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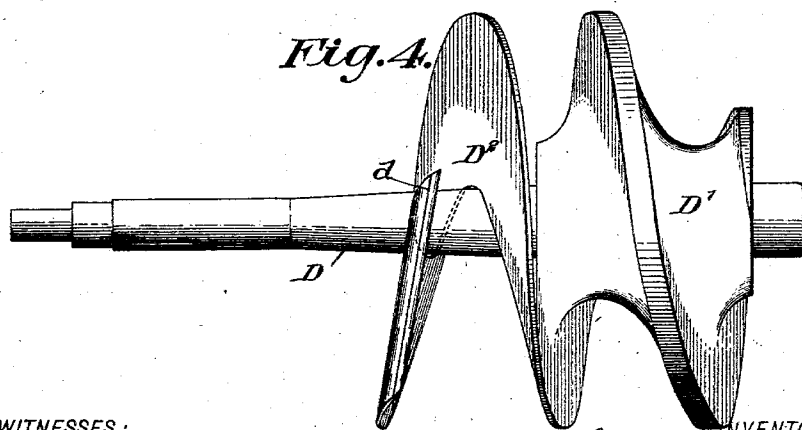
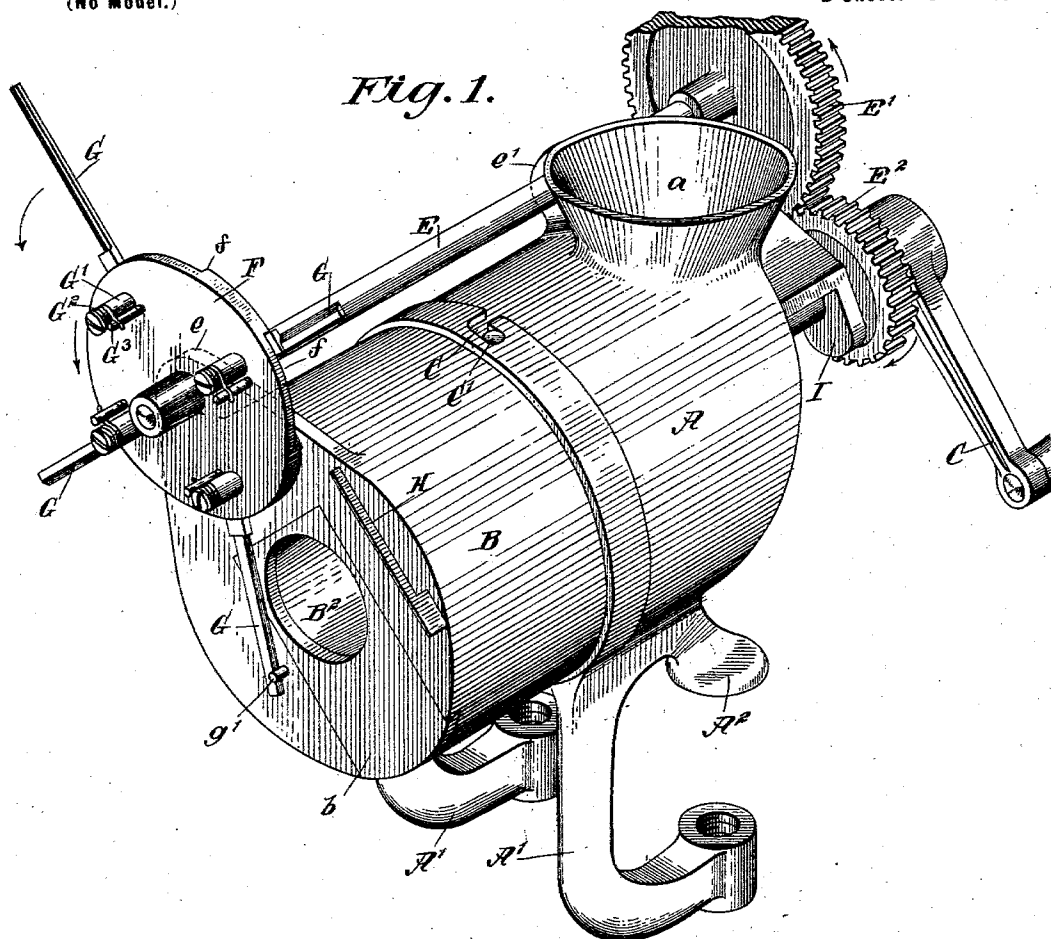
Patented Sept. 26, 1899.

