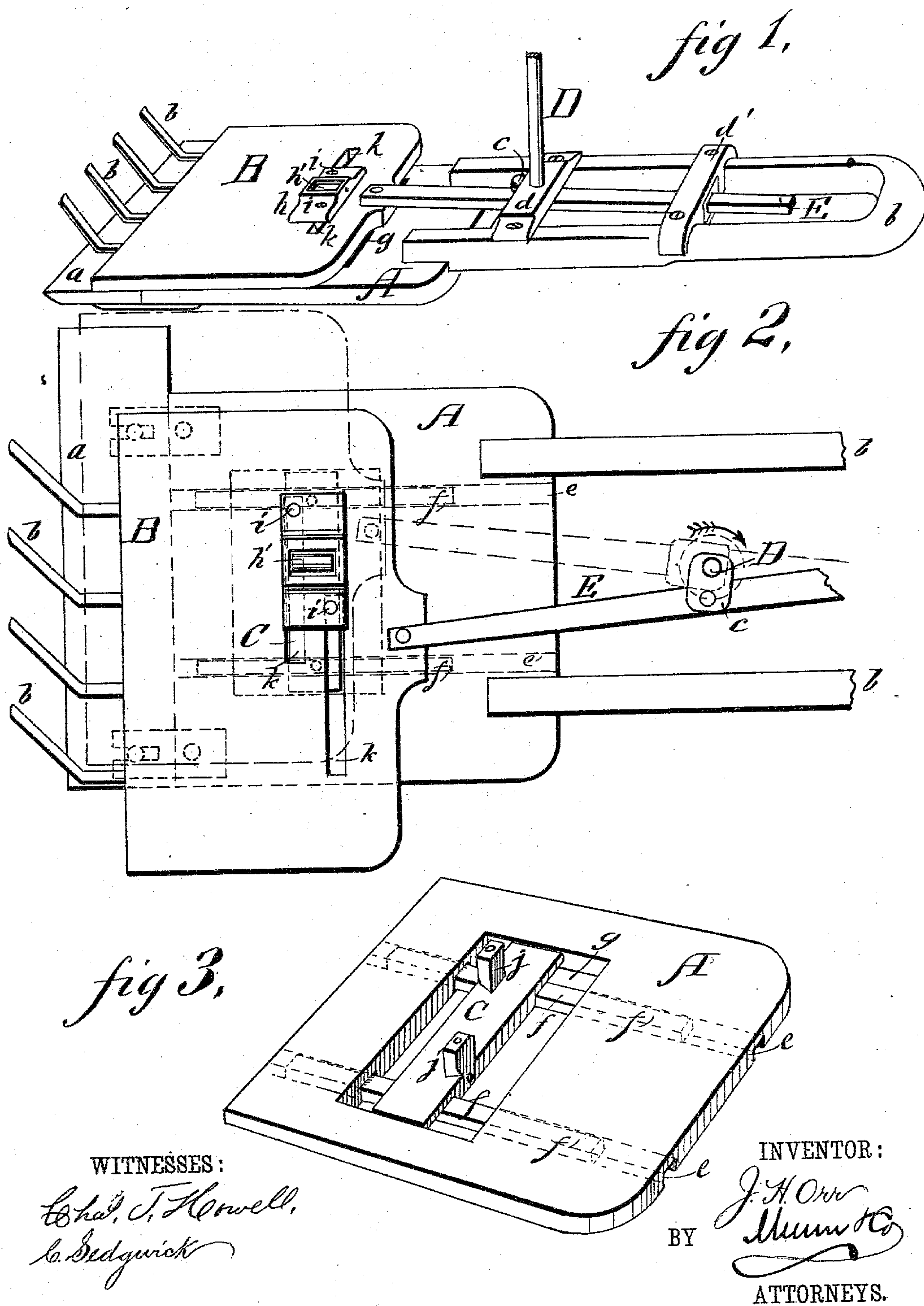


(Model.)

J. H. ORR.
ANIMAL SHEARS.

No. 288,104.

Patented Nov. 6, 1883.



UNITED STATES PATENT OFFICE.

JAMES H. ORR, OF UKIAH, CALIFORNIA.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 288,104, dated November 6, 1883.

Application filed March 14, 1883. (Model.)

To all whom it may concern:

Be it known that I, JAMES H. ORR, of Ukiah city, in the county of Mendocino and State of California, have invented a new and Improved Animal-Shearing Machine, of which the following is a full, clear, and exact description.

The object of this invention is to provide a practical power-shearing machine for shearing sheep, and for other purposes to which it can be applied.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of my new and improved shearing-machine. Fig. 2 is a plan view thereof with the cross-piece *d* removed; and Fig. 3 is a perspective view of the knife-plate A, separated from the other parts of the machine, showing clearly the H-shaped guide C, by which the parallelism of the plate B with the knife-plate A is maintained.

The plate A has secured to it the straight-edged knife *a* and handle-frame *b*, and is formed with the opening *g* in the center, and with the parallel grooves *e e* on its under side, in which grooves the bars *f f* of the H-shaped guide C fit, as shown in Fig. 3.

The plate B is formed with the slots *k k*, has secured to its forward edge the bent fingers *b b*, and is placed flat upon the plate A, so that the fingers *b* rest snugly upon the knife *a*, and is held in that position by the cap *h* and screws *i i*, that pass down through the cap into the upper ends of the studs *j j* of the guide C, which studs reach up through the slots *k k*, as will be understood from the drawings. In this manner the plate B and H-shaped guide C are locked together. The plate B receives motion from the crank *c* of the crank-shaft D through the connecting-rod E, the rear end of which rod is guided in a slot formed in the rear cross-piece, *d'*, and imparts an elliptical movement to the plate—that is, first outward to the position shown in Fig. 1, carrying the bent fingers beyond the edge of the knife *a*; then to the right to the position shown in dotted lines in Fig. 2; then downward; then to the left to the position shown in full lines in Fig.

2. The lateral or right and left hand movement of the plate is permitted by the length of the slots *k k*, the plate moving upon the guide C between it and the cap *h*; and to reduce the friction between the cap and plate I provide the cap *h* with the anti-friction roller *h'*. The outward and backward movement is permitted by the movement of the H-shaped guide C in the opening *g*, made in the plate A, and the bars *f f*, moving in the slots *e e*, serve always to hold the edge of the plate B parallel with the edge of the plate A, so that when in use the right hand and backward movement of the plate B will cause the fingers *b b* to draw the wool or other filaments properly across the edge of the knife *a*, and thus cause it to be cut. The crank-shaft D will receive motion from the motive power through a flexible connection, such as is now used in connection with mechanical shears.

Constructed in this manner the shears are practical, cheap, and are adapted for very rapid work, and will not tire the hand as the common shears do, nor cut or injure the animal being sheared.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a shearing-machine, the knife-plate A, having opening *g*, and grooves *e e*, in combination with the guide C and finger-plate B, substantially as set forth.

2. The shearing-machine herein shown and described, consisting of the knife-plate A, finger-plate B, attached to the H-shaped guide C, in combination with the crank-shaft D and connecting-rod E, the knife-plate having the opening *g* and grooves *e*, and the finger-plate the slots *k*, substantially as and for the purposes set forth.

3. The combination, with the studs *j*, of movable guide C and the cap-plate *h*, of the screws *i*, and the plate B, working over the studs by its slots *k*, substantially as shown and described.

JAMES H. ORR.

Witnesses:

D. H. ORSBORN,
HALE McCOWEN.