

(No Model.)

C. C. POST.

SAP SPOUT.

No. 348,581.

Patented Sept. 7, 1886.

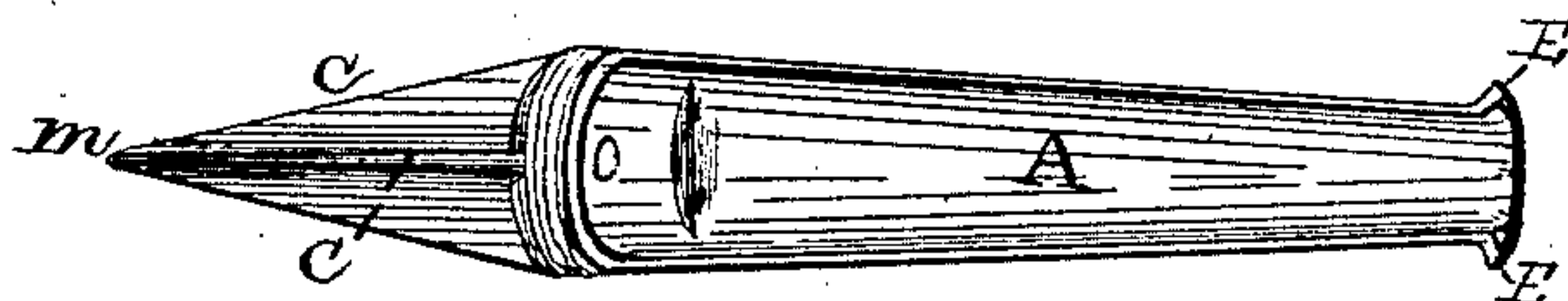
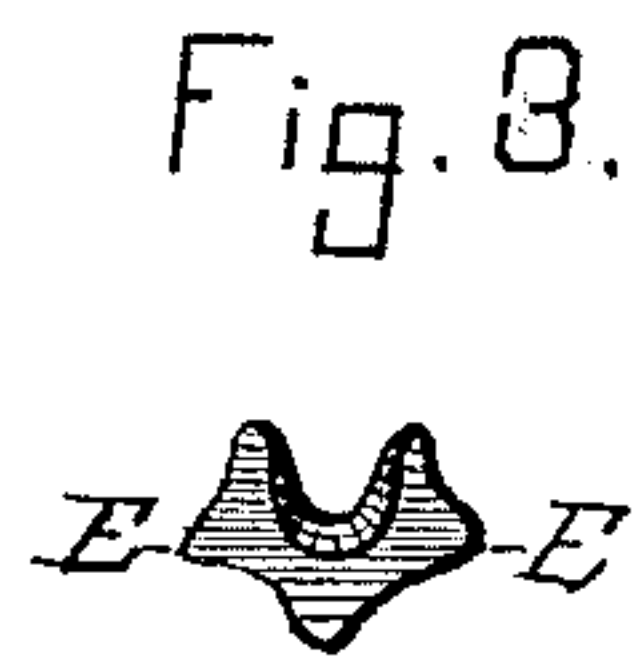
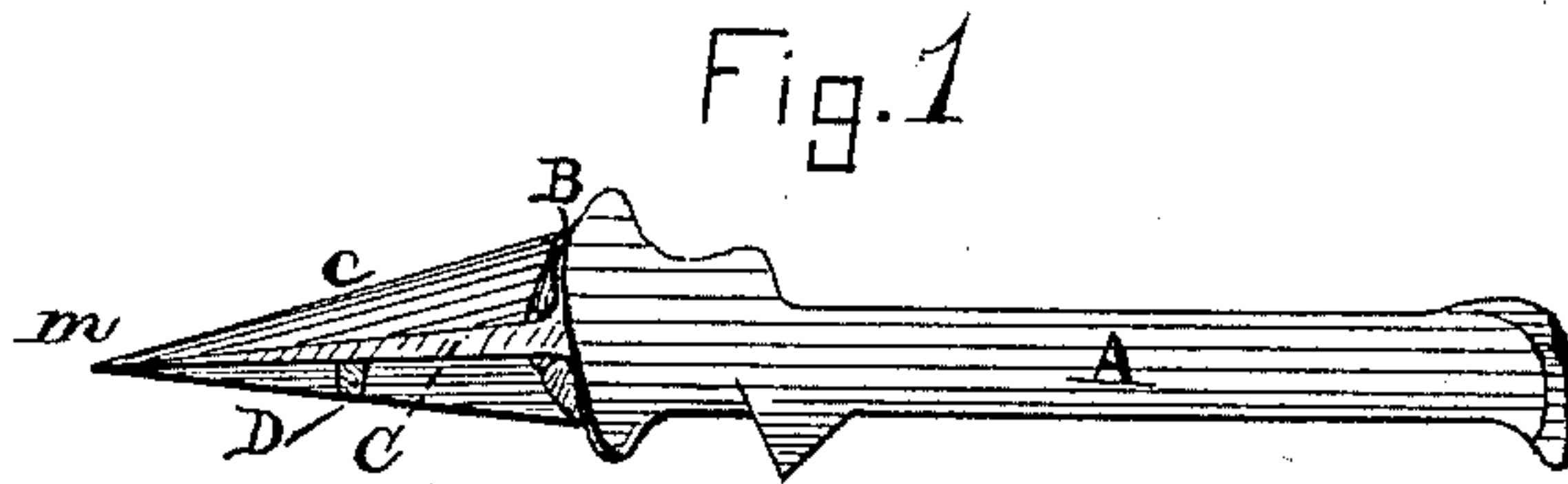
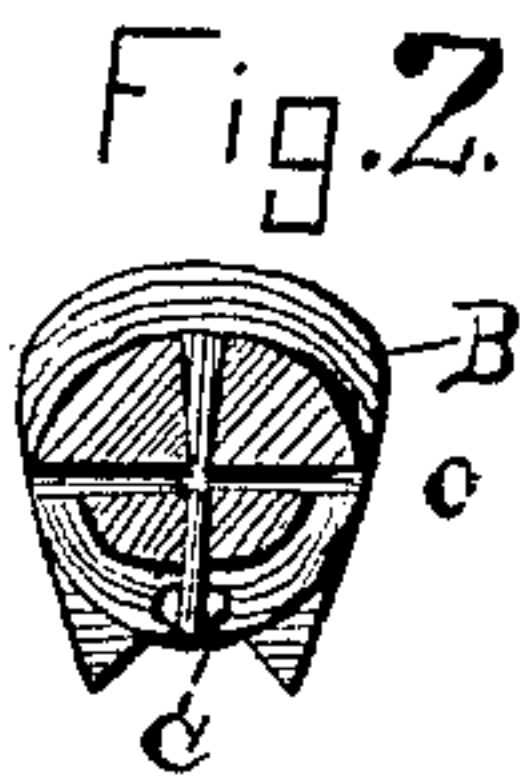


