

E. Bourne,
Tooth Extractor.

N^o 6,741.

Patented Sep. 25, 1849.

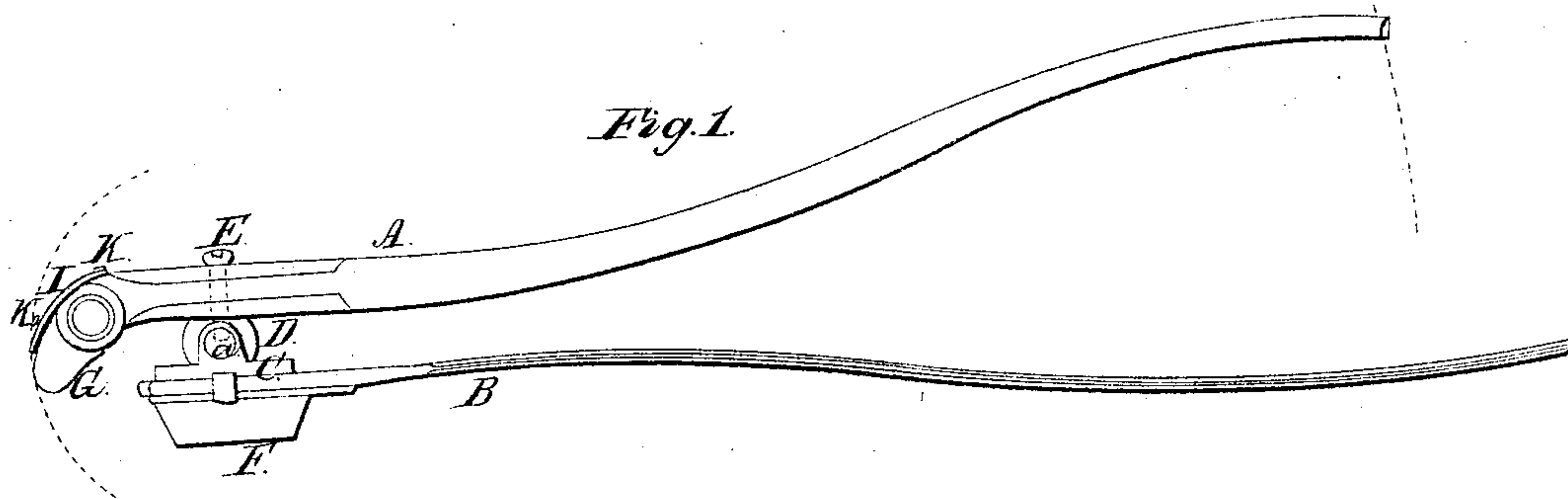


Fig. 2.

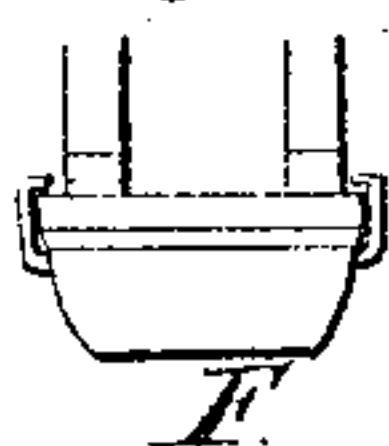


Fig. 3.



Fig. 4.

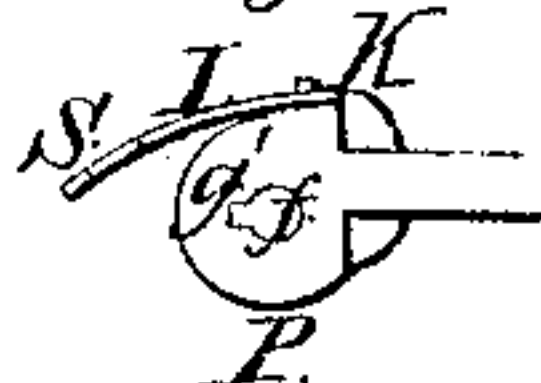


Fig. 5.

