

E. Harris,

Motor.

Patented May 17, 1859.

N^o 24,025.

Fig. 3.

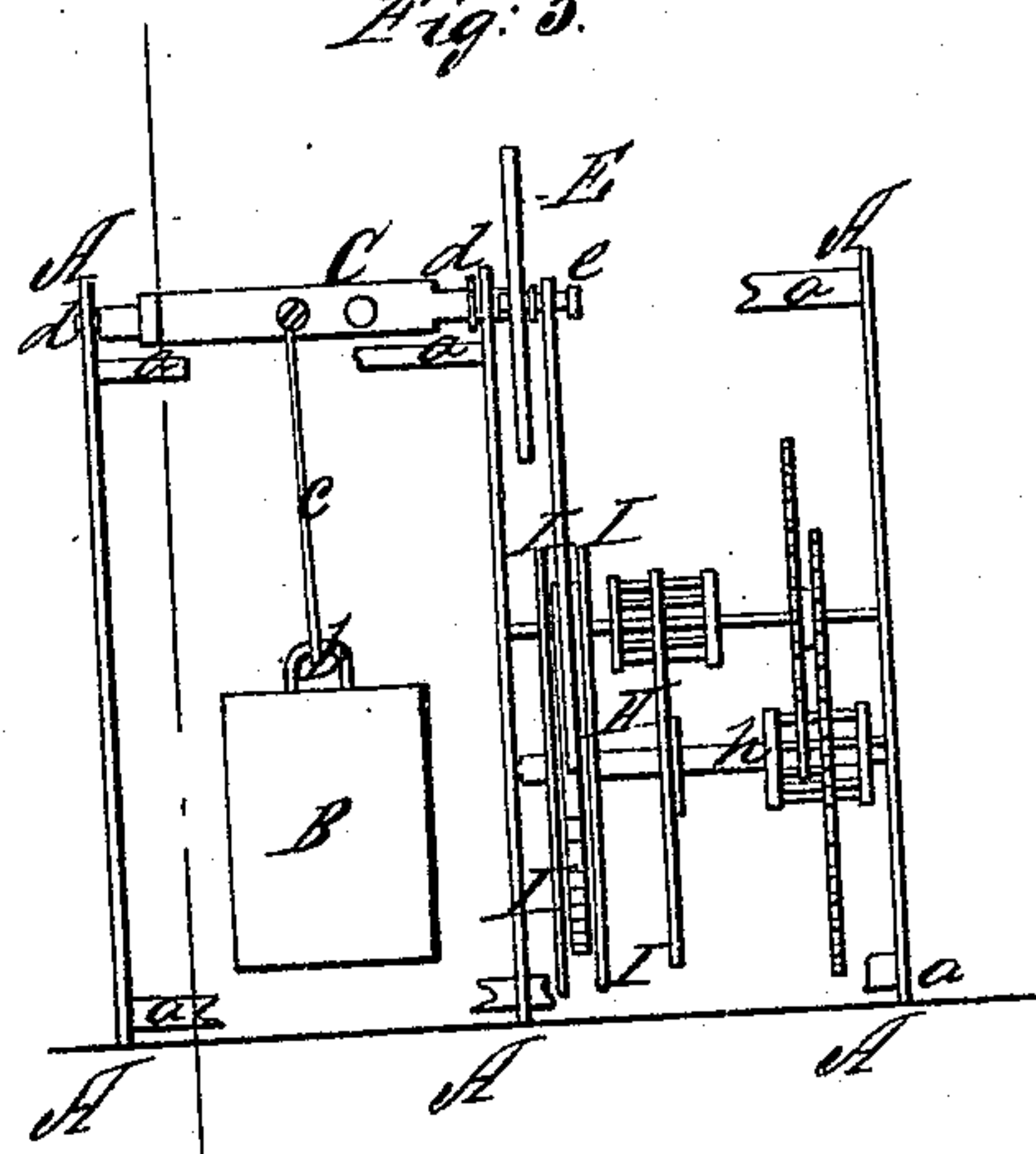


Fig. 2.

