

(No Model.)

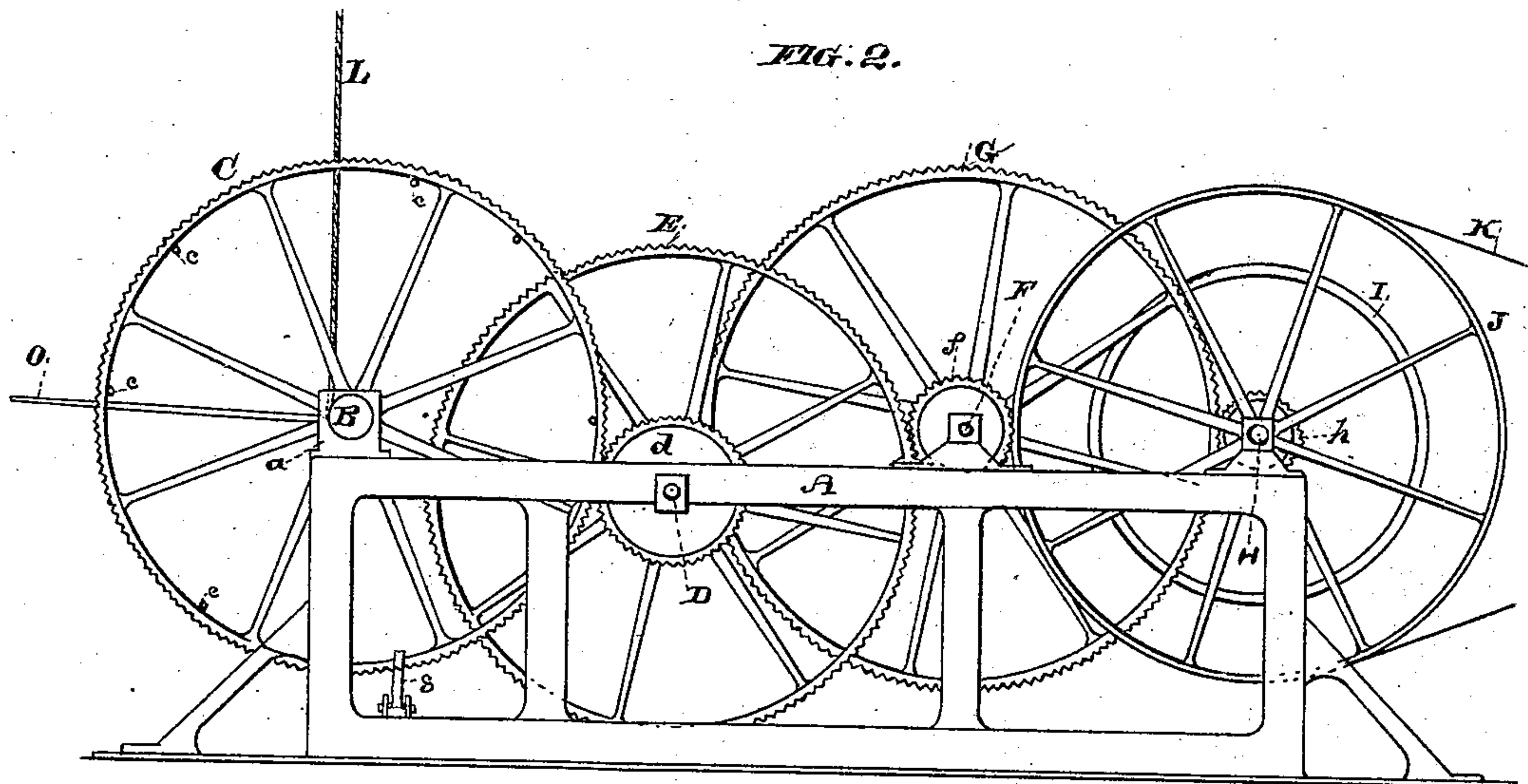
