

(No Model.)

O. J. GARLOCK.

MACHINE FOR DIVIDING PACKING RINGS.

No. 394,111.

Patented Dec. 4, 1888.

Fig. 1.

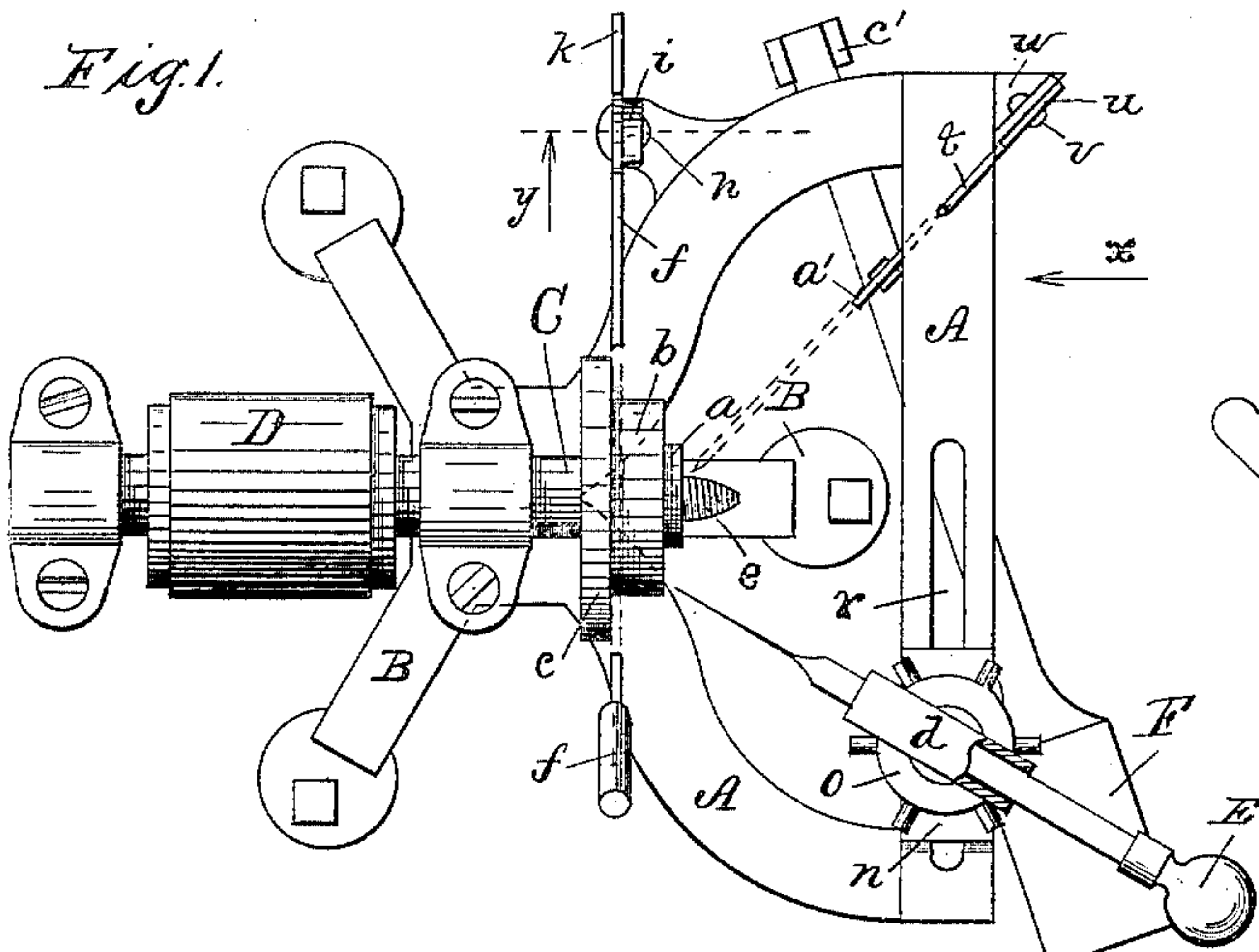


Fig. 2.

