

(No Model.)

E. MORGAN.
PAPER ROLL HOLDER AND CUTTER.

No. 543,555.

Patented July 30, 1895.

Fig. 1.

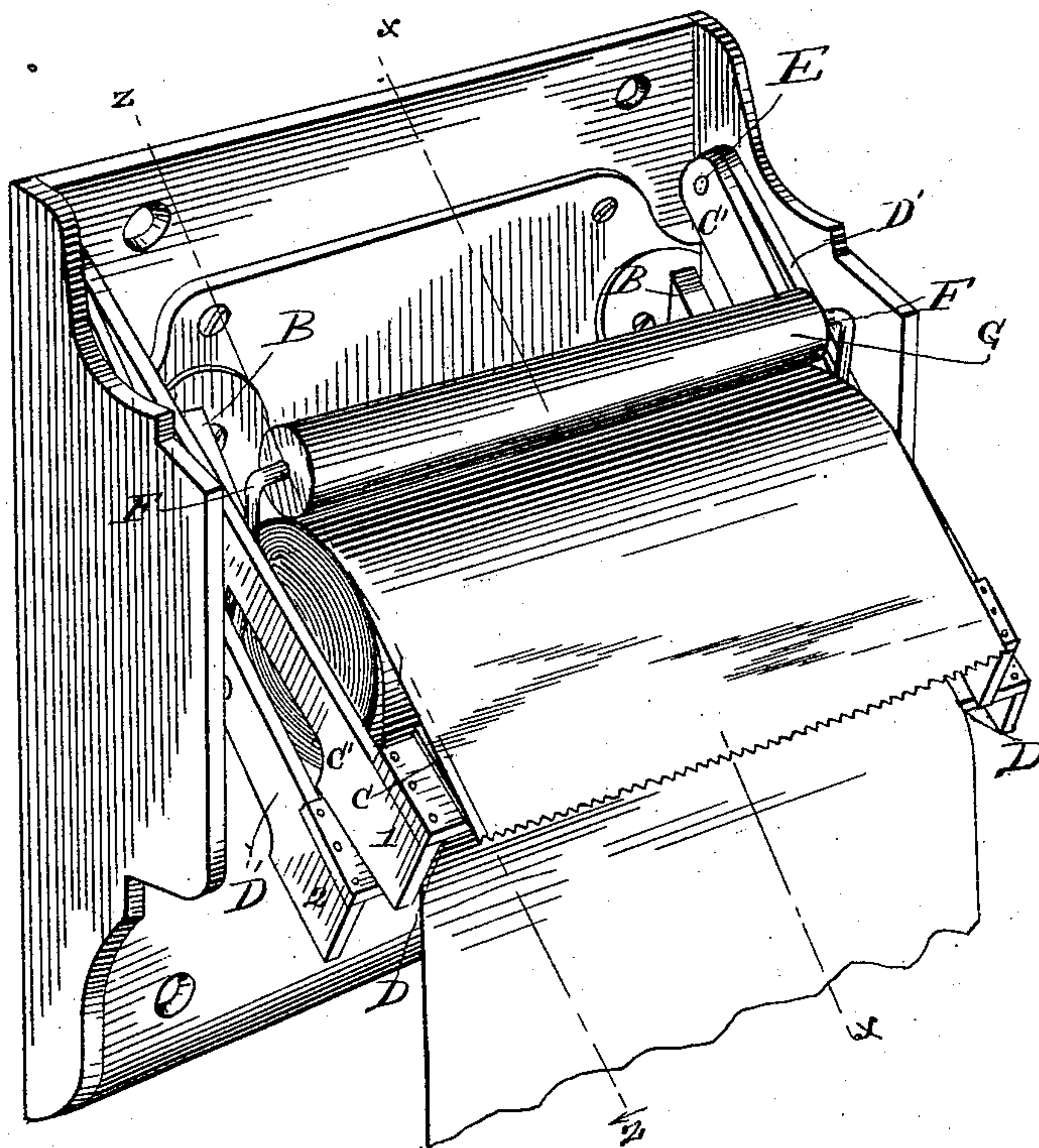


Fig. 2.

