

(No Model.)

J. H. DOYLE.
DENTAL CHEEK HOLDER.

No. 257,215.

Patented May 2, 1882.

Fig. 1.

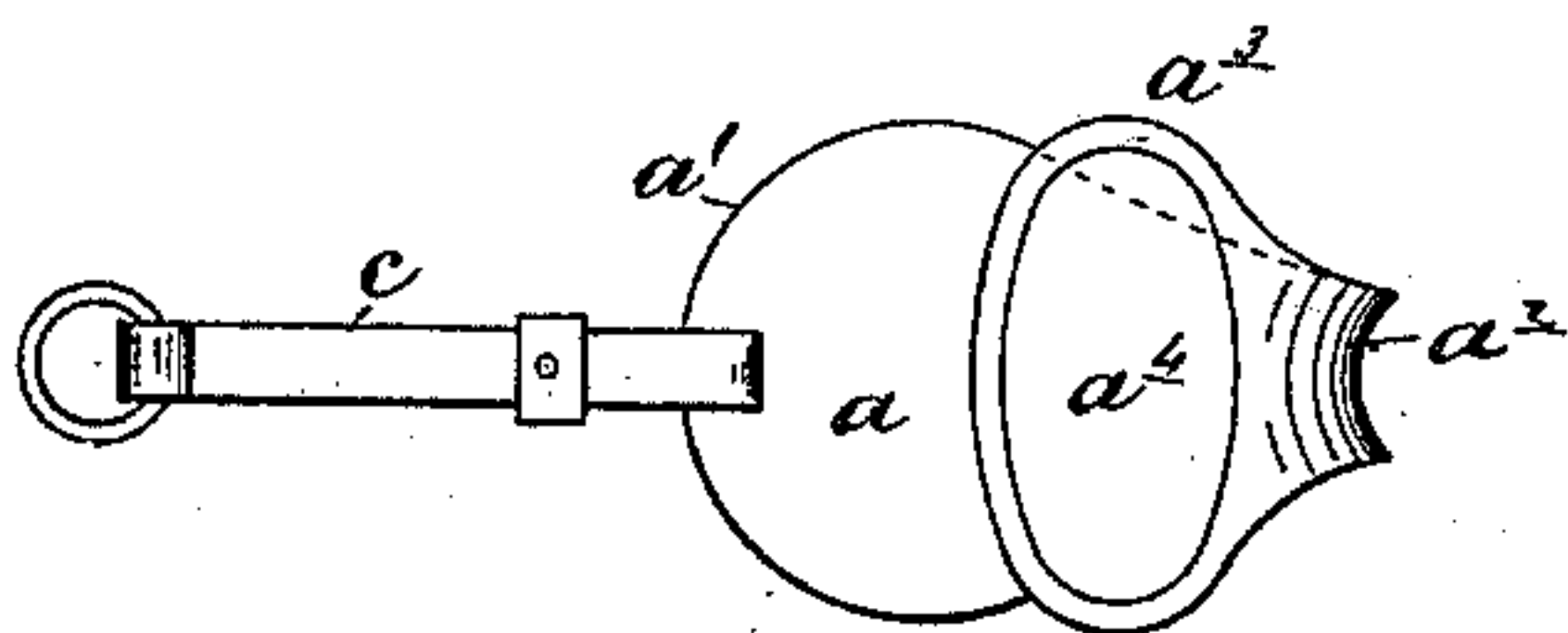


Fig. 3.

