No. 756,272. PATENTED APR. 5, 1904.

S. W. A. NOBLE.

AMMUNITION HOIST.

APPLICATION FILED SEPT. 24, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

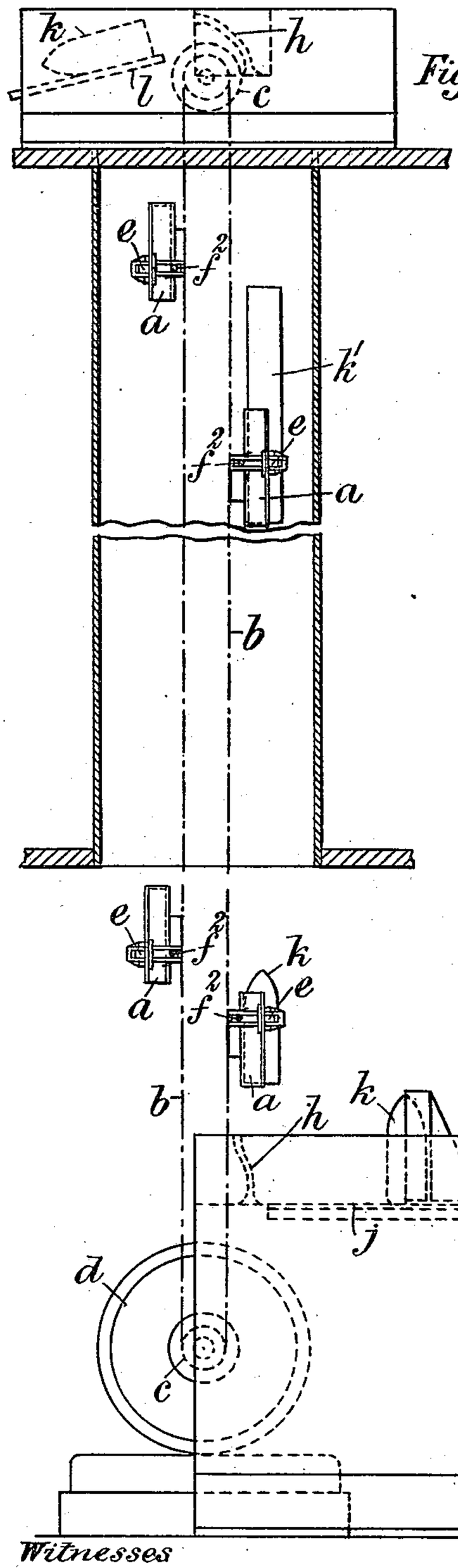
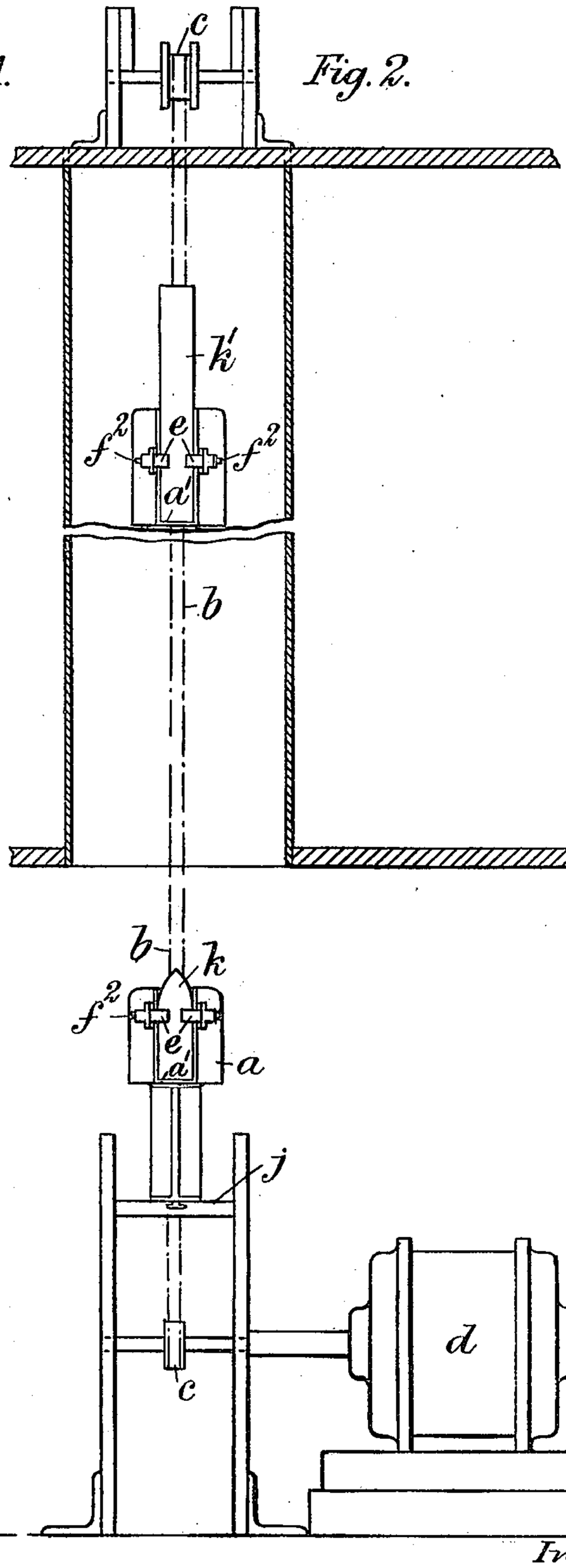


