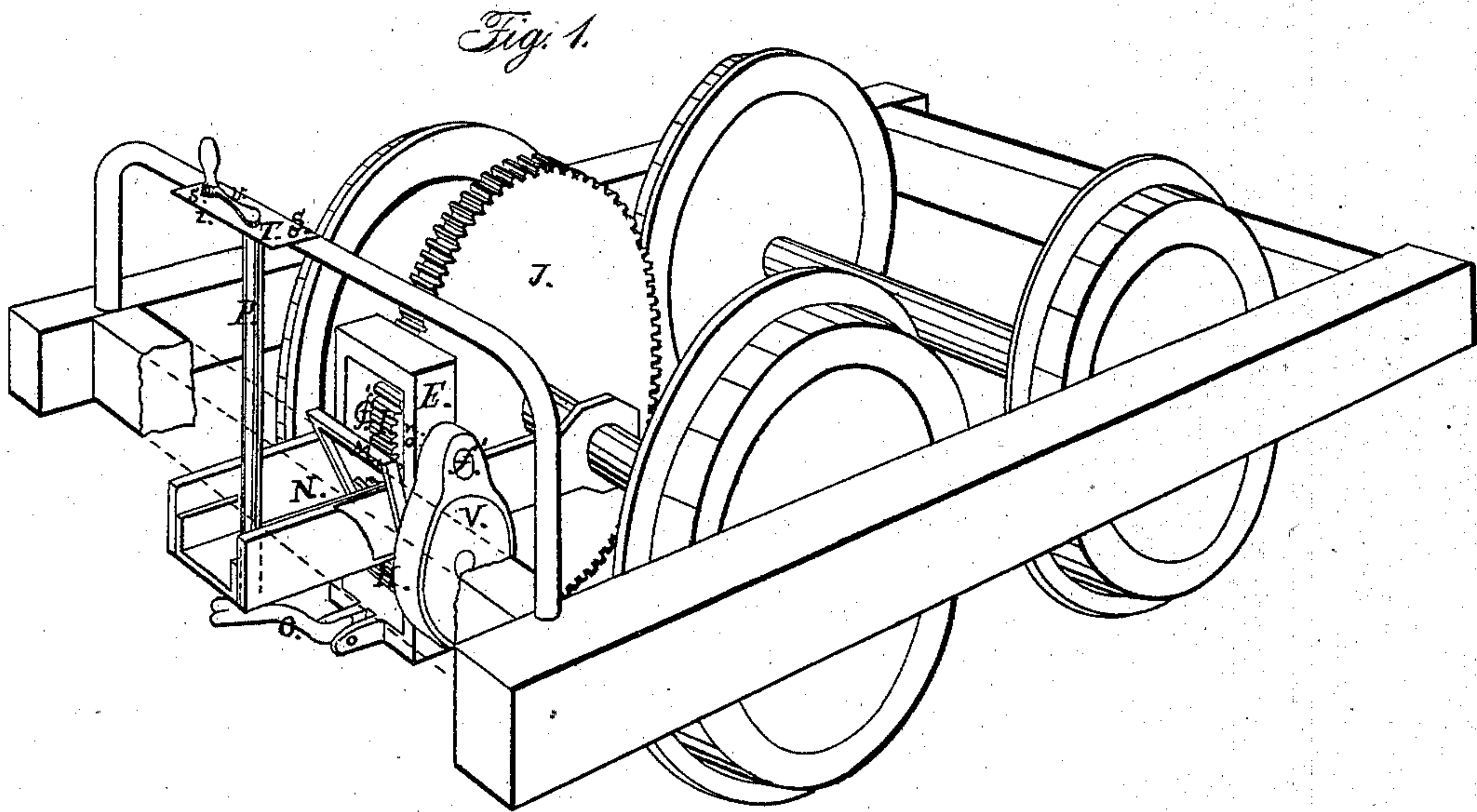


S. R. DIMOCK.

