

(No Model.)

A. H. WOOD.
SAP SPOUT.

No. 506,386.

Patented Oct. 10, 1893.

Fig. 7.

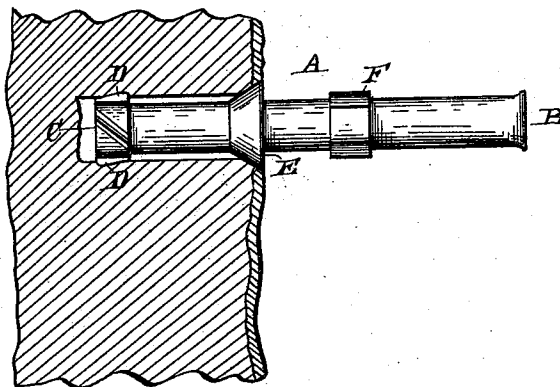


Fig. 8.

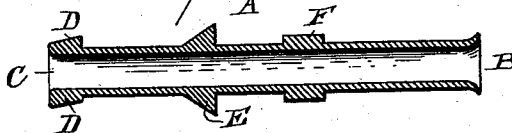
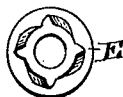


Fig. 9.



WITNESSES:

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SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 506,386, dated October 10, 1893.

Application filed May 22, 1891. Renewed July 6, 1892. Serial No. 439,182. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. WOOD, a citizen of the United States, residing at Hanover, in the county of Grafton and State of New Hampshire, have invented certain new and useful Improvements in Sap-Spouts; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in sap-spouts to be driven or screwed into trees for the purpose of gathering and conducting the sap therefrom.

My invention consists in certain improvements in the details of construction as more fully hereinafter described and claimed. It is illustrated in the accompanying drawings in which—

Figure 1— is a side view in elevation; Fig. 2— a central longitudinal section, and Fig. 3— an end view of the inner portion of the spout.

In the drawings, A represents the spout, the outer end B of which is slightly flared to form a mouth or drop lip for the same, and of which the inner end is provided with, or has formed on it and integral therewith, a number of diagonal fins or ribs D, for the purpose of engaging with the walls of the hole in the tree when driven or screwed therein, giving the spout a rotary motion when driven, holding it securely when in position, and allowing of its rapid removal with a wrench; said fins or ribs being of such a pitch as to permit the spout to be readily driven into the tree with a light mallet or hammer, and far enough apart to allow the sap to flow backward freely between them into the space at the rear of the spout and thence out through the central bore in the spout.

E, is an annular inwardly beveled collar for the purpose of making a tight joint between the spout and tree, without the use of washers, and to locate and support the body of the spout A, in a central position with the bore in the tree so that the only points of contact between the spout and tree shall be the outer edge of collar E, in the outer bark and

the edges of fins D, on the oldest and poorest sapwood. Collar E, is especially intended to use when the hole in the bark is countersunk as hereinafter described but is thoroughly effective when used with the more laborious and injurious method of hewing away a part of the outer bark.

F, is a collar fitted so that a wrench may be applied when it is desired to remove the spout from the tree, and is also intended to retain the bucket in proper position, the bucket being hung directly upon the spout, or a hook may be fastened between collars E, and F, and the bucket hung upon said hook. I preferably form the spout from a single piece of metal and protect it from corrosion or rust by tinning or galvanizing.

The operation is as follows:—A hole of proper size and depth is bored in the tree with the bark preferably countersunk so that when the spout is in position the outer edge of collar E, may rest on the cut surface of the bark; this countersinking may be accomplished by means of an adjustable attachment to the ordinary tapping bit, or where it is not desired to countersink the rough bark may be hewn away until a smooth surface is secured about the hole. The spout is then driven into place, collar E, making a tight joint with the bark. The sap flows into the chamber formed between the walls of the hole and body A, of the spout, through the spaces between fins D, and thence out through the central bore in the spout. As the spout does not come in contact with the recent growth of wood there is no loss of sap through partial plugging of the hole as in the case with ordinary spouts. To remove the spout requires about one turn of the wrench upon collar F. As the flow of sap is mainly from the wood of more recent growth the spout should come in contact with the young wood as little as possible, and mine, having no extensive spiral or screw, has no bearing whatever on the wood of the past four to six years' growth. Any perforation into the central duct is objectionable, as it allows air when the sap is not running to circulate freely in contact with the freshly cut surface of the sap-wood. In my spout the air must pass through the central duct and back between the fins to reach the wood, and is thus more thoroughly excluded. The simplicity

of my spout is evident, it being made of a single piece of metal; and it can be as readily driven in as the common wooden spout. The fins and the inner collar bringing the body of
5 the spout into an exactly central position in relation to the hole in the tree, and, the pitch of the fins giving the spout a rotary motion, it is easy to insert or remove. If the fins were set straight with the body of the spout they
10 would have to fit much tighter in the wood in order to hold, and as they would require a straightaway pull to remove them, their use would be difficult.

Having thus described my invention, what
15 I claim is—

A metallic sap spout provided on its extreme inner end with short diagonal fins or ribs, for the easy insertion or removal of the spout leaving diagonal spaces between said fins to permit the sap to flow backward through 20 the same into the rear of the spout, and at or near its central portion with an annular, inwardly beveled collar, as set forth.

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

ALBERT H. WOOD.

Witnesses:

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