

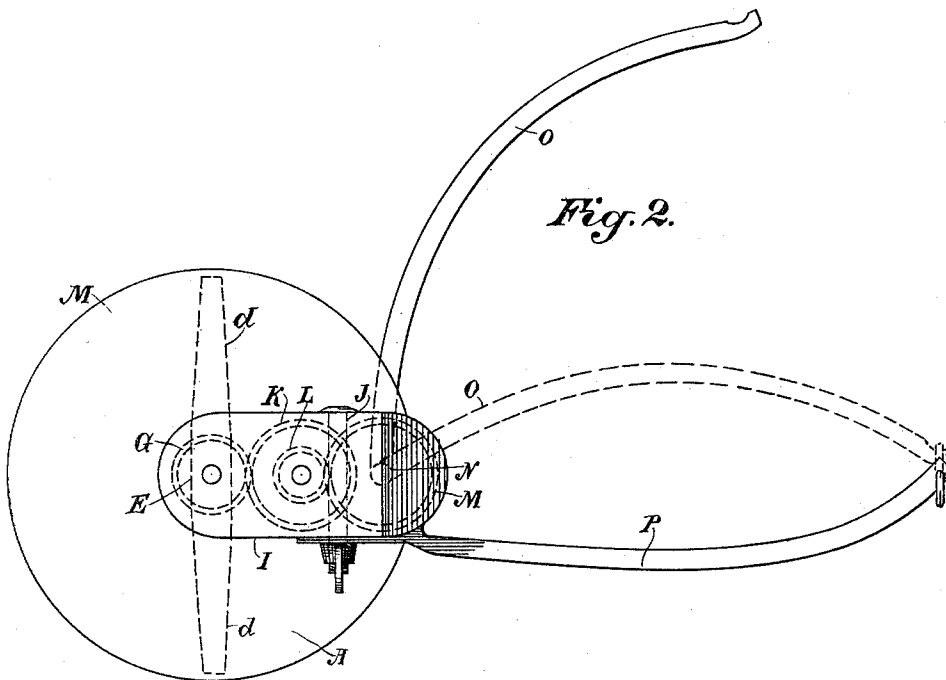
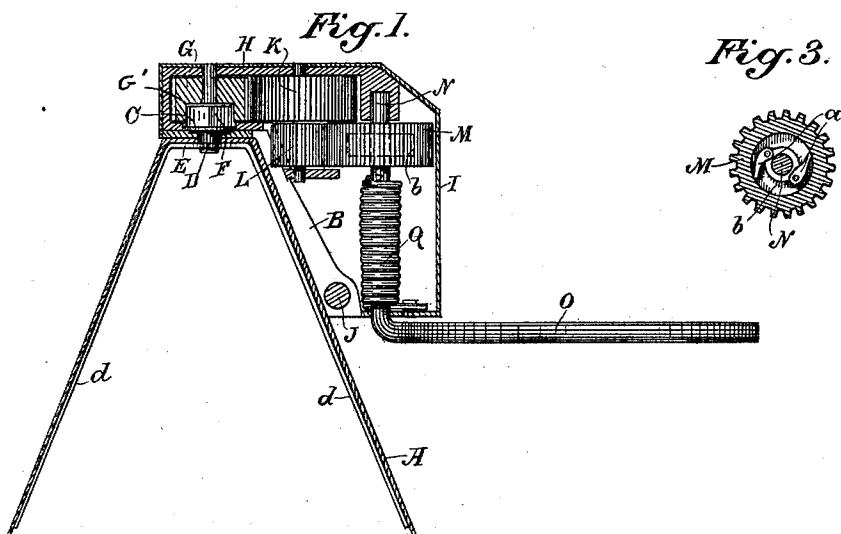
No. 626,468.

Patented June 6, 1899.

F. E. SCHMITS.
ICE CREAM MOLD AND MEASURE.

(Application filed July 28, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FREDERICK E. SCHMITS, OF OAKLAND, CALIFORNIA.

ICE-CREAM MOLD AND MEASURE.

SPECIFICATION forming part of Letters Patent No. 626,468, dated June 6, 1899.

Application filed July 28, 1898. Serial No. 687,066. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK E. SCHMITS, a citizen of the United States, residing at Oakland, county of Alameda, State of California, have invented an Improvement in Ice-Cream Molds and Measures; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a device for measuring and molding ice-cream, water-ice, and similar condiments and a means whereby the material is loosened and discharged from the mold, in combination with a mechanism which enables the user to operate the device with one hand.

It also relates to such construction that the measures or molds are interchangeable with relation to the operating mechanism, so that molds of different forms and sizes may be employed in conjunction with a single set of handles.

Referring to the accompanying drawings, Figure 1 is a sectional view showing the mechanism. Fig. 2 is a plan view of the same. Fig. 3 shows the clutch mechanism.

A is the mold and measure, which is here shown conical in shape; but it may be of any preferred form, so as to produce an ornamental shape to the material with which it is filled. Upon one side of the mold is secured a lug B, by which it is attached to the operative mechanism to be hereinafter described. Through that portion of the lug which extends over the closed smaller end of the cup or mold is fitted a sleeve C, which is made of any non-corrosive material, and through this sleeve passes a rectangular rivet or bolt D, the inner end of which passes through and is rigidly secured or riveted to the scraper E. This scraper consists of a plurality of arms *d*, fitting closely the contour of the interior of the mold, and by means of the bolt D, to which it is attached, it may be turned around within the mold when the latter has been filled and inverted, so as to detach the contents from the sides of the mold and allow the molded substance to be removed from the mold. The outer end of the rivet or bolt D carries a square or other suitably-shaped head F, and this head fits into a correspondingly-shaped socket which is formed in the hub of a pinion G, and this pinion is journaled and turnable

within a frame H. The under surface of this frame H is shaped so as to engage the upper portion of the lug B, which is secured upon the mold A, so that when the two fit together the rectangular head F will enter the socket G' of the pinion G.

