

No. 668,488.

Patented Feb. 19, 1901.

J. V. COLEMAN.
AMALGAM SQUEEZING MACHINE.

(No Model.)

(Application filed Oct. 16, 1900.)

Fig. 1

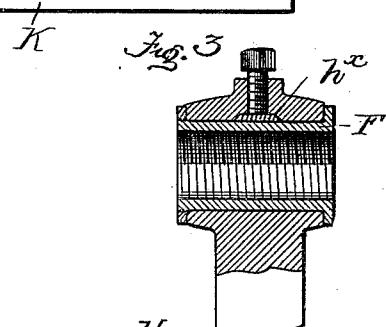
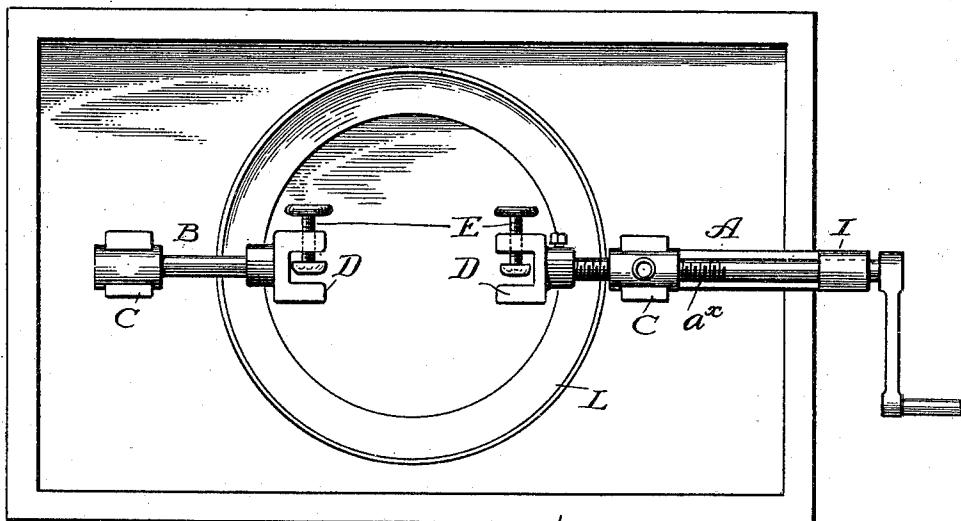
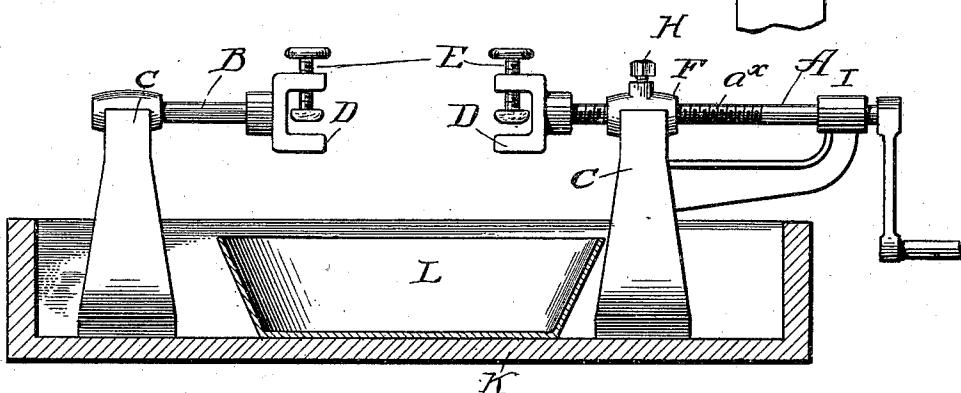


Fig. 2



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES V. COLEMAN, OF SAN FRANCISCO, CALIFORNIA.

AMALGAM-SQUEEZING MACHINE.

SPECIFICATION forming part of Letters Patent No. 668,488, dated February 19, 1901.

Application filed October 16, 1900. Serial No. 33,302. (No model.)

To all whom it may concern:

Be it known that I, JAMES V. COLEMAN, a citizen of the United States, and a resident of the city and county of San Francisco, in the State of California, have invented new and useful Improvements in Amalgam-Squeezing Machines, of which the following is a specification.

This invention relates to a device for machines for squeezing amalgam by mechanical means; and the same consists in certain parts and combination of parts, as hereinafter described and pointed out, producing an improved machine for the purpose mentioned.

15 The following description explains at length the nature of the present improvements and the manner in which I have constructed and applied the same, reference being had to the accompanying drawings, forming part hereof.

20 Figure 1 of the drawings is a plan or top view of a squeezing-machine embodying my invention mounted for operation in a trough. Fig. 2 is an elevation showing the trough-section. Fig. 3 is a detail sectional view of the 25 bearing for the feed-screw.

The principal parts of this machine comprise two shafts mounted in horizontally-set bearings in line with each other and provided on their opposing ends with gripping jaws or 30 devices to seize and hold between the two shafts the edge of the straining-bag. One of the shafts is furnished with a hand-crank for rotating it, while the other shaft is either fixed in its support or is turned in the opposite 35 direction by providing a hand-crank on the outer end, so that the twisting operation may be applied simultaneously to both ends of the straining-bag, if desired. One of the shafts has longitudinal movement in its sup-

40 port to feed the gripping ends of the two shafts gradually toward each other, so as to compensate for the twist produced by the rotation of the shaft and maintain proper degree of tension. Provision is made also for 45 regulating the speed of the feeding movement of the shaft during its rotation.

A B indicate the two shafts, and C C the standards in which the same are mounted.

D is a slotted head on the end of each shaft, and E a clamping-screw working in a threaded 50 socket in the head, so as to intersect the opening in the jaw and grip the straining-bag when the same is inserted in the jaw.

F is a box in the bearing and having an internal screw-thread to take the screw-threaded portion a^x of the shaft A. This box being loosely fitted in the standard is held from turning with the screw-shaft by virtue of a greater or less friction shoe or plate h^x , so that the longitudinal feeding movement of 60 the shaft can be varied to suit the twisting action on the cloth, and the same may be held back or caused to increase to any required extent by increasing or diminishing the pressure of the screw H upon the box. 65

The standards A B are screwed down to a base, which may be the bottom of the trough K, in which the washing operation is carried on, and sufficient space is provided between the two standards for inserting and removing the pan L to catch the material that is strained through the bag. 70

The shaft to which the power is applied is of sufficient length to extend beyond the standing rim of the trough and afford room 75 for the operating-crank. An additional bearing or bracket I, fixed on the standard, holds the shaft in line and prevents it from springing under the twisting operation.

A machine thus constructed will perform 80 the labor of squeezing or straining amalgam through a straining-cloth in much less time and much more effectively than can be done by hand. The machine is also applicable for straining other material or substances 85 through a cloth where considerable pressure is required to be applied.

Having thus fully described my invention, what I claim as new therein, and desire to secure by Letters Patent, is— 90

1. A machine for squeezing amalgam, comprising oppositely-set standards, shafts supported in said standards in horizontal position and in line with each other having gripping-jaws on their adjacent ends, means for 95 rotating and feeding forward one of said

shafts, and means for regulating the forward feed with respect to the rotary motion.

2. In a machine for squeezing amalgam, the combination of a stationary jaw, a rotatable jaw set oppositely to and in line with the stationary jaw, a rotatable screw-shaft adapted to rotate and feed forward the rotatable jaw, and means for regulating the speed of the

longitudinal movement with respect to the rotary motion.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

JAMES V. COLEMAN. [L. S.]

Witnesses:

T. J. SCHUYLER,
EDWARD E. OSBORN.