

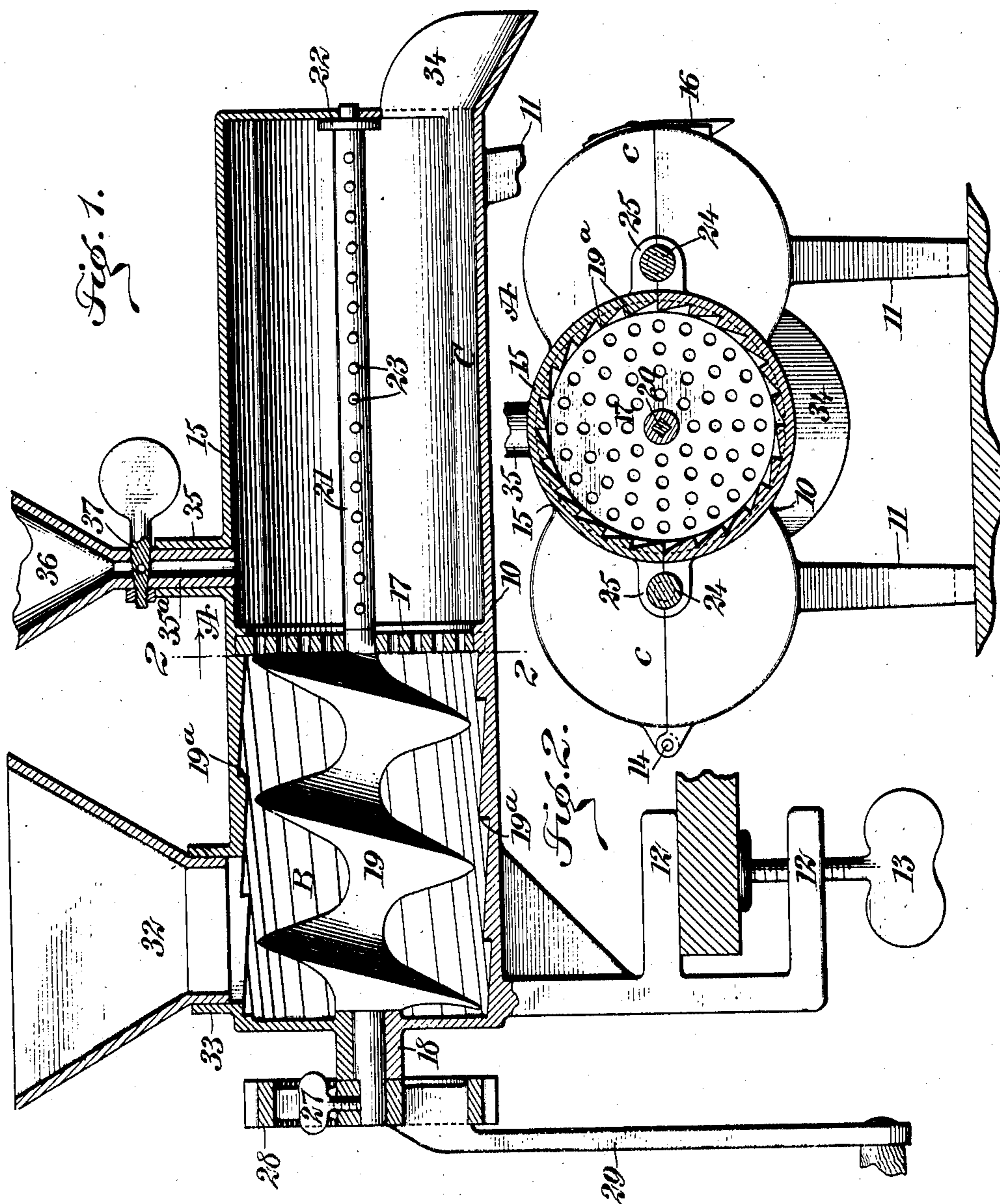
No. 827,112.

PATENTED JULY 31, 1906.

