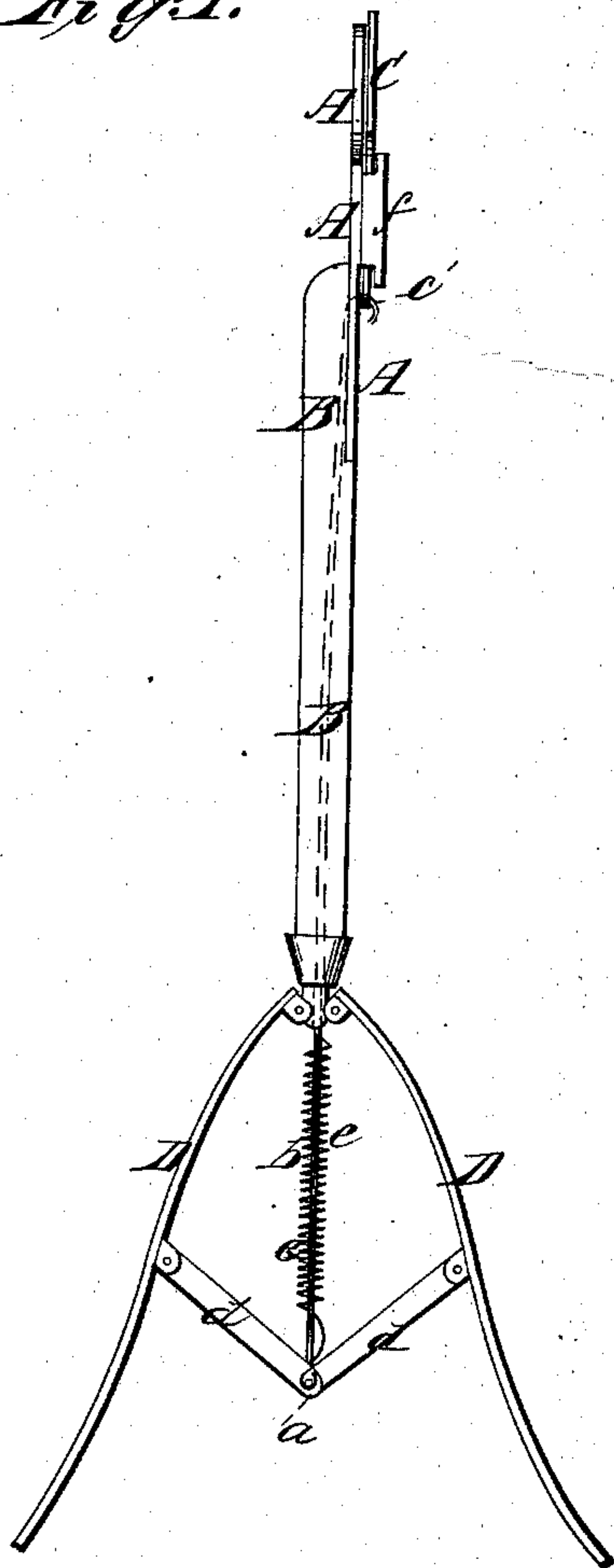
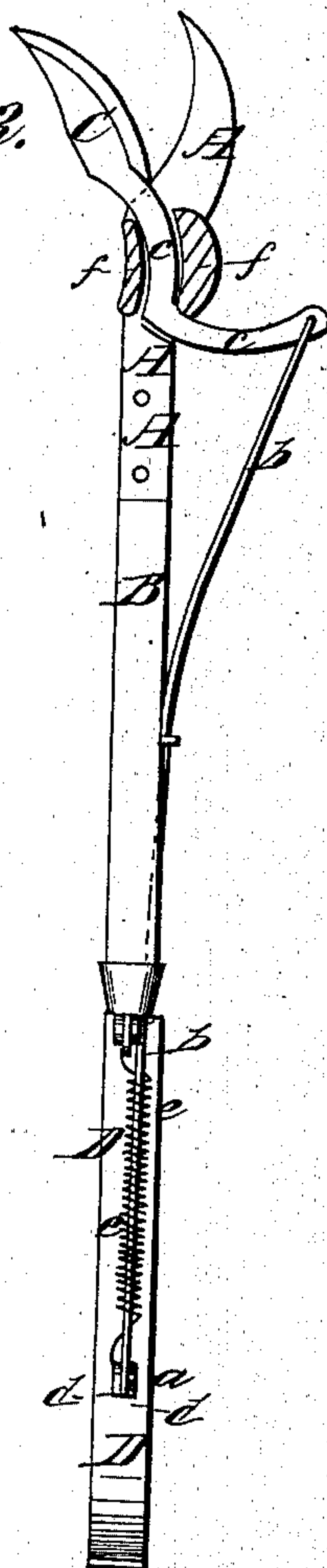


