

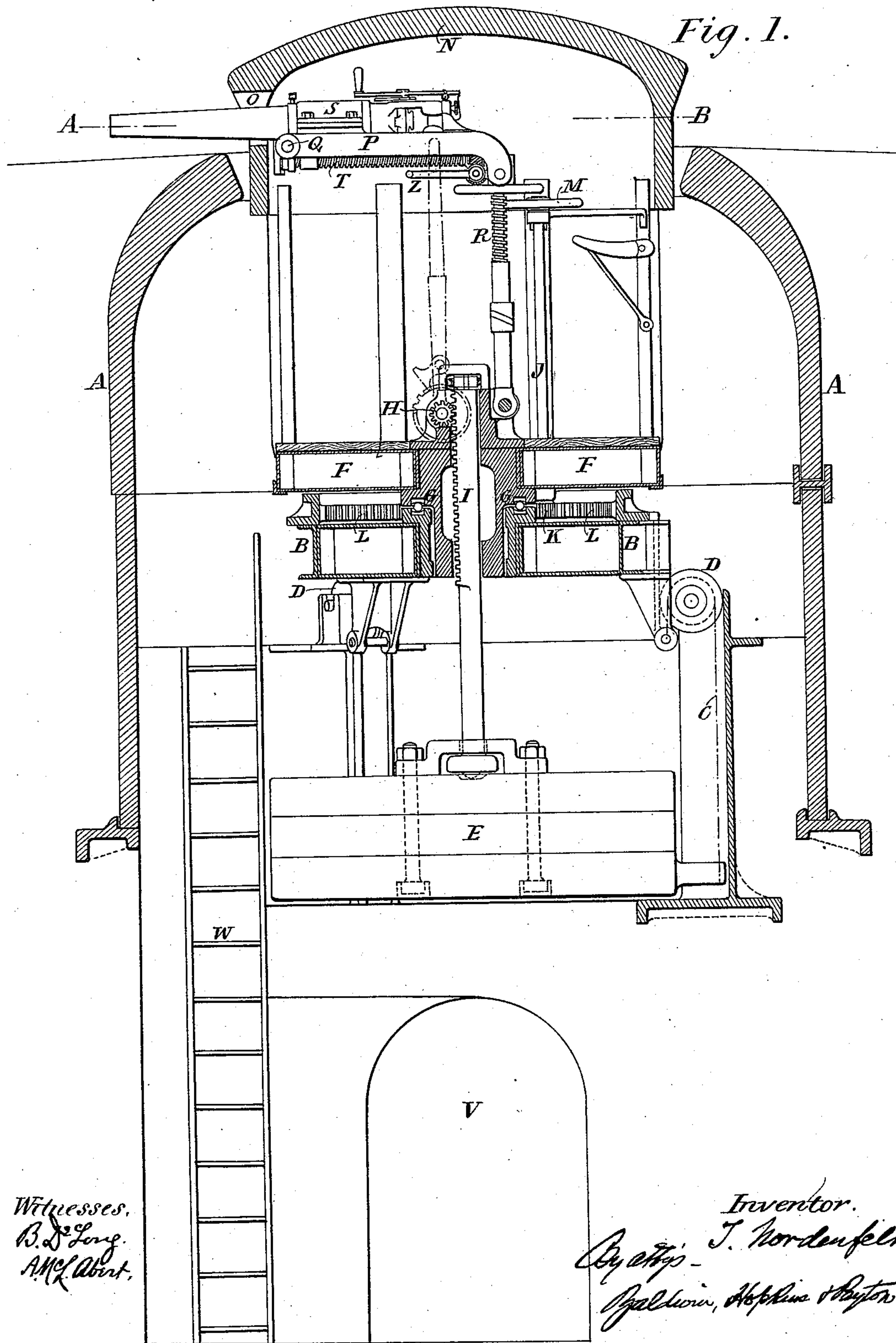
(No Model.)

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T. NORDENFELT.  
TURRET MOUNTING FOR ORDNANCE.

No. 382,182.

Patented May 1, 1888.



