

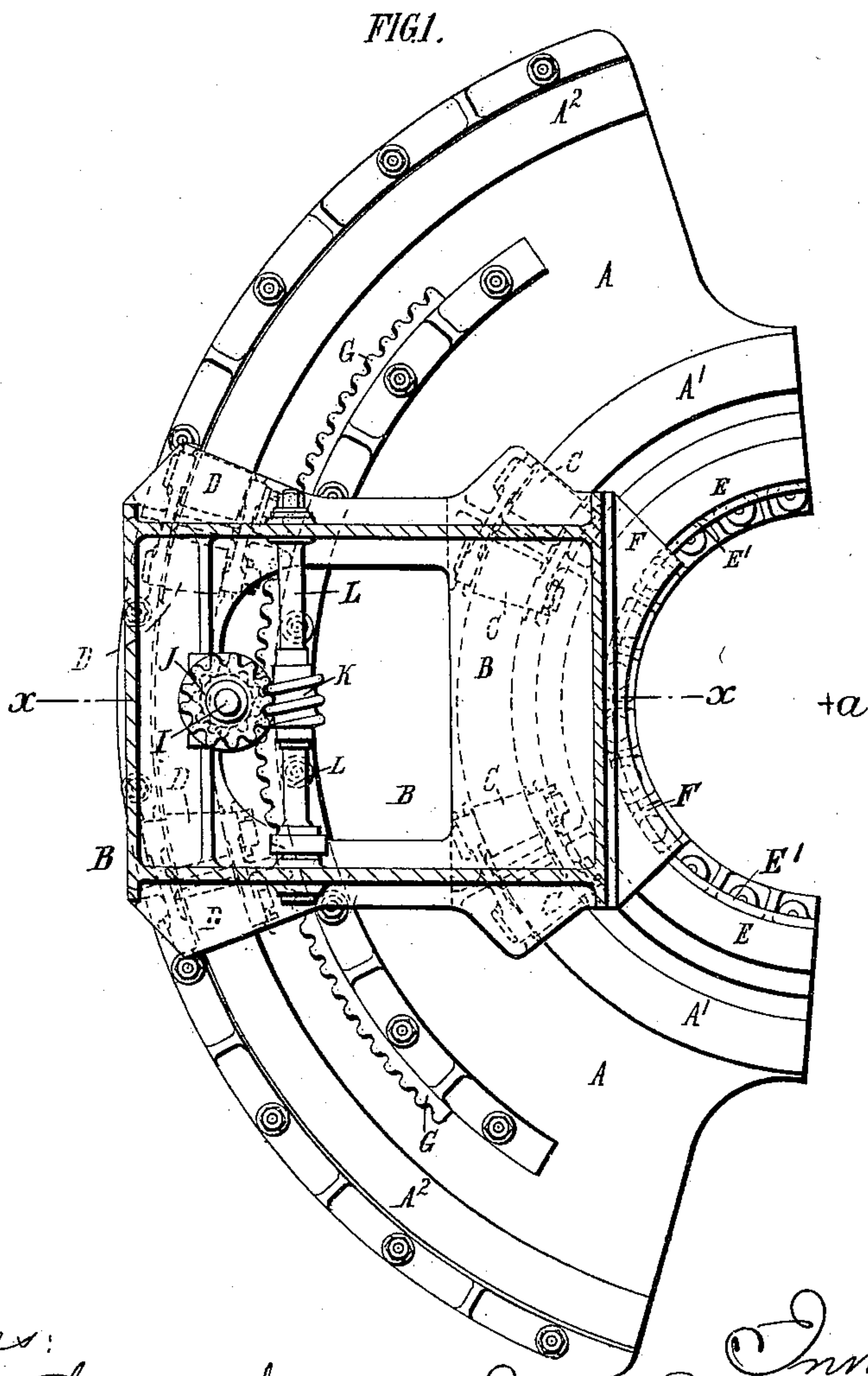