C. C. NAEVE.  
POTATO MASHER.

APPLICATION FILED MAY 23, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

*H. C. Abbott*  
*J. H. C. Abbott*

INVENTOR

*Charles C. Naeve*

BY

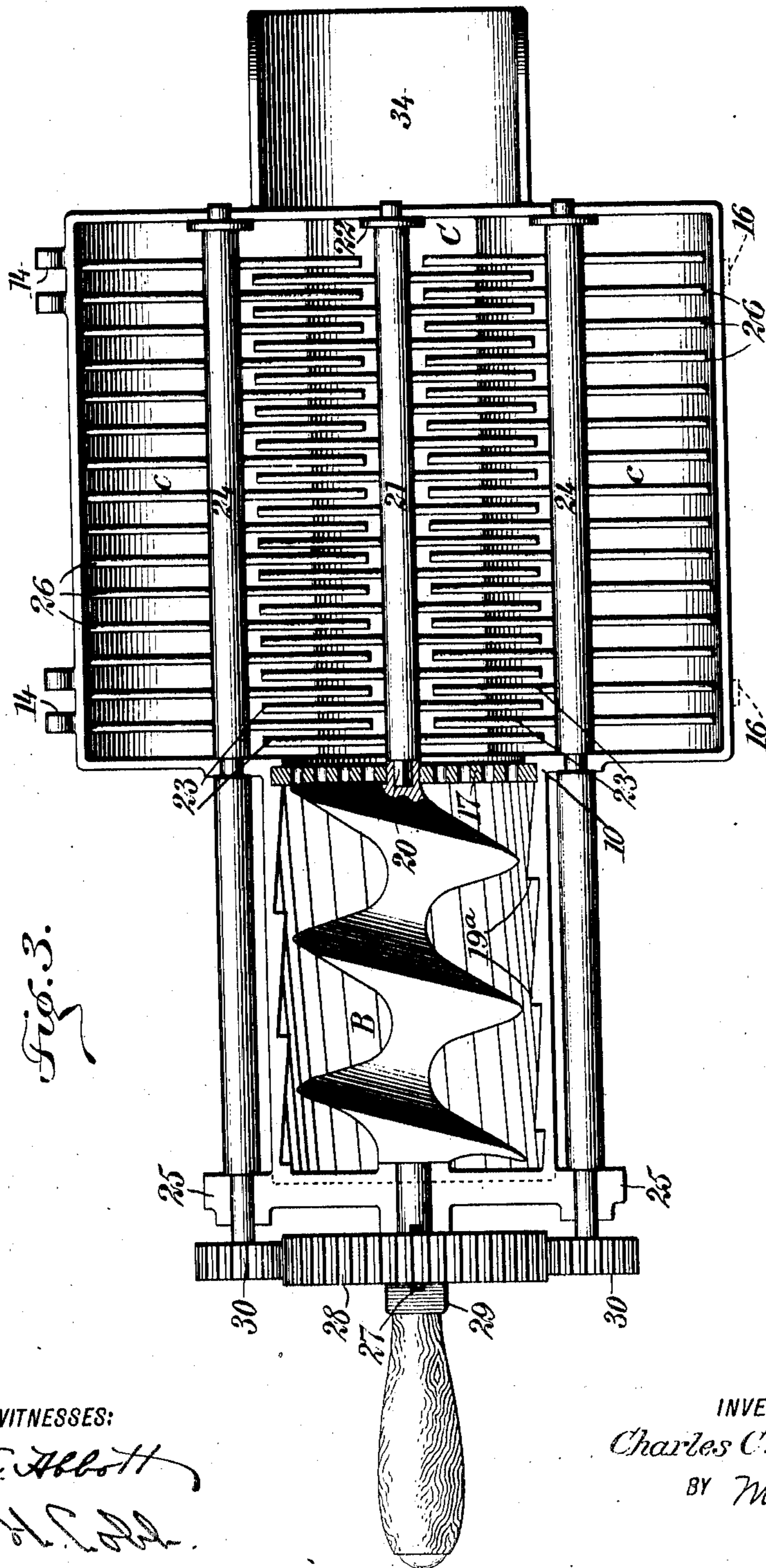
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# UNITED STATES PATENT OFFICE.

CHARLES C. NAEVE, OF PORTLAND, OREGON.

## POTATO-MASHER.

No. 827,112.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed May 23, 1905. Serial No. 261,801.

*To all whom it may concern:*

Be it known that I, CHARLES C. NAEVE, a citizen of the United States, and a resident of Portland, in the county of Multnomah and State of Oregon, have invented a new and Improved Potato-Masher, of which the following is a full, clear, and exact description.

My invention relates to apparatus for pulping vegetables and the like. Its principal object is to provide efficient means for successively reducing and beating the pulp.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a broken central vertical longitudinal section through one embodiment of my invention. Fig. 2 is a transverse section therethrough on the line 2 2 of Fig. 1, and Fig. 3 is a horizontal section taken in the plane of the beating-shafts.

