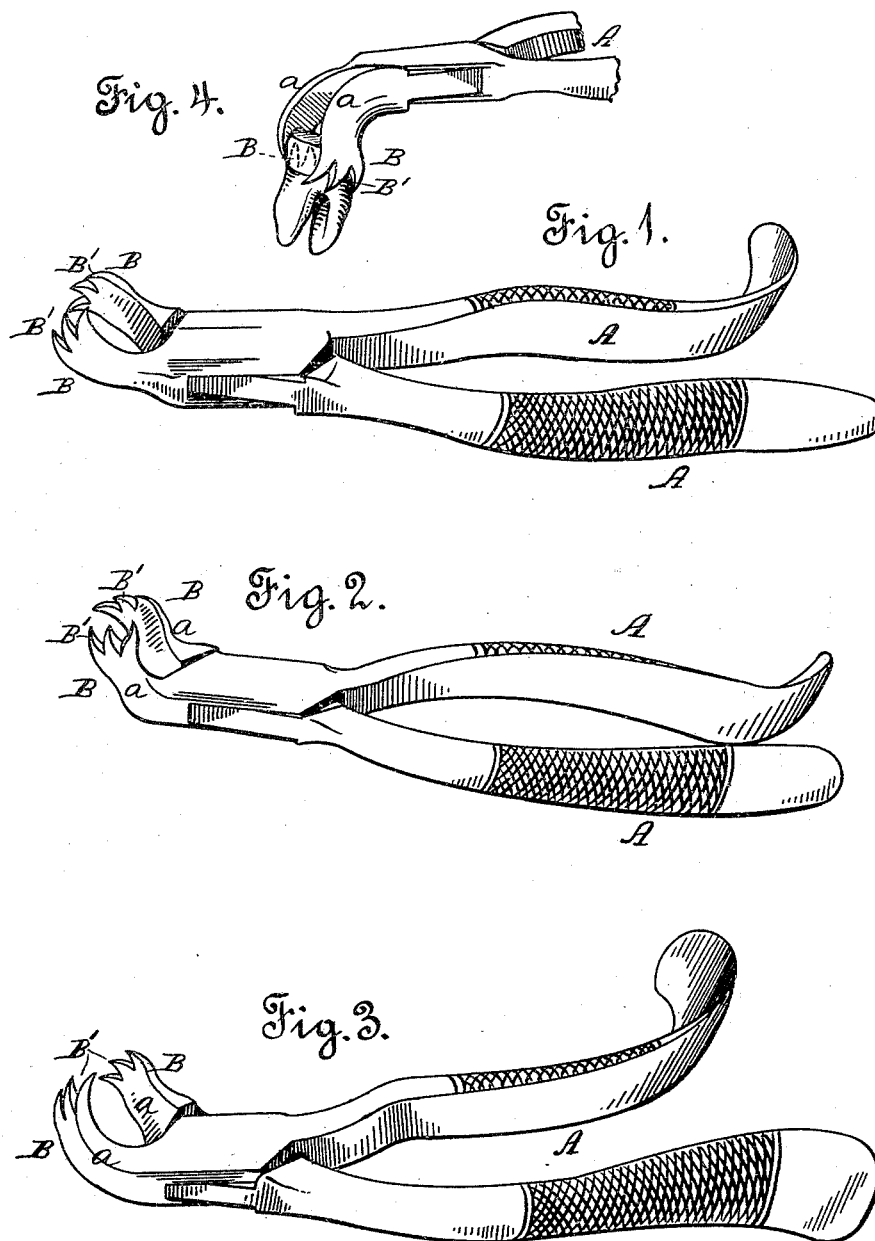


(No Model.)

C. E. BLAKE, Sr.  
DENTAL FORCEPS.

No. 491,515.

Patented Feb. 14, 1893.



Witnesses.

*H. J. Houteverde,*  
*Ira V. Hitchcock*

Inventor.

*Chas. E. Blake, Sr.*

# UNITED STATES PATENT OFFICE.

CHARLES E. BLAKE, SR., OF SAN FRANCISCO, CALIFORNIA.

## DENTAL FORCEPS.

SPECIFICATION forming part of Letters Patent No. 491,515, dated February 14, 1893.

Application filed June 27, 1892. Serial No. 438,182. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES E. BLAKE, SR., a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Dental Forceps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in dental forceps, and it has for its object to secure a firm, unyielding grip or hold of the instrument upon the tooth, and in a manner to prevent liability of the crushing of the tooth in applying the requisite pressure or force to the instrument for the extraction of the tooth, thus effectually providing against possible failure to extract or dislodge the tooth, as frequently occurs in the use of the ordinary forceps, and to these ends my invention consists primarily of a forceps having its beaks or jaws formed with prongs or claws, three upon each jaw or beak, in tri-cuspidate form or construction, and of certain details of construction, substantially as hereinafter more fully disclosed and pointed out in the claim. Dental forceps of this class are adapted for general use in extracting teeth, but, as heretofore constructed, special difficulties were encountered in extracting lower molars, which I overcome by the use of my instrument. For instance, where a tooth has two or three roots, the point of advantage in extracting it is to grip the tooth between the roots, and to effect this it is necessary that the jaws or beaks of the forceps shall each be armed with a series of claws or prongs, preferably three, in tri-cuspidate form. In that case the intermediate or middle prong or claw will embrace the tooth at the bifurcation of the roots, while the side prongs will grip the outside of each root. A grip or hold is thus secured upon the tooth that will provide for unseating or lifting it from its socket without crushing or endangering the crushing of the tooth, which would prevent the successful extracting of the tooth.

Referring to the accompanying drawings, the several Figures 1, 2, 3 and 4 represent perspective views of my improved extracting forceps adapted more especially for drawing lower molars. In Fig. 3, however, the angle of the jaws or beaks varies somewhat from that of the jaws or beaks shown in Figs. 1 and 2, while Fig. 4 shows the instrument as applied for use in extracting a tooth.

In carrying out my invention, I provide or produce the forceps with the handles or levers, A, suitably adapted for convenient manipulation and having beaks or jaws, B B. The jaws or beaks, B B, are, in addition to being curved or deflected, as at  $\alpha$ , at an angle to the handles, A, each provided with three claws or prongs, B' B', in tri-cuspidate form or construction, having sharp, tapering points. Thus, as before stated, the middle prongs of the jaws or beaks are adapted to embrace or grip the tooth or molar at the bifurcation between the roots, securing to a limited extent a hold upon the under side of the tooth, while the side claws or prongs grip the neck of the tooth or molar, thus obtaining a firm, unyielding hold or grip upon the tooth and, more particularly, through the points of engagement of the middle prongs with the tooth as above given, exerting in addition an unseating or lifting action upon the tooth as the instrument is manipulated. The angularity of the jaws or beaks provides for the ready application of the instrument to the tooth, in this instance to a lower molar, while enabling the operator to grasp all the surface possible upon a lower molar tooth.

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

The improved dental forceps, having its jaws or beaks each provided with three claws or prongs, the opposite middle prongs being adapted to grip the tooth at the bifurcation between the roots and the side ones to embrace the roots on their posterior and anterior surfaces, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHAS. E. BLAKE, SR.

Witnesses:

THOMAS J. STALEY,  
J. WM. MISTER.