

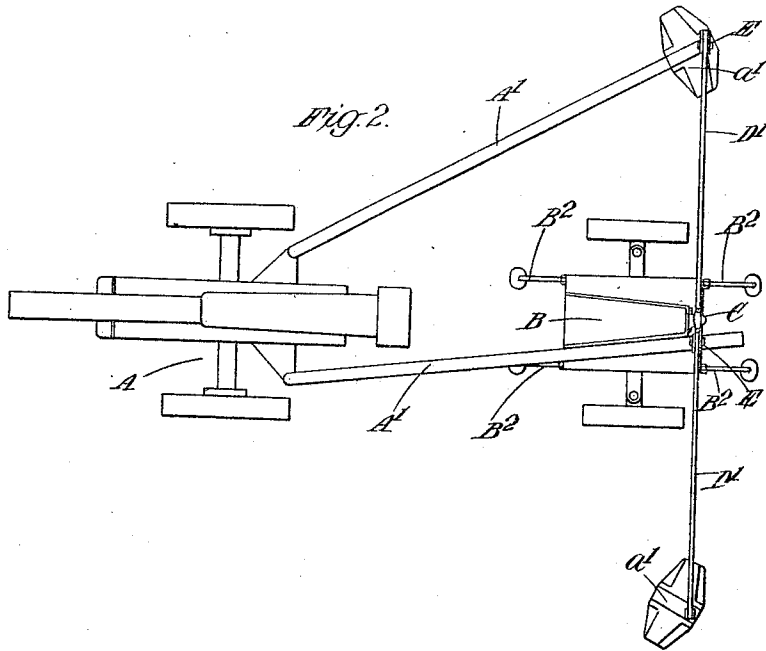
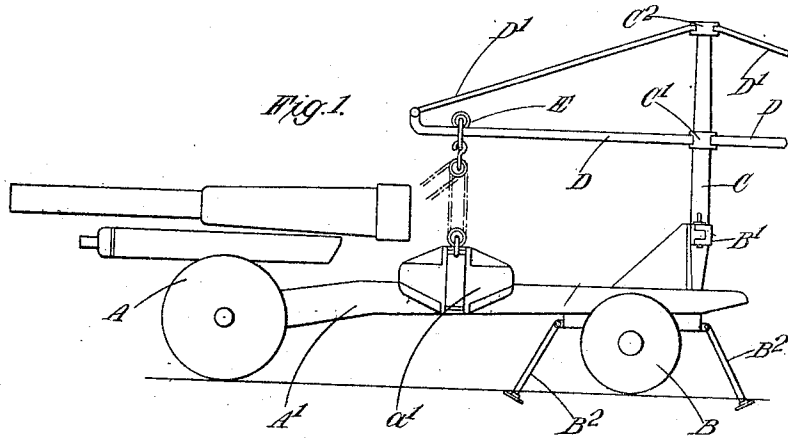
April 13, 1926.

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1,580,652

GUN CARRIAGE

Filed April 17, 1925



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UNITED STATES PATENT OFFICE.

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GUN CARRIAGE.

Application filed April 17, 1925. Serial No. 23,821.

To all whom it may concern:

Be it known that we, Sir ARTHUR TREVOR DAWSON, bart., and Sir GEORGE THOMAS BUCKHAM, knight, both subjects of the King of Great Britain, residing at Vickers House, Broadway, Westminster, in the county of London, England, have invented certain new and useful Improvements in or Relating to Gun Carriages, of which the following is a specification.

This invention relates to travelling or fore carriages upon which the trails of heavy field gun carriages are supported to facilitate transportation of the gun carriages from one position to another.

According to the invention the fore carriage is provided with a dismountable crane for lifting the rear end of the trail to place it in position on the fore carriage and to remove it therefrom when required. This crane preferably has a system of sheaves and chains arranged to travel upon a rail or guide member projecting horizontally from a vertical pillar detachably mounted in a socket on the fore carriage preferably near the front thereof. The said horizontal rail is preferably connected by a detachable tie rod to an upward extension of the pillar and the fore carriage is stayed, when the crane is in use, by pivoted stay members or sprags bearing upon the ground. The said crane is also used for lifting the detachable spade member or bracket from the ground and placing it in its travelling position and conversely for lifting the spade member or bracket from its travelling position and placing it in the desired position on the ground. It will be understood that suitable provision is made for permitting the crane to be swung, for example by pivoting the inner ends of the horizontal rail and tie rod to brackets on the vertical pillar. In the case of a gun carriage having a divided trail, i. e. a trail composed of two longitudinal members or legs which are brought together for travelling and are spread apart for firing as is well understood, the above described arrangement of sheaves and chains, horizontal rail and tie rod may be duplicated so that there would be two rails extending in opposite directions from the vertical pillar, each rail supporting its own system of sheaves and chains for lifting the respective trail legs and their detachable spade members or brackets.

