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H. KRÜMLING.
STOCK NURSING APPLIANCE.
APPLICATION FILED FEB. 2, 1906.

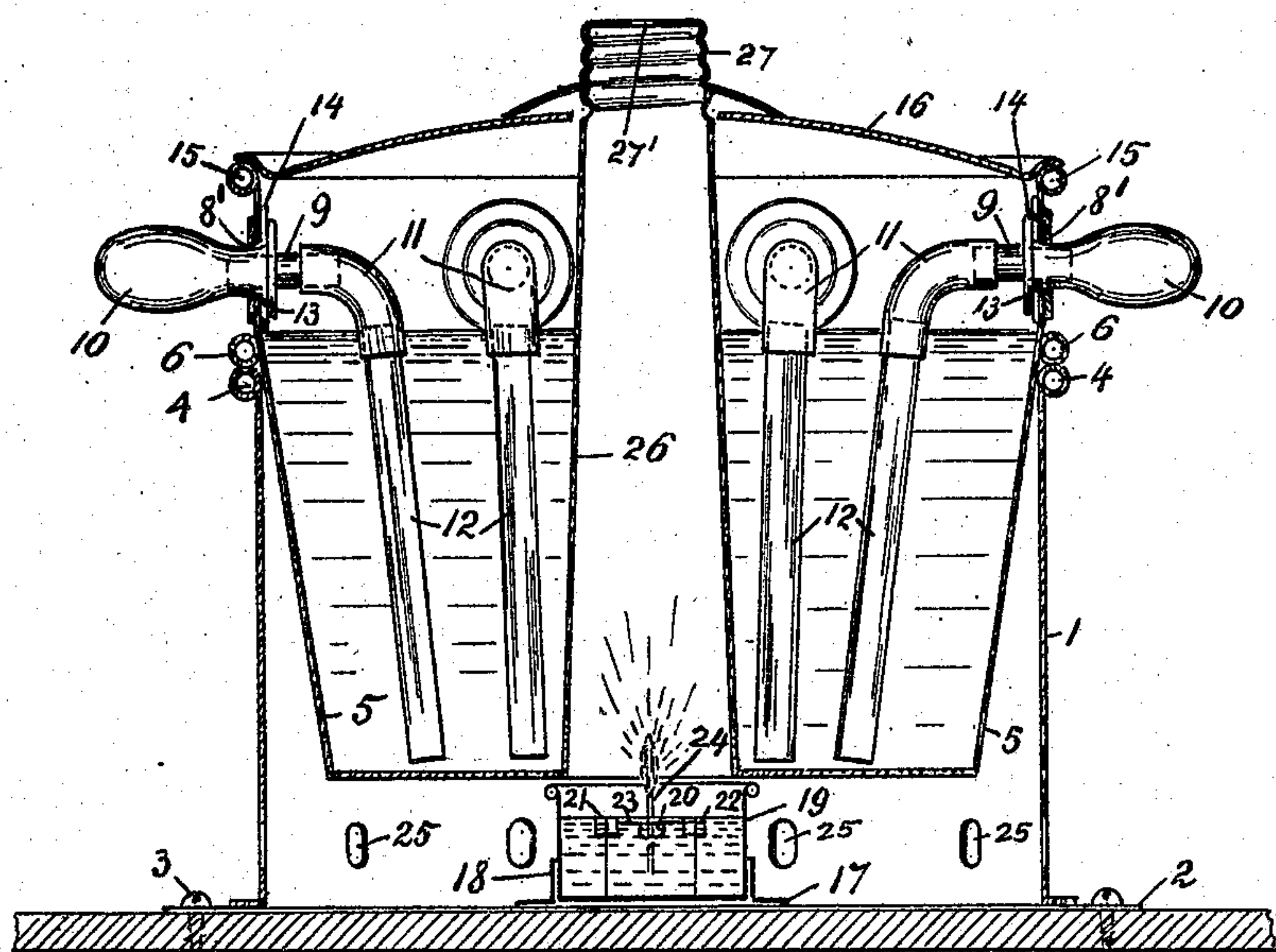


Fig. 1

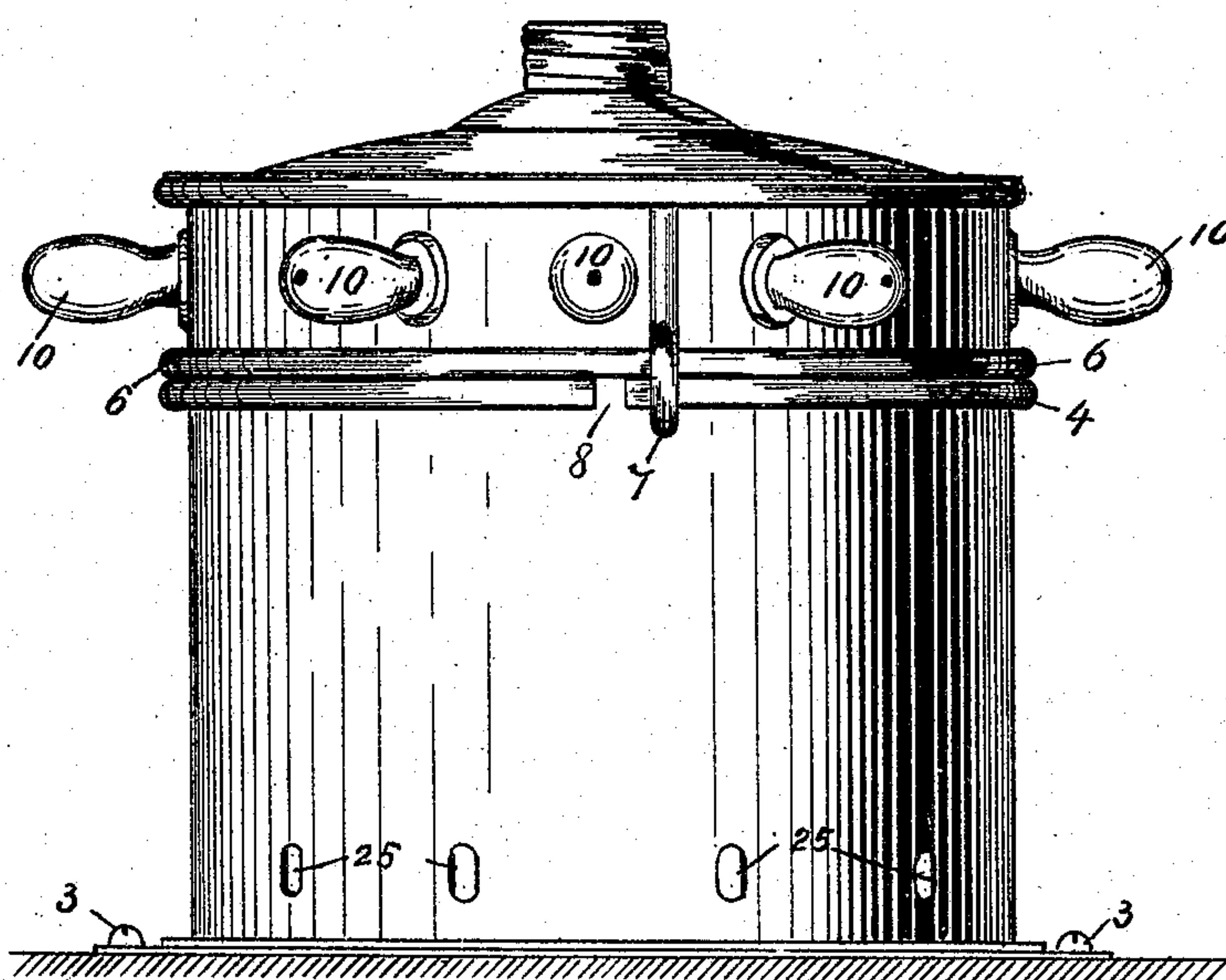


Fig. 2

Witnesses
J. C. Goosmann
Max Stengel

Inventor
Heinrich Krümling
By Robt. Klotz
Att'y.

UNITED STATES PATENT OFFICE.

HEINRICH KRÜMLING, OF CHICAGO, ILLINOIS.

STOCK-NURSING APPLIANCE.

No. 840,632.

Specification of Letters Patent.

Patented Jan. 8, 1907.

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To all whom it may concern:

Be it known that I, HEINRICH KRÜMLING, a citizen of the United States, residing in the city of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Stock-Nursing Appliances, of which the following is a specification.

My invention is particularly applicable for the nursing of small or young animals, inas-
much as it provides means whereby young and dependent animals may be furnished with food, which they obtain from the receptacle containing it, in a manner resembling the natural process very closely. It is of the utmost importance that the food so furnished is of a temperature which corresponds with that of the animal. This point has been entirely neglected in the usual means employed for the purpose. Another detrimental feature of the apparatus now in use is in the fact that apparently no attention has been paid to the safe application of the device in a barn as regards protection against fire. The usual means by which heat is furnished consists of a kerosene-lamp, which in itself does not contain the desirable protection against fire. Furthermore, the heat generated by this means is so intense that the temperature of the food is often raised to a point where it becomes harmful when imbibed.

The object of my invention is to furnish the food at the natural temperature and to employ such means for the heating of it as will diminish the fire risk. With this object in view my invention has been designed, and the novel features of construction and their combination are hereinafter fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation through the center of my invention. Fig. 2 is an elevation showing the exterior view of the device.

Like parts are identified by the same reference characters throughout both the views.

