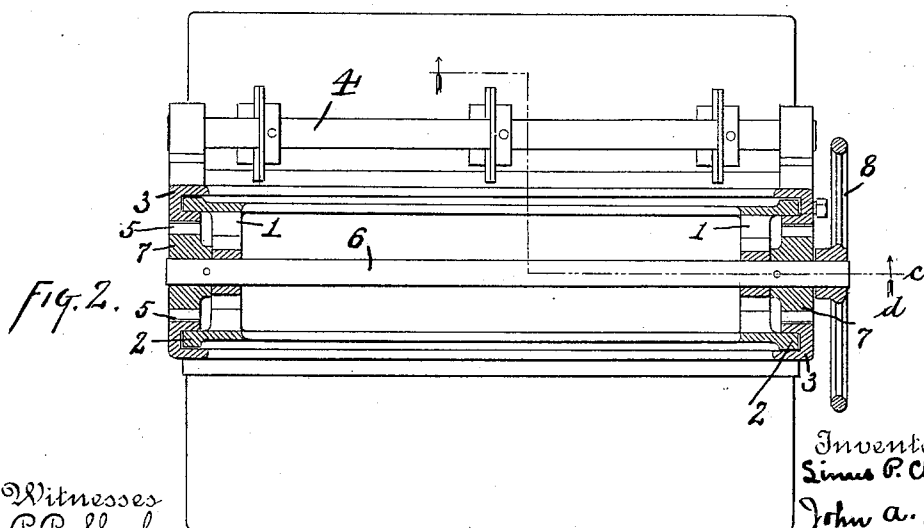
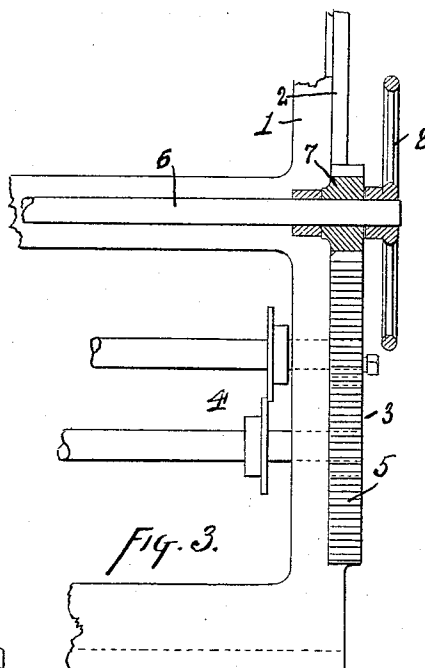
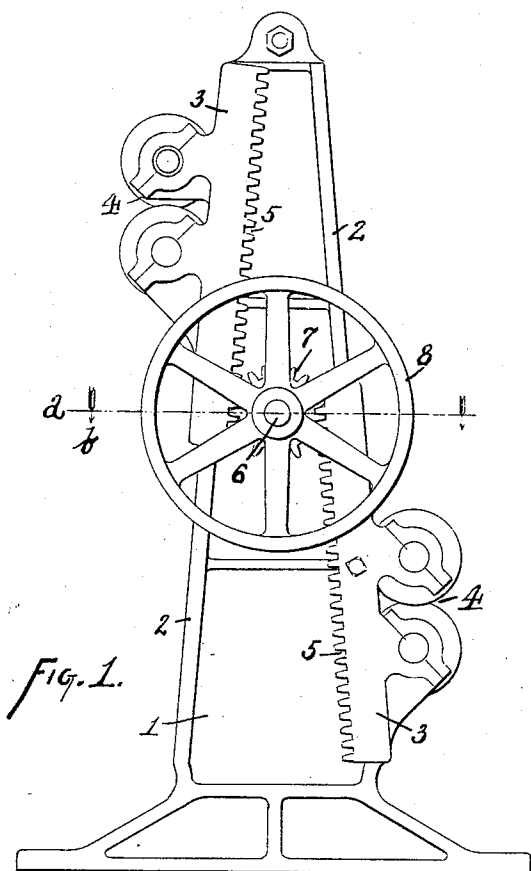


(No Model.)