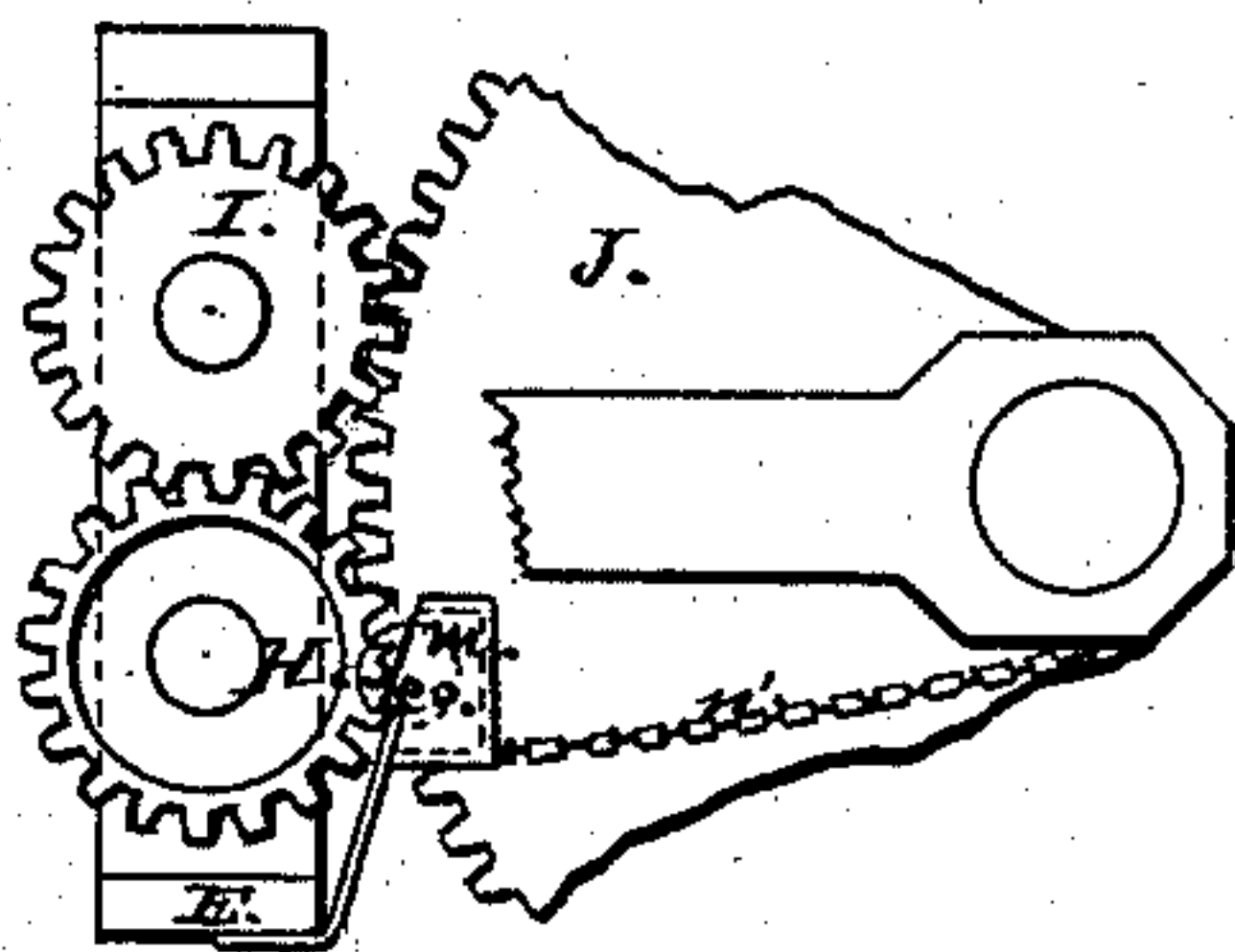
Car Starter.

No. 49,243.

