No. 625,896. Patented May 30, 1899.

S. E. O'DELL.

PRUNING SHEARS.

(Application filed May 16, 1898.)

(No Model.)

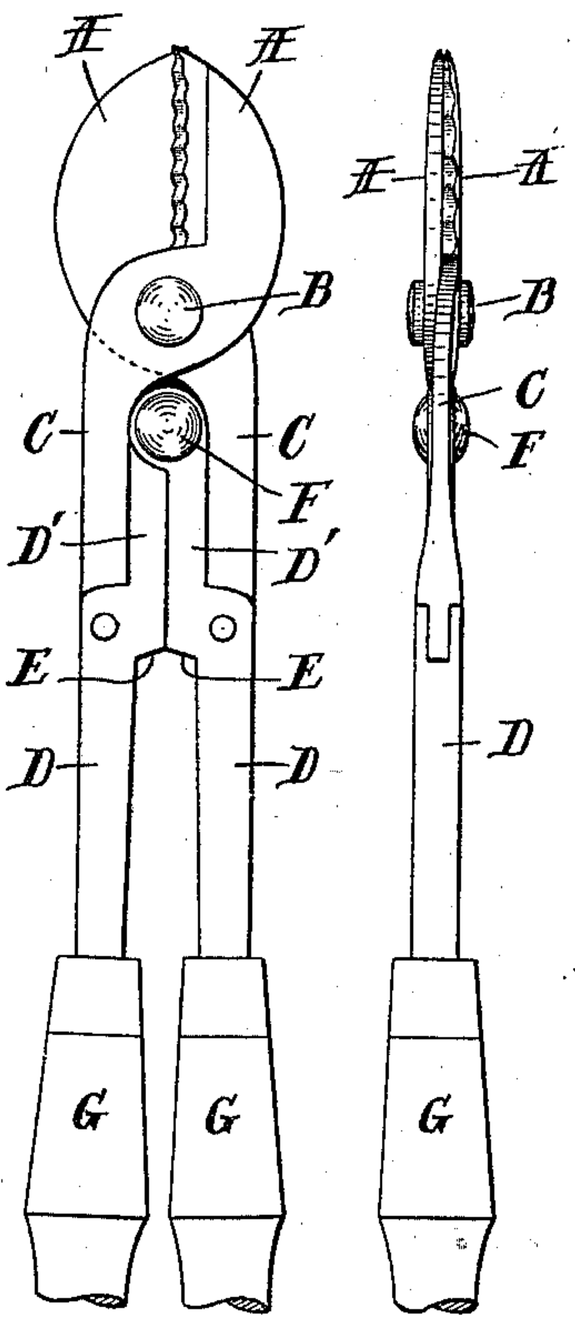

Fig. 2.

Fig. 3.

