G. D. Chandler. Sap Feeder.

Patented Sep 20 1870

107448

Fig. 2.

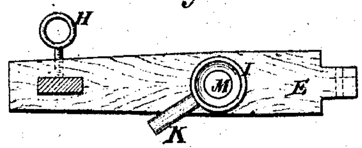
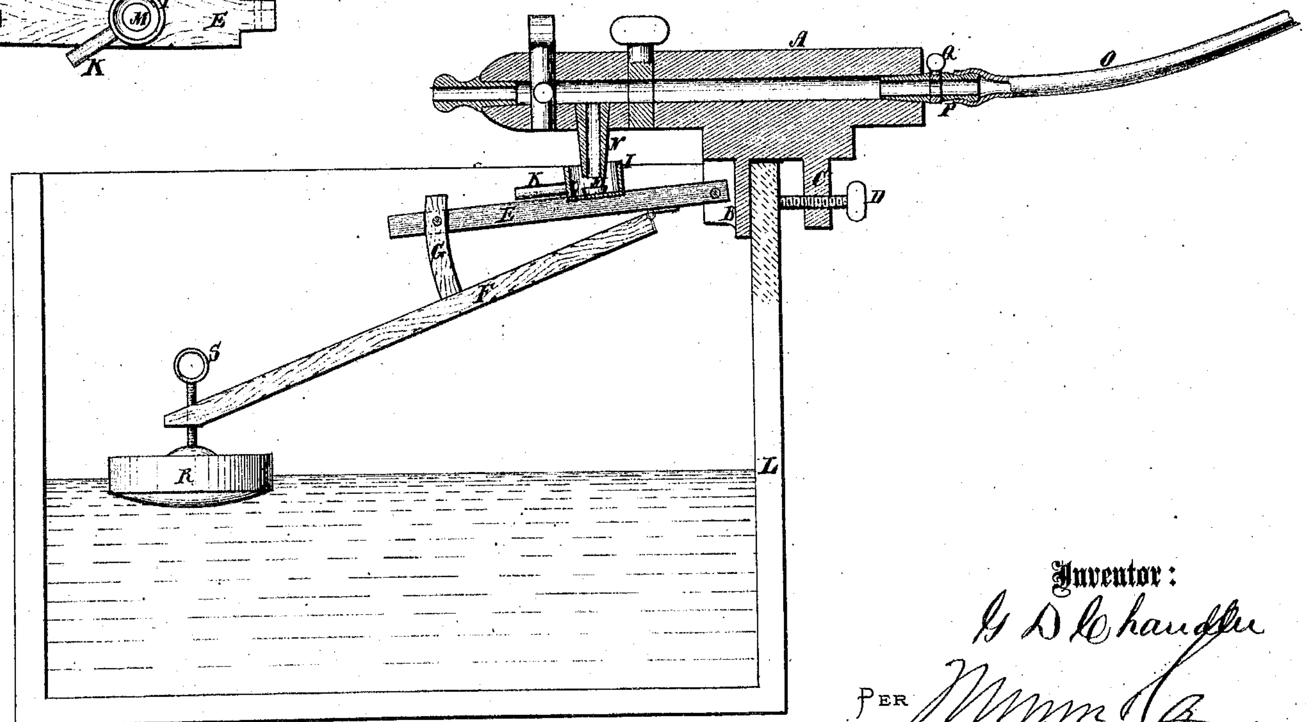


Fig. 1.



Witnesses:

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GEORGE D. CHANDLER, OF WEST CONCORD, VERMONT.

Letters Patent No. 107,448, *dated September* 20, 1870; *antedated September* 10, 1870.

IMPROVEMENT IN SAP-FEEDERS TO SUGAR-EVAPORATORS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, GEORGE D. CHANDLER, of West Concord, in the county of Essex and State of Vermont, have invented a new and useful Improvement in Sap-Feeders; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in automatic sap-feeders, such as patented to me the 2d day of November, 1869, No. 96,392, and consists in an improved arrangement of the float-lever, by which the admission-passage is opened and closed, for adjustment for varying heights of the sap in the boilers; also, in an arrangement for attaching the regulating apparatus to the side of the boiling kettle, and connecting it with the reservoir by a flexible pipe, the connection of the flexible pipe being such that it may be readily detached, all as hereinafter more fully specified.

Figure 1 is a longitudinal sectional elevation of my improved sap-feeder, and a boiling-vessel to which it is attached.

Figure 2 is a plan of a part of the float-lever.

The tube A, which, in the aforesaid patent, was arranged for attachment to the wall of a reservoir or supply-tank similarly to the attachment of a faucet, is, in this case, provided with the clamping-brackets B C, and a clamping-screw, D, for attachment to the top of the boiling-vessel, and the float-lever is made in two parts, E F, the part E being hinged to the bracket B, or it may be any projection from the bottom of the tube A, and the part F being hinged to the part E, a short distance from the joint of the latter, with the bracket B, and having a curved arm, G, rising up through a mortise in the end of E, against which a set-screw, H, is arranged, to clamp it and hold it in any desired position.

The receiving-cap I is placed on the top of the part E of the lever, and has a discharging-tube, K, attached for conducting the sap to the place for dropping into the vessel L.

M is the plug or stopper in the cap I for pressing up against the mouth in the nozzle N, as in the arrangement in the aforesaid patent.

The tube A is connected with the reservoir by a flexible tube, O, having a nozzle, P, at the end, with a cock, Q, the nozzle being fitted into the tapered hole in the end of the tube, so as to be readily engaged or disengaged, the cock Q being closed when it is to be disengaged. The said cock Q may be placed in a spiggot attached to the reservoir, if preferred. This arrangement admits of readily moving the apparatus from one vessel to another, as is often required.

For adjusting the apparatus, to maintain the sap higher or lower in the boiling-vessel, the two parts of the float-lever are moved toward or from each other, and held by the set-screw H and arm G, as will be clearly understood by inspection of the drawing.

The float R is connected to the part F of the lever by an adjusting-screw, S, as a further means of adjusting it relatively to the nozzle N, for varying the height of the sap.

An adjusting screw and a swiveled nut may be used in place of the arm G and set-screw H.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The combination, with the nozzle N, of the tube A, and the float of a float-lever made in two parts, arranged for adjustment substantially as specified.

2. The attachment of the float to the float-lever by an adjusting screw, substantially as specified.

3. The tube A of an automatic sap-feeding apparatus, provided with the brackets B and C and a set-screw, D, for clamping to the top of the kettle or boiling-vessel, substantially as specified.

4. The combination with the tube A, provided with the automatic feed-regulating apparatus, as described, of the flexible tube O and nozzle Q, substantially as specified.

The above specification of my invention signed by me this day of , 1870.

GEO. D. CHANDLER.

Witnesses:

D. E. MAY,

OSCAR F. HARVY.