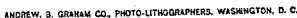


APPLICATION FILED MAR. 12, 1908.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 1.



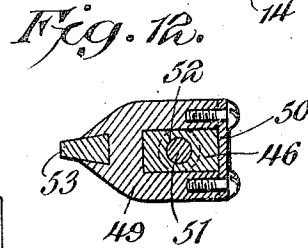
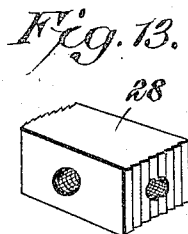
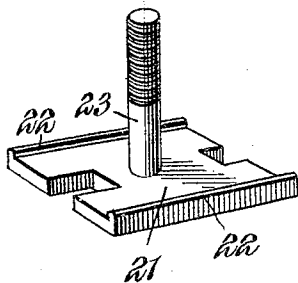
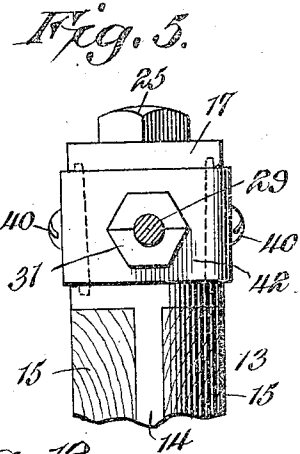
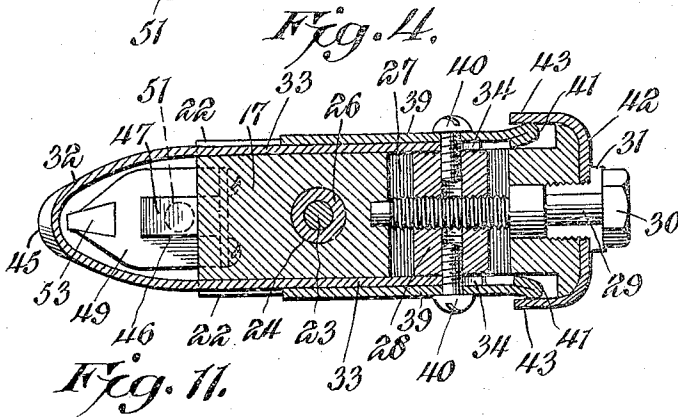
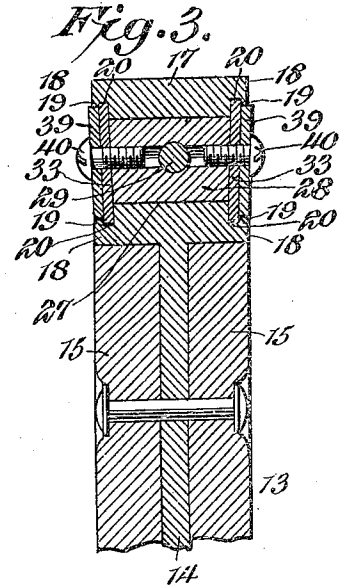
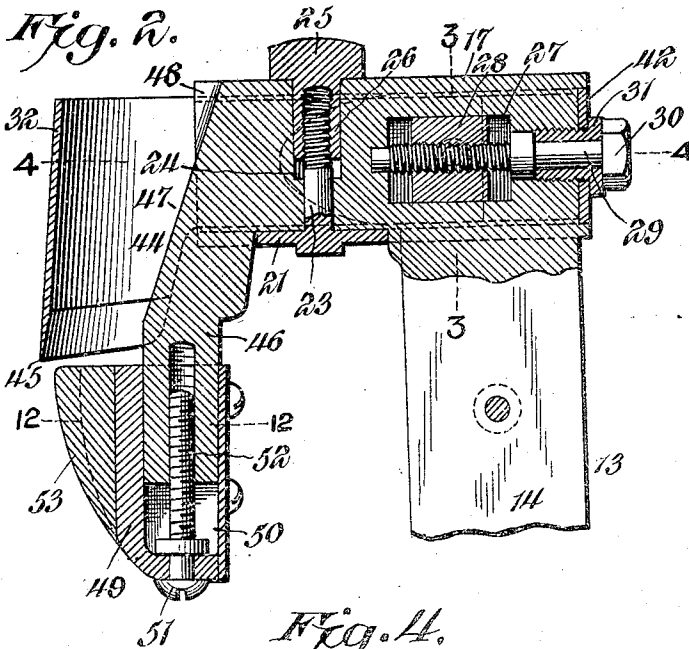
N. B. STONE.
TURPENTINE HACK.

