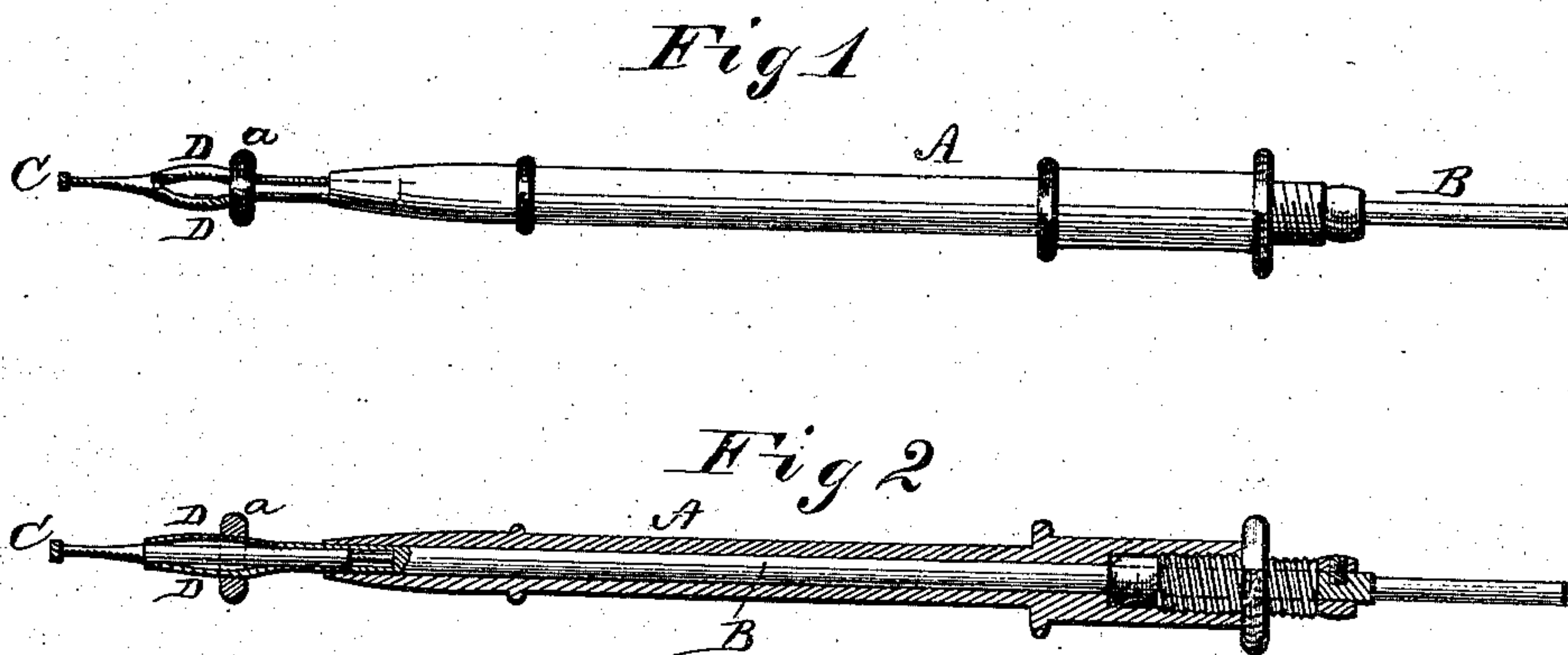


H. M. EDSON & R. L. EVANS.  
Hand Pieces for Dental-Engines.

No. 155,506.

Patented Sept. 29, 1874.



WITNESSES

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# UNITED STATES PATENT OFFICE.

HORACE M. EDSON AND ROBERT L. EVANS, OF TOLEDO, OHIO.

## IMPROVEMENT IN HAND-PIECES FOR DENTAL ENGINES.

Specification forming part of Letters Patent No. **155,506**, dated September 29, 1874; application filed September 5, 1874.

*To all whom it may concern:*

Be it known that we, HORACE M. EDSON and ROBERT L. EVANS, of Toledo, in the county of Lucas and in the State of Ohio, have invented certain new and useful Improvements in Hand-Piece for Dental Engine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Our invention relates to hand-pieces for dental engines; and the nature of our invention consists in the construction of the clamp for holding the tool, by drilling a hole in the end of the solid movable shaft, which passes entirely through the hand-piece, and then forming a slot in the drilled end, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side view of a hand-piece for dental engines embodying my invention. Fig. 2 is a longitudinal section of the same.

A represents the ordinary hand-piece for dental engines, constructed in any of the known and usual ways. B is the movable shaft passing through the hand-piece A. This shaft has at the end, to receive the instrument, a clamp composed of two jaws, D D, which clamp is formed by drilling a hole, one inch in depth, more or less, in the end of the shaft, and cutting a slot to within a quarter of an inch, more or less, of the bottom of the hole. This forms the two jaws D D. The tool or in-

strument C is then inserted between said jaws, and held securely by means of a movable collar or washer, *a*, sliding on the end of the shaft.

The greatest trouble with devices of this class is that under certain circumstances the tool or instrument will drop out of the hand-piece. With our improvement the tool is held perfectly secure, and tools made for any of the dental engines now in use may be fastened with this clamp.

We are well aware that it is common to clamp two jaws by a movable ring. We are also aware that crayon-holders composed of a hollow metal tube, with bulged and split ends, over which are passed bands to contract the clamps, are common.

With our invention we utilize the shaft itself, so as to form the clamp for the tool entirely without the sleeve, and without the employment of additional devices therefor.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In combination with the hand-piece of a dental engine, the solid rotating shaft B, having its end drilled out and slotted, without the sleeve, to form open jaws D D, and the band A, used with said jaws, as and for the purposes set forth.

In testimony that we claim the foregoing, we have hereunto set our hands and seals this 29th day of August, 1874.

H. M. EDSON. [L. S.]  
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Witnesses:

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