

No. 630,422.

Patented Aug. 8, 1899.

G. M. STOCK.  
MOTOR.

(Application filed July 25, 1898.)

(No Model.)

Fig. 1.

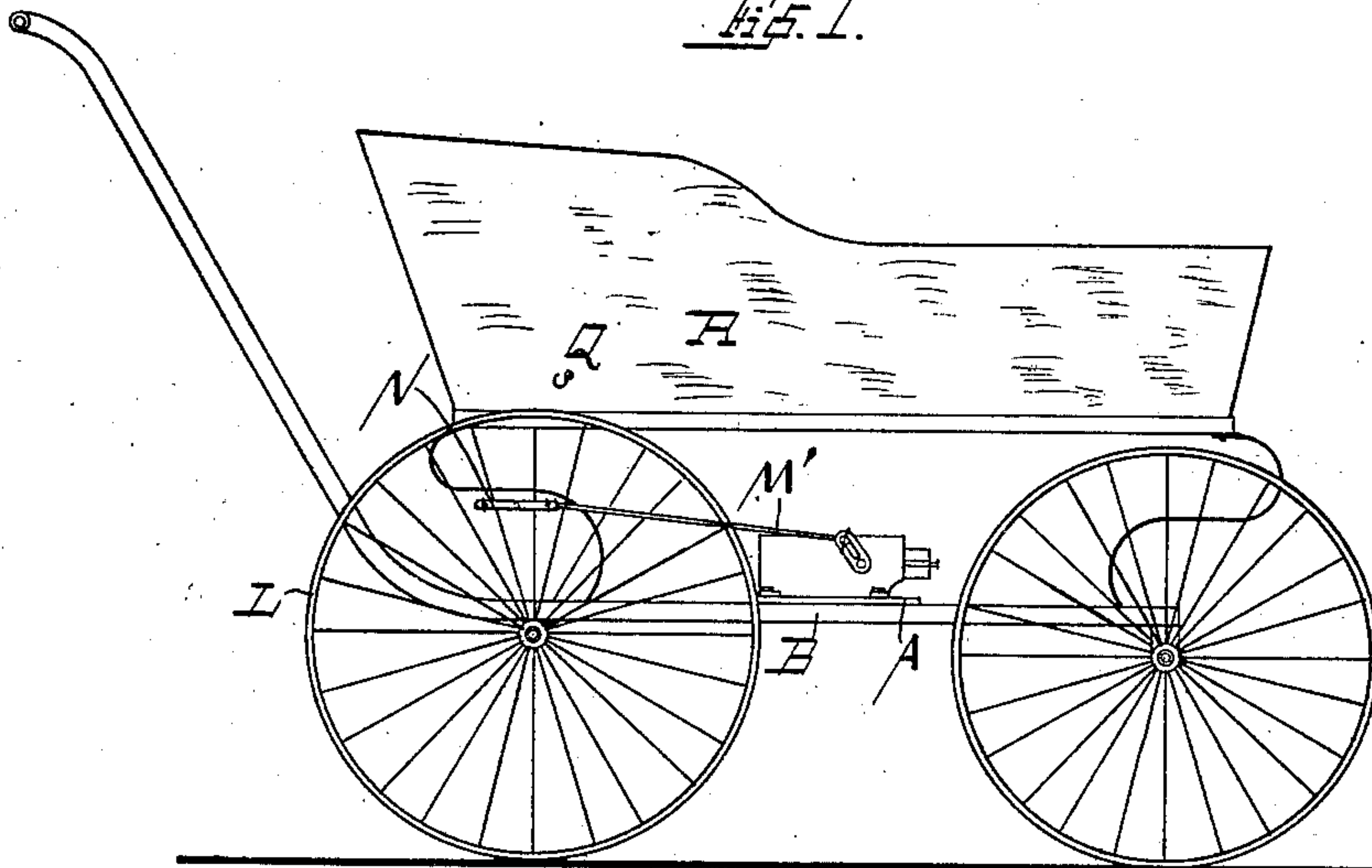


Fig. 2.

