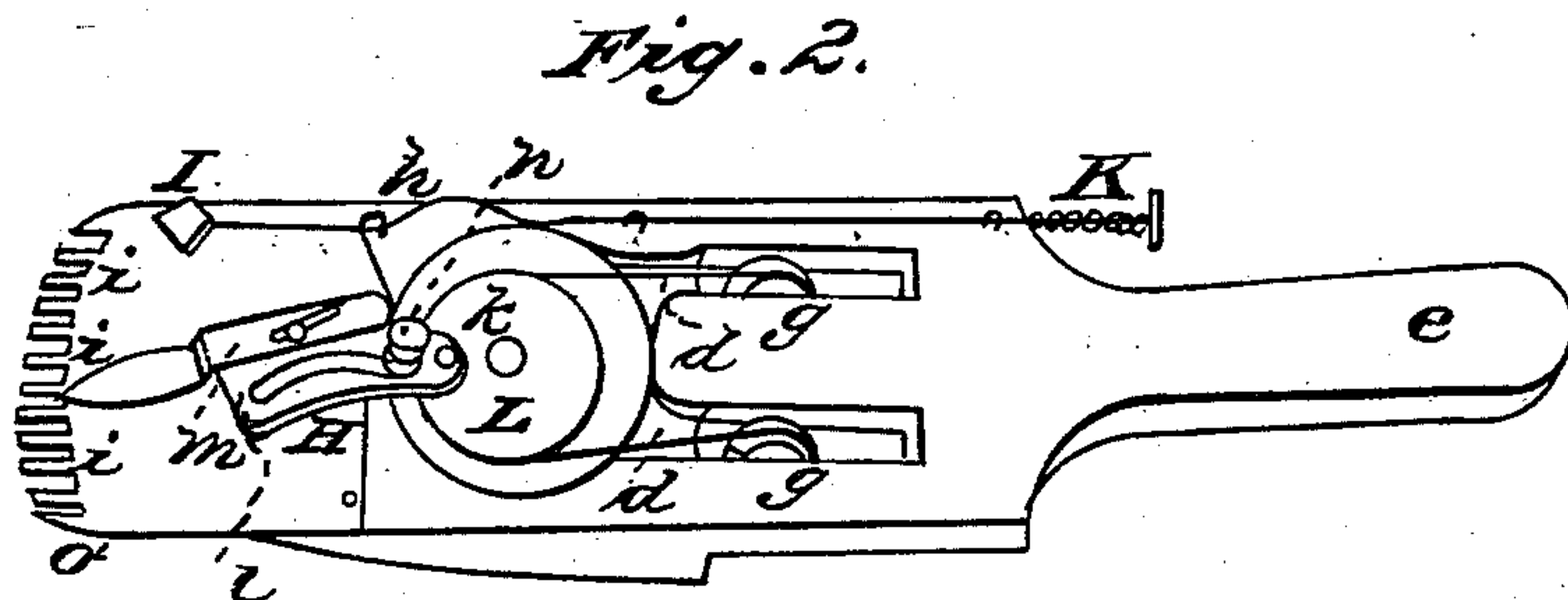
