

F. E. WHITNEY & C. W. KILLAM.
Ice-Cream Freezer.

No. 227,665.

Patented May 18, 1880.

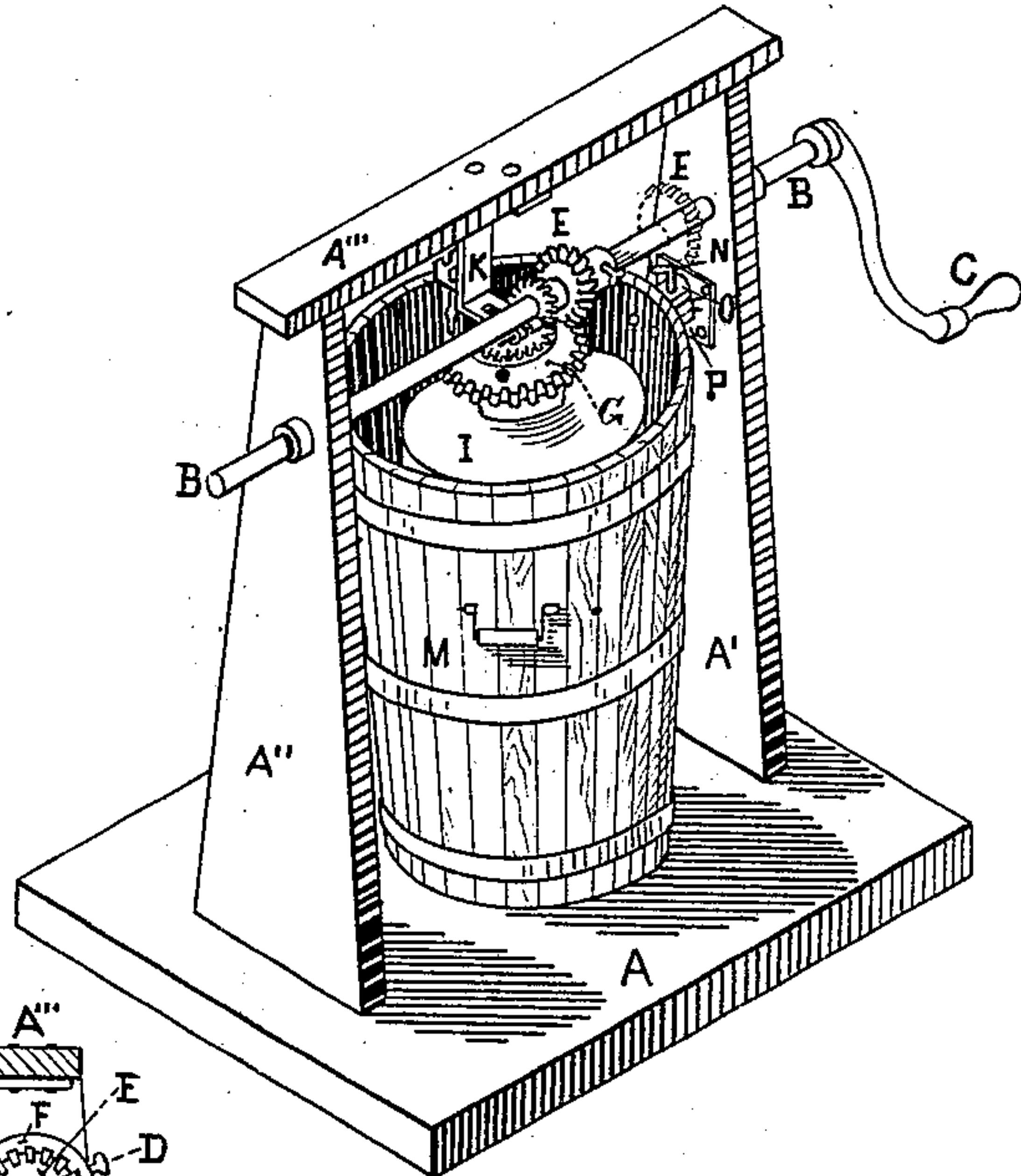


FIG. 1.

