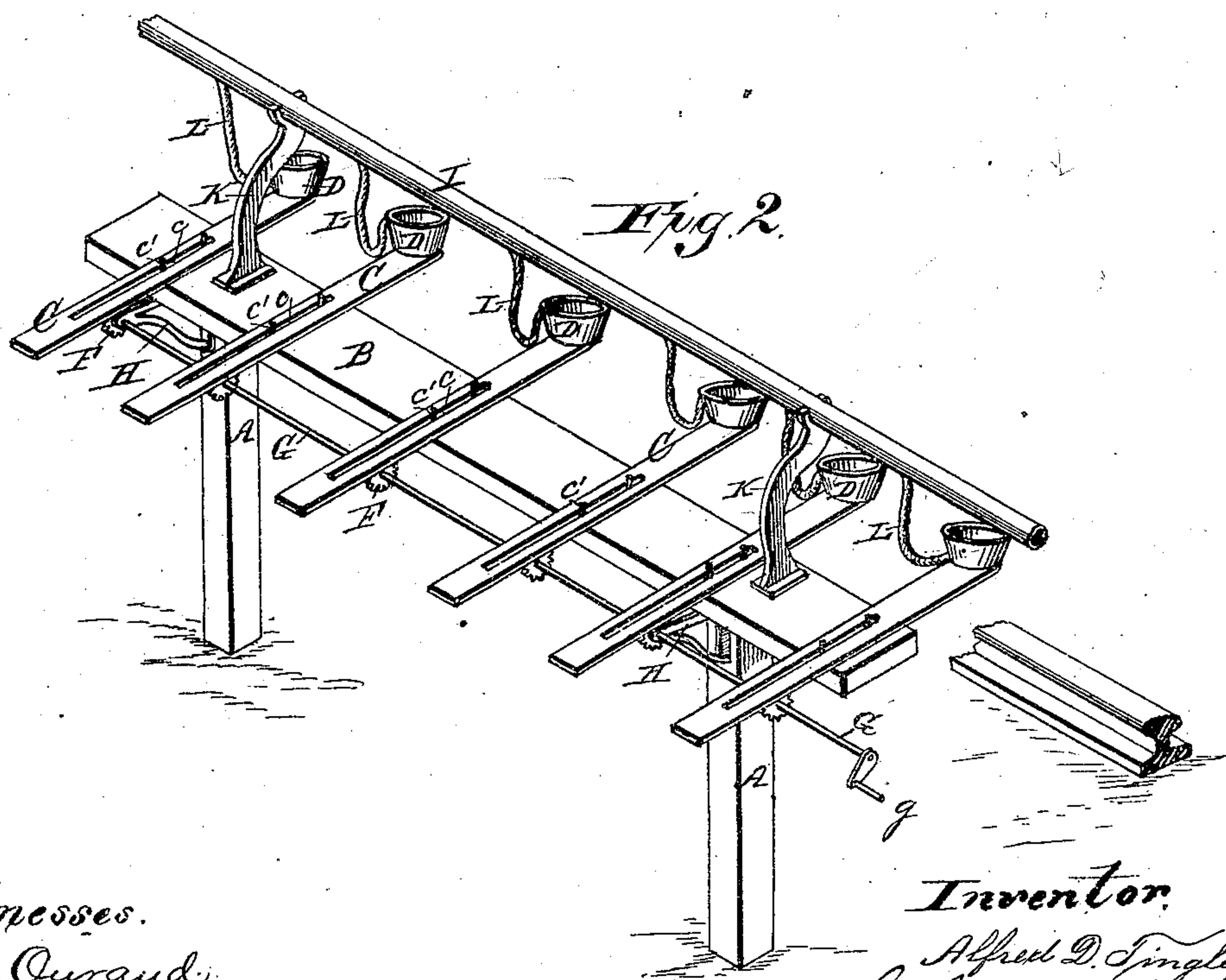
