

(No Model.)

D. C. BROWN.
SAP SPOUT.

No. 287,414.

Patented Oct. 30, 1883.

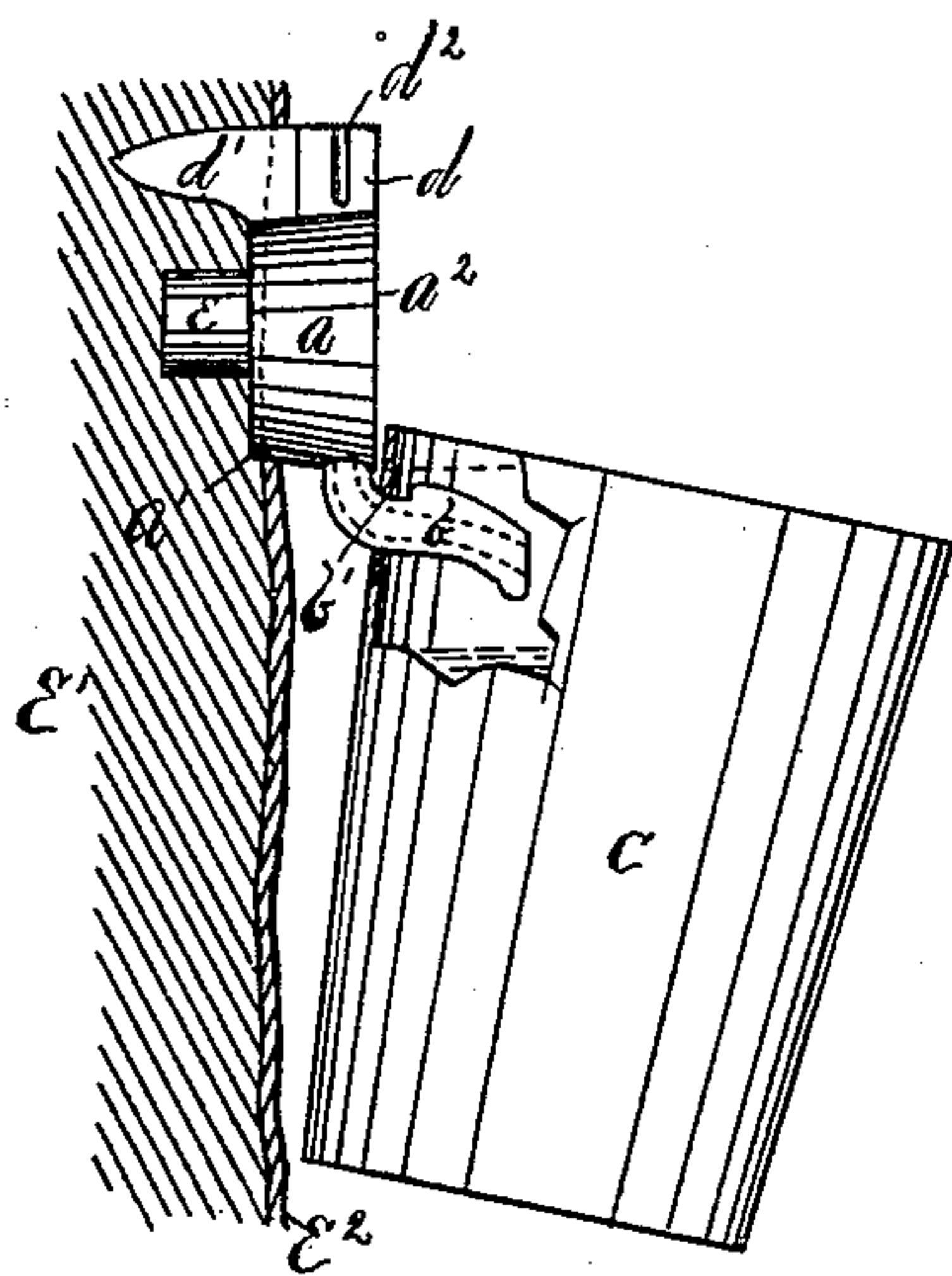


FIG 1

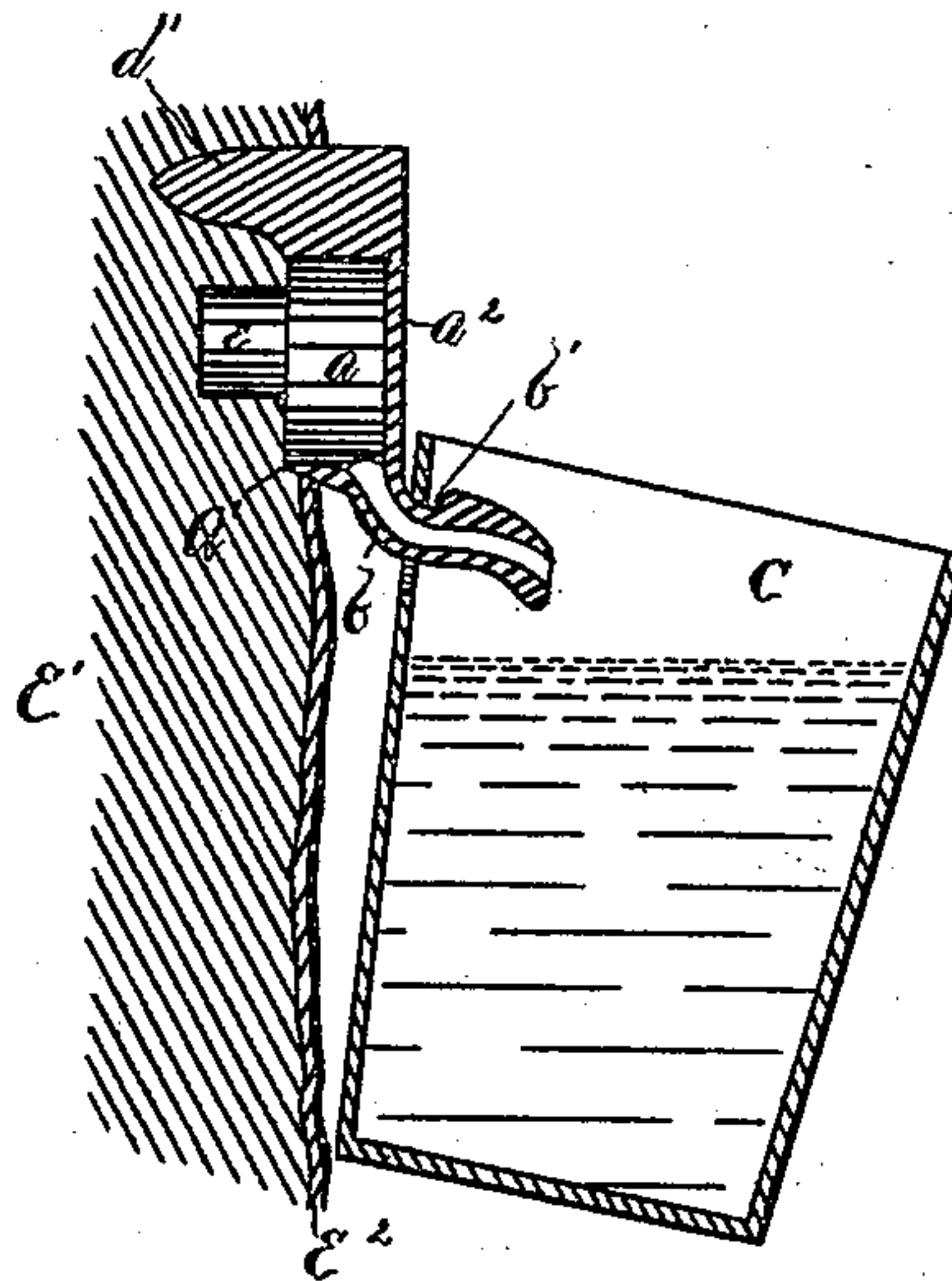


FIG 2