L. LINKIEWICZ.
BUTTER MOLDER AND CUTTER.

(Application filed May 22, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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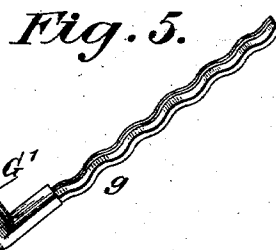
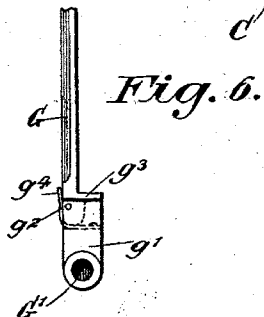
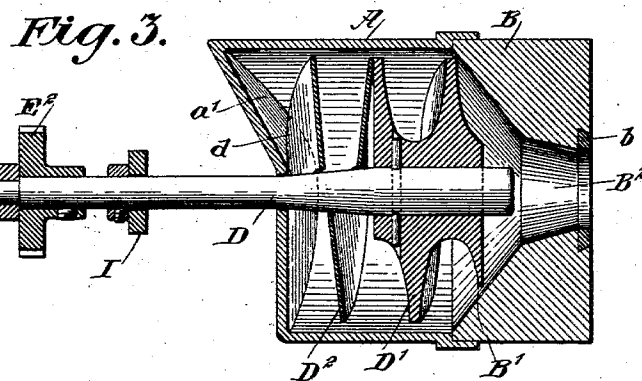
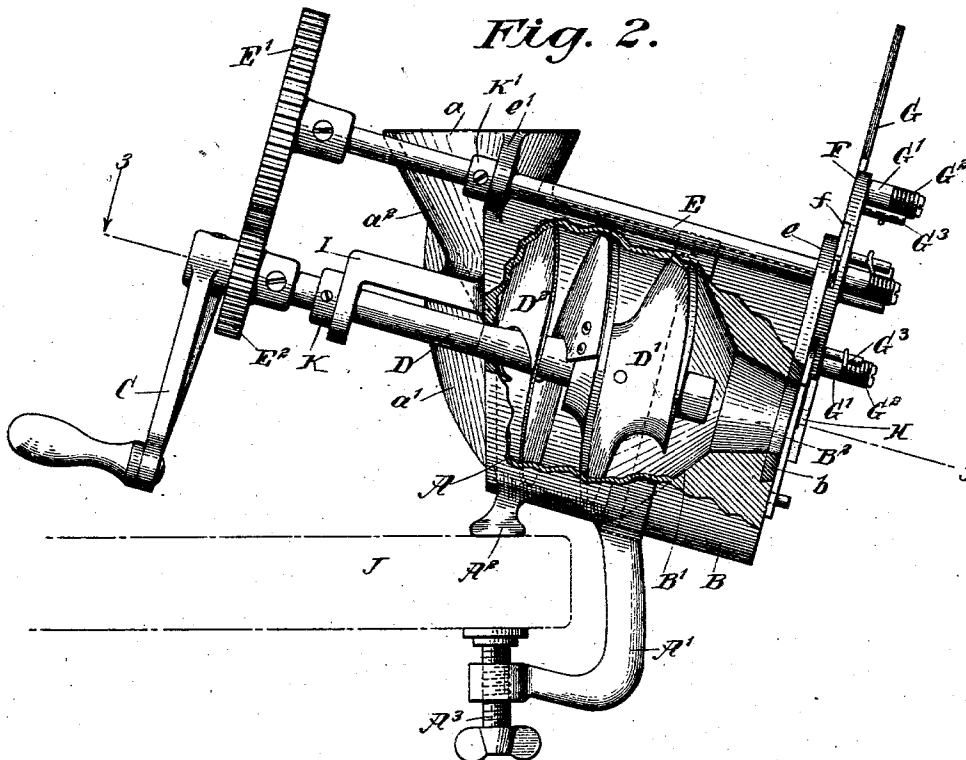
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UNITED STATES PATENT OFFICE.

