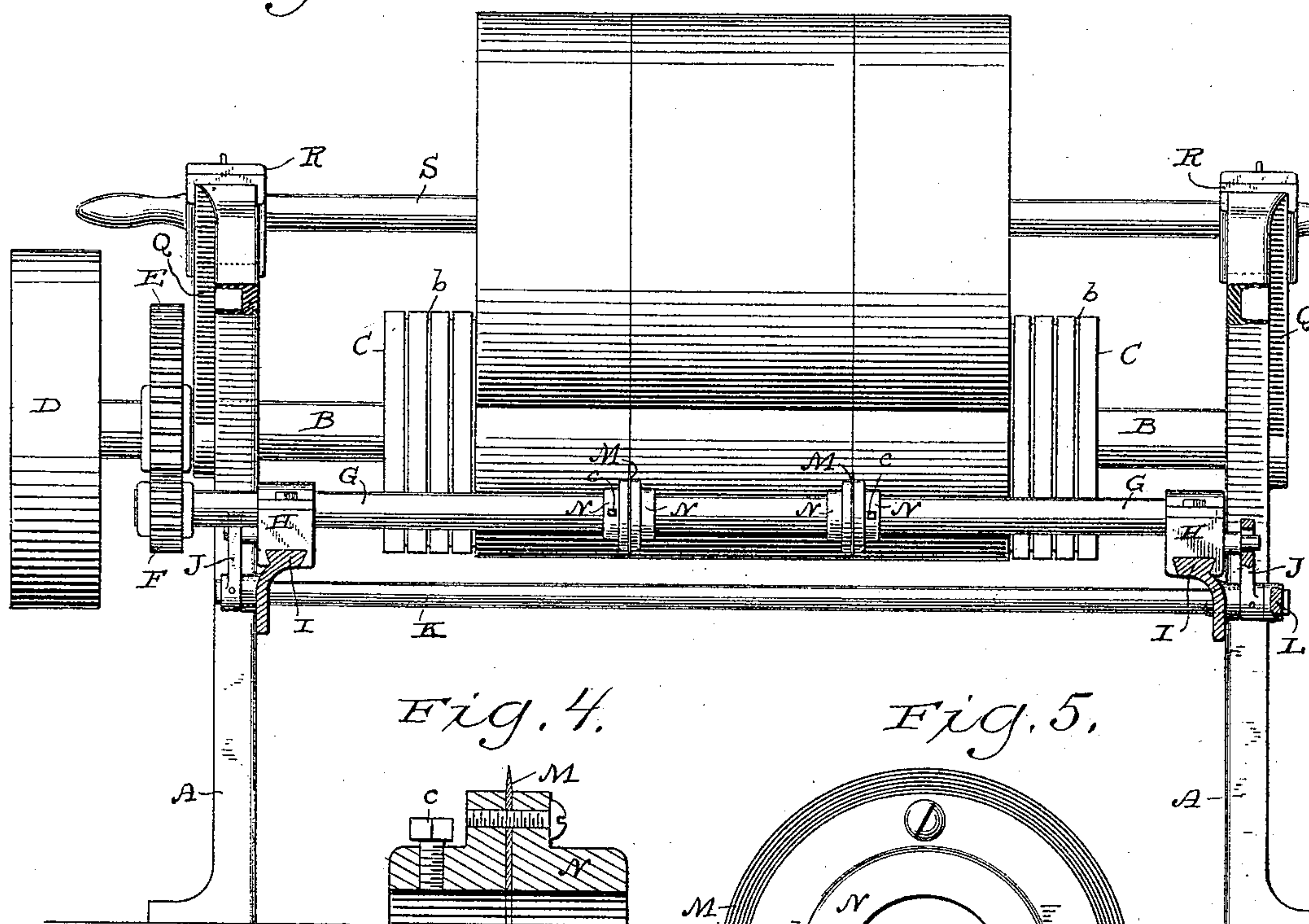


Fig. 4.

