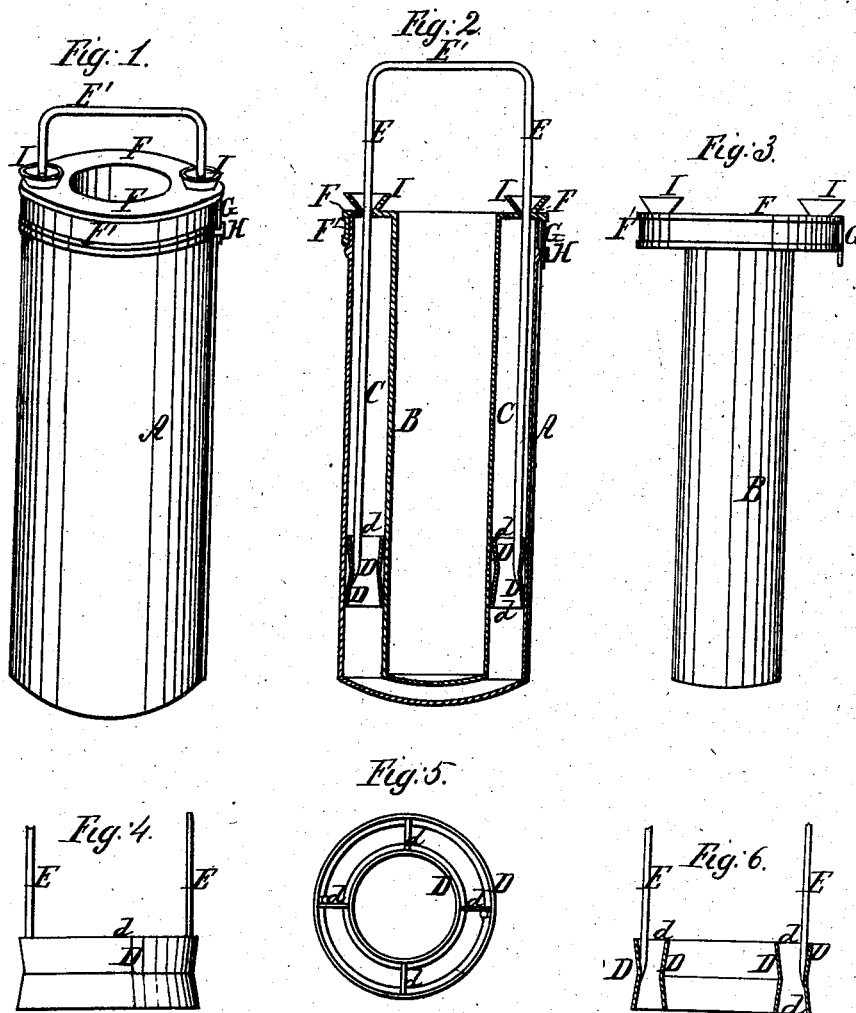


No. 5,775.

PATENTED SEPT. 19, 1848.

A. H. AUSTIN.
CREAM FREEZER.



UNITED STATES PATENT OFFICE.

ANTHONY H. AUSTIN, OF BALTIMORE, MARYLAND.

ICE-CREAM FREEZER.

Specification of Letters Patent No. 5,775, dated September 19, 1848.

To all whom it may concern:

Be it known that I, ANTHONY H. AUSTIN, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement in Apparatus for Producing Artificial Ice, called "Austin's Improved Freezer," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a perspective view of the machine. Fig. 2, is a vertical section of ditto. Fig. 3, is an elevation of the inner cylinder. Fig. 4, is an elevation of the circular planes. Fig. 5, is a plan of ditto. Fig. 6, is a vertical section of ditto.

Similar letters in the figures refer to corresponding parts.

