

(No Model.)

C. HUET.

MOTOR.

No. 307,548.

Patented Nov. 4, 1884.

Fig. 1.

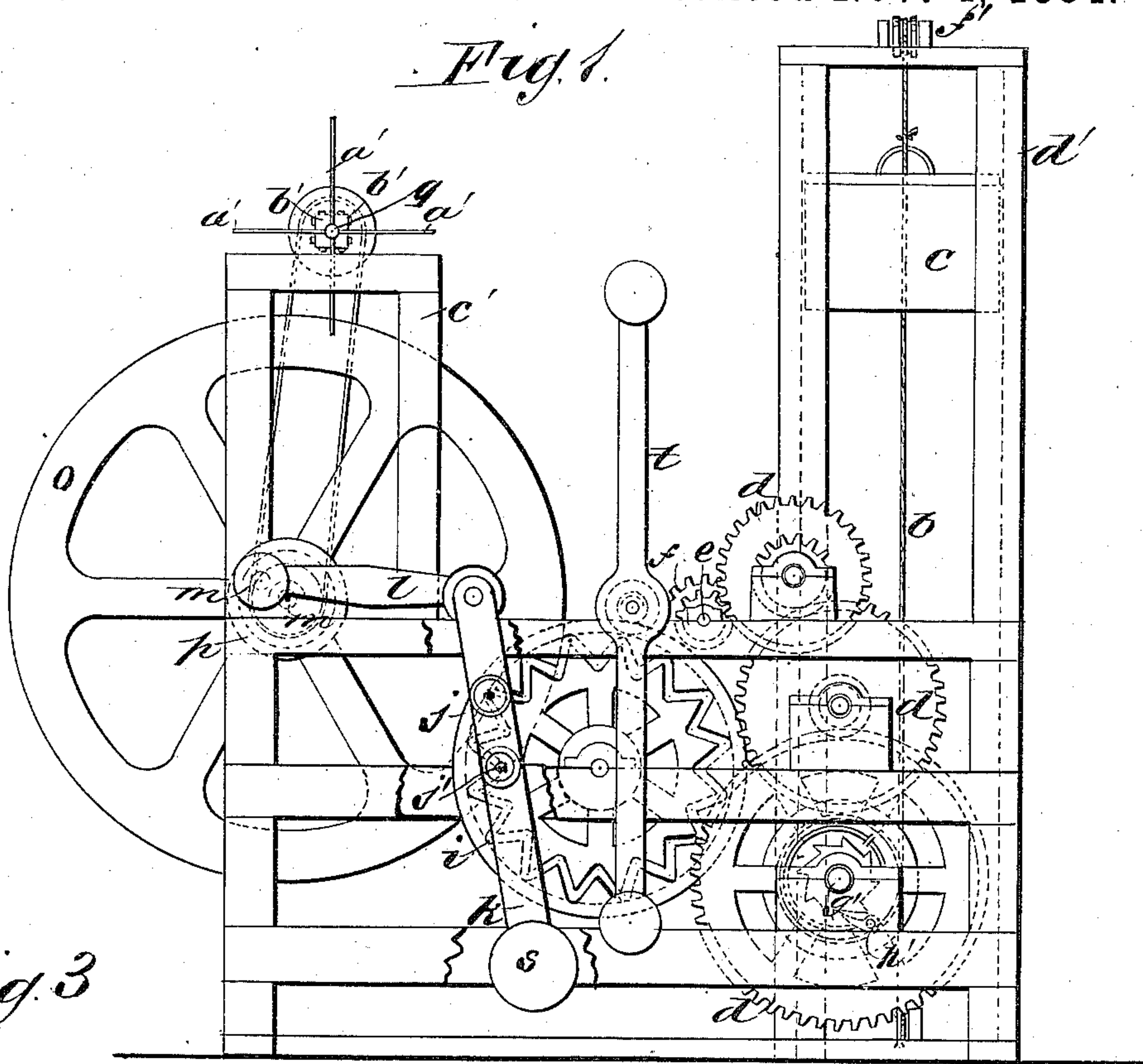


Fig. 3.