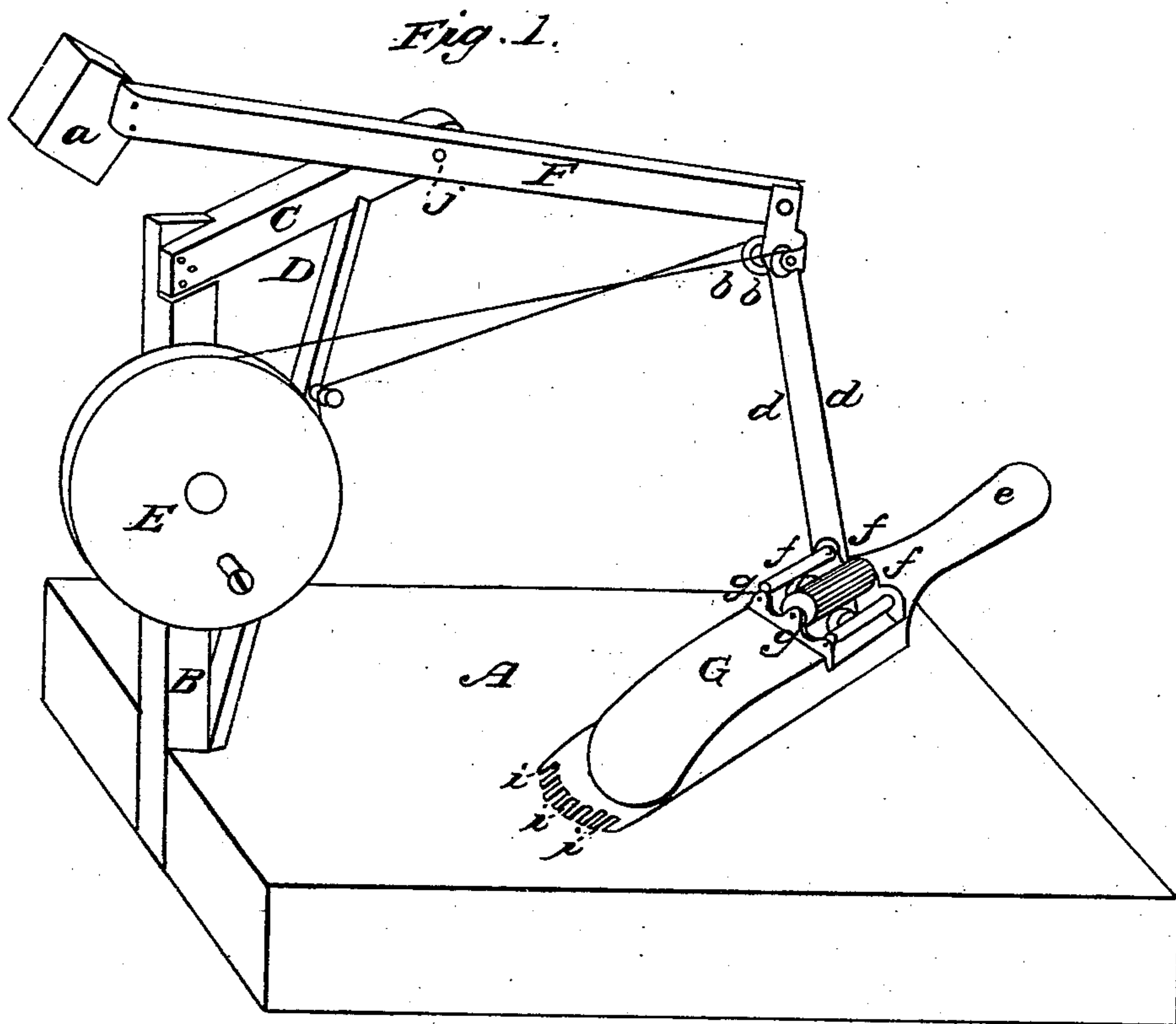


