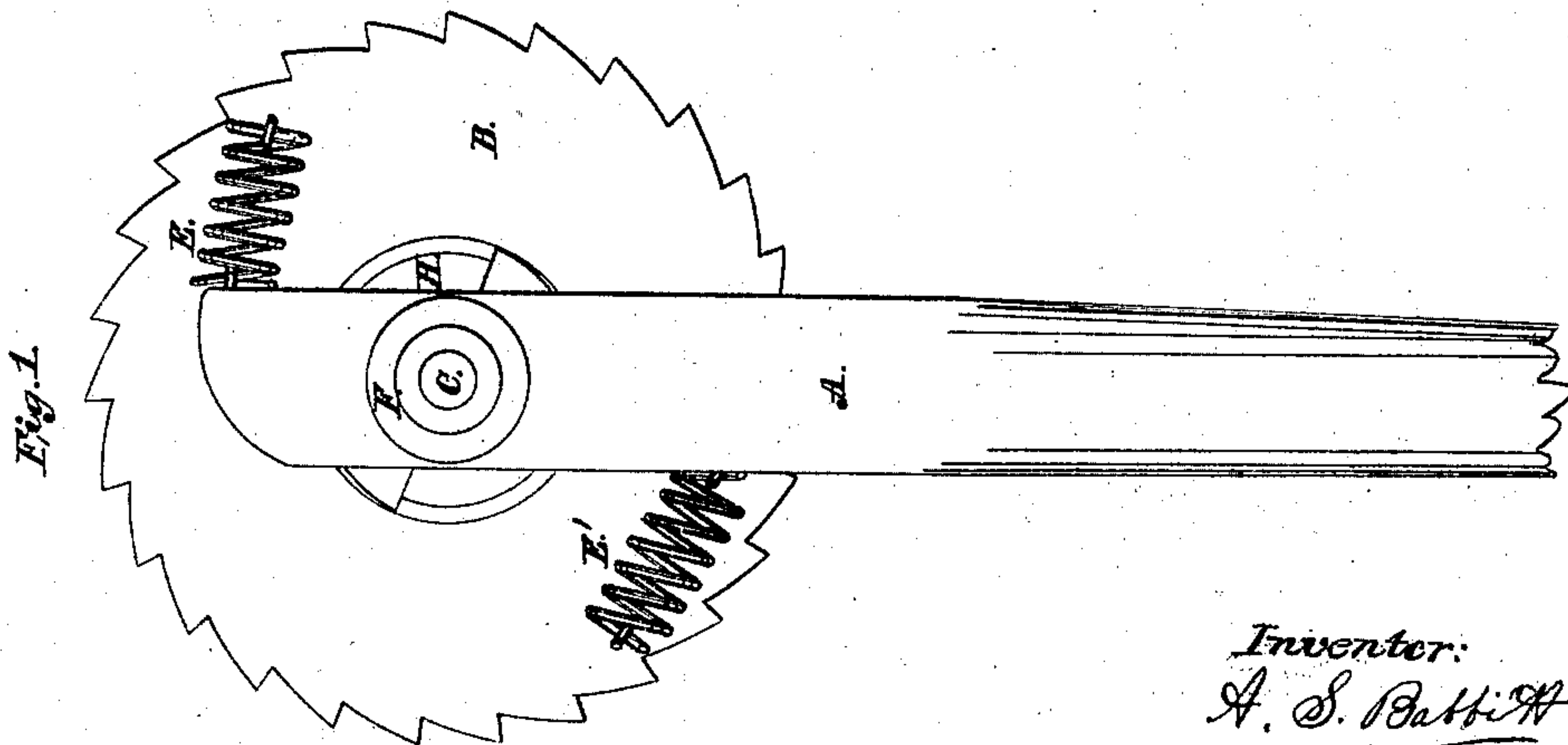
