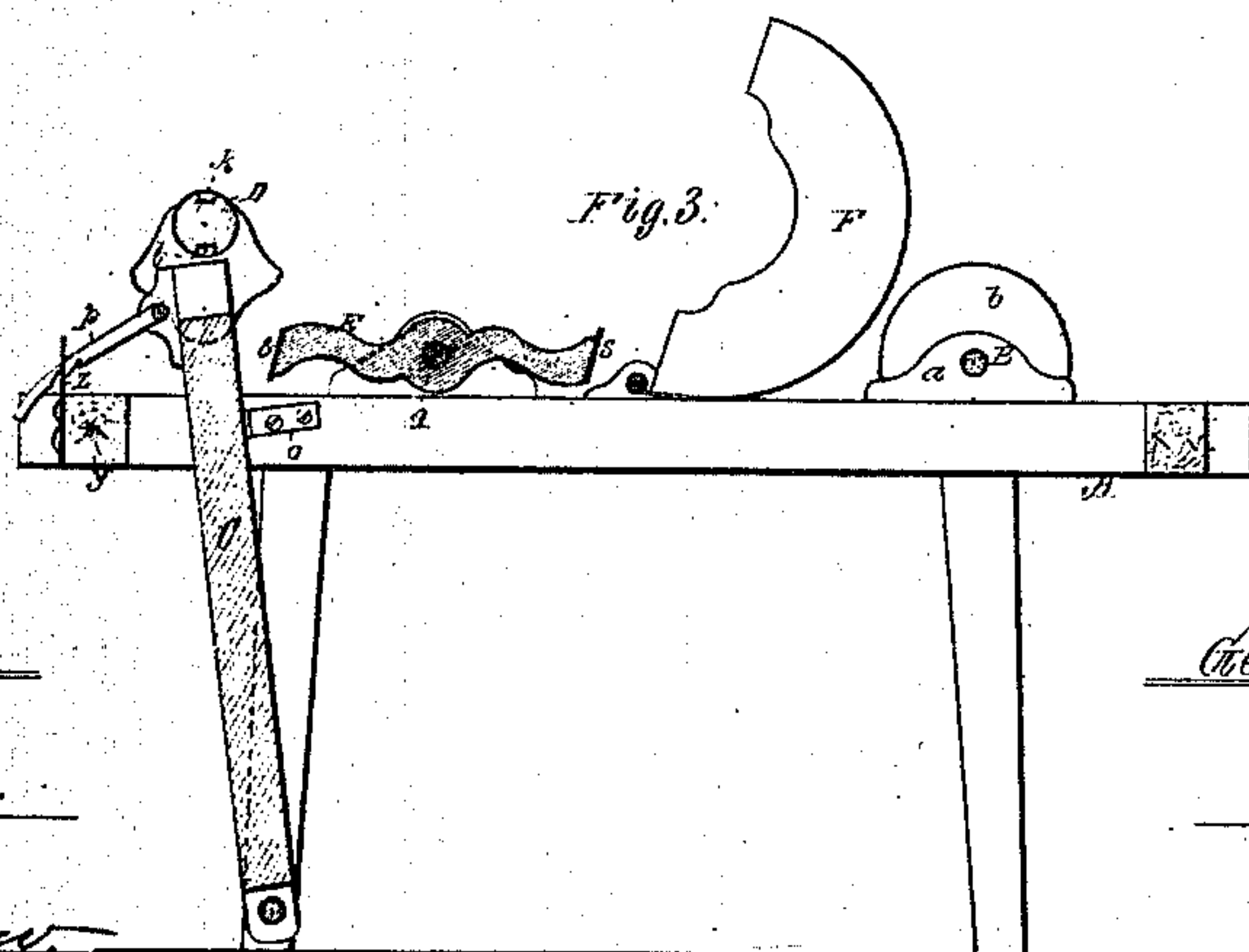
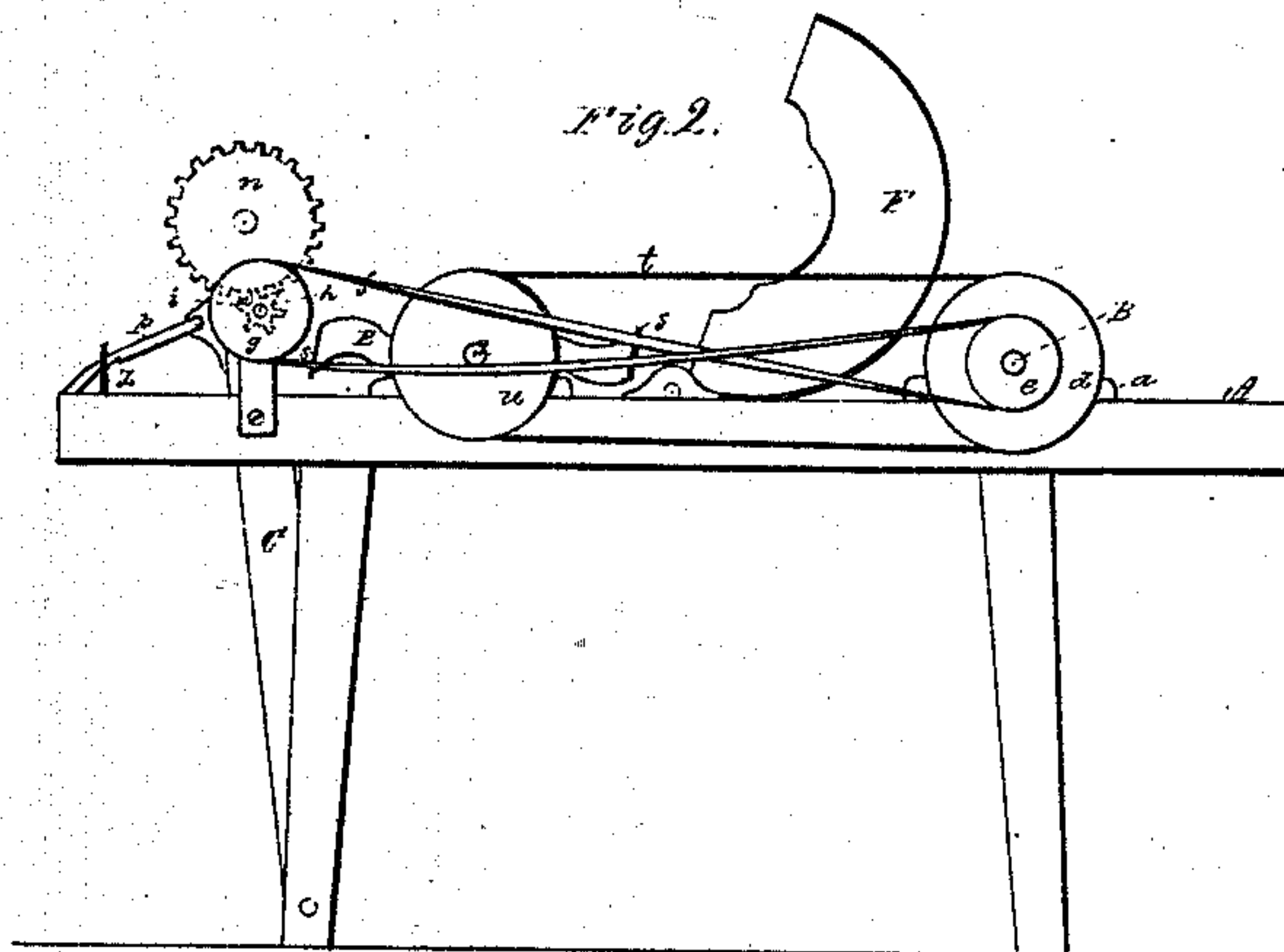
