2 Sheets—Sheet 1.

S. E. HEWES.

MEAT-CHOPPER.

No. 185,104. Patented Dec. 5, 1876.

FIG. 2.

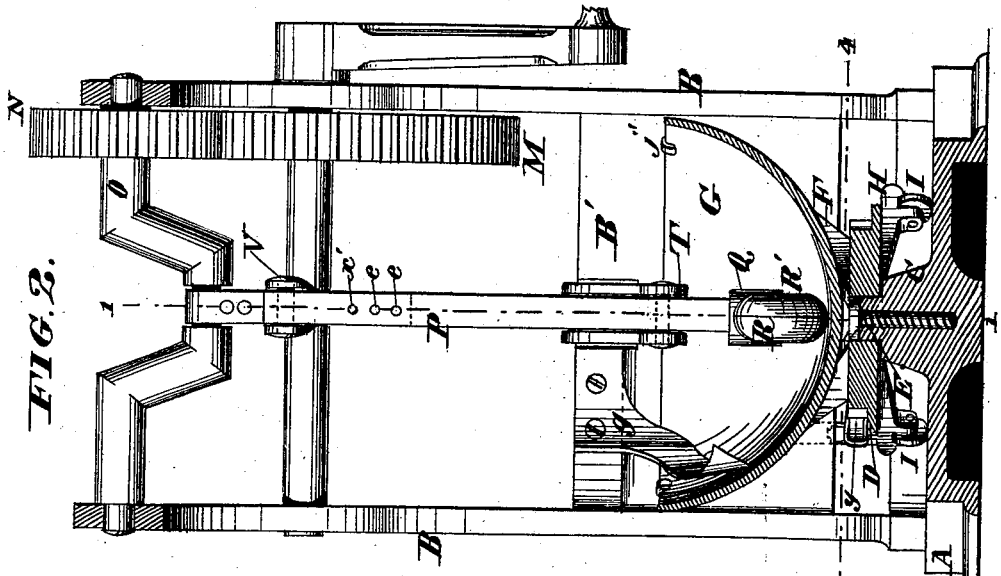
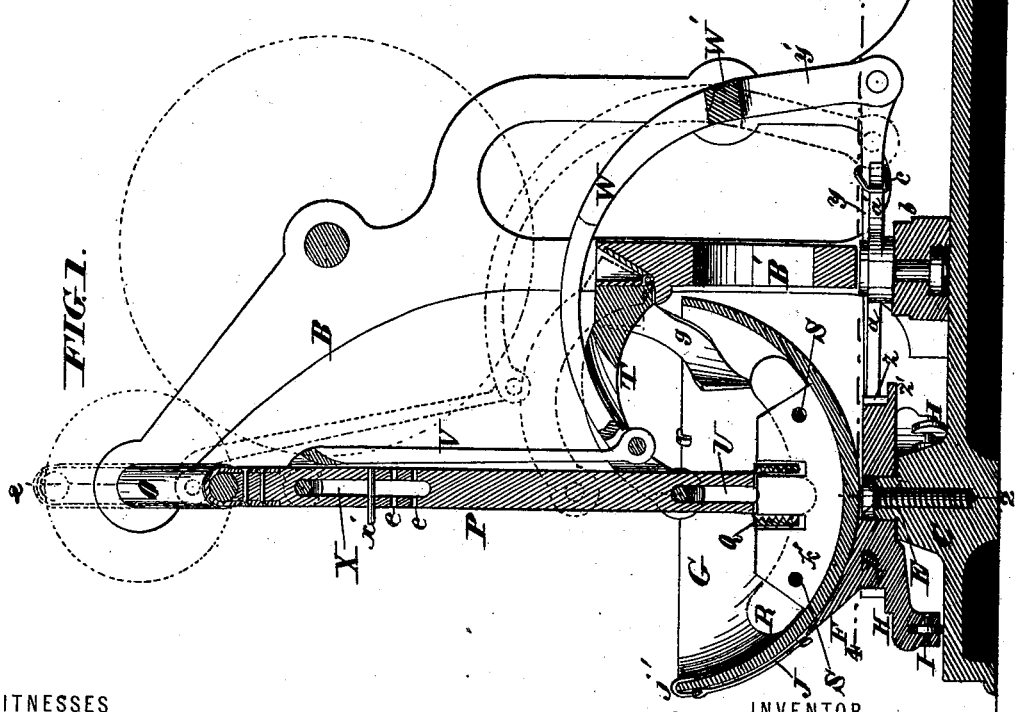


FIG. 1.



