J. G. Coates,

Dentists' Forceps.

No. 15,730. Patented Sep. 16, 1856.

Fig: 1.

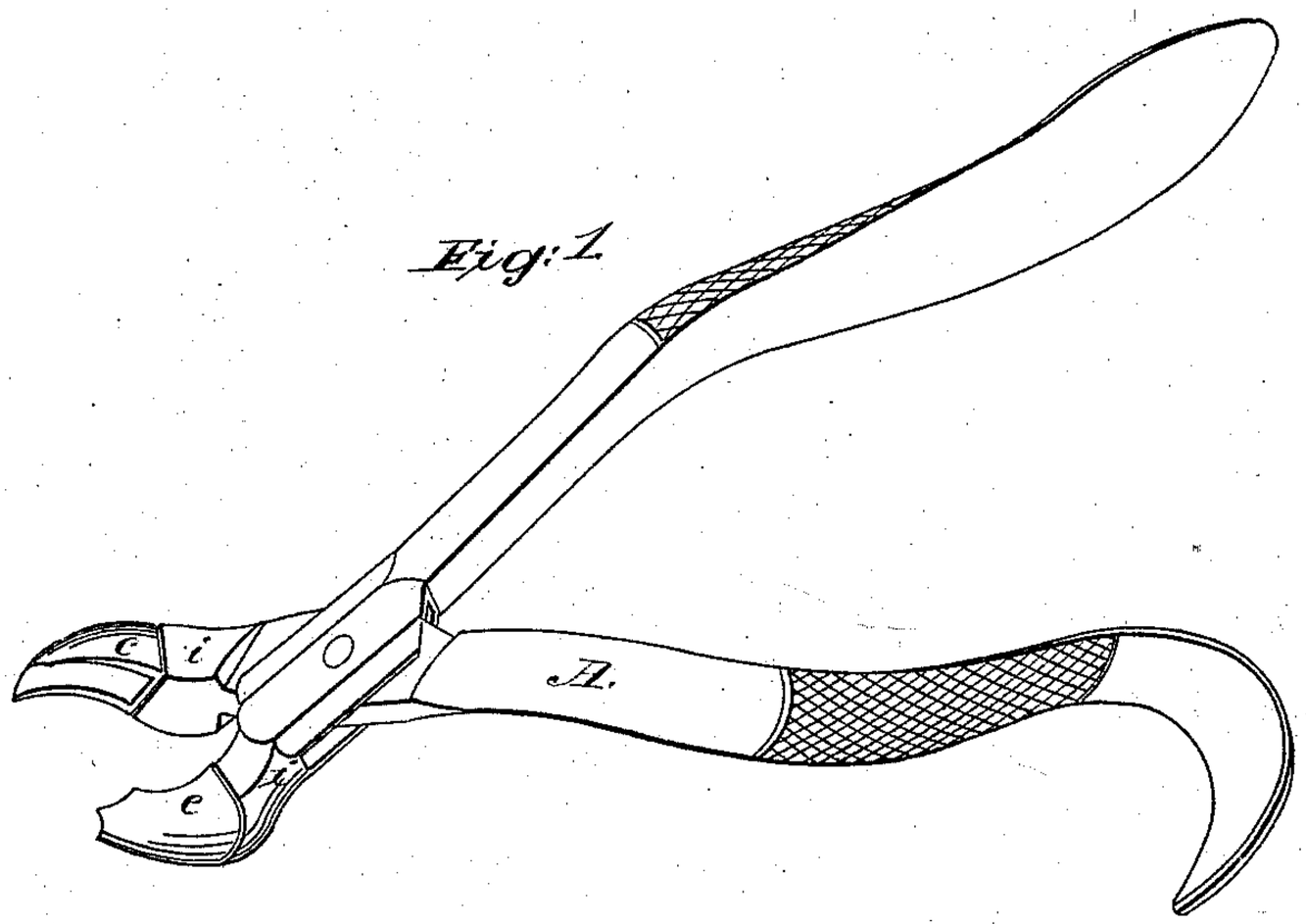


Fig: 3.

