

(No Model.)

A. H. PECK & C. E. ALLSHOUSE.
ATTACHMENT FOR DENTAL ENGINES.

No. 493,289.

Patented Mar. 14, 1893.

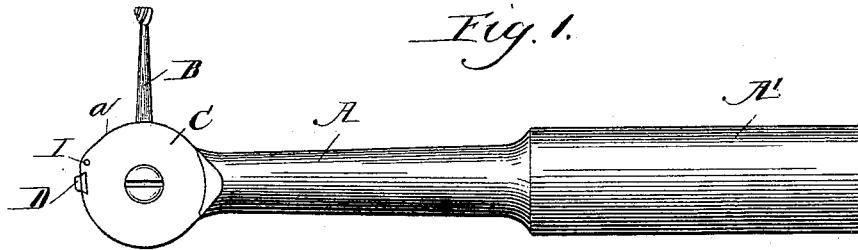


Fig. 3^a

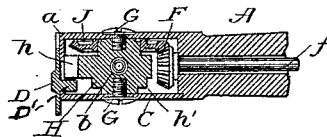


Fig. 2.

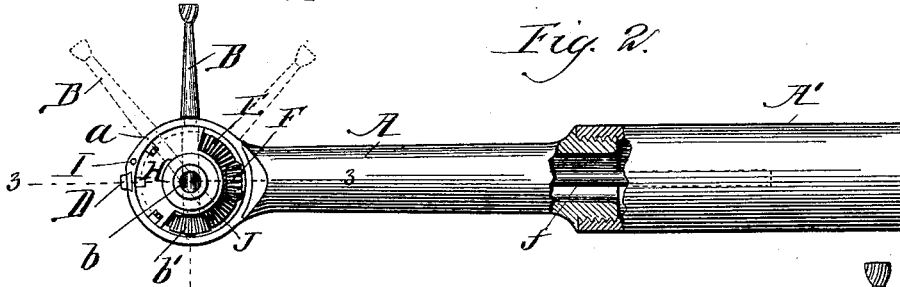


Fig. 3.

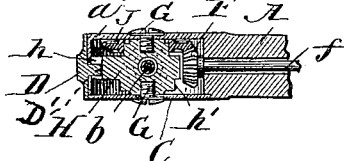


Fig. 7.

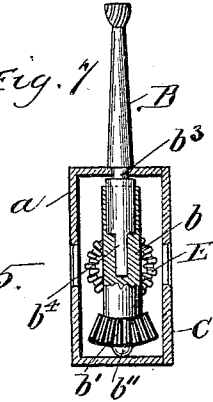


Fig. 4.

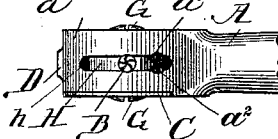


Fig. 5.

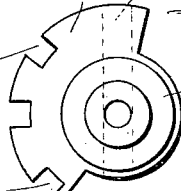
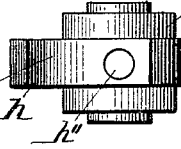


Fig. 6.



Witnesses
W. D. Smith
H. B. Hallock.

Inventors:
A. H. Peck
C. E. Allshouse
By A. M. Hunt
Atty.

UNITED STATES PATENT OFFICE.

ADELBERT H. PECK AND CLARENCE EDSON ALLSHOUSE, OF CHICAGO,
ILLINOIS.

ATTACHMENT FOR DENTAL ENGINES.

SPECIFICATION forming part of Letters Patent No. 493,289, dated March 14, 1893.

Application filed November 27, 1891. Serial No. 413,218. (No model.)

To all whom it may concern:

Be it known that we, ADELBERT H. PECK and CLARENCE EDSON ALLSHOUSE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Attachments for Dental Engines, of which the following is a specification.

