

(No Model.)

2 Sheets—Sheet 1.

W. M. HOFFMAN.

PUTTING OUT AND STRIKING OUT MACHINE FOR HIDES OR SKINS.

No. 335,198.

Patented Feb. 2, 1886.

Fig. 1.

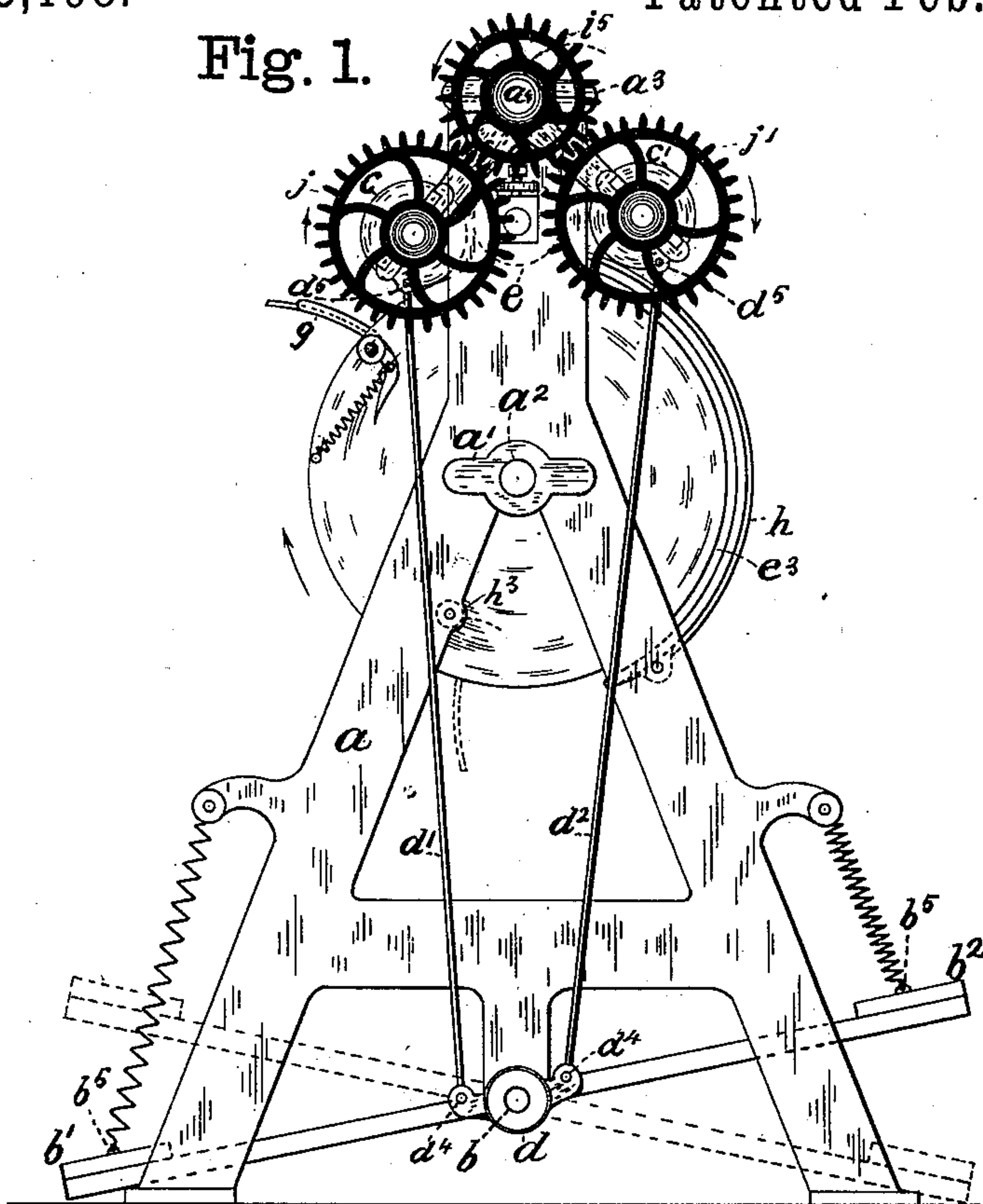


Fig. 2.

