Dec. 2, 1924. 1,517,779

A. E. GLENN

CLINICAL THERMOMETER

Filed Jan. 15, 1924

Fig. 1.

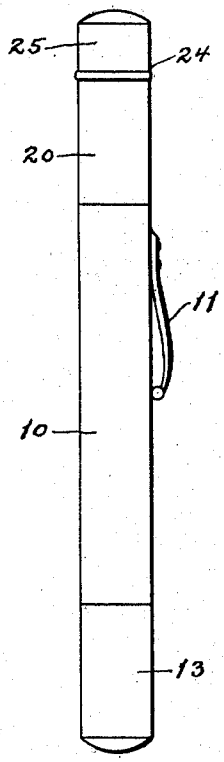


Fig. 2.

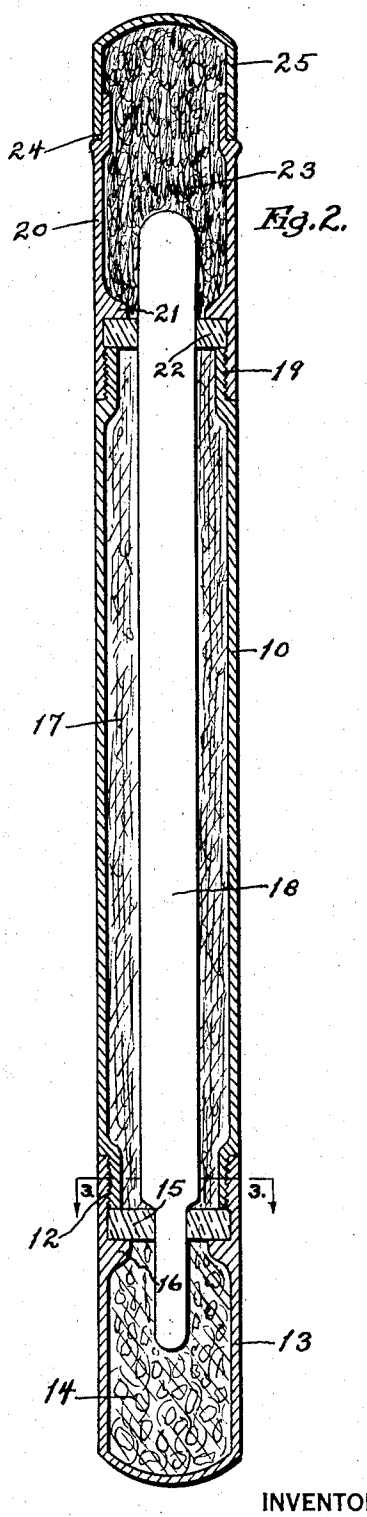
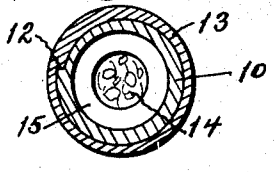


Fig. 3.



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UNITED STATES PATENT OFFICE.

ARTHUR E. GLENN, OF BOONE, IOWA.

CLINICAL THERMOMETER.

Application filed January 15, 1924. Serial No. 686,261.

To all whom it may concern:

Be it known that I, ARTHUR E. GLENN, a citizen of the United States of America, and resident of Boone, Boone County, Iowa, have invented a new and useful Clinical Thermometer, of which the following is a specification.

The object of this invention is to provide an improvement relating to clinical thermometers, and particularly in the carrying and protecting case therefore.

A further object of this invention is to provide improved means in a thermometer case for protecting the thermometer against injury and breakage.

A further object of this invention is to provide improved means in a thermometer case for automatically applying an antiseptic substance to the bulb end of the thermometer.

A further object of this invention is to provide improved means in a thermometer case for cleansing and sterilizing the thermometer preliminary to use in the mouth of a patient.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

Figure 1 is a side elevation of a thermometer case embodying my improvements. Figure 2 is a longitudinal sectional view of the same, on an enlarged scale. Figure 3 is a cross-section on the line 3—3 Figure 2, the thermometer being removed.

In the construction of the device as shown the numeral 10 designates a barrel which is of cylindrical form, open at both ends, and formed of any suitable material such as metal or india rubber. Fixed to the barrel 10 is a spring clip 11 by which the device may be detachably secured to a garment or the like. The barrel 10 is offset or shouldered at one end, externally threaded, at 12, and a base cap 13 is adapted to be screwed thereon and normally close that end of the barrel. The base cap 13 is adapted to contain and be substantially filled by a sponge 14 or other suitable elastic and absorbent material, which is adapted to be saturated by and contain antiseptic or sterilizing fluid. A resilient ring 15, of rubber or other suitable material, is mounted at the lower end of the barrel 10, in this instance being held between the end of the barrel and an internal flange or shoulder 16 formed near the open end of the base cap 13. Mounted within the barrel 10, and preferably extending from end to end thereof, is a sleeve 17, formed of sheet asbestos or other suitable resilient and somewhat absorbent material, and said sleeve is formed with a central opening to loosely receive and yet shield and protect a clinical thermometer such as 18 adapted to be carried in the case. The lower or bulb end of the thermometer is adapted to be thrust into and slightly compress and form for itself a nest in the antisepticized sponge 13, not only protecting said bulb against jars and shocks but also serving to sterilize the same. At its opposite end the barrel also is offset or shouldered, externally threaded at 19, and adapted to receive an upper cap 20 adapted to be screwed thereon. Snugly mounted in the inner end of the cap 20, and preferably seated against an internal flange or shoulder 21 therein, is a resilient ring 22, of rubber or other suitable material, similar to the ring 15 and adapted to engage and snugly hold the upper end of the thermometer 18 when said thermometer is mounted in the case and the cap mounted thereon. The cap 20 is adapted to contain a quantity of absorbent cotton 23, or similar material, which may contain a suitable sterilizing substance or medium. The cap 20 is open at its outer end, is offset or shouldered at 24 and is adapted to be closed by a short terminal cap 25 adapted to slidingly engage the offset portion 24 forming a relatively tight slip joint therewith.

In use the thermometer 18 is mounted and carried in the case as shown and described and is held rigidly at both ends by being gripped by the resilient rings 15 and 22, and is further protected between its ends, especially against breakage when the case is dropped, by the more loosely fitting sleeve 17. The thermometer is further protected at its ends by the sponge 14 and cotton 23, and the antiseptic medium in the sponge serves to sterilize said thermometer, especially at the bulb end where it is inserted in the mouth of a patient, and this is done automatically whenever the thermometer is returned to its case. When the upper cap 20 is removed by unthreading at the joint 19, the terminal cap 25 may also be removed by endwise movement, if desired, and the

thermometer passed through the cotton 23 before it is used, thereby further cleaning and sterilizing it.

I claim as my invention—

1. A case for a clinical thermometer having a screw cap at one end for the removal and replacement of the thermometer, said cap being provided with a removable closed end portion, and a cleansing and sterilizing substance mounted in the screw cap, the thermometer being adapted to be passed through the substance in said cap when the removable end is removed.

2. A case for a clinical thermometer, having a screw cap at one end for the removal and replacement of the thermometer, said cap being open at its outer end and formed with a reduced shouldered portion, a closed end portion having a sliding connection with said shouldered portion and adapted to close the outer end of the cap, and a cleansing and sterilizing substance mounted in the screw cap, the thermometer adapted to be cleansed by passing through the substance in the cap when the removable outer end portion is removed.

Signed at Des Moines, in the county of Polk and State of Iowa, this 24th day of December, 1923.

ARTHUR E. GLENN.