No. 775,649. PATENTED NOV. 22, 1904.

C. GREGORY.

PRUNING HOOK.

APPLICATION FILED APR. 4, 1904.

NO MODEL.

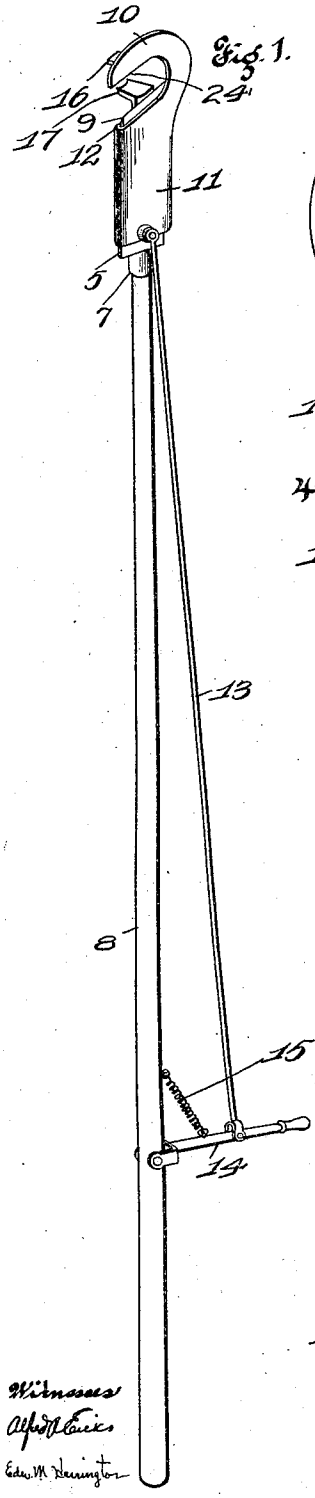


Fig. 1.

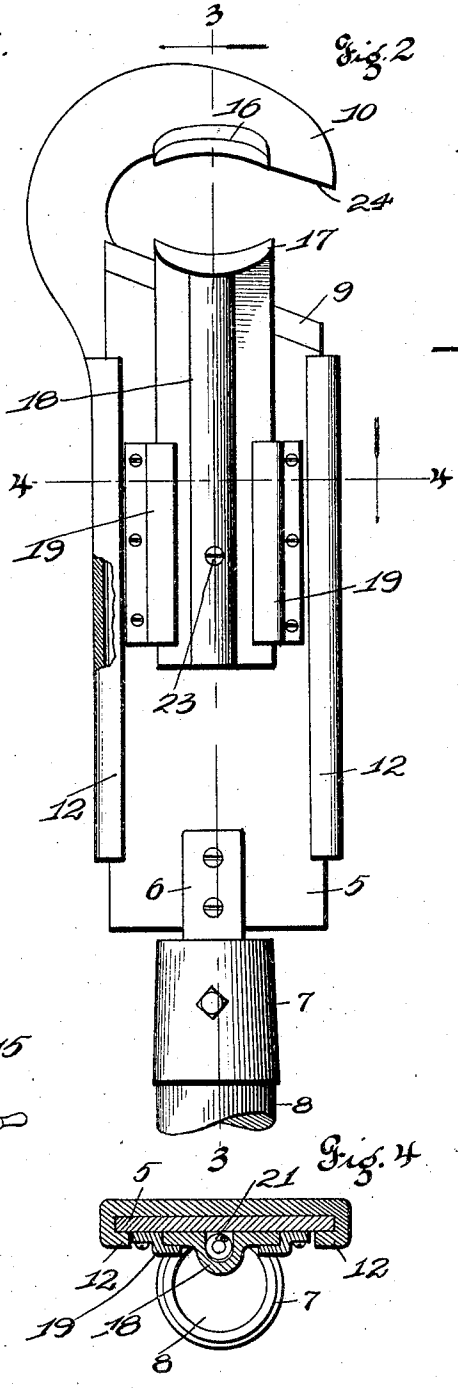


Fig. 2

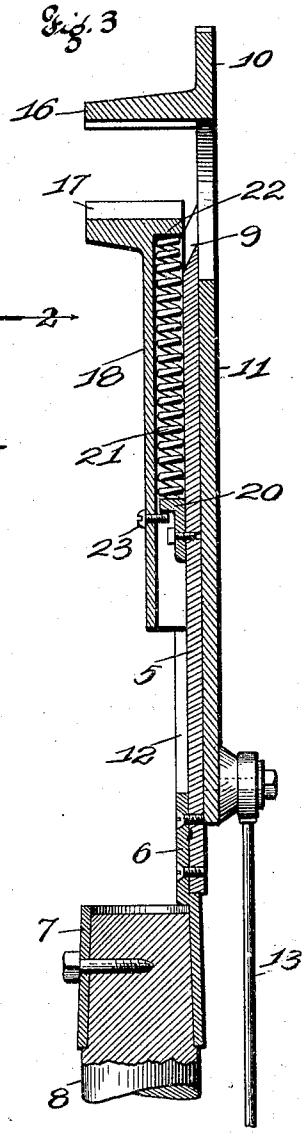


Fig. 3

Fig. 4

Witnesses
Alfred Mackie
Edw. M. Kennington

Inventor
Charles Gregory
by Kidder & Largan & Hopkins Attys

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UNITED STATES PATENT OFFICE.

