





# UNITED STATES PATENT OFFICE.

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## HOSE-CARRIAGE.

SPECIFICATION forming part of Letters Patent No. 354,465, dated December 14, 1886.

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*To all whom it may concern:*

Be it known that we, CONRAD A. DORR and EDWARD B. HILL, both of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Hose-Carriages, of which the following is a full, clear, and exact description.

The object of our invention is to provide practical means whereby the traction of the hose-carriage may be utilized for reeling up the hose; and the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a fireman's hose-carriage having our invention applied thereto. Fig. 2 is a detailed view showing a part of the rear axle and a part of one wheel in elevation, the chain-pulleys and clutch in sectional elevation, and the pulley-cylinder and inner flange in broken section. Fig. 3 is a perspective view of the clutch, its operating-lever, and notched holding-bar. Fig. 4 is a sectional perspective view of the pulley-cylinder and one of the chain-pulleys, and Fig. 5 is an edge view of the lever for operating the clutch.

Upon the hub of the wheel A is secured the cylinder B, which revolves with the wheel. At each end of the cylinder B is secured a flange, *a*, and in the center of the cylinder upon its periphery are formed fins *b*, that hold and guide the clutch C. Between the ends of the fins *b* and the flanges *a* are placed loosely upon the cylinder the chain-pulleys D D', which are adapted to be locked to the cylinder B by the clutch C alternately for revolving the reel E, for winding up the hose thereon, the motion being communicated through the endless chains F F' and chain-pulleys G G', secured upon the shaft of the drum or reel.

The clutch mechanism may be variously arranged but we prefer to form the inner surfaces of the pulleys D D'; with recesses *c*, and to form the edges of the clutch-ring C with the projections or tongues *d*, arranged to enter the recesses *c*. The clutch-ring is held to the cyl-

inder B by the fins *b*, that enter the grooves *b'*, made upon the inner surface of the ring, and the ring is adapted to be moved to the right or left for clutching with the pulley D or D' by the ring-lever H, which is connected with the clutch-ring by the pivoted shoes *e e*, that fit in a circumferential groove, *f*, made in the ring. The lever H is fulcrumed below the cylinder B in the plate I, attached to the axle J, and its upper end is arranged to be held by the notches *g* in the plate K. There are three notches, *g*, in the plate K, and these are so arranged that when the lever H is placed in the center one the clutch-ring C will not engage with either of the pulleys on the cylinder B; but when placed in either of the other notches one or the other of the pulleys will be clutched to revolve, according to the direction the lever H is moved.

The pulley G upon the shaft of the drum E is of considerable diameter, while the pulley G' is of comparatively small diameter. The object of this and the two pulleys D D' and chains F F' is to enable the drum or reel E to be revolved with a rapid or slow speed. In ordinary use, at the outset of winding up the hose the lever H will be removed to clutch the pulley D', so that through the endless chain F' and small pulley G' a rapid motion will be given to the drum E, and this will continue until the diameter of the roll of hose upon the reel is considerable or reaches a point where the hose is reeled too rapidly, or more rapidly than the carriage moves. Then the lever H will be moved to disengage pulley D' and engage the pulley D, which, through chain F and pulley G, will communicate a comparatively slow speed to the reel E; but owing to the large diameter of the roll of hose on the reel will cause the hose to be wound up with the same speed that the carriage is drawn along over it.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The hose-reel mounted on wheels and provided with pulleys of different diameters, and endless chains or belts, combined with two pulleys carried by the axle of the hose-carriage, and a sliding clutch arranged to alter-

nately engage the pulleys for changing the speed of revolution of the reel, substantially as described.

2. The wheel A, provided with the cylinder  
5 B, in combination with the pulleys D D', sliding-clutch C, placed between them and the pulleys G G', and chains F F', substantially as described.

3. The wheel A, provided with the cylinder  
10 B, having the pulleys D D' and clutch C

placed thereon, in combination with the pulleys G G' on the shaft of the reel E, the chains F F', the lever H, and the notched holding-rod K, substantially as described.

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