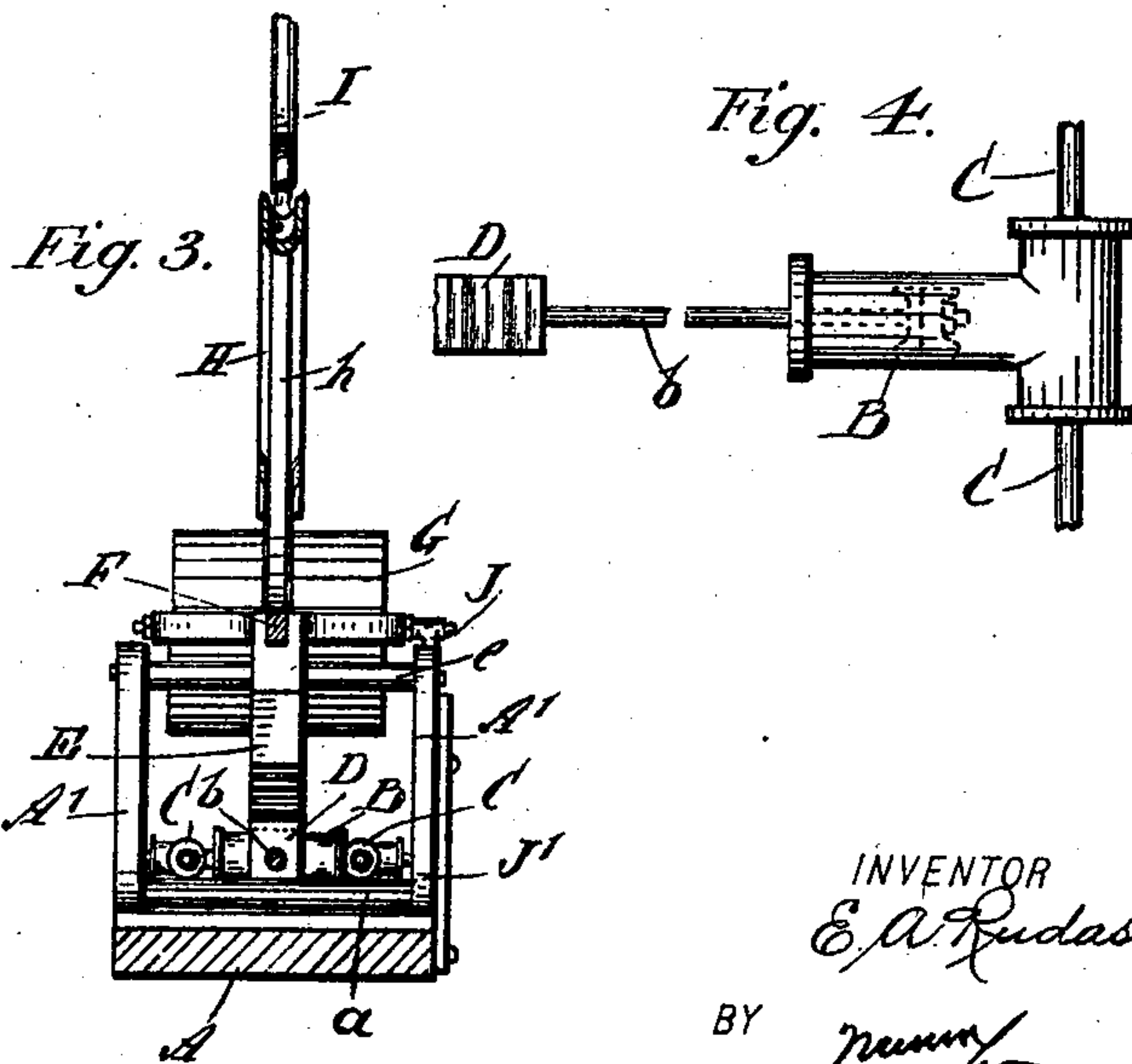
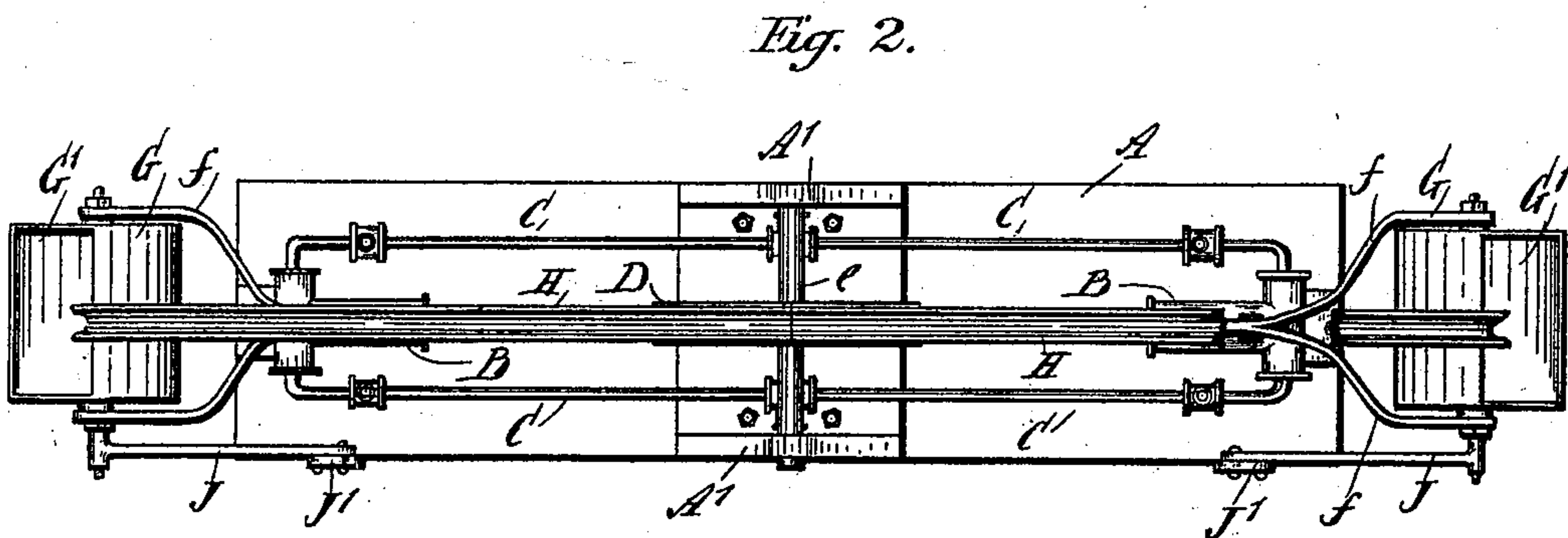