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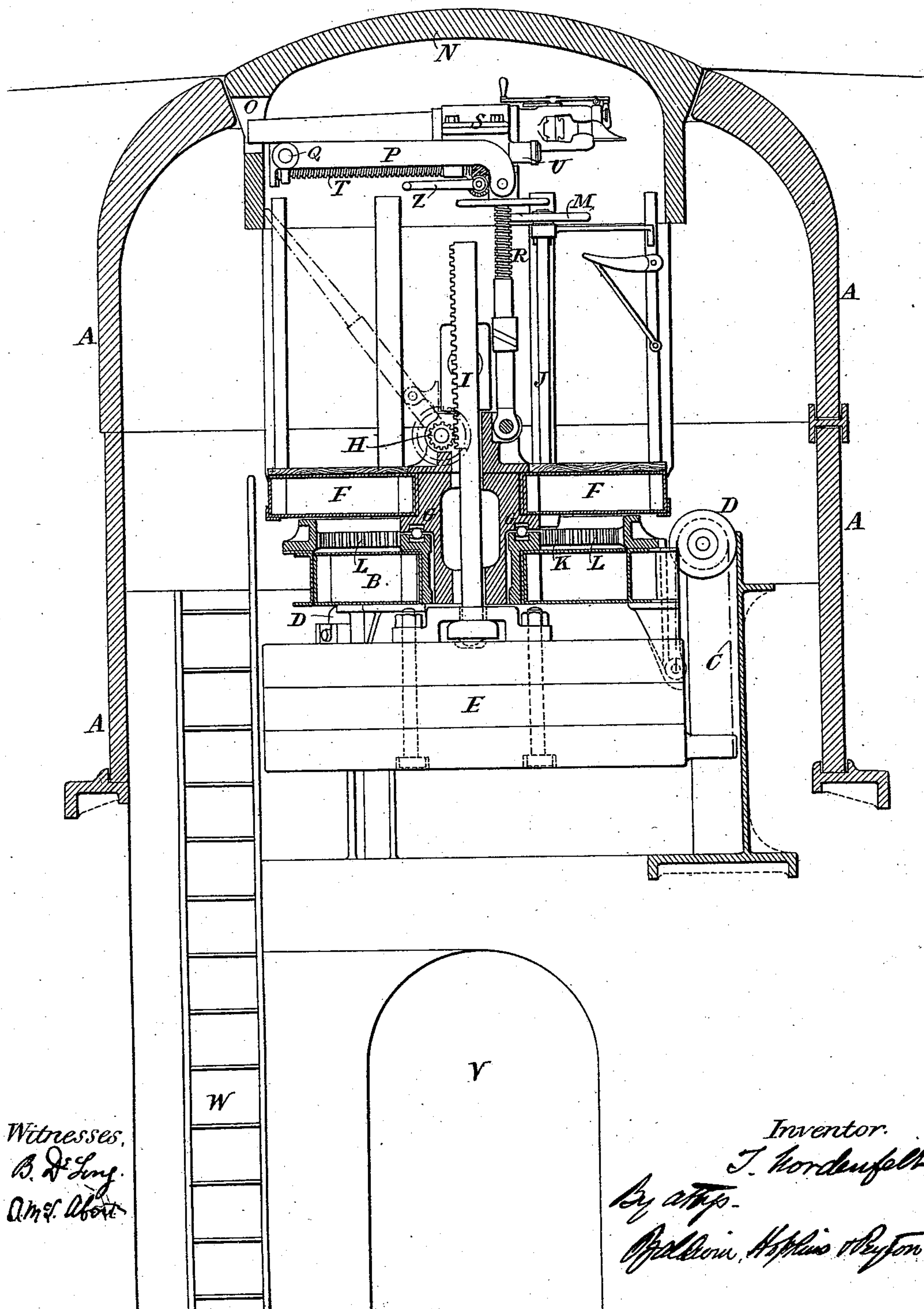
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*Fig. 2.*



Witnesses,  
B. De Long.  
A. M. S. Abbott.

Inventor.  
J. Nordenfjelt.  
By attys.  
Oskarsson, Asplund & Rydman.



(No Model.)

