

(Model.)

J. J. & T. A. COLE.

SPECULUM FOR THE THROAT.

No. 350,809.

Patented Oct. 12, 1886.

Fig. 3.

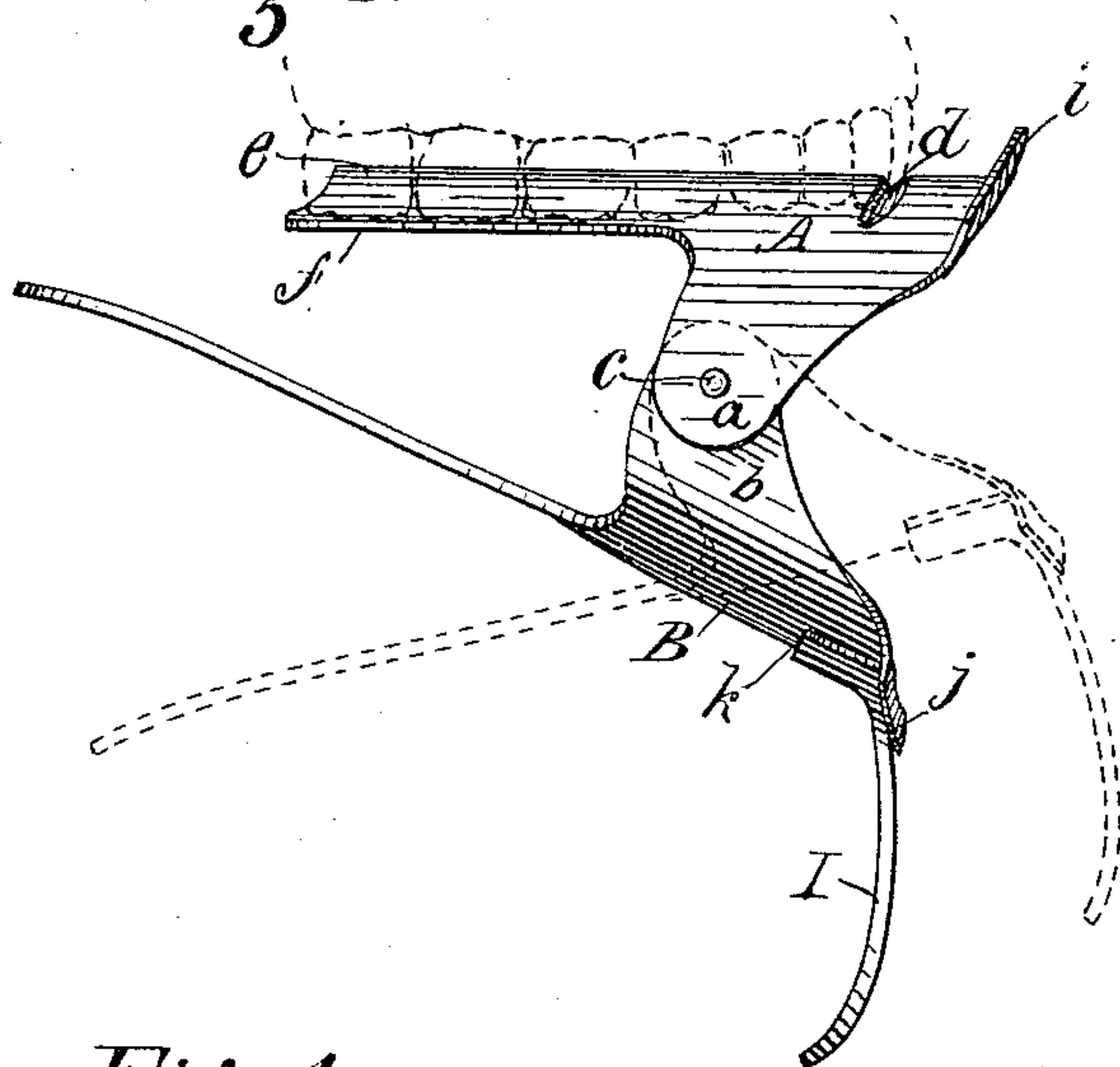


Fig. 1.

