

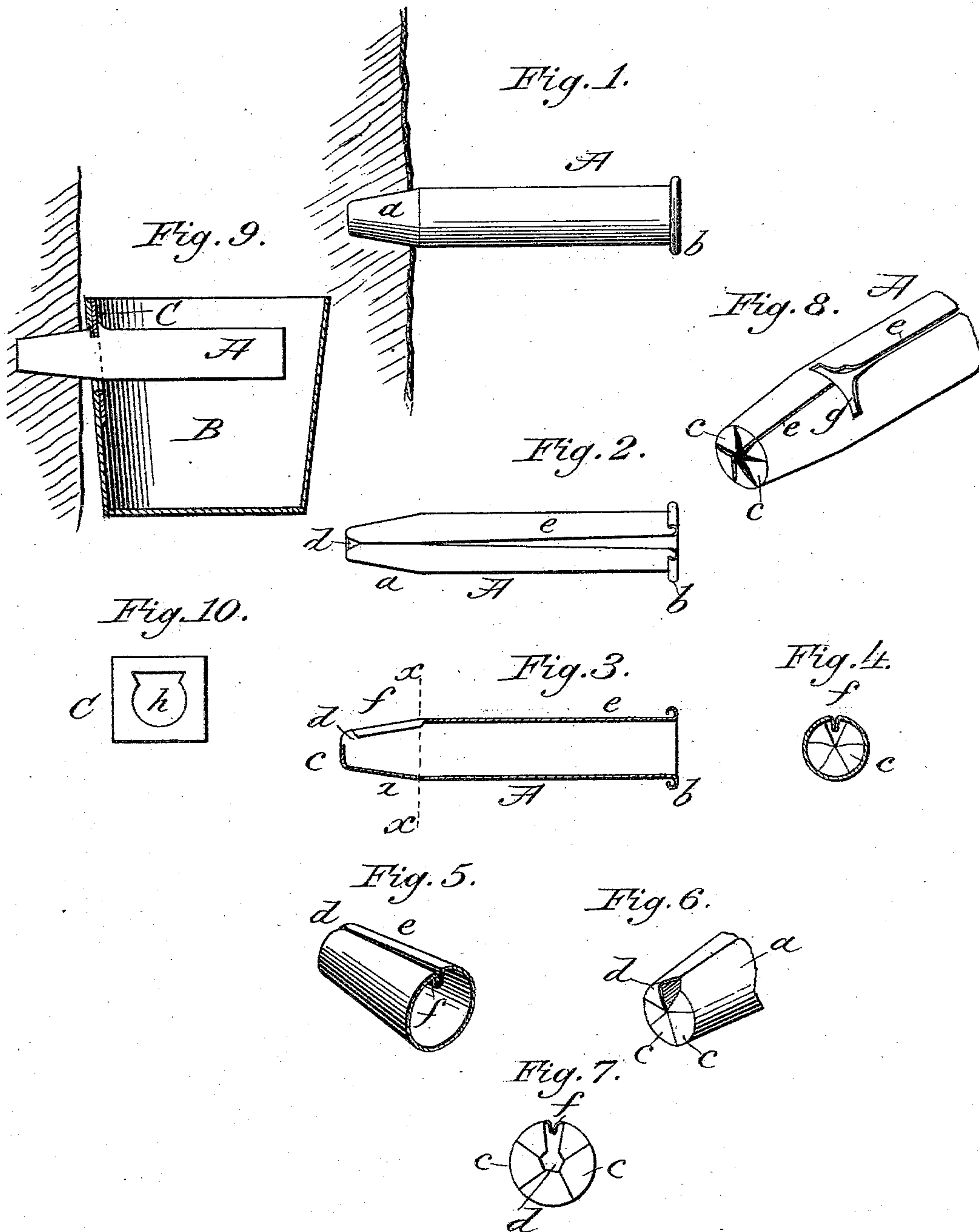
(No Model.)

P. E. FOX.

SAP SPOUT.

No. 283,593.

Patented Aug. 21, 1883.



