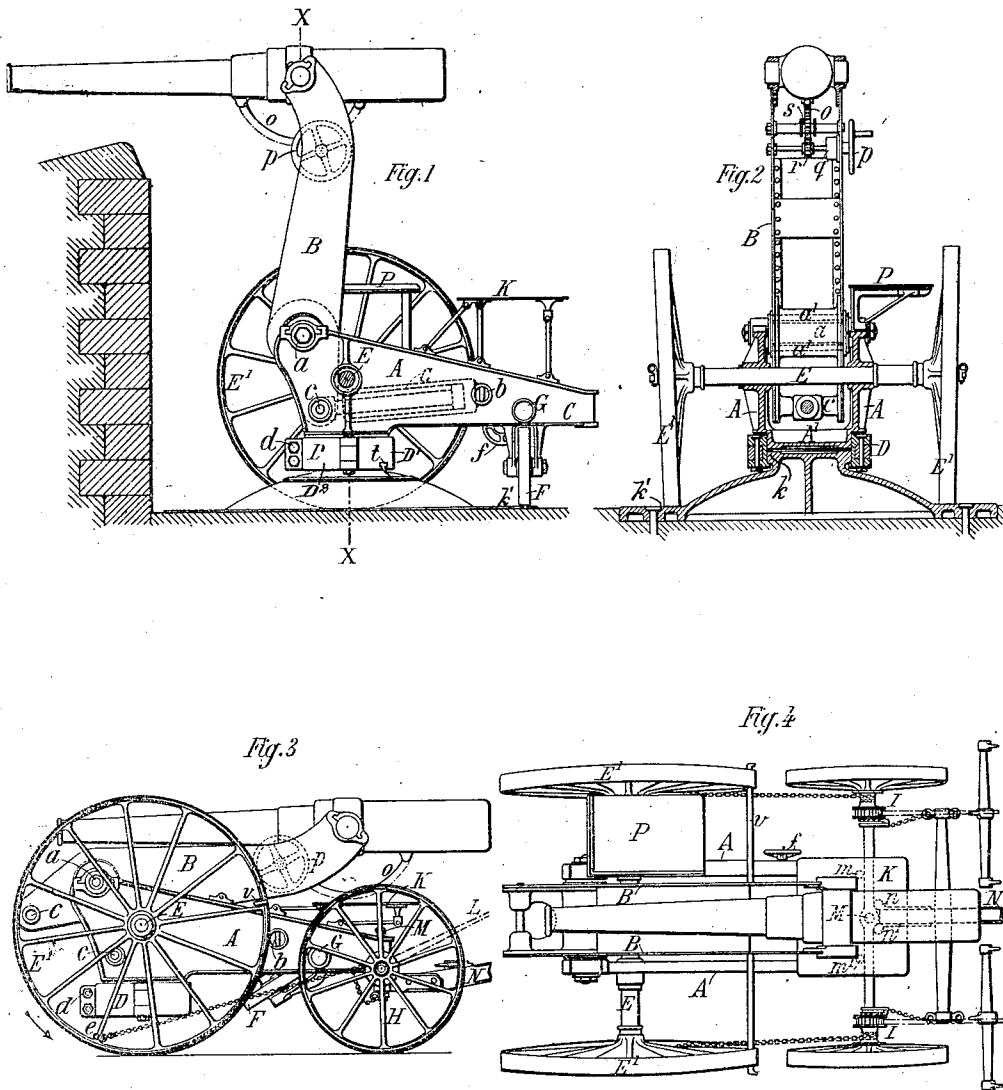


(No Model.)

J. B. G. A. CANET.
GUN CARRIAGE OR MOUNTING.

No. 503,072.

Patented Aug. 8, 1893.



Witnesses:-

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UNITED STATES PATENT OFFICE.

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GUN CARRIAGE OR MOUNTING.

SPECIFICATION forming part of Letters Patent No. 503,072, dated August 8, 1893.

