

No. 698,049.

Patented Apr. 22, 1902.

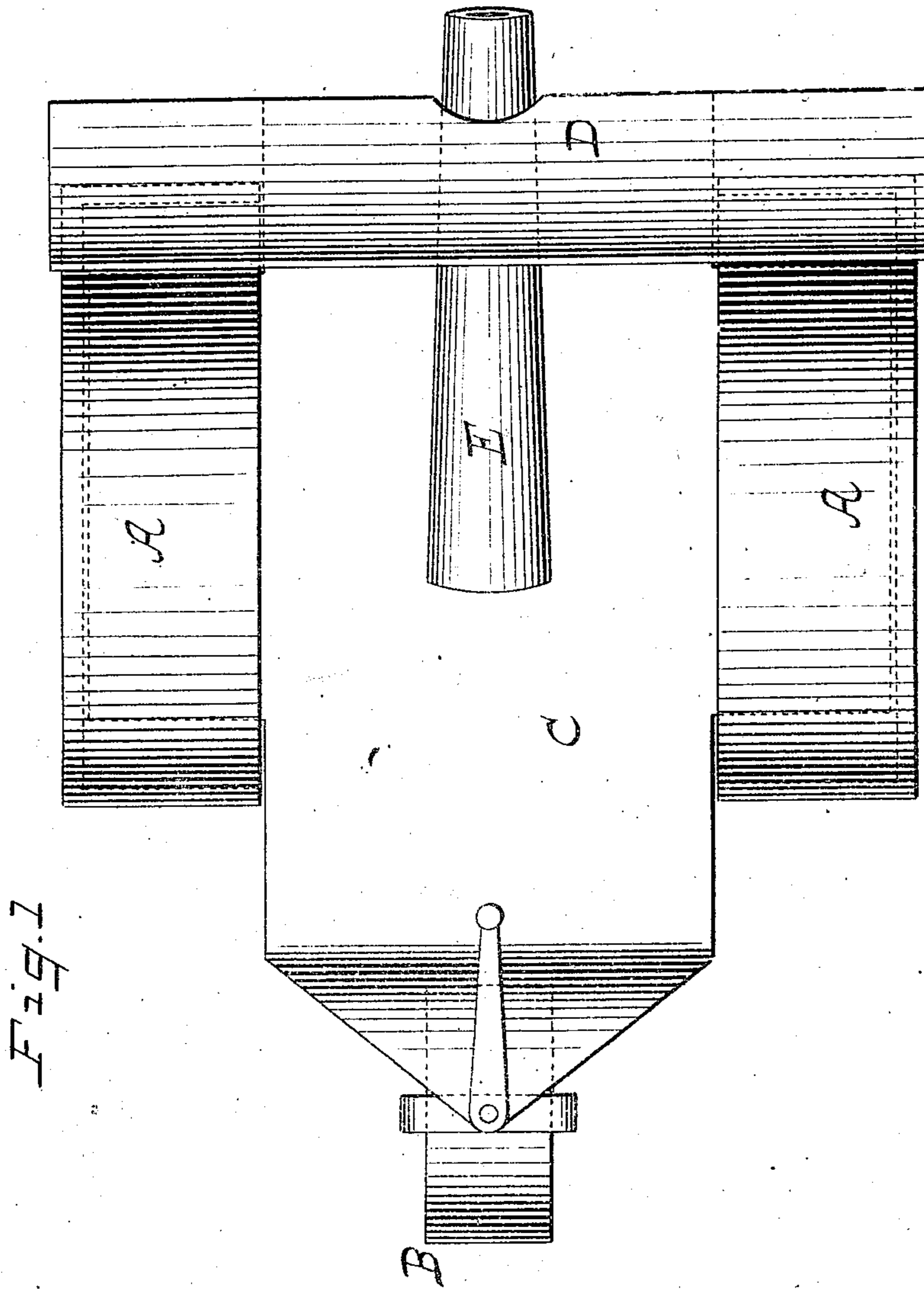
H. P. OSBORN.

GUN CARRIAGE.

(Application filed May 21, 1898.)

(No Model.)