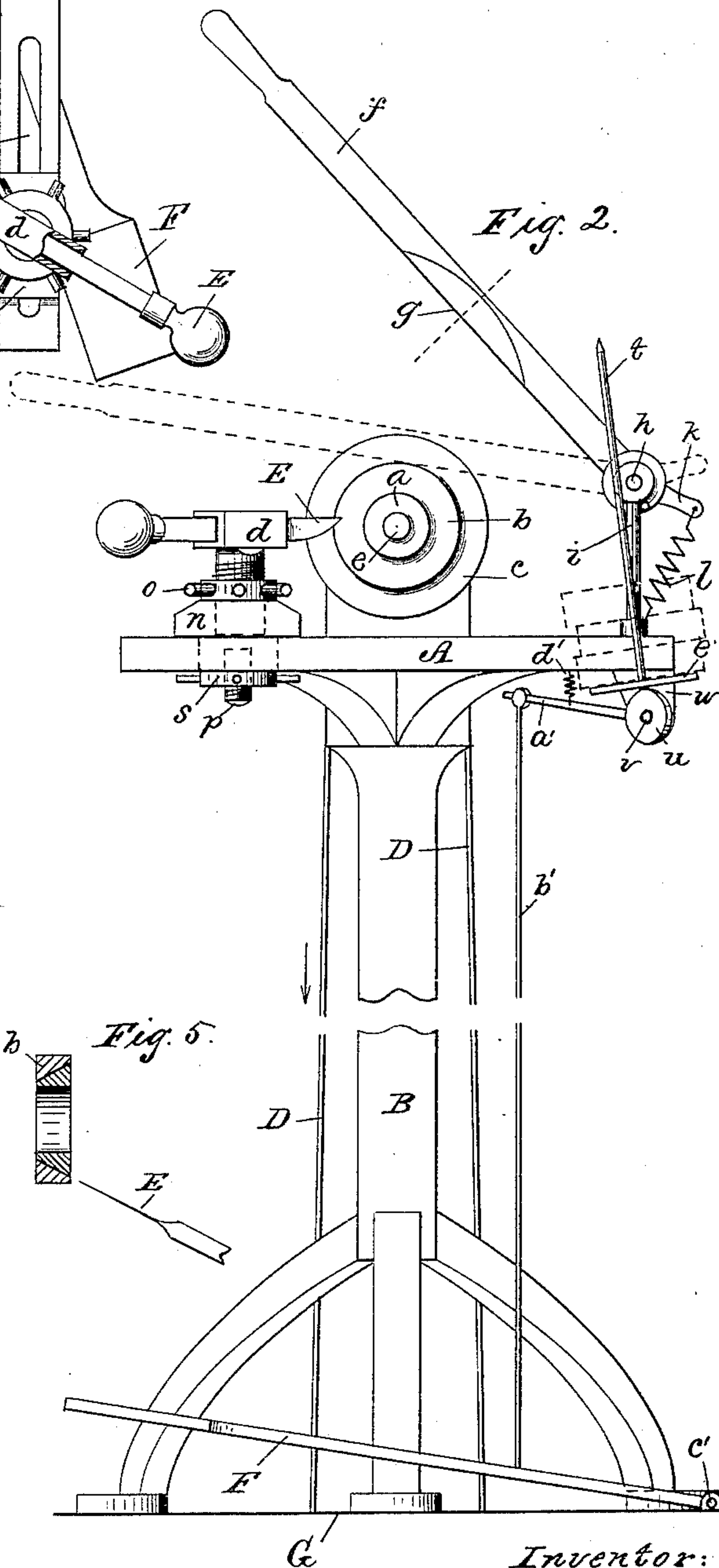


Fig. 3.