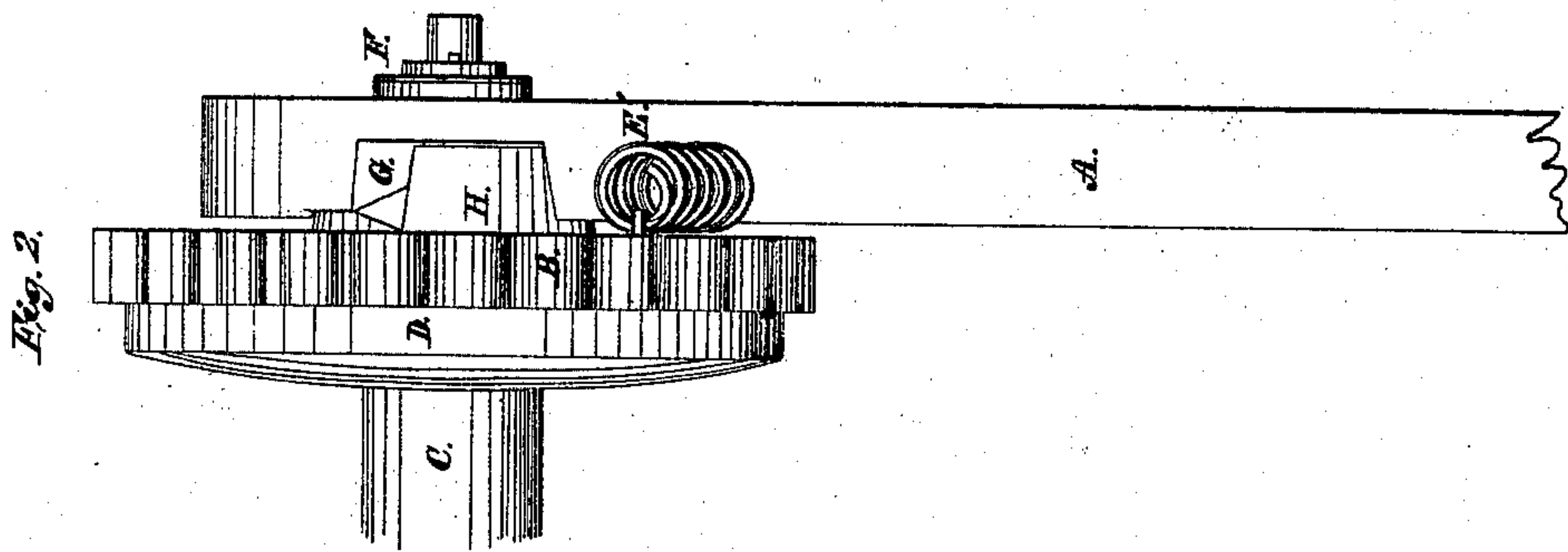
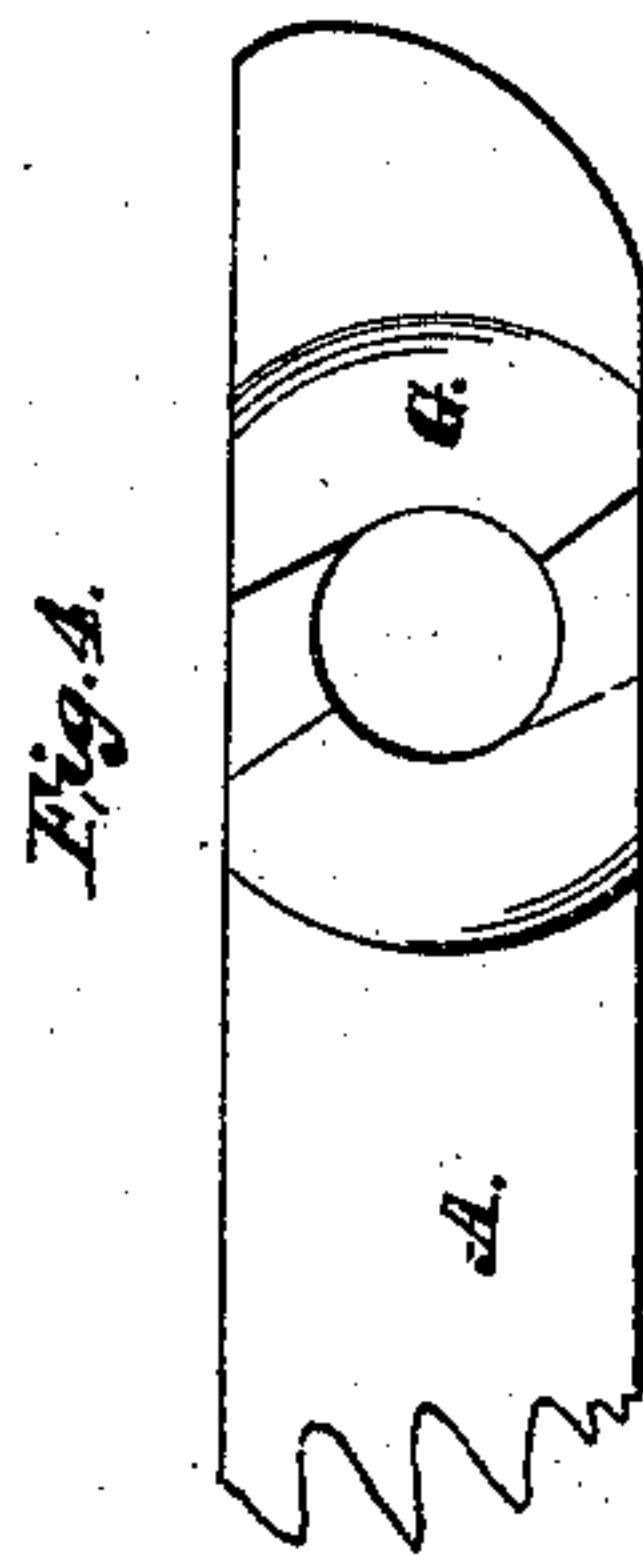
