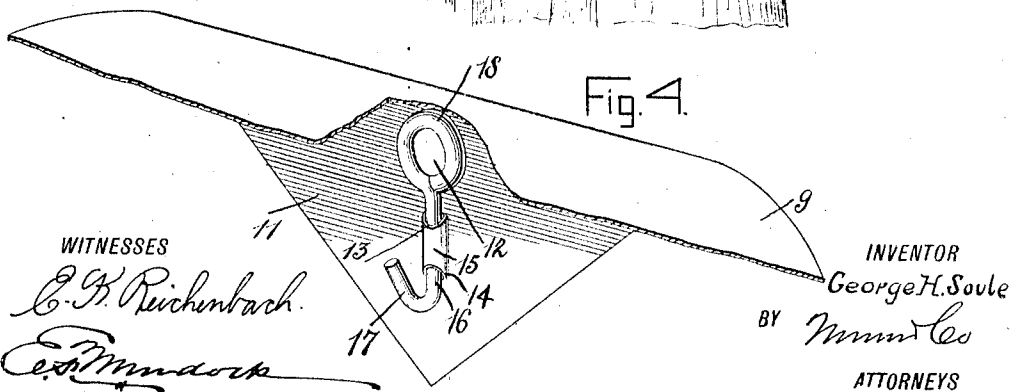
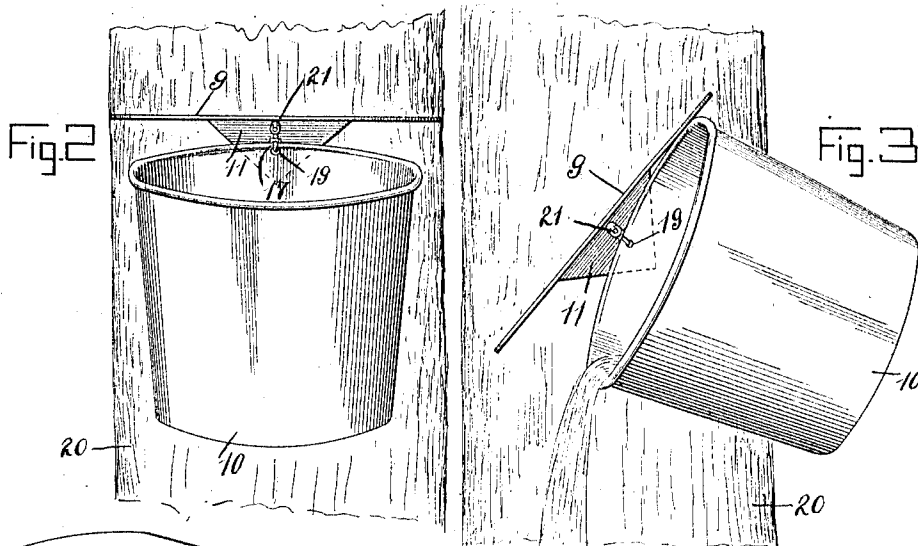
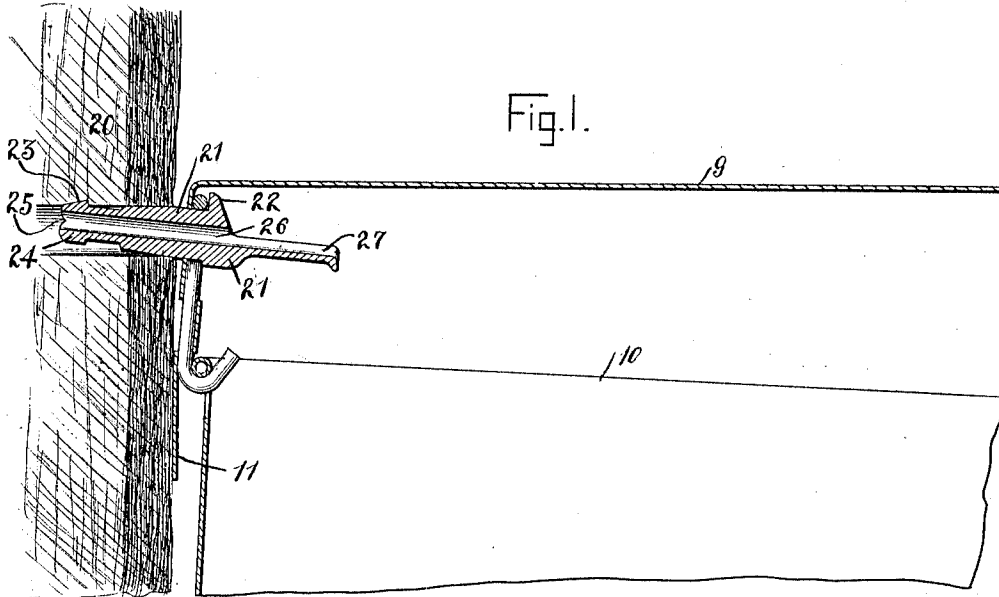


