

No. 649,742.

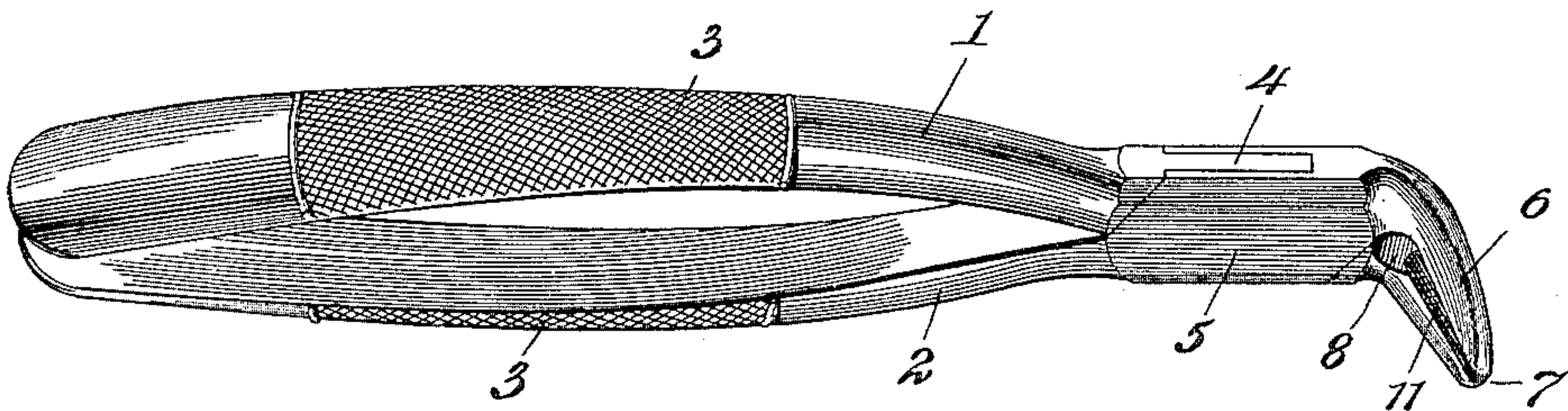
Patented May 15, 1900.

B. B. MORIES.  
DENTAL FORCEPS.

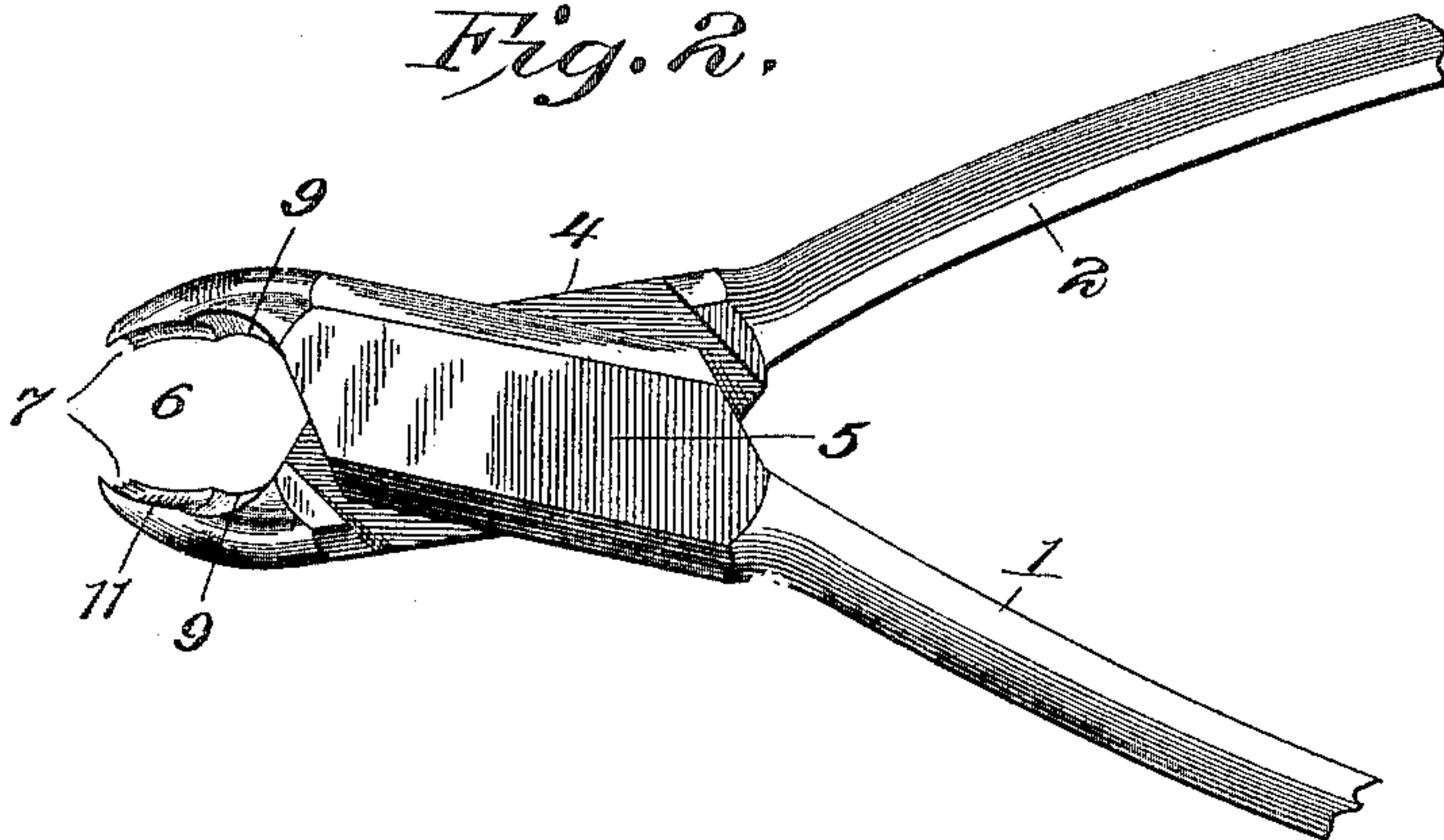
(Application filed Oct. 23, 1899.)

