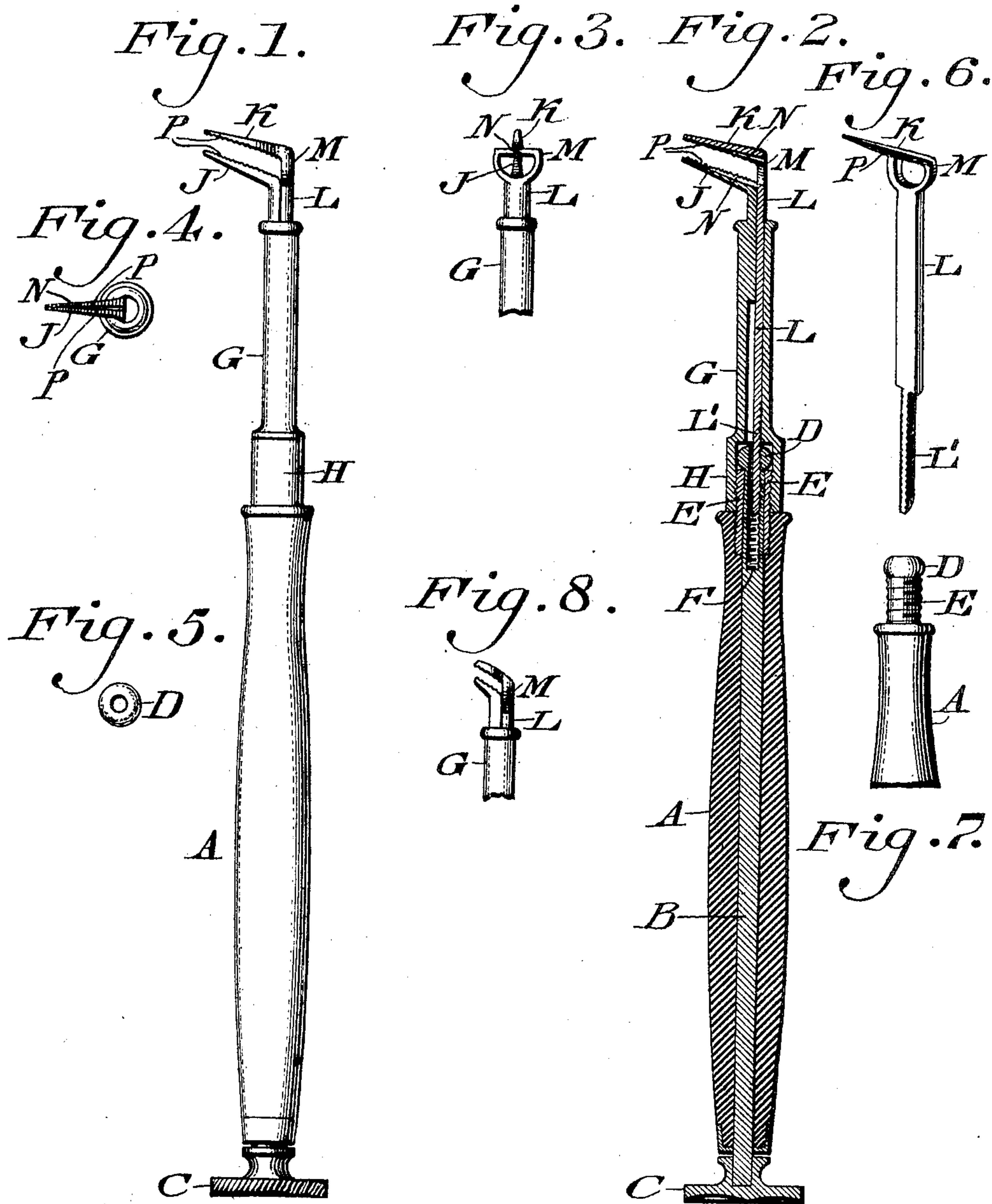


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J. W. IVORY.
DENTAL INSTRUMENT HOLDER.
APPLICATION FILED SEPT. 27, 1905.



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JAMES W. IVORY, OF PHILADELPHIA, PENNSYLVANIA.

DENTAL-INSTRUMENT HOLDER.

No. 812,567.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed September 27, 1905. Serial No. 280,333.

To all whom it may concern:

Be it known that I, JAMES W. IVORY, a subject of the King of Great Britain, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Dental-Instrument Holders, of which the following is a specification.

My invention consists of a device for holding a dental instrument, the same embodying a pair of jaws and novel means for closing and opening the same. It also embodies novel means on the jaws for preventing lateral motion of the instrument or implement applied thereto.

