Jan. 22, 1929. 1,699,965

C. J. S. HERZOG

AMPULLAR CONTAINER AND APPLICATOR

Filed May 4, 1927

Fig: 1.

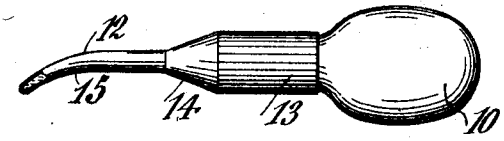


Fig: 2.

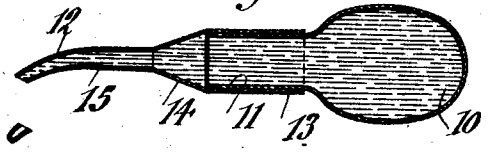
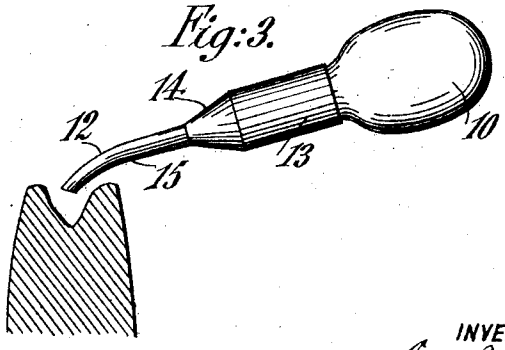


Fig: 3.



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AMPULLAR CONTAINER AND APPLICATOR.

Application filed May 4, 1927. Serial No. 188,665.

This invention relates to ampullar containers and applicators and more particularly to an improvement in such devices as are shown and described in the Patent No. 1,434,531 issued November 7th, 1922, to L. W. Cyrenius.

The primary object of the invention is to facilitate the introduction of the medicament contained in the device, into difficulty accessible places such as a cavity in a tooth, and to eliminate danger, of misapplication of the medicament.

Another object of the invention is to avoid obscuring the area to be treated from the vision of the individual making the application.

A feature of the invention is the curvature of the nozzle which facilitates its introduction into places which are normally inaccessible.

Another feature of the invention is the length of the nozzle which facilitates its introduction into inaccessible places and yet positions the container in a place where it may be easily manipulated without interference with the vision.

With the above and other objects in view, the invention consists in the novel construction, combination, and arrangement of parts, which will be fully set forth in the following specification, claimed and illustrated in the accompanying drawing in which:—

Figure 1 is a side view of an ampullar container constructed in accordance with this invention and showing a portion of the discharge nozzle in section,

Figure 2 is a longitudinal sectional view of the container and discharge nozzle, showing the tip clipped from the nozzle, and

Figure 3 is a view illustrating one method of using the device.

Referring to the drawings in detail, the container comprises a capsule 10 which is substantially egg-shaped and is formed from a suitable gelatinous substance which is preferably coated internally and externally in the manner in the patent above referred to, to render the same moisture-proof. Formed at one end of the body 10 is a tubular extension 11 to which the nozzle is attached in any preferred manner.

The nozzle 12 comprises a cylindrical socket member 13 which is adapted to receive the tubular extension above described and is provided at one end with a conical wall 14, which is in turn formed at its apex with a very much reduced tubular member 15. This tubular member tapers toward its free end until the walls converge and form a complete closure for the device, as will be clearly seen upon reference to Figure 1. Like the body of the device, the nozzle is formed of a gelatinous material which is preferably coated both internally and externally with a moisture-proofing substance, but the characteristics of the two parts differ in that the nozzle is preferably of a relatively firm and non-compressible structure, while the body is constructed to be resiliently compressible and more or less elastic. As shown in the drawings, the nozzle is preferably curved, so as to facilitate the introduction of its tip into the cavity or wound and owing to its long thin proportions, it will be obvious that it will present little or no obstruction to the vision of the user in examining the area to be treated. Furthermore, such elongation and reduction of transverse area insures against misapplication of the contents as the fine point and small egress openings of the nozzle materially aid in the proper direction of the medicament.

In use the container is filled with the desired substance and the nozzle sealed in place so as to effectively protect the contents against contamination and maintain the inside of the nozzle in a sterile condition. Such sealing takes place in the laboratory where the device is prepared and the medicament is marketed in the sealed containers and applicators. When it is desired to remove the contents and make a medical application, the individual conducting the treatment snips the tip of the nozzle by means of shears or the like, as illustrated in Figure 2, and then places the end of the nozzle in the cavity or upon the area to be treated, as illustrated in Figure 3, after which pressure is applied to the body and the contents thereof expelled through the nozzle and into the area under treatment. Obviously, due to the small size of the discharge opening in the end of the nozzle, the substance will be ejected under relatively high pressure and yet the application of the medicament is at all times under proper direction and control by the user.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details and construction, combination and arrangement of parts, may be resorted to without departing from

the spirit and scope of the invention as claimed.

What is claimed is:—

A container and applicator comprising a hollow body of compressible material, the body having a tubular extension open at one end, said body being closed at all other points, and a nozzle having a socket portion to fit over said extension, said nozzle having a reduced tapering outlet member connected to the socket portion by a conical section, said nozzle being relatively incompressible as set forth.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

CARL J. S. HERZOG.