

F. AND J. NIEWINSKI.
ORDNANCE PIECE.
APPLICATION FILED MAY 7, 1919.

1,317,987.

Patented Oct. 7, 1919.

FIG. 1.

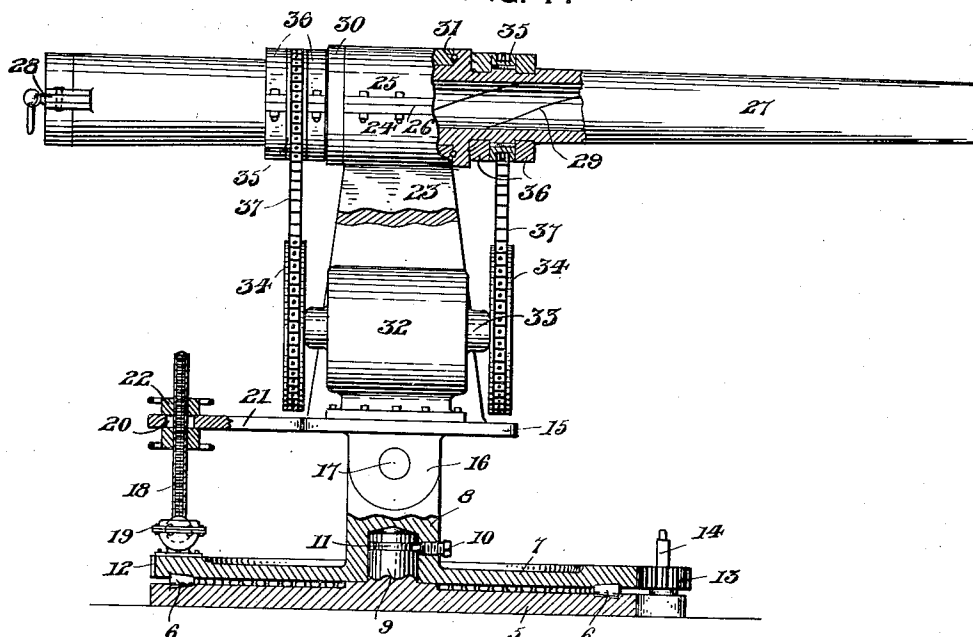


FIG. 2.

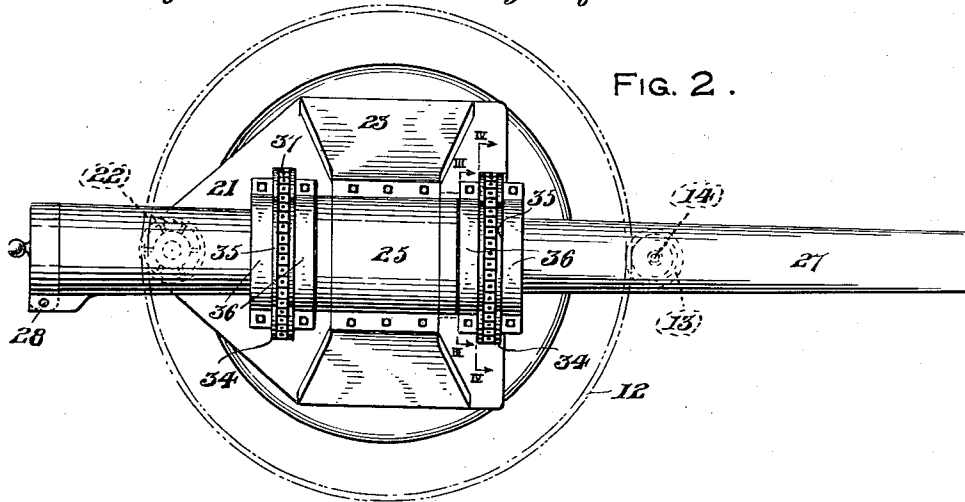


FIG. 3.

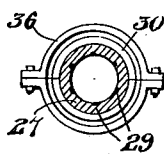
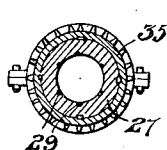


FIG. 4.



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ORDNANCE-PIECE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, FRANK NIEWINSKI and JOHN NIEWINSKI, citizens of Poland, residing at Waterbury, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Ordnance-Pieces, of which the following is a specification.

The primary object of the present invention is to provide an improved construction in gun mount wherein the tube is revolubly mounted and preferably driven by a motor to be so operated during the firing of the gun to assist the rifling upon the interior of the barrel and cause the sharp piercing of the air by the projectile during its traveling movement.

A further object of the invention is to provide an ordnance piece including a revolubly mounted tube or barrel with a supporting base therefor that is adjustable to permit a horizontally and vertically swinging movement of the barrel.