In order that the said invention may be clearly understood and readily carried into effect, the same will now be described more fully with reference to the accompanying drawings, in which:—

Figure 1 is a side elevation showing diagrammatically a form of the invention for use with a gun carriage having a divided trail, both legs of the trail being on the fore carriage and the crane being in position for removing one of the spade members from its travelling position, and

Figure 2 is a plan showing one leg of the trail in position on the fore carriage and the other resting on the ground.

A represents the gun carriage having a divided trail composed of the usual hinged legs A^1, A^1 with detachable spade members or brackets a^1, a^1 . B represents the fore carriage upon which the legs A^1, A^1 rest for travelling and to which the said legs are detachably connected in any suitable manner. Near the front of the fore carriage B is a socket B^1 in which is detachably mounted a vertical pillar C. This pillar has a bracket C^1 to which two horizontal rails D, D are independently pivoted and also has another bracket C^2 to which two tie-rods D^1, D^1 for the rails D, D are independently pivoted. The pivotal connections are of such a character that the said rails and tie-rods can readily be removed from the brackets C^1 and C^2 . The said guide rails carry the two systems of sheaves and chains E, E. The fore carriage has stay members or sprags B^2 pivoted thereto for supporting the said fore carriage when the crane constituted by the pillar C, rails D, D, tie-rods D^1, D^1 and sheaves and chains E, E, is in use.

In the travelling condition of the fore carriage, the pillar C, the rails D, D and the tie-rods are removed from the position shown and these parts, together with the sheaves and chains E, E are packed in a suitable place on the fore carriage whilst the spade brackets a^1, a^1 are detachably carried by the trail legs A^1, A^1 at a suitable position between their ends, the said brackets having lips which rest on the tops of the trail legs and being held against the sides of the legs by means of clamps or studs. The sprags B^2, B^2 are also folded up and rest on the fore carriage. When the gun carriage and the fore carriage have reached

the desired position, the sprags B², B² are swung down into their supporting position, the pillar C is placed in its socket B¹ and the rails D, D and the tie-rods D¹, D¹ are pivotally connected to the brackets C¹, C² with the sheaves and chains E, E in position on the rails. The rails are then swung into the required position for the lower sheaves to be hooked to the spade brackets a¹, a¹ which are then lifted and swung and travelled into position for lowering on the ground in the required position to receive the ends of the trail legs. The trail legs are then lifted off the fore carriage by the sheaves and chains and are then swung into position and lowered on to the spade brackets. The reverse procedure is adopted when the gun carriage is to be moved to a new position.

It will be understood that a fore carriage in accordance with this invention for dealing with a gun having a single-piece trail need have only one of the rails and tie-rods and only one system of sheaves and chains, but otherwise the construction of the crane would be as described above.

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

1. A travelling or fore-carriage for supporting the trail of a heavy field gun carriage, means on said carriage for lifting the rear end of the trail from a position on the ground outside of the wheels of the fore-carriage, and means for co-operating with said lifting means whereby the trail may be

moved laterally to its position of travel on the fore-carriage.

2. A travelling or fore carriage for supporting the trail of a heavy field gun carriage, wherein the said fore carriage is provided with a crane comprising a pillar, a guide member projecting laterally from said pillar and a lifting device arranged to travel on said guide member, said lifting device serving to lift the rear end of the trail from the ground and move it laterally into position upon the fore carriage and also to lift the rear end of the trail from the fore carriage, move it laterally and lower it into position on the ground.

3. In a travelling or fore carriage for supporting the trails of heavy field gun carriages, the combination with the elements claimed in claim 2, of a socket on the fore carriage for removably receiving the pillar.

4. A travelling or fore carriage in accordance with claim 2, wherein the horizontal rail is connected by a detachable tie-rod to an upward extension of the pillar.

5. A travelling or fore carriage in accordance with claim 2, provided with pivoted stay members or sprags which, when the crane is in use, bear upon the ground.

6. A travelling or fore carriage in accordance with claim 2, for use with a gun carriage having a divided trail, wherein two horizontal rails, tie-rods and systems of sheaves and chains are provided.

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