

No. 668,823.

Patented Feb. 26, 1901.

C. J. PILLING.  
FOLDING TONGUE DEPRESSOR.

(Application filed May 21, 1900.)

(No Model.)

Fig. 1.

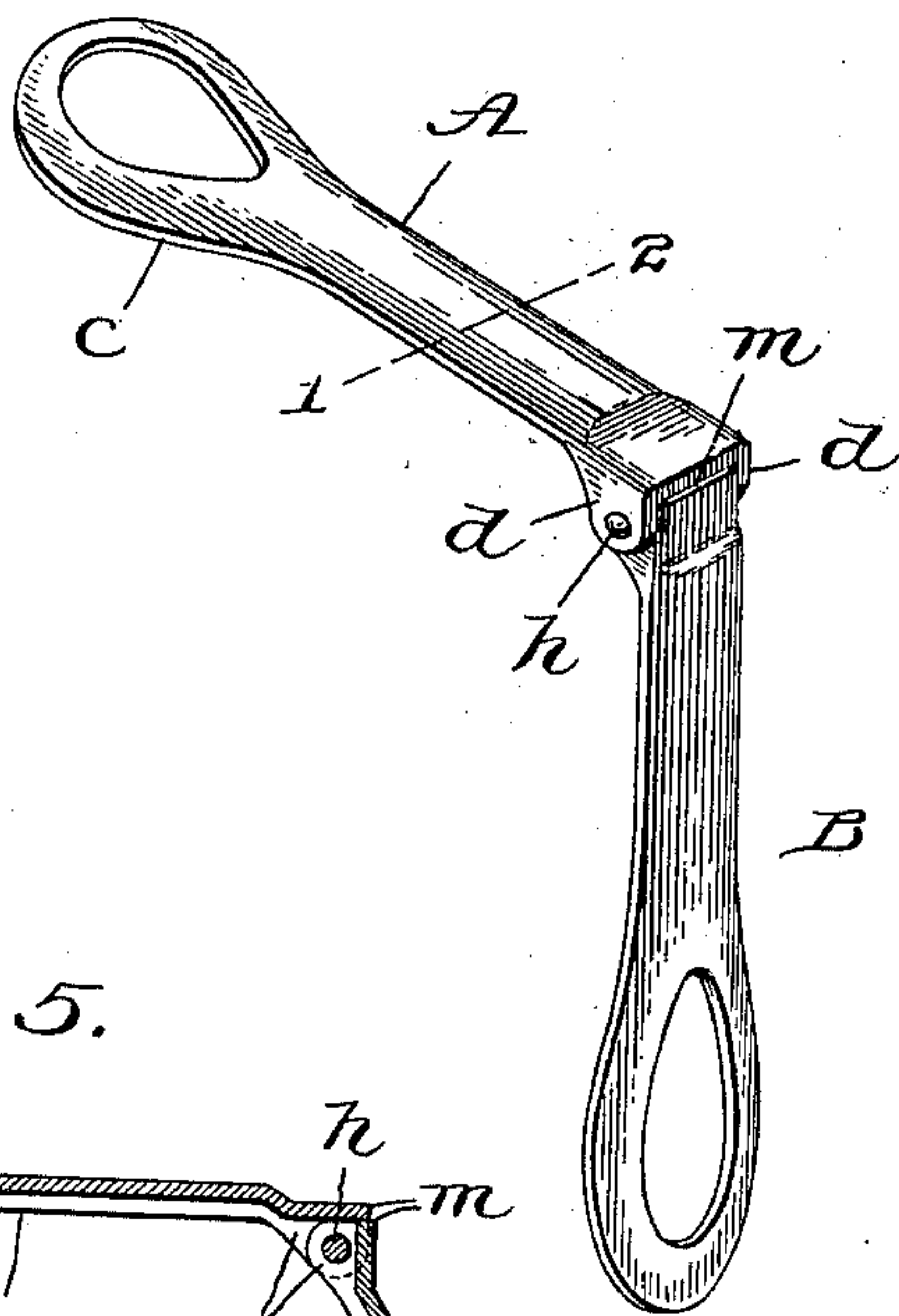


Fig. 4.

