

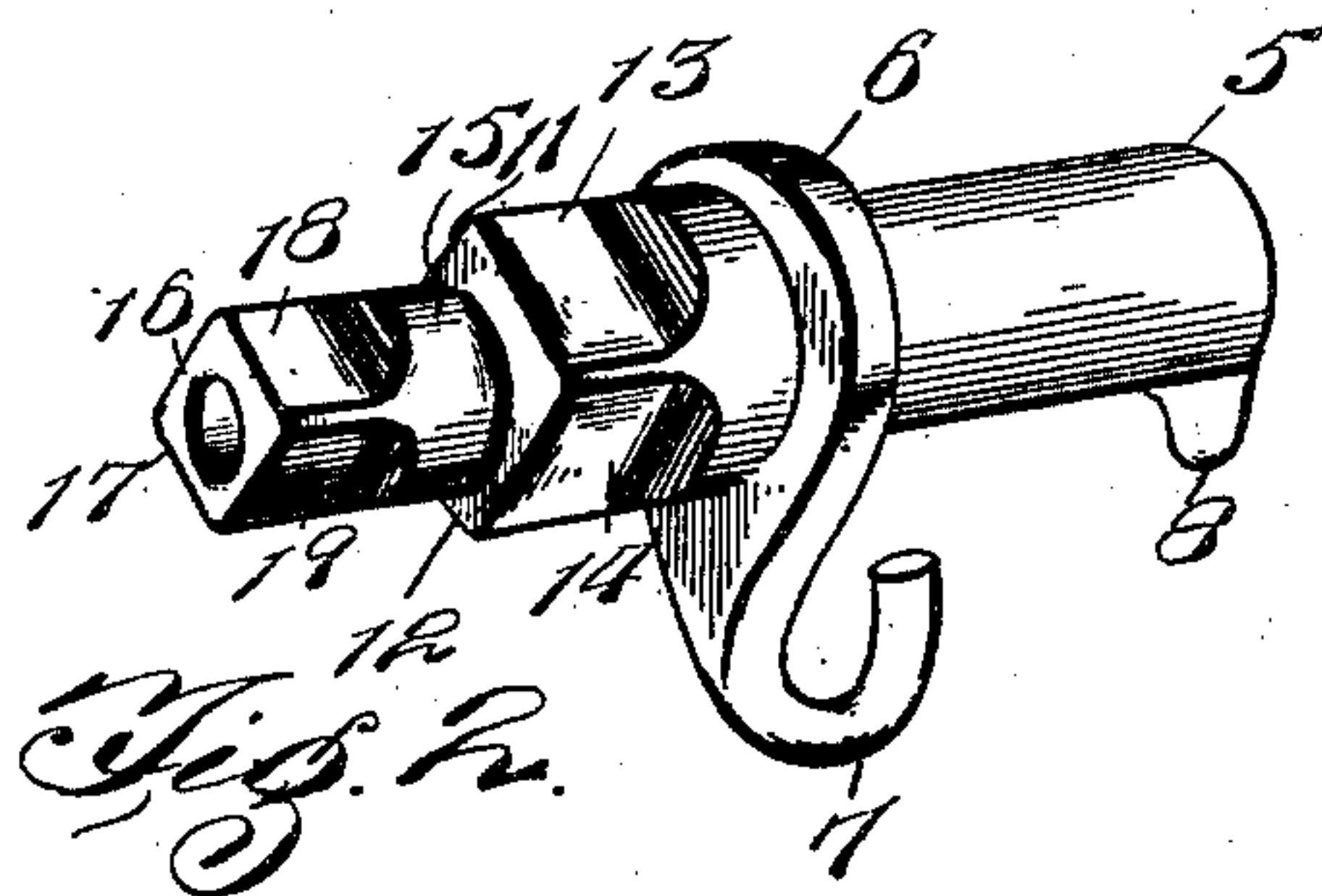
