

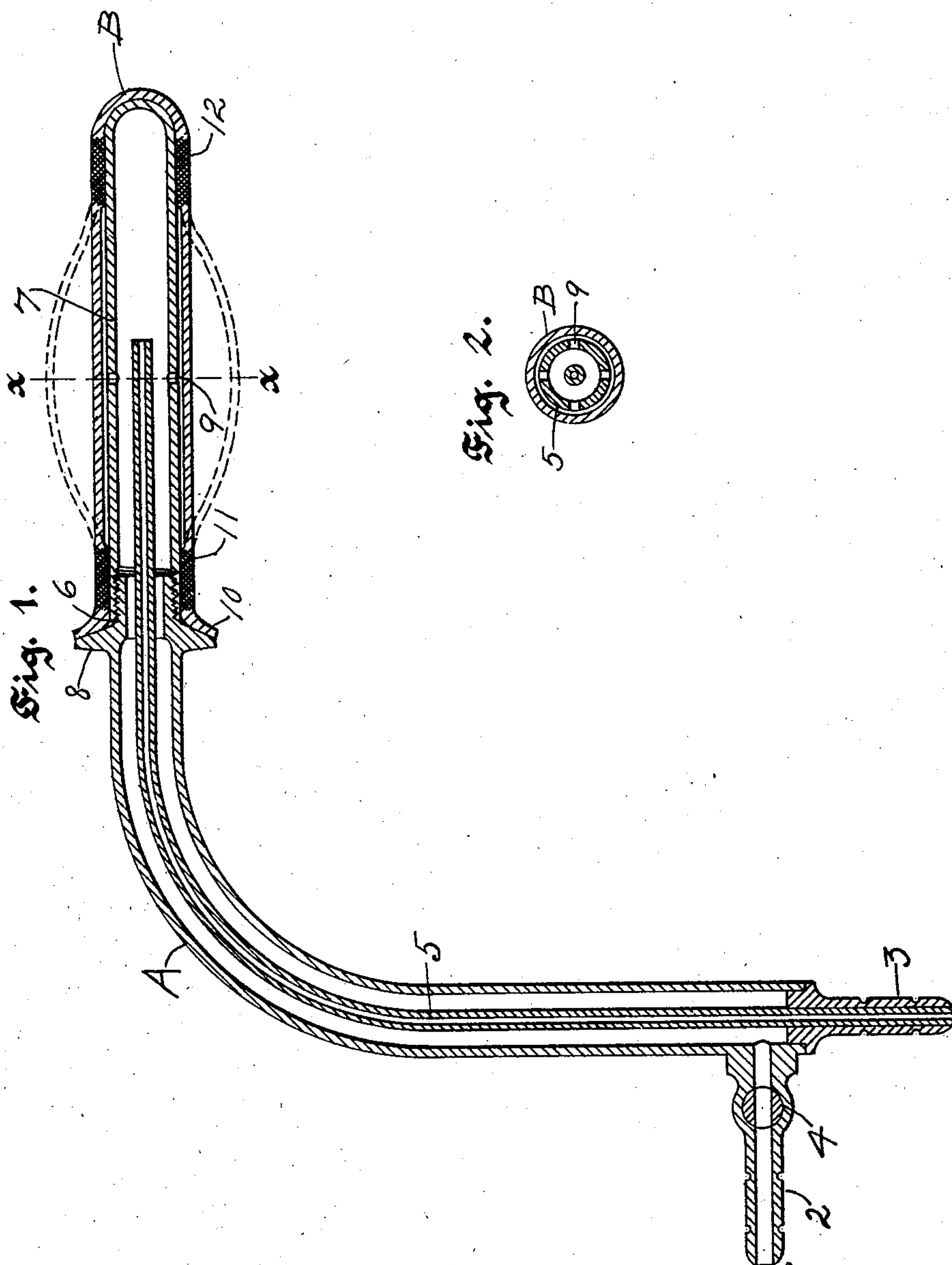
No. 705,346.

