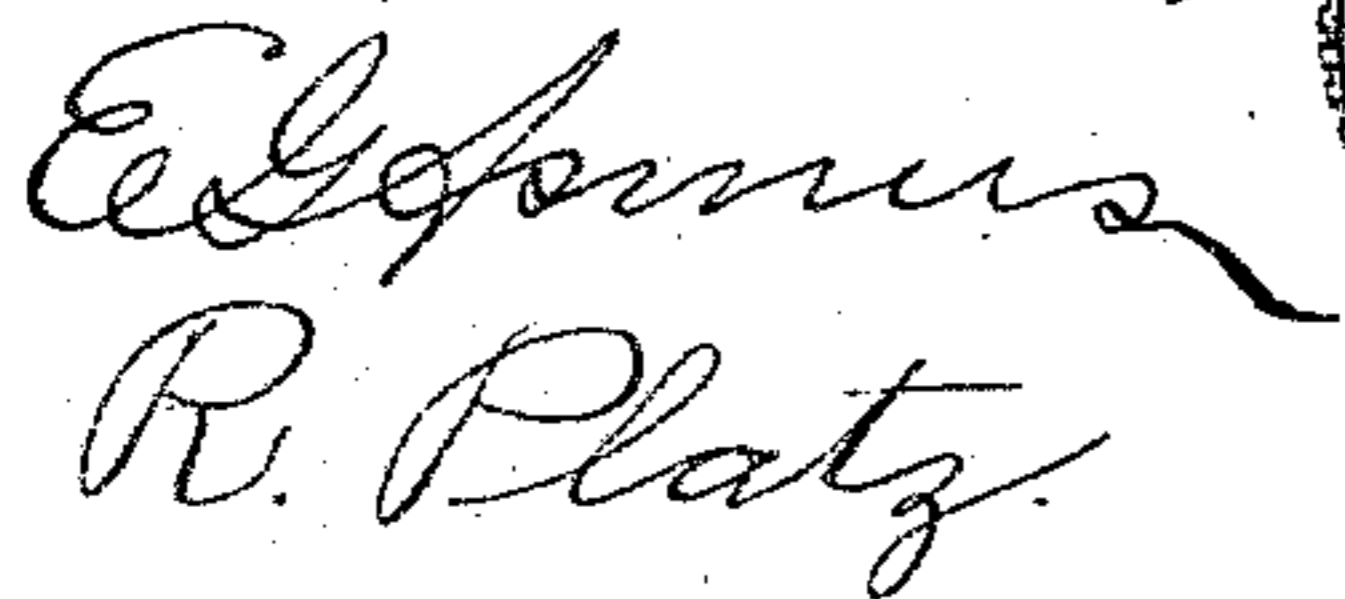


Patented Apr. 15, 1884.

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Inventors
William Klaeser
Fred Sell
By *Stout & Underwood*
Attorneys.

UNITED STATES PATENT OFFICE

WILLIAM KLAESER AND FRED SELL, OF MILWAUKEE, WISCONSIN.

CATTLE-CAR.

SPECIFICATION forming part of Letters Patent No. 296,842, dated April 15, 1884.

Application filed January 29, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM KLAESER and FRED SELL, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have
5 invented certain new and useful Improvements in Cattle-Cars; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to improvements in
10 cattle-cars, and will be fully described hereinafter.

In the drawings, Figure 1 is a vertical longitudinal section of a car, showing our improved feeding and watering devices in position for use. Fig. 2 is a cross vertical section
15 of part of a car, showing our devices in like position; and Fig. 3 is an enlarged like view of the same, showing our devices raised up when not in use.

20 A is the car box or body, in the sides A' of which are the doors B. Along each of said sides, and close to the roof C, are provided suitable openings closed by the hinged traps a a a, through which the feed is introduced
25 inside the car to be received by the hay-rack D when lowered down for use, as shown in Figs. 1 and 2. This rack D and the water-trough D' are mounted on the threaded rods E E, extending the whole height of the car-box, and working close to its sides A' in pivot-plates b and b', one of which, b, is suitably
30 bolted to the under side of the roof C. The other one, b', which is fastened in the car-floor C', is perforated below the bearing provided in its upper face for the shoulder of the threaded
35 rod E, and through this perforation the reduced lower end of said rod E passes to receive the beveled pinion c, which is keyed or otherwise made fast to it. This pinion c meshes with
40 the beveled wheel d, mounted on the horizontal shaft F, supported in suitable bearings in the lower end of the hangers f f, fastened underneath the floor C' of said car-box. This shaft F, which extends the whole length of
45 the car-box, carries on either of its ends a hand-crank, f', which serves to raise or lower the feeding devices when desired. Keyed onto said shaft F, inside the hand-crank f', is the
50 ratchet-wheel f², and depending from a suitable bracket, f³, fastened in the end boards of the box A, close to the bottom of the same, a pawl, f⁴, is provided to work in the teeth of

