H. W. Bartol.

Sugar-Draining Mach.

No. 96,186. Patented Oct. 26, 1869.

Fig. 1.

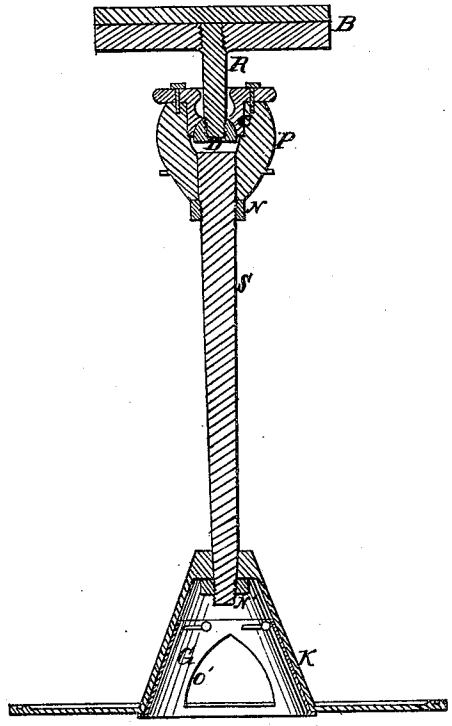
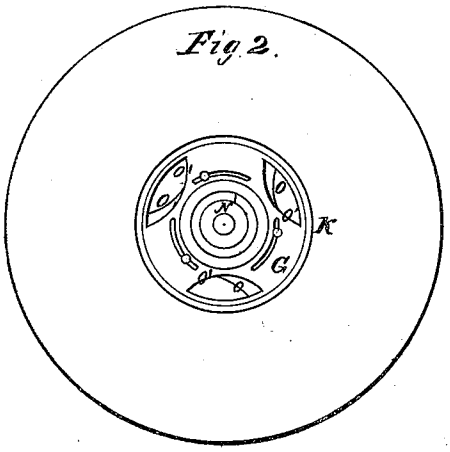


Fig. 2.



Witnesses:
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United States Patent Office.

HENRY W. BARTOL, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 96,186, *dated October* 26, 1869.

IMPROVED CENTRIFUGAL SUGAR-DRAINING MACHINE.

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, HENRY W. BARTOL, of the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Centrifugal Sugar-Draining Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature of my invention consists in constructing a flexible connection for suspending and allowing the basket-shaft of centrifugal sugar-draining machines to gyrate. The said connection is composed of a rod, secured in an overhead beam, and has on its lower end a bearing, made in the form of a segment of a sphere, on the curved surface of which is fitted a cap, made hollow in the centre, for the purpose of holding oil, and allowing it (the oil) to pass between, and lubricate the working-surface of the cap and bearing. The cap, when in position, is secured on the upper part of the driving-pulley on the basket-shaft.

Also, in arranging, in the centre of the basket, a revolving cone, or cylindrical-shaped valve, provided with openings, for the purpose of drawing off the contents of the basket.

Figure 1 is a sectional elevation of my improvement in centrifugal sugar-draining machines.

Figure 2 is a plan view of same reversed.

To enable those skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

The rod R, having a thread cut on both ends, is secured in the proper position in the beam B, with one end extending downward, on which is placed a bearing, D, made in the form of a segment of a sphere.

Fitted to and working on the curved surface of the said bearing is a cap, C, the outer periphery of which fits into a recess formed in the centre of the driving-pulley P, and is provided with a flange for securing it to the pulley.

The central portion of the cap C is hollowed out, of a sufficient depth to reach the upper part of the bearing D, so as to form a cup for receiving oil, or other lubricant.

The lower edge of the cap C should be on a line with the centre of the bearing D, and the lower portion of the bearing, or the base of the segment, should extend a short distance below it, so that the lower edge of the cap will not extend below the bearing, as the shaft vibrates or gyrates.

The object in constructing the bearing D in the form as above described is, to allow the oil placed in the cavity of the cap C to gradually pass down from the small to the large part of the segment, and thus thoroughly diffuse itself over and effectually lubricate the working-surfaces of the bearing and cap.

The basket-shaft S is made tapering, with the upper end secured in the pulley P, by means of the nut N.

Suspended to the lower shaft, by means of the nut N′, is a basket, K, the central portion of which is made in the form of a frustum of a cone, or a cylinder, as may be desired, through the sides of which are formed any number of cone or other-shaped openings, O.

Fitted to the inside of the said frustum or cylinder is a similar-shaped valve or gate, G, provided with corresponding openings O′, and revolving, by means of slots cut in the valve, and working on pins secured to the inside of the frustum or cylinder.

The said valve can be operated from the outside of the machine, by means of a handle, so as to discharge the contents of the basket at will.

I am aware of the patent issued to David M. Weston, April 9, 1867, and reissued January 14, 1868, for a sugar-draining machine, and I hereby disclaim everything shown or claimed in said patent.

What I claim as my invention, and desire to secure by Letters Patent, is—

The segmental bearing D, and cap C, in combination with the pulley P, shaft S, and nuts N N′, when constructed and arranged substantially as and for the purpose set forth.

Also, a cone or cylinder, K, in combination with a gate, G, when constructed and operated substantially as and for the purpose described.

In testimony whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

HENRY W. BARTOL.

Witnesses:

CHARLES H. EVANS,
ISAAC R. OAKFORD.