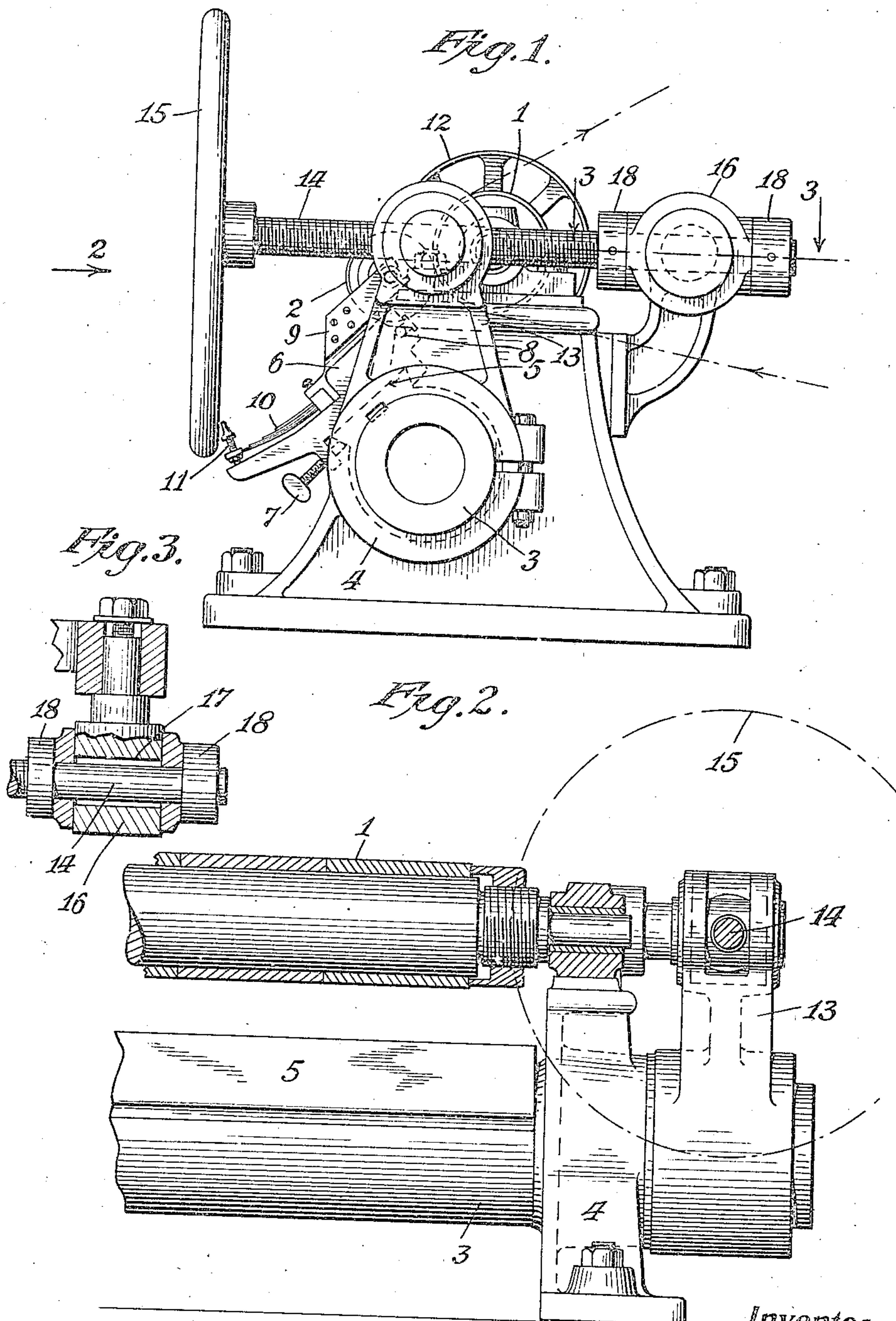


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J. A. CAMERON ET AL.
SLITTING MEANS.
ORIGINAL FILED OCT. 1, 1918.

1,440,908



Inventor
James A. Cameron
Gustaf B. Birch
By *W. T. Peeter* Att.

UNITED STATES PATENT OFFICE.

JAMES A. CAMERON AND GUSTAF BIRGER BIRCH, OF BROOKLYN, NEW YORK,
 ASSIGNOR TO CAMERON MACHINE COMPANY, OF BROOKLYN, NEW YORK,
 A CORPORATION OF NEW YORK.

SLITTING MEANS.

Application filed October 1, 1918, Serial No. 256,447. Renewed May 31, 1921. Serial No. 473,777.