WITNESSES

Le Blond Burdett

Wm. H. Pearce

INVENTOR

S. E. Hewes.

By Knight Bros Attorneys

2 Sheets—Sheet 2.

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MEAT-CHOPPER.

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FIG. 3.

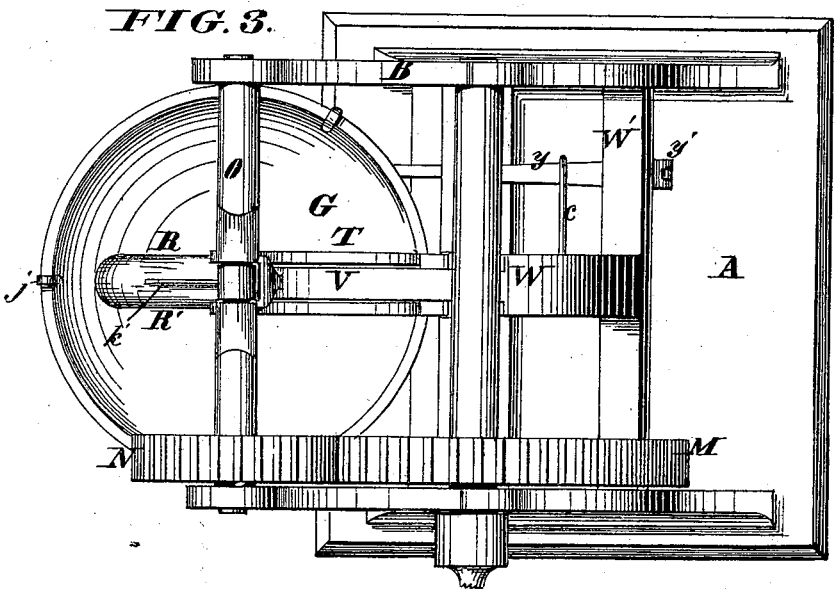


FIG. 4.

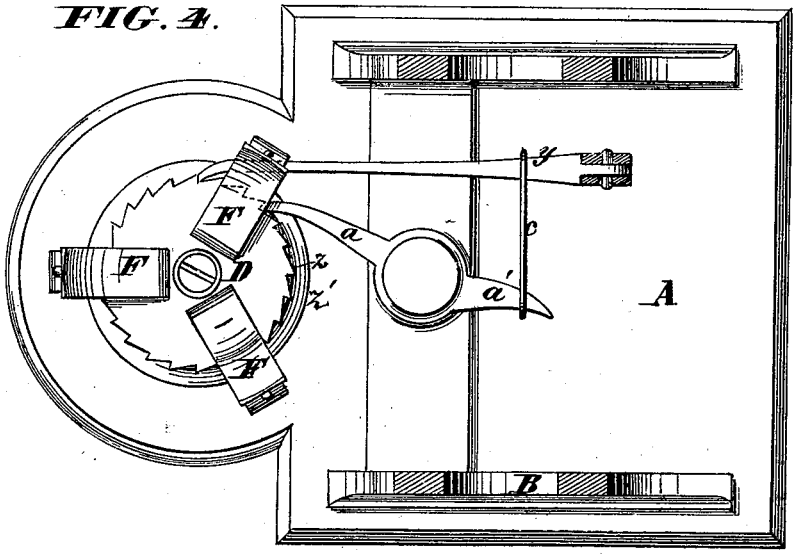
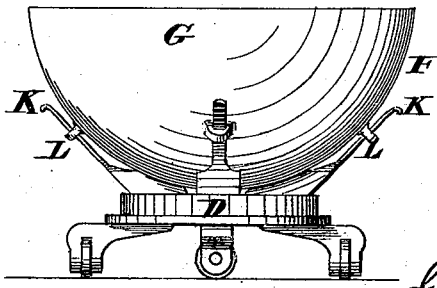


FIG. 5.



