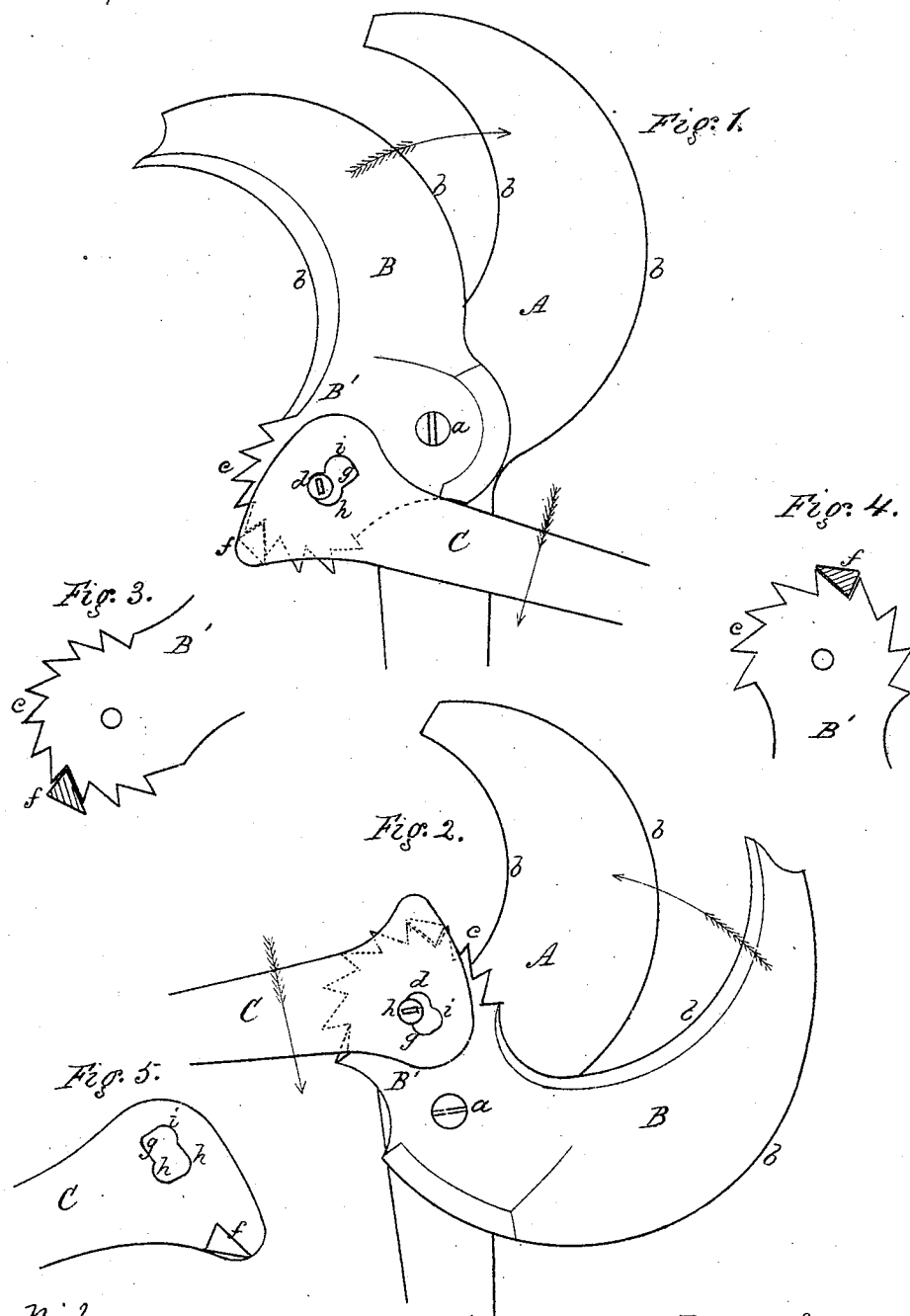


E. L. YANCEY.
Pruning Shears.

No. 134,185.

Patented Dec. 24, 1872.



Witnesses.

Archibald Baine
William C. Baine

Inventor.
Eduard L. Yancey,
per R. F. Osgood,
att'y.

