

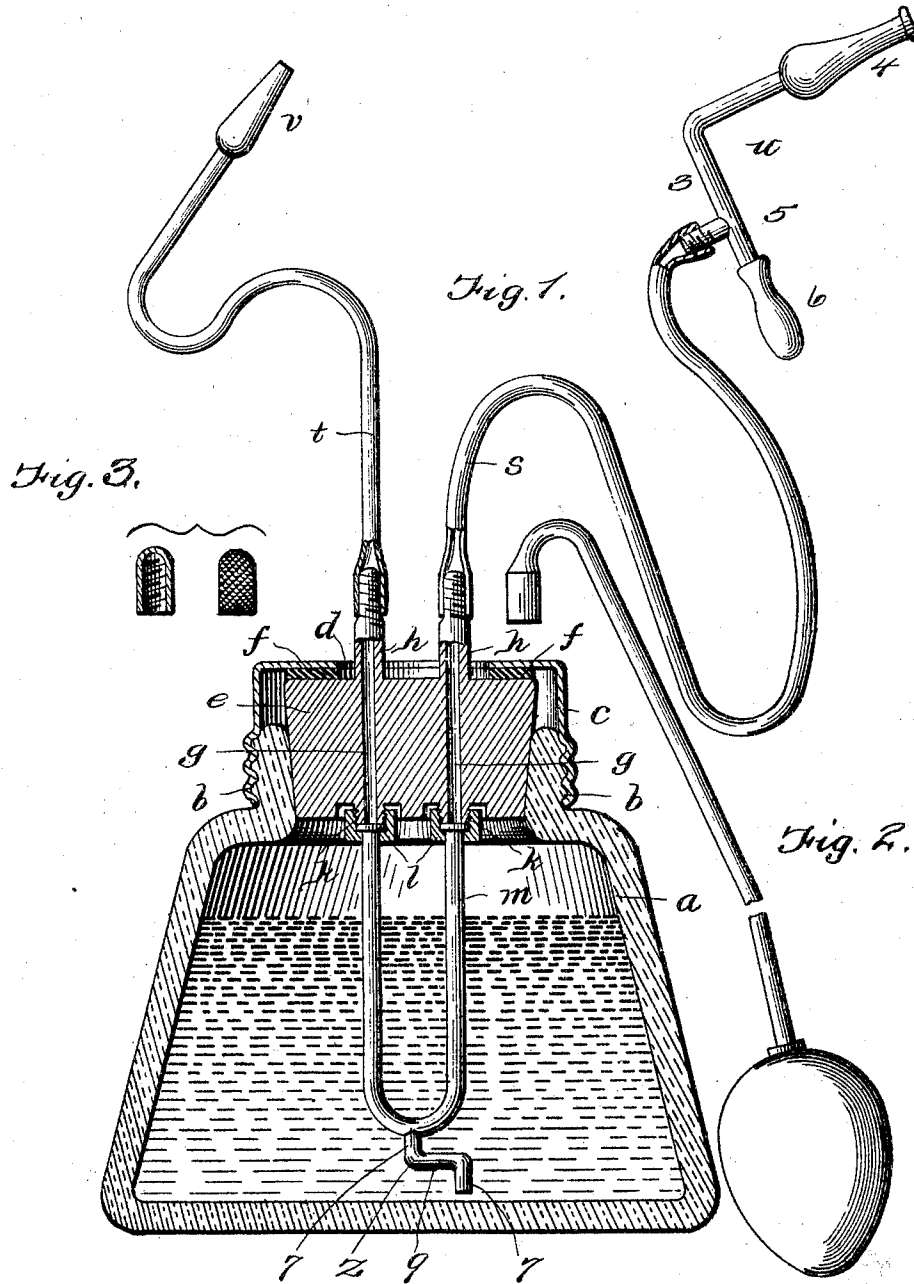
No. 776,372.

PATENTED NOV. 29, 1904.

J. E. ANDERSON.
INHALER AND SPRAYER.

APPLICATION FILED SEPT. 24, 1903.

NO MODEL.