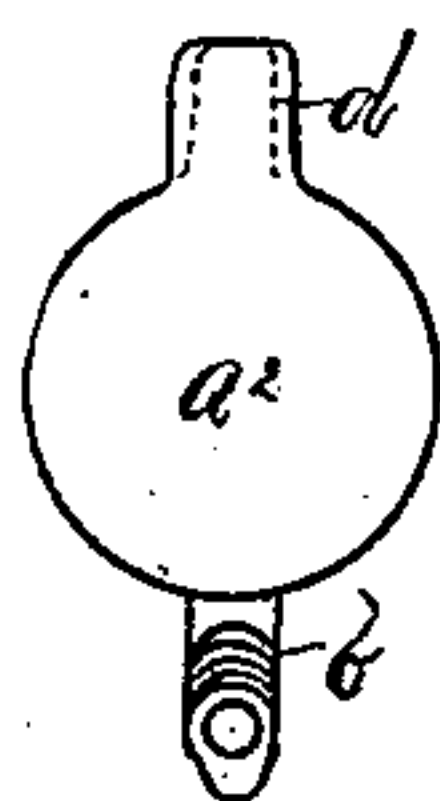


FIG 3

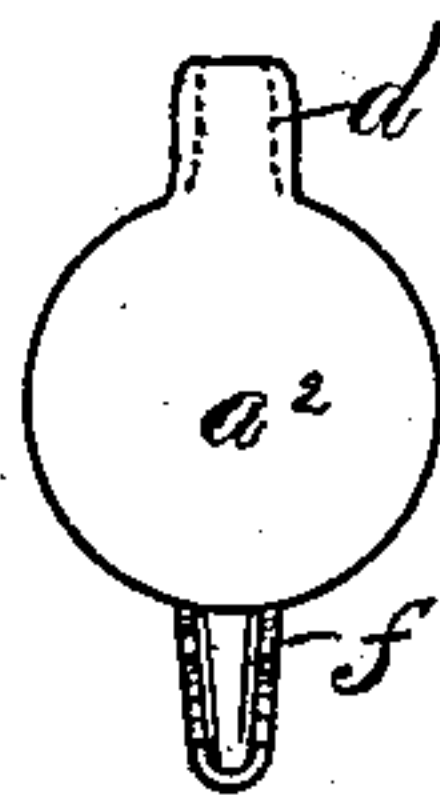


FIG 4

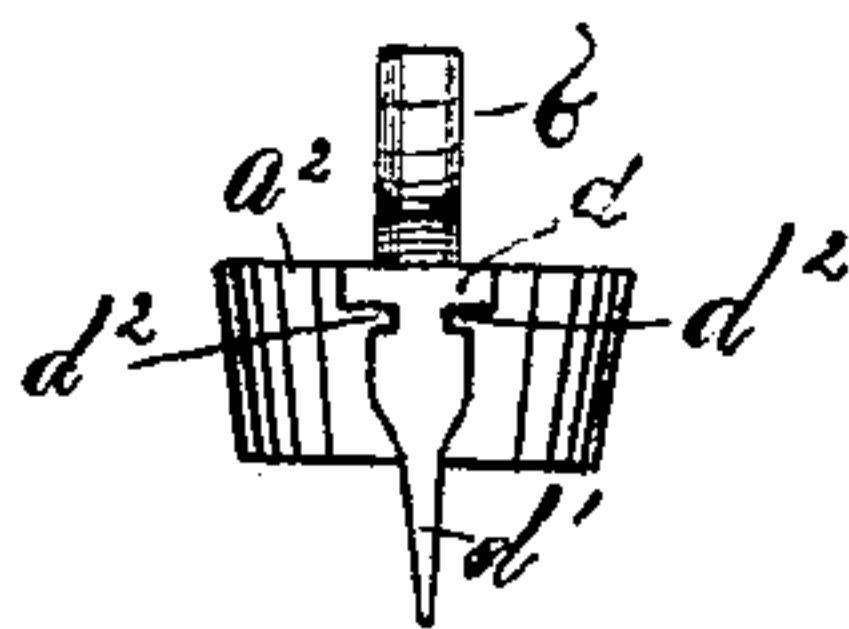


FIG 5

Witnesses:

Otto H. Schmidt.
C. Schmidt.

Inventor.

Daniel C Brown
By
W. T. Miller
Atty.

UNITED STATES PATENT OFFICE.

DANIEL C. BROWN, OF NORTH COLLINS, NEW YORK.

SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 287,414, dated October 30, 1883.

