

(No Model.)

J. F. WARNER.
SAP SPOUT.

No. 509,980.

Patented Dec. 5, 1893.

Fig. 1.

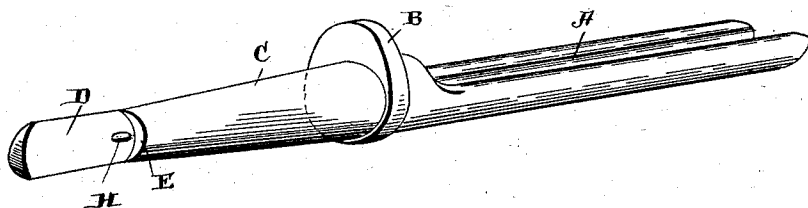


Fig. 2.

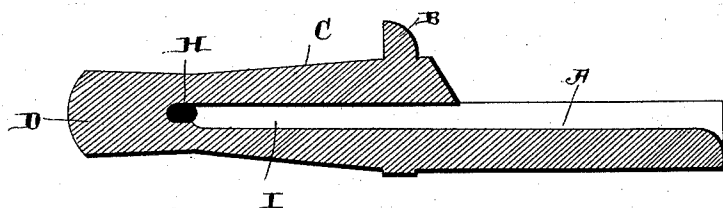
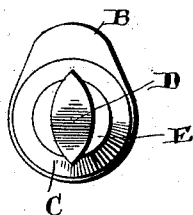


Fig. 3.



WITNESSES.

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JAMES F. WARNER, OF ESSEX, VERMONT.

SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 509,980, dated December 5, 1893.

Application filed February 20, 1893. Serial No. 463,116. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. WARNER, a citizen of the United States, residing at Essex, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Sap-Spouts; 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.

My invention relates to improvements in sap spouts, and it consists in the particular construction which will be fully described hereinafter, and particularly pointed out in the claims.

I provide a sap spout having a flange intermediate its ends for preventing the bucket from slipping off, the inner portion of the said spout being tapered to be easily driven into the hole of the tree tightly, and the inner extremity of the said spout being made oval with its longest diameter vertical for a purpose to be fully described farther on: the said oval inner extremity being provided with a transverse perforation intersecting a longitudinal hole through which the sap passes from the tree.

In the accompanying drawings, Figure 1, is a perspective view of the sap spout which embodies my invention. Fig. 2, is a longitudinal vertical section of the same. Fig. 3, is an inner end view of the same.

The outer portion A of the sap spout is made in trough shape, as shown, with the upper portion cut away. Slightly beyond the inner end of this trough portion A is the flanged portion B, the upper part of which extends considerably farther from the main portion of the spout, for the purpose of preventing the bucket from slipping therefrom. A tapered portion C extends from the said flange inward and from the point of the inner end of this tapered portion, an oval portion D extends inward having its longest diameter vertical and its upper and lower edges horizontal.

It will be noticed that the oval portion at the inner end of the spout ends in shoulders or flanges E, thus making a cavity or receptacle for the accumulation of sap from the tree, and passing transversely through this

oval portion is an opening or perforation H. This perforation H intersects a longitudinal opening or hole I, which extends from this perforation into the trough portion A at the outer end of the spout, and through these openings the sap is conveyed to the spout from which it falls into the bucket, as will be readily understood. The object of this inner tapered portion is to have it first enter the opening and then to be driven therein without breaking the bark of the tree, thus killing that portion of the tree around the hole which is so common in sap spouts now generally used.

The object of forming the oval portion vertical is to hold the spout rigid when the weight of the bucket is placed thereon by having the upper and lower edges thereof engage the top walls of the opening, while at the same time sap chambers are formed at each side thereof which is not the case where the oval is horizontal. Making the inner end of said oval portion of slightly greater diameter than its outer end, causes it to fit tightly and prevents sagging of the outer end of the spout from the weight of the bucket and thus prevents its working loose and coming out.

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

1. A sap spout having an intermediate tapered portion with a flange at its outer end, and a longitudinal opening, an oval portion at its inner end, the greatest diameter of the oval portion being vertical, and provided with a transverse opening communicating with the said longitudinal opening, and a trough at the outer end of the said tapered portion, substantially as specified.

2. A sap spout having a tapered portion provided with a longitudinal opening, an oval portion at the inner end of said tapered portion, the greatest diameter of said oval portion being vertical for the purpose described and provided with a horizontal transverse opening intersecting the said longitudinal opening, substantially as described.

3. A sap spout having an intermediate tapered portion provided with a longitudinal opening, an oval portion at the inner end of

said tapered portion provided with a trans-
verse opening communicating with said lon-
gitudinal opening, the greatest diameter of
said oval portion being vertical and slightly
5 enlarged from its outer toward its inner end,
and a trough at the outer end of said tapered
portion, substantially as set forth.

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

JAMES F. WARNER.

Witnesses:

L. S. DREW,
HERALD STEVENS.