S. W. MURRAY & B. P. LAMASON.

Improvement in King-Bolts for Railway-Car Trucks.

No. 114,028. Patented April 25, 1871.

Fig: 4

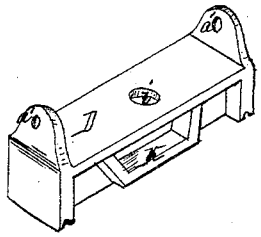


Fig: 5

Fig: 1

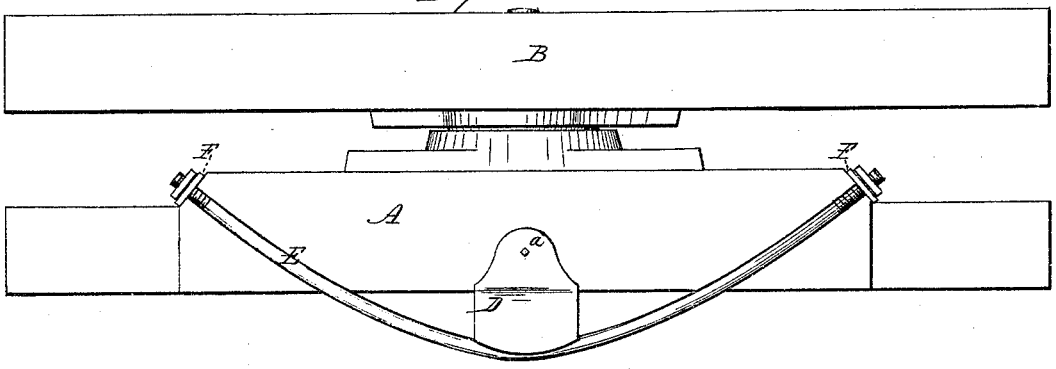


Fig: 2

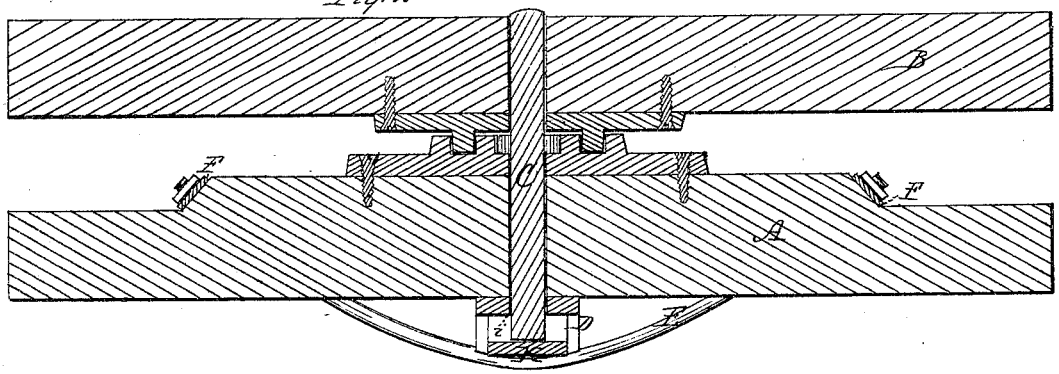
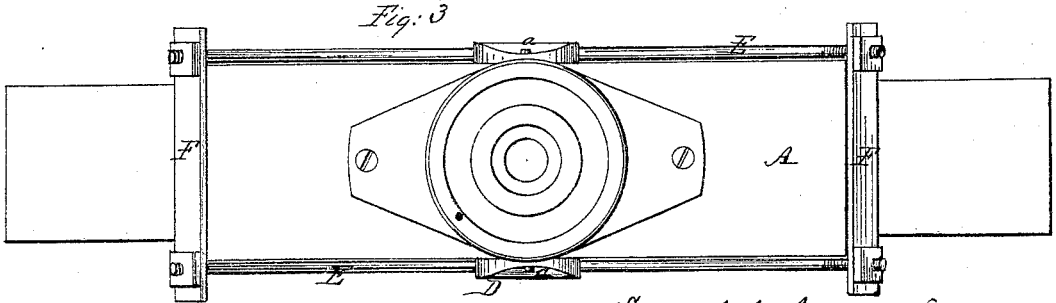


Fig: 3



Witnesses: C. R. Perrie, Geo. C. Lambright

Samuel W. Murray & Benj. P. Lamason, By attorney J. H. Phillips

UNITED STATES PATENT OFFICE.

SAMUEL W. MURRAY AND BENJAMIN P. LAMASON, OF MILTON, PA.

IMPROVEMENT IN KING-BOLTS FOR RAILWAY-CAR TRUCKS.

Specification forming part of Letters Patent No. **114,028**, dated April 25, 1871.

To all whom it may concern:

Be it known that we, SAMUEL W. MURRAY and BENJAMIN P. LAMASON, of the town of Milton, in the county of Northumberland and State of Pennsylvania, have invented a new and Improved King-Bolt for Railroad-Cars; and we hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, forming part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a front elevation of the truck-bolsters, showing the device in position; Fig. 2, a longitudinal vertical section through the center of the same; Fig. 3, a top or plan view of lower truck-bolster, showing more clearly the truss rods and braces, hereinafter described; Fig. 4, a perspective view of the combined stirrup and truss-rod saddle; Fig. 5, the king-bolt.

The nature of our invention consists in connecting truck-bolsters of cars by a headless king-bolt passing through the same, and supported in position by a combined stirrup and truss-rod saddle beneath the lower truck; and the object of the same is to avoid the perforation of the car-floor, and to facilitate the removal of trucks from under the car, when desired.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A represents the top bolster of car-truck; B, the bolster of car-body; C, the king-bolt, made of a straight piece of wrought-iron, without head or collar; D, the combined stirrup and truss-rod saddle; E, the truss-rod.

Our improvement is applied as follows: The combined stirrup and truss-rod saddle D, constructed of cast-iron or its equivalent, is made fast to the under side of truck-bolster A by means of bolts *a*, passing through the holes *a'* *a'* in the upper projection of the saddle. The truss-rods E pass down under the lower projections of the saddle, which are grooved to receive and hold them in position, while their ends are raised to the upper portions of the bolster and pass through holes in the projecting ends of the wrought plates F. These plates rest against shoulders formed on bolster A, so inclined as to admit at right angles to their surfaces the ends of the truss-rods E. The ends of the latter are provided with screws and nuts, which, when rigidly screwed up, form a permanent and substantial structure.

The object of the stirrup and truss-rod saddle, as seen in Fig. 4, is to support the king-bolt C when in place, the king-bolt passing through the bolster A, down through the opening *i* in the saddle, and resting on the stirrup K, formed on the same.

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

The saddle D, forming a truss-bridge for the braces E, and having a central opening, *i*, for the passage of the king-bolt, and constructed with a stirrup, K, for the latter to rest upon, substantially as shown and described, and for the purpose set forth.

SAMUEL W. MURRAY.
BENJ. P. LAMASON.

Witnesses:
WM. P. DOUGAL,
R. M. LONGMORE.