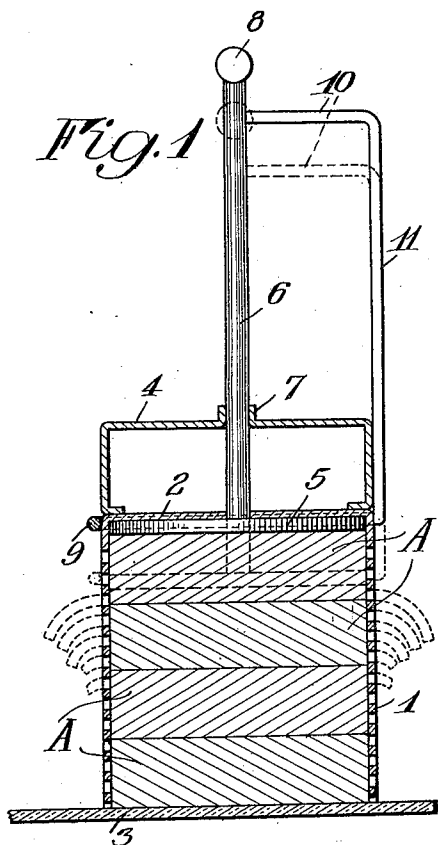
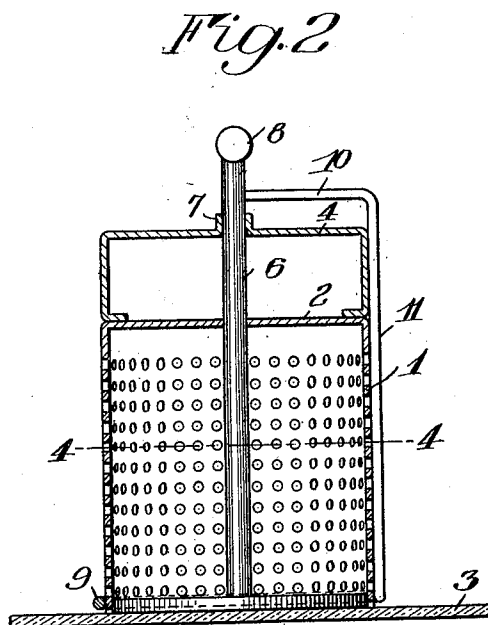
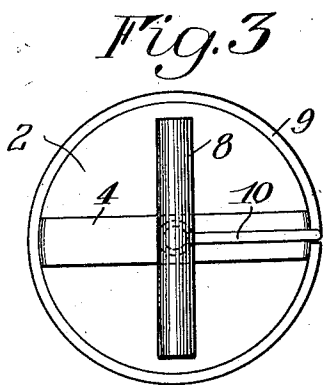
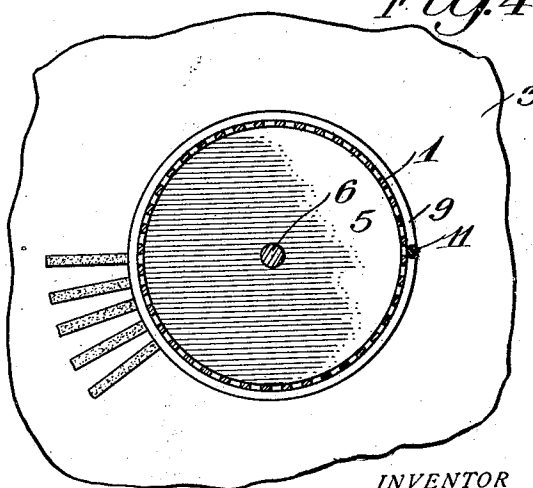


C. E. SENKE.
 BUTTER WORKER.
 APPLICATION FILED MAY 31, 1919.

1,405,016.

Patented Jan. 31, 1922.