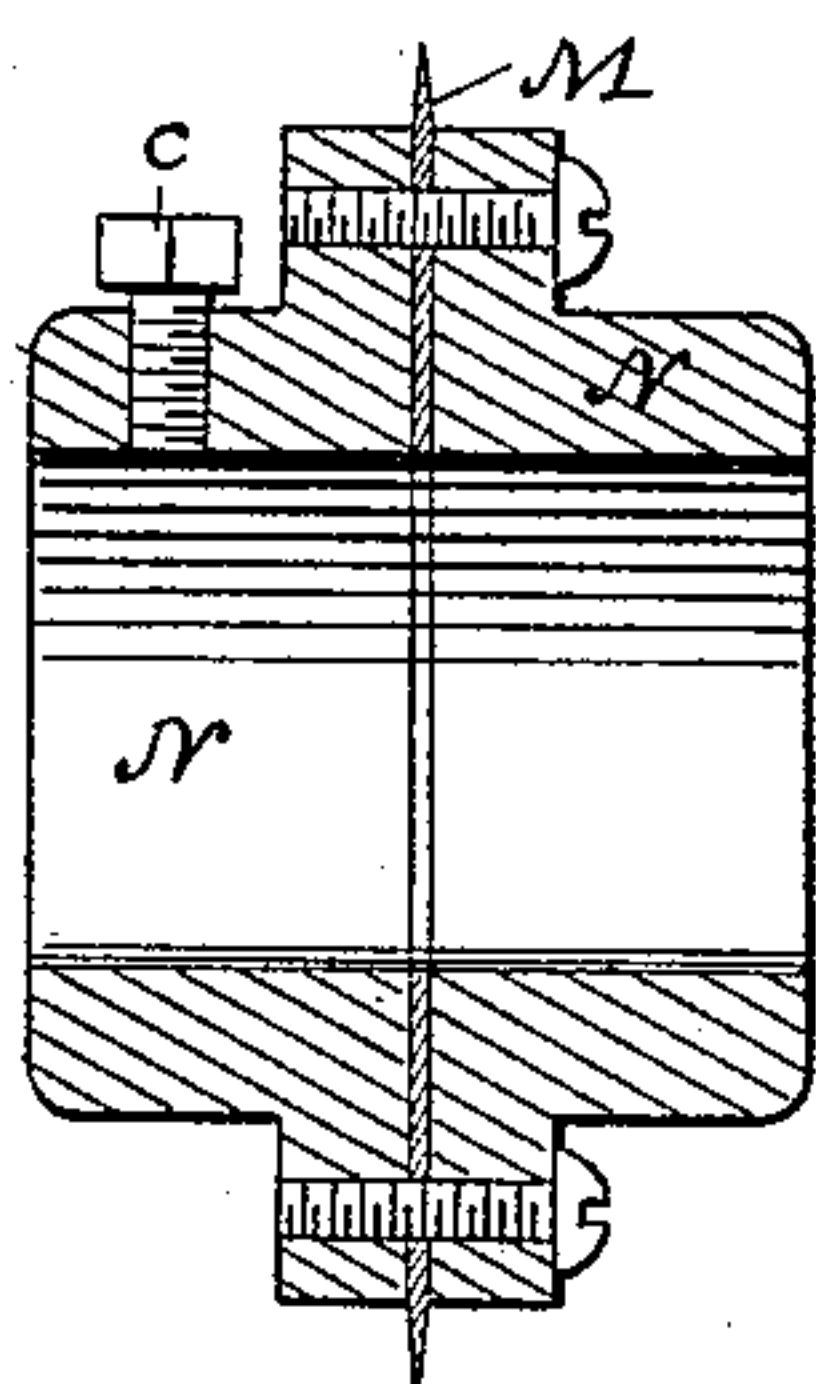