Inventor

James E. Anderson

Witnesses

R. V. Boswell.
George M. Anderson

By

E. W. Anderson

his. Attorney

UNITED STATES PATENT OFFICE.

JAMES E. ANDERSON, OF MONTEZUMA, IOWA.

INHALER AND SPRAYER.

SPECIFICATION forming part of Letters Patent No. 776,372, dated November 29, 1904.

Application filed September 24, 1903. Serial No. 174,474. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. ANDERSON, a citizen of the United States, and a resident of Montezuma, in the county of Poweshiek and State of Iowa, have made a certain new and useful Invention in Inhalers and Sprayers; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical sectional view of the invention. Fig. 2 is a detail view of the attachment for spraying. Fig. 3 is a detail view of the cap-pieces.

The invention relates to apparatus for inhaling, spraying, and douching in the treatment of affections of the air-passage and parts of the body in connection therewith; and the invention consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a* designates a wide-mouth bottle or receptacle for the solution designed to be used in the treatment. Around the neck of the bottle is provided a coarse thread *b* for engagement with an annular flanged cap *c*, which is threaded in its flange. The top of this cap is annular, having a large circular opening *d* therein, and said top is sufficiently raised to accommodate the hard-rubber stopper *e*, which is seated in the mouth of the bottle. An annular packing *f* is located between the top of the stopper and the cap and serves to keep the connection air-tight.

The stopper *e* is provided with two vertical passages *g g* extending through it and through corresponding upward-projecting threaded nipples *h h* and downward threaded projections *k k*, the latter serving to engage the annular connection or clamp-nuts *l l*. These nuts have perforations to receive the ends of the glass branches of the U-form tube *m*, and said ends are usually beaded to engage the inner flanges of the nuts, so that when the nuts

are screwed up the ends of the glass tube will be pressed against the ends of the projections *k*.

To the upward-projecting threaded nipples *h h* are connected the flexible tubes *s* and *t*, which are respectively provided with a mouth-piece *u* and a nose-piece *v*. The mouth-piece consists of an angular stem 3, having at one end the mouth-nipple 4 and at the angle a projecting arm 5, provided with a handle 6.

The nipples *h h* of the cork are provided with threaded caps to close the same air-tight when not in use.

The U-form douche or spray-tube *m* has at the bend in its lower portion a downward-extending angular branch tube *z* communicating with the bent portion and open at its lower end. This branch tube may consist of the two vertical portions 7 7, connected by the horizontal portion 9, and said branch tube is about an inch long or long enough to cause some friction in the passage of the solution through it to the main blowing-tube *m*. The object is to admit fluid and to facilitate the vaporizing or spraying of the solution as the air blown in through the U-form tube *m* passes the opening of the branch tube in the bend of said U-form tube. If the solution were to pass very freely into the tube *m*, it would be blown out in liquid form or without much division or vaporizing. The angular form of the branch tube serves to hold it back, so that the liquid is sprayed or vaporized by the draft passing the opening.

Sometimes instead of using the mouth-tube for blowing through the tube *m* in spraying I may use a tube having an ordinary valved bulb of rubber.

This apparatus is designed to serve an excellent purpose in the application of medicine in the manner indicated. It is strong and durable and of simple construction, so that its operation is managed with ease.

Having described the invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with the wide-mouth bottle, the perforated hard-rubber stopper, its upward-projecting nipples, and the flexible tubes in connection therewith, and its down-

ward-projecting threaded connection, of the clamp-nuts, the U-form glass tube, and the friction branch communicating with the bend of said glass tube, substantially as specified.

- 5 2. The combination with the wide-mouth bottle, having a threaded neck, and its hard-rubber stopper, having the upward threaded nipples, and the downward threaded connections, of the annular threaded cap, the annu-
10 lar packing, the flexible tubes in connection

with said threaded nipples, the U-shaped glass tube, and its angular friction branch communicating with the bend thereof, substantially as specified.

In testimony whereof I affix my signature in 15
presence of two witnesses.

JAMES E. ANDERSON.

Witnesses:

S. E. SMITH,
JNO. HALL, Jr.