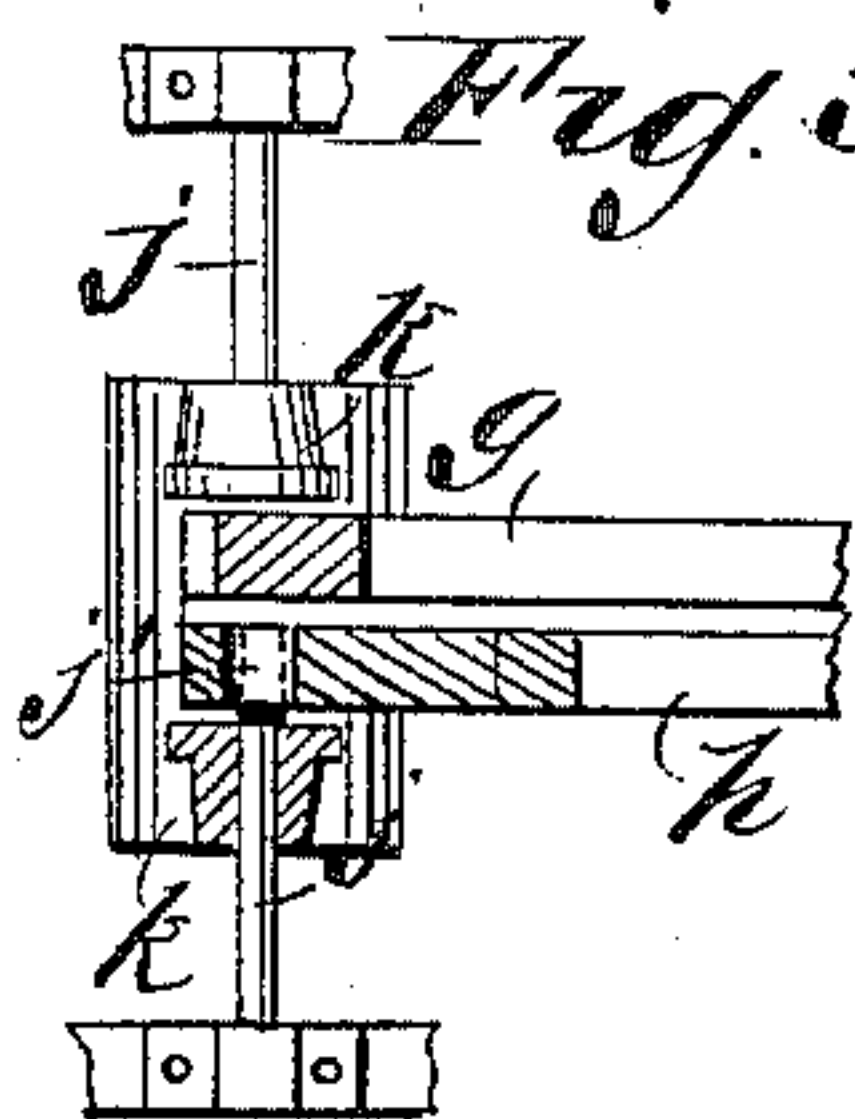


Fig. 2.

