G. W. TRIPP.

DENTAL-ENGINE HAND-PIECES.

No. 193,300. Patented July 17, 1877.

Fig 1

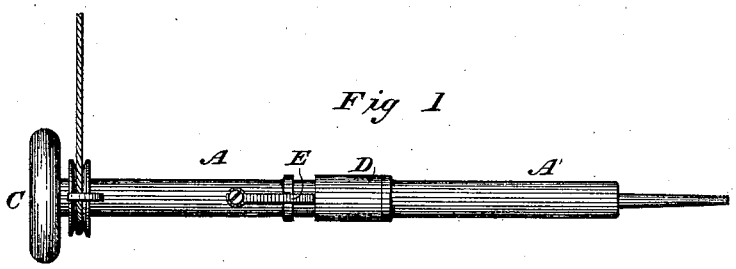


Fig 2

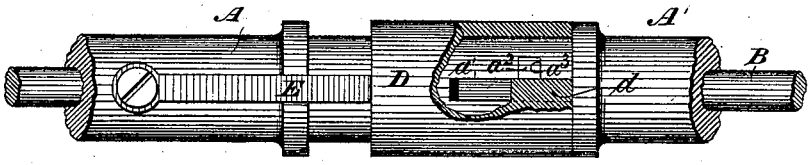


Fig 3

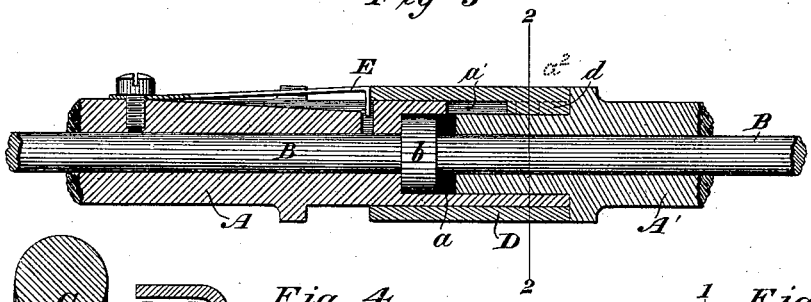


Fig 4

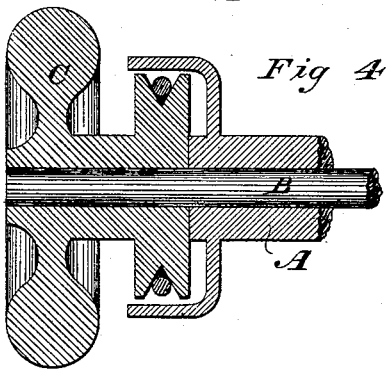
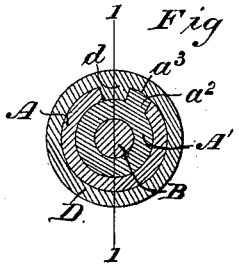


Fig 5.



WITNESSES

Wm a Stinkly

K. Fish

INVENTOR

George W. Tripp.

By his Attorneys.

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UNITED STATES PATENT OFFICE.

GEORGE W. TRIPP, OF AUBURN, NEW YORK, ASSIGNOR TO SAMUEL S. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DENTAL-ENGINE HAND-PIECES.

Specification forming part of Letters Patent No. **193,300**, dated July 17, 1877; application filed March 22, 1877.

To all whom it may concern:

Be it known that I, GEORGE W. TRIPP, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Dental-Engine Hand-Pieces, of which the following is a specification:

My invention relates more especially to a hand-piece adapted to be suspended, and its operating-tool driven by belt-connections passing from the engine.

Its object is to provide a hand-piece of improved construction, the tool chuck or holder of which may be readily inspected for cleansing, repairs, or other purposes.

The subject-matter claimed hereinafter specifically will be designated.

In the accompanying drawings, Figure 1 represents a view in elevation of my improved hand-piece, suspended by its driving-belt. Fig. 2 represents an enlarged view thereof, partly in section, showing the locking device. Fig. 3 represents a longitudinal central section therethrough on the line 1 1 of Fig. 5; Fig. 4, a similar section through the pulley end; and Fig. 5, a vertical cross-section through the locking device on the line 2 2 of Fig. 3.

The casing or shell of the hand-piece is composed of two main interlocking sections, A A′, in which is mounted and turns freely a shaft, B, provided at one end with a "fly-wheel" pulley, C, and at the other with a tool chuck or holder of any improved construction.

The bore of section A of the casing is enlarged at *a* to receive a collar, *b*, on the driving-shaft, which collar abuts against the end wall of the enlargement, and, in connection with the pulley C, keyed on the shaft and bearing against the opposite end of the section, prevents all endwise movement of the shaft in the hand-piece.

This enlargement is also adapted for the reception of the reduced end of the interlocking section A′, and its wall is provided with a longitudinal slot or groove, a^1, in which a lug, a^2, projecting from the periphery of the reduced portion of the interlocking section, enters, and is adapted to be turned into a transverse groove, a^3, to lock the sections together.

To prevent accidental displacement of the locking-lug from the transverse groove, a sliding sleeve, D, is mounted upon the section A, a spline or feather, *d*, of which works in the longitudinal groove in said section, so that when the lug is turned in its transverse groove, and the sleeve pushed forward, its spline prevents the withdrawal of the lug; but when pushed back to carry its spline out of the way, the lug can be released and the sections readily separated, and thereby expose to view the chuck or tool-holder, which is enveloped by the interlocking section.

The range of movement of the sliding sleeve upon the casing is limited by suitable stops, and when in its forward position is locked against accidental movement by a spring or detent, E, which slips past its end, and must be depressed before the sleeve can be retracted.

The hand-piece may be provided with devices for guiding the driving-belt, by which it is suspended from the engine, and motion imparted to its shaft, as usual, and also with a nib or nose to constitute the bearing for the operating-tool, in a well-known way.

I claim as my invention—

1. A dental-engine hand-piece, shell, or casing, composed of sections locked together by a lug and transverse groove, substantially as described.

2. The combination, substantially as hereinbefore set forth, of the interlocking case-sections, one provided with a longitudinal and transverse groove, and the other with a locking-lug, and a sleeve sliding on the sections, and provided with a spline to lock the lug of one section in the groove of the other.

3. The dental-engine hand-piece hereinbefore described, consisting of the combination of two interlocking sections, one provided with a longitudinal and transverse groove,

and the other with a lug traversing in said grooves, a sleeve sliding on said sections provided with a spline traversing in the longitudinal groove and across the face of the transverse groove, and a locking-spring which retains said sleeve in its forward position, whereby accidental disconnection of the parts is prevented.

In testimony whereof I have hereunto subscribed my name.

GEORGE W. TRIPP.

Witnesses:
HORACE T. COOK,
JOHN T. PINGREE.