



Date of Application, 13th Feb., 1902—Accepted, 10th Apr., 1902.

COMPLETE SPECIFICATION.

“Improvements in and connected with Sterilizing Apparatus

I, FRANZ FÜRSTENHEIM, of the Firm trading under the style of J. Hirschhorn, of Köpnickstrasse, 115, Berlin in the Empire of Germany, Doctor of Medicine, 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:

The present invention relates to an apparatus by means of which liquid to be sterilized, for instance milk, can be maintained for a considerable time with approximate constancy at a temperature at which injurious bacteria are already destroyed but at which the liquid does not acquire any properties injurious to its digestibility. For this purpose a suitable quantity of a solid material burning slowly and without flame, for instance, charcoal or the like, is placed on a grate underneath the sterilizing vessel and made to glow by means of a spirit flame.

The annexed drawing represents one form of the device in connection with a sterilizing apparatus.

Fig. 1 is a vertical section through the centre of the apparatus and Fig. 2 a cross section through the support or stand, perpendicular to the section shown in Fig. 1. The base *a* of the support of the apparatus carries on small pillars *b* a ring *c* on which the sterilizing vessel *d* is placed. To this ring *c* a grate is secured by means of short connecting pieces *e*. In the example illustrated the said grate consists of a suitably perforated plate *f*. On the underside of the latter two guides *g* are provided in which a slide *h* can be moved.

Before the bottles *l* containing the liquid to be sterilized are placed in the vessel *d* the latter is filled with water up to the rim *m* formed by a bulge or the like and is heated to boiling point on an ordinary stove or the like. At the same time a certain quantity of the flamelessly and slowly burning material already referred to such as charcoal or the like, is placed on the grate *f*. In the example illustrated this combustible is caused to glow by means of a lamp *k* burning liquid combustible. While this is being done the slide *h* is in the position shown in dotted lines in Fig. 1, so that the flame of the lamp *k* can pass through the grate *f* and come into contact with the combustible *i*. When the latter is thoroughly glowing the plate *h* is pushed from the position shown in dotted lines to that shown in solid lines so that it prevents further action of the igniting flame on the solid combustible *i*. After a measured quantity of cold water has been added to the boiling water the vessel *d* is placed on the ring *c*. The bottles *l* which have previously been separately warmed, are placed in the frame *o* and the latter is then placed in the water, the temperature of which is below boiling point, for milk preferably 63° C.

The glowing combustible *i* or the like, which burns very slowly, maintains the water in the vessel *d* at the desired temperature during the period required for sterilization, for milk, for example 1½ hours. After this space of time the bottles *l* are removed from the vessel *d* and kept in a cool place until used.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I declare that what I claim is:

Apparatus for the purpose of maintaining sterilizing apparatus during a con-

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siderable period at an approximately constant temperature consisting of a grate for the reception of charcoal or other suitable combustible arranged underneath the sterilizing apparatus, said combustibles being caused to glow by a flame placed beneath the grate and adapted to be removed from the influence of said flame by means of a slide which shuts off the said grate from below. 5

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Agents to Applicant

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FIG. 1.

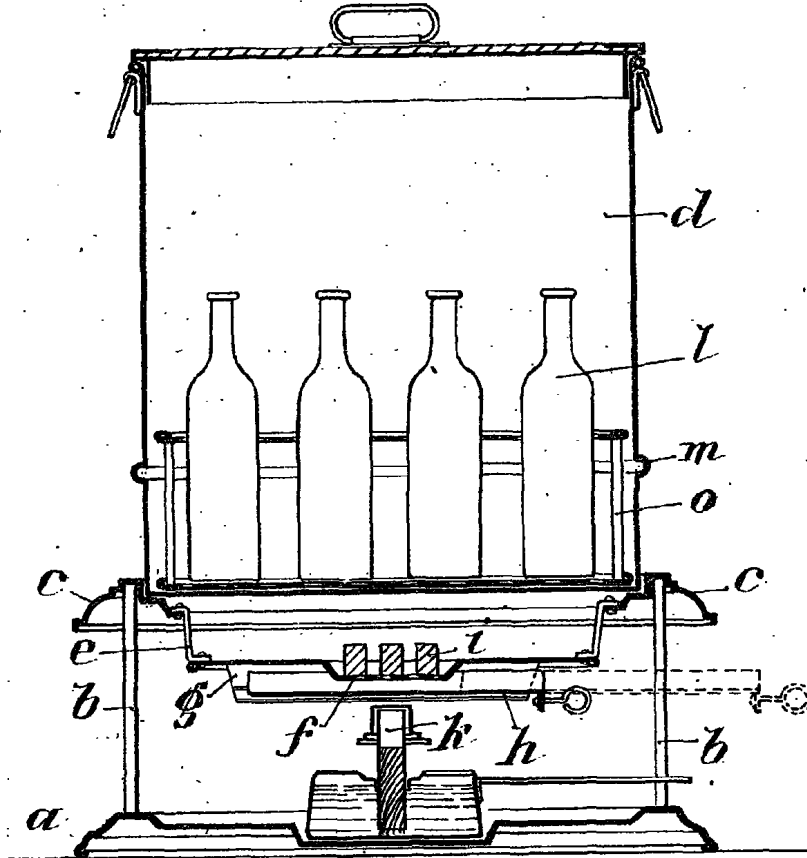
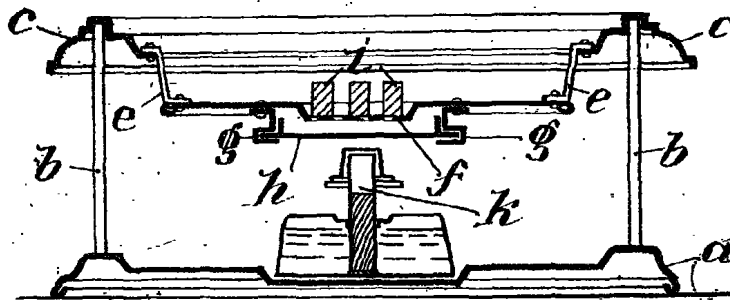


FIG. 2.



[This Drawing is a full-size reproduction of the Original.]

