No. 723,822. PATENTED MAR. 31, 1903.

A. E. BUCHANAN.

SYRINGE FOR DENTAL OR OTHER USES.

APPLICATION FILED JAN. 5, 1903.

NO MODEL.

Fig. 1.

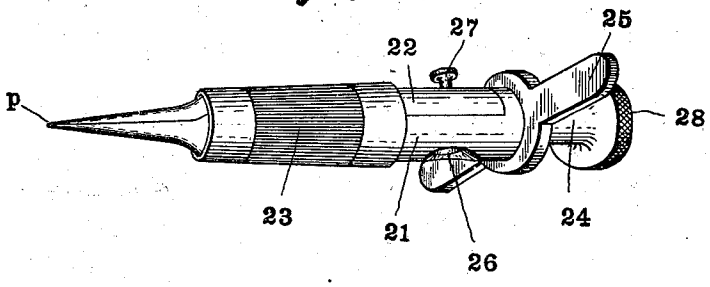


Fig. 2.

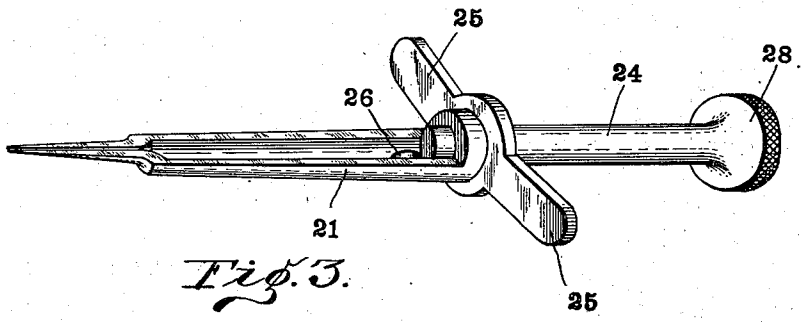


Fig. 3.

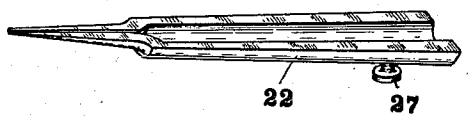
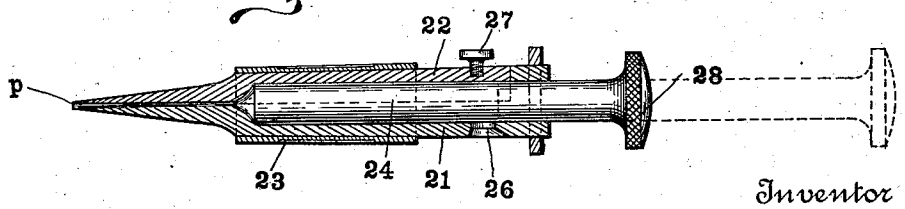


Fig. 4.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT E. BUCHANAN, OF INDIANAPOLIS, INDIANA.

SYRINGE FOR DENTAL OR OTHER USES.

SPECIFICATION forming part of Letters Patent No. 723,822, dated March 31, 1903.

Application filed January 5, 1903. Serial No. 137,944. (No model.)

To all whom it may concern:

Be it known that I, ALBERT E. BUCHANAN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Syringes for Dental or other Uses, of which the following is a specification.

It is the object of my invention to provide a syringe capable of being used with substances which adhere to the interior surface of its barrel, especially such as "set" quickly, making it difficult to clean the same preparatory to further use; and it consists in making the barrel of the syringe separable and providing suitable means, as a sleeve, for holding the parts of said barrel together in use.

While this syringe is capable of use in many situations and for numerous purposes, I have designed it especially for the use of dentists in the work of filling root-canals and other deep cavities in the teeth of patients with cement of the well-known character used in this work. Such cement, as is well known, "sets" (or becomes hardened) very quickly after use, and consequently it is very difficult to remove the unused portion remaining in the barrel of the cylinder after use, or, in other words, to clean said barrel when the syringe is constructed with a solid barrel in the ordinary manner. With my invention, as is obvious, this difficulty is wholly overcome.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a perspective view of a syringe embodying my said invention with the parts assembled and ready for use; Fig. 2, a perspective view of one part of the barrel, showing the cross-bar, which is usually and preferably formed upon or rigidly connected to said barrel part together with the piston, the latter being shown as entering the upper part of said barrel slightly; Fig. 3, a perspective view of the other barrel part or the part which is removable; and Fig. 4, a central longitudinal sectional view of the complete syringe, the parts being as in Fig. 1 and the retracted position of the piston being indicated by dotted lines.

This syringe, as is already indicated, consists principally of two barrel parts 21 and 22, a sleeve 23 for holding said barrel parts assembled when in operative relation, and the piston 24. I also preferably place on the upper end of the barrel part 21 a cross-bar 25, and this is most conveniently formed rigidly or integrally with said barrel part. The barrel part 21 is preferably provided with an opening 26, through which the cement to be used may be quickly and conveniently inserted, which in case of quick-setting cement should be done after the point of the piston has been entered into the upper end of the barrel, as shown in Fig. 2. The removable barrel part 22 is also preferably provided with a small knob or projection 27 to enable it to be conveniently and expeditiously handled.

In use the parts are first assembled as in Figs. 1 and 4, but with the piston drawn out, as shown in Fig. 2, a suitable quantity of the cement to be used is inserted in the barrel through the opening 26, the point p of the syringe is inserted into the cavity to be filled, and the cement forced out of the barrel by pressure upon the outer end of the piston 24, upon which I prefer to make a thumb-knob 28, as shown. The syringe during the operation is commonly held in one hand, two of the fingers being placed beneath the cross-bar 25 and the thumb upon the knob 28. When the use of the syringe is completed, the parts can be instantly separated, it being only necessary to slip off the sleeve 23, when the several members fall apart and can be thrown into a dish of water, where they can remain until a convenient time for cleaning and where, of course, the cement will not harden onto the parts, so as to make it difficult of removal.

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

1. A syringe the barrel whereof is divided longitudinally into two parts, and means for holding the parts in assembled relation, whereby the barrel can be quickly and easily opened.

2. The combination, in a syringe, of a barrel divided longitudinally into two parts, a removable sleeve surrounding said barrel, and a piston entering the upper end of said barrel.

3. The combination, in a syringe, of a barrel divided longitudinally into two parts, one part being removable from the other and having a knob by which it can be handled, the other part containing an orifice in the side through which material may be inserted, and a piston, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 2d day of January, A. D. 1903.

ALBERT E. BUCHANAN. [L. S.]

Witnesses:

CHESTER BRADFORD,

JAMES A. WALSH.