LEOPOLD LINKIEWICZ, OF NEW YORK, N. Y.

BUTTER MOLDER AND CUTTER.

SPECIFICATION forming part of Letters Patent No. 633,865, dated September 26, 1899.

Application filed May 22, 1899. Serial No. 717,763. (No model.)

To all whom it may concern:

Be it known that I, LEOPOLD LINKIEWICZ, of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Butter Molder and Cutter, of which the following is a full, clear, and exact description.

My invention relates to an improvement in devices for molding and cutting butter preparatory to its being used and delivering the butter in small individual pats.

My invention comprises the novel features which are hereinafter described and claimed.

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 perspective view of the device, showing the end from which the butter issues.

Fig. 2 is a side elevation with a portion of the barrel or chamber broken away to show the interior workings. Fig. 3 is a longitudinal section through the chamber or barrel and the screw by which the butter is forced out.

Fig. 4 is a view of the spiral or screw by which the butter is forced through the barrel, and Figs. 5 and 6 are perspective views showing modified forms of knives which may be used in connection with my device.

It is customary in many places, particularly in restaurants and hotels, to form butter into small pats or disks of such size as to answer for one person.

The object of my device is to produce a machine which shall quickly and rapidly produce these individual pats.

With this end in view the butter is introduced into a chamber or barrel which is formed of two parts A and B, the two parts being secured to each other by means of pins C' and slots C, which form the common pin and bayonet slot connection. The part A has arms A' depending therefrom and bent to one side, said arms having set-screws A³ therein and cooperating with feet A², whereby the device may be securely clamped to a table or board of any form, as clearly indicated in Fig. 2, in which the position of the board or table is indicated at J by the broken lines.

The arms A' are placed upon the barrel at such an angle that the axis of the barrel is slightly inclined. The upper end of the barrel

is also given a slight incline, as clearly shown in Fig. 2. To this upper portion of the barrel is secured the hopper a, within which the butter is placed. Within the barrel or chamber is placed a spiral or screw, which is shown in section in Fig. 3 and in plan in Fig. 4. The spiral is mounted on a shaft D, which is mounted in suitable bearings in one end of the chamber and in an arm I, which projects from one end of the barrel. The spiral consists of two parts—the part D', which is rigid and preferably made of wood or similar material, and the part D², which consists of a flat plate of spring metal secured by one end to the part D' and otherwise unsupported, so that it may be compressed toward the portion D' during its rotation by engagement with the sloping end surface of the chamber or barrel.

The outer end of the shaft D has a crank C secured thereto, and said outer end also carries a pinion E², which meshes with a gear E', mounted upon one end of the shaft E, which shaft is supported in arms e and e', projecting from the body of the chamber. The upper end surface of the chamber is sloped somewhat, as shown in Fig. 2, one side of said end having an additional slope, as clearly shown at a', said slope running up to and combining with the sloping surface a² of the hopper.

The plate D², forming one portion of the spiral or screw, is so formed that normally it will hold its end d outward at all times in engagement with the sloping end of the barrel or chamber. As a consequence when it is just beneath the opening of the hopper the parts are separated more widely than when the same portion reaches its lowermost position, as in passing downward it is pressed toward the portion D' by engaging with said inclined surface. This results in compressing the butter and positively forcing it toward the screw. The opposite end of the barrel or chamber has an inclined or conical surface B', which connects with an opening B², herein shown as being slightly coned. The butter by the action of the screw device is pressed toward the exit-opening, from which it issues in a bar of cross-section corresponding with the outline of the opening. As herein shown, the opening is made circular by means of a removable slide which is used for this pur-

pose, and the outline of the opening may be varied at will. The slide *b* consists of a plate having an opening therein of an outline corresponding with the desired cross-section of the bar of butter. This fits and slides into dovetail guides formed in the end of the barrel or chamber. The slide may be readily removed and replaced by another slide having an opening therein of different outline, thereby changing the shape of the bar of butter as it issues. The shafts D and E are provided with thrust-collars K and K', as shown in Fig. 2.