CHARLES GREGORY, OF ST. LOUIS, MISSOURI.

PRUNING-HOOK.

SPECIFICATION forming part of Letters Patent No. 775,649, dated November 22, 1904.

Application filed April 4, 1904. Serial No. 201,616. (No model.)

To all whom it may concern:

Be it known that I, CHARLES GREGORY, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Pruning-Hooks, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to pruning-hooks; and it consists of the novel features herein shown, described, and claimed.

In the drawings, Figure 1 is a perspective of a pruning-hook constructed in accordance with the principles of my invention. Fig. 2 is a side elevation of the head of the pruning-hook upon an enlarged scale and looking in the direction indicated by the arrow 2 in Fig. 3, the handle being broken away. Fig. 3 is a section on the line 3 3 of Fig. 2 and looking in the direction indicated by the arrow. Fig. 4 is a cross-section on the line 4 4 of Fig. 2 and looking downwardly.

Referring to the drawings in detail, the knife 5 is attached to the arm 6, extending from the ferrule 7, said ferrule being fixed upon the upper end of the handle 8, and said knife 5 has a cutting edge 9.

A hook 10 is formed integral with the plate 11, and lips 12 extend from the edge of the plate 11 around the edge of the knife 5 to form a bearing in which the knife slides endwise. A connecting-rod 13 is connected at its lower end to the lever 14, said lever 14 being pivoted to the lower end of the handle 8 and there being a retractile coil-spring 15 connecting the lever 14 to the handle 8, the tension of said spring being exerted to hold the lever 14 elevated and to hold the hook 10 elevated relative to the cutting edge 9 of the knife 5. A jaw 16 projects laterally from the hook 10, said jaw being either formed integral with the hook or rigidly mounted thereon. The sliding jaw 17 is carried by the end of the spring-casing 18, and said spring-casing is slidingly connected to the side of the knife 5 by the Z-flanges 19.

The spring-stop 20 is rigidly mounted upon the knife 5 in position to slide into the spring-casing 18, and the spring 21 is inserted in the spring-casing, one end of the spring engaging the shoulder 22 at the end of the spring-casing and the other end of the spring engaging the stop 20, the tension of said spring being exerted to press the jaw 17 toward the jaw 16. A screw 23 is screw-seated through the casing 18, so that its point will engage behind the stop 20 to limit the upward motion of the jaw 17.

Especial attention is called to the fact that the cutting edge 9 is inclined relative to a horizontal line at an angle of about thirty degrees, that the highest point of the cutting edge is at the opposite side of the jaws 16 and 17 from the point of the hook 10, and that the inner edge 24 of the hook is inclined relative to a horizontal line slightly less than the cutting edge 9, as shown in Fig. 2.

In the operation of my improved pruning-hook the hook is placed in position with the limb between the jaws 16 and 17. The lever 14 is operated to slide the hook downwardly upon the knife 5, thus pressing the limb against the jaw 17, and as the operation of the lever 14 is continued the spring 21 will yield, and the hook 10 presses the limb against the cutting edge 9 of the knife until said cutting edge passes through the limb, and the severed limb is gripped and held between the jaws 16 and 17 and may be handled and carried to any desired place of deposit. The limb is severed by a rolling cut, due to the relative angles of the cutting edge 9 and the operative edge 24 of the hook and due to the fact that the knife has a tendency to force the limb toward the point of the hook instead of forcing it into the bend.

I claim—

1. In a pruning-hook, the knife 5 having an inclined cutting edge 9; a hook 10 having the operative edge 24, said edge 24 being slightly less inclined than the edge 9, and the point of the knife being in position to engage the opposite side of the limb from the point of the hook; a gripping-jaw extending rigidly from the hook; a spring-actuated jaw carried by the knife in opposition to the rigid jaw, so that when the knife is operated, the jaws will grip and hold the severed limb, and means of operating the hook relative to the knife; substantially as specified.

2. In a pruning-hook, a knife; a hook slidingly mounted relative to the knife; a gripping-jaw extending rigidly from the hook; and a spring-actuated jaw carried by the knife in opposition to the rigid jaw, so that when the knife is operated, said jaws will grip and hold the severed limb; substantially as specified.

3. In a pruning-hook; the handle 8; the ferrule 7 fixed upon the upper end of the handle; the arm 6 extending from the ferrule; the knife 5 attached to the arm 6; said knife having the cutting edge 9 inclined relative to a horizontal line at an angle of about thirty degrees; the plate 11; the lips 12 extending from the plate around the edges of the knife 5; the hook 10 formed integral with the plate 11, and having the inner edge 24 inclined relative to a horizontal line, slightly less than the inclination of the cutting edge 9; the connecting-rod 13 connected to the plate 11 and extending downwardly; the lever 14 pivotally connected to the handle 8 and to the lower end of the rod 13; and the retractile coil-spring connecting the lever 14 to the handle 8; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

CHARLES GREGORY.

Witnesses:
ALFRED A. EICKS,
F. C. CRISLER.