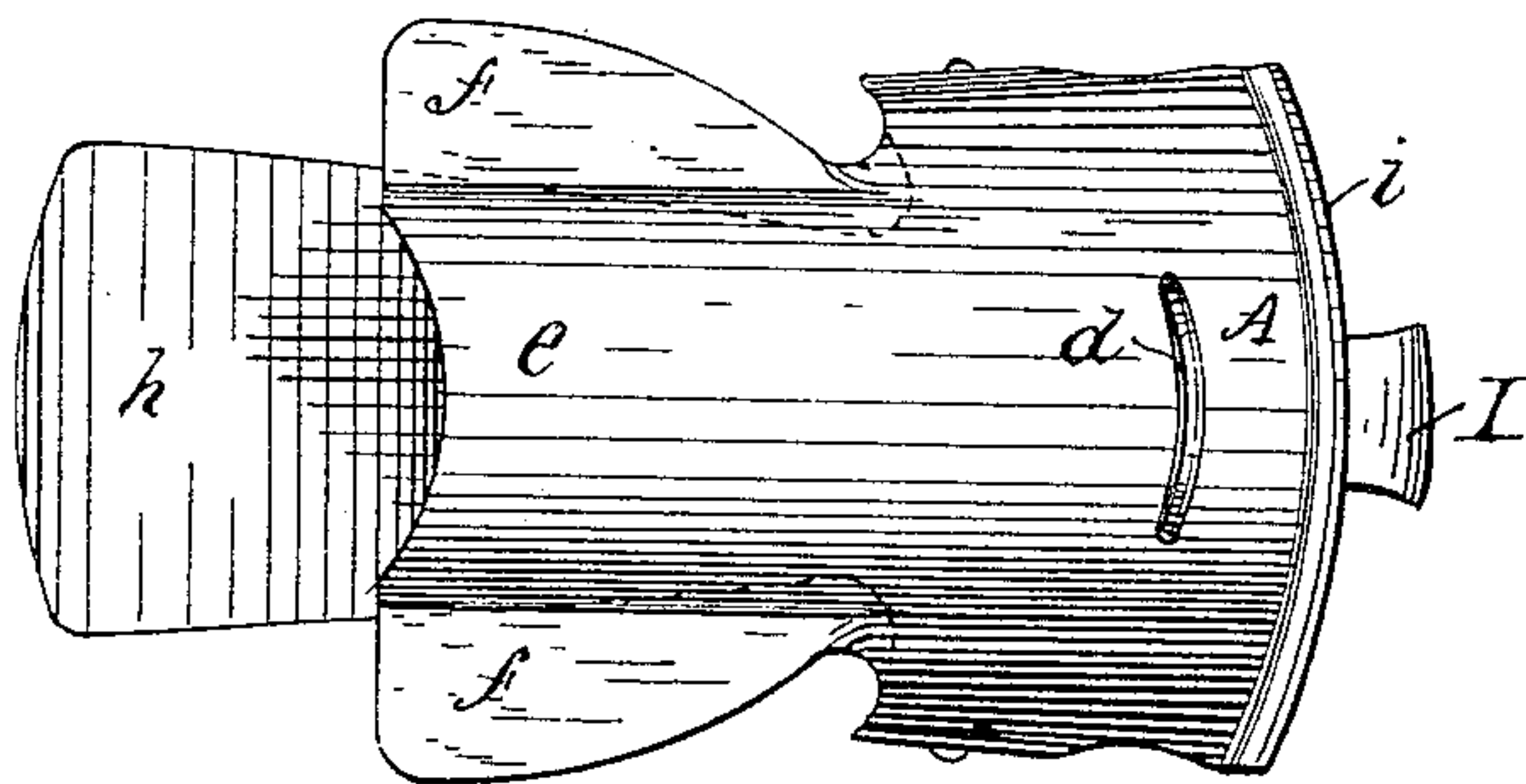


Fig. 4.

