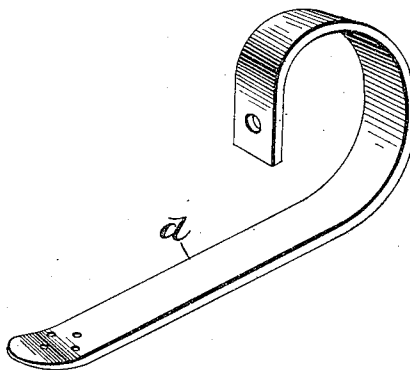
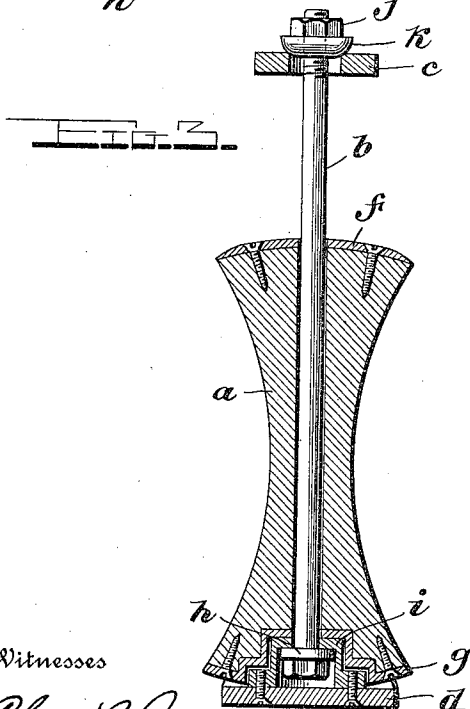
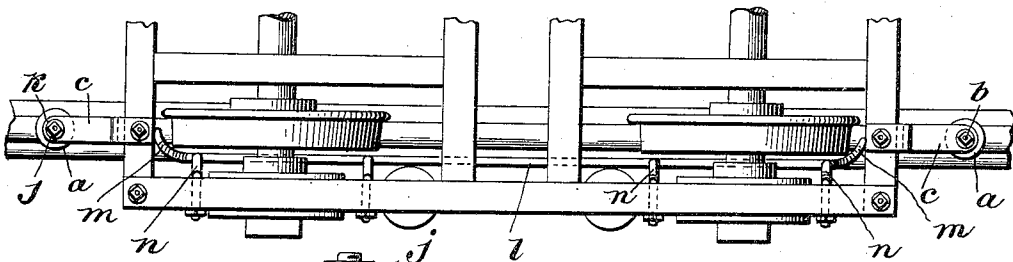
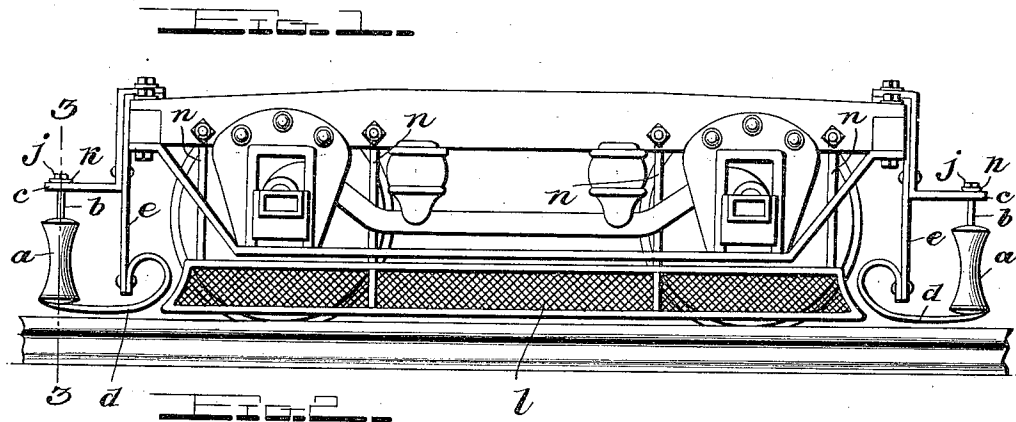


H. H. LAWRENCE.
LIFE GUARD FOR RAILWAY TRUCKS.
APPLICATION FILED MAR. 5, 1913.

1,065,055.