Fig. 4.

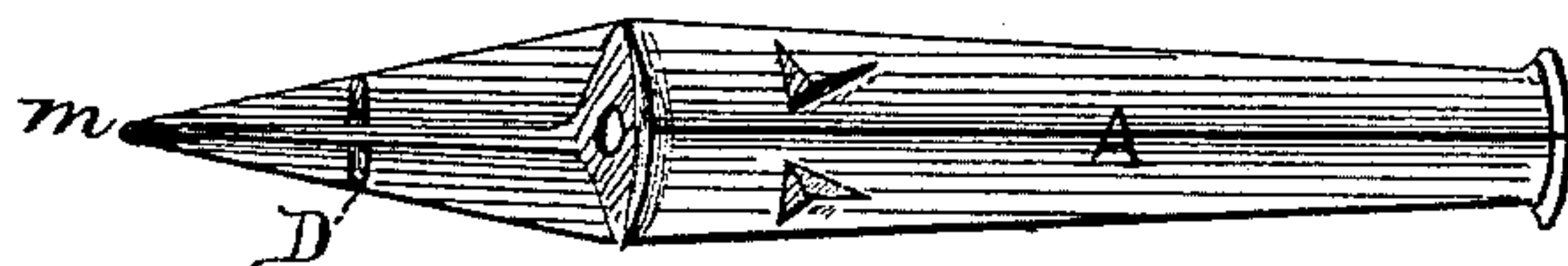


Fig. 5.

