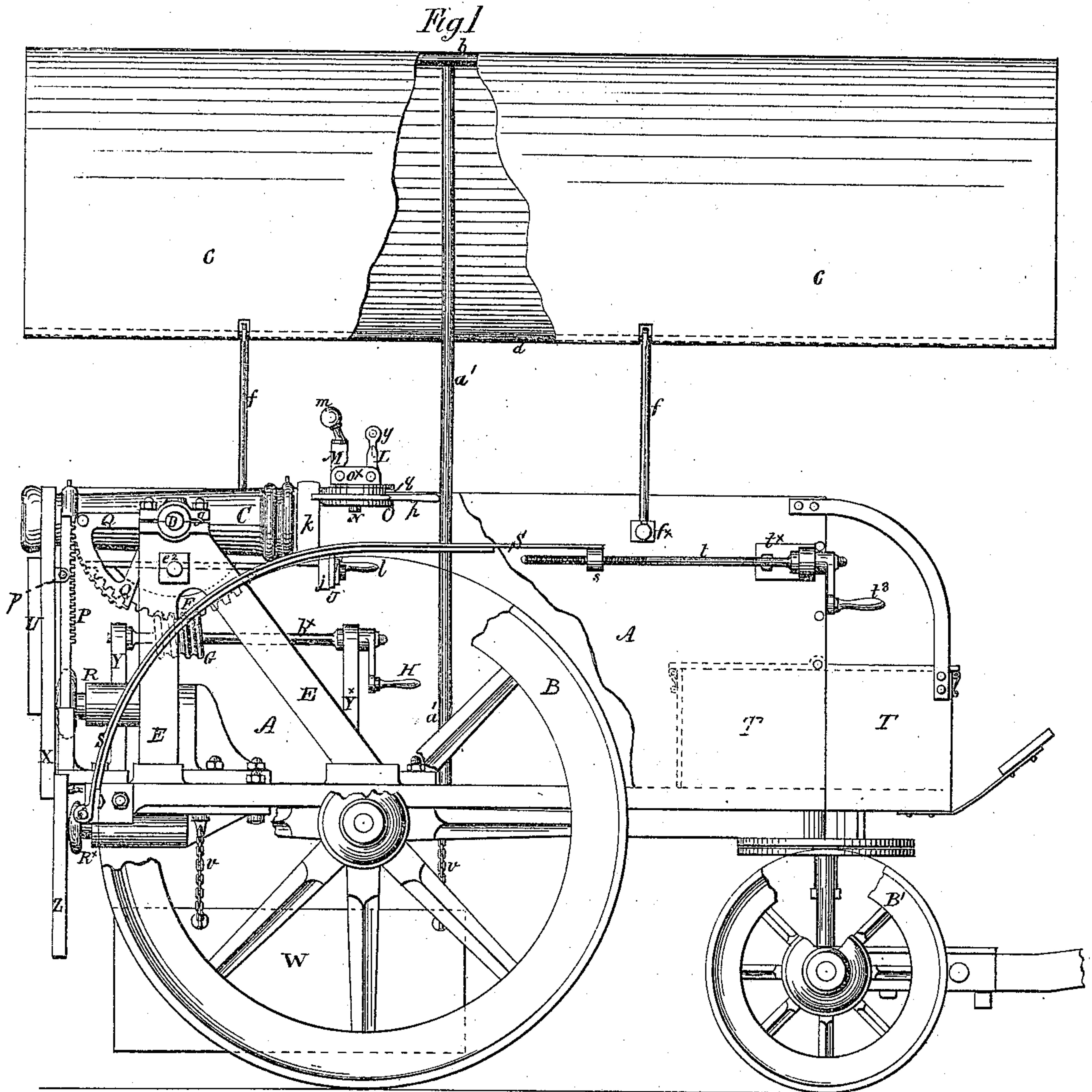


M. M. FRANZINI.
GUN-CARRIAGE.

No. 170,840.

Patented Dec. 7, 1875.



Witnesses
Ernest de Pass
G. W. Ellis

Inventor
M. M. Franzini

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Fig. 2.