Upon the end of the shaft E opposite that which is connected with the crank a disk F is mounted to turn with said shaft. This disk stops short of the opening through which the butter is forced and carries a series of radially-projecting knives. The number of knives may be varied according to circumstances. I have herein shown four knives. The number of knives will be controlled by the relative speed of rotation of the screw-feed and the shaft E and the thickness of the pats desired. One of these knives, which, however, has a different shape of blade than those shown in Figs. 1 and 2, is shown in detail in Fig. 5. The knives are pivoted upon the outer portion of the disk by means of the barrel G', which receives the pivot-pin, and they occupy recesses *f* in one surface of the disk. Springs G² surround the pivots of the barrels G' and have one end secured thereto and the other end engaged by a fixed pin G³, whereby the knives are held against one edge of the recess *f*. These springs hold the knives against the butter while cutting it, and thus leave the knives free to yield slightly if the resistance be too great.

Upon the outer end of the section B of the barrel or chamber is secured a pin *g'*, which is so placed that it will engage the outer ends of the knives just before they engage the butter issuing from the opening in the barrel and will slowly return the knives and then release them by their passing inside of the pin, when the knives will strike the butter with a quick sharp blow and will cut off a thin section thereof. Upon the same end of the barrel and on the side of the opening B² opposite the pin *g'* is placed a clearing-bar H, which is removed a slight distance from the end of the barrel, so that the knives G may pass between the same and the end of the barrel, thus clearing the knives from the butter. As before stated, it is possible to vary the outline of the butter-pats by substituting a slide *b* having an opening of different shape. It is also possible to vary the shape of the surface of the pat by substituting a knife *g*, which is wavy in outline or is otherwise than a straight knife. Such a knife is shown in Fig. 5.

The knives are preferably provided with a rule or knife joint, such as shown in Fig. 6, to prevent bending under the shock caused by contact with the pin *g'* before passing

through the butter. As shown in Fig. 6, the body of the knife is composed of two principal parts—the base or pivot-section *g'*, which is in one with the barrel G', and the knife-section G, which is pivoted to the base or pivot section by the pivot *g*². The knife-section G has a shouldered extension or arm *g*³, which engages the end of the pivot-section *g'*, so that it cannot bend in one direction from a straight line. It is, however, free to bend in the other direction when the pivot-section strikes one edge of the recess *f* under the influence of the spring G². This prevents the body of the knife bending, which it would probably do if made solid unless much enlarged. The knife-section G is returned to its normal position by a spring *g*⁴.

With this device it is possible to readily prepare a large number of individual pats with but little labor. The device, it will be seen, is so constructed that it may be quickly taken apart and cleaned. The crank C, as well as the gears E' and E² and the thrust-collars K and K', are readily removable, being held on by set-screws, so that the parts may all be removed from each other for convenience in cleaning.

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

1. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft having spring-hinged cutting-blades attached and moving across the discharge-opening, and means for temporarily checking the outer ends of the cutting-blades just before reaching said opening.

2. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening, and means for forcing the butter through the same, a rotating shaft having spring-hinged cutting-blades attached and moving across the discharge-opening, a rotative connection between said shaft and the butter-forcing mechanism, and means for temporarily checking the outer ends of the cutting-blades just before reaching said opening.

3. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft having spring-hinged cutting-blades attached and moving across the discharge-opening, and a pin engaging and retarding the outer ends of the cutting-blades just before they reach the opening and permitting said blades to cross the opening, when bent.

4. A butter molder and cutter, comprising a butter-receiving chamber provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft having cutting-blades attached thereto and moving across the discharge-opening, means for temporarily checking the outer ends of the

cutting-blades just before they reach said opening, and a clearing-blade just outside of the knives and engaging the butter to remove it from the knives after cutting.