G. H. SOULE.
SAP COLLECTING APPARATUS.
APPLICATION FILED AUG. 21, 1912.

1,061,135.

Patented May 6, 1913.



UNITED STATES PATENT OFFICE.

GEORGE H. SOULE, OF FAIRFIELD, VERMONT.

SAP-COLLECTING APPARATUS.

1,061,135.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed August 21, 1912. Serial No. 716,155.

To all whom it may concern:

Be it known that I, GEORGE H. SOULE, a citizen of the United States, and a resident of Fairfield, in the county of Franklin and State of Vermont, have invented a new and Improved Sap-Collecting Apparatus, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide an apparatus of the character named, having means for suspending and covering the sap-collecting bucket; and to provide means for preventing the withdrawal of the support for said apparatus.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a vertical section showing a fragment of the apparatus and supporting spout therefor; Fig. 2 is a pictorial view of an apparatus of the character named, showing the same in normal or collecting position; Fig. 3 is a pictorial view of the same, showing the apparatus in delivery position; Fig. 4 is an enlarged detail view in perspective, showing a fragment of the cover for the collecting bucket.

The invention is more particularly adapted for employment in connection with the collection of the sap of sugar-maple trees. A requirement for an apparatus of the character mentioned is that the receptacle into which the sap is delivered shall be covered, to protect the sap from falling rain, snow, pieces of bark, leaves, or insects. It is further desired that the cover shall not interfere with the tilting of the bucket to empty the same of its contents without necessitating the removal of the same from its support. With this particular purpose in view, the cover 9 is provided with a body portion of dimensions sufficiently large to completely cover the opening of the bucket 10, when in normal position, such as shown in Fig. 2 of the drawings.

The cover 9 is provided with a tab portion 11, turned at an angle perpendicular to the body of the cover, and perforated to form an opening 12. Directly in line with and below the center of the opening 12, the tab portion 11 is provided with perforations 13 and 14. Between the perforations 13

and 14 the metal of the tab is pressed forward to form an outwardly-projecting ridge 15, the under side whereof serves as a guide for the shank 16 of a hook 17. The hook 17 is provided with an eyelet 18, which registers with the opening 12 when the hook is attached to the cover 9 and tab 11 thereof. At this time, I desire to mention that, as the cost of transportation of articles of this character is an important factor in the trade, I have provided that the tab 11 is not bent at an angle to the cover 9 in the manner shown in the drawings when the apparatus is packed for shipping, and further, the hook 17 and parts thereof are not attached to the said tab. With this object in view, the length of the ridge 15 is so regulated that the shank 16 and hook 17 may be transported as a separate item from the said cover and tab. When the tab 11 is bent at an angle to the cover 9, as seen in the drawings, it will be understood that the hook cannot be removed from engagement with the ridge 15.

The bucket 10 is provided adjacent the upper rim thereof with a perforation 19, through which the hook 17 is extended when said bucket is disposed in service. The cover 9 and hook 17 are supported upon a tree 20 by means of a spout 21. The spout 21 is provided with a spur 22 to form a shoulder, the office of which is to prevent the removal outwardly of the cover 9, and to form a bearing for the eyelet 18 when the cover and eyelet are rotated by the lifting of the bucket 10, as shown in Fig. 3 of the drawings. The spout 21 is provided with a short tapered body, the taper being arranged so that the spout will fit a variety of bores. At the inner end, the spout is provided with a sharpened barb 23, which is pressed upwardly by the strain imposed on the spout by the weight of the bucket 10, said spout rocking slightly for this purpose at the opening of the bore. The spout is provided at one end with projections 24, which serve to center or guide the spout when the same is being driven into the bore of the tree. To prevent the receiving end of the spout becoming clogged, I have, on opposite sides, formed clearance cuts 25. The cuts 25, being set in from the end of the spout, maintain constantly a passage for the flow of the sap through the channel 26 and over the lip 27 into the bucket 10.

