

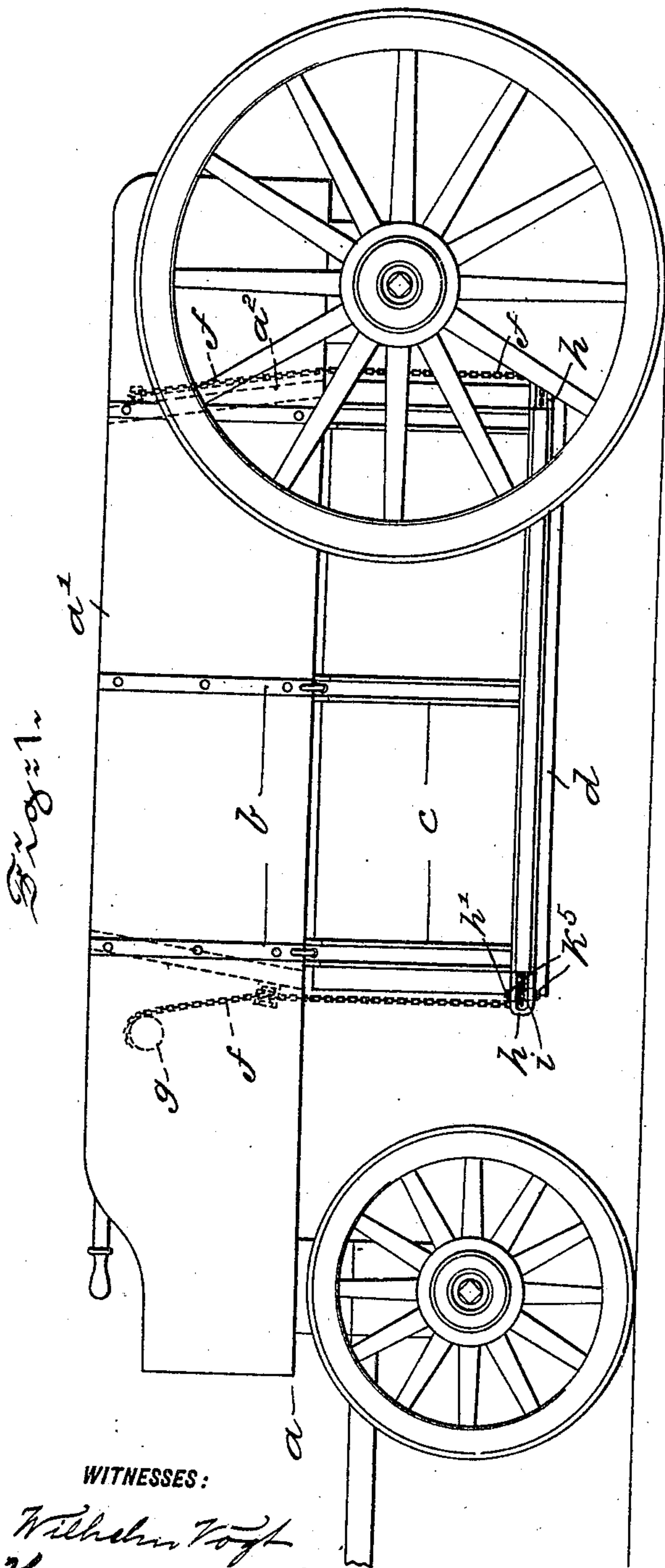
No. 837,630.