2 SHEETS—SHEET 1.



WITNESSES:
Nelson H. Corp
Russell Gifford

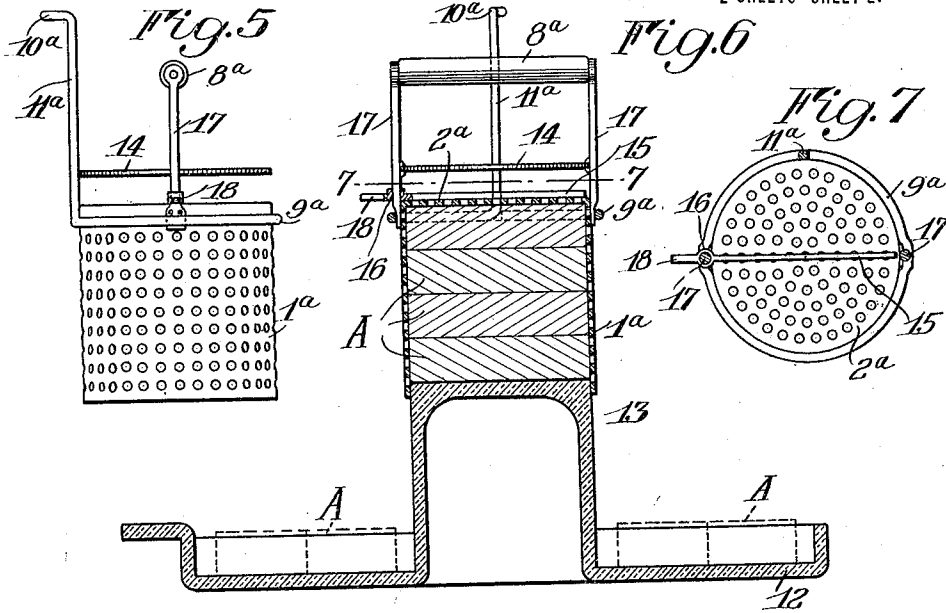
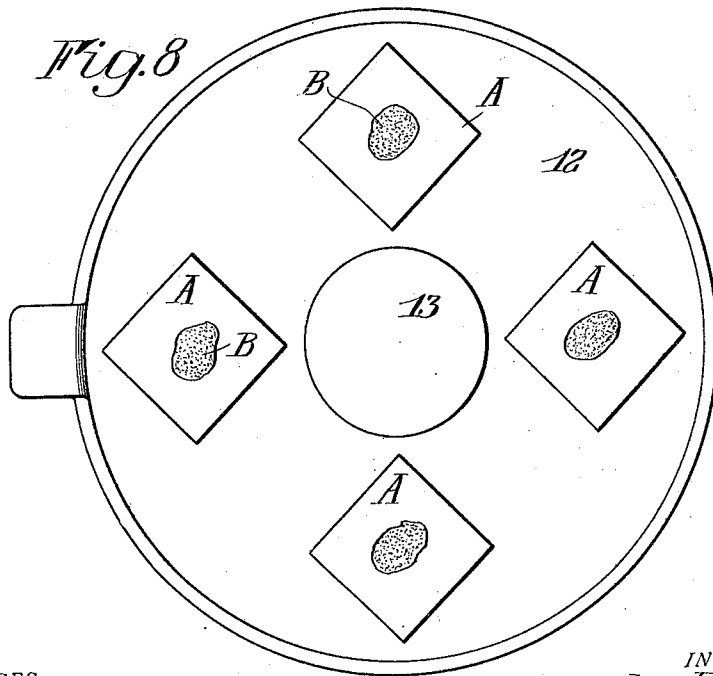
INVENTOR
Charles E. Senke
 BY *Charles E. Senke*
 HIS ATTORNEYS

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2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. SENKE, OF ROCHESTER, NEW YORK.

BUTTER WORKER.

1,405,016.

Specification of Letters Patent. Patented Jan. 31, 1922.

Application filed May 31, 1919. Serial No. 300,919.

To all whom it may concern:

Be it known that I, CHARLES E. SENKE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Butter Workers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference numerals marked thereon.

My present invention relates to mixing apparatus and more particularly to butter working and similar machines and it has for its object to provide a simple, cheap and convenient device of this nature that can be produced at a low price for hand operation so as to be available to the retail purchasers of oleomargarine for use in the operation of mixing the color, which is provided in a separate package, into the oleomargarine. To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings:

Figure 1 is a vertical section through a butter worker constructed in accordance with and illustrating one embodiment of my invention;

Figure 2 is a similar view with the piston or plunger in another position;

Figure 3 is a top view;

Figure 4 is a horizontal section on the line 4—4 of Figure 2;

Figure 5 is a side view of a modified cylinder;

Figure 6 is a sectional view of the device of Figure 5 in operation;

Figure 7 is a horizontal section on the line 7—7 of Figure 6, and

Figure 8 is a top view of the dish and piston element of Figure 6.

Similar reference numerals throughout the several views indicate the same parts.

Referring first to the embodiment of Figures 1 to 4 and the mode of operation there illustrated, 1 indicates a foraminous cup or cylinder open at the bottom and closed at the top by a head 2. It is shown with its open bottom resting against a glass plate 3. Spanning the head 2 is a handle 4 while arranged to reciprocate in the cylinder

throughout the length thereof is a thin piston head 5. A rod 6 secured to this piston head extends through and is guided in the head 2 of the cylinder and the handle 4 which is provided with a collar 7 for the purpose and the rod itself terminates in a handle 8.

