April 27, 1926. 1,582,509

E. M. CHASE

MARSHMALLOW BEATING MACHINE

Filed July 13, 1923 2 Sheets-Sheet 1

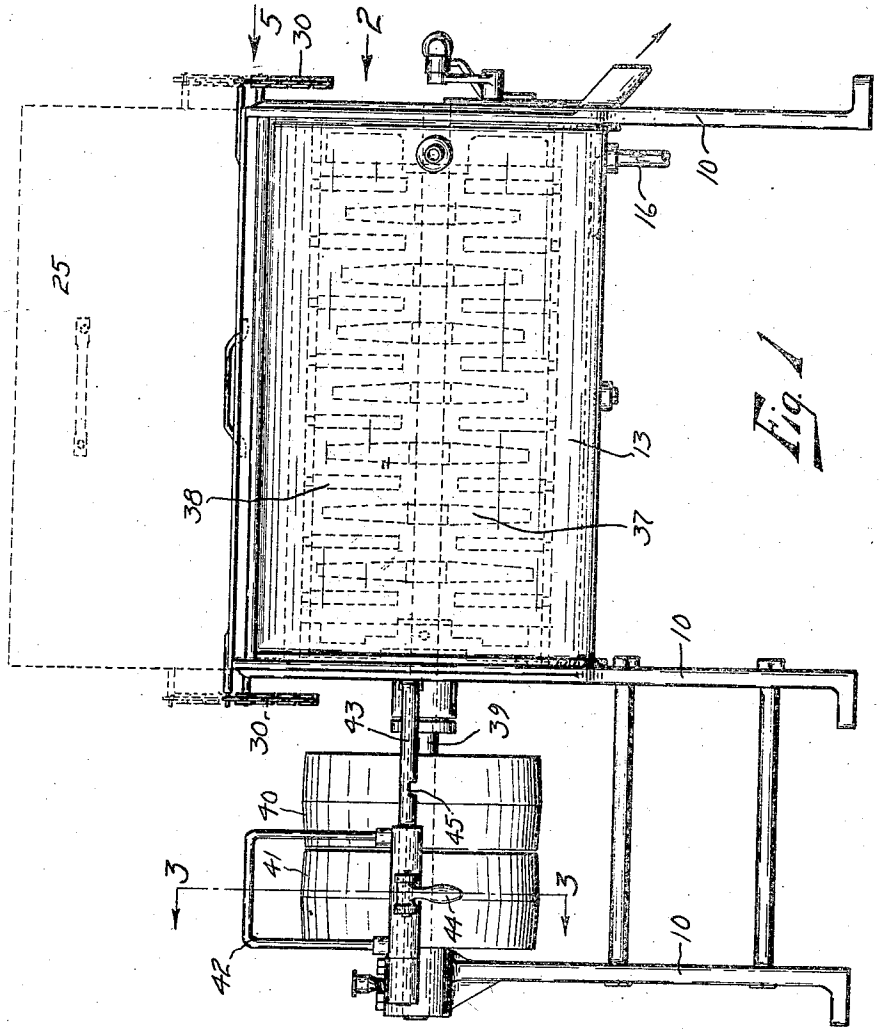


Fig. 1

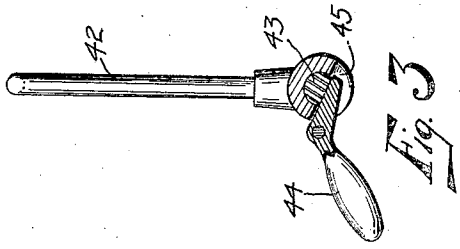


Fig. 3

INVENTOR

Earle M. Chase

By Attorneys

Southgate & Southgate

BEST AVAILABLE COPY

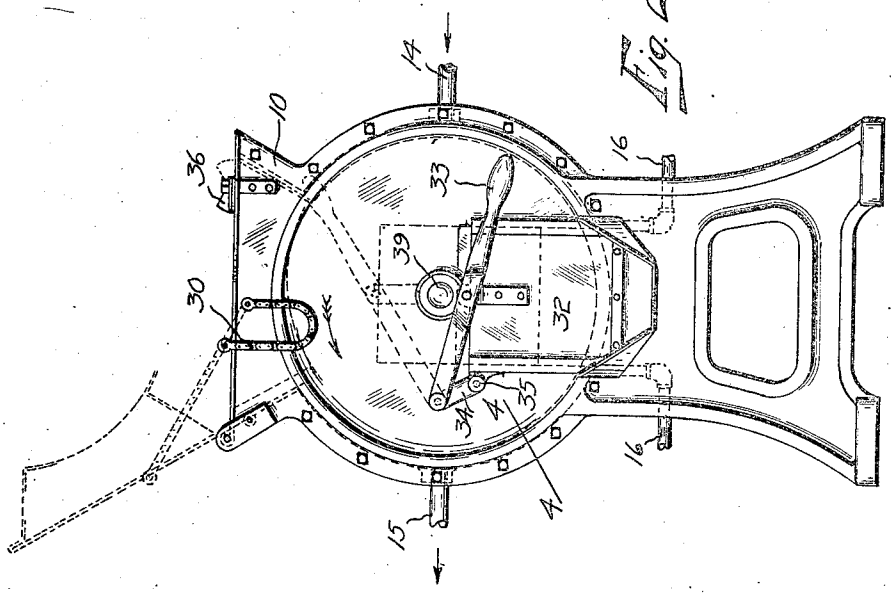
April 27, 1926. 1,582,509

E. M. CHASE

MARSHMALLOW BEATING MACHINE

Filed July 13, 1923 2 Sheets-Sheet 2

Fig. 2



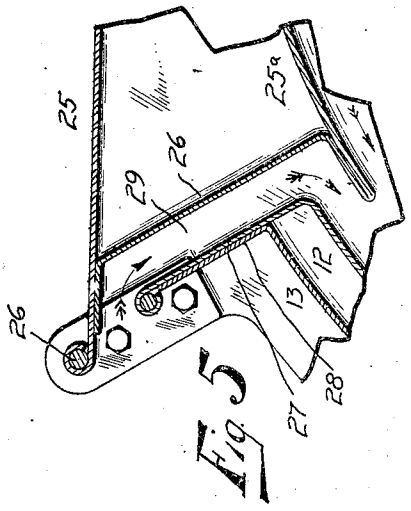


Fig. 5

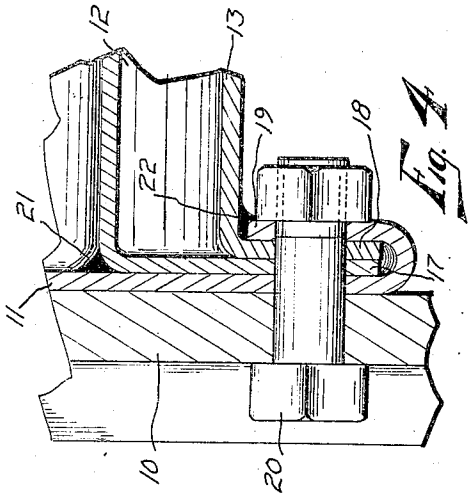


Fig. 4

INVENTOR

Earle M. Chase

By Attorneys

Southgate & Southgate

Patented Apr. 27, 1926. 1,582,509

UNITED STATES PATENT OFFICE.

EARLE MERRITT CHASE, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO UNIVERSAL CANDY AND CHOCOLATE MACHINERY COMPANY, INC., OF SPRINGFIELD, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

MARSHMALLOW-BEATING MACHINE.

Application filed July 13, 1923. Serial No. 651,275.

To all whom it may concern:

Be it known that I, EARLE M. CHASE, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Marshmallow-Beating Machine, of which the following is a specification.

This invention relates to a machine for mixing and beating marshmallow paste or other similar food materials.

It is the general object of my invention to improve the construction of such machines as heretofore known, to the end that they may be more substantially fabricated, less liable to leakage and other defects when in use, and cleaner and more convenient in operation and discharge.

With these objects in view, important features of my invention relate to the manner of joining the several parts together and particularly to the construction and mounting of the cover which closes the feed opening of the machine.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claims.

A preferred form of the invention is shown in the drawings in which—

Fig. 1 is a rear elevation of my improved machine;

Fig. 2 is an end elevation looking in the direction of the arrow 2 in Fig. 1;

Fig. 3 is a detail sectional view taken along the line 3—3 in Fig. 1;

Fig. 4 is an enlarged sectional detail taken along the lines 4—4 in Fig. 2; and

Fig. 5 is an enlarged sectional detail looking in the direction of the arrow 5 in Fig. 1.

Referring to the drawings, my improved beating machine comprises a stand or frame 10 upon which is supported a barrel or mixing chamber having heads or end members 11, an inner cylindrical wall or shell 12, and an outer casing 13.

The walls 12 and 13 are spaced apart as shown in Fig. 4 to provide a water jacket for which water may be admitted through an inlet pipe 14 and may be discharged through an outlet pipe 15. Heating pipes 16 permit circulation of steam through the water between the walls 12 and 13, to maintain the water in the jacket at any desired temperature.