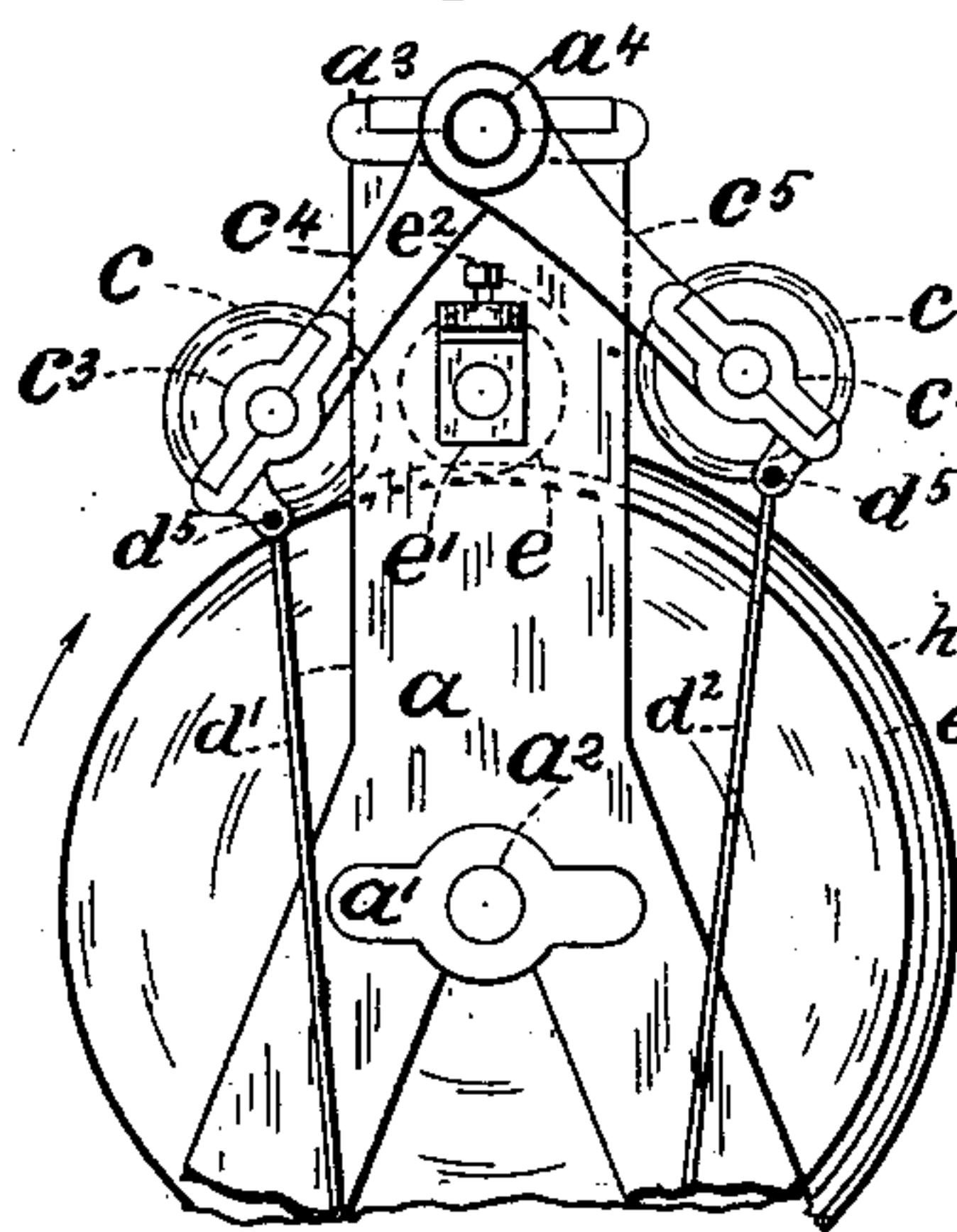


Fig. 3.

