

(No Model.)

2 Sheets—Sheet 1.

E. H. BROWN.
TRIMMING ATTACHMENT FOR MACHINES FOR SEWING KNIT FABRICS.
No. 406,424.
Patented July 9, 1889.

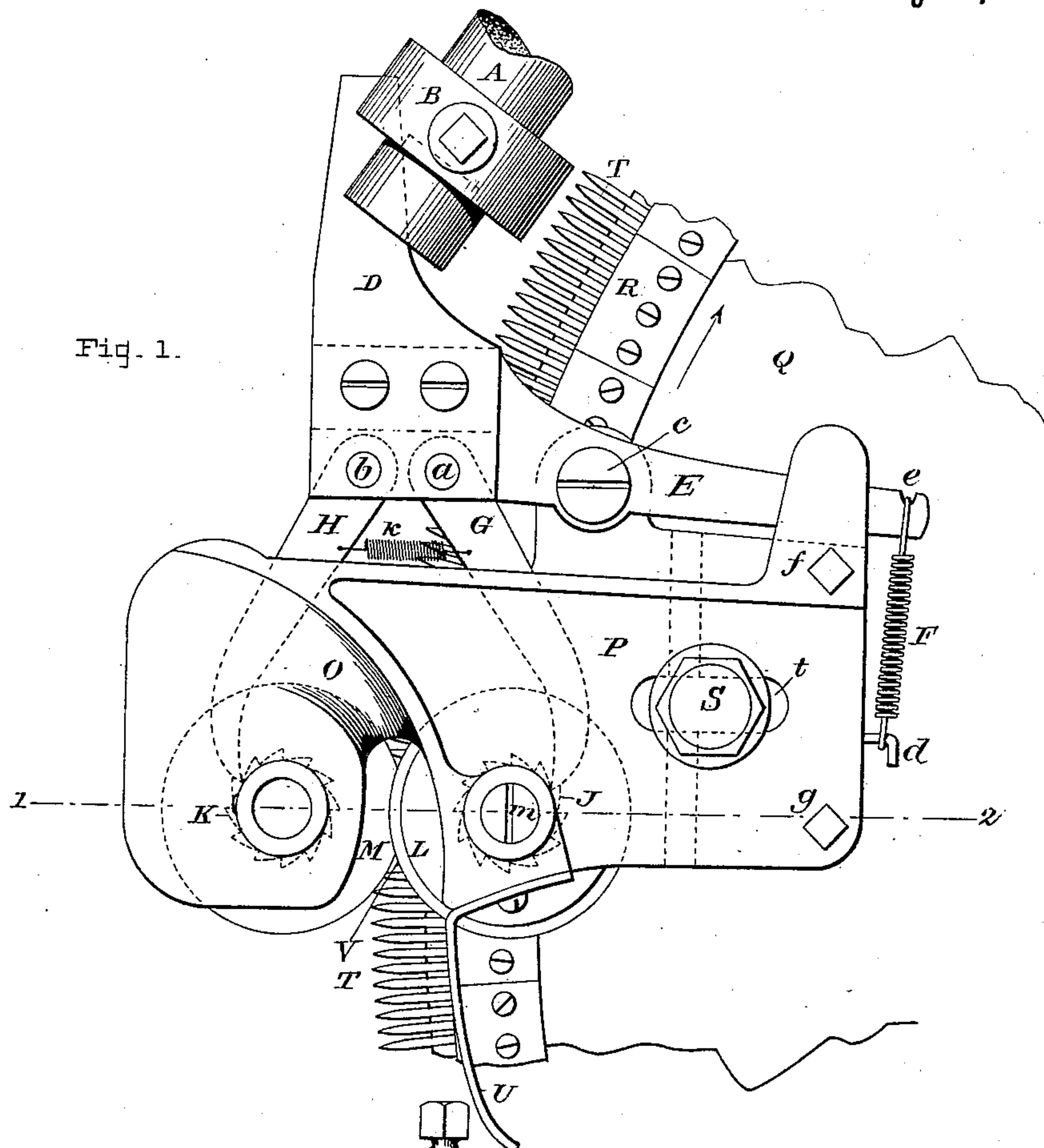
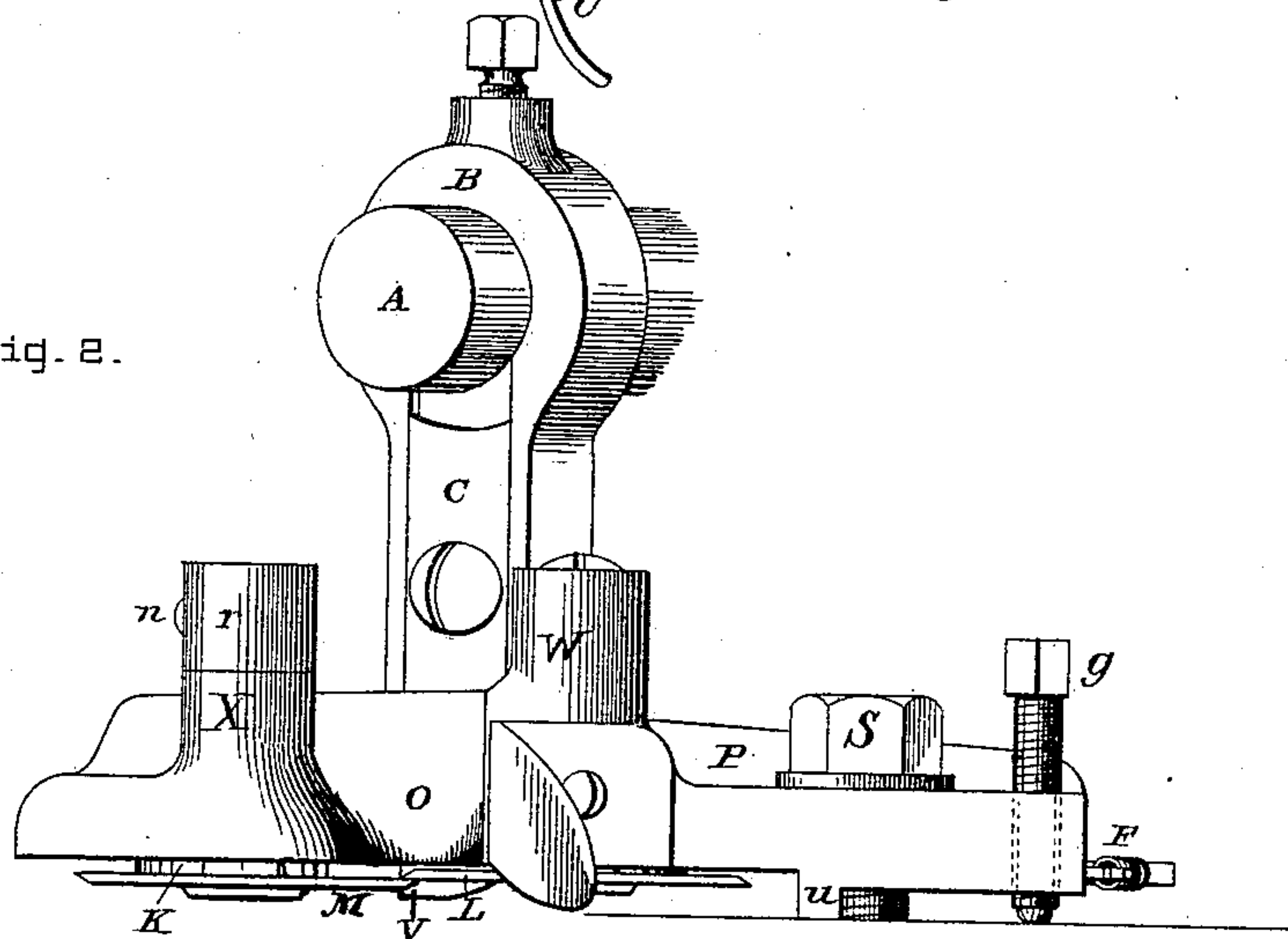


Fig. 2.



