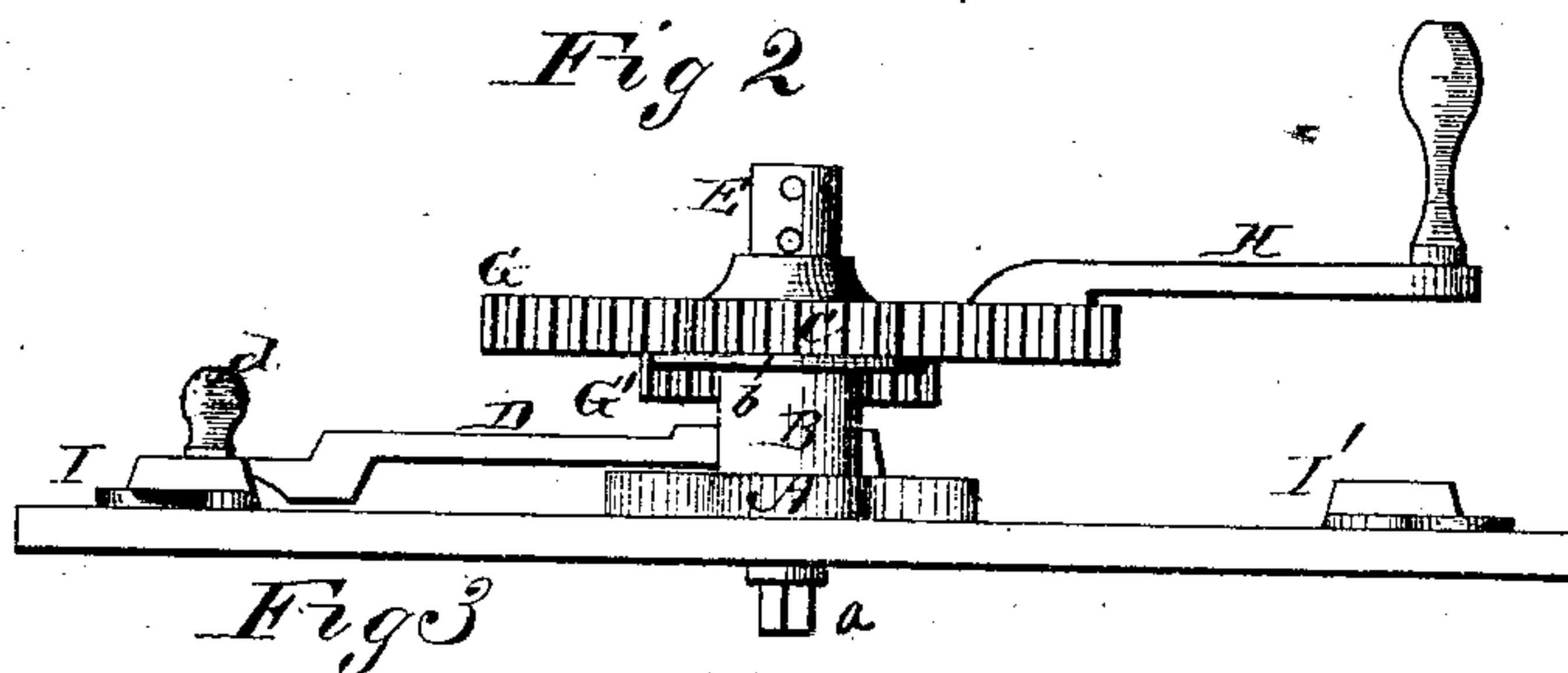
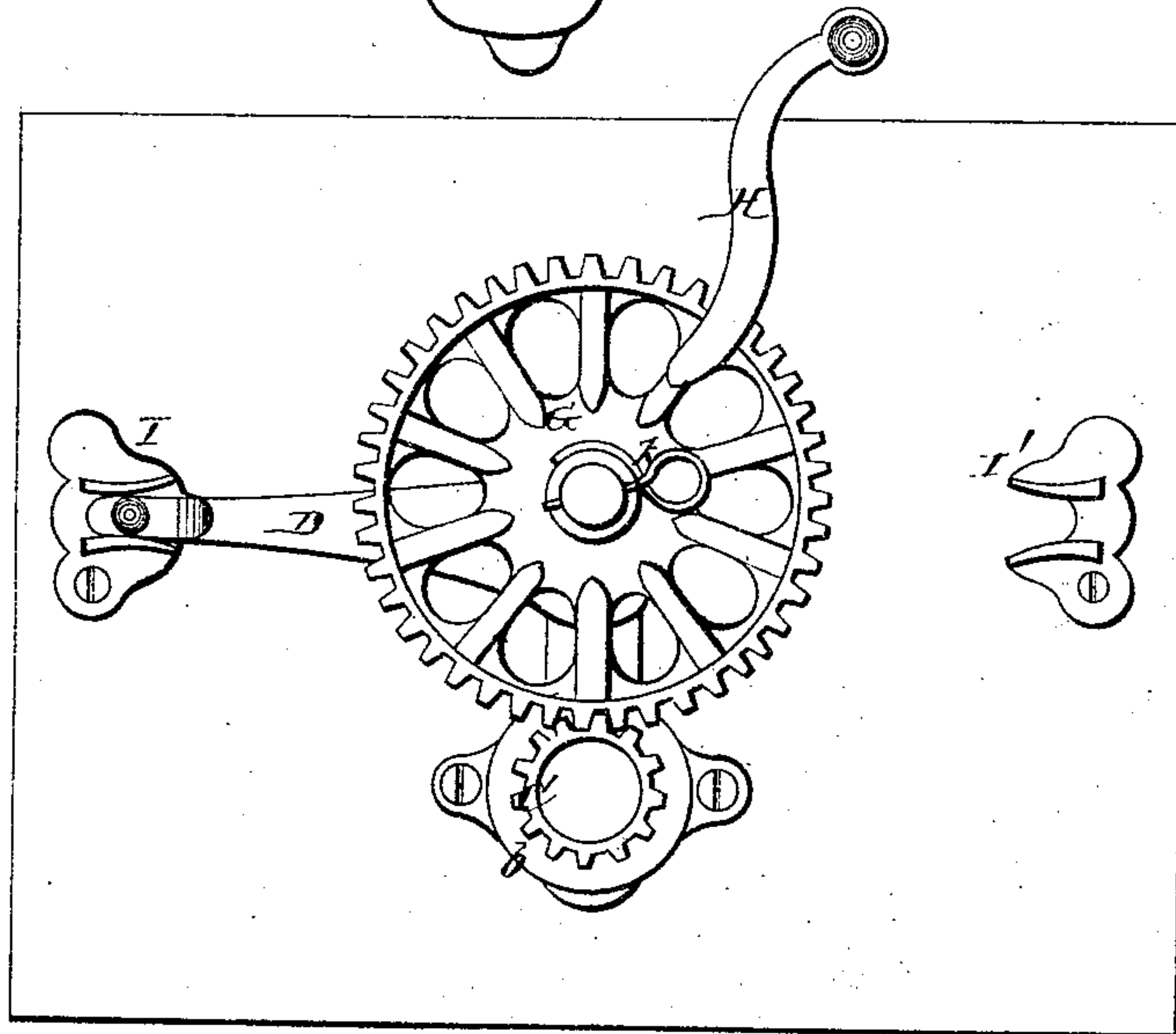