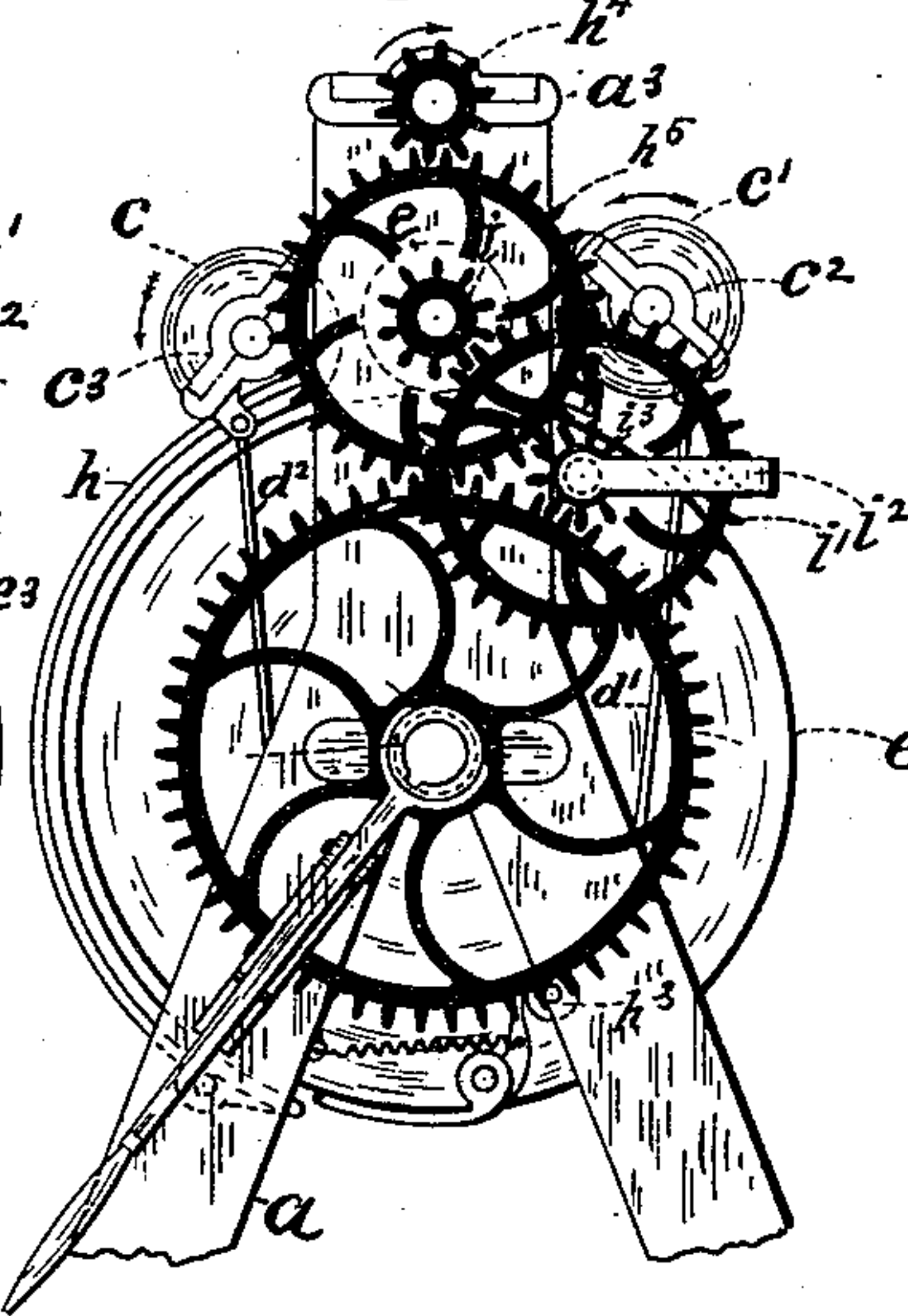