4 Sheets—Sheet 1.



WITNESSES

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INVENTOR

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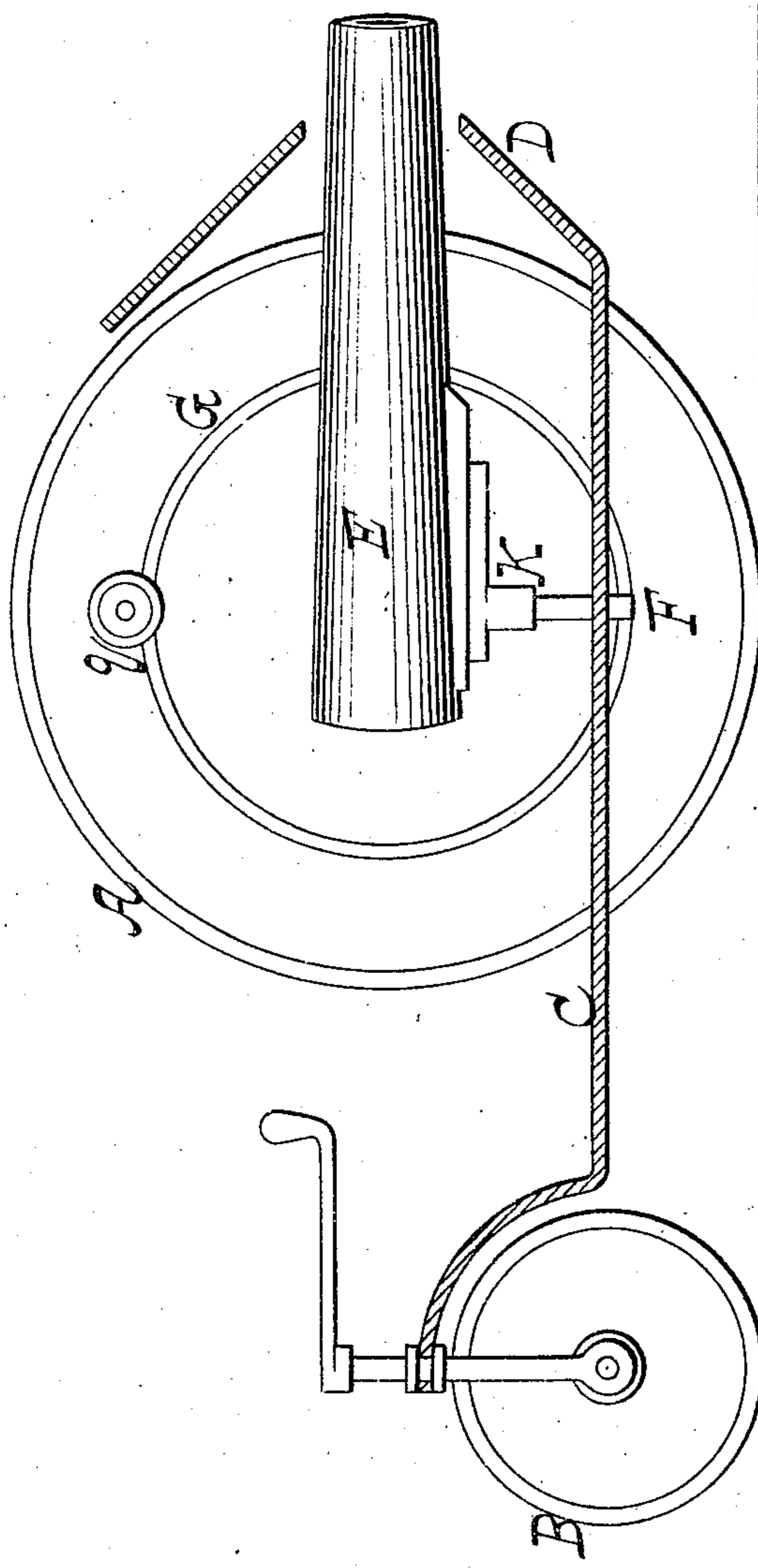
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Fig. 2



