L. H. BARNES & B. A. SNELL.

PRUNING HOOK.

APPLICATION FILED JUNE 8, 1914.

1,197,430.

Patented Sept. 5, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

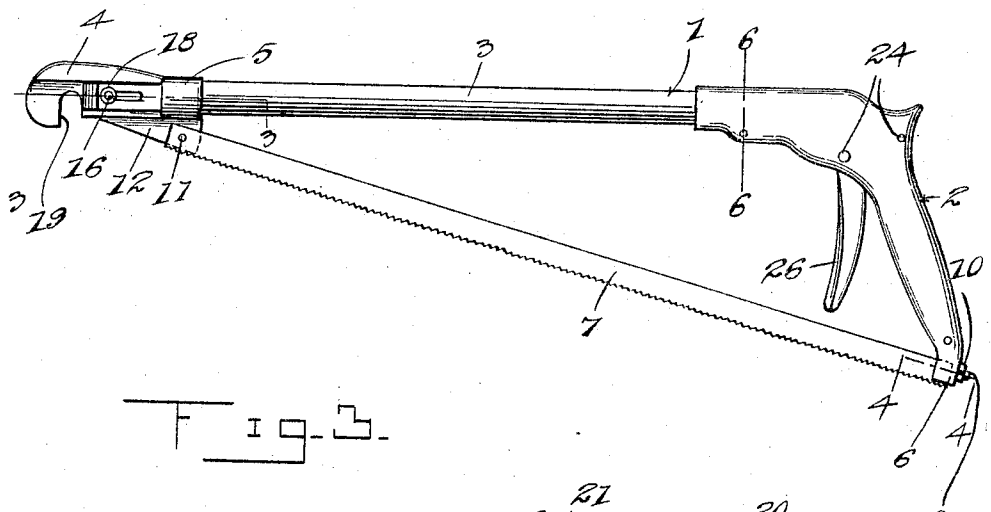
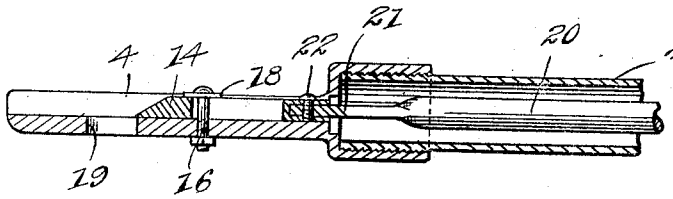


Fig. 3.



