

(No Model.)

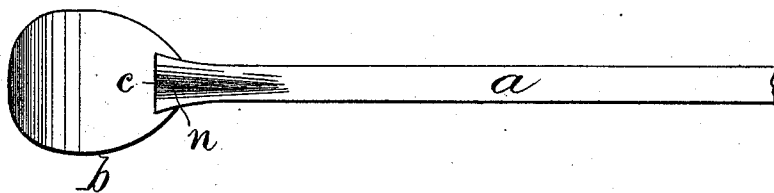
J. D. OSBORNE.

TONGUE DEPRESSING INSUFFLATOR.

No. 412,409.

Patented Oct. 8, 1889.

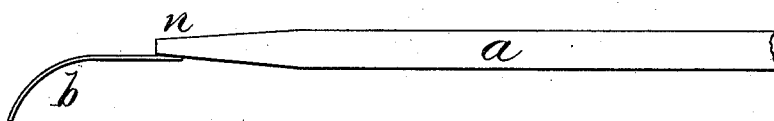
*Fig. 1.*



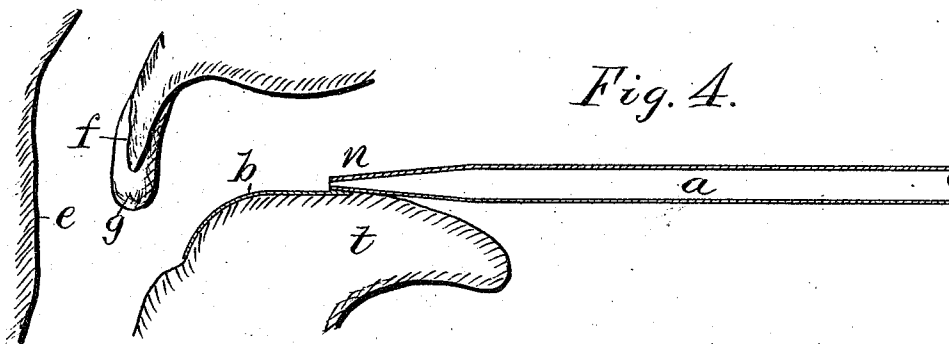
*Fig. 3.*



*Fig. 2.*



*Fig. 4.*



Attest:  
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J. D. Osborne, per  
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# UNITED STATES PATENT OFFICE.

JOSEPH D. OSBORNE, OF NEWARK, NEW JERSEY.

## TONGUE-DEPRESSING INSUFFLATOR.

SPECIFICATION forming part of Letters Patent No. 412,409, dated October 8, 1889.

Application filed February 1, 1889. Serial No. 298,352. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH D. OSBORNE, a citizen of the United States, residing at Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Tongue-Depressing Insufflators, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is, primarily, to facilitate the depression of the tongue in applying remedies in the form of powder, spray, or liquid by an insufflator to the cavity of the throat; and the invention consists in the combination, with the nozzle of an insufflator, of a polished metal tongue-depressor of particular form to reflect light into the cavity of the throat, and in a particular construction for the insufflator-tube.

The insufflator-tube may, for the purposes of my invention, be made of metal, hard rubber, celluloid, or other suitable substance, and the tongue-depressor is made of metal highly polished upon its convex side and attached to the tube in any convenient manner. The tongue-depressor may perform its function of holding the tongue down in applying the medicine, irrespective of its function as a reflector; but when made of convex form, as shown in the drawings, upon its upper side and formed of polished metal it obviously acts as a pharyngeal reflector.

The construction will be understood by reference to the annexed drawings, in which—

Figure 1 is a plan of the instrument. Fig. 2 is a side view of the same; Fig. 3, an end view of the same, showing the aperture of the nozzle; and Fig. 4, a longitudinal section of the instrument on line *x x* in Fig. 1, with the tongue, palate, and throat-cavity shown in dotted lines.

*a* is the tube of the insufflator, attached tangentially to the outer end of the tongue-depressor and reflector *b*.

The body of the insufflator is shown as a round tube; but its nozzle *n* is formed by flattening the tube where connected with the reflector *b* and indenting the middle of the nozzle, as at *c* in Fig. 3, so as to form an aperture with a contracted outlet at the middle and freer outlet-channels *d* at the opposite

sides. By thus indenting the middle of the nozzle the medicine discharged from the same is diverted laterally in large degree, and is thus applied to the tonsils as effectively as to the rear of the throat.

The instrument is shown in Fig. 4 applied to the tongue, with the reflector *b* pressed upon the same to force the tongue *t* downward to expose the pharynx *e* behind the soft palate *f*. One of the tonsils *g* is shown adjacent to the soft palate. The tongue-depressor may also be used to draw the tongue forward without depressing the tongue, which is sometimes the preferable method of using the instrument to expose the pharynx.

It is obvious that the curved surface of the tongue-depressor *b* operates very powerfully to illumine the interior of the throat and to guide the operator in using the insufflator.

The attachment of the reflector directly to the insufflator enables the operator either to depress the tongue or to draw it forward in the most satisfactory manner while using the insufflator, the tangential arrangement of the insufflator upon the base of the reflector also serving to direct and scatter the medicine that may be projected from the nozzle *n*. The medicine to be administered would be blown through the tube *a*, and would, owing to the peculiar conformation of the nozzle *n*, be directed against the tonsils as well as against the rear of the throat.

The instrument may be used for the administration of powder by blowing the same through the tube, or for applying a wash or douche by inserting the nozzle of a syringe within the tube.

The open end of the insufflator would preferably be made of a size to receive the nozzle of an ordinary Davidson syringe; or it may be inserted in the end of the rubber tube of the same when it is desired to use the tube in connection with a syringe.

The tongue-depressor is shown of oval or spoon shape in outline, as such shape is the best adapted for introduction to and removal from the mouth.

It will be seen from the above description that the tongue-depressor exercises, when shaped and polished as described, the triple

function of depressing the tongue, drawing it forward, and of illuminating the throat.

I am aware that a pharyngeal mirror is not new, or a tubular insufflator; but I am not  
5 aware that an insufflator has ever been provided with a tongue-depressor similar to mine attached tangentially to its nozzle or formed with a flattened nozzle having a central depression for the purposes herein.

10 I am also aware that it is not new, broadly, to attach a tongue-depressor to the nozzle of an atomizer-tube, as shown in United States Patent No. 79,015. My invention differs from the latter construction in having the spoon-  
15 shaped tongue-depressor attached tangentially to the nozzle of the insufflator-tube.

I am also aware that it is not new to form an insufflator-tube with two distinct nozzles leading from its main channel, as shown in  
20 United States Patent No. 32,789. My invention differs from such construction in having the insufflator-tube provided with a single flattened nozzle having a slight depression in its center to deflect the medicine somewhat  
25 in its exit therefrom.

I hereby disclaim the above-mentioned patents, limiting myself to the construction shown, described, and claimed herein.

What I therefore claim as my invention, and desire to secure by Letters Patent, is— 30

1. The combination, with an insufflator, of a spoon-shaped tongue-depressor having a highly-polished surface curved downwardly at its outer end and attached tangentially to the nozzle of the insufflator, as and for the  
35 purpose set forth.

2. The combination, with the convex polished tongue-depressor *b*, of the insufflator-tube having a flattened nozzle with the central depression *c*, forming the outlet-channels  
40 *d d*, and attached tangentially to the convex side of the tongue-depressor, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing  
45 witnesses.

JOSEPH D. OSBORNE.

Witnesses:

THOS. S. CRANE,  
HENRY J. MILLER.