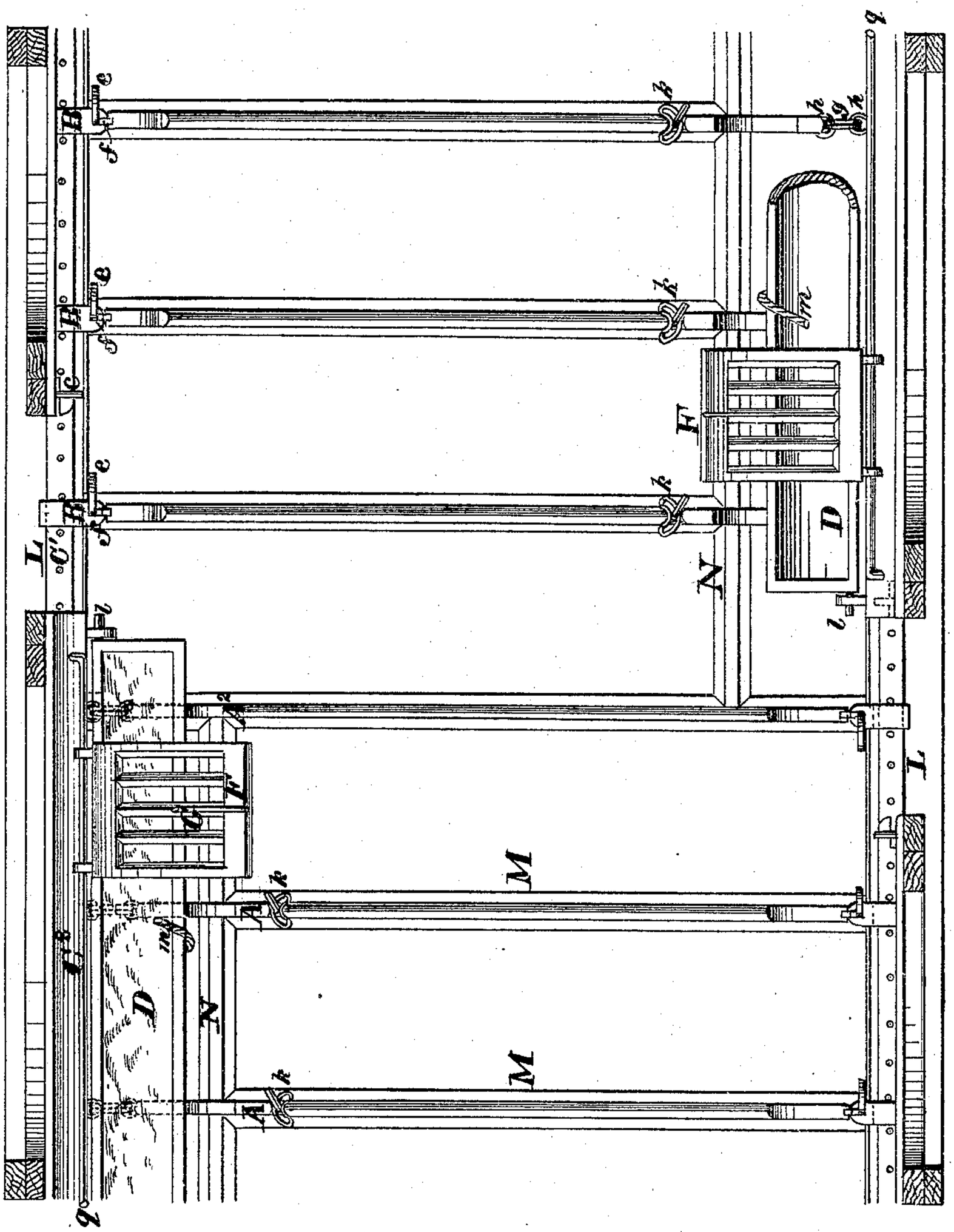
4 Sheets--Sheet 1.

T. J. McCARTY.

Stock-Cars.

No. 143,414. Patented Oct. 7, 1873.

FIG. 1.