H. A. REID.
Sheep-Shearing Apparatus.

No. 84,905.

Patented Dec. 15, 1868.



WITNESSES

E. P. Goodline.
J. A. Douglas

INVENTOR

Hiram A. Reid.

United States Patent Office.

HIRAM A. REID, OF BEAVER DAM, WISCONSIN.

Letters Patent No. 84,905, dated December 15, 1868.

IMPROVEMENT IN APPARATUS FOR SHEARING SHEEP.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HIRAM A. REID, of Beaver Dam, in the county of Dodge, and State of Wisconsin, have invented a new and useful Machine for Shearing Sheep; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the machine in position for work.

Figure 2 is a detail bottom view of the comb-frame, showing its working-parts.

Similar letters of reference indicate like parts.

The object of this invention is to accomplish the shearing of sheep by machinery.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The wheel-post B is fastened firmly to the platform A, and the arm C is fastened firmly to the top of the post B, and is also supported by the brace D, as shown.

The beam F is attached to the arm C by a pivot, *j*, and has on one end a weight, *a*, and on the other end two pulleys, *b b*.

The belt-wheel E is hung on the post B, and to be operated by a hand-crank, or a treadle, or other device.

The comb-frame G may be made of wood, brass, or other material.

The pulleys *g g* are hung in mortises, as indicated, and the belt *d d* passes around them in running from the pulleys *b b* to the wheel L.

The rollers *f f f* are placed, one between the mortises, filling the entire space between them, and one outside of each mortise.

The belt *d d*, in passing around the pulleys *g g*, passes between the rollers, and is thus kept in place when the comb-frame is tipped to either side while at work, and friction against the sides of the mortises is also prevented.

The comb-plate *i i i* is constructed of iron or other metal, with plain straight teeth, without any cutting or scissors-blade edges. The teeth are arranged on the curve described by the point of the blade *m*, and the outer tooth turned up edgewise, as at *o*, forming a lip or guard, so that the blade-point cannot strike out beyond the comb-plate and cut the sheep. The comb-plate is attached to the frame with rivets or screws, in the obvious manner.

The bar H has a curved slot, *l*, and is vibrated upon a fixed pin, *n*, from the wrist *k* on the wheel L, giving a variable movement to the point of the blade *m*.

The fixed pin *n* has a coiled spring and nut upon it, for the purpose of holding the blade *m* snug against the comb-plate *i i i*; and the blade is attached to the bar H by a set-screw through a slot, as indicated, so that when the edged point of the blade wears away by use, it can be set forward to the right position again.

The sharpener, I, is a piece of fine stone or other suitable material, resting on the comb-plate, as indicated, and attached to a rod, *h*, which terminates in a coiled spring and thumb-piece, as at K.

The rod *h* is attached to the comb-frame by hooks or staples, but left free to slide forward and back, and at *h* it is bent, as indicated, so that when pressed upon at K, the impingement of the bend through the staple, at *h*, will throw the sharpener I directly upon the track of the blade-point, thus causing the edge of the blade to be drawn under the sharpener at every stroke, with a whetting-movement, produced by the curve-shape of the slot *l*.

When operating with this machine, the round belt *d d* passes from the wheel E to the pulleys *b b*, its lower stretch passing over the pulley *c*, for the purpose of keeping it up out of the operator's way, and also to carry it around a greater surface of the wheel E. From the pulleys *b b* the belt passes into the comb-frame G, between the rollers *f f f* and around the pulleys *g g*, thence around the horizontal balance-wheel L, which operates the bar H, with its blade *m*, from the wrist-pin *k*.

The sheep is secured on the platform A by means of a leg-and-neck stock or other device.

The comb-frame is grasped by its handle, *e*, and guided over the contour of the sheep in the obvious manner. The comb *i i i* being pushed into the wool, holds the fibres tense between its teeth until the blade *m* cuts them off.

The flexibility of the belt, the combination of pulleys and rollers at the belt-passage into the comb-frame, and the vertical sweep of the pulleys *b b* from the pivot *j*, and balanced by the weight *a*, all combine to give the comb perfect freedom and adaptability of position within any distance reasonably required for the work.

There are no teeth or guards of any sort under the blade *m*. Its rounded or bevel side is next the sheep, and its flat side is held snug against the comb-plate by the spring and nut on the pin *n*, which, with the lip *o*, entirely prevent any cutting of the sheep, while, at the same time, enabling the operator to take off the fleece with perfect evenness, and as close to the skin as may be desired.

A bottom piece, merely covering the machinery, and permitting the blade-point to be thrust out beyond it, is fastened to the comb-frame G with a screw.

Having thus described the construction and operation of my invention,

I claim as new, and desire to secure by Letters Patent—

1. The manner of constructing and arranging the comb-plate *i i i*, substantially as described.

2. The operative combination of the cutting-blade *m* with the comb *i i i*, as described and for the purposes set forth.

3. The combination of the blade *m* with the slotted bar H, substantially in the manner and for the purposes described.

HIRAM A. REID.

Witnesses:

E. P. GOODHUE,
J. A. DOUGLAS.