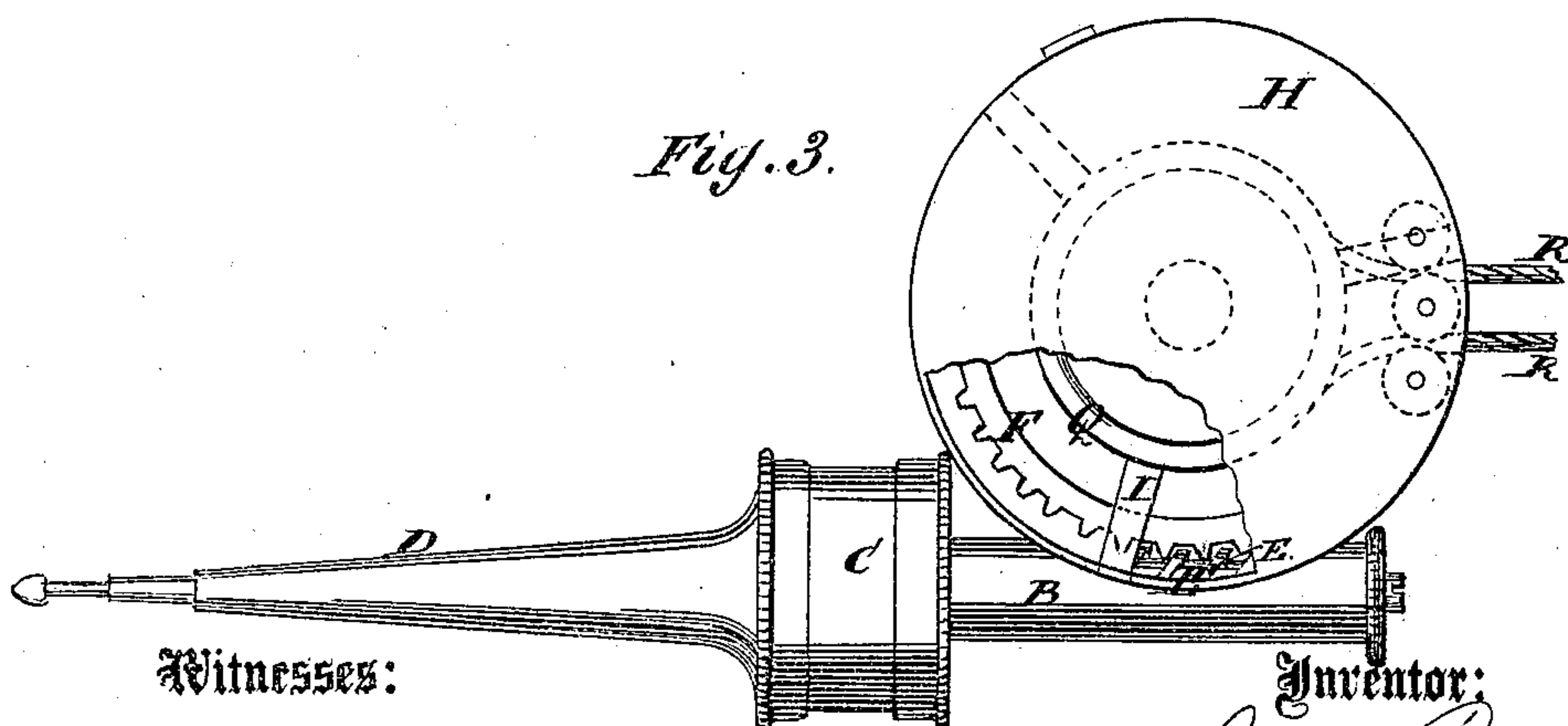
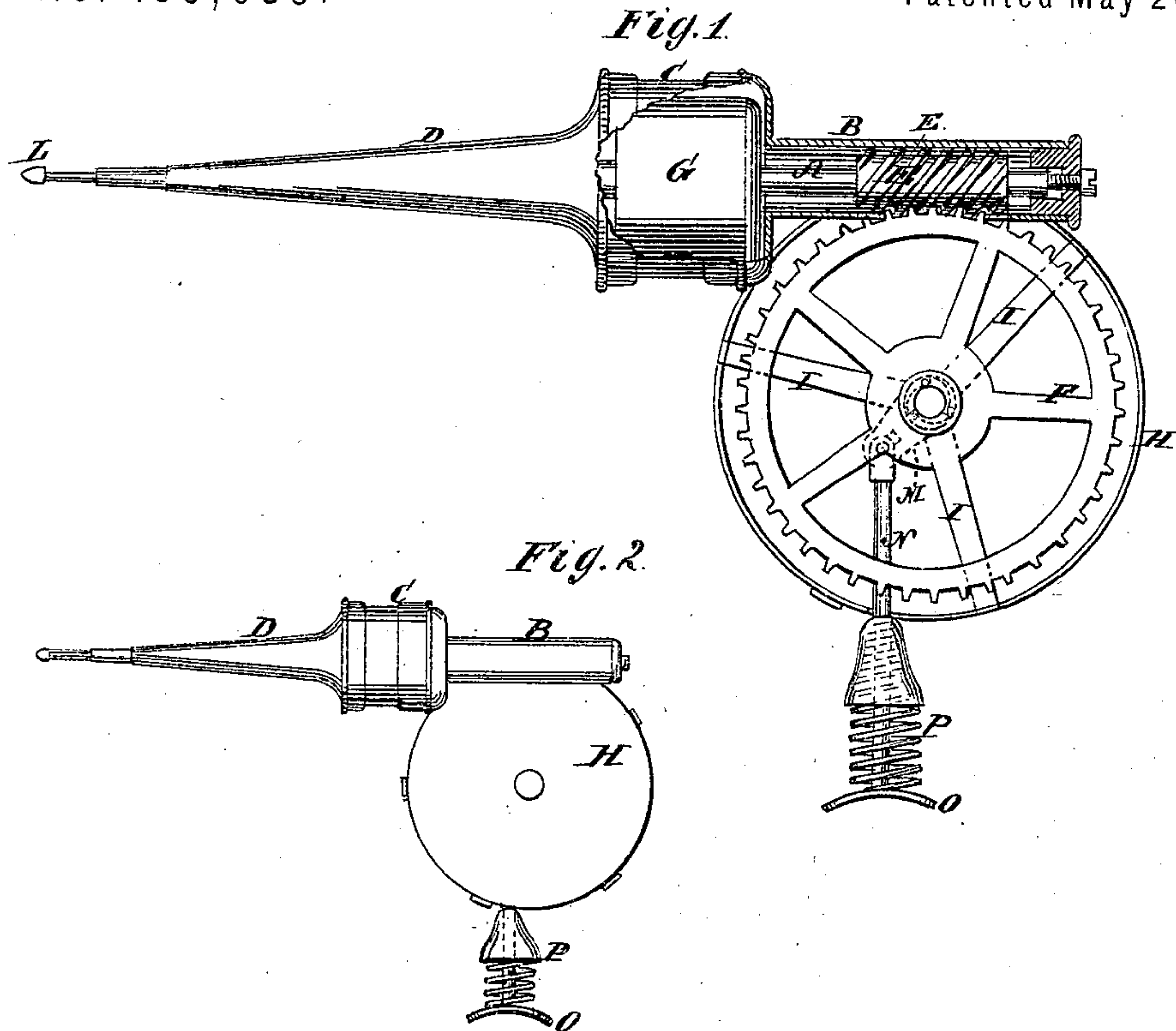