*D. Campbell,*  
*Pruning Implement.*  
*N<sup>o</sup> 62,180.      Patented Feb. 19, 1867.*

*Fig: 1.*



*Fig: 2.*



*Witnesses:*

*Thos. Truch*  
*J. A. Service*

*Inventor:*

*Daniel Campbell*  
*Per M. M. H. Attorney*



# United States Patent Office.

DANIEL CAMPBELL, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO HENRY SEYMOUR, OF NEW YORK CITY.

*Letters Patent No. 62,180, dated February 19, 1867.*

## IMPROVEMENT IN PRUNING SHEARS.

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, DANIEL CAMPBELL, of Elizabeth, Union county, and State of New Jersey, have invented a new and useful Improvement in Pruning Shears; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents an edge view of my improved pruning shears; and

Figure 2, a face view of the same, partly in section.

Similar letters of reference indicate like parts.

This invention relates to an improvement in pruning shears, by means of which a drawing cut is obtained, instead of that obtained by the ordinary shears, which is a great improvement, as the drawing cut, whereby one blade is gradually drawn obliquely towards the cutting edge of another stationary blade, insures a better operation and a cleaner cut.

My invention consists, first, in the arrangement of the blades and the manner in which they are operated, so that the aforesaid drawing cut may be obtained; second, in construction of the handle of the apparatus, which is composed of a system of levers, in such a manner that but little pressure on them will suffice to operate the blades.

The stationary blade A is secured, by means of screws or other devices, to the wooden stock B. The movable blade C, the shank *c* of which is curved, as seen in fig. 2, is not pivoted or otherwise secured in the stock, but slides in a groove corresponding with the curved part of the shank *c*. The movable blade C, or rather the curved portion of its shank, is held between the stationary blade A and a plate, *f*, the latter being grooved in the manner shown. The shank *c* extends over the side of the stock B by means of a horizontal extension, *c'*. To the latter the rod *b* is secured with its upper end, the lower end of the rod *b* being secured to a pin, *a*. By the pin *a* are connected and held together two arms, *d*, each of which is in turn pivoted to a toggle-lever D, as shown. The latter are pivoted to the lower end of the stock B. A spiral spring, *e*, serves to pull the pivoting point *a* up, and thus open the shears as soon as the handles D are released.

I am aware that toggle-levers have been used already in pruning knives, but never more than one set of them. In that case the lower end of the stock acted as a handle, while the rod which operates the blades was pivoted to the arm of the toggle; it was then necessary to push the toggle-lever against the lower end of the stock or handle to operate the shears. By my invention I dispense with a stationary handle altogether; and it is obvious that by pushing together the levers D less power is needed than it would if only one lever is to be pushed against the stock. Thus the same amount of power is gained upon the shears by my method, while the force necessary to operate the apparatus is greatly reduced. When the levers D are pushed together the pin *a* will be drawn down. Thus the rod *b* will also be pulled down, and with it the shank of the movable blade C. Were the latter pivoted to the stock in the ordinary manner the effect would be the same as usual. But by my method the shank is gradually pulled down through the curved groove in the plate *f*, pulling the blade itself after it in the same curve, and thus drawing the movable blade gradually and obliquely towards the cutting edge of the stationary blade A. The long back edge of the slot in the plate *f* gives good safety and stability to the blade C while the same is being moved, while the whole plate *f* covering the bent part of the shank *c*, acts as a better guard for the same than the heads of screws or rivets, heretofore generally used. I intend to use the shears constructed on this principle for different purposes, and not only for pruning or trimming trees.

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

1. The combination of the curved shank *c* of the movable blade C with the grooved plate *f* and stationary blade A, substantially as and for the purpose herein shown and described.

2. I claim the application to pruning shears of the double set of toggle-levers D, and arms *d*, made and operating substantially as herein shown and described.

DANIEL CAMPBELL.

Witnesses:

STANLEY G. MASON,  
JOHN ROSE.