A designates a casing comprising a lower section 10, which may be supported at one end by legs 11 and at the opposite extremity by a clamp adapted to engage the edge of a table and having separated arms 12 12, through one of which operates a thumb-screw 13. Connected to this lower section by hinges 14 is an upper section 15, which may be retained in its closed position by a catch 16. This casing furnishes a feed-chamber B and a mixing-chamber C, the latter being enlarged or extended beyond the feed-chamber by parti-cylindrical portions c c, projecting at each side thereof. In the end of the feed-chamber sections, adjacent to the mixing-chamber, is an annular recess to receive a perforated plate 17, in an axial opening in which and in a bore or boss 18, formed upon the outer head of the feed-chamber, is journaled a shaft of a feed-screw 19. Upon the interior of the feed-chamber, about the screw, are formed ribs 19<sup>a</sup>, which lie at an angle to the thread of the screw, they being shown as also at a slight angle to the axis of the cylinder. These resist the tendency of the material to travel circumferentially of the chamber with the screw, causing it to advance more certainly and yet not offering any great resistance to the rotation of the screw. At the inner end of the shaft of the feed-screw is a socket to receive the squared end 20 of an axial or central beater-shaft 21, which at its outer end is journaled in an opening through the mixing-chamber and has a flange 22 to retain it against outward

movement. It is provided with series of oppositely-extending fingers 23 of such length that they approach closely the upper and lower walls of this chamber. Situated laterally of the shaft 21 and extending axially of the side portions of the mixing-chamber are beater-shafts 24 24, journaled at the outer end of the mixing-chamber in its head and projecting through the opposite head and being rotatably mounted therein and in lugs 25, formed with the head of the feed-chamber. These shafts 24 have oppositely-projecting fingers 26, which are intercurrent with those of the shaft 21.

The screw-shaft extends outwardly through the boss 18 and has fixed upon it, by means of a set-screw 27, a gear 28, which preferably has formed integrally with it a crank 29. With this gear mesh pinions 30 upon the shafts 24, this gearing serving to rotate the lateral shafts in the opposite direction to the central shaft.

Mounted upon the upper side of the feed-chamber adjacent to the crank is a hopper 32, engaging at its lower end a flange 33, surrounding an opening through the casing. At the opposite end of the casing, through the lower portion of the head of the mixing-chamber, is an opening leading to a discharge-chute 34. In the opposite or inner end of the mixing-chamber is an opening provided with a peripheral flange 35, which may engage a tubular projection 35<sup>a</sup> from a reservoir 36. In the tubular portion of the reservoir is shown a valve 37 to control the flow therefrom.

In use the material to be pulped is introduced through the hopper into the feed-chamber. Then the crank being revolved this material is forced by the screw, with the assistance of the ribs, longitudinally of the chamber and against the plate 17, through the openings in which it passes into the mixing-chamber, thus receiving its preliminary division. Here it is subjected to the action of the beating-fingers, which reduces it to a creamy state. At the same time milk or other fluid, together with suitable condiments, may be delivered from the reservoir into the pulp and mingled therewith, the mixture finally being discharged in its finished state over the chute 34. After use the apparatus may be readily cleaned by raising the upper section and lifting out the shafts from the half-openings in the lower section and washing the various elements, the per-

forated plate being separable from the screw by simply withdrawing the shaft 21. The parts may then be reassembled.

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

1. The combination with a casing comprising a feed-chamber and an enlarged portion furnishing a mixing-chamber, of a screw situated within the feed-chamber, an axial shaft provided with beaters rotatable in the mixing-chamber, said screw and beater-shaft being connected to turn together, a lateral shaft provided with beaters extending through the mixing-chamber and outside the feed-chamber, and gearing connecting the screw and lateral beater-shaft.

2. The combination with a casing comprising a feed-chamber and an enlarged portion furnishing a mixing-chamber, of a screw situated within the feed-chamber, an axial shaft provided with beaters rotatable in the mix-

ing-chamber, said screw and beater-shaft being connected to turn together, a lateral shaft provided with beaters extending through the mixing-chamber at each side of the axial shaft and outside the feed-chamber, a gear rotatable with the screw, and a pinion fixed to each of the lateral shafts and meshing with the gear.

3. The combination with a casing comprising a feed-chamber and an enlarged portion forming a mixing-chamber, of a screw rotatable within the feed-chamber, a beater in the mixing-chamber in alinement with the screw, and intercurrent beaters arranged laterally with respect to the first beater.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHAS. C. NAEVE.

Witnesses:

ROBERT J. WOFLERY,  
ALOYS HAROLD.