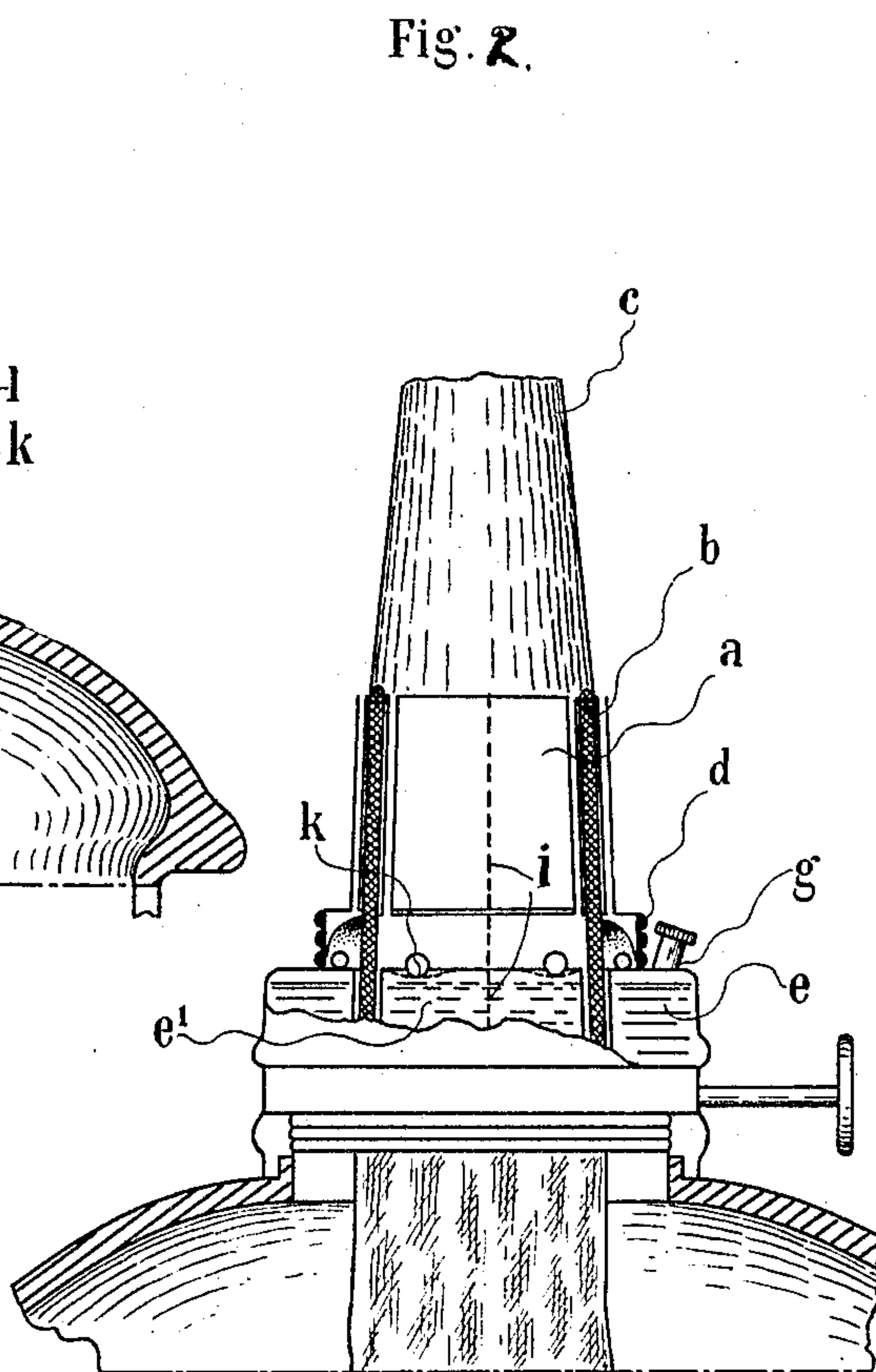
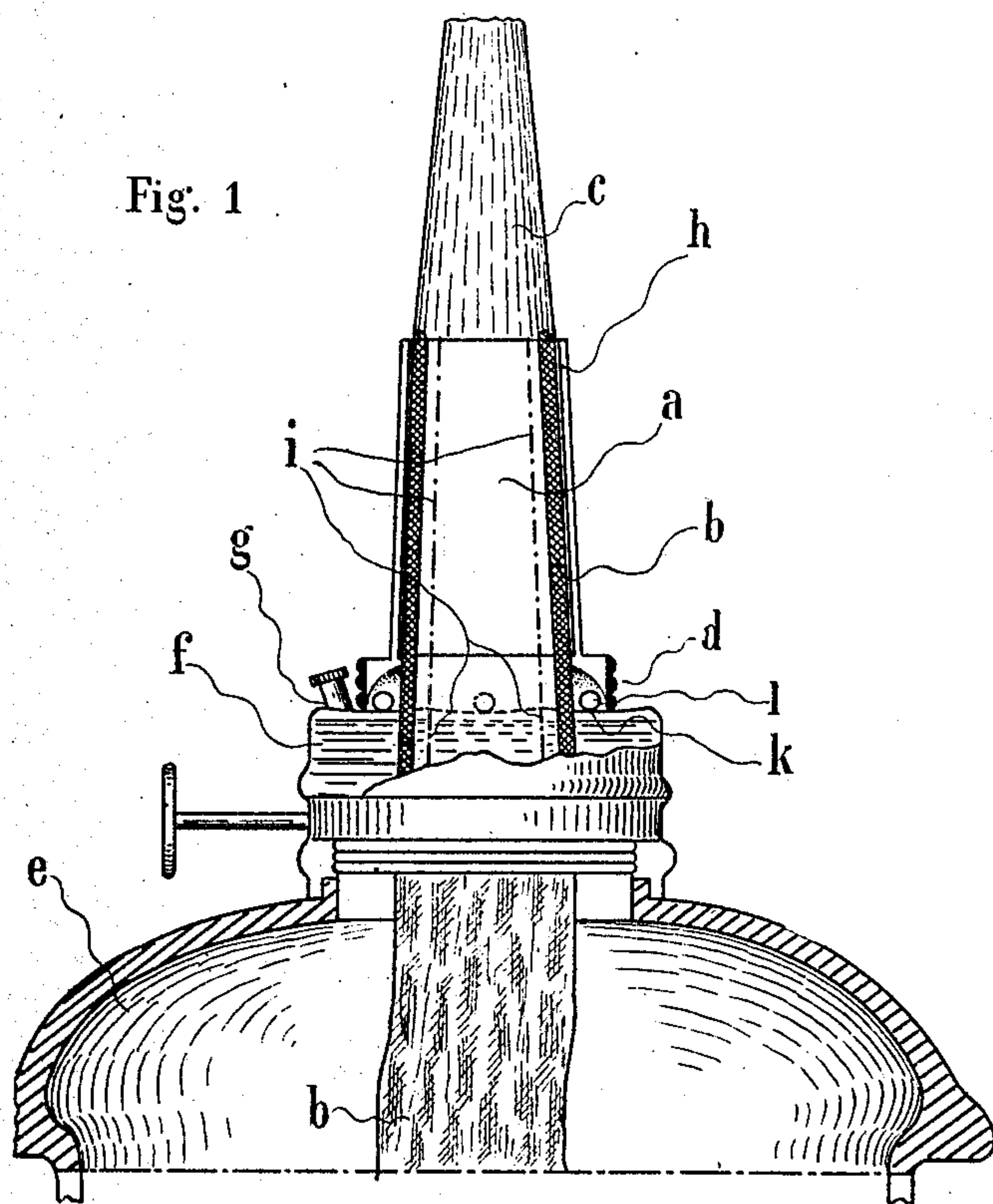


