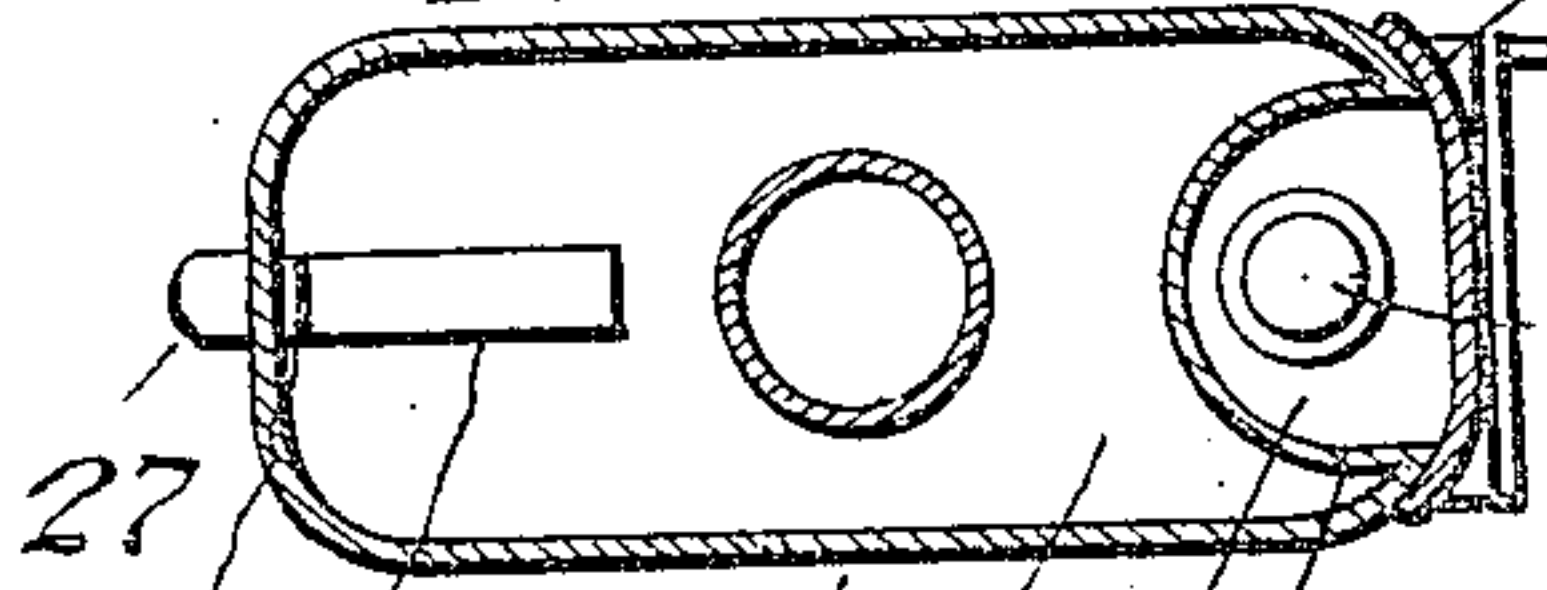