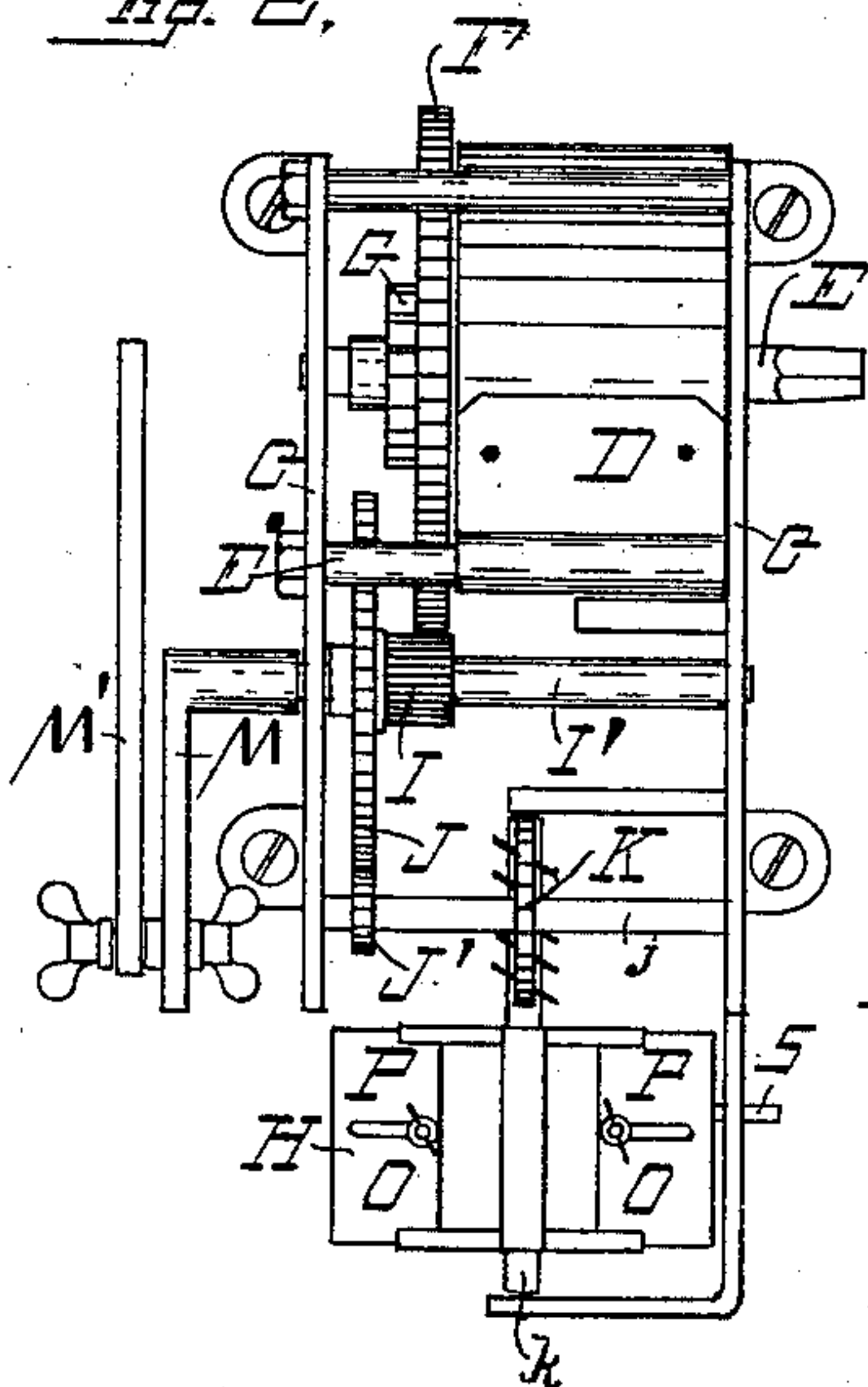


Fig. 3.