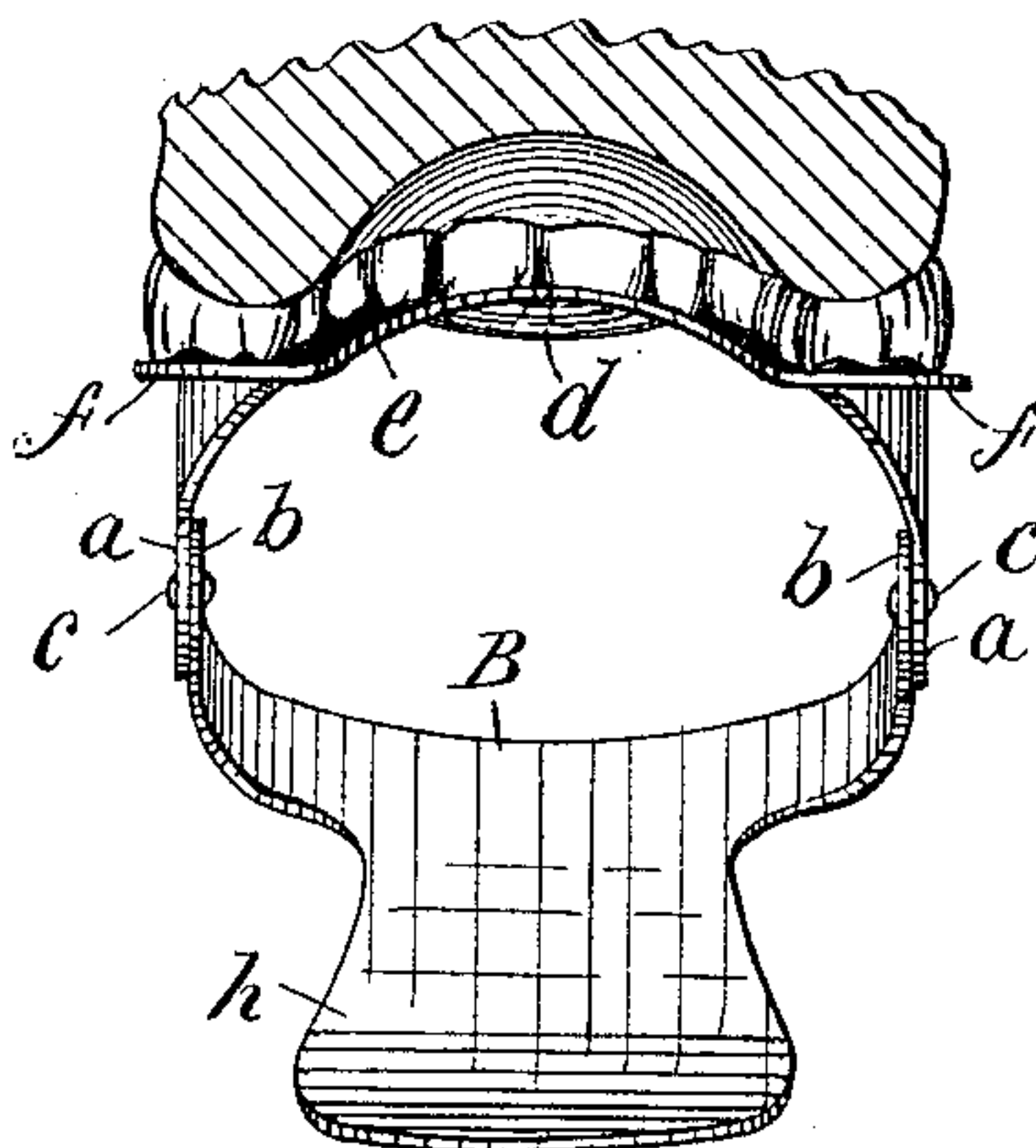