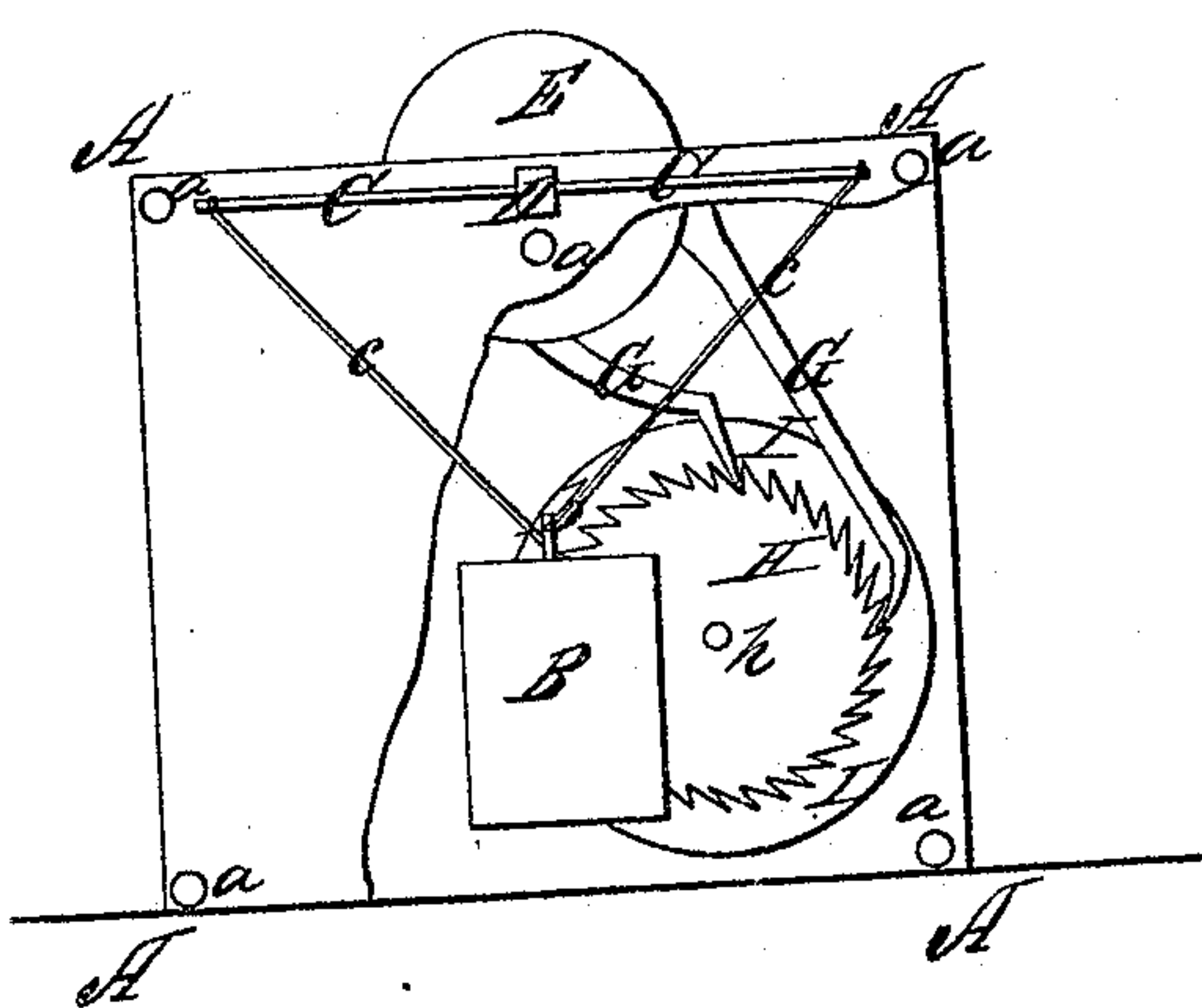
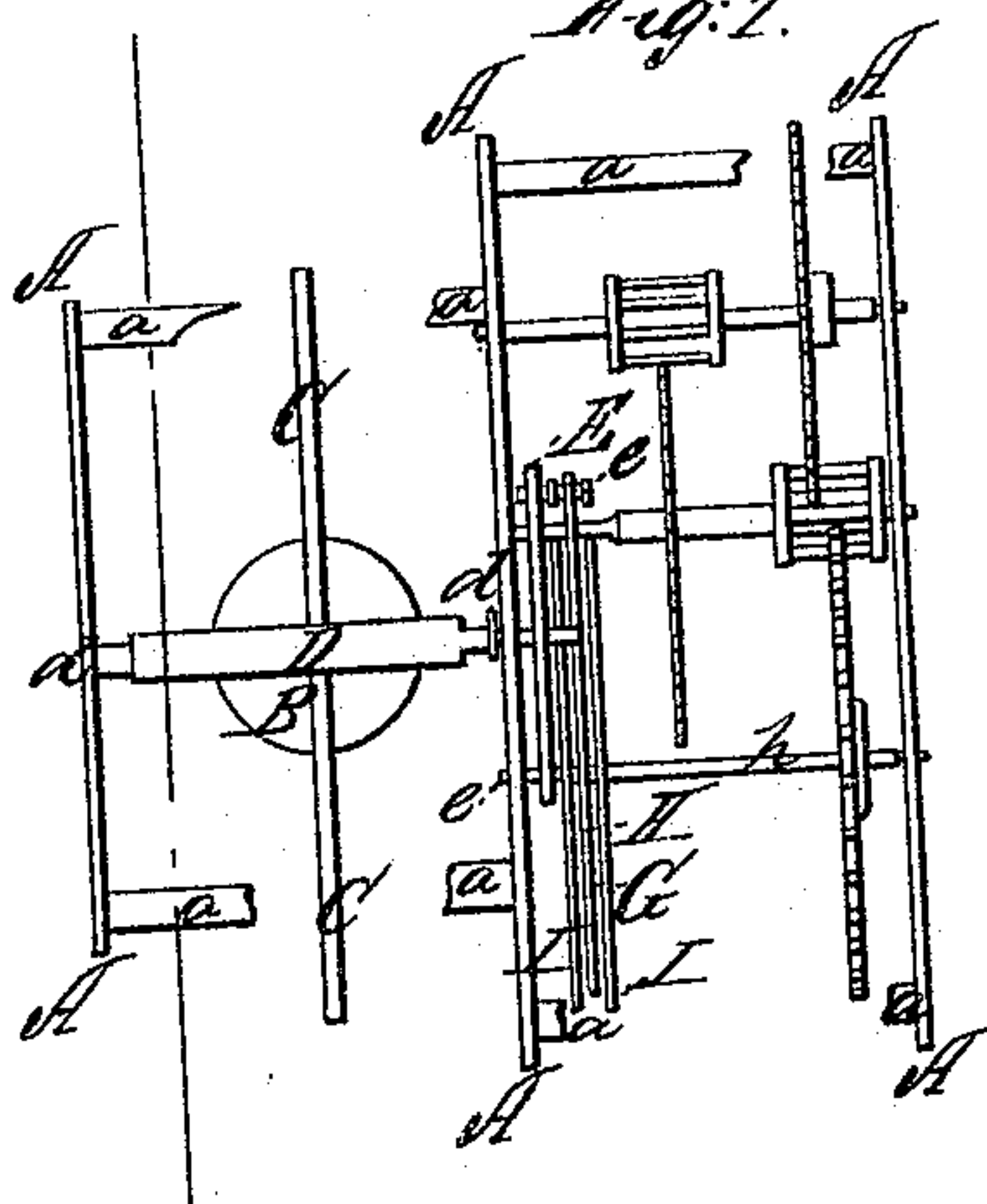


