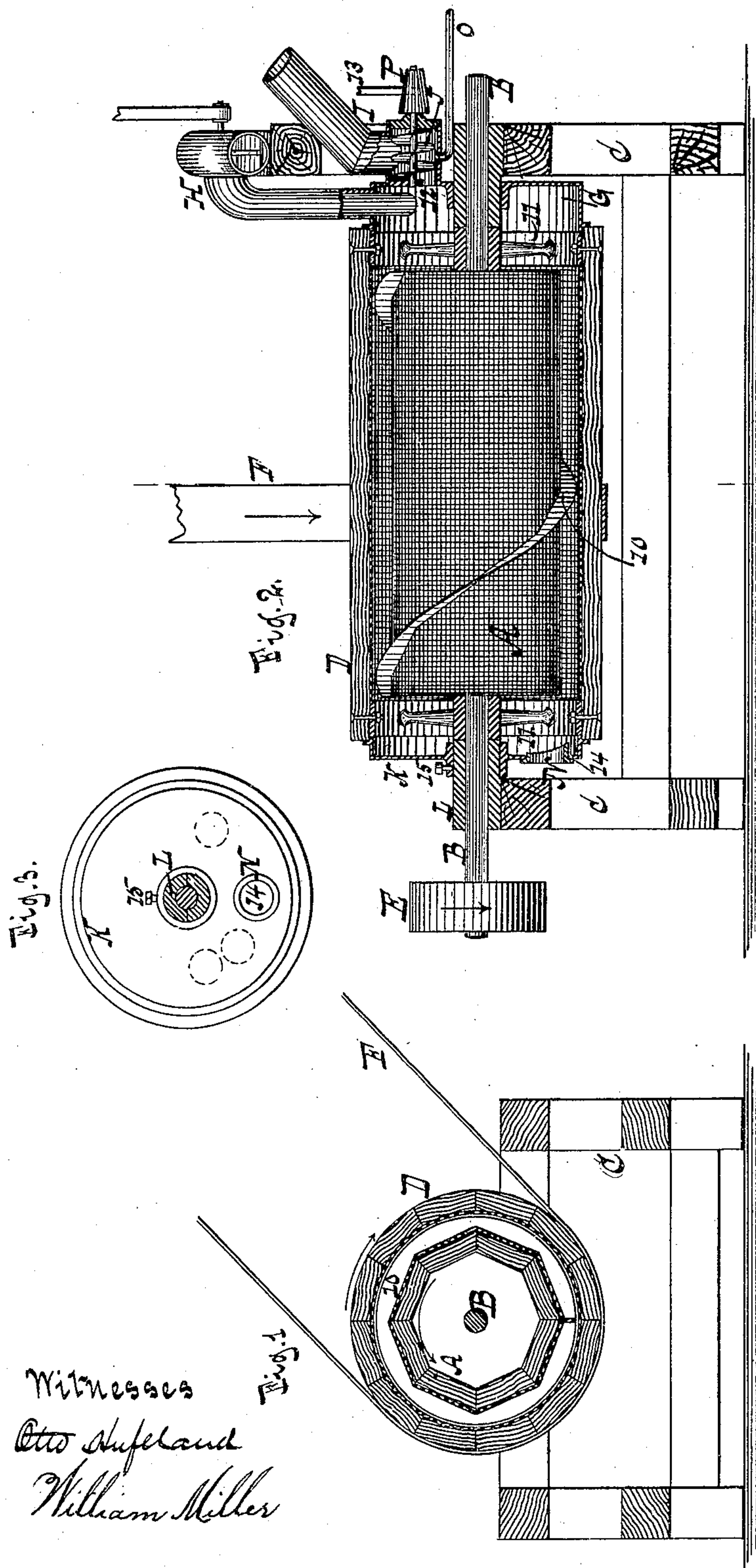


(No Model.)

J. BURNS.  
Machine for Cleaning, Scouring and Polishing Coffee, &c.

No. 241,296.

Patented May 10, 1881.



Witnesses  
Otto Aufeland  
William Miller

Inventor  
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his attys



# UNITED STATES PATENT OFFICE.

JABEZ BURNS, OF BROOKLYN, NEW YORK, ASSIGNOR TO WILLIAM DARBROW, OF SAME PLACE.

MACHINE FOR CLEANING, SCOURING, AND POLISHING COFFEE, &c.

SPECIFICATION forming part of Letters Patent No. 241,296, dated May 10, 1881.

Application filed October 13, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JABEZ BURNS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Machines for Cleaning, Polishing, and Scouring Coffee, &c., of which the following is a specification.

This invention relates to that class of machines embodying two cylinders, arranged one within the other, to revolve in opposite directions, the inner cylinder being closed, while the outer cylinder is constructed to receive the coffee or other material at one end and deliver the same at its opposite end.

This invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross-section. Fig. 2 represents a vertical longitudinal section. Fig. 3 is an end view of the outer cylinder.

Similar letters indicate corresponding parts.

The letter A designates the inner cylinder, fixed to a shaft, B, which has its bearings in the machine-frame C, and D the outer cylinder, mounted loosely on the shaft B. The required motion is given to the inner cylinder by a belt running over a pulley, E, fixed to the shaft B, and to the outer cylinder by a belt, F, running over such cylinder; but, if desired, other means may be adopted for this purpose.

