

B. P. LAMASON.

Safety Trucks for Railroad Cars.

No. 135,716.

Patented Feb. 11, 1873.

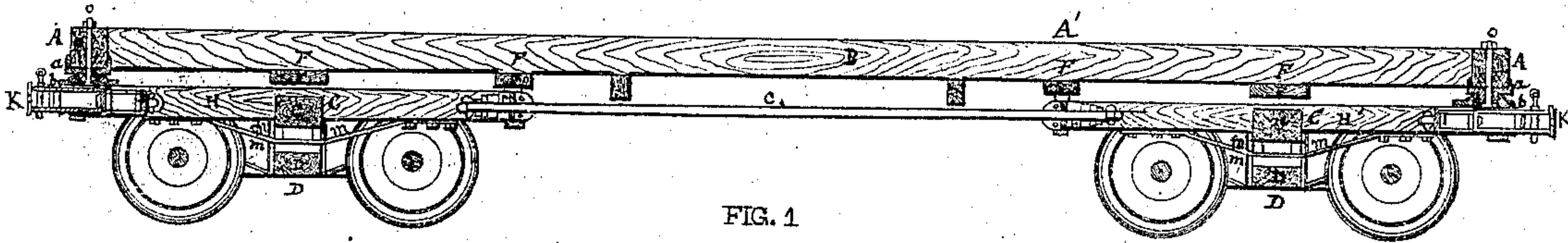


FIG. 1

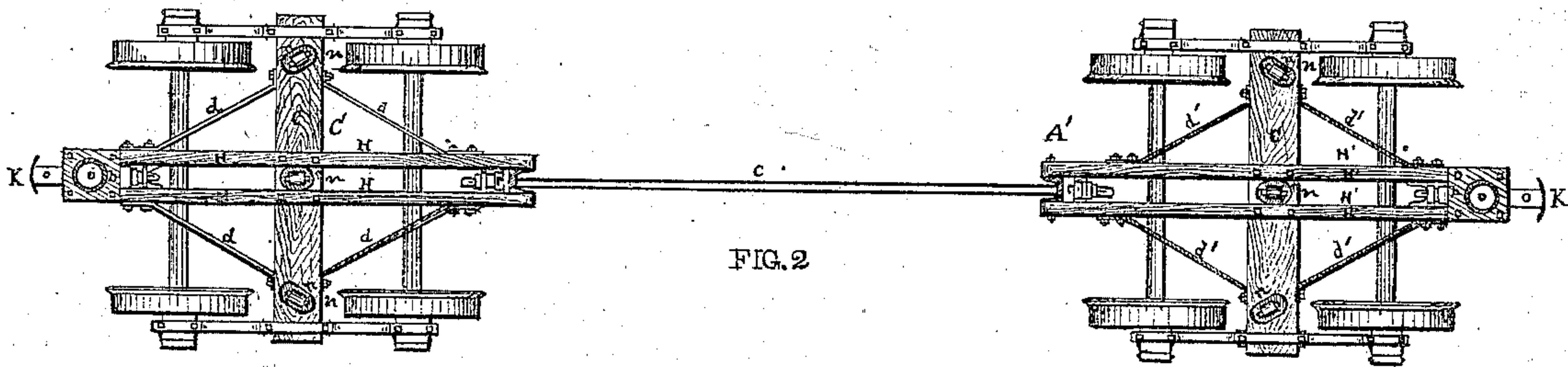


FIG. 2

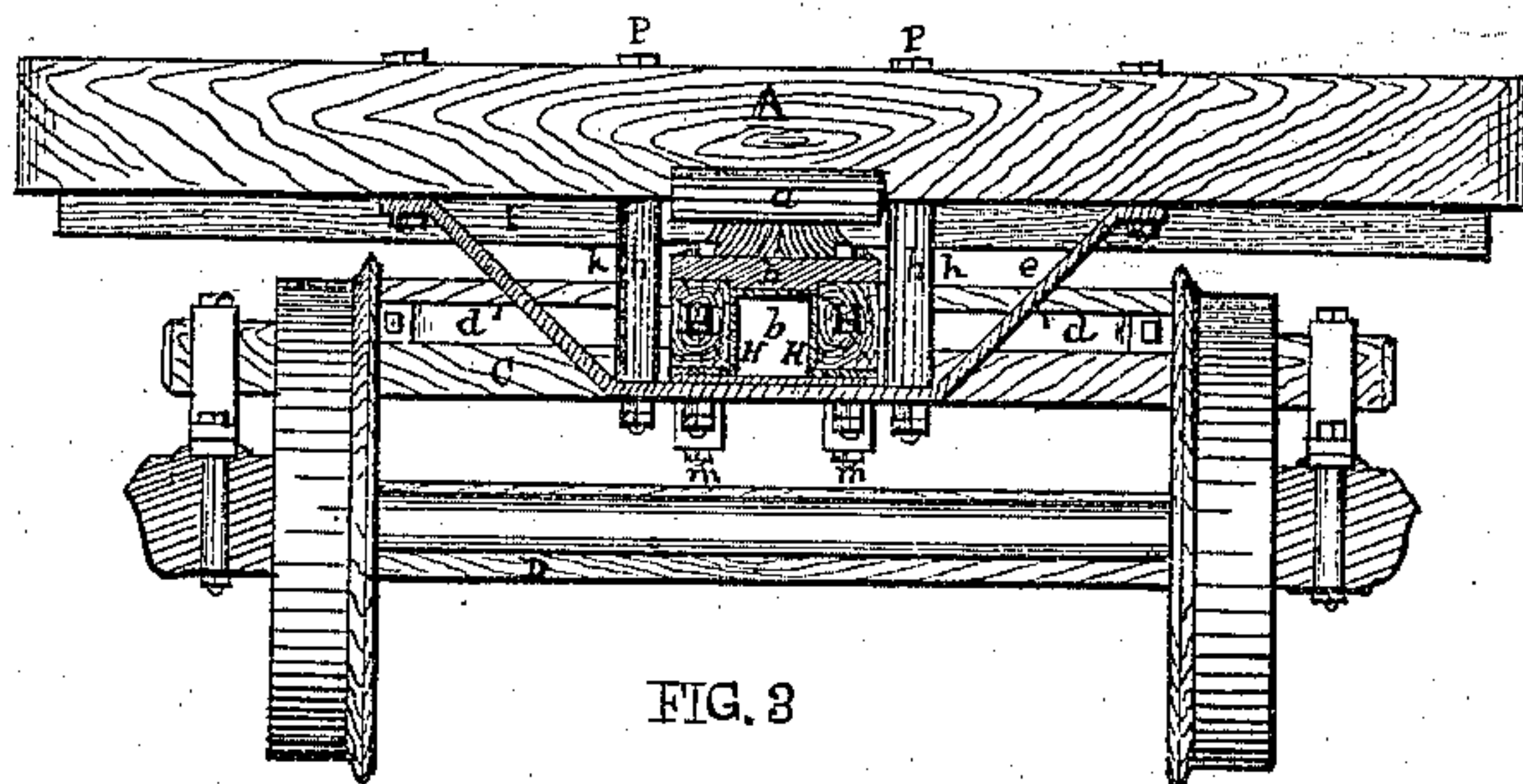


FIG. 3

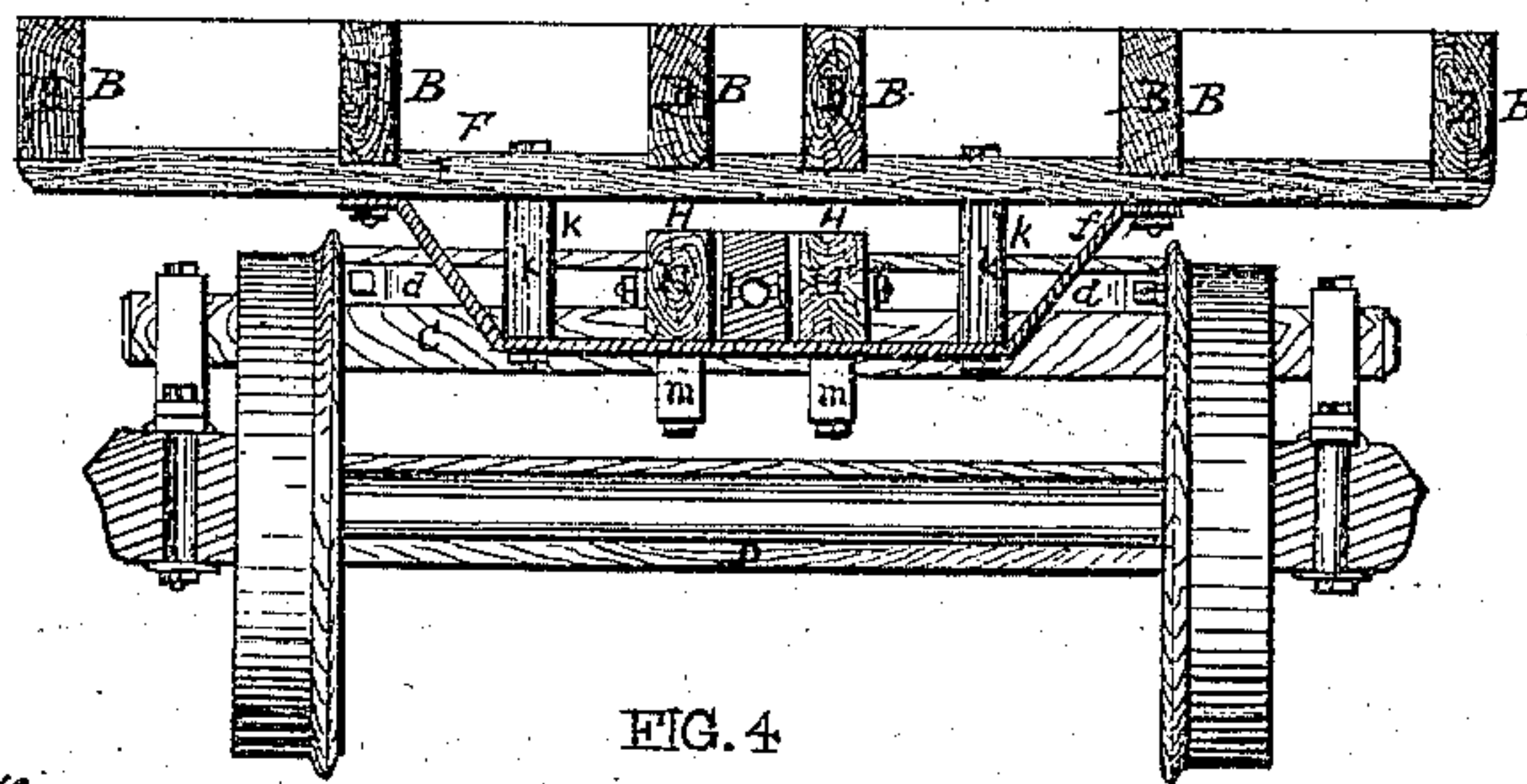


FIG. 4

WITNESSES—

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# UNITED STATES PATENT OFFICE

BENJAMIN P. LAMASON, OF MILTON, PENNSYLVANIA.

## IMPROVEMENT IN SAFETY-TRUCKS FOR RAILROAD CARS.

Specification forming part of Letters Patent No. 135,716, dated February 11, 1873.

*To all whom it may concern:*

Be it known that I, BENJAMIN P. LAMASON, of Milton, in the county of Northumberland, in the State of Pennsylvania, have invented a new and Improved Safety-Truck for Railroad Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a longitudinal, vertical, central, sectional elevation; Fig. 2, a plan; Fig. 3, an end elevation; and Fig. 4, a transverse sectional elevation taken at A', Fig. 1.

The object of this invention is to prevent the overturning of cars when their wheels leave the track from any cause; and to this end it consists in securing the pivot-plate, &c., at the end of the truck on beams specially designed therefor, and also of peculiarly-constructed pivoting devices, as will be hereinafter more fully set forth.

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

I construct my car-trucks and bodies after any of the known forms, as shown in Fig. 1. I then apply to them four knees or beams, H H and H' H', being of similar form and arrangement beneath the front and rear trucks, and running longitudinally with the body of