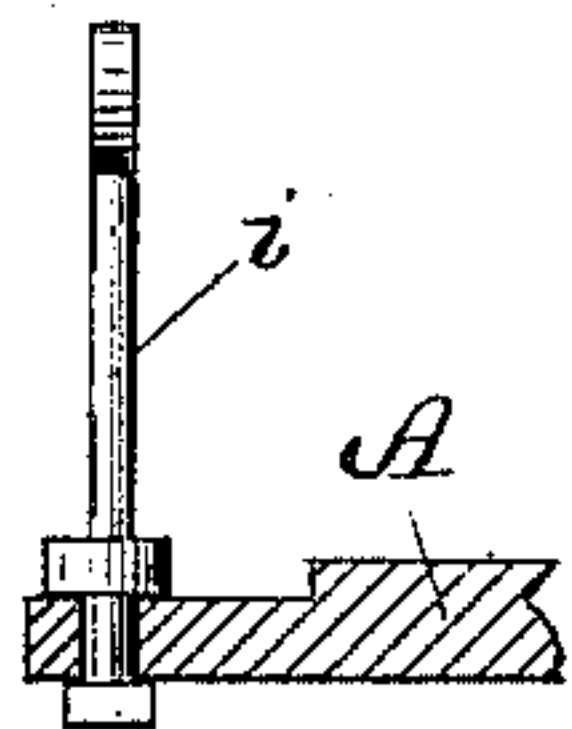


Fig. 4.

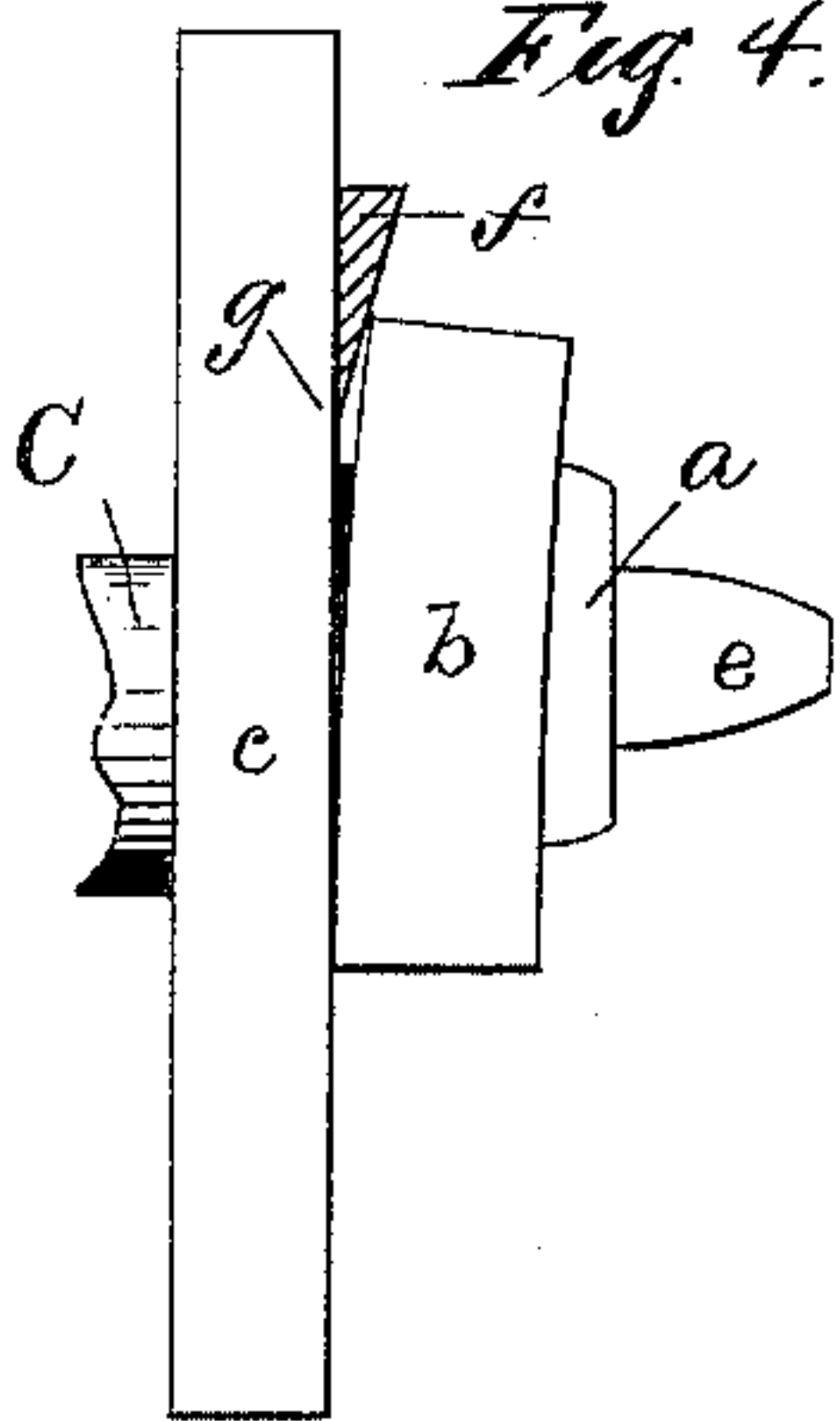
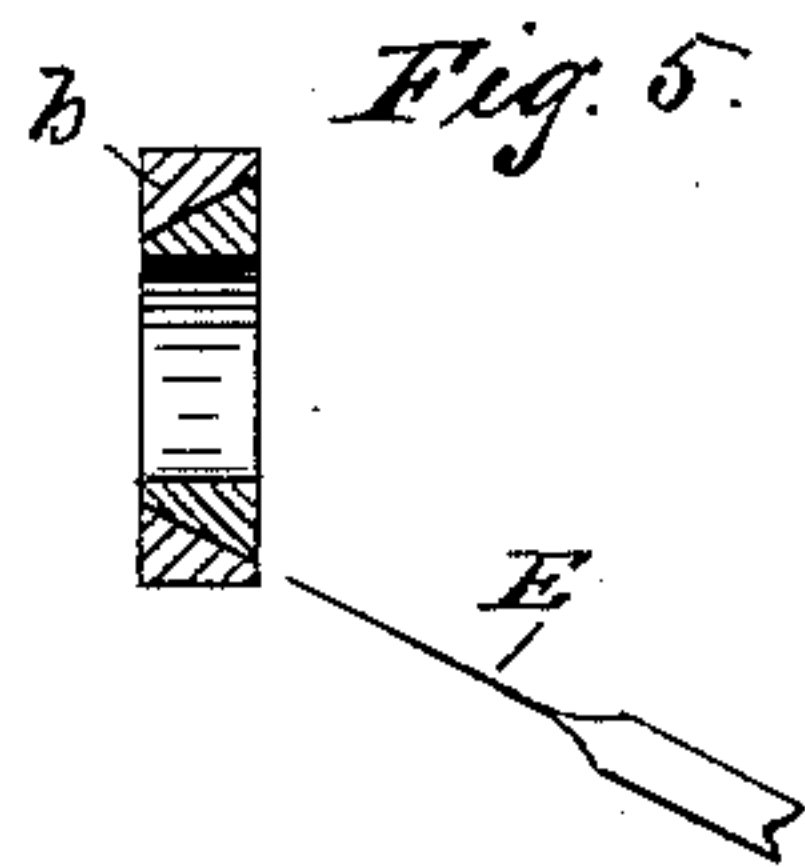