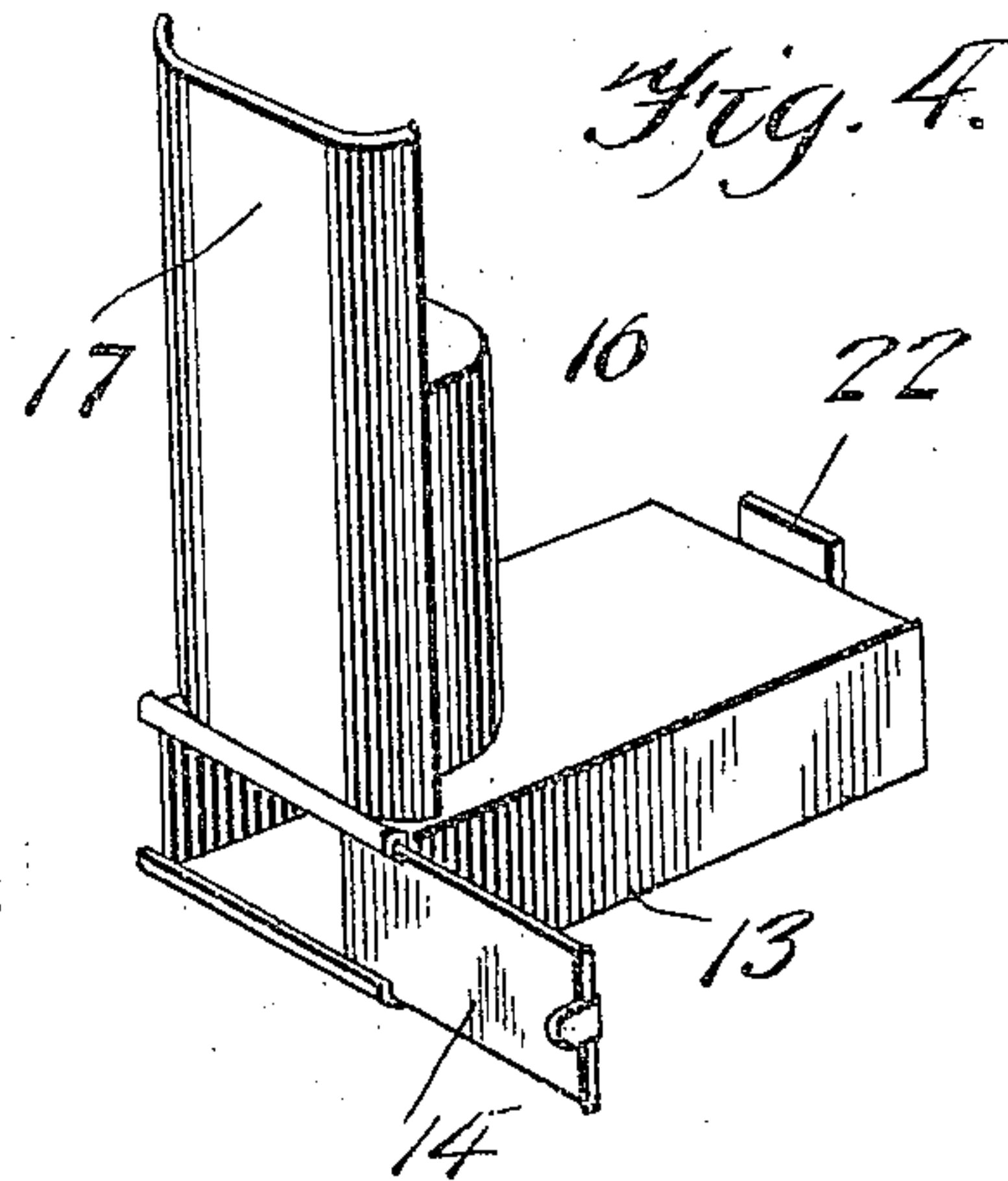
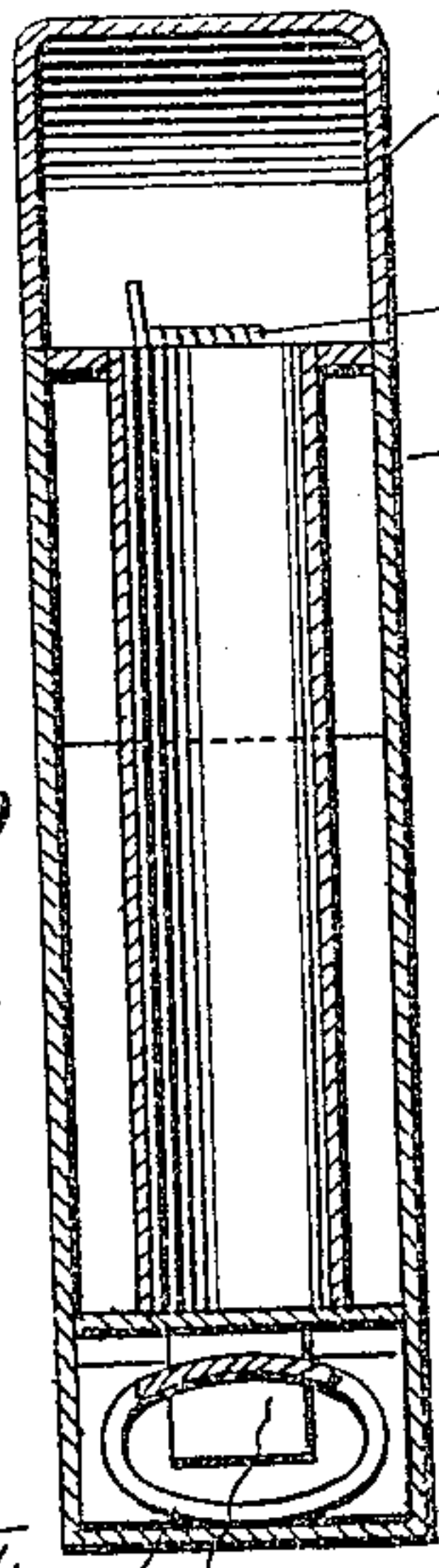