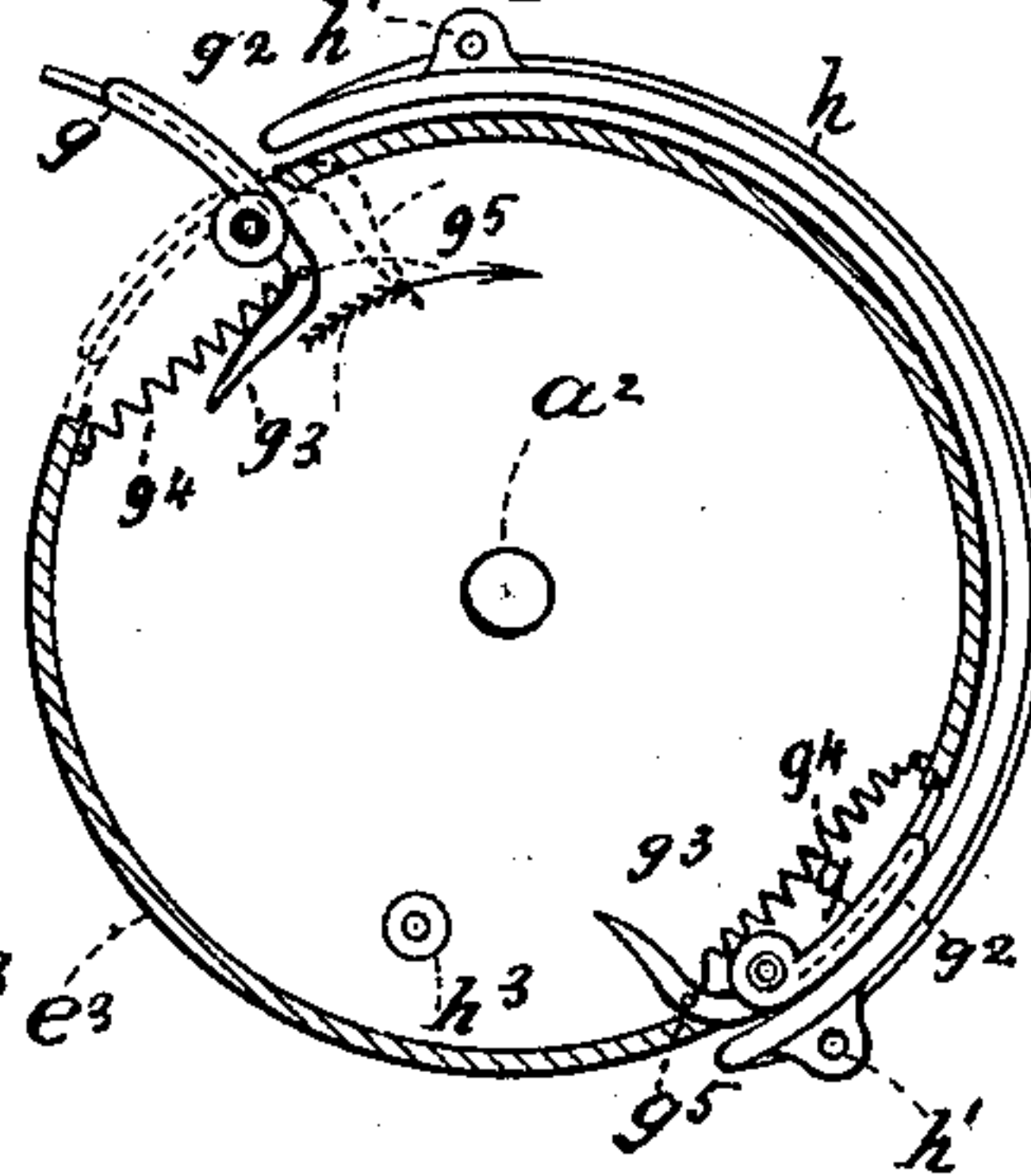


