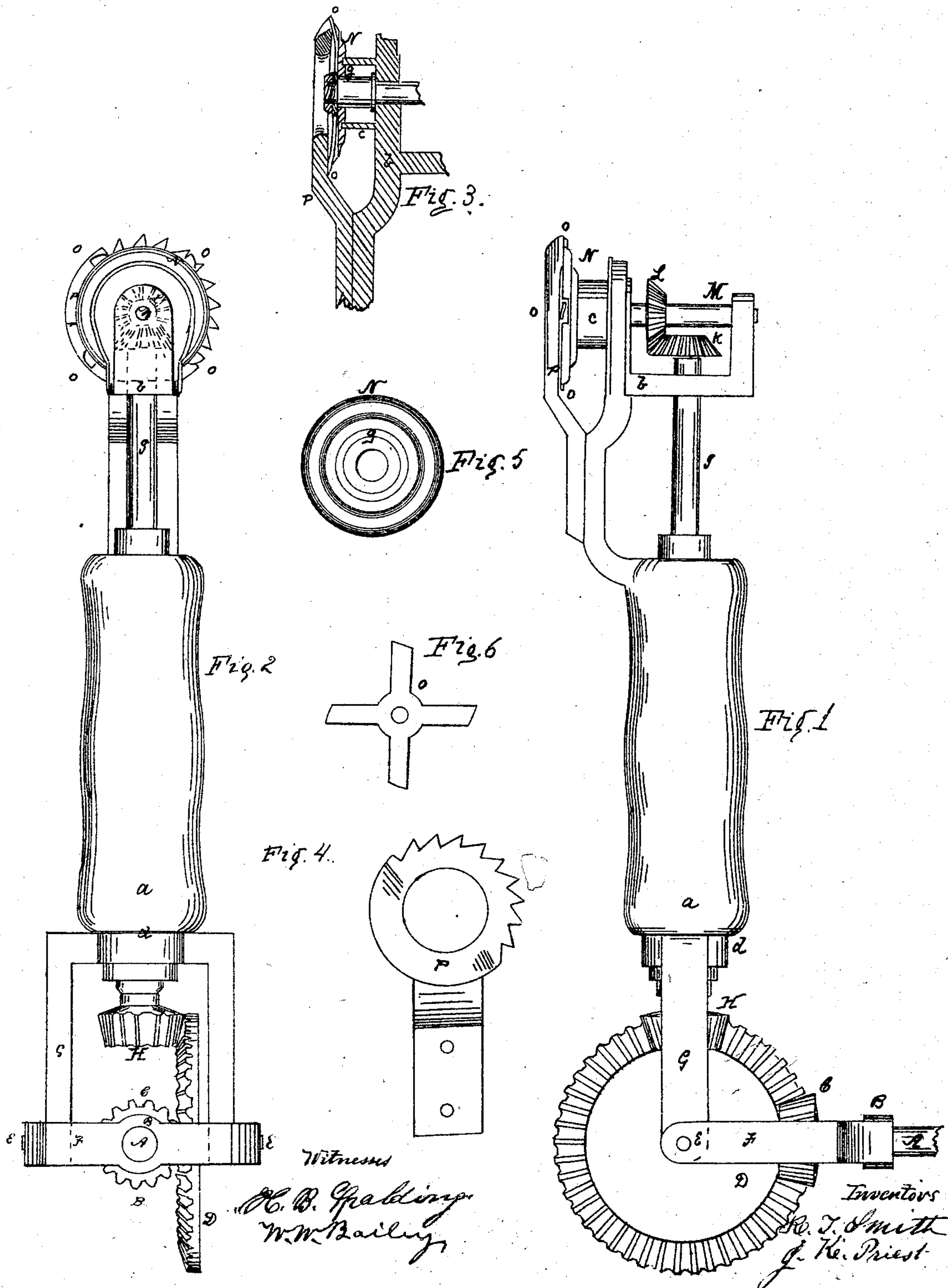


Smith & Priest.

