No. 659,079. Patented Oct. 2, 1900.

C. A. LIEB.

MEANS FOR TRANSMITTING MOTION.

(Application filed May 23, 1900.)

(No Model.)

Fig. 1.

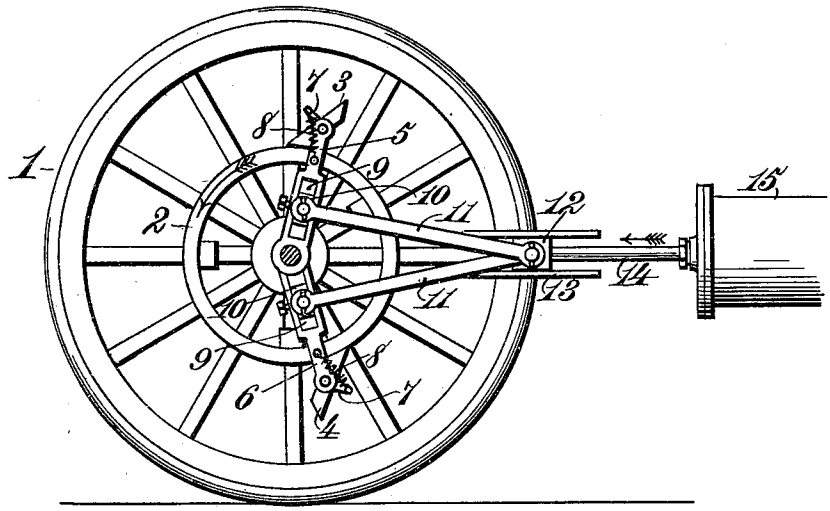
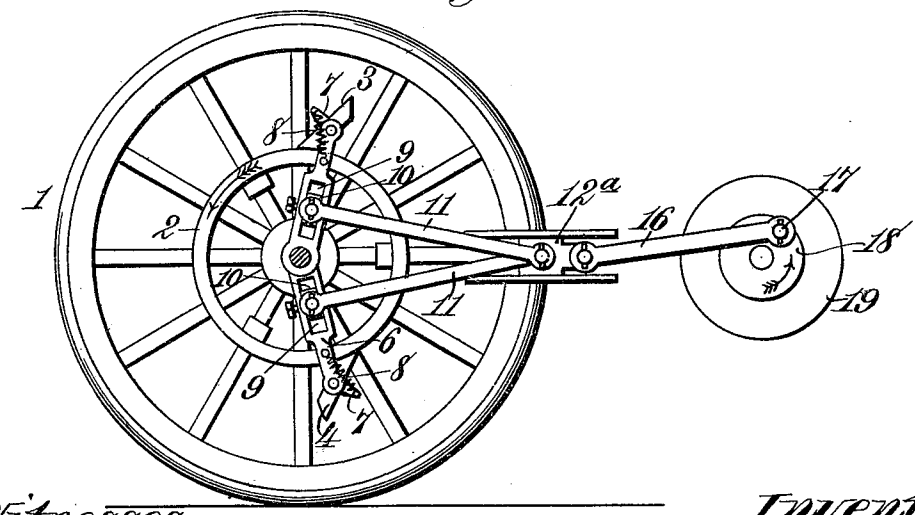


Fig. 2.



Witnesses.
Robert Everett.
J. B. Keeler

Inventor.
Charles A. Lieb.
By James L. Norris.
Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES A. LIEB, OF NEW YORK, N. Y.

MEANS FOR TRANSMITTING MOTION.

SPECIFICATION forming part of Letters Patent No. 659,079, dated October 2, 1900.

Application filed May 23, 1900. Serial No. 17,713. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. LIEB, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Means for Transmitting Motion, of which the following is a specification.

The object of my invention is to provide means for transmitting power from a reciprocating or rotary motor to a wheel or other rotary part, whereby a continuous turning movement may be imparted to said wheel.

The invention consists in the features and details of construction and combinations of parts which will be hereinafter more fully described and claimed.

In the drawings forming part of this specification, Figure 1 is a side elevation illustrative of my invention. Fig. 2 is a similar view showing the same in connection with a rotary motor.

Like reference-numerals indicate like parts in both views.

The vehicle-wheel 1 has secured to one side thereof a ring or annular disk 2, the periphery of which constitutes a circular engaging portion for two oppositely-arranged reversible dogs 3 4, the said dogs being pivotally mounted, respectively, in the outer ends of rocking levers 5 6, which are themselves loosely mounted on the axle or shaft which carries the wheel 1. The said dogs are each provided with engaging portions at their opposite ends and each has extending laterally from a point adjacent to the pivot thereof a lug or projection 7, connected by a coil-spring 8 with the lever on which the dog is mounted. By this construction one or the other of the engaging ends of said lugs is held by spring-pressure against the periphery of the ring or disk 2. This provides means whereby the direction of rotation of the wheel 1 may be reversed. Each of the levers 5 and 6 is provided with an elongated slot 9, in which fits and moves a slidable block 10, to which is connected a rod 11. The rods 11 leading from each of the blocks 10 are pivotally mounted at their rear ends on a sliding block 12, movable in ways 13 and attached to a reciprocating rod 14 of the motor 15. As the rod 14 is moved in the direction of the arrow in Fig. 1 of the drawings the dog 3 will be thrown into operative engagement with the periphery of the ring or disk 2 and the dog 4 will slide freely upon said disk, thereby turning the wheel 1 in the direction indicated by the arrow on said wheel. As the rod 14 moves in the opposite direction the dog 3 will be disengaged from the ring or disk 2 and the dog 4 will be thrown into operative engagement therewith, so as to turn the wheel 1 in the same direction that it was formerly rotated. It will thus be seen that both movements of the rod 14 are utilized to turn the wheel in the same direction. If it be desired to reverse the direction of movement of the wheel 1, the same can be readily effected by turning the dogs 3 and 4 upon their pivots, so as to bring their opposite ends into operative relation with the periphery of the ring 2, the said dogs being held in either one of their positions by means of the springs 8.

In Fig. 2 of the drawings I have shown my invention adapted to a rotary motor, the construction being similar to that shown in Fig. 1 of the drawings, except that the sliding block 12^a is pivoted to a pitman or connecting-rod 16, which connecting-rod is itself pivoted to a crank-pin 17 on a rotary portion 18 of the motor 19. The action of this form of the invention is similar to that first described.

I have shown in the drawings the periphery of the ring or disk 2 as being smooth or regular. I may, however, if I desire, form the same with teeth, with which the dogs 3 and 4 are adapted to engage.

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

The combination with a motor, a vehicle-wheel and the axle on which said wheel is mounted, of a circular disk secured to said wheel and projecting laterally therefrom, oppositely-extending rocking levers loosely mounted on said axle, reversible dogs pivoted at points intermediate their ends to said levers and adapted to be turned so as to bring one end or the other thereof into engagement with said disk, lugs or projections on said dogs extending laterally from the pivotal

points thereof, coil-springs secured to said lugs and to said levers for holding the engaging portions of said dogs in constant contact with said disk, a sliding block arranged in each of said levers and connections between said blocks and said motor, as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES A. LIEB.

Witnesses:
WM. M. STOCKBRIDGE,
DENIS J. DOWNING.