

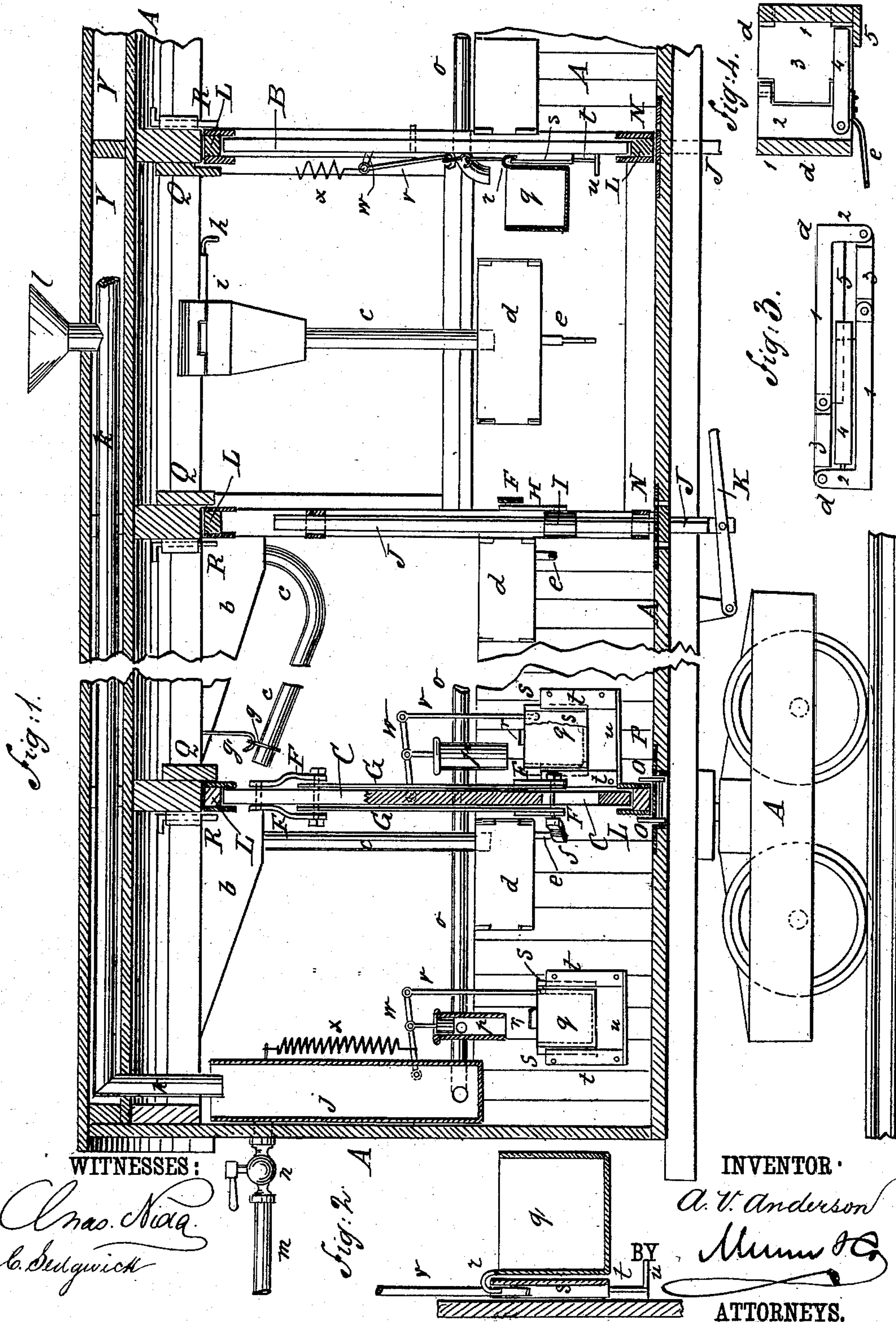
(No Model.)

2 Sheets—Sheet 1.

A. V. ANDERSON.  
STOCK CAR.

No. 269,988.

Patented Jan. 2, 1883.