UNITED STATES PATENT OFFICE.

EDWIN L. YANCEY, OF BATAVIA, NEW YORK.

IMPROVEMENT IN PRUNING-SHEARS.

Specification forming part of Letters Patent No. 134,185, dated December 24, 1872.

To all whom it may concern:

Be it known that I, EDWIN L. YANCEY, of Batavia, in the county of Genesee and State of New York, have invented a certain Improvement in Pruning-Shears, of which the following is a specification:

Nature of the Invention.

My invention consists of a reversible shears arranged to cut either on the convex or concave side, and provided with a slotted lever of peculiar construction whereby either a short or long cut may be made at pleasure, as hereinafter described.

General Description.

In the drawing, Figure 1 is an elevation showing the shears in position for cutting on the convex side; Fig. 2, a similar view, showing the shears reversed, and in position for cutting on the concave side; Figs. 3 and 4, views of the ratchet-shank of the movable jaw and the stationary pawl which gives it motion, in positions corresponding with Figs. 1 and 2, respectively; Fig. 5, inside view of pawl-lever.

A represents the stationary, and B the movable, jaws, which are pivoted at *a*. These jaws have cutting-edges *b b* on both sides, so arranged that, while one produces the shearing cut to sever the limb, the other cuts through the bark on the opposite side, and thus prevents tearing. The shears may either be used, as in Fig. 1, with the convex surface of the movable jaw cutting against the concave edge of the stationary one, or reversed, as in Fig. 2, with the concave edge of the movable jaw cutting against the convex edge of the stationary one. This change is made by simply turning the movable jaw on its axis round to the opposite position; and it is desirable in cutting limbs in various or difficult positions or at different angles. The shank B of the movable jaw projects outward some distance beyond its pivot, and is provided with a ratchet-head, *c*. Concentric with the teeth of this ratchet is a pin or screw, *d*, over which fits the slot *g* of the lever C. On the inside face of the head of the lever is a fixed pawl, *f*, of proper triangular form, to fit into the teeth of the ratchet-head. The slot *g* is of peculiar construction,

and, in connection with the pawl, forms the principal feature of my invention. It is made elongated, and of sufficient extent to allow the pawl to fall out of the teeth in moving back for a new hold. It has two bearing-sockets, *h h*, on one end, and a single one, *i*, at the other, to catch and hold upon the pin *d* without slipping, and thus hold the pawl to its engagement in going forward or back. The use of these several sockets or bearings enables the pawl either to press the movable jaw up slowly to the cut, tooth by tooth, as in Fig. 1, or to bear it back quickly in the same position for a new hold on another limb; or to operate in the reverse position, as in Fig. 2, in which several positions the slot changes its bearings upon the pin. A simply smooth elongated slot would not answer the purpose, as the pin would not hold in any given position. It is only by the use of the depressed socket-bearings that I am enabled to reverse the shears and make them effective in cutting in both positions. The elongated space of the slot simply gives the proper retraction of the lever, while the sockets hold it in place.

By this arrangement I dispense with all loose dogs, springs, &c., and make all the parts stationary, by which a more efficient action is produced, and the apparatus is more simple and less expensive. I also adapt the ratchet arrangement to a reverse-acting shears, cutting either way, right or left, which has never before been done.

By this construction I can give a slow or a rapid cut at pleasure. In Fig. 1, I can feed the cutter up tooth by tooth. In Fig. 2, I can force the whole cut at a single movement.

It will be noticed that in the two different cuts shown in Figs. 1 and 2 the pawl has a reversible bearing upon the teeth, in the first case striking against the square shoulder, while in the latter against the incline.

I am aware that a circular ratcheted cutter, pivoted to a movable lever, and operated upon by a pivoted pawl pressed up by a spring-dog, has before been used. Such I do not claim.

Claim.

What I claim, and desire to secure by Let.

ters Patent in a double or reverse acting shears, is—

The lever C, provided with the fixed pawl *f* and socketed slot, when combined with the ratchet-head *c* projecting from and forming part of the movable jaw, the whole arranged as described, for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

EDWIN L. YANCEY.

Witnesses:

JOHN L. FOSTER.

O. D. HAMMOND.