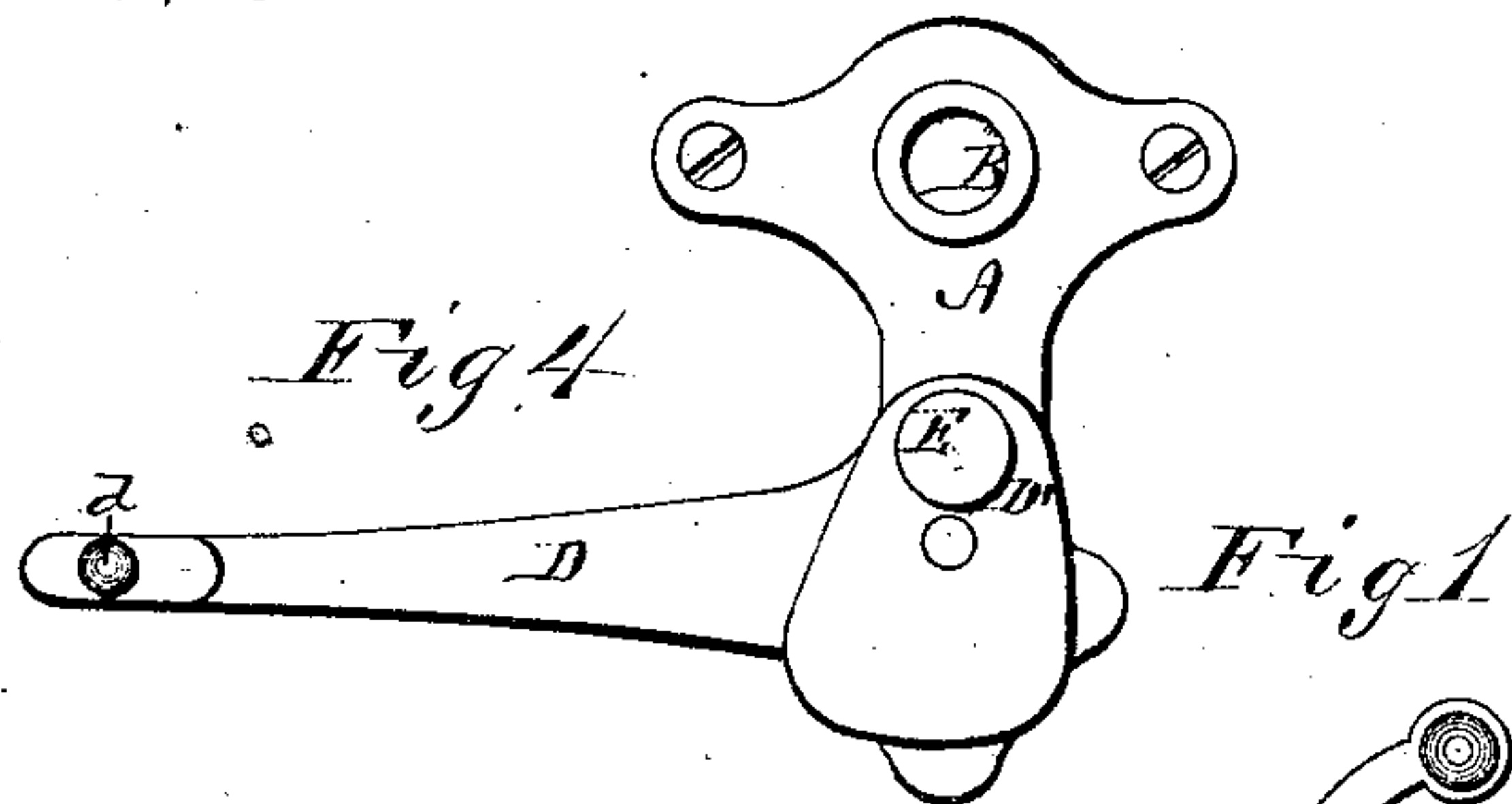