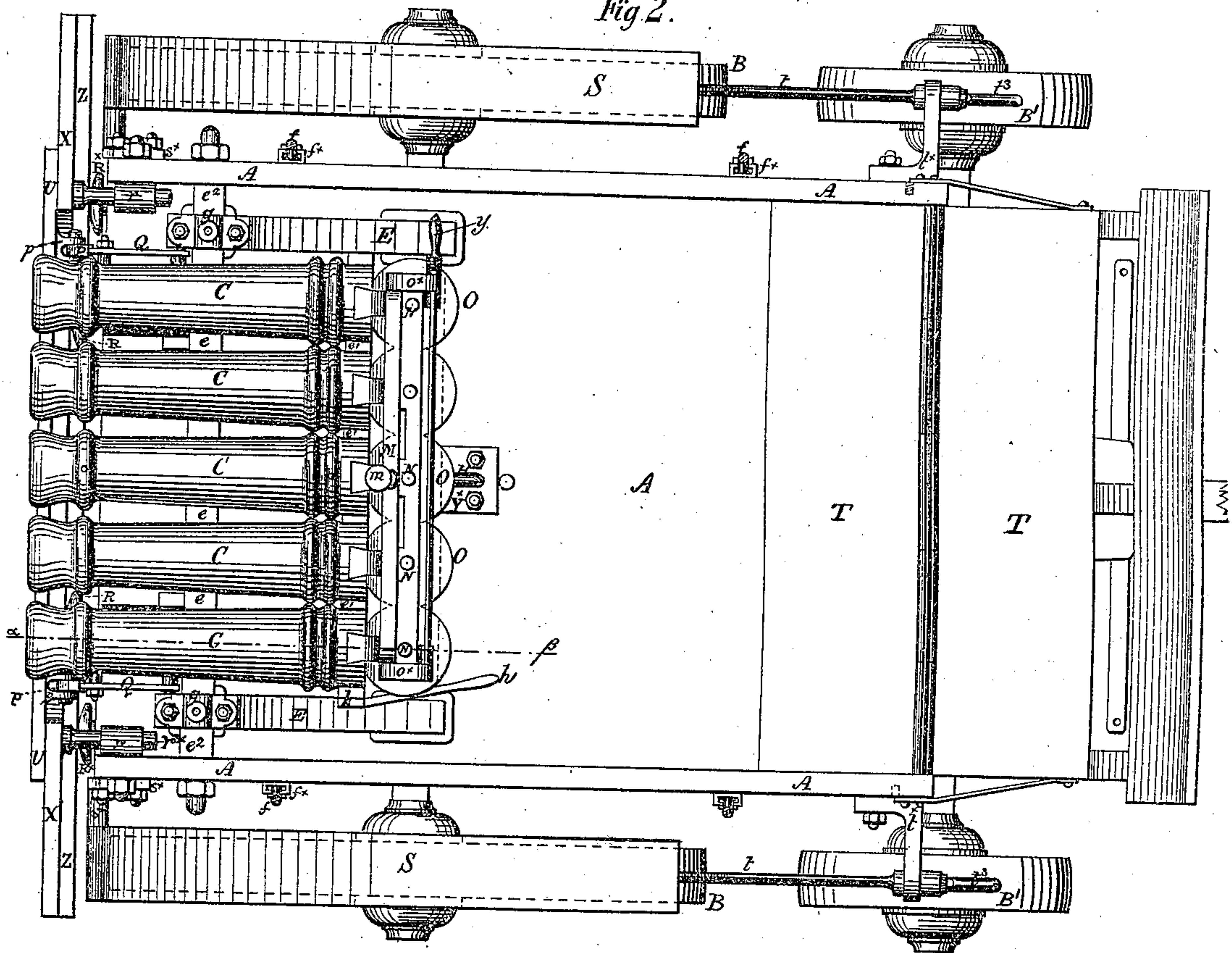
