(No Model.) 2 Sheets—Sheet 1.

E. W. RINGROSE.

MACHINE FOR MOVING RAILWAY CARS.

No. 527,374. Patented Oct. 9, 1894.

Fig 1.

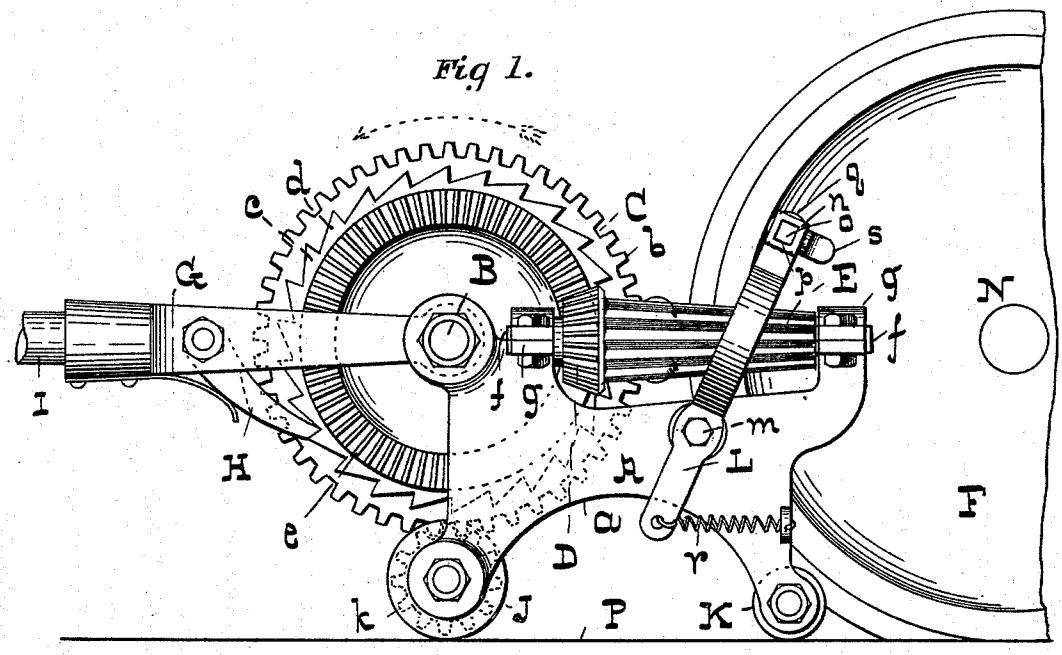


Fig 5

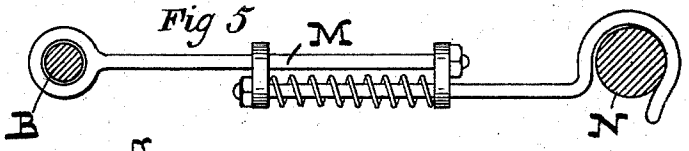
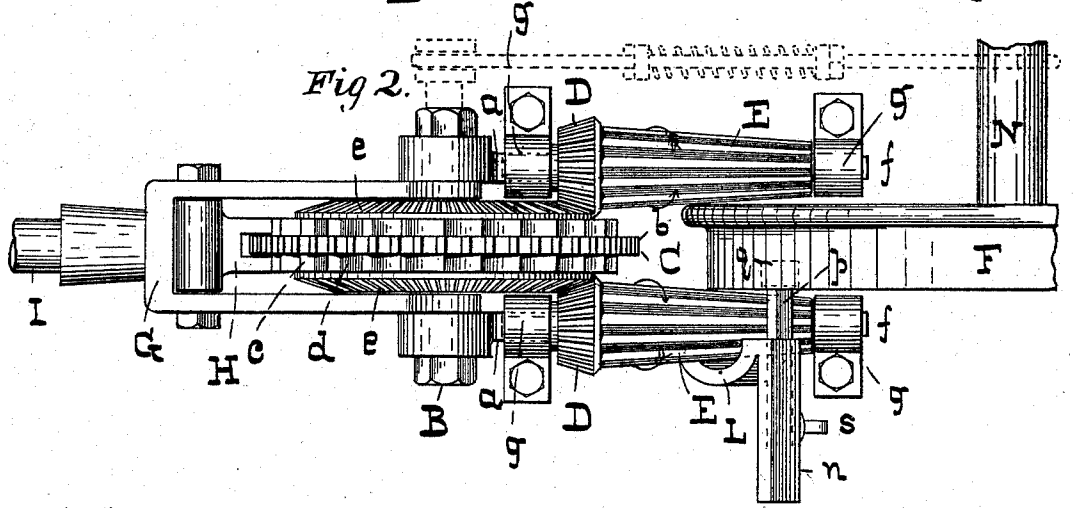