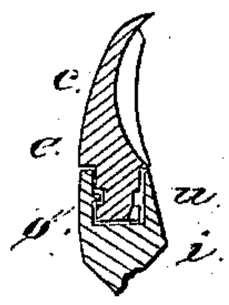


Fig: 2.

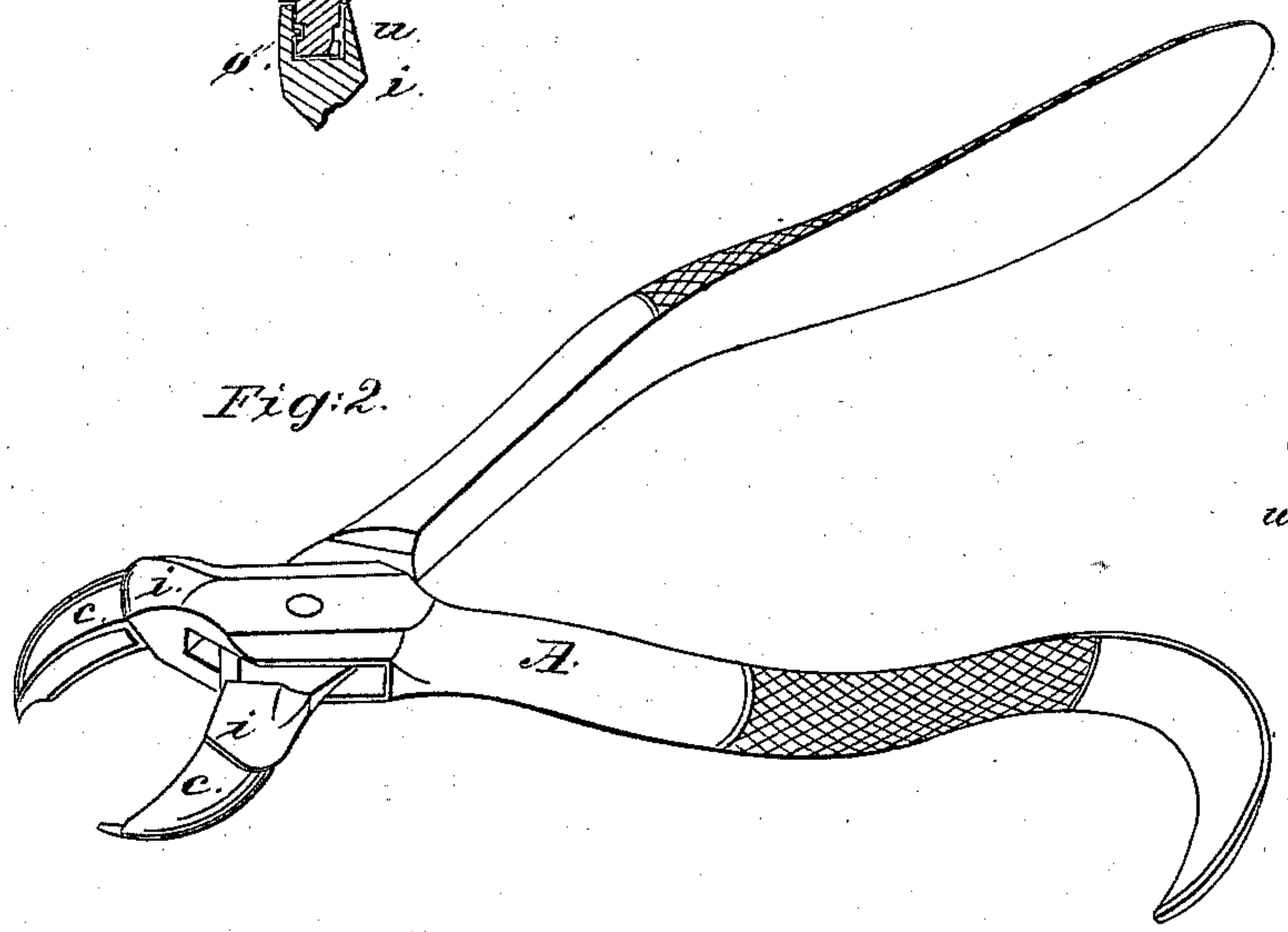
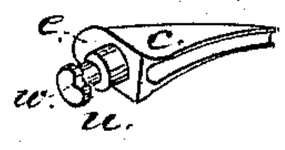


Fig: 4.