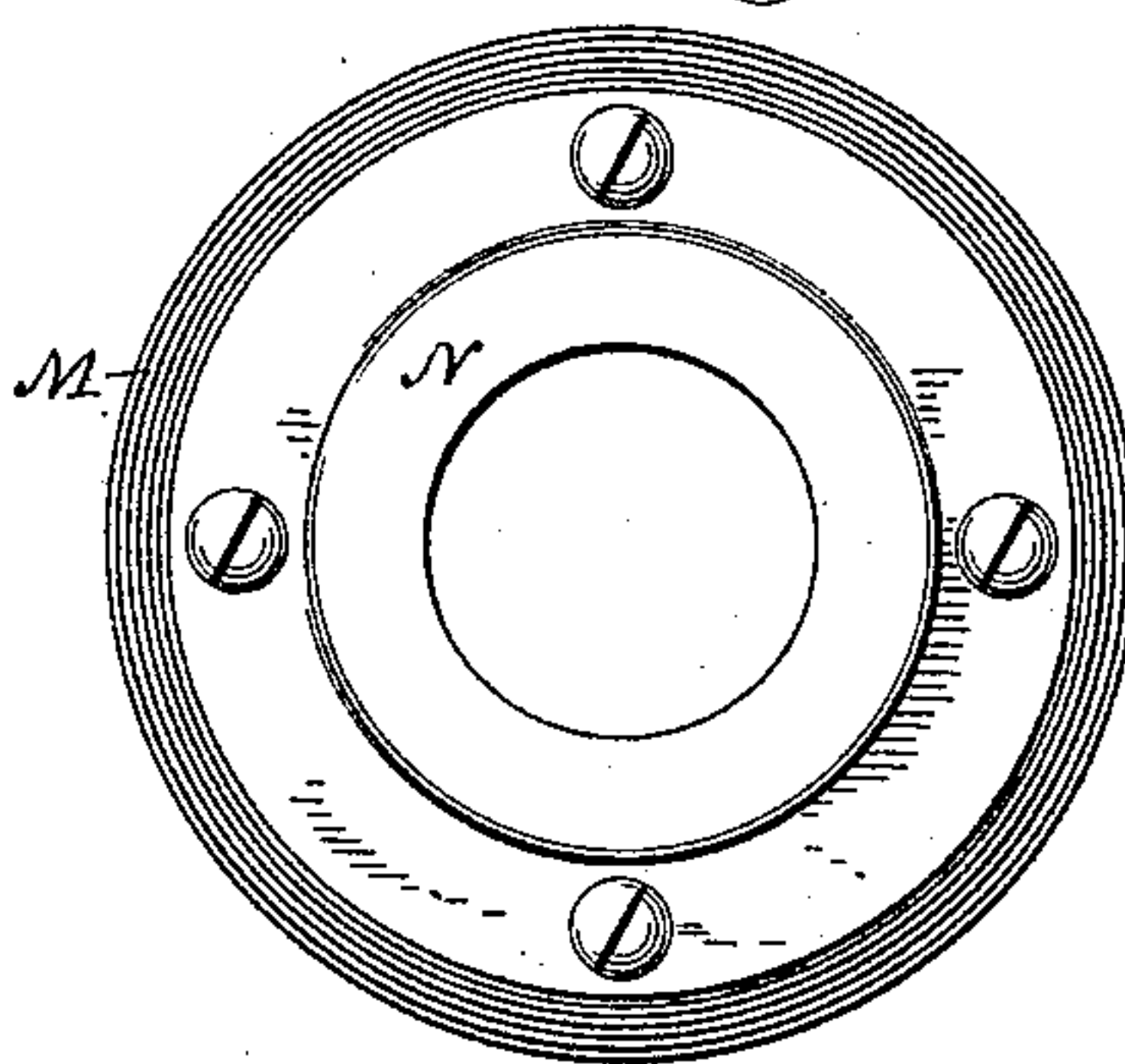