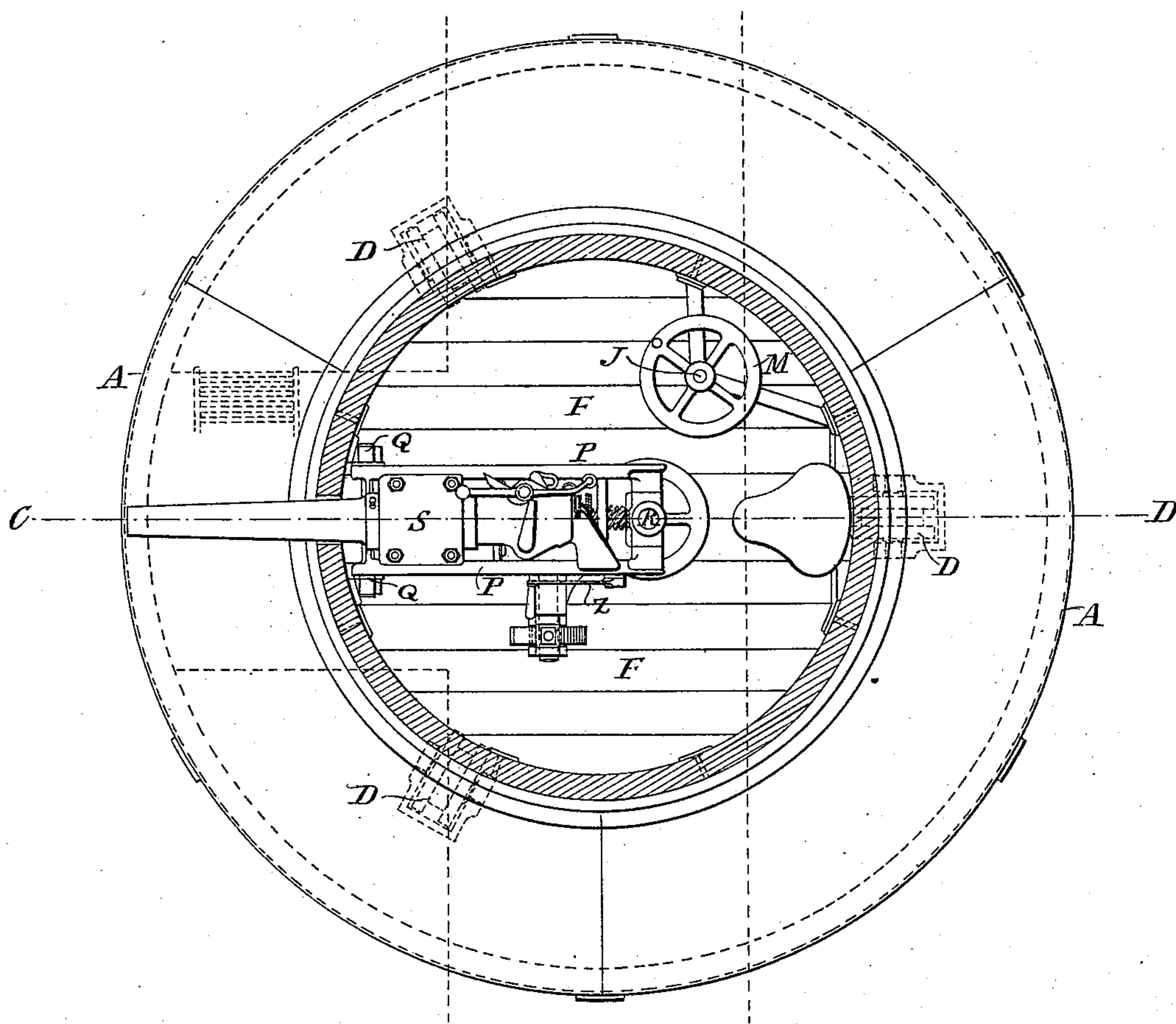
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*Fig. 3.*



*Witnesses.*

*B. D. Long.*  
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# UNITED STATES PATENT OFFICE.

THORSTEN NORDENFELT, OF WESTMINSTER, ENGLAND, ASSIGNOR TO THE  
NORDENFELT GUNS AND AMMUNITION COMPANY, (LIMITED,) OF SAME  
PLACE.

## TURRET-MOUNTING FOR ORDNANCE.

SPECIFICATION forming part of Letters Patent No. 382,182, dated May 1, 1888.

Application filed February 7, 1888. Serial No. 263,278. (No model.)

*To all whom it may concern:*

Be it known that I, THORSTEN NORDENFELT, a subject of the King of Sweden, residing at 53 Parliament street, in the city of Westminster, England, civil engineer, have invented certain new and useful Improvements in Turret-Mountings for Quick-Firing Guns, of which the following is a specification.

The object of the invention is to arrange a mounting for quick-firing guns which shall give perfect protection to the gunner, and which shall also allow the gun to be moved out of the enemy's view when not firing.

