A. H. BEST.

Motors for Dental-Engines.

No. 207,707. Patented Sept. 3, 1878.

Fig. 1.

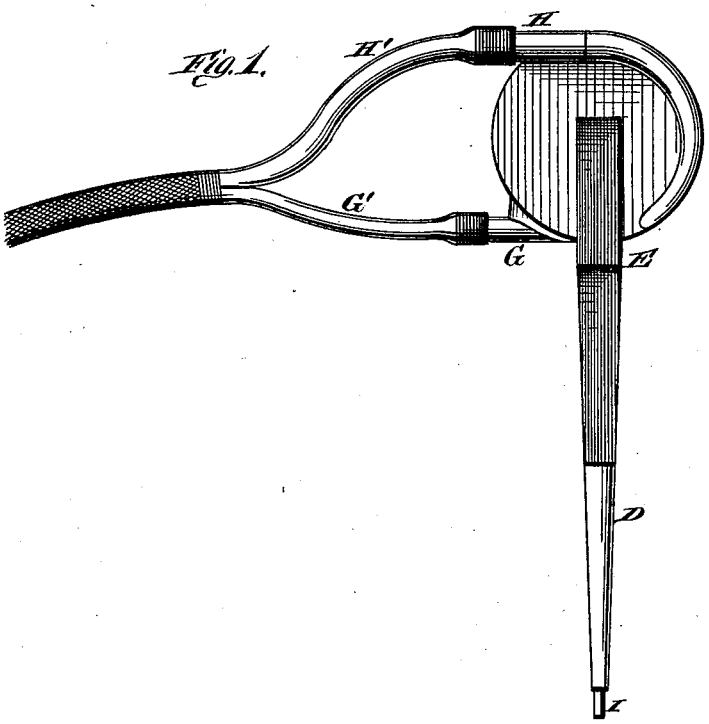


Fig. 2.

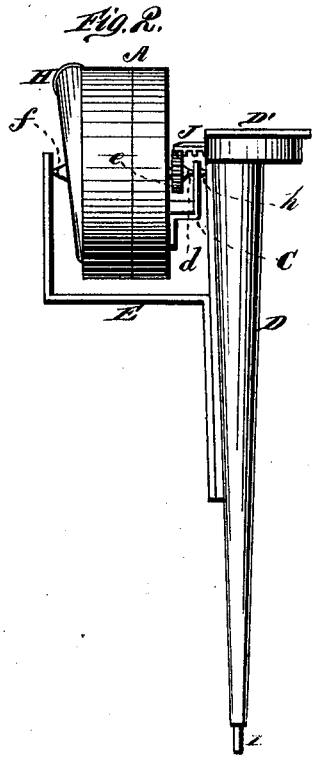


Fig. 3.

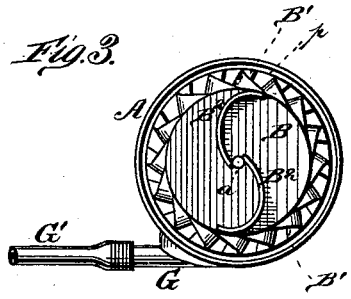
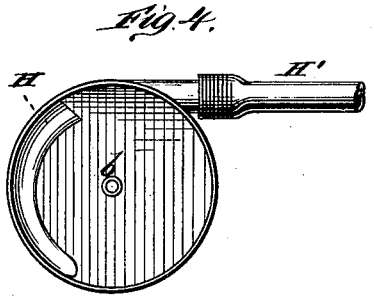


Fig. 4.



WITNESSES

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ALCUIN H. BEST, OF SAVANNAH, GEORGIA.

IMPROVEMENT IN MOTORS FOR DENTAL ENGINES.

Specification forming part of Letters Patent No. **207,707**, dated September 3, 1878; application filed January 26, 1878.

To all whom it may concern:

Be it known that I, ALCUIN H. BEST, of Savannah, in the county of Chatham and State of Georgia, have invented a new and valuable Improvement in Motors for Dental and other Engines; 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 drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a front view of my motor applied to a dental engine. Fig. 2 is a side view of the same. Fig. 3 is a plan view of the case with top removed. Fig. 4 is a plan view thereof.

The nature of my invention consists in the construction and arrangement of a motor for dental and other engines designed to be driven by water, steam, compressed air, gas, or other similar power, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the circular wheel-case, provided with the wheel B rotating therein. The wheel B is provided with a central shaft, which forms a pivot, *a*, on the under side, which rests in a step, *b* in the bottom of the case. The upper pivot, *d*, passes through the top of the case, and has its bearing in a piece, C, attached to the top of the case. Upon this pivot *d*, between the case and the piece C, is secured a pinion, *e*. On the outside of the case A, at the bottom, is a pivot, *f*, and from the piece C projects another pivot, *h*, upon which two pivots the frame E of the tool-stock D is placed.

The wheel B is, on its periphery, provided with paddles or buckets B^1, and upon its under side are one or more paddles, B^2, working reverse to the motor-paddles B^1, for the purpose of driving the water from the wheel-case.

The buckets or paddles B^1 are tapering from the upper to the lower side of the wheel, and are connected to the disk *p* above, and to the lower disk, which is of smaller diameter and presents no flange whatever, below, for the purpose of causing the wheel A, by its revolutions, to perform a screw movement and discharge the water from the wheel, where it will be struck by the reverse paddle B^2 and carried to the outlet H.

G is the inlet for the water, and H is the outlet.

Through the tool-stock D passes the tool-shaft I, having a cog-wheel, J, on its inner end to mesh with the pinion *e*. This inner end of the tool-shaft I has a pivot fitting in a suitable socket formed in the housing D′ at the end of the tool-stock.

It will be noticed that by my construction of the motor the water is turned on the periphery, whereby the greatest possible power is obtained and the pressure is kept on the wheel for more than one-quarter of its circumference. This is accomplished by reason of the fact that the water strikes the paddles with such force that it is thrown off against the inner periphery of the case and rebounds or falls back, still with force, as it cannot escape, and thereby the pressure is kept upon the periphery of the wheel B for more than one-quarter of its circumference. The outlet H is made larger than the inlet G, and is attached below the wheel B.

The inlet and outlet tubes G H are provided, respectively, with flexible tubes G′ H′ to form the connections with the supply and waste pipes. These flexible tubes are braided together to make them look as one tube.

The motor may be driven by water, steam, compressed air, gas, or any other suitable power.

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

1. In a motor operated by water or similar power, the wheel B, provided on its periphery with a series of paddles or buckets, B^1, and on its under side with one or more paddles, B^2, whereby the water is forced out by the centrifugal force of the wheel, as set forth.

2. The combination, substantially as described, of the case A, wheel B, tool-stock frame E, the said wheel and frame having distinctly separate pivots, the tool-shaft I, and gearing J *e*, all as herein set forth.

3. In combination with the case A and wheel

B, the inlet G and outlet H, with the flexible tubes G′ H′, braided together, substantially as herein set forth.

4. In a water-motor, the buckets B¹, tapering from the upper to the lower face of the wheel, in combination with the disk *p* above the buckets, for the purpose set forth.

5. In a motor for dental or other engines, the flexible inlet and outlet pipes, braided together, for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALCUIN H. BEST.

Witnesses:
ROBERT G. ERWIN,
THEO. M. FOLEY.