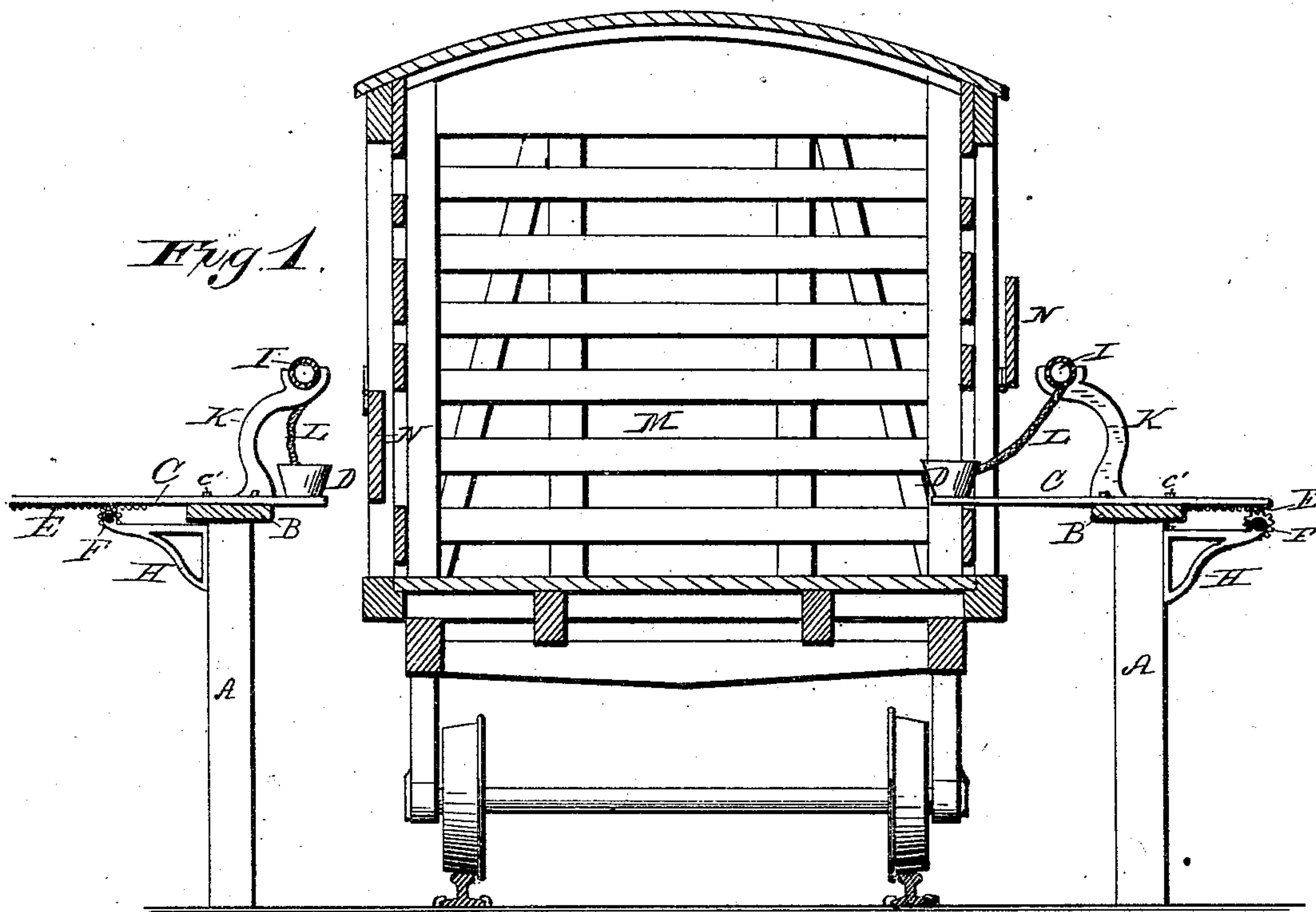


