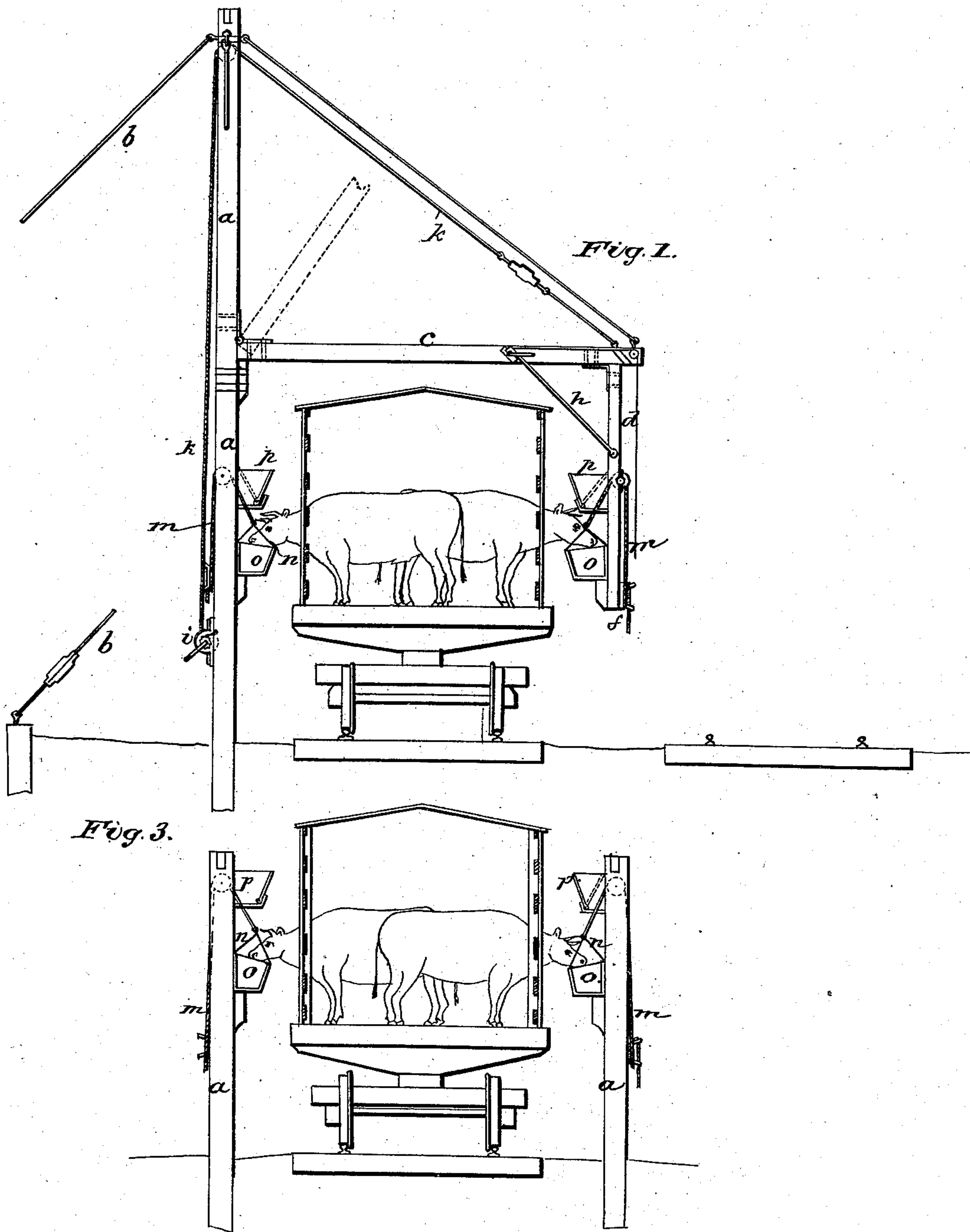


(No Model.)

3 Sheets—Sheet 1.

J. A. HAYDON.
Stock Car and Feeding Device.
No. 241,359. Patented May 10, 1881.



Witnesses:
Fred G. Dutcher
A. H. Krause.

Inventor:
John A. Haydon
by Louis Baggerly
Attorneys

(No Model.)