APPLICATION FILED MAR. 12, 1908.

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2 SHEETS—SHEET 2.

943,050.



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NATHANIEL B. STONE, OF OUTLOOK, WASHINGTON.

TURPENTINE-HACK.

943,050.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed March 12, 1908. Serial No. 420,726.

To all whom it may concern:

Be it known that I, NATHANIEL B. STONE, a citizen of the United States, residing at Outlook, in the county of Yakima and State of Washington, have invented a new and useful Turpentine-Hack, of which the following is a specification.

This invention relates more particularly to that type of implement employed in scoring trees for securing the sap and gum therefrom.

One of the primary objects of the present invention is to provide an implement in which the depth of the score or cut can be accurately gaged, said implement furthermore being so constructed that there is sufficient clearance for the free passage of the chips and crumbs of loose bark there-through, thereby avoiding all liability of the same becoming choked and inoperative.

A further object is to provide a structure that will permit the hand of the operator to be placed in the same position with respect to the cutting blade that it is now placed with the ordinary tool, thus permitting the same character of working stroke.

Still another object is to provide a tool from which the blade can be readily removed for the purpose of sharpening or in order that it may be supplanted by a new one.

The preferred form of construction is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the hack. Fig. 2 is a sectional view through the head of the same. Fig. 3 is a detail sectional view on the line 3—3 of Fig. 2. Fig. 4 is a sectional view on the line 4—4 of Fig. 2. Fig. 5 is a rear elevation of the head. Fig. 6 is a detail perspective view of the cutting blade. Fig. 7 is an end view of the same. Fig. 8 is a detail perspective view of the head with the associated parts detached. Figs. 9, 10 and 11 are perspective views respectively of one of the cover leaves, the cap spring and the jaw plate. Fig. 12 is a detail sectional view on the line 12—12 of Fig. 2. Fig. 13 is a detail perspective view of the slide block.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated, a handle 13 is employed, comprising a center plate 14, to the opposite sides of which are fastened wooden grip sections 15. One end of the

plate 14 carries a suitable weight 16, while the other end is provided with a transverse head 17 disposed substantially at right angles to the handle and having outstanding flanges 18 along its outer margins, said flanges projecting from opposite sides and forming in effect a jaw. The flanges furthermore have ribs 19 on their inner faces, said ribs producing seats 20. A clamping plate or jaw 21 is associated with the inner side of the projecting portion of the head 17, and its opposite side margins project beyond the opposite sides of said head. These margins are also provided with suitable ribs 22 in opposing relation to the ribs 19. The plate has a stem 23 that extends into an opening 24 formed in the head, and a clamping nut 25, located on the opposite side of said head, is provided with a boss 26 journaled in the opening and having a threaded socket that receives the stem. It will thus be evident that by rotating the nut 25 in one direction, the clamping plate will be carried toward the head. The said head furthermore has an elongated socket 27 disposed transversely of the handle, and located therein, is a reciprocatory slide block 28 having serrated ends. An adjusting screw 29 having a projecting head 30 is journaled in a retaining block 31, screwed into the head 17, and the screw 29 has a threaded engagement with the block 28. A substantially U-shaped cutting blade 32 is employed that is provided with terminal shanks 83, said shanks bearing against opposite sides of the head 17 and extending between the flanges 18 and the jaw plate. The said shanks are of sufficient width so that when the jaw plate is drawn toward the head, said shanks will be clamped between the flanges of the head and the flanges of the plate. The free ends of the shanks have slots 34, and said ends overlie the slide block 28. Cover leaves or plates 39 are arranged over said ends of the shanks, and screws 40, passing through the cover leaves, pass through the slots 34 and are threaded into the opposite sides of the block. The rear ends of the leaves 39 are doubled and bent outwardly, as illustrated at 41, and a cap 42, held in place by the block 31, is provided with spring terminals 43 that bear against said outturned ends 41. With this arrangement therefore, it will be evident that if the screws 40 are loosened, the leaves will be swung outwardly, thus producing

an open throat into and out of which the shanks 33 of the cutting blade 32 can be readily slipped when the clamping jaws are loosened.

