No. 698,144. Patented Apr. 22, 1902.

J. SCHWECHLER.

SOAP GRANULATOR.

(Application filed May 4, 1901.)

(No Model.)

Fig. 1.

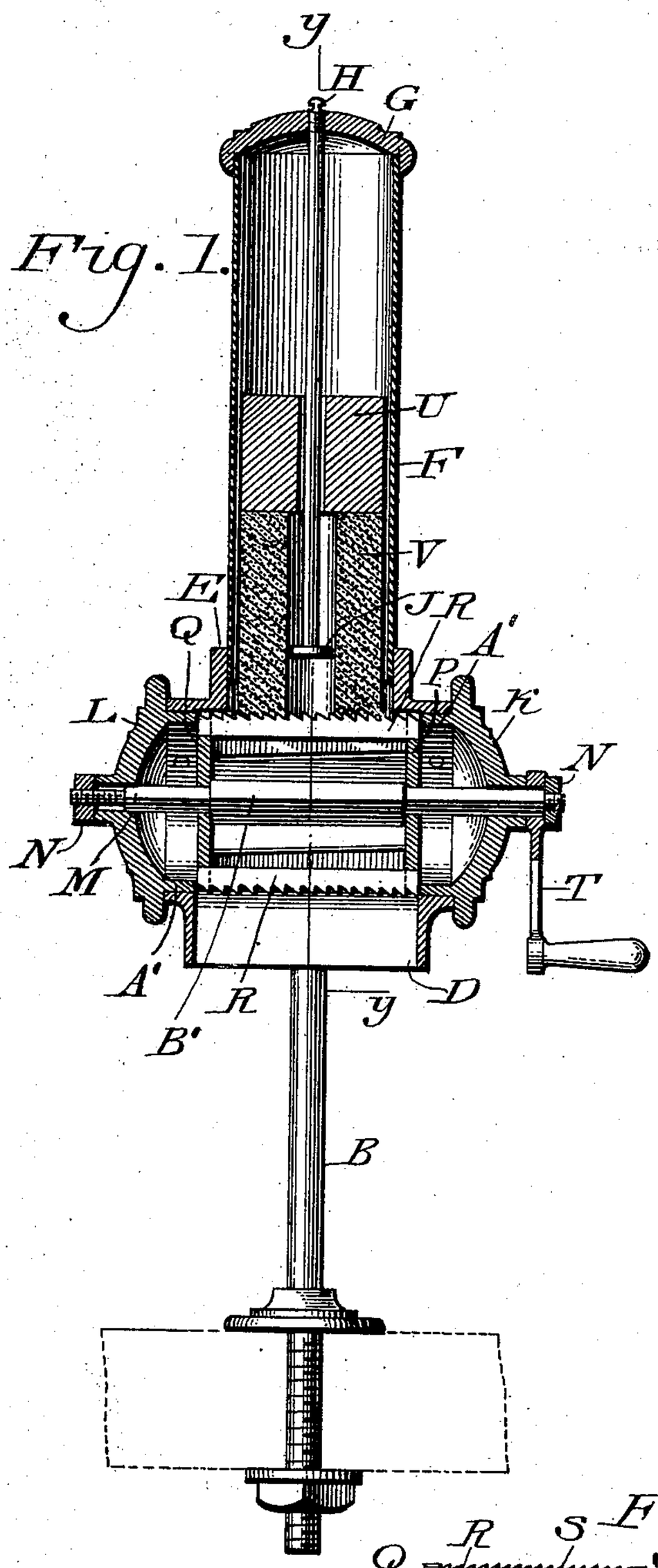

Fig. 2.