L. P. CLAWSON & J. A. KELLER.
PAPER SLITTING MACHINE.

No. 479,349.

Patented July 19, 1892.



Witnesses
P. P. Sherman
W. S. Baldwin

By their Attorney

Inventors
Linn P. Clawson
John A. Keller
James M. See

UNITED STATES PATENT OFFICE.

LINUS P. CLAWSON AND JOHN A. KELLER, OF HAMILTON, OHIO, ASSIGNORS
TO THE BLACK & CLAWSON COMPANY, OF SAME PLACE.

PAPER-SLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 479,349, dated July 19, 1892.

Application filed April 13, 1892. Serial No. 428,948. (No model.)

To all whom it may concern:

Be it known that we, LINUS P. CLAWSON and JOHN A. KELLER, of Hamilton, Butler county, Ohio, have invented certain new and useful Improvements in Paper-Slitting Machines, of which the following is a specification.

This invention pertains to improvements in that class of machines employed in slitting wide webs of paper into several narrower webs; and it relates to improvements in that particular type of slitting-machines known as "duplex slitters," in which there are two sets of slitters so arranged that while one set is in operative position and operating the other set is in convenient position to have its slitters adjusted for new widths of slitting, thus permitting rapid changes to be made in the slitting widths.

Our improvements will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation of a duplex slitting-machine exemplifying our present invention; Fig. 2, a sectional plan of the same, the section being in the plane of line *a*, viewed in the direction of arrow *b*; and Fig. 3, a vertical section of a portion of the same in the plane of line *c*, viewed in the direction of arrow *a*.

In the drawings, 1 indicates the fixed frame of the machine, consisting of two uprights at a distance apart corresponding with the length of the machine or the maximum width of paper to be dealt with; 2, carriage-guides formed on the edges of these uprights, the frame thus presenting a pair of carriage-guides at the front and a similar pair at the rear; 3, a pair of slitter-carriages, one arranged upon the carriage-guide at the front of the frame and the other arranged upon the guides at the rear, the carriages being capable of sliding up and down on the guides, so that the slitters carried by the carriages may occupy a high-up operative position or a low idle position; 4, a set of slitters mounted in each carriage, these slitters being of the usual construction and consisting, essentially, of a pair of horizontal shafts, each carrying slitting-disks adjustable along the shafts; 5, toothed racks formed upon the slitter-car-

riages at each side of the machine, the racks facing each other and having such length with reference to the position of the slitter-shafts that when one set of slitters is in the extreme upper position on the frame and the other set of slitters in the extreme lower position the contiguous ends of the racks will overlap each other vertically; 6, a shaft journaled in the uprights of the frame and extending across the frame and disposed centrally between the racks of the two carriages and vertically midway between the two sets of slitters; 7, a pair of pinions fast on this shaft, one at each end of the shaft, in position to engage the pair of racks at that side of the machine, and 8 a hand-wheel on this shaft.

When the parts are in the position shown in Fig. 1, the upper pair of slitters is in position for operating upon the web of paper in the usual manner, and while this set of slitters is so operating the slitter-disks of the lower set may be adjusted, as desired, for new width of slitting, and when it is desired to bring the second set of slitters into action it is only necessary to turn the hand-wheel in the proper direction, whereupon the slitters at the right will rise to the operating level and the slitters at the left will be drawn down to the idle position. This change may be quickly made, thus interrupting the run of the paper for a brief time only, and after the change has been made any desired adjustments may be made upon the slitters which have been moved down to the idle position.

We claim as our invention—

In a slitting-machine, the combination, substantially as set forth, of a pair of uprights provided with front and rear carriage-guides, slitter-carriages arranged for up-and-down motion on said guides and provided with inwardly-facing racks at each upright, a set of slitters mounted in each carriage, a shaft disposed across the machine between the planes of movement of the two carriages, and pinions on said shaft at each side of the frame in position to engage each with a pair of said racks.

LINUS P. CLAWSON.
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Witnesses:

JAS. FITTON,
J. W. SEE.