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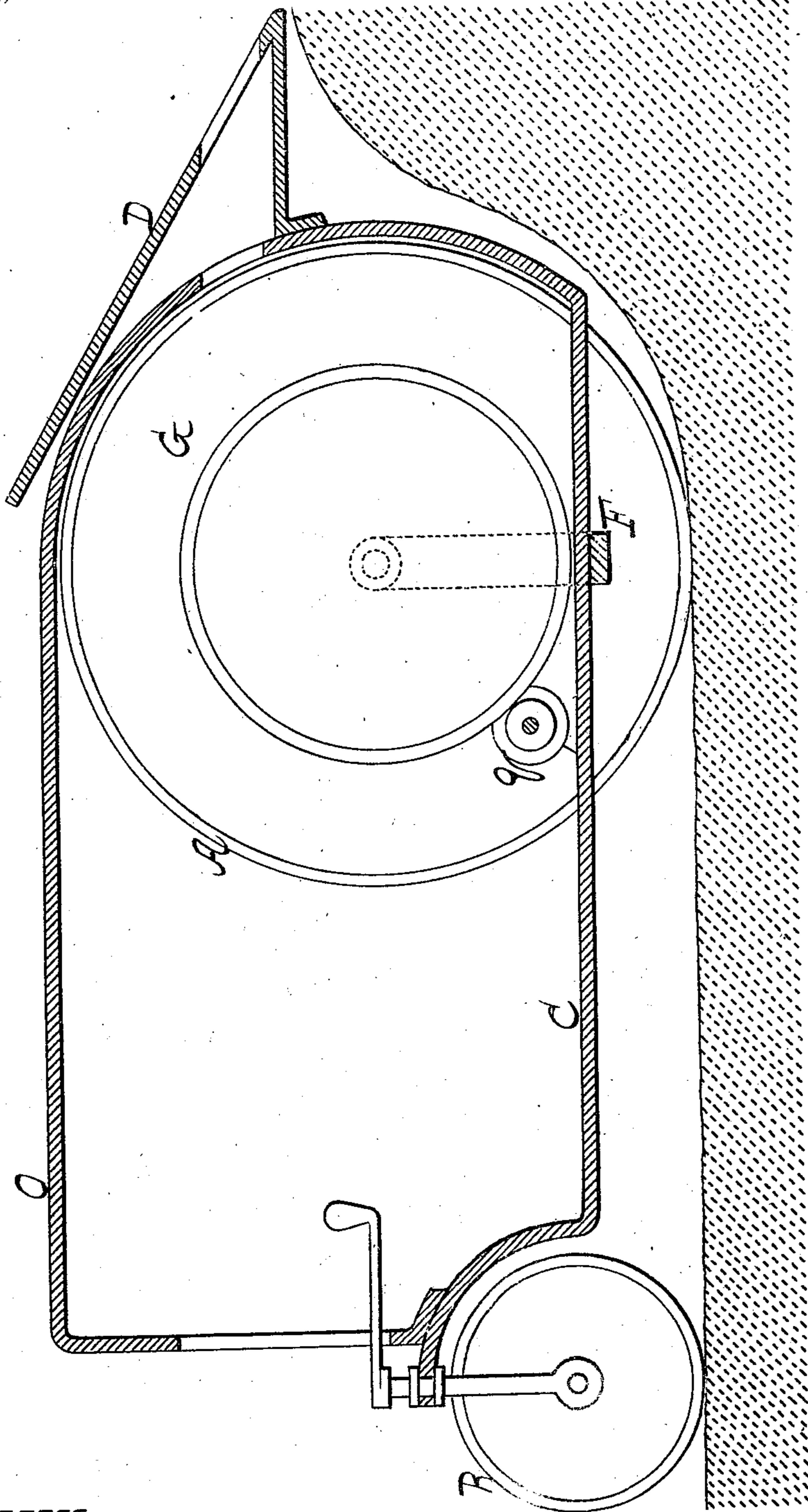
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Fig. 3



