(Model.)

G. C. CASTERLIN & F. DE WITT MOSHER.

PRUNING IMPLEMENT.

No. 336,383. Patented Feb. 16, 1886.

Fig. 1.

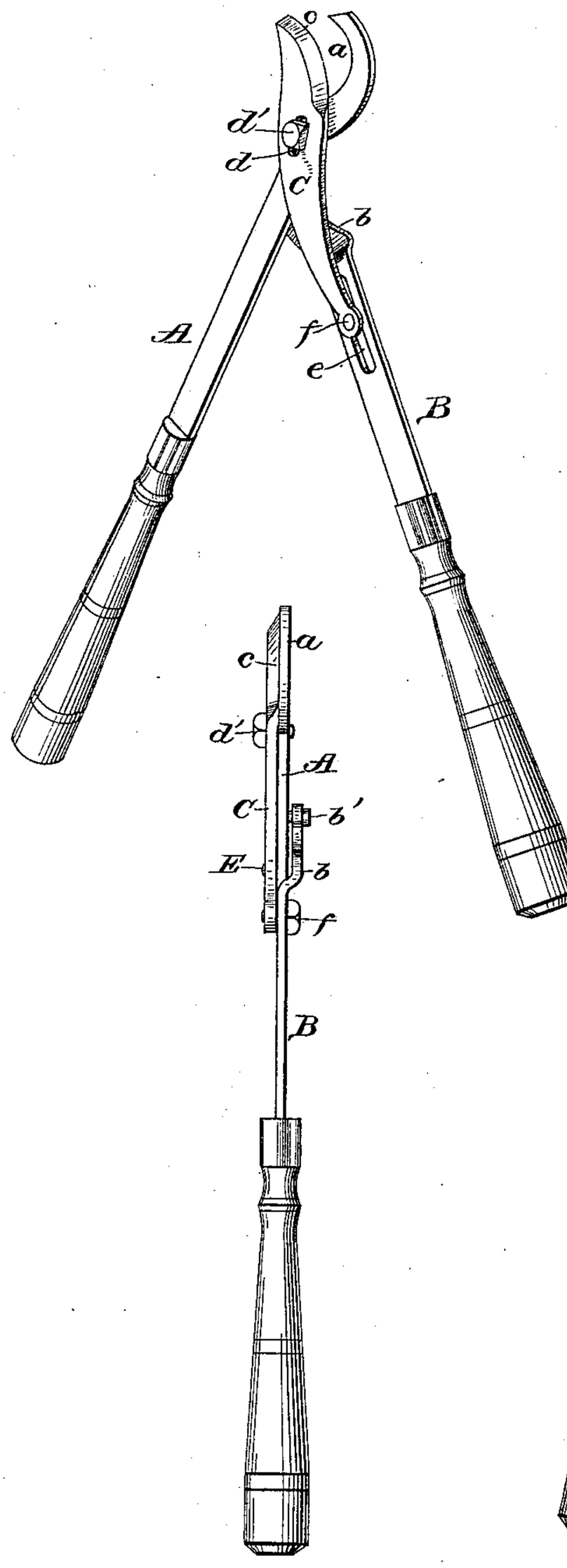

Fig. 2.