Fig. 5.



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UNITED STATES PATENT OFFICE.

OLIN J. GARLOCK, OF PALMYRA, NEW YORK, ASSIGNOR TO THE GARLOCK PACKING COMPANY, OF SAME PLACE.

MACHINE FOR DIVIDING PACKING-RINGS.

SPECIFICATION forming part of Letters Patent No. 394,111, dated December 4, 1888.

Application filed October 6, 1888. Serial No. 287,381. (No model.)

To all whom it may concern:

Be it known that I, OLIN J. GARLOCK, of Palmyra, in the county of Wayne and State of New York, have invented a new and useful Improvement in Machines for Dividing Packing-Rings, which improvement is fully set forth in the following specification, and shown in the accompanying drawings.

Packing-rings for piston-rods, made of india-rubber and cloth or similar materials, are commonly made in cylindrical form, and it is frequently found desirable to cut these cylindrical rings each into an outer and an inner concentric ring by a cut oblique to the axis of the ring, the inner part being thus made conical and the outer part having a conical cavity.

The object of my invention is to produce an improved machine by which the cylindrical rings may be thus conveniently and rapidly divided, the device being hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a plan of my newly-invented machine for dividing packing-rings; Fig. 2, a side elevation of the same, seen as indicated by arrow *x* in Fig. 1; Fig. 3, a vertical section of a portion of the frame, drawn to show the manner of attaching the post of the remover to the frame, the view being taken as indicated by arrow *y* in Fig. 1; Fig. 4, drawn to a larger scale, shows the manner in which the divided ring is removed from the holder; and Fig. 5 shows a diametrical section of the ring after being divided.