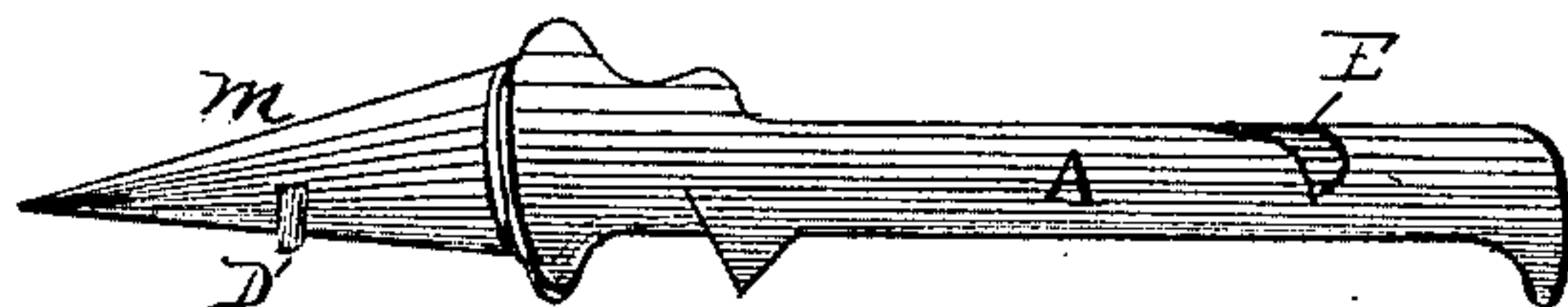


Fig. 6.

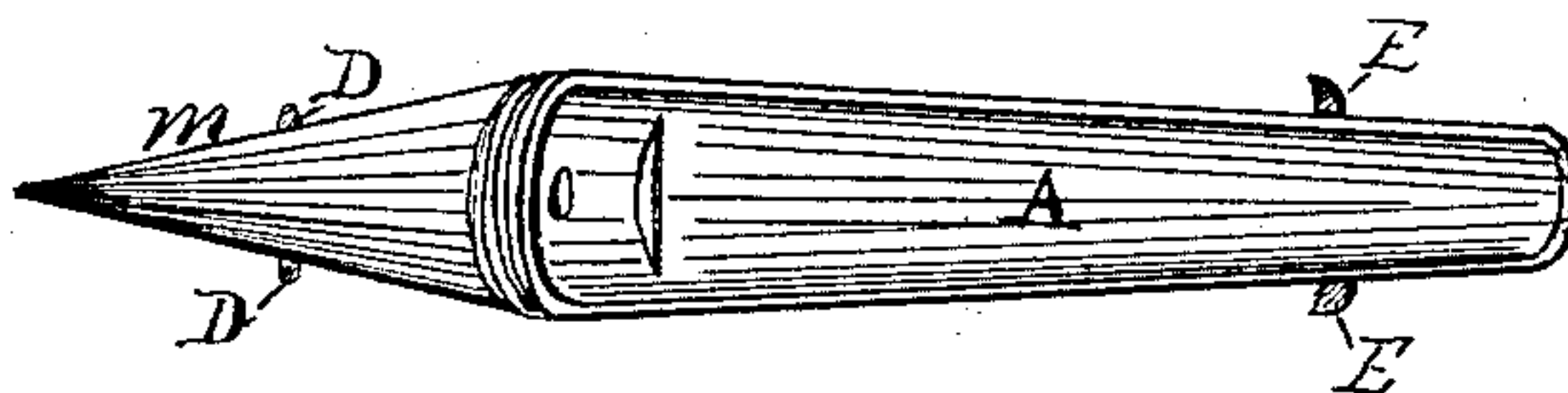


Fig. 7.

Witnesses:

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per
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UNITED STATES PATENT OFFICE.