Patented June 17, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

HOMER H. LAWRENCE, OF ST. ALBANS, VERMONT.

LIFE-GUARD FOR RAILWAY-TRUCKS.

1,065,055.

Specification of Letters Patent.

Patented June 17, 1913.

Application filed March 5, 1913. Serial No. 752,167.

To all whom it may concern:

Be it known that I, HOMER H. LAWRENCE, a citizen of the United States, and a resident of St. Albans, county of Franklin, State of Vermont, have invented certain new and useful Improvements in Life-Guards for Railway-Trucks, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a railway truck provided with my attachments; Fig. 2 a plan view of one side of the truck; Fig. 3 a vertical sectional view through the fender roll or spool; and Fig. 4 a detail perspective view of the spring for supporting the roll or spool.

The object of this invention is to provide the truck with simple life guard devices, and the invention consists of certain novel features of construction hereinafter described and claimed.

I mount at each corner of the truck a vertical roll or spool *a* mounted to rotate upon a vertical rod or shaft *b* whose upper end is supported by a bar *c* rigidly projecting forwardly from the end of the truck and whose lower end is attached to the forward end of a spring *d*. The rear end of this spring is rigidly attached to a bar *e* which rigidly depends from the truck at a point a suitable distance behind the rod *b*. The spool rests upon the forward end of the spring *d* and is free not only to rotate upon the rod *b* but to also slide vertically thereon. This spool may be made of any suitable material but I prefer to make it of hard wood. To prevent wear and to strengthen the spool it is shod on its upper end with a metal plate *f* and at its lower end with a metal plate *g*. This spool flares or increases in diameter from its middle toward its upper end and also toward its lower end, giving to it a circumferential dish.

The lower end of the rod *b* is provided with a head *h*, and this head together with a cap *i* affords means for attaching the rod to the upper face of the spring *d*. The upper end of the rod is connected to the supporting bar *c* by means of a nut *j* and a washer *k* whose under side is rounded, thereby providing a sort of ball and socket joint at the upper end of the rod which permits the rod to have a limited swing in

all directions and thus permits the rod to follow the yielding movements of the spring. This connection also permits the rod to move vertically when the spring *d* yields in that direction. The forward end of the spring lies at a short distance above the rail and its forward extremity is curved upwardly runner-like so as to readily ride over disalined rail joints. The spring extends backwardly and curves upwardly to near the truck wheel, this curvature of the spring giving to it a capacity to yield to a limited degree in all directions.

It will be seen that each spool forms a sort of yielding bumper for the adjacent structure and will act to fend or throw off objects with which it may come in contact. The double flaring of the spool tends to prevent objects which are struck from riding off the upper end or the lower end of the spool and in that manner tends to prevent the struck objects from coming in contact with any of the stationary structure above the spool or getting under the wheels of the truck. The capacity of the spool to rotate and to slide upwardly tends to assist in throwing off struck objects and preventing them coming into contact with the rigid adjacent parts, as is evident.

To guard the space between the spools along the side of the truck I provide a long guard frame *l* which extends along the side of the truck, close to the rail and terminates just behind the curved rear ends of the springs. This guard is supported close to the outer faces of the wheels, in a vertical plane lying between the wheels and the journal boxes, and the respective ends of this guard are curved inwardly at *m* so as to terminate at a point behind the springs, thus closing the space that would otherwise exist between each end of the guard and each adjacent spring. This guard is constructed in any suitable manner and is rigidly supported from the truck frame by means of depending rods *n*.

It will be understood that I reserve the right to vary the detail construction of my guard device in order to adapt it to the various types of trucks, both passenger and freight.

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

The combination with a truck of a fender

or life guard device consisting of a dished
spool and means for yieldingly supporting
the same in a vertical position in front of
the truck wheel, said means consisting of a
5 spring supporting the lower end of the
spool, a rod on which the spool is journaled
for free rotation and for a free sliding ac-
tion, and a device at the upper end of the

rod for suspending the rod and allowing it
to yield in all directions. 10

In testimony whereof I hereunto affix my
signature in the presence of two witnesses.

HOMER H. LAWRENCE.

Witnesses:

M. H. ALEXANDER,

F. W. NORRIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