Referring to the parts shown in the drawings, A is the frame of the device, which may be mounted upon any kind of a pedestal or legs, B, that may be convenient, or placed upon a bench. The frame supports a horizontal pulley-shaft, C, upon which a belt, D, runs to rotate the shaft. The shaft is provided with a rest or core, *a*, held upon a threaded extended part, *e*, upon which the annular packing-ring, *b*, to be divided is placed, the ring resting against a backing-disk, *c*, tight on the shaft.

E is the blade for dividing the ring, it be-

ing held to move longitudinally in a guide or rest, *d*, at an angle with the axis of the shaft.

To remove the ring from the core after it has been divided, I employ a remover, shown in the form of a lever, *f*, having an edge, at *g*, to enter between the ring and the disk *c*, as shown in Fig. 4, the remover being wedge shape in cross-section where it touches the ring. The remover is pivoted at *h* to a standard, *i*, rising from the frame, and is formed with an extended part, *k*, to which a spiral spring, *l*, is attached, the lower end of the spring being attached to the lower part of the standard, the spring acting to hold the remover up out of the way, as shown in full lines. The standard *i* is inserted in the frame so as to turn upon its axis, so that, in addition to being capable of moving in a vertical plane, the remover may also be swung laterally to crowd the packing-ring in a direction away from the disk *c* and off the core. The remover is also used to crowd the ring onto the core and up against the disk after the ring has been entered upon the core.

The blade is moved toward and from the ring by hand in the act of dividing the ring. The blade-rest *d* may, if desirable, be provided with a threaded block, *n*, resting upon the frame, so that said rest may be elevated or depressed. A threaded disk, *o*, enables the operator to fix the rest rigid after it has been adjusted. The block may be made adjustable upon the frame, if desired, by means of a threaded stem, *p*, rigid in the block, extending downward through a slot, *r*, and being provided with a clamping-nut, *s*, beneath the frame.

I attach to the frame a device for catching or receiving the rings after they are forced off the core by the remover *f*. This device consists of a needle or shaft, *t*, operated by means of a treadle, F. The needle is provided with a head, *u*, held upon a pin or stud, *v*, rigid in a downward-projecting part, *w*, of the frame, an arm, *a'*, of the head being connected with the treadle by means of a rod, *b'*, the treadle being hinged to the floor G at *c'*. A spiral spring, *d'*, connecting the arm *a'* with the frame A, tends to pull the arm up-

ward and hold the needle to the position shown in full lines. The treadle being depressed by the foot of the operator, the needle is brought to the position shown in dotted lines in Fig. 1, the point being near the point or stem *e*, to catch the ring as it falls from the shaft. When the ring is caught on the needle, the foot is raised from the treadle and the needle is raised by the spring *d'*, as stated, the ring dropping onto the cross-stop *e'* at the head of the needle. When a dozen rings, or any other number previously decided upon, are caught upon the needle, they are removed therefrom and packed for shipment.

15 What I claim as my invention is—

1. In a device for dividing packing-rings, a rotatory shaft to hold the rings, in combination with a remover for the rings, consisting of a lever having a pivotal rest or bearing at one side of the said shaft, allowing it to be moved toward the shaft, as and for the purpose set forth.

2. A device for dividing packing-rings, com-

prising a rotatory shaft to hold the rings, in combination with a remover for the rings, 25 having a pivotal rest at one side of the shaft, formed with a wedge-shaped portion, substantially as shown.

3. A rotatory shaft to hold packing-rings, in combination with a remover for the rings and 30 a receiver for the rings, said receiver comprising a rod or arm held in a bearing adapted to move in a plane toward or from said shaft, substantially as shown.

4. In combination with a shaft to hold pack- 35 ing-rings, a pivoted remover for the rings, a receiver, substantially as described, to catch said rings, adapted to move on its bearing toward said shaft, and a treadle connected with said receiver, substantially as shown and de- 40 scribed.

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Witnesses:

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