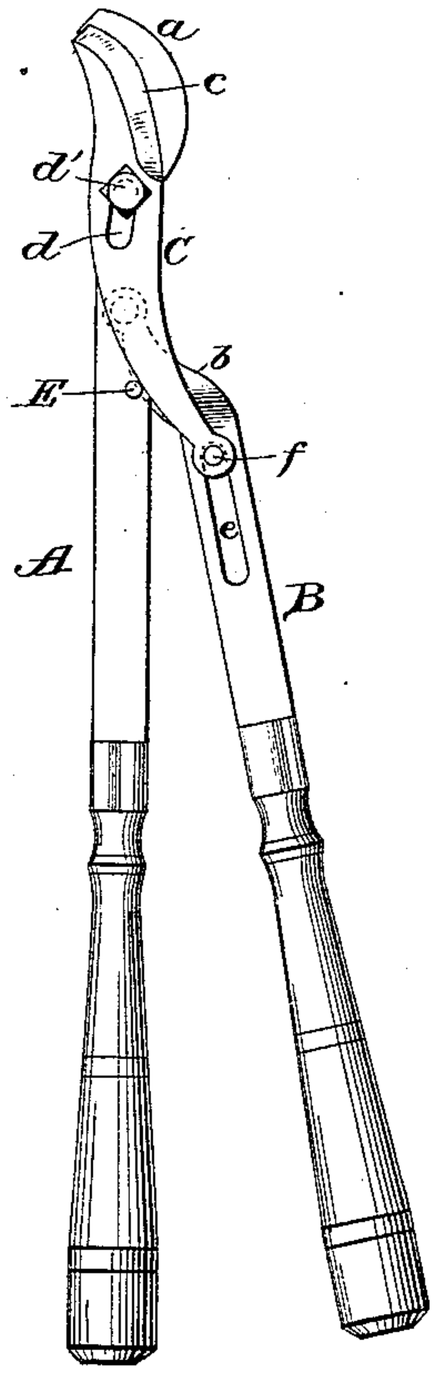

Fig. 3.

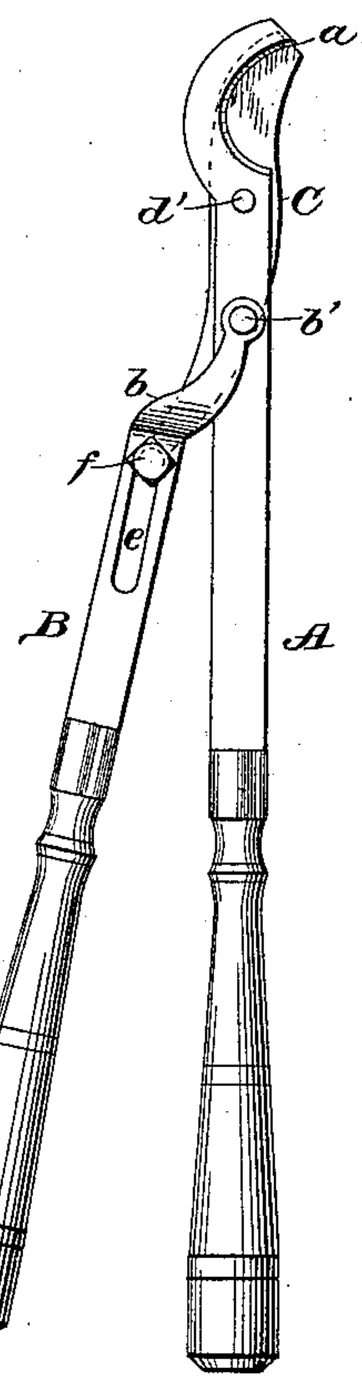

Fig. 4.

Witnesses

Percy G. Bowen.

E. G. Siggers.

Inventors

George C. Casterlin,

Frank DeWitt Mosher:

By their Attorneys

C. A. Snow & Co

UNITED STATES PATENT OFFICE.

GEORGE CORAY CASTERLIN AND FRANK DE WITT MOSHER, OF DALTON, PENNSYLVANIA.

PRUNING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 336,383, dated February 16, 1886.

Application filed November 6, 1885. Serial No. 182,048. (Model.)

To all whom it may concern:

Be it known that we, GEORGE C. CASTERLIN and F. D. MOSHER, citizens of the United States, residing at Dalton, in the county of Lackawanna and State of Pennsylvania, have invented a new and useful Improvement in Pruning Implements, of which the following is a specification, reference being had to the accompanying drawings.

Our invention has relation to improvements in pruning-shears; and the novelty consists in the peculiar construction and combination of parts, substantially as hereinafter fully set forth and specifically pointed out in the claim.

Heretofore in this class of improvements the two handle-bars have been pivotally connected together, one of the bars having one of the cutting-jaws formed therewith, and the other jaw being pivotally connected to the handle-bar having the integral jaw, the said independent jaw being slotted and having a link pivotally connected thereto and to an extension of the handle-bar, which is pivoted to the rigid jaw. This construction is very objectionable, for the reason that the connecting-link is liable to become broken at the points where it connects to the two cutting-jaws, the pivot-pins thereof soon becoming worn through excessive fastening on the moving parts, and breaking when strain or pressure is applied to the handle-bars to sever the limb of the tree.

