(No Model.)

F. E. CANDA.

WATER TROUGH FOR CATTLE CARS.

No. 423,123. Patented Mar. 11, 1890.

Fig. 1.

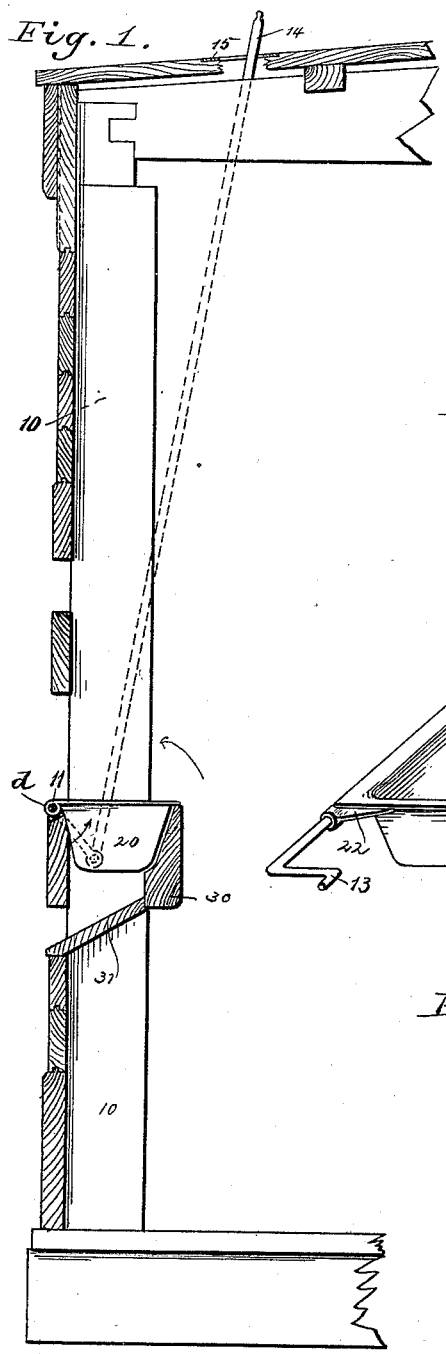


Fig. 2.

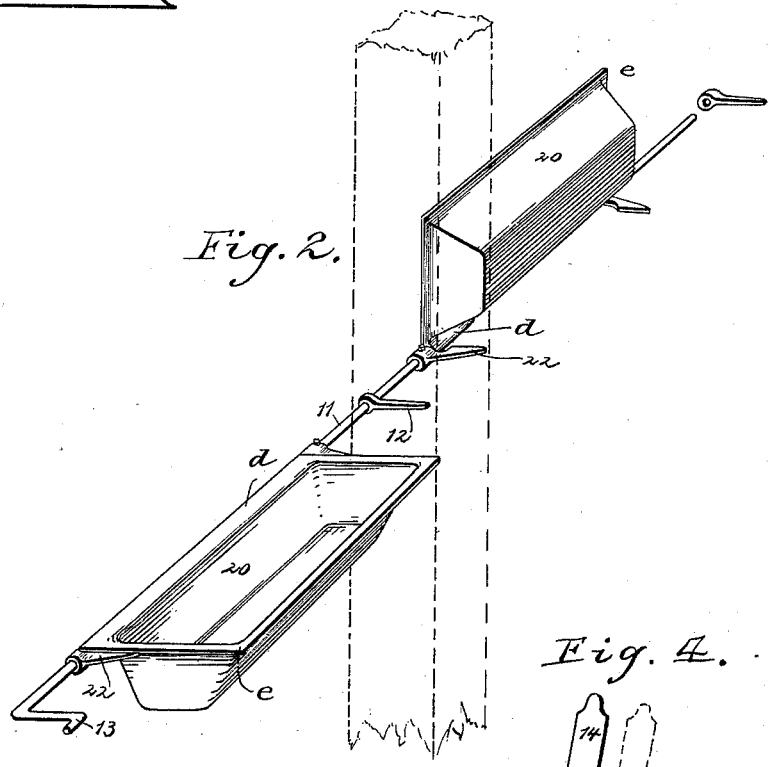


Fig. 3.

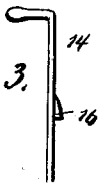


Fig. 4.

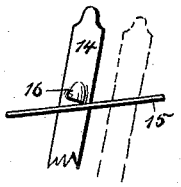
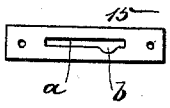


Fig. 5.



