

(No Model.)

C. K. PICKLES.
ROLL PAPER HOLDER AND CUTTER.

No. 446,366.

Patented Feb. 10, 1891.

Fig. I

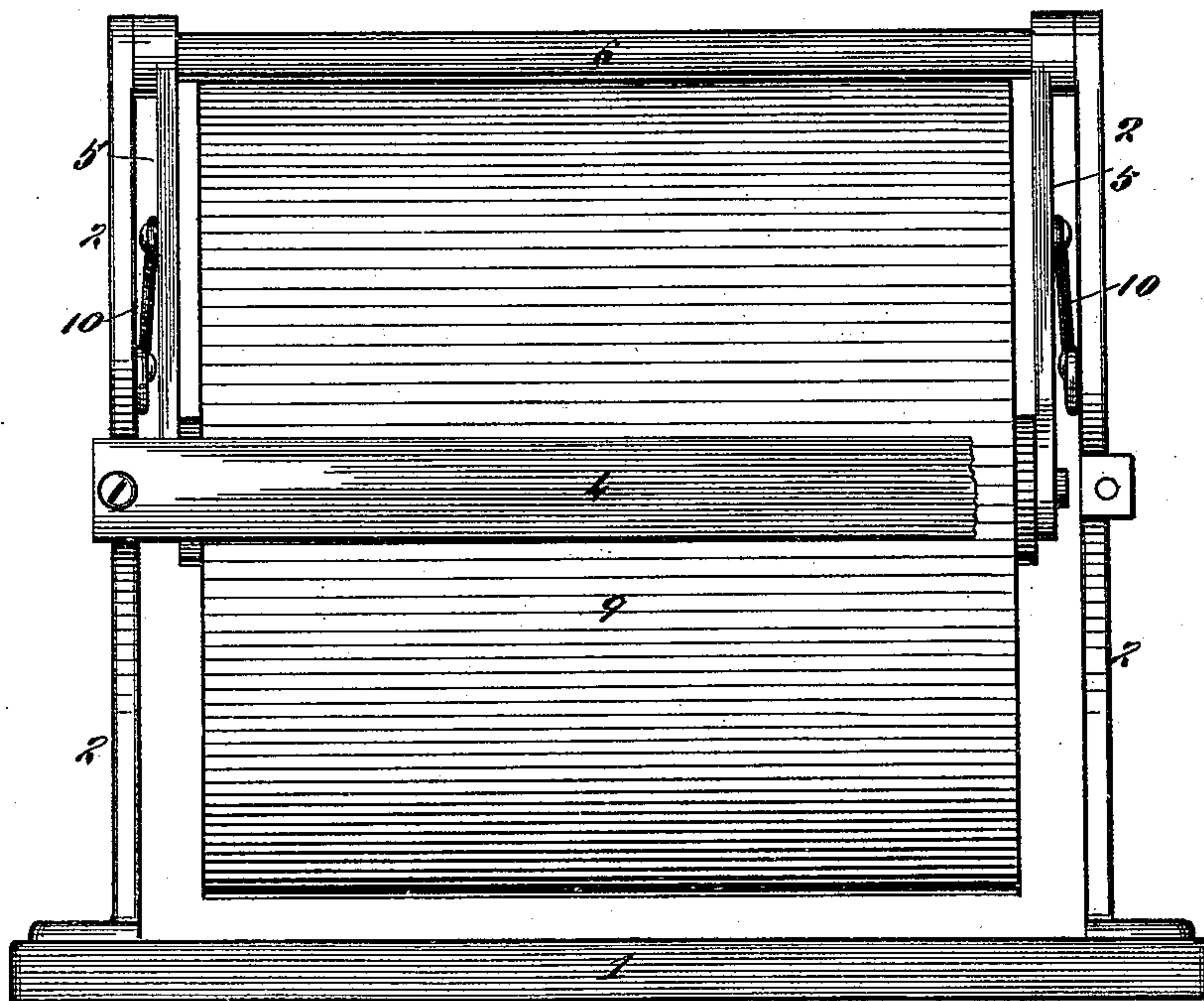