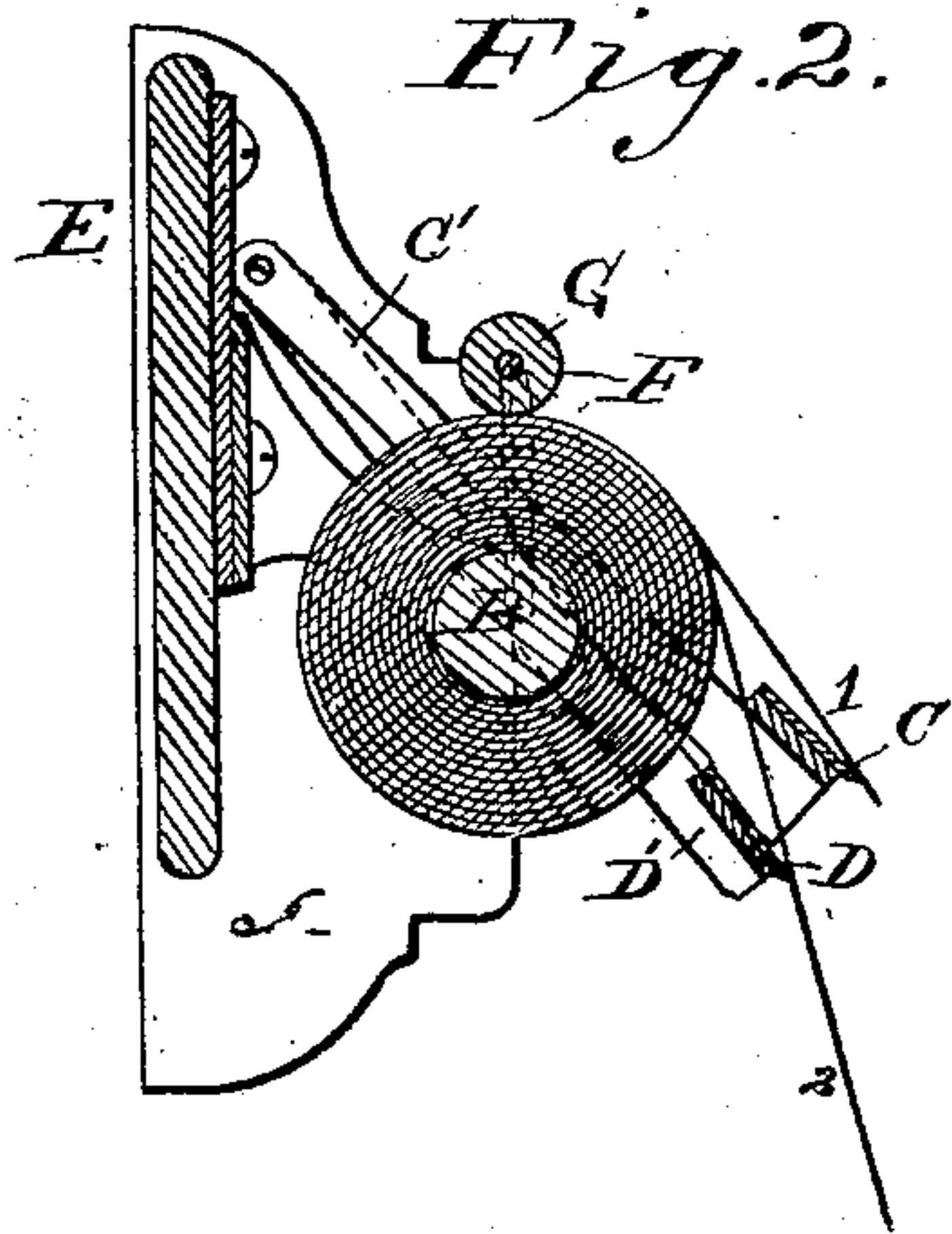


Fig. 3.