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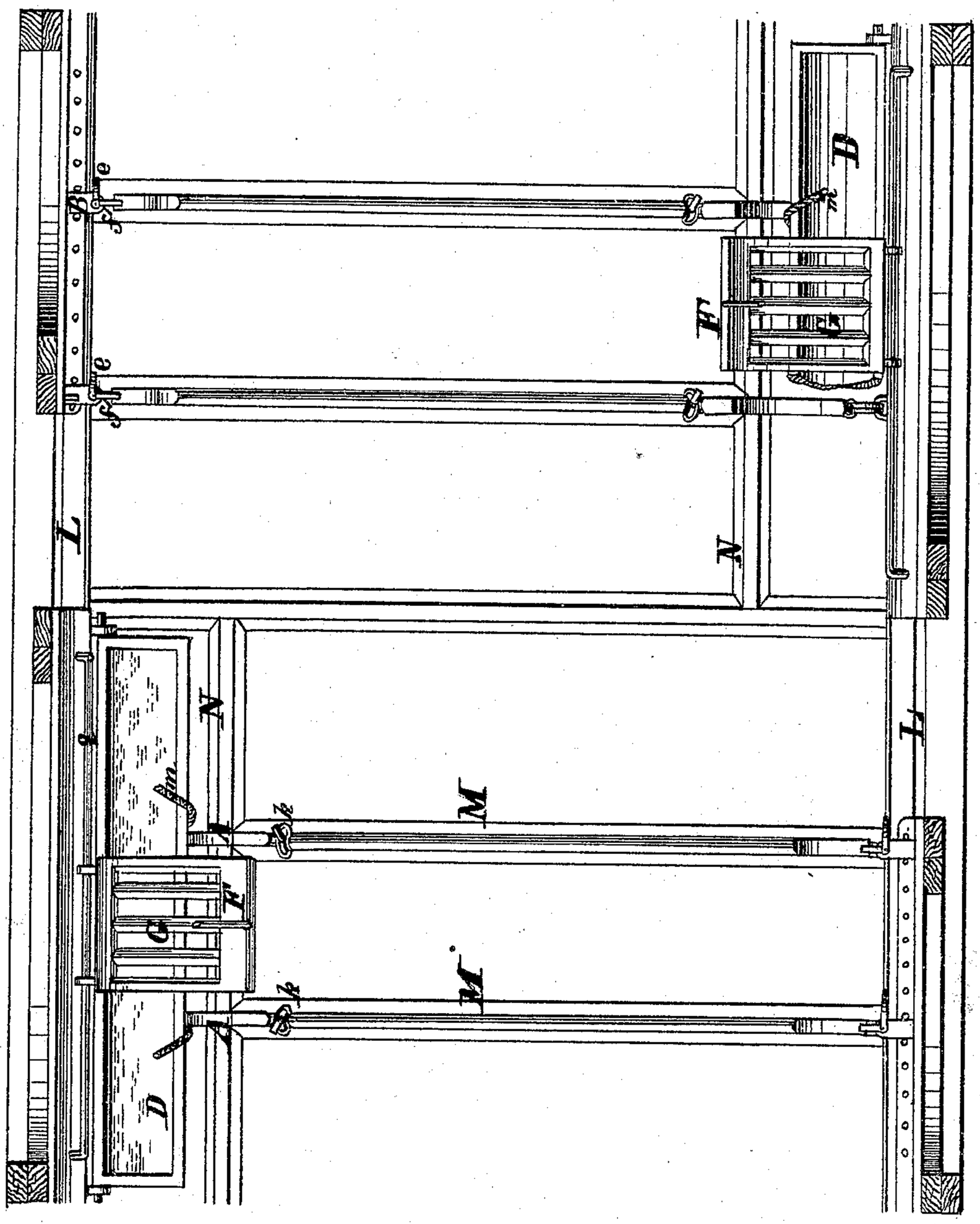
4 Sheets--Sheet 2.

T. J. McCARTY.

Stock-Cars.

No. 143,414. Patented Oct. 7, 1873.

FIG. 1.



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4 Sheets--Sheet 3.

T. J. McCARTY.

Stock-Cars.

No. 143,414. Patented Oct. 7, 1873.

FIG. 2.