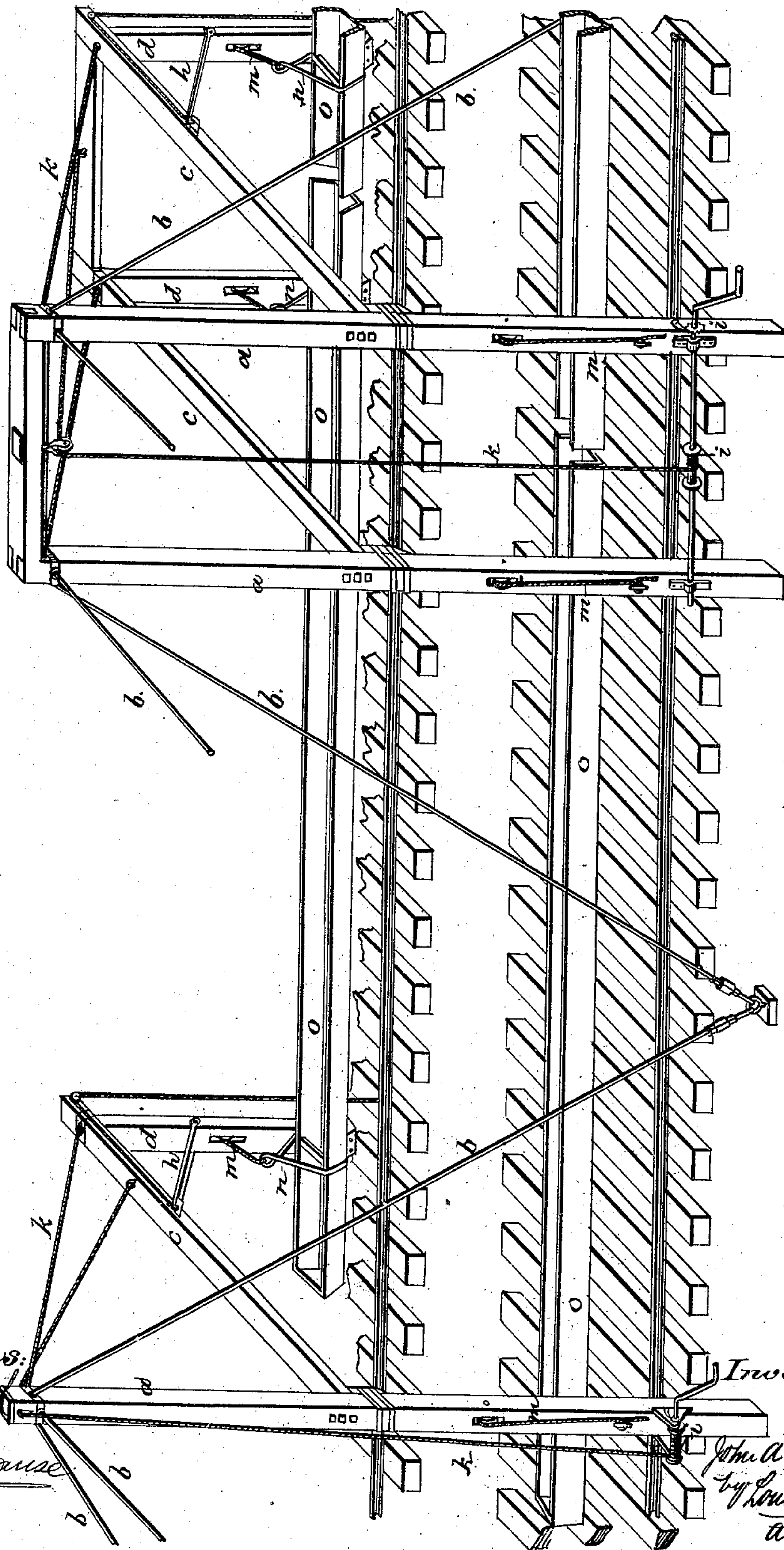
3 Sheets—Sheet 2.

J. A. HAYDON.

Stock Car and Feeding Device.

No. 241,359.

Patented May 10, 1881.



