

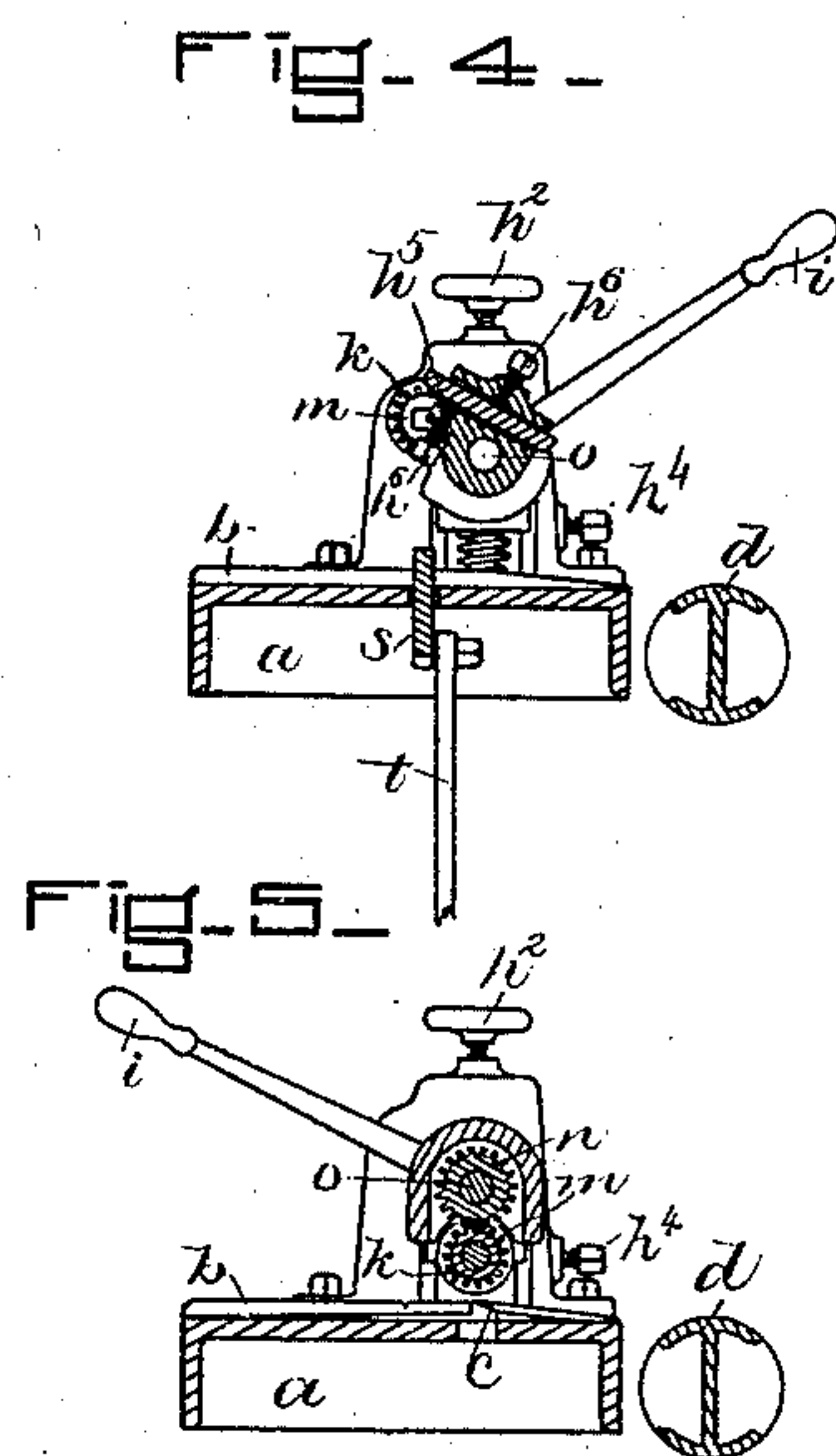