The mounting is protected by vertical stationary cylindrical armor which surrounds it, and by a dome which can be raised or lowered together with the turret-mounting of the gun. When lowered, it completely closes an aperture at the top of the cylinder, and when raised an aperture or port-hole in its side is brought above the top of the cylinder and the muzzle of the gun can be made to protrude from it. The turret is supported by chains which pass from the bottom of the turret over pulleys and down to a counter-weight, and the turret can be raised or lowered by a pinion gearing into a toothed rack which stands up centrally from the counter-weight and is jointed to it by a swivel-joint. The turret I form of two platforms, one above the other. The upper one, on which the man stands and the ammunition is placed, is capable of being rotated on a roller or ball bearing on the lower one, and the lower one, which is connected to the counter-weight, is capable only of being raised and lowered. The turning movement is effected by a pinion gearing into a rack or racer on the lower platform. The gun is laid in a cradle with hydraulic buffers, which slide in a frame which can turn on trunnions near to the port-hole or aperture, and its inner end can be elevated or depressed by a screw and nut, or by other suitable mechanism.

The drawings annexed show a turret-mounting constructed as above described.

Figure 1 is a vertical section showing the turret; Fig. 2, a vertical section with the turret lowered, and Fig. 3 a plan in section.

A is the outer cylinder of armor-plate surrounding the whole of the turret-mounting; B,

a circular platform within it supported by three chains, C, which pass over pulleys D to a counter-weight, E. The axes of the pulleys are carried at the top of pillars, as shown, and the pillars serve as guides for the platform in its upward and downward movements.

F is a circular platform above the platform B, and capable of being turned round on the ball-bearing G.

H is a pinion mounted in bearings on the upper platform, F, and gearing into a toothed rack, I, which at its lower end is connected by a swivel-joint to the center of the counter-weight. J is a vertical axis carried by the upper platform, and having upon its lower end a pinion, K, to gear with the circular ring of teeth L, fixed to the lower platform, B, so that the turret may be trained by turning the hand-wheel M, which is fixed on the top of the axis J. The upper platform, F, has uprights rising from it, by way of which to support the gun. These uprights carry the dome N, which is formed, as shown, to close in the top of the cylinder when the turret is lowered.

O is an aperture in the side of the turret, through which the muzzle of the gun can be made to protrude.

P is a frame turning on trunnions Q, which are carried in bearings close to the inner side of the aperture.

R is a screw by which the inner end of the frame is supported, and by which it can be raised or lowered to give the required elevation.

S is a carriage capable of being moved endwise along the frame by a screw, T. The screw can be turned by bevel gear-wheels turned by the crank-handle Z.

U is a hydraulic compressor for controlling the recoil of the gun.

V is an underground passage by which access is given to the interior of the turret, and W a ladder from the passage to the platforms.

It will be seen that with the construction above described there is no opening from above into the interior of the armor-cylinder when the turret is lowered, and when the turret is raised the only opening is through the aperture or port-hole.

Between the circular armor and the turret



there is a walk where ammunition can be kept and handed up to the floor on the turret, even when this is in firing position. There is also access to the turret, both when it is up or down.

5 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—

10 1. The combination of the cylinder of armor-plate, the platform in two parts, the one above the other, the upper one capable of turning and the lower one supported by chains passing over pulleys to a counter-weight, and a toothed rack pivoted centrally to the top of the counter-weight, and toothed pinion carried by the  
15 upper platform gearing therewith, substantially as described.

20 2. The combination of the armor-cylinder having the top aperture, the lower and upper platforms within the cylinder, the upper one capable of turning and the lower one supported by chains passing over pulleys to a counter-weight, the toothed rack jointed at its lower end centrally to the counter-weight, the pinion  
25 carried by the upper platform and gearing

with the rack, and the rising and falling dome-cover supported by uprights of the upper platform and provided with the side aperture or port-hole, substantially as and for the purpose set forth.

30 3. The combination of the cylinder of armor-plate, its dome-cover, the platform in two parts, one above the other, the upper one capable of turning and the lower one supported by chains passing over pulleys to a counter-weight, and a toothed rack pivoted centrally to the top of the counter-weight, and toothed pinion carried by the upper platform gearing therewith, the frame turning on trunnions near to the aperture in the dome-cover and  
40 having its rear end capable of being raised or lowered to give the required elevation, and the gun-carriage, which can be moved endwise along this frame to bring the gun within the dome-cover or move it out into firing position, substantially as described.

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Witnesses:

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