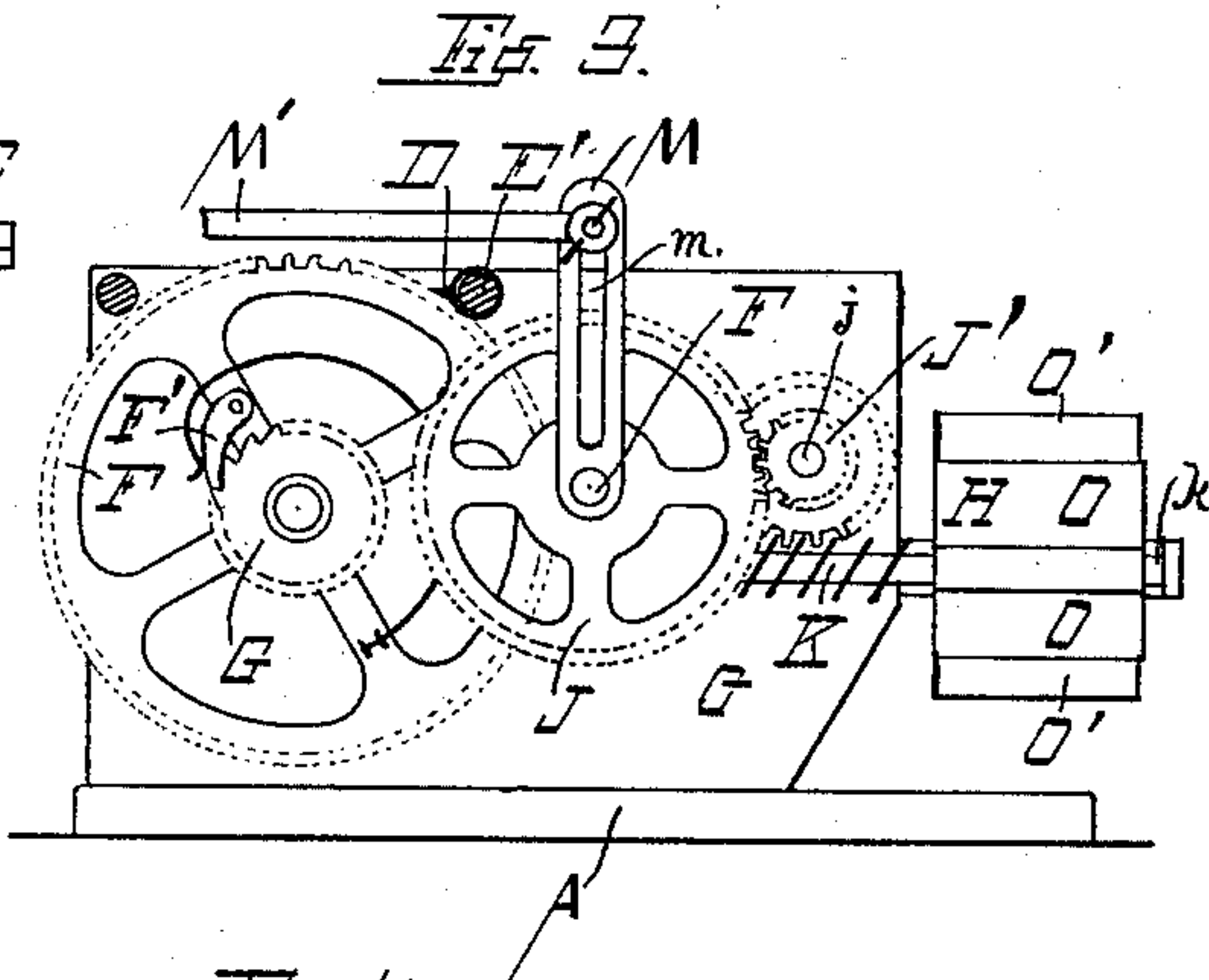