the car, and extending equidistantly back and forward from the truck-bolsters C; to said bolsters they are properly secured by means of bolts and the diagonal braces *d d* and *d' d'*, as shown in Fig. 2. These knees or beams are further secured by longitudinal braces *m m* extending down underneath the truck-bolster C, and either end secured to the under side of beams. To the outer ends of beams H and H', and on their top edges, I secure a properly-constructed pivot-plate, seen at *b*, Figs. 1, 2, and 3. This plate *b* contains a circular central recess, with flanges extending upward. A like plate, *a*, is secured to end-sill A, with a circular projection extending downward. When these two plates come in contact they form a substantial pivot, upon which the truck revolves to the extent desired. To the outer ends of beams the draft arrangement is attached. The beams H and H' and plates *a* and *b*, being arranged as described, are secured to the car-body by means of the bolt *o* and hanger *e*—the bolt *o* having its head underneath the bottom pivot-plate *b* and passes up through top-pivot plate *a* and sill A, and

secured by a nut on its top end. The hanger *e* is secured at either end to the end-sill A. It is also further secured and kept in position by means of the iron columns *h h*. These columns are hollow, with bolts passing through them, and are placed on either side of the beams H H and H' H', as seen at Fig. 3, and between the hanger *e* and under side of end-sill A; and the whole is secured by the bolts P P, as shown in same end elevation. The columns *h h* preserve a correct distance between the sill A and hanger *e*, for the proper operation of the beams H H. The inner ends of the beams are securely coupled together by the connecting-rod *c*, as represented in Figs. 1 and 2. Suitable pockets are attached to the inner ends of the said beams; springs *r* are placed in these pockets; and the ends of the coupling-rod *c* pass through them, the projecting ends of said rod being provided with a nut or key to secure it in place and also to give it a bearing against the springs *r*. (See Figs. 1 and 2.)

This arrangement enables the trucks to conform to any curve or circle they may have to pass over, the coupling preserving a uniform and steady pull on the hind truck, whether the car be moving in a straight or curved line.

On the top of the truck-bolster C I place friction-rollers *n*. These are designed as a bearing for the car-body, while at the same time they allow the trucks, when passing over curves, to vibrate under the body.

At Fig. 4 is shown a transverse section cut through at A', Fig. 1; the hanger *f* being similarly constructed and secured as the hanger *e*, Fig. 3. The design is to prevent the inner ends of the beams dropping down in the event of any portion of the truck giving way.

The columns *k* perform a similar office for hangers *f* that columns *h* do for hangers *e*.

What I claim as new, and desire to secure by Letters Patent, is—

The trucks pivoted at their extreme ends to the body of the car, as herein shown by means of the plates *a b*, beams H H', and bolt *o*, all combined and operating substantially as herein described.

BENJAMIN P. LAMASON.

Witnesses:

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