No. 860,555. PATENTED JULY 16, 1907.

W. C. MIDDAUGH.

DENTAL SYRINGE ATTACHMENT.

APPLICATION FILED NOV. 21, 1906.

Fig. 1.

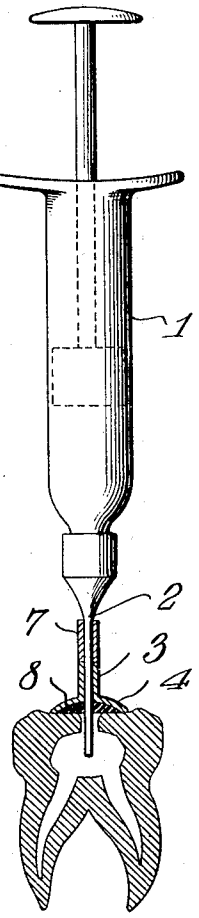


Fig. 3.

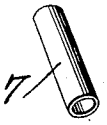


Fig. 2.

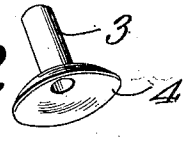
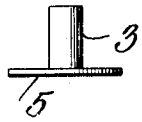


Fig. 4.



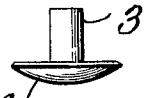


Fig. 5.

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DENTAL-SYRINGE ATTACHMENT.

No. 860,555. Specification of Letters Patent. Patented July 16, 1907.

Application filed November 21, 1906. Serial No. 344,506.

To all whom it may concern:

Be it known that I, WILLIAM CLAY MIDDAUGH, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Syringe Attachment, of which the following is a specification.

This invention relates to attachments for syringes and its object is to provide a simple form of attachment which may be connected to various forms of syringes and which is designed to prevent the regurgitation or back flow of liquid during injections.

The device is more particularly designed for use in connection with dental syringes and when so used will greatly facilitate the injection of medicine or other liquid into abscessed teeth.

The attachment is also designed for use in the removal of live nerves by pressure anesthesia.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is an elevation of a dental syringe and showing the attachment in section upon the needle, said needle extending into a tooth; Fig. 2 is a perspective view of the holder of the attachment; Fig. 3 is a similar view of a spacing tube for use in connection therewith; and Figs. 4 and 5 are side elevations of modified forms of holders.

Referring to the figures by characters of reference, 1 is a dental syringe of any preferred type having a tubular needle 2 secured in any preferred manner to one end thereof. Neither the syringe nor the needle constitutes any part of the present invention. This invention consists simply of an attachment for a syringe of this character whereby back flow of fluid injected into a cavity is prevented and the thorough treatment of said cavity, either for cleansing purposes or for removing live nerves by means of pressure anesthesia, is permitted. The attachment consists of a sleeve 3 adapted to slip over the end of the needle 2 and provided with a head 4 which, as shown in Fig. 2, may be concave or, if preferred, may be flat, as shown at 5 in Fig. 4, or convex, as shown at 6 in Fig. 5. The balance of the attachment consists of one or more spacing sleeves 7 which may be of desired lengths so as to hold the sleeve 3 at a desired distance from the inner end of the needle.

In using the herein described attachment one or more sleeves of desired lengths are placed upon the needle after which the sleeve 3 is slipped thereon so that its head 4 will be any desired distance from the end of the needle. Wax or unvulcanized rubber 8 is placed upon the holder. When the needle point is inserted into the cavity this soft wax or rubber will be pressed around the cavity by the holder and will tightly seam the same so as to prevent back flow of injected fluid. Of course the concave head 4 is only suitable for use in certain conditions and at times it will be found more desirable to employ head such as shown at 5 and 6. The attachment can be placed on all kinds of needles whether straight, curved, long or short and by providing this attachment an ordinary dental syringe can be easily converted into an abscess syringe.

The preferred form of the invention has been set forth in the foregoing description but I do not limit myself thereto as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of the claims.

What is claimed is:

1. An attachment for syringes comprising a needle-receiving sleeve, a rubber-holding head at one end thereof for surrounding a needle, and a spacing sleeve to receive the needle.

2. An attachment for syringes comprising a rubber holding head having a central needle-receiving orifice, and a needle-receiving sleeve surrounding said orifice and extending from one face of the head.

3. An attachment for syringes comprising a concave, rubber-holding disk constituting a head and having a a needle-receiving sleeve surrounding said orifice and extending from said disk and surrounding the aperture, and a separate spacing sleeve.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM CLAY MIDDAUGH.

Witnesses:
BEULAH F. STOCKER,
GROVER C. HESS.