H. BREEDEN.

SAP RECEIVING APRON AND RECEPTACLE.

APPLICATION FILED JAN. 13, 1909.

920,255.

Patented May 4, 1909.

2 SHEETS—SHEET 1.

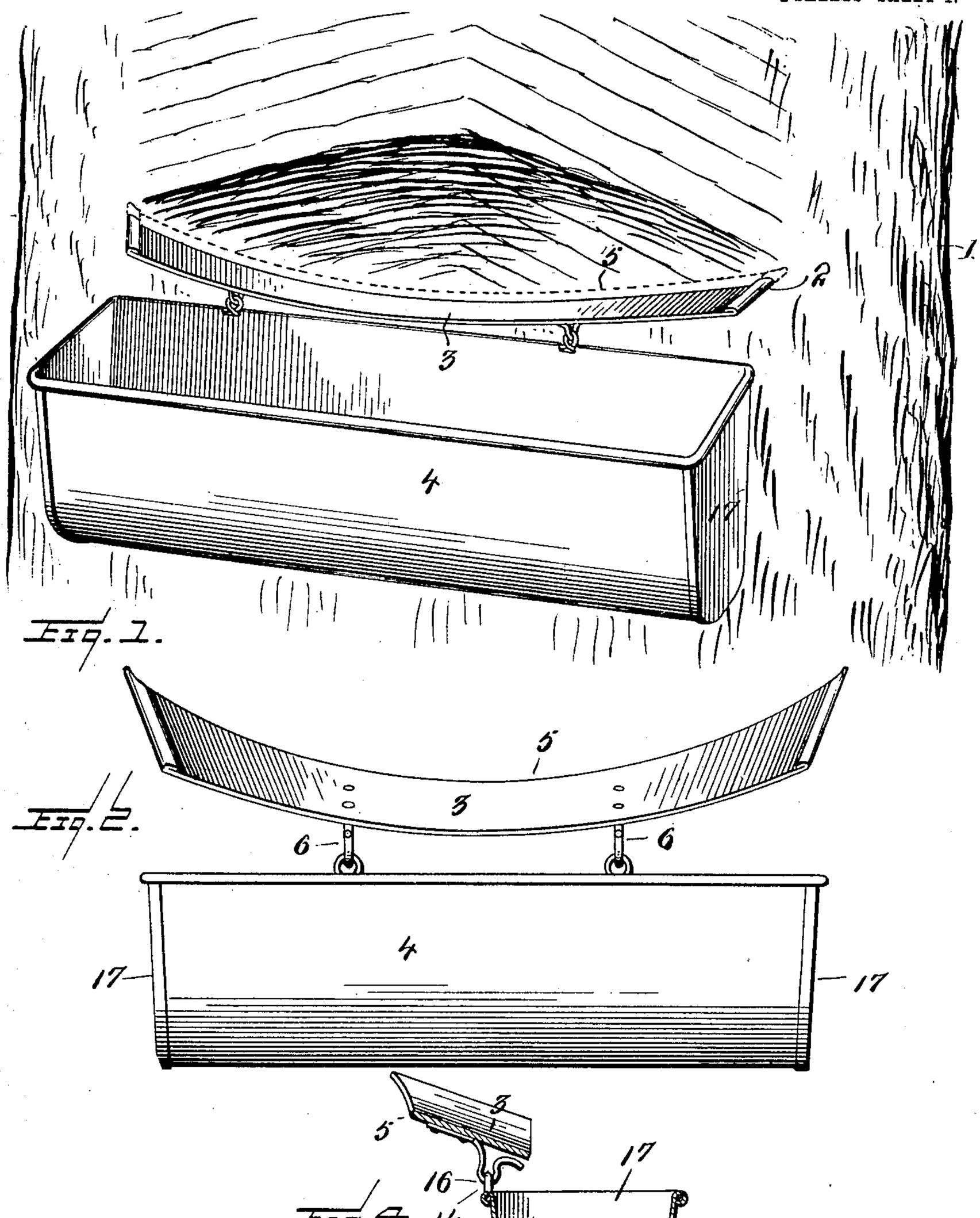

Fig. 1.

Fig. 2.

