

M. Grover,

Pruning Shears.

No. 103873

Patented June 7. 1870.

Fig. 1

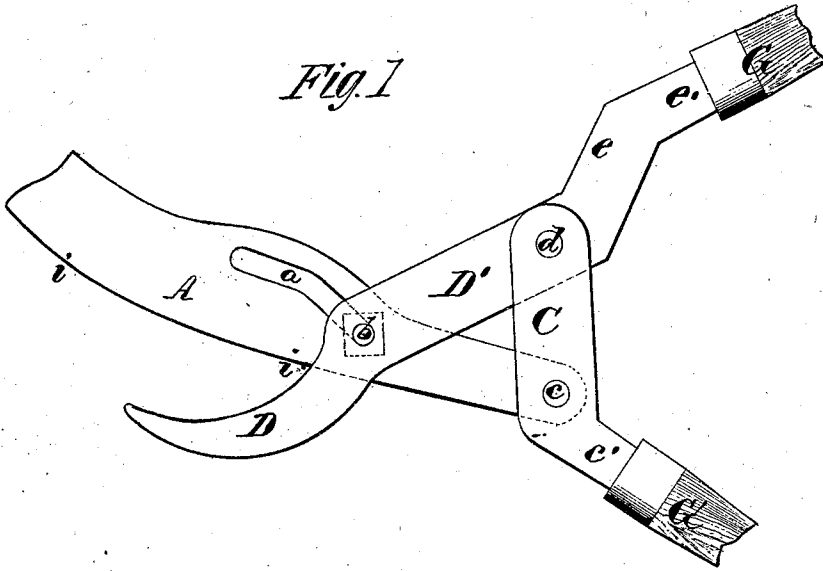


Fig. 2

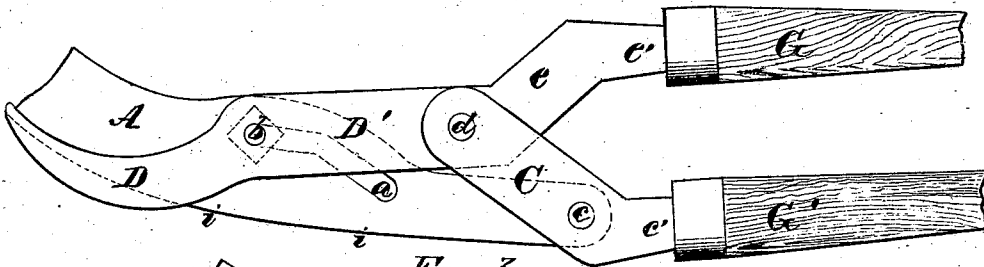


Fig. 3.



Fig. 4.



Witnesses
R. V. Campbell,
J. A. Campbell

Inventor
Manasseh Grover
by
Mason Peirich Lawrence

United States Patent Office.

MANASSEH GROVER, OF CLYDE, OHIO.

Letters Patent No. 103,873, dated June 7, 1870.

IMPROVEMENT IN PRUNING-KNIFE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, MANASSEH GROVER, of Clyde, in the county of Sandusky and State of Ohio, have invented a new and improved Pair of Pruning-Shears; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side view of the improved shears, open.

Figure 2 is a similar view of the shears shut.

Figure 3 shows the slotted cutting-blade.

Figure 4 is an edge view of the shears.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to improve pruning-shears, which are composed of three jointed levers, by connecting the curved cutting-blade to the shank of the hooked lever, by means of a stud working in an oblique-curved slot, and also by constructing the handles or shanks of the instrument with obtuse angles, as will be hereinafter explained.

The following description will enable others skilled in the art to understand my invention.

In the accompanying drawing—

A is a curved cutting-blade, which is pivoted at *c* to the angular lever C, and connected by a fulcrum-pin, *b*, working in a slot, *a*, to the shank D' of a hooked lever.

The hooked lever is pivoted, *a a*, to the angular lever C, and the shank of this lever is bent, so as to form two obtuse angles, *e e'*, which, with the angular shank *c'* of the lever C, will allow the handles G G to become parallel to each other when the jaws of the instrument are closed, as shown in fig. 2.

The hooked jaw D, and its lever and handle, afford a purchase on a branch during the act of cutting it, by the drawing and closing movements of the cutting-blade A.

The blade A has a long curved cutting-edge, *i*, and

diagonally to this cutting-edge a curved slot, *a*, is made through the blade A, through which passes the fulcrum-pin *b* that connects the blade to the hooked lever, and allows the blade to move in a direction with its length, at the same time that it is closed on the hook D, by the approximation of the handles G G.

In the schedule annexed to Letters Patent granted to Peter Keck, May 21, 1867, and numbered 64,882, pruning-shears are described which are composed of three levers, two of which are connected together by means of a fulcrum-pin working in a straight slot, which is parallel to the cutting-edge of the cutting-blade.

The shank of the hooked jaw is also straight in Keck's shears.

In my shears the slot *a* is curved and oblique or diagonal to the cutting-edge of the blade A; consequently, it will be seen that I have a compound movement of the blade, in closing it, consisting of a motion in the arc of a circle about the pin *b*, a bodily endwise movement combined with the direct movement of the cutting-blade toward the hook D, produced by the divergence of the slot *a* from the cutting-edge of said blade.

The great advantage which I obtain over other shears results from making the slot *a* oblique, and shaping the shanks to which the handles G G are applied as above described, whereby comparatively little movement of the arms is required to fully open and close the cutter.

I do not claim shears, constructed as shown in the Letters Patent of Peter Keck; but

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

Constructing the cutting-blade A of the three-part shears herein described with the diagonal slot *a* through it, to receive the fulcrum-pin *b*, as set forth.

MANASSEH GROVER.

Witnesses:

W. H. REYNOLDS,
M. MOTLEY.