

(No Model.)

2 Sheets—Sheet 1.

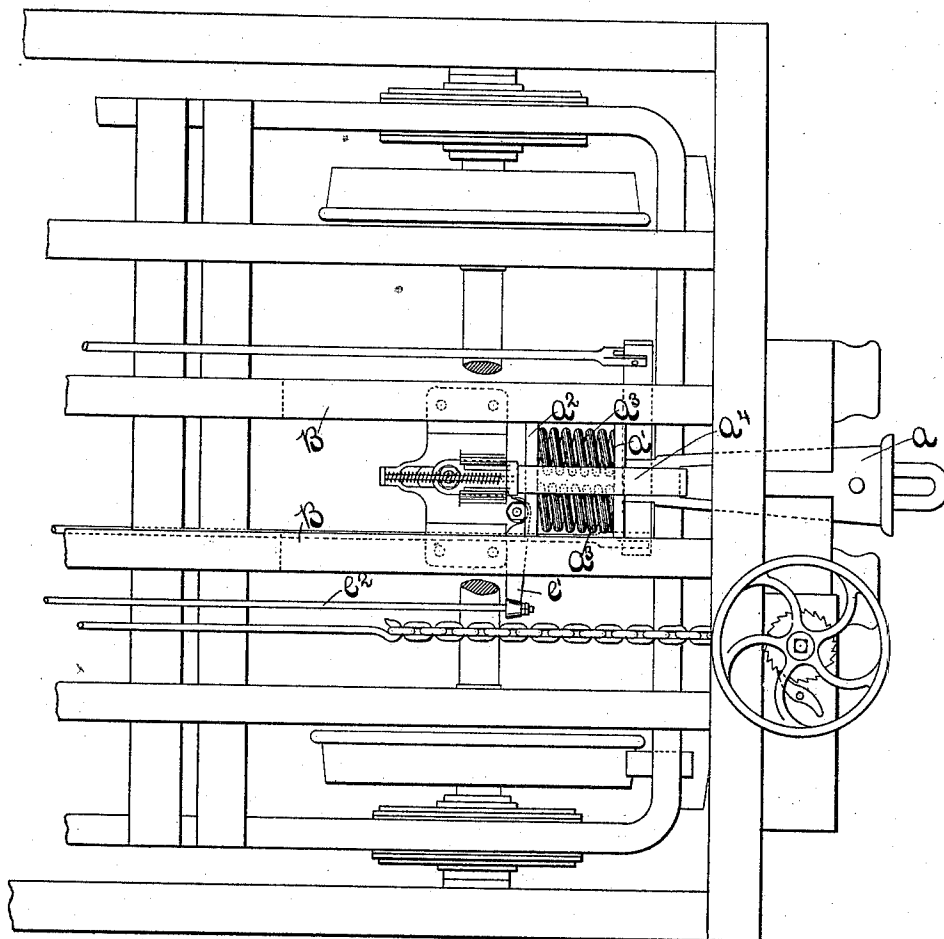
W. B. TURNER.

POWER TRANSMITTING DEVICE FOR CAR BRAKES.

No. 474,615.

Patented May 10, 1892.

Fig. 1.



Witnesses:

Oscar F. Hill
Fred S. Greene of.

Inventor.

William B. Turner
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

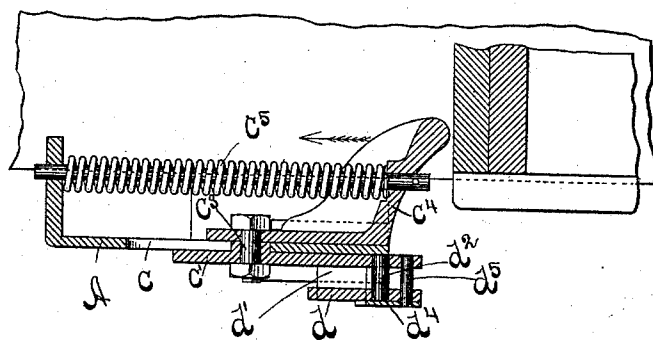


Fig. 3.

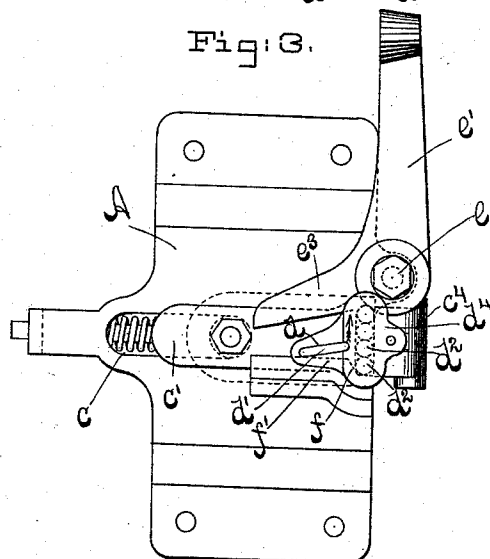
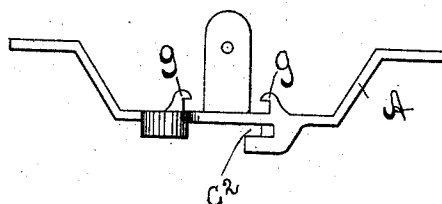


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM B. TURNER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE
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POWER-TRANSMITTING DEVICE FOR CAR-BRAKES.