Fig. 4.



Witnesses.

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(No Model.)

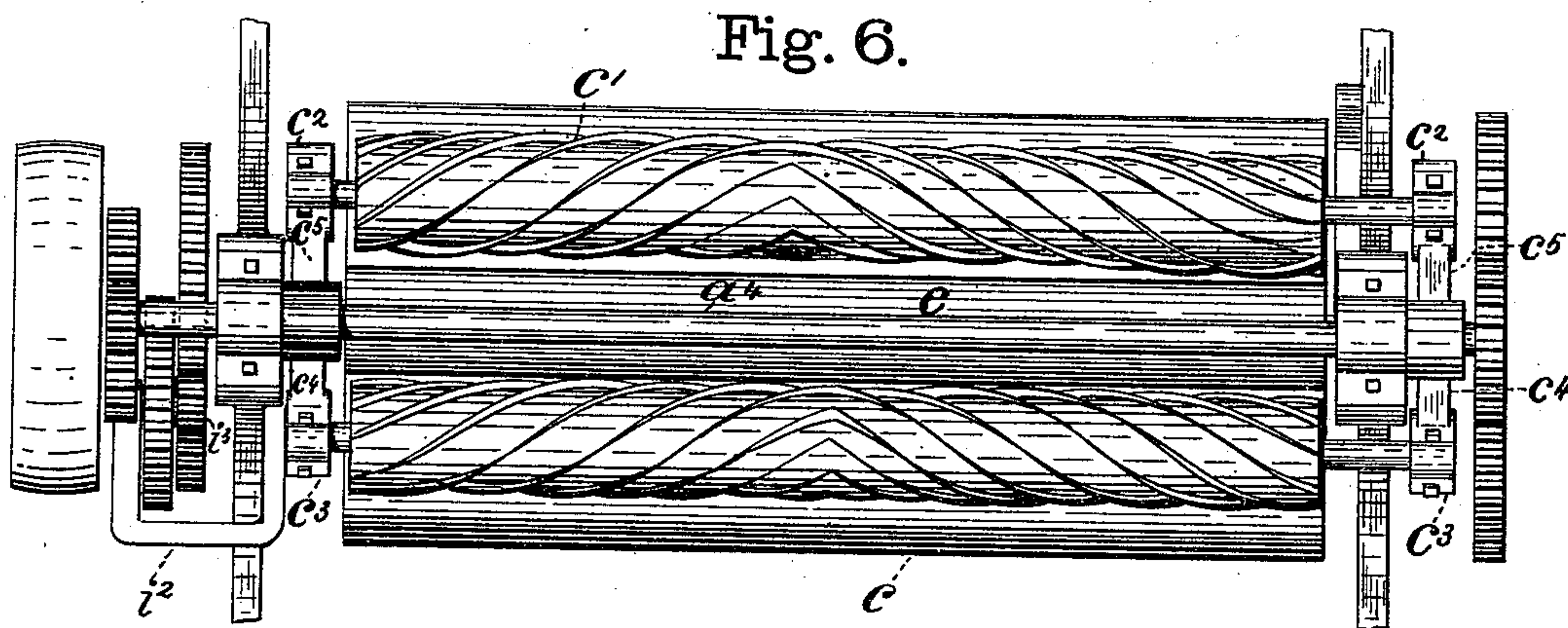
