

A. H. JACOB.
DENTAL FORCEPS.

(Application filed Apr. 22, 1901.)

(No Model.)

Fig. 1.

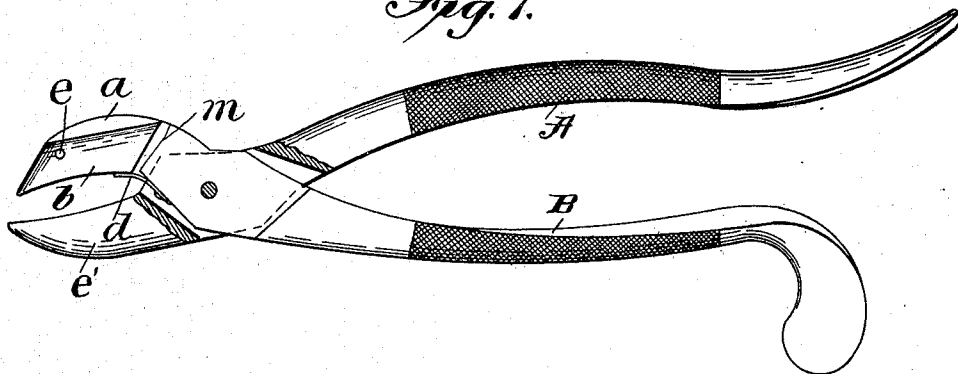


Fig. 2.

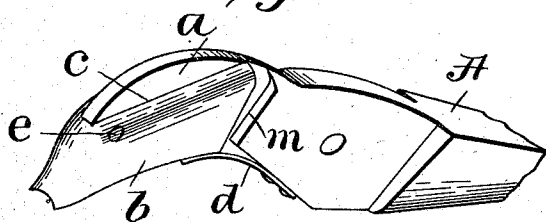


Fig. 3.

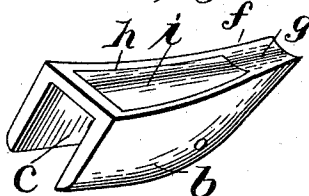


Fig. 4.

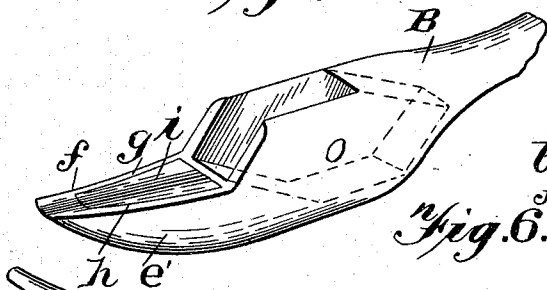


Fig. 5.

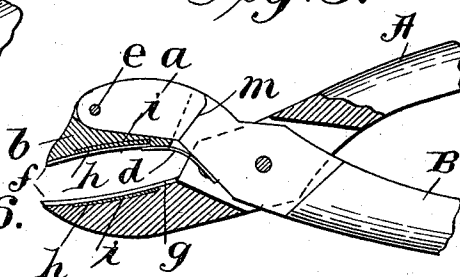
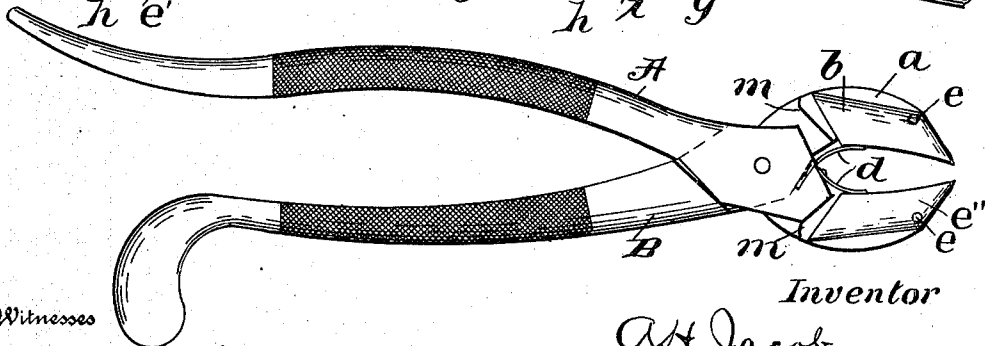


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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DENTAL FORCEPS.

SPECIFICATION forming part of Letters Patent No. 681,224, dated August 27, 1901.