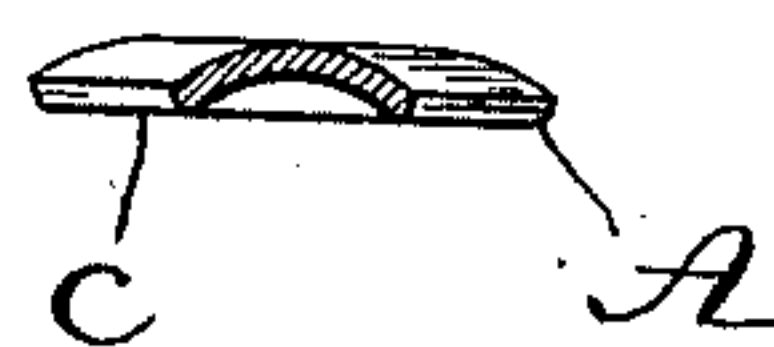


Fig. 5.

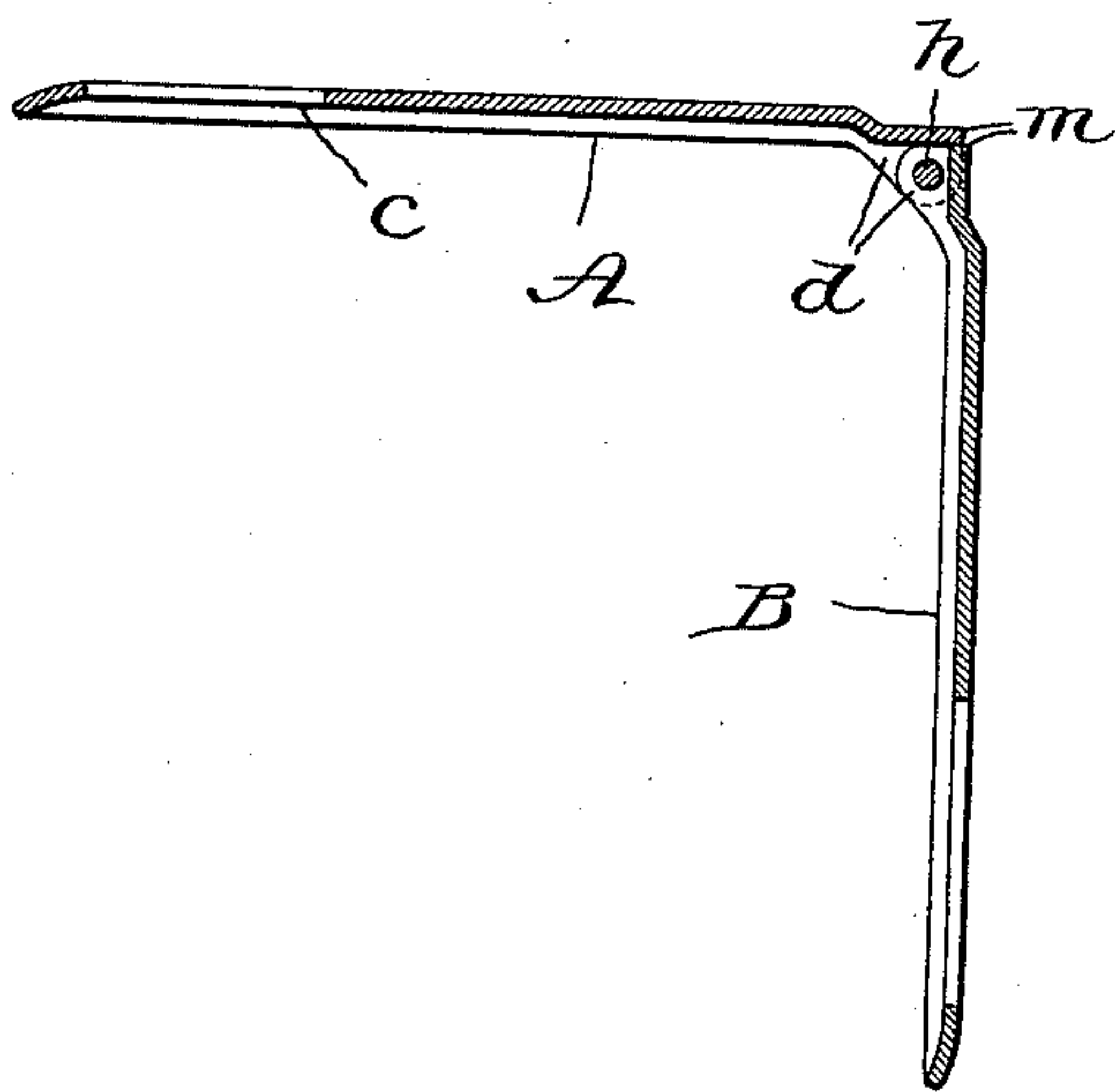


Fig. 2.