When, now, trees are provided with spouts 21 having attached thereto covers 9 and buckets 10, the sap-collecting operation is as follows:—It will primarily be observed
 5 that the weight of the bucket operates to insert more rigidly the barb 23 into the wood of the tree 20, and thereby prevent the increasing weight in the bucket from pulling the spout from the bore of the tree. It
 10 will also be observed that the weight of the bucket pulling on the hook 17, rights the cover 9 and tab 11, holding the former in a horizontal position, the weight of the bucket being disposed for this purpose at a
 15 distance below the eyelet 18 and opening 12. When, now, in the course of operation, the collector calls at a certain tree, all that is necessary is that he shall dispose his hand-pail below the bucket 10, and then tilt the
 20 bucket 10, to empty the sap which has flowed therein. In tilting the bucket 10, it is not necessary to give any attention to the cover 9. The cover 9 rotates upon the spout 21, the eyelet 18 and body of the spout
 25 forming a bearing for this purpose. There is no danger in this operation, of the cover 9 throwing forward into the path of the sap while the same is being poured from the bucket, for the reason that the weight of
 30 the bucket is at all times imposed upon the hook 17, which exerts a rotating tendency on the cover 9 to move the same against the bucket 10, at the upper edge thereof. In this manner, the cover 9 protects the spout
 35 from falling objects, even during the operation of pouring the sap from the bucket 10. The sap having been collected from the bucket 10, no precaution is necessary on the part of the operator to adjust the bucket 10
 40 in proper position, said bucket automatically resuming its proper position, due to its weight; and due to the proper vertical position, the weight of the bucket rotates the cover 9 to its proper service position;
 45 or, in other words, both bucket and cover move automatically to the position shown in Fig. 2, after being released from the position shown in Fig. 3.

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

1. A sap-collecting apparatus, comprising a spout; a cover rotatively mounted on said spout and having an extension below said
 55 spout; and a bucket attached to said extension below said spout.

2. A sap-collecting apparatus, comprising a spout; supporting means rotatively mounted upon and supported by said spout;
 60 a bucket operatively connected with said supporting means below said spout; and a cover for said bucket, connected with said

supporting means to extend above said spout and said bucket.

3. A sap-collecting apparatus, comprising 65 a sap-collecting spout having at the inner end thereof means for engaging the body of a tree to prevent the withdrawal of said spout when the outer end thereof is depressed; bucket-supporting means rota- 70 tively mounted upon said spout adjacent the outer end thereof; a collecting bucket operatively connected with said supporting means below said spout; a cover having a flat body extension disposed above said 75 spout and said bucket; and means for rigidly connecting said supporting means and said cover.

4. In a sap-collecting apparatus such as described; a bucket cover having a flat body 80 portion and a tab portion bent from said body portion at an angle thereto, said tab portion being perforated to receive a sap-collecting spout; a wire hook having an eyelet to register with said perforation; and 85 means for rigidly securing said hook upon said tab portion.

5. In a sap-collecting apparatus such as described; a bucket cover having a flat body 90 portion and a tab portion bent from said body portion at an angle thereto, said tab portion being perforated to receive a sap-collecting spout; a wire hook having an eyelet to register with said perforation; and a 95 ridge-like member mounted on said tab portion to receive the shank of said hook, to fixedly connect said hook and said cover.

6. In a sap-collecting apparatus such as described; a bucket cover having a flat body 100 extension and a tab bent from said body extension at an angle thereto, said tab being perforated to receive a sap-collecting spout; and a wire hook having an eyelet to register with said perforation, said tab being 105 provided with a ridge pressed outward from the metal of said tab and having perforations formed in the end thereof to pass the shank of said hook, said ridge, hook and shank being relatively adjusted to permit the hook and shank to be withdrawn from 110 said ridge.

7. In a sap-collecting apparatus, the combination of a horizontally-extended cover; a collecting bucket; means for pivotally 115 mounting said cover upon a tree; and means for pivotally connecting said bucket and said cover below the pivot of said cover.

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

GEORGE H. SOULE.

Witnesses:

H. S. SOULE,

W. H. FAIRCHILD.