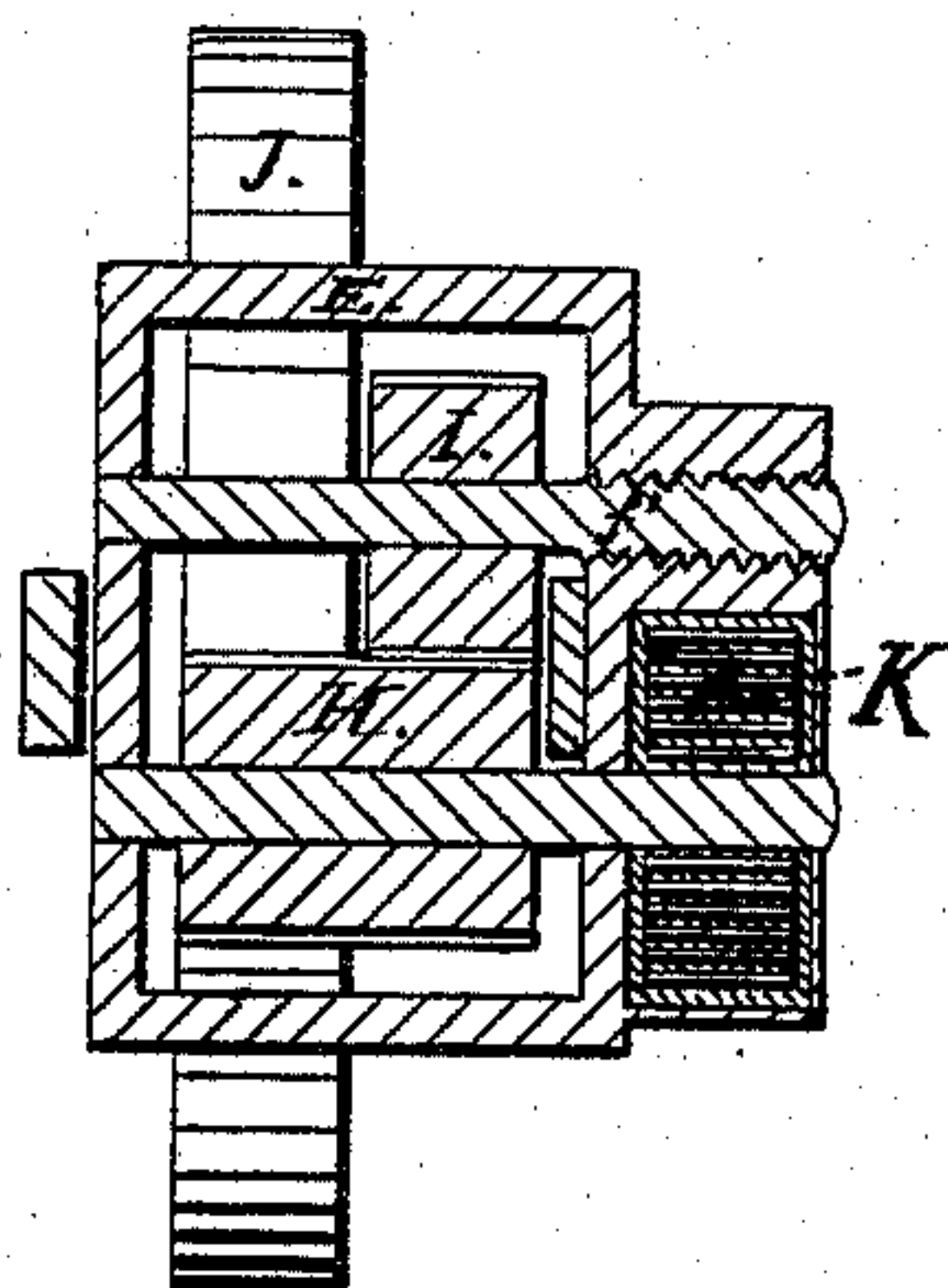
Patented Aug. 8, 1865.



