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V. HAMMAR

1,754,943

FIELD GUN WITH TUBE RECOIL

Filed July 12, 1928

FIG. 1.

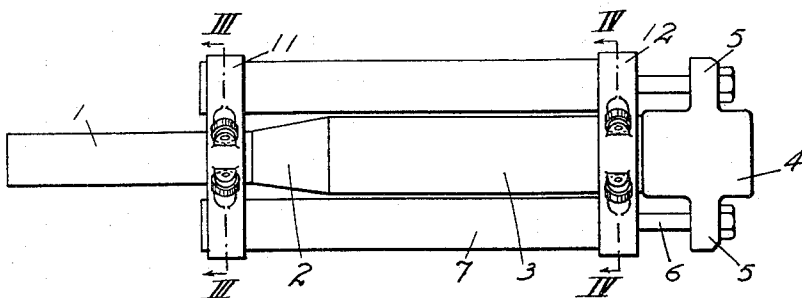


FIG. 2.

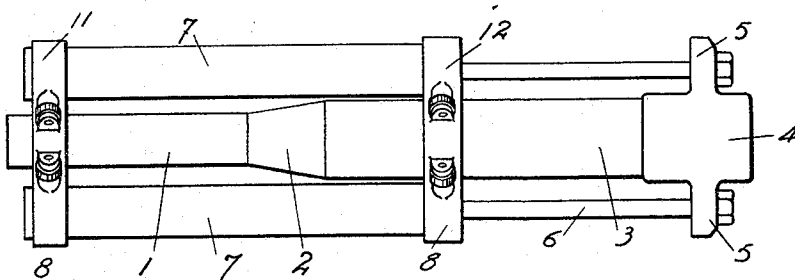


FIG. 3.

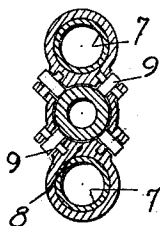
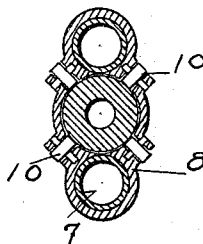


FIG. 4.



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FIELD GUN WITH TUBE RECOIL

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The present invention relates to an arrangement in such field guns provided with tube recoil, in which the tube rests against one or more supporting-faces at the cradle.

5 The invention is essentially characterized by the fact that one or more supporting rollers are arranged at the fore part of the cradle in such a way as to support the tube and thus prevent a hoisting of the fore part at the recoil or the return motion respectively.

10 According to a particular embodiment of the invention the supporting roller or rollers may be supported by a bow or the like fixed in the fore part of the cradle.

15 If necessary, one or more rollers may also be arranged in the rear part of the cradle in order to carry the back end of the tube.

The annexed drawing shows an embodiment of the present invention.

20 Fig. 1 is a longitudinal view of the tube with cradle before the recoil. Fig. 2 shows the same view, the tube, however, occupying its recoil position. Fig. 3 is a section along the line III—III in Fig. 2, while Fig. 4 is
25 a section along the line IV—IV in Fig. 2.

The tube is formed by two cylinders 1 and 3 and a short intermediary, conical portion 2 and a back-piece or block provided with lugs 5 to fix the piston rods 6 of the braking pistons. The braking pistons work in cylinders 7 which are arranged in the cradle 8. This cradle surrounds, at its front end, the front end 1 of the tube by means of four rollers 9 (Fig. 3) supported by a bow 11 or the like.

35 The cradle is at its rear end provided with similar rollers 10 (Fig. 4) mounted to turn in a bow 12 or the like, so that the tube is entirely guided by the rollers, by which fact all sliding friction between the tube and the
40 cradle is avoided.

During the recoil and the return the tube rests against the cradle at the rear, bottom rollers 10 and the fore top rollers 9, the braking and advancing forces, acting on the
45 rings 5, tending to hoist the front part of the tube and, against the action of the proper weight of the tube press it against the upper supporting rollers 9. The reacting force of the pressure of the tube against the supporting
50 rollers and the tube weight are absorbed

by the back, bottom rollers of the cradle.

Having now particularly described the nature of my invention and the manner of its operation, what I claim is:

1. Arrangement in field guns having tube recoil comprising a tube, rollers disposed radially around said tube for supporting the forward end thereof and which bear against the cylindrical periphery of the tube, and a cradle in which said rollers are mounted.

2. Arrangement in field guns having tube recoil comprising a tube; two pairs of diametrically opposed rollers for supporting the forward end thereof, the axes of the rollers of each pair being parallel while the two pairs of rollers are disposed at right angles to each other, all the rollers bearing against the cylindrical periphery of the tube; and a cradle in which said rollers are mounted.

3. Arrangement in field guns having tube recoil comprising a tube, two sets of radially disposed rollers supporting the forward and rear ends of the tube respectively which rollers bear against the cylindrical periphery of the tube, and cradles in which the rollers are mounted.

4. Arrangement in field guns having tube recoil comprising a tube, two sets of radially disposed rollers supporting the forward and rear ends of the tube respectively each set consisting of two pairs of diametrically opposed rollers located at right angles to each other with all the rollers bearing against the cylindrical periphery of the tube, and cradles in which the rollers are mounted.

5. Arrangement in field guns having tube recoil comprising a tube the forward end of which is of smaller diameter than the rear end, two sets of radially disposed rollers supporting the forward and rear ends of the tube respectively each set consisting of two pairs of diametrically opposed rollers located at right angles to each other with all the rollers bearing against the cylindrical periphery of the tube, and cradles in which the rollers are mounted.

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