W. C. FULLER.

PAPER CUTTER.

APPLICATION FILED AUG. 17, 1905.

947,100. Patented Jan. 18, 1910.

Fig. 1.

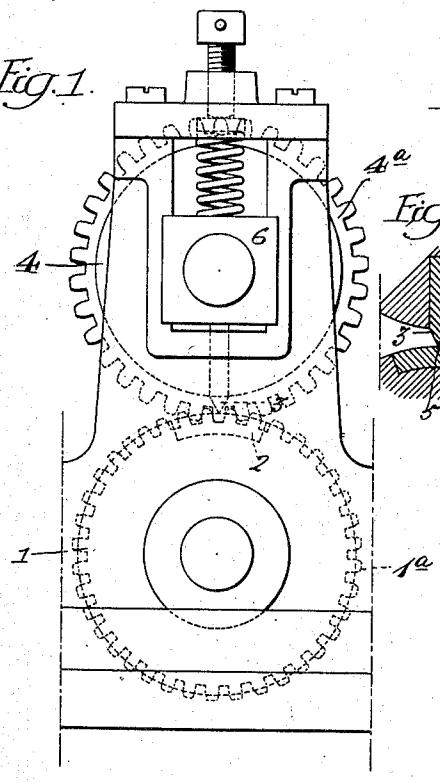


Fig. 2.

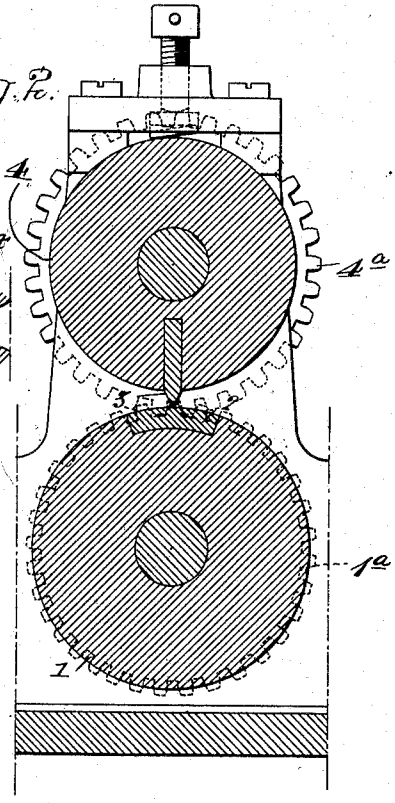


Fig. 5.

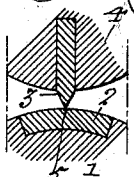


Fig. 4.

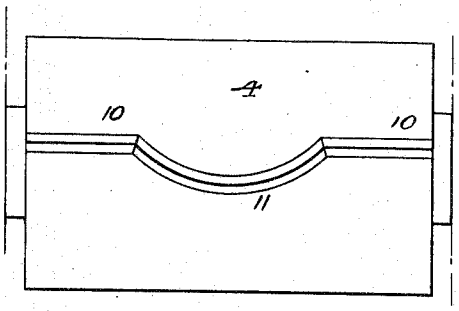
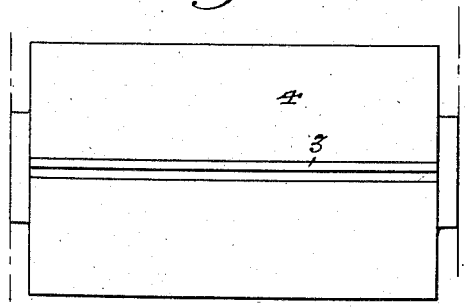


Fig. 3.



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by his Attorneys.
Howson & Howson

UNITED STATES PATENT OFFICE.

WILLIAM C. FULLER, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNION PAPER BAG MACHINE COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

PAPER-CUTTER.

947,100. Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed August 17, 1905. Serial No. 274,607.

To all whom it may concern:

Be it known that I, WILLIAM C. FULLER, a citizen of the United States, and a resident of New York city, New York, have invented certain Improvements in Paper-Cutters, of which the following is a specification.

My invention relates to paper cutters, more particularly those employed in connection with paper bag machines for the purpose of severing the strip of bellows-folded paper into sections to form bag blanks, which blanks are afterward acted upon by suitable mechanism to form the bottom and complete the bags.

My present form of cutter has been embodied in the mechanism of a paper bag machine which forms the subject matter of another application for patent.

My invention is fully shown in the accompanying drawing, in which:

Figure 1, is an end elevation of the cutter forming the subject of my invention, showing also the mounting for the same; Fig. 2, is a sectional end elevation; Fig. 3, is an inverted plan view of the knife carrying member; Fig. 4, is a similar view, illustrating a modified form of knife, and Fig. 5, is a sectional view of a detail of my invention.

In the drawing, 1 represents the lower member, comprising a rotating roll carrying an anvil or cutting surface 2, with which a knife 3 capable of making a straight or shear cut and carried by the upper member 4, also a rotating roll, is adapted to coact and cut anything passed between the same. The moment of engagement is so slight that the paper may be severed immediately and without danger of dulling to any appreciable extent the cutting edge of the knife blade. The spindles carrying the knife rolls are provided with gear wheels 1^a and 4^a, respectively, said wheels meshing so that the rolls may be driven in unison by power applied to either one. In some instances the anvil may be recessed as shown in Fig. 5, in the form of a shallow groove 5 extending throughout its entire length in line with the knife edge. The roll or member 4 carrying the cutting blade is mounted in spring boxes 6 so that such blade can give under any excess of pressure due to the thickness of the material passing between the same.

The anvil is preferably of machinery or hard steel to insure the positive action of the cutting blade and I have found in practice in using this material that it causes no appreciable dulling of such blade. In some instances I may combine with this blade 3, other blades set at right angles thereto for the purpose, when it is employed in paper bag machines, of simultaneously slitting one end of the bag blanks to form tongues which are afterward folded and pasted down against the bottom of the bags.

In Fig. 4, I have shown a blade having two straight portions 10, and a curved portion 11 between the same, such blade being designed to cut a special form of bag blank. If desired, blades of any other design may be used, it being only necessary that their cutting edge shall follow the arc of a circle struck from the center of rotation of their carrier. The anvil may be arranged to coact with such blade in whatever form the latter may be, and in all instances the anvil may be removed when worn and a new one replaced.

Having thus described my invention, I claim and desire to secure by Letters Patent:

In a structure of the character described, the combination of a rotatable member carrying a knife blade disposed substantially in a longitudinal direction, a second rotatable member dispcsed below and in the same vertical plane as the first, an anvil of hard metal carried by said second member and disposed for coaction with the knife blade when said members are rotated, the knife blade directly engaging said anvil, spindles for the said members suitably journaled, meshing gear wheels carried by said spindles whereby said members may be rotated in unison to maintain proper coöperative relation of the knife and anvil, and means for maintaining the member carrying the knife blade under tension so as to insure the engagement of said knife blade with the anvil.

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

WILLIAM C. FULLER

Witnesses:
MURRAY C. BOYER,
JOS. H. KLEIN.