July 10, 1923. 1,461,561

H. ROMBERG

RECOIL GUN

Filed June 28, 1921

Fig.1.

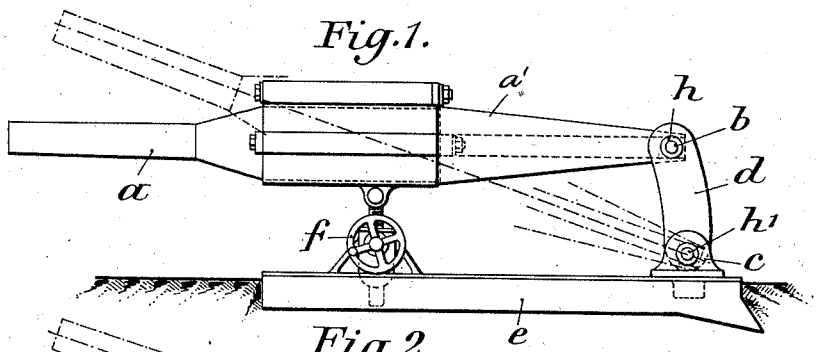


Fig.2.

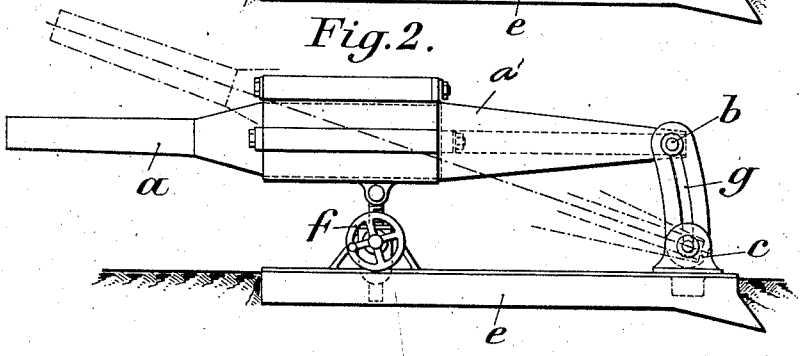


Fig.3.

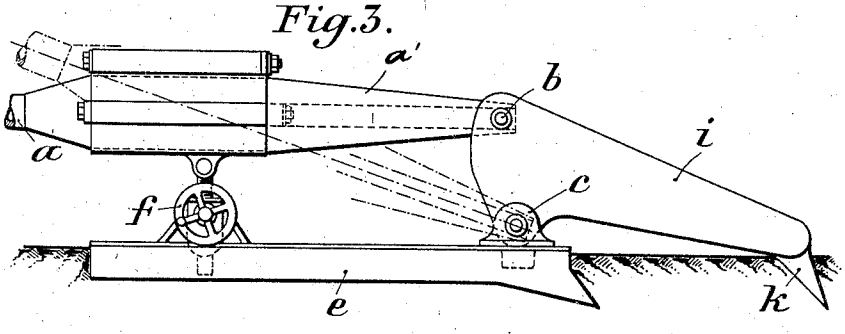
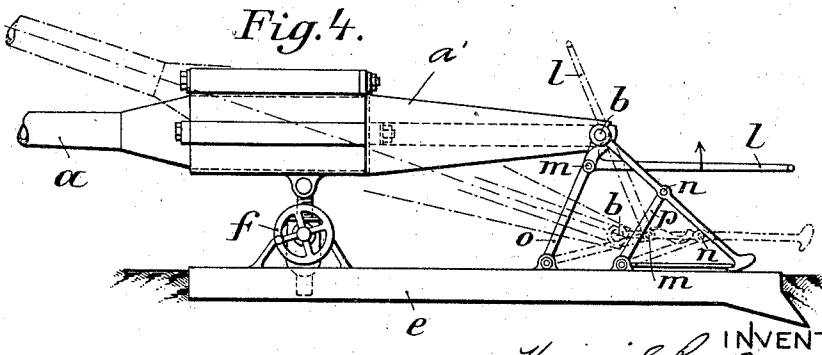


Fig.4.



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UNITED STATES PATENT OFFICE.

HEINRICH ROMBERG, OF DÜSSELDORF, GERMANY, ASSIGNOR TO THE FIRM RHEINISCHE METALLWAAREN-UND MASCHINENFABRIK, AT DÜSSELDORF-DERENDORF, GERMANY.