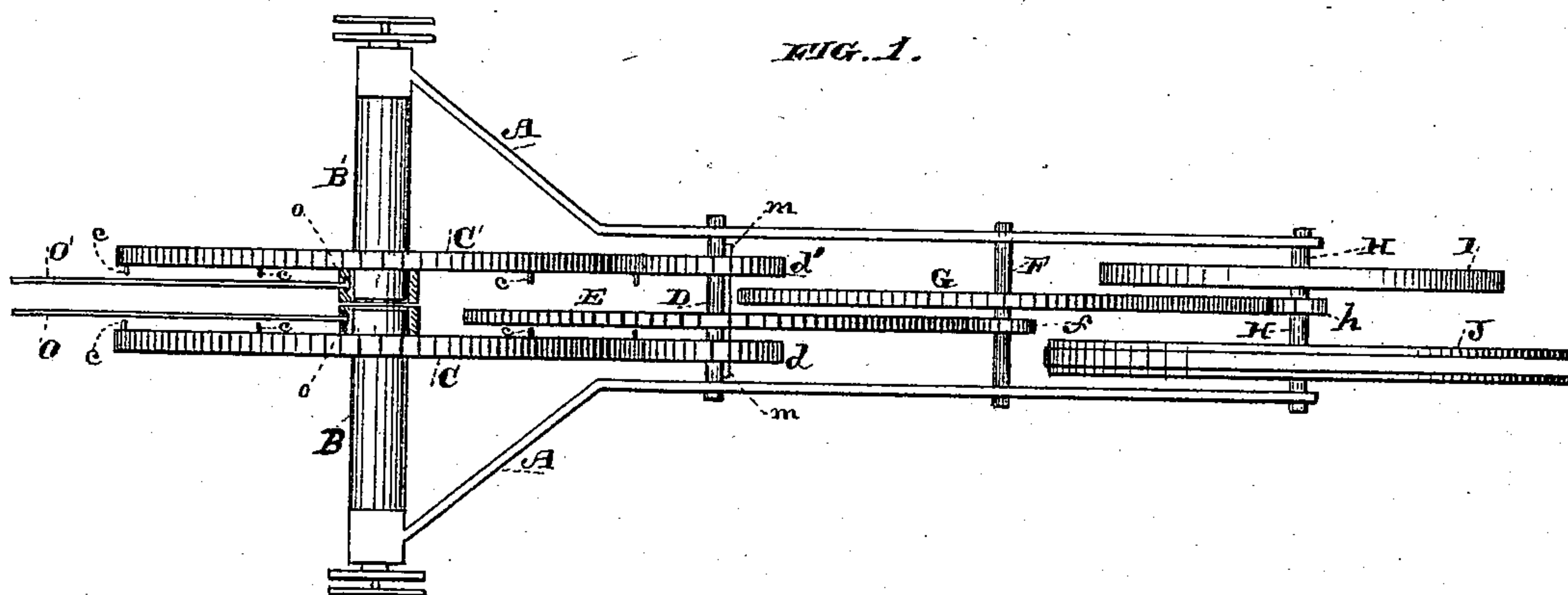
C. DE MEZERVILLE.

