

UNITED STATES PATENT OFFICE.

LYMAN CYRUS SMITH, OF OSHAWA, CANADA.

FEED OR LITTER CARRIER.

SPECIFICATION forming part of Letters Patent No. 751,020, dated February 2, 1904.

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To all whom it may concern:

Be it known that I, LYMAN CYRUS SMITH, 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 or 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 cheap, strong, readily-operated, and convenient form of carrier for feed, litter, manure, and such like; and it consists, essentially, of a right-angular frame the horizontal portion of which is provided intermediate of its length with brackets, which carry the wheels which run on the track, a sprocket-drive and ratchet-elevating apparatus, and a controlling-handle carried on the vertical portion of the right-angular frame, a rigid bail carrying the box and suspended by ropes or chains from the elevating-spindle, and a spring-actuated latch designed to engage with a notch on the arc-shaped upper end edge of the box.

Figure 1 is a perspective view of my improved carrier. Fig. 2 is an end elevation. Fig. 3 is an enlarged detail showing the ratchet-gear and controlling-handle.

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

A is the roof-beam; B, the track, which is supported from the roof-beam by suitable down-hangers *b*.

C is a frame preferably substantially right-angular and made of wood and having T-shaped strengthening-plates *c* and *c'* at each end and at each side of the ends.

The right-angular frame C is carried by brackets D, in which are journaled the grooved wheels *d*, which run on the track. The brackets are pivoted, so as to follow the curve of the track.

E is the elevating-spindle, which is journaled in suitable bearings in the frame C, the reduced end of such spindle being provided with a sprocket-wheel F, which is connected by a sprocket-chain *f* to a sprocket-wheel *f'* on the spindle *f''*, which is journaled in suitable bearings in the vertical portion of the frame C and the bracket G, forming portion

thereof. The spindle *f''* has also secured to it a ratchet *g*, which is engaged by one end of a substantially V-shaped dog *g'*, having a thumb-piece *g''* at the free end in proximity to the controlling-handle *g'''*, which is located in the side of the vertical portion, as indicated. The spindle *f''* is provided with the suitable crank-handle *f'''*.

H is a rigid bail which is provided with right-angular depending portions *h*, through the bottom of which extend the pivot-pins I, upon which the box J is journaled. The box is mostly made of wood, as are also the bails, and the construction therefore is cheapened. The box has an arc-shaped bottom, as well as arc-shaped tops, to the ends as indicated. One of the spindles I is provided with a handle I', by which the box may be turned and dumped. In order to hold the box in the normal position, as shown in the drawings, to carry the litter or feed, I provide a latch K, which is pivoted on a pin *k* in one of the depending portions *h* and is held in engagement with the notch *j* in one end, as indicated, by a spiral spring *j'*, through which extends a cord *j''*, which is connected at the lower end to the latch, and the upper end extends through the horizontal portion of the bail. Such cord may be of course utilized, so as to free the latch from the notch, and the handle I may then be utilized to dump the litter at the point required. In order to lift the box, it is simply necessary to turn the crank-handle *f'''* on the end of the spindle *f''*. It will also be readily seen that the controlling-handle may be grasped by one hand and the device held rigid while the handle *f'''* is being turned and that the thumb-piece *g''* being in proximity to the handle may be pressed or released by the thumb-piece, so that the opposite end of the pawl or dog may engage with the ratchet-wheel or not, as desired. It will also be understood that the carrier may be moved backward and forward on the track by grasping the handle *g'''* and raised and lowered at the same time, as the bail carrying the box is rigid, and thereby any soiling of the hands avoided.

As the box is carried on the rigid bail it will also be understood that it will be pre-

vented from being pulled away if loaded at one end. The construction adopted also allows of a much more simple contrivance for the trip, as hereinbefore described.

5 The box dumps itself upon the release of the trip, as the spindles I are preferably placed a little to one side of the center crosswise and below the center of the box from top to bot-

10 What I claim as my invention is—

1. In a feed or litter carrier, the combination with the track, of the substantially right-angular frame, the brackets carried intermediate of the length of the frame and provided
15 with grooved wheels supported on the track, the elevating-spindle journaled in the frame, the box depending therefrom and means for turning the spindle as and for the purpose specified.

2. In a feed or litter carrier, the combination with the track, of the substantially right-angular frame, the brackets carried intermediate of the length of the frame and provided
25 with grooved wheels supported on the track, the elevating-spindle journaled in the frame, the box depending therefrom, the sprocket-wheel on the end of the spindle, the counter-spindle and sprocket-wheel supported at the bottom of the upright portion of the right-
30 angular frame, the sprocket-chain connecting the aforesaid sprockets, the ratchet and dog engaging the same and the crank-handle for turning the spindle as and for the purpose specified.

3. In combination the right-angular frame suitably supported and the elevating-spindle journaled therein, the sprocket-wheel on the end of the spindle, the journal-bracket secured to the lower end of the vertical portion, the
40 spindle journaled therein, the sprocket-wheel on the spindle, the sprocket-chain, the ratchet-wheel, the crank-handle, and the V-shaped dog having the thumb-piece as and for the purpose specified.

4. In combination the right-angular frame suitably supported and the elevating-spindle journaled therein, the sprocket-wheel on the end of the spindle, the journal-bracket secured to the lower end of the vertical portion, the
50 spindle journaled therein, the sprocket-wheel on the spindle, the sprocket-chain, the ratchet-wheel, the crank-handle, the V-shaped dog

having the thumb-piece and the handle on the side of the vertical portion as and for the purpose specified. 55

5. The combination with the right-angular frame provided with a depending vertical portion and the elevating-spindle and means for turning the same, of a box provided with end
60 spindles and a crank-handle, the rigid bail through depending portions of which the spindle extends and means for holding the box in the normal upright position as and for the purpose specified.

6. The combination with the right-angular
65 frame provided with a depending vertical portion and the elevating-spindle and means for turning the same, of a box provided with end spindles and a crank-handle, the rigid bail through depending portions of which the spin-
70 dle extends, a latch pivoted on the depending portion of the bail and designed to normally engage a notch in the arc-shaped upper end and means for raising the latch as and for the purpose specified. 75

7. The combination with the right-angular frame provided with a depending vertical portion and the elevating-spindle and means for turning the same, of a box provided with end
80 spindles and a crank-handle, the rigid bail through depending portions of which the spindle extends, a latch pivoted on the depending portion of the bail and designed to normally engage a notch in the arc-shaped upper end, a
85 spring for normally holding the latch down extending between such latch and the horizontal portion of the bail and the cord connected with the latch and extending through the
90 spring and bail and depending downwardly as and for the purpose specified.

8. In a feed or litter carrier, the combination with the track, of the substantially right-angular frame, the brackets pivoted vertically and carried intermediate of the length of the
95 frame and provided with grooved wheels supported on the track, the elevating-spindle journaled in the frame, the box depending therefrom and means for turning the spindle as and for the purpose specified.

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Witnesses:

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