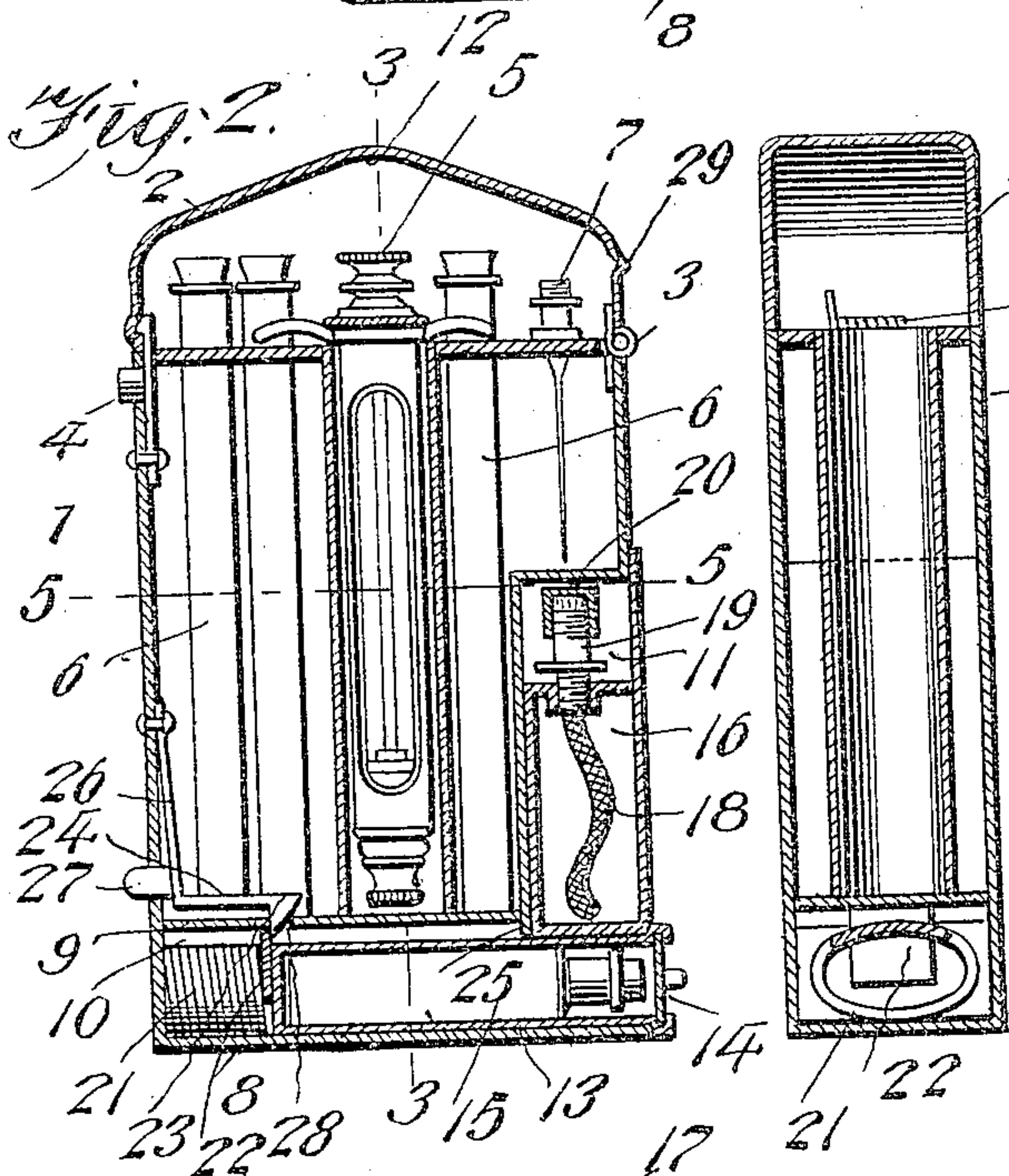