WITNESSES

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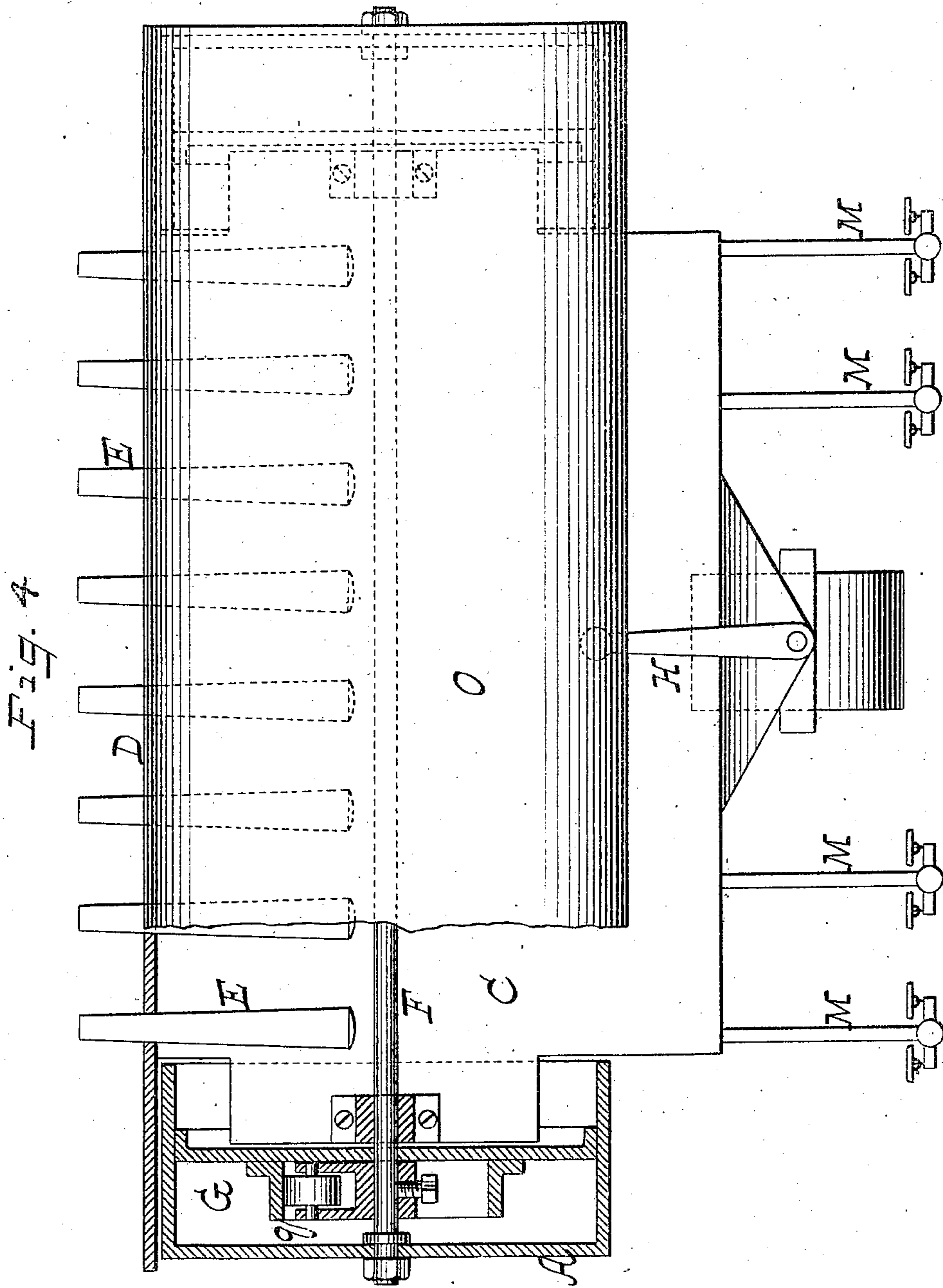
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WITNESSES.

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UNITED STATES PATENT OFFICE.

HENRY P. OSBORN, OF NEW YORK, N. Y.

GUN-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 698,042, dated April 22, 1902.

Application filed May 21, 1898. Serial No. 681,398. (No model.)

To all whom it may concern:

Be it known that I, HENRY PORTER OSBORN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Shield-Protected Automobile Gun-Carriages, of which the following is a specification.

My invention relates to improvements in shield-protected and motor-propelled gun-carriages where a wide hollow wheel with a flange projecting laterally to the tread of the wheel and toward its mate wheel is fitted with means—such as electric, steam, or any other form of motor—for propelling the carriage, and also serves as a shield auxiliary in protecting the gunners from the enemy's fire, and also in protecting the propelling means or motors from said enemy's fire; and the objects of my improvements are, first, to shield the men at the guns from the fire of the enemy; second, to provide a secure place for the means, machinery, or motors for propelling the carriage; third, to furnish a platform on which the gunners may ride and fire on the enemy while the carriage is in motion, thus furnishing a movable target instead of a stationary one; fourth, to envelop the gunners and guns in a metallic inclosure, which shall give protection to gun, gunners, and propelling mechanism or motor from exploding shells and high explosives; fifth, to use either animals, steam, electricity, or any other convenient means of propulsion in the moving of the guns and carriages from one place to another place. I attain these objects by the mechanisms illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a shield-protected, tread-projected, hollow-wheel gun-carriage. Fig. 2 is a section view of the same carriage shown in Fig. 1. Fig. 3 is a sectional view of a shield-protected gun-carriage which has a protecting-inclosure for the gunners to operate while manning the guns. Fig. 4 is a form of shield-protected tread-projecting hollow wheel gun-carriage, the wheels being set wide apart to accommodate a plurality of smaller guns than is used in a single-gun carriage.