(No Model.)

2 Sheets—Sheet 2.

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Fig. 5.

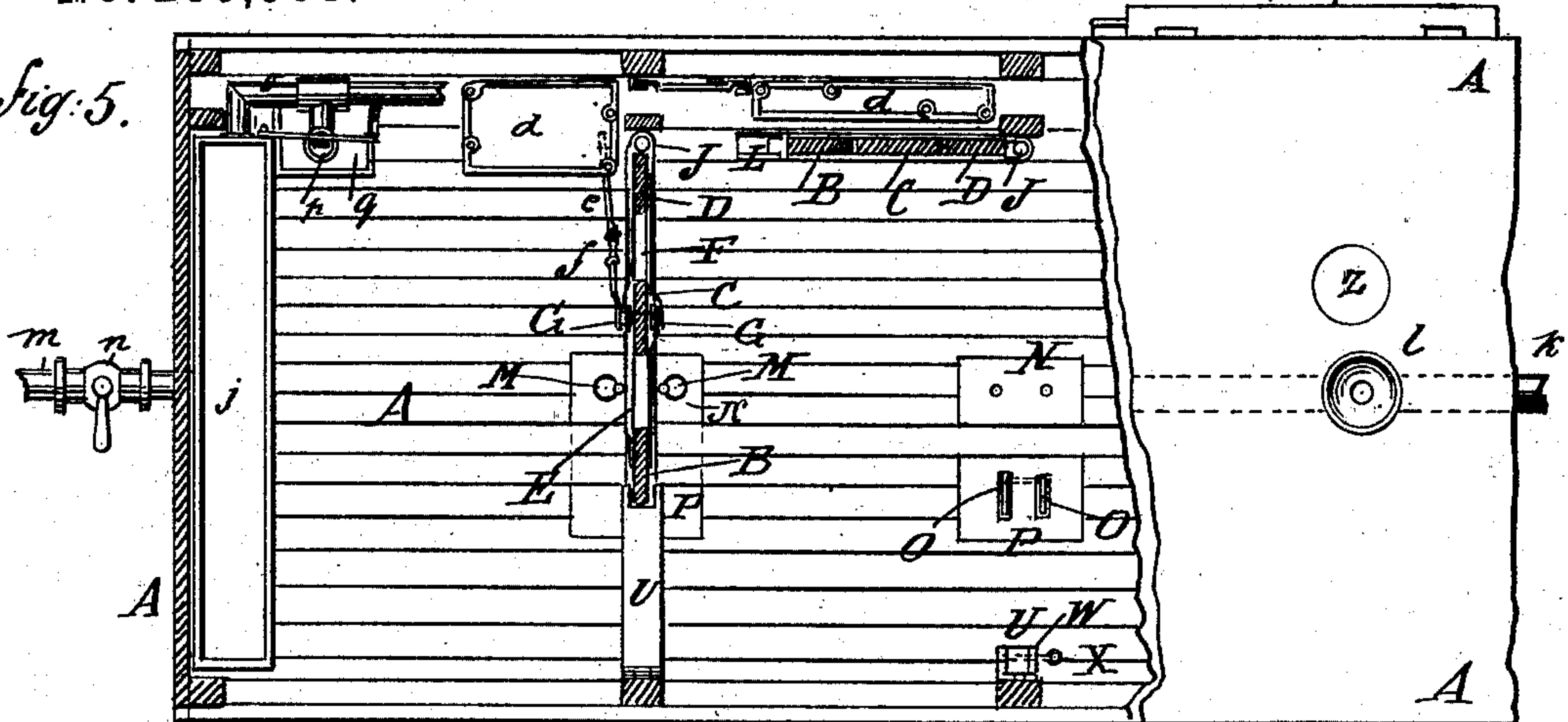
