

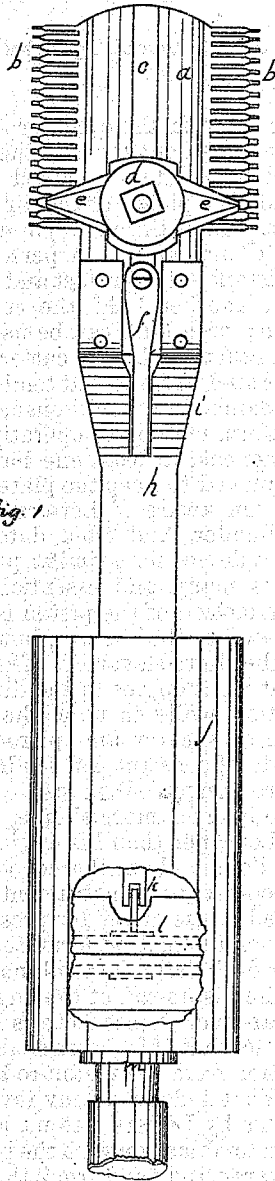
Impt in Horse Clippers.

Fig. 1.

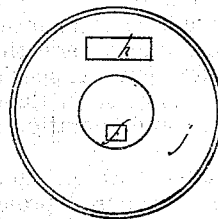
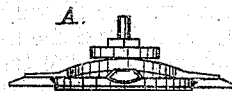


Fig. 2.



Witness:
George E. Bird
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UNITED STATES PATENT OFFICE.

GEORGE F. EVANS, OF NORWAY, MAINE.

IMPROVEMENT IN CLIPPING-SHEARS.

Specification forming part of Letters Patent No. 119,019, dated September 19, 1871.

To all whom it may concern:

Be it known that I, GEORGE F. EVANS, of Norway, in the county of Oxford and State of Maine, have invented a new and useful Sheep and Horse-Clipping Machine; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top plan. Fig. 2 is an end view.

A shows an end view of the plate.

Same letters show like parts.

The purpose of my invention is to provide a device for clipping horses and for effecting the same with ease and uniformity. A special description of the device illustrated in the drawing will explain the nature and operation of my invention.

a shows a plate, flat and smooth on the under side, and having the teeth or spurs *b* projecting laterally from each side thereof. Upon the upper side is the groove *c*. Upon the top of this plate slides the piece *d* with a dovetailed projection to fit into the groove *c*, also formed flaring for this purpose. Extending from the piece *d* are the knives *e*, fitting down closely onto the top of the teeth *b*. The knives are drawn backward and forward by the rod *f*, and the hair of the animal projecting up between the teeth *b* is cut by the passage over it of the knives *e*. The plate *a* is held upon the arm *h*, (somewhat bent at *i*, so as to give the proper position to the plate when being used,) and has a slit, through which works the rod *f*, as illustrated. The arm *h* is rigidly attached to the cylinder *j*, and is somewhat bent at *i*, if desired, to enable the plate *a* to be conveniently laid upon the animal's skin. The rod *f* extends into the cylinder, and is connected by a joint, *k*, to a piston, *l*. The purpose of the cylinder and piston is to operate the cutters *e* by pressure and exhaustion of air or other fluid, so that either a person can singly manage the cutter while another produces its motion, or one hand can be used to direct the cutter while the other is used to produce the force to move the cutter *e*. At *m* is connected a tube, long or short, as the method of operating the piston may be; then, by forcing air into the cylinder (as by the downward stroke of a piston in an air-pump con-

nected with the cylinder *j* by a tube) the piston *l* is forced out toward the end of the cylinder *j* and the cutters *e* moved correspondingly, and when the piston of the air-pump is lifted the exhaustion of the air in *j* moves the piston and cutter *e* back again. A person can be stationed at a distance of a few feet and operate a small pump, and another hold the cutter on the animal's skin; or a bulb can be used in one hand while the other holds the cutter. Thus the cutter is operated without that tendency to shaking or disturbance that would ensue with a less easy and uniform method of operating the knives, and in either case at least one hand can be exclusively employed to keep the plate *a* properly applied.

I am aware of Letters Patent No. 61,700, to Philander Anderson, dated February 5, 1867, for a device for a similar purpose, but which presents many and essential points of difference. The motion of the piston is not directly communicated to the shearer, but indirectly, by means of the slotted lever *D*. The motion of his shearer is at right angles to the direction of the piston's motion, while in mine the direction of the motion of shearer and piston is the same, which mode of construction renders the machine much more convenient in use. Furthermore, my device is much more simple, easy of construction, and cheaper than his device.

I do not claim the construction of a portable sheep-shearing instrument, whereby to be enabled to use air under pressure, so as to operate the engine and perform the required functions. Nor do I claim the combination of the cross-head of the piston-rod of the engine directly with the shear-lever *D*, (see Letters Patent above referred to,) so that this lever shall receive a vibrating motion from the piston-rod.

What I claim as my invention, and desire to secure by Letters Patent, is—

In combination with the plate *a*, the piece *d* and cutters *e*, rod *f* and arm *h*, the cylinder *j* and piston *l*, the said cutters *e* to operate directly from and in the same direction with the piston *l*, as herein set forth.

GEORGE F. EVANS.

Witnesses:

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