

No. 647,580.

Patented Apr. 17, 1900.

C. S. PARKER.
CANTEEN.

(Application filed Sept. 5, 1899.)

(No Model.)

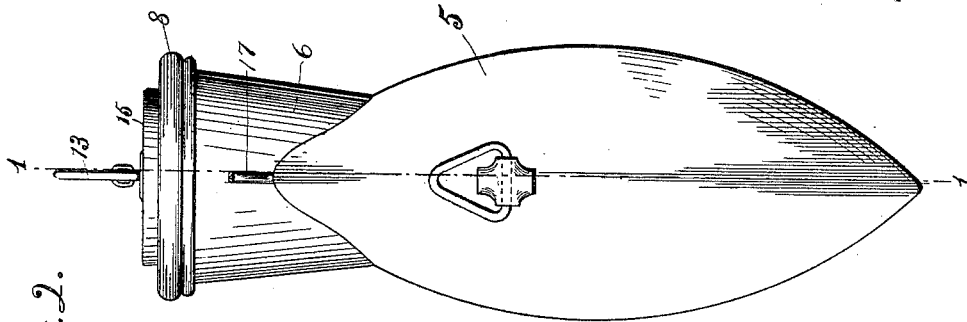


Fig. 2.

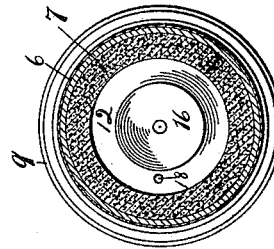


Fig. 3.

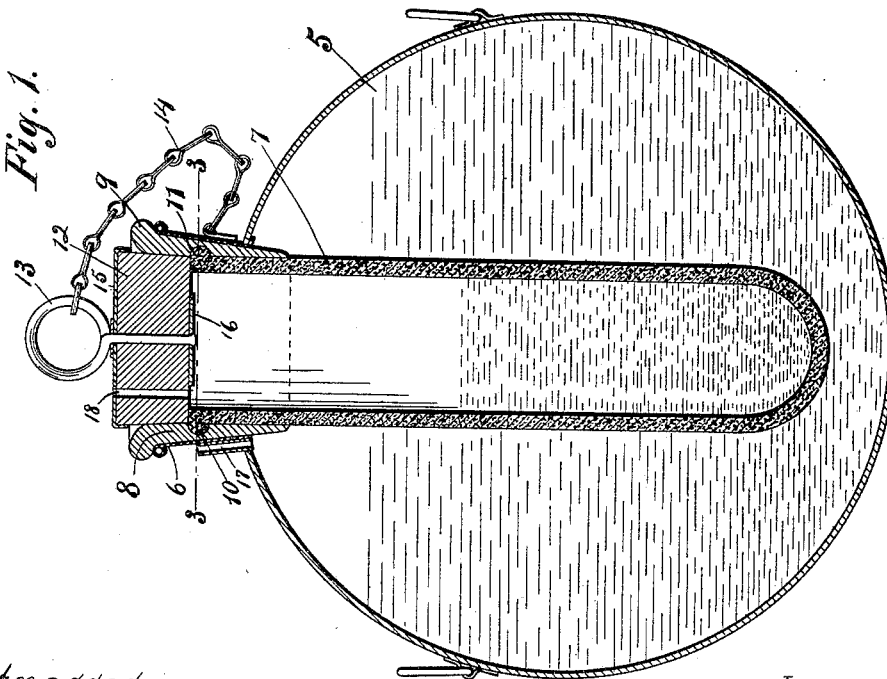


Fig. 1.

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CANTEEN.

SPECIFICATION forming part of Letters Patent No. 647,580, dated April 17, 1900.

Application filed September 5, 1899. Serial No. 729,529. (No model.)

To all whom it may concern:

Be it known that I, CAROLINE SMITH PARKER, a citizen of the United States, and a resident of Chicago, Cook county, and State of Illinois, have invented certain new and useful Improvements in Canteens, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

This invention relates to what are known as "filtering-canteens," in which a filter-tube is set within the body of the canteen and has on open end presented at the nozzle thereof, so that in withdrawing the liquid from the canteen it must all pass out through the filter.

The objects of the invention are to provide improved means for securing the filter within the nozzle and also means for facilitating the filtering action, and these objects are attained by means of the construction hereinafter fully described, and which is illustrated in the accompanying drawings, in which—

Figure 1 is a central section of the canteen on the line 1 1 of Fig. 2. Fig. 2 is an edge elevation of the same, and Fig. 3 is an inverted plan section on the line 3 3 of Fig. 1.