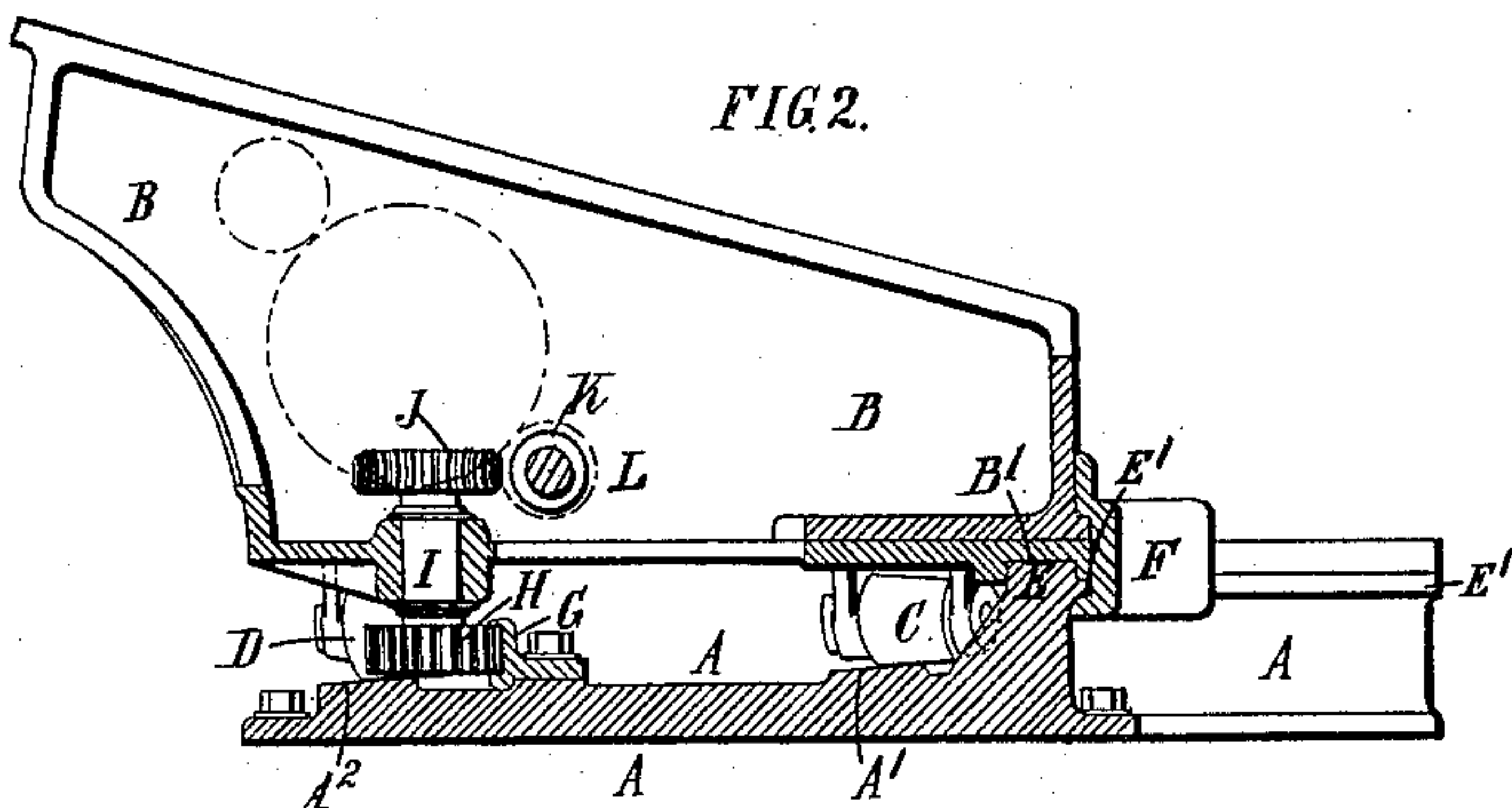
(No Model.)