5 It will be noted that the body of the blade, designated 44, projects in advance of the shanks 33, and terminates in a U-shaped cutting edge 45. Moreover it will be observed that the opposite sides of the body
10 and of the shanks flare rearwardly and outwardly so that the area at the rear end of the blade is considerably greater than that at the cutting edge. Projecting from the free end of the head 17 at one side of the
15 handle, longitudinally of said handle and in spaced relation thereto, is a stem 46, the free end of the stem being at a slightly greater distance from the handle than the secured end. This stem, as will be clear, particularly by reference to Fig. 2, extends from
20 a point within the cutting blade 32 to a point considerably in advance of the cutting edge, and its rear portion is preferably cut away, as shown at 47 in order to leave the
25 space within the blade and particularly within the rear portion thereof completely unobstructed. For this same purpose, the outer or free end of the head is preferably cut out, as illustrated at 48. Slidably
30 mounted on the stem 46, is a gage 49 that is disposed in advance of the cutting edge of the blade and has a boxing 50 that receives said stem. An adjusting screw 51, journaled in the boxing, has a threaded engagement, as shown at 52 with the stem.
35 Consequently by turning the screw 51, it will be evident that the gage can be adjusted toward and from the cutting blade. The gage, as shown, tapers toward its front end,
40 and is provided with a narrow shoe or flange 53, which will operate through the gummed surface without becoming choked or clogged with gum.

There are many advantages for the structure as disclosed. In the first place, it will be noted that one hand of the operator can be placed on the handle in line with the cutter, so that the same working stroke can be secured as with the ordinary hack now in
50 common use. At the same time the depth of the cut can be accurately gaged. In this connection, the advantages of the relative adjustment between the cutting blade and gage will be obvious. The structure of the cutting blade and the arrangement of parts
55 are such that there is no liability of the implement becoming choked, inasmuch as free clearance is provided for the chips and the crumbs of loose bark, the discharge end being of greater area than the inlet or cutting end. The securing means for the blade is very effective, and when said blade is clamped thereby, it is firmly fixed against
60 movement on the head.

65 Another important feature of the inven-

tion resides in the blade. In the first place, it will be noted that the body of the blade projects beyond the shank. This is advantageous, inasmuch as it places the cutting
70 edge in advance of the head so that the operator's hand can be placed in line therewith, but further than this, it provides a sufficient body that will permit repeated sharpening of the blade, before it is worn out. Said blade furthermore may be readily detached
75 in order that it may be sharpened or in order that a new blade may be substituted for it. It will thus be evident that when a blade becomes excessively worn or useless from any cause, it can be supplanted by a
80 new one without difficulty.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing
85 from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a device of the character described, 95 the combination with a handle having a head, of a pair of relatively movable jaws mounted on the exterior of the head transversely of the handle, a cutting blade having a shank that engages between the jaws, and means for drawing the jaws together
100 and holding them to clamp said shank.

2. In a device of the character described, the combination with a handle having a head, of a pair of relatively movable jaws 105 projecting from one side of the head and relatively movable longitudinally of the handle, a cutting blade having a shank that engages against the side of the head between the jaws, and means for drawing the jaws
110 toward each other and holding them to clamp said shank.

3. In a device of the character described, the combination with a handle having a head, of a fixed jaw carried by the head, a 115 movable jaw associated with the head, said jaws being disposed transversely of the handle, a cutting blade having a shank that fits between the jaws, a bolt carried by the movable jaw and engaging in the head, and a clamping nut having a boss rotatably mounted in the head and having a threaded engagement with the bolt. 120

4. In a device of the character set forth, the combination with a handle having a head provided with outstanding flanges on its opposite sides, forming a stationary jaw, of a jaw plate having its margins projecting beyond the same sides as the flanges, a blade 125 having shanks located on opposite sides of 130

the head between the flanges and jaw plate, and means for drawing said plate longitudinally of the handle toward the head to clamp the shanks.