In this example the cylinders A D are made of wood, with sheets of wire-cloth applied to their opposed surfaces, and the inner cylinder is polygonal, while it is provided with a spiral blade, 10, for propelling the coffee or other material through the space between the cylinders. The body of the outer cylinder, D, is open at both ends, and is strengthened at those points by internal rings, 11.

At the receiving end of the outer cylinder, D, is a stationary head, G, which is constructed with a feed hole or opening, 12, and to which is connected, adjacent to this opening, an exhaust-fan, H, or other suction device. By this arrangement of the fan H or its substitute the same not only carries off the dust, chaff, or other light matters that may be mixed with or separated from the coffee entering the outer cylinder, D, but it also has the effect of retarding the material in its passage through the

machine, so that an effective action of the cylinders is produced.

The coffee or other material is introduced to the machine through a hopper, I, which is connected to the stationary head G opposite the feed-opening 12, and at the bottom of which is arranged a feed-screw, J. The shaft of this screw J projects from the hopper I and carries a cone-pulley, P, which, in practice, is connected with a second cone-pulley (not shown) by a belt, 13, so that by shifting this belt the speed of the feed-screw can be increased or diminished, and hence the entrance of the material to the outer cylinder can be readily controlled.

It is obvious that other adjustable driving mechanism may be substituted for the cone-pulleys.

At the delivery end of the outer cylinder, D, is a stationary head, K, which is constructed with a discharge-opening, 14, and is secured to a sleeve, L, by means of a set-screw, 15, the sleeve being a fixture of the machine-frame and embracing the shaft B. By this arrangement of the head K it is rendered adjustable on its axis, which is the axis of the cylinders A D, and the discharge-hole 14 is adapted to be brought to different levels or elevations, as indicated in dotted outline in Fig. 3, the effect of which is to keep the material in the machine a greater or less time and determine the action of the cylinders thereon.

To the discharge-opening 14 is connected a spout, N, projecting in an inner direction therefrom. This spout N catches the material as it approaches the discharge-opening 14, and delivers the same into the desired receptacle in a steady stream.

To the bottom of the hopper I is connected a pipe, O, for supplying the same with steam, so that the coffee or other material can be moistened prior to its introduction into the outer cylinder to facilitate the cleaning operation, while the steam passing through the feed-opening 12 is at once carried off by the fan H, and thus prevented from entering the body of the machine. In this manner only the surface or shell of the material is moistened, leaving the inner portion thereof in its natural state, which is a desideratum. A good result can also be pro-



duced by connecting the steam-supply pipe O to the head adjacent to the feed-opening 12, such pipe in either case communicating with the head, like the exhaust-fan H adjacent to the feed-opening.

In defining the scope of my invention I would state that coffee-cleaners have heretofore been constructed with exhaust-fans, and also with steam-supply sources; and I do not claim such features broadly.

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

1. The combination, with two horizontal scouring-cylinders, arranged one within the other, to revolve in opposite directions, and a stationary head at the receiving end of the outer cylinder, constructed with a feed-opening, of an exhaust-fan connected with the said stationary head at a point adjacent to or adjoining the feed-opening, for carrying the dust, chaff, and other light matters from the coffee before the latter is subjected to the scouring action, and for retarding the passage of the coffee through the machine, all substantially as and for the purposes herein set forth.

2. The combination, with two horizontal scouring-cylinders, arranged one within the other, to revolve in opposite directions, and a stationary head at the receiving end of the outer cylinder, constructed with a feed-opening, of mechanism for automatically forcing the coffee through the feed-opening with uniform and regular speed, and an exhaust-fan connected with the stationary head at a point above the feed-opening and adjacent to the same, for carrying off the dust, chaff, and other light matters from the coffee in its passage to the scouring-cylinders and prior to being subjected to the scouring action, all substantially as and for the purpose set forth.

3. The combination, with two cylinders, arranged one within the other, to revolve in opposite directions, of a stationary head at the

delivery end of the outer cylinder, constructed with a discharge-opening, and an inwardly-projecting spout connected to such opening, the whole adapted to operate substantially as described.

4. The combination, with two cylinders, arranged one within the other, to revolve in opposite directions, of a stationary head at the delivery end of the outer cylinder, constructed with a discharge-opening, a means for adjusting such head on its axis, and an inwardly-projecting spout connected to the opening, the whole adapted to operate substantially as described.

5. The combination, with a stationary head at the receiving end of the scouring devices, constructed with a feed-opening, of an exhaust-fan and a steam-supply, both connected with the stationary head at points adjacent to or adjoining the feed-opening, for the purpose of simultaneously steaming the coffee and carrying off the steam and the dust, chaff, or other light matters from the coffee in its passage to the scouring devices and prior to being subjected to the scouring action, all substantially as and for the purposes set forth.

6. The combination, with a stationary head at the receiving end of the scouring devices, constructed with a feed-opening, of an exhaust-fan connected with the head adjacent to or adjoining the feed-opening, a hopper connected with the head opposite the feed-opening, and a steam-supply communicating with the hopper, all substantially as and for the purposes herein set forth.

In testimony whereof I have hereunto set my hand and seal in the presence of two subscribing witnesses.

JABEZ BURNS. [L. S.]

Witnesses:

W. HAUFF,

E. F. KASTENHUBER.