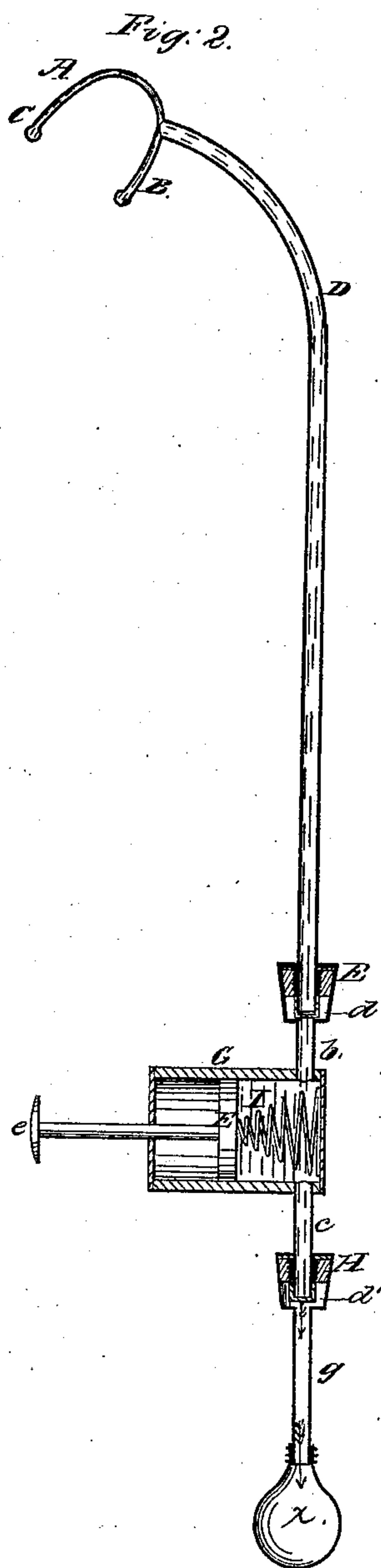
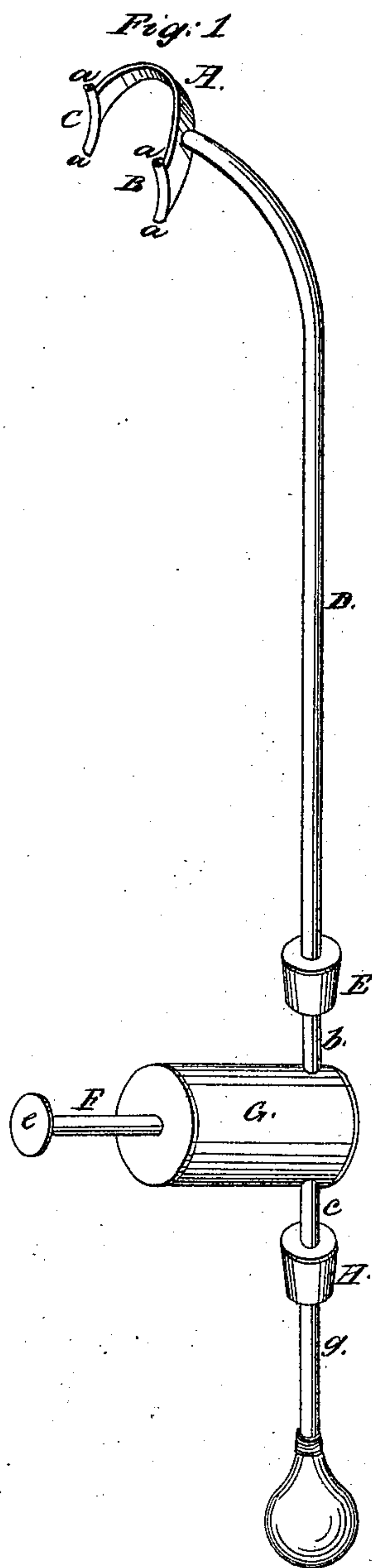


F. Davison,
Removing Saliva while Filling Teeth.
N^o 10,426. Patented Jan. 17, 1854.



UNITED STATES PATENT OFFICE.

F. DAVISON, OF LIBERTY, VIRGINIA.

SALIVA-PUMP.

Specification of Letters Patent No. 10,426, dated January 17, 1854.