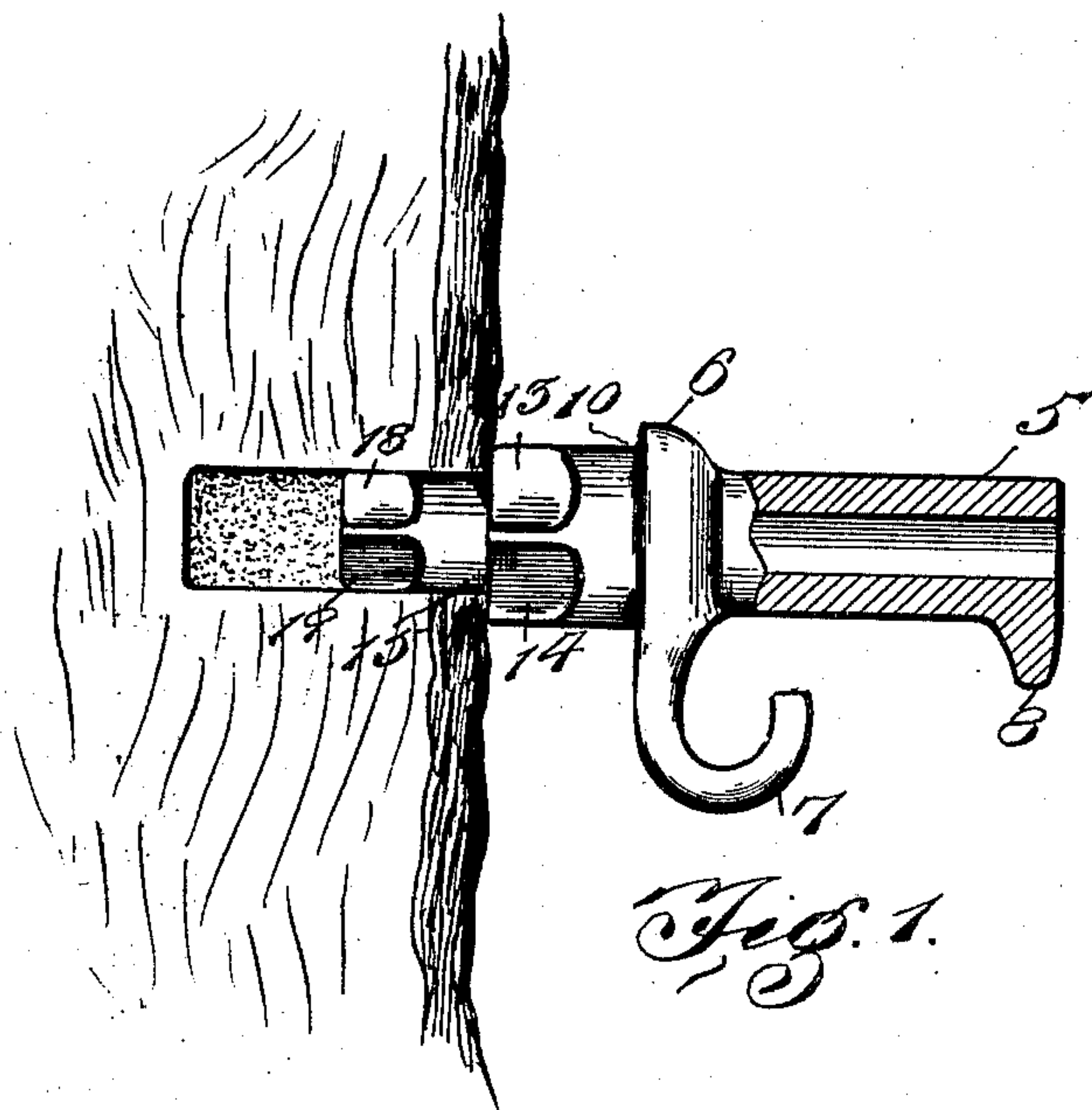
No. 695,841.