Witnesses:

Prof. G. Victor

A. H. Kraus

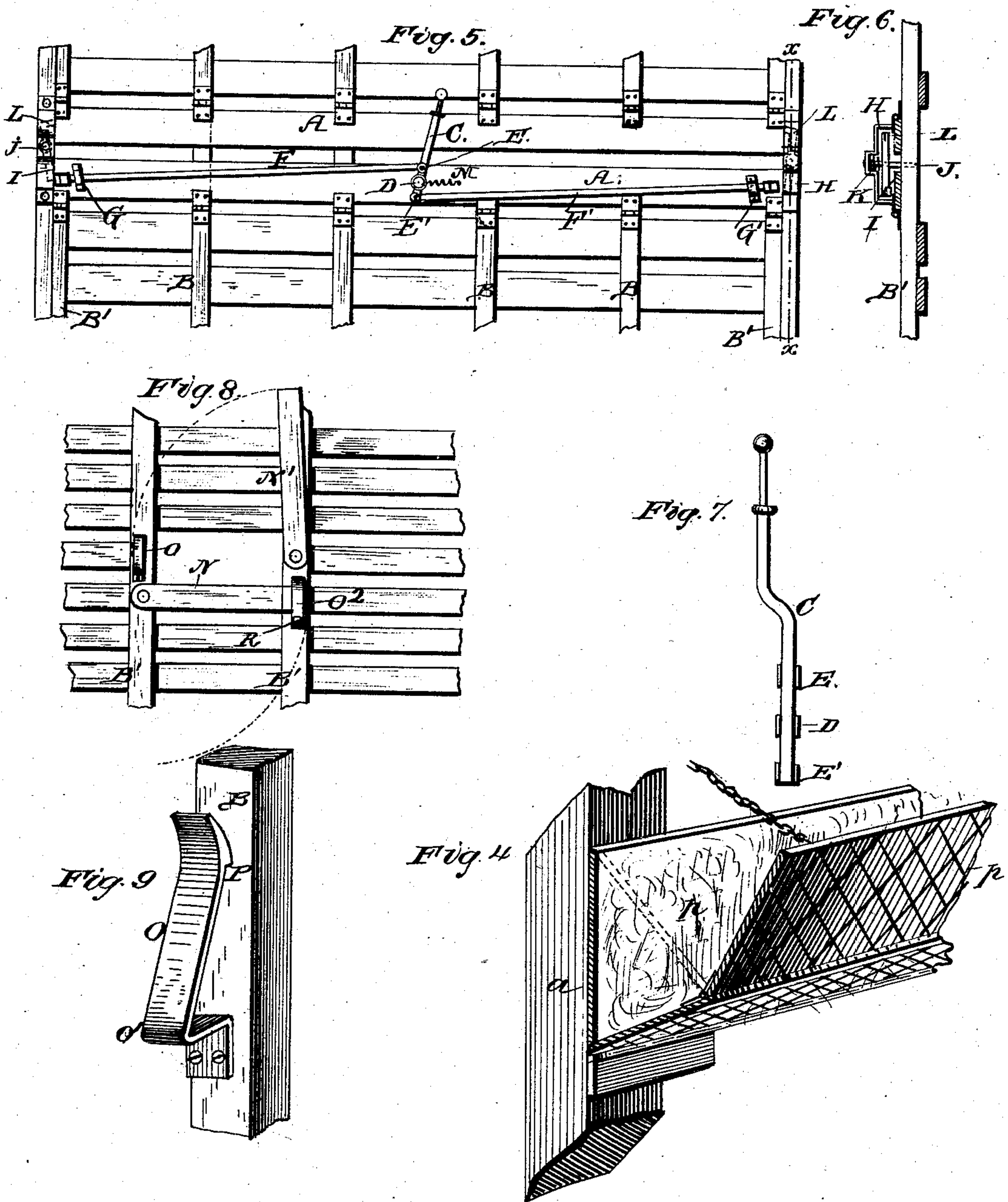
Inventor:

Wm A Haydon
by Louis Baggett
attorney

(No Model.)

3 Sheets—Sheet 3.

J. A. HAYDON.
Stock Car and Feeding Device.
No. 241,359.
Patented May 10, 1881.



Witnesses:

A. H. Krause
Fred. G. Deterick

Inventor:

John A. Haydon
by Louis Baggerly
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UNITED STATES PATENT OFFICE.