SPECIFICATION forming part of Letters Patent No. 474,615, dated May 10, 1892.

Application filed June 4, 1891. Serial No. 395,039. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. TURNER, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Devices for Transmitting Power, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

As a means for braking, retarding, or slowing down trains a brake mechanism has been provided which is operated by the inwardly-moving draw-bars, so that as the brakes are applied to the locomotive the closing up of the train causes the brakes of the cars to operate.

This invention has for its object to improve the construction of the means employed for transmitting the motion from the inwardly-moving draw-bar to the brake mechanism; and my invention comprehends the employment of a fixed support having on one side of it a block which is moved longitudinally by the draw-bar either directly or indirectly, an operating member moved by said block and herein shown as carrying a series of rollers, and a guide at one side of the said operating member for directing its movement.

Figure 1 represents a plan view of a portion of a car-frame, showing a draw-bar and means embodying this invention for transmitting inward motion of the draw-bar to the brake mechanism; Fig. 2, a longitudinal section of the transmitting device shown in Fig. 1; Fig. 3, an under side view of the transmitting device, and Fig. 4 an end view of the frame or casting which supports the operating parts of the transmitting device.

The draw-bar *a*, the following-plates *a'* *a''*, arranged in suitable supports and separated by springs *a'''*, and the strap *a''''* are all of usual construction.

The transmitting device located adjacent to the draw-bar, by which its inward motion is transmitted to the brake mechanism, (not herein shown,) consists of a suitable supporting-frame A, adapted to be bolted to the beams B B, the base of the said frame being slotted, as at *c*, to receive the movable parts to be described. A block *c'*, placed on one side of the support A and movable longitudinally between guides *g g*, projects upward and lies in

the path of movement of the draw-bar *a*, and a plate *c'* is placed on the other side of said support, being pivotally connected with the block *c'* by a bolt *c''*, which passes through the slot *c*. The plate *c'* is located in the guideway *c''*, one side of which presents a stationary guide having an inclined portion *f* and a straight portion *f'*. A plate *d* is secured to the under side of the plate *c'*, it being fitted onto a diagonally-arranged projection *d'*, formed on the under side of the said plate *c'*. The plates *d* and *c'*, separated from each other a short distance, each have a slot or elongated opening, which register with each other and into which are placed, as herein shown, four parallel rolls *d''*, (see dotted lines, Fig. 3,) and a cap or plate *d'''* is secured to the under side of the plate *d* by a pin *d''''*, which overlaps the ends of said rolls and keeps them in proper position. The plates *c'* and *d* constitute the operating member. A bell-crank lever is pivoted at *e* to the supporting-frame A, one arm of the said lever, as *e'*, being connected by a suitable connecting-rod *e''* with any usual or suitable brake mechanism, (not herein shown,) and the other arm, as *e'''*, being arranged diagonally with relation to the path of movement of the operating member and occupying a position between the plates *c'* and *d* thereof and bearing against the end roll of the series of rolls *d''*.

When it is desired to apply the brake mechanism, the brake on the locomotive will be applied, and as the cars close together the draw-bars are pressed inwardly, striking the block *c'* and moving it longitudinally or in a direct line, as shown by the arrow, Fig. 2, and said block carries with it the operating member. As the operating member *c' d* is thus carried by the longitudinally-movable block it is caused to move on its pivot by the inclined guide portion *f* in the direction of the arrow, Fig. 3, and bearing against the arm *e'''* of the bell-crank lever turns it on its pivot. When the operating member has been carried by the block *c'* a short distance, it will have passed by the inclined portion *f* and will then bear against the straight portion *f'*, and as this portion *f'* is parallel to the direction of movement of the block *c'* and also to that side of the arm *e'''* which is engaged by the operating

member the latter may be moved farther by said block and have no effect on the bell-crank lever except to hold it in its abnormal position. By this form of guide $f f'$ it will be seen that
 5 the bell-crank lever will be moved its full distance to set the brake on a very short inward movement of the draw-bar. A spring c^5 is provided, one end of which bears against the block c^4 and the other end against a fixed pro-
 10 jection on the supporting-frame A, the said spring serving to restore the block c^4 to its normal position.

I do not desire to limit myself to the employment of a bell-crank lever as the only
 15 means of transmitting the motion to the brake.

I claim—

1. In a device of the kind described, a support or frame, as A, a block thereon movable longitudinally by a draw-bar, an operating
 20 member connected to said longitudinally-movable block and rollers carried by it, a guide on the support having an inclined portion f , against which the rollers act, and a bell-crank lever, one arm of which is engaged or acted
 25 upon by said rollers, substantially as described.

2. In a device of the kind described, a sup-

port or frame, as A, a block c^4 thereon movable longitudinally by a draw-bar, an operating member pivoted to said longitudinally-mov- 30
 able block and rollers carried by it, a stationary guide having an inclined portion f located at one side of said operating member and with which the rollers co-operate, and a bell-crank lever, one arm of which is located at the other 35
 side of said operating member and is acted upon by the rollers, substantially as described.

3. In a device of the kind described, a support or frame, as A, a block c^4 thereon movable longitudinally by a draw-bar, a pivoted oper- 40
 ating member and rollers carried by it, a guide located at one side of the operating member, having an inclined portion f and a straight portion f' , and a bell-crank lever, one arm of which is located at the other side of the said 45
 operating member which is acted upon by the rollers, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM B. TURNER.

Witnesses

BERNICE J. NOYES,

EDWARD F. ALLEN.