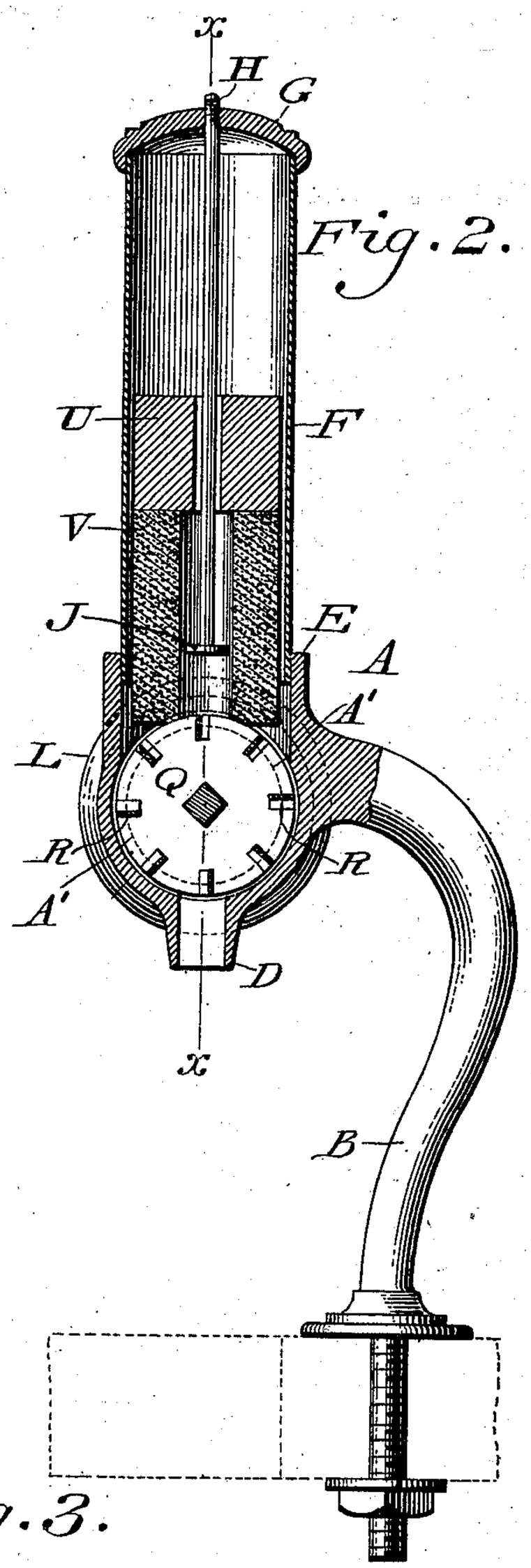

Fig. 3.

Witnesses

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JOHN SCHWECHLER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO RALPH W. CAVENAUGH, OF NEW YORK, N. Y.

SOAP-GRANULATOR.

SPECIFICATION forming part of Letters Patent No. 698,144, dated April 22, 1902.

Application filed May 4, 1901. Serial No. 58,678. (No model.)

To all whom it may concern:

Be it known that I, JOHN SCHWECHLER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Soap-Granulators, of which the following is a specification.

My invention consists of an improvement in soap-granulators wherein the soap is finely granulated and wherein means are provided for guiding the soap and forcing the same against the knives in a proper manner.

It further consists of novel details of construction, all as will be hereinafter fully set forth, and particularly pointed out in the claims.

Figure 1 represents a vertical sectional view on line *x x*, Fig. 2, of a granulator embodying my invention. Fig. 2 represents a vertical sectional view on line *y y*, Fig. 1. Fig. 3 represents a side elevation of the cutting device.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a soap-granulator, the same consisting of a suitable standard B, which can be secured to a support in any suitable manner and is provided with a cylindrical body portion C, having the outlet D thereto, the lugs E extending upward therefrom, to which is attached in any suitable manner the tube F, which latter is adapted to receive the cap G and which may be secured to said tube, said cap having attached thereto the rod H, which is provided with a head J on its lower end. Extending in the open ends of the cylindrical body portion C are the rims A′ of the caps K and L, which latter serve as journals for a shaft M, the middle portion B′ of which is enlarged and which is suitably locked in position by the nuts N and has secured thereto plates P and Q, which carry the knives R, it being noticed that said knives are secured at an angle to the axis M and are provided with teeth, so that when said knives are arranged in position the teeth of alternate ones extend in the opposite direction, and thus the teeth of one blade are staggered in relation to the teeth of another blade, it being seen that the plates are held in position on the shaft by reason of the enlarged portion thereof and by the rims A′ of the caps.