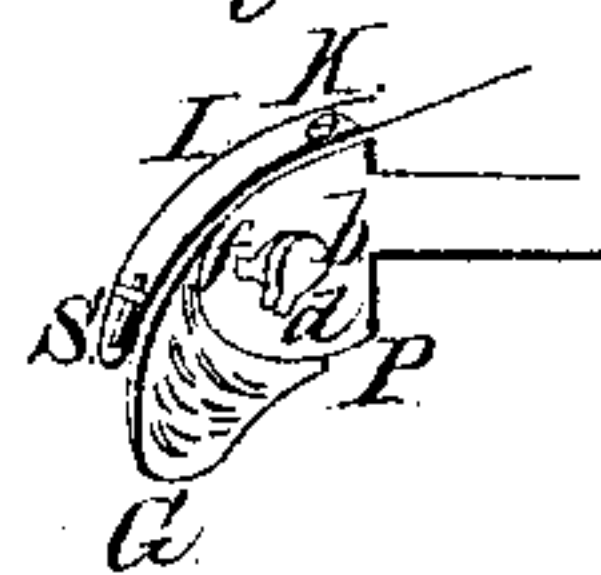
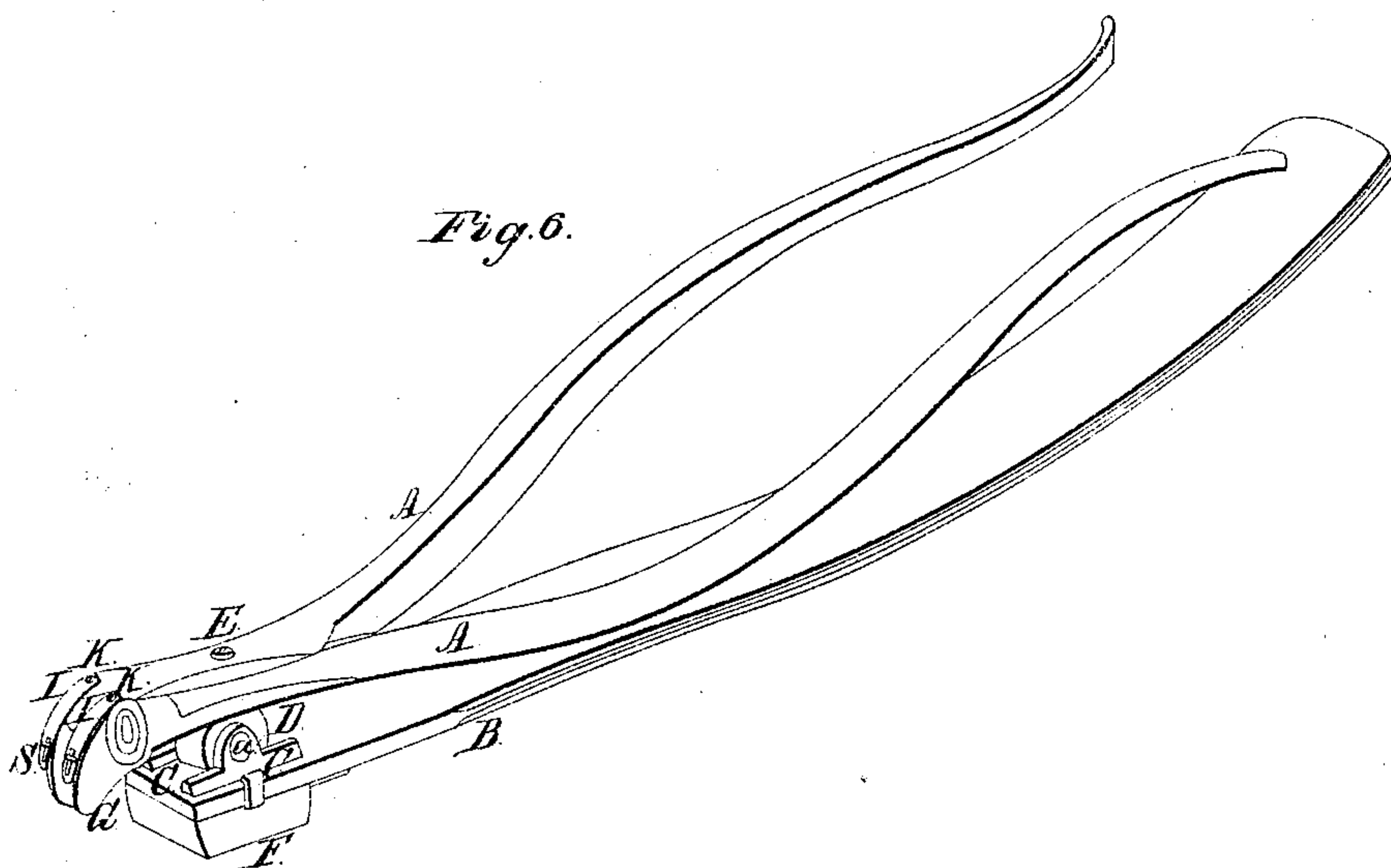


Fig. 6.



UNITED STATES PATENT OFFICE.

EDW. BOURNE, OF NEW BEDFORD, MASSACHUSETTS.