Fig 2.



-WITNESSES-

Dan'l Fisher
George Hemsley

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(No Model.) 2 Sheets—Sheet 2.

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Fig 3.

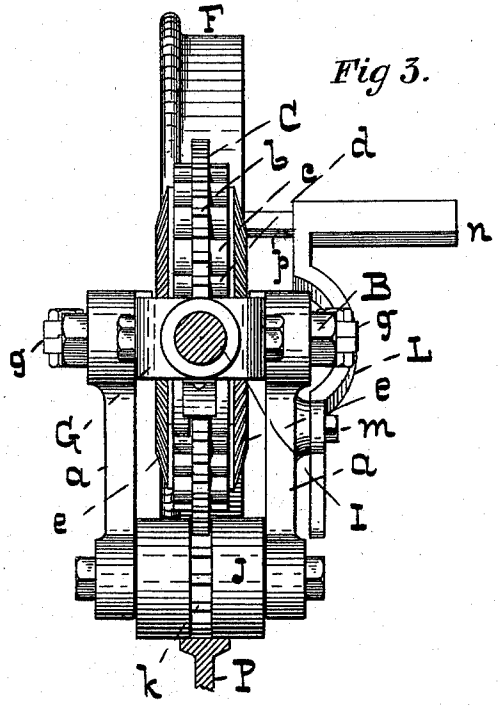
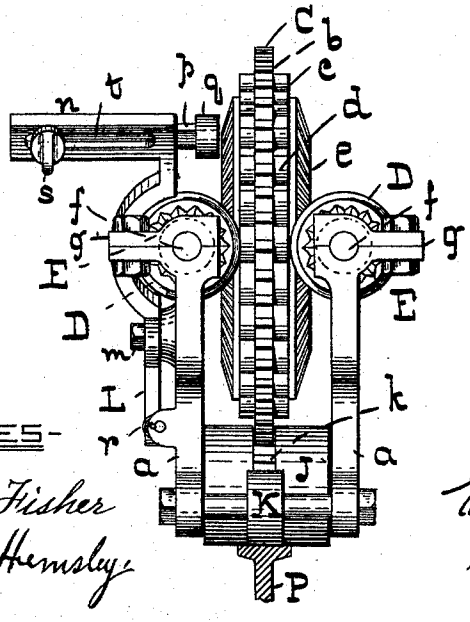


Fig 4.



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UNITED STATES PATENT OFFICE.

EDUARD W. RINGROSE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO DASHIELL BAYNE AND CHARLES E. BALDWIN, OF SAME PLACE.

MACHINE FOR MOVING RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 527,374, dated October 9, 1894.

Application filed July 18, 1894. Serial No. 517,845. (No model.)

To all whom it may concern:

Be it known that I, EDUARD W. RINGROSE, of the city of Baltimore and State of Maryland, have invented certain Improvements in Machines for Moving Railway-Cars, of which the following is a specification.