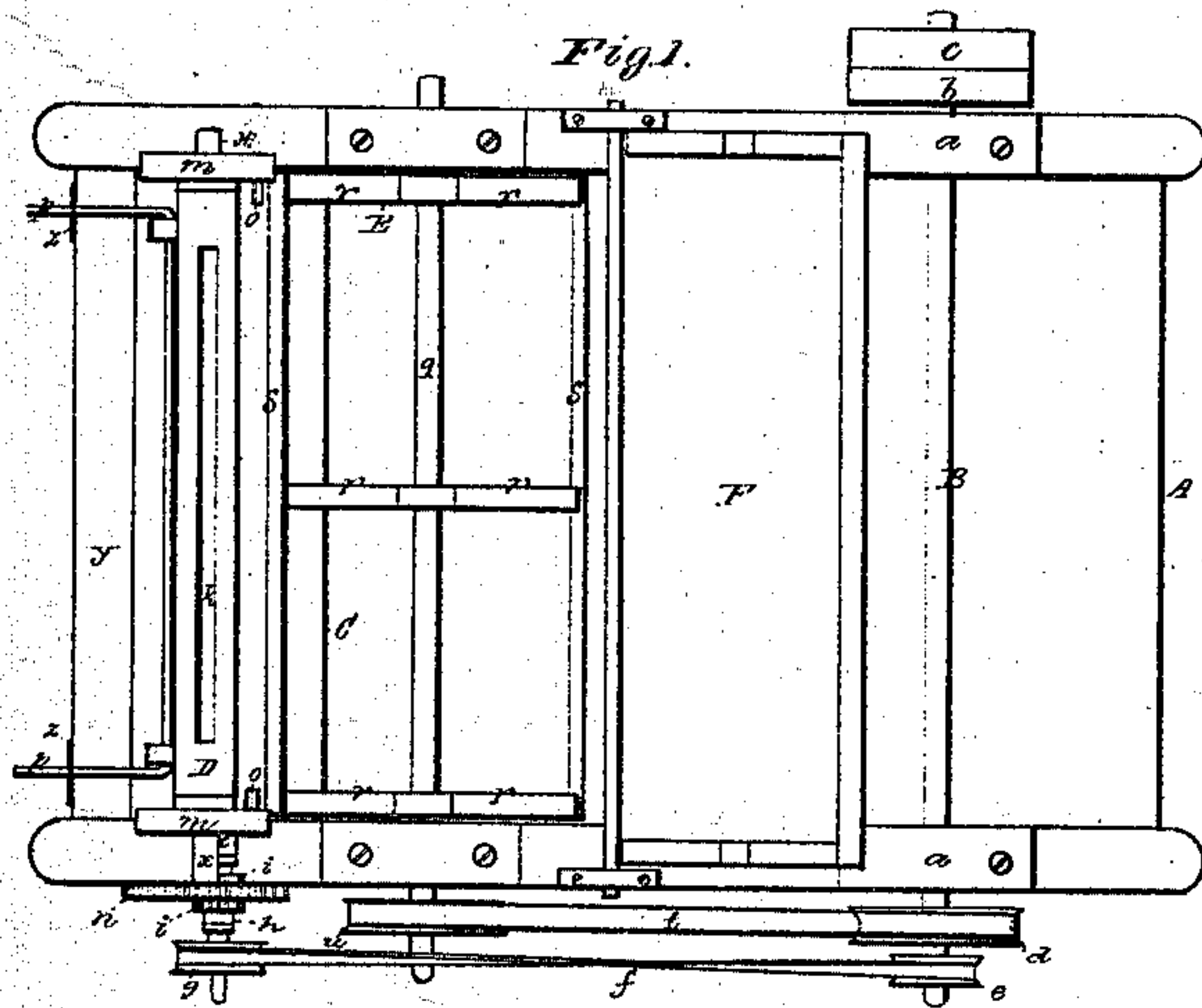