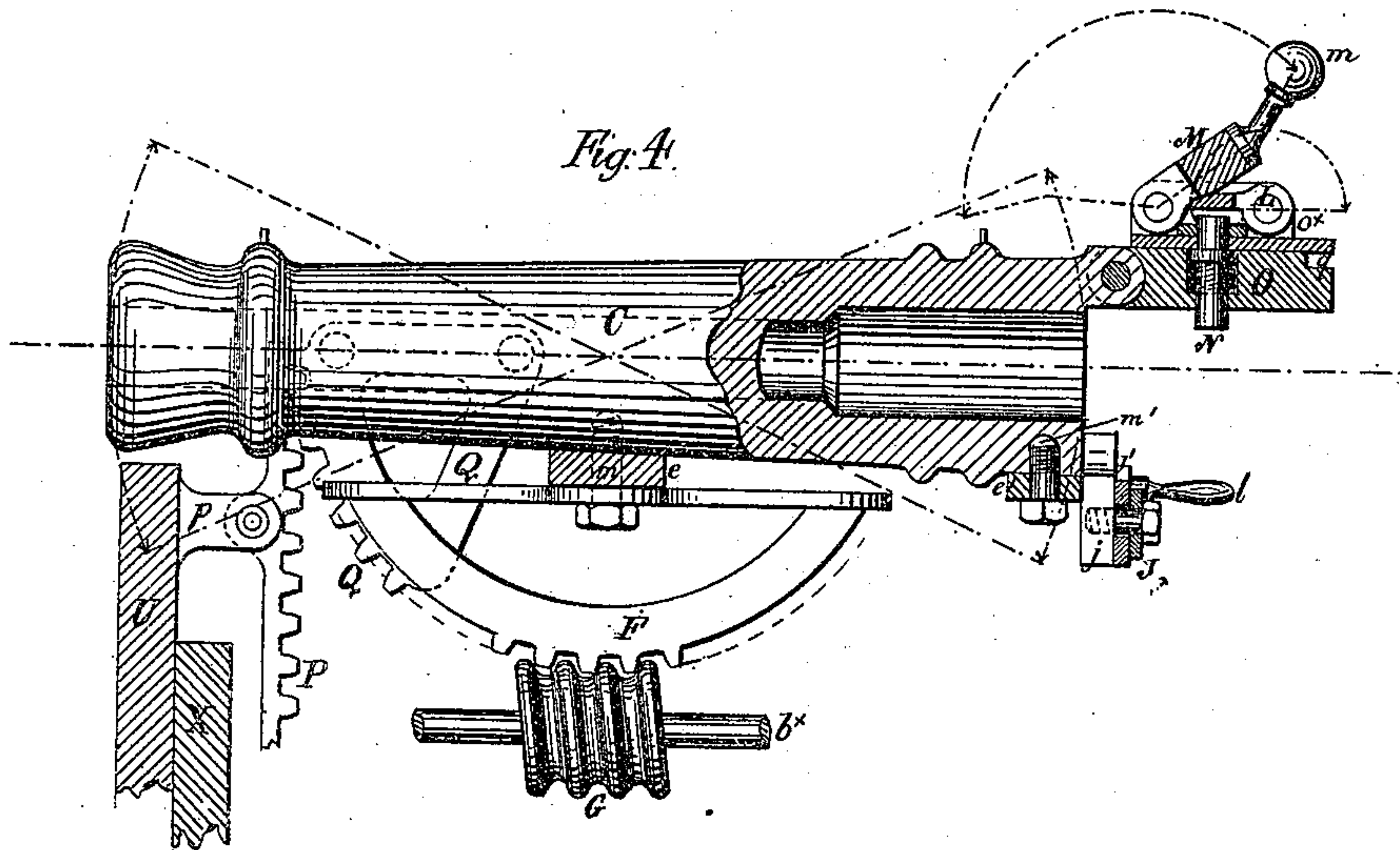