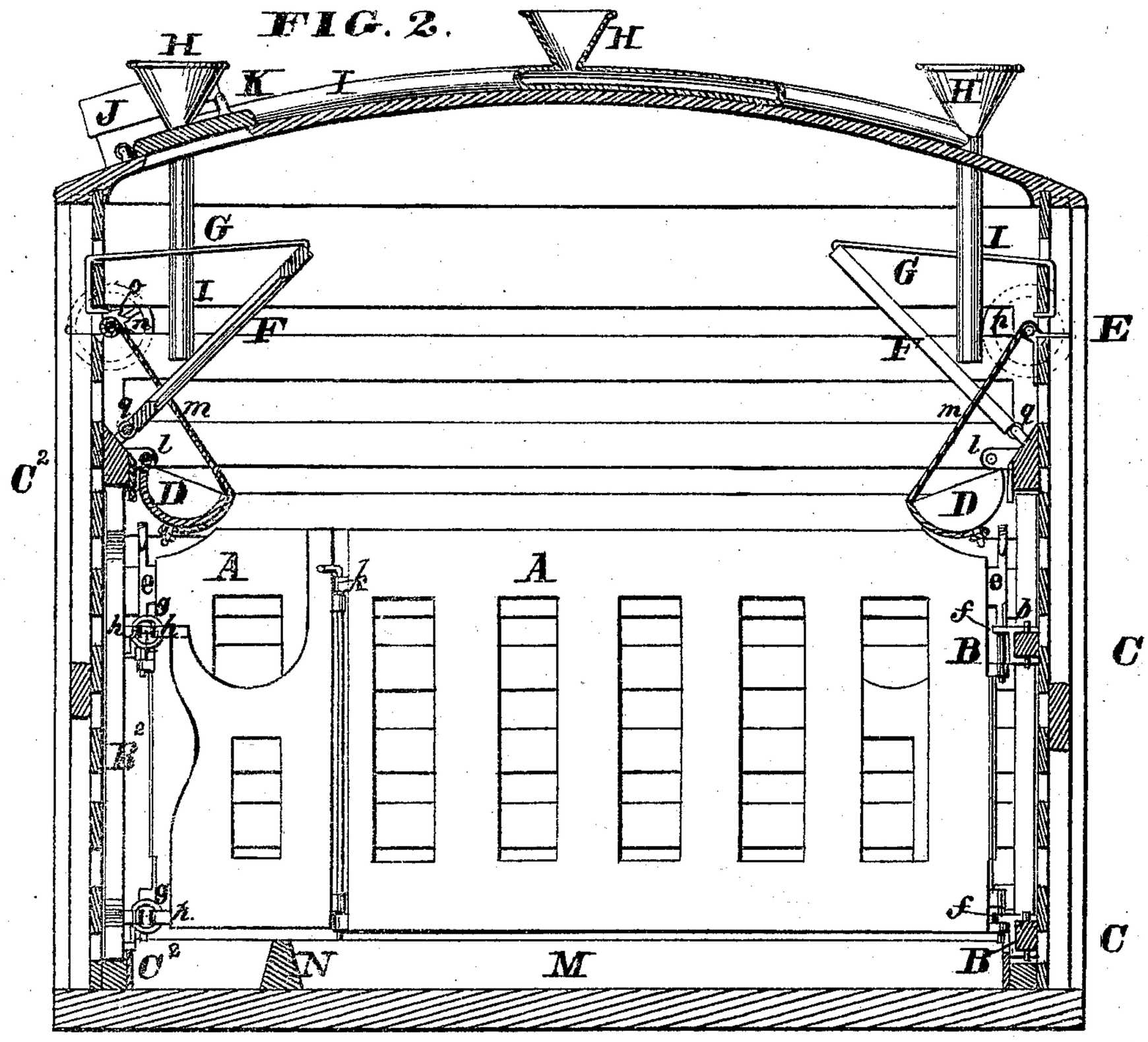