Fig. 2.



Witnesses

M. L. Adams

Inventor

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Baldwin, Davidson & Wright

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

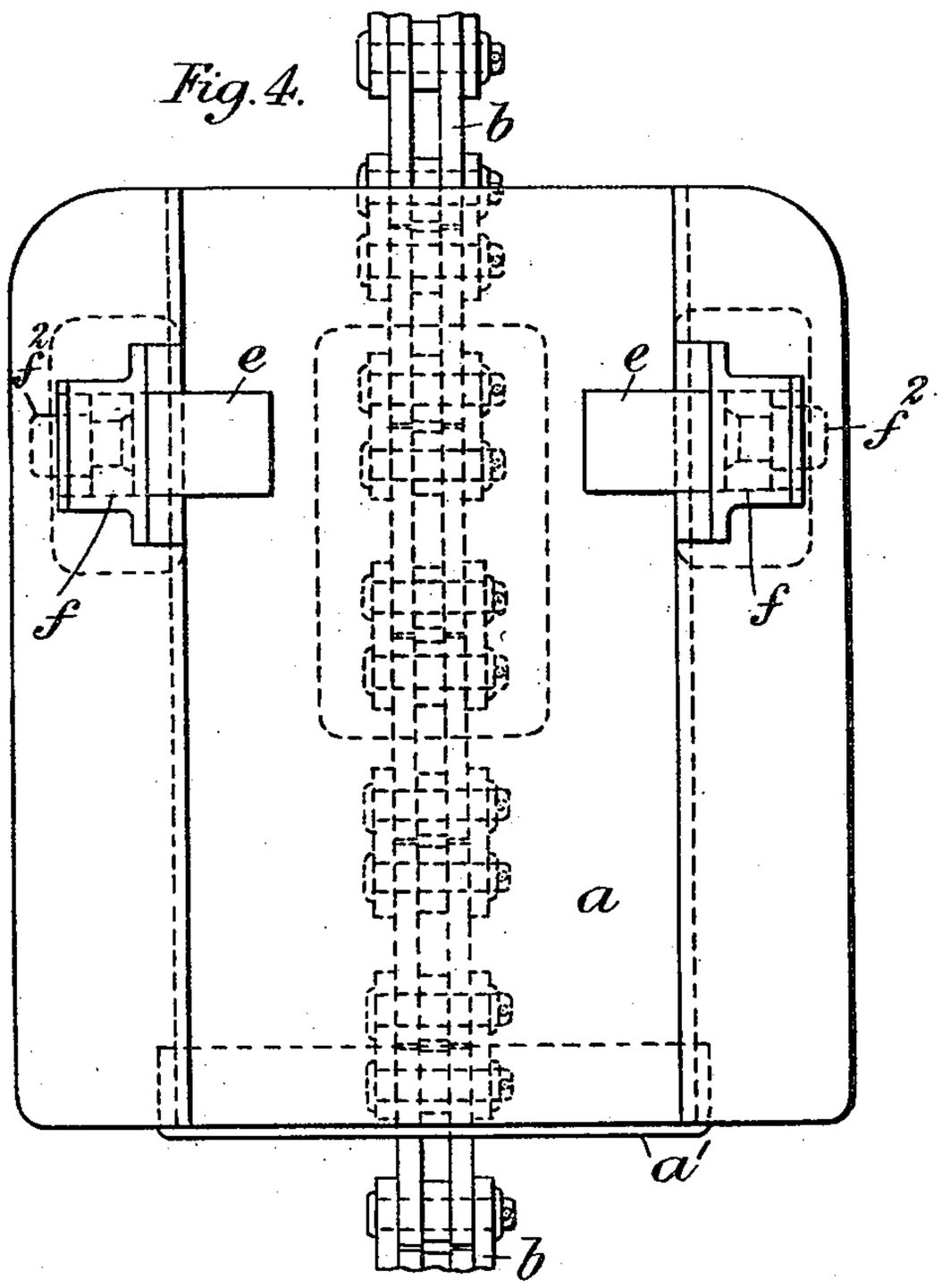


Fig. 3.

