

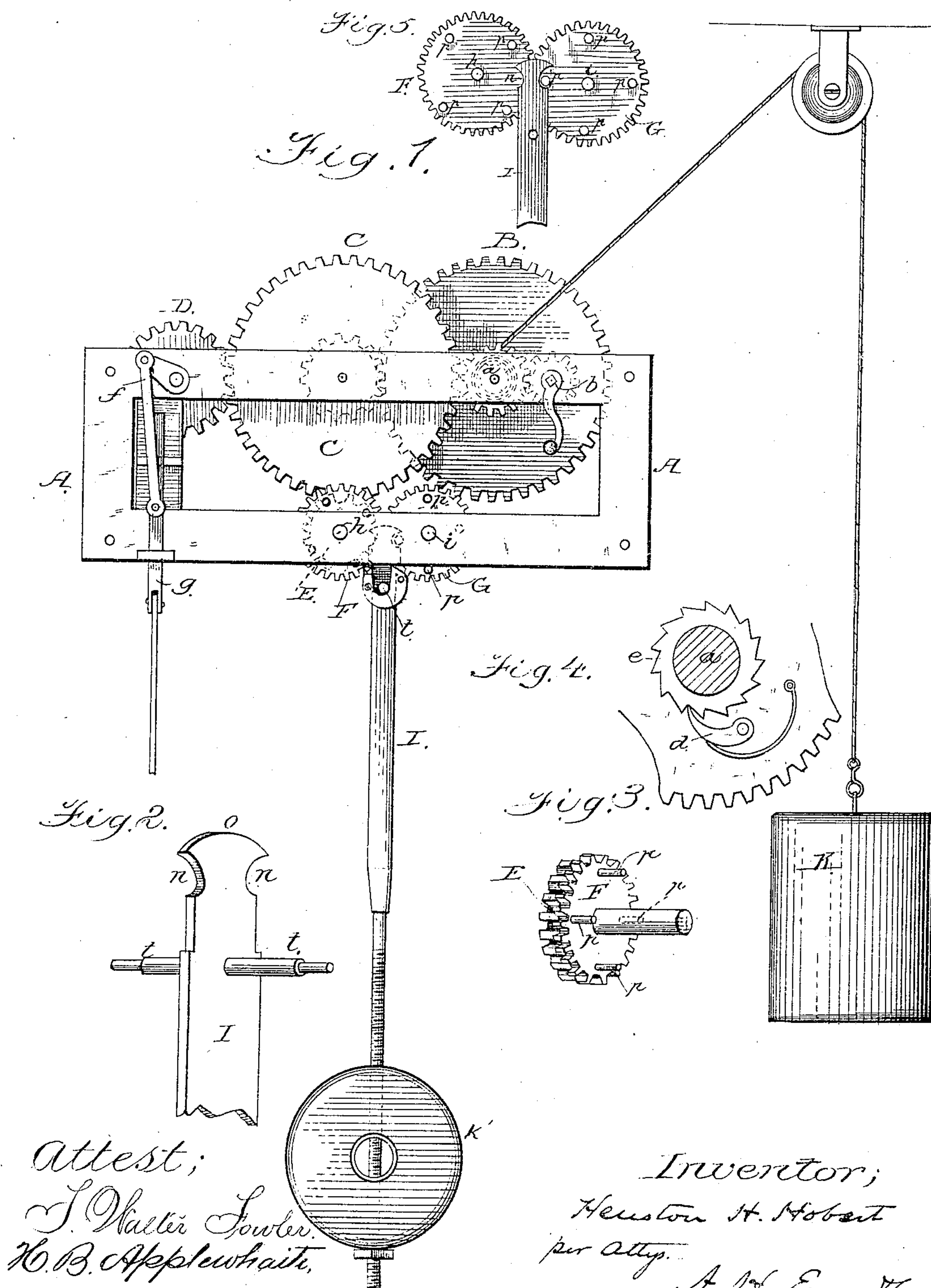
(No Model.)