G. F. Dockham,

Burring Wool.

No. 103,309.

Patented May 24, 1870.



Witnesses
S. N. Piper.
J. A. Brown.

George F. Dockham.
by his attorney.
R. H. Eddy.

UNITED STATES PATENT OFFICE.

GEORGE F. DOCKHAM, OF LYNN, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR BURRING WOOL, &c., ON THE SKIN.

Specification forming part of Letters Patent No. 103,309, dated May 24, 1870.

To all persons to whom these presents may come:

Be it known that I, GEORGE F. DOCKHAM, of Lynn, of the county of Essex and State of Massachusetts, have invented a new and useful Machine for Burring and Cleansing Sheep or other Skins, or the wool or hair extending therefrom; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view of the machine, with its beater-cover turned back from over the beater. Fig. 2 is a side elevation, and Fig. 3 a longitudinal section, of the machine.

In the drawings, A denotes a suitable frame for supporting the main operative parts of the machine. This frame sustains, in proper boxes, *a a*, a driving-shaft, B, having fixed to it, and near one end of it, a fast pulley, *b*, and a loose pulley, *c*; also, two other pulleys, *d e*, the latter being arranged at or near its other end.

An endless crossed band, *f*, serves to transfer rotary motion from the lesser of the two pulleys *d e* to another pulley, *g*, fixed on a short shaft, *h*, which carries a toothed pinion, *i*, the arrangement of the said mechanical devices being as represented in the drawings.