My machine for freezing cream, and other liquids, consists of two concentric cylinders A, B, of the same length, or nearly so, but of different diameters, closed at the lower ends, the lesser one being filled with ice and salt, and placed inside the greater cylinder A is also surrounded with ice and salt contained in a common tub (not represented) leaving an annular space C, between them wherein the cream is placed to be congealed into ice and in which four circular concentric rising and falling planes D, D, D, D, are placed for planing the thin layers of ice from the inner surface of the larger cylinder and the outer surface of the smaller cylinder as fast as it accumulates, and for bringing the cream into contact with the surfaces of the cylinders to be congealed as they are elevated and depressed, which latter effect is produced by the peculiar position in which the circular planes are placed in relation to each other and to the surfaces of the cylinders, said circular concentric planes being connected together by radial plates *d, d, d, d*, arranged between them, and to the lower ends of two vertical rods E, E, whose upper ends are united by a horizontal cross rod E' which serves as a handle by which the combined circular planes are raised and lowered, and by which the cylinders are simultaneously turned horizontally in the ice and salt contained in the surrounding tub, as in the use of the common freezer; or when the handle is made of a single rod it is bent in the form of a parallelogram of three sides, having the two ends of the rod fastened to the circular planes by riveting and soldering, or by

any convenient means, as represented in Fig. 2.

The inner cylinder B is opened at top for the introduction of the ice and salt—the open end being surrounded by a circular flange F, which is turned downward at right angles at F' forming a circular cap of the same diameter as the outer cylinder whose upper end it closes—said cap being provided with a small plate G that fits into a corresponding loop H, fastened to the periphery of the larger or outer cylinder, to connect or lock the two cylinders together and cause them to turn simultaneously in the tub of ice, when revolved in the usual way—and perforated with two apertures through which the rods or handles of the planes are pressed, surrounded by funnel shaped caps I, I, for catching the cream that may be carried up by the rods, and conveying it back to the cylinder. The bottoms of the cylinders are made convex, but may be made of any required shape.

The circular planes D D, for planing the ice from the inside of the large cylinder in its up and down movements, and also for forcing the cream in contact with the cylinder as soon as the congealed cream is removed therefrom is made in the form of two sections of hollow cones, united at their smaller diameters—the larger diameter, which form the cutting edges being of the same diameter as the inside of the outer cylinder the inclined surface inclining from the larger toward the smaller cylinder, and forming dashers by which the cream is forced into contact with the surface of the larger cylinder, as the planes are raised and lowered.

The two circular planes D D in contact with the outer surface of the inner or smaller cylinder are made on the same principle as those just described except that the larger diameters of the hollow frustums of cones are brought together and united, the smaller diameters becoming in this case the cutters or planes, in the up and down movement of the rods to which they are attached. These cutters also act as dashers to force the cream in contact with the inner cylinder, and are connected to the aforesaid larger planes by the thin plates *d, d, d, d*, aforesaid arranged between them. These planes not only perform the offices of planing the congealed cream from the inner surface of the outer cylinder, and the outer surface of the inner

or smaller cylinder, and forcing the cream in contact with the surfaces of said cylinders as soon as the ice is planed therefrom, but also to cut the congealed cream that lies in the annular chamber between the two concentric cylinders, into very small particles, and thus render it soft and pleasant to the palate, and light and frothy, as termed by confectioners.

The several parts of the before described apparatus may be made of any suitable material and of any convenient size and proportions, variable, of course, to suit the views of the manufacturer or user.

The operation is as follows: The cream being poured into the outer cylinder, the inner cylinder and planes are inserted into the outer cylinder and the cap secured. Ice and salt are placed in the inner cylinder. The outer cylinder is then placed in a tub of ice and salt. The cream is instantly congealed over the surfaces of the cylinders with which it is in contact. The operator moves the planes rapidly up and down, which cuts or planes the ice from the cylinders as fast as it accumulates, which falls into the annular chamber between the cylinders. In a few moments the whole mass

will be found to be congealed. The inner cylinder and planes are then removed from the outer cylinder and the ice discharged, or suffered to remain in the cylinder.

I do not claim to be the original inventor of congealing cream between concentric cylinders by means of ice placed inside the smaller cylinder, and outside the larger cylinder as this may have been suggested, although I have never seen or heard that such has actually been done, and therefore I believe myself to be the first inventor of it, but,

What I do claim as my invention and desire to secure by Letters Patent is—

The employment of the above described combined concentric circular planes, and dashers D, d in combination with the freezing apparatus made as above described, said planes operating in the manner and for the purpose above set forth.

In testimony whereof I have hereunto signed my name before two subscribing witnesses this 20th day of January A. D. 1848.

A. H. AUSTIN.

Witnesses:

WM. P. ELLIOT,

A. E. H. JOHNSON.