DENTIST'S FORCEPS.

Specification of Letters Patent No. 6,741, dated September 25, 1849.

To all whom it may concern:

Be it known that I, EDWARD BOURNE, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a
5 new and useful Improvement in Instruments for Extracting Teeth; and I hereby do declare that the following is a full, clear, and exact description.

The nature of my invention consists in
10 combining flexible jaws with the forceps attached to a fulcrum rest bar whereby the instrument is made and adapted to pull different sizes of teeth with great facility in a straight direction.

15 To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation, reference being had to the accompanying drawings forming a part of this specification in
20 which,

Figure 1, is a longitudinal view. Fig. 2, a view of the rest cushion. Fig. 3, an outside view of the flexible jaw. Fig. 4, a view of the head of the forceps to which the jaw
25 is attached. Fig. 5 an inside view of the flexible jaw. Fig. 6, a perspective view.

The same letters indicate like parts on all the figures.

30 A, A, are the forceps, which are made with shanks united together in any of the known ways as herein represented.

B, is a rest fulcrum bar. It is made of metal, of the form represented.

35 c, c, are two bearing plates secured to the fulcrum bar. They are placed at such a distance from one another, as to allow the axle ball D, to roll on the surface of the bar between them.

40 a, is the axis of the axle ball. This axis works in the bearings of the plates c, thus securing the axle ball and the rest bar together.

45 E, is a screw axle which passes through and unites the forceps together as represented in Fig. 1, and thus also uniting the forceps and the rest bar together. The screw axis E is therefore firmly secured in the axle ball and can move only with it, but the forceps can be turned around and around
50 on E. By this combination of the forceps and the rest bar, the said bar or fulcrum may be placed on the most suitable place for a fulcrum to the forceps, while the forceps may be set to pull either in a direction
55 transverse to the rest bar or at any angle

with the position of the rest bar as placed to pull out teeth.

F, is a cushion of leather secured by clasps or in any convenient way to the rest bar.

60 G, G, are flexible or movable jaws. They are constructed of the form represented, and each has a small permanent inside projecting axis b. This axis is formed with a feather d, as represented in Figs. 3, and 5.

65 P, the head of the forceps is formed as represented by Fig. 4, and the jaw G, is fitted on to it, by the axis b passing through the opening f, which has a groove g in it, to let the knob d, pass through.

70 d, the knob or feather, is just a small square projection on the extremity of the axle, so that when the jaw G, is placed on the head of the forceps, and the axle b pushed into the orifice f, to receive it, by turning the jaw a little around, the feather
75 or knob d, will catch on the inside of the head of the forceps and thus secure the jaw G, to it, as represented in Fig. 5. This is the manner in which the flexible jaws G, are united and combined to the forceps—the
80 axle b, working in the orifice f, to allow the jaws to be moved downward or upward according to the position required for the forceps to extract a tooth. The jaws how-
85 ever, could not be held with sufficient tension in the head of the forceps, if they were allowed to move freely on their axes. To obviate this difficulty, so as to allow the jaws to come always back to their proper position, I secure a small steel spring I, (one for
90 each jaw) to the head of the forceps, and the edge of the jaw. The extreme end of I, has a slot s, in it as represented in Fig. 4. The screws k that unite the spring to the head and the jaw, are stationary. By the
95 slot s, in the spring the jaw is allowed to bend by force applied for that purpose, but when that force is removed, the jaw is brought back by the spring to its original position. By the manner in which the flexi-
100 ble jaws are combined with the forceps, various sized jaws may be employed for different teeth. The inside of the jaws are of a concave form and slightly corrugated as represented in Fig. 5.

105 Operation: The cushion F, of the rest bar B, is placed upon the gum, or a tooth of the patient, as a fulcrum to the forceps. The jaws of the forceps are then bent to embrace the tooth, when the operator at once applies
110

his power to the forceps at the end of the shanks and pulls the tooth out in a straight direction, the springs I, of the jaws allowing the said jaws G, to regain their original
5 position as the tooth comes out, thus accommodating the position of the jaws to pull out the tooth in the most easy manner. The cushion on the rest prevents the fulcrum bar from slipping.
10 This is an instrument of great power and capable of being employed in the extraction of teeth of every size and in every stage of

decay, it being able as has been fully tested to pull out the most obdurate root with great ease to the patient and the operator. 15

Having thus explained my invention I claim—

The combination of the flexible jaws with the forceps, in the manner substantially described, for the purpose set forth. 20

EDWARD BOURNE.

Witnesses:

JOHN W. BULLOCK,
I. DAVENPORT.