RECOIL GUN.

Application filed June 28, 1921. Serial No. 481,062.

To all whom it may concern:

Be it known that I, HEINRICH ROMBERG, engineer, a citizen of Germany, residing at Düsseldorf, Germany, 25 Parkstrasse, have invented certain new and useful Improvements in Recoil Guns, of which the following is a specification.

The present invention has for its object an improvement of a recoil gun. In this gun for securing and carrying the barrel and the cradle two points of support are provided and for this purpose at the forward part between the base plate and the barrel, the elevating device, and at the rear part, the axles of the trunnions, are arranged. In this instance the axis of the trunnions, is disposed so far aft that it will be situated even behind the recoiling parts, when the latter have travelled farthest backwards, and it remains in close proximity to the bottom plate. By this arrangement of the two supporting points the forward part of the barrel will always be higher than the axis of the trunnion, because the elevating device will require a larger space. In consequence, no direct firing is possible.

Through the present invention this disadvantage is eliminated, so that the gun may be used both for direct and indirect firing. The invention for that purpose makes use of the means known in other guns, that the bearing of the trunnions may be varied in its height, consists of a simple and easily manipulated device in which between the bottom plate and the trunnions of the barrel an intermediate member is interposed, that is provided with two journal bearings, one of which is adapted for the reception of the trunnions, while the other serves for securing to the bottom plate, so that the barrel may be swung into the horizontal. Both the journal bearings of the intermediate member may may also be connected to each other by means of a longitudinal slot.

In the drawing several modifications of the invention are shown.

The barrel *a* is according to Fig. 1 movable in a well known manner within the cradle *a'* and disposed on the base plate or platform *e* in two supporting points. One of these supporting points is constituted by the elevating device *f* and provided at the forward or central part of the barrel. The other supporting point is constituted by the bearing of the trunnions *b*. The latter (as described in the main patent) are disposed so far back, that they will remain even behind the recoiling parts when these have traveled their farthest way backwards.

During steep or indirect firing the trunnions *b* are introduced into the bearings *c* provided on the platform and secured there, so that the trunnions rest in close proximity to the platform *e*. In order to permit of direct firing and of dipping and turning the barrel *a* with its cradle to the horizontal plane in respect of the platform, or even lower yet, the intermediate member *d* is introduced between the platform *e* and trunnions *b*. This intermediate member *d* is provided with two or more journal bearings *h*, h^1 of which the bottommost bearing *h'* is secured in the bearings *c* while the topmost bearing *h* serves for the reception of the trunnions *b*.

Fig. 2 shows another modification of the invention. Here the intermediate member possesses a longitudinal slot *g* instead of holes or bearings *h*, h^1 in which slot the bearings *c* or the trunnions *b* may be secured at a varying height.

Fig. 3 represents a different construction in so far as here the intermediate member *i* is shaped into a trail of a gun carriage possessing a spur *k*, so that stability of the gun is secured while the parts are recoiling.

In the construction as shown in Fig. 4 an arrangement of levers is substituted for the intermediate member *d*. By shifting the lever *l* into the position shown in dotted lines a collapse of the joints *m*, *n* is effected which will cause the barrel *a* to move into the position shown in dotted lines, that is to say into the position for indirect firing, while by putting down the lever *l* the joints *m*, *n* are raised with the supporting levers *o*, *p*, raising thus the trunnions *b* in such a manner, that the gun may be used for direct firing.

I claim:

1. The combination of a recoiling barrel, a cradle therefor, trunnions for the cradle, a platform for supporting the cradle and provided with bearings to which the trunnions may be attached and an intermediate member insertable between the platform and cradle and connected to the trunnion and bearings.

2. The combination of a recoiling barrel,

a cradle therefor, trunnions for the cradle, a platform on which the cradle is supported and provided with bearings, and an intermediate member constructed as a trail of a gun carriage and provided with a spur, said intermediate member provided with journals for engagement with the trunnions of the crade and the bearing of the platform so that the barrel may be swung into a horizontal plane.

DIPL. ING. HEINRICH ROMBERG.

Witnesses:

RICHARD EBINGHAUS,

CARL XANTHU.