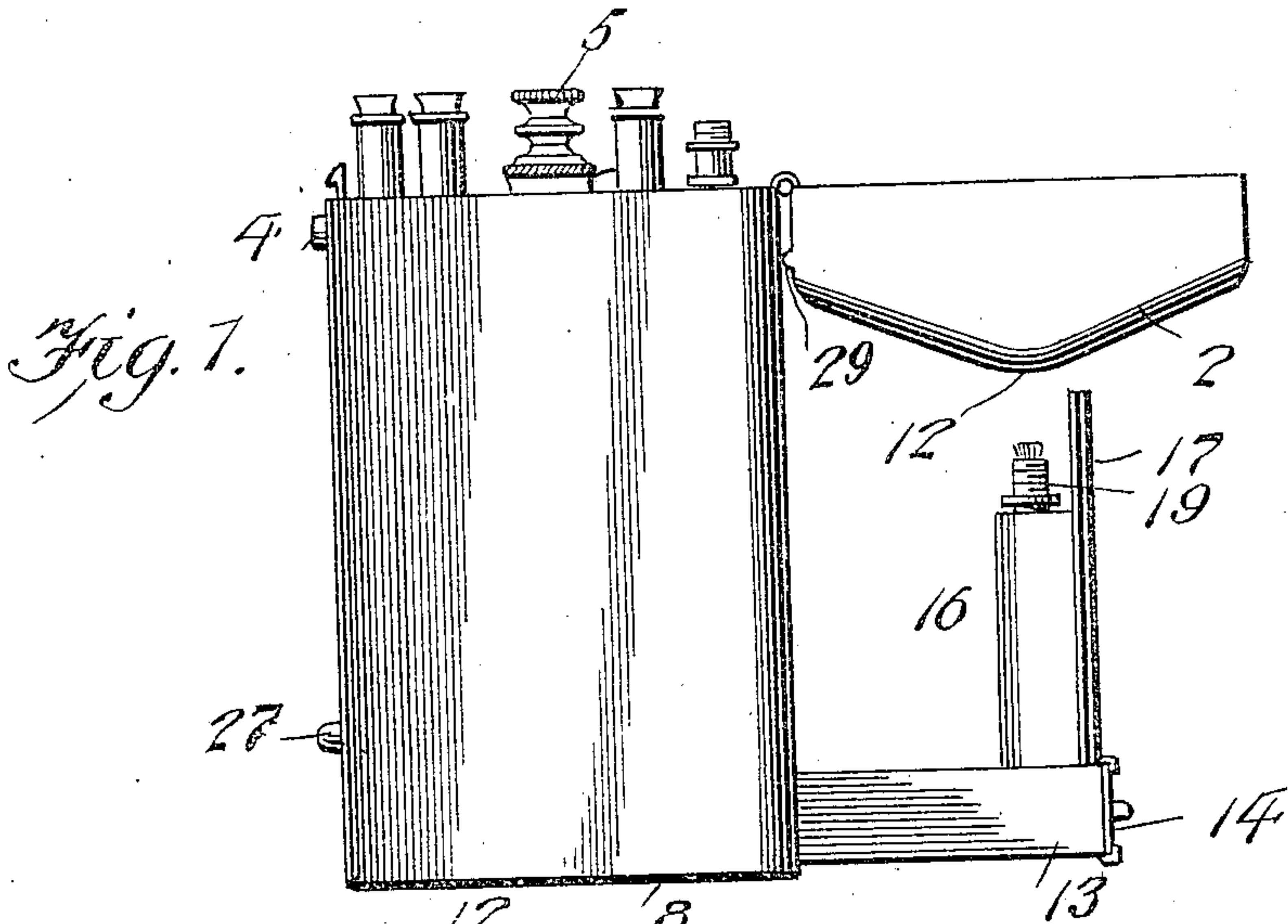


