R. HENDERSON.

LIVE STOCK FEEDER.

APPLICATION FILED MAR. 6, 1914.

1,138,950.

Patented May 11, 1915.

2 SHEETS—SHEET 1.

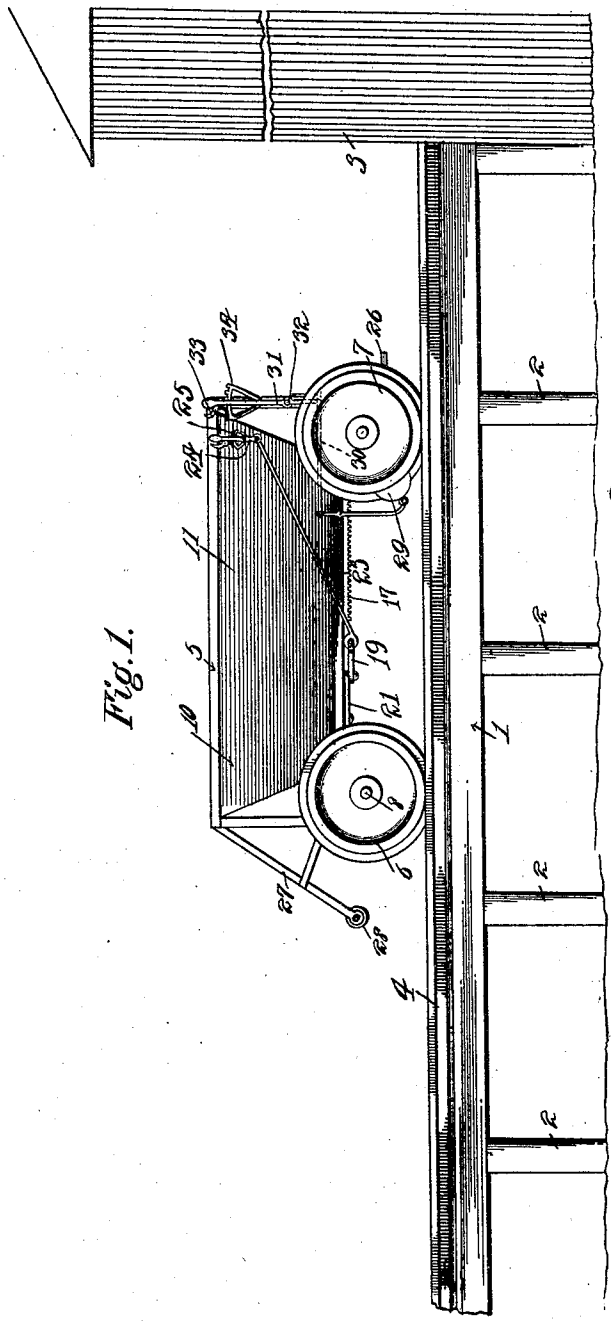


Fig. 1.

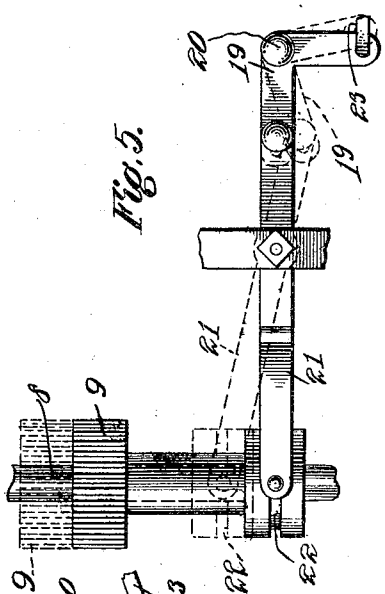


Fig. 3.

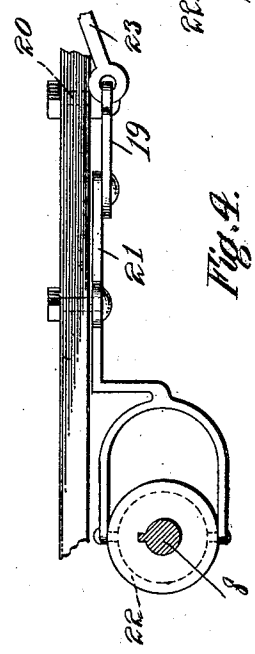


Fig. 4.