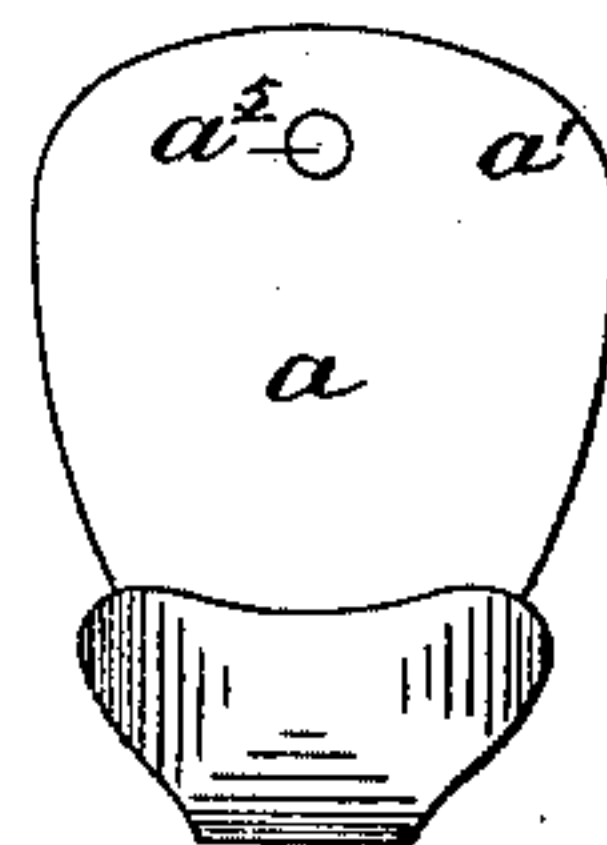


Fig. 4.

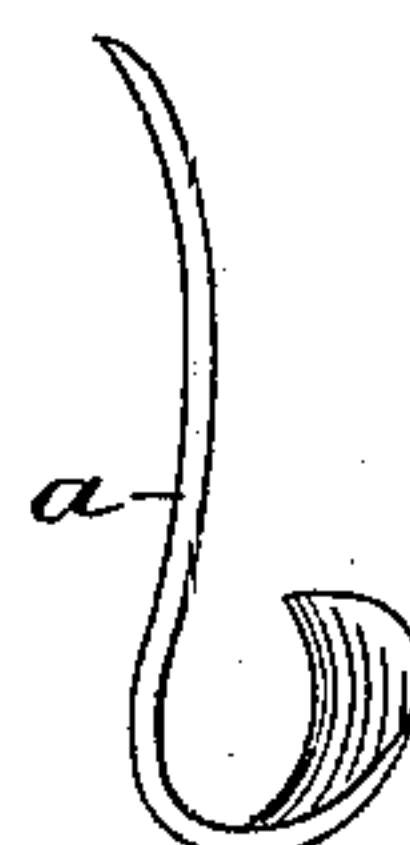


Fig. 2.



Fig. 5.

