

(No Model.)

W. C. MIDDAGH.
DENTAL SYRINGE.

No. 552,192.

Patented Dec. 31, 1895.

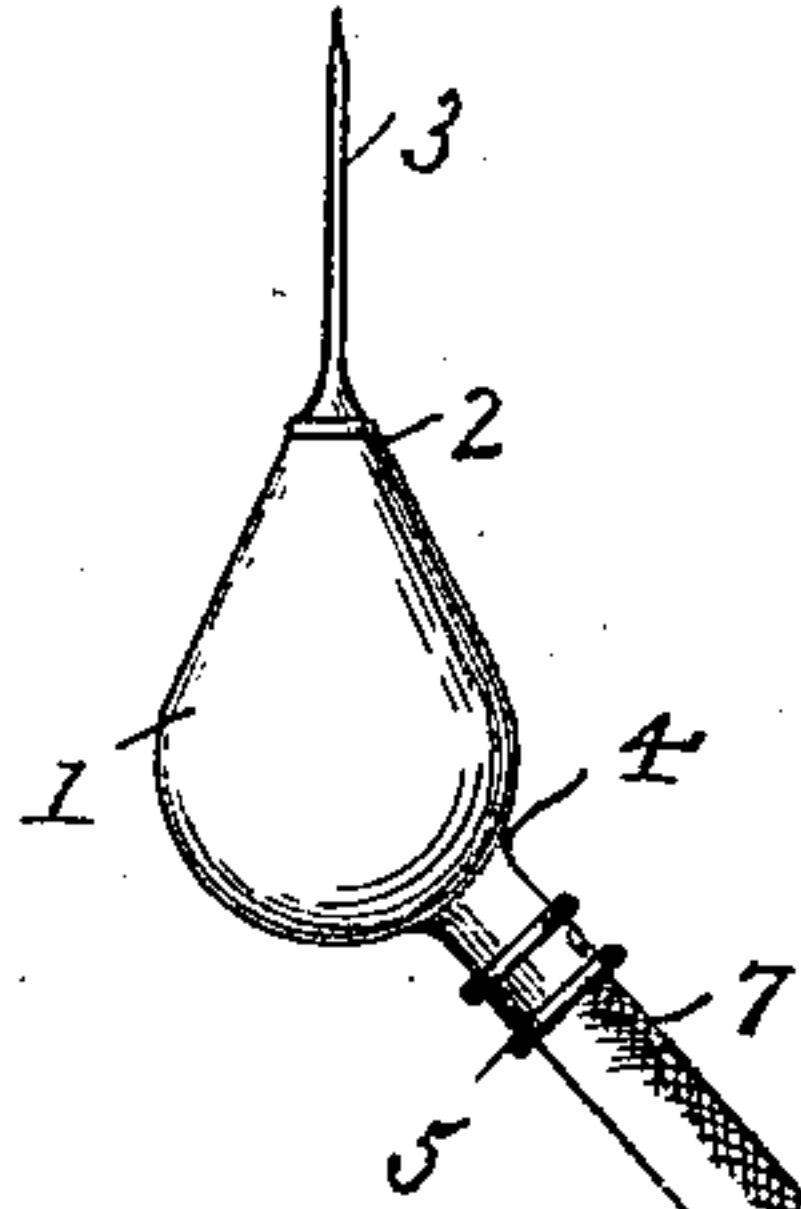
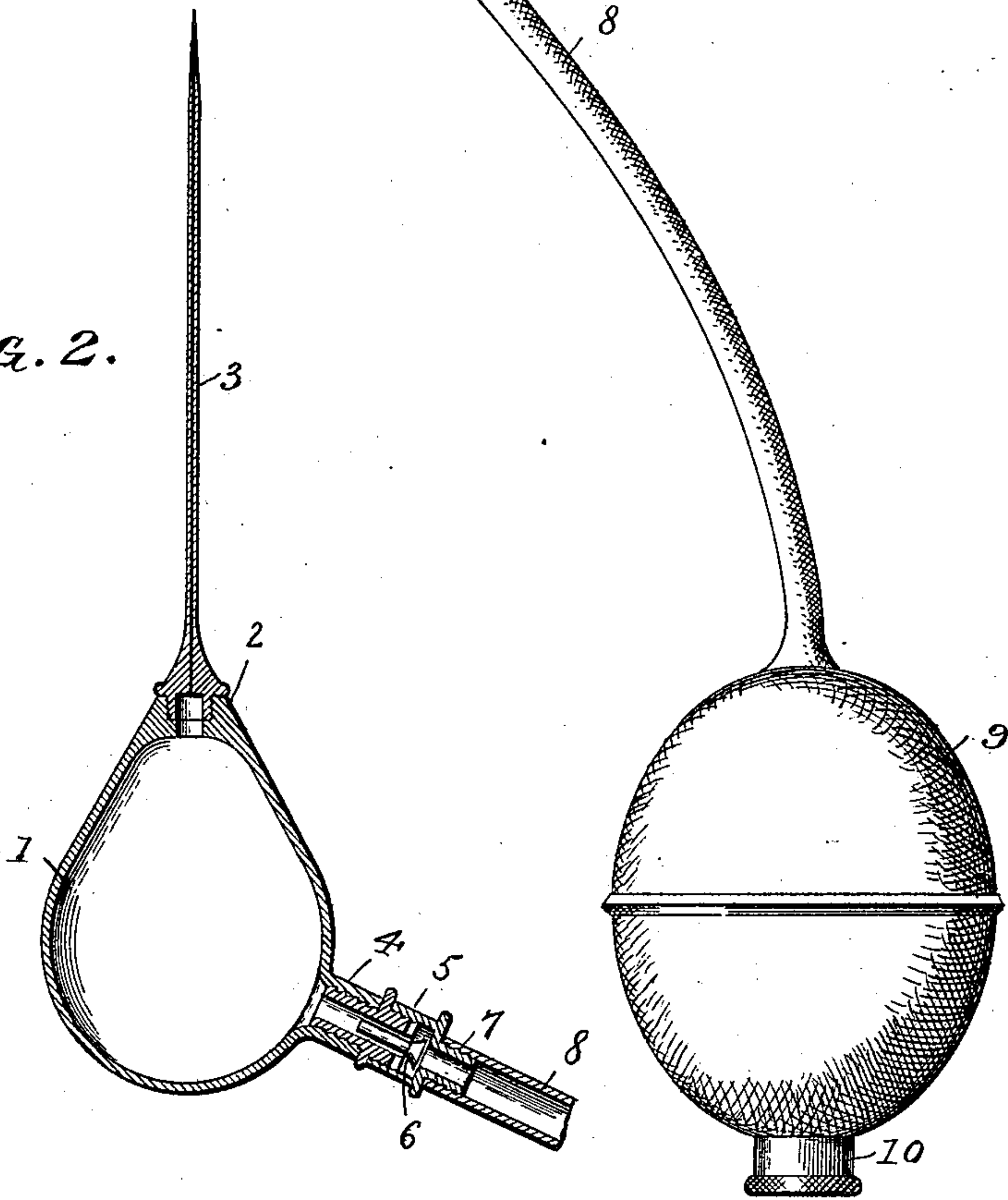


