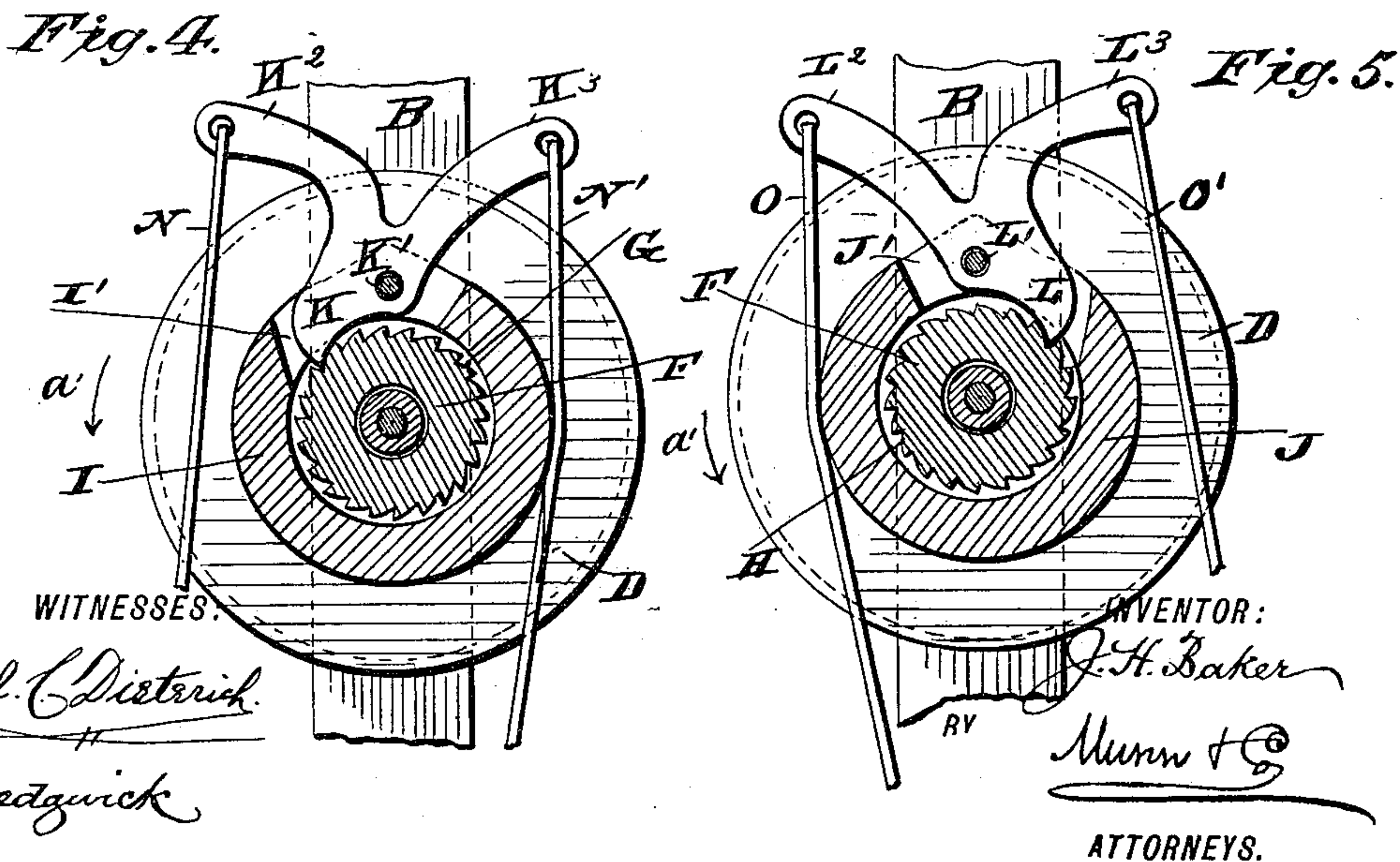
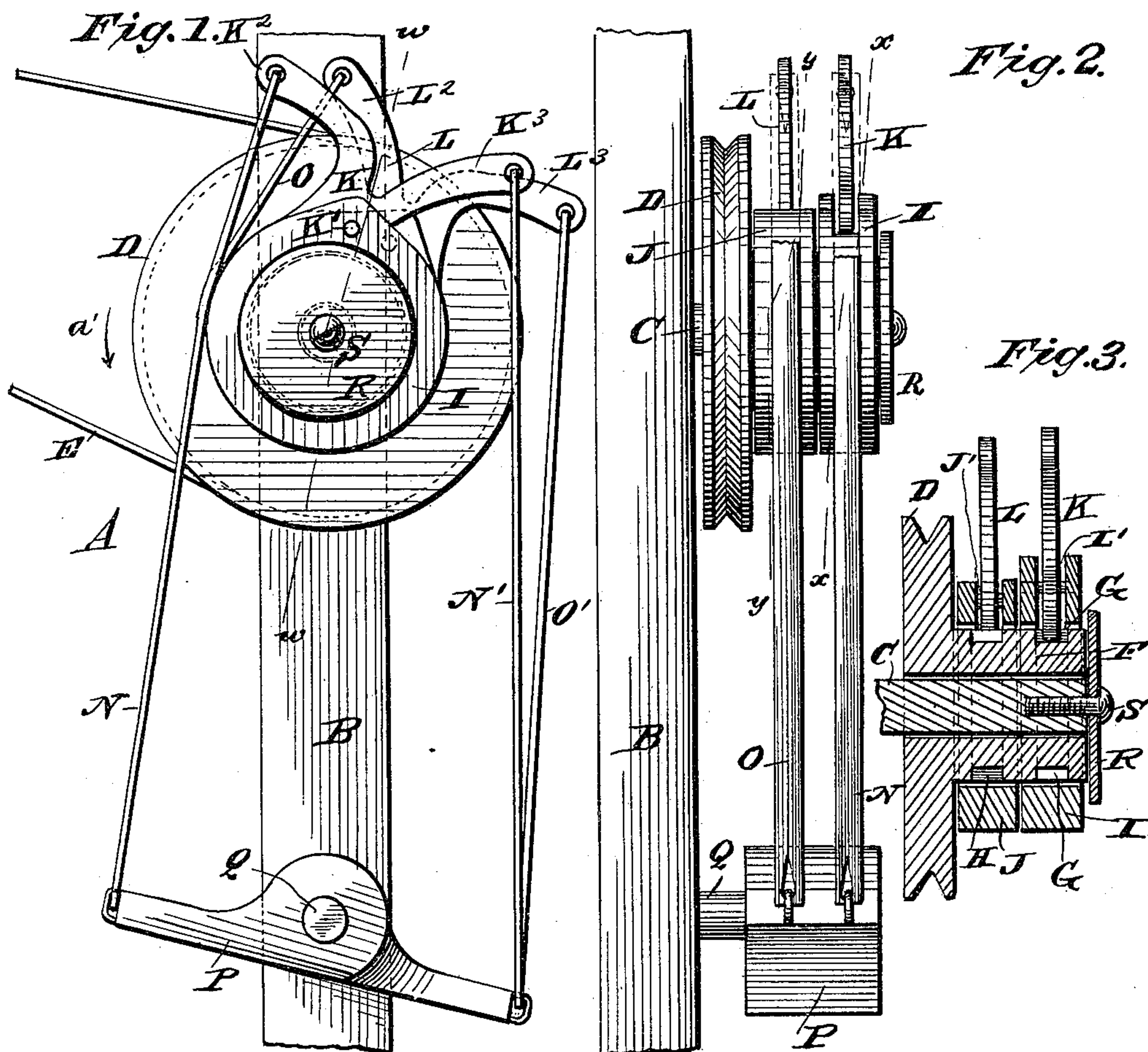