(No Model.)

A. D. TINGLEY.

Device for Feeding and Watering Stock in Cars.
No. 237,641. Patented Feb. 8, 1881.

Patented Feb. 8, 1881.



Witnesses.
F. L. Ouraud
[Signature]

Inventor
Alfred D. Tingley
by his attorneys
Elliott & Doolittle

UNITED STATES PATENT OFFICE.

ALFRED D. TINGLEY, OF NEW YORK, N. Y.

DEVICE FOR FEEDING AND WATERING STOCK IN CARS.

SPECIFICATION forming part of Letters Patent No. 237,641, dated February 8, 1881.

Application filed June 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALFRED D. TINGLEY, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Devices for Feeding and Watering Stock During Transportation; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of improvements in means for watering and feeding stock while *in transitu* whereby all the various stock-cars now in use, with very slight expense for alterations or additions, may be utilized, and at the same time afford the shipper full, complete, and satisfactory facilities for giving the live stock feed and water frequently during their ride from the point of loading to the place of unloading or transshipment without having fixed troughs or feed-boxes attached to the cars, or other complex and expensive attachments, which are an extra dead weight and an unnecessary expense to railroad companies.

The nature of my invention and improvement consists of a frame-work extending alongside of a railroad-track, of sufficient length to accommodate a full train of loaded stock-cars, upon which frame-work are operated sliding, swinging, or moving feed boxes, troughs, or receptacles, in which the feed for stock is placed, whereby, when the train of stock-cars loaded with stock is stopped alongside of this frame-work, the sliding or moving feed boxes or troughs, charged with feed, can be moved up to or inside of the cars at a convenient elevation for the stock to eat therefrom; also, in constructing along this frame-work a pipe, tube, hose, or conductor the whole length, with small flexible hose, pipes, or other connections leading separately to these feed boxes, troughs, or receptacles, from which the stock feed, by which, on turning on the water at one end of the main conductor in the frame-

work, it is distributed to each of the feed boxes or receptacles, and the whole train of live stock thereby watered in a very few minutes.

The mechanisms constituting my invention are illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross-section of a stock-car, showing my invention as located on both sides of the track and in position when in use and not in use. Fig. 2 is a view of the invention in perspective, showing its position with relation to the car-track.

The same letters of reference are used in both the figures in the designation of identical parts.

A A are posts on which the frame B is attached, and on this frame or board B are the movable slides or boards C, to the end of which are fixed the feed-boxes D. The slides C are provided with longitudinal slots *c*, and, with the feed-boxes D, are moved backward and forward upon the frame B by means of a rack-and-pinion attachment.

E are the racks attached to the under side of the slides C, and F are the pinions engaging therewith and fixed on crank-rod G. The rod G has its bearings in braces H, secured to the upper and outer sides of posts A. The slides C are guided in their forward and backward movements and held in place by headed bolts *c'*. By turning crank *g* the slides C, with their feed-boxes D, are moved up to or in and out of the car to any desired distance.

I is a main water-conducting pipe, extending the whole length of the frame-work and resting in grooves on upright arms K, which are fixed rigidly to the stationary frame B. This main pipe is provided with supplementary flexible pipes L, which conduct the water from the main pipe to the feed-boxes D, to which they are attached, and with which they move backward and forward as the feed-boxes are slid up to or into and out of the car.

The flexible pipes L may be coupled with the feed-cups or with the main pipe, to permit, when desired, the emptying of the cup after watering or feeding by uncoupling the said pipes and letting the water or feed run out of the hole in the cup or through the flexible pipe.

M is an ordinary stock-car, provided on its

sides with flaps or hinged doors N, or any other equivalent device, to admit of the passage in and out of the car of the sliding feed-troughs.

I do not wish to restrict myself to the use of the rack, pinion, and rod attachment for moving the sliding frame and troughs in and out of the car, as it is apparent that other well-known means may be substituted for that purpose, such as a friction-wheel attached to and turning upon the rod G and bearing upon the under surface of the slides C; or the movable feed-trough and its immediate attachments may be suspended in any suitable manner to a frame alongside of the track and swung to or into the car at any desired height. When the sliding feed-troughs are arranged on a stationary frame, as above described, the frame is so constructed as to give the feed-boxes a suitable elevation for use with ordinary stock-cars.

I am aware that water and feed troughs arranged outside of cars and parallel with the car-track, and suitably elevated to present feed and water to animals in or upon the stock-cars, but immovably fixed at a distance therefrom, are old; also, of suspended weighted swinging feed-troughs to be lowered down to open trucks

and after use to be raised and removed clear of the trucks, and also of long continuous troughs hung on chains along the outer sides of the cars, to be moved up and down to points opposite certain openings in slatted cars.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a frame arranged parallel with a car-track, of separate sliding, swinging, or movable feed boxes or cups, and suitable mechanism whereby said feed-receptacles can be moved inside of a car through an opening in its side, and at a proper elevation to present food or drink to animals in said car, substantially as described.

2. In a stock-car feeding device, the combination of a main water-conducting pipe, I, supplementary flexible pipes L, and feeding-receptacles D, attached to an outside feed-rack, substantially as described.

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

ALFRED D. TINGLEY.

Witnesses:

FREDK. L. HOLMES,
W. B. WILKINS.