To use the device as so far described in working the color through oleomargarine, a block of the latter is cut into convenient slices indicated at A in Figure 8 and a sufficient amount of the coloring matter indicated at B, is dropped thereon. With the piston 5 withdrawn to its fullest extent close against the head 2 of the cylinder, the latter is manipulated by means of the handle 4 to pick up the slices A, successively, until they fill the cylinder, as shown in Figure 1. It will be found that they readily adhere to the walls within the open bottom end of the cylinder. The piston 5 is then pressed into the cylinder by means of the piston rod and handle causing the material to be compressed and displaced within the cylinder and to be finally squeezed out through the perforations in the cylinder wall in individual strings, as indicated by dotted lines in Figure 1. This works the color through the mass, at the same time improving the texture of the oleomargarine and the operation may be repeated as many times as desired or necessary by withdrawing the piston and impressing the cylinder upon the body of previously treated material as it lies on the glass or dish 3.

In order to quickly free the adhering strings from the exterior wall of the cylinder 1, I provide a scraper 9 which, in the embodiment shown, consists of a wire 10 secured to and proceeding laterally from the piston rod 6 near the handle 8 and thence downwardly at 11 to terminate in a ring 9 surrounding the cylinder just above the compression face of the piston 5. This scraping ring reciprocates with the piston and scrapes off the strings immediately they are formed, so that by the time the piston ends its stroke, as shown in Figure 2, the cylinder is clear.

I may provide a dish or shallow tray shown in Figures 6 and 8, upon which the slices A are laid when prepared and upon which the stringy mass is deposited after its compression. Preferably in the center of such a dish, I provide a fixed piston block

13 and instead of operating the piston 5, I may press the cylinder 1, when filled with material down upon this piston block 13, to which it conforms and over which it closely fits. This squeezes out the oleomargarine in substantially the same manner and at the conclusion of the stroke the piston 5 is useful in destroying the vacuum that will obviously result at the top of the cylinder, this being accomplished by rotating the piston by a twist of the handle 8^a. The cylinder may then be withdrawn from the piston block 13 and the adhering particles scraped off by a quick reciprocation of the piston 5 and its scraper.

Or I may use the type of cylinder shown in Figures 5, 6 and 7. Here, the cylinder 1^a is substantially the same except that its head 2^a also contains perforations and below the handle 8^a which spans it, is a suitable guard plate 14 to protect the hands from the particles that exude through the cylinder head during the operation. There is no piston within the cylinder except the piston block 13, when the cylinder is applied thereto and the scraper 9^a proceeds vertically at 11^a as before, but thence proceeds outwardly at 10^a or in some lateral direction sufficient to form it into an operating handle by means of which the scraper may be reciprocated with the same results as before. In this case, I may also provide a wiper arm 15 for scraping the top of cylinder head 2^a which arm is shown in Figures 6 and 7 and comprises a straight member equal in length to the diameter of the cylinder and pivoted at 16 to one of the standards 17 that form connections for the handle 8^a. A laterally projecting operating portion 18 is accessible to the fingers to vibrate the arm.

I claim as my invention:

1. In a butter worker, the combination with a foraminous cylinder having an open bottom and a closed head, of a piston in the cylinder and a piston rod secured thereto and extending through the head.

2. In a butter worker, the combination with a foraminous cylinder having an open bottom and a closed head, of a handle spanning the head, a piston in the cylinder and a piston rod secured thereto and extending through and guided in the head and handle.

3. In a butter worker, the combination with a foraminous cylinder having an open bottom and a handle spanning the head thereof, of a piston in the cylinder and a piston rod secured thereto and extending through and guided in the handle.

4. In a butter worker, the combination with a foraminous cylinder and a piston adapted to reciprocate therein, of a scraper closely surrounding the cylinder and adapted to reciprocate upon the exterior thereof.

5. In a butter worker, the combination with a foraminous cylinder and a piston adapted to reciprocate therein, of a scraper fixed with respect to the piston and surrounding the cylinder to reciprocate with the piston on the exterior surface of the cylinder.

6. In a butter worker, the combination with a foraminous cylinder, a piston adapted to reciprocate therein, and a piston rod and handle projecting from the cylinder, of a wire scraper fixed to the handle portion of the piston rod and extending thence downwardly and thence laterally to surround the exterior of the cylinder at a point just above the compression face of the piston.

CHARLES E. SENKE.