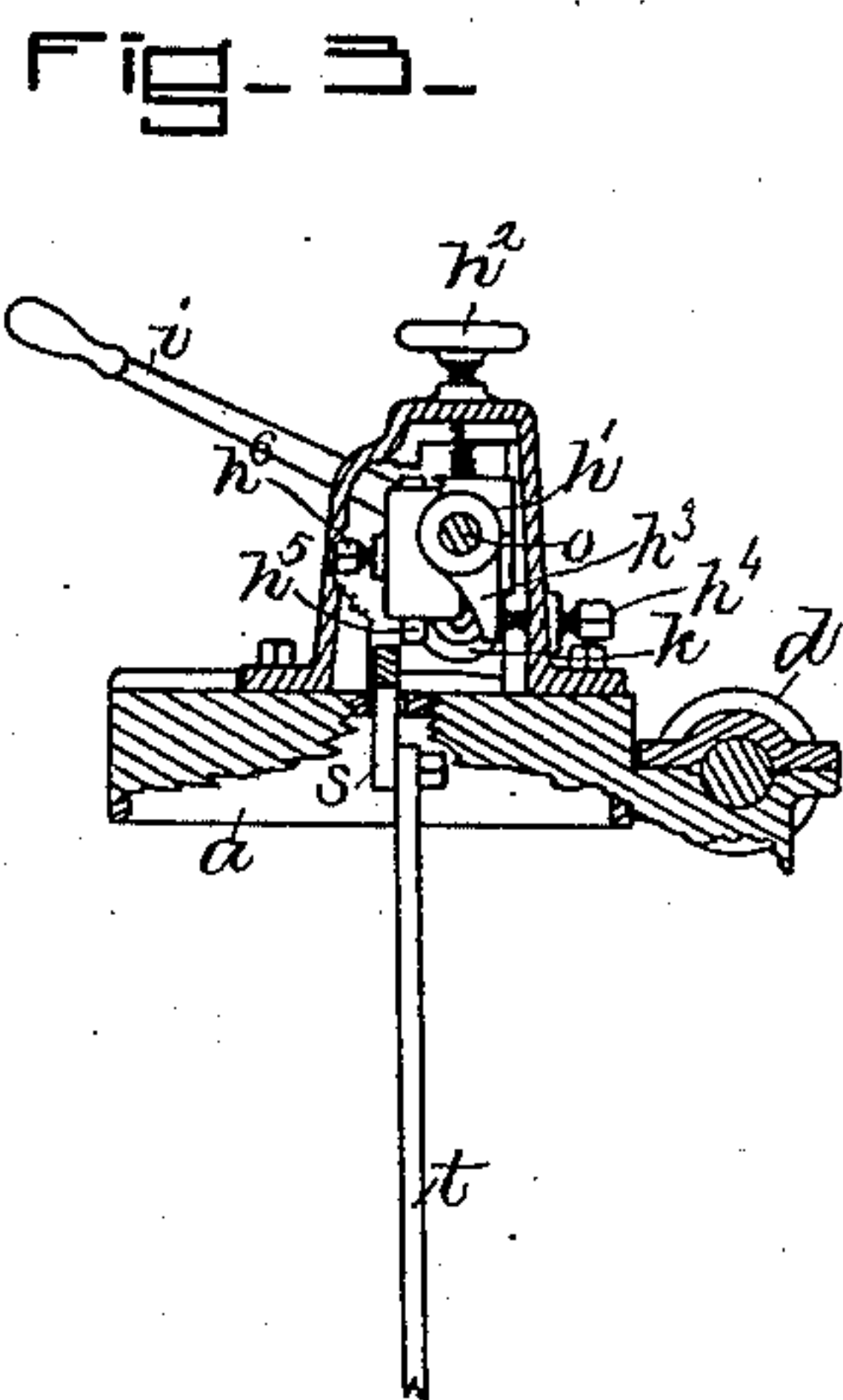