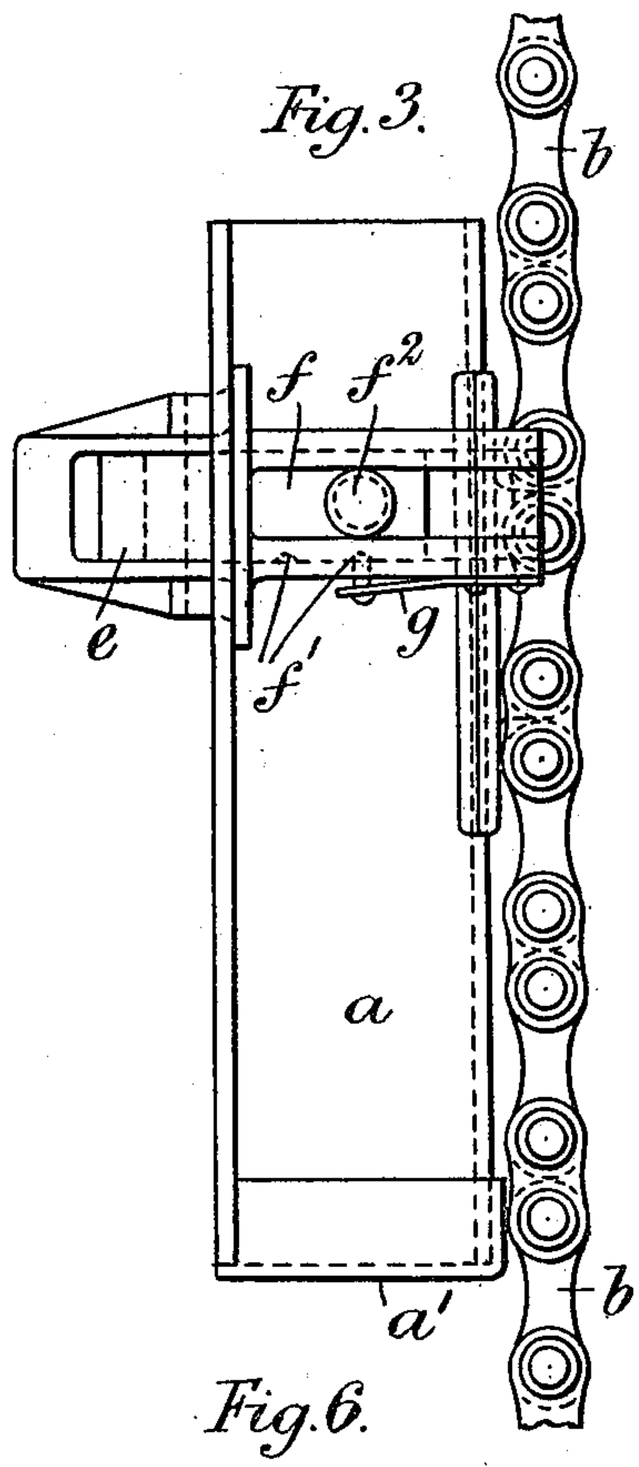


Fig. 5.

