(No Model.)

J. W. BANNER.

ANIMAL SHEARS.

No. 374,233. Patented Dec. 6, 1887.

Fig. 1.

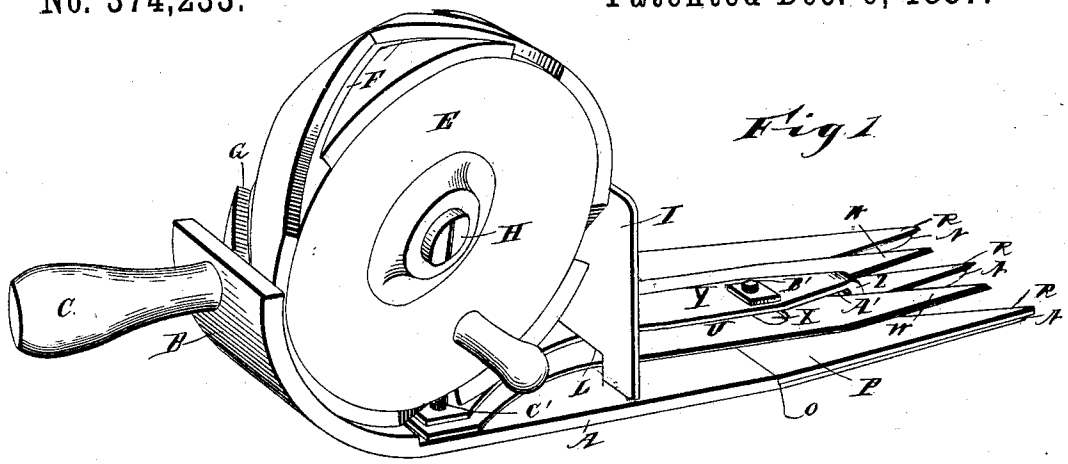


Fig. 2.

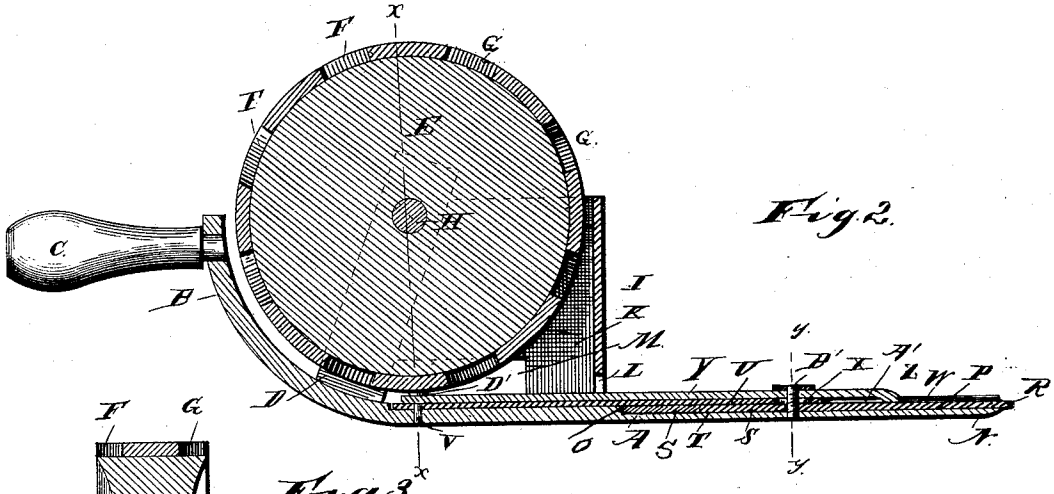


Fig. 3.

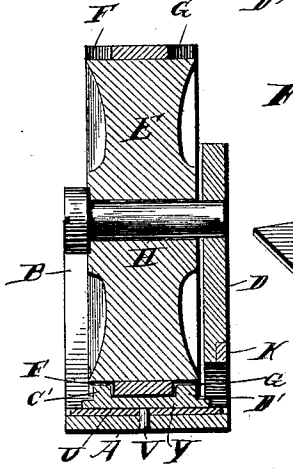


Fig. 4.

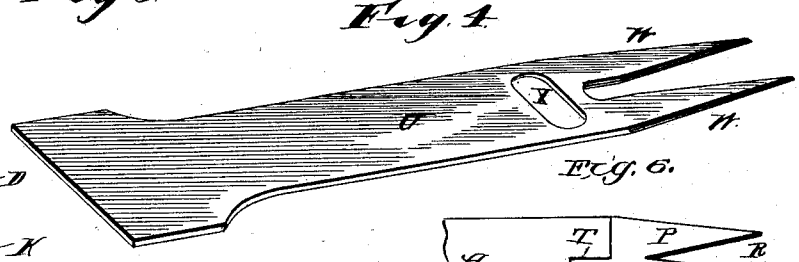


Fig. 6.

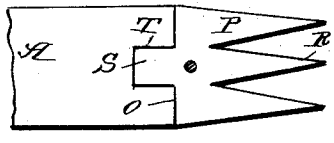
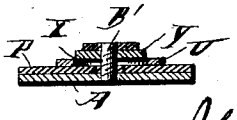


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 374,233, dated December 6, 1887.