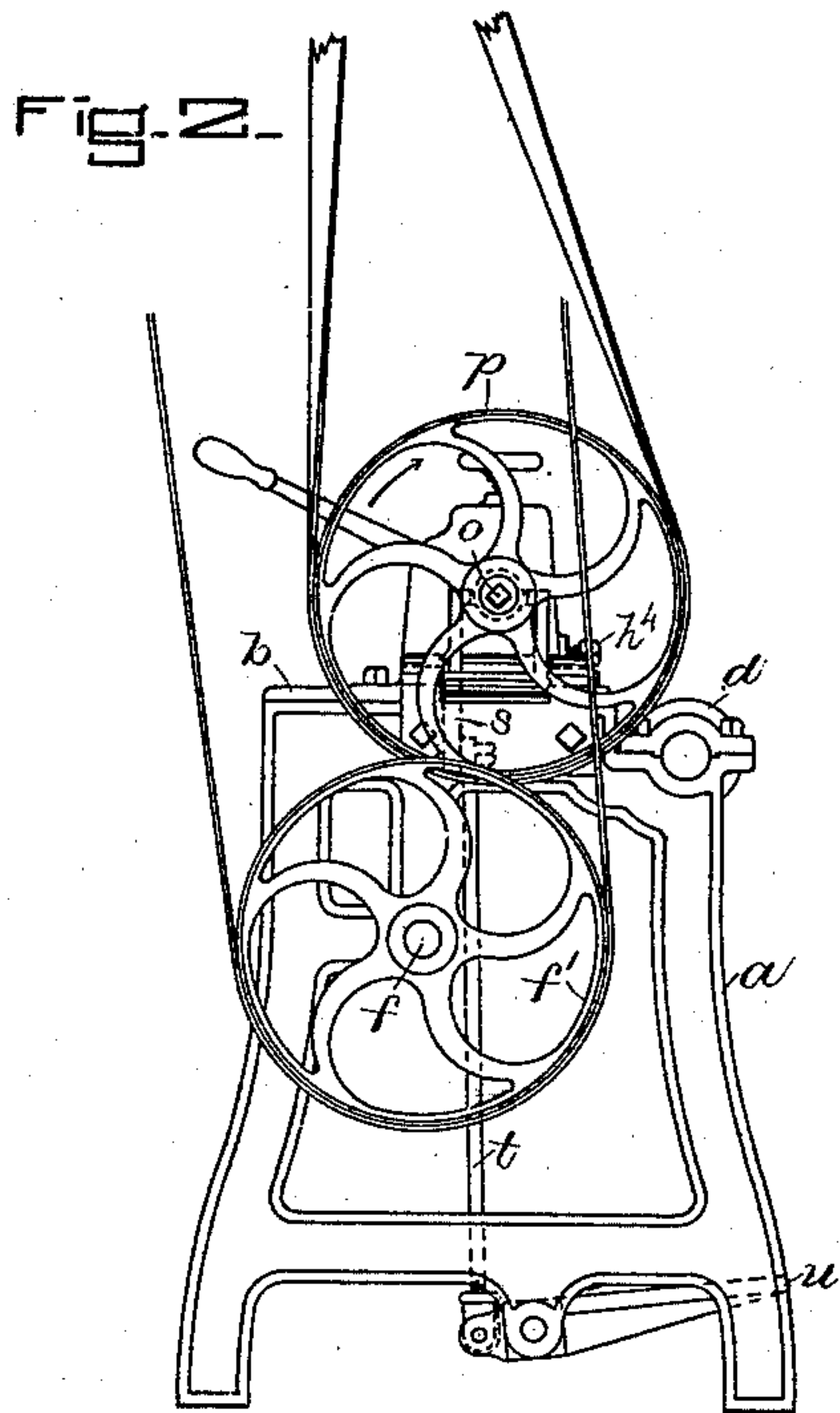