No. 872,105.

PATENTED NOV. 26, 1907.

E. BESENBRUCH.
SELF EXTINGUISHING BURNER.

APPLICATION FILED OCT. 11, 1906.



Witnesses
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UNITED STATES PATENT OFFICE.

ERNST BESENBRUCH, OF HIRSCHFELDE, GERMANY.

SELF-EXTINGUISHING BURNER.

No. 872,105.

Specification of Letters Patent.

Patented Nov. 26, 1907.

Application filed October 11, 1906. Serial No. 338,419.

To all whom it may concern:

Be it known that I, ERNST BESENBRUCH, a subject of the German Emperor, residing at Hirschfelde, Saxony, Germany, have invented certain new and useful Improvements in Self-Extinguishing Burners, of which the following is a specification.

My invention relates to burners for liquid fuels, such as paraffin, benzin and spirit. The use of such burners is attended with a certain amount of danger, as overturning of the lamp, stove, or the like, is liable to cause explosion or fire.

Attempts have already been made to overcome this drawback, for instance by the provision of mechanism which covers over or closes the wick tube and thus puts out the flame. Such prior methods, however, have not proved altogether satisfactory.

According to the present invention, I provide means whereby a fire-annihilating fluid is caused, in the event of danger, to automatically extinguish the flame.

My invention is illustrated in the accompanying drawings.

Figure 1 is an elevation and part vertical section of the burner portion of a table lamp fitted with the new device. Fig. 2 illustrates the application of the invention to a spirit cooker.

Referring more particularly to Fig. 1, *a* is the wick tube, *b* the wick, *c* the flame, *d* the screw thread to receive the gallery, and *e* the oil reservoir. The wick tube *a* is surrounded by a casing, consisting of a small closed container *f* furnished with an inlet *g* for filling, and of the jacket *h* which is of the same height as the wick tube and is open at the top. Both the container *f* and the jacket *h* are divided into a plurality of compartments (for example, three) by upright partitions *i* shown in dotted lines. The cover of the container *f* constitutes a trough for each compartment, having an aperture *k* upon which lies a ball *l*.

The container *f* is filled with a fire-annihilating fluid, such as tetra-chlorid of carbon,

which distributes itself through minute perforations in the partitions *i*. Should the lamp be overturned, the ball *l*, which until now has prevented evaporation of the fluid, will roll away from the aperture *k* and the fluid will run into the jacket *h* and thence into the flame *c*, which in this wise will be immediately extinguished.

All three compartments will empty themselves, but the one which is uppermost when the lamp is tilted over or lying upon its side will discharge itself first—and this is the peculiar advantage of the partitions *i*—since the jacket *h* at that time constitutes a downwardly inclined plane, along which the fluid can rapidly run. It thus flows directly into the flame.

Fig. 2 shows the application of the invention to a spirit cooker. The arrangement is the same as in the case of the lamp shown in Fig. 1, except that two reservoirs for the extinguishing fluid are used, one *e* surrounding the burner, and an inner annular one *e'*. The fire-annihilating fluid can thus attack the large ring of flame from both sides.

What I claim and desire to secure by Letters Patent is:—

In lamps, stoves and the like for liquid fuel, the combination with the wick tube, of a jacket surrounding the same and divided by vertical partitions into compartments, a reservoir for extinguishing fluid also divided by partitions into compartments communicating with those of the wick tube, the partitions of the reservoir being perforated, a cover for the reservoir having openings in depressed portions, and a ball adapted to close each of the openings when the lamp or stove is upright and roll away from it when the lamp is tilted over, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ERNST BESENBRUCH.

Witnesses:

HERMANN SANN,
HANS TURCHER.