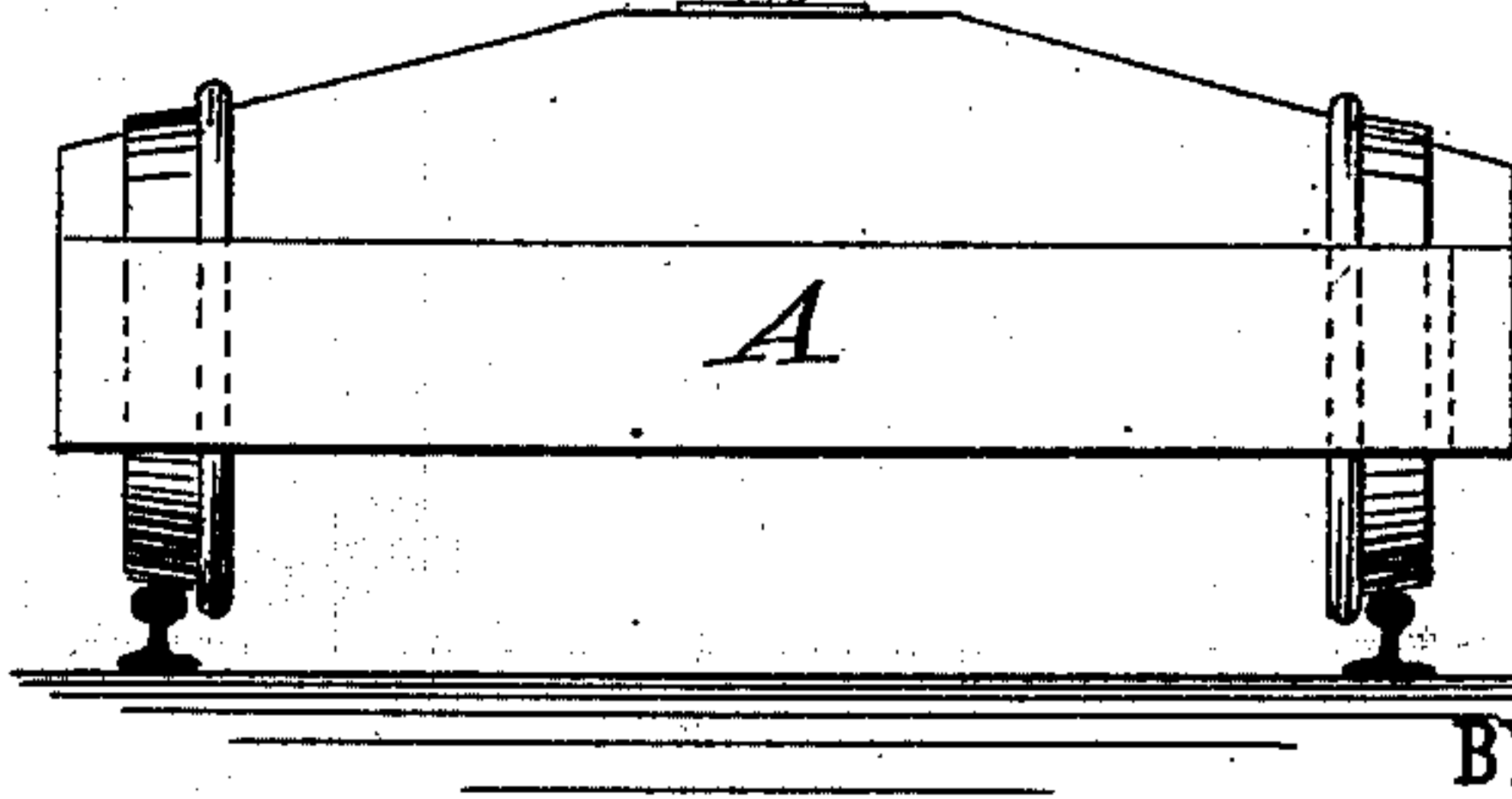
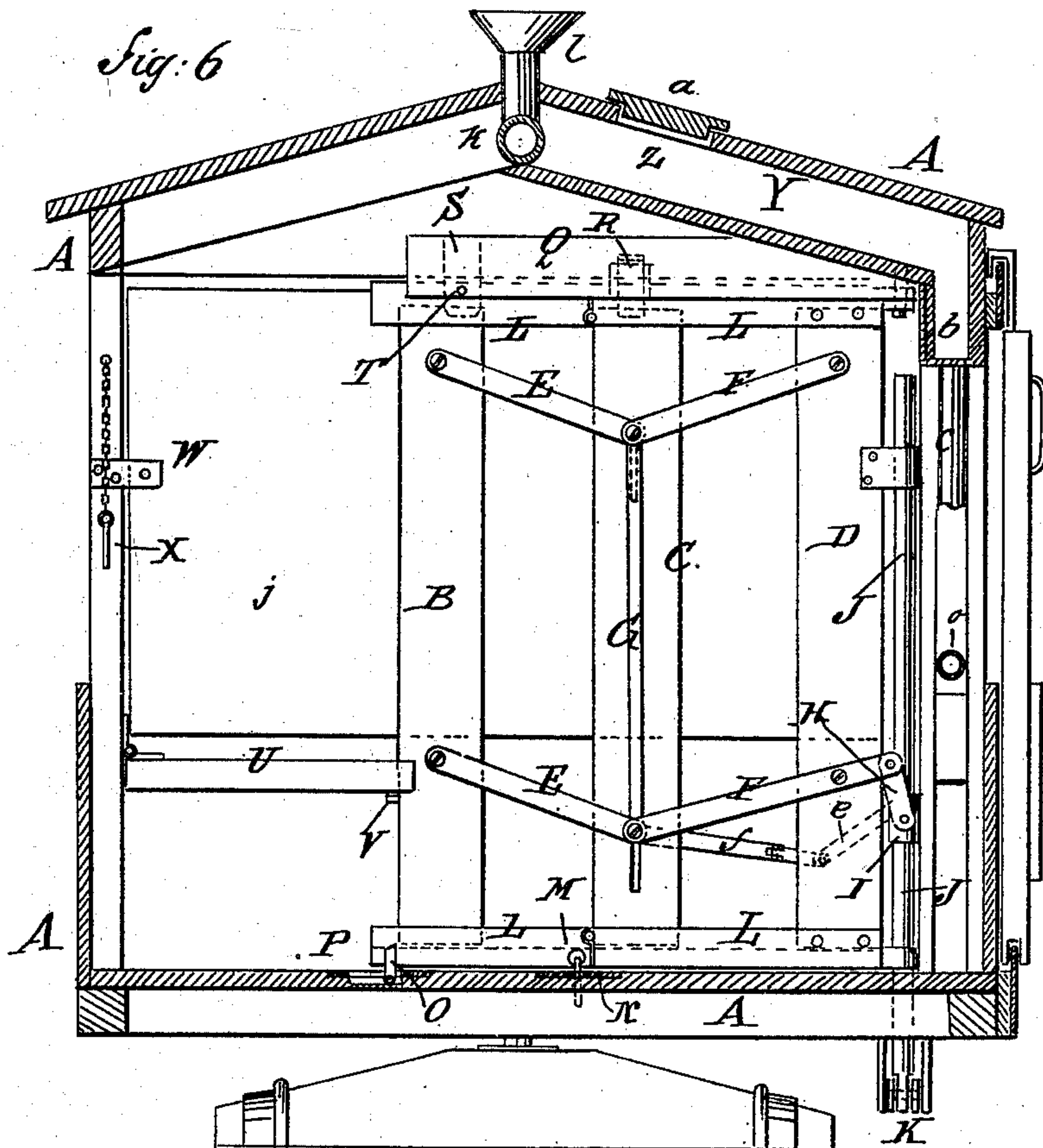