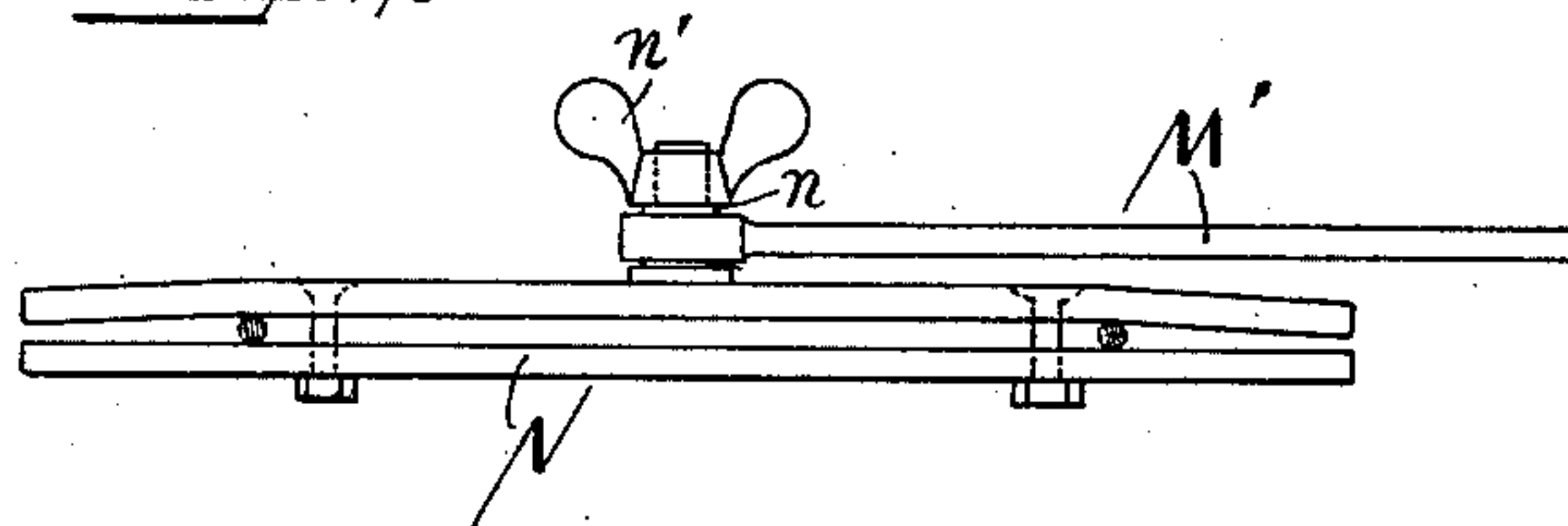