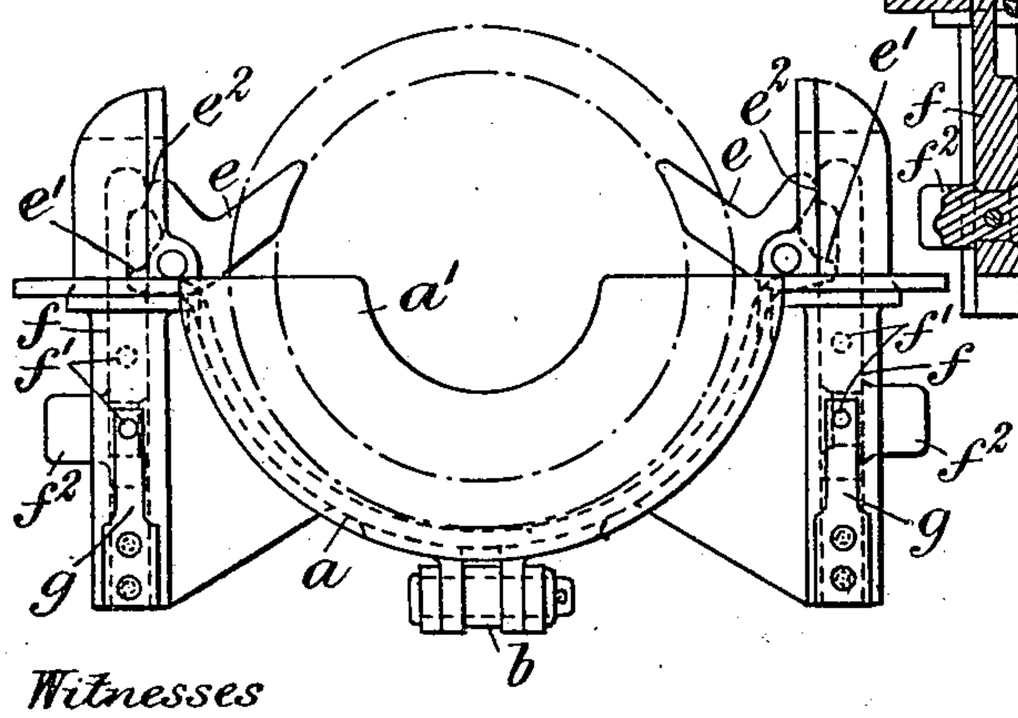
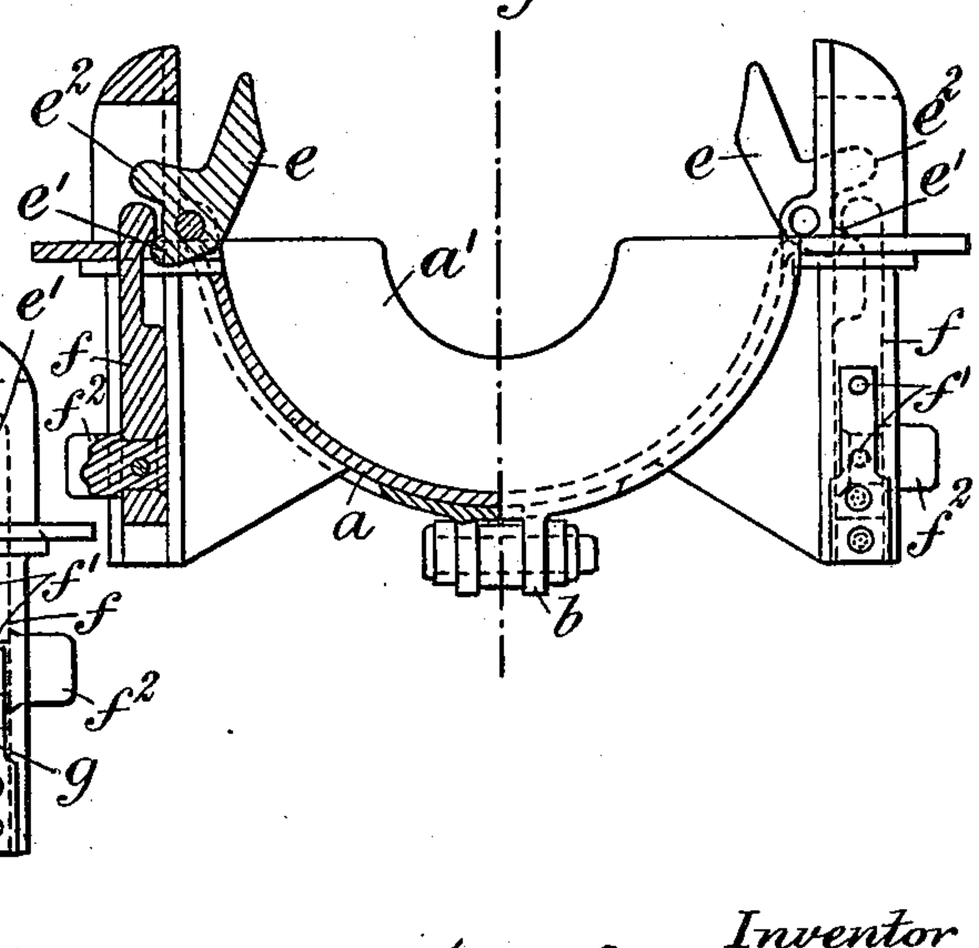


Fig. 6.



Witnesses

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No. 756,272. Patented April 5, 1904.

UNITED STATES PATENT OFFICE.

SAXTON WILLIAM ARMSTRONG NOBLE, OF WESTMINSTER, ENGLAND, ASSIGNOR TO SIR W. G. ARMSTRONG, WHITWORTH AND COMPANY, LIMITED, OF NEWCASTLE-UPON-TYNE, ENGLAND.