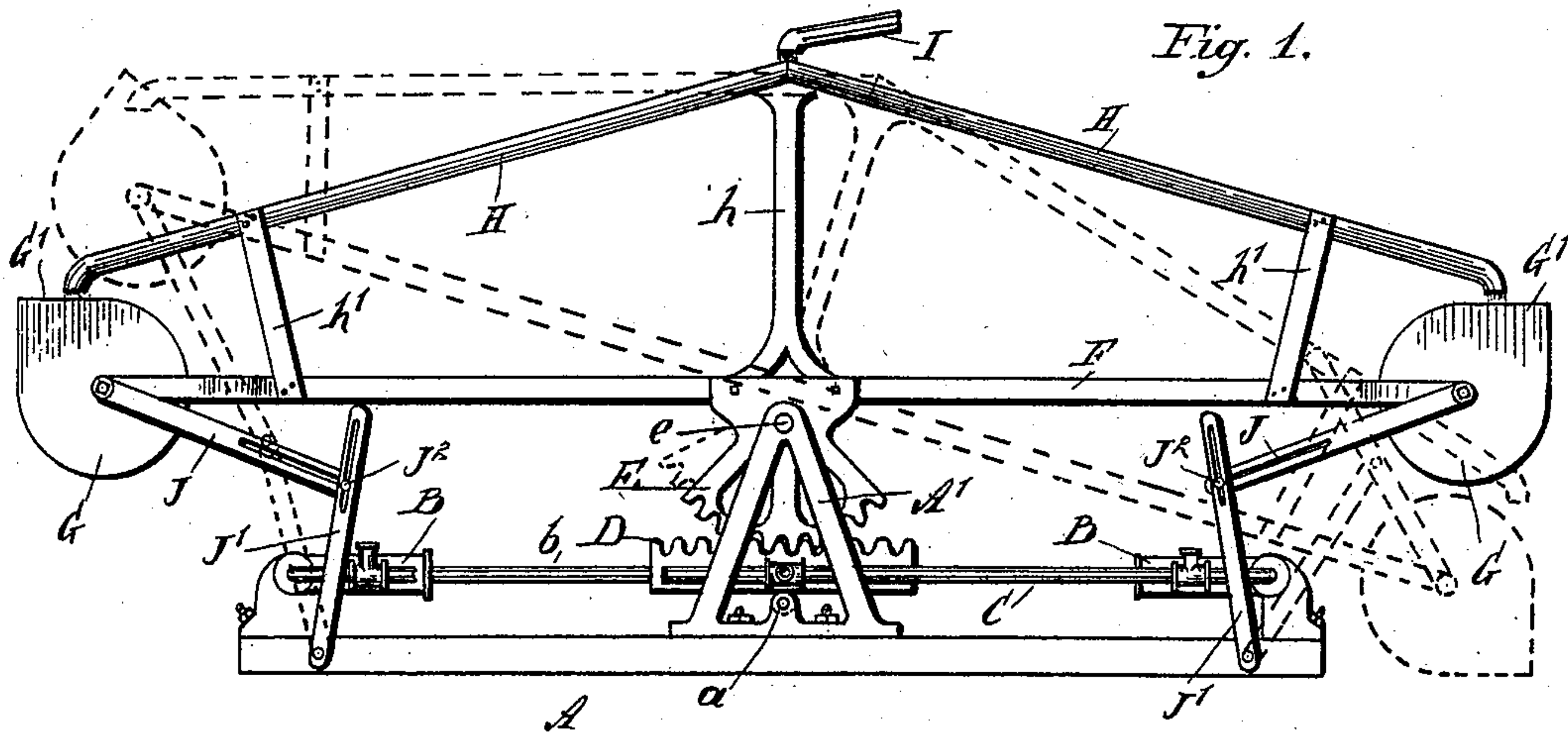