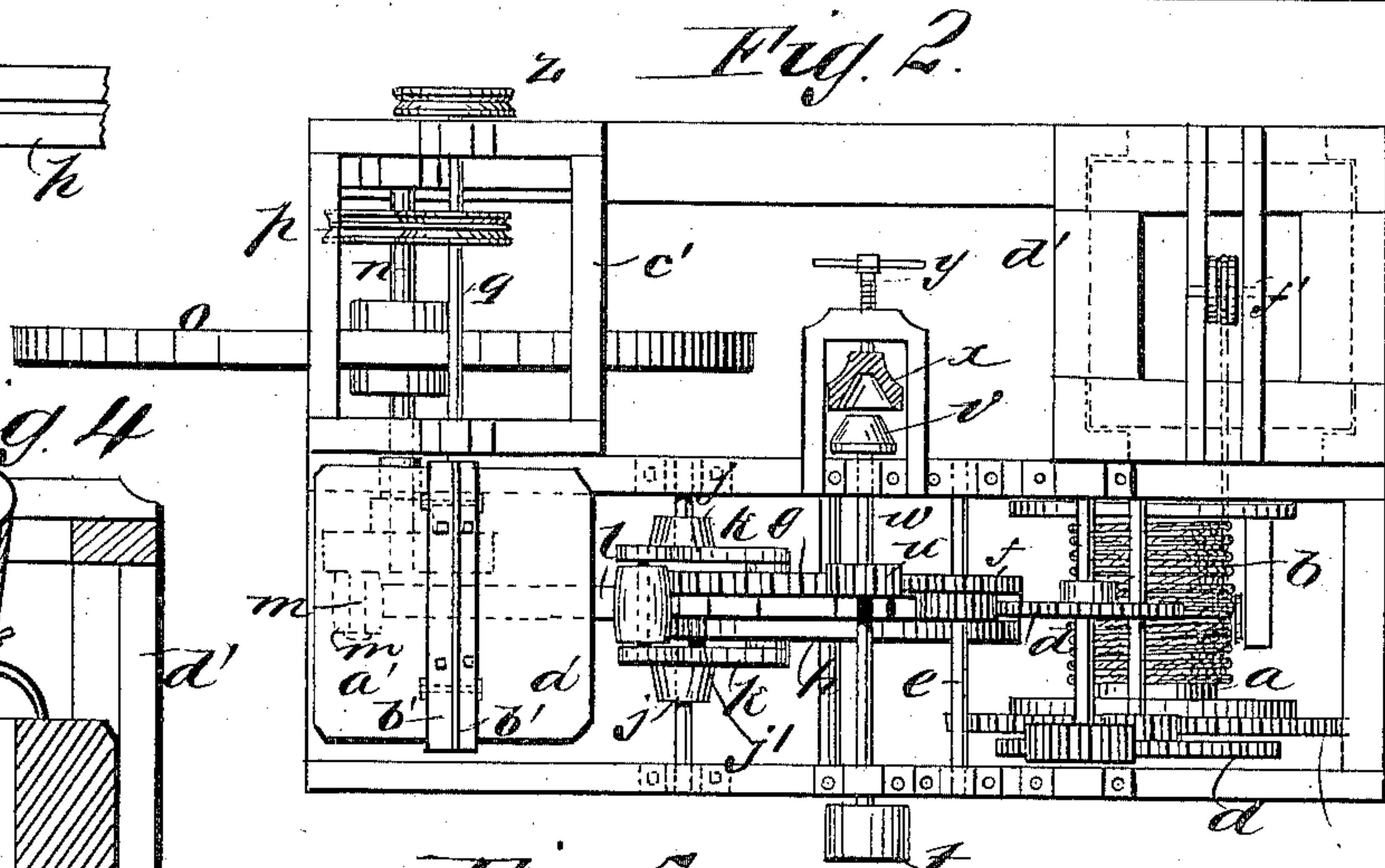


Fig. 4.