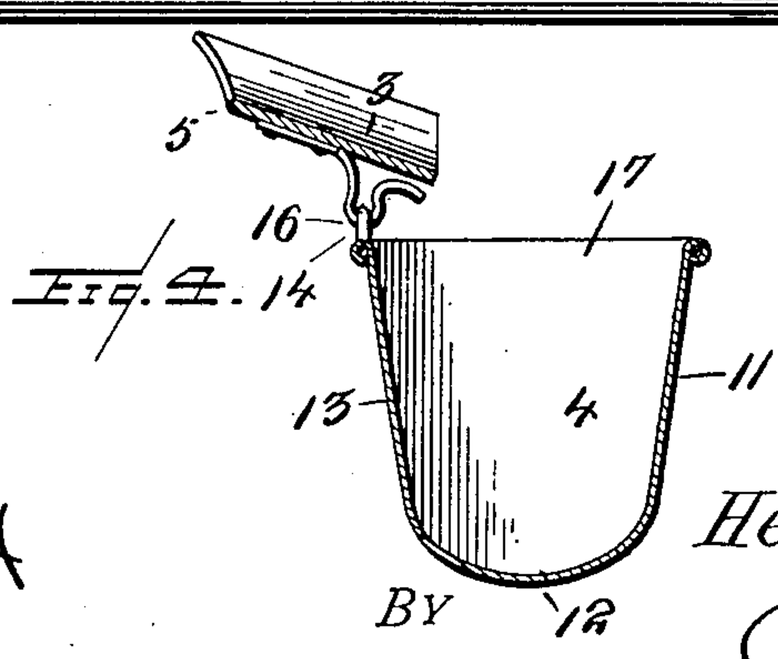

Fig. 4.

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2 SHEETS—SHEET 2.

Fig. 4.