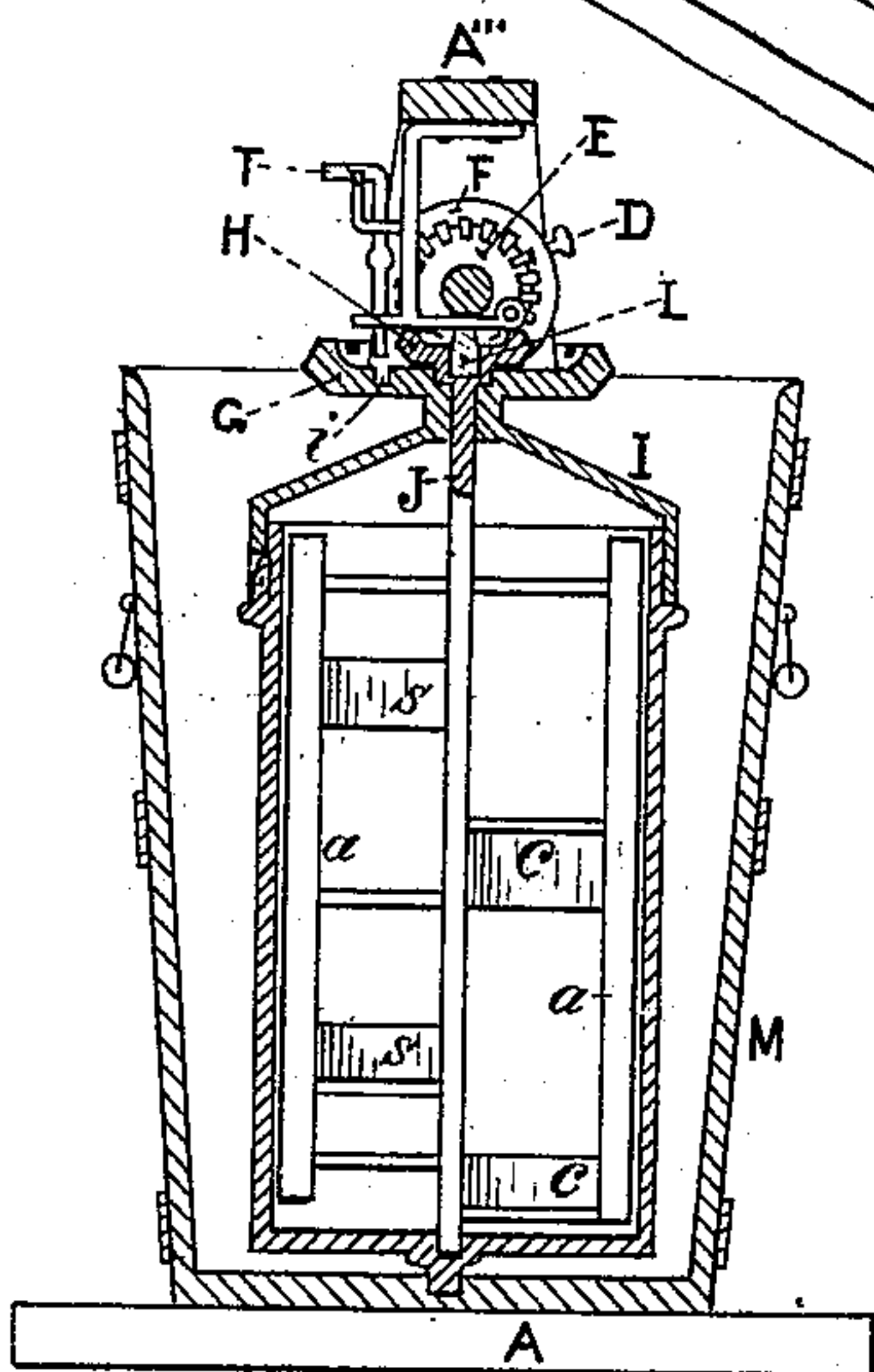


FIG. 2.

