(No Model.)

H. A. STOCK.

CULINARY MILL.

No. 564,345. Patented July 21, 1896.

Fig. 1.

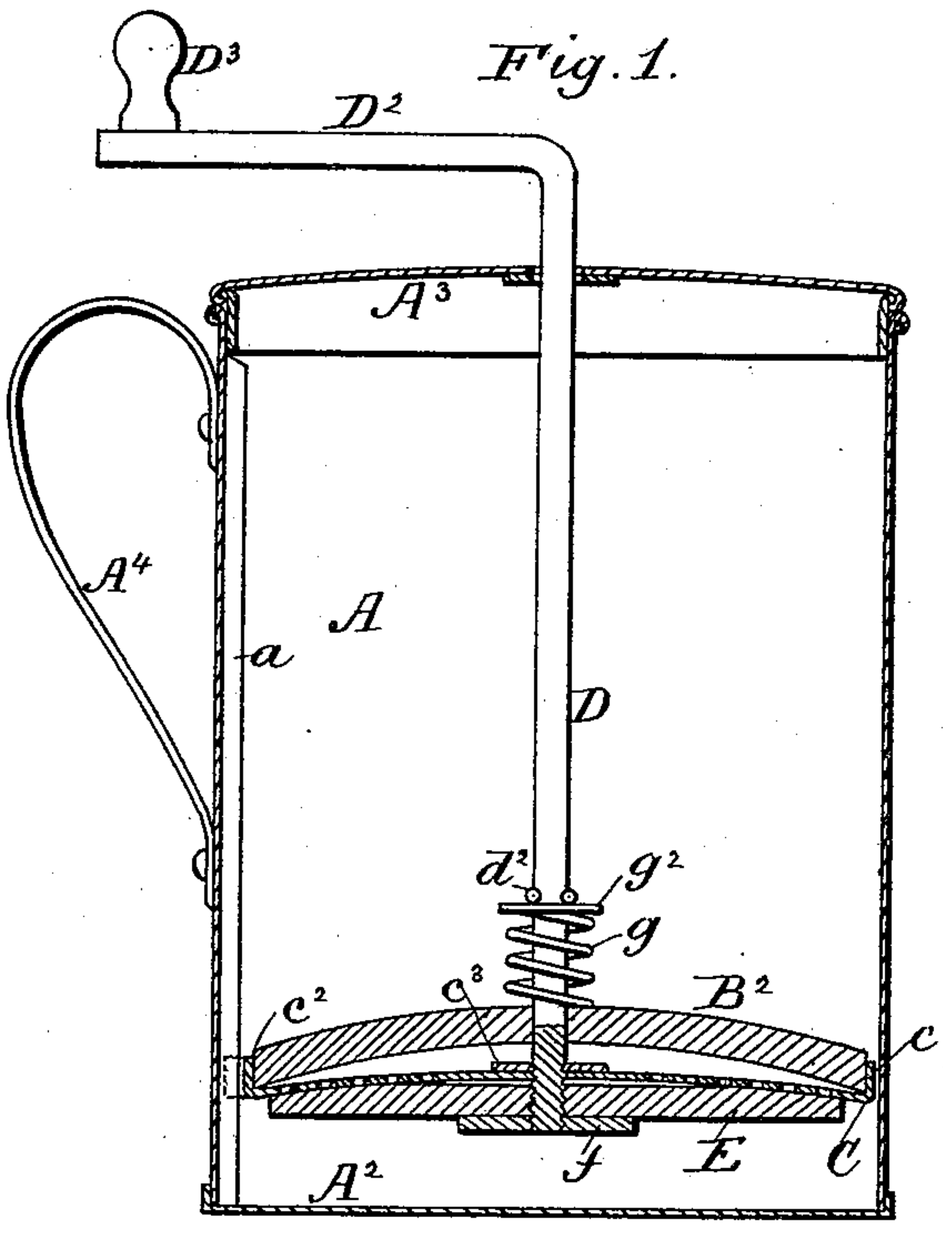


Fig. 2.

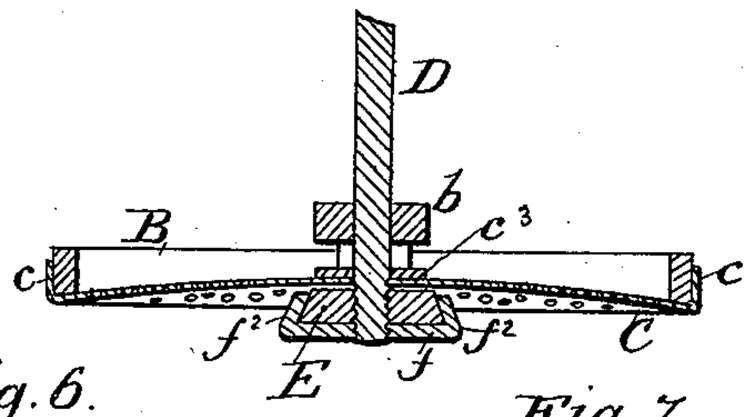


Fig. 3.