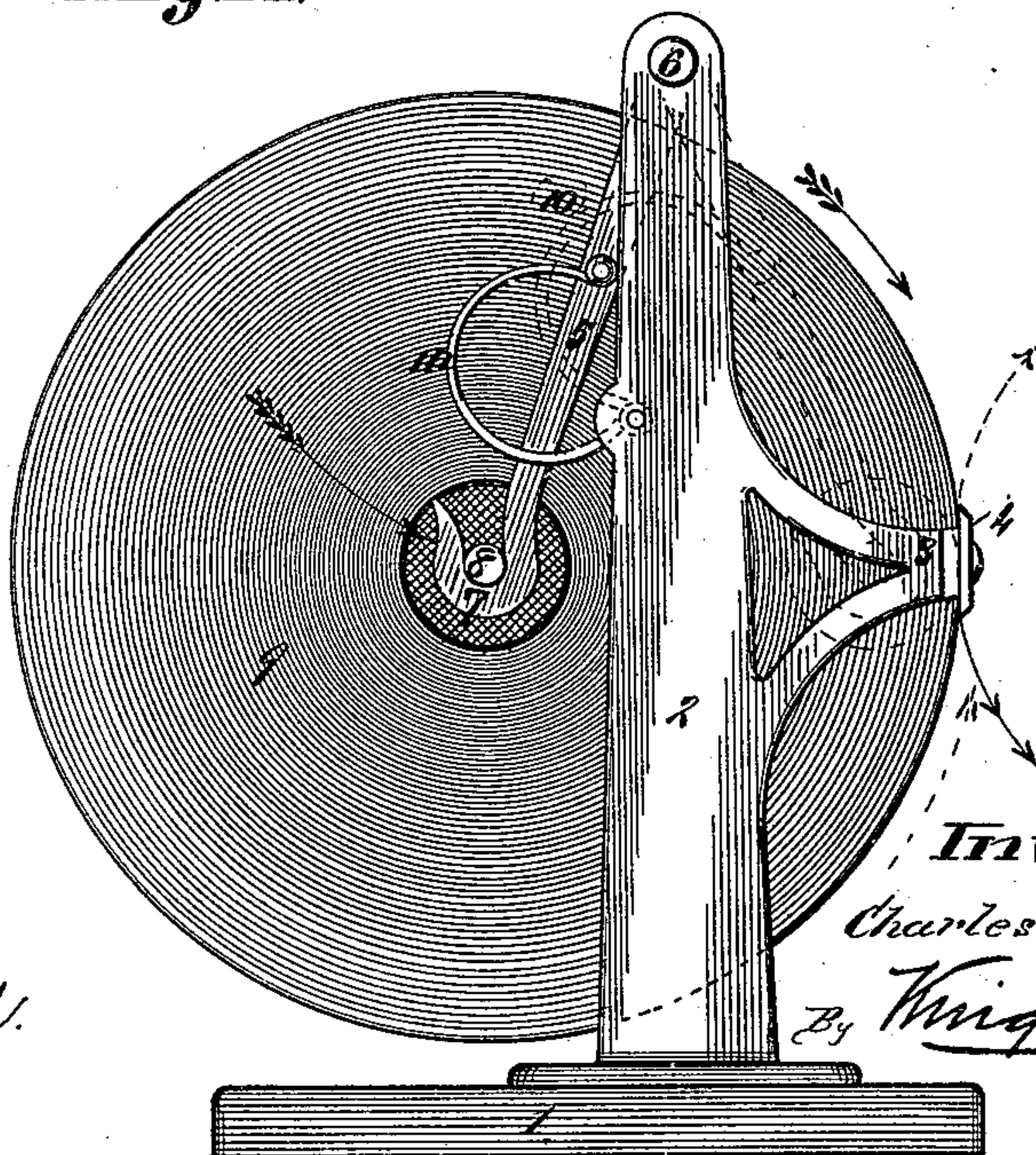


Fig. II



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UNITED STATES PATENT OFFICE.