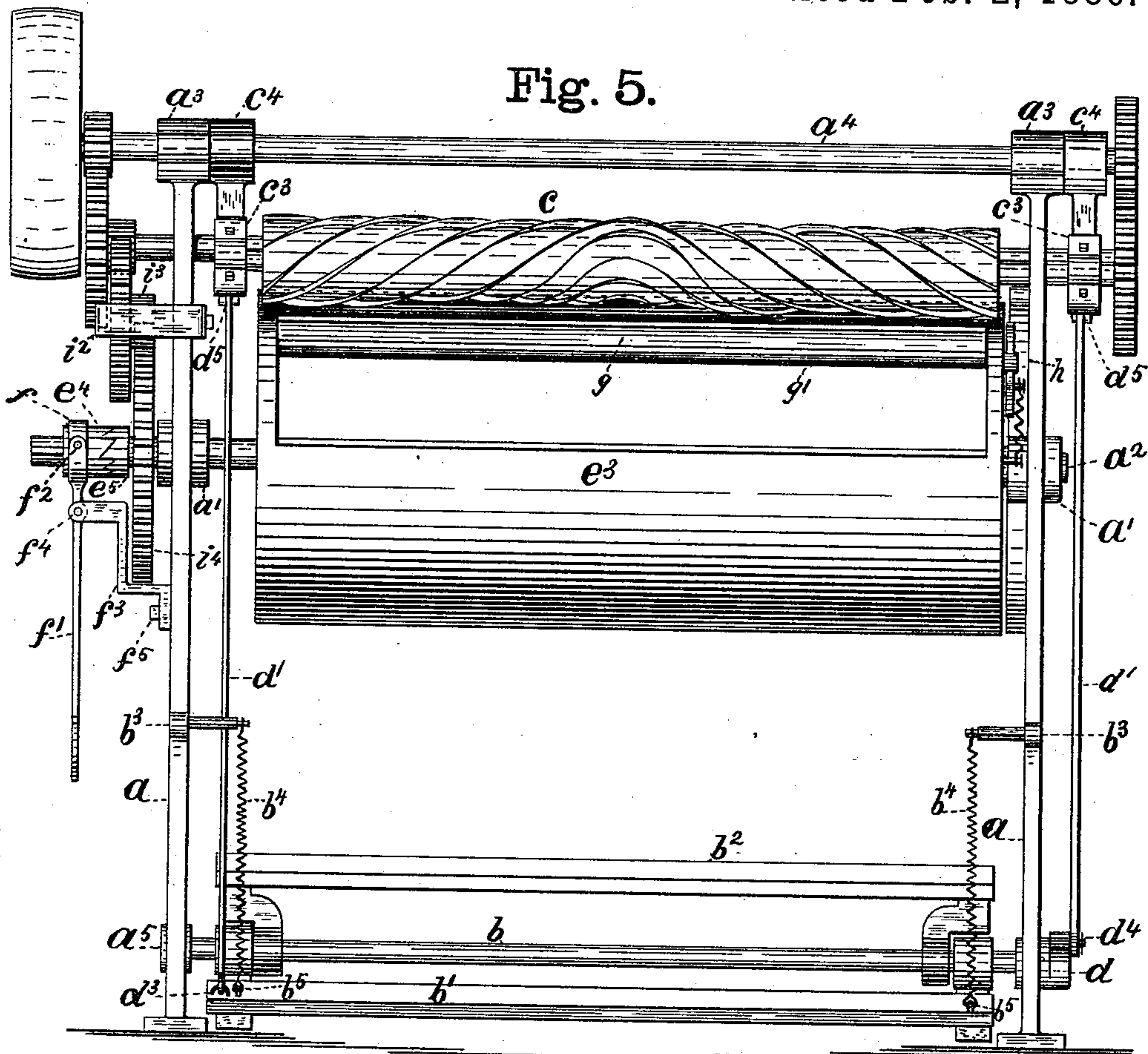
2 Sheets—Sheet 2.

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No. 335,198.

Patented Feb. 2, 1886.