(No Model.)

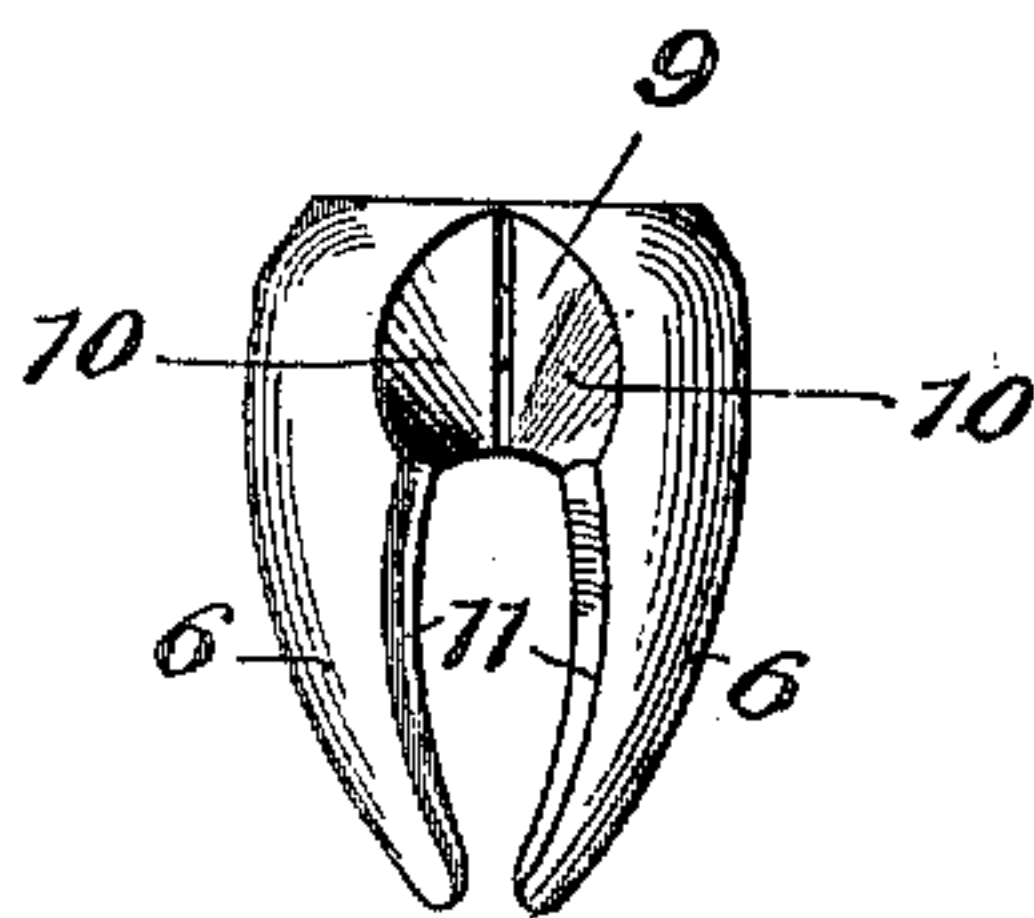
*Fig. 1.*



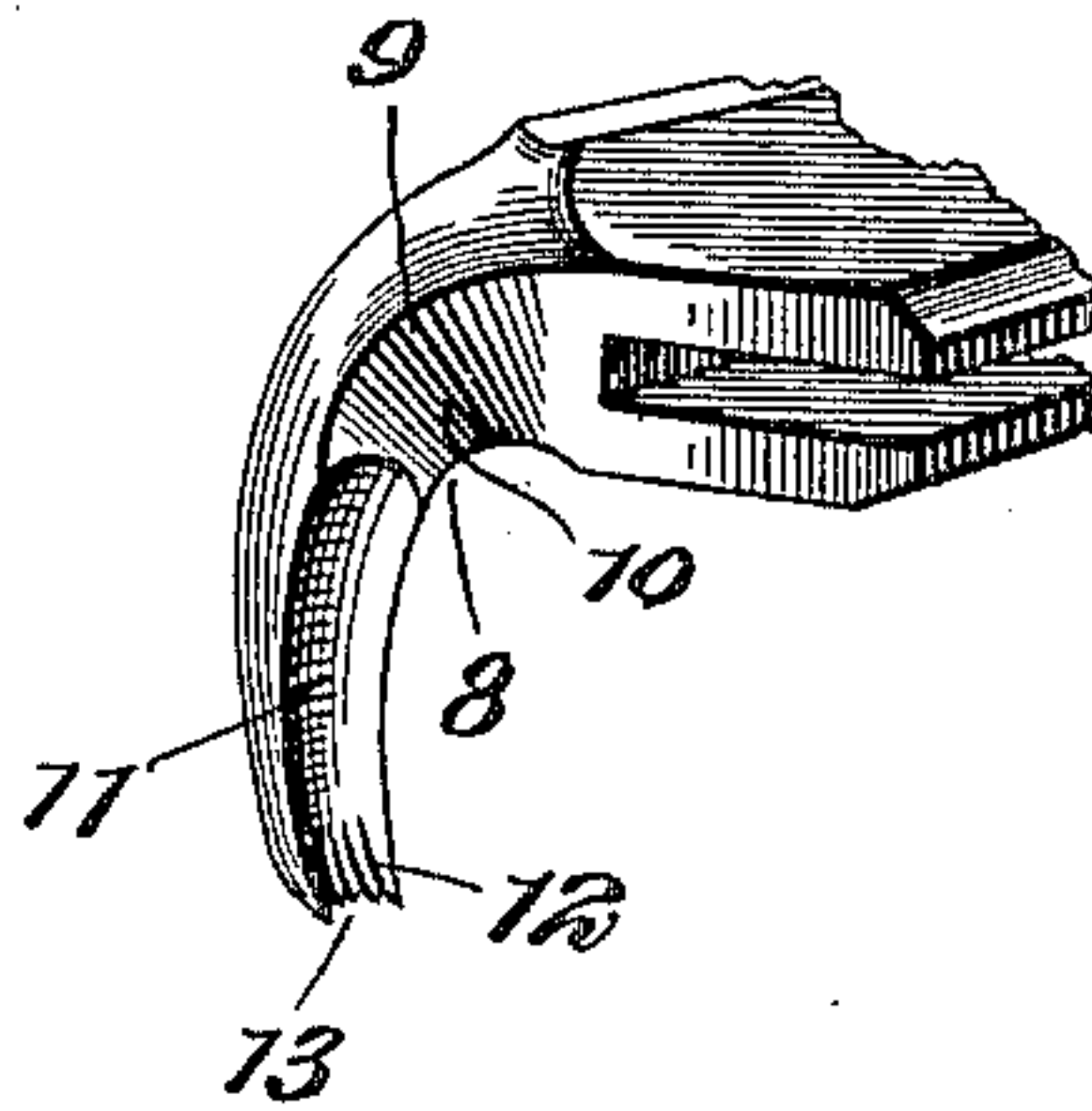
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses

Howard D. Orr, By his Attorneys,

Chas. S. Hoyer.

B. B. Mories, Inventor.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

BENJAMIN BILLINGS MORIES, OF MARKESAN, WISCONSIN.

## DENTAL FORCEPS.

SPECIFICATION forming part of Letters Patent No. 649,742, dated May 15, 1900.

Application filed October 23, 1899. Serial No. 734,505. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN BILLINGS MORIES, a subject of the Queen of Great Britain, (but having declared my intention to become a citizen of the United States,) residing at Markesan, in the county of Green Lake and State of Wisconsin, have invented a new and useful Dental Forceps, of which the following is a specification.

10 This invention relates to dental forceps; and it has for its object to improve the construction of such devices and produce an instrument adapted for use in removing the front six upper teeth and the lower cuspids  
15 or stomach-teeth, which all have single oval roots, and to so shape the beaks that they may be more conveniently applied, pressed firmly together, and brought nearer to the face of the patient, thus giving greater power to  
20 rotate a tooth in its socket and without breaking the process or spongy bone surrounding the root, and thus leave the mouth in a better condition for the insertion of artificial teeth in their varied modes of application.