AMMUNITION-HOIST.

SPECIFICATION forming part of Letters Patent No. 756,272, dated April 5, 1904.

Application filed September 24, 1903. Serial No. 174,471. (No model.)

To all whom it may concern:

Be it known that I, SAXTON WILLIAM ARMSTRONG NOBLE, engineer, a subject of the King of Great Britain, residing at 8 Great George street, in the city of Westminster, England, have invented certain new and useful Improvements in Ammunition-Hoists, of which the following is a specification.

This invention relates to a hoist which automatically seizes the ammunition, raises or lowers it to the desired place, and then automatically releases it.

Figures 1 and 2 are sectional elevations of the hoist. Figs. 3 and 4 are similar views to Figs. 1 and 2, showing one of the trays to a larger scale. Fig. 5 is a plan of Fig. 4, and Fig. 6 is a half-plan and half-section showing the parts in a different position to Fig. 5.

a a are a series of semicylindrical trays for carrying the ammunition, which are attached to one or more chains *b*, which run over sprocket-wheels *c* at the top and bottom of the hoist, these wheels being driven by any suitable power, such as a motor *d*. The semicylindrical trays are parallel with the chain, and are therefore vertical when lifting or lowering, there being a rim *a'* at the bottom of each tray for the ammunition to rest on. On either side of each tray are pivoted catches *e* to embrace the ammunition, the catches being actuated by sliding bolts *f*, which act on arms e' e^2 on the catches. By acting on one arm, e', the catch is opened and by acting on the other, e^2, the catch is closed. Spring-catches *g* are provided, which drop into holes f' in the sliding bolts to retain in the open or closed position. The sliding bolts *f* are moved at the top and bottom of the hoist by cams *h*, which engage with projections f^2 on the bolts. As the chains move over the sprocket-wheels they bring each tray past a platform *j*, on which is placed the ammunition, consisting of shot *k* and powder-cases *k'*. These are in a vertical position, and the rim *a'* of each tray *a* in passing picks up the ammunition, and the sliding bolts *f* by the action of the cams actuate the catches, thus locking the ammunition in the tray, as shown at Fig. 5, until it arrives at the depositing-station at the top of the hoist. As the tray passes over the sprocket-wheels at the top of the hoist the securing-catches are opened, as shown at Fig. 6, and the trays moving past the horizontal position the ammunition slides onto a fixed receiving-platform *l*, arranged tangentially to the upper pulley, as shown at Fig. 1.

When it is required to lower ammunition from the top of the hoist to the bottom, the ammunition is placed in the trays as they pass downward over the top sprocket-wheels, the direction of the motion of the chain being reversed, and is locked in the trays until it arrives at the bottom of the hoist, where the catches are released and the ammunition deposited on the platform *j*. The lowering can be done by power, but preferably by the weight of the ammunition, the motion being controlled by a brake.

What I claim is—

1. In an ammunition-hoist, the combination of an endless chain, pulleys around which the chain passes, a semicylindrical tray parallel to the chain and carried by it, a catch pivoted to the tray, and means for turning the catch about its pivot.

2. In an ammunition-hoist, the combination of an endless chain, pulleys around which the chain passes, a tray carried by the chain, a catch pivoted to the tray, a bolt engaging with the catch, a lug on the bolt, and a cam in the path of the lug.

3. In an ammunition-hoist, the combination of an endless chain, pulleys around which the chain passes, a semicylindrical tray parallel to the chain and carried by it, a catch pivoted to the tray, means for turning the catch about its pivot, and a table tangential to the upper pulley.

4. In an ammunition-hoist, the combination of an endless chain, pulleys around which the chain passes, a tray carried by the chain, a catch pivoted to the tray, a bolt engaging with the catch, a lug on the bolt, a cam in the path of the lug, and a table tangential to the upper pulley.

5. In an ammunition-hoist, the combination

of an endless chain, pulleys around which the chain passes, a semicylindrical tray parallel to the chain and carried by it, a catch pivoted to the tray, means for turning the catch about its pivot, a table tangential to the upper pulley, and a second table near the bottom of the chain.

6. In an ammunition-hoist, the combination of an endless chain, pulleys around which the chain passes, a tray carried by the chain, a catch pivoted to the tray, a bolt engaging with the catch, a lug on the bolt, a cam in the path of the lug, a table tangential to the upper pulley, and a second table near the bottom of the chain.

SAXTON WILLIAM ARMSTRONG NOBLE.

Witnesses:
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H. PETER VENN.