(No Model.)

J. H. BAKER.
MECHANICAL MOVEMENT.

No. 405,756.

Patented June 25, 1889.



UNITED STATES PATENT OFFICE.

JAMES H. BAKER, OF SAVANNAH, MISSOURI.

MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 405,756, dated June 25, 1889.

Application filed September 15, 1888. Serial No. 285,514. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. BAKER, of Savannah, in the county of Andrew and State of Missouri, have invented a new and Improved Mechanical Movement, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved mechanical movement which is very simple in construction and effective in operation, serving for converting a swinging motion into a continuous rotary motion, at the same time avoiding dead-centers.

The invention consists of a wheel provided with a hub having two sets of ratchet-teeth standing in opposite directions, collars loosely fitted on the said hub, pawls fulcrumed on the said collars and provided with arms, and a lever connected with the arms of the said pawls.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claims.

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

Figure 1 is a face view of the improvement. Fig. 2 is a side elevation of the same with parts broken out. Fig. 3 is a sectional side elevation of the same on the line *ww* of Fig. 1. Fig. 4 is a sectional face view of the improvement on the line *xx* of Fig. 2, and Fig. 5 is a similar view of the same on the line *yy* of Fig. 2.

The improved mechanical movement A is preferably mounted on a post B, carrying a fixed shaft C, on which turns loosely a wheel D, connected by a belt E with suitable machinery to be driven. The wheel D is provided with a hub F, on which are formed two ratchet-wheels G and H, having their teeth standing in opposite directions to each other.

The ratchet-wheels G and H are surrounded by collars I and J, respectively, mounted to turn loosely on the hub F around the said wheels. The collars I and J are provided at their upper ends with slots I' and J', respectively, in which are fitted the pawls K and L, respectively, adapted to engage the ratchet-wheels G and H, respectively. The pawls K

and L are fulcrumed on the pins K' and L', secured in the collars I and J, respectively, and the said pawls are also provided with upwardly and outwardly extending arms K² K³ and L² L³. The arms K² and L² extend to the left and the arms K³ and L³ extend to the right and are connected by the belts N O and N' O', respectively, with the outer ends of a lever P, mounted to swing on a stud Q, secured to the lower end of the post B.

The wheel D, with its hub F, is held in place on the shaft C by a washer R, secured to the outer end of the said shaft C by a screw S. The washer R also serves to hold the collars I and J in place on the hub F.

The operation is as follows: When a swinging motion is imparted to the lever P and the left end of the said lever passes downward, then the belt N exerts a pull on the arm K² of the pawl K, so that the latter engages the teeth of the ratchet-wheel G, whereby the latter and the collar I are turned in the direction of the arrow *a'*.

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

1. The combination, with a wheel provided with a hub having two sets of ratchet-teeth standing in opposite directions, of collars fitted loosely on the said hub over the said ratchet-teeth, pawls fulcrumed on the said collars and adapted to engage the said ratchet-teeth, arms formed on the said pawls and extending outward, and a lever connected with the said arms, substantially as shown and described.

2. The combination, with a wheel provided with a hub having two sets of ratchet-teeth standing in opposite directions, of collars mounted to turn on the said hub and fitting over the said ratchet-teeth, a pawl fulcrumed on each of the said collars and engaging the respective ratchet-teeth, two arms formed on each of the said pawls and extending outward in opposite directions, belts connecting with the outer end of each of the said arms, and a lever connected at its ends with the said belts, substantially as shown and described.

JAMES H. BAKER.

Witnesses:

T. H. ENSOR,
W. B. ALLEN.