Application filed April 27, 1887. Serial No. 236,335. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM BANNER, a citizen of the United States, residing at Banner's Elk, in the county of Watauga and State of North Carolina, have invented a new and useful Improvement in Animal-Shears, of which the following is a specification.

My invention relates to an improvement in animal-shears; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a shears embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view taken on the line *x x*, Fig. 2. Fig. 4 is a detail perspective view of the cutter-plate. Fig. 5 is a sectional view on the line *y y* of Fig. 2. Fig. 6 is a detail plan view of the ledger-plate.

A represents a base-plate, which is made of metal of any suitable width, length, and thickness, and the rear end of the said base-plate is curved upward, as at B, and is provided with a rearwardly-projecting handle, C, whereby it may be readily grasped by the left hand of the operator. From one side of the curved portion of the plate projects a forwardly and upwardly inclined standard D.

E represents an operating cam-wheel which is provided on its periphery with series of oppositely-extending right-angled cam-grooves F and G, the ends of which open on opposite sides of the wheel. The latter is journaled on the bolt H, which is screwed to one side of the standard D, near the upper ends thereof.

I represents a vertical shield or guard-plate, which is arranged on the plate A at a slight distance in front of the cam-wheel E, and from one side of the said plate I projects a rearwardly-extending plate, K, which extends through the front edge of the standard B. In the lower side of the plate I is an opening, L, and in the lower edge of the plate K is an opening, M. The front end of the base-plate A is provided with a forwardly-extending series of fingers, N. The upper side of the front portion of the said base-plate is recessed, as at O, and on the said recess is placed a ledger-plate, P, provided with the forwardly-extending cutting-teeth R, which are arranged directly over the fingers N. The edges of the said cutting-teeth R are beveled downward in opposite directions, as shown in Fig. 1. From the rear side of the ledger-plate projects a tongue, S, which fits snugly in a longitudinal groove, T, made on the upper side of the base-plate.

U represents a cutting-plate which is arranged on the upper side of the base-plate and extends forward over the ledger-plate. The rear end of the plate U is pivoted to the upper side of the base-plate by a bolt or pin, V, and the front end of the said cutting-plate is provided with the forwardly-projecting pair of cutting-teeth W, which are provided with inclined cutting-edges that extend in the opposite directions from the beveled cutting-edges of the teeth R. At a suitable distance from the front end of the plate U the latter is provided with a transverse slot, X.

Y represents an operating-lever which is arranged on the upper side of the cutting-plate U, and is provided at its front end with a depending stud, Z, which fits in an open notch or slot, A', formed between the inner ends of the cutters W. This operating-lever is fulcrumed on a bolt, B', that projects downward through the slot X of the cutting-plate and through aligned openings in the ledger and base plates. The rear end of the operating-lever Y is widened, and is provided on opposite sides with upwardly-projecting studs or anti-friction rollers C' and D'. The stud or roller C' is adapted to engage the open cam-grooves F of the wheel successively, and the stud D' is adapted to engage the open cam-grooves G of the said wheel alternately with the stud or roller C'. It will be readily understood that as the wheel E is turning while one stud or roller is engaging a groove opening on one side of the cam-wheel the other stud or roller will be projected a considerable distance beyond the opposite side of the wheel, and thereby a rocking or oscillating motion is imparted to the lever Y, and through the same to the cutting-plate U, which causes the latter to move its cutting-teeth W back and forth over the cutting-teeth R of the ledger-plate.

The operation of my invention is as follows: The operator grasps the handle C with his left hand and guides the shears over the back of the sheep or other animal to be sheared, and rotates the wheel E by means of a handle pro-

jecting from the right side thereof. The fingers N at the front end of the plate A prevent the cutters from working too close to the skin of the animal, and the vibrating motion of the cutter-plate U causes the cutter-fingers W to sweep back and forth over the cutters R of the ledger-plate and thereby shear the animal clean.

The ledger-plate is removable from the base-plate, so that its teeth may be sharpened when necessary.

The plate I serves to prevent the wool or hair from moving rearward under the cam-wheel E and clogging the same.

Having thus described my invention, I claim—

1. In sheep-shears, the combination of the base-plate A, having the recess O on its upper side at its front end, and provided with the longitudinal groove T, communicating with the said recess, and the ledger-plate P, arranged in the recess O and provided with the rearwardly-extending tongue fitting in the groove in the base-plate, substantially as described.

2. The combination of the base-plate A, having the recess O on its upper side at its front end, and provided with the longitudinal groove T, communicating with the said recess, the ledger-plate P, arranged in the recess O and provided with the rearwardly-extending tongue fitting in groove T, the upper side of the ledger-plate being flush with the upper side of the base-plate, the oscillating cutter-plate U, pivoted at its rear end to the base-plate and bearing thereon, said cutter-plate having the transverse slot X, the cam-wheel, and the operating-lever Y, having the fulcrum bolt extending through slot X, the front end of the said lever being connected to the cutter-plate and the rear end thereof having the studs engaging the cam-wheel, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN WILLIAM BANNER.

Witnesses:
WM. S. FRANS,
C. W. KIME.