Similar letters refer to similar parts throughout the several views.

A leading object to be obtained by my in-

vention is protection to gun and gunners from the fire of the enemy. This is accomplished by the combined use of a hollow wide wheel having its tread or felly projecting toward its mate wheel and its distal side or end closed and a shield B placed before these wheels with their mesially-projecting broad treads.

The hollow wheel A and the shield D, I construct from the best shot-proof steel known to the arts. The broad hollow wheel A has its outer end closed, and its inner mesial end—that is, the end facing its mate wheel—is open, partly inclosing the gunner while firing. The two hollow wheels A are united by an axle F, which in most cases is bent downward, passing underneath the standing-platform C. This standing-platform C lies between the two wheels A A, has wings extending within the flange-like extension of the felly of the wheels A A, and protrudes in front and in back of the wheels A A.

The front extension of the standing-platform C has attached the shield D and the back extension has attached a third or steer wheel B, which is pivotally connected with the standing-platform C. In Fig. 3 this standing-platform C is continued up in front of the wheels A A, over their tops and back, and down over both the sides and back of the rear extension of the standing-platform, forming, as it were, a box around the gunners, the hollow wheels forming a part of that box by means of their laterally-extended rims and distally-closed ends.

In Figs. 1, 2 no top and side protection is shown except that given by the hollow wheels, which are made broad and deep by the lateral extension of this tread or tire portion, which extension also serves to hold the motive machinery, such as electrical and any other form of motor, in a protecting-inclosure denoted by motor-space G.

For the purpose of traveling over the trolley-roads of the country I can secure two carriages together, and by either removing the third wheel from each carriage or by elevating it above rail-contact form a four-wheel truck, which can be made to travel the rails by attaching flanges to the wheels, and its motive power can be gathered from the trol-

ley-wires after the manner of an ordinary trolley-car.

While I intend to use principally animals, electricity, steam, petroleum, with their requisite and proper motors for converting these various energies into motion, still any convenient method of propulsion can be used whose motor can be operated in the motor-space G and connected to drive the large wheels A A, the kind of power employed depending upon the election of those in authority. Where animals are used, they walk behind the carriage and push it in front of them, advancing with the guns playing on the enemy, in which case the steer-wheel B is used to guide the carriage; but when the movement is a retreat the steer-wheel is not so much in use as a guide. Still it may be used to aid the rapid turning of the carriage.

I prefer to arrange the shield D at a deflective angle to more readily turn the enemy's shot, and where the carriages are intended for use behind breastworks I place the shield D above the center of the large wheels, as is shown in Fig. 3.

The width of the wheels and their distance apart is a matter of mere selection to be determined by experience and judgment of military authorities.

Heretofore guns on carriages have been moved with their breech advancing. My gun-carriage is intended to be moved with the muzzles of the guns advancing, so that they can fire while advancing.

E shows the gun; F the axle, which may be either straight or bent to pass below the standing-platform C or above the gunner's head, as desired.

H denotes any form of steering apparatus desired, a lever being here shown; but any convenient apparatus can be employed.

Q shows electric motor, gasolene, kerosene, or any convenient form of motor, such as compressed air or the like.

M shows poles for attaching horses, mules, or other animals for pushing when advancing or pulling when retreating. The animals walk behind the carriage, pushing it in front of them when the carriage is advancing and is then turned by the steer-wheel B, which guides the horses, and dragging it after them when it is retreating, at which time the steer-wheel B is but little used, the muzzles of the guns in both cases being pointed toward the enemy.

This feature is of great importance in case of a charge in which a steady fire is desired during the charge and during the retreat. This arrangement of the draft-animals places the carriage, with its shield, between the animals and the enemy's fire, protecting them, as well as the gunners and guns.