Application filed July 13, 1892. Serial No. 439,896. (No model.) Patented in France October 17, 1889, No. 201,386, and in England January 6, 1890, No. 214.

To all whom it may concern:

Be it known that I, JEAN BAPTISTE GUSTAVE ADOLPHE CANET, engineer, a citizen of the Republic of France, and a resident of Paris, France, have invented certain new and useful Improvements in and Relating to Gun Carriages or Mountings, (for which I have obtained patents in Great Britain, No. 214, dated January 6, 1890, and in France, No. 201,386, dated October 17, 1889,) of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to gun carriages or mountings and consists chiefly in improvements designed to provide a gun mounting which can be readily pivoted upon the platform or floor of a turret or the like or can be placed on wheels for use in the field and which is constructed in such a manner as to insure its easy portability without sacrifice of its strength.

The said invention is chiefly designed for use in connection with a disappearing gun. For this purpose I construct the carriage or mounting with two light but strong side frames or cheeks united by suitable transoms. The upper forward portion of this frame is provided with bearings for the fulcrum pin of a pair of beams or arms joined together to form one beam or arm in the upper extremity of which the gun is mounted by its trunnions. The other extremity of the said beam is connected to a hydraulic press or brake carried by the framing.

The said invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the mounting pivoted on a platform, and the gun in firing position. Fig. 2 is a transverse section on the line xx Fig. 1. Fig. 3 is an elevation, and Fig. 4 a plan, showing the gun and mounting adjusted for traveling on wheels.

Like letters indicate the same parts throughout the drawings.

A is the framing.

A' is the part by which it is connected with the pivot k of the platform.

B is the beam which carries the gun.

C is the hydraulic press or brake. The ful-

crum pin a of the beam B is provided with a sleeve a' of india-rubber or other suitable material to minimize the effects of percussion. The beam at its lower end has a stud or pin c to which is connected the head of the piston rod of the hydraulic brake. The brake cylinder oscillates about the axis b which is secured to the frame A.

For connecting the carriage with the pivot of the platform the framing has the coupling D secured to a cylindrical projection A on its lower forward part. This coupling is formed with a fixed portion D and two other portions D² hinged to the fixed portion so that they can open and close and when the carriage is mounted on the pivot k these hinged portions are closed around the same and secured by bolts d as shown in Fig. 1.

A shaft or axle E extends across the frame, and on it are mounted two wheels E' which run on a circular racer path k' provided on the base of the pivot pin k as shown or bed plate or on the battery floor to facilitate the training of the gun. The axis of this shaft is in the same plane as the vertical axis of the aforesaid pivot.

At the rear of the frame is a roller F, supported in a bracket which is pivoted at G to the framing. When the mounting is adjusted on the pivot for firing, the roller F occupies the position shown in Fig. 1, and bears on the racer path k' . But for traveling or for firing on wheels the said roller is adjusted to the position shown in Fig. 3. Its adjustment is effected by a screw and hand wheel f or by other suitable means. Upon the framing is a loading platform K, supported upon articulated rods which allow it to be folded down upon the frame when necessary for transport or otherwise.

The fore carriage H has a shaft carrying two road wheels and the winding drums I for effecting in the manner hereinafter described the elevation of the beam B with the gun from the position shown in Fig. 3 to the firing position. The said fore carriage is attached to the framing by the main bolt M. The pole N carrying the single-trees is fixed to the axle of the fore-carriage by two pins n, n' . The

drums I in the present instance are loose on the shaft of the fore-carriage, and are provided with ratchet teeth with which pawls provided on the said shaft engage, and with sockets for the reception of the ends of the levers hereinafter referred to.