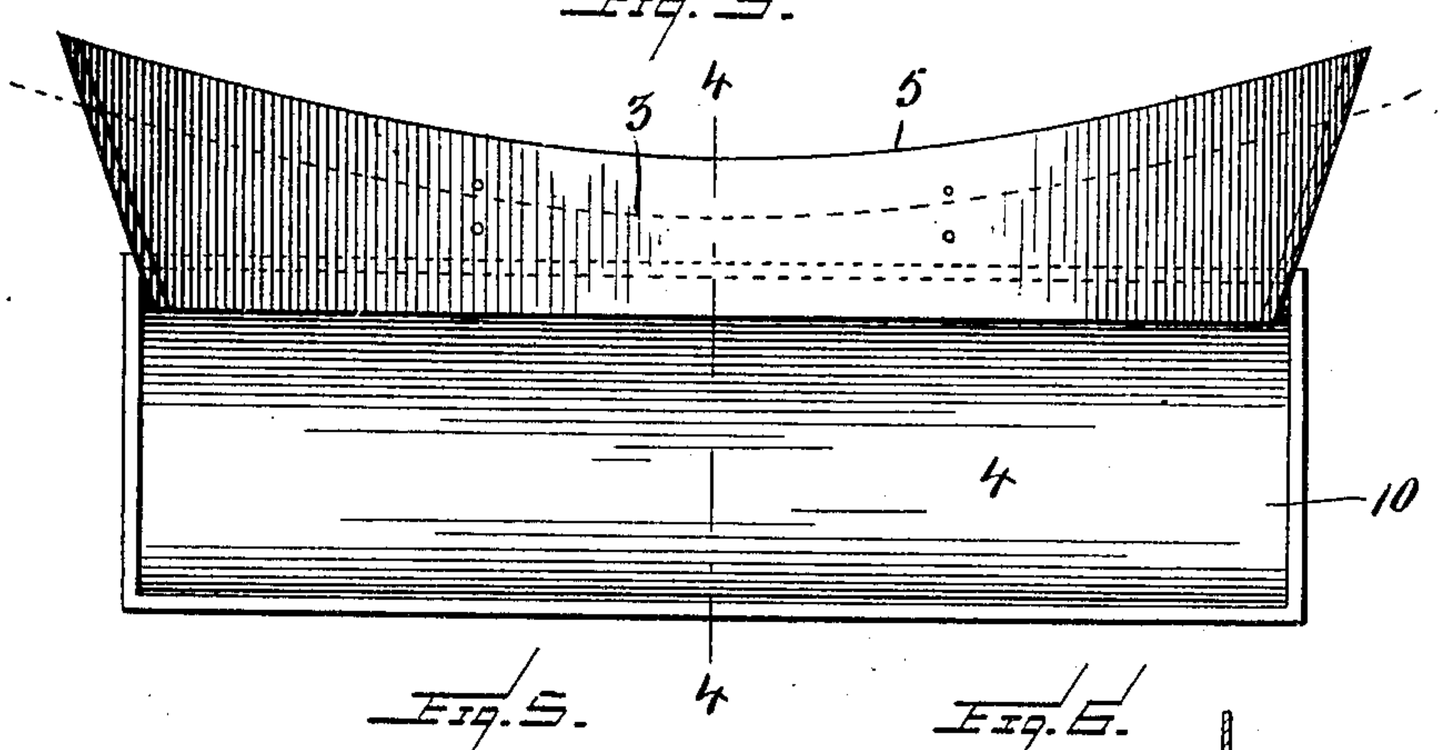


Fig. 5.

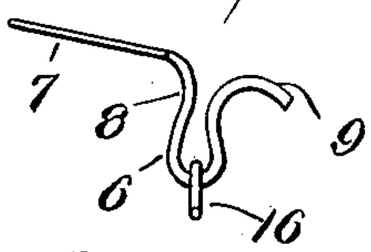


Fig. 6.

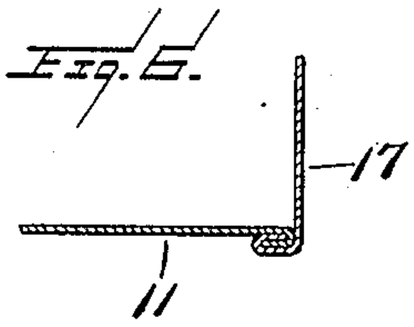


Fig. 7.

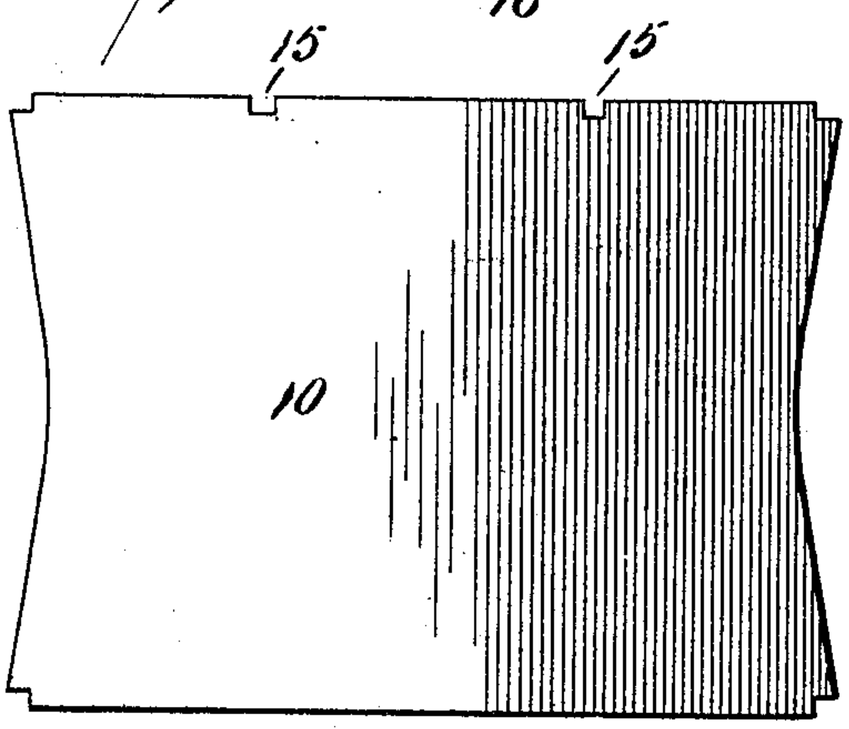


Fig. 8.