Application filed May 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. BROWN, a citizen of the United States, residing at North Collins, in the county of Erie and State of New York, 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to so construct a spout for catching maple sap as it flows from the tree that there will be a minimum compression of the woody fibers of the tree at the point where the sap exudes and the spout is secured, thereby obtaining a freer, and consequently greater, flow of sap; and to that end, principally, it consists in a certain improved construction, which will be more fully hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side elevation of my improved sap-spout in position upon a tree. Fig. 2 is a vertical central section of Fig. 1. Fig. 3 is a front elevation of the sap-spout, detached. Fig. 4 is a top plan view of the same, and Fig. 5 is a front elevation of a modified form.

Referring to the drawings, *a* is the body portion of the device, which is preferably of hollow cylindrical form, having its inner end open and provided with the circular beveled cutting-edge *a'*. The outer end, *a''*, of the body portion *a* is entirely closed, and presents a smooth flat surface, against which a block may be placed in driving the device into the tree. Upon the lower side of the body portion *a* is located the hollow spout *b*, which extends downwardly and outwardly, and is provided with the notch *b'* upon its upper portion for the reception of the pail *c*, which catches the flowing sap. The spout *b*, as will be seen, opens into the interior of the body portion *a*, and is so arranged as not to interfere with the driving of the device into the tree. At the upper part of the body portion *a* is the vertical extension *d*, the outer wall of which is flush with

the closed end *a''* of the portion *a*. Extending backwardly from the extension *d* and forming, practically, a continuation thereof, is the thin blade *d'*, having a pointed tapering end and sharp edges, to enable it to be readily driven into the woody fibers of the tree. Two vertical notches, *d'' d'''*, are formed in the upper portion of the extension *d*, adapted for the reception of the claws of a hammer, by means of which the blade *d'* may be readily withdrawn from the tree.

The operation of the improved sap-spout just described and its application to a maple-tree is as follows: The auger-hole *e* having been bored in the tree *e'*, the sap-spout is held against the tree so that the auger-hole will be located at about the center of the open end of the body portion *a*. With a hammer or mallet and block the blade *d'* is driven into the woody fiber of the tree, and the sharp circular edge *a'* penetrates the bark *e''* of the tree, but no farther. By this means the sap-spout is readily driven and securely held in the tree and the woody fibers in the immediate vicinity of the auger-hole are not compressed to any perceptible extent, thus allowing a free and unrestrained flow of the sap from the auger-hole into the interior of the body portion *a*, from whence it flows through the spout *b* into the pail *c* suspended from the notch *b'*.

By my improved device I am enabled to almost entirely avoid the compression of the woody fiber in the vicinity of the spout, a fault which is more or less common to the forms of sap-spouts now made, and I therefore obtain, in consequence, a much more free and generous flow of sap than it is possible to obtain from those forms of spouts now in use, the percentage of increase being considerable. My improved form of spout can be cast of metal in one piece, and is galvanized, to prevent rusting. Instead of the hollow spout *b*, I might employ an open trough, *f*, as shown in Fig. 5, which leads into the interior of the body portion *a* in the same manner as the hollow spout *b*.

It will be seen that by reason of the spout *b* being located below the body portion *a* and the extension *d* being flush with the outer end, *a''*, the body portion *a* and the blade *d'* may be quickly, safely, and securely driven into po-

sition in the tree, which forms quite an important feature of my improved device.

I claim—

5 1. A sap-spout having a retaining projection or blade, to enter the woody fiber of the tree, located upon such spout at a point without the body portion thereof, whereby the woody fibers are not compressed at or near the point where the sap exudes, substantially as shown and described.

10 2. A sap-spout having a retaining projection or blade, to enter the woody fiber of the tree, located upon such spout at a point without the body portion thereof, for the purpose stated, and a notch or notches thereon for the reception of a tool to aid in withdrawing the spout from the tree, substantially as shown and described.

15 3. A sap-spout having a retaining projection or blade located upon such spout at a point without the body portion thereof, for the pur-

pose stated, and having the spout proper located below the body portion thereof, to allow of free access in driving the spout into position upon the tree, substantially as shown and described. 25

4. A sap-spout having a retaining projection or blade located upon such spout at a point without the body portion thereof, and a notch or notches thereon for the reception of a withdrawing-tool, and having the spout proper located below the body portion thereof, to allow of free access in driving the spout into position upon the tree, substantially as shown and described. 30

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 35

DANIEL C. BROWN.

Witnesses:

OTTO HODDICK,
W. T. MILLER.