Witnesses
Frederick H. Saylor
Dave Garner

Inventor
Ray Henderson.

By Victor J. Evans
Attorney

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2 SHEETS—SHEET 2.

Fig. 2.

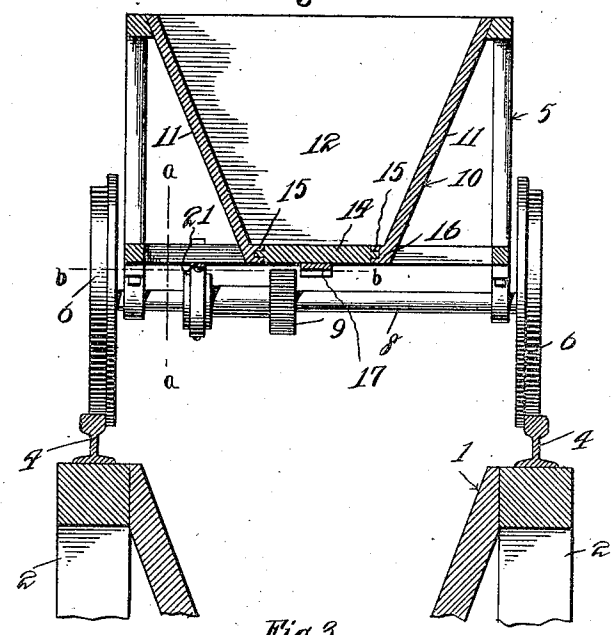
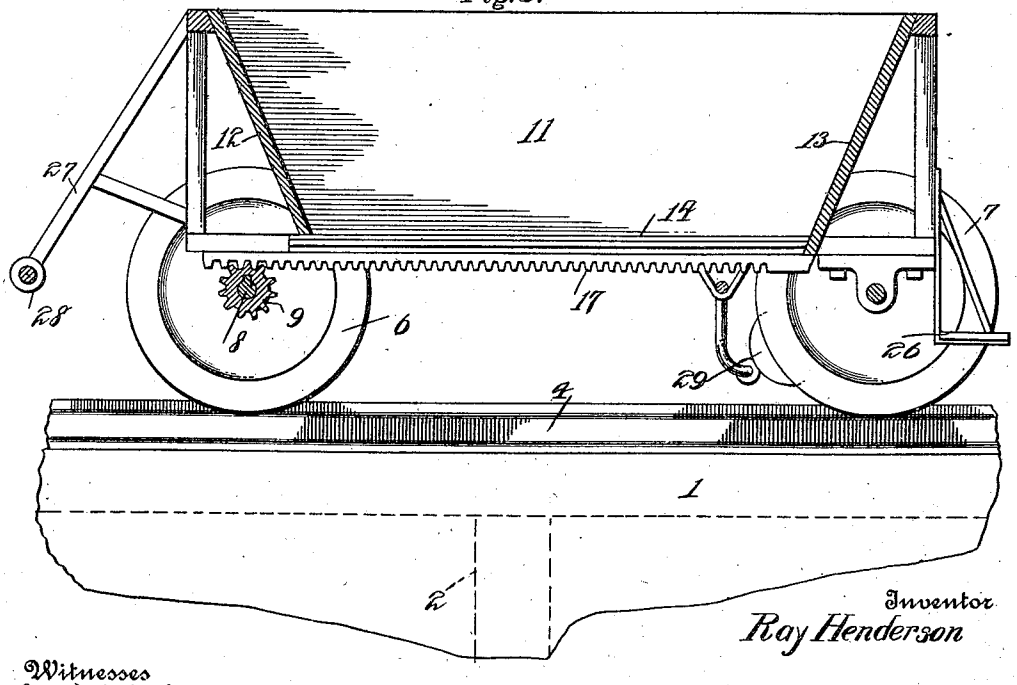


Fig. 3.



Witnesses

Frederick H. Taylor

J. W. Garner

Inventor

Ray Henderson

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE.

RAY HENDERSON, OF MACOMB, ILLINOIS.

LIVE-STOCK FEEDER.

1,138,950. Specification of Letters Patent. Patented May 11, 1915.

Application filed March 6, 1914. Serial No. 823,003.

To all whom it may concern:

Be it known that I, RAY HENDERSON, a citizen of the United States, residing at Macomb, in the county of McDonough and State of Illinois, have invented new and useful Improvements in Live-Stock Feeders, of which the following is a specification.