WITNESSES:

C. E. Canfield
Chas. S. Brack

INVENTOR:

EUGENE H. BROWN.

BY *Franklin Scott*, ATTORNEY.

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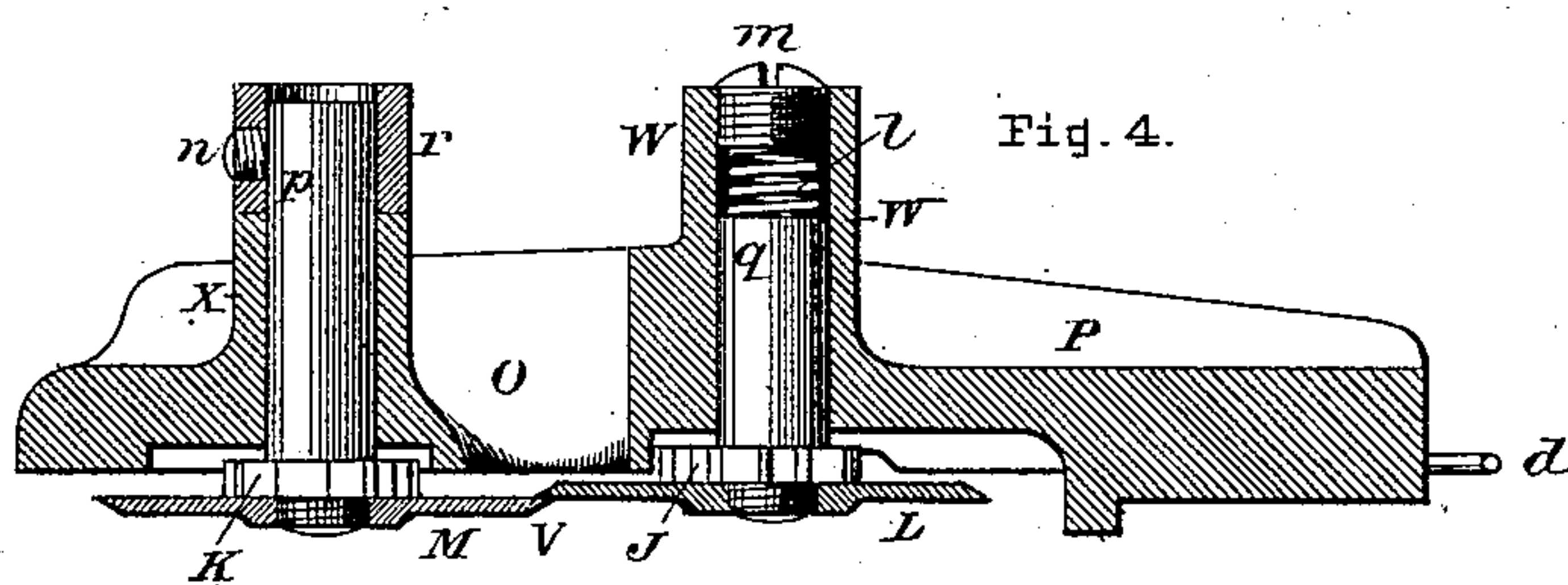
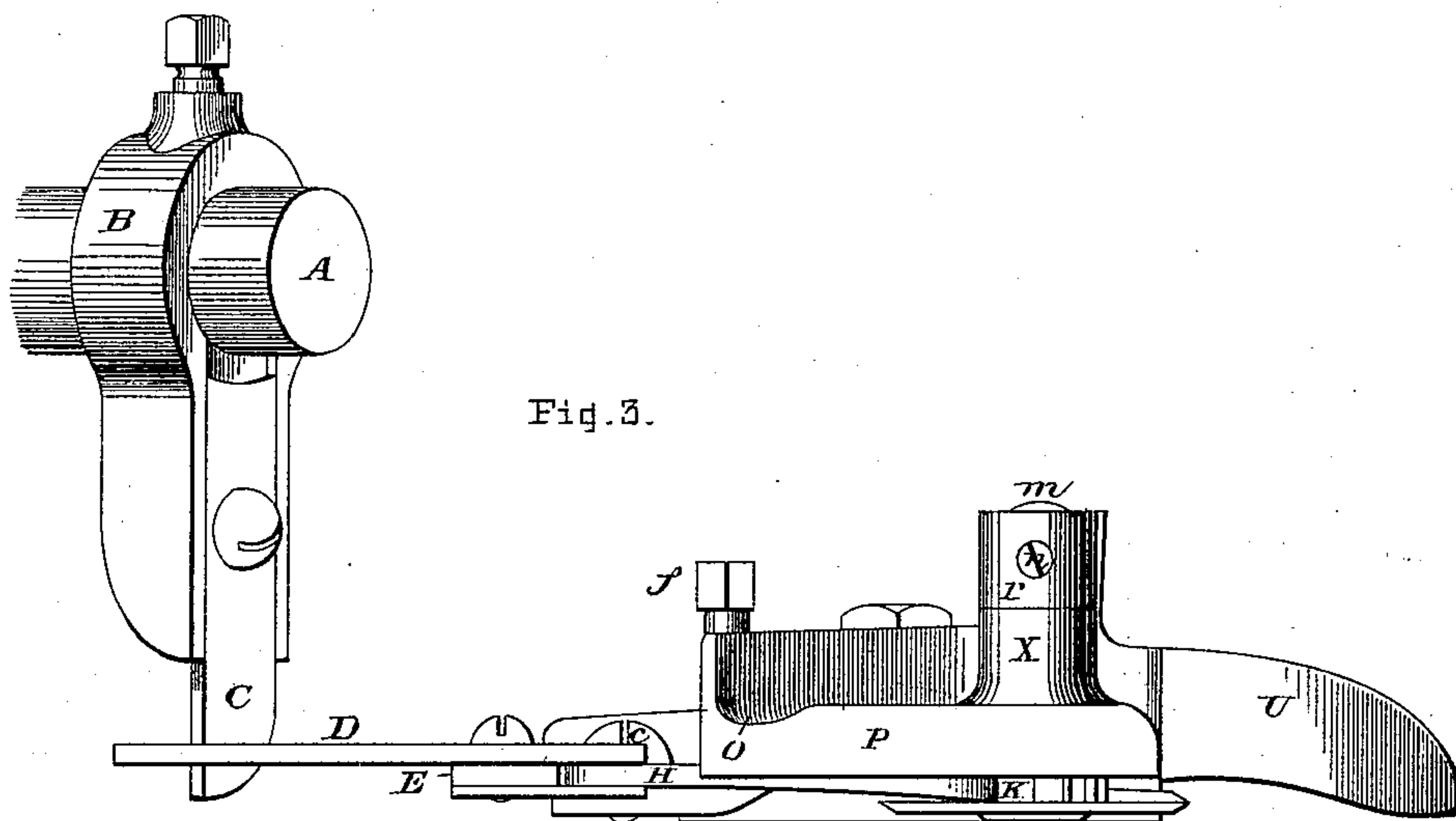
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INVENTOR:

