

N. STOW.
Dental-Engines.

No. 157,651.

Patented Dec. 8, 1874.

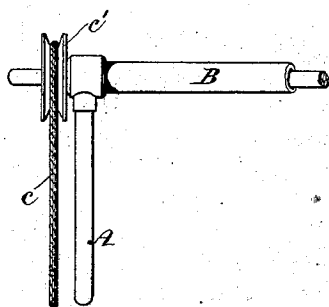


Fig: 1.

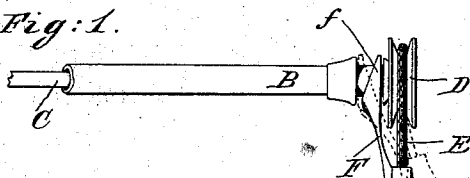


Fig: 2.

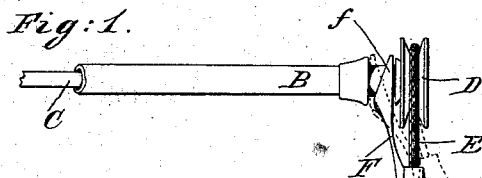
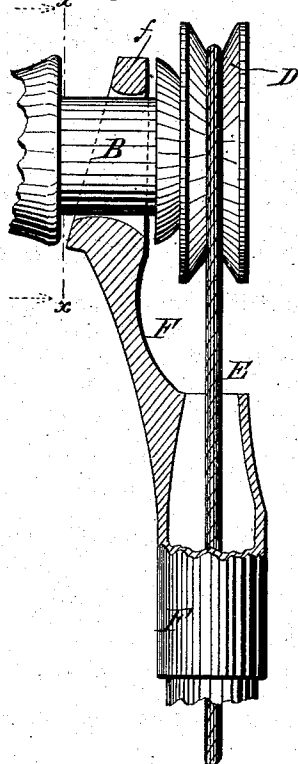
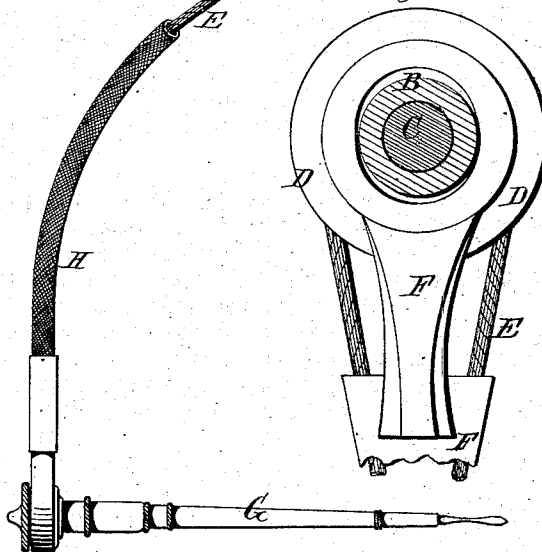


Fig: 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

NELSON STOW, OF BINGHAMTON, NEW YORK, ASSIGNOR TO SAMUEL S. WHITE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN DENTAL ENGINES.

Specification forming part of Letters Patent No. **157,651**, dated December 8, 1874; application filed November 28, 1874.

To all whom it may concern:

Be it known that I, NELSON STOW, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Dental Engines, of which the following is a specification:

My invention relates to the swinging arm or angle attachment of a dental engine. Its objects are to secure a direct, simple, and efficient connection between the engine and hand-piece, and yet to allow great freedom of movement to the tool without interfering with the transmission of the driving-power.

The subject-matter claimed is hereinafter specified.

In the accompanying drawings, which illustrate my invention as embodied in the best form now known to me, Figure 1 represents a view of so much of the apparatus as is necessary to illustrate the subject-matter claimed; Fig. 2, a view, partly in section and on an enlarged scale, of a portion of the arm and swinging bracket; and Fig. 3, a similar view of the same, taken at right angles to the view shown in Fig. 2—that is, in section on the line *x x* of said figure.

The post A is pivoted on the base, or stand, or rocking arm of a dental engine in a well-known way. A tubular horizontal supporting-arm, B, projects from this post, and is provided with bearings for a shaft, C, driven by a band, *c*, and pulley *c'*, from the engine, in a well-known way. A pulley, D, on the opposite end of this shaft, carries an endless belt, band, or cord, E, which encircles a pulley on the revolving chuck or tool-holder of the hand-piece G, the construction of which parts is so well understood as to need no description. A bracket-loop, F, fits loosely on the tubular arm to allow it to swing freely within certain limits in the line of the tubular arm, as well as around it. The collar *f* of the bracket-loop

is beveled or sloped off from bottom to top, as shown in the drawings, to facilitate the movement above mentioned. The hand-piece is suspended from the tubular arm B by means of the bracket-loop F, and of a flexible sheath, H, of well-known construction—such, for instance, as that shown in Letters Patent of the United States granted to me August 6, 1872.

As the tubular arm swings freely on its pivot around the base or stand while the bracket-loop swings freely around said arm, as well as in a line parallel therewith, and as the tubular sheath is flexible while the driving-belt which drives the tool moves endwise through the sheath, it is obvious that the tool has a wide range of motion, and can be worked in a great variety of positions without interrupting the transmission of the driving-power.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, substantially as hereinbefore set forth, of a flexible sheath with a driving belt moving endwise through it.

2. The combination, substantially as hereinbefore set forth, of a swinging arm, a flexible sheath suspended from said arm, a hand-piece connected with the sheath, and a driving-belt running endwise through said sheath to actuate the tool.

3. The combination, substantially as hereinbefore set forth, of a supporting-arm, a loop-bracket swinging freely around said arm, and also in a plane parallel therewith, and a flexible sheath, through which the driving-belts of a dental engine pass, connected with said bracket.

In testimony whereof I have hereunto subscribed my name.

NELSON STOW.

Witnesses:

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WM. L. GRISWOLD.