A. KÄSTNER.

FOUNDATION FOR GUNS WITH WHEELED GUN CARRIAGES.

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1,359,997. Patented Nov. 23, 1920.

Fig.1.

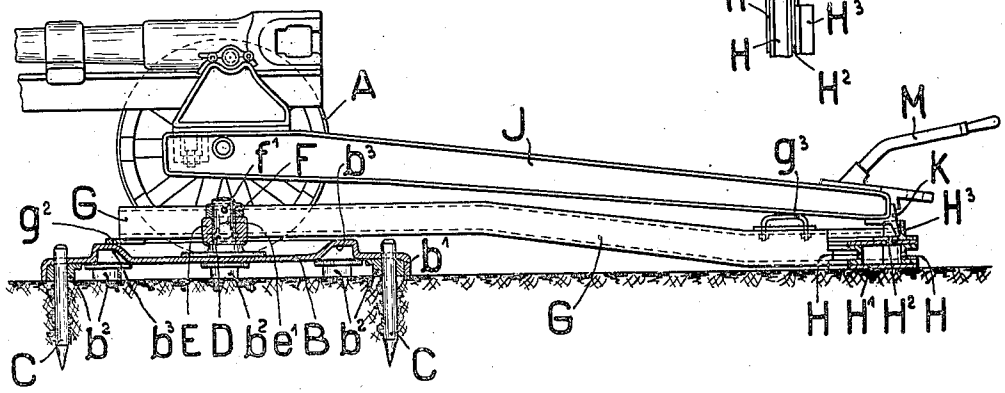
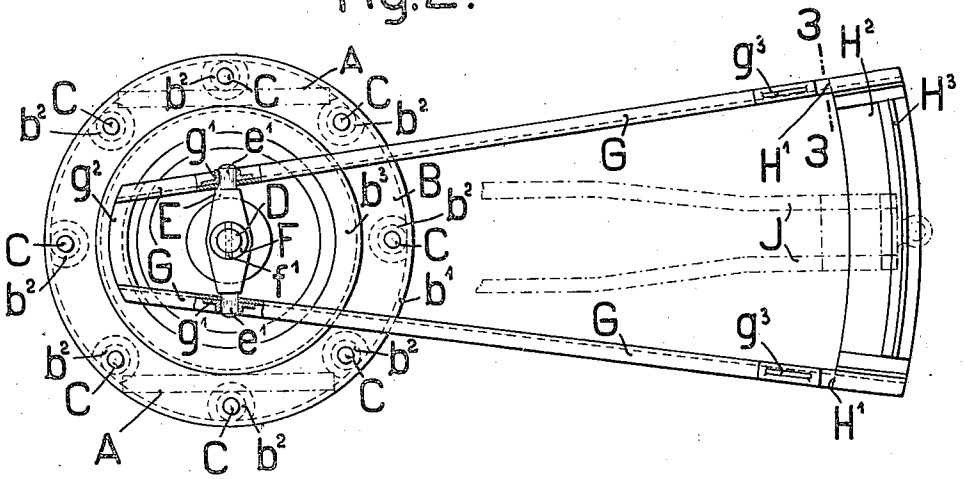


Fig.3.

Fig.2.



Inventor
Alfred Kästner
By Knight Bros
Attys

UNITED STATES PATENT OFFICE.

ALFRED KÄSTNER, OF ESSEN, GERMANY, ASSIGNOR TO FRIED. KRUPP AKTIEN-GESELLSCHAFT, OF ESSEN-ON-THE-RUHR, GERMANY.

FOUNDATION FOR GUNS WITH WHEELED GUN-CARRIAGES.

1,359,997. Specification of Letters Patent. Patented Nov. 23, 1920.

Application filed September 7, 1920. Serial No. 408,743.

To all whom it may concern:

Be it known that I, ALFRED KÄSTNER, residing at Essen, Germany, a citizen of the German Republic, have invented a certain new and useful Improvement in Foundation for Guns with Wheeled Gun-Carriages, of which the following is a specification.

The object of this invention is to provide a foundation provided with a vertical pivot pin for guns with wheeled gun carriages, and which, while insuring as secure a mounting as possible of the gun on the foundation, renders any connection of the gun carriage with the foundation superfluous and permits of the gun being swung around about the axis of the vertical pivot within any limits that may be desired.

The invention will be described with reference to the accompanying drawings in which—

Figure 1 is a side elevation, partly in section, of the foundation together with the gun,

Fig. 2 is a plan view of the foundation, partially in section and

Fig. 3 is a section on the line 3—3 of Fig. 2, looking from the left.