With the above and other objects in view, the invention consists in the novel combination and arrangement of parts hereinafter more fully described, and shown in the accompanying drawings, in which like reference characters designate corresponding parts throughout the several views,

In the drawings,

Figure 1 is a side elevational view of an ordnance piece partly shown in section to illustrate the rotatable supporting base and the rotating barrel or tube,

Fig. 2 is a top plan view thereof,

Fig. 3 is a cross sectional view taken on line III—III of Fig. 2, and

Fig. 4 is a cross sectional view taken on line IV—IV of Fig. 2, the latter two views showing the strap connections between the rotating tube and its operating motor.

Describing the invention more in detail, there is provided a base 5 preferably of circular construction and having an annular groove upon the upper face thereof for the reception of roller bearings 6 that are adapted to support an upper base section 7 having a central standard 8 recessed upon its lower face as illustrated in Fig. 1 for the reception of the centrally disposed stud 9 formed upon the base 5. A set screw 10 or similar fastening device passes through said standard 8 and extends into the annular groove 11 upon the stud 9 whereby said upper base section 7 is revolubly supported

upon the base section 5 and prevented from upward movement relative thereto. The peripheral edge of the base section 7 is provided with gear teeth 12 that are engaged by the pinion 13 mounted upon the vertical shaft 14 upon which a suitable crank handle may be applied to cause said pinion to be rotated and to impart such movement to the base section 7.

A platform 15 is arranged upon the base section 7 and carries a depending lug 16 of substantial construction, that is pivotally mounted upon the central standard 8 by the horizontal bolt 17 while the angular position of said platform 15 relative to the base section 7 is readily controlled by the screw 18 having a ball and socket joint 19 with the base section 7 while the upwardly projecting threaded portion thereof extends through an enlarged opening 20 in the rear projecting portion 21 of the platform 15, suitable lock nuts 22 being threaded on said screw 18 above and below the platform extension 21 and cooperating therewith in a manner to hold the platform in its adjusted position relative to the base.

A pair of upwardly diverging legs 23 are carried by the platform 15 and have formed upon their upper ends the lower semi-circular section 24 of a cylindrical bearing, the upper section being formed by the curved plate 25 secured thereto by cooperating side flanges 26, said bearing forming a revoluble seat for a gun tube 27 having any preferred form of breech mechanism 28 at the inner end thereof and being rifled as shown at 29. Radial flanges 30 are carried by the gun tube 27 and are in abutting relation with the adjacent edges of the bearing sections 24 and 25, the friction between same being reduced by the ball bearings 31, this construction also preventing longitudinal axial movement of the tube 27.

Means for rotating the gun tube simultaneously with the firing of the breech mechanism is provided and includes a motor 32 mounted on said platform 15 between the lower ends of the legs 23 with projecting chair portions extending forwardly and rearwardly thereof as at 33 upon which sprocket wheels 34 are secured. The portions of the gun tube 27 adjacent each flange 30 is provided with a sprocket wheel 35 keyed thereon and further retained in proper position by the spacing collars 36 arranged at opposite sides thereof while sprocket

chains 37 extend over the sprocket wheels 34 and 35, whereby when said motor 32 is in operation, movement is transmitted to the gun tube 27.

5 From the above detailed description of the construction of the device, it is thought that the operation thereof will at once be apparent, it being noted that the gun 27 is shifted in a horizontal position upon the
10 vertical axis of the stud 9 by operating the pinion 13 and causing the base section 7 to be rotated, while the inclination of the tube is readily controlled by the screw 18 with its adjusting nuts 22.

15 What we claim as new is:—

1. An ordnance piece including a lower base section, an upper base section revolubly supported thereon, a platform pivoted to swing in vertical directions upon said revolubly mounted base, supporting legs carried by said platform, a bearing formed at
20 the upper end of said supporting legs, a gun tube revolubly supported in said bearing, a motor carried by said platform, operative connections between said motor and
25 gun tube and means extending between said platform and revolubly supported base for varying the inclination of the platform and gun tube.

30 2. An ordnance piece including a lower

base section, an upper base section revolubly supported thereon, a platform pivoted to swing in vertical directions upon said revolubly mounted base, supporting legs carried by said platform, a bearing formed
35 at the upper end of said supporting legs, a gun tube revolubly supported in said bearing, a motor carried by said platform, operative connections between said motor and
40 gun tube, a screw having a ball and socket connection with revolubly supported base and loosely extending through said platform and operating nuts upon said screw at opposite sides of said platform.

3. An ordnance piece including a lower
45 base section, an upper base section revolubly supported thereon, a vertically swinging platform upon said upper base section, a gun tube revolubly supported by said platform, means carried by said platform in
50 communication with said gun tube for rotating the same, coöperating means carried by said platform and upper base section for varying the inclination of said platform and
55 gun tube and means for revolving said upper base section.

In testimony whereof we affix our signatures.

FRANK NIEWINSKI.
JOHN NIEWINSKI.