Application filed April 22, 1901. Serial No. 56,927. (No model.)

To all whom it may concern:

Be it known that I, ABRAM H. JACOB, a citizen of the United States, residing at Larned, in the county of Pawnee and State of Kansas, have invented new and useful Improvements in Dental Forceps, of which the following is a specification.

My invention relates to improvements in dental forceps, all of which will be fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of one form of dental forceps with my invention applied to the beaks thereof. Fig. 2 is a detached perspective view of that member of the instrument that has the automatically-adjustable jaw connected with and forming the beak thereof. Fig. 3 is an enlarged perspective view of the inner side view of the adjustable beak. Fig. 4 is a similar view of the beak, which is shown stationary in Fig. 1. Fig. 5 is a longitudinal sectional view through the jaw end of Fig. 1. Fig. 6 is a side elevation of a forceps, showing a modification in which two adjustable beaks are provided.

My improved forceps is particularly intended for use in extracting single-rooted teeth and which may combine the various handles and the general outlines of the dental forceps now in general use, with the curvatures of the handle and beaks usually adopted for such instruments necessary to apply to the tooth operated upon, said structure including my improvements, which will be fully described hereinafter.

Referring now to the drawings, A is one member of the forceps, and B the other member. The handles of these members may be of any desired suitable form.

My improvement consists in the beaks, which I will now explain. The member A has the jaw end *a* provided with an automatically-adjustable beak *b*, this beak having its outer edge provided with a longitudinal slot *c*, adapted to receive the jaw end *a*, and the adjustable beak *b* is pivotally connected with the extreme end of the portion *a* through the medium of a suitable pivotal pin *e*. As shown in Fig. 1, the member B has its jaw and beak *e'* rigid or stationary in respect to the said

member. This jaw or beak *e'*, however, may be made similar to the beak *b*, as illustrated in Fig. 6 at *e''*, without departing from the spirit and scope of my invention.

The inner faces *f* of the beaks of my instrument have their extremities *g* concaved, as shown, and each beak at a point between the said concaved surface *g* and its inner end is provided with a longitudinal cavity *h*, which receives a suitable rubber cushion *i* to be cemented or otherwise fastened therein. From this description and illustration it will be noticed that the rubber cushion does not extend to the outer ends of the beaks for the purpose of preventing the displacement of the rubber cushion in the operation of tooth extraction and also to afford a firmer grip of the instrument at the extreme points of the beaks.

Attention is directed to the shoulder or shoulders *m*, which are formed at the inner end of the jaw end or portion *a* for the purpose of limiting the inward movement of the inner end of the adjustable beak *e*, whereby the adjustable beak cannot move to a position beyond a parallel with the opposite and co-acting beak of the instrument. This same construction is used when both beaks are made automatically adjustable, as shown in Fig. 6.

By the use of my invention in a dental forceps the adjustable beak automatically conforms to the various contours and tapers of the tooth to be extracted and to the transverse convexity or oval surface of the tooth, thereby preventing fracture, breaking, or nipping off of the tooth operated upon.

The extracting of teeth with an instrument having the improvement herein shown and described is greatly facilitated and the difficulty and danger of the breaking of the tooth in the use of forceps with the usual rigid beaks is materially if not entirely avoided.

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

1. An improved dental forceps having an adjustable beak with a longitudinal slot in its outer edge, the jaw end of the corresponding member of the instrument fitting within the said slot, a pivotal pin passing through the

parallel portions of the beak and the outer end of the said jaw end, substantially as described.

2. An improved dental forceps comprising
5 a member thereof having a jaw end, a separate beak intermediately pivoted to the outer end of the said jaw end of the member, the inner end of the pivoted beak and the said jaw end having engaging shoulders for the
10 purpose of limiting the movement of the adjustable beak, substantially as described.

3. A dental forceps having the jaw or beak end thereof provided with a rubber cushion stopping at a point inside of their extremities,
15 substantially as described.

4. An improved dental forceps comprising

a member thereof provided with a jaw end having a reduced portion *a* constituting shoulders *m*, and an adjustable beak pivoted near its outer end to the outer end of the portion *a*, the inner end of the adjustable beak adapted to engage the said shoulders for the purpose of limiting the movement of the beak, substantially as described. 20

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses. 25

ABRAM H. JACOB.

Witnesses:

JAMES F. WHITNEY,
N. S. SUNDERLAND.