Patented July 22, 1902.

J. R. HAMILTON.  
DILATOR.

(Application filed Nov. 2, 1901.)

(No Model.)



Witnesses,  
W. H. Palmer.  
Emily Eastman

Inventor,  
Jonathan R. Hamilton.  
by Lothrop & Johnson  
his Attorneys.

# UNITED STATES PATENT OFFICE.

JONATHAN R. HAMILTON, OF SIOUX FALLS, SOUTH DAKOTA.

## DILATOR.

SPECIFICATION forming part of Letters Patent No. 705,346, dated July 22, 1902.

Application filed November 2, 1901. Serial No. 80,862. (No model.)

*To all whom it may concern:*

Be it known that I, JONATHAN R. HAMILTON, a citizen of the United States, residing at Sioux Falls, in the county of Minnehaha and State of South Dakota, have invented certain new and useful Improvements in Dilators, of which the following is a specification.

My invention relates to improvements in dilators of that class in which a stream of water is forced into or through the device, its object being particularly to provide an improved construction of inflatable shield for the dilator.

To this end my invention consists of the features of construction and combination hereinafter described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a section of a rectal dilator, and Fig. 2 is a section on line *xx* of Fig. 1.

In the drawings, A represents the tubular body of the dilator, provided at the inlet end with branches 2 and 3, with which branches are adapted to be connected the tubes of a water-circulating system. (Not shown.) I show the branch 2 provided with a valve or cock 4. I provide the dilator with an inner open-end tube 5, one end of which projects through the branch 3 of the dilator and the other end of which extends beyond the end of the tubular body A, as shown. The end of the body portion A of the dilator is formed with exterior threads 6 to intermesh with the threads of the extension-barrel 7. The body of the dilator adjacent to the threaded portion 6 is formed with a circumferential flange 8. The barrel portion 7 is formed with a series of central openings 9.

B represents a flexible covering for the barrel 7. As shown in Fig. 1, the covering or sleeve B entirely covers the barrel, the end of the sleeve having an outturned portion 10, bearing against the face of the flange 8, to prevent said flange coming in contact with and injuring the sensitive membranes. In order to prevent any inflation of the ends of the sleeve B and to hold the sleeve tightly

upon the barrel, I weave in the body of the sleeve adjacent to its ends the inelastic threads 11 and 12.

To permit of more convenient use, I preferably curve the dilator to bring the barrel portion at substantially right angles to the inlet end of the dilator, as shown.

In use water is forced into the dilator through the inner tube 3, from which it passes into the extension-barrel 7. By partially or wholly closing the stop-cock 4 the flow of the water from the extension-barrel to the branch 2 is retarded or stopped, causing the water to be forced out through the openings 9 of the barrel to cause inflation of the loose portion of the covering, as shown in Fig. 1 by dotted lines. By means of the threads 11 and 12 any inflation of the ends of the covering is prevented. While I have shown a stop-cock 4, the same is not necessary and the flow of water may be regulated in any other desired manner.

I claim—

1. A dilator comprising a hollow body, an inner open-end tube, an extension-barrel detachably secured to said body, said barrel being formed with openings intermediate of its extremities, a flexible cover or sleeve for said barrel, and an inelastic insertion in said sleeve adjacent to its ends.

2. A dilator, comprising a hollow body portion, an inner hollow end tube, an extension-tube detachably secured to said body portion, said tube being provided with side openings, an elastic sleeve inclosing said extension-tube, inelastic portions adjacent to the ends of said tube, a circumferential flange upon said body adjacent to the inner end of said sleeve, and an outturned portion upon the end of said sleeve bearing against said flange.

In testimony whereof I affix my signature in presence of two witnesses.

JONATHAN R. HAMILTON.

Witnesses:

J. W. BOYCE,  
R. H. WARREN.