Fig. 1.

Fig. 2.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM CLAY MIDDAUGH, OF EASTON, PENNSYLVANIA.

DENTAL SYRINGE.

SPECIFICATION forming part of Letters Patent No. 552,192, dated December 31, 1895.

Application filed October 22, 1894. Serial No. 526,639. (No model.)

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 Dental Abscess-Syringe, of which the following is a specification.

This invention relates to dental abscess-syringes; and it has for its object to provide a new and useful syringe of this character that can be easily and conveniently handled within the mouth of a patient for the purpose of reaching an abscess through the root of the tooth to introduce any suitable medication—such as carbolic acid, hydrogen peroxide or the like—into the affected part.

To this end, therefore, the main and primary object of the present invention is to overcome the difficulties attending the use of piston-syringes for the same purpose, and at the same time to provide an instrument or syringe that can be placed quickly and readily at any angle within the mouth of the patient to reach any tooth without obscuring the vision of the dentist while packing the packing material around the needle of the syringe.

With these and other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a dental abscess-syringe constructed in accordance with this invention. Fig. 2 is an enlarged detail sectional view of the portion of the syringe that is placed within the mouth of the patient.

Referring to the accompanying drawings, 1 designates a pear-shaped medicine-bulb that is adapted to hold the medicament to be injected into the diseased tooth, and said bulb is preferably made of suitable metal and of such a size as to be easily handled within the mouth of the patient for properly adjusting the syringe. The pear-shaped medicine-bulb 1 is provided at its small end with an attaching-neck 2, to which is removably threaded one end of the tubular syringe-needle 3, that is made of gold, platinum, or other suitable

material that will allow the needle to bend readily in following the course of a tortuous root-canal. The pear-shaped medicine-bulb 1 is further provided at its wide end with a valve-neck 4, that is disposed at an obtuse angle to the neck 2, and is adapted to have removably fitted therein one end of a valve-nipple 5. The valve-nipple 5 is of any suitable construction that is provided with an interior check-valve 6 to prevent the return flow of liquid out of the bulb 1, and said valve-nipple 5 is also adapted to have detachably connected thereto, as at 7, one end of an air-tube 8, the other end of which connects with an ordinary compressible air-bulb 9, provided at the end opposite the tube 8 with the usual air-inlet valve 10.

In using the syringe either the needle 3 or the valve-nipple 5 is removed or disconnected from the bulb 1, and by means of a medicine-dropper or other means the medication employed is introduced into the bulb 1, and in this operation it is at times necessary to fill the bulb 1 through the valve-neck 4, in order to fill the needle and entirely exclude the air from the bulb and needle, which is necessary in cases of blind abscesses. After the bulb is filled and the needle or valve-nipple replaced, the bulb 1 with the attached needle is then carried into the mouth of the patient with the valved nipple 5 disposed toward the opening of the mouth, and the needle 3 is then inserted into the root-canal of the tooth as far as it will reach, and is packed around tightly with gutta-percha or cotton. The tube 8 is then connected to the nipple 5, and by compressing the bulb 9 the medicine will be forced into the root-canal and through the fistula.

Changes in the proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a dental abscess syringe, a pear-shaped metallic bulb of a size adapted to be manipulated inside the mouth of a patient and provided at its wide end and one side with an

offstanding valve neck disposed at an obtuse angle to the length of the bulb, a tubular syringe needle detachably connected to the small end of the medicine bulb, and a compressible air bulb having a tube connection with said valve neck of the bulb, substantially as set forth.

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

W. CLAY MIDDAUGH.

Witnesses:

CYRUS S. SCHLABACH,
L. R. SPANYENBERG.