the ratchet-wheel f², and which may be used to secure the rack D and water-trough D' in their various positions. The trough D' is
55 made in three sections, d¹ d² d³, independent of each other, the central section, d², being adapted for removal when the doors B are opened for the entrance or exit of the cattle; but the ends of said central section are con-
60 nected in any suitable manner to the inner end of the sections d¹ and d³, as by projecting blocks d⁴ on the under side of the latter, so as to be firmly supported thereon when the whole device is lowered for use or raised up close to
65 the roof C. This manipulation of the trough is effected through the threaded rods E E, and the shaft F, actuated by the hand-crank f'. For this purpose the trough is provided on its
70 rear face with a double-headed bracket-hanger, G, and through the threaded perforation of the heads g g' of said bracket-hanger, the threaded rods E E work as they are turned
75 on their pivot-plates, thus causing the trough to either be raised or lowered, as desired, according to the direction given to said rods by means of the hand-crank f'. The trough D' is
80 provided with a cover, D², made also in three sections, d⁴, d⁵, and d⁶. The outer ends of the cover-sections d⁴ and d⁶ project close to the
85 ends A² of the car-box and at a slight distance above the plane which the trough occupies when brought down for use. A small block, d⁷, is fastened in the boards of each end A², so as to lie in the path of the projecting outer
90 ends of the cover D². The under side of said cover comes in contact with the upper edges of said blocks d⁷ d⁷, and is forced up as the trough descends in place, the central cover, d⁵, being lifted by the outer ones, d⁴ d⁶, owing
95 to the ends of the cover-sections d⁵ and adjacent ends of the sections d⁴ and d⁶ being beveled, the ends of the former overlapping those of the latter. A faucet, h, is provided in the outer end of the trough-sections d⁴ and d⁶, to
empty the same of any water left before raising the trough.

The hay-rack D consists of the rigid L-shaped frames i, connected together in pairs
(and in sufficient number to cover the whole
100 length of the sides A' of the car-box) by the longitudinal bars i' and i². The upper end of each frame i is bifurcated to receive the lower ends of the rack proper j, the upper ends of

which are all connected to the longitudinal bar j' . On the inside faces of the ends A^2 of the car-box is fastened the curved plate k , in which the slot k' is formed to receive the outer ends of the upper rack-bar, j , to support the same and properly guide them as the rack is raised or lowered. A central curved rod, k^2 , is suitably fastened in the roof C of the car-box, midway between the ends A^2 of the same, along the upper edge of which the upper rack-bar, j , slides as the rack is operated, while at two or more points said upper bar, j , is moreover supported by the chains K , properly hooked in said bar and in the roof C . In the outer end of the L-shaped frames i , which stand opposite the threaded rods E , is rigidly fastened the collar K' , with a smooth inner bore to run freely along the threaded rod E . A projection, k^3 , is provided on the rear of the ring or collar K , and this projection k^3 is designed to come in contact with the upper edge of a block, k^4 , fastened in the side A' at the point where it is desired to bring the rack down for use. When this is done, the trough D' , which supports the lower part of the rack D when both are raised up to the roof, brings the rack D with it until the projections k^3 on the collars K strike the blocks k^4 stopping the rack D . The trough D' continues to descend, its cover being opened as the blocks d' on the ends A^2 of the car-box are met. By turning the crank f' in the opposite direction, the trough is raised again, and as it overtakes the rack-collar K' the rack itself goes up to its place with it.

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

1. In a cattle-car, a water-trough and a feed-rack mounted on vertical screw-rods, whereby as said rods are turned in one or the other direction both devices will be simultaneously raised close up to the car top or lowered down

for use, in combination with stop-blocks fastened at suitable points in the sides and ends of the car, whereby the said devices are automatically adapted for use, substantially as set forth.

2. In a cattle-car, the threaded screw-rods E , pivot-plates b , the pinions c , hangers f for shaft F , carrying the beveled pinions d , ratchet-wheel f^2 , and hand-crank f' , and pawl f^4 , in combination with the water-trough D' and the hay-rack D , substantially as shown and described, and for the purpose set forth.

3. In a cattle-car, the screw-threaded rods E , the trough D' , having hanger G , with heads g and g' , and the hay-rack D , having the loose collar K' , with projection k^3 , in combination with the sides A' , having the trap-doors a and the stop-blocks k^4 , substantially as shown and described, and for the purpose set forth.

4. In a cattle-car, the hay-rack D , having the rigid L-shaped base i , collar K' , with projection k^3 , longitudinal rods i' and i^2 , and the vertical articulated arms j on upper rods, j' , in combination with the slotted plate k , rod k^2 , chain K , the trough D' , screw-rods E , trap-doors a , and stop-blocks k^4 , substantially as shown and described, and for the purpose set forth.

5. In a cattle-car, the trough D , having cover D^2 , with sections d^4 , d^5 , d^6 , in combination with the screw-rods E , and the ends A^2 of the car-box having stop-blocks d' , substantially as shown and described, and for the purpose set forth.

In testimony that we claim the foregoing we have hereunto set our hands at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WM. KLAESER.
FRED SELL.

Witnesses:

STANLEY S. STOUT,
H. G. UNDERWOOD.