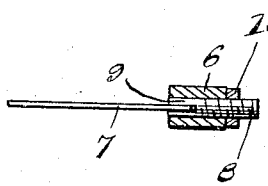


Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

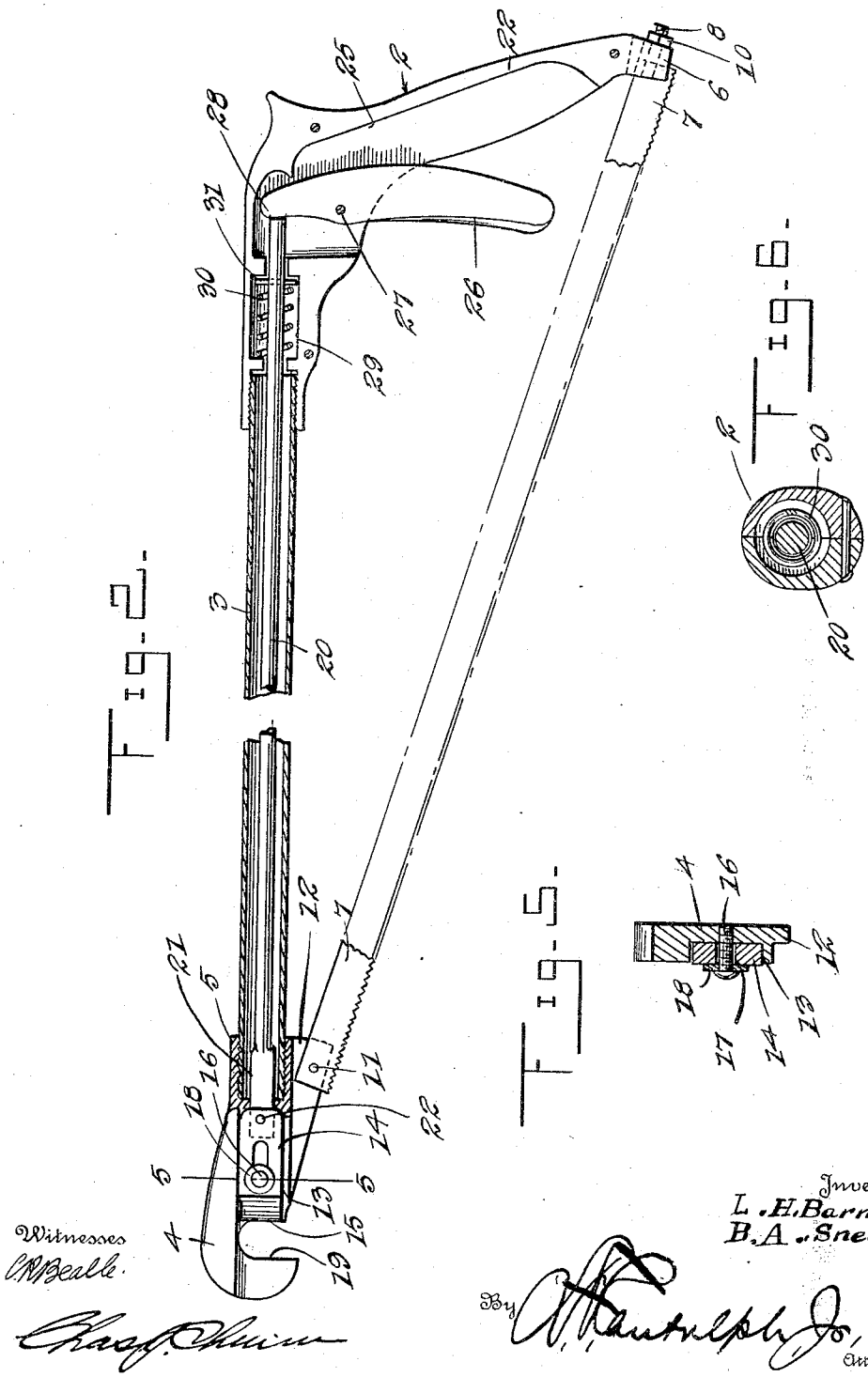


Fig. 2.

Fig. 6.

Fig. 5.

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UNITED STATES PATENT OFFICE.

LOUIS H. BARNES AND BERT A. SNELL, OF MEDINA, NEW YORK.

PRUNING-HOOK.

1,197,430. Specification of Letters Patent. Patented Sept. 5, 1916.

Application filed June 8, 1914. Serial No. 843,902.

To all whom it may concern:

Be it known that we, LOUIS H. BARNES and BERT A. SNELL, citizens of the United States, residing at Medina, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Pruning-Hooks, of which the following is a specification.

Our invention relates to new and useful improvements in tools and has for its primary object to provide a simple and highly useful device particularly adapted for trimming bushes, trees and plants and which consists of a combined saw and pruning hook that is arranged in a novel manner so that either instrument may be employed readily and effectively.

An important object of our invention is to provide a tool of the character described which consists of a body to which is attached a saw blade and a slidable pruning knife, said saw blade being arranged upon one side of the body and the pruning knife at one end of the body so as to coöperate with a hook formed on said end.

Another important object of our invention is to provide means whereby the operator when grasping the handle of a tool may easily operate the knife to provide the desired trimming or pruning action, said knife being automatically returned to normal position.

Another important object of our invention is to provide a tool of the character described that is simple as to construction, strong, durable, light and inexpensive to manufacture.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification and then more particularly pointed out as claimed.

With reference to the drawings, wherein we have illustrated the preferred embodiment of our invention as it is reduced to practice, and throughout the several views of which similar reference numerals designate corresponding parts:—Figure 1 is a side elevation of our improved tool, Fig. 2 is a longitudinal sectional view partly in elevation showing in detail the knife and operating means therefor, Fig. 3 is a horizontal sectional view taken on line 3—3 of Fig. 1 showing the knife, hook and coöperating parts, Fig. 4 is a longitudinal detail sectional view taken on line 4—4 of Fig. 1 and showing the means for adjusting the saw blade, Fig. 5 is a vertical sectional view taken on line 5—5 of Fig. 2 showing the pruning knife and guide means therefor, and Fig. 6 is a transverse sectional view taken on line 6—6 of Fig. 1.

Referring to the drawings by characters of reference, the numeral 1 designates as an entirety the body of our improved tool which consists of a handle 2 to which one end of a tubular member 3 is detachably secured, and a hook member 4 that is provided at the free end of its shank portion with an internally threaded collar 5 which receives the other end of the tubular member 3. The handle 2 is shaped similarly to the ordinary saw handle and at its lower end is formed with a collar 6 which receives one end of a saw blade 7. Mounted within the collar 6 is an adjusting screw 8 to one end of which is suitably secured as at 9 one end of the saw blade 7. An adjusting nut 10 is turned upon the outer end of the adjusting screw 8 to facilitate the desired adjustment of the saw blade. The other end of the saw blade 7 is secured by suitable fastening means 11 to a downwardly extended portion 12 formed on the hook 4 on the shank portion thereof. It will thus be seen that the saw blade 7 is disposed angularly with relation to the tubular member 3.

