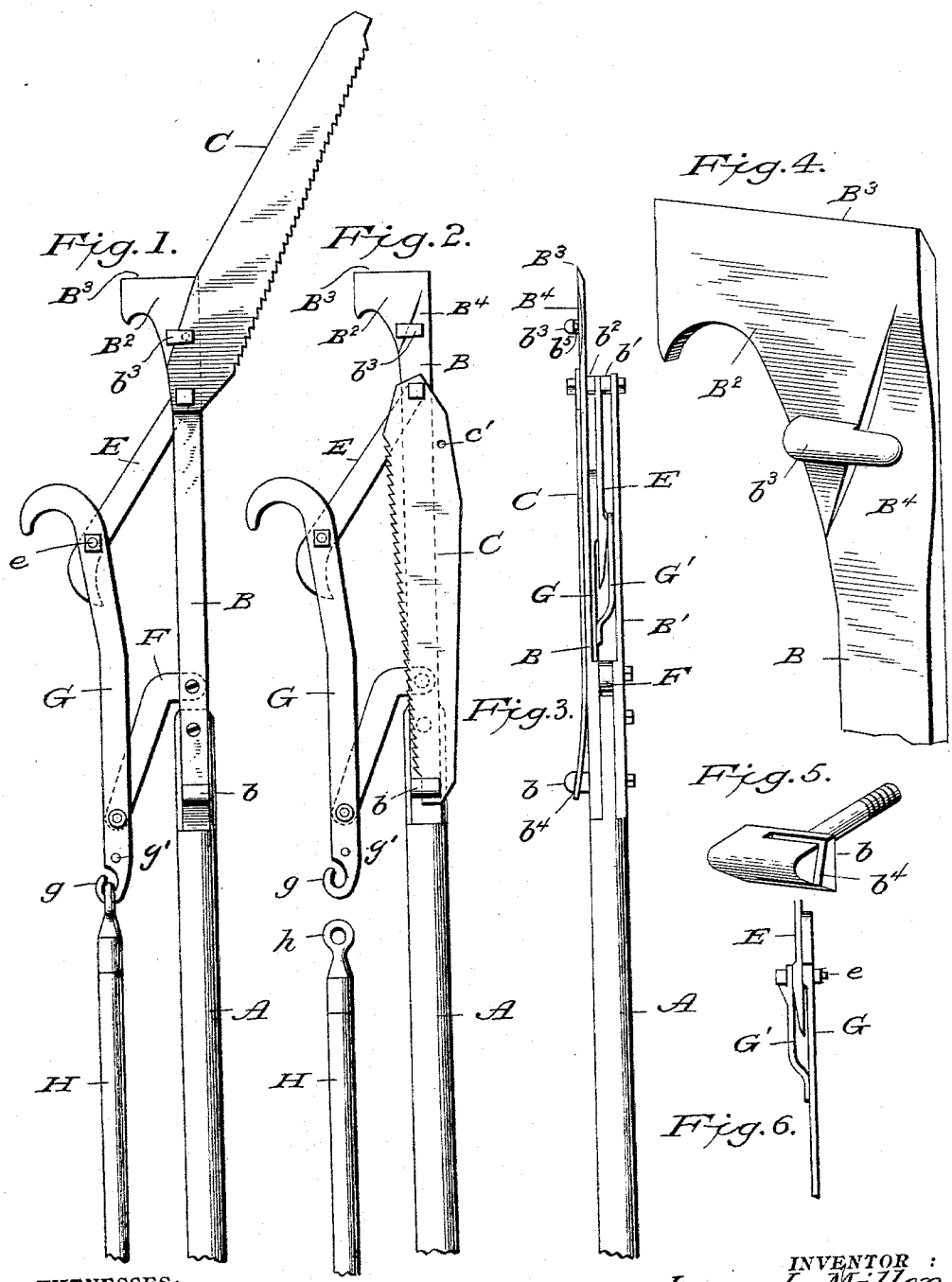
(No Model.)

J. L. MILLER.

PRUNING IMPLEMENT.

No. 589,739. Patented Sept. 7, 1897.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES L. MILLER, OF FAIRFIELD, ILLINOIS, ASSIGNOR OF ONE-HALF TO REUBEN K. PARKHURST, OF SAME PLACE.

PRUNING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 589,739, dated September 7, 1897.

Application filed May 27, 1897. Serial No. 638,346. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. MILLER, a citizen of the United States of America, residing at Fairfield, in the county of Wayne and State of Illinois, have invented certain new and useful Improvements in Pruning Implements; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in pruning implements; and it consists in the specific construction and combination of the parts as will be hereinafter set forth.

The object of the invention is to provide an implement by means of which limbs may be severed from a tree by a knife which is pivoted to a hook, the hook being adapted to engage with a limb, and when drawn upon will bring the knife to a cutting position.

The invention also includes a construction by means of which limbs may be severed or twigs cut by a chisel, the member forming the chisel also carrying a saw having the teeth so disposed that they will cut when the saw is drawn over the limb in contradistinction to being pushed, said saw-blade being so disposed with relation to the chisel that it will serve as a guide.

The further object of the invention is to provide simple and effective means for holding the saw-blade.

In the accompanying drawings, which illustrate my invention, Figure 1 is a side elevation of a pruning implement constructed in accordance with my invention, showing the saw-blade in position for use. Fig. 2 is a view showing the saw-blade folded, so that the teeth will lie over one of the side bars of the implement. Fig. 3 is a view taken to show the edge of the saw-blade and the other parts of the implement. Fig. 4 is a detail perspective view of the upper portion of the side member of the implement, having the chisel. Fig. 5 is a detail perspective view of one of the bolts, and Fig. 6 is an edge view taken to show the spring-plate carried by the hook member of the shears.