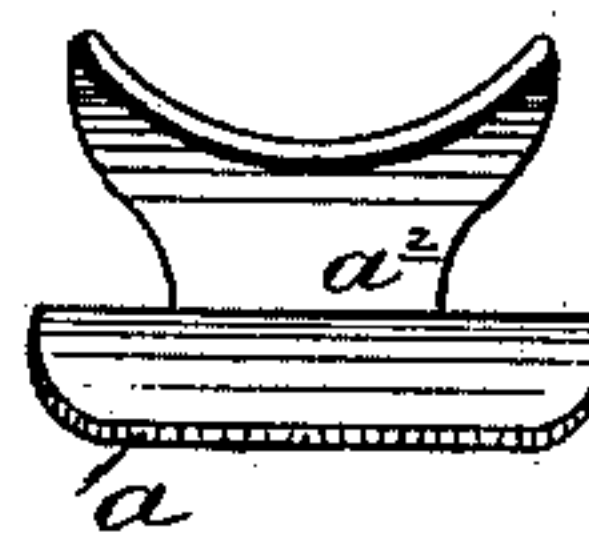
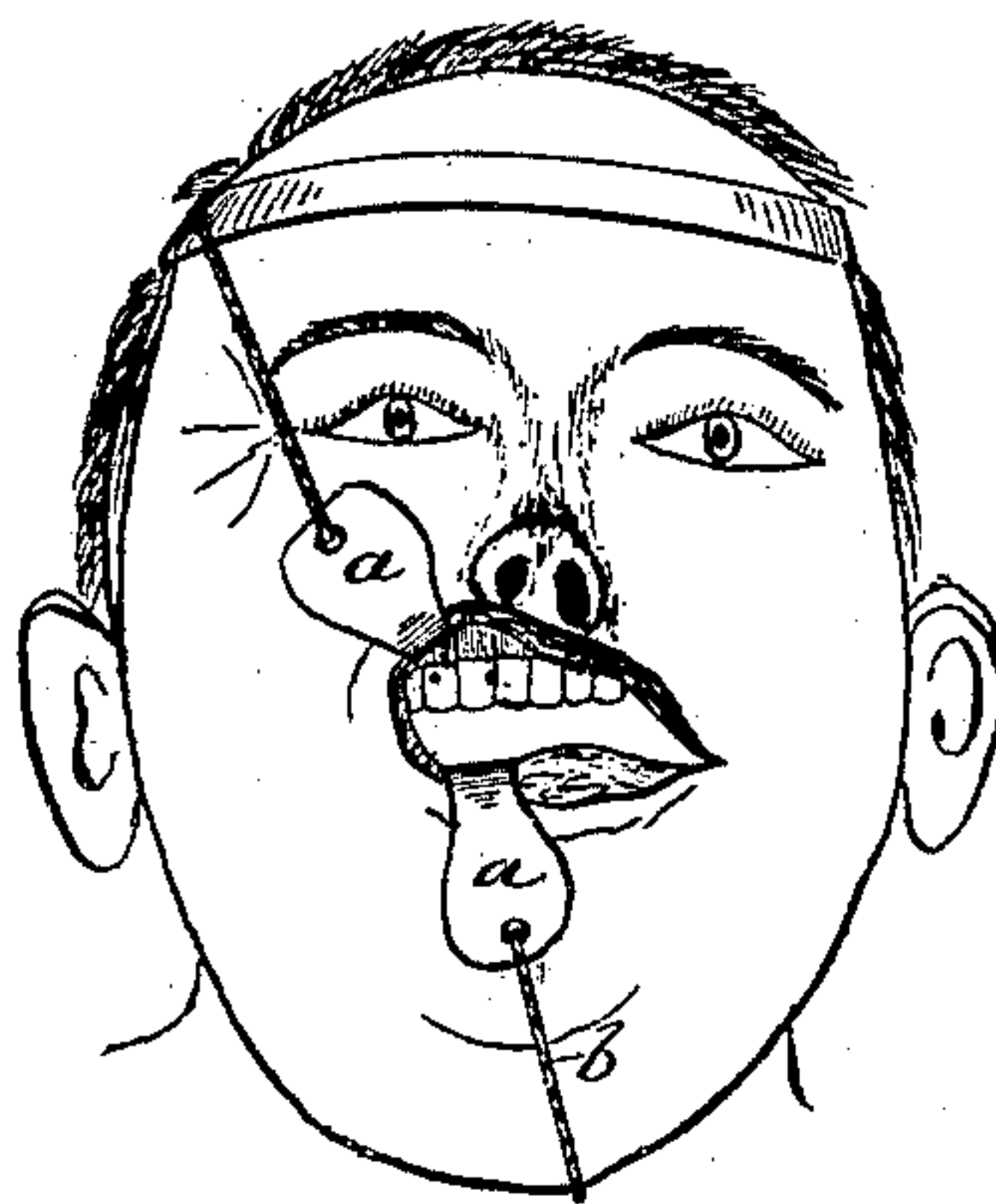


Fig. 6.



WITNESSES:

W. W. Hollingsworth
A. J. Lyne.

INVENTOR:

J. H. Doyle
BY *[Signature]*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN HARRISON DOYLE, OF HILLSBOROUGH, OHIO.

DENTAL CHEEK-HOLDER.

SPECIFICATION forming part of Letters Patent No. 257,215, dated May 2, 1882.