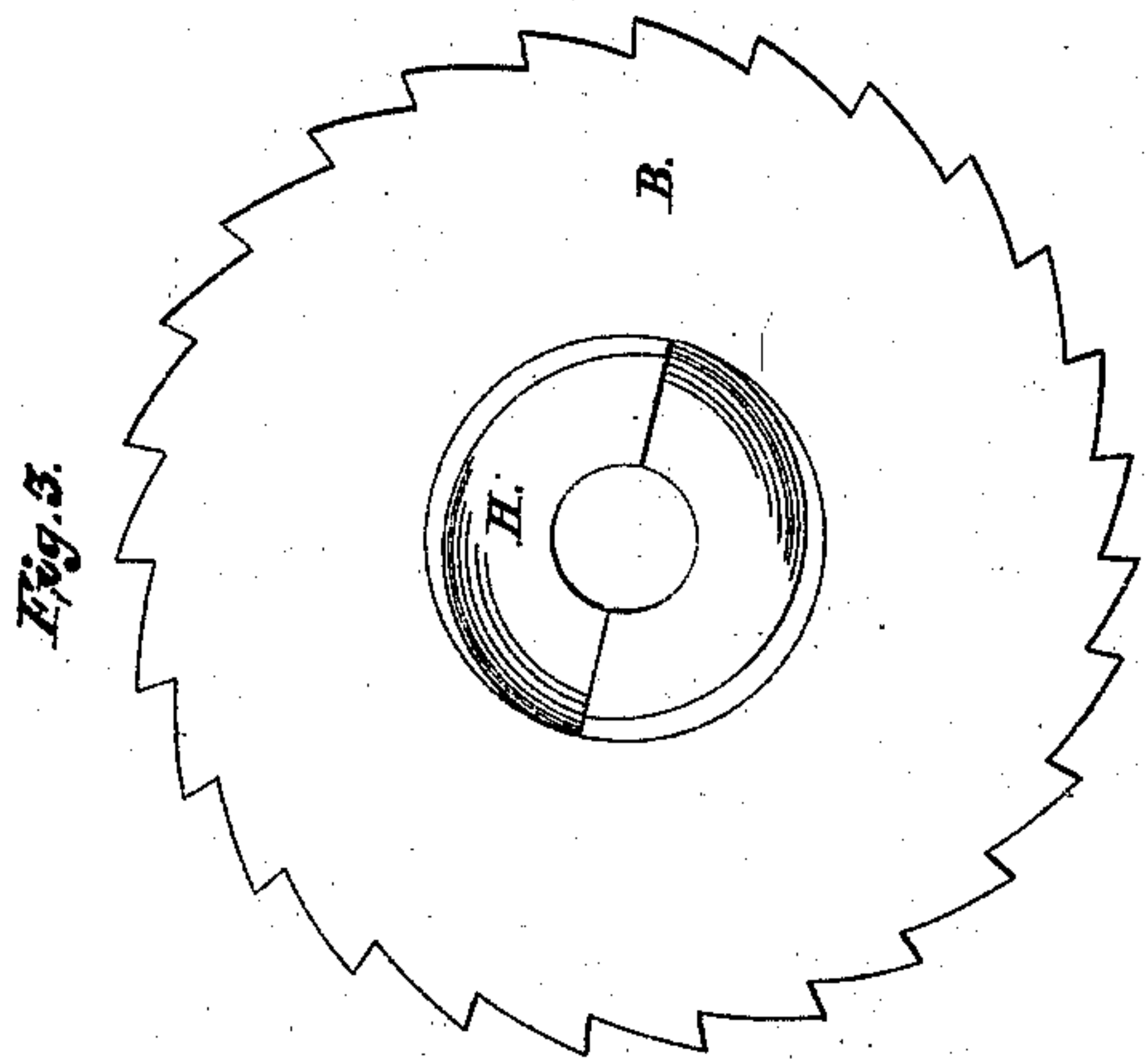