T designates a crank or handle secured to the shaft M.

U designates a weight having an opening therethrough which is adapted to move on the rod H and is prevented from leaving the same by reason of the head J. The soap V, which is adapted to be placed in the tube F, is provided with an opening somewhat larger than the head J, which latter and the rod F act as a guide for the said soap.

The operation is as follows: The soap V is placed in the tube F and rests against the knives, the weight U bearing upon the top of said soap and, as before stated, the head J serving as a guide. The crank T is now turned, which revolves the knives, and the teeth contacting with the soap granulate the same and by reason of the staggered order of the teeth will cut the soap in fine particles, the weight U being sufficient to cause the soap to bear at all times against the knives and admit of a certain turning or revolving of the same as may be necessary.

It will be apparent that slight changes may be made by those skilled in the art which will come within the scope of my invention, and I do not, therefore, desire to be limited in every instance to the exact construction herein shown and described.

By arranging the knives or blades around the axis M a saw-toothed reel is formed which most effectively granulates the soap.

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

1. In a soap-granulator, a horizontally-disposed cylindrical-shaped body portion and support for the same, a revoluble cylindrical-shaped granulating member within the body portion having at its periphery knives extending longitudinally of the member and provided with outwardly-extending teeth at the periphery of the member, caps applied to the ends of the body portion and having a part thereof serving as end abutments to retain the granulating member in position, and a tube opening into the body portion and adapt-

ed to contain soap to be granulated by contact with said knives, substantially as described.

2. In a soap-granulator, a body portion and a support for the same, a revoluble granulating member consisting of knives extending longitudinally of the axis of the member and provided with outwardly-extending teeth, the teeth of one blade inclining in the opposite direction to the teeth of another blade, and a tube opening into the body portion and adapted to contain soap to be granulated by contact with the teeth of the knives, substantially as described.

3. In a soap-granulator, a body portion, a revoluble granulating member consisting of knives extending longitudinally of the axis of the member and set at an angle to its axis, and means for receiving soap to be granulated by the knives, substantially as described.

4. In a soap-granulator, a body portion, a revoluble granulating member consisting of knives extending longitudinally of the axis of the member and provided with outwardly-extending teeth, the teeth of one knife being staggered in relation to the teeth of another knife, and means for receiving soap to be granulated by the teeth of the knives, substantially as described.

5. In a soap-granulator, a body portion, a revoluble granulating member consisting of toothed knives extending longitudinally of the axis of the member and set at an angle to its axis, the teeth of one knife being staggered in relation to the teeth of another knife, and means for receiving soap to be granulated by the toothed knives, substantially as described.

6. In a soap-granulator, a body portion and support for the same, a shaft provided with plates revolubly supported in said body portion, toothed blades extending from one plate to the other and supported by the plates, said blades being arranged at an angle to the axis of said shaft and the teeth of one blade being staggered in relation to the teeth of another blade, a tube adapted to receive soap to be granulated by the toothed blades, and a follower in the tube to press the soap against the blades, substantially as described.

7. In a soap-granulator, a tube adapted to receive the soap to be granulated, knives for granulating the soap, and a rod passing centrally through the tube and adapted to serve as a guide for the soap, substantially as described.

8. In a soap-granulator, a tube adapted to receive the soap to be granulated, knives for granulating the soap, a centrally-apertured weight in the tube, and a rod passing centrally through the tube and weight and having a head adapted to serve as a guide for the soap and to prevent the weight from passing from off the lower end of the rod, substantially as described.

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Witnesses:
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