(No Model.)

E. A. RUDASILL.
WATER MOTOR.

No. 601,906.

Patented Apr. 5, 1898.



WITNESSES:

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ELI A. RUDASILL, OF SHELBY, NORTH CAROLINA.

WATER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 601,906, dated April 5, 1898.

Application filed June 22, 1897. Serial No. 641,784. (No model.)

To all whom it may concern:

Be it known that I, ELI A. RUDASILL, of Shelby, in the county of Cleveland and State of North Carolina, have invented a new and
5 Improved Water-Motor, of which the following is a full, clear, and exact description.

My invention relates to an improvement in that class of water-motors comprising a pivoted lever having a bucket mounted upon
10 either end and alternately filled, so as to oscillate the lever.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my device. Fig. 2 is a top plan view thereof. Fig. 3 is an end elevation, partially in section; and Fig. 4 is a top plan view showing a detail of the
20 pump and its connection to the rack.

Upon a base A, of any suitable form, are mounted two uprights or frames A', which at their upper ends carry a cross-shaft e, upon which is mounted the center of an oscillating lever F. To said lever at its center is fixed a toothed segment E, which at its lower or toothed end engages a rack D, mounted to reciprocate in a straight line. In the drawings said rack is shown as bearing upon a
30 friction-roller a, mounted in the frames or uprights A'.

To each end of the rack D is fixed a pump-rod b, each of which rods operates a pump-cylinder B, fixed to the outer end of the base
35 A. These pump-cylinders are provided with suitable supply and discharge pipes C, by which the water or other fluid is supplied to the pumps and carried therefrom.

