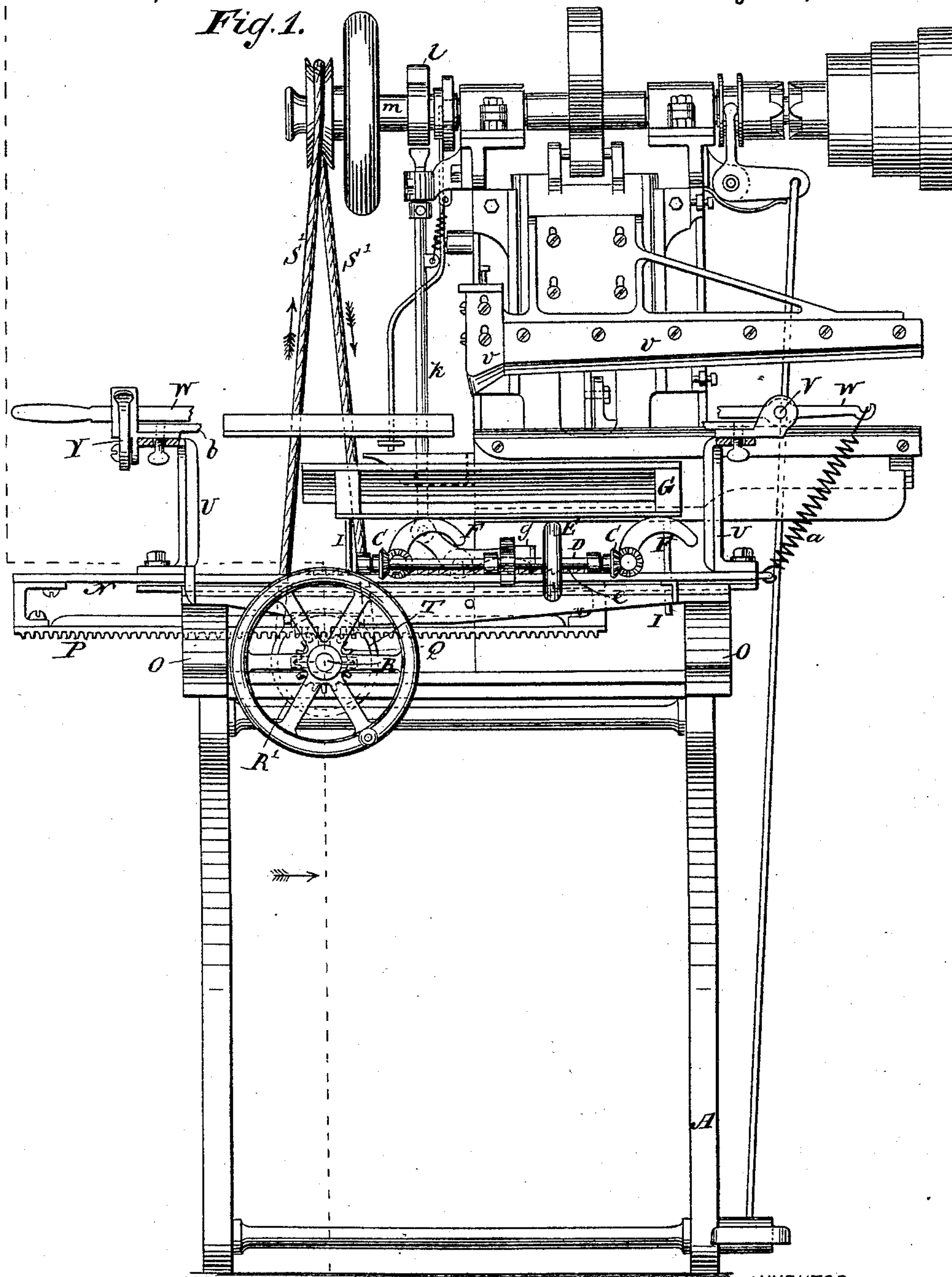


2 Sheets.—Sheet 1.

Patented May 26, 1891.

x No. 453,103.

Fig. 1.