Figure 1 represents a side elevation of a dental-instrument holder embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents a side elevation of a portion at a right angle to Fig. 1. Figs. 4, 5, 6, and 7 represent detail views. Fig. 8 represents a side elevation of a portion showing jaws of different lengths from those in the other figures.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the handle of the instrument, and B designates a shaft which is fitted within the bore of said handle and has secured to its outer or lower end the milled head C, which is adapted to be rotated at the adjacent end of the handle A. The inner end of said shaft has secured to it the shoulder D, which bears freely upon the neck E, the latter being connected with the adjacent end of the handle A, it being noticed that by the above construction the shaft B is swiveled in said handle. The neck E is exteriorly screw-threaded, and the shoulder and the adjacent portion of the shaft B have a bore F therein, the wall of the same being screw-threaded.

G designates a sleeve whose inner terminal H is adapted to be screwed upon the neck E, thus attaching the same to the handle A, said terminal also freely inclosing the shoulder D, as most plainly shown in Fig. 2. On the outer terminal of the sleeve G is the angularly-extending jaw J, which is fixed thereto. K designates a jaw opposite to said jaw J, the same extending angularly from and being carried by the shank L, which enters said sleeve G and has a threaded end L', which enters the bore F and engages with the threads of the wall thereof, a portion of said end being broken away in Fig. 6, it now be-

ing seen that by rotating the swiveled shaft B, and consequently the shoulder D, as the threads of the bore F engage with the threads of said end L' of the shank L said shank may be moved in opposite directions, by which provision the jaw K may be moved from or toward the jaw J and the jaws accordingly opened or closed. When the jaws are opened, an implement or instrument may be placed between the same. The head C is then rotated, whereby as the shaft B follows the same the end L' of the shank L is screwed into the bore F, and the shank L is accordingly moved to advance the jaw K toward the jaw J, thus closing the jaws and tightly holding the implement or instrument between them.

In order to prevent rotation of the shank L in the sleeve G, one portion of the opening or bore of the latter is made half-round, and the other portion is right-lined, thus making said opening of variable contour, as shown in Fig. 4, and said shank is similarly shaped, the effect of which is evident.

In order to prevent rotation or lateral movement, or both, of the implement or instrument when inserted between the jaws, the back of the jaw K at its place of junction with the shank L has thereon an eye M, the wall of which is partly circular and partly right-lined or flattened, said eye or opening M passing entirely through said shank and having at what may be termed its "upper" wall form a continuity of back of the face of said jaw K, so that when an implement or instrument is inserted in said eye it will engage said right-lined portion, and thus be incapable of rotation or lateral movement, while otherwise being clamped by the jaws, said implement or instrument thus being doubly held.

On the inner faces of the jaws J K there are longitudinally-extending recesses N, whose walls present edges which bite the implement or instrument inserted between the jaws, and so center the latter, retaining it true in position. Said faces are also serrated, as at P, whereby they take firmer hold of said implement or instrument and prevent possible slipping thereon.

In Fig. 8 the jaws are shown as shorter than those in Figs. 1 and 2.

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

1. In an instrument-holder of the character stated, a handle, a stationary jaw thereon,

a rotary shaft mounted in said handle and having a shoulder on its end, a jaw, a movable carrier therefor, said shoulder and shaft having a threaded bore with which engages a
5 threaded portion of said carrier, means for rotating said shaft and a bearing in the handle on which said shoulder is swiveled.

2. In an instrument-holder of the character stated, a handle, a rotary shaft which is
10 mounted in said handle, a sleeve, a neck connecting said sleeve with said handle, a jaw on said sleeve, a movable shank in said sleeve having a threaded connection with said shaft, a jaw on said shank opposite to that on said
15 sleeve and a shoulder on said shaft, said shoulder having a bearing on said neck.

3. In a holder of the character stated, a jaw adapted to clamp an implement or instrument, a shank carrying said jaw and an
20 eye on said shank, said eye extending entirely through said shank to receive said implement or instrument and having a wall forming a continuity of the back of said jaw.

4. In an instrument-holder of the character stated, a jaw provided with an opening 25 which is partly right-lined and partly round to interlock the implement or instrument applied to said jaw and prevent lateral movement thereof.

5. In an implement or instrument holder 30 of the character stated, a jaw, a shank carrying the same, a longitudinally-extending recess in the face of said jaw and an eye on said shank back of said recess.

6. In an implement or instrument holder 35 of the character stated, a jaw, a shank carrying the same, a longitudinally-extending recess in the face of said jaw, an eye on said shank back of said recess and serrations extending laterally in opposite directions from 40 the walls of said recess.

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