Fig. 4.



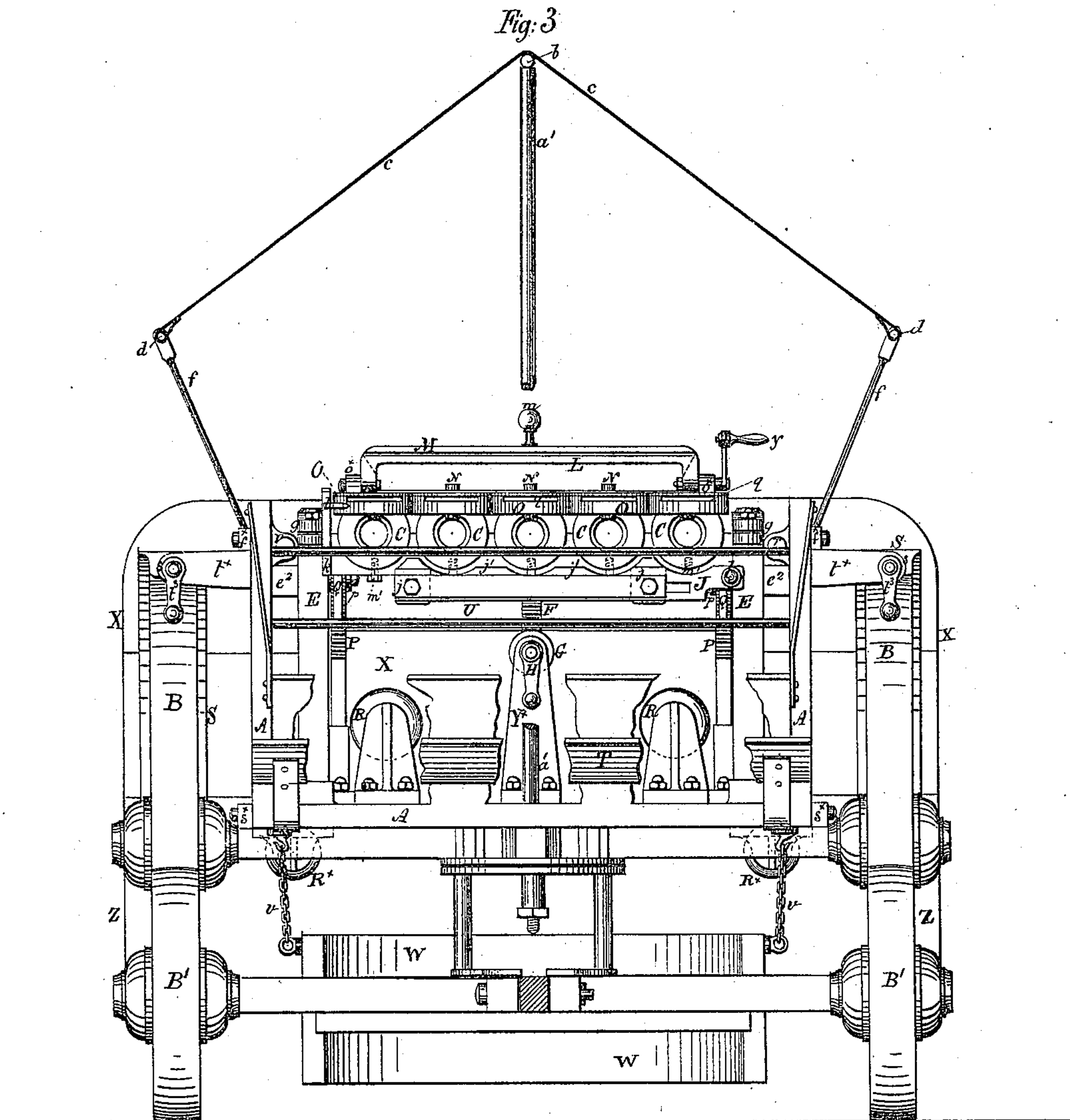
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UNITED STATES PATENT OFFICE.

MICHEL MARIE FRANZINI, OF NAPLES, ITALY.

IMPROVEMENT IN GUN-CARRIAGES.

Specification forming part of Letters Patent No. 170,840, dated December 7, 1875; application filed October 8, 1875.

To all whom it may concern:

Be it known that I, MICHEL MARIE FRANZINI, of Naples, in the Kingdom of Italy, have invented a certain Improvement in Gun-Carriage, of which the following is a specification:

The object of the invention is to construct gun-carriages of a portable character, with appliances for the protection of soldiers or persons engaged in working the same.

Figure 1 is a side elevation of the battery; a portion of the side of the carriage is removed, in order that certain parts may be seen clearly. Fig. 2 is a plan of the same. Fig. 3 is an elevation taken at the back part of the battery. Fig. 4 is a detached view, enlarged, partly in section, taken on the line L B of Fig. 2.