Witnesses.

Jennie M. Baldwin,
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Inventor.

William M. Hoffman,
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UNITED STATES PATENT OFFICE.

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PUTTING-OUT AND STRIKING-OUT MACHINE FOR HIDES OR SKINS.

SPECIFICATION forming part of Letters Patent No. 335,198, dated February 2, 1886.

Application filed August 27, 1885. Serial No. 175,455. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. HOFFMAN, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Putting-Out and Striking-Out Machines, of which the following is a specification.

This invention relates to machinery for putting out the grain and removing the water or other imperfections from sheep, goat, calf, or other skins; and it consists in certain improvements whereby the capacity of the machine is increased, so as to do double the work in a given time, and it is more thoroughly done than by the ordinary way, all of which will be fully and clearly hereinafter shown, described, and claimed.

Referring to the accompanying drawings, Figure 1 is a side elevation of the machine complete. Fig. 2 is a side elevation of a portion of the same side of the machine, the gearing being left off, so as to show the ends of the putting-out cylinders and some of the other parts more clearly. Fig. 3 is a similar view of the other side of the machine, showing also a similar view of the clutch mechanism and arrangement of the gearing on that side of the machine. Fig. 4 is a cross-section through the drum and also a side elevation of the mechanism for operating the door or clamping device on the drum. Fig. 5 is a front elevation of the machine complete, and Fig. 6 is a plan or top view.

The frame *a* of the machine is preferably made of cast-iron; but it may be made of any other suitable material. It is provided with bearings *a'*, to receive the drum-shaft *a''*, and also *a'''*, to support the driving-shaft *a''*, and bearings *a''*, for the shaft *b* of the foot-step *b'* and *b''*.

b' represents arms projecting from the frame to receive the spiral springs *b''*, which are connected to the foot-step by a joint, *b'''*, (see Figs. 1 and 5,) to cause them to move up when released from the pressure of the foot.

c *c'* represent the putting-out and striking-out cylinders. They are mounted in bearings *c''* *c'''* on the arms *c''* *c'''*. These arms are fitted to the shaft *a''*, so that the shaft can turn within them. They are each provided with

connecting-rods *d'* and *d''*. One of these connecting-rods *d'* and *d''* is connected to a double-crank arm, *d*, which arm is connected rigidly to the shaft *b*. (See Figs. 1 and 5.) This is necessary, as the arms *c''* and *c'''* on that side of the machine are on the outside of the frame, but still mounted on the main shaft *a''*, as before mentioned. The lower ends of the connecting-rods *d'* *d''* are connected by joints *d'''* to the foot-step, and by pins *d''* to the crank-arm. Their upper ends are connected by joints or pins *d'''* to the arms *c''* *c'''*.

e represents a rubber-covered pressure-roller. (See Fig. 6.) An end view is also shown by dotted lines in Figs. 1, 2, and 3. It is supported in vertically-movable boxes *e'*, (see Fig. 2,) which boxes are adjusted by means of set-screws *e''*, so as to adjust its pressure on the skin. The hollow drum *e'''* is provided with a shaft, *a''*, mounted in the bearings *a'*. On this shaft *a''* is secured a clutch-coupling, *e''* *e'''*. It is made in the usual way, the part *e''* sliding on a feather on the shaft, so that it is compelled to turn with the shaft, and the part *e'''* turns loosely on the shaft. It is provided with the usual collar or ring, *f*, arranged between flanges in the well-known way. *f'* represents a hand-lever, pivoted to the ring by pivots *f''* and to a bracket, *f'''*, by a pin, *f''*. This bracket is secured to the frame by a set-screw, *f'''*. (See Figs. 3 and 5.) The object of the clutch is to provide the means for readily stopping or starting the drum *e'''*. This drum is rigidly secured to the shaft *a''* by a key or other well-known means. It is preferably provided with two automatically-operating doors or clamps, *g*. These doors (or clamps) are pivoted to the drum by a rod, *g'*, to which the clamp or door is rigidly secured. The ends of the rod *g'* pass through the ends of the drum, and one end (or both ends, if desired) is provided with an angular arm, *g''* *g'''*. At some point near the bend of the arm is a spiral spring, *g''*, secured to it by a pin, *g'''*. The opposite end of the spring is secured to the drum *e'''*.

