K. VÖLLER.

FOUNDATION FOR GUNS WITH RECOILING BARRELS.

APPLICATION FILED AUG. 2, 1906.

901,401. **Patented Oct. 20, 1908.**

2 SHEETS—SHEET 1.

Fig. 1.

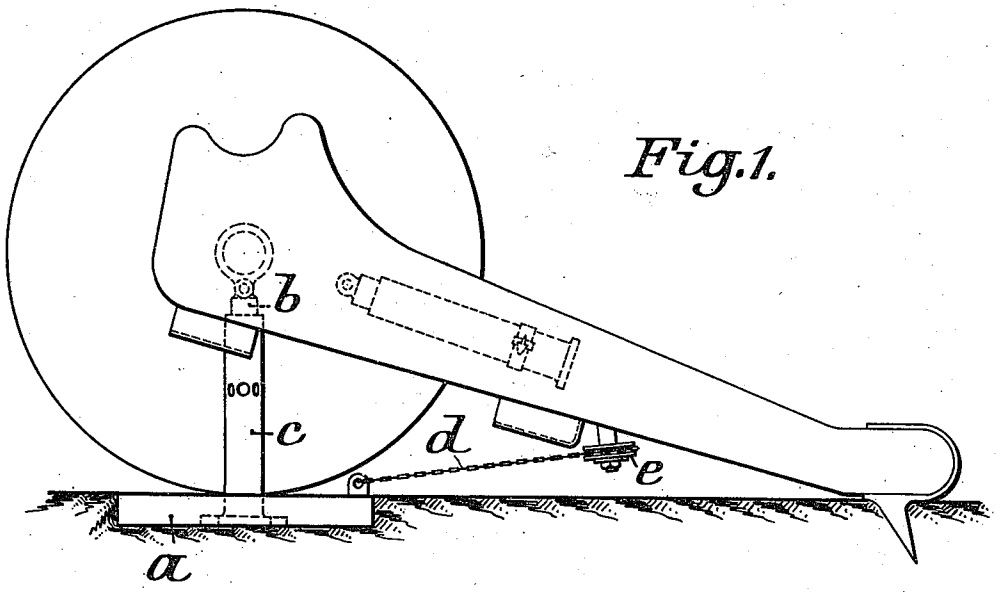
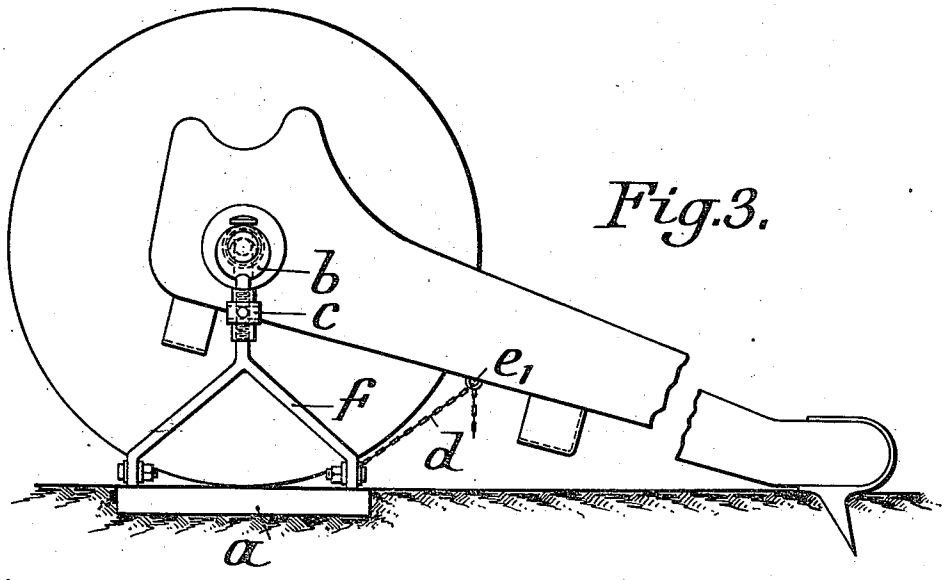


Fig. 3.



WITNESSES:

M. Taylor.

R. M. Elliott

INVENTOR.

Karl Völler

by Georgii Masson

ATTORNEYS

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2 SHEETS—SHEET 2.

Fig. 2.

