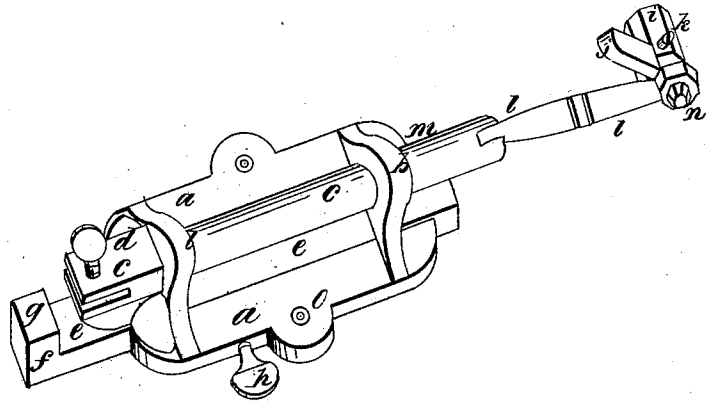
E. H. Danforth,

Burnishing Dental Plates.

No. 22,548. Patented Jan. 11, 1859.



Witnesses:

William H. Goyt

James A. Browne.

Inventor:

Elijah H. Danforth.

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UNITED STATES PATENT OFFICE.

ELIJAH H. DANFORTH, OF JAMESTOWN, NEW YORK.

IMPROVED LATHE ATTACHMENT FOR FINISHING DENTAL PLATES.

Specification forming part of Letters Patent No. **22,548**, dated January 11, 1859.

To all whom it may concern:

Be it known that I, ELIJAH H. DANFORTH, of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Machine for Filing, Scraping, Stoning, and Burnishing all Dental Plates; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, the figure being a perspective view of the lathe attachment compound dental finisher.

It consists of two bed-pieces, *a a*, two and one-half inches long and one-half of an inch wide and one-fourth of an inch in thickness. These bed-pieces lie parallel with each other about one-half inch apart. To them are attached two boxes, *b b*, which are one-fourth of an inch in thickness, and wide enough to extend across both bed-pieces, including the slide which supports the rest. These boxes receive and carry the piston *c c*, which is one-half inch in diameter and round, except at the end *d*, which is five-eighths of an inch square in diameter and seven-eighths of an inch in length. In the end *d* of the piston is an open mortise one-half inch deep, of sufficient capacity to receive a file or other tool three-sixteenths of an inch in thickness or more, if desirable. In the upper side of end *d* of the piston is a thumb-screw, to hold the file or other tool firmly in its place. Under the end *d* is a block of steel or other metal in the form of a T, three-fourths of an inch long, attached to the ends of the bed-pieces to prevent the piston from rolling. Under the boxes *b b* and between the bed-pieces *a a* is a slide, *e e*, four inches in length, of the same thickness as the bed-pieces, and wide enough to fill the space between them. Upon the upper side of the end *f* of this slide is placed a block, *g*, whose upper side lacks one-sixteenth inch of reaching a line drawn parallel with and upon the lower inner surface of the open mortise, said block to be used as a rest. This slide is held in place by a thumb-screw, *h;* also, an adjustable crank, which consists of a block of brass or other metal, *i*, about three-fourths of an inch long and one-half inch in diameter, which may be round or octangular. In one end of this is a hole to receive the mandrel or chuck of a lathe. In the other end is a dovetailed groove, to receive a slide, *j*, which is one inch long and three-eighths of an inch in diameter, in one end of which is a pin standing at right angles with the slide *j*, and is one-fourth of an inch long and one-fourth of an inch in diameter. This slide is held in its place by a screw, *k*, and by means of it the movement of the slide *j* is adjusted and fixed, so that the piston shall have any desired motion.

It further consists of a connection, *l l*, two inches long and one-fourth of an inch in diameter, which is connected with the piston *c c* at the end *m* by a joint, while the other end is carried by the pin in the slide *j* and secured by the screw *n*.

To use this machine, adjust it so that the piston and connection are parallel with each other and at right angles with the mandrel of a lathe. A block should be used for this adjusting, to which the machine may be permanently attached, which block may be attached to the bed of the lathe, as most convenient, by screw or otherwise. A screw-thread may be cut in the block of the crank, to fit the lathe, and thus be attached. Then insert a file or other tool in the open mortise; hold your work against the rest and also against the under side of the file or other tool used.

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

1. The combination of the mechanical devices herein specified, consisting of the piston *c c*, bed-pieces *a a*, boxes *b b*, slides *e e* and *j*, and the crank, constructed and operated for dental and other purposes, as herein described.

2. The adjustable crank as it is arranged and attached to the specified parts of this machine, as herein set forth.

E. H. DANFORTH.

Witnesses:
C. R. LOCKWOOD,
JAMES M. BROWN.