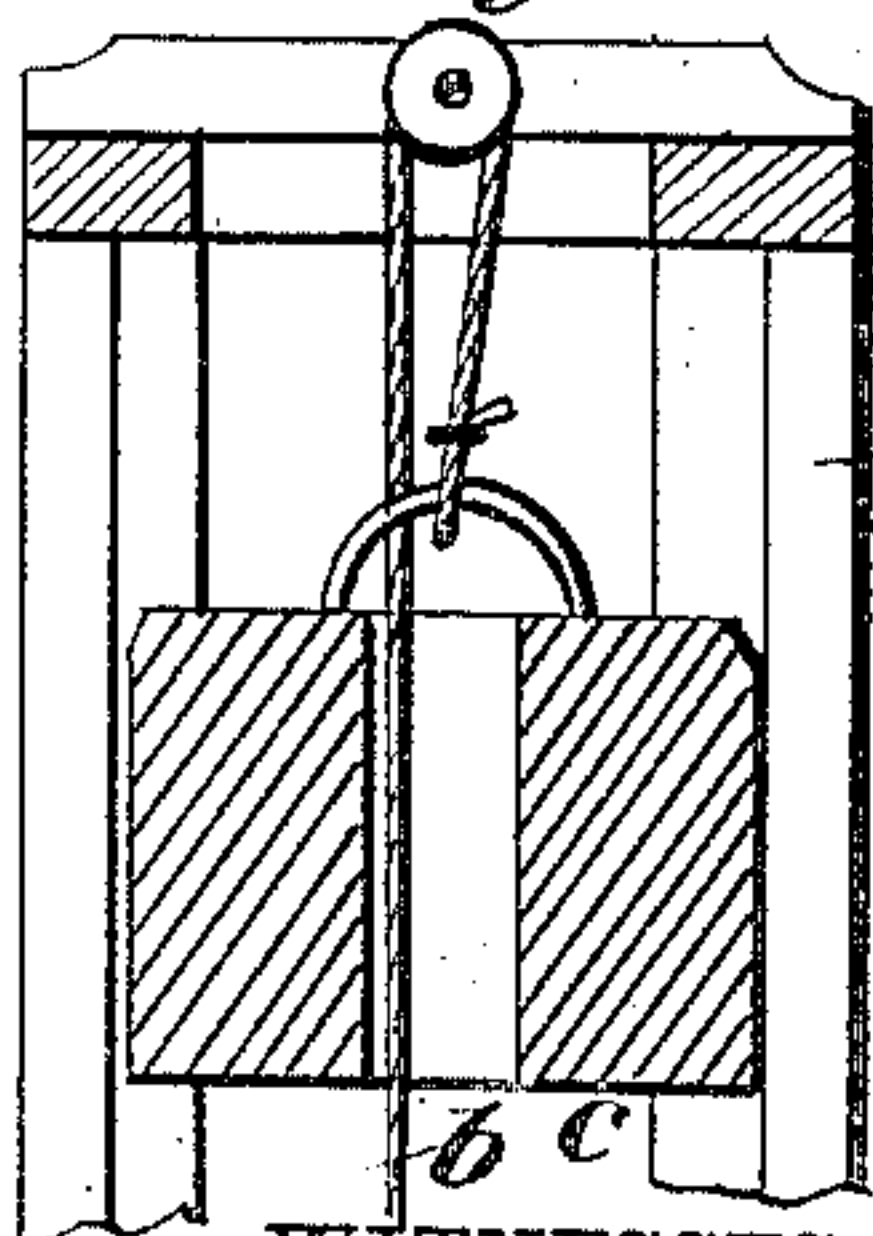
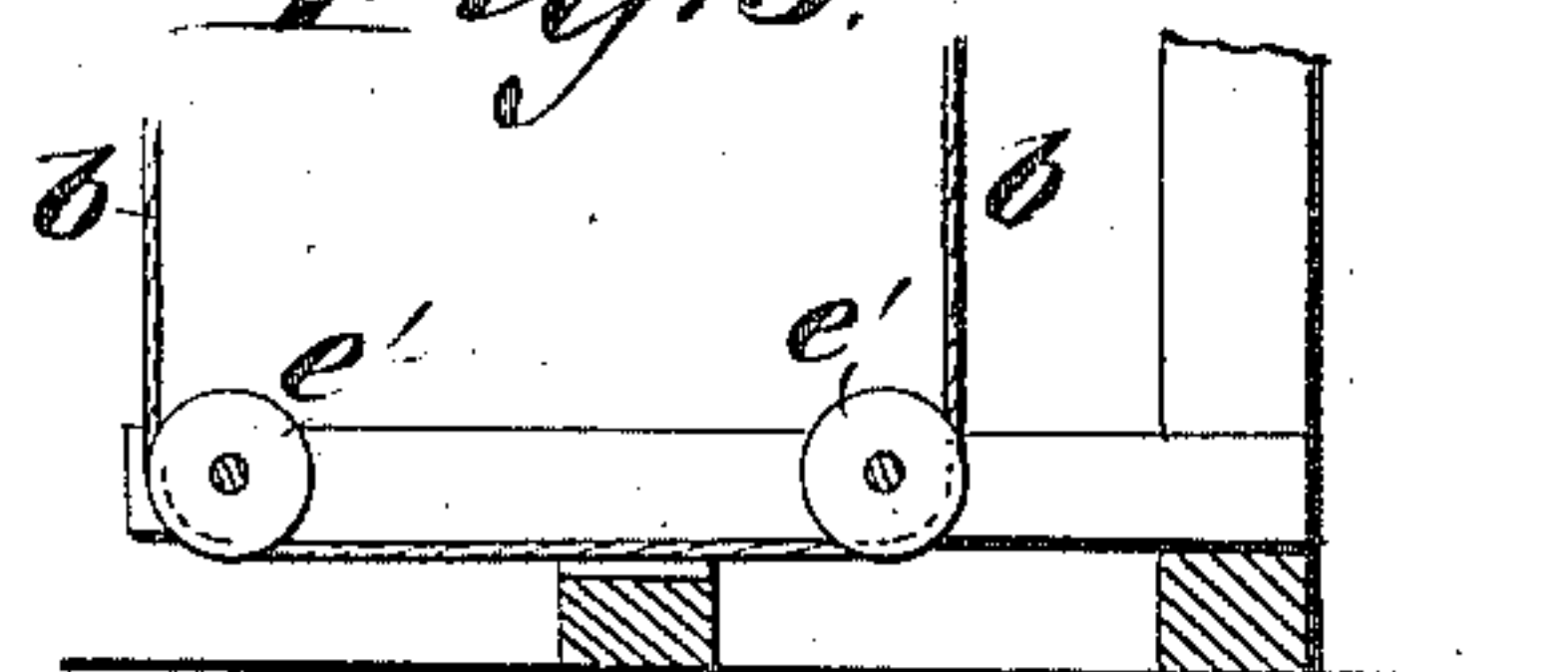


Fig. 5.



WITNESSES:

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MOTOR.