2 Sheets—Sheet 1

MOTOR.

No. 289,899.

Patented Dec. 11, 1883.



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(No Model.)

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2 Sheets—Sheet 2.

MOTOR.

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FIG. 3

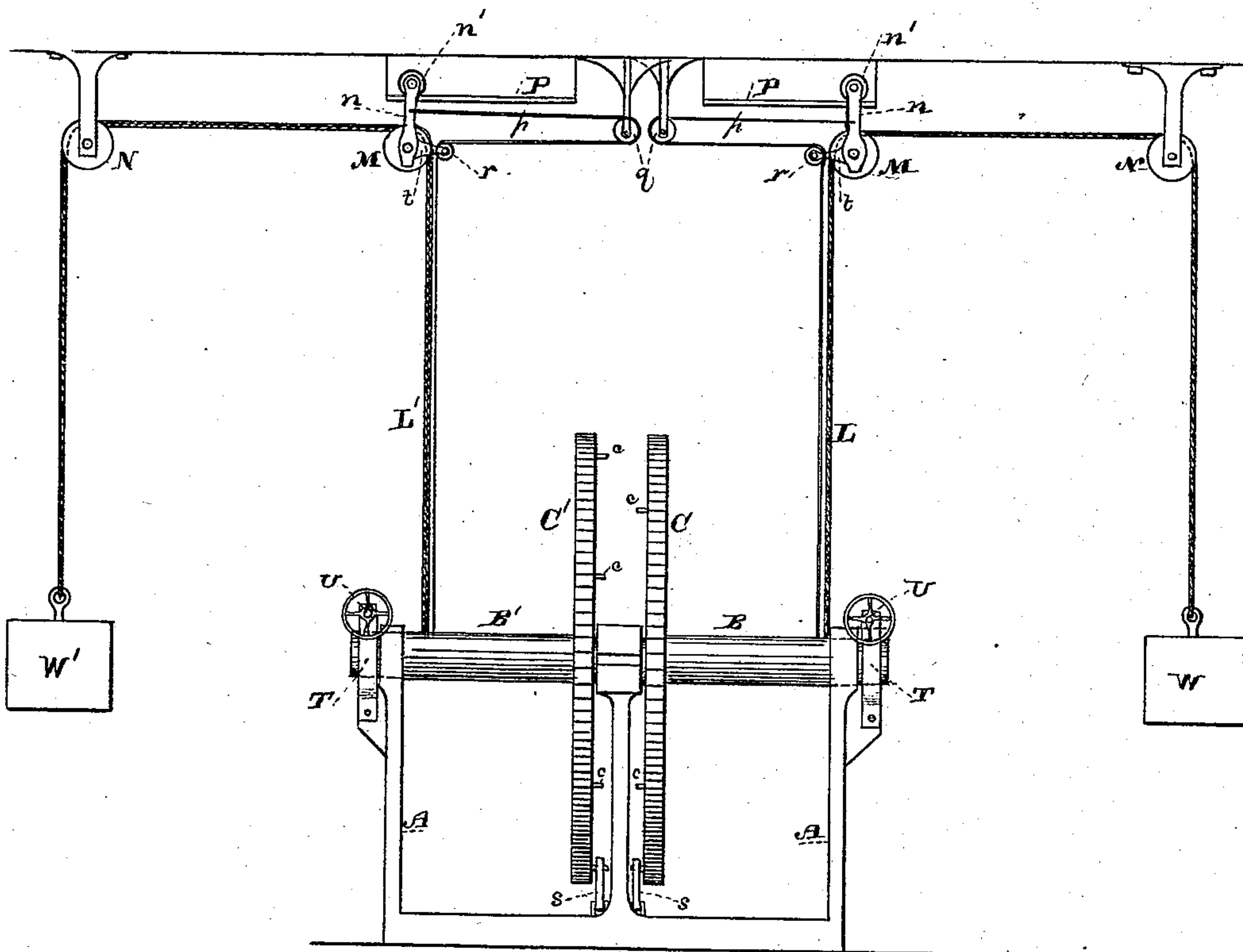
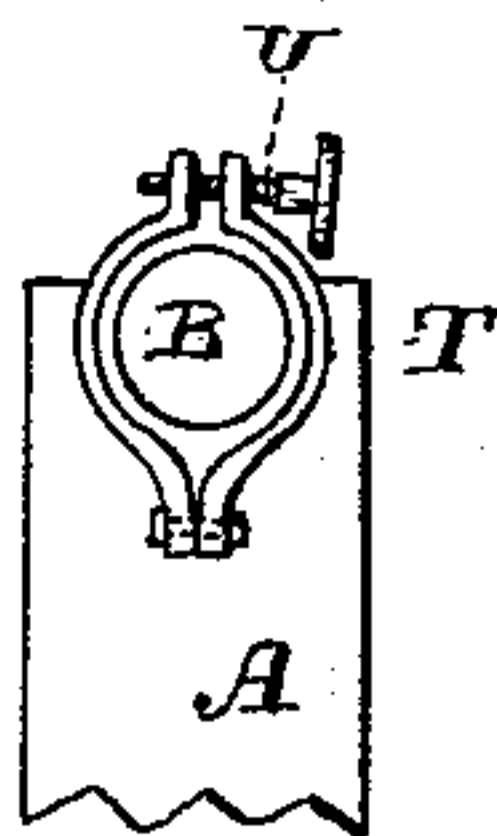


FIG. 4.



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UNITED STATES PATENT OFFICE.

CAMILLE DE MÉZERVILLE, OF SANTA CLARA, CALIFORNIA.

MOTOR.

SPECIFICATION forming part of Letters Patent No. 289,899, dated December 11, 1883.

Application filed June 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, CAMILLE DE MÉZERVILLE, of Santa Clara, county of Santa Clara, State of California, have invented an Improved
5 Motor; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful motor of that class in which the power of a weight or weights is transmitted through a series of gears to the machine or mechanism to
10 be operated upon.

My invention consists in the means for throwing the driving-gears in and out of engagement; in the means for operating the winding-
15 drums to elevate the weights, and in the means for causing the hoisting-ropes to lay up even on the drums, all of which I shall hereinafter fully explain.

The object of my invention is to provide a
20 simple and practical motor for driving small machines, such as sewing-machines and the like.

Referring to the accompanying drawings, Figure 1, Sheet 1, is a plan view of my motor
25 with the weight mechanism left off. Fig. 2 is a side elevation of same. Fig. 3, Sheet 2, is an end view of driving-gears, drums, ropes, weights, and laying-up mechanism. Fig. 4 is a detail showing brake.