WITNESSES
Le Blond Burdett
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INVENTOR
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UNITED STATES PATENT OFFICE.

SHUBAEL E. HEWES, OF HOOPESTON, ILLINOIS.

IMPROVEMENT IN MEAT-CHOPPERS.

Specification forming part of Letters Patent No. **185,104**, dated December 5, 1876; application filed April 1, 1876.

To all whom it may concern:

Be it known that I, SHUBAEL E. HEWES, of Hoopeston, in the county of Vermillion and State of Illinois, have invented a Combined Chopping-Bowl and Butter-Worker, of which the following is a specification:

This invention relates to a combined chopping-bowl and butter-worker for household use, in which the frame for the operating mechanism and the bowl or tray are secured to a bed-plate, which may be clamped to a table or bench; and it consists, first, in a meat-chopper adapted to receive a muller, to convert it into a butter-worker; second, in the combination of the bowl, bowl-seat, having arms and legs, and hooked fastenings, for securing the bowl to its seat; third, in the combination, with the crank-rod, of a screw-threaded socket, which firmly clamps the knife in a slot in said crank-shaft, so that it is easily removable for sharpening or cleansing, or adjusting to the bottom of the bowl; fourth, in a muller, for working the milk out of the butter, constructed in two parts, of peculiar shape, and secured to the knife, one on each side, by screws, as hereinafter set forth; fifth, in the combination, with the operating mechanism, of a vertically-moving crank-rod, to which the knife and muller are secured, and a hinged lever-arm, whose end is pivoted in a slot in the crank-rod, to give a drawing stroke to the rod when down and just before it rises; sixth, in the combination, with the operating mechanism and crank-rod, of a jointed lever, for operating a shaft to which is secured a motory lever for revolving the caster, the jointed end of the lever being pivoted in a slot in the crank-shaft, the length of which is adjustable, to regulate the distance the motory end of lever will move, and thus cause the rotary movement of the bowl to go fast or slow, as required; seventh, in the use of a spiral or rubber spring, applied to connect the pawl and motory lever to hold them to their work.

Figure 1 is a transverse section of the machine on the line 1 1, Fig. 2, the full and dotted lines, respectively, showing the parts in their lower and upper limit of motion. Fig. 2 is a vertical section on the line 2 2, Fig. 1. Fig. 3 is a plan view of the combined machine. Fig. 4 is a longitudinal section on the line 4 4, Figs. 1 and 2. Fig. 5 shows a modified form of spring-holders, for securing the bowl in its seat.

A may represent the bed-plate, to which is secured the frame B for supporting the operating mechanism, and the pivot-block C, on which the caster turns. The block may be made in one piece with the bed-plate. D is the caster, turning on the pivot E, and having arms F, to form the seat for the bowl or tray G. The caster is supported at the edge by legs H, which form bearings for friction-wheels I, running on the bed-plate. J are elastic bands, removably fastened to the arms F by hooks, and having hooks J′, which fasten over the edge of the bowl or tray, to hold it in place when in use, and render it easily removable when desired.

A modification of the mode of securing the bowl is shown in Fig. 5, in which spring-hooks K are attached to the arms of the caster, and pass through sockets L on the bowl. M may represent a cog-wheel, supported in the frame B and turned by a crank. This wheel gears with a wheel, N, on a crank-shaft, O. P is a crank-rod, attached to the crank-shaft by a strap, and tapering at its lower end to receive a screw-threaded socket, Q, of corresponding taper, to clamp the knife *k′* in a slot in said rod, so that it can be removed and adjusted at pleasure.