The lever F supports two water-conveying
40 pipes H by means of posts h and h'. The pipes H are inclined at an angle from the center toward either end, and at their outer ends they are placed immediately over the pivoted buckets G. These buckets are pivoted to the outer ends of the lever F and are preferably made in the main of a cylindrical shape, but have two adjacent sides formed by tangential planes. One of these sides G'—that which is up when attached to the
45 machine—is made open to receive and discharge water.

To the axis of the bucket is fixed one end of a bar J, which at its opposite end is slotted. A bar J', of similar construction, is pivoted at its lower end to the base A or to any suitable
55 fixed support. The upper end of the bar J' is also slotted, and the two bars J and J' are pivotally secured to each other by means of a bolt J², passing through both of their slots.

As the lever F oscillates on its central
60 pivot the bucket G will be oscillated upon its pivot to receive or discharge the water, as shown by full and dotted lines in Fig. 1. The water-conveying pipes H, which are mounted upon the lever F, receive their water from a
65 pipe I, having its discharge end over the center of the lever F. In the position shown by the dotted lines in Fig. 1 the bucket to the right has been revolved through its connection with the levers J and J', so that the wa-
70 ter is being discharged from its open side. At the same time the water from the pipe I is being conveyed into the bucket at the left. When this bucket is filled sufficiently to counterbalance the opposite bucket, it will begin
75 to descend. As it descends it is oscillated through the connection of the levers J and J', so that when it nears its bottom position the discharge of the water is commenced. This operation is entirely automatic and will
80 result in the alternate filling and discharging of the buckets.

Through the connection shown in the drawings the device may be applied for power purposes, the connection of the rack D being
85 made either to pumps or to any power mechanism desired.

The device is one which is simple in construction, not liable to get out of order, and efficient. It is also entirely automatic in its
90 action and will continue running as long as the supply of water lasts. It may be utilized for any purposes requiring power.

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

1. A water-motor, comprising a lever pivoted near its middle, and having buckets pivoted to the ends thereof, water-conveying
100 spouts adapted to deliver water alternately to said buckets, and bars pivoted near one end to each other, and at their other ends re-

spectively pivoted to a fixed point and secured to the bucket, to turn the latter upon its pivot, substantially as described.

2. A water-motor, comprising a lever pivoted near its middle, and having buckets pivoted to the ends thereof, water-conveying spouts carried upon the said lever, extending from said buckets upwardly and toward the center of the motor, a water-delivery pipe discharging into the said conveying-pipes above the lever-pivot, two bars pivoted at one end to each other, and at their other ends respectively connected to a bucket and pivoted to a fixed point, substantially as shown and described.

3. A water-motor comprising a lever pivoted near its middle and having buckets pivoted to the ends thereof, water-conveying pipes adapted to deliver the water alternately to said buckets, and bars adjustably pivoted at one end to each other by means of slots and a pivot-bolt, and at their other ends respectively fixed to a bucket-pivot and pivoted to a fixed point, substantially as described.

4. A water-motor comprising a lever pivoted near its middle and having buckets pivoted to the ends thereof, water-conveying spouts adapted to deliver water alternately

to said buckets, a segment-gear fixed to the lever at its pivot, a rack mounted to reciprocate and meshing with said gear, and bars pivoted near one end to each other, and at their other ends respectively pivoted to a fixed point and secured to the bucket, to turn the bucket upon its pivot, substantially as described.

5. A water-motor comprising a lever pivoted near its middle and having buckets pivoted to the ends thereof, said buckets being mainly cylindrical but having two tangential faces, one of which is open, water-conveying spouts carried upon said lever, extending from said buckets upwardly and toward the center of the motor, a water-delivery pipe discharging into said conveying-pipes above the lever-pivot, and two bars pivoted at one end to each other and at their other ends connected respectively to the buckets and pivoted to a fixed point, whereby the buckets are adapted to be tipped to empty them at the limit of their downward swing, substantially as described.

ELI A. RUDASILL.

Witnesses:

J. B. BYERS,
J. C. BEAM.