WITNESSES:

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WATER-TROUGH FOR CATTLE-CARS.

SPECIFICATION forming part of Letters Patent No. 423,123, dated March 11, 1890.

Application filed March 5, 1889. Serial No. 301,836. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND E. CANDA, of the city, county, and State of New York, have invented certain new and useful Improvements in Water-Troughs for Cattle-Cars, of which the following is a full, clear, and exact description.

My invention relates to water-troughs for cattle-cars, the object of the invention being to provide troughs of simple construction, so mounted and arranged that they may be easily operated from within or without the car.

To the ends named the invention consists of a series of troughs or buckets arranged on either side of the car, said buckets being hinged to a supporting-rod which is provided with inwardly-extending arms that engage the buckets, the arrangement being such that the buckets may be turned up singly or collectively, the supporting-rod being provided with a crank-arm and connections, all as will be hereinafter more fully described, and specifically pointed out in the claims.

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

Figure 1 is a cross-sectional view of a portion of a car, representing the same as it appears when provided with my improved water-troughs. Fig. 2 is a perspective view of two of the troughs and the rod upon which they are supported. Fig. 3 is an edge view of the rod-operating lever. Fig. 4 is a side view thereof and of the wear-plate arranged in connection therewith, and Fig. 5 is a plan view of the wear-plate.

In the drawings, 10 represents the posts of the frame-work of an ordinary freight or cattle car. To the posts 10 I secure a horizontal rod 11, the connection being established by eyebolts 12, through which the rod 11 passes, the bolts being driven into the posts, as indicated. Upon one end of the rod 11 there is formed a crank 13, that is engaged by an operating and locking lever 14, which extends upward through the car-roof and through a wear-plate 15, that is formed with a longitudinal slot *a*, there being an enlargement *b* at one end of the slot to provide for the passage of a boss or projection 16, formed upon the lever 14, the arrangement being such that if the lever 14 be drawn upward the rod 11 will be rotated in the direction of the arrow shown in Fig. 1, and there held by the engagement of the boss or projection 16 upon the wear-plate 15, the rod 14 being moved from the position indicated by dotted lines in Fig. 4 to the position in which it is shown in full lines in said figure, after the rod 11 has been turned, as just described.

Upon the rod 11 I mount troughs or buckets 20, preferably made of pressed steel and formed with an eye or hinge *d*, through which the rod 11 passes. The hinge *d* is made by bending the rear edge of the metal composing the trough around the rod 11, as shown. In connection with the troughs or buckets 20 I arrange arms 22, that are suitably connected to the rod 11 in a position such that they will bear against the under sides of the end flanges *e*, formed upon the troughs 20, and support said troughs in horizontal position.

From the construction above described it will be seen that the troughs 20 are separately hinged, so that any one of them may be turned up to be emptied and cleaned to the position in which the trough is shown in Fig. 2, or that the troughs may all be turned up collectively and locked by turning the rod 11, as hereinbefore set forth.

To secure the best results from my invention, as well as to protect the troughs against possible damage from the animals, or from such freight as may at times be carried in the cars, I attach a belt-rail or fender 30 in front of the troughs, the rail being gained, as shown in Fig. 1, to permit the troughs 20 to assume the position in which they are shown in said figure, the upper edge of the belt-rail being flush with that of the troughs.

Beneath the buckets 20 I mount water-sheds 31, which bear against the outer lower edge of the rail 30 and serve to carry off to the outside of the car any overflow from the buckets, which overflow would otherwise be deposited on the floor of the car.

The above construction is simple, cheap, and durable, and withal may be readily repaired in case of accident.

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

1. In a cattle-car, the combination, with a series of water-troughs each hinged to turn independently of the others, of a rod or bar attached to the car, arms carried by the rod or bar and arranged to engage the troughs, and a means for turning the rod or bar, as and for the purpose stated.

2. In a cattle-car, the combination, with a rod, of a series of troughs separately hinged thereto, arms carried by the rod and arranged to engage the troughs, a crank 13, and an operating-rod 14, said operating-rod being connected to the crank and provided with a locking device, substantially as described.

3. In a cattle-car, the combination, with a rod mounted to turn upon its connections with the car, of a series of troughs hinged to the rod, projections which extend from the rod and engage the troughs, and a means for turning the rod, substantially as described.

FERDINAND E. CANDA.

Witnesses:
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