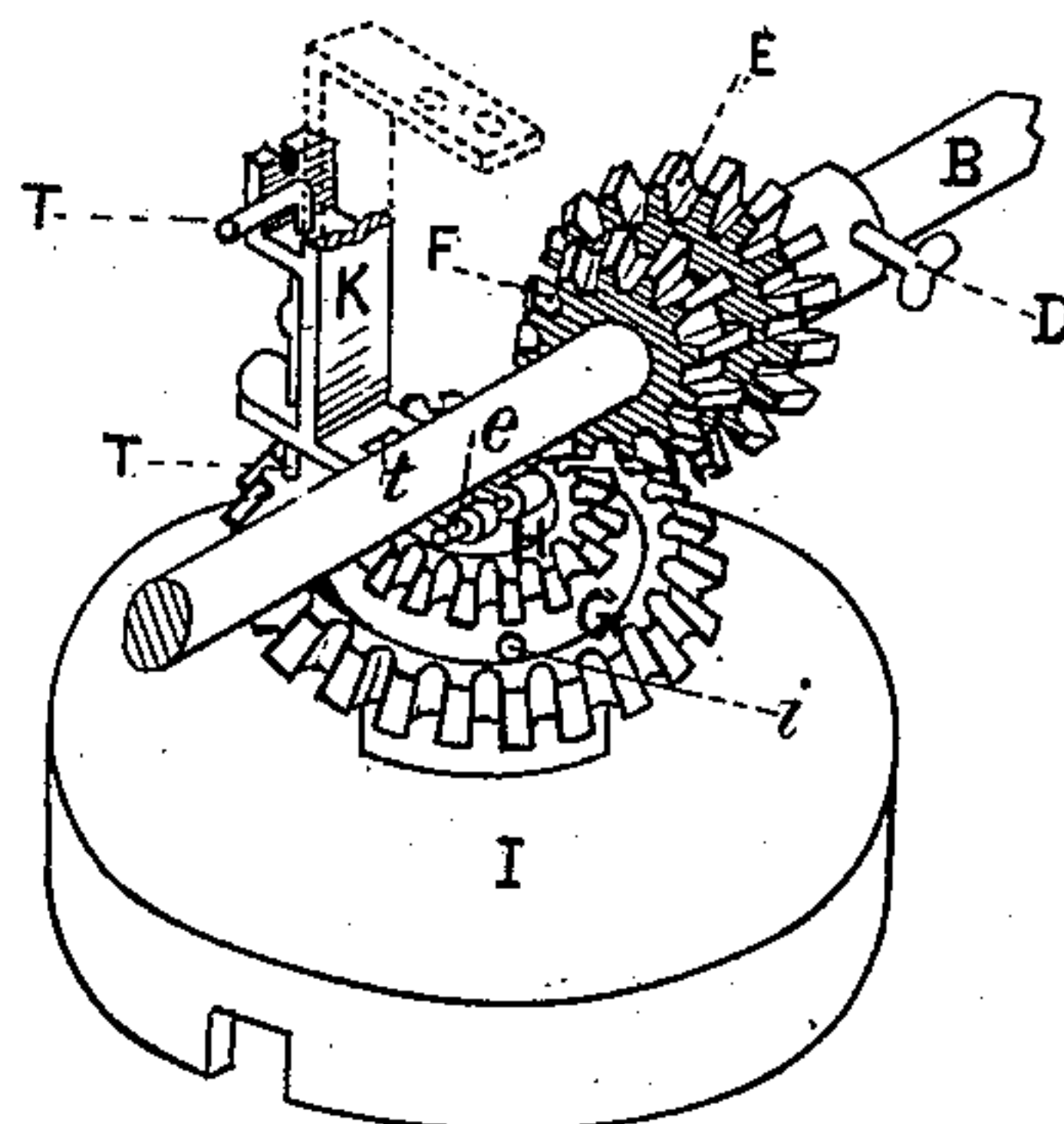


FIG. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK E. WHITNEY, OF BOSTON, AND CHARLES W. KILLAM, OF CHELSEA,
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ICE-CREAM FREEZER.

SPECIFICATION forming part of Letters Patent No. 227,665, dated May 18, 1880.

Application filed August 1, 1879.

To all whom it may concern:

Be it known that we, FRANK E. WHITNEY, of Boston, in the county of Suffolk and State of Massachusetts, and CHARLES W. KILLAM, of Chelsea, in the county and State aforesaid, have invented certain new and useful Improvements in Ice-Cream Freezers, of which the following is a specification.