R R′ may represent the two parts of the muller, for working the milk out of the butter, which are clamped together on each side of the knife when the machine is used as a butter-worker by screws S passing through holes in the knife. T represents a slotted lever-arm hinged to a cross-piece, B′, in the frame B at one end, and pivoted at the other in a slot, U, in the crank-rod P to form a center or pivot for it, and give a drawing stroke to the knife or muller when near the end of their downward movement and at the beginning of their upward motion. V W may represent two parts of a jointed lever for operating the motory-lever end, which revolve the bowl as the crank-rod moves up and down. The part V is pivoted in a slot, X, near the upper end of the crank-rod P, the part W being secured to a cross-slot, W′, journaled in the frame. *y* represents a horizontal motory lever which

imparts a rotary motion to the bowl G. It receives a reciprocating motion from the cross-shaft W′ through a depending lever, *y′*, and acts on the ratchet-wheel teeth Z on the caster D, its outer end being supported by a rim, Z′. *a* represents a pawl for preventing backward movement of the caster. It is pivoted to a block, *b*, on the bed-plate A. The pawl and motory-lever end are held to the ratchet-wheel by a connecting-spring, *c*, of rubber or any other suitable material applied between or around the pawl and motory-lever extension *a′* of said lever end, as shown in Fig. 4.

The extent of movement of the lever end Y is adjusted by the length of the slot X, which is regulated by means of a pin, X′, entering a series of holes, *e*, in the crank-rod P. *g* is a curved scraper attached to the cross-piece B′ for scraping the sides of the bowl as it revolves, and turning the contents toward the center.

Operation: When the machine is to be used it is clamped to a table or bench, and, if for chopping, the muller is removed and the bowl filled with the material to be chopped, the crank turned, and the crank-shaft caused, through intermediate gearing, to revolve to impart a reciprocating motion to the crank-rod to which the knife is attached. When the knife is near the end of its downward stroke, and at the beginning of the upward stroke, the pivot of the hinged lever-arm T, said lever-arm being at rest, comes in contact with the top of the slot in the lower end of the rod P, and acts as a center to give a drawing cut to the knife. As the crank-rod is reciprocated the jointed lever is moved up and down, and imparts motion to the horizontal motory end of the lever, which, acting on the ratchet-wheel teeth on the caster, revolves it.

The distance the motory end of the lever moves, and the movement of the bowl, are regulated by the length of the slot X, which is adjusted according as it is desired for the bowl to revolve with greater or less speed. As the bowl revolves the contents are turned back from the sides and under the knife by the curved scraper.

When the machine is used as a butter-worker the muller is attached to the knife, the butter to be worked is placed in the bowl, and the machine operated as before.

What I claim as new, and desire to secure by Letters Patent, is—

1. The meat-chopper adapted for conversion into a butter-worker by the addition of a muller, as herein set forth.

2. The combination of the bowl-seat D, arms F, legs H, bowl G, and hooked fastenings for securing the bowl to its seat, substantially in the manner described.

3. The combination with the crank-rod P, having a tapering end screw-threaded, and the screw-threaded socket Q, to firmly clamp the knife in place, as set forth.

4. The muller R R′ constructed in two parts, and adapted to be removably secured to a chopping-knife, for the purpose specified.

5. The combination of the operating mechanism M N O, the crank-rod P, having slot U, and the lever T hinged at one end to the frame, and pivoted at the other in said slot, for the purpose set forth.

6. The combination of the operating mechanism M N O, the crank-rod having adjustable slot X, the jointed lever V W, cross-shaft W′, depending arm *y′*, and pawl *y*, for imparting a rotary movement to the bowl, as set forth.

7. The spring *c*, applied around the pawl, and an extension, *a′*, of the ratchet, to hold them both to their work, as set forth.

SHUBAEL E. HEWES.

Witnesses:

GEO. H. WHITE,

W. S. COFFMAN.