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WILLIAM T. DOLE.

Improvement in mode of Coupling Carriages.

No. 122,235.

Patented Dec. 26, 1871.

Fig. 1.

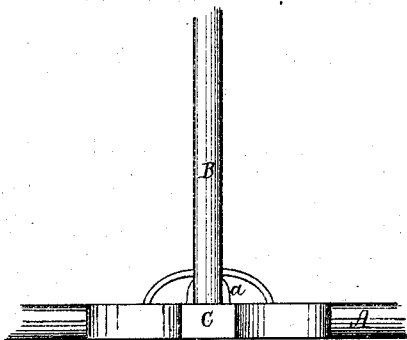


Fig. 4.

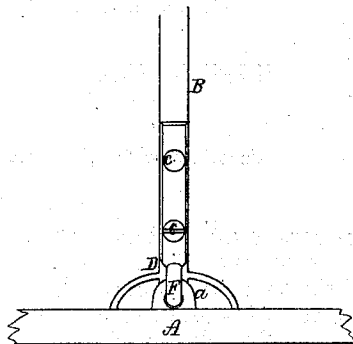


Fig. 2.

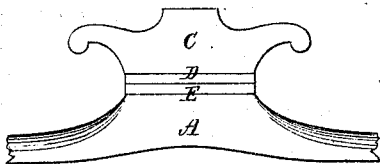


Fig. 3.

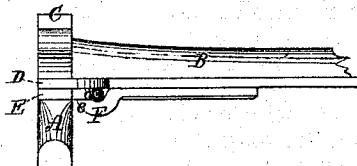


Fig. 6.

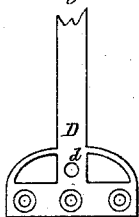


Fig. 7.

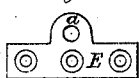
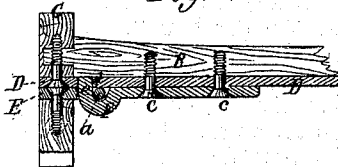


Fig. 5.



Witnesses:

S. N. Piper

L. N. Moller

William T. Dole.

by his attorney.

R. H. Eury

UNITED STATES PATENT OFFICE.

WILLIAM T. DOLE, OF PEABODY, MASSACHUSETTS.

IMPROVEMENT IN MODE OF COUPLING CARRIAGES.

Specification forming part of Letters Patent No. 122,235, dated December 26, 1871.

To all persons to whom these presents may come:

Be it known that I, WILLIAM T. DOLE, of Peabody, of the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Vehicles or Wheel-Carriages; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a top view; Fig. 2, a front view; Fig. 3, a side elevation; Fig. 4, an under-side view; and Fig. 5, a longitudinal section of the axle and perch of a carriage or wagon as connected by or provided with my improvement.

The principal object of my invention is to dispense with the "transom-bolt" or "king-bolt," as usually employed in connecting the axle and body or perch-head of a wagon or wheel-carriage. The bolt, by being extended down through the front axle or axle-tree, becomes generally out of sight, and may be dangerously worn or injured without such being easily discoverable. The bolt also, when the tongue or the shafts are tenoned into the axle or fixed to it so as to be movable with it in all its movements, is liable to be strained or bent by the leverage of the shafts or tongue, due to any vertical movement of either. With my improvement the connection of the axle to the perch is such as to readily admit of the tongue or shafts dropping down into an inclined position, the axle moving at the same time in correspondence with the movement of the shafts or tongue.

In the drawing, the main part of an axle is shown at A, the perch at B, and its head at C. To the lower sides of the perch and its head there is fixed a metallic T or bearing-plate, D, formed as shown in under-side view in Fig. 6; and there is also fixed to the top of the axle another bearing-plate, E, provided with a perforated projection or eye, *a*, the same being as shown in top view in Fig. 7. A hook, F, formed as shown, goes through the said eye, and is arranged with it and the upper bearing-plate in manner as represented, the hook being fastened to the perch

and shank *b* of the bearing-plate by bolts or screws *c c*, extended through the two shanks or through or into the perch. A staple, to pass up through the shank of the upper bearing-plate, may sometimes be substituted for the shanked hook, whose point, for the purpose of relieving the fastenings of the hook-shank from strains, I insert in a hole, *d*, made in the upper bearing-plate shank, the same being as shown in Fig. 5. The front part *e* of the hook I usually form semicircular or thereabout, as shown, and circular in transverse section, in order that the axle may not only turn horizontally, but readily tip down or incline with the tongue or the shafts when such may fall into an inclined position below their general or horizontal plane.

From the above it will be seen that, with my invention, the main parts of the connection of the axle and perch are in plain sight, or so exposed as to be easily accessible for examination or being oiled; also that the connection is very much stronger than the ordinary transom-bolt or king-bolt, and not, like it, liable to be strained, bent, or broken by leverage due to the dropping of the shafts or tongue; also that the axle may be separated from the carriage-body or perch without the necessity of first raising the latter. When it is considered how many accidents both to life and limb, as well as how much destruction of or damage to carriages, have resulted and are liable to occur from the breakage of the transom-bolt, the great value, utility, and importance of my invention can scarcely fail to be apparent.

I claim—

The new or improved axle-connection, substantially as described, composed of the parts D, E, and F, arranged, constructed, and combined essentially in manner, and applied to or for application to an axle and carriage-body or perch, as set forth.

WILLIAM T. DOLE.

Witnesses:

R. H. EDDY,
J. R. SNOW.

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