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PATENT SPECIFICATION

Convention Date (Germany) : Dec. 1, 1923.

225,496

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Complete not Accepted.



COMPLETE SPECIFICATION.

Improvements in Machines for Freezing Materials.

We, BING-WERKE vorm. Gebr. Bing A.-G., of Blumenstrasse 16, Nurnberg, Germany, German joint stock company, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

Machines for freezing material such as for use in connection with making ice-cream or frozen food are known in which a rotating container containing the material to be frozen, is placed in an outer isolation vessel which receives the cold producing mixture. The isolating vessels hitherto used however either cover the material to be frozen from above imperfectly or not at all so that the freezing action is considerably reduced.

According to the present invention the material to be frozen in the container is isolated on all sides, that is, from above as well as the sides and bottom. This is secured by using for the purpose of closing the ice machine two isolating lids, one of which closes the isolating vessel and by means of a neck-shaped projection forms the top support for the inner recipient, while the second lid closes this latter recipient. Both lids are provided with over-lapping cylindrical jacket flanges so that the ring joint between the isolating vessel and its lid and those between the two lids are shut off. The lid closing the inner container is further, according to this invention, provided with slots into which pins provided on the container enter. The simple coupling up thus secured between the inner container and the lid enables the container to be rotated simultaneously with the lid.

Our invention will be clearly understood from the following description aided by the annexed drawings which

illustrate one example of carrying our invention into effect and in which

Figure 1 is a longitudinal section of a machine and Figure 2 a cross section on the line A—A on Figure 1.

The ice machine consists essentially of the double wall cylindrical isolation vessel *a*, the hollow space of which is filled with a lagging (non-conductive) substance; the container *b* for the material to be frozen; and the two lids *c* and *d*. The container *b* is supported at its lower end in a bearing *e* and at its upper end is passed through a neck-shaped projection *f* of the lid *c*. In order to receive the upward thrust of the container *b* the latter is provided with a projection or pin *g* which abuts from below against a ring *r* secured to the inside of the outer (isolation) vessel *a*. A bulge or loop *h* in the ring allows of inserting the pin *g* and securing it by bayonet fastening by rotating the container *b*.

The lid *c* engages with a flange *i* over the edge or joint *k* between the isolation vessel *a* and the bottom lid surface. The lid *d*, provided with a handle *l*, engages with a flange *m* over the neck-shaped projection *f* of the lid *c* and covers over the joint or edge *n* between the two covers *c*, *d*. At the upper end of the container *b* there are two or more pins or projections *o* which fit into recesses *p* in the lid *d*.

The method of action of the machine is as follows: The container *b* filled or partly filled with the material to be frozen is inserted in the isolation vessel *a*, the cooling mixture is placed into the latter, thereupon the lid *c* and afterwards the lid *d* are put on. The container *b* is now surrounded on all sides by the cooling mixture or the isolation (non-con-

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ductive) lids *c, d*. By rotating the lid *d* to and fro the inner container *b* is rotated so that the uniform interchange of cold on all sides is secured.

5 The advantage of this ice machine lies in the fact that owing to the isolation on all sides the material in the container *b* is very speedily frozen and the moving and rotating process is almost superfluous.

10 Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

15 1. In a machine for freezing material with an inner rotatable container and an outer isolation vessel, providing two lids for closing the machine, one of which shuts off the isolation vessel and at the

same time serves as a guide for the inner 20 container while the second lid shuts off the inner container.

2. In a machine for making food ice according to Claim 1, providing that the second rotatable lid is detachably coupled 25 with the inner container and by means of a flange engages over a neck-shaped projection of the first lid.

3. The improved machine for freezing material constructed substantially as 30 described with reference to the annexed drawings.

Dated this 18th day of March, 1924.

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Fig. 1

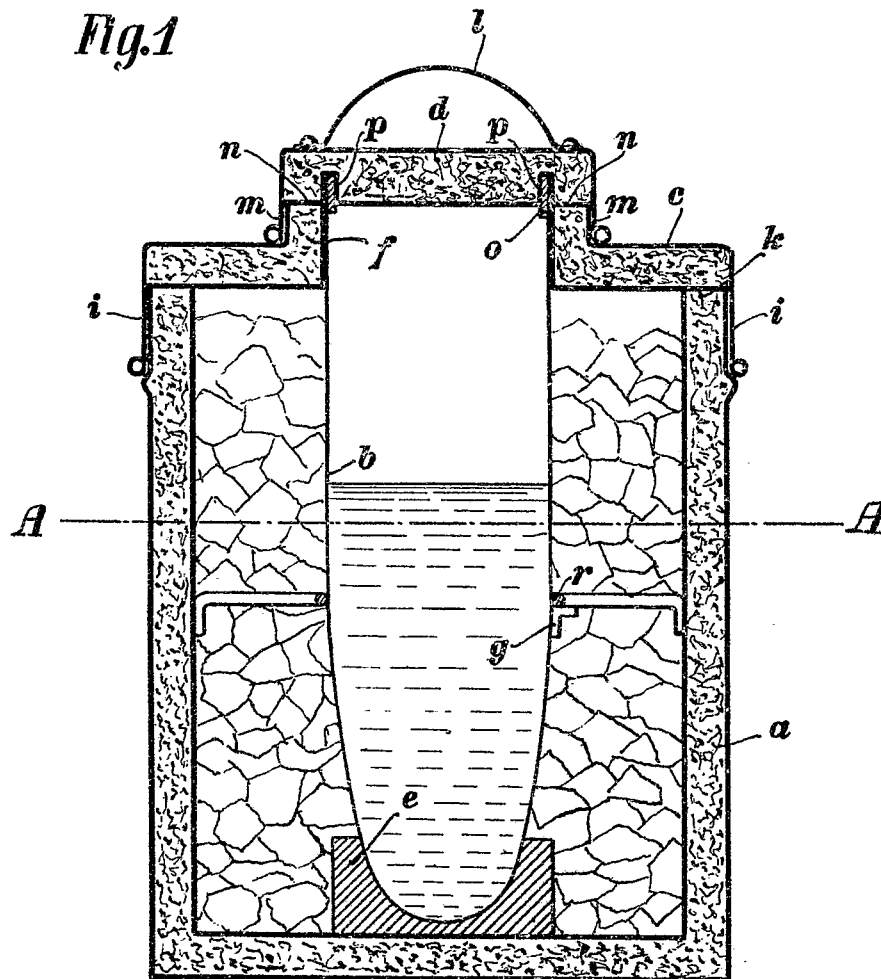


Fig. 2