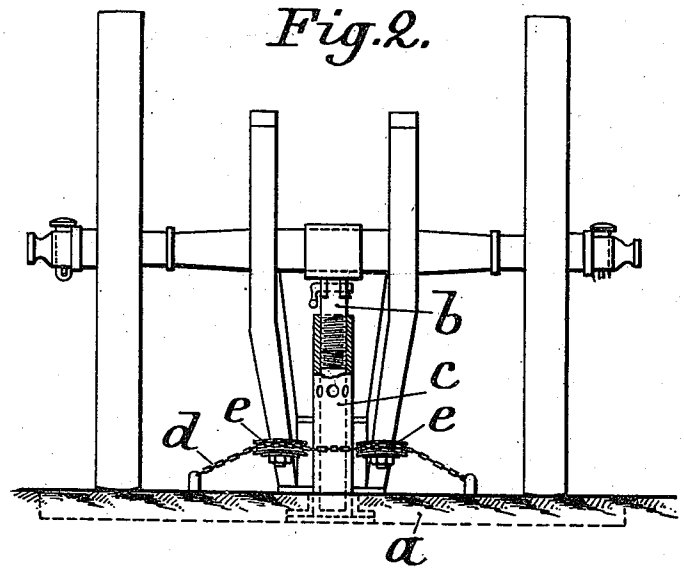
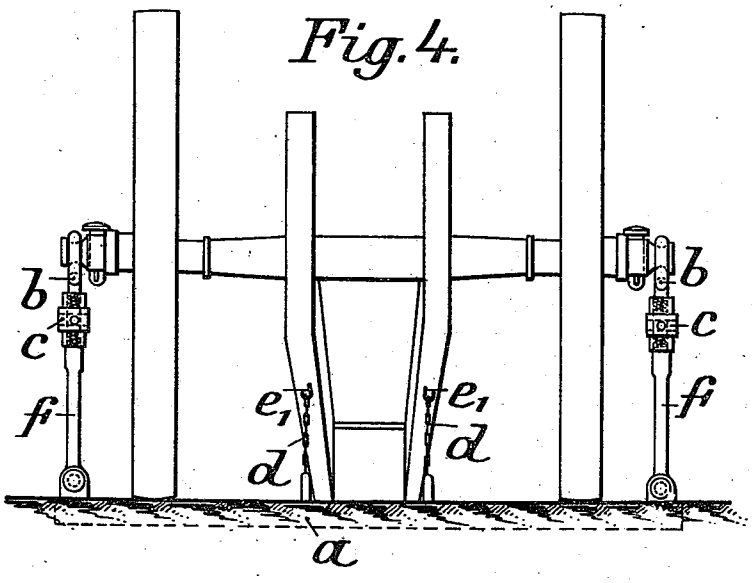


Fig. 4.



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R. M. Elliott

INVENTOR,

Karl Völler

by Georgii Massie

ATTORNEYS

UNITED STATES PATENT OFFICE.

KARL VÖLLER, OF DUSSELDORF, GERMANY, ASSIGNOR TO RHEINISCHE METALLWAREN- UND MASCHINENFABRIK, OF DUSSELDORF-DERENDORF, GERMANY.

FOUNDATION FOR GUNS WITH RECOILING BARRELS.

No. 901,401. Specification of Letters Patent. Patented Oct. 20, 1908.

Application filed August 2, 1906. Serial No. 328,936.

To all whom it may concern:

Be it known that I, KARL VÖLLER, engineer, a subject of the German Emperor, residing at Dusseldorf, 47 Fülicherstrasse, Germany, have invented certain new and useful Improvements in Foundations for Guns with Recoiling Barrels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to an arrangement for forming a firing foundation for guns having a recoiling barrel, for the purpose, firstly, of preventing the gun from sinking into soft ground, secondly, of braking the wheels and, thirdly, of preventing the gun from shifting in the longitudinal or transverse direction.

Arrangements are already known in which the gun is connected with one or more plates resting on the ground. Such plates, however, serve as bearing for a pivot, in order that the gun may be swung around in a horizontal direction; thus the wheels do not rest on the plate, or they carry a spur with which the gun carriage is connected by a chain. In contra-distinction to these known arrangements, the plate that serves as a support for the gun according to the present invention, hangs on the axle of the gun and can be pressed firmly against the wheels of the gun, so that not only does it brake the wheels and prevent them from sinking into the ground, but owing to the additional weight of the support the gun is prevented from jumping during firing.

In the accompanying drawings, Figure 1 is a side elevation of a gun carriage provided with the invention. Fig. 2 is a front view. Figs. 3 and 4 are like views respectively of a modification.

In Figs. 1 and 2 a flat support *a* serving as a foundation is connected with the axle-tree of the gun by means of a screw spindle *b* and a nut *c*, the latter being mounted on the support *a* so that it can be rotated but cannot be shifted axially; by turning the nut the support *a* may be firmly pressed against the wheels of the gun. The support prevents the wheels from sinking into the ground and at the same time exerts a braking action on the gun owing to the fact that it is firmly pressed against the wheels. Moreover, it prevents a lateral shifting of the gun. The braking action of the support in so far as it prevents recoil of the carriage is assisted by a spade carried by the trail and embedded in the earth.

To prevent the gun from shifting in the longitudinal direction, a chain *d* is fixed at each end to support *a* and is passed round rollers *e* which are journaled on the carriage of the gun. This guiding of the chain over rollers is for the purpose of permitting the changing of the lateral direction of the gun, should this become necessary, the brake on the gun being a little loosened. The arrangement has the further advantage that the weight that it adds to the gun in the firing position prevents jumping of the gun, which is not the case with the supports that have been used as foundations hitherto and have not been firmly connected with the gun.

The modification shown in Figs. 3 and 4 differs from that described only in that the support *a* is not connected with the middle of the gun carriage axle-tree but with the two axle-journals. For this purpose there is pivoted to each side of the support a linking piece *f*, which is connected by a nut *c* with the spindle *b* suspended from the axle journal. In this form of construction the chain *d* is not passed over rollers but is divided into two parts which are separately fixed to the gun carriage at *e'*. It follows that the chain in this form is not adapted to permit the movement of the gun in a side direction while the support is being used. The other advantages of the support remain, however, the same.

When the gun is traveling all the parts of the support can be conveniently accommodated on the gun carriage.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

In a foundation for guns with recoiling barrel and with a trail, a bed plate resting loosely on the ground beneath the wheels, a vertical screw spindle arranged midway between the wheels and connecting the carriage

axle and bed plate to clamp the wheel to the bed plate, a pulley mounted on the carriage trail, a chain secured at its ends to the bed plate and passing in a substantially horizontal direction to the rear and around the pulley, and a spade carried by the trail extremity in engagement with the ground.

In testimony whereof I have affixed my signature to this specification, in the presence of two witnesses.

KARL VÖLLER.

Witnesses:
WILLIAM ESSENWEIN,
ALFRED FOHLMEYER.