D. E. DUTROW.

SAFETY CAR-TRUCK.

No. 188,611. Patented March 20, 1877.

Fig 1

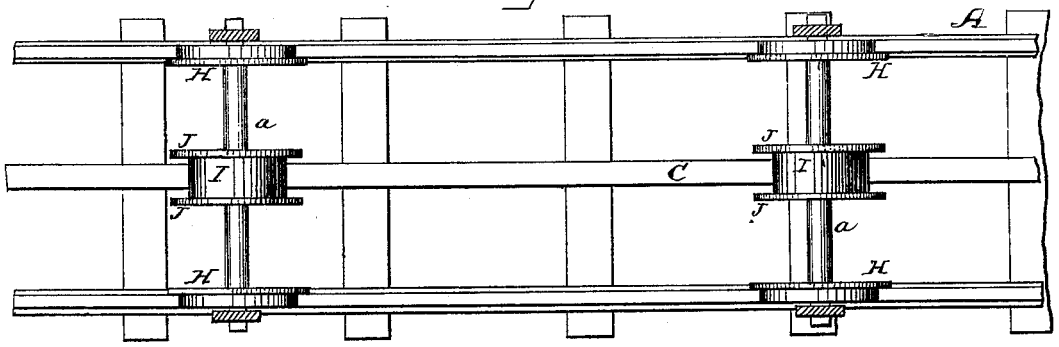


Fig 2

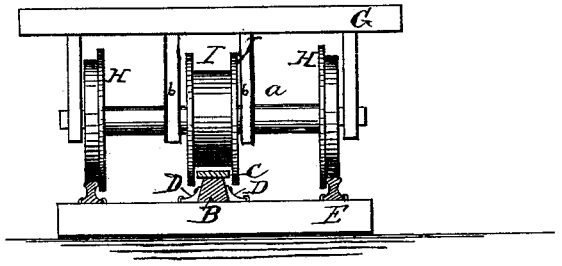
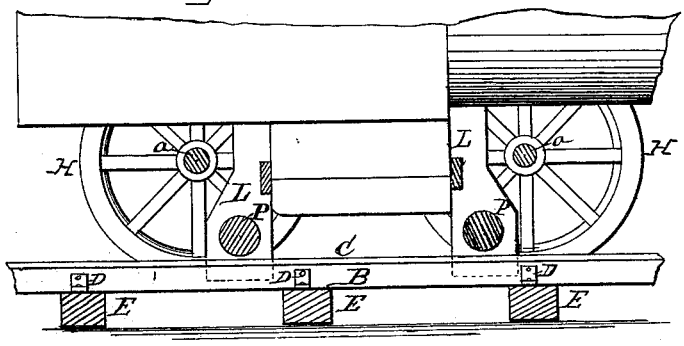


Fig 3.



Witnesses

Charles L. Kearron

Curtis H. Dutrow.

Inventor

David E. Dutrow.

UNITED STATES PATENT OFFICE.

DAVID E. DUTROW, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN SAFETY CAR-TRUCKS.

Specification forming part of Letters Patent No. **188,611**, dated March 20, 1877; application filed January 29, 1877.

To all whom it may concern:

Be it known that I, DAVID E. DUTROW, of the city of Washington, in the county of Washington and District of Columbia, have invented certain new and useful Improvements in Devices for Preventing Railroad-Trains from Running Off the Track; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The object of my invention is to prevent accidents upon railroads, caused by the breakage of an axle or wheel; and it consists in supplying the axle of an ordinary railroad locomotive or car with a center-wheel flanged to run near a center-rail situated betwen the ordinary rails of the road, and providing said wheel with independent hangers or pedestals, so as to secure two wheels in place if the third one should become detached or break.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a plan view of my invention. Fig. 2 is an end view of the same; and Fig. 3 shows a modification of my invention, applicable to the fire boxes of the locomotives.

A A represent the rails of the ordinary or usual railroad-track. In the center between, and parallel with, said rails A is placed a third rail composed of a wooden beam, B, covered on top by an iron cap or bar, C, which latter may be made wider than the wooden beam, so as to project on both sides thereof, or the metal cap may be made of the same width as the wooden beam.

The center rail thus constructed is secured to the tie E by means of knees D D on both sides of said rail, and this rail is made somewhat higher than the ordinary rails A A, as shown fully in Fig. 2, or it may be of the same height as rails A A.

G represents the car-truck provided with axles *a a*, each of which has upon its ends the usual single-flanged wheels H H to run upon the rails A A.

In the center of each shaft *a* is secured a wheel, I, provided on each side with a deep flange, J, as shown. This double-flanged wheel is of such diameter that the tread of the wheel will not be in contact with, but slightly elevated above, the center-rail B C, while the flanges J J extend down on both sides of said rail. *b b* are pedestals attached to the cross-beam of the car-truck G and extending down on each side of the double-flanged wheels I J. These pedestals embrace the axles, but are without bearings, and in case an outside wheel should break the pedestals serve as supports for the axle, holding it securely in place.

It will readily be seen that if, from any cause, any one of the rails A should be broken or displaced the car-truck G will settle down toward such side until the wheel I bears upon the center-rail, when the car will run on said center-rail and the unbroken side rail until the wheels on the other side get upon that side rail again. By this means the car is prevented from running off the track, while in ordinary running there is no additional friction to retard the movement.

Under the fire-box of the locomotive it would be impossible to arrange the double-flanged wheels as above described, and in that case, on the front and rear ends of the fire-box, are secured two parallel bars, L L, well braced, projecting a suitable distance below the same, and between such bars is mounted a wheel, P, which wheel is to be directly over the center-rail, and the bars L should extend below the wheel, so as take the place of, and act as, the flanges described on the wheel I, or a small double-flanged wheel may be used.

At the front end of the locomotive the double-flanged wheels may be arranged upon the axles of the ordinary wheels the same as under the car-trucks.

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

1. In combination with the axle *a* operating in the usual manner and carrying the cen-

ter-wheel I, the pedestals or hangers *b b*, constructed and operating substantially as described.

2. The bars L L, attached to a locomotive, as described, and having the wheel P mounted between them, in combination with a rail arranged centrally between the rails of a railroad-track, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DAVID E. DUTROW.

Witnesses:
CHARLES S. HERRON,
CURTIS F. DUTROW.