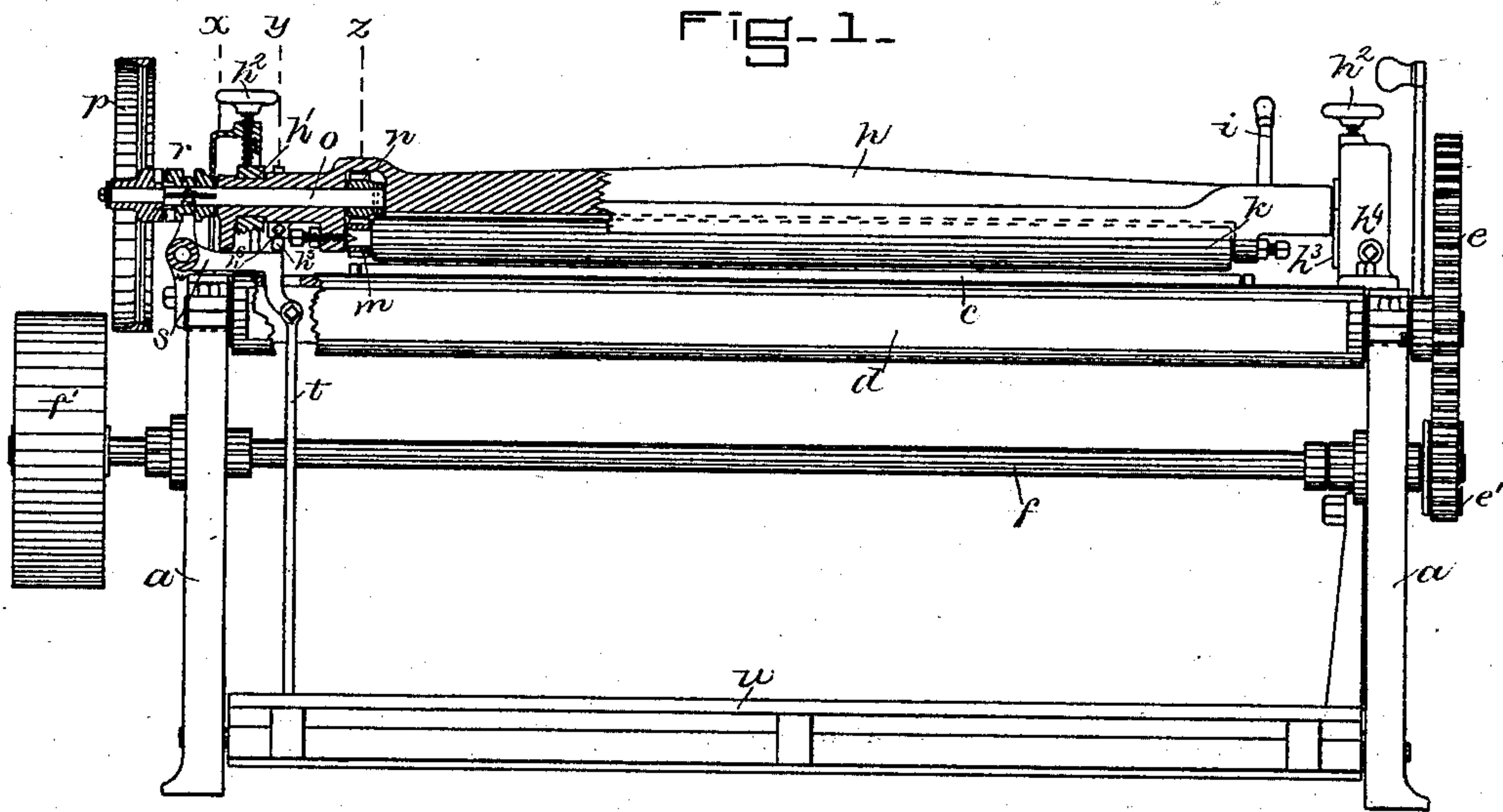
(No Model.)

