

(No Model.)

F. B. SPEES.  
END GATE HINGE.

No. 342,144.

Patented May 18, 1886.

Fig. 1.

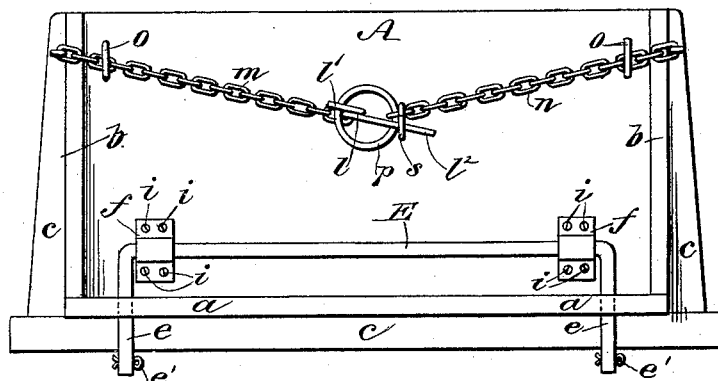


Fig. 2.

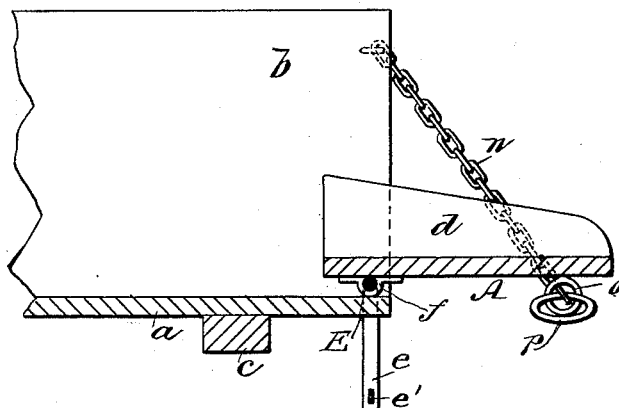
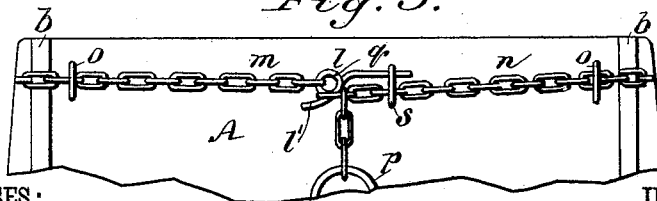


Fig. 3.



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FREDERIC B. SPEES, OF TABOR, IOWA.

## END-GATE HINGE.

SPECIFICATION forming part of Letters Patent No. 342,144, dated May 18, 1886.

Application filed September 15, 1885. Serial No. 177,179. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERIC B. SPEES, of Tabor, in the county of Fremont and State of Iowa, have invented a new and Improved End-Gate Hinge, of which the following is a full, clear, and exact description.

My invention relates to the construction of the hinge and fastening of end-gates or tail-boards of wagons, and is more particularly applicable to wagons used to transport grain in bulk, the object of the invention being to provide a hinge which will permit the lower end of the end-gate to rest directly upon the bottom of the wagon, but which will also allow the gate to be raised, so as to leave a space between its lower edge and the bottom of the wagon, the fastening being arranged so that the gate may be securely held in any position to which it may be moved.

To the ends named the invention consists of an expanded U-shaped bar pivotally connected to the gate, the ends or arms riding in perpendicular apertures formed in the bottom of the wagon, and a fastening of peculiar construction, as will be hereinafter set forth, and specifically pointed out in the claims.

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

Figure 1 is a rear view of an end-gate mounted and secured in accordance with the terms of my invention, and Fig. 2 is a sectional view of the same, the gate being shown as lowered. Fig. 3 is a detail view of the fastening attachment.

In the construction shown in the drawings, *a* represents the bottom, and *b b* the side-boards, of the wagon-box, which are mounted in a frame shown at *cc*, or in or upon any other suitable form of frame. The end-gate *A* is formed with two inwardly-projecting flanges, such as that shown at *d*, which fit closely against the inner faces of the side-boards *b*.

The hinge by which the end-gate is connected to the wagon consists of an iron or other proper metallic bar, *E*, the ends of which are bent downward at right angles to the main portion of the bar to form arms or legs *ee*, which ride in apertures formed in the bottom *a*, the bar *E* being connected to the end-gate by two clips, *ff*, which embrace the bar *E*, and

are firmly connected to the end-gate *A* by screws *ii*, as is clearly shown.

The fastening device by which, as before stated, the gate may be held in any position to which it may be moved consists of two chains, *m* and *n*, which are secured to the wagon-body and pass through loops or eyes *o*, that are carried by the gate. The chains *m n* are preferably straight short-linked chains, and to the chain *n* there is secured a strap, *p*, preferably in the form of a ring, which prevents the end of the chain from running through the eye *o* when the gate is lowered, as will be more fully explained. The other chain, *m*, carries a lever-armed hook, *l*, consisting of a rod bent or formed to have an eye, *g*, and two extending arms, *l'* and *l''*, of which the arm *l'* acts as a hook to engage with one of the links of the chain *n*, or with the stop-ring *p*, while the other arm serves as a lever and enables the attendant to adjust the parts to the position shown in the drawings, in which position the hook or catch is secured by a sliding ring, *s*, that is carried by the chain *n*.

In opening such a gate or tail-board as I have described it will be seen that as the top of the gate swings outward the bottom will move inward a distance equal to the fall of the arms *ee* through the apertures in which they ride, and this movement of the gate prevents any spilling of the grain when the load is being delivered from the wagon, it being understood that the wagon is driven up to the side of the crib and the end-gate lowered at this time, so that the driver may stand upon the end-gate and commence to shovel out his load, whereas in the old form of wagon the great difficulty was in commencing to unload. In this operation of scooping, the flanges or wings prevent the corn from falling to the ground.

When the grain is delivered to the interior of a building, as is usually the case with elevators, the wagon is driven onto the ordinary platform, the chains slackened, as shown in Fig. 1, and the gate raised out of the sockets, so as to swing outward, so that when the hind wheels are lowered the corn or grain will run out.

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

1. The combination, with the wagon-body

and end-gate A, of a bar, E, formed with arms *e e*, arranged to ride in apertures formed in the bottom of the wagon-body and connected to the end-gate by clips *f f*, substantially as described. 5

2. The combination, with the wagon-body and end-gate A, of a bar, E, formed with arms *e e*, that enter apertures in the bottom of the wagon and are held to the end-gate by clips *f*

*f*, and a fastening device consisting of chains *m n*, one of which chains carries a catch formed with the arms *l' l'*, while the other carries a ring, *s*, substantially as described.

FREDERIC B. SPEES.

Witnesses:

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