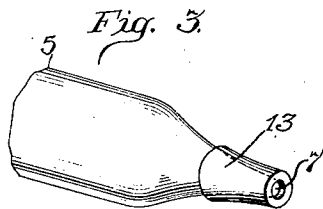
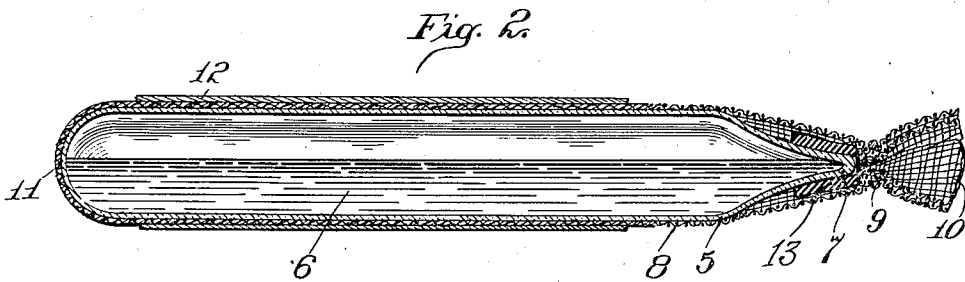
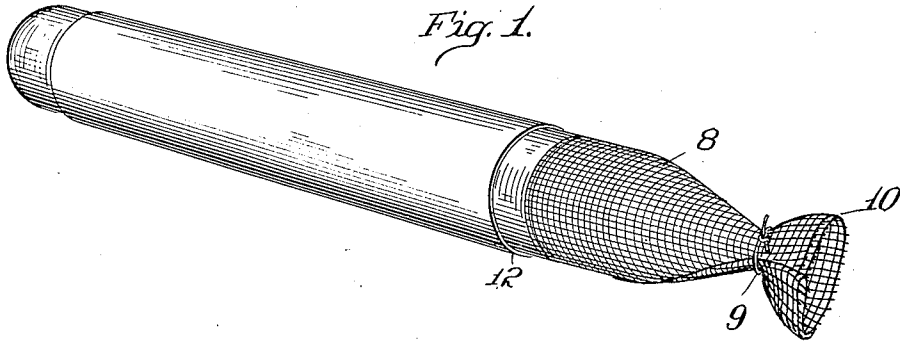


S. W. WILLIAMS.
SURGICAL SWAB.
APPLICATION FILED MAY 28, 1917.

1,234,844.

Patented July 31, 1917.



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SURGICAL SWAB.

1,234,844.

Specification of Letters Patent.

Patented July 31, 1917.

Application filed May 28, 1917. Serial No. 171,450.

To all whom it may concern:

Be it known that I, SEWARD W. WILLIAMS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Surgical Swabs, of which the following is a specification.

This invention relates to surgical swabs adapted for transporting and applying small quantities of cleansing, antiseptic or healing liquid and has for its primary object the provision of means therein for preventing the friable end of the liquid container from working through the enveloping fabric when the swab is in use.

Further objects of my invention are the provision of means insuring breaking of the end in a manner to provide a large outlet for the liquid when needed and for protecting the end during shipment.

Further objects and advantages of my invention will be apparent as it is better understood by reference to the following specification when read in connection with the accompanying drawing, illustrating the preferred embodiment thereof, in which—

Figure 1 is a view in perspective of a surgical swab;

Fig. 2 is a longitudinal section through the swab, and

Fig. 3 is a detail in perspective showing the cap.

Referring to the drawing, 5 indicates an elongated sealed container of glass adapted to contain a quantity of liquid 6 of a cleansing, antiseptic or healing character. In sealing the container 5 I provide a constricted end 7 thereon which, when broken, permits the liquid to flow from the container.

The container 5 is inclosed within a wrapping 8 of suitable textile material, such as gauze, which preferably completely envelops the container. Beyond the constricted end 7 the wrapping 8 is tied, as indicated at 9, to provide a free brush or applicator 10 into which the liquid flows when released from the container and with which it is applied to the surface being treated. The entire wrapping with the exception of the portion adjacent the constricted end of the container, is preferably impregnated with paraffin or similar liquid-resistant material which serves to seal the wrapping about the end 11 opposite the portion 10. A wrap-

ping 12 of paper or other suitable material is disposed about the body of the swab and may bear instructions as to the use of the swab as well as the name of the manufacturer and suitable advertising matter, if desired.

In experimenting with surgical swabs of the character above described I have discovered a tendency of the constricted end when broken to work through the enveloping fabric with a resulting possibility of injuring the surface being treated. I have also discovered that the constricted end is sometimes broken in such a way as to prevent the liquid from flowing readily from the container and that the constricted ends which are delicate are sometimes broken accidentally in transit. I have discovered that these disadvantages may be readily overcome by providing a cap or sleeve 13 which snugly embraces the constricted end 7 within the fabric wrapping. The cap or sleeve is preferably made of elastic material such as rubber but it is obvious that other materials may be employed. However, the best results are obtained when soft elastic rubber is used. The cap or sleeve clings to the constricted end and when the latter is broken effectively prevents it from working through the enveloping fabric. It, moreover, permits the constricted end to be grasped more readily by the user so that the end may be broken at a point which insures an opening large enough to permit the liquid to flow readily from the container. Finally the cap or sleeve being yielding in character protects the fragile tip during shipment, thus preventing a considerable loss which has heretofore been unavoidable.

From the foregoing it will be readily understood that I have perfected a surgical swab which presents numerous advantages over such devices as heretofore known and used and that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing any of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A surgical swab comprising a container having a constricted end adapted to be broken to release the contents of said container, a cap embracing and engaging said

constricted end, and a fabric covering surrounding said cap and having a brush at its end.

5 2. A surgical swab comprising a container having a constricted end adapted to be broken to release the contents of said container, a cap of resilient material embracing and engaging said constricted end, and a fabric wrapping surrounding said cap and
10 having a brush at its end.

3. A surgical swab comprising a container

having a constricted end adapted to be broken to release the contents of said container, a rubber cap embracing and engaging said constricted end, and a fabric wrapping surrounding said cap and having a
15 brush at its end.

SEWARD W. WILLIAMS.

Witnesses:

WM. O. BELT,
M. A. KIDDIE.