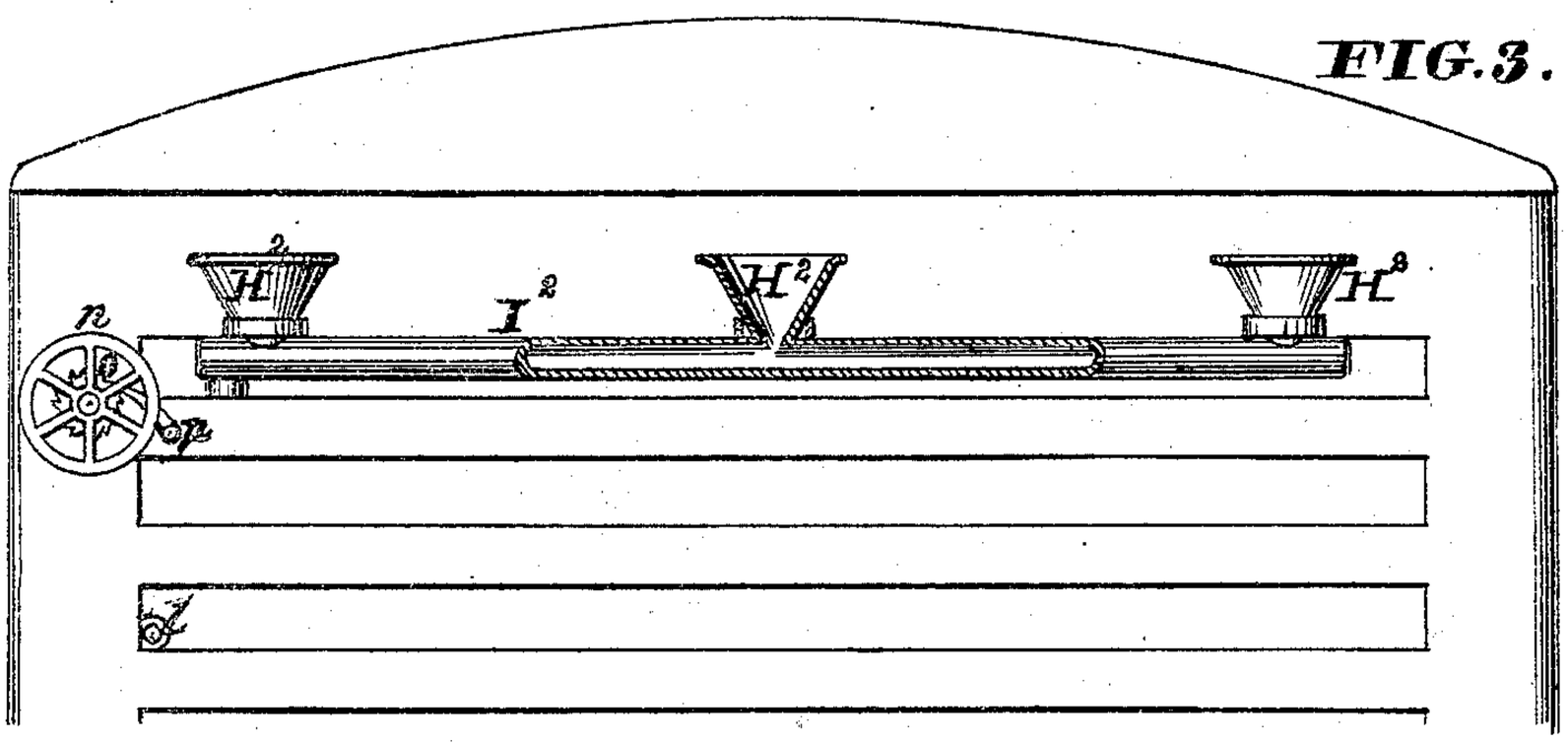