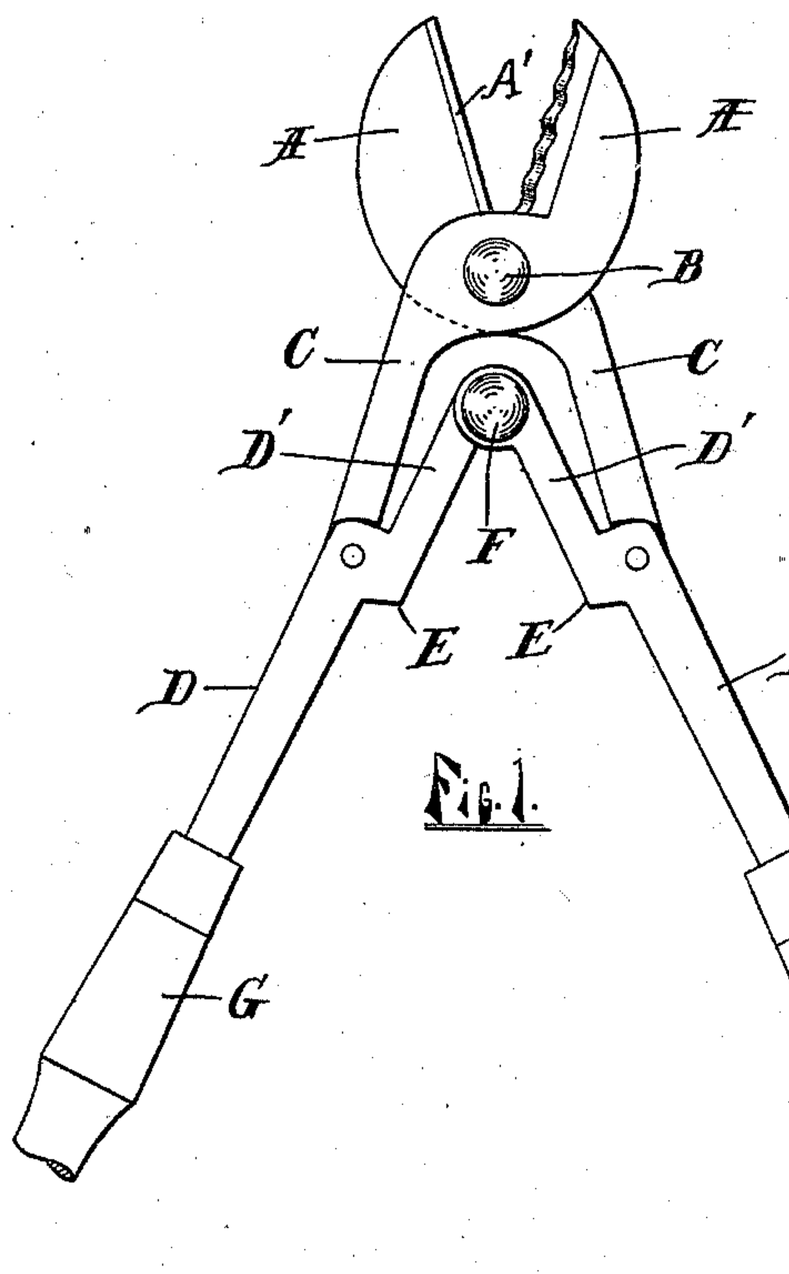

Fig. 1.

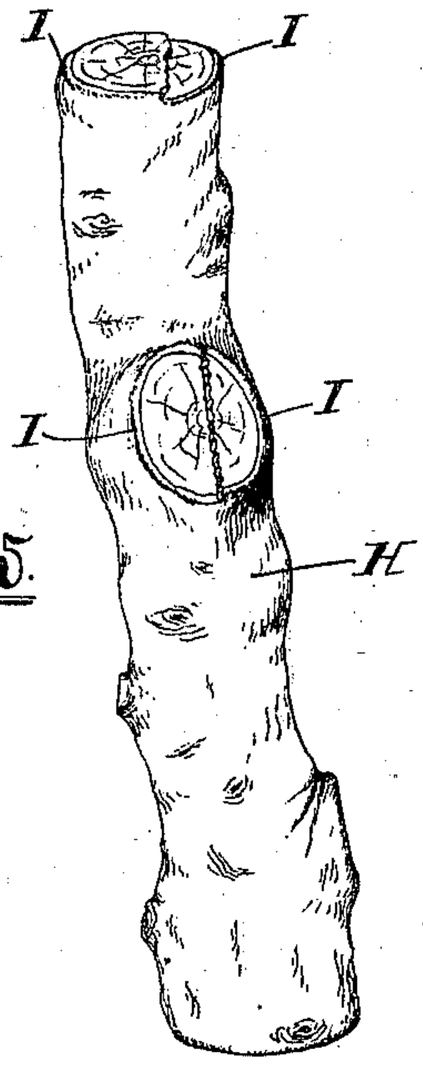

Fig. 5.

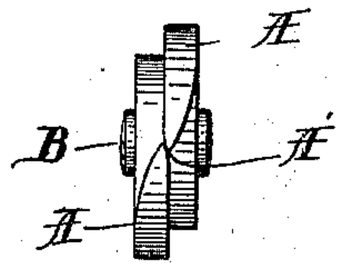

Fig. 4.

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UNITED STATES PATENT OFFICE.

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PRUNING-SHEARS.

SPECIFICATION forming part of Letters Patent No. 625,896, dated May 30, 1899.

Application filed May 16, 1898. Serial No. 680,772. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN E. O'DELL, a citizen of the United States, residing at Cedar Springs, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Pruning-Shears; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in pruning-shears; and its object is to provide the same with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2, the same closed; Fig. 3, a view of the same at right angles to Fig. 2; Fig. 4, an end view of the blades, and Fig. 5 a full-size perspective of a twig cut by my improved shears to illustrate the operation of the same.