The raising of the beam B to the firing position is effected in the following manner, that is to say: The bolt *c* which connects the beam to the hydraulic brake should be removed and the carriage should be placed in a position in which the wheels *E'* turn freely. A bar *v* with spur ends is passed under the beam across the frame so that it engages with the spokes of the wheels *E'* as shown in Figs. 3 and 4. These wheels are connected at *e* by means of ropes or chains to the winches or drums I. The said winches are operated by levers *L* to turn the wheels *E'* upon their axles and these wheels in turning in the direction of the arrow carry the bar *v* and the beam B with them and raise the beam with the gun. In the reverse operation the gun descends by its weight, forcing the wheels *E'* round, and the regulation of the unwinding of the ropes of the winches serves to check or control its descent.

The vertical elevation of the gun about its trunnions is effected by means of the sector *o* attached to the gun, and operated by the hand wheel *p*, through the intermediary of power gearing *q* contained in the case and a pinion *r* mounted upon a friction cone. The sector is guided in its movement by a roller *s*. By the same means the gun is caused to turn to the traveling position (Fig. 3) the toothed sector being made of sufficient length for this purpose. The lateral adjustment or training of the gun is effected by pushing at the rear of the frame. A pointer *t* is secured to the coupling D to indicate upon a graduated circle provided upon the base of the pivot pin *k* the angle through which the gun is displaced in training. When the gun is to be fired on wheels the wheels are chocked. Then the pole N is withdrawn by removing the fixing pins *n, n'* and the axle of the fore-carriage is made rigid to the frame by pins *m, m'*. In the firing of the gun either on a pivot or on wheels the force of the recoil and percussion of the gun will be absorbed by the hydraulic brake C and the india-rubber or other elastic material at the fulcrum of the beam. The chocks under the wheels only serve to prevent the whole system from recoiling along the ground.

It will be readily understood that the parts above described may be varied in form and dimensions and in other respects which do not materially change the nature or effect of my improvements.

What I claim is—

1. In a gun-mounting, the combination of the frame A, the axle E, the wheels *E'*, the

coupling comprising the attachment D' secured to the said frame, the portions D² hinged to the said attachment and the bolts *d* by which the free ends of the said portions D² are secured together, and a fixed pivot *k* adapted to fit the said coupling, substantially as described.

2. In a gun-mounting, the combination of the frame A, the axle E, the wheels *E'*, the coupling comprising the attachment D' secured to the said frame, the portions D² hinged to the said attachment and the bolts *d* by which the free ends of the said portions D² are secured together, a fixed pivot *k* adapted to fit the said coupling and provided with a racer path *k'* concentric with the pivot, substantially as set forth.

3. In a gun-mounting, the combination of the frame A, the wheels *E'*, the coupling comprising the parts D' and D² having flanges at their lower edges, the bolts *d* by which the parts D² are secured together, and a fixed flanged pivot *k* adapted to be engaged by the said coupling substantially as described.

4. In a gun-mounting, the combination of the frame A, the wheels *E'*, the coupling D, the fixed pivot *k* adapted to engage said coupling, the racer path *k'* and the roller F carried in bearings which are hinged to the frame A and adapted when lowered to roll on said racer path, substantially as described.

5. The combination of the frame A, the wheels *E'*, the rotary drums I and their ratchet gear upon the axle of the fore-carriage, and ropes or chains secured to the drums I and temporarily connected to the wheels *E'*, substantially as hereinbefore described for the purpose specified.

6. The combination of the frame A, beam B, wheels *E'*, drums I and their ratchet gear upon the axle of the fore-carriage, and ropes or chains secured to the drums I and temporarily connected to the wheels *E'*, and the bar *v* engaging the spokes of the wheels and the beam B, substantially as hereinbefore described for the purpose specified.

7. The combination of the frame A, beam B, wheels *E'*, drums I and their ratchet gear upon the axle of the fore-carriage of the frame A, ropes or chains secured to the drums I and temporarily connected to the wheels *E'*, the bar *v* engaging the spokes of the wheels *E'* and the beam B and a gun trunnioned upon the beam B, substantially as hereinbefore described with reference to the drawings for the purpose specified.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JEAN BAPTISTE GUSTAVE ADOLPHE CANET.

Witnesses:

ROBT. M. HOOPER,
J. CHATEL.