J. D. McDONALD & W. BEGGS.

LEATHER SPLITTING MACHINE.

No. 279,659.

Patented June 19, 1883.



WITNESSES
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JOHN D. McDONALD AND WILLIAM BEGGS, OF WOBURN, MASSACHUSETTS.

LEATHER-SPLITTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 279,659, dated June 19, 1883.

Application filed April 27, 1883. (No model.)

To all whom it may concern:

Be it known that we, JOHN D. McDONALD and WILLIAM BEGGS, of Woburn, county of Middlesex, State of Massachusetts, have invented an Improvement in Leather-Splitting Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts:

Our invention relates to a leather-splitting machine of that class in which the leather to be split is drawn by a suitable drawing-roller against the edge of a stationary knife, the thickness of the split being regulated by a pressing or gaging roller the periphery of which is just above the edge of the knife, against which it holds the leather being drawn, so that the thickness of one portion of the leather is equal to the distance between the edge of the said knife and the periphery of the roller.

In leather-splitting machines as heretofore constructed the gaging-roller has usually been mounted to turn loosely upon its arbor or bearings, so as not to resist the movement of the leather beneath it.

The present invention consists in the combination, with the pressing or gaging roller, of means to rotate it positively for assisting in feeding the leather against the edge of the knife, and thereby reducing the work of the usual drawing-roller. The gaging-roller is mounted in the usual beam, which is pivoted to enable the roller to be lifted up away from the knife to facilitate the introduction of the piece of leather to be split, and in this embodiment of the invention the said roller is provided with a pinion meshing with a pinion upon a shaft coincident with the axis of rotation of the beam, and provided with a pulley and clutching device whereby the movement of the said gaging and feeding roller may be controlled as desired. A locking device for the beams prevents it from being turned on its pivots by the reaction of the roller in feeding the leather.

Figure 1 is a front elevation of a leather-splitting machine embodying this invention; Fig. 2, an end elevation thereof; and Figs. 3, 4, and 5, sectional details on lines *x*, *y*, and *z*, Fig. 1, the beam being shown in Fig. 4 as

turned to the position to raise the gaging-roller for the introduction of the leather.

The frame-work *a*, leather-supporting bed or table *b*, knife *c*, drawing-roller *d*, and its actuating-gears *e e'*, the latter mounted on the main actuating-shaft *f*, provided with a pulley, *f'*, are all of usual construction. The machine is also provided with the usual beam, *h*, pivoted to turn on bearings at *h'*, it being operated by a handle, *i*, and carrying the gaging-roller *k*, by which the leather is held against the edge of the knife *c* and the thickness of the split regulated, the bearings of the beam *h* being adjustable by screws *h²* to determine the said thickness. When the beam is turned down to bring the roller *k* into operative position, its movement is limited by the toe *h³*, engaging the adjustable stop *h⁴*. (See Fig. 3.)

In order to cause the roller *k* to operate also as a feeding-roller to assist in forcing the leather against the edge of the knife in accordance with this invention, the said roller is provided near one end with a pinion, *m*, meshing with a pinion, *n*, upon the roller-actuating shaft *o*, concentric with the bearing of the beam *h*, so that the rotation of the latter to raise and lower the roller *k*, as shown in Figs. 4 and 5, does not disengage the said pinions. The shaft *o* has loose upon it a pulley, *p*, actuated by a suitable belt, and having its hub made as one portion of a clutch, the co-operating portion *r* of which is splined upon the said shaft, and is moved longitudinally thereon to engage and disengage the clutch by a shipping-lever, *s*, connected by a link, *t*, with a treadle, *u*, at the front of the machine. Thus when the said treadle is depressed the clutch is engaged and the pulley *p* thus connected with the shaft to rotate it, and, through the pinions *m n*, to rotate the roller *k* in the direction to force the leather against the edge of the knife. By positively rotating the roller *k* so as to feed the leather, the said roller is itself forced backward, tending to turn the beam *h* from the position shown in Fig. 3 toward that shown in Fig. 4, and such movement is prevented by a locking device, shown as a pin, *h⁵*, (see Figs. 1 and 3,) made laterally adjustable by set-screws *h⁶*, and adapted to be engaged by the end of the shipper-lever *s* when moved to throw the clutch into engagement, and thus apply the

power to the roller. If desired, such a locking device may be applied at the other end of the beam *h*.

We claim—

- 5 1. In a leather-splitting machine, the knife and the pivoted beam, combined with the gaging-roller and the actuating mechanism therefor, whereby it is positively rotated, substantially as and for the purpose described.
- 10 2. The knife and pivoted beam and gaging-roller mounted thereon, combined with the actuating-shaft and pinions for the said roller and a clutch and its shipper to control the operation of the said shaft, substantially as and
- 15 for the purpose described.

3. The pivoted beam and roller thereon, combined with actuating mechanism for the said roller and the locking device for the said beam, whereby it is prevented from turning on its pivot, substantially as described. 20

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

JOHN D. McDONALD.
WILLIAM BEGGS.

Witnesses:

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