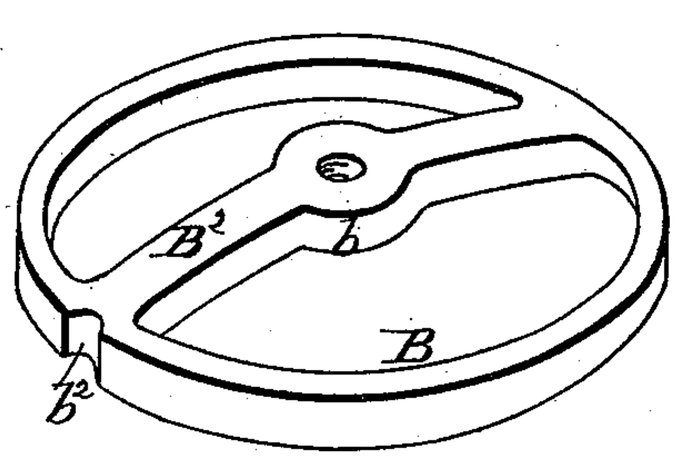


Fig. 4

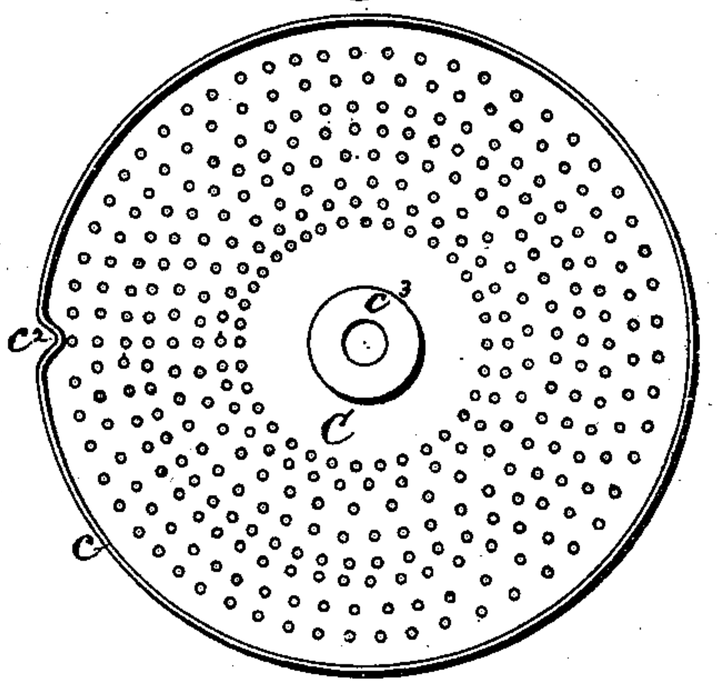


Fig. 5.

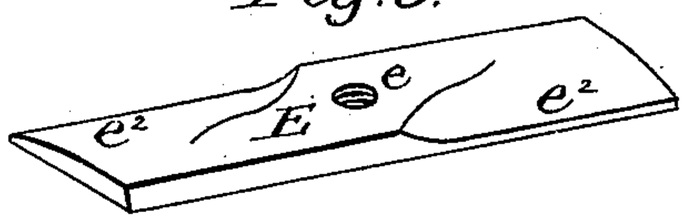


Fig. 6.