Application filed August 17, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOHN HARRISON DOYLE, of Hillsborough, in the county of Highland and State of Ohio, have invented a new and useful Improvement in Oral Speculums and Cheek-Distenders, of which the following is a full, clear, and exact description, reference being had to the drawings hereto annexed.

My invention relates to devices for dilating the lips in the treatment of the teeth or throat; and its object is to hold the lips and cheeks entirely out of contact with the teeth and gums without exciting the secretion of saliva or causing pain to the patient.

My invention consists in a number of hooks of peculiar construction, which are adapted for being inserted into the mouth and holding the lips apart, and which are provided with suitable reflectors, by the aid of which the teeth or throat may be easily examined.

In the accompanying drawings, forming part of this specification, Figure 1 represents a plan view of a hook for the corners of the mouth; Fig. 2, a side or edge view of the same. Figs. 3, 4, and 5 represent different views of a hook for elevating or depressing the front portion of the lips, and Fig. 6 shows the method of applying my invention to use.

In the practice of dentistry it is indispensable, in taking impressions of the mouth, that the lips and cheeks should be held apart from the alveolar ridge and the mouth sufficiently dilated to admit the cup containing the plaster, and to prevent the corners of the mouth from displacing any portion of the said plaster.

To provide against the contraction of the corners of the mouth during such an operation, I construct two broad hooks, a , which I connect together by means of a rubber tape, b , and suitable clasps, c . The tape is made adjustable, so that when placed around the back of the head and the hooks are inserted into the corners of the mouth it may be made to hold the lips and cheeks entirely apart from the teeth or the alveolar ridge, as the case may be. The hook a , which is to be constructed of any desirable material, (preferably of celluloid or rubber,) is made broad at its outer end, a' , with a plane inner surface for fitting against the outer side of the cheek. The edges of the hook, which are curvilinear, converge toward

the bend a^2 , at which point they are made flaring to accommodate the curve of the mouth, and to prevent cutting the same when drawn tightly by the tape or band. The outer surface of the bend a^2 is thus made slightly curved from side to side, affording thus a shield or guard for the mouth against contact with any dental instrument when the bicuspid or molars are being operated upon. The inner end, a^3 , of the hook is made broad, like the outer end, but with a slightly convex surface on the side adjacent to the inner portion of the cheek, and slightly concave on the opposite side, and provided with a suitable reflector, a^4 , which is set in the latter.

A suitable perforation, a^5 , is made in the outer end of the hook, whereby it may be attached to the tape in any convenient manner.

In addition to the above-described hooks, I construct hooks as shown in Figs. 3, 4, and 5, which I intend to make the subject-matter of a subsequent application, in which the broad outer end is curved inward near its center toward the inner end, and the inner end is made deeply concavo-convex to accommodate the curve of the front portion of the teeth and gums. The object of this construction is to adapt the hook for use in elevating the upper and depressing the lower lip. For applying these hooks a band around the head and another around the neck, to which they may be attached by means of suitable cords, will be sufficient.

It will be readily seen that by means of these hooks the interior of the mouth may be fully exposed to view and the lips securely held out of contact with any instrument used upon the teeth. The inner end of the first-described hook will serve as a compressor to prevent the flow of saliva while the hook is applied.

While intended primarily for use in the dental profession, my invention is also adapted for use in treating diphtheria and other throat diseases, and in giving medicine to children where compulsion is necessary.

I am aware that a hook secured to a handle for holding the cheek aside has before been used; but I am not aware that such a hook has before been constructed with its inner portion made sufficiently large to adapt it to serve the

purpose of repressing the flow of saliva; nor am I aware that a cheek-distender having a reflector secured to its inner portion has ever before been employed.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a cheek-distender, a hook having its curved portion made narrow to accommodate
10 the angle of the mouth, and its inner end

made large, and provided with a reflector set in its surface, whereby the hook shall be adapted to repress the flow of saliva and serve as a speculum while distending the cheek, substantially as specified.

JOHN HARRISON DOYLE.

Witnesses:

B. F. BEESON,

F. P. CHAPMAN.