W. F. RICHARDS.

ATTACHMENT FOR DENTAL LATHES.

APPLICATION FILED OCT. 25, 1911.

1,032,241. Patented July 9, 1912.

Fig. 1.

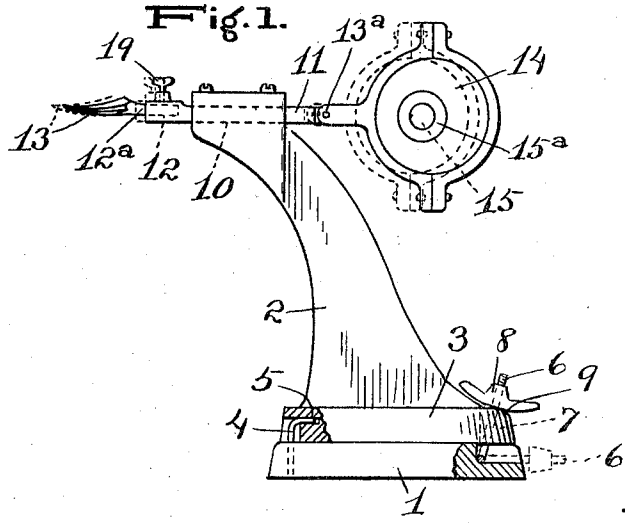


Fig. 4.

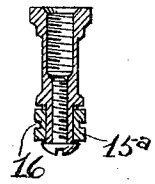


Fig. 2.

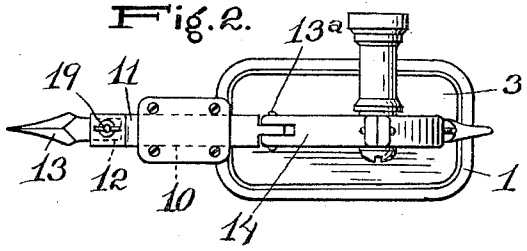
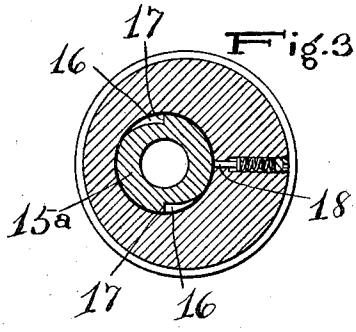


Fig. 3.



Witnesses

Stuart Hilder.

Frances W. Anderson.

Inventor

Walter F. Richards,

by E. W. Anderson Son

his Attorneys

UNITED STATES PATENT OFFICE.

WALTER F. RICHARDS, OF QUINCY, ILLINOIS.

ATTACHMENT FOR DENTAL LATHES.

1,032,241. Specification of Letters Patent. Patented July 9, 1912.

Application filed October 25, 1911. Serial No. 656,780.

To all whom it may concern:

Be it known that I, WALTER F. RICHARDS, a citizen of the United States, resident of Quincy, in the county of Adams and State of Illinois, have made a certain new and useful Invention in Attachments for Dental Lathes; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of the invention. Fig. 2 is a plan view of the same. Fig. 3 is a cross section of the eccentric and its ratchet. Fig. 4 is a detail longitudinal section of the chuck member to which the eccentric is connected.

The invention has relation to attachments for dental lathes, and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the numeral 1 designates a bed plate adapted to be secured to the lathe stand and carrying a standard 2 having a base 3 adapted for detachable connection to the bed plate, preferably by means of a hook-pin 4 at one end of the bed plate, slidably engaging a seat 5 of said base, and a pivoted bolt 6 at the other end of the bed plate removably engaging an open-end slot 7 of said base, said bolt having preferably a screw head 8 engaging a cam surface 9 of the base, for making a rigid connection.

Working in a slideway 10 in the upper end of the standard is a reciprocatory bar 11 having at one end a seat 12 for a shank or tang 12^a of a removable file 13, said bar having at its opposite end a pivotal connection 13^a with an eccentric 14 of a power shaft 15. The power shaft is upon rotation in one direction adapted to grip and turn the eccentric to reciprocate the bar and its file, and upon rotation in the opposite direction to turn freely in the eccentric and convey no movement thereto, preferably by means of a ring 15^a, fast thereupon and having opposite circumferential notches 16, 16 of gradually increasing depth to a shoulder 17, at the end of each notch, and a spring-acting yieldable pin 18, seated in the eccentric and bearing against either of the shoulders to rotate the eccentric, said pin upon reverse rotation of the power shaft being pressed outwardly in its seat by the beveled walls of the notches.

In practice the ring 15^a is engaged by the chuck screw of the lathe.

The file 13 is secured in its seat in the movable bar by means of a thumb-screw 19.

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

1. An attachment for dental lathes, comprising a bed plate adapted to be secured to the lathe stand, a standard having means of detachable connection with said bed plate, a slideway at the upper end of said standard, a reciprocatory bar working in said slideway, an eccentric strap having a pivotal connection with said bar, an eccentric disk, an annulus engaging said eccentric disk having an aperture adapted for engagement by the chuck screw of the lathe, and means of connection between said annulus and the eccentric disk whereby said disk is turned by rotation of the ring in one direction only.

2. An attachment for dental lathes, comprising a bed plate adapted to be secured to the lathe stand, a standard having a base, a detachable connection for said base and the bed plate comprising a hook-pin at one end of the bed plate slidably engaging a seat in said base, and a pivoted latch at the opposite end of said bed plate having engagement with an open-end slot of said base, a slideway at the upper end of the standard, a reciprocatory bar working in said slideway, an eccentric strap having a pivotal connection with said bar, an eccentric disk, an annulus engaging said disk having an aperture adapted for engagement by the chuck screw of the lathe, said annulus having opposite circumferential grooves of gradually increasing depth and a shoulder at one end of each groove, and a yieldable pin carried by the eccentric disk and having engagement with said grooves.

3. An attachment for dental lathes, comprising a bed plate adapted to be secured to the lathe stand, a standard having a base, a detachable connection for said base and the bed plate comprising a hook-pin at one end of the bed plate slidably engaging a seat in said base, and a pivoted latch at the opposite end of said bed plate having engagement with an open-end slot of said base, a slideway at the upper end of the

standard, a reciprocatory bar working in said slideway, an eccentric strap having a pivotal connection with said bar, an eccentric disk, an annulus engaging said disk having an aperture adapted for engagement by the chuck screw of the lathe, said annulus having opposite circumferential grooves of gradually increasing depth and a shoulder at one end of each groove, a yieldable pin carried by the eccentric disk and having engagement with said grooves, and a detachable file having a seat in the end of said bar, said file having a lower triangular pointed file-cut surface and guarding extensions for the sides and point.

In testimony whereof I affix my signature, in presence of two witnesses.

WALTER F. RICHARDS.

Witnesses:
LYMAN MCCARL,
KIRK SHAWGO.