Heretofore, in the construction of such attachments the burr has been inserted and fastened into the tumbler at a right angle but not otherwise to the arbor of the engine, which caused the burr to rotate by means of a gear wheel on the inner end of the burr. But by means of our invention the burr may be inserted and rotated at a greater or less angle than a right angle. Our said invention will be more fully described hereinafter with reference to the accompanying drawings in which,—

Figure 1 represents a side elevation of an instrument embracing our improvement. Fig. 2 a like view of the same except that the cap C has been removed in order to display the tumbler H, the crown wheel E and other parts and the hand-piece A and A' has been broken away midway its length in order to show how the parts are jointed together by screw threads. Figs. 3 and 3^a central sections of the same taken at right angles with the elevation of the machine as shown in Fig. 1, part of the hand piece being broken away; Fig. 4 a top view of the same as shown in Fig. 1; Fig. 5 a side view of the tumbler H; Fig. 6 an edge view of the same, and Fig. 7 a detail view, other parts being omitted, illustrating the peculiar construction of the burr B, its stock *b* the bevel gear *b'* and the rounded projection *b''*, this being a view that is on a much larger scale, with the crown wheel E and other parts omitted.

In the drawings B indicates the burr, *b*³ the neck of the same, by which it is confined in a suitable opening for it in the case *a* in which it turns, in operation, *b* is the stock into the end of which the burr is placed, it being provided, as shown, with a rectangular opening *b*⁴ for the inner end of the burr, the end of the burr having a corresponding form, so that the burr will not turn within said opening, but both will turn together.

H is the tumbler, a side view of which is shown in Fig. 5 and edge view shown in Fig. 6. It is mounted upon the two screws G which pass through the case *a* from either side and are turned into it, and when it turns the screws turn in their holes in the case. It consists of a hub with short journals on each side and a flange extending out radially from it and the flange is provided with a series of rectangular notches *h* and these notches are for the insertion into them of the tooth D' of the sliding catch D. In the end of the case *a* is a groove which is wider at the bottom thereof than at the top, and the catch D has a corresponding formation, so that when placed in the groove it cannot move except endwise, and it is provided with a tooth D' which may be forced into any one of the notches *h* of the tumbler, and thus confine the tumbler against turning together with the screws G in the openings for them in the case. The case is provided with a slot *a'* through the edge of it just wide enough to allow the neck *b*³ when in position to revolve freely, but narrow enough to prevent any lateral motion of it, as shown in Fig. 4. The said slot is provided with an enlargement as shown to enable the burr to be inserted, and after being inserted, and the tumbler turned, it becomes locked against accidental displacement in operation. The arbor *f* may be put in motion by any suitable means, and it is provided with the bevel gear F on its inner end adapted to mesh with the crown wheel E located as shown in Fig. 2 and turns the crown wheel, and this latter named wheel revolves the burr by means of the bevel gear *b'* on the end thereof. The stock of the burr is provided with a rounded projection *b''* with the design of diminishing friction where it abuts against the case. It will be noticed that when the tooth D' is inserted in any one of the notches *h* the tumbler is locked against revolving. The tooth D' of the catch is pretty clearly shown in Fig. 3^a and the dove tail groove in the case *a* is shown in Figs. 1 and 2 and the broken lines and the solid lines in Fig. 2. show the burr in three different angles with the arbor *f* and it is manifest that by increasing the number of notches in the tumbler the number of the positions of the burr may be corre-

spondingly increased. The hand piece A A' is in two parts, as shown, in Fig. 2 the two parts being attached together by screw threads. The inner part A may be permanently attached to the case, but the outer end A' may be of varying sizes to suit the exigency of the service required.

The tumbler on each side is provided with a slight annular projection to correspond with corresponding depressions in the sides of the case and crown wheel but as the motion of the tumbler is scarcely a half revolution in extent these features are not important and need not be further described.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In combination with the case *a* having a dovetail groove, the sliding catch D having a corresponding form adapted to move endwise in said groove, and having the tooth D' and the tumbler H having the series of notches *h* therein and mounted within said case, the

catch being adapted to lock the tumbler against turning, substantially as described.

2. The combination of the arbor *f* having the bevel gear F, the crown wheel E and the stock *b* suitably recessed for the burr and provided with gear *b'* adapted to revolve the burr, substantially as described.

3. In combination with case *a* the described tumbler having a series of notches *h* in its flange, and recessed for the burr stock, the burr stock *b* suitably recessed for the burr and provided with gear *b'*, the crown wheel E, and the arbor or spindle *f* having its bevel gear F, the whole adapted to secure the rotation of the burr at three or more different angles with the arbor *f*, substantially as set forth.

A. H. PECK.

CLARENCE EDSON ALLSHOUSE.

Witnesses:

JEANNETTE DUNKIN,

JEANNETTE RASKE.