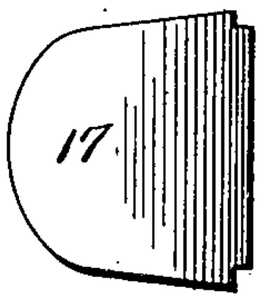
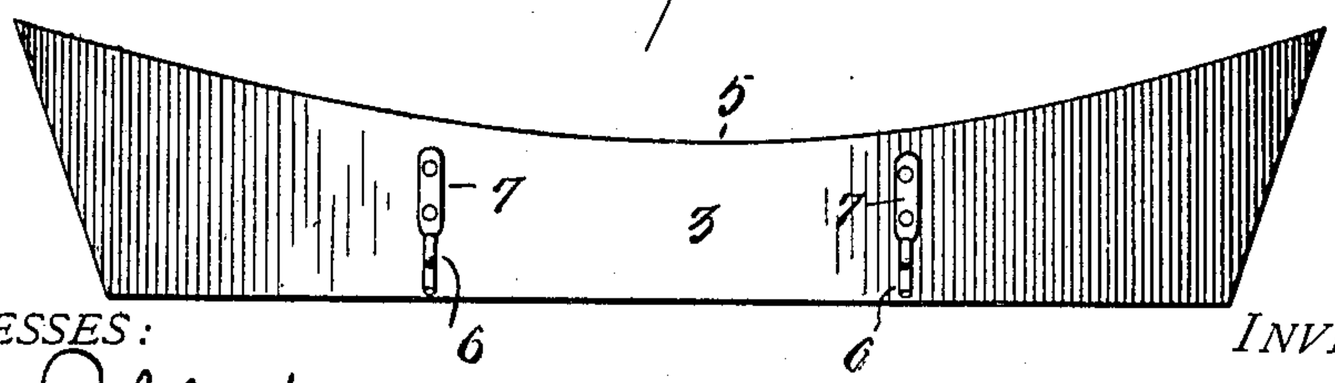


Fig. 9.



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UNITED STATES PATENT OFFICE.

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SAP-RECEIVING APRON AND RECEPTACLE.

No. 920,255. Specification of Letters Patent. Patented May 4, 1909.

Application filed January 13, 1909. Serial No. 472,011.

To all whom it may concern:

Be it known that I, HENRY BREEDEN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Sap-Receiving Aprons and Receptacles, of which the following is a specification.

My invention relates to an improved sap receiving apron and receptacle.

The object of my invention is to provide a sap receptacle and an apron for supporting the same and delivering the sap from the tree thereto, comprising a simple, durable and efficient construction having few parts and capable of being cheaply manufactured. The weight of the receptacle and its contents will be firmly supported owing to the form of the apron and its connection with the receptacle by which the receptacle may be readily removed for emptying while the accidental displacement thereof by wind or animals is prevented.

Other and further objects and advantages of the invention will be hereinafter set forth and the novel features thereof defined by the appended claims.

In the drawings—Figure 1 is a perspective view of the sap receiving apron and receptacle applied to a tree; Fig. 2 is a front view thereof; Fig. 3 is a top plan; Fig. 4 is a vertical section therethrough on line 4—4; Fig. 5 is an enlarged detail of one of the hooks secured to the bottom of the apron; Fig. 6 is an enlarged detail section showing the seam at the ends of the receptacle; Fig. 7 is a plan of the blank used in forming the front, bottom and back walls of the receptacle; Fig. 8 is a similar view of one of the end blanks; and Fig. 9 is a detail of the apron.

In the drawings like numerals of reference refer to like parts in the several figures thereof.

The numeral 1 designates a turpentine or other sap bearing tree, in the incision 2 of which the apron 3 is shown as inserted and 4 is my improved sap receptacle coöperating with the apron and supported therefrom.

The apron 3 may be constructed of sheet metal or other suitable material and is provided with an inner concavely curved edge 5 to conform substantially to the circumference of the tree as is usual in such aprons. At its ends the apron is provided with a plain lap-back of the metal upon itself to provide a smooth edge as well as to increase its stiffness.

By reference to Figs. 2, 4, and 9 it will be observed that the apron is formed with a dished or longitudinally inclined body extending from the ends toward the center thereof. This is of importance as it provides for directing the sap properly and owing to its inclined form provides a much more rigid and firm support for the sap receptacle 4 hung thereon. The apron is also provided with spring hooks 6, 6, having a flattened portion 7 riveted to the under side thereof and located intermediate the center and ends of the apron. This hook is formed with a restricted opening at 8 to prevent vertical displacement of the supporting means for the receptacle 4. The free end 9 of the hook is also outwardly and downwardly curved and disposed adjacent to the under side of the apron to form a secondary restricted opening located at an angle to the opening 8. This structure requires both an upward and outward movement of the receptacle to remove it from the apron and thus prevents accidental displacement by any pressure applied beneath or at the front of the receptacle.