5 5. In a device of the character set forth, the combination with a handle having a head provided with outstanding flanges on its opposite sides, forming a stationary jaw, of a jaw plate having its margins projecting beyond the same sides as the flanges, a blade 10 having shanks located on opposite sides of the head between the flanges and jaw plate, a bolt carried by the plate and engaging in the head, and a clamping nut having a boss 15 rotatably mounted in the head and having a threaded engagement with the bolt.

6. In a device of the character set forth, the combination with a handle, of a blade adjustable toward and from the handle, 20 means mounted in the head and movable in one direction to advance the blade and in the opposite direction to retract the blade, and means for securing the blade in its adjusted position and against movement with 25 respect to the handle.

7. In a device of the character set forth, the combination with a handle, of a blade adjustable toward and from the handle, a screw journaled in the handle for adjusting 30 the blade and held against longitudinal movement, and means for securing the blade against movement in different adjusted positions.

8. In a device of the character set forth, 35 the combination with a handle having a head provided with a socket opening at opposite sides of the head, of a block slidably mounted in the socket, a blade secured to the opposite ends of the block, and means for 40 adjusting the block in the socket to thereby adjust the blade.

9. In a device of the character set forth, the combination with a handle having a head provided with a socket, of a block located in the socket and slidable therein 45 transversely of the handle, a blade detachably secured to the block, and an adjusting rotary screw journaled in the head and having a threaded engagement with the block.

50 10. In a device of the character set forth, the combination with a handle having a head provided with a socket, of a block slidably mounted in the socket, a blade having 55 shanks that embrace the block, screws securing the shanks to opposite sides of the block, and means for adjusting the block in the socket to thereby adjust the blade.

11. In a device of the character set forth, the combination with a handle having a 60 head, of a cutter blade having a shank associated with the head, means for securing the blade to the head, a cover leaf located over the rear end of the shank, and means for securing the leaf in place.

65 12. In a device of the character set forth,

the combination with a handle having a head, of a cutter blade having a shank associated with the head, means for securing the blade to the head, a cover leaf located over the shank, a spring bearing against the leaf 70 to move the same away from the shank, and means for securing the leaf against movement by the spring.

13. In a device of the character set forth, the combination with a handle having a 75 transversely disposed head at one end, of a block slidably mounted in the head, an adjusting screw journaled in the head and having a threaded engagement with the block to adjust the same, a substantially U- 80 shaped cutting blade having shanks that embrace the block, screws securing the shanks to the block, cover leaves located over the shanks and held in place by the screws, and a cap secured to the head and having spring 85 terminals that bear against the cover leaves to urge the same outwardly away from the shanks.

14. In a device of the character described, the combination with a handle having a 90 head, of a cutter having a shank slidable on the head transversely of the handle, means gripped to the shank and movable in the head for adjusting the cutter, and a clamp for securing the cutter against movement. 95

15. In a device of the character described, the combination with a handle having a head, of clamping jaws carried thereby, a cutter having shanks that slidably embrace the head and are located between the jaws, 100 means for clamping the jaws upon the cutter shanks, and means for adjusting the shanks when the jaws are loosened.

16. In a device of the character described, the combination with a handle having a 105 transversely disposed head at one end, said head being provided with a socket and opposite outstanding flanges, forming a jaw, of a substantially U-shaped cutting blade having shanks that embrace the head, a 110 clamping plate or jaw movable toward and from the head, means for drawing said plate toward the head to engage the same with the shanks of the blade, a block slidably mounted in the socket, means for securing the 115 shanks to said block, and an adjusting screw carried by the head and engaging the blocks.

17. In a device of the character described, the combination with a handle having a head projecting from one side thereof, of a 120 cutter mounted on the head, and a gage carried solely by the portion of the head that is located at one side of the handle, said gage extending in advance of the cutter.