SPECIFICATION forming part of Letters Patent No. 307,548, dated November 4, 1884.

Application filed September 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, CESAR HUET, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and Improved Motor, of which the following is a full, clear, and exact description.

My invention relates to spring, weight, or other motive-power apparatus for driving fans and other light machinery; and it consists of a novel contrivance for multiplying and transmitting the motion; also, of an improvement in the contrivance of open coupling for the application of the power to a fan and other devices; and, also, of an improved regulator and brake device, all as hereinafter fully described.

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

Figure 1 is a side elevation of my improved motor. Fig. 2 is a plan view, and Figs. 3, 4, and 5 are details of different parts in section.

In this example I have represented a drum, *a*, with a cord, *b*, weight *c*, and a multiplying-train of gear-wheels, *d*, as the means of obtaining the power, said train terminating in a shaft, *e*; but a steam-engine or other motor may be employed to apply the power to said shaft *e*, as preferred. To this shaft *e* I gear a large-toothed wheel, *g*, by a pinion, *f*, for the purpose of turning a wheel or disk, *h*, having a zigzag cam-groove, *i*, in one side, in which groove works a pin, *j'*, on one of a pair of pendulum-levers, *k*, pivoted at *j*, and having short arms extending above said fulcrum, and pivoted to one end of the connecting-rod *l*, whose other end is fitted to the crank-pin *m*, of a shaft, *n*, carrying a fly-wheel, *o*, and a driving-pulley, *p*. The driving-pulley *p* connects with the shaft *q* of the fan or other object to be driven. The weight *s* of the pendulum-lever is to be sufficient to overbalance the resistance of the fly-wheel and the fan or other device to be driven, so that the thrusts of the cam-groove on the pin *j'* will effect rotation of the fly-wheel *o*, said thrusts being alternately forward and backward. The weight *s* is to be fitted adjustably along the lever *k*, to vary the power of the weight according as the

resistance of the device to be driven is more or less.

For regulating the motion of the cam-wheel, and for a means of applying a friction-brake so as to gradually stop the machine without shock, I have geared the weighted balance-lever *t* to wheel *g*, which drives the cam-wheel *h* by the pinion *u*, and have fitted the cone-hub *v* to one end of the shaft *w*, which carries said balance-lever, together with the cone-socket clutch *x*, having the adjusting-screw *y*, and arranged to be pressed on said cone *v* by said screw when it is desired to stop the machine.

To the shaft *q* I apply a pulley, *z*, for gearing with a sewing-machine or any other light machine, and on said shaft I also arrange a fan consisting of wings *a'*, which I secure by means of a hub-cleat, *b*, suitably fitted to the inner edge of each wing and grooved to fit the shaft, bolting said cleats together, so as to clamp them on the shaft; and I propose to utilize this contrivance for coupling said shaft *q* to the end of another shaft by placing said fans and hub-cleats on said shaft *q*, so as to project from the end sufficiently to clamp the end of the shaft to be coupled on, thus adapting the fan to serve the purpose of a clutch also when the machine to be driven may require to be coupled by a clutch. In this example the fan-shaft *q* is mounted on the top of a stand, *e'*, extending up from the main frame suitably for supporting the fan in a position for fanning a person sitting in a chair or lying in bed, and the weight *c* is suspended from the top of another vertical extension, *d'*, of said frame for a long range of the weight, and said extension forms the guideways for the weight, and is located at one side of the drum, where there is clear space for the weight to descend to the floor, the cord being extended laterally from the drum thereto under guide-pulleys *e'*, and said cord extends up through a central hole in the weight to the upper pulley, *f'*, for a compact arrangement. The drum has the usual winding-post, *g'*, and ratchet-clutch *h'* of such power apparatus.

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

1. The combination of the cam-grooved wheel *h*, pendulum-lever *k*, crank-shaft *n*, and fly-wheel *o* with a motive-power apparatus, substantially as described.
- 5 2. The combination of the cam-grooved wheel *h*, pendulum-lever *k*, crank-shaft *n*, fly-wheel *o*, balanced regulating-lever *t*, and clutch *x* *r* with a motive-power apparatus, substantially as described.
- 10 3. The pendulum-lever *k*, suspended on pivot *j*, and having a pin, *j'*, working in the cam-grooved wheel *h*, and connected with the crank-pin of a driving-shaft, substantially as described.
4. The fan-wings *a'*, having hub-cleats *b'*, 15 bolted to the shaft *q*, for securing said fan-wings, and forming a coupling-clutch, substantially as described.

CESAR HUET.

Witnesses:

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PAUL CATTAIN.