Patented Mar. 18, 1902.

D. RUDD.
SAP SPOUT.

(Application filed Mar. 19, 1901.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

DAVID RUDD, OF LACONA, NEW YORK.

SAP-SPOUT.

SPECIFICATION forming part of Letters Patent No. 695,841, dated March 18, 1902.

Application filed March 19, 1901. Serial No. 51,913. (No model.)

To all whom it may concern:

Be it known that I, DAVID RUDD, a citizen of the United States, residing at Lacona, in the county of Oswego and State of New York, have invented a new and useful Sap-Spout, of which the following is a specification.

This invention relates to sap-spouts such as are used in tapping sugar-trees; and it has for its object to provide a spout which will permit of reaming out the tree to expose new fiber and remove the incrustations on the wall of the hole that prevent free flow of sap, a further object of the invention being to provide a construction wherein the spout will be held firmly in the hole in either of its operative positions.

As is well understood, when the tree is first tapped the sap flows freely; but as the flow is periodical and not continuous the sap incrusts the wall of the hole during the period of inaction, while the fiber contracts and dries, so that when the next period of flow begins the sap cannot freely enter the hole that is bored in the tree, and in consequence a comparatively small proportion of the sap is drained. In accordance with some methods of operation the spout is withdrawn when the sap begins to run after a period of inaction, and the hole is bored deeper; but this is ineffective to cure the defect, as comparatively little sap flows excepting near to the bark. The only other method by which the sap can be made to run freely again is to ream out the hole end to end to cut away the old wood and expose new fiber, and it is to permit of this method of operation that the present spout is designed.

In the accompanying drawings, Figure 1 is a view showing the sap-spout in side elevation in its initial position in the hole in the tree, a portion of the tree being shown in section. Fig. 2 is a perspective view of the spout.

Similar numerals of reference indicate corresponding parts throughout both figures of the drawings.

The spout consists of a tubular body having an outer cylindrical end portion, as shown at 5, and at a point which may be midway of its ends there is formed a flange 6, the rear face of said flange being flat and having a depending hook portion 7, the bill of which is directed outward to receive the bail of a sap-

receiving bucket. At the outer end of the spout is a depending lug 8, which serves to carry the drip downward and prevent it from running back along the spout and over the edge of the bucket. The spout at the opposite end from the lug 8 is to be inserted in the hole in the tree, and this opposite end, directly adjacent to the flat face of the flange 6, is of cylindrical form, as shown at 10. Adjacent to this cylindrical portion the sides of the body are cut away to form four angularly-disposed faces 11, 12, 13, and 14, so that the body at this point is rectangular in cross-section, the diagonals thereof being equal to the diameter of the cylindrical portion, and this angular portion lies with one diagonal in the plane of the extension of the hook 7. When this portion of the spout is engaged with the hole in a tree, the flat face of the flange 6 lies close against the surface of the tree, and the cylindrical portion 10 fits snugly in the hole to plug the same and prevent sap from oozing around the spout. The angular portion of the spout lies within the hole in the tree and with its diagonal edges in contact with the wall of the hole to prevent sagging of the outer end of the spout.

At the end of the angular portion above referred to farthest from the flange 4 the body of the spout is reduced in diameter to form a minor cylindrical portion 15, and between said cylindrical portion and said angular portion is an abrupt shoulder 16 in a plane at right angles to the axis of the spout. At the outer end of the cylindrical portion 15 the body of the spout is again cut away to form the four angularly-disposed faces 16, 17, 18, and 19 of a terminal rectangular portion similar to the first rectangular portion above described, the diagonals thereof lying in the same planes with the corresponding diagonals of the first or major portion. The diagonals of the minor rectangular portion are equal to the diameter of the minor cylindrical portion.

In the use of this spout the tree is first bored to form an opening of such diameter as to snugly receive the minor cylindrical portion of the spout, the latter being driven into the opening until the shoulder 16 is close to the surface of the tree and the diagonal edges of the minor rectangular portion bearing

against the wall of the hole to prevent sagging of the spout. When the sap runs slowly, due to the cause above mentioned, the spout is drawn from the hole, and the hole is reamed
5 out sufficiently to cut away the incrusts and dried wood, and the spout is then replaced and is driven into the opening until the shoulder or flange 6 lies against the face of the tree. The sap will then run as freely as in
10 the first instance.

It will be noted that in each operative position of the spout the flow of sap is unobstructed, while the hole is plugged tightly, and the flange or shoulder bears against the
15 outer face of the tree to prevent sagging of the spout.

In practice any suitable material and proportions may be used without departing from the spirit of the invention.

20 What is claimed is—

1. A sap-spout consisting of a tubular body having a major plugging portion and a minor plugging portion separated by a bearing-shoulder.

25 2. A sap-spout consisting of a tubular body having a major plugging portion and a minor

plugging portion separated by an abrupt bearing-shoulder, and a bearing-shoulder upon the body at the outer end of the major plugging portion. 30

3. A sap-spout consisting of a tubular body portion having a major bearing portion and a minor bearing portion separated by an abrupt bearing-shoulder, the faces of the bearing portions being cut away at the inner
35 ends thereof to form sap-ducts.

4. A sap-spout consisting of a tubular body having a major bearing portion and a minor bearing portion separated by an abrupt shoulder, the faces of the inner ends of said bearing portions being cut away to form cross-sectionally angular portions, and a bearing-shoulder upon the body at the outer end of the major bearing portion. 40

In testimony that I claim the foregoing as
45 my own I have hereto affixed my signature in the presence of two witnesses.

DAVID RUDD.

Witnesses:

BYRON SALISBURY,
LE ROY S. WOOD.