A is a carriage or vehicle, protected by plates, shields, or screens U X Z. A series of barrels or cannon, C, are mounted on a bed-plate, e, supported in frame-work E. The cannons are raised and lowered by suitable means, and loaded and fired by any efficient devices, those shown in the drawings being preferred. B B' are the wheels to permit the carriage or vehicle to be drawn by horses or other animals. To the bar or bed-plate e I attach a segmental wheel, F, in gear with an endless screw, G. This endless screw is mounted on a spindle, b^x, and held in supports Y Y^x. The screw-spindle terminates at one end in a handle, H, so that by turning the handle the endless screw engages in the teeth of the segmental wheel F, and causes the barrels or cannon to be raised and lowered to the desired extent.

U X Z are the shields or plates before mentioned. U is movable in an up-and-down direction, and the lower ones are stationary—that is to say, they do not rise and fall—but are capable of a slight backward-and-forward movement when struck by the enemy's shot or projectiles. The shield X moves backward and forward by means of sliding pins r^x working in sockets r, attached to the sides of the carriage, and also attached to the spring pad or buffer R. The shield Z is attached to the shield X by bolts x, and also to the spring pad or buffer R^x.

At each side of the outer cannon or barrels I attach segmental or toothed quadrant-wheels

Q, in gear with a rack, P. This rack is fitted to the uppermost or movable plate or shield U by abutments or distance-pieces p, so that, as the cannon or barrels are raised or lowered, this shield or plate rises or falls with them, so as to prevent the projectiles thrown by the enemy entering the carriage, and thus protecting the gunners or others in the vehicle who are serving the battery. The two spring pads or buffers R are fixed in supports bolted to the floor of the carriage, and press against the shield or plate X, to deaden the effect of the enemy's shot thereon. Two other spring pads or buffers, R^x, are bolted under the floor of the carriage, and press against the shield Z, for the same purpose as those above mentioned.

S is a brake, formed of a band of steel or other flexible metal, and provided on its inner surface with a band of wood. One end of this brake is bolted or otherwise fixed in a socket, s^x, projecting from the under carriage, and the other end terminates in a lug or eye, s. This lug or eye is tapped to receive a threaded rod, t, which passes through supports or projections t^x, fixed to the sides of the carriage. t³ is a handle for screwing up the threaded rod onto the lug or eye s, thereby causing the brake to be drawn or pressed tightly onto the periphery of the wheels B, so as to prevent the carriage moving from the effect of the recoil. These brake-bands extend far enough over the upper part of the wheels to prevent mud entering the carriage.

A removable covering or awning of canvas or other material, forming a tent or awning, is fitted to the carriage for the protection of the persons therein from the changes of the weather. a' is an upright bar, fixed to the floor of the carriage, at the upper extremity of which is placed another bar, b, at right angles thereto, and over which the canvas or other covering material c is placed. The covering is stretched thereon, and is kept in place by lateral bars or rods d, which take into the material, and pass through eyes in projecting rods f. These projecting rods are removable, and rest in sockets f^x on the sides of the carriage. The bars a' and b are likewise removable.

T are receptacles provided for holding different objects, also as a magazine for serving

the battery. These receptacles also form seats for the driver and the men.

Removable trays or receptacles W, attached by chains or otherwise to the under portion of the carriage, serve for the transport of food for the animals. A covering or tent may also be provided for them.

In the case of a barrel or cannon bursting it can be easily removed from its pin or studs *m m'* in the bed-plates *e e'*, and another one substituted.

By dismounting the cannon or barrels from the carriage they may be used in forts and elsewhere than in the field.

Having now described the nature of the said invention, and in what manner the same may be performed, I declare that I claim—

1. In a gun-carriage, an adjustable shield covering a part of the front of the same, and adapted to be raised and lowered by the raising and lowering of the cannon attached to the said carriage, for the purposes described.

2. The combination of the shield U, rack P, and segment-gear Q, when the several parts are adapted to operate the said shield, in the manner substantially as described and shown.

3. The combination, with the carriage A, of the shields U X Z and spring-buffers R R^x, all substantially as described and shown.

4. The combination, with carriage A and wheels B, of the metallic bands S, bearing upon the periphery or tires of the said wheels, and screw-rods *t*, substantially as described and shown.

5. The combination, with the carriage A, of the rods *a' b d f* and sockets *f^x*, forming a removable support for the covering *c*, substantially as described and shown.

M. M. FRANZINI.

Witnesses:

ERNEST DE PASS,
G. W. ELLIS.