JOHN A. HAYDON, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF
TO J. RANDOLPH MORDECAI, OF SAME PLACE.

STOCK-CAR AND FEEDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 241,359, dated May 10, 1881.

Application filed October 1, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. HAYDON, of the city of Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Devices for Feeding and Watering Cattle in Transit; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is an end elevation, with the railroad tracks and stock-car shown in section, illustrating the application of the device or apparatus on the main track of a railway. Fig. 2 is a perspective view of the same without the car. Fig. 3 represents the device as applied to a siding. Fig. 4 is a perspective view of the folding hay-rack which forms a part of my device. Fig. 5 is a side elevation of a portion of one of the sides of a stock-car, showing the means for operating the hinged doors. Fig. 6 is a section through line *x x*, Fig. 5. Fig. 7 is a detail view of the lever for operating the locking rods and bolts. Fig. 8 is a side elevation, showing the construction of the stock-car door; and Fig. 9 is a perspective detail view of the spring-staple for locking the upper pivoted slat of the door in its place.

Similar letters of reference indicate corresponding parts in all the figures.

My invention relates to devices or appliances for feeding and watering live stock without unloading while in transit on railroads, with special reference to western and south-western roads, where the traffic permits of the stopping of the stock-trains on their main line while the cattle are being fed and watered.

It consists, first, in the construction and arrangement of parts of a permanent fixture for holding the feeding and watering troughs alongside the main track or siding of a railway during the stoppage of the cattle-train, by the aid of which the stock may be fed and watered without leaving the cars; and, secondly, in the detailed construction of a stock-car with specific reference to the permanent fixture which forms the subject-matter of the

first part of my invention, substantially as hereinafter more fully set forth.

In the accompanying three sheets of drawings, (reference being had to Figs. 1, 2, 3, and 4,) the letter *a* denotes posts or uprights of suitable height, which, in the case of a double track, are planted firmly in the ground on one side of the track, as shown in Figs. 1 and 2. These posts are braced by stays *b*, and provided with hinged arms *c*, to the outer ends of which are hinged suspenders *d*. When arm *c* is raised by suitably-arranged tackle *k* and a windlass, *i*, into an upright or approximately upright position, as shown in dotted lines in Fig. 1, the suspender *d* will, by its own gravity, be folded down alongside of it, and thus be out of the way; but when extended for feeding and watering, as represented in full lines in Figs. 1 and 2, it is held securely in position by the diagonal hinged brace *h*, the upper end of which works in a staple on one side of the arm *c*.

When the apparatus is to be placed on a siding, and where it will in consequence not be in the way of through-trains, a simplified construction may be adopted, as represented in Fig. 3 of the drawings. In that case I dispense with the hinged arms *c*, with their suspenders *d*, and attach the feeding and watering troughs direct to the posts or standards *a*, which are planted permanently on opposite sides of the siding-track.

o represents the watering and grain-feeding troughs, and *p* the hay-feeding troughs. The former are supported in hangers *n*, which are attached to ropes *m*, that pass over pulleys inserted into mortises in the posts *a* and suspenders *d*, as clearly shown in Figs. 1 and 2 of the drawings, by means of which they may be raised and adjusted to the proper height when in use. The hay-feeding troughs consist of racks made with hinged sides *p*, which may be folded out when in use, but back against the posts *a* and suspenders *d*, respectively, when empty and not in use, as indicated by dotted lines in Fig. 1. This plan is useful where space is very limited.

In the arrangement represented in Fig. 3 both troughs, *o* and *p*, may be attached permanently to the posts or standards *a*, if desired,

and in case there be abundant room, as they will not be in the way of passing trains. The several sections *o* of the watering-trough are connected, when in use, by any suitably-constructed lap-joints, to permit of a continuous flow of water from one end to the other, the number of troughs in use depending, of course, upon the number of cars in the cattle-train.

The second part of my invention relates to the construction of the stock-cars for the purpose of adapting them to be successfully used with the hereinbefore-described apparatus or appliances, reference being now had to Figs. 5, 6, 7, 8, and 9 of the drawings.