In the description of the said invention which follows, reference is made to the accompanying drawings forming a part hereof, and in which—

Figure 1 is an exterior side view of the invention, together with a part of a car wheel to which the invention is applied. Fig. 2 is a plan of Fig. 1. Fig. 3 is a rear end view of Fig. 1. Fig. 4 is a front end view of the apparatus without the car wheel. Fig. 5 illustrates a modification in the construction of a part of the machine.

Referring to the drawings, A is a frame formed, principally, of two plates *a*.

B is a spindle which passes through bosses on the plates *a* to support a revoluble disk C. This disk is toothed at its edge or circumference, the teeth being denoted by *b;* and on its sides are formed annular projections *c* having ratchet teeth *d* on their edges. On the faces of the annular projections *c* are cast beveled teeth *e* in gear with beveled pinions D which form a part of corrugated tapered rollers E. The gudgeons *f* of these tapered corrugated rollers rest in bearing boxes *g* cast integral with the frame plates *a*.

From the foregoing description it will be understood that when the disk C is turned in the direction indicated by the dotted arrow in Fig. 1, the tapered corrugated rollers E are turned as indicated by the arrows in full lines; and when the machine is applied to a car wheel F, that is to say, brought so closely in contact with the said wheel as to make the tapered rollers grip the flange and tread of the wheel, and placed in operation, the wheel is turned and the car moved.

The means for turning the disk and its wheels, consists of a socket G having arms extending therefrom connected to the plates *a* of the frame by means of the spindle B which passes loosely through them. The socket G has a double spring-held pawl H which engages with the ratchet teeth *d* and is pivoted between the arms of the socket G. Within the socket G is inserted a hand-bar I, a portion only of which is shown.

The frame A is provided with two rollers J and K which support it on one of the rails P of the track, and the roller J has recessed spur teeth *k* in engagement with the teeth *b* of the disk C. By this arrangement, when the apparatus is in use it is propelled forward and made to follow the retreating car wheel. The other roller K is merely to support the front end of the apparatus.

L is a lever pivoted at *m* to the frame A and curved so as to pass partially around one of the tapered corrugated rollers E. At the upper end of this lever is an arm *n* with a square hole *o* therein. In this square hole is a bar *p* carrying a loose roller *q* adapted to bear against the inner surface of the tread of the wheel. The lower end of lever L is attached to a lug on the frame A by means of a spring *r*. The object of this spring held lever and its attachments is to yieldingly keep the apparatus in contact with the car wheel when the car has gotten some headway, and thereby draw the apparatus after the car. The bar *p* is adjustable with reference to the arm *n* and when set, it may be secured by means of a thumb screw *s* which passes through a slot *t* in the arm.

The operation of the invention is as follows: The apparatus is pushed against one of the wheels of the car to be moved, or moved forward until the said car wheel is held tightly between the corrugated tapered rollers E. The lever L and its roller *q* are then adjusted, and the apparatus is in a condition for use. The hand bar I is then raised and lowered, and in the latter movement the pawl H engages with the ratchet teeth *d* and the tapered rollers E are thereby rotated, and the car wheel turned. At the same time the apparatus is forced forward or toward the car wheel by means of the roller J which is revolved by the teeth *b* and *k*.

I do not restrict myself to the employment of the lever L and its attachments for the purpose described, as numerous other contrivances can be arranged for the same purpose. In Fig. 2, I have shown in dotted lines, an ex-

tensible spring bar M attached to the spindle B which is elongated for the purpose, and with its outer end hooked over the axle N of the car wheel. Fig. 5 is a side view of this extensible spring bar.

I claim as my invention—

1. In an apparatus for moving cars, a pair of tapered corrugated rollers between which a wheel of the car is gripped, and suitable gearing for effecting the revolution of the said rollers, substantially as specified.

2. In an apparatus for moving cars, a pair of tapered corrugated rollers arranged so as to grip a wheel of the car, devices to effect their revolution, and means whereby the apparatus is forced or drawn forward and kept in contact with the said car wheel, substantially as specified.

EDUARD W. RINGROSE.

Witnesses:
C. E. BALDWIN,
DASHIELL BAYNE.