



# UNITED STATES PATENT OFFICE.

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## GUN-CARRIAGE OR LIMBER OR AMMUNITION-CAR.

SPECIFICATION forming part of Letters Patent No. 748,351, dated December 29, 1903.

Application filed March 7, 1903. Serial No. 146,753. (No model.)

To all whom it may concern:

Be it known that we, ARTHUR TREVOR DAWSON, lieutenant of the Royal Navy, director and superintendent of Ordnance Works, and GEORGE THOMAS BUCKHAM, engineer, both subjects of the King of Great Britain, residing at 32 Victoria street, Westminster, in the county of London, England, have invented certain new and useful Improvements Relating to Gun-Carriages and Limbers or Ammunition-Cars, of which the following is a specification.

This invention has reference to gun-carriages and limbers or ammunition-cars, and our improvements are more especially, although not exclusively, applicable to light galloping carriages and limbers for "Pom-poms," "Maxims," or other machine-guns.

The chief object of the invention is to provide means whereby the equipment—*i. e.*, the gun-carriage and limbers—can be easily taken to pieces to form suitable loads for transport by either man or beast and can therefore be taken through difficult country and placed in positions which would be impracticable for ordinary wheeled carriages or limbers.

In order that our invention may be clearly understood and readily carried into effect, we will describe the same with reference to the accompanying drawings, in which—

Figure 1 is a plan of a light galloping carriage constructed in accordance with our invention for a Maxim R. C. gun. Figs. 2 and 2<sup>a</sup> are views of the splinter-bar in its folded position. Figs. 3 and 3<sup>a</sup> are a side elevation and a plan of the carriage-frame; and Figs. 4 and 4<sup>a</sup> represent the two parts of the draft-pole in their connected and disconnected conditions, respectively.

In all the figures like letters of reference indicate similar parts.

B is the main frame. C is the axle, and C' C' are the wheels. D is the splinter-bar. E is the draft-pole. The said main frame B, Figs. 3 and 3<sup>a</sup>, is composed of two steel girders *b b*, which are in plan view partly parallel, but converge at their rear end, where they are connected with a socket *b'* to receive the draft-pole E. The said girders *b* are held together by distance-pieces *b<sup>x</sup>*, and the under

side of said frame has jaws *b<sup>2</sup>*, which fit over bearings *c*, formed on the axle C, and which are secured to the same by hinged bars *b<sup>2</sup>*, held in place by cotters *b<sup>4</sup>* or other suitable means. The said axle is also provided with the usual spigot ends to receive the carriage-wheels, which are of ordinary construction. The draft-pole E is of wood protected by leather and copper bands *e* and *e<sup>1</sup>*, Figs. 4 and 4<sup>a</sup>, and it is made in two parts for easy transport. One of said parts is provided with a socket *e'*, and the other part is provided with a spigot *e<sup>2</sup>*, and both of these parts are made with transverse openings for the reception of a cotter *e<sup>3</sup>*, by which they are held together. The end *e<sup>1</sup>* of said pole is made to fit the socket *b'* on the frame B. Attached to the rear end of the said girders *b b* is a guide-bracket *b<sup>3</sup>*, to which the splinter-bar D is fixed by means of a clip or jaw *d* on the splinter-bar and cotters *d<sup>x</sup>* or the like. The said splinter-bar is made of angle-steel and is furnished at its ends with hinged side stays *d' d'*, which in Figs. 2 and 2<sup>a</sup> are shown in their folded condition. The axle C is of a circular cross-section and is provided in addition to the said bearings *c c* with other bearings *c' c'* for the reception of clips or jaws *d<sup>2</sup> d<sup>2</sup>* on the hinged side stays *d'* of the splinter-bar. These clips or jaws *d<sup>2</sup>* have hinged plates *d<sup>3</sup>* for securing them to the axle, said plates being held in their securing position by bolts or cotters *d<sup>4</sup>*. The said frame B is also provided with hinged distance-pieces *b<sup>5</sup> b<sup>5</sup>*, which when opened or extended engage with the side stays *d'* of the splinter-bar, to which they may be connected by pins or cotters, and thereby aid in imparting rigidity to the structure. At the end of the frame immediately under the draft-pole is a stay or prop *b<sup>7</sup>*, which supports the carriage during firing, said stay or prop being temporarily secured in this position by a pin engaging with a hole *b<sup>8</sup>* in the socket *b'* of the frame B and a corresponding hole *b<sup>9</sup>* in a lug on the prop. The said stay or prop is connected to the frame by a hinged bolt or pin *b<sup>10</sup>* and can be housed between the girders by a chain during transport of the carriage.

The various cotters and pins employed for securing the separable parts together are con-

nected to said parts by chains, so as to prevent their becoming mislaid or lost.

When our invention is applied to a separable galloping ammunition-car or limber, the space occupied by the gun is utilized to carry a row of cartridge-boxes.

What we claim, and desire to secure by Letters Patent of the United States, is—

1. In a gun-carriage or ammunition-car, the combination with the wheel-axle, of a detachable frame having a socket for the draft-pole and a hinged prop, a splinter-bar having hinged lateral members, means for detachably connecting said frame to the wheel-axle, and means for detachably connecting said splinter-bar to said wheel-axle and to the said frame substantially as and for the purpose specified.

2. In a gun-carriage or ammunition-car, the combination with the wheel-axle having bearings, of a detachable frame having a socket for the draft-pole and a hinged prop, jaws on said frame adapted to engage with two of the bearings of the wheel-axle, hinged bars on

said jaws, means for locking the same to the bearings, a guide-bracket on said frame to receive a jaw on the splinter-bar, means for locking said jaw to said guide-bracket, hinged side stays on the splinter-bar adapted to engage with the two other bearings on the wheel-axle and hinged distance-pieces on said frame for retaining said stays in their open or extended position substantially as described.

3. In a gun-carriage or ammunition-car, the combination with the main frame having a socket, of a draft-pole made in two lengths which are capable of ready attachment or detachment substantially as and for the purpose specified.

In testimony whereof we have hereunto set our hands, in presence of two subscribing witnesses, this 25th day of February, 1903.

ARTHUR TREVOR DAWSON.  
GEORGE THOMAS BUCKHAM.

Witnesses:

HENRY KING,  
ALFRED PEAKS.