FIG. 3.



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4 Sheets--Sheet 4.

T. J. McCARTY.

Stock-Cars.

No. 143,414. Patented Oct. 7, 1873.

FIG. 4.

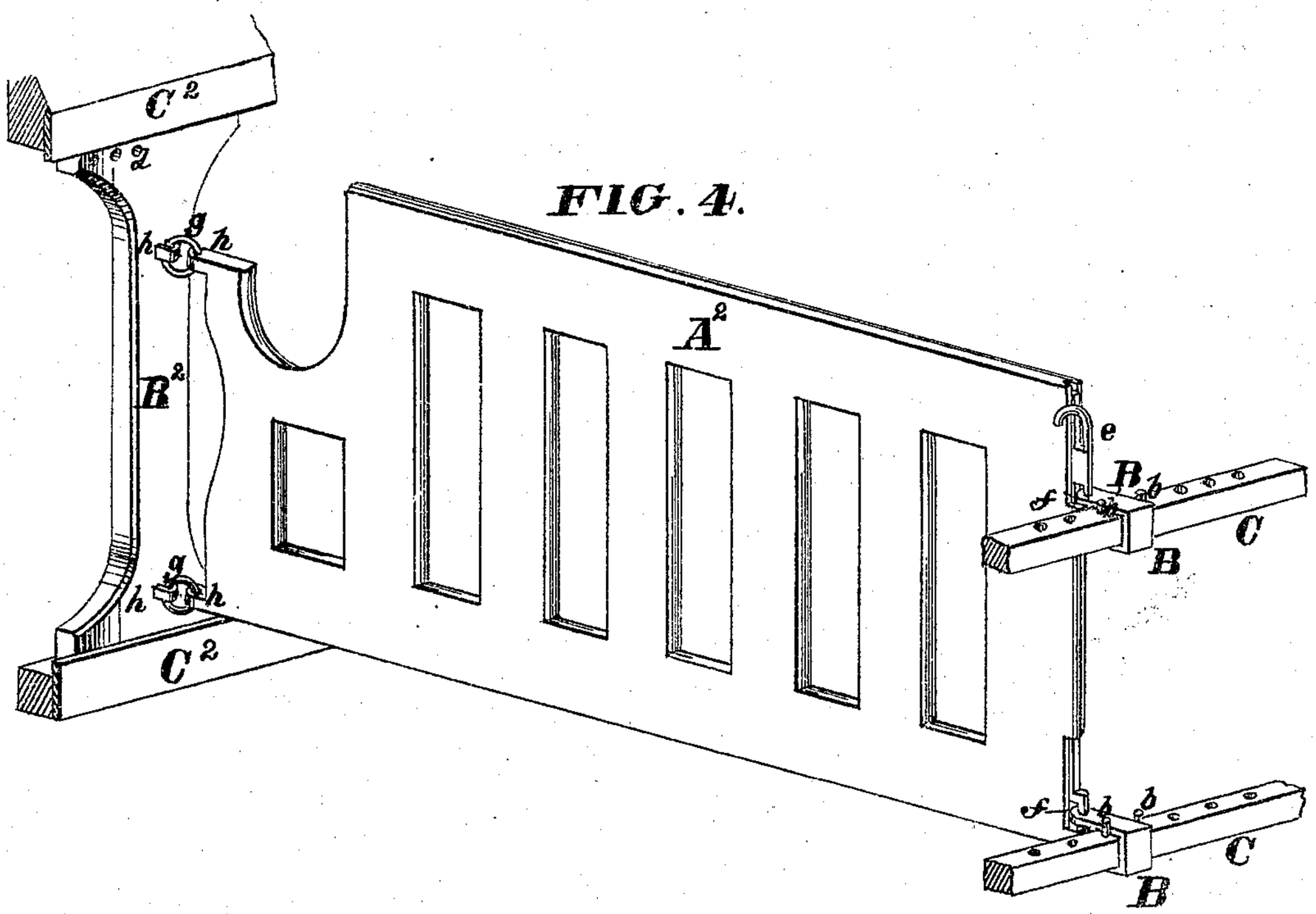


FIG. 5.

