A. A. TOWNE.
ELECTRICAL LIQUID PURIFIER.
APPLICATION FILED MAR. 1, 1915.

1,147,989. Patented July 27, 1915.
To all whom it may concern:

Be it known that I, Amos A. Towne, a citizen of the United States, residing in the city of Long Beach, State of California, have invented a new and useful Electrical Liquid-Purifier, of which the following is a specification.

Among the objects of this invention is to provide a liquid purifier of the character set forth, which is an improvement upon others of its class in respect to simplicity and economy of construction, and also in respect to economy in the consumption of the electric current required during operation.

Economy of consumption of electric current is secured, in part, by the provision of the improved adjustable liquid-engaging contact, the regulation of which increases or diminishes the amount of current passing through the liquid, as desired.

With the foregoing and other objects and advantages in view, as will hereinafter appear, the invention comprises a liquid container provided with an air-tight closure, and an electrical terminal within said container, said terminal having means for adjustment thereof which project through said closure.

Referring to the accompanying drawings which illustrate the invention, Figure 1 is a transverse section on line a—a of Fig. 2. Fig. 2 is a view in which the container and the casing thereof are shown in vertical midsection, certain other parts being shown in side elevation.

Referring in detail to the drawings, the liquid container 5 is enclosed within a casing 6, the top of which is substantially even with the top of said container 5. Said casing 6 is preferably made of wood and is provided with a cover 7 which is screwed down toward the top of the container 5 by means of screws 8 which enter the top of said casing 6, there being a gasket 9 interposed between the top of the container 5 and the lower surface of the cover or closure 7 to make an air-tight fit. Through the closure or cover 7 extends the externally threaded stem 11 of an electric terminal provided with a liquid engaging funnel-shaped head 12. At the place where said stem 11 projects through the cover 7, there is placed around said stem an internally threaded sleeve or collar 13 which is provided at its upper end with a flange 14, said flange 14 resting upon an insulated washer 15. The upper end of stem 11 is provided with a hand-wheel 16 to rotate and vertically adjust the stem 11 together with the conical head 12 carried thereby.

In order to cause the liquid to flow continuously through the receptacle 5, there is provided an inlet pipe 17 having an upright portion 18 furnished with a funnel top 19 into which liquid flows from a faucet 21. Said pipe 17 leads into the lower portion of the receptacle 5, said receptacle being provided also with an outlet spout 22 which connects with said receptacle at a point considerably above said inlet pipe 17. One of the circuit wires 23 is connected to the binding post 24 which extends in an airtight manner below the gasket 9 and is beneath said gasket provided with a head 25 and bent metallic plate or arm 26 which makes contact with the wall of the metal receptacle 5. The other circuit wire 27 is, by means of screw 28 placed in electric connection with the flange 14 of the sleeve 13 which forms an electric connection with the vertically adjustable head 12.

By providing an air tight closure for the upper end of the container 5, the rise of the liquid is checked at a definite point, namely, on a level with the top of the internal diameter of the outlet spout 22. This enables the operator to regulate the amount of the liquid-engaging surface of the funnel-shaped terminal 12 in a dependable manner, which would not be possible without the provision of means to prevent undue rise, as well as undue fall of the level of the liquid within the container.

I claim:

1. An electrical liquid purifier, a container, means to maintain a fixed liquid level within said container while liquid is flowing therethrough, and circuit-making means to maintain an electric current through the liquid within said container, said circuit-
making means comprising a tapering terminal which is adjustable to maintain the pointed portion thereof immersed in the liquid at the desired depth.

5. In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses at Los Angeles, in the county of Los Angeles and State of California, this twentieth day of February 1915.

AMOS A. TOWNE.

Witnesses:

ALBERT H. MERRILL,
M. JENNIE CUTSHAW.