2 Sheets—Sheet 1.

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

No. 467,855.

Patented Jan. 26, 1892.



Witnesses:
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Inventor:
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Fig. 3

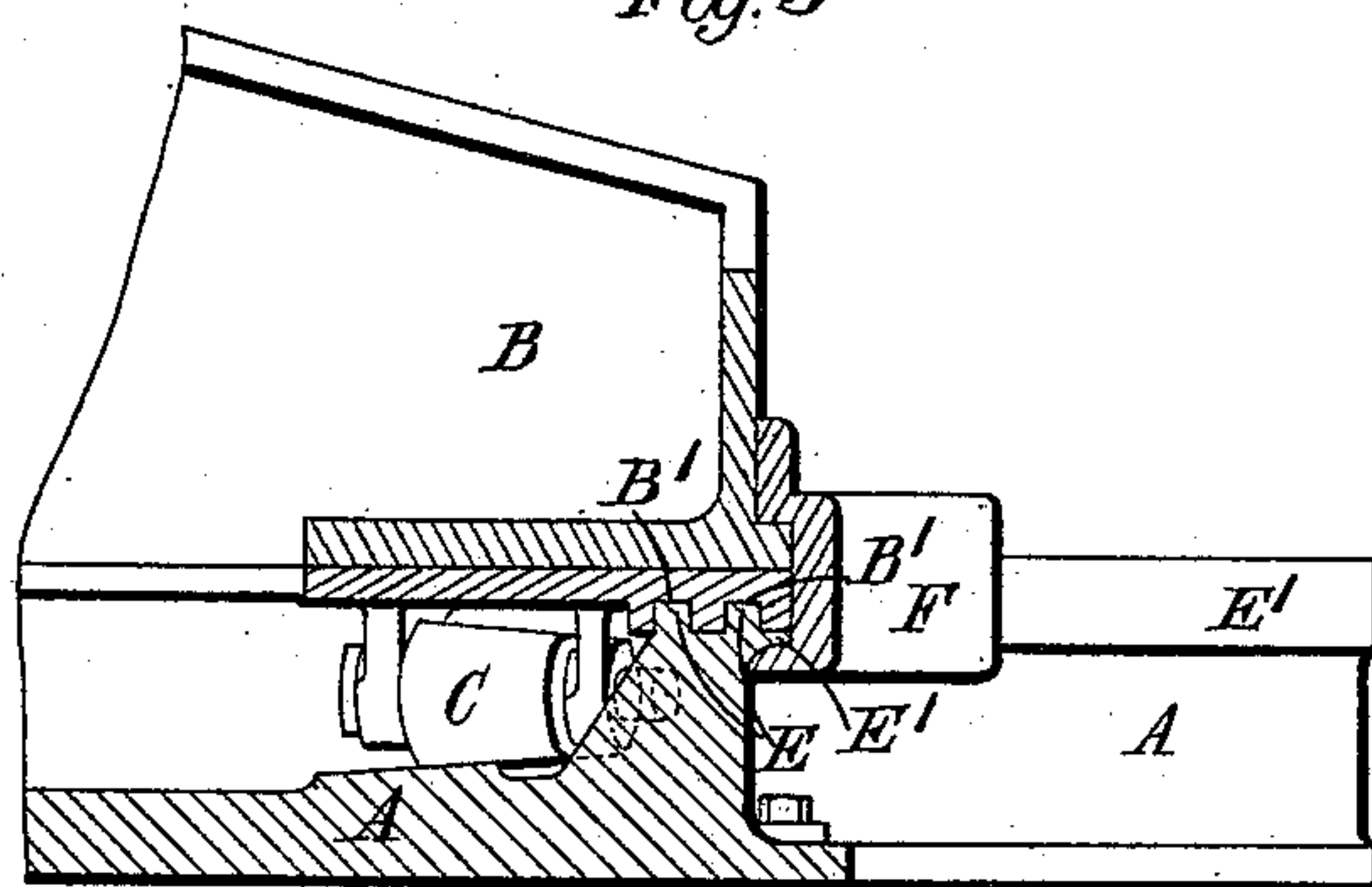
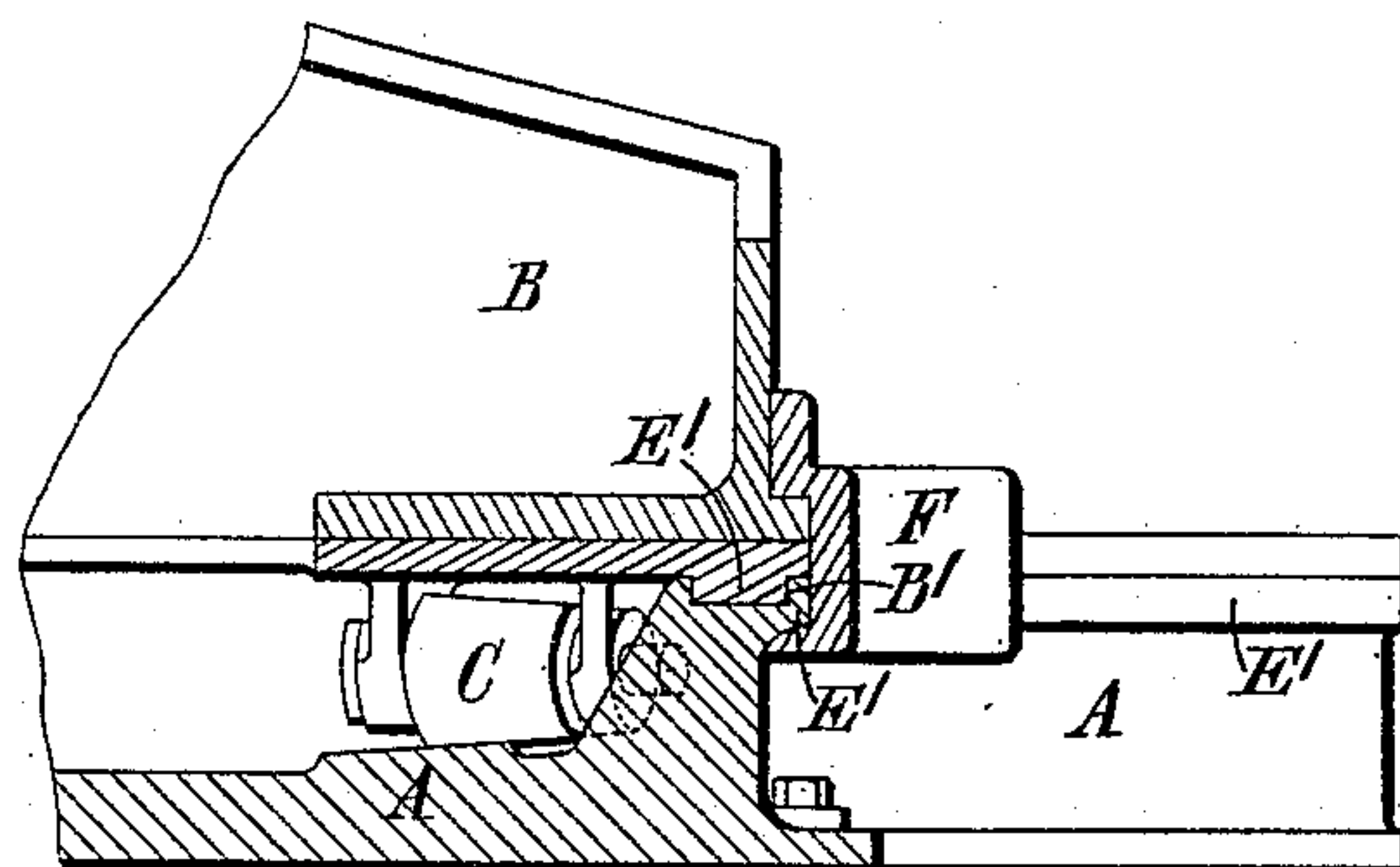


Fig. 4.