Attest:

H. H. Schott  
A. R. Brown

Inventor:

Perley E. Fox  
By J. C. Parker



# UNITED STATES PATENT OFFICE.

PERLEY E. FOX, OF MARLOW, NEW HAMPSHIRE.

## SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 283,593, dated August 21, 1883.

Application filed June 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, PERLEY E. FOX, a citizen of the United States, residing at Marlow, in the county of Cheshire 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to spiles or spouts for conducting sap from a maple tree to the usual vessel or receptacle, the object being to provide a metallic spout formed to properly fit the hole or orifice made in the tree, the tapering end of said spout being so nearly closed as to permit the passage of sap without unnecessary exposure to the atmosphere of the fresh-cut portion of the tree.

The invention also consists in certain details of construction, as hereinafter described, whereby a bucket may be hung directly upon the spout without the intervention of a hook.

In the annexed drawings, illustrating the invention, Figure 1 is a side view of my improved sap-spout, showing its tapered end inserted into a tree. Fig. 2 is a top view of the spout. Fig. 3 is a vertical longitudinal section. Fig. 4 is a cross-section on the line *x x* of Fig. 3. Figs. 5 and 6 are perspective details. Fig. 7 is an end view. Fig. 8 is a perspective view of a sap-spout having a transverse slot in its top for the attachment of a bucket. Fig. 9 is a sectional view of a bucket attached to the spout. Fig. 10 is a perforated plate for attachment to the sap-bucket at the point where it is hung on the spout.

Like letters indicate like parts.

The spout A is made of sheet metal in the form of a cylinder, with tapering end *a*, to be driven into an orifice bored into the tree. The outer end of the spout may be plain, or it may be turned over into a bead, *b*, as shown in Figs. 1 and 2. The inner tapering end of the

spout may be formed with segmental flanges *c c*, that are turned inward, so that their edges will butt against each other and close the end of the spout, except a small opening, *d*, at the upper side for the passage of sap. This opening may be any desired size and shape, and instead of being formed by the edges of the segmental flanges *c c*, the spout may have a solid end, in which the opening will be made, or the flanges may be formed, as shown in Fig. 8, so as to leave a star-shaped or similar opening. At the inner end of the longitudinal seam *e*, on the upper side of the spout, the edges of said seam are formed with inwardly-turned flanges *f f*, Figs. 3, 4, and 5, that abut laterally, so as to prevent the edges of the seam from passing or overlapping when the spout is driven into a tree, thus rendering it unnecessary to solder or otherwise fasten the edges of the seam. The spout A is preferably formed at the top with a transverse slot, *g*, that intersects the seam *e*, as shown in Fig. 8, the corners formed by the intersection of the seam *e* and slot *g* on one side of said slot being turned upward, as shown, to form a bearing for the bucket B, which is hung on the spout, as illustrated in Fig. 9. An opening is made in this bucket on one side, near the top, for the passage of the spout into the bucket, and a perforated metallic plate, C, Fig. 10, is secured to the bucket on the inner or outer side, as preferred, so that the opening in the strengthening-plate C will register with the opening in the bucket. The upper side of the opening *h* in the plate C is straight, so as to rest readily in the transverse slot *g* of the spout. This form of spout enables the bucket to be hung thereon without the intervention of a hook, and admits of the application of a cover to the bucket.

By nearly closing the tapering end of the spout, as described, the interior or cut part of the tree will not be exposed unnecessarily to the drying effects of the atmosphere, and a free exit for the flowing sap is still afforded. The spout being formed of metal will not absorb the coloring-matter of the sap or retain the impurities which collect on its surface, as a wooden spout invariably does. I



am aware, however, that sheet-metal sap-tubes have been heretofore used, and therefore I do not claim such, broadly.

What I claim as my invention is—

- 5 A cylindrical sheet-metal sap-spout having a tapering end, *a*, inwardly-turned flanges *c c f f*, and transverse slot *g*, substantially as and for the purposes described.

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

PERLEY E. FOX.

Witnesses:

BOLIVAR LOVELL,  
SARAH E. B. LOVELL.