Nov. 25, 1930. J. A. BOUTIN 1,782,599

CLINICAL THERMOMETER

Filed Jan. 10, 1930

Fig. 1.

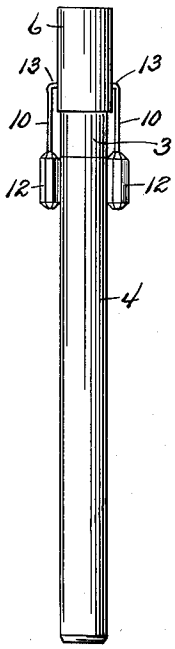


Fig. 2.

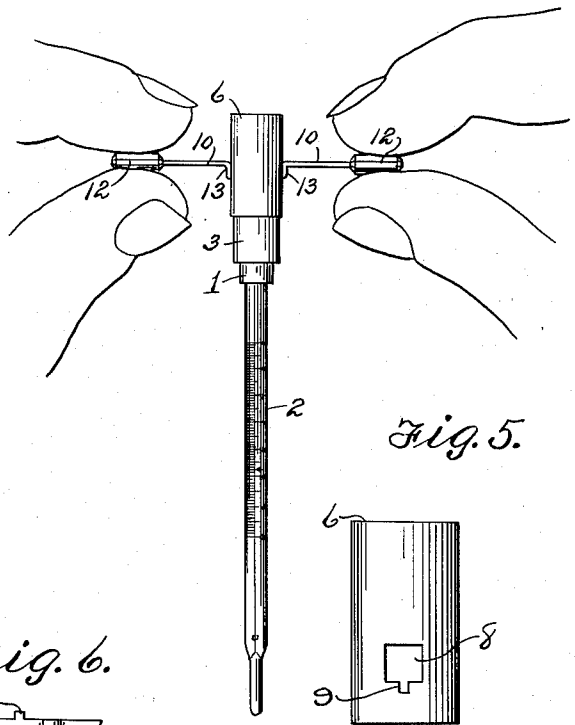


Fig. 5.

Fig. 6.

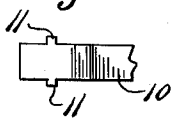


Fig. 3.

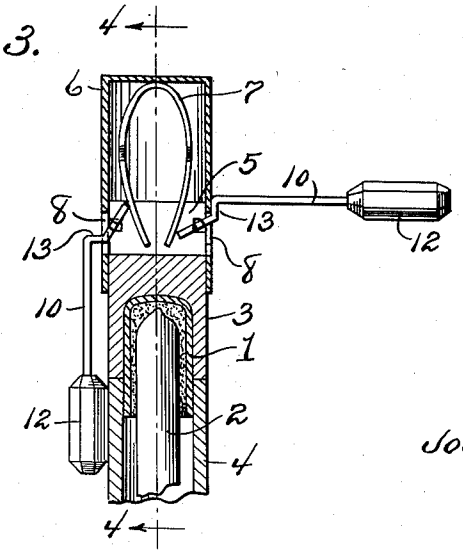
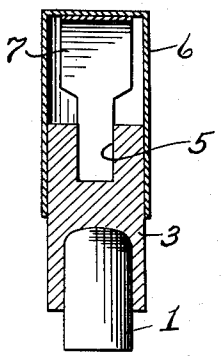


Fig. 4.



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UNITED STATES PATENT OFFICE

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CLINICAL THERMOMETER

Application filed January 10, 1930. Serial No. 419,955.

This invention relates to improvements in thermometers, the general object of the invention being to provide means for facilitating the shaking down of the mercury in the thermometer.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a view of a thermometer constructed in accordance with this invention, with the closure covering the thermometer.

Figure 2 is a view showing how the parts are held to impart movement to the thermometer to cause the mercury to descend therein.

Figure 3 is an enlarged sectional view of the parts forming the invention.

Figure 4 is a section on line 4—4 of Figure 3.

Figure 5 is a view of the cap which carries the spring.

Figure 6 is a fragmentary view of the inner end of one of the arms.

In these views, the numeral 1 indicates a small cap which is cemented to the upper end of a thermometer 2, said cap being placed in a socket in a member 3, with the lower end of the cap projecting from the member to frictionally engage the upper end of the thermometer closure 4. The upper end of the member 3 is formed with a slot 5 and a large cap 6 fits over the upper part of the member 3. A substantially U-shaped spring 7 is placed in the cap with its reduced ends fitting in the slot 5. The cap 6 is formed with the oppositely arranged openings 8 of rectangular shape, with a notch 9 in the lower wall of each opening. An arm 10 has one end extending through each opening 8 and trunnions 11 are formed on the inner end of each arm and engage the inner wall of the cap 6 adjacent the side walls of the openings 8 so as to hingedly connect the arm with the cap. The notch 9 facilitates the placing of the arm in the opening. The inner ends of the arms engage the reduced ends of the springs and a knob 12 is placed on the outer end of each arm. The spring 7 tends to hold the arms in either a position parallel with the thermometer or at right angles to the thermometer, a bend 13 in each arm preventing the arm moving beyond a horizontal position by engaging a part of the cap 6.

Thus when it is desired to cause the mercury to descend in the thermometer, the arms are swung upwardly to horizontal position and the knobs held between the forefingers and thumbs of the hands, as shown in Figure 2. Then the knobs are rolled between the fingers and thumbs to cause the thermometer to swing back and forth so that centrifugal force will cause the mercury to descend. After this has been done, the arms are pushed downwardly so that they will be out of the way when using the thermometer.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. In combination with a thermometer, a cap connected with the upper end thereof, said cap having oppositely arranged openings in its sides, arms each having an offset portion extending through the openings, means for hingedly supporting the arms in the cap, spring means within the cap engaging the offset portions for holding the arms in either a position at rightangles to the cap or in a position parallel to the thermometer, and knobs on the outer ends of the arms whereby by rolling the knobs between the fingers and thumbs, the thermometer will be given a swinging motion to cause the mercury to descend therein.

2. In combination with a thermometer, a cap connected with one end thereof, a socketed member in which the cap fits, with one end of the cap projecting from the member,

whereby a closure member for the thermometer can be placed over the projecting end of the cap and frictionally held thereby, a large cap fitting over the upper end of the member and having oppositely arranged openings therein, an arm having one end portion offset extending through each opening, trunnions on said end portions engaging portions of the inner walls of the cap for hingedly connecting the arm with the cap, a looped spring in the cap engaging the inner ends of the arms for holding said arms in either a horizontal position or a vertical position and knobs on the outer ends of the arms whereby said knobs can be rolled between the fingers and thumbs to cause a swinging movement of the thermometer to cause the mercury therein to descend.

In testimony whereof I affix my signature.

JOSEPH ARTHUR BOUTIN.