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UNITED STATES PATENT OFFICE.

JEAN BAPTISTE GUSTAVE ADOLPHE CANET, OF PARIS, FRANCE, ASSIGNOR
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GUN CARRIAGE OR MOUNTING.

SPECIFICATION forming part of Letters Patent No. 467,855, dated January 26, 1892.

Application filed April 15, 1891. Serial No. 389,046. (No model.) Patented in France March 16, 1886, No. 174,807, and in England July 9, 1887, No. 9,687.

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 the following countries, viz: in Great Britain, No. 9,687, dated July 9, 1887, and in France, No. 174,807, dated March 16, 1886, which invention was formerly included in my application for Letters Patent of the United States, Serial No. 279,693, filed on July 11, 1888,) of which invention the following is a specification, reference being had to the accompanying drawings.

My invention relates to gun-mountings chiefly designed for use on ships' decks or on similar platforms.

The main object of my said invention is to provide for the training or traversing of the gun with the chassis, frame, or under-carriage about an imaginary or virtual pivot or axis, and thus obviate the necessity for the usual pivot pin or pintle. For this purpose I provide the base-plate or foundation-plate of the mounting with one or more circular or segmental ribs or projections, the center of which is in the said imaginary or virtual pivot or axis and which fit into corresponding grooves in the chassis, frame, or under-carriage, or I form the said ribs on the chassis, frame, or under-carriage and the corresponding grooves in the base-plate, and I support the said chassis, frame, or under-carriage on rails or roller-paths concentric with the said circular or segmental ribs and grooves. I provide, moreover, a solid or strong hook, clip, or gripping device in front of the chassis, frame, or under-carriage to prevent tilting of the same relatively to the base-plate. By the construction of the gun-mounting in this manner I provide for distributing the stresses due to the firing of the gun over a much larger area of the said deck or platform than is practicable when an ordinary pivot pin or pintle is employed. To obviate any liability to displacement of the said roller-paths relatively to each other in the event of the yielding of

any part of the deck or other platform, and to further provide for the distribution of the stresses due to the firing and recoil of the gun, I make the base-plate or foundation-plate of a single casting, formed with the ways, tracks, or roller-paths and with the aforesaid circular or segmental ribs or projections or grooves.

In the accompanying drawings I have shown how my said invention may be conveniently and advantageously carried into practice.

Figure 1 is a plan, partly in horizontal section, of one form of my improved gun carriage or mounting, some of the parts being removed, and Fig. 2 is a vertical section on the line $x x$, Fig. 1. Figs. 3 and 4 are vertical central sections illustrating modifications of my said invention.

Like letters indicate corresponding parts in all the figures.

A is a strong base-plate or foundation-plate, which has formed in one therewith the concentric roller-paths $A' A^2$.

B is the chassis, frame, or under-carriage, which is supported, through the medium of suitable rollers or trucks C D upon the said roller-paths $A' A^2$.

E is a segmental rib or projection formed on the base-plate A and concentric with the roller-paths $A' A^2$. The chassis or under-carriage B is provided with a segmental groove B' , so that it will engage with the said rib or projection E. The said chassis or under-carriage can, therefore, be moved upon the base-plate A in one or the other direction about an imaginary or virtual pivot or axis at a^x , Fig. 1, for the purpose of training or traversing the gun.

A strong clip F is firmly attached to the chassis or under-carriage B and engages with a rib or projection E' on the base-plate A, so as to hold down the chassis or under-carriage and thus prevent tilting of the gun-carriage. The said clip F may extend throughout the width of the front part of the under-carriage, as shown, or it may be of any other desired width.