The sap receptacle 4 is formed from a blank 10 as shown in Fig. 7, which is bent to substantially U-shape to form the front 11, the bottom 12, and the back 13 thereof. The upper edges of the front and back walls 12 and 13 are extended and formed into a loop or curl in which a stout continuous wire 14 is located which encircles the receptacle at its top edge and the ends of the wire meet in front. Through two slots 15, 15, in the upper back edge of the receptacle the binding wire 14 extends upward into rings or loops 16, 16, for engagement with the hooks 6, 6, by which the sap receptacle is suspended beneath the apron.

The end pieces 17, 17, as shown in Fig. 8 are cut to conform to the U-shape bend of the piece 10 and are secured thereto by the seams shown in detail in Fig. 6. Said end pieces have at their top edges an extension looped over the binding wire 14.

It will be obvious that in an apron of the form shown the dish or downward bend will give it great resisting qualities against a tendency to sag under the weight of the receptacle and its contents and the hooks 6 being located intermediate the center and ends thereof throws the strain on the part of the

apron offering the greatest resistance or capable of carrying the greatest weight. The longitudinal bend of the apron causes a pressure toward the center thereof thus firmly holding it in the incision or kerf in the tree, and also prevents buckling or bending thereof. This longitudinal bend thereof further stiffens the outer delivering edge of the apron so as to prevent any lateral bending thereof and insures a drainage of all sap toward the center of the apron where it is delivered to the receptacle. It is also evident that to disconnect the receptacle two distinct operations or movements are necessary, both being resisted to a certain degree by the reduced passages 8 and 9. First an upward movement is required which will force the loop 16 beyond the reduced passage 8 and then an outward movement to force the loop through the reduced passage 9, this last movement of the receptacle cannot be given by wind or an animal as the contact of the receptacle with the tree will prevent it.

In a receptacle of the U-shape form shown having the straight end walls I have provided a form with the greatest possible capacity for the amount of metal used in its construction which is the vital question to be taken into consideration, and with the side and end walls slightly converging it permits of very close nesting for shipment. This form permits the use of a lower gage of metal than can be used in a drawn receptacle, thus economizing in the cost of production and forming a simple and efficient form of sap apron and receptacle.

Having described my invention and set forth its merits what I claim and desire to secure by Letters Patent is—

1. In a device of the class described, a sap apron inclined longitudinally downward totoward its center and formed at one edge for insertion in a tree, and hooks at opposite sides of the center of said apron and having outturned free ends beneath the apron to provide a restricted entrance passage into said hook.

2. In a device of the class described, a sap apron formed at one edge for insertion in a tree, a hook secured to the under face of said apron and having an outturned free end beneath the apron to form a restricted entrance passage into said hook, and a receptacle having its bottom curved transversely to the delivery edge of the apron and suspended from said hook beneath said edge.

3. In a device of the class described, a sap apron formed at one edge for insertion in a tree, a receptacle suspended beneath the outer edge of said apron, and a supporting hook for said receptacle having a restricted passage and secured to the under face of said apron with its free end outwardly disposed adjacent said face.

4. In a device of the class described, an apron, a sap receptacle suspended therefrom comprising a body curved transversely of the apron and having straight end walls seamed thereto, a binding wire embraced by the inner upper edge of said receptacle and formed with loops extended upward therefrom, and outwardly opening hooks secured to the under face of said apron and having free ends to support said loops.

5. In a device of the class described, an apron, a sap receptacle suspended therefrom comprising a U-shaped body having straight end walls seamed thereto, a binding wire embraced by the upper edge of said receptacle and formed with loops extending upward therefrom, and a depending hook from said apron having a vertically disposed restricted opening and a free end outwardly and downwardly curved adjacent to the underside of the delivery edge of said apron.

6. In a device of the class described, an apron, a depending hook therefrom having a vertically disposed restricted portion and a free end outwardly and downwardly curved adjacent the under face of the delivery edge of said apron.

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

HENRY BREEDEN.

Witnesses:
E. R. RUPPERT,
G. J. WEBER.