Shearing & Clipping Wool.

N<sup>o</sup> 72103

Patented Dec. 10, 1867.





# UNITED STATES PATENT OFFICE.

R. T. SMITH AND J. K. PRIEST, OF NASHUA, NEW HAMPSHIRE.

## IMPROVEMENT IN DEVICES FOR SHEARING AND CLIPPING WOOL.

Specification forming part of Letters Patent No. 72,103, dated December 10, 1867.

*To all whom it may concern:*

Be it known that we, R. T. SMITH and J. K. PRIEST, of Nashua, in the county of Hillsborough, in the State of New Hampshire, have invented a new and Improved Device for Shearing or Clipping Wool, Hair, or other Material; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure I is a plan of the machine. Fig. II is a horizontal view of the same. Fig. III is a section of the cutting part of the machine. Fig. IV is the cutter-plate. Fig. V is the shield covering the cutter or cutters. Fig. VI is the cutter or cutters.

Similar letters of reference denote like parts.

This invention relates to a device for shearing or clipping wool, hair, or other material for which it may be used; and consists of a revolving shaft, A, turning the cog-wheel C, the intermediate wheel D, and, through the cog-wheels H, K, and L, the shafts I and M. The shaft M has its top bearing on the upper part of the Z-shaped arm *b*, and its lower bearing is in the bracket extending from the lower part of the Z-shaped arm *b*. The cutter or cutters O are secured to the lower end of the shaft M, below the bearings on which the shaft turns, and revolve with the shaft. The cutter or cutters O are of spring-steel, and press upon the teeth of the cutter-plate P, with their ends so bent or twisted as to drop between each tooth when revolving over the cutter-plate P, and when rising over the tooth, to give the peculiar cut of the common scissors. The cutter-plate P is secured to the base of the Z-shaped arm *b* by screws, and is open under the shaft M, as shown by Fig. IV, through which opening any of the material being cut that may become entangled in the cutters may work itself free, instead of clogging the machine. The cutters are covered and inclosed by the circular shield N, through which their cutting ends project. The action of the cutters is in no way affected by this shield; it is simply a protection for them. This shield revolves with the cutters, and prevents the material which is being cut from feeding too fast, and from becoming entangled in the cutters. The cylinder C, which extends

below the bracket extending from the Z-shaped arm, and is a part of the same, is received into the circular groove *g* in the shield N, Fig. V, and prevents the wool or other material from reaching and winding on the shaft M below its lower bearing and above the cutters.

The cog-wheels L and K and shaft M are covered by a bonnet, which is not represented in the drawing.

We would remark that the revolving cutter may have one or more cutting ends.

The shaft A is revolved by a device which permits the machine to move freely in any direction when running at its greatest speed, which device is not claimed in this application.

We will now explain the manner by which this machine works: Hold the machine in the left hand, in the same position as shown in Fig. I; with the right hand turn the shaft A, or (which will produce the same results, and is easier) take hold of the intermediate wheel D and turn it from H toward C. This will move the cutters O over the teeth of the cutter-plate P, and as the edge only of the cutters O presses upon the edge of each tooth of the cutter-plate P as they severally pass each tooth, it will readily be seen that each motion of a cutter over a tooth of the cutter-plate P is the same as the motion of the common scissors in cutting. In putting the machine to practical use after the motive power has been applied, it is held in the right hand, and is moved freely in any direction over the body of the animal, bringing the teeth of the cutter-plate P to the wool or hair, which it cuts with great rapidity.

We claim as new and desire to secure by Letters Patent—

1. The revolving spring cutter or cutters O, in connection with a cutter-plate.
2. The open cutter-plate P.
3. The shield N, in connection with the cylinder C, covering shaft M, and extending into groove *g*, substantially in the manner and for the purpose herein described.

R. T. SMITH.  
J. K. PRIEST.

Witnesses:

G. F. ANDREWS,  
W. W. BAILEY.