A semicircular ring, *h*, is secured to the frame of the machine by bolts, which pass through the holes *h'*. (See Fig. 4.) This ring is placed near the end of the drum, so that the portion *g''* of the angular arm will move under

it and cause the door to close, and as it passes from under the ring the spring g^4 will cause it to open. To make it certain to open, in case the spring should refuse to act quick enough, 5 a small friction-roller, h^3 , is pivoted to the frame, so that the end of the portion g^3 of the angular arm will (as the drum turns) come in contact with the roller, which will thereby assist in opening it at the moment it is released 10 from the ring h .

The several parts of the machine receive their movements by means of gearing. Motion being given to the driving-shaft, the pinion h^4 gears in with and turns the spur-wheel 15 h^5 . This gives motion to the rubber-covered pressure-roller e . On the pressure-roller shaft is a pinion, i , which gears into the spur-wheel i' , (secured to a bracket, i^2 ,) to which is secured a pinion, i^3 . This pinion i^3 gears into 20 the large spur-wheel i^4 on the drum-shaft, from which the drum receives its rotary motion. The putting-out cylinders receive their movements from a small spur-wheel, i^5 , which gears into the spur-wheels j j' on the shafts of the 25 putting-out cylinders. This gearing is at the other end of the machine, and gives the required motion to the putting-out cylinders.

The operation of the machine is as follows: About one-half of the skin (more or less) is 30 put lengthwise into the drum through the open door, so that about half of the skin hangs outside, and as the drum turns, the door or clamp closes and holds it, and it is brought in contact with the putting-out cylinders, (which 35 are made to act on it as may be required by the foot-steps b' and b^2 .) It is operated upon by the first cylinder, and then passes under the pressure-roller, and from that under the second cylinder, which takes out any wrinkles 40 or other imperfections that may remain after passing under the first putting-out cylinder. When the putting-out process is completed for that half of the skin, the motion of the drum is stopped by means of the clutch. Then 45 another skin is put in in the same way at the opposite door, which is now open, and put through the same process as the first skin. It

will now be seen that the half of two skins is completed and the first skin is brought around to the operator again, with the door open, so 50 it can be removed and reversed. The half that has been completed is now inside of the drum, and the process repeated on the other half of the skin, thereby completing it; and it will also be seen that two skins are in the 55 drum, being operated on at the same time, thereby doubling the capacity of the machine.

I claim as my invention—

1. In a putting-out and striking-out machine, a hollow drum provided with two open- 60 ings to receive the skin to be operated on, and two automatically opening and closing doors or clamps for closing and holding the skin or opening and releasing it, substantially as specified, in combination with the angular arms 65 and a semicircular rim for closing the doors at the proper times, and a spring for opening the same, and the putting-out cylinders and operating-gearing, substantially as and for the purpose specified. 70

2. In a putting-out and striking-out machine, the combination of a hollow drum set in suitable bearings in the frame and having an opening to receive a portion of the skin, and a pivoted door provided with an angular 75 arm and a spring for holding said door open, in combination with a semicircular ring or bar, h , for closing it at the required times, substantially as described.

3. In a putting-out and striking-out machine, a hollow drum having an automatic- 80 ally opening and closing door pivoted to the drum, and provided with an angular arm, g^2 g^3 , and a spring, g^4 , in combination with the semicircular bar secured rigidly to the frame, 85 a squeezing-roller, one or more putting-out cylinders, and mechanism, substantially as specified, for moving them to or from the drum, for the purposes described.

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Witnesses:

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