18. In a device of the character described, 125 the combination with a handle having a head that projects from one side of the same, of a cutter mounted on the head and projecting beyond the free end of the head, and a gage carried solely by said free end of the 130

head and extending in advance of the cutter in spaced relation to the handle.

19. In a device of the character set forth, the combination with a handle having a
5 head projecting from one side of the same, of a cutter mounted on the head, a stem projecting from the head and extending longitudinally of the handle in spaced relation thereto, and a gage mounted on said stem.

10 20. In a device of the character described, the combination with a handle having a head projecting from one side thereof, of a substantially U-shaped cutter having serrated end portions, a gage connected with
15 the head and located outwardly from the edge of the cutter, means for moving the gage toward or from the cutting edge of the cutter, a serrated block mounted on the head and engaging the serrations of the cutter,
20 and means for moving the block and therewith the cutter in a direction transverse to the direction of movement of the gage.

21. In a device of the character described, the combination with a handle having a
25 head, of a stem projecting from the head, a cutter adjustably mounted on the head to move transversely to the handle, and a gage slidable on the stem and adjustable thereon with respect to the cutter and in a direction
30 transverse to the adjustment of the blade.

22. In a device of the character described, the combination with a handle, of a cutter mounted on the handle, and disposed at one
35 side of the same, a stem located on said side and projecting beyond the cutting edge of the cutter, a gage slidable on the stem, and means for adjusting the gage toward and away from the cutting edge of the cutter.

23. In a device of the character described,
40 the combination with a handle having a transversely disposed head projecting from one side of said handle, of a substantially U-shaped cutter secured to the head and projecting in advance of the same in spaced
45 relation to the handle, a stem carried by the free end of the head and projecting beyond the cutter, a gage slidably mounted on the stem, said gage being spaced from the handle, and an adjusting screw connecting the
50 stem and gage.

24. In a device of the character described, the combination with a handle, of a substantially U-shaped cutter blade secured thereto and having a front cutting edge, said blade
55 having its side walls flared outwardly and rearwardly from said edge.

25. In a device of the character described, a substantially U-shaped blade having spaced terminal shanks provided with serrations
60 and having a body that projects in advance of the shanks throughout its extent, said body having a front cutting edge.

26. In a device of the character described, a substantially U-shaped blade having spaced terminal shanks and having a body projecting in advance of the shanks, said body having a front cutting edge and being rearwardly and outwardly flared from said edge.

27. In a tool of the class described, the combination of a handle, a head mounted
70 thereon, a blade mounted on the head and adapted to be projected from or retracted toward the handle, a gage mounted on the head and disposed wholly beyond the cutting edge of the blade, and means for adjusting
75 the gage toward or away from the cutting edge of the blade.

28. In a tool of the class described, the combination of a handle, a head thereon, a blade carried by the head, a gage mounted on
80 the head independently of the blade, and screws separately mounted on the head for independently adjusting the blade and gage.

29. In a tool of the class described, the combination of a handle, a head, a blade
85 mounted on the head, a gage mounted on the head in coöperative relation with the cutting edge of the blade, and separate screws disposed transversely to each other for independently adjusting the blade and gage.

30. In a tool of the class described, the combination of a head having a projecting stem, a chambered gage into the chamber of which the stem is slidably disposed, means for adjusting the gage along the stem, a shoe
95 projecting from the gage, and a blade mounted in coöperative relation with the shoe.

31. In a tool of the class described, the combination of a head having a transversely-
100 extending chamber, a block mounted in the chamber and having serrated ends, a blade having shanks serrated to engage the serrated ends of the block, means for holding the serrated shanks in engagement with the
105 block, and means for adjusting the block.

32. In a tool of the class described, the combination of a head having a longitudinal groove one wall of which is adjustable, a blade having a shank disposed in the groove
110 and clamped therein by the said movable wall, means for engaging the movable wall with the shank, an adjusting device mounted in the head for setting the blade when the said movable wall is loosened, and means for
115 detachably connecting the shank of the blade with the said adjusting means.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

NATHANIEL B. STONE.

Witnesses:

JOHN H. SIGGERS,
FANNIE WAGNER.