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD J. POPE AND CHARLES E. POPE, OF EAU CLAIRE, WISCONSIN.

MACHINE FOR SLITTING AND WINDING PAPER, &c.

SPECIFICATION forming part of Letters Patent No. 451,278, dated April 28, 1891.

Application filed November 25, 1889. Serial No. 331,426. (No model.)

To all whom it may concern:

Be it known that we, EDWARD J. POPE and CHARLES E. POPE, of Eau Claire, in the county of Eau Claire, and in the State of Wisconsin, have invented certain new and useful Improvements in Machines for Slitting and Winding Paper, &c.; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to machines for slitting and winding paper or other material; and it consists in certain peculiarities of construction and combination of parts, to be hereinafter described with reference to the accompanying drawings and subsequently claimed.

In the drawings, Figure 1 represents a side elevation of our machine with parts broken away; Fig. 2, a plan view, partly in horizontal section; Fig. 3, a rear elevation with parts broken away; Fig. 4, a detail sectional view of a slitter, and Fig. 5 an end view of the slitter.

Referring by letter to the drawings, A represents the standards of our machine, and arranged in bearings in these standards are the journals B of the roll C, the latter being driven by a pulley D or other suitable means connected to one of said journals. The roll C is preferably provided with a series of circumferential grooves *b*, and fast on a journal of this roll is a gear-wheel E, that meshes with a pinion F on another shaft G, the latter having its bearings in boxes H, that are dove-tailed or otherwise connected to horizontal guides I on the standards A, so as to be capable of a sliding movement to or from said roll. The boxes H are connected by arms J to a shaft K, that has its bearings in the guides I, and a lever L is also connected to this shaft, whereby the latter and its arms are actuated to impart a sliding movement to said boxes.

Adjustable on the shaft G in a longitudinal direction are the slitters that form part of our invention, and each of these slitters preferably comprises a circular blade M, beveled on both sides at the edge and held between two hubs N, one of the latter being provided with a set-screw *c* for holding the device in its adjusted position with relation to said shaft. The slitters just described are arranged on

the shaft G so as to have their blades M center in the grooves *b* in the roll C, the number and distance apart of these slitters determining the width of the various cuts.

The standards A of the machine are provided at their upper ends with inclined guides Q for sliding boxes R, that serve as bearings for a winding-roller S, the latter being driven by frictional contact of the paper thereon against the roll C, above described.

In the operation of our machine the slitters are first drawn back out of position by a movement of the lever L, and paper or other material in a continuous sheet is taken under the roll C, then between this roll and said slitters, and finally secured to the winding-roller. The slitters are now returned to position and the machine started. The frictional contact of the roll C and the material on the winding-roller causes the latter to rotate and draw said material against the revolving slitter-blades, whereby this material is cut into any desirable number of widths, said winding-roller ascending the inclined guides Q as the stock thereon increases.

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

1. In a slitting and winding machine, the combination of a roll provided with a series of circumferential grooves and having a gear-wheel fast on one of its journals, lever-controlled sliding boxes carrying a shaft provided with a pinion for engagement with said gear-wheel, slitters arranged on the shaft in opposition to grooves in the roll, and a winding-roller, substantially as set forth.

2. In a slitting and winding machine, the combination of a roll provided with a series of circumferential grooves, horizontal guides, boxes loose on the guides, a lever-controlled shaft having its bearings in said guides, arms connecting the shaft and boxes, another shaft having its bearings in said boxes and provided with a pinion opposed to a gear-wheel carried with the roll, slitters arranged on the latter shaft to have their blades oppose grooves in the roll, and a winding-roller, substantially as set forth.

3. In a slitting and winding machine, the combination of standards provided with in-

clined and horizontal guides, a roll having
stationary bearings and provided with a se-
ries of circumferential grooves, boxes ar-
ranged to slide on the horizontal guides, a le-
5 ver mechanism connected to the boxes, a
shaft journaled in said boxes, slitters arranged
on the shaft to oppose grooves in the roll,
boxes arranged to slide on the inclined guides,
and a winding-roller having its bearings in
10 the latter boxes, substantially as set forth.

In testimony that we claim the foregoing
we have hereunto set our hands, at Worcester,
in the county of Worcester and State of Mas-
sachusetts, in the presence of two witnesses.

EDWARD J. POPE.
CHARLES E. POPE.

Witnesses:

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E. HUME.