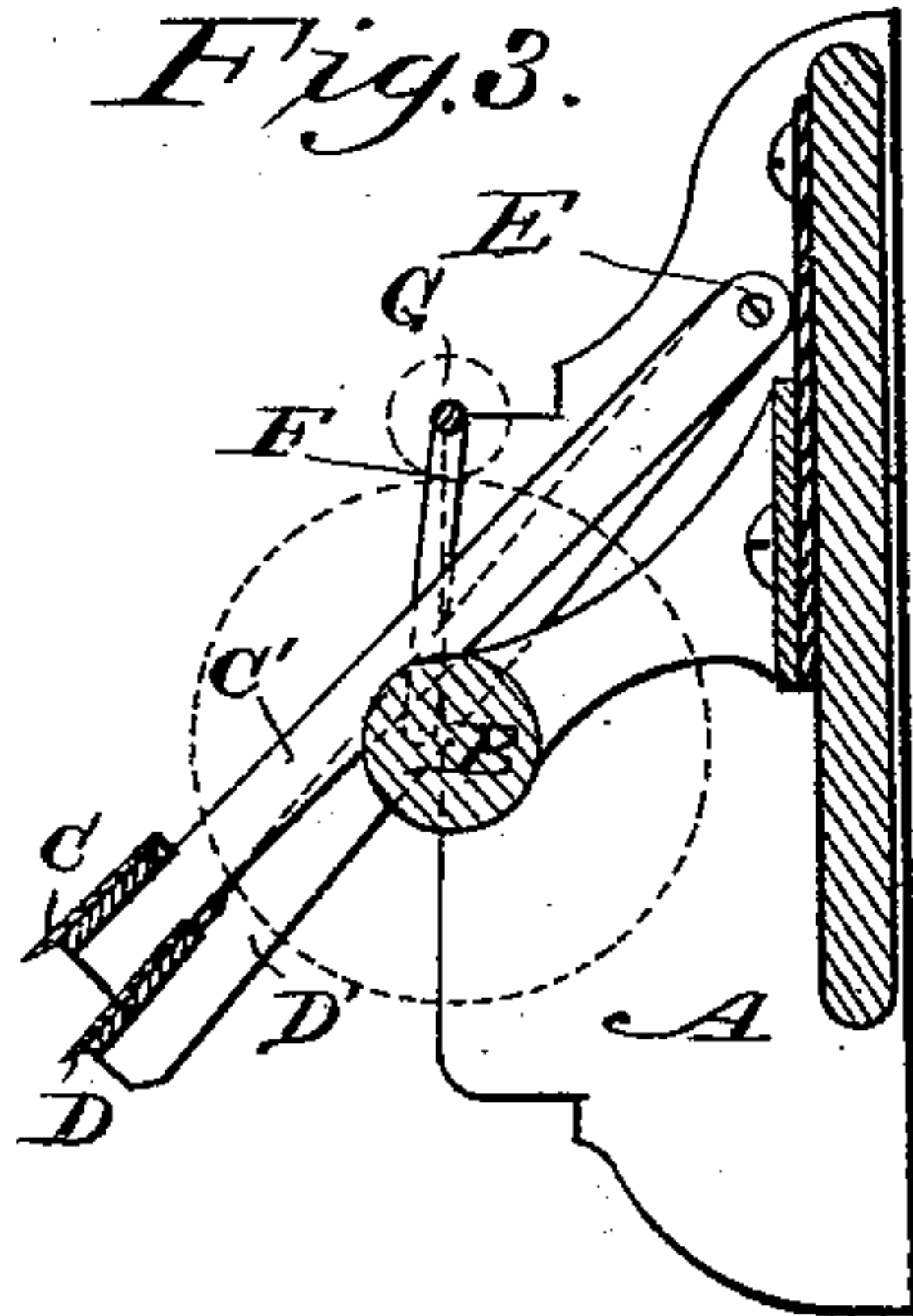