I have not shown any gun-operating mechanism, as it belongs more to the gun than to the carriage. In fact, any form of gun-operating mechanism can be used on guns when they are mounted on my form of carriage.

In placing my shields disposition is so made of the shield and of the thickness of metal as to guard from puncture the most vulnerable parts of the broad wheels A A.

Where a breastwork is used to protect the lower portions of the broad wheels, I place the shield D at an incline above the center of the large wheels, with their lateral extensions toward each other.

Where the carriage is intended for open-country use, I place the shield (which I prefer of a V-shaped form) before the center of the large advancing wheels, as the center is most liable to puncture, it offering a surface nearest of any at right angles to the projectile's course. The V shape of the shield gives upward and downward deflection to an oncoming projectile. I extend the shield above and below the wheel's center sufficient to leave the exposed portions of the wheel a deflective inclined surface to the course of the oncoming shot of the enemy. Where possible, I place the motor Q, with its machinery, behind the thicker portions of the shield D, which aids the hollow end-closed wheels A A in guarding it from harm.

Where the large wheels A A are very deep, as in Fig. 4, I partition off the motor-space G for the purpose of giving greater protection to the motor Q and also to strengthen and stiffen the wheels A A. This inclosed space serves to hold the storage batteries when the storage system of electrical supply is used, from which batteries the electricity is conveyed to the motors for propelling purposes.

I am aware that prior to my invention shields have been used on gun-carriages. I therefore do not broadly claim the sole use of a shield on a gun-carriage; but

What I do claim, and desire to secure by Letters Patent, is—

1. The combination in a gun-carriage of a pair of hollow wheels which have their distal ends closed and their tires or treads mesially extended, with a riding-platform having lateral extensions within the wheels and a posterior extension between the wheels for the attachment of a third wheel.

2. In a gun-carriage, the combination of a pair of hollow wheels, which have their distal ends closed and their tires or treads mesially extended, a connecting-axle, and a platform with lateral extensions within the wheels and a posterior extension between the wheels for the attachment of a third wheel substantially as described.

3. In a gun-carriage, the combination of a pair of hollow wheels which have their distal ends closed and their tires or treads mesially extended for motor and man protection, a connecting-axle, a platform supported by said axle which platform has lateral extensions within the wheels a posterior extension for the attachment of a third or steer wheel and an anterior extension for the attachment of a shot-shield, and a shot-shield extending across

and in front of the space between the wheels and in front of the wheels for motor and man protection, substantially as described.

4. In a motor-actuated gun-carriage, the combination of a disk-like wheel having mesial extension of its tire or tread, and an electrical or other form of motor protectively arranged within the hollow of said wheel as a means of motor protection, substantially as described.

5. In a gun-carriage, the combination of a pair of hollow wheels having their distal ends closed and their tires or treads mesially extended for motor and man protection, an electrical or other motor protectively arranged within said wheel or wheels, substantially as described.

6. In a gun-carriage, the combination of a pair of axially-connected hollow wheels having their distal ends closed and their tires or treads mesially extended for motor and man protection, an electrical or other motor protectively arranged within said wheel or wheels, and a connecting-axle, substantially as described.

7. In a gun-carriage, the combination of a pair of axially-connected hollow wheels having their distal ends closed and their tires or treads mesially extended for motor and man protection, an electrical or other motor protectively arranged within said wheel or wheels, a connecting-axle, a standing or riding platform supported by said axle and having lateral extensions within the hollow of the wheels a posterior extension between the wheels for the attachment of a third wheel and an anterior extension between the wheels for the attachment of a shot-shield substantially as described.

8. In a gun-carriage, the combination of a pair of axially-connected hollow wheels having their distal ends closed and their tires or treads mesially extended for motor and man protection, an electrical or other motor protectively arranged within said wheel or wheels, a connecting-axle, a standing or riding platform supported by said axle and having lateral extensions within the hollow of the wheels a posterior extension between the wheels, for the attachment of a third wheel and an anterior extension between the wheels for the attachment of an armor-shield, and an anteriorly-placed armor-shield which bridges the space between the wheels and overlaps the mesially-projecting tread of the hollow wheels, substantially as described.