In devices of this kind it is of great importance that the filtering-tube shall be fitted within the nozzle in such manner that it will not only be held firmly in place and will make tight joints, but so that it can be readily removed and all of the parts separated for cleansing, and it is also important that new tubes may be readily adjusted to the canteen without necessitating the services of a skilled mechanic, and to these ends I have simplified the attaching means and provided an interlocking joint between the filter-tube and the elastic collar fitting around the same and serving as a bushing for the nozzle. It is also of importance that the filtering action be rapid; otherwise the temptation to remove the filtering-tube entirely and drink impure water when the user is wearied and has been a considerable time without a supply of water is great. It has been found in practice that when an efficient filter is employed considerable time is consumed in the transfer of the liquid through its walls. I have facilitated this action by the introduction of vents both for the body portion of the canteen and

for the filter-tube, so that the air is not obliged to pass through the walls of the filter.

Described in detail the improved canteen comprises a body portion 5 of the ordinary circular form with bulging sides and having a neck or nozzle in the form of a flange 6, which is preferably somewhat flaring. The filter-tube 7 is made of any suitable material and is closed at one end and open at the other, the closed end being inserted first and the outer end fitting within the nozzle 6. An elastic collar 8, preferably of rubber, is fitted to the outer end of the filter-tube and is adapted to enter the nozzle 6 as a bushing. To adapt the collar to the flaring form of the nozzle, the former is made tapering toward its inner end, and at its outer end it is provided with a laterally-projecting bead or roll 9, which limits the inward movement of the collar by contact with the outer end of the nozzle 6. The collar being of elastic material, it may be slightly smaller as to its internal diameter than the tube 7, so that it will be slightly stretched as it is applied to the latter, and it may also be made slightly larger than the internal diameter of the nozzle, so that in fitting it within the latter it will be somewhat compressed, thereby insuring water-tight joints as between it and the filter and also as between it and the nozzle-flange. A bead 10 is formed upon the outer end of the tube 7 and preferably extends entirely around it, although not necessarily so, and the collar 8 is provided with a corresponding groove 11 to receive this bead. By this form of construction the filter-tube is securely anchored within the collar and the necessity of employing any form of cement is entirely obviated. Furthermore, this connection between the two parts is so easily secured that any one can readily assemble them, and there is no danger of separating them in the act of withdrawing the filter for the purpose of filling the canteen.

The stopper 12, preferably of cork, fits within the outer end of the collar 8, and the end of the tube 7 serves as a stop to limit its inward movement, so that there is no danger of pressing it in so far and so tightly that it will be injured in withdrawing. This stopper is of the usual form, having a pull-ring 13 pro-

vided with a stem extending entirely through the cork and secured at its inner end by means of a washer 16 and attached to the canteen by means of a chain 14. The usual metal cap 5 15 is shown as being applied to the outer end of the stopper.

A vent-tube 17 is secured at the side of the nozzle and passes through the body of the canteen, and a similar vent 18 is formed through 10 the stopper 12, so as to open to the interior of the filter-tube 7. By this arrangement of vents there is no choking of the filtering action even when the canteen is entirely filled. The vents, however, are serviceable at what- 15 ever level the liquid may be, for the reason that the capillary action causes the entire wall of the filter to become saturated with water, thereby greatly hindering the passage of the air through them. In a canteen thus vented 20 the filtering action is very much more rapid than when the two chambers are closely sealed.

I have located the vents at convenient points, but do not restrict myself to any particular location of them or any particular form 25 of vent.

I claim as my invention—

1. In a canteen, in combination, a body portion having a neck, a filter-tube having a lateral projection at its outer end, a collar of 30 elastic material adapted to fit upon the outer end of the filter-tube and to fit within the neck of the canteen.

2. In a canteen, in combination, a body portion having a neck, a filter-tube fitted within 35 the neck, a closure for the outer end of the tube, and a vent for the tube.

3. In a canteen, in combination, a body portion and its neck, a filter-tube fitted within the neck and having its inner end closed, a 40 closure for the outer end of the tube, the body of the canteen and the tube both being vented.

4. In a canteen, in combination, a body portion and its neck, a filter-tube fitted within the neck and having its inner end closed, a 45 closure for the outer end of the tube and having a vent-aperture therethrough, and a vent for the body portion of the canteen exterior to the tube.

5. In a canteen, in combination, a body portion having a neck, a filter-tube having a lateral projection at its outer end, a collar of 50 elastic material adapted to fit upon the outer end of the filter-tube and to fit within the neck of the canteen and having a stop-shoulder at 55 its outer end for engaging the end of the neck.

6. In a canteen, in combination, a body portion having a neck, a filter-tube having a bead around its outer end, a collar of elastic material adapted to fit within the neck and upon 60 the end of the tube and having an internal annular groove to receive the bead of the tube.

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Witnesses:

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