The frame H is here shown as contained within an exterior casing I, and this casing and the lug B of the mold have holes made through them coincident with each other to receive a locking-pin J, which passes through the two and holds them together. The pin may be screw-threaded, having a head upon one end and a securing thumb-nut upon the other, so that it is easily removed, and when so removed the mold, with its attached scraper-arms and bolt D, can be disengaged and another mold of different size or shape inserted into the casing I and the frame H. This facilitates the use of molds of different sizes and shapes with a single set of operating-handles.

The pinion G is engaged by the teeth of a second pinion K, which is journaled in the frame H in proper relation to the first-named pinion. Upon the same shaft with the pinion K is another pinion L, and this is engaged by a gear M, through which passes the shaft N of the handle O. As many pinions may be introduced between the scrapers and the operating-handles as are needed to produce the desired speed at the option of the maker or user. The handle P is fixed with relation to the casing I, and the handle O is turnable within this casing, carrying the pinion M. A coiled spring Q surrounds the shaft N and has one end connected with said shaft and the opposite end connected with some fixed point, said spring serving to normally press the handle O outwardly and away from the fixed handle P.

When the device is to be operated, the user takes it in his hand, and by pressing upon the handles O and P the handle O will be drawn toward the handle P against the tension of the spring Q. This turns the gear M and through it acts upon the intermediate pinions and through these turns the bolt or rivet D, which carries the scrapers E within the cup or mold A. It is preferable to continue the motion of the scrapers in one direction. Therefore I employ a clutch which engages with the gear

or pinion to which it is attached, so that when the handles O and P are pressed together the engagement of the clutch will cause the gears to revolve and turn the scrapers; but when
 5 the pressure upon the handles is released the coiled spring Q moves the handle O outwardly, and the clutch or equivalent device being released allows the parts connected with the movable handle to turn back freely without
 10 moving the scrapers within the measuring-cup. In this way the scrapers are advanced by each pressure upon the handles and remain stationary while the handles are separated by the action of the spring Q.
 15 The form of clutch which I have here shown consists of two arms *a*, loosely pivoted upon each side of the shaft of the gear or pinion to which they are connected, and the latter being chambered out to receive these arms the interior may be corrugated or lined with a
 20 soft metal, like copper, and the outer ends of the arms *a* normally are beveled or sharpened, so that they engage the interior surface *b* of the chamber and lock against it when the shaft
 25 is turned in one direction; but they move freely over the surface, so as to allow the shaft to be turned in the opposite direction without acting upon the pinion.

The clutch may be connected with either of
 30 the gears intermediate between the handle-shaft and the turnable socket, the object being to make the movement of the latter continuous in one direction.

By the construction and interlocking of the
 35 frames which carry the measuring-cups and the operative parts by which the scrapers are rotated any change may be made in the cups to suit the conveniences or necessities of the occasion.

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

1. An ice-cream mold or measure having scrapers pivoted and turnable within it, a polygonal stem to which the scrapers are fixed
 45 extending axially outward through the end of the mold, a pinion the hub of which has a socket with which said stem engages, pinions by which the socket-pinion is turned and a
 50 fixed and a movable handle, the latter being connected so as to turn the pinions and the scraper when the handle is moved.

2. An ice-cream mold and measure having scrapers fitting and turnable within it, a bolt

extending axially through the end of the mold, 55 pinions and a fixed and movable handle by which the pinions and the scraper are turned when the handles are closed together, and a clutch mechanism whereby the gears act to turn the scrapers when the handles are closed 60 and allow the scrapers to remain stationary when the handles are separated.

3. An ice-cream mold and measure, scraper-arms fitting and turnable in its interior, a bolt carrying said arms and extended axially 65 through the end of the mold, a lug on the side of the mold and extended over the end thereof, and through the extended end of which the bolt passes, a frame and means whereby it is removably secured in place, a pinion re- 70 movably engaging said bolt whereby the latter may be detached with the mold, gearing for operating the pinion and a fixed and movable handle for operating the gearing, a clutch mechanism whereby the parts are engaged to 75 turn the scraper-arms when the handles are pressed together and released to allow the scraper-arms to remain stationary when the handles separate, and a spring acting upon one of the handles to normally separate it 80 from the other handle.

4. An ice-cream mold and measure having scrapers fitting and turnable in its interior, a lug fixed to the outside, an independent casing containing actuating-pinions and having 85 fixed and movable handles and a locking device whereby a variety of molds may be fitted to a single set of gearing and handles.

5. In an apparatus of the character described, a mold with scrapers turnable within 90 it, fixed and movable handles and gearing intermediate between the handles and the scrapers, and a clutch mechanism consisting of arms loosely pivoted upon opposite sides of the pinion-shaft which is turnable loosely 95 through the pinion, a chamber in the pinion within which the clutch-arms lie, the ends of said arms engaging the inner periphery of the chamber to turn it when moved in one direction and releasing it whenever moved in the 100 opposite direction.

In witness whereof I have hereunto set my hand.

FREDERICK E. SCHMITS.

Witnesses:

S. H. NOURSE,

JESSIE C. BRODIE.