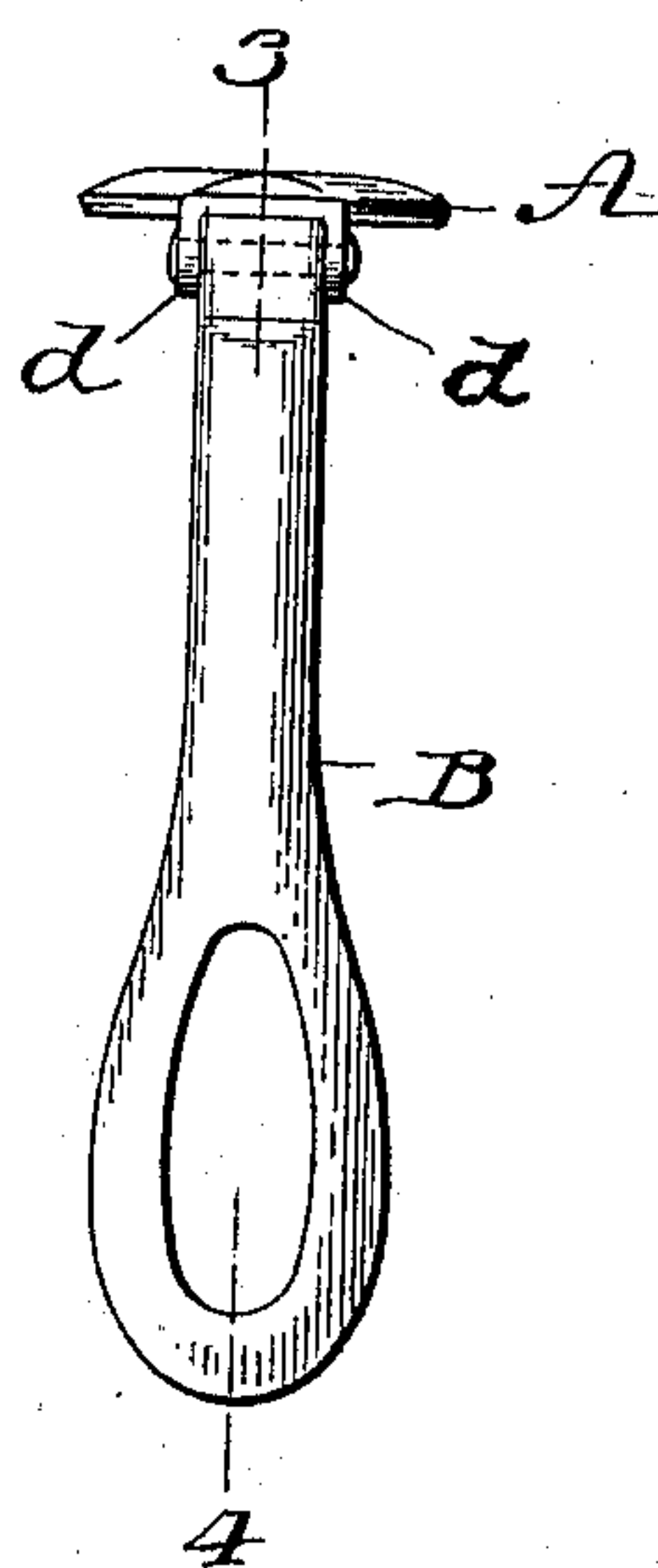
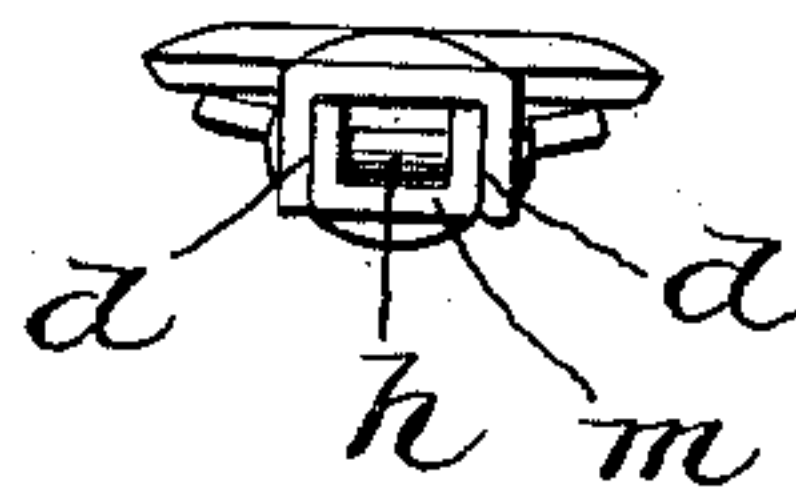