That part of the foundation, which is intended to act as a support for the wheels A of the gun carriage is formed with a circular plate B, which has on its edge a flange b^1 and eyes b^2 and which eyes act as guides for pins or pegs C, which are driven into the ground and so anchor the foundation plate to the ground. In the middle of the plate B is fixed a vertical pin D and coaxially with this pin runs an annular bead b^3 which is pressed into the plate B, the outer edge of which bead acts as a guide to the gun carriage wheels A, when the gun is being swung around.

On the pin D is pivotally mounted a cross piece T, which is prevented from being lifted off the pin D by means of a washer F held in place by a split pin f^1 or the like. Pins e^1 provided on both ends of the cross pieces E engage with two members G, which are provided for connecting the plate B with a foundation piece, which acts as a guide and abutment to the trail J of the carriage of the gun. The members G are of channel shape in cross section and are strengthened at the points, where they are engaged by the pins e^1 by bearing pieces g^1 (see Fig. 2). The front ends of the members G project out beyond the bead b^3 on the plate B and are connected to each other by a bar g^2, which is adapted to slide on the bead b^3.

The foundation member for the trail of the gun carriage is formed by a bar curved coaxially with the pin D and composed of two angle irons H, a base plate H^1 and a cover plate H^2. The cover plate H^2 carries an abutment H^3 made of a piece of metal inverted T-shaped in cross section for the spade shaped member K of the gun carriage. To the ends of the bars H H^1 H^2 are attached the rear ends of the members G in the manner shown in particular in Fig. 3. The members G carry in the vicinity of the bars H H^1 H^2 and on the upper limbs handles g^3.

When the gun is to be fired from the foundation, the foundation plate B is rigidly attached to the ground by means of the pins C and the members G connected to the foundation pieces H H^1 H^2 and the bar g^2 by the cross piece E and the washer F are placed on the pin D. The gun is then run by the aid of wedges with the trail of the carriage in front on to the plate B, so that the wheels A of the carriage assume the position shown in Fig. 2, in which they lie on the outer edge of the bead b^3. The trail of the gun carriage is then let down, and the member K engages with the abutment H^3. The gun can then be swung around by means of the handle M (see Fig. 1) on the foundation about the axis of the pin D and be fired with the greatest safety without its being necessary, as it is in the case of the ordinary foundations, to connect the carriage to the pivot of the foundation by rods or the like. When the gun recoils the recoil is transmitted by the member K and the abutment H^3 to the foundation piece H H^1 H^2 and by this latter by means of the members G and the cross piece E to the foundation plate B.

When the member K has arrived at the one end of the abutment H^3, when the gun is swung around, the trail of the gun carriage is raised by means of the handle M, until the member K is brought out of engagement with the abutment H^3 and the bars H H^1 H^2 are pushed by means of the handles g^3 along the ground (previously leveled if necessary) in the direction in which the gun is to be swung farther around, and until the other end of the abutment H^3 lies under the member K. The trail of the gun carriage is then

let down again. The member K now again engages with the abutment H^3, since the foundation piece H H^1 H^2 during the movement over the ground has retained its coaxial position with respect to the pin D owing to its connection therewith by means of the members G and the cross piece.

Claims.

1. A gun foundation of the class described comprising a plate, a pair of arms pivotally secured to said plate, a guide bar secured to said arms and coaxial with the pivot of said arms, said foundation being adapted for use with a wheeled gun, and means on said plate for guiding said wheels, substantially as described.

2. A device of the class described comprising a base plate, means for securing plate to the ground, a pivot pin disposed centrally of said base plate, a pair of arms pivotally mounted on said pin, a guide member carried by said arms and coaxial with said pivot pin, and a rib formed on said base plate, as and for the purpose set forth.

3. A foundation for wheeled guns which comprises a circular base plate, an annular bead on said base plate for guiding the wheels of the gun, a vertically disposed pivot pin arranged co-axially with said bead, a pair of arms pivotally supported by said pivot pin, a guide bar co-axial with said pivot pin and connecting the free ends of said arms, said guide bar having formed thereon an up-standing rib, said guide bar and rib forming an abutment for the trail of the gun carriage, substantially as described.

4. A foundation for wheeled guns, which comprises a base plate, an annular wheel guiding rib on said plate, a pivot pin positioned axially of said rib, a guide bar curved coaxially with said pivot pin, and a pair of arms rotatably secured to said pivot pin for connecting the guide bar to the base plate.

5. A foundation for wheeled guns, which comprises a base plate, a center pin, an annular rib on said plate arranged coaxially with said pin, and a guiding member for the trail of the gun, which embodies an abutment curved coaxially with said center pin, and means rotatably connecting said guiding member to said center pin and for properly positioning it with respect to the gun trail.

The foregoing specification signed at Essen, Germany, this 27th day of May, 1920.

ALFRED KÄSTNER.

In presence of—

HANS GOTTSMANN,

JOSEF OLBERTZ.