EUGENE H. BROWN,

BY Franklin Scott, ATTORNEY.

UNITED STATES PATENT OFFICE.

EUGENE H. BROWN, OF BENNINGTON, VERMONT.

TRIMMING ATTACHMENT FOR MACHINES FOR SEWING KNIT FABRICS.

SPECIFICATION forming part of Letters Patent No. 406,424, dated July 9, 1889.

Application filed April 29, 1889. Serial No. 308,920. (No model.)

To all whom it may concern:

Be it known that I, EUGENE H. BROWN, a citizen of the United States, residing at Bennington, in the county of Bennington and State of Vermont, have invented a new and useful Improvement in Trimming Attachments for Machines for Sewing Knit Fabrics, of which the following is a specification.

My invention relates to improvements in appliances for trimming seams in knit fabrics, in which circular revolving cutters are driven by a system of ratchets, pawls, and levers, as hereinafter described, and is especially applicable to looping-machines.

The object of my invention is to provide an actuating connection between the oscillating needle-arm shaft and a pair of circular rotary cutters, whereby an intermittent rotary motion will be imparted to such cutters. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of so much of a machine for sewing looped fabrics as is necessary to illustrate my invention. Fig. 2 is a side view of the device. Fig. 3 is a front view of the same. Fig. 4 is a vertical section taken on the line 1 2 of Fig. 1 for the purpose of showing the construction of the knives and the supporting devices with all other parts removed.

Similar letters refer to like parts in the several views.

The devices are mounted on an iron bed-plate P, which is fastened to the table Q of the machine by means of a bolt S passing through an elongated slot *t*, whereby it is made adjustable. The bed-plate P is provided with two upright sockets W and X, which constitute bearings for the shafts *q* and *p* of the rotary disk-cutters L and M. The cutter M has a threaded hole in its center and screws onto the end of the shaft *p*, which is threaded to receive it. The shaft *p* is provided at its upper end with a vertically-adjustable collar *r*, which is held in position by a set-screw *n*, thus preventing the dropping of the cutter M. The cutter L is fastened to its shaft *q* in the same manner as described for the cutter M. The center of the socket W, which constitutes a bearing for the shaft *q* of the cutter L, is inclined from the plane of

the center of the socket X, which constitutes a bearing for the shaft *p* of the cutter M at an angle of two degrees in the forward direction of the cut, so as to make a single shearing contact at the point V, and thus cause the wear on the cutters to tend constantly to the attainment of a cutting-edge. The socket W is threaded at its upper end, and has screwed therein a plug *m*, between which and the end of the shaft *q* of the cutter L is the push-spring *l*, which holds the cutter L firmly against the cutter M.

Above the cutters L M on the shafts *q* and *p* are the right and left hand ratchets J and K, which are respectively integral with *q* and *p*. The ratchets K and J are rotated by the pawls G and H, which are pivoted by the pins *a* and *b* to the arm D of the lever E, and are also mutually connected by the retractile spring *k*. This lever is pivoted on the center *c*, and is swung one way by the finger C and is returned to position by the retractile spring F, attached to the hook *d* of the stationary bed-plate. The finger C is longitudinally adjustable on the arm B, which is longitudinally adjustable on the oscillating shaft A. The shaft A also carries the needle-arm, which is not here shown, as it is not essential to the understanding of the invention.

The operation of the devices is as follows: The parts of the fabric are looped onto the points of the looper-wheel in the usual way. As the wheel revolves from right to left, the selvages, projecting upwardly above the points, pass by guard U and are sheared off by the cutters, the waste passing out through the channel O. The trimmed edge then passes on under the looper-needle. (Not shown.) As the shaft A is rocked to oscillate the needle, the finger C is correspondingly vibrated, and at each stroke impinges against the arm D of lever E, and thereby causes the same to swing on its pivot *c*. This movement forces the pawls against the ratchets, thus causing a partial rotation of the cutters. The return movement of the lever E is effected by the spring F, which, by retraction, swings the lever E back into its original position to receive another impulse from the finger C.

The width of selvage is determined by means of rib *u* on the bottom of stand-plate P, set-screws *f g*, and bolt S, the plate bearing

only on the rib *u* and the points of the screws *f* and *g*.

I therefore claim as my invention and desire to secure by Letters Patent—

- 5 1. The combination, in machines for trimming the seams of knit fabrics, of the finger C, connected with the oscillating needle-arm, the lever D E, pivoted as shown, and the retractile spring F, attached to the end thereof
10 and fastened at the other end to the bed-plate for effecting the back-stroke of the lever D E, with the pawls H G, connected by the spring *k*, the ratchets K J, and the rotary cutters L M, when arranged to operate substantially in

the manner described, and for the purposes 15 set forth.

2. The combination, with the table of a looper-frame, of the cutter bed-plate P, having the rib *u*, set-screws *f* and *g*, elongated slot *t*, and screw-bolt S, as and for the purposes set 20 forth.

In testimony whereof I have hereto subscribed my name, at Bennington, Vermont, this 20th day of April, 1889.

EUGENE H. BROWN.

In presence of—

FRANKLIN SCOTT,
C. E. CANFIELD.