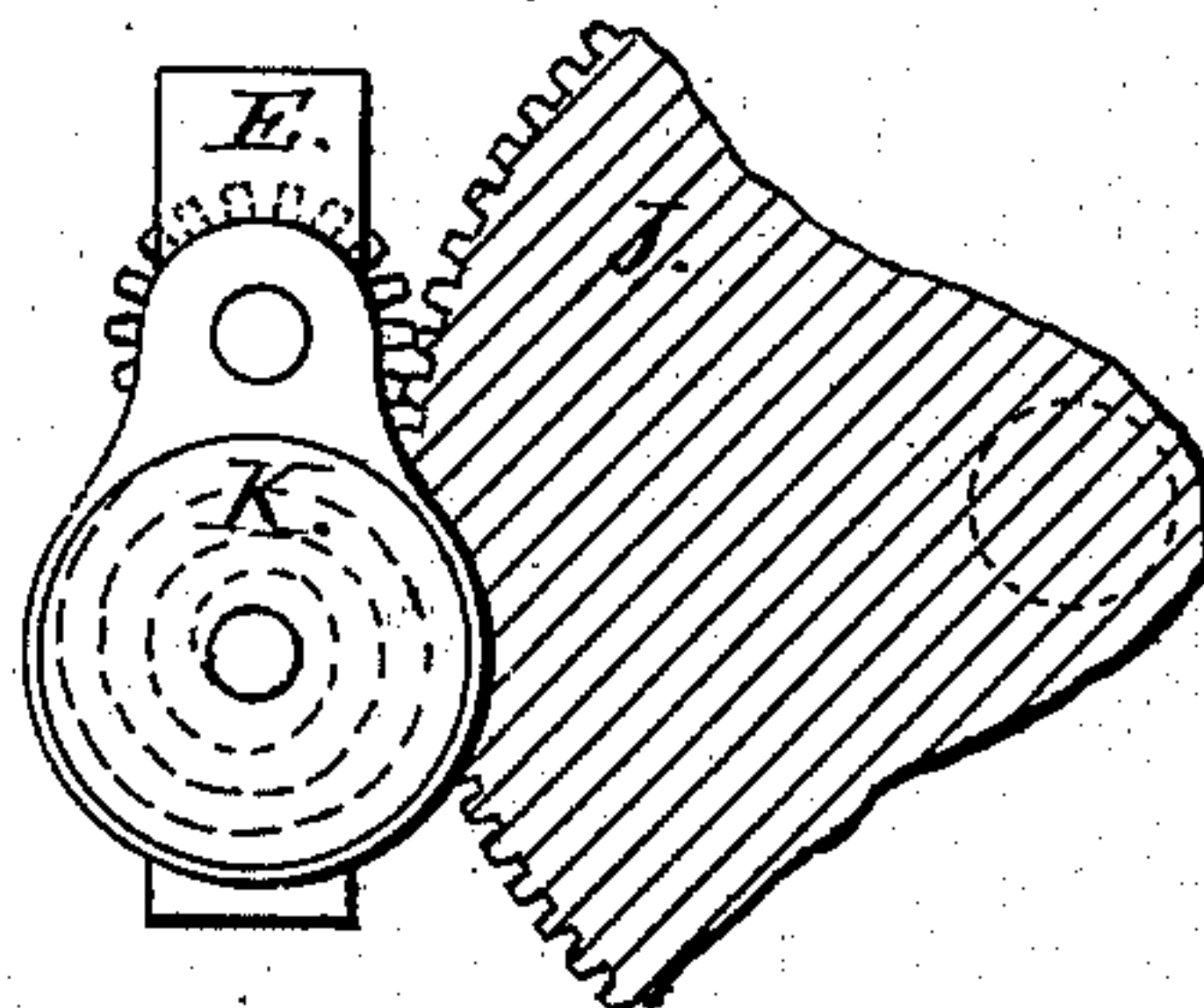
*Fig. 4.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

R. Corbott.  
N. B. Smith.

Inventor.

Samuel R. Dimock.



# UNITED STATES PATENT OFFICE.

SAMUEL R. DIMOCK, OF SYRACUSE, NEW YORK.