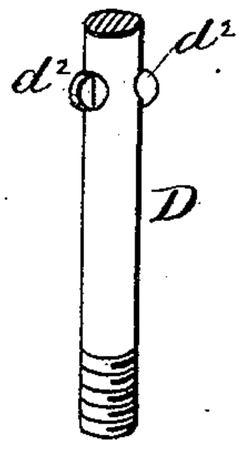
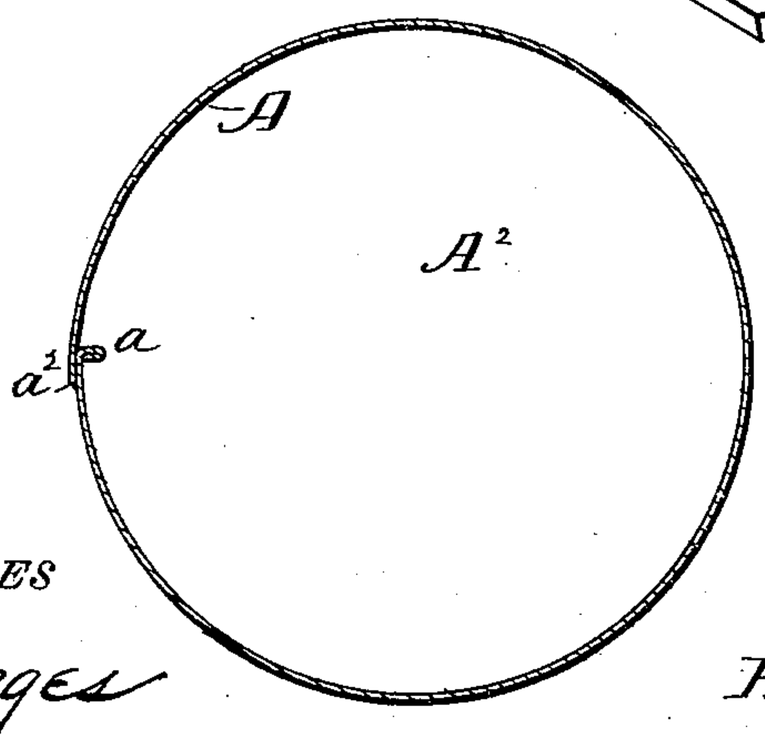


Fig. 7.



WITNESSES

A. B. Degges

L. D. Heinrichs

INVENTOR

Harry A. Stock

by E. E. Masson, Attorney.

UNITED STATES PATENT OFFICE.

HARRY A. STOCK, OF MILLERSBURG, PENNSYLVANIA.

CULINARY MILL.

SPECIFICATION forming part of Letters Patent No. 564,345, dated July 21, 1896.

Application filed May 16, 1895. Renewed January 10, 1896. Serial No. 575,038. (No model.)

To all whom it may concern:

Be it known that I, HARRY A. STOCK, a citizen of the United States, residing at Millersburg, in the county of Dauphin, State of Pennsylvania, have invented certain new and useful Improvements in Culinary Mills, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to devices to simplify and expedite work in kitchens; and the object of my improvement is to produce a simple and inexpensive utensil peculiarly well adapted for various purposes in kitchens and in other locations—for example, to strain and mash potatoes at one operation, to strain and mix schmierkase, to remove the fibers, skin, and seeds from fruit and vegetables, to beat eggs or cream and mix other substances therewith, and for other useful purposes. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a central vertical section of a utensil constructed in accordance with my invention. Fig. 2 is a vertical section of the plunger or mill of the device, taken at right angles to Fig. 1. Fig. 3 is a perspective view of the plunger's spider, used to carry the sieve thereof. Fig. 4 is a top view of the sieve. Fig. 5 is a perspective view of the rubber of the device. Fig. 6 is a perspective view of the lower portion of the driving crank-shaft, showing the ears on its sides. Fig. 7 is a horizontal section of the shell or receiver of the device.

In said drawings, A represents a cylindrical receiver of sheet metal that may hold two quarts or more, having its lower end closed by a bottom disk A^2, soldered thereto, and its upper end closed by a removable cover A^3, that serves also as a guide for the shaft of a plunger. The sides of the receiver are provided internally with a rib or feather *a* lengthwise thereof, that is made preferably by folding one edge of the sheet metal upon itself and bending it at right angles to the body of the sheet. Said sheet is then bent in the form of a cylinder and its edge a^2, as shown in Fig. 7, is made to lap over beyond the folded edge, where it is secured by solder. The internal feather *a* is to prevent the plunger from rotating within the receiver. Said plunger constituting the "mill" of the device consists in part of a spider having an annular rim B, the inner face of which is diametrically connected by arms B^2, that are slightly arched upward and are provided with a central boss *b*, of greater width than said arms, and a sieve C that is also slightly arched upward. Said sieve bears against the bottom of the rim B and its edge *c* is flanged upward and embraces the periphery of said rim. To prevent the sieve from rotating around the rim B, and also to prevent both the sieve and the spider from rotating within the receiver A, the spider has formed in the periphery of its rim a notch b^2, preferably opposite the outer end of one of its arms; and the upwardly-flanged edge *c* of the sieve is bent inwardly at c^2 to form a concavo-convex rib, the convex face of which is received within the notch b^2, while its concave face receives the feather *a*, projecting from the inner face of the receiver.