CHARLES K. PICKLES, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE
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ROLL-PAPER HOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 446,366, dated February 10, 1891.

Application filed June 7, 1890. Serial No. 354,630. (No model.)

To all whom it may concern:

Be it known that I, CHARLES K. PICKLES, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Roll-Paper Holders and Cutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to certain improvements in roll-paper holders and cutters; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is an elevation of my improved machine. Fig. II is an end view.

Referring to the drawings, 1 represents a suitable base to which standards 2 are secured. The standards are provided with extensions 3, to which a knife 4 is secured, as shown in Fig. II.

5 represents links pivoted at 6 to the upper ends of the standards 2, and provided with sockets 7 at their lower ends to receive the journals 8 of the spindle upon which the roll 9 of paper is wound.

10 represents springs secured to the standards 2 at one end, and to the links 5 at the other end. There is a link 5 at each end of the machine, and there is also, preferably, a spring 10 at each end of the machine, as shown in Fig. I.

It will be seen that the pivot-points 6 are vertically between the point of bearing of the roll of paper on the arms 5 and the knife 4, so that the tendency of the roll of paper, when the latter is large, is to move or swing by gravity toward the knife. As the roll decreases in size the point of bearing of the roll upon the lower ends of the links passes the vertical line of the pivot 6, and as the roll continues to decrease in size this point of bearing of the roll of paper on the links is between the vertical line of the pivot 6 and the knife 4.

It is desirable to always have a substantially uniform pressure between the roll of paper and the knife, and this I obtain by the use of the springs 10.

When the roll of paper is large and moves

by gravity with considerable force against the knife, or has a tendency to so move with considerable pressure against the knife, the action of the spring is exerted toward keeping the roll away from the knife, thus counteracting to a certain extent, the gravity of the roll. As the roll decreases in size and its point of bearing with the links moves toward a vertical line from the pivot 6 the pressure of the spring is removed from the lateral or horizontal pressure on the links and its pressure is directed toward the pivot 6, thus not being exerted on the roll to hold it from the knife at and about the time the point of bearing of the roll upon the links is in a vertical line with the pivot 6. Then as the roll continues to decrease in size the action of the spring again exerts its power in a horizontal or lateral direction upon the links, thus lifting the roll toward the knife, the springs being thus double acting, having a tendency when the roll is full to keep the roll from the knife, and thus counteract the gravity of the knife, gradually losing this pressure as the point of bearing of the roll on the lower ends of the links approaches a vertical line with the pivots of the links, and then regaining their action and lifting the roll toward the knife when the links have swung to the other side of the vertical line of their pivot. With this arrangement I maintain a uniform or a substantially uniform pressure between the roll and the knife, regardless of the size of the former.

I claim as my invention—

1. In a roll-paper holder and cutter, the combination of suitable standards, a knife secured to the standards, a roll of paper, links pivoted to the standards and supporting the roll of paper, and double-acting springs, arranged and operating substantially as and for the purpose set forth.

2. In a roll-paper holder and cutter, the combination of suitable standards, a knife secured to the standards, links pivoted to the standards and supporting the roll of paper, and springs having a tendency to hold the roll of paper from the knife against its gravity, substantially as and for the purpose set forth.

3. In a roll-paper holder and cutter, the
combination of suitable standards, a knife se-
cured to the standards, links pivoted to the
standards and supporting the roll of paper,
5 and springs secured to the standards and to
the links and which act against the gravity of
the roll of paper when it is full, and which

also act to lift the roll of paper against its
gravity as it becomes reduced, substantially
as and for the purpose set forth.

CHARLES K. PICKLES.

In presence of—

THOMAS KNIGHT,
E. S. KNIGHT.