This invention is an improved live stock feeding car having means to operate the same so that as the car runs along a trough the bottom of the car is moved longitudinally so as to discharge feed therefrom into the trough, thus enabling the car to be filled at a silo or crib and to be employed for readily distributing the feed to the trough as the car travels along the same and thus avoid handling the feed manually and enabling a large number of animals to be very readily and quickly fed, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is an elevation of a live stock feeding car constructed in accordance with my invention and showing the same arranged in operative position on a feed trough. Fig. 2 is a vertical transverse sectional view of the same. Fig. 3 is a vertical longitudinal sectional view of the same. Figs. 4 and 5 are detail sections on the planes indicated by the lines *a*—*a* and *b*—*b* of Fig. 2.

In the embodiment of my invention I provide a feed trough 1, which in practice is of considerable length and is preferably supported at a suitable distance above the ground by means of posts 2. The trough runs from a silo or crib such as indicated at 3 and the trough is preferably slightly inclined so that the end thereof farthest from the silo or crib is lower than at the opposite end. On the sides of the trough are track rails 4. A feed car 5 is also provided the front and rear wheels 6 and 7 of which are flanged and arranged to operate on the track rails on the sides of the trough. The front wheels 6 have an axle shaft 8 which revolves therewith and this axle shaft is provided with a pinion 9 which is splined on the shaft for rotation therewith and for longitudinal movement thereon. The body or box 10 of the car is provided with inclined downwardly converging sides 11 and ends 12—13. The bottom of the car is formed by a slide 14 which is movable longitudinally and hence may be opened and closed. This sliding bottom has its sides engaged with guides 15 in opposite sides of the base frame 16 of the car and the said sliding bottom is provided on its under side with a longitudinally arranged rack bar 17 for engagement by the shiftable pinion 9. A bell crank 19 is pivotally mounted as at 20 and has a shifter arm 21 which engages an annular groove 22 in the extended hub of the pinion 9 and the other arm of the said bell crank is connected by a rod 23 to a lever 24 which is pivotally mounted as at 25 on one side of the car and near the rear end thereof. At the rear end of the car is a step or platform 26 for the operator to stand upon. A supporting frame 27 is arranged at the front end of the car and is provided with a supporting roller 28 to bear under and support the sliding car bottom when the same is moved forwardly. Brakes 29 are provided for the rear car wheels and are connected by a rod 30 to a hand lever 31, which is pivotally mounted as at 32 on one side of the car, at its rear end, and the said hand lever is provided with a dog 33 which is for engagement with a segment rack 34 to lock the brakes either in released or applied position.

The operation of my improved stock feeder is as follows:—Let it be assumed that the car is at the higher end of the track on the trough and that the sliding bottom is in closed position. The car will be then filled with feed from the silo or crib and the operator who steps upon the platform or step 26 will release the brakes and the car will then, by gravity, run along the track on the upper side of the trough. When the car reaches the point where it is desired to begin the distribution of the feed, the operator by means of the lever 24, will shift the pinion 9 into engagement with the rack bar 17. As the car proceeds this pinion coacts with the rack bar to move the slidable bottom of the car forwardly, as will be understood, and as the bottom of the car moves forwardly the feed in the car will drop therefrom in rear of the slidable bottom and into the trough and hence will be evenly distributed in the trough as will be understood. As the slidable bottom moves forwardly it becomes engaged with and supported by the roller 28. When the said feed has been thus discharged and dis-

tributed from the car the operator backs the car to the crib or silo and thus causes the pinion 9 and the rack bar 17 to return the sliding bottom to its original, closed position as will be understood. By shifting the pinion into or out of engagement with the rack bar 17 the operation of the sliding bottom of the car may be controlled as desired.

Having thus described my invention, I claim:—

A stock feeding car having a longitudinally movable bottom, a rack bar on the bottom of the car, an axle shaft, a pinion mounted on said shaft for rotation therewith and for movement longitudinally thereon so that said pinion may be engaged with or disengaged from said rack bar, a bell crank shifter connected to said pinion and an operating lever mounted on the car body and connected to said bell crank shifter.

In testimony whereof I affix my signature in presence of two witnesses.

RAY HENDERSON.

Witnesses:

GEO. D. TUNNICLIFF,

RUBY A. HORTON.