30 A is a frame or stand, in one end of which are mounted, in boxes *a*, the drums BB'. Upon the inner ends of these drums are keyed the driving-gears CC', respectively. These mesh with pinions *d d'* upon a shaft, D, which carries a large gear, E. This gear meshes with a
35 pinion, *f*, on a shaft, F, which carries a gear, G, meshing with a pinion, *h*, on shaft H. This shaft carries a fly-wheel, I, and a pulley, J, from which a belt, K, may extend to the driving-wheel of any machine or mechanism to be
40 driven.

Secured to the outer ends of the drums BB' are ropes LL'. These extend up to a traveling pulley, M, suspended from a support above;
45 thence sidewise and over a stationary pulley, N, and hang down, having weights WW' attached to their ends. In order to elevate these weights, I have the levers OO'. These are connected with the central boxes, in which the
50 drums are mounted, by a ball-and-socket joint,

o, in order to permit their movement in any direction.

Upon the sides of the driving-gears CC' are inwardly-extending pins *c*. With these the levers OO' engage, to turn the gears and
55 drums and wind up the ropes to elevate the weights. They are sustained in an elevated position by a swinging stop, *s*, which is thrown up from the base of the stand to engage with
60 the side pins on the gears and hold them.

I have two weights, in order to enable the operation of the motor to be continuous, and I accomplish the result as follows: The pinions
65 *d d'* are upon feathers *m* on their shaft. When one weight has run down, I throw its pinion out of engagement with the driving-gear, so that I am enabled to rotate the corresponding
70 drum by means of its lever without interfering with the series of gears or with the operation of the other weight whose power is being transmitted to the motor. When elevated, it
75 is sustained by the means of the stop *s* until the other has run down, when the pinion is thrown into gear and the weight released. Then a similar course is taken with the other
weight. By properly regulating the size of the weights and the length of ropes and diameters of the gears, whatever power desired
may be obtained during a given time.

When winding up the ropes, it is important
80 to make them lie up even or in successive layers on their drums. To do this, I suspend the pulley M by means of a bracket, *n*, and small roller *n'* from a track, P. This track lies directly above, and is of equal length with the
85 winding-drum. A small cord, *p*, is secured to the bracket *n*. It thence passes over a small stationary pulley, *q*, and back to a small pulley, *r*, sustained by arms *t* from the bracket,
90 and down beside the winding-rope, being secured to the drum at the same point at which the winding-rope is attached. The length of
95 this cord is so adjusted that it shall be always taut, and shall wind upon the drum over its entire length by simply pulling the traveling
pulley M along on its track directly above it. In this way the winding-drum is also carried
along, and is caused to lie up even on the drum.

In order to brake the drums, when necessary, I have the two-part semicircular band T. The
100

lower ends are pivoted to the uprights of the frame A, while its sides embrace the ends of the drum. Its upper ends are united by a screw, U, by the operation of which the band
5 is made to bind on the drum.

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

1. In a motor, the winding-drums B B', having driving-gears C C', the ropes L L', and weights W W', in combination with a series of gears with which the driving-gears engage, and a means for throwing each of said driving-gears into or out of engagement with the
5 series of gears independently, substantially as and for the purpose herein described.

2. In a motor, the winding-drums B B', having driving-gears C C', the ropes L L', and weights W W', in combination with a series
0 of gears with which the driving-gears engage, and the means for throwing said gears into or out of engagement with the series of gears independently, consisting of the feathered pinions d d', substantially as and for the purpose
5 herein described.

3. In a motor, the winding-drums B B', mounted in boxes a, the driving-gears C C' on

said drums, having side pins, c, the ropes L L', and weights W W', in combination with the means for rotating said drums to wind up
30 the weights, consisting of the levers O O', connected with said boxes a by ball-and-socket joint o, substantially as and for the purpose herein described.

4. In a motor, the winding-drums B B' and means for rotating them, and the driving-gears C C', in combination with the ropes L L' and weights W W' and the means for causing said ropes to lie up even on the winding-drums, consisting of the traveling pulley M and the
40 cord p, secured thereto and to the drums, substantially as herein described.

5. In a motor, the winding-drums B B' and driving-gears C C', in combination with the ropes L L' and weights W W', the stationary
45 pulley N, the track P, the rolling bracket n, having pulley M and the cord p, and pulleys q r, all arranged and operating substantially as and for the purpose herein described.

In witness whereof I hereunto set my hand. 50

CAMILLE DE MÉZERVILLE.

Witnesses:

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