## IMPROVEMENT IN CAR-BRAKES.

Specification forming part of Letters Patent No. **49,243**, dated August 8, 1865.

*To all whom it may concern:*

Be it known that whereas I, SAMUEL R. DIMOCK, then of Pittsfield, in the State of Massachusetts, now of the city of Syracuse, in the State of New York, did secure by Letters Patent of the United States, numbered 37,088, and bearing date December 9, 1862, the exclusive right to make, use, and vend certain Improvements in Brakes for Railroad-Cars; and whereas I have invented certain other new and useful improvements upon the same, for which I am desirous of securing Letters Patent, as aforesaid; now, then, I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

The same letters represent corresponding parts in the different figures.

Figure 1 represents a front view of the running part of a car with the improvements attached. Fig. 2 represents a transverse vertical section of the same. Fig. 3 gives an inside view of the drum with the spring attachment. Fig. 4 gives one of the forms of spring-latch for preventing the car from running backward.

In applying my improvements I use my former invention, patented as aforesaid, and particularly described in the specifications attached to the said Letters Patent, so far as the same is applicable, and have, as far as possible, made the letters upon the drawings show corresponding parts in both specifications.

My present improvements, for which I desire the issue of Letters Patent, are as follows:

I. I place the pinions I and H inside of the oscillating frame E, and to give the pinion I lateral motion use the screw-shaft *f'*. I inclose the spring K in the drum V, forming a part of the oscillating frame.

II. To prevent the car from running backward while the pinion H is in gear with the cog-wheel J, I claim the invention of two different methods:

*a.* One consists of the use of the spring-latch M, made to fit and work into the pinion I in connection with the chain N, the chain N to be of the proper length to hold the latch M out of gear with the pinion I when the crank is reversed. The two arms of this latch are

each made in the form of a spring and attached to the lower part of the oscillating frame E.

*b.* The other improvement consists of the use of the spring-latch *m'*, as seen in Fig. 4, the arm part being in the form of a spring attached to the lower part of the oscillating frame E, made with the eccentric-wheel *z* and the hook *e* in connection with the chain *n'*, the hook *e* being intended to catch into the cogs of the pinion H. The spring is so arranged that the eccentric-wheel *z* will bear upon the smooth surface of the pinion H (and for that purpose the cogs of the pinion-wheel H are cut down to the body of the wheel, so that there shall be a smooth surface all around) when the brake is thrown in gear, thereby preventing noise, and the turn of the eccentric-wheel *z* bringing the hook *e* into the cog of the pinion H, thereby preventing the car from running backward. The chain *n'* is made of the proper length, so that the latch will be held out of gear when the crank is reversed.

III. For the purpose of moving the oscillating frame and regulating the gear of the pinions I and H, I use a double crank, attached to the lower part of the frame E by a hinge, and made up of the parts O P *q* and the pin *z'*. I make the part *q* as a spring, so that the pin *z'* will slip into the holes *s s*, and thus hold the gear in or out, as desired. To facilitate this I make the plate T inclined forward and downward, so that the pin *z'*, by the aid of the spring, will bear upon the inclined plane of the plate T when turning in position, and let the pin *z'* into the holes *s s* and hold it until lifted out.

IV. Instead of one large spring, K, several smaller springs, working side by side in the drum L, may be used for convenience in manufacture and to preserve a part of the force in case part of the springs should break, and to increase or diminish the power, according to the size of the car and the amount of force required. To prevent undue strain upon the spring I use the stop M on the side of the pinion I, arranged so as to bring the whole gearing to a perfect stop before the spring K is completely wound up.

What I claim as my invention is—

The arrangement of the pinions I and H inside of the oscillating frame E, the stop *n* on the side of the pinion I, the drum V, inclosing the spring K, the two forms of spring-latch M and *m'*, with their attachments, as above described, the double crank in its several parts, and with its attachments, as above described, and the plate I, all constructed and operating

as and for the purpose herein shown and described.

SAMUEL R. DIMOCK.

Witnesses:

P. CABETT,  
N. B. SMITH.