Like letters refer to like parts in all of the figures.

A A represent the respective blades of the shears, one or both of which blades are provided with a serpentine or corrugated edge to prevent slipping on the twig while cutting the same. Said blades pass each other only to the extent of the bevel on their adjacent sides and are beveled at both sides, having the greater bevel on the outer sides, as in ordinary shears, and a lesser bevel on the adjacent sides, as shown at A′, and their adjacent faces in different planes to enable them to cut squarely through the wood and also to compress the bark closely down upon the wood, as at I in Fig. 5, to prevent separation of the bark from the wood and drying out at this point. This construction of blade also enables me to make a clean cut without bruising or checking the bark, leaving the wound in the best possible condition to heal over by natural process. The blades are crossed and pivoted to each other at B and prolonged beyond the same, forming short blade-levers C for operating the same, said levers being in the same plane and curved outward on their inner sides near the pivot B, leaving a space between them to embrace the toggle-levers D′ D′, formed by the inner ends of the handle-levers D D. Said blade-levers are also pivoted at their ends to the handle-levers D, which latter are set off toward each other laterally at said pivots, forming shoulders E, and extend upward between the levers C and in the same plane thereof a short distance and are pivoted to each other at their ends. Said handle-levers extend from the shoulders E downward in line with the levers C when closed and terminate in suitable handles G G. The blade-levers C C are thus connected by the toggle-joint levers D′ D′, operated by the handle-levers D D, thus having increased power as the shears are opened out to grasp the larger twigs or branches to be cut, these toggle-levers being in the same plane with the blade-levers and between the same, and the handle-levers D D forming a jointed prolongation of the blade-levers C C. A smooth, symmetrical, and compact instrument is thus formed that can be passed among closely-arranged limbs very conveniently and quickly and operated in small space, and being all in the same plane of the cutting edges of the blades all twisting and lateral strain is avoided.

When the shears close suddenly as the cut is finished, the shoulders E E contact each other and keep the handles far enough apart to prevent pinching the thumbs of the operator between the same.

Fig. 5 illustrates the appearance of the cut made by my improved shears. H represents a portion of a twig after being cut by these shears, the bark being compressed closely down around the wound, as at I, and devoid of abrasion or bruises to loosen the same.

Having thus fully described my invention, what I claim, and wish to secure by Letters Patent, is—

1. In pruning-shears, pivoted blades each beveled on both sides and, when closed, overlapping on their adjacent sides to the extent of the bevel, substantially as described.

2. In pruning-shears, blades having their adjacent faces in different planes, and the overlapping portions of said blades slightly beveled, substantially as described.

3. In pruning-shears, blades pivoted to each

other and having integral blade-levers, and levers pivoted to each other at their ends and directly pivoted to the ends of said blade-levers at a distance from their ends, and having their pivoted ends extended from the end of the blade-levers toward the pivot of the blades, substantially as described.

4. In pruning-shears, blades pivoted to each other, blade-levers separated at their inner sides to receive the toggle-levers and moving in the same plane with each other, toggle-levers between the blade-levers and moving in the same plane therewith and connecting the same, and handle-levers integral with the toggle-joint levers, substantially as described.

5. In pruning-shears, blades pivoted to each other, blade-levers integral therewith and in the same plane, toggle-joint levers pivoted to the ends of the blade-levers and embraced thereby and in the same plane therewith, and handle-levers having offsets and shoulders and prolonging the line of the blade-levers and operating the toggle-joint levers, substantially as described.

6. In pruning-shears, blades pivoted to each other, blade-levers in the same plane and having a space between the same, toggle-joint levers pivoted to the blade-levers and embraced thereby and in the same plane therewith, handle-levers integral with the toggle-joint levers and having offsets and shoulders near the pivots of the blade-levers, said levers all arranged in the same plane, substantially as described.

7. In pruning-shears, blade-levers pivotally connected and having cutting-blades integral therewith and levers pivoted directly to the movable ends of said blade-levers and having their shorter ends free from the blade-levers and extending from the pivots in the end of the blade-levers toward the pivot connecting said blade-levers, and pivoted to each other at said projecting ends, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

STEPHEN E. O'DELL.

Witnesses:
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LUTHER V. MOULTON.