UNITED STATES PATENT OFFICE.

JNO. G. COATES, OF BIG LICK, VIRGINIA.

DENTIST'S FORCEPS.

Specification of Letters Patent No. 15,730, dated September 16, 1856.

To all whom it may concern:

Be it known that I, JOHN G. COATES, of Big Lick, in Roanoke county and State of Virginia, have invented a new and useful Improvement in Dental Forceps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing through letters of reference marked thereon, forming part of this specification, and in which—

Figure 1, represents a perspective view of a forceps embracing my improvement, for extracting the teeth from the upper jaw. Fig. 2, is a like view of a forceps, for extracting the lower jaw teeth. Fig. 3, is a section taken longitudinally through the beak of the forceps. Fig. 4, is a detached beak of different size and form.

The same letters occurring in the several figures, indicate corresponding parts.

In the dental practice, long experience has shown that the forceps is the best, and only true instrument for extracting teeth, and particular attention has been paid, both by the profession, and instrument makers, to the variety of formations and malformations of human teeth, for the purpose of producing such an assortment of instruments of this class, as will enable the skillful and scientific operator, to be provided with instruments suitable for every malformation of each class of tooth, in order to extract them, both with certainty and ease to himself and his patient; but with all this care, and an assortment of instruments numbering from one to two hundred, it is found upon observation after extracting a tooth, that in nine cases out of ten, the instrument with which it was removed, has not taken a uniform bearing upon its fangs, owing to the fact that the exact shape of it could not be determined, while firmly seated in the jaw, which has consequently caused an unnecessary amount of pain to the patient, and labor to the operator, as the tooth must have been removed in a direction, diagonal to the central line of its fangs, owing to the forceps grasping only a portion of the tooth, say two fangs out of three of the upper molar teeth, in which case the third fang is extracted only by its tenacity to the body of the tooth, and if the body were much decayed, it would be very apt to be left in the jaw, to be removed at a second operation, thus causing additional torture to the patient, as well as annoyance and trouble to the operator.

To remedy these difficulties is the object of my invention, and it consists in so constructing a pair of upper and lower jaw forceps, with such a variety of removable beaks, as are suitable to grasp every variety of tooth in the human head, and being reversible the same beaks become adapted, for extracting corresponding teeth on each side of the mouth, while they are capable of adapting themselves to any irregularity or malforation, and thus take a uniform bearing upon each portion of the tooth within their grasp, and at the same time, saving an enormous outlay to the operator, for an extensive variety of instruments, and enabling him to carry in his pocket an assortment, that would under present circumstances require a moderate sized trunk to transport.

To enable others to make and use my improved forceps, I will describe its construction and operation, by referring to the drawing, in which—

(A A′) represent the handle or stock part, of the ordinary upper and lower jaw forceps, to which are fitted removable beaks (*c*), by means of shank and socket, the cylindrical shank (*e*) is made to fit closely in the socket (*i*), and has a groove or channel (*u*) around it, a notch (*w*) being cut on one side, to the depth of the groove, to allow it to pass the pin or projection (*o*) on the interior of the socket (*i*), it is then inserted in the socket and turned half around, which brings the beak in proper position for use, and the pin entering the groove secures it; this should all be fitted so accurately, that while the beak can revolve freely in the socket, it shall have a solid bearing on the shoulder, and be free from any shaking motion; from this description it will be apparent, that as soon as the instrument is applied to the tooth to grasp it, the beak, having a rotary motion, will conform and adapt themselves to its formation, until they take an equal bearing on each fang or around it; the tooth will thus be firmly grasped, and extracted with more ease to the operator and his patient, and with less risk of breaking, and by having various sized and formed beaks, the single pair of forceps are applicable to every variety of tooth, of persons of every age.

I do not intend to confine myself strictly

to the mode of construction above described, as a great variety of modifications might be made, to accomplish the same end.

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

Constructing forceps with rotating beaks, to adapt themselves to the exterior formation of the tooth, substantially as, and for the purposes specified.

JOHN G. COATES.

Witnesses:

JNO. T. NEELY,

WM. M. SMITH.