A sheet-metal cylinder 1, open at the top, having the form of a large tin can, is flanged at the bottom and riveted or soldered to bottom disk 2, by which it is placed upon the floor or other support and secured to the latter by means of screws 3. The upper edges of can 1 are rolled outwardly, forming a rim 4, as shown. A liquid-containing cylindrical receptacle 5, tapering slightly toward the bottom, fits into can 1 and is provided with

a flange-ring 6 at a suitable height, which latter rests upon the corresponding flange-ring 4.

Receptacle 5 is securely fastened to the bottom part 1 by means of vertical wire clamps 7, which are so bent as to fit tightly around the ring-rolled margin 4. Clamps 7 slip through apertures 8, with which margin 4 is provided. By turning receptacle 5 in the horizontal plane clamps 7 engage margin 4, locking receptacle 5 securely to its base 1.

Near its upper edge the receptacle is provided with a series of holes 8'. Through each of these holes a short tube 9 is inserted, containing on its outer end suction-nipple 10 and on the opposite end a flexible elbow 11. The connection between elbow 11 and the food contained in receptacle 5 is made by tubes 12, which extend downwardly within the receptacle to the bottom thereof.

Suction-nipple 10 is inserted through hole 8 and secured in its position by an enlargement 13 in connection with washer 14, so that it cannot be removed or slipped off tube 9 by pulling or sucking thereon. Tubes 12 are preferably made of glass and are held in position by flexible elbow 11, which slips over the upper end of the tube.

The upper edge of receptacle 5 is again rolled outwardly into a margin-ring 15, and an arched cover 16 fits snugly over the receptacle, resting with its outer flange upon margin 15.

In the center of base-disk 2 a flange-ring 17 is located, its upper shank 18 being sufficiently high to form a suitable receptacle for cylindrical can 19. This can is filled to about two-thirds of its height with a slow-burning oil. A swimmer consisting of three cork disks 20, 21, and 22, which are held together in the form of a triangle by a star-shaped sheet-metal connecting-piece 23, contains in its center wick 24, which when lighted consumes the oil in can 19 slowly, thereby maintaining an even and moderate temperature of the milk or other food contained in receptacle 5. In the event that one wick does not provide the required heat a second and, if necessary, a third wick, all of which are carried by the same float, may be added.

The air required in the combustion of the oil enters through small oblong holes 25, which are located in 1 near the bottom of the base, as indicated.

Receptacle 5 contains in its center a vertical flue 26. The hot products of combustion

tion escape through this flue and out through a small air-hole 27' in cap 27. The milk within receptacle 5 absorbs considerable heat from the escaping hot combustion-gases through the metallic wall of flue 26, which serves to maintain the desirable degree of temperature.

The upper end of flue 26, which extends through an aperture in cover 16, is provided with a suitable thread. Cap 27 is tapped correspondingly, and when the latter is put into the position as shown it bears upon arched cover 16, securing the latter to the device and preventing its displacement by the animals.

The floor around base-plate 2 may be covered with straw, thereby forming a warm resting-place for the animals.

The nipples 10 are made of india-rubber, and the material used in the construction of the device is so selected as to allow of its being sterilized from time to time.

When it is desired to refill receptacle 5, cover 16 is removed by unscrewing cap 27. The heating attachment can be removed by disengaging clamps 7 from margin 4, whereupon the receptacle may be lifted from the base 1, thereby exposing heating appliance 19 with its swimmer 20 21 22.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following details of construction:

1. In an apparatus of the described class, the combination of a heated receptacle with a plurality of suction-nipples inserted through corresponding holes in the said receptacle, a washer for each suction-nipple and an enlargement upon each suction-nipple for the purpose of securing the said suc-

tion-nipples to the heated receptacle inwardly thereof, substantially as described.

2. In an apparatus of the described class, the combination, of an inclosure with a heated receptacle containing a heating-flue, a cover, which closes the heated receptacle and containing an aperture through which the said heating-flue passes, a screw-thread upon the upper end of the said heating-flue, and a screw-cap fitted to the thread of the said heating-flue whereby the said cover is securely fastened to the heated receptacle, substantially as described.

3. In an apparatus of the described class, the combination, of an inclosure with a heated receptacle containing a heating-flue, a cover, which closes the heated receptacle and containing an aperture through which the said heating-flue passes, a screw-thread upon the upper end of the said heating-flue, and a screw-cap fitted to the thread of the said heating-flue for the purpose of securing the said cover therewith, a plurality of suction-nipples inserted through corresponding holes in the said receptacle, a washer for and an enlargement upon each suction-nipple whereby the same is fastened to the said heated receptacle inwardly thereof, a plurality of suction-tubes in the said heated receptacle, flexible connection between the suction-nipples and the suction-tubes and an oil-lamp in said inclosure with a swimmer carrying one or more wicks therein, for the purpose and substantially as described.

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

HEINRICH KRÜMLING.

Witnesses:

J. C. GOOSMANN,
ALBERT DUEHR.