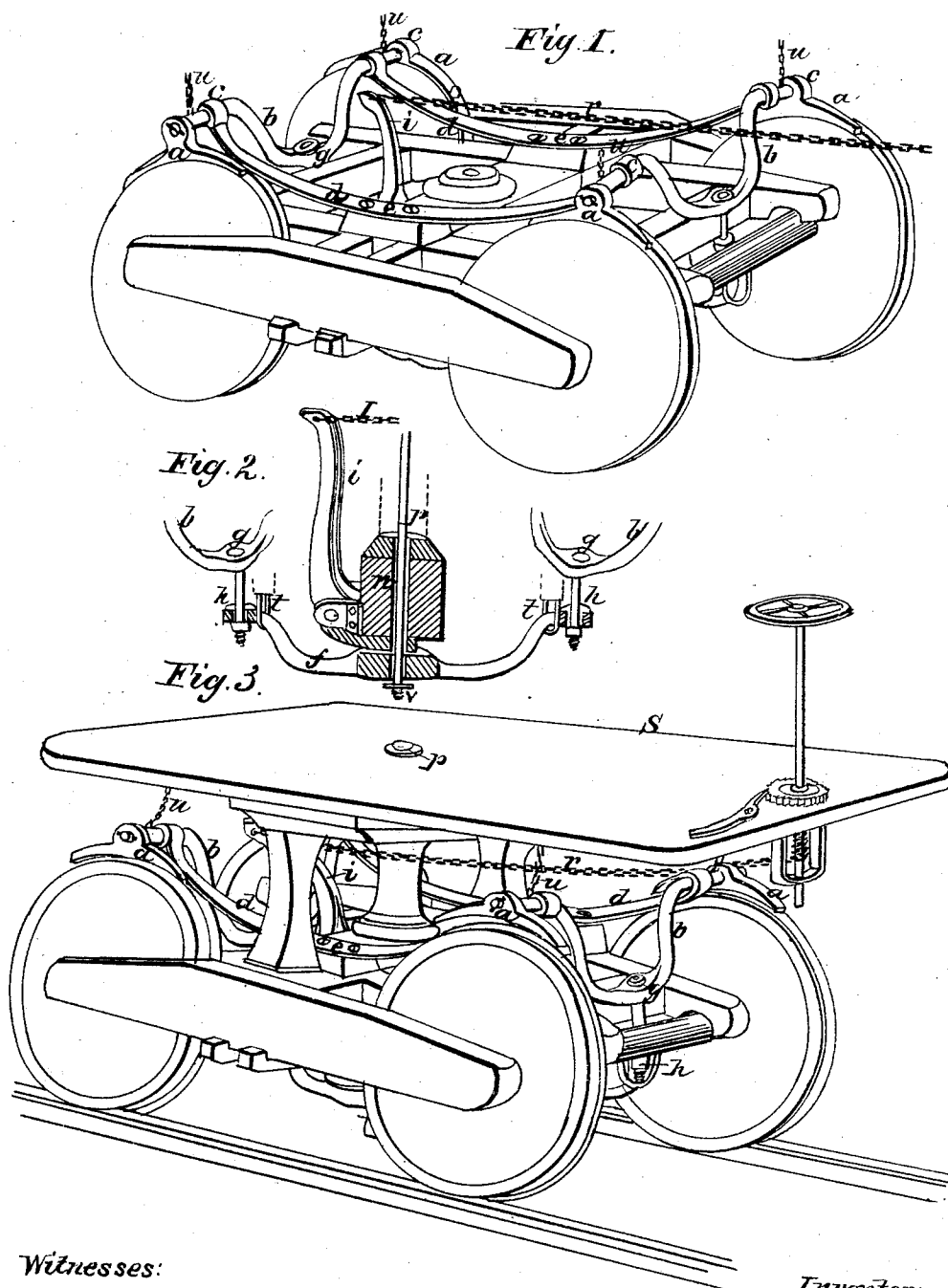


J. JONES.
Car Brake.

No. 36,007.

Patented July 29, 1862.



Witnesses:

Wm. Baker
Lewis Bradley

Inventor:

Joseph Jones

UNITED STATES PATENT OFFICE.

JOSEPH JONES, OF UTICA, NEW YORK.

IMPROVEMENT IN RAILROAD-CAR BRAKES.

Specification forming part of Letters Patent No. 36,007, dated July 29, 1862.