Fig. 6



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ADOLPH V. ANDERSON, OF VIRGINIA CITY, NEVADA.

## STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 269,988, dated January 2, 1883.

Application filed October 5, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ADOLPH V. ANDERSON, of Virginia City, in the county of Storey and State of Nevada, have invented a new and useful Improvement in Stock-Cars, of which the following is a full, clear, and exact description.

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

Figure 1, Sheet 1, is a sectional side elevation of a car to which my improvements have been applied, parts being broken away. Fig. 2, Sheet 1, is a sectional side elevation of a water-trough and its support. Fig. 3, Sheet 1, is a plan view of a feed-trough folded. Fig. 4, Sheet 1, is a sectional end elevation of the same opened. Fig. 5, Sheet 2, is a plan view, partly in section, of a part of the car. Fig. 6, Sheet 2, is a sectional end elevation of the same.

The object of this invention is to facilitate the transportation of cattle, horses, and other animals in safety and comfort.

The invention consists in a stock-car constructed with extension-partitions forming stalls, and having at its top feed-compartments provided with discharge-tubes, and at its ends water-tanks provided with discharge pipes and faucets, so that the feed and water will be discharged into feed-boxes and water-troughs placed in the stalls. The partitions that form the stalls are formed of uprights, kept in the same plane by hinged and grooved guides, and moved to and from each other by pivoted bars operated by levers placed outside of the cars. The rear ends of the stalls are separated by bars hinged to the car-frame, and engaging with the edges of the extension-partitions to prevent the animals from backing into adjacent stalls. The feed-box is formed of side boards having flanges at one end, to which and to the other ends of the said side boards are hinged the end boards. To the lower edge of one of the side boards is hinged the bottom, the free edge of which rests upon a flange upon the lower edge of the other side board. To the feed-box bottom is attached an arm, which is connected by a bar with the pivoted bars of the extension-partition, so that the feed-box bottom will be swung up and

down by the extension and contraction of the said partition. The water-troughs are hung upon sliding plates connected by rods with levers which are pivoted to the car-frame, connected with the water-discharging faucets, and held up by springs, so that the variation in the amount of water in the said troughs will operate the said faucets to admit and shut off the water. With the water-tanks at the ends of the cars are connected flexible pipes and valves, so that the tanks of all the cars in the train can be connected, and thus filled from one car, as will be hereinafter fully described.

A represents an ordinary box-car, the interior of which is divided into a number of stalls by partitions. Each stall-partition is formed of three upright boards or bars, B C D, which are connected by two pairs of bars, E F. The outer ends of the bars E F are hinged by bolts or other suitable means to the outer bars, B D. The inner ends of the bars E F are hinged to each other by bolts or other suitable means, which bolts pass through a longitudinal slot in the central bar, C, and are attached to the ends of connecting-bars G, placed upon the sides of the said central upright, C, and made wider than the slot through the said upright, so that the three uprights B C D can be drawn together and forced apart to contract and expand the partition by operating the bars E F.

The outer or forward end of the lower bar, F, is extended beyond its pivot, and to the said extended end is pivoted the upper end of a short bar or link, H, the lower end of which is pivoted to a collar, I, attached to an upright rod, J. The rod J slides up and down in keepers attached to the car-body, passes through a guide-hole in the bottom of the car, and to its lower end is hinged a lever, K, which is fulcrumed to a support attached to the car-frame, so that the stall-partition can be contracted and expanded from outside the car by operating the lever K. The outer edge of the upright D is hinged to the car-body, so that the partition, when contracted, can be swung around against the side of the car, so as to be out of the way when freight is to be stowed in the car. The upper and lower ends of the uprights B C slide in grooves in the guide-bars L, the outer ends of which are rigidly attached to the ends of the upright D.



The guide-bars L are made in two parts hinged to each other at the outer edge of the partition when contracted, so that the hinged parts of the said bars can be folded against the edge of the upright B when the partition is to be swung against the side of the car. The lower bar, L, is held against lateral movement when in place by pins M, inserted upon the opposite sides of the said lower bar, L, near the end of the hinged part of the said bar, in holes in a plate, N, let into and secured to the floor of the car. The hinged part of the lower bar, L, is held from lateral movement by two pins, O, hinged to a slotted plate, P, let into and secured to the car-floor, so that the pins O can be turned up at the opposite sides of the said part of the bar L, and can be turned down into the slots in the plate P when not required for use. The upper bar, L, is held from lateral movement at one side by a bar, Q, attached to the upper part of the car-frame, and at the other side by a catch, R, that slides in a guide attached to the top frame of the car in such a position that the catch R will engage with the main part of the bar L near its hinged part. The hinged part of the upper bar, L, is held against the stop-bar Q by a stationary catch, S, attached to the top frame of the car. The hinged part of the upper bar, L, is supported, when raised into a horizontal position, by a pin, T, inserted in a hole in the stationary catch S and in the said hinged part of the bar L.