5 5. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft having spring-hinged cutting-blades attached thereto and moving across the discharge-opening, a pin engaging and retarding the cutting-blades just before they reach the opening and permitting said blades to pass said opening when bent, and a clearing-blade
10 just outside of the knives and engaging the butter to remove it from the knives after cutting.

6. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft at one side of the chamber, having a disk thereon, cutting-blades pivoted upon the disk, springs acting upon the blades to hold them
20 in the same direction as rotated, and means for temporarily checking the blades just before passing the butter-discharge opening.

7. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft at one side of the chamber, having a disk thereon, cutting-blades pivoted upon the disk, springs acting upon the blades to hold them
30 in the same direction as rotated, stops for said blades, and a pin engaging the outer ends of the blades just before passing the butter-discharge opening.

8. A butter molder and cutter, comprising a butter-receiving chamber or barrel provided with a discharge-opening and means for forcing the butter through the same, a rotating shaft at one side of the chamber, having a disk thereon, cutting-blades pivoted upon the disk, springs acting upon the blades to hold them in the same direction as rotated, stops for said blades, a pin engaging the outer ends of the blades just before passing the butter-discharge opening, and a clearing-blade just
45 outside the knives and engaging the butter to remove it from the knives after cutting.

9. A butter molder and cutter, comprising a chamber or barrel having a feed-opening at one end and a discharge-opening at the other, a spiral mounted to turn within said chamber or barrel, a portion of said spiral being made of spring material and supported from one end only, and means for turning the spiral.

10. A butter molder and cutter, comprising a chamber or barrel having a feed-opening at one end and a discharge-opening at the other, and a spiral mounted to turn within said chamber or barrel, the receiving end of said spiral being composed of a spring-plate supported from its inner end only, the receiving
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end of the chamber or barrel being inclined or beveled and the spring end of the spiral contacting therewith, whereby the spiral is alternately contracted and expanded as it is rotated.

11. A butter molder and cutter, comprising a butter chamber or barrel having a feed-opening at one end and a discharge-opening at the other, a spiral mounted to turn within said chamber or barrel, a portion of said spiral being made of spring material and supported from one end only, means for turning the spiral, and a rotating cutting-blade sweeping past the discharge-opening.

12. A butter molder and cutter, comprising a chamber or barrel having a feed-opening at one end and a discharge-opening at the other, a spiral mounted to turn within the said chamber or barrel, a portion of said spiral being made of spring material and supported from one end only, means for turning the spiral, spring-held cutting-blades sweeping past the discharge-opening, and a stop temporarily retarding them just before they pass the discharge-opening.

13. A butter molder and cutter, comprising a barrel or chamber formed in two parts separable on a radial plane and provided with means for securing them together, one part of the barrel having a feed-opening and the other having a discharge-opening, a spiral mounted to turn within the barrel and to force the butter outward, a shaft journaled alongside the barrel, a rotative connection between said shaft and the spiral, a disk carried by said shaft at the discharge end of the barrel, spring-held knives pivoted on said disk and sweeping past the discharge-opening, and a pin on the barrel engaging the outer ends of the knives to retard them just before passing the discharge-opening.

14. A butter molder and cutter, comprising a barrel or chamber formed in two parts separable on a radial plane and provided with means for securing them together, one part of the barrel having a feed-opening and the other having a discharge-opening, a spiral mounted to turn within the barrel and to force the butter outward, a shaft journaled alongside the barrel, a rotative connection between said shaft and the spiral, a disk carried by said shaft at the discharge end of the barrel, spring-held knives pivoted on said disk and sweeping past the discharge-opening, a pin on the barrel engaging the outer ends of the knives to retard them just before passing the discharge-opening, and a knife-clearer carried by the barrel just outside the knives and on the side of the discharge-opening opposite said pin.

LEOPOLD LINKIEWICZ.

Witnesses:

FRANK GATER,
FLORENCE L. COOK.