J. W. BAXTER.
Dental Drills.

No. 139,039.

Patented May 20, 1873.



Witnesses:

E. Wolff
C. Sedgwick

Inventor:

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PER

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UNITED STATES PATENT OFFICE.

JONATHAN W. BAXTER, OF VEVAY, INDIANA.

IMPROVEMENT IN DENTAL DRILLS.

Specification forming part of Letters Patent No. **139,039**, dated May 20, 1873; application filed February 1, 1873.

To all whom it may concern:

Be it known that I, JONATHAN W. BAXTER, of Vevay, in the county of Switzerland and State of Indiana, have invented a new and Improved Dental Drill, of which the following is a specification:

The invention has for its object to furnish dentists with a rotary drill adapted to be operated by the hand through the medium of a worm, a toothed driving-wheel, and pawl mechanism, arranged as hereinafter described.

Figure 1 is a side elevation of my improved machine. Fig. 2 is partly a side elevation and partly a sectional elevation on a scale about twice as large as that of Fig. 1; and Fig. 3 is partly a side elevation and partly a sectional elevation, showing the arrangement for working the drill by foot-power.

Similar letters of reference indicate corresponding parts.

A is the drill-spindle, which is arranged in the case B C D, and has a worm, E, in the part B to gear with the driving-wheel F. It also has a weighted balance-wheel, G, in the part C of the case. The driving-wheel F is arranged in a thin circular case, H, having an opening through one part of the rim—say the top—and attached thereat to the part B of the drill-case, which also has an opening in the side to coincide with the opening of case H, so that the driving-wheel and the worm may gear together. The wheel F is journaled in a spider-frame, I, secured in the case H,

and the said case is arranged in the plane of the drill-case, so that it, together with the part B of the drill-case, constitutes the handle for the machine, by which it can be very conveniently held in one hand to present the drill L to the work. The wheel F is turned by a pawl-crank, M, and a push-pawl, N, the latter extending down through the bottom of the case H, and having a finger-piece, O, on the lower end to be acted on by the middle finger of the same hand by which the machine is held, which pushes it up and turns the wheel, and a spring, P, pushes it down again. Q represents the belt-pulley, attached to the driving-wheel F, for working the drill by foot-power by means of a belt, R, from a driving-wheel of a foot-power of any kind, the said belt passing through the rim of the case H in suitable holes and over guide-rollers, as shown in dotted lines, if preferred.

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

The combination of the worm E, driving-wheel F, a pawl mechanism, and a retracting-spring with the drill-spindle A of a hand dental drilling-machine, substantially as specified.

JONATHAN WHITLOCK BAXTER.

Witnesses:

GEORGE W. MENDELL,
JOHN F. DOAN.