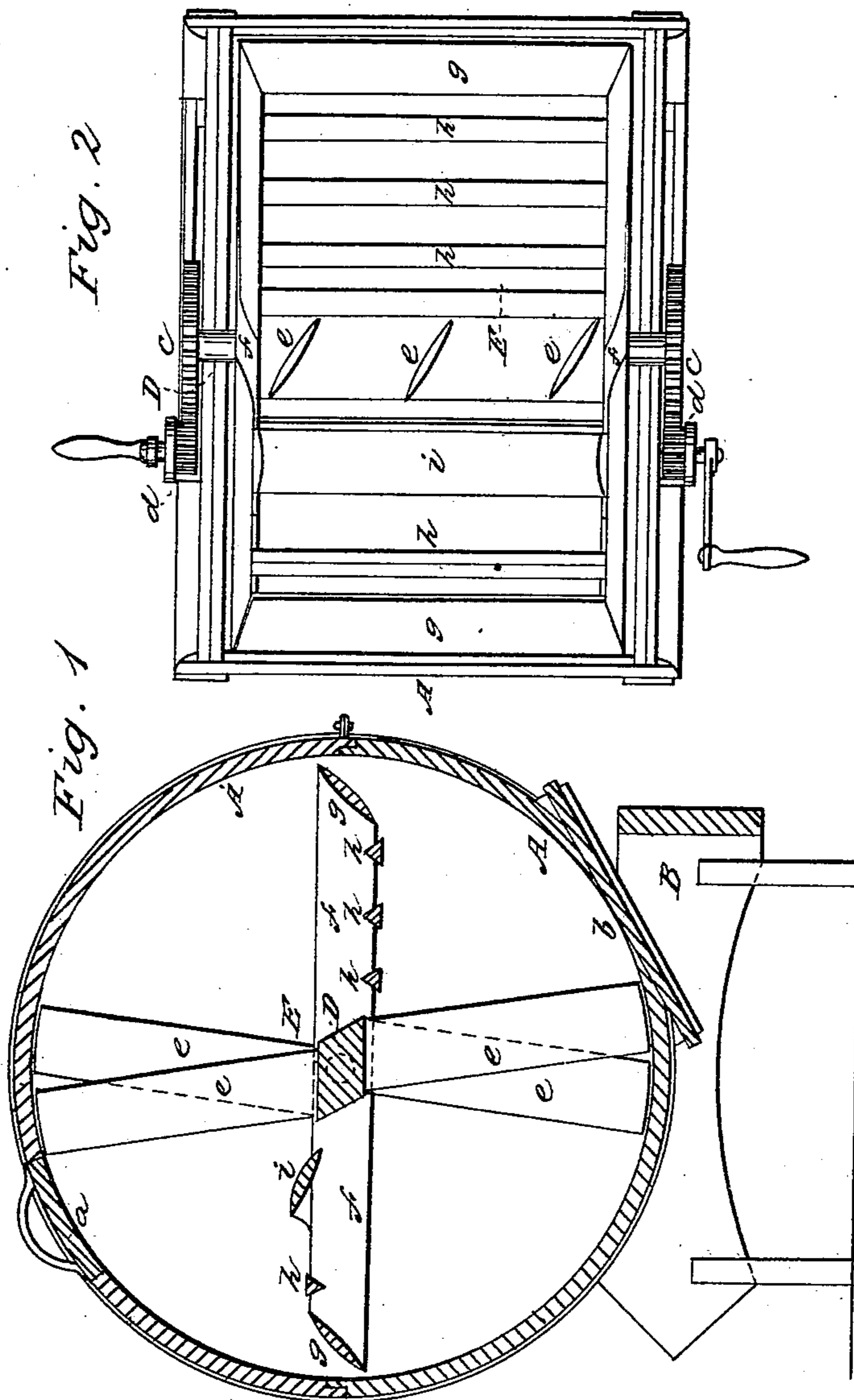


J. GALLIPO.
Making Soap.

No. 64,517.

Patented May 7, 1867.



Witnesses:
Geo. J. Southern
Gustav Berg

Inventor:
Jos. Gallipo
for
Messrs. Lathrop & Hall
Attys

United States Patent Office.

JOSEPH GALLIPO, OF COHOES, NEW YORK, ASSIGNOR TO HIMSELF AND
WALTER CAMPBELL, OF THE SAME PLACE.

Letters Patent No. 64,517, dated May 7, 1867.

IMPROVED APPARATUS FOR CRUTCHING SOAP.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH GALLIPO, of Cohoes, in the county of Albany, in the State of New York, have invented a new and useful Improved Apparatus for Crutching Soap, etc.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 represents a vertical section of this invention in a direction transversely to the shaft.

Figure 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an apparatus for crutching soap in which a revolving dasher or beater is used. This dasher is provided with two or more sets of radiating paddles, set obliquely in opposite directions, and with two beater-frames, containing sharp-edged scrapers, triangular cross-bars, and one or more transverse paddles, in such a manner that, by the combined action of the radiating paddles and beater-frames, the materials used in the manufacture of soap are thoroughly mixed, and a homogeneous mass is obtained of a uniform and even color; and furthermore, all the parts of the dasher are so constructed that the same pass through the mass to be crushed with a comparatively small expenditure of power.

A represents a circular or cylindrical box, or tub, or drum, which is supported by a suitable bed, B, and which may be constructed of wood or of any other suitable material. Said box is made in two parts, the upper half or cap A' being so arranged that it can be taken off in order to get free access to the interior; and it is provided with two or more apertures or man-holes *a b*, one at or near the top for the purpose of introducing the material to be crutched or mixed, and one at or near the bottom for the purpose of discharging said material after the operation of crutching or mixing has been completed. The cap A is held down on the body of the drum or box by two metal rings, or in any other suitable manner. The heads of the box A form the bearings for the shaft D, to which the dasher E is secured; and a revolving motion is imparted to this shaft by gear-wheels *c* and pinions *d*, or by any other suitable means. The dasher E is composed of two sets of radiating paddles *e*, which are placed in an oblique position in opposite directions, so that, by the action of one set of paddles, the mass to be crutched is cut and forced in one, and by the other set of paddles in the opposite, direction; and, in addition to the radiating paddles, a beater-frame, *f*, is applied, which is composed of radiating side-pieces, with inwardly and outwardly inclined sides, and of two transverse scrapers *g*, triangular cross-bars *h*, and one or more transverse paddles *i*. By the scrapers *g* the mass, which has a tendency to adhere to the inner circumference of the box, is scraped off and thrown towards the centre of said box, and the inner surfaces of the heads are kept clean by the sharp-edged side-pieces of the beater-frame; and, by the action of the triangular cross-bars, the mass is cut in an opposite direction to that in which the radiating paddles act; and finally, by the transverse paddle or paddles *i*, the mass is turned over and over so that it becomes thoroughly mixed. By this apparatus the ingredients generally used in the manufacture of soap can be readily and uniformly mixed, and a soap is produced of a homogeneous consistency, and of an even color throughout. My apparatus may, however, be also used for mixing other materials besides soap, such, for instance, as ground coffee, spices, and also tallow, lard, and so forth.

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

The arrangement of the radiating paddles *e*, beater-frame *f*, transverse scrapers *g*, cross-bars *h*, and transverse paddle *i*, in combination with the revolving shaft D and box A, constructed and operating substantially as and for the purpose set forth.

his
JOSEPH X GALLIPO.
mark.

Witnesses:

P. D. NIVER,

JOHN E. DAMON.