The animal in a stall is kept from backing into an adjacent stall by a bar, U, the inner end of which is slotted to receive the edge of the upright B, to which is attached a pin, V, or other stop to prevent the said bar U from dropping down too far. The outer end of the bar U is hinged to a post of the car-frame, so that it can be turned up against the said post to allow the animals to pass and when not required for use. When the hinged bar U is in an upright position it rests against the side of a guide-plate, W, attached to the post of the car-frame, and is secured in place by a pin, X, passing through the said plate W and into the said bar U. The spaces between the rafters of the car are inclosed to form chambers Y to receive grain or other suitable feed, which is inserted through openings Z in the roof of the car, the said openings being closed by suitable covers, a. With the lower part of each chamber Y, or with a chute, b, connected with the said lower part, is connected the upper end of a tube, c, the lower end of which is inserted in the feed-box d, so as to deliver grain into said feed-box as fast as it is eaten out.

Upon one end of each side 1 of the feed-box d, at the opposite ends of the said feed-box, is formed a narrow flange, 2, projecting at right angles, to the end of which is hinged the edge of the end piece, 3, the other edge of which is hinged to the end of the other side 1.

To the lower edge of the inner side, 1, of the feed-box d is hinged the edge of the bottom

4, the free edge of which, when the said feed-box is opened, rests upon a flange, 5, formed upon or attached to the lower edge of the other side 1 of the said feed-box.

To the bottom 4 is rigidly attached a downwardly-projecting arm, e, the lower end of which is pivoted to the outer end of a connecting-bar, f, the inner end of which is pivoted to the lower bars, E F, by the bolt that pivots the said bars E F to each other. With this construction the bottom of the feed-box d will be raised by the movement of the bars E F in contracting the partition, and the said feed-box will be folded together by the pressure against it of the partition as the said partition is swung around against the side of the car.

To the lower parts of the tubes c are attached bands g, provided with eyes to receive hooks g', attached to the upper part of the car-frame, to support the tubes c out of the way and prevent the feed from flowing out of the chambers Y when the feed-box d is folded or otherwise not in use.

The space opposite the car-doors is made to serve as a double stall to receive two animals.

In this case the folding feed-box d is attached to the inner side of the car-door, and the feed-discharge tube c is hinged at its upper end to the top of the car-frame in such a position that its open upper end will cover the discharge-opening of the feed-chamber. The hinging of the tube c allows the said tube to be swung up close to the roof of the car, and hung upon its supporting-hook, so as to be entirely out of the way of the animals when passing into and out of the car. When the hinged tube c is swung up to the top of the car the discharge-opening of the feed-chamber Y is closed by a slide, h, which slides in the keepers or guides i, attached to the upper part of the car.

To each end of the car is attached a water-tank, j, which is made of galvanized sheet-iron or other suitable material, and with the top of which is connected the end of a tube, k, which extends along the upper part of the car-roof, and with it is connected a funnel, l, passing in through the said roof, as shown in Figs. 1 and 6.

With the upper part of each tank j is connected the end of a flexible pipe, m, which is provided with a valve, n, at its inner end, and is made of such a length that it can be coupled with the end of a corresponding pipe connected with the adjacent car. With this construction the tanks of all the cars can be filled with water introduced into the funnel l of one car from the station-pipes that supply the engine-tank with water, or from any other convenient source.

With the lower part of each tank j is connected the end of a pipe, o, which passes along the side of the car to the doorway, and is provided with a series of faucets, p, arranged to



discharge water into the various water-troughs *q* of the car. Each water-trough *q* is provided with hooks *r*, which are hooked upon the upper edge of a plate, *s*, sliding up and down in guides *t*, attached to the car, and the downward movement of which is limited by a flange, *u*, or other stop formed upon or connected with the lower ends of the guides *t*.