A segmental rack G, concentric with the roller-paths $A' A^2$ and with the segmental rib E,

is formed on or firmly secured to the base-plate A. With this rack is geared a pinion H, fixed upon a vertical spindle or shaft I, which is supported in a suitable bearing in the under-carriage B, and on which is also fixed a worm-wheel J. This worm-wheel is geared with a worm K, fixed upon a horizontal shaft L, which is provided with a crank-handle or other suitable means for rotating it by manual or other power. The training of the gun is effected by rotating the shaft L, and thus causing the pinion H to rotate about its axis and travel along the rack G, thereby turning the chassis or under-carriage about the imaginary or virtual pivot or axis α^x , the rib E guiding the said chassis or under-carriage during such movement thereof. The gun can thus be trained or traversed, as required, notwithstanding any inclination of the deck or other platform on which the mounting is supported, without the necessity for the usual pivot pin or pintle secured to the deck or side of the ship. It will be seen that the stresses due to the firing and recoil of the gun will be transmitted through the under-carriage B to the segmental rib or projection E and will be distributed over substantially the entire area of that portion of the deck which is covered by the said base-plate. This form of base-plate is therefore very advantageous, more especially in gun-mountings for use on board ships with lightly-constructed decks.

It is obvious that, if desired, two or more segmental ribs may be provided upon the base-plate and fitted into corresponding grooves in the chassis or under-carriage for the purpose before specified.

In the modification of my invention shown in Fig. 3 the base-plate A is provided with two segmental ribs E fitting into corresponding grooves B' in the chassis or under-carriage B. It is, moreover, evident that segmental grooves or recesses may, if desired, be formed in the foundation or base plate to engage with corresponding projections or ribs on the chassis or under-carriage for the purpose above specified.

In the modification of my invention shown in Fig. 4 a segmental rib E is formed on the chassis or under-carriage B and works in a corresponding groove B' in the base-plate A.

What I claim is—

1. A forward-pivot gun-mounting constructed without the usual pivot pin or pintle and provided with a device whereby the chassis or under-carriage is guided in the training or traversing of the same upon the base-plate and is supported against the force of the recoil, which device comprises a vertical circular rib on one of these parts fitting into a corresponding groove in the other part, substantially as hereinbefore described.

2. A forward-pivot gun-mounting constructed without the usual pivot pin or pintle and provided, in addition to the ordinary rollers and racers or roller-paths, with a device whereby the chassis or under-carriage is guided in the training or traversing of the same upon the base-plate and is supported against the force of the recoil, which device comprises a circular rib on one of these parts fitting into a corresponding groove in the other part, substantially as hereinbefore described.

3. In a forward-pivot gun-mounting constructed without the usual pivot pin or pintle, the combination of a base-plate having a circular rib or projection E', a chassis or under-carriage provided at its forward end with a hook or clip F, which extends downward therefrom in front of the said rib or projection and engages with the latter, and a device whereby the said chassis or under-carriage is guided in the training or traversing of the same upon the base-plate and is supported against the force of the recoil, which device comprises a circular rib or projection E on one of these parts fitting into a corresponding groove B' in the other part, substantially as and for the purposes set forth.

4. In a forward-pivot gun-mounting constructed without the usual pivot pin or pintle, a base-plate having cast integrally therewith both the front and rear segmental ways or roller-paths, and a segmental guide whereby the chassis or under-carriage is caused to move about an imaginary or virtual pivot or axis when turned to train or traverse the gun and is supported against the force of the recoil, and a segmental projection or flange for engaging with a hook-clip or gripping device on the said chassis or under-carriage, substantially as and for the purposes set forth.

5. In a forward-pivot gun-mounting, the combination of the base-plate A, having formed integrally therewith the segmental roller-paths A' A² and the segmental projections, ribs, or flanges E E', the segmental rack G, formed on or secured to the said base-plate, and the chassis or under-carriage B, provided with the rollers or trucks C D, whereby it is supported on the said roller-paths, and with the groove B', engaging with the rib E, the pinion H, carried by the said chassis and geared with the said rack, and the clip F, secured to the said chassis and engaging with the rib or flange E', substantially as and for the purposes set forth.

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,
DENIS P. KEOGH.