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES J. PILLING, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND GEORGE P. PILLING, COPARTNERS TRADING AS GEORGE P. PILLING & SON, OF SAME PLACE.

## FOLDING TONGUE-DEPRESSOR.

SPECIFICATION forming part of Letters Patent No. 668,823, dated February 26, 1901.

Application filed May 21, 1900. Serial No. 17,445. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES J. PILLING, a citizen of the United States, residing at the city of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Surgical Instrument Folding Tongue-Depressors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to surgical instruments of the class known as "folding tongue-depressors."

It has for its object to simplify and improve the construction of the hinge connection of the members, to simplify and cheapen the cost of manufacture of the device, and to give strength and rigidity to the members due partly to the shape and partly to the relative arrangement of said parts.

To these ends my invention consists of the device hereinafter fully described, the novel features being pointed out in the following description and specified in the claims hereinafter stated.

In the drawings, Figure 1 is an elevation in perspective of the device in distended or working position of the members; Fig. 2, an end view thereof; Fig. 3, an end view with the members closed on each other; Fig. 4, a vertical section on the line 1 2 of Fig. 1; Fig. 5, a vertical section taken longitudinally on the line 3 4 of Fig. 3.

The general outline of this instrument—*i. e.*, two hinged members, one of which is employed as a grasping-handle and the other intended to be inserted in the mouth of a patient to depress and hold down the tongue during a surgical operation, said members being hinged together—is not, broadly speaking, new; but such devices had two principal defects—the depressing member was flat and the hinge was of a character that permitted the members to open beyond a right angle, and hence soon became loose enough to cause wobbling and getting out of true register.

My improved device consists of the two hinged members A and B. They are stamped up in dies to form a concave inner face the whole length of the member, except at the

extreme hinge end, as indicated in Figs. 1 and 5 and at *c*, Fig. 4. The hinge end of each member is provided with downturned lips *d*, as shown in Figs. 1 and 2 and indicated in end view in Fig. 5. This concavity of the members not only imparts additional strength to said parts, but gives a better grasping-surface, preventing slipping on the tongue while the instrument is being used in surgical operations.

It is important that the hinge connection should work freely and that it should hold the members in true line of movement relatively, and to these ends, plus simplicity and economy of construction, I first stamp up the members and then bend over the lips *d d* at right angles thereto. Thus the flanged or lipped end of one member will enter the other member between the flanges or lips *d d* of that member, the said parts being held in position and pivotally united by a pin *h* passing through the four lips or flanges. The extreme end face *m* of each member is cut off square, (see Fig. 1,) so that when the device is distended this face will come flush against the inner surface of the opposite member and forming a stop will prevent strain of the hinge-joint. The lips or flanges *d* of the narrower member, or both, are preferably curved, as shown in the drawings, in order that the former may ride more easily on the opposite members, though this is not essential.

The advantages stated of my improved device are obvious from the aforesaid description of its construction.

Having thus described my invention, I claim as new—

1. In folding tongue-depressors, a pair of hinged members having convex outer faces and concave inner faces, extending continuously from the outer end to the extreme hinge end, the walls of the concavity terminating in downturned lips or flanges, with means to pivotally unite said members by their flanged ends; the ends of said members forming end faces to provide a stop for said members to hold them at substantially right angles, substantially as described.

2. In a folding tongue-depressor, a pair of hinged members provided with a hinge con-



nection composed of a double flanged or  
lipped end *dd* with a square face or extrem-  
ity *m*, to limit their opening to substantially  
a right angle, the flanged end of one member  
5 being narrower in width than the other to  
adapt it to fit within the flanged or lipped end  
of said other member, and a pin pivotally  
uniting said parts; substantially as described.

In testimony whereof I have hereunto af-  
fixed my signature this 17th day of May, A. D. 1900.

CHARLES J. PILLING.

Witnesses:

ANDREW V. GROUPE,  
H. T. FENTON.