Fig. 1.



Inventor:

Elijah Harris

Witnesses:

G. W. Gray
J. Clough Haine

UNITED STATES PATENT OFFICE.

ELIJAH HARRIS, OF PRINCETON, ILLINOIS.

MODE OF APPLYING LEVER-POWER.

Specification of Letters Patent No. 24,025, dated May 17, 1859.

To all whom it may concern:

Be it known that I, ELIJAH HARRIS, of the town of Princeton, in the county of Bureau and State of Illinois, have invented
5 a new and useful Mode of Applying Lever-Power to Machinery; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the
10 annexed drawings, making a part of this specification, in which—

Figure 1, represents a plan of machine or device; Fig. 2, section through the machine on the dotted line on Figs. 1 and 3,
15 with a part of center standard plate and one of the guide plates to ratchet wheel removed; Fig. 3, side elevation of machine.

A, frame; *a* braces connecting the various standard plates of the frame cut off to show
20 the operative parts; B, weight; *b*, eye at the top of weight; C, lever; *c*, suspensory cord or wire passing through eye at top of weight; D, axle through which lever passes at right angles; *d*, pivots on which axle
25 turns; E, circular plate on which are fixed the pivots to ratchet clicks; *e*, pivots to ratchet clicks; G ratchet clicks; H ratchet wheel; *h*, axle to ratchet wheel; I guide plates to ratchet wheel.

30 To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I construct an axle of iron or other suitable metal and at each end I make a pivot.
35 This axle, D, is placed across two standards which contain perforations for the reception of the pivots at the ends of the axle. At the center of the axle I make a perforation through which a lever, C, passes so as to be
40 of the same length on either side of the axle. I then suspend a weight B, by means of a wire or cord attached to the two extremities of the lever and to the eye at the top of weight. To the inner extremity of
45 the axle I attach a circular plate E on which I fix pivots for ratchet clicks G and at a suitable distance I make a ratchet wheel H. The latitude of motion and the power ap-

plied may be increased by beveling the pivots at the ends of the axle, giving it a
50 larger extent of rotary action.

It will be seen that by my invention I obtain a large amount of power capable of being increased to an indefinite extent. The weight having a double leverage upon
55 the lever which is itself double in its action, and the power thus obtained being applied by ratchet clicks and ratchet wheels is not lost but may be communicated to machinery. Take the ordinary movement of a clock,
60 which is represented in the drawings. By my mode of applying lever power the machinery can be run by an ounce weight, whereas in the old mode it would require three pounds. A mere lateral shaking will
65 move the machinery.

The nature of my invention consists in applying lever power by means of a weight hung from a single or double lever
70 which passes or is attached to an axle with pivots, so that by the suspensory weight acting upon the lever and the axle, a momentum is communicated to a circular plate provided with ratchet clicks and these act-
75 ing upon a ratchet wheel machinery is set in motion; and power is thus gained and applied.

I do not claim lever power as formerly known or used, nor do I claim its application to the propelling of machinery broadly,
80 but

What I do claim as my invention and desire to secure by Letters Patent of the United States is—

The use of a weight B, a single or double
85 lever, C, axle and pivots, D, *d*, acting in combination with the circular plate, E, ratchet clicks, G, and ratchet wheel H in applying lever power to machinery substantially in the manner and for the purposes
90 specified.

ELIJAH HARRIS.

Witnesses:

G. W. GRAY,
J. CLOUGH HAINES.