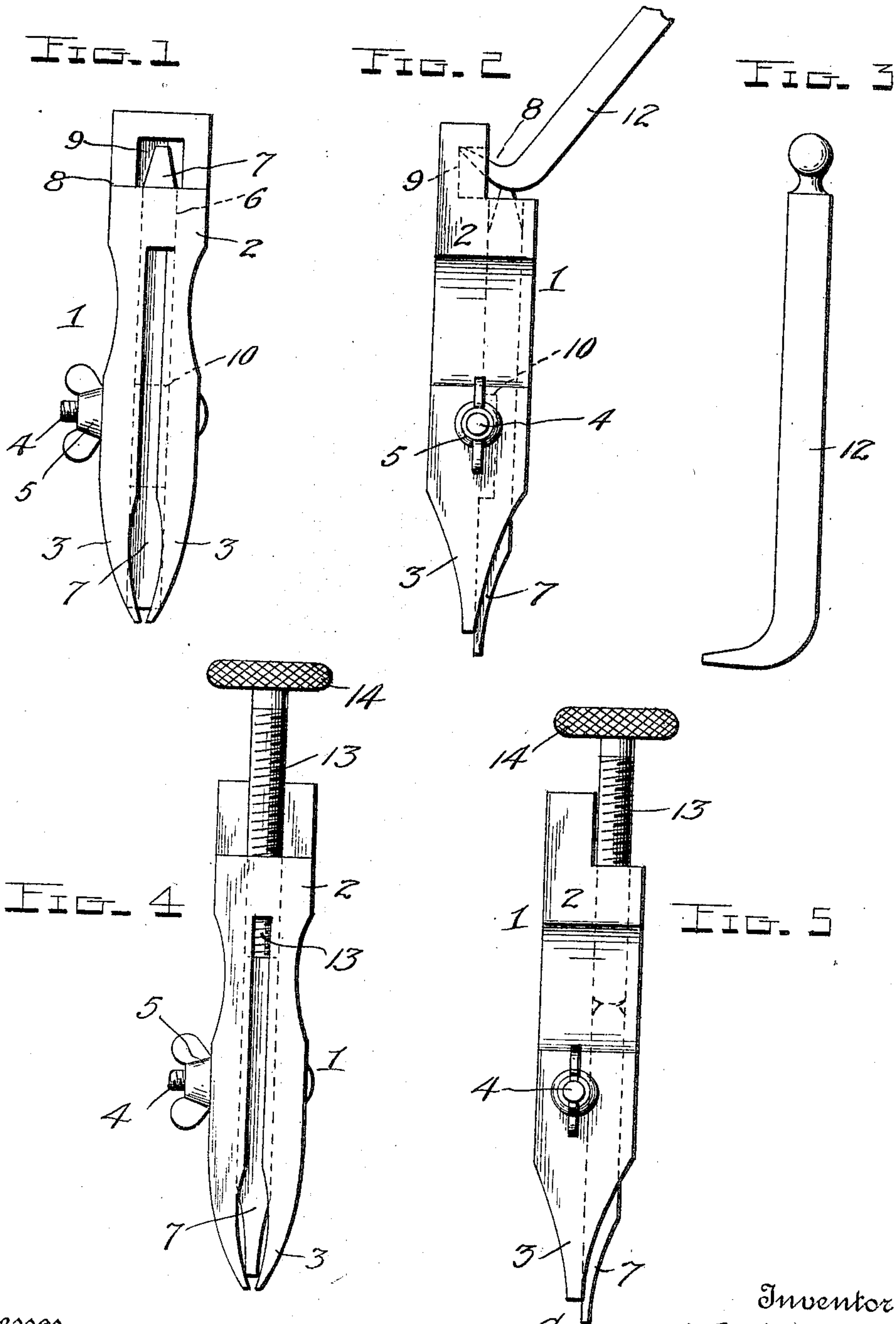


No. 812,976.

PATENTED FEB. 20, 1906.

G. T. CARPENTER.
DENTAL TOOL FOR REMOVING CROWN PINS.
APPLICATION FILED JUNE 22, 1905.



Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE T. CARPENTER, OF CHICAGO, ILLINOIS.

DENTAL TOOL FOR REMOVING CROWN-PINS.

No. 812,976.