H. H. HOBERT.

ESCAPEMENT FOR MOTORS.

No. 252,581.

Patented Jan. 17, 1882.



UNITED STATES PATENT OFFICE.

HEUSTON H. HOBERT, OF ATLANTIC, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO JOHN T. HANNA, OF CASS COUNTY, IOWA.

ESCAPEMENT FOR MOTORS.

SPECIFICATION forming part of Letters Patent No. 252,581, dated January 17, 1882.

Application filed July 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, HEUSTON H. HOBERT, of Atlantic, in the county of Cass and State of Iowa, have invented certain Improvements in Mechanical Powers for Driving Various Forms of Machinery; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front elevation, showing my improved mechanical movement attached to a reciprocating rod for operating a pump. Figs. 2, 3, and 4 are details to be referred to. Fig. 5 is a detached view of the escapement.

The object of my invention is to utilize a clock-work mechanism having any of the usual powers applied to driving such machinery as will disarrange or destroy any of the well-known escapements now in use, owing to the rough and irregular strains exerted.

My invention consists in the construction of a novel escapement for governing the power applied to the driving mechanism, as herein-after described and specifically claimed.

In order that those skilled in the art may make and use my invention, I will proceed to describe the manner in which I have carried it out, for purposes of illustration showing it attached to a reciprocating pump rod.

In the said drawings, A is a frame, in which are journaled the cog-wheels B C D of a train of gearing, the wheel B being in this instance provided with a spindle, *a*, containing a winding-drum, *b*, and an engaging pawl and ratchet, *d e*, whereby the cord or chain sustaining a weight is wound up to the spindle in order that its gravity may operate the mechanism. The spindle of wheel D is provided on its end with a crank, *f*, which reciprocates the rod *g* to work a pump, or for any other desired purpose.

Below the main driving-wheel C, and meshing with it, is a pinion, E, on a journal, *h*. On the same journal is a cog-wheel, F, of a diameter slightly larger than cog wheel or pinion E, and on a journal, *i*, in the same plane with journal *h*, is a cog wheel, G, of the same dimensions with wheel F and meshing with it. On the faces of wheels F G, near their outer edges, and equidistant around the circumfer-

ences, are inserted four pins, *p p*, on each wheel. The teeth are meshed so that one pin on each wheel alternately passes through the plane of the axes of the wheels F G.

In a central line between wheels F G, and below them, there is swung on a spindle, *t*, a pendulum-bar, I, the upper end of which has its sides recessed, as shown at *n n*, and projecting up in the line of travel of the teeth or pins *p p*, so that when the pendulum-bar I is in a perpendicular position one of the pins is always in front of one of the recesses *n n*. The curvature of the recesses *n n* is irregular, the shorter curve being in the lower portion, and the whole of the curve being eccentric to the line of travel of the pins *p* during the rotation of the wheels F G. The upper end of the pendulum is curved, as shown at *o*. This construction enables the upper end of the pendulum, through the medium of the curved surfaces *n n*, to come in contact alternately with the pins *p* on alternate wheels as they revolve. This makes the pendulum-bar I and its suspended weight K alternately release first a pin on one wheel and then a pin on the other as the pins actuated by the wheels F G revolve, the curvature of the upper end of the pendulum-bar being such that as one pin moves it out of its path it is thrown into the path of the approaching pin on the other wheel, which in turn throws it back. This operation is aided by the oscillation of the pendulum K'.

It is obvious that my invention can be used in a great variety of ways, where a train of actuated gearing is used to convey a constantly-applied power, and act as an escapement or governor, without departing from its spirit.

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

In combination with a train of gear-wheels, the wheels F G, provided with the pins *p p*, and the pendulum-bar I, having its upper end recessed, substantially in the manner set forth, whereby an escapement is provided, for the purpose specified.

HEUSTON H. HOBERT.

Witnesses:

WM. W. SMITH,
ANDREW JONES.