CHARLES C. POST, OF BURLINGTON, VERMONT.

SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 348,581, dated September 7, 1886.

Application filed November 20, 1885. Serial No. 183,446. (No model.)

To all whom it may concern:

Be it known that I, CHARLES C. POST, a citizen of the United States, residing at Burlington, in the county of Chittenden and State of Vermont, have invented certain new and useful Improvements in Sap-Spouts, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in sap-spouts, and the objects of my improvements are, first, to more reliably sustain the spout in the tap-hole and stiffen its connection with the tree without injury to the fibers or obstructing the hole; second, to provide an anchor which will effectually prevent the loosening or forcing out of the spout by reason of the accumulation and consequent expansion of ice in the tap-hole; and, third, to afford facilities for withdrawing the spout from the tree by means of a claw on a hammer or other similar instrument.

In the drawings, Figure 1 is a side elevation of a sap-spout embodying my invention. Figs. 2 and 3 represent rear and front end views of the same. Figs. 4 and 5 are top and bottom views of the same. Fig. 6 is a side view of the spout, the rear extension being conical in form. Fig. 7 is a top view of the same, the claw projections being back of the outer extremity.

Similar letters indicate like parts.

A is a sap-spout, provided with the packing-flange B, which is so constructed as to prevent the air from entering around the edge of the tap-hole when the rear extension, *m*, of the spout is driven into place. Communication between the interior of the bore and the pod or trough of the spout is provided by a small orifice through the packing-flange.

C C are fins or ribs, forming the rear extension, *m*, preferably made as thin as is possible to leave the tap-hole free from unnecessary obstruction. They are made to extend back from the flange B, tapering to an edge or point sufficiently far to allow the end or point to penetrate the tree beyond the interior end of the tap-hole for the purpose of rendering the spout A more firm in its position in the hole, and of preventing it from being easily loosened by any side blows, and thus of adding to the strength as well as the rigidity of the fins C C. The edges and point may be corrugated to give greater security to its position. The in-

terior extremity of the spout A need not, however, be constructed with longitudinal fins or ribs, but may be made of any other convenient shape, such as shown in Figs. 6 and 7, where it is represented as a cone having its base at the flange B, provided the form of construction does not fill the bore, and thereby prevent the free flow of the sap from the interior surface of the tap-hole. About midway the length of this rear extension, *m*, I place an ice-anchor, D, which consists of a transverse projection attached to the lower side of the extension *m*. Its object is to securely hold the spout in the tap-hole by preventing the sap, which is liable to accumulate and freeze and fill the exterior portion of the hole, from forcing the spout outward by its expansive power. As the sap freezes more or less solid and becomes thereby attached to the interior surface of the bore, it causes the anchor D to hold the spout A more rigidly in its proper position, and effectually prevents it from being forced out of the tap-hole as the ice expands. This anchor D forms a division or wall across the interior of the bore between the flange B and the inner end of the spout, and thus the sap freezes on both sides of the anchor alike, and thus the pressure on one side counteracts the pressure on the other side, and in this manner prevents the entire expansion of the ice from coming against the flange B and forcing the spout from the bore.

E E are side projections, which, for convenience, I prefer to locate at or near the outer end of the spout, for the purpose of enabling the spout to be readily drawn out of the tap-hole by means of the claw of a hammer or other instrument, and thereby avoid the liability of breaking or injuring the spout when attempted to be pulled out by knocking it loose or in any other way.

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

1. A sap-spout provided with a rear extension designed to enter the tap-hole and penetrate the tree at the end of the hole, and an ice-anchor consisting of a transverse projection on its lower side and midway of such extension, substantially as described, and for the purpose set forth.

2. A sap-spout provided with a flange, B,

and an extension, *m*, at its inner end, with the transverse ice-anchor D placed midway between the end of the extension and the flange B, substantially as described.

- 5 3. A sap-spout having the side projections, E E, on its outer extremity and the transverse projection D on the underside of its inner end, substantially as described, and for the purpose set forth.

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

CHARLES C. POST.

Witnesses:

CHARLES E. ALLEN,
H. F. WOLCOTT.