WITNESSES:

INVENTOR:

Edward Wolff.
William Miller.

William Braidwood.
BY *Van Santvoord & Hauff*
ATTORNEYS

(No Model.)

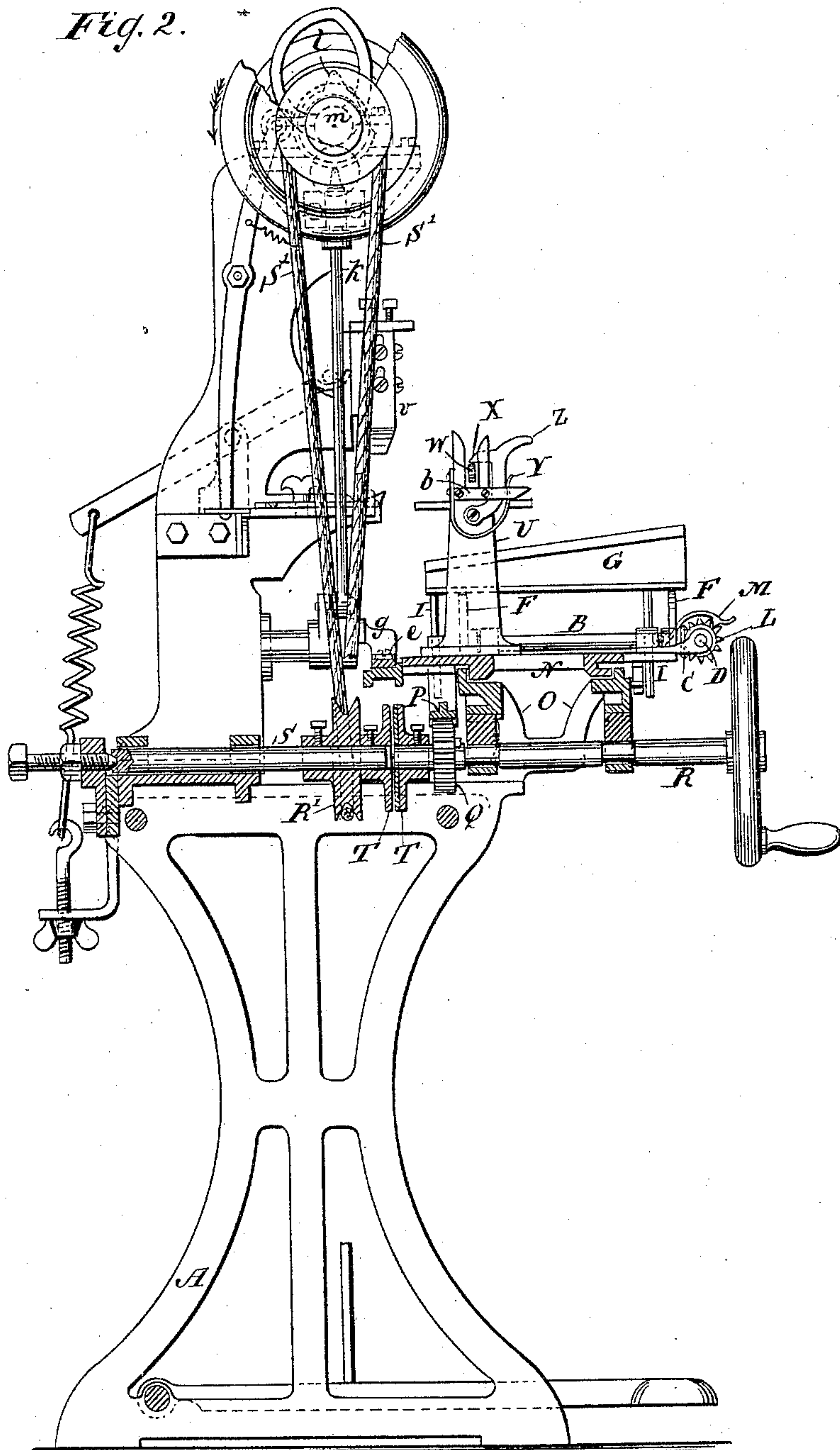
2 Sheets—Sheet 2.

