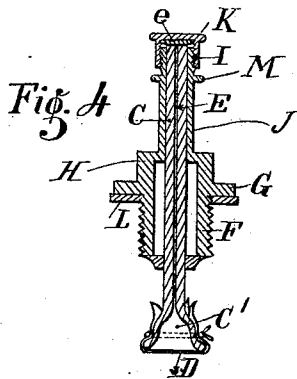
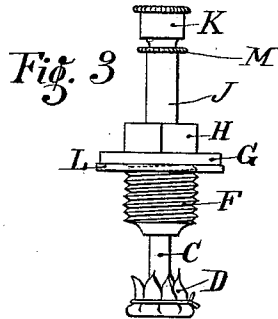
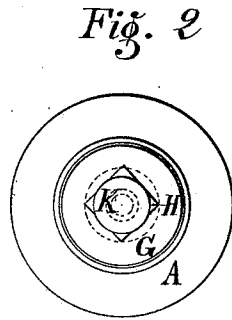
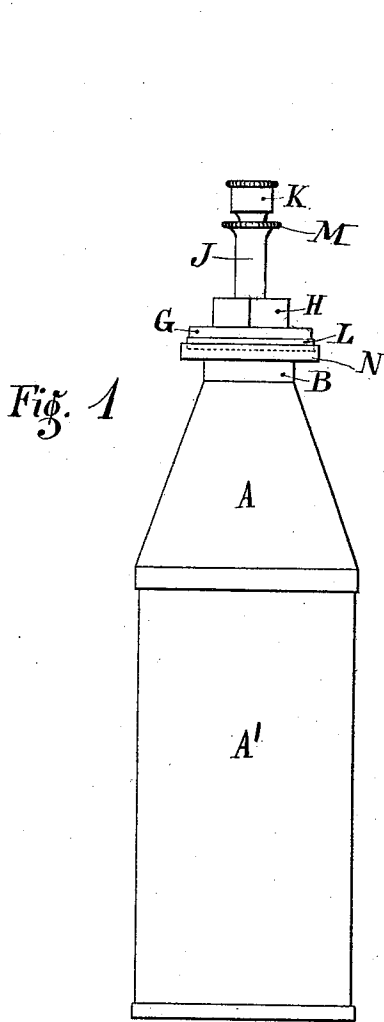


(No Model.)

J. BENGUÉ.
RECEPTACLE FOR ETHYL CHLORID, &c.

No. 523,159.

Patented July 17, 1894.



Witnesses:

J. C. Lebet.

Inventor:

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UNITED STATES PATENT OFFICE.

JULES BENGUÉ, OF PARIS, FRANCE.

RECEPTACLE FOR ETHYL CHLORID, &c.

SPECIFICATION forming part of Letters Patent No. 523,159, dated July 17, 1894.

Application filed June 29, 1893. Serial No. 479,186. (No model.)

To all whom it may concern:

Be it known that I, JULES BENGUÉ, a citizen of the French Republic, residing at Paris, France, have invented certain new and useful Improvements in Receptacles for Ethyl Chlorid, Methyl, &c., and Stoppers for the Same, of which the following is a description.

My invention has for its purpose the devising of a receptacle, wherein ethyl chlorid, methyl, or other volatile liquids may be kept indefinitely and allowing to obtain at will a thin jet of these liquids, so that same may be readily and economically used by the medical profession to effect local anæsthesia.

In the annexed drawings, which form a part of this specification, and wherein similar parts are designated by similar letters of reference, throughout the several views, I have illustrated one of my devices.

Figure 1 shows the receptacle provided with the stopper. Fig. 2 shows a plan view of the same. Fig. 3 shows the stopper detached, and Fig. 4 shows a vertical section of the stopper.

My receptacle is made of metal (preferably copper) and is formed in two pieces A and A' that are soldered or united together in any other desired manner so as to form an air-tight joint. The neck B of the receptacle carries at its upper end a depressed flange N.

The stopper, which forms the essential part of my invention, is composed of a glass tube C, provided with a lengthwise capillary passage E, and funnel shaped at its lower end C'. This funnel C' is closed by a piece of fabric D with very close meshes, serving as a filter. Around this glass tube C closely fits a metallic shell J, the funnel shaped end of the glass tube remaining free. The upper end I of this shell is screw threaded down to a little collar M. Upon this end I, I screw a metal cap K in the upper part of which is placed a rubber plate e. The lower end F of the shell is also screw-threaded, and is screwed into the neck B of the receptacle, which is equipped with a similar thread. The middle part H of the shell is formed square, so that the stopper may be easily and tightly screwed down in the neck of the receptacle by means of a key. The lower part of this square is provided with a flange G and the tightening is effected by means of a lead ring L placed between the flange G and the depressed flange N of the receptacle. When this stopper is tightly

screwed down an air-tight closing of the receptacle is obtained, the upper end of the capillary passage E being closed, as already described, by the cap K.

When the device is to be used, I simply unscrew the cap K, bring the receptacle in an inclined position and I obtain a thin jet of liquid that is directed upon the part to be treated. As soon as the necessary effect is obtained, the cap K is put in its place again, and the device is once more ready for use.

The filtering fabric D, which is screwed to the funnel C' in any desired manner, assures the regular working of the device, inasmuch as it keeps back all impurities that might clog the capillary passage E.

It is obvious that when empty, the receptacle can be readily filled again and that my device can also be conveniently used for all kinds of odors.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A stopper for receptacles containing volatile liquids, consisting of a glass tube provided with a capillary passage, a funnel shaped extension at the lower end of said tube, and an inclosing shell surrounding said tube and adapted to fit into the receptacle, substantially as described.

2. A stopper for receptacles containing volatile liquids, consisting of a glass tube provided with a capillary passage and inclosed in a metal shell, said glass tube being funnel-shaped at its lower end, and equipped with a filtering fabric, substantially as and for the purpose described.

3. In a stopper for receptacles containing volatile liquids, the combination of a capillary glass tube, the upper portion of which is inclosed in a metal shell, with a filter arranged at the lower end of the glass tube, below the metal shell, whereby the filter can be readily cleansed and repaired when necessary substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of May, 1893.

JULES BENGUÉ.

Witnesses:

JOSEPH SALING,
VICTOR MATRAY.