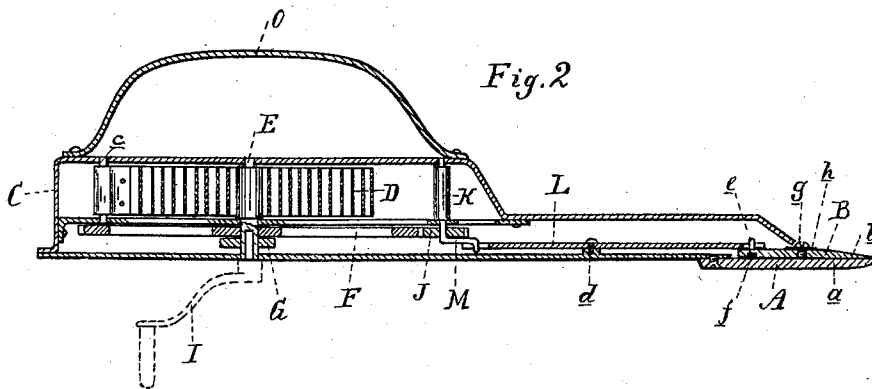
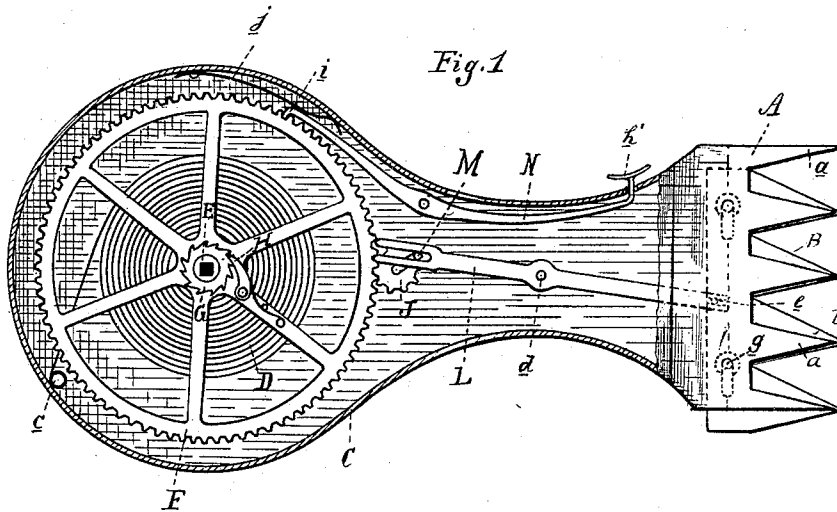


(No Model.)

A. A. WHITE.
ANIMAL SHEARS.

No. 401,806.

Patented Apr. 23, 1889.



Attest:

John Schuman.
P.M. Hulbert

Inventor:

Albert A. White.

By Thos. S. Sprague & Son
Att'y

UNITED STATES PATENT OFFICE.

ALLERT A. WHITE, OF VASSAR, MICHIGAN.

ANIMAL-SHEARS.

SPECIFICATION forming part of Letters Patent No. 401,806, dated April 23, 1889.

Application filed July 26, 1888. Serial No. 281,068. (No model.)

To all whom it may concern:

Be it known that I, ALLERT A. WHITE, a citizen of the United States, residing at Vassar, in the county of Tuscola and State of Michigan, have invented certain new and useful Improvements in Sheep-Shears, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in animal-shearing instruments; and the invention relates specifically to the class of so-called "sheep-shears."

The invention consists in the peculiar arrangement and construction of a spring-motor and its combination with the different parts, all as more fully hereinafter described, and then specifically pointed out in the claim.

In the drawings which accompany this specification, Figure 1 is a bottom plan of my improved shearing-instrument, one side of the casing being removed. Fig. 2 is a vertical central longitudinal section thereof.

A is the stationary cutting-plate provided with a multiple of sharpened teeth, *a*, and B is the vibratory cutting-plate provided with a corresponding multiple of sharpened teeth, *b*, all as in the usual construction of this class of devices, except as hereinafter described.

The stationary cutting-plate A is secured to the forward end of the outer casing, C, which incloses the operating mechanism of the shears, which consists of a coil-spring, D, of suitable power, fixedly secured at one end, *c*, to the inside of the casing and coiled around a central shaft, E, which is journaled in bearings transversely of the casing, and carries the loose cog-wheel F, of relatively large diameter, and the ratchet G, fixed on said shaft, and the spring-pawl H, carried by the gear-wheel F, engaging with the ratchet, all so arranged that the power of the spring imparts a rotary motion to the cog-wheel F. To wind the spring, the shaft E is provided with a square socket for the reception of the removable crank-handle I. A pinion, J, secured upon the shaft K, meshes with the cog-wheel F, and by means of a suitable crank or wrist pin, M, thereon imparts a vibratory motion to the lever L. The lever L is pivotally secured to the casing at *d*, and is provided at each end

with longitudinal slots, which engage, respectively, the wrist-pin on the pinion J and a pin, *e*, on the vibratory cutting-plate B. The cutting-plate B is guided by means of the pin *f*, fixed on the stationary cutting-plate, engaging with a corresponding mortise in the under side of the vibrating cutting-plate, and is secured to the lower end of the cutting-plate by means of set-screws *g*, which pass loosely through slots in the vibratory plate, and are preferably provided with spring-washers *h*. A brake-lever, N, is pivotally secured within the casing, and is provided with the thumb-piece *h'* on the outside of the casing, near the forward end thereof, and at the rear end with the detent *i*, adapted to engage the gear-wheel F. A spring, *j*, is arranged to normally keep the brake in gear.

In practice the operation of the instrument is obtained by winding up the spring, and then allowing its power to be transmitted by means of the devices described to the vibratory cutting-plate by the operator depressing the thumb-piece *h'*. The construction of the actuating parts of the device imparts a very rapid motion without the use of complicated gearing, there being but two gears required to convert the power of the spring. At the same time this construction admits of fashioning the case in such a convenient manner as to be handy to the operator in use, the hand of the operator being retained on top of the plate by a suitable handle, O, while his thumb is brought in suitable proximity to the thumb-piece of the brake. The casing is circular-shaped at the rear end inclosing the large gear-wheel. Then in the middle it is contracted to allow the operator a firm hold on the device, and at the forward end it is enlarged to the width of the stationary cutting-plate. For convenience in repairing, the casing is made of two or more parts screwed together, and the stationary cutting-plate and vibratory cutting-plate are easily removed for the purpose of sharpening.

What I claim as my invention is—

An animal-shearing instrument consisting of a casing, the shaft E, journaled therein, the gear-wheel on said shaft, the spring actuating said gear-wheel, the lever pivoted between its ends in said casing, the stationary cutting-

plate, the vibratory cutting-plate working on
guides on the stationary plate, the pinion J,
and a limited loose connection between the
shaft of said pinion and one end of said lever
5 and between the other end of the lever and
the vibratory cutting-plate, substantially as
and for the purpose specified.

In testimony whereof I affix my signature,
in presence of two witnesses, this 1st day of
June, 1888.

ALLERT A. WHITE.

Witnesses:

P. M. HULBERT,
JOHN SCHUMAN.