W. BRAIDWOOD.
INDEX CUTTER.

No. 453,103.

Patented May 26, 1891.

Fig. 2.



WITNESSES:

Edward Wolff.
William Miller

INVENTOR:

William Braidwood.

BY

Van Vantvoord & Hauff

ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM BRAIDWOOD, OF MOUNT VERNON, NEW YORK.

INDEX-CUTTER.

SPECIFICATION forming part of Letters Patent No. 453,103, dated May 26, 1891.

Application filed August 28, 1890. Serial No. 363,247. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BRAIDWOOD, a citizen of the United States, residing at Mount Vernon, in the county of Westchester and State of New York, have invented new and useful Improvements in Index-Cutters, of which the following is a specification.

This invention relates to improvements in the index-cutter patented in United States Letters Patent No. 417,536, granted to me December 17, 1889, and by means of these improvements the operation of the device is made easier and smoother, as set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is a front elevation of an index-cutter containing my invention. Fig. 2 is a section along x , Fig. 1.

In the drawings the letter A indicates a frame or support. The shafts B B are connected by bevel-gears C with shaft D, rotated by the hand-wheel E, and said shafts B carry arms or cams F, on which rests a table G for supporting the book or pamphlet to be operated on. The actuations of the cams F raise or lower the table G, which is guided by the arms I. The detent M, engaging the toothed wheel L, locks the table at the proper height. These parts need not be described in detail, since they correspond to like parts shown in said Patent No. 417,536 as does also the carriage N, traveling along ways O and having a feed-rack P engaged by a gear-wheel Q on shaft R. The standards U, rising from carriage N, have a bar or rest b , to which the clamping-bar W is jointed at V, and said clamping-bar can be locked by the catch X, pressed by spring Y and having a handle Z, and a spring a tends to release the bar W. The detent-rack e of the carriage N is engaged by the pawl g , actuated at suitable intervals by the rod k and tappet l on the main driving-shaft m . The cutter v is arranged to shear off strips of paper from the various leaves.

In place of a weight for rotating the shaft R to feed the carriage N, as in said Patent No. 417,536, the shaft in this case is provided with a friction disk or plate T, pressing against a corresponding friction-piece T on the counter-shaft S. The counter-shaft S has a pulley R', rotated by belt S', communicat-

ing with the shaft m . When the carriage N is locked by the pawl g , the shaft S rotates without moving the shaft R or carriage N. When the pawl g is in its releasing position, the friction between the plates T T communicates rotation from shaft S to shaft R, so as to rotate said shaft R and feed the carriage.

The use of a weight to feed the carriage, as shown in said Patent No. 417,536, I have found to be somewhat inconvenient, since the weight feeds the carriage with such a sudden jerk that there is liability of a rebound of the carriage, whereby the accuracy of the work is interfered with. The employment of the friction-feed T T, shown herein) avoids such jerks and rebounds, so that the device operates smooth and easy.

I find that it is of advantage to place between the metallic friction-surfaces a leather-washer; but any suitable material may be used for the friction-surfaces.

What I claim as new, and desire to secure by Letters Patent, is—

1. In an index-cutter, the combination, with a table, a detent-rack for the table, a pawl for the rack, a main driving-shaft, and means for operating the pawl from the driving-shaft, of a counter-shaft rotated by the main driving-shaft, an independent shaft engaging the table to feed the same, and friction devices for connecting the adjacent ends of the counter-shaft and the shaft which engages the table, substantially as described.

2. In an index-cutter, the combination, with a table and a detent-rack for said table, of a pawl for said rack, a cam or actuator for said pawl, a feed-rack for the table, a gear-wheel for said feed-rack, a shaft for said gear-wheel, a driving-shaft for the gear-wheel shaft, and friction plates T T, mounted, respectively, in the driving-shaft and gear-wheel shaft, said friction-plates having their adjacent faces pressed together, so as to secure frictional engagement between said plates, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WM. BRAIDWOOD.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.