A vibratory platform, C, pivoted at its lower corners to the frame A, and therein arranged in manner as shown, has applied to it a beam or roller, D, which is grooved along its periphery, as shown at *k l*. This beam or roller has its shaft *x* supported in boxes *m m*, projecting from the vibrator or platform C, and there is fixed on such shaft, at one end of it, a gear, *n*. This gear is so arranged as to engage with the pinion *i* when the vibrator is in its advanced position, the two gears being out of engagement when the vibrator C is retracted, or back to its rearmost position, or against the rear upper girt, *y*, of the frame.

A stop or projection, *o*, extended from the frame, serves to arrest the vibrator at or in its advanced position, such vibrator being provided with a latch, *p*, to hold it in this latter position. As represented in the drawings, this latch consists of a shaft pivoted to the vibrator, and having two arms extended from it, one of which has a series of teeth on it, to engage with a catch or stop, *z*, extended up

from the frame. The toothed arm works through a hole in the catch or standard *z*.

In advance of the vibrator is a rotary beater, E, composed of a horizontal shaft, *q*, two series of arms, *r*, (extended from such shaft,) and two metallic blades, *s s*, affixed to the outer ends of such arms, the whole being as represented.

A cover or housing, F, to extend over the beater, is pivoted to the frame A, and arranged in manner as exhibited in the drawings.

An endless belt, *t*, passes around the pulley *d* and a pulley, *u*, the latter being fixed on the shaft of the beater.

On revolving the driving-shaft the beater E and the pinion *i* will be put simultaneously in revolution.

To use the machine, the vibrator or platform C is first to be thrown back to its rearmost position, after which a skin, with its hair or wool outward, is to be held against the inner side of the vibrator, so as to extend down thereon, the upper part of the skin being held against or wrapped, either partially or wholly, around the beam, and pressed into either or both of its grooves. This having been done, the vibrator, with the skin, should be advanced so as to bring the gears into engagement with each other. The beater next will whip and beat the hair or wool, and the beam will be revolved, so as to wind on it the skin and gradually draw it upward until most of the wool or hair thereof shall have been exposed to the action of the beater.

By removing from the beam the skin and again properly applying it thereto, and subjecting it to the action of the beater, the remainder of the hair or wool may be subjected to treatment. The burrs and dirt will be whipped and beaten out of the skin by the beater.

I have contemplated the application of another roller, to be placed over the beam, and to revolve therewith, and aid, like a feed-roller, to elevate the skin.

The skin, instead of being raised on the vibrator, may be moved downward thereon while being dressed by the vibrator; but in this case the operation would not be so thorough, as more or less of the burrs and dirt extracted will be likely to be thrown back or upon the skin during its descent and remain on the

whipped parts of the wool; but when the dressing of the skin takes place at its upper part, and the skin is drawn upward under the action of the beater, there is little or no liability of the extracted dirt or burrs being thrown back upon the dressed parts of the wool.

I am aware of the machine patented on December 20, 1837, by Erastus Tracy. I am also aware of the machine described in the United States Patent No. 18,564, dated November 3, 1857, and granted to John Waterhouse.

I make no claim to any thing, arrangement, or combination of devices as represented or described in either of such patents, my machine being an improved machine, for the purpose hereinbefore specified.

Neither of the machines of Tracy or Waterhouse has, for supporting the skin, a device like the vibrator C of my machine, which not only serves to sustain the skin and properly present it to the rotary beater, but operates as a guard to prevent the burrs detached by the beater from being thrown back in the machine upon the attendant.

In my machine the vibrator operates to deflect forward the current of air produced by the beater, and thereby to cause the burrs and

dirt detached by it from the skin to be driven by the air directly forward under the beater and through the machine.

Furthermore, it will be seen that when the vibrator C is moved back, so as to carry the gear *n* out of engagement with the pinion *i*, all rotary motion of the roller D will cease, the same enabling the attendant to remove a skin from the roller or apply one thereto to better advantage, or more conveniently than he could were the roller to continue in rotary motion.

I claim—

1. The combination as well as the arrangement of the rotary beam D, or its equivalent, and its operative mechanism, as described, with the vibrator C and the rotary beater E, the parts being to operate together as set forth.

2. Also, the combination of the stop *o* and the latch *p* with the vibrator C, the beam D and its operating devices, the frame A, and the beater E.

GEO. F. DOCKHAM.

Witnesses:

R. H. EDDY,
J. R. SNOW.