A. S. Babbitt

Windlass Water Elevator.

No 55,977.

Patented July 3, 1866.



Attest:
Charles Alexander
John P. Jacobs

Inventor:
A. S. Babbitt
per *A. S. Babbitt*
Alexander J. Mason

UNITED STATES PATENT OFFICE.

A. S. BABBIT, OF KEESEVILLE, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 55,977, dated July 3, 1866.

To all whom it may concern:

Be it known that I, A. S. BABBIT, of Keeseville, in the county of Essex and State of New York, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon, making a part of this specification.

In the drawings hereto annexed, A represents the lever which draws the water. This lever is made of wood or metal, and in the ordinary way is attached to the outside of the windlass, which is suitably supported on the well-frame.

C represents the windlass, which is a circular horizontal shaft having a wheel, D, at one extremity and secured firmly to said windlass, so that windlass and wheel revolve together.

B represents a ratchet-wheel, which is placed between the lever A and windlass-wheel D, said ratchet-wheel and windlass-wheel being placed square to each other, as shown in Figure 2. Upon the outer face of ratchet-wheel B is a hub, H, which hub is made so as to form two cams, and beveled from the ratchet-wheel to the outer side of the hub. The lever A is also beveled to correspond and fit upon the hub, as shown at G, and by means of the opening therein made is secured over the hub H and close upon the outer face of the ratchet-wheel.

F represents a metallic collar, which is placed around the outer end of the windlass C, where the same passes through a circular opening in ratchet B and lever A, and upon the outer face of the lever, where it is firmly attached.

E E' represent two metallic spiral springs, which are fastened near the circumference of the ratchet-wheel upon its outer face and to the lever A. Springs E and E' are placed obliquely from each other, spring E being secured to the end of the lever, while spring E' is secured to said lever near the point where the lever extends below the ratchet. (See Figs. 1 and 2.)

The objects of my invention are, first, to more easily elevate water or other substances from wells and similar places; second, to se-

cure the bucket filled in any depth of the well without the use of the ratchet, and to allow the water-bucket to go down into the well by its own weight, regulating the speed of the same.

It will be seen that the water is elevated by means of the friction of ratchet-wheel B upon the windlass-wheel D, said friction being produced by compression. The compression acquired to produce the necessary friction of the two aforesaid wheels is caused by drawing the lever upward upon the cams of the hub H and the collar F pressing down as the beveled opening of the lever A works around and toward the outer side of the hub. At the same time the springs E and E' are compressed, the whole closing the ratchet-wheel B close upon the outer face of windlass-wheel D, winding the windlass and the rope, with bucket attached, around said shaft. By this means the bucket can be left stationary any depth of the well.

By drawing the lever downward it works down the inclined portion of the hub H, distending the springs, thereby drawing the ratchet-wheel from the windlass-wheel and allowing the windlass to revolve by the weight or bucket, which descends down in the well.

The object of the springs E E' is to keep the cams drawn tightly together to prevent the windlass from turning and allowing the bucket to run down into the well when the hand is removed from the handle, said bucket being filled with water and partially drawn up.

I am aware of the patent to W. D. Jones, September 22, 1863, in which the cams and friction-wheels are used without the springs; but in his case the bucket, when full of water and partially drawn up, is liable to run into the well again as soon as the hand is removed from the handle, because there is not sufficient pressure upon the cams to cause the friction-wheels to keep it suspended.

I am aware that cams and friction-wheels are not new; hence I do not claim the wheels D and B, nor do I claim the lever H for pressing the two wheels together, and thus producing friction.

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

The arrangement of the wheels D and B, the wheel B being provided with a hub upon which cams are formed, with the lever A, which is also provided with cams to correspond with those upon the wheel when used with the springs E E' and collar F, as and for the purposes specified.

In witness that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

A. S. BABBIT.

Witnesses:

C. M. ALEXANDER,
J. M. MASON.