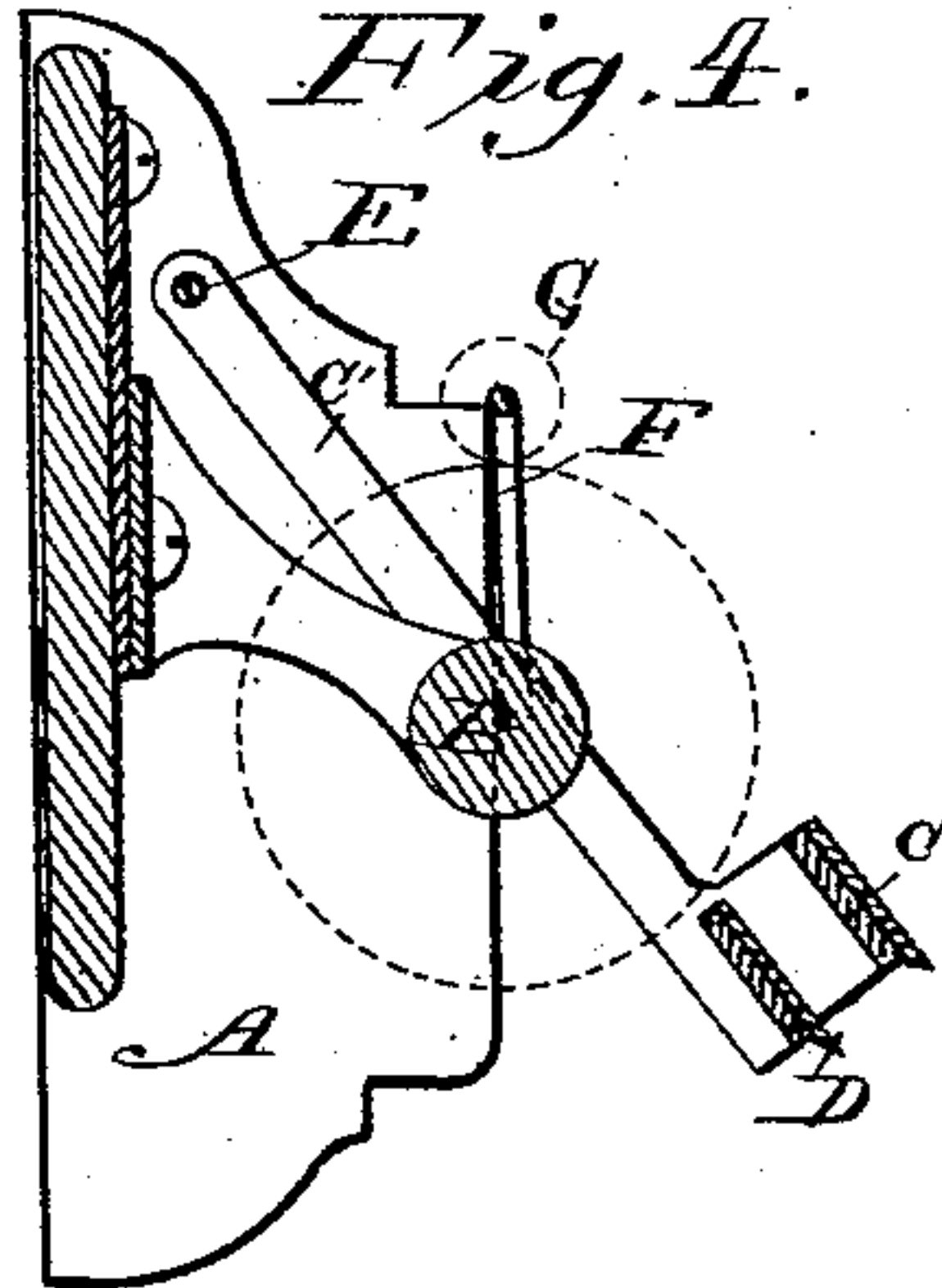