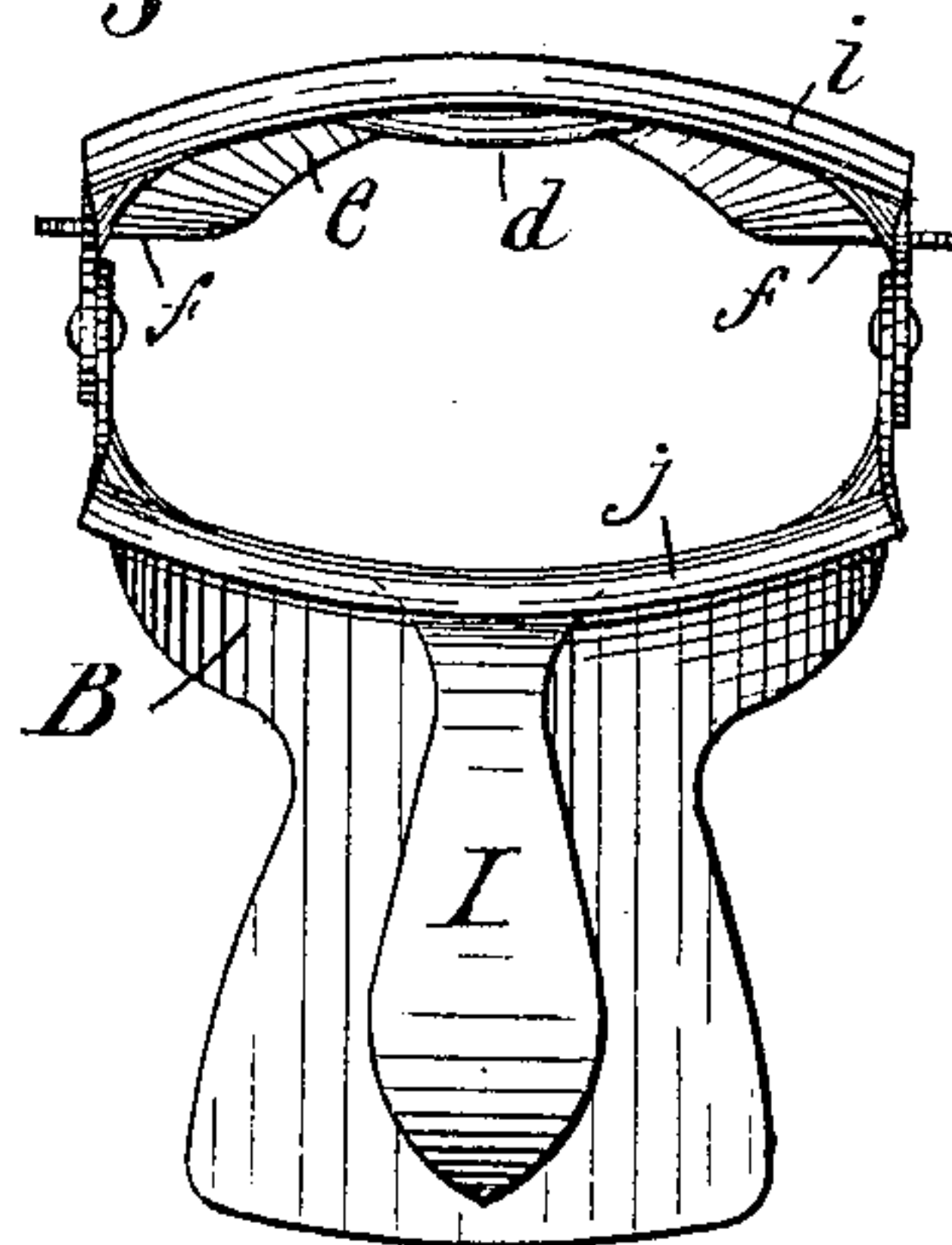