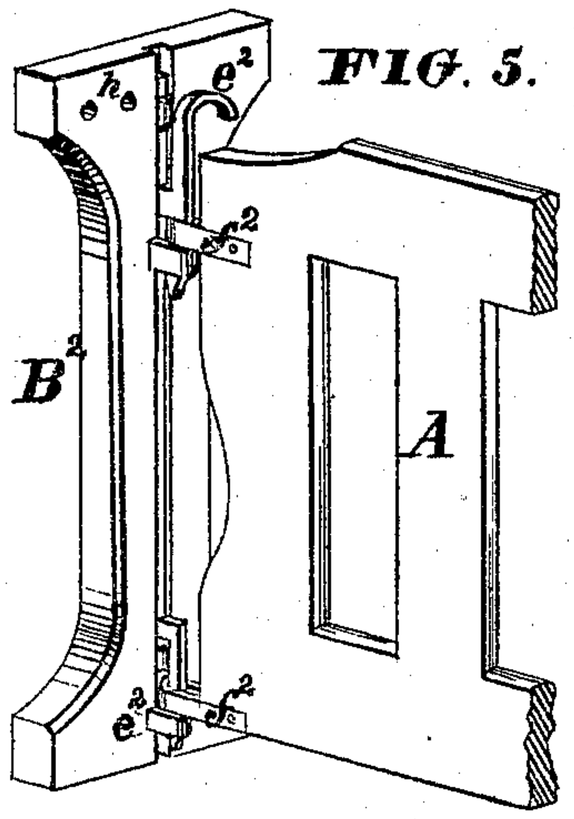
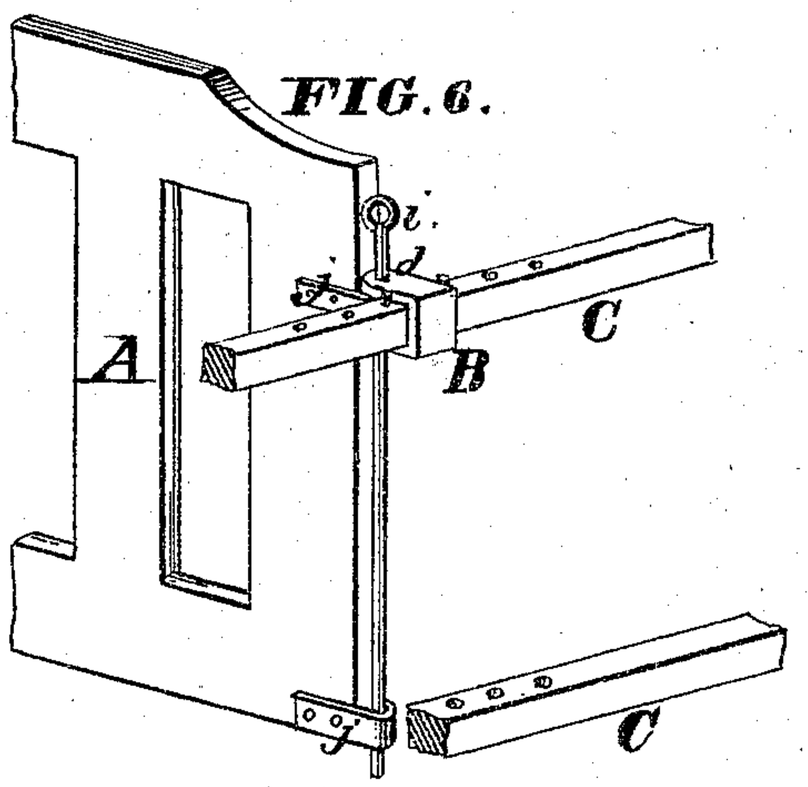


FIG. 6.



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UNITED STATES PATENT OFFICE.

THOMAS J. McCARTY, OF SALEM, OHIO.

IMPROVEMENT IN STOCK-CARS.

Specification forming part of Letters Patent No. 143,414, dated October 7, 1873; application filed August 18, 1873.

To all whom it may concern:

Be it known that I, THOMAS J. McCARTY, of Salem, in the county of Columbiana, Ohio, have invented an Improved Stock-Car, of which the following is a specification:

This invention relates to the transverse gates or partitions by which cars for transporting cattle, horses, and mules are divided into separate compartments or stalls. The same consists, in part, in perforated longitudinal supporting-bars applied to the sides of the car, in combination with slides embracing the same, and with or without locking-pins in the perforations, by means of which the gates may be readily adjusted as to distance apart from the outside as well as from inside the car, the gates to be attached to the slides at either or both ends by any approved means. It consists, further, in providing the gates with joints at or about the shoulders of the animals, so as to render the gates flexible.

Figure 1 is a partial horizontal section or sectional plan view of the body of a stock-car, illustrating this invention. Fig. 1ª is a similar view, illustrating modifications. Fig. 2 is a vertical transverse section of the same. Fig. 3 is an end view, illustrating a modification in the arrangement of the water-supply apparatus. Fig. 4 is a perspective view, partly in section, of a single gate and its appurtenances, illustrating the employment of a non-flexible gate. Figs. 5 and 6 are similar views, illustrating modifications of the means for supporting and adjusting the gates.