25 The invention consists in the construction and arrangement of parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of a pair of forceps embodying the features of the invention and showing the beaks closed. Fig. 2 is a bottom plan view of the greater portion of the forceps, showing the beaks separated and the clearance at the base of the same. Fig. 3 is an elevation of the  
30 beaks looking toward the rear thereof when in substantially the same position as shown by Fig. 1. Fig. 4 is a detail perspective view of a portion of a beak-supporting member and a beak looking toward the interior of the latter.

40 Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numerals 1 and 2 designate opposite handles which are equally bowed and of the  
45 same length, an intermediate milled or roughened gripping-surface 3 being provided on the outer side of each of the handles to afford means for obtaining a firm hold during the use of the instrument. The said handles are  
50 movably connected to each other or hinged by means of interlocking male and female members 4 and 5 and preferably contiguous

with said members. The male and female members 4 and 5 have a flush fitting and present opposite broad surfaces to prevent injury  
55 to the patient, and each member has a beak 6 integrally formed therewith and disposed in a plane at a substantially right angle thereto. Each beak has the outer surface thereof of convex form and gradually tapered to a reduced nib 7 to facilitate the application of the  
60 beaks to the tooth to be drawn and to be more easily pressed under the gum and securing-root when the crown is decayed or chalky. Adjacent the points of jointure of the beaks  
65 with the male and female members of the pivotal connection of the handles, both at the front and rear, clearings 8 are formed, the clearings being larger in dimension at one side and provided by making concaved recesses 10  
70 in the rear portions of the beaks, which have a slight inward convergence and permit the nibs 7 to be seen by the operator. The clearing at the side opposite the location of the recess 10 is virtually the reduced termination of  
75 the opposite clearing at the front, and by reference to Figs. 1 and 3 the exact angle or direction of the combined clearings will be readily appreciated. When the beaks 6 are closed, the nibs 7 are drawn closely together, but do  
80 not touch, and throughout their entire length a space is also formed between the beaks up to the front terminal of their hinge connection. The inner opposing faces of the beaks are also formed with longitudinal concave grooves 11,  
85 which extend completely in a transverse direction from one edge to the other and also from the terminals of the clearings to the nibs. The only variation in this continuity of similar curvature is at the inner opposing  
90 surfaces of the nibs 7, which are formed with a slight convexity, and therein are cut longitudinal short grooves 12, which provide gripping corrugations or teeth 13, located only in the immediate vicinity of the nibs and running completely in a transverse direction from one edge to the other. These teeth or corrugations are of material importance in the operation of the instrument, and their extent in the direction of the longitudinal plane of the  
100 beaks is the only position in which such devices would serve in the successful manipulation of the forceps after they have been applied to the tooth to be drawn. If the teeth



or corrugations extended in a transverse direction, they would be entirely useless and, in fact, would defeat to a considerable extent the mode of loosening the tooth in its socket as carried on with the present form of device. 5  
Though the corrugations or teeth 13 break the continuous concavity extending longitudinally of each beak, it will be understood that the convexity produced by the formation 10  
of said corrugations or teeth is not of such a large nature as to make abrupt bearings or be conducive to the institution of sharp corners, and all parts must be rounded slightly to adapt the instrument for use on chalky 15  
teeth, which would otherwise be cut and break off at the gum margin, as in the use of many forceps now commonly known. The longitudinal concavities formed in the inner faces of the beaks adapt the forceps to closely hug 20  
the tooth without chipping or breaking.

In the use of the forceps the beaks 7 are pressed well under the gum and as far over as the next farther tooth on the outer side and also as close as possible to the nearer tooth 25  
on the inner side, to thus take advantage of the oval shape of the tooth and root. The handles 1 and 2 are then pressed firmly together and brought nearer the face of the patient, thus giving great power to rotate the tooth in 30  
its socket and without breaking the process or spongy bone surrounding the root, and thereby leave the mouth in much better shape for subsequent artificial applications.

Changes in the form, proportions, and minor details may be resorted to without departing 35  
from the nature or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

A forceps of the character set forth, comprising a pair of handles pivotally connected by interlocking male and female members and each having a beak arranged in a plane approximately at right angles thereto, both beaks being exteriorly rounded in convex form and 45  
tapered toward reduced inwardly-directed nibs, the inner faces of the said beaks being longitudinally concaved regularly in a transverse direction from edge to edge downwardly to the nibs, latter having inner slight 50  
convex surfaces formed by thickening the metal at said point and provided with short longitudinal corrugations to prevent slipping of the beaks on the tooth in swinging the same in a horizontal plane to loosen the tooth from 55  
its socket, both beaks adjacent their pivotal connection having a clearing therethrough of greater dimension at one side than the other.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 60  
the presence of two witnesses.

BENJAMIN BILLINGS MORIES.

Witnesses:

JACOB GOMBER,  
F. W. COLLINGBOURNE.