Fig. 4.



Witnesses.

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# UNITED STATES PATENT OFFICE.

GEORGE M. STOCK, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF  
TO EDWARD DUMKE, OF SAME PLACE.

## MOTOR.

SPECIFICATION forming part of Letters Patent No. 630,422, dated August 8, 1899.

Application filed July 25, 1898. Serial No. 686,765. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE M. STOCK, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Reciprocating Motors, of which the following is a specification.

My invention relates to improvements in that class of vehicle-motors which are adapted to reciprocate light vehicles, such as baby-carriages, &c., my present invention being in some respects an improvement upon my former United States patent, No. 584,169, dated the 8th day of June, 1897, for vehicle-motors.

The objects of this invention are, first, to provide for a more direct application of the power to the vehicle; second, to provide for regulating the speed of the motor; third, to provide for regulating the movement of the vehicle with a given speed of the motor, and, fourth, to provide a more simple and cheap construction than that described in my former patent.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a side view of a baby-carriage equipped with my invention. Fig. 2 is a top view of the motor. Fig. 3 is a side view of the motor with one side of the inclosing case or frame removed to show the interior construction. Fig. 4 is an enlarged detail view of the connection between the crank-rod and the clamp which engages the vehicle-wheel.

Like parts are identified by the same reference-letters throughout the several views.

A bed or platform A rests upon the reach-bars B B of the vehicle and is provided with upwardly-projecting plates or flanges C C, between which the motor is supported. An actuating-spring D is attached at its inner end to a revoluble shaft E and at its outer end to a fixed shaft E', both shafts being supported by the plates or flanges C C. The spring is wound up in the usual manner by means of a key engaging the end of the shaft E.

A gear-wheel F is revolubly located upon the shaft E and provided with a dog F', which is adapted to engage a ratchet G, which is rigidly attached to the shaft, whereby the

movement of the spring D in unwinding is communicated to the wheel F through the shaft E, ratchet G, and dog F'. The gear-wheel F constitutes one end of a train, its motion being communicated to a speed-regulating fan H through the pinion I, shaft I', wheel J, pinion J', shaft J', wheel K, worm K', and shaft K' and to the vehicle-wheel L from the shaft I' through the crank M, crank-rod M', and clamp N, the latter being adapted to engage the spokes of the wheel L at a longer radius than that of the crank M, whereby the wheel L is caused to reciprocate.

Inasmuch as it is sometimes desirable to have the vehicle move quite rapidly and at other times more slowly I have constructed the wings of the fan H in two parts O and O', the part O being lapped over at the edges to form a guide for the edges of the part O', which is slidably engaged thereby and adjusted outwardly or inwardly to increase or diminish the size of the fan. P is a set-screw for locking the parts O and O' at any desired point of adjustment. It is obvious that by increasing or diminishing the size of the fan-wings I am enabled to regulate the speed of the motor. S is a stop-pin for holding the fan to stop the motor.

Referring now to the crank M, it will be observed that I have provided the same with a slot m, in which the crank-rod M' is adjustably secured. By this means I am enabled to regulate the stroke and thus increase or diminish the distance traveled by the carriage. The crank-rod M' is at its outer end provided with an eye which slips over a boss n, projecting from the clamp N, and is held thereon by a set-screw n', as best shown in Fig. 4. When not in use, the rod M' may be quickly disconnected from the clamp N by removing the thumb-screw, and the rod may then be supported by a hook Q, projecting from the body R of the carriage.

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

1. The combination with a vehicle, of a motor carried thereby, a crank located on one of the motor-shafts, and a crank-rod connected therewith and removably connected with one



of the vehicle-wheels at a greater radius than that of the circle described by the crank by which the wheel is reciprocated, substantially for the purpose set forth.

5 2. The combination with a vehicle, of a motor carried thereby, a train of gear-wheels connected with, and actuated by, the motor, and a speed-regulating fan connected with said gearing and provided with adjustable  
10 wings, together with a crank located on the shaft of one of the gear-wheels, and detachable connections between said crank and one of the vehicle-wheels, adapted to communicate a reciprocating motion to the latter from said  
15 crank.

3. The combination with a vehicle, of a motor carried thereby, a train of gear-wheels connected with and actuated by the motor, and a speed-regulating fan having wings  
20 formed in parts slidably mounted upon each other and adapted to be locked at any desired point of adjustment, together with a crank

located on the shaft of one of the gear-wheels, and detachable connections between said crank and one of the vehicle-wheels, adapted  
25 to communicate a reciprocating motion to the latter from said crank.

4. In a baby-carriage, the combination of a motor supported by the axles of the carriage; a crank located on one of the motor-shafts; a  
30 crank-rod connected therewith and adapted to be interchangeably connected either with the box or basket of the carriage, or with one of the vehicle-wheels, the connection with the wheel being made at a greater radius than  
35 that of the circle described by the crank, by which the wheel is reciprocated.

In testimony whereof I affix my signature in the presence of two witnesses.

GEO. M. STOCK.

Witnesses:

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LEVERETT C. WHEELER.