Our invention has for its objects to overcome the above-named objections, and to provide improved means which shall be simple, strong, and durable in construction, which can be opened to cut limbs of trees and the like of large and small diameters with great ease and a minimum exertion of force; which shall be thoroughly effective in operation by giving a draw or shear cut to one of the blades; to provide means which can be readily taken apart for the purpose of sharpening the blades and as readily put together again, and which shall be cheap of manufacture.

In the accompanying drawings, Figure 1 is a perspective view of pruning-shears embodying our invention. Figs. 2 and 3 are opposite side elevations, and Fig. 4 is an end elevation.

Referring to the drawings, in which like letters of reference indicate corresponding parts in all the figures, A B designate the handle-bars, the former of which has the concave sharpened cutting-jaw *a* and the latter a bent shank, *b*, which is pivoted to the bar A at a point a considerable distance below the jaw *a*, as at *b'*.

C designates a cutter-bar having the curved cutting-jaw *c* at its upper end and slotted, as at *d*, through which slot a headed pivot pin or bolt, *d'*, passes to connect the said bar to the rigid jaw A. The upper end of the handle-bar B is slotted for a considerable distance below its bent shank *b*, as at *e*, and the lower end of the cutter-bar C is connected to the bar B by means of a bolt or pin, *f*, passing through the slot *e*, and secured in the lower end of the cutter-bar, as shown. These pivot-pins or bolts *d' f* are free to slide or move back and forth in their respective slots when the jaws are operated to cut the limb.

E designates a stop-pin fixed in the rigid handle-bar A, and adapted to limit the inward or cutting action of the cutter-bar C, and consequently the handle-bar B.

The operation of the device is obvious. When the jaws are closed together, as shown in Figs. 2 and 3, the pivot pins or bolts abut against the upper walls of their respective slots, and the cutter-bar C rests against the stop-pin E. When the handle-bar B is moved outwardly or away from the rigid bar A on its pivot *b'*, the bolt *f* of the cutter-bar C slides toward the lower end of the slot *e* in the handle-bar, thus permitting the jaws to open without affecting the fulcrum between the jaws *a* and *c*, and accommodating limbs of different diameters; but when it is desired to open the jaws still farther to accommodate a limb of very large diameter, and bring the lowermost cutting-point of the convex cutting-jaw in proper position to begin the cutting operation and perform the draw or shear cut, the handle-bar B is forced or drawn still farther outwardly and opened to its fullest capacity, whereby the pin *f* will force the bar C upwardly, this upward movement of the bar being permitted by its slot *d* sliding over the pivot pin or bolt *d'*. A draw or shear cut is performed on the limb when the jaws are brought together; and by means of the peculiar construction and arrangement of the various parts

we provide an implement which can be operated successfully with great ease and without any undue strain on the pivot-bolts.

We are aware that it is not new to pivotally connect one of the handle-bars to the other, and to pivot a cutter-bar to the two handle-bars, the cutter-bar in this instance being rigidly pivoted to the operating handle-bar by a pin, whereas in our device the upper end of the operating handle-bar is slotted and the lower end of the cutter-bar carries a headed pin, which is free to slide in the slotted upper end of the operating handle-bar.

By means of the slotted handle-bar and the headed pin of the pivoted cutter-bar sliding therein the jaws of the device can be opened to cut a large size of limb without affecting the fulcrum of the said cutter-bar, and enabling the operator to cut the limb with greater ease.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

As an improved article of manufacture, a pruning-shears comprising a rigid handle-bar, A, having a cutting-jaw, *a*, an operating handle-bar, B, pivoted to the handle A at a point below the jaw *a*, and having a longitudinal slot, *e*, at its upper end, a movable cutter-bar, C, having a slot, *d*, at a point below its jaw *c*, a headed pin, *d'*, passing through the slot of the bar C to connect the same with the bar A, a headed pin, *f*, rigidly secured in the lower end of the bar C, and sliding in the slot *e* of the handle B when the handles are operated, and a stop-pin, E, secured to the bar A, and against which the bar C abuts when the jaws *a c* are closed together, substantially as and for the purpose described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

GEORGE CORAY CASTERLIN.
FRANK DE WITT MOSHER.

Witnesses:
F. A. COPWELL,
J. S. MONTGOMERY.