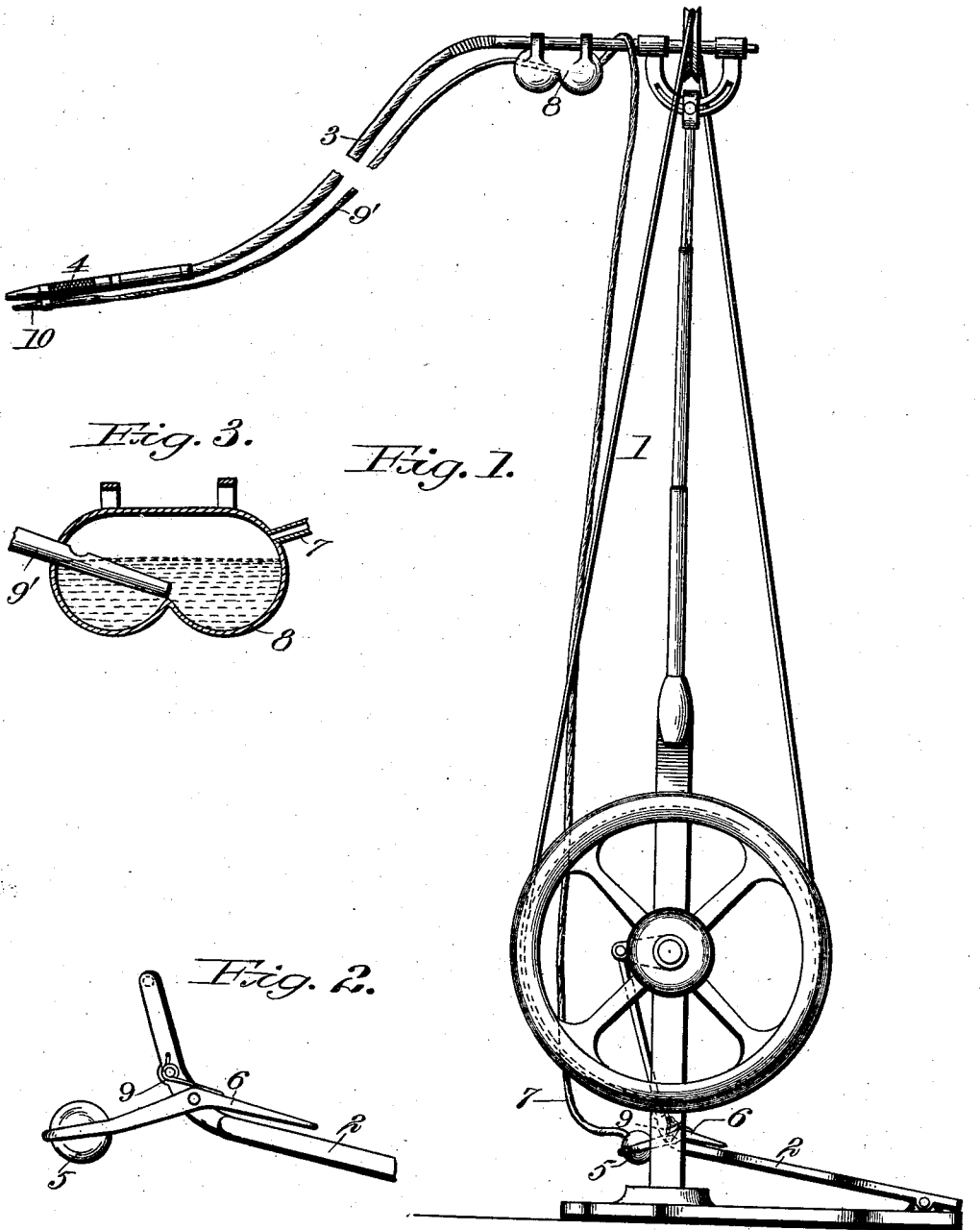


No. 718,561.

PATENTED JAN. 13, 1903.

C. R. BASFORD.
ATTACHMENT FOR DENTAL ENGINES.
APPLICATION FILED MAR. 18, 1902.

NO MODEL.



Witnesses

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UNITED STATES PATENT OFFICE.

CLAUDE R. BASFORD, OF HEALDSBURG, CALIFORNIA, ASSIGNOR TO
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ATTACHMENT FOR DENTAL ENGINES.

SPECIFICATION forming part of Letters Patent No. 718,561, dated January 13, 1903.

Application filed March 18, 1902. Serial No. 98,790. (No model.)

To all whom it may concern:

Be it known that I, CLAUDE R. BASFORD, a citizen of the United States of America, residing at Healdsburg, in the county of Sonoma and State of California, have invented certain new and useful Improvements in Attachments for Dental Engines, of which the following is a specification.

This invention relates to dentistry; and it has relation in particular to an attachment for a dental engine whereby a pain-allaying-liquid spray is produced at the point of contact of the bur or cutting instrument and the tooth.

The object of the invention is to produce an attachment for dental engines whereby the movement of the pedal is utilized to compress air and furnish pressure for converting liquid contained in a receiver into a spray and for forcing said liquid to a point in front of a handpiece of a flexible shaft. Furthermore, the object of the invention is to produce a device of the character noted which can be caused to act continuously during the operation of the dental engine. The invention also contemplates the provision of means for shifting the parts so that the compressing action may be interrupted at the will of the operator.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed, whereby an attachment of the character noted is produced which will possess advantages in points of simplicity, efficiency, and durability, proving at the same time comparatively inexpensive.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view in elevation of a dental engine with the invention applied. Fig. 2 is a detail view of the bulb-carrying arm. Fig. 3 is an enlarged detail view of the chamber in sections and its connections.

In the drawings, 1 denotes the dental engine, having the usual pedal 2, flexible shaft 3, and handpiece 4.

An air-bulb 5 is secured to a swinging arm 6, which is angular and pivoted on the pedal.

The upwardly-projecting portion of the arm is pressed toward the front of the pedal by the foot of the operator, whereby the bulb is swung under the pedal, and as the front of said pedal descends the bulb is compressed and air is forced through the tube 7 to the chamber 8. When pressure is removed from the arm, the bulb swings from under the pedal and the compressing action is interrupted. A spring 9 tends to hold the arm in position, so that the bulb is free of the pedal.

The chamber 8 contains an anesthetic or other fluid, which by reason of the air-pressure from the bulb is forced out of the receptacle into the tube 9 to the spraying end 10, which discharges about the bur or instrument carried by the handpiece. The air entering the chamber through the tube 7 passes out through the holes of the tube 9 and causes a certain amount of liquid in the chamber to be drawn out, after the manner of an atomizer.

The construction, operation, and advantages will, it is thought, be understood from the foregoing description, it being noted that various changes may be made in the proportions and details of construction without departing from the scope of the invention.

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

1. In an attachment for dental engines, the combination with the pedal, an arm pivoted thereto, an air-bulb carried by the arm and adapted to be compressed by the pedal, means for permitting the arm to carry the bulb from under the pedal, a liquid-chamber connected with the bulb and a tube leading from the chamber and terminating in front of a handpiece of a flexible shaft.

2. In an attachment for dental engines, a receptacle hung on an arm of an engine, a tube leading from the receptacle to a point in front of the handpiece, a tube leading into the receptacle and a bulb on the end of the last-named tube adapted to be compressed by the pedal, as and for the purpose described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 4th day of March, 1902.

C. R. BASFORD.

Witnesses:

ERNEST TAEUFFER,
J. T. O'CONNOR.