Referring by letter to the drawings, A designates the handle, to which are bolted flat bars or plates B B', the lower ends of which are formed so as to partially incase the end of the handle A. One of the connecting-bolts is of ordinary construction, while the other bolt b has a peculiarly-formed head, as will be hereinafter set forth. The plate B', near its upper end, is provided with an inwardly-projecting boss b' and the plate B, opposite thereto, has a similar boss b^2, through which passes a bolt for connecting thereto a saw-blade and the knife member E of the pruning-shears. The plate B, above the bolt just mentioned, is shaped so as to provide a hook B^2 and a transverse portion B^3, having a cutting or chisel edge. The side of the portion about opposite the hook of the plate B is provided with a concave recess B^4, and opposite said recess the plate carries a lug b^3, which lies over the recess and has a portion b^5 which projects for engagement with an aperture in the saw-blade. The head of the bolt b is provided at a suitable distance from the side of the plate with a slit b^4, which is at an angle with the edge of the plate.

C refers to the saw-blade, which is pivoted to the side bar or plate B, and the teeth of this saw are so disposed that they will cut when the saw is drawn toward the operator, and at a suitable point it is provided with an aperture c', which is adapted to engage with the projecting portion b^5, formed on the lug b^3. The back of the saw is at such an angle opposite the aperture that when the projecting portion b^5 of the lug b^3 is in engagement with the aperture c' the back will bear upon the projecting portion of the recess, so that the saw will be held in operative position for cutting, and when in such position it projects at an angle from the cutting edge on the upper end of the plate and will serve to guide the limbs to the chisel.

When it is desired to place the saw in a position parallel with the plate B, or in a folded position, the saw is disconnected from the projecting portion of the lug b^3 by bending the the same into the concave recess, so that the projecting portion b^5 of the lug will be out of

the path of the saw. The saw is then turned upon its pivot and the end is bent so as to engage with the slit b^1 in the head of the bolt b.

Between the bosses b' and b^2 of the plates B B′ are pivoted members E F, the upper member having a knife which is pivoted to the hook member G, said hook member having at its lower end an open eye g, which is adapted to engage with an eye h on an auxiliary handle H, which is used when the device is employed for cutting underbrush, and when using the implement for cutting overhead the handle can be removed by turning the same upwardly and toward the member G, so as to bring the portion of the eye near the ferrule. The member G carries a spring-plate G′, through which a bolt e passes, said bolt connecting the members E G, and this spring-plate has a laterally-projecting portion against which the head of the bolt bears to prevent said bolt turning. As the head of the bolt engages with a projecting portion the spring also forces the blade against the hook. The spring-plate is preferably secured to the hook member G by a rivet. The member G, adjacent to the open-ended eye, has an outwardly-projecting lug or stop-pin g', which will limit the swinging movement of the hook member in one direction by engagement with one of the edges of the plate B.

With the hereinbefore-described device it is not necessary to use any bolts or fastening devices which are not fixedly attached to the implement to hold the saw either in a folded or operative position, as the resiliency of the saw by engagement with the fixtures holds it securely in place. The saw when folded so as to lie over the lower portion of the plate and is held in engagement by the slitted lug has its end bent, so that it is held by frictional engagement.

In use the cutting edge of the chisel is used for severing twigs, suckers, &c., and the hook which forms an integral part of the plate B is used for pulling the limbs out of the tree after being cut. In cutting branches the shears are operated by a downward pull on the main handle, the hook on the member G being placed over the limb when the same is overhead, and when the implement is used for cutting overhead the auxiliary handle is not needed, but in cutting undergrowth or trimming out hedges the handle is used.

I am aware that prior to my invention it has been proposed to provide a pruning implement with a saw, a chisel, and a limb-cutter comprising a hook member and a knife or blade, and I do not therefore claim such invention broadly, but

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

1. In a pruning implement, the combination with a frame or bar having a saw-blade pivoted thereto, of a lug or bolt head having a slit at an angle with the plate with which the end of the saw-blade engages; together with means for engaging the opposite side of the saw when the same is projected, for the purpose set forth.

2. In a pruning implement, the combination with the bar or plate having a saw-blade pivoted thereto, of a lug carried by the plate, a portion of the lug overlying the same and provided with an inwardly-projecting portion, the plate beneath the projecting portion of the lug being concave; together with a saw-blade having an aperture for engagement with the projecting portion of the lug, substantially as shown and for the purpose set forth.

3. In a pruning implement, the combination with a bar or plate having a laterally-extended end which is sharpened, of a saw-blade pivoted to the plate and means for holding the saw at an angle with the cutting edge for the purpose set forth.

4. In a pruning implement, the combination with a bar or plate constructed to present a chisel or cutting end and a hook below the same, said plate having a concave recess, a lug having a projecting portion secured to the plate so as to lie partially over the recess, of a saw-blade pivotally attached to the plate and provided with an aperture with which the projecting portion of the lug engages substantially as shown and for the purpose set forth.

5. The combined pruning implement having plates B, B′ with inwardly-projecting bosses, plates or members E, F, pivotally attached to the plates so as to engage with said bosses, a hook member pivotally attached to the outer end of the members E, F, said hook member having a spring-plate G′, one end of said plate having a projection with which the head of the pivot-bolt engages, the lower portion of the hook member having a stop-pin g for limiting its swinging movement in one direction together with an auxiliary handle removably connected with the hook member, substantially as shown.

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

JAMES L. MILLER.

Witnesses:
L. E. SUNDERLAND,
C. E. RINARD.