Specification of Letters Patent.

Patented Feb. 20, 1906.

Application filed June 22, 1905. Serial No. 266,493.

To all whom it may concern:

Be it known that I, GEORGE T. CARPENTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dental Tools for Removing Crown-Pins; and I do 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.

This invention relates to improvements in dental tools or vises for removing crown-pins.

The object of the invention is to provide a vise of this character by means of which the crown-pin may be removed from the natural root of a tooth after an artificial crown has been broken off the same.

A further object is to provide a vise of this character which will be simple, strong, and durable in construction and by the use of which a firm hold may be taken upon the crown-pin, means being provided whereby the vise may be readily operated to withdraw said pin from the root of the tooth.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a front view of the vise, showing the parts in inoperative position. Fig. 2 is a side view of the vise, showing the manner of using the same. Fig. 3 is a side view of the lever for operating the vise; and Figs. 4 and 5 are front and side views, respectively, of a modified form of tool.

Referring more particularly to the drawings, 1 denotes the vise, which consists of a body portion 2 and spring-jaws 3, said jaws being preferably tapered to a point at their lower ends. Through the jaws 3 is arranged a threaded bolt or screw 4, one end of which is secured to one of said jaws, while the opposite end extends loosely through a transversely-disposed aperture formed in the other jaw of the vise. Adapted to be screwed upon the projecting threaded end of the screw or bolt 4 is a thumb-nut 5, which when screwed up upon said bolt will clamp the jaws of the vise together upon the object to which they may be engaged. Through the vise is formed a longitudinally-disposed passage 6, in which is loosely arranged a rod or post 7, the outer ends of which are preferably

tapered, as shown. The upper end of the vise 1 is cut away to form a right-angularly-disposed notch 8, and in the inner side of the upwardly-projecting end of the vise is formed a recess or hollow 9. In the post 7, substantially midway between the ends of the same, is formed a notch or recess 10, which is adapted to be engaged by the bolt or screw 4 to limit the movement of the rod or post 7 in the passage 6 of the vise.

In Figs 1 to 3 of the drawings the vise 1 is shown as adapted to be raised and lowered upon the post 7 by means of a right-angularly-bent lever 12, the lower right-angularly-bent end of which is adapted to be engaged with the recess 9, formed in the notched upper portion of the vise, the angularly-bent end of said lever being adapted to rest upon the upper end of the rod or post 7, which forms a fulcrum-point for said lever, upon which the same may be rocked to raise and lower the vise on said post, thereby bringing the lower end of the jaws of the vise into engagement with the crown-pin or other object to be extracted, after which by rocking the lever in the opposite direction upon the end of the post 7 said vise will be forced outwardly, thus extracting the crown-pin or other article to which the vise is connected.

In Figs. 4 and 5 is shown a modified form of operating mechanism for the vise, said mechanism being here shown as consisting of a threaded rod 13, which is provided with a head 14 and is adapted to be screwed into a threaded aperture in the upper end of the vise and into engagement with the upper end of the post 7, which in this instance is not extended to the outer end of the vise. In using the vise having applied thereto the threaded rod 13 said vise may be raised or lowered by the turning of said threaded rod in one direction or the other, thus engaging the jaws of the vise with the crown-pin and withdrawing or extracting the same from the root of the tooth. By the use of the vise herein shown and described the crown-pin in the root of the natural tooth may be readily withdrawn without breaking or injuring said root.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the prin-

ciple or sacrificing any of the advantages of this invention.

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

1. In a dental tool, the combination with a rod or post, of a vise having formed there-through a vertically-disposed passage whereby the same is engaged with said post, said
10 vise having its upper end cut away and recessed, and a lever adapted to be engaged with the upper end of said rod and with the recess in said vise whereby the latter is forced outwardly on said rod, substantially as de-
15 scribed.

2. In a dental tool, the combination with a

rod or post, of a vise having formed therein a vertically-disposed passage whereby the same is engaged with said post, spring-jaws formed on the inner end of said vise, a screw to operate said jaws and a lever adapted to be ful-
20 crumed on said rod and engaged with said vise to force the latter outwardly on said rod, substantially as described.

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

GEORGE T. CARPENTER.

Witnesses:

S. E. KNECHT,
PETER J. BROCK.