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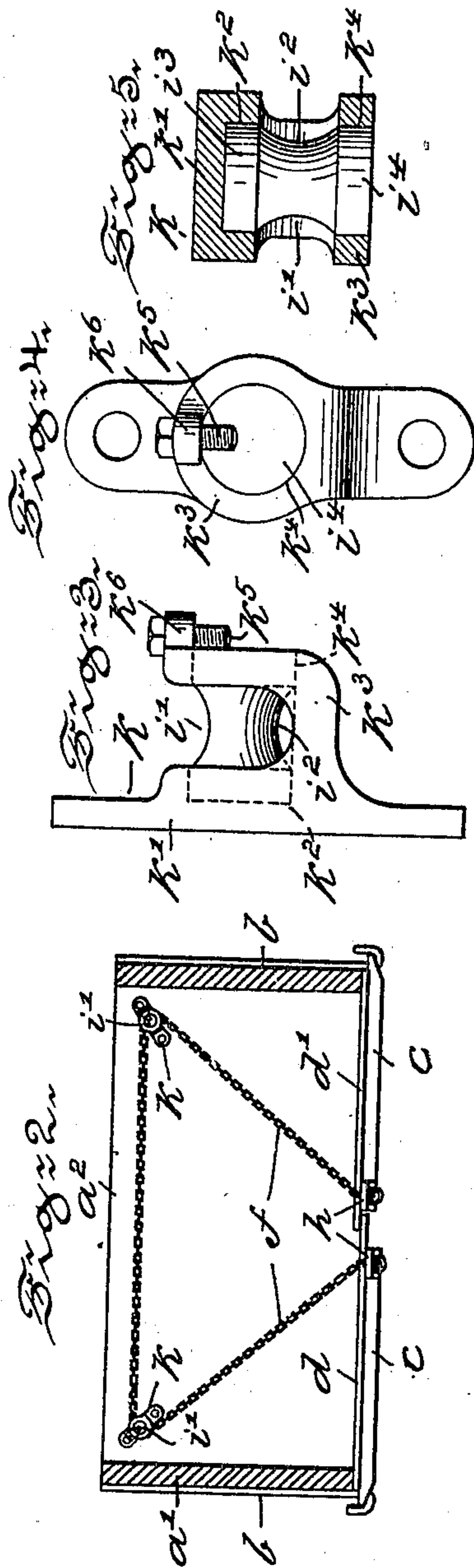
R. H. MACCLERNAN.

DUMP WAGON.

APPLICATION FILED JUNE 4, 1906.



WITNESSES:
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DUMP-WAGON.

No. 837,630.

Specification of Letters Patent.

Patented Dec. 4, 1906.

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To all whom it may concern:

Be it known that I, RICHARD H. MACCLERNAN, a citizen of the United States, residing at West Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Dump-Wagons, of which the following is a specification.

My invention has relation to dump-wagons, and in such connection it relates more particularly to means for supporting the chain of the wagon.

Heretofore dump-wagons have been provided with pulleys adapted to support and guide a chain for holding the bottom doors of the wagon-box in a closed position. These pulleys were supported by pins or bolts upon which the same rotated or rocked and which by connecting the pulleys to a bracket secured to the wagon-box and doors were the sole means for sustaining the load which rested on the bottom doors. The excessive strain to which these bolts or pins were subjected induced breakage and continually had to be replaced.

The principal objects of my present invention are, first, to overcome the above-defined disadvantages in the use of pulleys for supporting and guiding a chain or chains and to replace the same by means in which is dispensed with the use of pins or bolts as an axle therefor; second, to provide the wagon with solid annular bodies or rollers over which the chain passes and which are engaged at their outer surface or the major portion thereof by a holder or support, and, third, to so arrange the support for the rollers as to permit of the ready removal and replacing of the same as required.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a view illustrating in side elevation a dump-wagon with the bottom doors in an open position and with means connected to the doors and wagon-box for receiving and guiding the chain forming main features of my said invention. Fig. 2 is a view in cross-section and in elevation of the rear portion of the wagon and of rollers for supporting and guiding the chain connected with the wagon-

box and bottom doors thereof. Figs. 3 and 4 are detail views, enlarged, illustrating, respectively, in side and front elevations one of the rollers and the holder for connecting the same with the wagon-box; and Fig. 5 is a horizontal sectional view of Fig. 4.