No. 824,371.

PATENTED JUNE 26, 1906.

H. C. MICHIE, JR.  
HYPODERMIC SYRINGE CASE.  
APPLICATION FILED AUG. 16, 1905.



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY CLAY MICHIE, JR., OF CHARLOTTESVILLE, VIRGINIA.

## HYPODERMIC-SYRINGE CASE.

No. 824,371.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed August 16, 1905. Serial No. 274,415.

*To all whom it may concern:*

Be it known that I, HENRY CLAY MICHIE, Jr., a citizen of the United States, residing at Charlottesville, in the county of Albemarle and State of Virginia, have invented new and useful Improvements in Hypodermic-Syringe Cases, of which the following is a specification.

This invention relates to hypodermic-syringe cases, and has for its objects to produce a comparatively simple and inexpensive device of this character embodying means for sterilizing water in which the cover of the casing may be readily utilized as a container for the water to be heated; one wherein the heating lamp or stove will normally occupy an unobstructing position, and one wherein when the parts are in active position the cover will lie properly over the lamp.

Further objects of the invention are to provide a device of this class in which the lamp-casing will be normally locked in closed position, one in which the heating device will when released be moved automatically to active position, and one wherein the outward movement of the lamp will be limited for properly positioning the same centrally beneath the water-container.

A further object of the invention is to provide a novel arrangement of the parts contained in the casing whereby the entire space within the latter will be utilized.

With these and other objects in view the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of a device embodying the invention and showing the parts in position for heating or sterilizing water. Fig. 2 is a sectional elevation, the section being taken centrally and longitudinally through the casing and the parts being shown in normal position. Fig. 3 is a section taken on the line 3 3 of Fig. 2. Fig. 4 is a perspective view of the lamp and its casing. Fig. 5 is a section taken on the line 5 5 of Fig. 2 as viewed in the direction of the arrow.

Referring to the drawings, 1 designates the syringe-case, provided with a cover 2, hinged at 3 to the case and normally maintained in closed position by means of a spring-catch 4, there being arranged within the case a syringe 5, a plurality of tubes 6, and a needle 7.

The foregoing parts, except as hereinafter explained, may all be of the usual construc-

tion and arrangement and adapted to perform their ordinary functions.

In accordance with my invention the case 1 has positioned therein at a point above and suitably remote from its bottom 8 a partition 9, which jointly with the bottom produces a chamber or compartment 10, adapted to communicate at its outer end with the lower end of a compartment or recess 11, formed in and extending longitudinally of the case, the compartment 11 being designed to open toward that side of the case to which the cover 2 is hinged, while the cover 2 is shaped, as herein shown, to present a container the bottom of which inclines downward to a central point 12 for a purpose which will presently appear. Arranged and normally housed within the compartment 10 is a box-casing 13, provided at its outer end with a sliding door or cover 14 and adapted to receive a bottle or other liquid-holding vessel 15, there being fixed on the upper wall of the casing and at the outer end of the latter a heating device or lamp 16, which is normally housed in the recess or compartment 11 and inclosed therein by means of a section or plate 17, attached to and movable with the box 13. The lamp 16 is equipped with a wick 18 and a burner 19, on which is seated a cap 20.

Disposed in the compartment 10 and in rear of the box 13 is a normally compressed coiled spring 21, preferably elliptical form in cross-section, while provided on the inner end of the casing 13 is a lip or projection 22, adapted to be normally engaged by the head 23 or a spring-latch 24, whereby the casing is maintained in normal position with the spring 21 compressed, it being noted that when the latch is manipulated for releasing the casing the latter will, through expansion of spring 21, be moved automatically to active position, as seen in Fig. 1, and in which position of the parts the lip 22 will contact with a stop or abutment 25, provided at the forward end of the compartment 10 to limit the outward movement of the casing.