The object of our invention is to reduce the power necessary to revolve the can and the beater during the operation of freezing as heretofore, wherein the can and beater have been revolved in opposite directions; and it consists, principally, in certain gear mechanism whereby the can and beater are revolved in the same direction, and one at a slightly-increased speed above the other, one making about six revolutions while the other makes eight, by which means the freezer and contents are revolved much easier, and the cream is scraped from the sides of the freezer or can as fast as it is frozen without "beating," which renders the cream nicer or smoother, as it is not "frothed up" while freezing, and when sufficiently frozen may be beat up light by revolving the "beater" while the can is held stationary, and in further details of construction, combination, and arrangement of parts, as hereinafter more fully described and set forth.

Figure 1 is a perspective view of our invention. Fig. 2 is a vertical central section of the same. Fig. 3 is a perspective view, showing the gear mechanism detached from the frame.

A represents a suitable frame, constructed of wood, and consisting of a base-piece, A, having permanently attached thereto, near each end, the vertical standards A' A'', to the top of which is secured the horizontal cross-piece A''', and passing through holes formed near the upper ends of the said standards, and beneath the cross-piece A''', is provided a horizontal shaft, B, having at one end a hand-crank, C, or other means for communicating power and motion to the same. To this shaft B is secured a bevel-gear, E, by means of a thumb-screw, D, which permits this gear to be moved horizontally upon the shaft, as shown in Fig. 1, and a fixed bevel-gear, F, of smaller diameter, is secured to this shaft B near the larger gear E, and beveled in the same direction as the former,

which gears into the larger bevel-gear G, secured to the top of the ice-cream can I, while the gear F meshes or gears with the small bevel-gear H, which is secured to the upper end of the beater-shaft J, which is provided with a coupling-piece or journal-pivot, L, which has a bearing in the center of the bevel-gear H at its lower end, while its upper end is formed square or flattened, and is retained in position by being placed within the slot *t*, formed in the lower end of the stirrup K, secured to the cross-piece A'''. This short journal-piece L is retained within the slot *t* of the stirrup K by means of a pin, *e*, which is passed through holes formed in the ends of the stirrup, as shown, and is removed to let the short journal-piece L slide out from between the prongs or from the slot in the lower end of the stirrup, in order to permit the ice-holder M and cream-can I to be withdrawn from the frame A' A'' by removing the vertical sliding bolts N N' at each side of the holder M, which is provided with projecting ears O O', which pass between or in contact with the clips P P', secured to the inside surface of the vertical standards A' A'', the clips and ears being provided with suitable holes to receive the vertical sliding bolts N N', as shown.

It will be seen that by means of the bevel-gears E, F, G, and H the cream-can I and the beater J *a c s* are caused to run or revolve in the same direction, by which means a great amount of power is saved while the cream is being frozen, and that the variation in speed between the two is just sufficient to allow the vertical beater-blades *a* to cut or scrape the cream from the inside or inner sides of the cream-can I as fast as it is frozen, and without beating unnecessarily and injuriously the cream before it is properly or sufficiently frozen, and when it is completely frozen the gear E is loosened by turning the thumb-screw D, and is slid upon the shaft B out of gear with the cream-can, and then the vertical bolt T is let fall or slid downward until its lower end engages with the hole formed in the upper surface of the bevel-gear G, secured upon the top R of the cream-can I, so as to prevent it turning while the beater inside is being revolved. The horizontal inclined blades *c* tend to throw or

move the ice-cream upward. The horizontal inclined blades *s* tend to move the same downward, by means of which the ice-cream is very evenly and quickly beaten up light, which result is very desirable.

Thus it will be seen that by means of our invention a great amount of hard labor or power is saved, and the cream is frozen and beat up in a superior manner.

10 It will be evident that the ice-cream can may be arranged to revolve at a greater speed than the beater, and thus accomplish the same result as contemplated by our invention, the essential feature of which consists in revolving
15 the beater and cream-can both in the same direction and one at a higher rate of speed than the other.

Having thus described our invention, what we claim is—

1. In combination with the shaft B, provided 20 with the bevel-gear F and having the adjustable bevel-gear E, the bevel-gear G, attached to the cream-can and having the hole *i*, and the stirrup K, having the sliding bolt T, and the gear H, attached to the beater, sub- 25 stantially as and for the purposes set forth.

2. In combination with the stirrup K, having the slot *t*, the pin *e* and pivot L, for supporting the cream-can in position, essentially as and for the purposes set forth.

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Witnesses:

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