Referring to the drawings, *a* represents the dump-wagon, to the wagon-box *a'* of which, by means of bars *b* and *c*, are secured doors *d* and *d'*, forming the bottom of the wagon-box *a'* of the wagon *a*. The doors *d* and *d'* are raised and held in a closed position by means of a chain *f*, the ends of which are secured to and wound around a drum *g*, arranged in the front portion of the wagon *a* in the usual well-known manner. From the drum *g* the chain *f* passes through guide-pieces *h*, secured to the doors *d* and *d'*, provided with rollers *i*, and from thence the chain passes over rollers *i'*, secured to the end wall *a²* of the wagon-box *a'*, which rollers *i* and *i'* and the means for supporting the same form the subject-matter of the present application. The rollers *i* and *i'* consist of a solid oblong body annular in cross-section having a centrally-arranged depression *i²*, terminating in end flanges *i³* and *i⁴*. These flanges *i³* and *i⁴*, which may be of any width desired, support the roller *i'* in a housing or holder *k* of such outline or shape as not to interfere with the support and guiding of the chain *f*, which by resting in the depression *i²* is prevented from being brought out of engagement with the roller *i* or *i'*. The housing or holder *k* of the roller *i'*, which is connected with the end wall *a²* of the wagon-box *a'*, preferably consists of a base portion *k'*, having an annular depression *k²* for the reception of the flange *i³*, and an extension *k³*, having an opening *k⁴* for the reception of the flange *i⁴* of the roller *i'*. Between the base *k'* and extension *k³* of the holder *k* the roller *i'* is exposed so as to receive and support the chain *f*, while the roller *i'* is supported by the flanges *i³* and *i⁴*, which are engaged and supported by the holder *k*. The roller *i'* being of a solid piece of metal will securely sustain any pressure to which the same may be subjected by the chain *f* and the weight of the load resting on the doors *d* and *d'* of the wagon-box *a'*. Should it become necessary to replace the roller *i'*, this can be readily accomplished by removing a threaded bolt *k⁵*,

arranged in the projection k^6 of the extension k^3 , in which instance the worn-out roller i' can be quickly removed and another substituted therefor in the holder k and locked thereto by the bolt k^5 . The rollers i , which are arranged in the guide-pieces h for the chain f , secured to the doors d and d' , are of similar construction to the rollers i' , secured to the wagon-box a' . The guide-pieces h , engaging the flange of the rollers i' , are provided at each side with an extension h' for the reception of locking-bolts k^5 , which removably hold the rollers i in position in the same.

It will be understood that the depression i^2 formed in the rollers i and i' may be dispensed with, if desired, and these rollers arranged so as to be of uniform diameter throughout, in which instance the base k' and extension k^3 of the bracket k or guide-piece h will hold the chain f in engagement with the said rollers without departing from the spirit and scope of my present invention with respect to the structural arrangement and operation thereof.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a dump-wagon, a wagon-box, doors forming the bottom of said wagon-box, a chain for raising and holding the doors in a closed position, and means for supporting and guiding said chain, said means, consisting of a body over which the chain passes and a holder for receiving and engaging the outer portions of said body.

2. In a dump-wagon, a wagon-box, doors forming the bottom of said wagon-box, a chain for raising and holding said doors in a closed position, and means for supporting and guiding said chain, each of said means, consisting of a roller having flanges forming the bearing portions thereof, and a holder for receiving said roller and engaging the flanges thereof.

3. In a dump-wagon, a wagon-box, doors forming the bottom of said wagon-box, a chain for raising and holding the doors in a closed position, and means for supporting and guiding said chain, each of said means, consisting of a roller having a depression adapted to receive the chain, flanges adapted to support the same, and a holder for receiving and engaging the flanges of said roller.

4. In a dump-wagon, a wagon-box, doors forming the bottom of said wagon-box, a chain for raising and holding the doors in a closed position, and means for supporting and guiding said chain connected, respectively, with said doors and said wagon-box, each of said means, consisting of a roller having a depression adapted to receive the chain and flanges adapted to form the bearing portion of said roller, and a holder for receiving and engaging the flanges of said roller, and means connected therewith adapted to removably lock the roller to the holder.

5. In a dump-wagon, a wagon-box, doors forming the bottom of said wagon-box, a chain for raising and holding the doors in a closed position, and means for supporting and guiding said chain connected, respectively, with said doors and said wagon-box, each of said means, consisting of a roller having a depression adapted to receive the chain and flanges adapted to form the bearing portion of said roller, and a holder for receiving and engaging the flanges of said roller, having a projection adapted to receive a bolt, said bolt adapted to lock said roller to said holder and to permit when removed of replacing of the same.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

RICHARD H. MACCLERNAN.

Witnesses:

J. WALTER DOUGLASS,
THOMAS M. SMITH.