To all whom it may concern:

Be it known that we, JAMES A. CAMERON and GUSTAF B. BIRCH, citizens of the United States, and residents of the borough of Brooklyn, in the city of New York and State of New York, have invented certain new and useful Improvements in Slitting Means, of which the following is a specification.

The present invention relates generally to slitting means and has for its main object a structure whereby adjustment for the purpose of engaging and disengaging the slitting members may be readily and quickly effected.

One feature of the invention resides in a structure where one of the slitting members is mounted on a rocking support, said support having a crank arm internally threaded at right angles to the axis of the support, together with a threaded member in engagement with the threaded portion of the crank arm, there being a bearing that tiltably supports the threaded member and with which the latter has idle rotatable engagement so that the crank arm and threaded member are rocked when the latter is rotated.

Other features of construction will appear as the specification proceeds.

In the accompanying drawings the invention is disclosed in a concrete and preferred form in which:

Figure 1 is an end elevation of slitting means embodying the invention in one form.

Figure 2 is a view looking in the direction of the arrow 2 of Fig. 1, with parts omitted and in section.

Figure 3 is a sectional plan view on the line 3—3 of Fig. 1.

In Figs. 1, 2 and 3, the invention is illustrated in connection with score cutters 1 and 2 of the character shown in Patent No. 1,076,189. 3 is a rocking support suitably mounted in bushings such as 4, and the cutter 2 is carried by it in the following manner. Rocking support 3 is formed with a dovetail surface 5 on which is slidably mounted one or more cutter carriers 6 secured in position by set screw 7. Pivotaly mounted at 8 on said carrier is the cutter holder 9 in turn carrying rotatable cutter 2. A spring 10 is interposed between the end of the cutter holder 9 and abutment 11 of carrier 6, said spring normally urging cutter 2 toward

cutter 1, and it will be understood that when rocking support 3 is turned to the right in Fig. 1, after members 1 and 2 are in engagement, cutter holder 9 will swing on pivot 8 and the tension of spring 10 will be increased. In this form of the invention only one of the slitting members, viz: cutter roll 1, is driven, motion being imparted by any suitable means as by pulley 12.

The means for imparting a rocking motion to rocking support 3 are here constructed as follows: 13 is a crank arm, carried by said rocking support, said arm being, at its outer end, internally threaded at right angles to the axis of said rocking support. Extending through the internally threaded portion of the crank arm is an externally threaded member 14 rotatable by means of handle 15 and having its end tiltably supported by bearing 16. In this instance the particular means used to tiltably support the end of member 14 take the following form. The diameter of bore 17 of bearing 16 is somewhat larger than the diameter of stem 14, and said stem extends through said bore and rotates idly therein, stop collars 18 being secured to said stem as shown to prevent lengthwise displacement thereof. It will be understood that, when stem 14 is rotated, bearing 16 will prevent lengthwise displacement thereof while allowing idle rotation and tilting, and that therefore crank arm 13 will be moved carrying with it rocking support 3. The rocking movement is so slight that the slightly increased diameter of bore 17 is sufficient to permit requisite tilting of stem 14.

We claim:

1. Slitting means comprising: opposed slitting members consisting of a drum and a score cutter, a rocking support means for rocking said support and for increasing the tension of one slitting member against the other after they are in engagement including a holder for one of said slitting members pivotally mounted on the rocking support, a spring acting between the rocking support and the holder to urge one slitting member against the other, a crank arm carried by the rocking support internally threaded at right angles to the axis of the latter, a threaded member in engagement with the threaded portion of the crank arm, and a bearing tiltably supporting the threaded member

and with which the latter has idle rotatable engagement to thereby admit of rocking the crank arm and threaded member when the latter is rotated.

- 5 2. Slitting means comprising: opposed slitting members consisting of a drum and a score cutter, a rocking support means for rocking said support and for increasing the tension of one slitting member against the
10 other after they are in engagement including a holder for one of said slitting members pivotally mounted on the rocking support, a spring acting between the rocking support and the holder to urge one slitting member
15 against the other, a crank arm carried by the rocking support internally threaded at right

angles to the axis of the latter, a threaded member in engagement with the threaded portion of the crank arm, a bearing tiltably supporting the threaded member and with 20 which the latter has idle rotatable engagement to thereby admit of rocking the crank arm and threaded member when the latter is rotated, and means for slidably adjusting one of said slitting members on the rocking 25 support in a direction parallel to the axis of the latter.

Signed at the borough of Brooklyn, in the county of Kings, city and State of New York, this 27 day of Sept., 1918.

JAMES A. CAMERON.

GUSTAF BIRGER BIRCH.