UNITED STATES PATENT OFFICE.

ABIJAH FESSENDEN, OF BOSTON, MASSACHUSETTS.

POCKET FILTERING AND DRINKING TUBE.


To all whom it may concern:

Be it known that I, ABIJAH FESSENDEN, of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful instrument for filtering water for drinking intended to be used where common filters are inapplicable, which I will designate as "Abijah Fessenden's pocket-filter," and of which the following is a full and exact description.

My invention consists in attaching to a tube suitable and convenient to draw water through with the mouth, a strainer of wire cloth and felt or other suitable filtering medium, as shown in the model and drawings herewith exhibited.

The following is a description of the construction and operation of the instrument, to enable others skilled in the art, to make and use it.

The tube, represented by Figures 1 and 2, is of black tin, or other metal. It is about six inches long; conical in shape for the length of about five and a half inches, the small end of this part (a Figs. 1 and 2) being about one eighth, and the larger six eighths of an inch in diameter, and then enlarging with a square shoulder or angle about an eighth of an inch in width, into a cylindrical chamber, (b,) for the remaining length of about half an inch, an inch in diameter, and with a rim or band, around the end of the thickness of the tube which is about one sixteenth of an inch. Upon the inside of the cylindrical chamber, a female thread is worked down to the shoulder. Into this chamber there fits accurately a short cylindrical tube or follower having a male screw worked upon it to fit the screw upon the inside of the chamber before mentioned, and a rim or projection about three sixteenths of an inch wide with a milled edge, (Fig. 3; and c, Figs. 1 and 2). Upon the inside of the end (d, Fig. 3) of this tube, a shoulder is worked from the thickness of the metal upon which a disk of copper wire cloth, galvanized with silver is fitted and soldered. This wire cloth is shown by d, Figs. 2 and 3. Between these two separable parts of the instrument is a circular piece of felt, (Fig. 4, and c, Fig. 2) made to fit accurately the inside of b, the chamber, and held in its place by compression upon its edge between the end d, of the follower, and the shoulder at the junction of a and b.

A different arrangement of these parts may be made by dispensing with the chamber b, cutting the male thread upon the large end of a, and the female in the short tube which becomes a cap, having the wire cloth in the end c, and compressing the felt between the end of a, and a shoulder in the end c, as shown by Fig. 5.

The instrument is adjusted for use by placing the felt upon its bearing, and screwing the parts tightly together, and is to be used to strain water for drinking by suction with the mouth.

What I claim as my invention and desire to secure by Letters Patent, is—

1. The fitting a filter to a tube of greater or less length, substantially in the manner hereinbefore set forth, so that water may be strained by the very act of drinking.

2. A filter comprising a flexible metallic tube, having a strainer of wire cloth and felt attached thereto, as described.

In presence of—

D. L. GILCHRIST,
HORATIO WOODMAN.

A. FESSENDEN.