TURRET GUN MOUNT

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1 Claim. (Cl. 89—37)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes, without the payment to us of any royalty thereon.

This invention relates to a turret gun mount.

The purpose of the invention is to provide a turret gun mount having sufficient stability to carry a gun of the light artillery type in which the barrel moves in recoil and counter-recoil. In order to employ a turret of the smallest possible dimensions the gun mount is so arranged that it may be conveniently controlled from a position below the mount.

With the foregoing and other objects in view, the invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Fig. 1 is a plan view partly in section of a turret with roof removed equipped with the improved gun mount.

Fig. 2 is a longitudinal sectional view through the turret, parts being in side elevation.

Fig. 3 is a view in rear elevation of the gun mount without the gun and cradle.

Fig. 4 is a view in side elevation of Fig. 3, parts being in section.

Fig. 5 is a view in side elevation of the cradle.

Fig. 6 is a rear end elevation of the cradle.

Referring to the drawing by characters of reference there is shown a rotatably mounted turret comprising a base ring 5, side wall 6, and a roof or cover 7. The side wall is formed with an opening 8 which is framed in the interior of the turret by a shield 9 secured to the side wall by screw bolts 10.

A pair of spaced brackets 11—11, each secured to the base ring 5 and to the cover 7, as by screw bolts 12, are positioned on diametrically opposite sides of the turret for the purpose of providing balance and stability. The intermediate portion 13 of each arm is offset inwardly and includes an arm 14 projecting towards the opening 8 in the sidewall of the turret. The upper face of each arm is provided with a half-bearing 15 (Fig. 4) for receiving one of a pair of trunnions 16—16 extending horizontally from a cradle support 17. Each trunnion is confined by a cap 18 secured in place by bolts 19.

The cradle support 17 is in the form of a substantially square frame within which a cradle 23 (Fig. 6) is supported by vertically extending trunnions 21—21 threadedly secured in the cradle support. The cradle is formed with double-tapered side walls 22—22 to avoid interference with the cradle support when it is moved about its trunnions during traversing. The cradle includes a pair of guides 23—23 for slidably supporting a gun barrel 24 that extends through the opening 8 in the turret. The cradle also includes a forwardly extending guide block 25 and the cylinder 26 of a recuperator mechanism which is associated with the sliding barrel and functions in the usual manner to check recoil and restore the gun into battery. The guide block 25 and cylinder 26 also project through the opening 8 of the turret.

A hemi-spherical mantlet 28 disposed within the turret is fitted on and carried by the guide block 25 and cylinder 26 of the cradle so that it moves with the cradle and has a close fit against the shield 9. The mantlet is formed with an aperture 27 for the gun barrel and with an aperture 28 for a periscope sight 29 carried by the cradle.

A bracket 30 depending from the wall of the turret carries a seat 31 for a gunner. A depending control member 32 carried by a non-recolling part of the gun, for example by the cradle, has a shoulder-piece 33 and a hand-grip 34 adapted to be engaged by a gunner occupying the seat 31. The gunner by moving his body thereby exercises control of the gun in azimuth and elevation. The means for rotating the turret is not described as it forms no part of the present invention.

We claim:

In a gun mount, a turret comprising a base ring, a wall with an opening, and a cover, a pair of brackets positioned on opposite sides of the turret and each secured to the base ring and cover, each bracket having an arm extending towards the opening in the turret, a gun cradle support trunnioned in the arms of the brackets, a gun cradle trunnioned in the cradle support.

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