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PATENTED FEB. 13, 1906.

J. W. PROVAN.  
FEED AND LITTER CARRIER.  
APPLICATION FILED APR. 1, 1904.

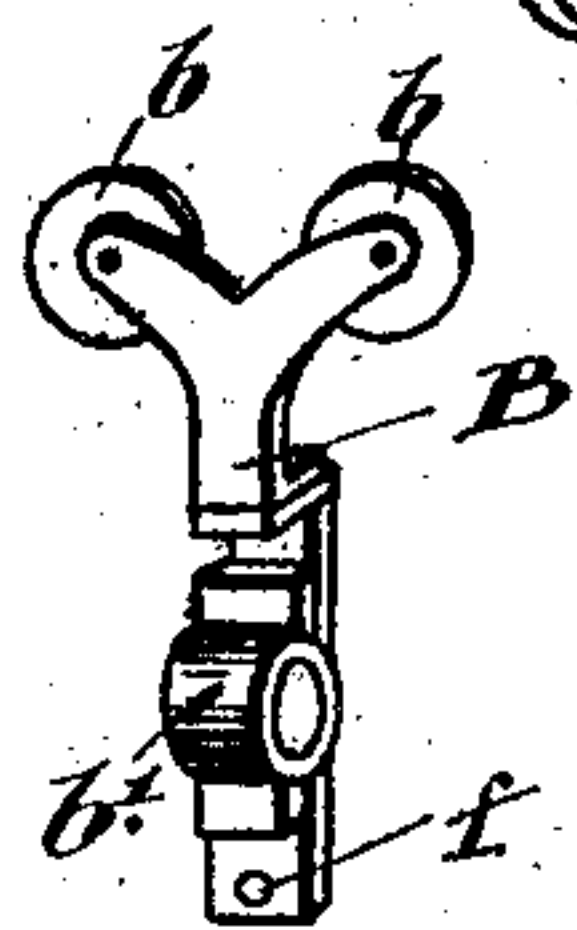
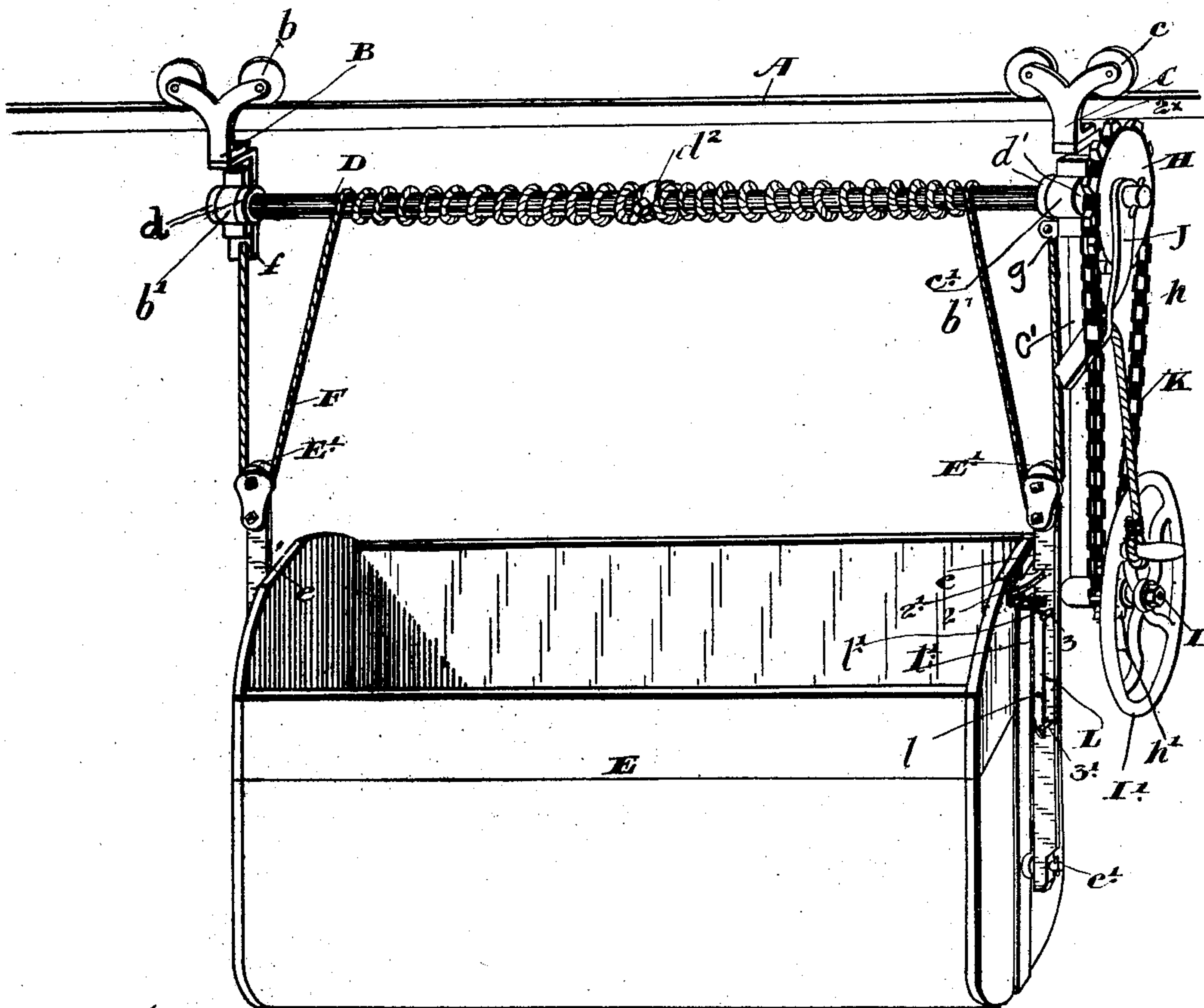