To construct a stock-car according to this invention the same is furnished with a sufficient number of transverse gates, A A^2, to divide the car into stalls, each of sufficient capacity to accommodate a single animal, giving it sufficient room in which to lie down to rest. These gates are arranged so that the animals in the respective ends of the car face in opposite directions, so as to balance their weight on the trucks. The head ends *a* of the gates are preferably cut low, so as to accommodate the horns of Texan and similar cattle. The gates are supported at either or both ends, the fastenings being preferably of such a form as to admit of readily swinging the gates shut and open to secure or introduce or remove the animals. To provide for supporting the gates at any required distance apart they are attached to slides B B^2, working in or on longitudinal rails C C^2 applied to the sides of the car. The preferred form of slide B and rail C is illustrated in Figs. 1, 1ª, 2, 4, and 6, at the tail ends of the gates, but is applicable to either end. The rails are perforated bars of iron or wood, preferably square in transverse section. The slides are adapted to the rails, and are held in position by pins *b* applied in the perforations of the rails. The pins can readily be changed either from the inside or outside of the car, and the stall of any particular animal may, consequently, be readily enlarged or contracted after the car is loaded. This form of rail may be extended across the doors, as illustrated in Fig. 1, by means of removable sections C^1, secured by pins *c*. The opposite side of the car may be similarly provided, or different slides and rails C^2 may be employed, as in the illustration. The slides B^2 are vertical bars, (shown in perspective in Figs. 4 and 5,) and the rails C^2 form guide-grooves or ways to receive the ends of the same. Adjusting perforations *d* may be formed in the slides, as shown in Figs. 4 and 5, or in the sides of the car. The fastenings by which the gates are attached to the slides may consist of sliding bolts *e* on the gates and staples *f* on the slides, or rings and staples *g h*, as shown in Figs. 1, 2, and 4; or sliding bolts e^2 may be applied to the slides of the form B^2, in combination with staples f^2 on the gates, as shown in Fig. 5; or the fastenings may consist of loose long bolts and staples *i j*, as illustrated in Fig. 6. The last is the preferred fastening, but any approved pattern may be employed; and when tight and loose joint fastenings are used together, as in the illustration, the loose-joint fastenings *e f* may be located at either end of the gates, as may be preferred. To give the animals limited freedom of lateral movement the slides at either or both ends of the gates may be left loose, and when both ends of the gates are secured the gates A preferably employed are made flexible by means of suitable hinge-joints, *k*, Figs. 1, 2, located at or about the shoulders of the animals when the same are in position. The other improvements may, however, be employed in connection with non-flexible gates, as illustrated in

Fig. 4. The gates may be of any approved material and structure as regards details; but the same are preferably perforated, as represented, and one aperture in each gate is properly arranged, and made sufficiently large to permit the hips of the animals to project into the same, or to abut against each other, instead of against the partitions. This provision is found to be as effective as cushions to prevent brushing, while it avoids the expense of padding and economizes room. D D represent water and feed troughs; *l*, hinges, attaching the same to the sides of the cars at the head end of the stalls; E E, longitudinal drum-shafts; *m*, ropes or chains; *n*, hand-wheels; *o*, ratchets; and *p*, holding-pawls, for raising, lowering, and supporting the troughs. F F represent hay-racks, attached to the sides of the car above the feed-troughs by long hinge-rods *q*. G G represent hooks for supporting the hay-racks in effective position. H H H represent funnels in the roof or deck of the car, and I a central transverse pipe communicating therewith, and furnished at each end with a drop-tube for filling either or both troughs from the roof or deck. H^2 I^2, Fig. 3, represent like funnels and tubes, applied at one end of the car. J represents one or more feed-boxes on top of the car, and K K trap-doors in the roof or deck, through which to supply the troughs and hay-racks. For emptying the troughs their bottoms may be provided with plugged perforations, and waste-pipes be attached to the sides of the car beneath the same, extending through the floor. L L represent doorways, arranged at or about the center of the car, but not opposite each other, so that the troughs may extend the whole length of the car on opposite sides. M represents longitudinal strips, and N transverse strips, secured to the floor to prevent the legs of the animals from getting beneath the gates, and to give the animals foot-hold in rising.

Different arrangements of the gates, and consequently of the floor-strips, are illustrated in Figs. 1 and 1^a, respectively. The arrangement illustrated in Fig. 1^a obviates any necessity for the supporting-bar extensions across the doors shown in Fig. 1. Either arrangement, or any other, may be adopted.

When a load of stock has been discharged, the feed-troughs and hay-racks being in elevated position, the gates may be folded compactly against the sides and ends of the car, and a load of dead freight—such as coal, coke, or merchandise—may be shipped.

The following is claimed as new:

1. The perforated longitudinal supporting-rails C, applied to the sides of the car, in combination with the slides B and gates A, for the purposes set forth.

2. The combination of the gates A, slides B, perforated supporting-rails C, and pins *b*, for locking the slides in any position to adjust the gates for enlarging or contracting the stalls, said pins being accessible either from inside or outside of the car, all as set forth.

3. The gates A, constructed with the joints *k*, formed to adapt them to yield laterally with the animals to a limited extent, as set forth.

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