To all whom it may concern:

Be it known that I, JOSEPH JONES, of the city of Utica, in the county of Oneida and State of New York, have invented a new and useful Railroad-Car Brake; and I do hereby declare that the following is a full and exact description thereof, reference being had to the annexed drawings, and to the letters of reference marked thereon.

My brake is of the description usually known as a "top brake," or a brake wherein the rubber is made to operate on the top of the circle of the wheel; and the nature of my invention consists in so constructing the same that the rubbers, when brought into action, are brought square down on the wheel, the whole surface thereof coming in contact with the surface of the wheel at the same time and equally, and my arrangement in other respects is simple, safe, and durable.

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

Figure 1 of the annexed drawings shows a car-truck without a platform, and discloses in their proper positions the main features of my brake. Some of the lower portions lying behind the truck-frame in this figure are shown in Fig. 2 more clearly.

Like letters refer to the same parts in all the drawings.

In Fig. 1 the rubbers are seen upon the tops of the wheels at *a a a a*. They are of the ordinary form, fitting the wheel, and are commonly made of cast iron. They are hung upon the gudgeons on the opposite ends of the bent shafts *b b*, these shafts being hung in proper bearings, *c c c c*, in the ends of the through-springs *d d*, these springs being fastened down at their center to the truck-frame, as seen at *e*. Underneath the truck-frame is a yoke, *f*, Fig. 2, suspended at its opposite ends to the bent shafts *b*, as seen at *g h g h*, Fig. 2. Now, it is evident that if the yoke *f* is depressed at its center, inasmuch as it commands the bent levers *b*, Fig. 1, and they carry all the rubbers, the latter will be brought down uniformly upon the four wheels of the truck. This is done by the use of the ordinary windlass on the outside platform, by which a chain is wound up and operates the cam-lever *i*. This chain and lever *r i* are seen in Fig. 1; but the lever *i* is more

distinctly shown in Fig. 2, where its application to operate the yoke *f* is also seen. This lever has its fulcrum at *m*, Fig. 2, in a metal bearing attached to the central beam, *n*, of the truck. (Shown here in vertical section.) The lever *i* is bent at its fulcrum *m*, and its under surface, being rounded in the form of a cam, lies immediately above the surface of the yoke *f* at its center. The central or king bolt of the truck *p* passes down through the timber *n*; then through a slot in the end of the cam-lever, and through the center of the yoke *f*, the passages in the lever and cam being large enough to allow these agents to operate freely. Here it is clearly seen that by a draft upon the chain *r* the yoke *f* will be depressed, bringing down the bent shafts *b*, and with them the rubbers *a*, upon the wheels.

Fig. 3 is a repetition of Fig. 1, with the platform *S* added and with the windlass *k* connected with the chain *r*, in order to show more clearly the manner of operating the brake.

It often happens that in the use of the brake, and especially those where the rubbers are applied to the sides of the wheels, the rubbers or some of their attachments are broken and get down upon the track and sometimes throw the cars from the track. To prevent this, I have secured the parts of my brake against falling upon the track in case they are broken. For this purpose the yoke *f* at each end passes through the loops or staples *t*, the latter being secured to the truck-frame. The bent shafts *b* are also secured to the body of the car by means of the pendent chains *u*, which take hold of the shaft and are secured to the body of the car above, the loops being large and the chains slackened to allow the free action of these parts. The king-bolt *p*, Fig. 2, also passes loosely through an orifice in the yoke *f*, which with the nut and screw *v*, Fig. 2, on its lower end, secures the yoke and the lever *i* from falling. It results from this arrangement of the brake that if any of the attachments of the yoke above the loop *t* should be broken the brake may still be used for the opposite pair of wheels; also, if it is desired, for any reason, to remove one or more wheels and replace them by others, this may be done without disturbing the brake.

I am aware that brakes have been constructed to operate on the tops of the car-wheels;

but in all cases their arrangement and application are believed to be different from mine, and they are liable to objections which I have, in some measure, overcome. I do not therefore claim, generally, the construction of a top brake; but

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

1. The combination of the through-springs *d* with the bent shafts *b*, connected and operating substantially in the manner and for the purposes herein described.

2. The central yoke, *f*, and its connections with the bent shafts *b*, as described.

3. The central action at *W* by means of the cam and lever *i*, operating on the yoke *f* at a point central to the four wheels of the truck, by means of which all the rubbers are brought down upon the wheels by a simultaneous and perpendicular pressure, the whole being arranged and operating substantially in the manner herein set forth.

JOSEPH JONES.

Witnesses:

WILLIAM BAKER,
DEXTER GILLMORE.