Fig. 2.

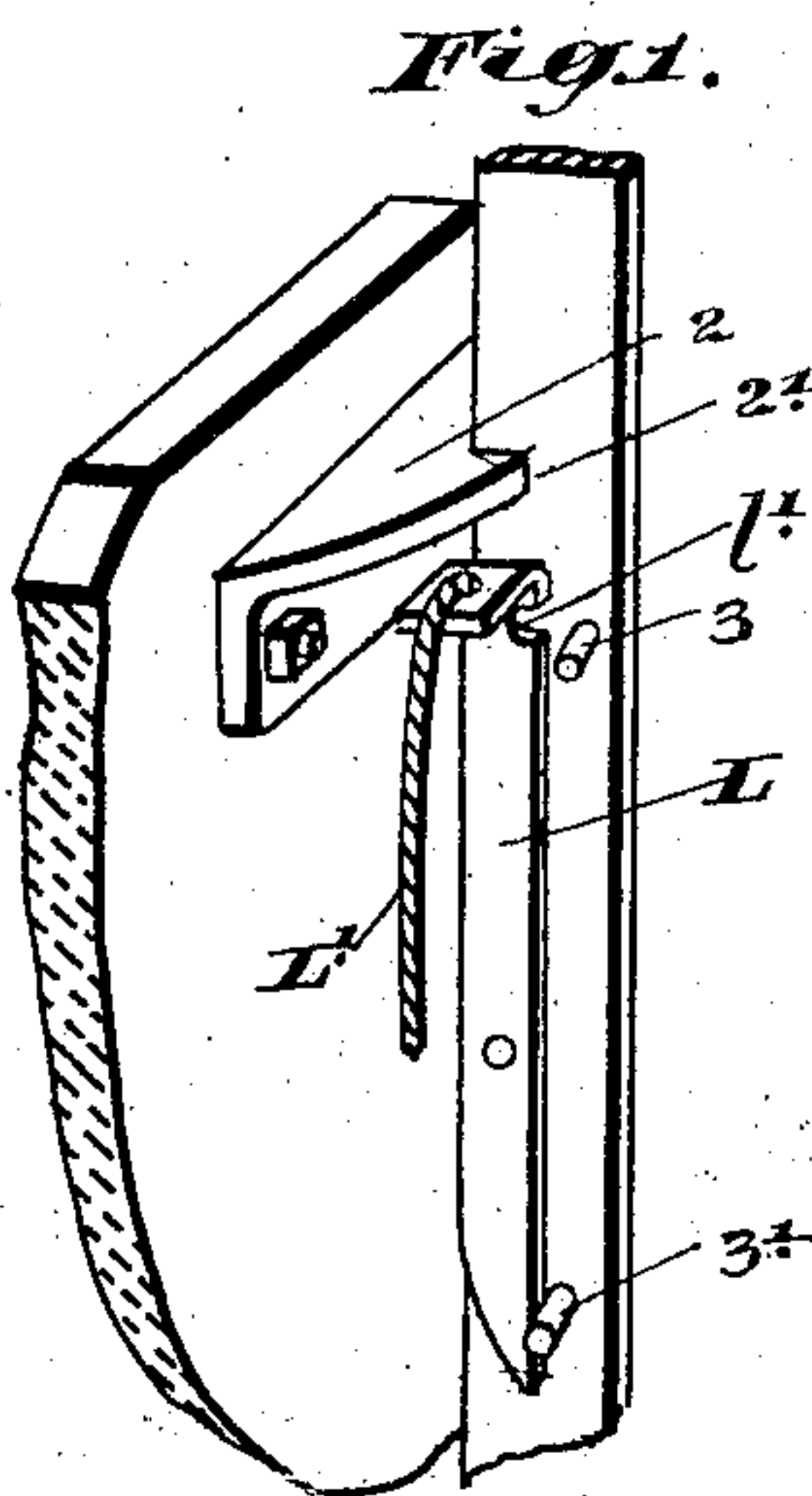


Fig. 3.

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# UNITED STATES PATENT OFFICE.

JAMES WHITE PROVAN, OF OSHAWA, CANADA.

## FEED AND LITTER CARRIER.

No. 812,363.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed April 1, 1904. Serial No. 201,180.

*To all whom it may concern:*

Be it known that I, JAMES WHITE PROVAN, of the town of Oshawa, in the county of Ontario, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Feed and Litter Carriers, of which the following is a specification.