In order to provide an exceedingly durable barrel or casing, I preferably join the inner and outer walls 12 and 13 and the end members 11 as indicated in Fig. 4. The inner wall 12 and outer wall 13 are provided with out-turned flanges 17 and 18 and the adjacent heads or end members 11 are bent around the outer edges of the flanges 17 and 18 and are then bent inward to form clamping or binding flanges 19. Bolts 20 extend through the frame 10, an end member 11 and the flanges 17, 18 and 19, binding the several parts together and firmly securing them in the frame. After the parts are thus secured, the joints are carefully filled in with solder as indicated at 21 and 22 and a strong, rigid, and watertight construction is thus obtained.

When beating marshmallow paste, a considerable amount of air is absorbed by the paste and it is necessary to provide a free connection to the atmosphere while at the same time preventing the escape of paste during the beating operation. For this purpose I have provided the improved cover construction indicated in Fig. 2 and shown in detail in Fig. 5.

My improved cover 25 is pivoted on a rod 26 secured to outwardly extending portions of the end frames of the machine. The cover is preferably of hollow sheet metal construction and a partial section thereof is clearly shown in Fig. 5. One end wall 26 of the cover is spaced from the out-turned flanges 27 and 28 of the cylinder walls 12 and 13 and these out-turned flanges terminate somewhat below the pivot of the cover 25, thus providing a continuous open air passage 29 when the cover is closed.

The inner surface 25ª of the cover is extended in the direction of rotation past the lower end of the air passage 29 and effectually prevents any escape of paste through the air passage, as the direction of rotation of the beater carries the paste steadily onward and prevents the reverse movement necessary in order to enter the air passage.

Chains 30 are each secured at one end to the cover 25 and at the opposite end to an end frame of the machine and limit outward and rearward movement of the cover. These chains are of flat link construction, such that they do not bend readily in a lateral direction, and consequently there is no pos-

sibility of their being caught under the cover as it is closed.

A gate 32 is provided at one end of the beater and this gate may be raised when desired by means of a handle 33 pivoted to the gate and connected by a link 34 to a fixed pivot 35. A pair of nuts or clamping devices 36 are provided for securing the cover in closed position.

The interior of the beater is provided with the usual fixed arms 37 and movable beater blades 38 (Fig. 1), the blades being carried by a circular frame rotatably mounted in the barrel and connected to a drive shaft 39 provided with tight and loose pulleys 40 and 41. Accidents have been heretofore caused by starting the beater while the operator was engaged in removing the previous charge of paste therefrom. In order to prevent accidental shifting of the drive belt from the loose pulley 41 to the tight pulley 40, I provide a belt shifter 42 mounted to slide on a fixed rod 43 and provided with a latch 44 adapted to positively lock the belt shipper in either of its operative positions. The rod 43 is provided with two notches 45 which receive the latch 44 and in which the latch is normally maintained by the weight of the handle portion thereof. Consequently the belt cannot be shifted to the tight pulley until the handle of the latch 44 has been grasped and intentionally raised to release the latch.

Having thus described my invention, the operation thereof will be readily apparent. Attention is called to the convenience in operation due to the improved construction of the cover 25. When this is raised as indicated in dotted lines in Fig. 2, it swings directly away from the operator, leaving the entire front of the machine unobstructed. Furthermore, the two sides of the air passage 29 between the cover and the frame are then widely separated, permitting thorough cleaning of al parts of the machine.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed otherwise than as set forth in the claims, but what I claim is:—

1. In a marshmallow beater, a casing having end members and inner and outer cylindrical walls of sheet metal firmly secured together, said walls being spaced apart and having out-turned flanges and said end members being folded about said out-turned flanges to prevent relative displacement of said parts.

2. In a marshmallow beater, a frame, a casing having end members and inner and outer cylindrical walls of sheet metal, and means to secure said parts firmly together, said cylindrical walls being spaced apart and having adjacent out-turned flanges, said end members extending beyond and adjacent said end flanges and being reversely bent inward around said flanges, and said securing means extending through said out-turned flanges, said enclosing end member and said frame to bind all of said parts firmly together.

3. In a marshmallow beater, a casing having an upper feed opening therein, and a cover for said opening hinged at one side thereof, said cover and casing being spaced apart at one side thereof to provide an air passage and the inner surface of said cover being extended beyond the inner end of said passage.

4. In a marshmallow beater, a casing having outwardly extended wall portions forming an upper feed opening, and a cover for said opening pivoted beyond the outer end of said wall portions, said cover having an inwardly extending portion spaced from said wall portion at one side to form an air passage and said cover having also an inner surface extending beyond the inner end of said passage to prevent entrance of the material in said beater to said passage.

In testimony whereof I have hereunto affixed my signature.

EARLE MERRITT CHASE.