To all whom it may concern:

Be it known that I, F. DAVISON, of Liberty, in the county of Bedford and State of Virginia, have invented a new and useful
5 Dental Instrument for Removing the Saliva or Spittle from the Mouth and Keeping it Dry During the Operation of Filling Teeth; and I do hereby declare that the following is a full, clear, and exact description of the
10 same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a perspective view of the instrument in a vertical position. Fig. 2, is
15 a vertical central section of the same.

Similar letters of reference in each of the several figures indicate corresponding parts.

This invention relates to a very simple, useful and pleasant method of enabling the
20 patient or subject to remove the saliva or spittle from the mouth and keep it dry, while the dentist is filling the lower teeth; to effect which, as every dentist is well aware, is very important and has heretofore
25 been a very difficult thing to accomplish, and consequently dentists very often, in filling a very bad tooth, are obliged to fill the mouth with some unpleasant substance to absorb the saliva as fast as it accumulates
30 or runs in. By the employment of my instrument the saliva can be removed with ease, and patients are not subjected to the annoyance of having some absorbing substance thrust into their mouths.

35 To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

A, is a flat hollow tube, bent somewhat after the form of a yoke so as to fit over the
40 teeth and B, C, are two short tubes secured on the ends of the yoke shaped tube A, and communicating with its interior they being open at both their ends *a, a*, as seen in the drawing. These tubes B, C, are made curv-
45 ing or form sections of circles corresponding with the circles of the under jaw. The tube B, fitting between the under lip and jaw and that C, behind the teeth and under the tongue.

50 D, is a long hollow tube having one of its ends connected to and communicating with the interior of the yoke shape tube A, in the manner shown in Fig. 2, and its other end carried down vertically and connected
55 to a cylindrical valve box E.

G is a pump cylinder—placed in a horizontal position and situated so that its piston may be convenient to be operated by the hands of the patient.

F, is the piston of the cylinder G; its
60 rod has a button *e*, on its outer end for the thumb of the patient to bear against while moving the piston home.

I, is a spiral spring secured to the bottom on back end of the cylinder G and connected
65 to the bottom of the piston in any convenient way, this spring is for automatically returning the piston after being thrown or shoved home by the patient.

E, H, are valve boxes and *b, c*, are short
70 pipes connecting them to the pump. These short pipes are placed in a line with the pipe D and communicate with it by means of the valves *d', d*, placed in the boxes E and H; *g*, is another pipe secured to the
75 lower portion of the valve box H, and extending down some distance and connecting with a suitable receptacle for the saliva. The valve *d*, just mentioned is secured on the lower end of tube D, and *d'*, on the lower
80 end of the tube *c*. They are made of india rubber and arranged so as to open and close alternately—*d'*, opening simultaneous with the drawing or throwing out of the piston and the closing of *d*; and vice versa. Con-
85 sequently after the saliva has been drawn out of the mouth into the cylinder G through the valve *d'* and the piston pressed home again the saliva will be forced out of the cylinder into the pipe *c*, and through the
90 valve *d*, on to the napkin or receptacle.

When this instrument is to be used the dentist places the bent tube A, over the under jaw, one end under the tongue and the
95 other between the under lip and jaw; and directs the patient to hold it with the left hand and with the thumb of the right hand press the piston to the bottom of the cylinder G, and then withdraw the thumb and it
100 will automatically assume its original position and cause the valve *d'*, to open and the saliva to be sucked out of the mouth through the short tubes B, C, into the flat bent tube A, and from it, along the tube D, and through
105 valve *d'*, into the cylinder G, as shown by blue color in the drawing Fig. 2. The piston now must again be pressed in by the patient and thereby close the valve *d'*, and cause the valve *d*, to open simultaneous with
110 the closing of that *d'*, so as to allow the

saliva to be discharged from the cylinder through the section *g*, of the tube D, on to a napkin or other receptacle. Simultaneous with the discharge of the saliva the withdrawal of the same from the mouth is effected and thus the operation is continuous and all the saliva can be drawn out of the mouth as fast as it flows in and thereby the operation of filling the under teeth is rendered more easy and pleasant both to the patient and operator.

This apparatus is not necessary when filling the upper teeth as they can be kept dry without it.

What I claim as my invention and desire to secure by Letters Patent is—

Drawing the saliva from the mouth and keeping it dry during the operation of filling teeth by means of an instrument constructed with a hollow mouth piece A, B, C, which connects with a tube D, and suction and force pump G, in the manner essentially as described.

F. DAVISON.

Witnesses:

HENRY C. DICKINSON,
WM. D. ROBERTSON.