My invention relates to improvements in feed and litter carriers; and the object of the invention is to devise a simple and efficient litter-carrier which will contain a minimum number of parts and be extremely cheap to manufacture and easy to operate; and it consists, essentially, of two divided bars having forked upper ends in which are journaled the carrying-wheels and a winding-spindle journaled in the bars and a box provided with end hangers and supported at each end by a rope connected at one end to the bars and at the other end to the spindle by which such rope is designed to be wound to raise and lower the box, one of the bars being longer than the other and provided with sprocket mechanism for turning the spindle, the parts being otherwise constructed and arranged in detail as hereinafter more particularly explained.

Figure 1 is a perspective view showing my improved feed and litter carrier. Fig. 2 is a perspective detail of the shorter bar. Fig. 3 is a detail of the catch for holding the box in the normal position and disengaging means for the catch.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is the track.

B and C are the supporting-bars for my litter-carrier, such bars being forked at their upper ends and being provided with carrying-wheels *b b* and *c c*, respectively. The bars B and C are divided intermediate of their length, the two parts of the bars being connected together by the bolts 2\*, which form pivotal means to allow of the upper portion of the bars to swing as the wheels pass around a curve. The bars B and C are provided with bearings *b'* and *c'*, respectively, in which is journaled the spindle D. The spindle D is provided with end collars *d d* and *d' d'* for a purpose which will hereinafter appear.

E is the box, which is provided with hangers *e e*, pivotally connected by the pins *e' e'* at the center of the width of the box. The upper end of the hangers *e e* is forked and has journaled therein the grooved pulleys *E' E'*.

F is a cord which is connected at the ends to eyes *f* and *g*, attached to or forming part of the bars B and C. The cord F at each end passes downwardly under the pulleys *E'* and upwardly to the spindle D, where it is secured to the collar *d'*.

C' is an arm attached to or forming part of the bar C.

H is a sprocket-wheel secured on the end of the spindle D and connected by a sprocket-chain *h* to a sprocket-pinion *h'*, secured on the stud-spindle I, journaled in bearings in the bottom of the bar C'. J is a bracket pivoted to the end of spindle D and having its lower end free. The end of the stud-spindle I is provided with a hand-wheel I'. The hand-wheel I' serves to wind the spindle and raise the box through the medium of the sprocket-wheel, hereinbefore described, and the friction of the cord F upon the spindle serves, together with the hand on the periphery of the hand-wheel, to act as a brake and regulate the speed in lowering the box. I provide a cord K, which is secured at one end to the bracket J and has a loop at the opposite end. When the hand-wheel is not being operated, it is looped over the handle of the hand-wheel, so as to hold the box at any desired elevation. In order to maintain the box in its normal position to receive feed or litter, I secure to one end of the box a notched bar 2, provided with a central notch 2'. In order to tilt the box, I provide a lever L, which is pivoted on a pin 1 on the side of the hanger E and the movement of which is regulated by the upper and lower pins 3 and 3'. The top of the lever is provided with a bent end, which has secured to it a depending cord L', which extends down a sufficient length in order to be convenient to the operator. The lever L, I also show with a notch 1', so as to enable me to give to such lever as much throw as is necessary to push the box longitudinally away from the hanger in order to disengage the hanger from the notch 2' and allow of the box to dump.

From this description it will be seen that the parts I utilize in constructing my litter-carrier are reduced to a minimum both in weight and size and number, and thereby my litter-carrier is produced at a much less cost than those already in use. I am also enabled to bring my box up close to the track, which is an important desideratum. It will of course be seen that the end collars *d d* and *d' d'* serve to hold the bars B and C apart.



What I claim as my invention is—

1. In a feed and litter carrier, in combination a short depending suspension-bar and a long suspension-bar, the spindle journaled in the ends of the long and short bars, the collars on the spindle on each side of each bar, the sprocket-gear having the upper sprocket-wheel secured on the end of the spindle outside of the long bar and the lower sprocket-wheel journaled on a stud at the bottom of the long bar and the box adjustably supported on the main spindle by the cord as specified.

2. In a litter-carrier, the combination with the bars and wheels, and a spindle journaled on the bars, of the box, the hanger pivotally connected to the end of the box and provided with forked upper ends carrying pulleys, the cord secured to the eyes on the bars and passing under the pulleys at the top of the hangers of the box and fastened to the spindle as and for the purpose specified.

3. The combination with the box and hang-

ers pivotally connected to the end of the box, the spindle, and bars in which the same is journaled and means for supporting the hangers from the spindle, of a bar secured in the end of the box and provided with a notch, and means for throwing the box away from the hanger, so as to release such hanger from the notch as and for the purpose specified.

4. The combination with the box and hanger pivotally connected to the end of the box, the spindle, and bars in which the same is journaled and means for supporting the hangers from the spindle, of a bar secured in the end of the box and provided with a notch, a lever pivoted on the bar, and means for operating the lever, so as to throw the notched bar clear of the hanger in order to dump the box as and for the purpose specified.

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Witnesses:

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