9. In a gun-carriage, the combination of a pair of axially-connected hollow wheels having their distal ends closed and their tires or treads mesially extended for motor and man protection, an electrical or other motor protectively arranged within said wheel or wheels, a connecting-axle, a standing or riding platform supported by said axle and having lateral extensions within the hollow of the wheels a posterior extension between the wheels for the attachment of a third wheel

and an anterior extension between the wheels for the attachment of an armor-shield, an anteriorly-placed armor-shield which bridges the space between the wheels and overlaps the mesially-projecting tread of the hollow wheels, and a third wheel pivotally connected with the standing-platform, substantially as described.

10. In a gun-carriage, the combination of a pair of hollow wheels with mesially-projecting treads and closed ends, a connecting-axle, a platform extending within the hollow of the wheels, and a gun above said platform, substantially as described.

11. In a motor-actuated gun-carriage, the combination of a disk-like wheel, having mesial extension of its tire or tread, an electrical or other form of motor protectively arranged within the hollow of said wheel as a means of motor protection, and an anteriorly-placed shield as a further means of motor and man protection, substantially as described.

12. In a gun-carriage, the combination of an armor-shield which bridges the space between a pair of hollow tub-like wheels and overlaps the extended tread of the tub-like wheels, and a standing or riding platform which has an anterior extension for the attachment of the shield a posterior extension and lateral extensions which platform the hollows of the tub-like wheels substantially as described.

13. In a gun-carriage, the combination of a pair of tub-like wheels, a connecting-axle, an electrical or other motor placed protectively within the wheels and in operative relation therewith, a standing-platform within the wheels and bridging the space between them, a shield placed anterior to the wheels and to the space between them, and a third wheel, substantially as described.

14. In a gun-carriage, the combination of a pair of axially-connected hollow wheels which have their distal ends closed their tires or treads mesially extended and a partition within the extended tread which with the closed end and extended tread forms a motor-protection space, and an electrical or other motor operatively connected with said wheel within said space, substantially as described.

15. In a gun-carriage, the combination of a pair of hollow wheels which have their distal ends closed and their tires or treads mesially extended for motor and man protection, a connecting-axle, a platform below the center of the wheels which is supported by the axle and has extensions within the hollow of the wheels an extension forward between the wheels supporting an anteriorly-placed shield and a posterior extension, poles or shafts for animal attachment, substantially as described.

16. In a gun-carriage, the combination of a pair of hollow wheels with distally-closed ends and mesially-extended treads, an axle, an electrical motor and a storage battery arranged so as to be protected by the extended tread and closed end of the wheel, a platform

supported by the axle and placed below the center of the wheels which has an anterior extension which supports a shield a posterior extension which connects with a third wheel
5 and lateral extensions behind the extended treads of the wheels, and a gun above said platform, substantially as described.

17. In a gun-carriage, the combination of a pair of hollow wheels with distally-closed
10 ends and mesially-extended treads, and a third or steer wheel in pivotal connection with a standing-platform which projects into the hollow of the wheels, substantially as described.

18. In a motor-actuated gun-carriage, the combination of a disk-like wheel having mesial extension of its tire or tread, an elec-
15 trical or other form of motor protectively arranged within the hollow of said wheel as a means of motor protection, a wheel-space-
20 bridging and wheel-tread-covering shield as a means of motor and man protection, and a riding-platform which is carried by the disk-like tread-extended wheel, substantially as
25 described.

19. In a motor-actuated gun-carriage, the combination of a disk-like wheel having mesial extension of its tire or tread, an elec-

trical or other form of motor protectively ar-
ranged within the hollow of said wheel as a
30 means of motor protection, a wheel-space-bridging and wheel-tread-covering shield as a means of motor and man protection, a riding-
platform which is carried by the disk-like tread-extended wheel, and a pivotally-con-
35 nected steering-wheel, substantially as described.

20. In a motor-actuated gun-carriage, the combination of a disk-like wheel, having mesial extension of its tire or tread, an elec-
40 trical or other form of motor protectively arranged within the hollow of said wheel as a means of motor protection, a wheel-space-bridging and wheel-tread-covering shield as
45 a means of motor and man protection, a riding-platform which is carried by the disk-like tread-extended wheel, a pivotally-connected steering-wheel, and an armored roof
or canopy bridging the space between a pair
50 of disk-like tread-extended wheels, substantially as described.

HENRY P. OSBORN.

Witnesses:

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