Fig. 2.



WITNESSES:

H. P. Hood,
V. M. Hood.

INVENTOR:

James J. Cole
Thomas A. Cole

UNITED STATES PATENT OFFICE.

JAMES J. COLE, OF INDIANAPOLIS, AND THOMAS A. COLE, OF
GREENWOOD, INDIANA.

SPECULUM FOR THE THROAT.

SPECIFICATION forming part of Letters Patent No. 350,809, dated October 12, 1886.

Application filed April 1, 1886. Serial No. 197,468. (Model.)

To all whom it may concern:

Be it known that we, JAMES J. COLE and THOMAS A. COLE, citizens of the United States, residing, respectively, at Indianapolis, in the county of Marion, and Greenwood, county of Johnson, and State of Indiana, have invented a new and useful Improvement in Throat-Speculums, of which the following is a specification.

Our invention relates to an improvement in speculums for examining the human throat.

Our improved speculum is of that class known as "two-bladed," as distinguished from throat-speculums heretofore made having a rigid elliptical tube for holding the jaws apart and a tongue-spatula formed integral therewith; and the objects of our improvement are, first, to provide means for supporting the upper blade so that it may be extended farther back in the mouth than heretofore without danger of injury to the roof of the mouth, thereby more perfectly illuminating the throat, and, second, to cause the act of closing the jaws of a patient while undergoing examination with our speculum to depress the posterior portion of the tongue, all as hereinafter described.

The accompanying drawings illustrate our invention.

Figure 1 is a plan. Fig. 2 is a front elevation. Fig. 3 is a side elevation showing in full lines the blades in position for insertion into the mouth, and showing, also, in dotted lines the relation of the upper blade to the teeth and the position of the lower blade when the mouth of the patient is partly closed. Fig. 4 is a rear elevation showing the manner of supporting the upper plate and its relation when in use to the palatal arch.

Our speculum consists of a pair of short elliptical plates, A and B. Said plates are provided with corresponding lugs, *a a* and *b b*, which are pivoted together at *c* to form a jointed connection between the two plates. Plate A is provided near its front edge with a groove, *d*, which is for the purpose of receiving the edges of the incisor teeth, and its rear portion is extended nearly the whole depth of the mouth to form a concave reflector, *e*, and a pair of parallel horizontal wings, *f f*. Wings *f f* are for the purpose of forming supporting-bearings for the plate A

against the molar teeth, and thereby preventing the plate from coming in contact with the roof of the mouth, as clearly shown in Figs. 3 and 4. Plate B is extended rearward to form a narrow, flat, and slightly-curved tongue-spatula, *h*.

I is a short handle for conveniently holding the instrument when introducing it into the mouth, and the upper portion of said handle, where it is secured to the plate, forms a shoulder, *k*, against which the outside of the teeth of the lower jaw may rest. Narrow flanges *i* and *j* are turned outward on plates A and B to receive and retain the lips. It will be observed that the relation of joint *c* to the groove *d* and wings *f f* of the upper plate is such that when the lower plate is pressed upward by the lower teeth and tongue of the patient the upper plate is held firmly in a fixed position, and the lower plate swinging on the fulcrum thus furnished, the tongue-spatula *h* is depressed by the partial closing of the jaws of the patient, thereby forcing the posterior portion of the tongue downward and forward.

Heretofore in this class of speculums the jaws of the patient have necessarily been held during the whole of an examination in a widely-distended rigidly-fixed position. With our improved construction the patient may move his jaws within certain limits and yield to the disposition to further close his jaws at times without interfering with the operator's view of the throat.

We claim as our invention—

1. In a throat-speculum, the combination of the following elements, namely: an upper curved plate having side wings adapted to engage the molar teeth of an upper jaw, and a lower curved plate extended to form a tongue-spatula and pivoted to said upper plate, said plates being arranged to co-operate substantially as and for the purpose specified.

2. In a throat-speculum, the combination with a pair of curved plates arranged to form together a hollow support for the jaws, of the side wings, *f f*, arranged substantially as and for the purpose specified.

JAMES J. COLE.
THOMAS A. COLE.

Witnesses:

H. P. HOOD,
V. M. HOOD.