My improved stock or cattle car is made without alteration of substantial frame-work of the cars as now built, having open sides formed of horizontal slats running from each end to a door arranged in the middle of the car, one on each side. In Fig. 5 I have represented the middle part of one of these side panels, all four of which (there being two on each side of the car, one on each side of the middle door) are constructed alike. Two of the horizontal slats of each panel (denoted by *A A*) are hinged upon the vertical uprights or stanchions *B*, so as to swing in opposite directions, one up and the other down. The lower swinging slat or door *A* has a lever, *C*, which has its fulcrum at *D*, and is pivoted at *E* and *E'*, respectively, to rods *F F'*, which extend in opposite directions to the end of the panel, passing with their outer ends through keepers *G G'*. The end stanchions, *B' B'*, of each panel have secured upon them a box, *H*, inside of which works the pivoted dog *I*. This dog is hung on a bolt, *J*, which is provided with a spiral spring, *K*, the tendency of which is to draw the bolt or catch *L* of dog *I* out of its appropriate mortise or socket in the end of the upper hinged door, *A*, and thus lock the door to the end stanchions, *B' B'*, as shown in dotted lines in Fig. 5; but attached to lever *C* below its fulcrum *D* is another spring, *M*, which is stronger or stiffer than the end springs, *K K*, so that it will overcome these, and by forcing the outer ends of rods *E E'* against the lower ends of the dogs *I* interlock their bolts or catches *L* with the upper hinged door, *A*, one at each end.

In the position of lever *C* as represented in Fig. 5 both doors are unlocked and ready to be swung open, the upper door being held in its elevated or open position by suitably-arranged catches affixed upon stanchions *B*. The lower door is retained in its locked position by the free ends of rods *E E'*, which form beveled bolts, projecting through slots into the box *H*, where they bear against the lower end of the pivoted spring-dog *I*, the upper bolt, *L*, of which is also beveled, like the bolt of an ordinary door-lock, so that both the hinged doors *A A* may be locked by simply disengaging the upper door from its catches and slamming them to.

The middle door is constructed as shown in Fig. 8, in which *N N'* represent short slats or bars, that are hinged in opposite stanchions, *B' B'*, one above the other. The free end of the upper bar, *N'*, rests, when the door is closed, in a spring-staple, *O*, which is inclined inwardly and made with a shoulder, *P*, at its upper end, as shown in Fig. 9, its lower end or bend, *O'*, being made with sufficient spring to cause the upper shouldered end to snap over the free end of bar *N'* when this is turned down into a horizontal position, and lock it in place. The free end of the other movable door-slat, *N*, is, when closed, inserted into an ordinary staple, *O²*, and held in place by a chain-bolt, *R*.

From the foregoing description, taken in connection with the drawings, the operation of my invention will readily be understood. When a train arrives at a feeding or watering station the doors *A A* are swung open on both sides of the cars throughout the entire train, the feeding and watering troughs adjusted in the manner described, and filled with feed and water. When the feeding is through they are emptied and readjusted, the doors are again closed, and the train proceeds on its journey toward the terminus, or the next feeding-station on the line.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of the permanent posts or supports *a*, suitably braced, hinged arms *c*, hinged suspenders *d*, provided with the pivoted braces *h*, operating-tackle *k*, and troughs *o p*, constructed and arranged to operate substantially as and for the purposes herein shown and specified.

2. The combination, with suitable posts or supports, *a*, arranged parallel to the track, of the adjustable feed and watering troughs *o* and folding hay-racks *p*, substantially as and for the purpose herein shown and set forth.

3. In a stock-car, the combination of the hinged doors *A A*, arranged as set forth, lever *C*, spring *M*, rods *E E'*, having beveled bolts at their outer ends, and pivoted dogs *I*, provided with the beveled bolts *L*, and springs *K*.

4. In a stock-car, the door consisting of two slats, *N N'*, hinged, one above the other, in opposite jambs or stanchions, *B' B'*, and adapted to swing in opposite directions, in combination with the shouldered spring-staple *O' O P*, and reversed staple *O²*, having bolt *R*, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN A. HAYDON.

Witnesses:

JNO. A. MADIGAN,
AUGUST PETERSON.