H. L. GORDON.

Gearing.

No. 160,181.

Patented Feb. 23, 1875.



WITNESSES
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UNITED STATES PATENT OFFICE

HORACE L. GORDON, OF WEST GARLAND, MAINE.

IMPROVEMENT IN GEARINGS.

Specification forming part of Letters Patent No. **160,181**, dated February 23, 1875; application filed December 7, 1874.

To all whom it may concern:

Be it known that I, HORACE L. GORDON, of West Garland, in the county of Penobscot and in the State of Maine, have invented certain new and useful Improvements in Churn-Gear; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a churn-gear, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my churn-gear arranged for fast motion. Fig. 2 is a side view of the same. Fig. 3 is a plan view of the gear arranged for slow motion, and Fig. 4 is a view of the elbow-lever which carries the double gear-wheel.

A represents a plate of any suitable size and shape, and provided at one end with an outwardly-projecting hollow stud, B, through which passes a shaft, *a*, into one end of the churn-dasher shaft. On the outer end of the shaft *a* is secured a pinion, C, formed with a circumferential projecting flange, *b*, on the inner side. Near the other end of the plate is pivoted an elbow-lever, D D', the long arm, D, of which is provided at its outer end with a knob, *d*. The short arm, D', of the elbow-lever is provided with a stud, E, upon which is placed a double cog-wheel, G G', provided with a crank or handle, H. The part G of the double cog-wheel is of large diameter, while the part G' is of smaller diameter. I and I' rep-

resent two flanged buttons pivoted on opposite sides of the gearing for alternate use. By turning this elbow-lever so that the outer end of its longer arm, D, is held in the button I, the large wheel G is thrown in gear with the pinion C, as the stud E on the short arm D' gets placed on the opposite side of the pivot-point from the pinion. The double cog-wheel G G' is held on the stud E by means of a spring-key, *k*, passed through a hole in the stud.

When it is desired to change from fast to slow motion the spring-key *k* is taken out and the double cog-wheel drawn outward on the stud till the part G clears the pinion C. The elbow-lever D D' is then turned one-half a revolution until the end of its longer arm may be fastened in the button I', when the stud E will be between the pinion C and the pivot-point of the elbow-lever, so as to throw the smaller part G' of the double cog-wheel in gear with the pinion, and thus cause a slow motion of the churn-dasher. The change from fast to slow motion, and vice versa, may be effected in an instant almost, whenever desired.

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

The combination, with a pinion, C, of the pivoted elbow-lever D D' with stud E, and the double cog-wheel G G' placed on said stud, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of November, 1874.

HORACE L. GORDON.

Witnesses:

LORENZO OAK,
FRANK E. FLANDERS.