The boss *b* of the spider is centrally perforated for the passage of the vertical portion of the crank-shaft D. The sieve C is also centrally perforated for the passage of said shaft D, the central portion of said sieve being preferably reinforced by a washer c^3, soldered to its upper face. Under the sieve C is placed a rubber E, which consists of a strip of preferably hard wood, having approximately the form of a parallelogram having a flat bottom, but its upper face has toward its ends beveled surfaces e^2, the bevel of each being in the opposite direction from that of the other, (as made in the blades of rotary fans.) This rubber E has a central perforation *e*, that is screw-tapped for engagement with the screw-threaded lower end of the shaft D. To strengthen the connection between the shaft D and the rubber E, a nut *f* is placed on the end of said shaft under the rubber E, and to prevent said nut from becoming accidentally separated from the shaft D or from the rubber the nut *f* is provided on two of its sides with inwardly-beveled wings f^2, that clasp the slightly-beveled long edges of the rubber.

To retain the rubber under pressure against the bottom face of the sieve C, and also com-

pensate for the wear of the upper beveled face of the rubber, a coiled spring *g* is placed around the shaft D. One end of said spring bears upon the boss *b* of the spider, while its opposite end bears against a washer g^2, the ascension of which is prevented by two lugs d^2, formed upon the sides of the shaft D by compressing a small portion of the metal of said sides with suitable tools. The upper portion of the shaft D is bent to one side to form a crank-handle D^2, that is provided with a hand-knob D^3 to easily rotate it. The receiver A is also provided for convenience with a handle A^4, secured to its sides.

To operate with the device on substances that are to be simply mashed or ground, or ground and mixed with others, for example, to grind schmierkase and thoroughly mix it with a small amount of milk, the cover A^3 and the plunger with its shaft are removed from the receiver, and said substances are placed in said receiver until it is half full, or nearly full, as the case may be. The plunger is then placed on top of said substances and the cover A^3 is replaced. The crank-shaft D is then revolved while slightly pressing downward thereon, if desired. The rubber E with its beveled upper faces acts as an auger and forces the material through the perforations in the sieve, and by continuing the operation the whole material properly ground and mixed becomes piled on top of the sieve and plunger, and is easily removed from the receiver by taking off the cover A^3 and drawing the material out with the plunger by means of its shaft D, the receiver being either in a vertical position or retained inclined by holding it in that position by means of its handle A^4.

To beat thin substances as eggs or milk, the plunger is moved mainly up and down by means of its handle D^2.

If the device is used for making ice-cream, the receiver containing the cream is placed in a freezing mixture, usually ice and coarse salt. The plunger is then moved slowly up and down for a few minutes until the cream becomes partly congealed and consequently thicker, and the shaft D and its rubber E are then revolved. This motion forces the congealed cream through the perforations of the sieve and renders it "smooth" and free of ice lumps.

With the receiver and plunger two or three sieves are generally furnished, each provided with holes of different sizes for different purposes.

To wash the device, it is filled half full with tepid water and the plunger moved therein up and down a few times. The parts of the plunger can also be separated, if desired, by unscrewing the shaft from the rubber E and its nut.

Having now fully described my invention, I claim—

1. The combination of a cylindrical receiver, having a closed bottom and a guide-feather in its side, a removable cover therefor having a central perforation, a vertically-movable crank-shaft passing through said perforation and having a crank-handle on its upper end and a plunger on its lower end, said plunger consisting of a spider having a notch in its side, a sieve having an upwardly-flanged edge bent inwardly to constitute a concavo-convex rib, and a rubber E having a double-beveled upper face and secured to the lower end of the crank-shaft under the sieve, substantially as described.

2. The combination of a cylindrical receiver having a closed bottom, a removable cover therefor having a central perforation, a crank-shaft passing through said perforation and having a crank-handle on its upper end and a plunger on its lower end, said plunger being interlocked with the wall of the receiver and consisting of a spider, a sieve having an upwardly-flanged edge and a rubber E having a beveled upper face and secured to the lower end of the crank-shaft under the sieve substantially as described.

3. The combination of a cylindrical receiver having a closed bottom, its removable cover, a crank-shaft passing through said cover and having a plunger on its lower end, said plunger consisting of a spider, a sieve, and a rubber E under said sieve, said rubber being screwed on the end of the crank-shaft and having a nut embracing a portion of its sides and screwed also upon said shaft, with a spring *g* having one end retained on the shaft and the other end bearing upon the spider substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HARRY A. STOCK.

Witnesses:
JACOB A. LIGHT,
FRANCIS C. STOCK.