To the upper end of the supporting-slide *s* is attached the lower end of a connecting-rod, *v*, the upper end of which is pivoted to the end of a lever, *w*. The other end of the lever *w* is pivoted to the car-frame.

To the lever *w* is pivoted the end of the valve-stem of the faucet *p*, and to the said lever is attached the lower end of a spiral or other shaped spring, *x*, the upper end of which is attached to the car-frame. The spring *x* is arranged to hold the faucet *p* open, and is made of such a tension as to support the water-trough *q* until it is nearly filled with water. With this construction, when the weight of the water-trough *q* and of the water contained in it becomes greater than can be sustained by the tension of the spring *x*, the said spring yields and allows the trough *q* and the slide *s* to descend, closing the faucet *p* and preventing any more water from flowing out of the said faucet until so much water has been removed from the said trough that it will be raised by the tension of the spring *x*. This movement opens the faucet *p* and allows water to again flow into the trough *q* until the descent of the trough again closes the faucet, so that the trough *q* will be constantly supplied with water.

In loading the car with animals the stalls are filled in succession, beginning at the ends of the car, and as each stall is filled the partition separating the stall from the next empty stall is expanded and secured, and the bar *U* is lowered. The double stall at the center of the car is filled last by driving two animals into it.

In unloading the car the animals in the double stall are first driven out, and then the hinged bars *U* are raised, and the partitions are contracted and swung around against the side of the car from the center toward the ends in succession. The car can then be washed out with the water remaining in the tanks, and the car is ready to be again loaded with animals or other freight.

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

1. A stock-car constructed substantially as herein shown and described, and consisting of the car *A*, provided with extension-partitions forming stalls, and having at its top feed-compartments provided with discharge-tubes, and

at its ends water-tanks provided with inlet-pipes and with discharge pipes and faucets, whereby feed and water are discharged automatically into feed-boxes and water-troughs placed in the stalls, as set forth.

2. In a stock-car, the combination, with the car-body, of the hinged upright *D*, the hinged guides *L*, the sliding uprights *B C*, the pivoted connecting-bars *E F G*, and an operating mechanism, substantially as herein shown and described, whereby the partition can be readily extended, contracted, and swung into and out of place, as set forth.

3. In a stock-car, the combination, with the car-frame and the extended outer end of the lower pivoted bar, *F*, of the link *H*, the vertical sliding rod *J*, and the lever *K*, substantially as herein shown and described, whereby the partition can be extended and contracted from outside the car, as set forth.

4. In a stock-car, the combination, with the extension-partition *B C D*, of the bar *U*, hinged to the side of the car to swing in a vertical plane, and when lowered to rest against the upright *B* of the said partition, substantially as and for the purpose set forth.

5. In a stock-car, the feed-boxes *d*, made substantially as herein shown and described, with sides *1*, having flange *2* at one end, the end pieces, *3*, hinged to the ends and flanges of the said side pieces, the hinged bottom *4*, and the bottom-supporting flange *5*, whereby the said feed-boxes can be compactly folded, as set forth.

6. In a stock-car, the combination, with the folding feed-box *d*, having an arm, *e*, attached to its hinged bottom, and the pivoted connecting-bars *E F*, of the extension-partition of the connecting-bar *f*, substantially as herein shown and described, whereby the bottom of the said feed-box will be turned up and down by the extension and contraction of the said partition, as set forth.

7. In a stock-car, the combination, with a water-pipe extending along the side of the car and provided with faucets, of troughs adapted to automatically control its supply of water by the weight of the water therein, substantially as herein shown and described.

8. In a stock-car, the combination, with the water-discharging faucet *p* and the water-trough *q*, of the trough-supporting slide *s*, the connecting-rod *v*, the pivoted lever *w*, and the spring *x*, substantially as herein shown and described, whereby the faucet will be opened and closed automatically, as set forth.

ADOLPH VALENCIA ANDERSON.

Witnesses:

GEO. L. DIRKS,  
THED O'SULLIVAN.