Slidably mounted within a longitudinal recess 13 that is formed in one face of the shank portion of the hook 4 is an approximately rectangular pruning knife 14 having its outer edge beveled and sharpened as at 15. A guide pin 16 is detachably secured to the hook 4 and extends through a longitudinal slot 17 formed in the knife 14. An enlarged head 18 is formed on the outer end of the pin 16 to act as a washer. The cutting edge 15 of the knife 14 is disposed parallel with the opposing edge 19 of the hook proper and is normally spaced from said edge 19 so that a branch or twig to be cut may be readily positioned.

As a means for operating the knife, we provide an operating rod 20 that is slidable within the tubular member 3, reduced at one end as at 21 and at said reduced end secured by fastening means 22 to the rear end of the knife 14. The knife 14 is preferably recessed at its rear edge to receive the free end of the reduced portion 21. The other end of the rod 20 extends into the handle 2.

The handle 2 is formed of two shell like

sections 23 secured to each other by suitable fastening means 24 to provide an approximately hollow or tubular handle. In this connection it will be noted that the handle is approximately L-shaped and that one end of the rod 20 extends into the shorter arm of the handle.

Each section 23 is recessed upon one face as at 25 so as to accommodate a pivoted operating lever 26 that is pivoted as at 27 to the handle 2 intermediate its ends. The inner end 28 of the lever 26 is designed to engage the inner end of the rod 20 and force the rod outwardly with relation to the handle resulting in the forward moving of the knife 14 to provide the desired cutting action. The shorter arm portion of each handle section 23 is provided with a semicircular recess 29 so as to provide a cylindrical chamber when the sections are secured to each other. A helical expansion spring 30 is mounted within the chamber formed by the two recesses 29 and at one end engages a collar 31 rigidly secured to the rod 20. The spring 30 is compressed when the rod 20 is moved forwardly and serves to return the rod and knife to normal position as shown in the drawings.

The operator in grasping the handle 2 may readily move the lever 26 without removing his hand from the handle so that the desired pruning is permitted and manipulation of the device as a saw is enabled.

It will be readily seen that we have provided a simple and effective device which will be of great service to nurserymen and gardeners in trimming trees, plants, flowers, etcetera. It will also be seen that the saw blade 7 forms a diagonal strut which reinforces and strengthens the implement.

In practice, we have found that the form of our invention, illustrated in the drawings and referred to in the above description, as the preferred embodiment, is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of our device will necessarily vary, we desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of our invention as set forth.

What is claimed is:—

1. A pruning hook comprising a handle, a tubular member having its ends external screw threaded, one of said ends being fitted in said handle, a hook having a cutting edge, a shank extending rearward therefrom and an internally screw threaded collar, said collar being adapted to be fitted on the free end of said tubular member, a rod slidably mounted in said tubular section extending to a point in said handle and through the collar of said hook, said hook having a longitudinal extending groove, a knife slidably mounted in said groove to prevent lateral movement thereof, said knife being connected to said rod, said handle having a recessed portion formed therein, a coil spring encircling said rod having one end engaging the wall of said recess and the opposite end secured to said rod to normally hold said rod and knife in spaced relation from the cutting edge of said hook, and a lever pivoted to said handle adapted to engage the free end of said sliding rod whereby when the lower end of said lever is pressed said rod will be pushed forward.

2. A pruning hook comprising a tubular member having its ends external screw threaded, a handle fitted to one end of the member, a hook having a cutting edge, a shank extending rearwardly therefrom and an internally screw threaded collar, said collar being adapted to be fitted on the free end of said tubular member, a rod slidably mounted in said tubular member and extending into said handle and through the collar of said hook, said hook having a longitudinal extending groove, a knife slidably mounted in said groove to prevent lateral movement of the same, said knife being secured to one end of said rod, means carried by said rod to normally hold said knife in spaced relation from the cutting edge of said hook, means carried by said handle to engage the free end of said rod, and a diagonal strut secured to the under side of hook and extending downward and secured to the lower portion of said handle to securely brace said hook in the cutting operation.

In testimony whereof we affix our signatures in presence of two witnesses.

LOUIS H. BARNES.
BERT A. SNELL.

Witnesses:
WARD REYNOLDS,
AMY S. COOPER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."