Fig. 4.



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ELISHA MORGAN, OF SPRINGFIELD, MASSACHUSETTS.

PAPER-ROLL HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 543,555, dated July 30, 1895.

Application filed July 26, 1889. Serial No. 318,738. (No model.)

To all whom it may concern:

Be it known that I, ELISHA MORGAN, of Springfield, in the county of Hampden and State of Massachusetts, have invented certain
5 new and useful Improvements in Paper-Roll Holders and Cutters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a
10 part of this specification, and to the figures and letters of reference marked thereon.

My invention has for its object to provide an improved paper-roll holder and cutter, designed for use in connection with a roll of
15 paper, composed of two superposed webs of paper wound together into roll-form, the said apparatus being so arranged with respect to said roll as that when the end of one of the webs is unwound from the roll sufficiently to
20 afford a sheet of the desired dimensions and then cut off, the other web will be automatically unwound and left projecting in position to be grasped and pulled out for supplying the paper for the next sheet, all as will be
25 hereinafter fully explained.

The method of operation involved in the unwinding and severing of sheets of paper from a roll such as I have described by the aid of my improved apparatus consists, es-
30 sentially, in simultaneously unwinding both webs, then cutting off one of the webs back of the end of the other web, then further unwinding both webs and then cutting off the second web back of the end of the first web,
35 the webs being thus alternately severed at a point between the extremes of the sheet afforded by the web next to be severed.

The apparatus which I employ includes a support for the roll that permits the rotation
40 of the latter, a knife by which the two webs can be alternately severed, or two knives, one for each web, by which the webs can be alternately severed, and, preferably, a device such as a friction-roll, for preventing the pa-
45 per becoming loose upon the roll before it is regularly unwound therefrom and for applying braking pressure during the cutting operation.

The knife or knives employed are preferably
50 mounted so as to accommodate themselves to the size of the roll and so that they may be swung out of the way when it is desired

to put a new roll into position; and to this end said knife or knives are preferably mounted on swinging arms, as hereinafter pointed out, 55 and the friction and brake-roll is also preferably connected to said arms.

Referring to the accompanying drawings, Figure 1 represents a perspective view of a holder and cutter constructed in accordance 60 with my invention and arranged for co-operation with a duplex or double web-roll, such as I have referred to. Fig. 2 is a sectional view taken on the line *xx* of Fig. 1; Fig. 3, a similar view taken on the line *zz* of the 65 same figure. Fig. 4 is a view illustrating how two knives mounted upon a single pair of swinging arms may be employed.

The letter A indicates the main frame of the apparatus, consisting of a bracket that is 70 adapted to be secured to a wall or other object, and bearing a fixture B for holding the roll of paper—such, for instance, as shown in Letters Patent No. 390,084, dated September 25, 1888—said fixture allowing the roll to be 75 rotated when the end of either of the webs 1 2, of which it is composed, is pulled upon, but applying sufficient friction to the roll to prevent it from freely rotating or racing when the paper is drawn upon. 80

C and D are knives provided preferably with serrated edges and adapted respectively to sever the webs 1 2 when the latter are drawn down against them. The knife C is mounted upon arms C' and the knife D in 85 like manner is mounted upon arms D', said arms being pivoted or hinged to the main bracket A, preferably by common pivots E. To the arms D', which support the lower knife, is preferably connected a bail or yoke F 90 which carries a friction-roller G that rests upon the top of the paper-roll and tends to prevent the loosening of the outer convolutions thereof, and also serves as a brake to prevent the rotation of the roll when either 95 web is drawn down upon its co-operating knife in the act of severing a sheet of paper.

It will be observed that web 1 passes over knife C, while web 2 passes over knife D, and that when either web is pulled both webs 100 will be unwound from the roll, and that when one web is severed to afford a sheet of the desired size the other web will be projected in position to be grasped and drawn out so as

to afford another sheet of corresponding dimensions.

Inasmuch as the upper arms carrying the knife C rest upon the lower arms carrying the knife D, and as the friction or brake roll G is connected to the lower arms it is evident that downward pressure upon either knife, due to the drawing downward of the paper over its edge, will cause the application of braking-pressure to the paper-roll and arrest further motion of the latter.

It is apparent that instead of having the knives mounted upon separate arms they might both be mounted upon the same arm, as shown in Fig. 4.

I claim as my invention—

1. The combination with the paper roll composed of two superposed webs of paper wound together in roll form and a fixture in which said roll is mounted, of arms mounted on the bracket and two knives mounted on said arms in proximity to the roll, one for each sheet and bearing a fixed relation there-

to during the unwinding and severing of each sheet; substantially as described.

2. The combination with the paper roll composed of two superposed webs of paper wound together in roll form and a fixture in which said roll is mounted, of arms pivotally connected to the bracket and two knives mounted on said arms in proximity to the roll, one for each web; substantially as described.

3. The combination with the paper roll composed of two superposed webs of paper wound together into roll form and a fixture in which said roll is mounted, of the swinging arms connected to said fixture, the knives on the arms in proximity to the roll and the friction brake connected and swinging with the knives; substantially as described.

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Witnesses:

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