By preference the latch 24 is carried at the lower end of a spring-arm 26, attached at its upper end to the case 1 and equipped with a push-button 27, projecting through a suitable opening in the adjacent wall of the casing, there being formed in the partition 9 an opening 28, through which the head 23 projects for engagement with the lip 22, attention being directed in this connection to the fact that the outer end of the head 23 is bev-



eled or inclined and will when the button 27 is pushed inward ride upward on the adjacent edge wall of the opening 28 for positive movement to releasing position.

5 In the arrangement of parts within the case 1 the needle or needles 7 are positioned directly above the compartment 11, while the syringe 5 is disposed, as usual, at the center of the case, with the tubes 6 disposed on  
10 opposite sides of the syringe, it being apparent from this arrangement that all of the space within the case is utilized and is so economized as to obviate increasing the usual dimensions of the case for the accommoda-  
15 tion of the heating apparatus other than by a slight increase in the length of the case to provide the compartment for receiving the box or casing 13.

In practice when it is desired to boil or  
20 sterilize water or other liquid for use in the syringe 5 the cover 2 is swung open to the position illustrated in Fig. 1 and the latch 24 operated to release the casing 13, whereupon the spring 21 will move the heating device 16  
25 automatically to position beneath the cover, it being noted that the outward movement of the heater is limited, as heretofore explained, thus insuring the lamp being positioned di-  
30 rectly and centrally beneath the point 12 of the cover, which latter is provided with a stop or lug 29, designed to contact with the wall of the case for limiting opening move-  
35 ment of the cover when the same arrives at true horizontal position. The slide 14 is next opened to permit removal of the bottle 15, which carries a supply of water, it being ap-  
40 parent that this water may be quickly boiled in the cover 2 by the action of heat from the lamp 16. It is to be noted in this connection  
45 that owing to the peculiar formation of the cover the smallest quantity of water contained therein will in seeking its level lie di-  
rectly above the flame of the lamp, thus to be quickly and effectually heated. It is to be  
50 observed that under this construction provision is made for readily and conveniently sterilizing water for use in the syringe and that the latter may while heating the water be at the same time boiled and sterilized pre-  
paratory for use.

From the foregoing it is apparent that I have provided a simple device which in prac-  
55 tice will admirably perform its functions to the attainment with the ends in view, it being understood that minor changes in the details herein set forth may be resorted to with-

out departing from the spirit of the inven-  
tion.

Having thus fully described my invention, what I claim as new, and desire to secure by  
Letters Patent, is—

1. In a device of the class described a case provided with a cover and a heating device normally housed in the case and designed to be positioned for heating a liquid contained  
65 in the cover when in open position.

2. In a device of the class described a case provided with a cover adapted for movement to open position, a heating device normally housed in the case and means for moving the  
70 device to a position beneath the cover when in open position.

3. In a device of the class described a case, a cover connected therewith and adapted for movement to open position, a heating device  
75 normally housed in the case, means for automatically moving the device to a position beneath the cover when in open position and means for limiting the movement of the de-  
vice.  
80

4. In a device of the class described a case provided with a movable cover constituting a container, the bottom of the latter being depressed at its center, a heating device nor-  
85 mally housed in the casing and movable to a position beneath the container and means for limiting the movement of the device whereby the latter will be positioned centrally beneath the depressed bottom of the container.

5. In a device of the class described a case  
90 provided with a movable cover constituting a container, a heater normally housed in the case, a spring for automatically moving the heater to a position beneath the container and means for limiting the outward move-  
95 ment of the heater.

6. In a device of the class described a case provided with a movable cover constituting a container, said case having a compartment, a heater normally housed in the compart-  
100 ment and movable to active position beneath the container, a spring for automatically moving the heater to active position, means for limiting such movement of the heater and means for locking the latter in normal posi-  
105 tion within the casing.

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

HENRY CLAY MICHIE, JR.

Witnesses:

THOS. P. PEYTON,  
B. P. SINCLAIR.