(No Model.)

I. KITSEE, H. ILLOWAY, & P. A. KECK.

Stock Car.

No. 239,802. Patented April 5, 1881.

Fig. 1

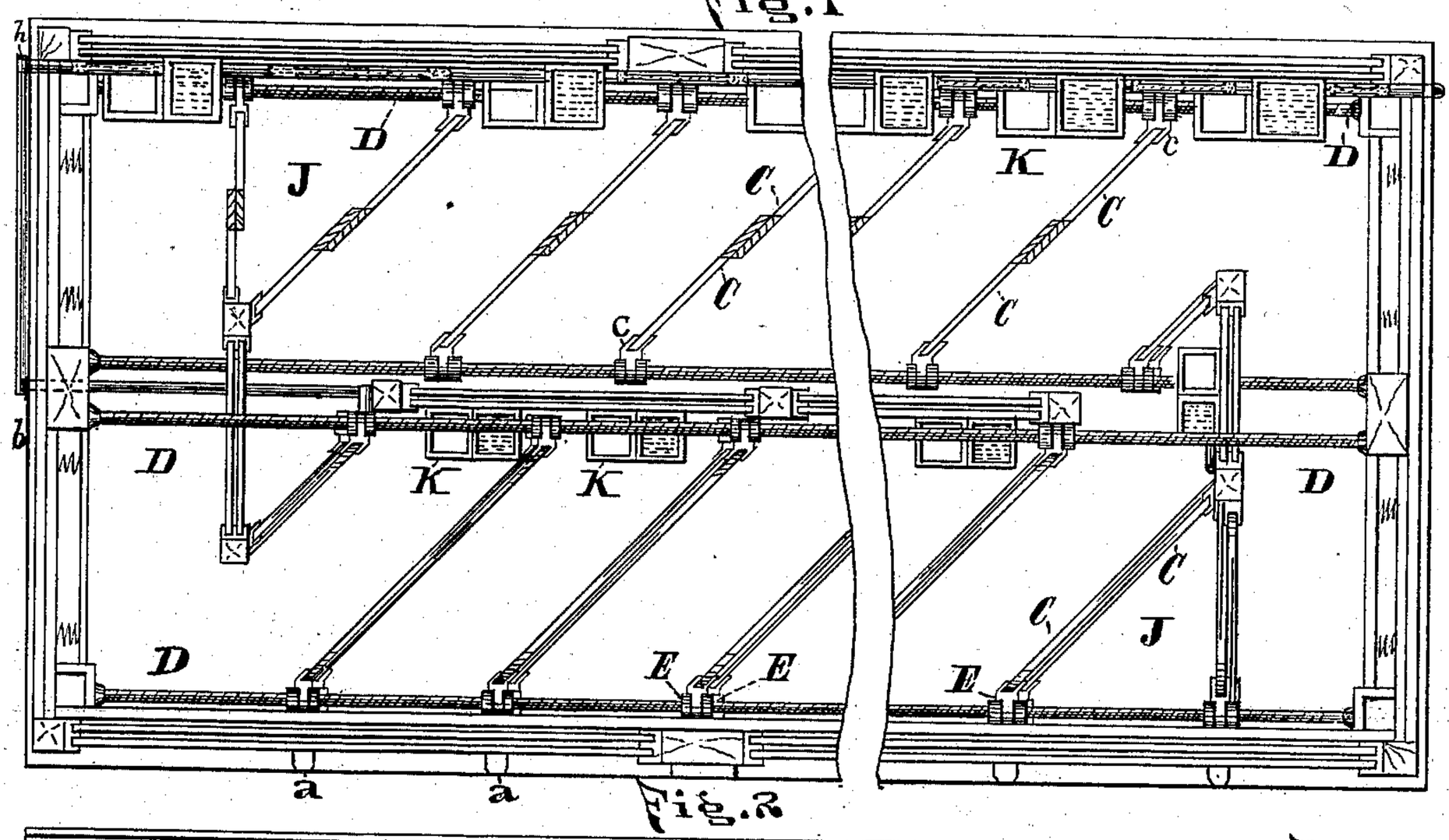

Fig. 2

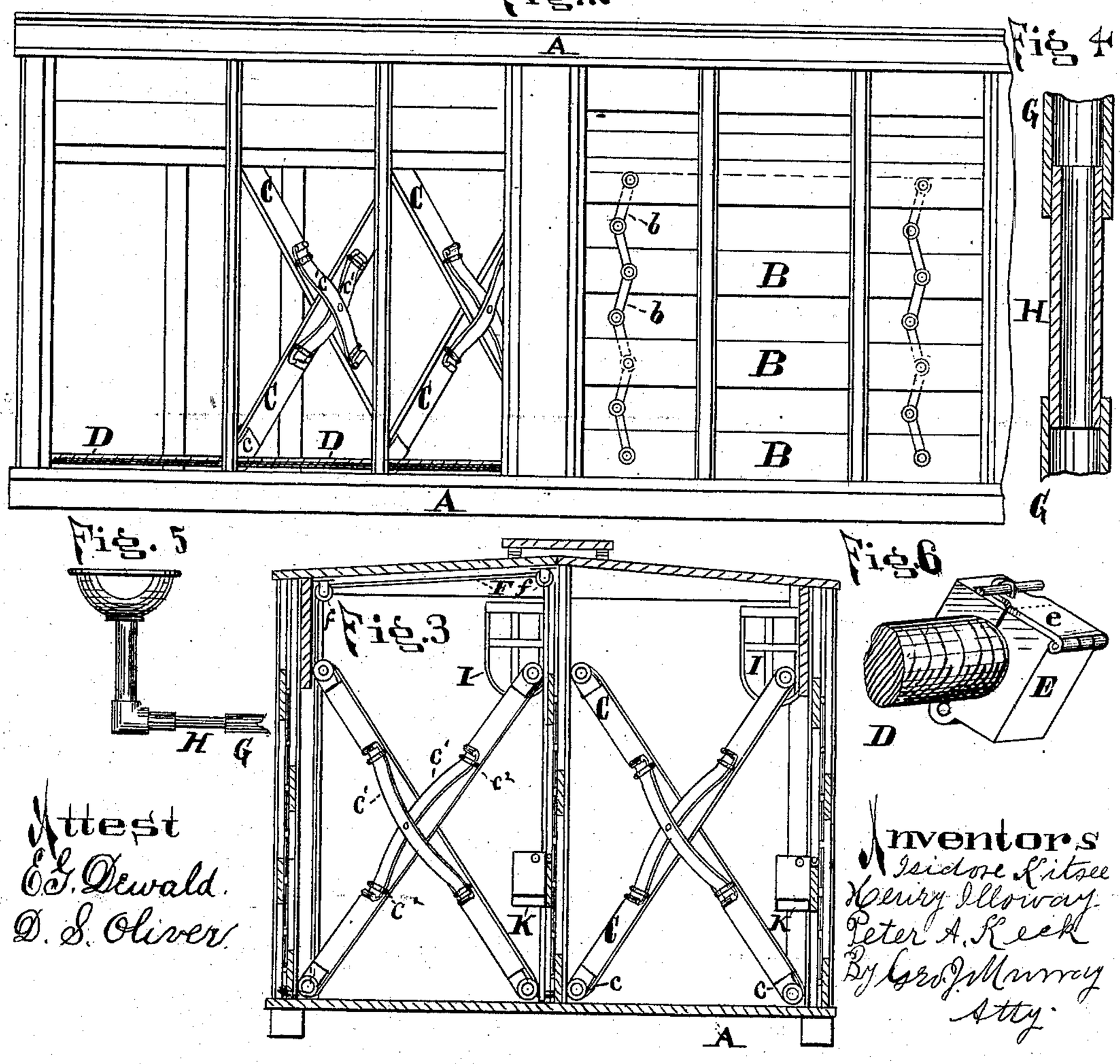

Fig. 4

Fig. 5

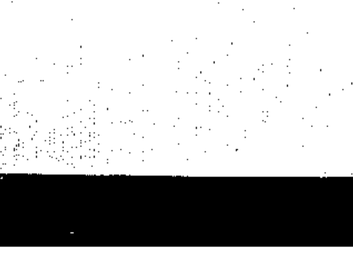

Fig. 3

Fig. 6

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UNITED STATES PATENT OFFICE.

ISIDOR KITSEE, HENRY ILLOWAY, AND PETER A. KECK, OF CINCINNATI, OHIO, ASSIGNORS TO THE PARLOR CATTLE CAR COMPANY, OF SAME PLACE.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 239,802, dated April 5, 1881.

Application filed August 26, 1880. (No model.)

To all whom it may concern:

Be it known that we, ISIDOR KITSEE, HENRY ILLOWAY, and PETER A. KECK, of the city of Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Stock-Cars, of which the following is a specification.

This invention relates to railway-cars for transporting stock.

The object of the invention is to provide a separate stall for each animal, and so arrange said stalls upon each side of the center of the car that the animals may be conveniently loaded and discharged.

A further object is to automatically elevate and lower the central dividing-partition by opening or closing the door upon one side of the car.

Its object is also to provide a cheap and durable stall-side, which, while effectually separating the animals, occupies but little space in the car, does not interfere with the proper ventilation, and protects the animals from injury.

Another object is to provide a convenient means for adjusting the stall-sides to accommodate different-sized animals.

Its object is, finally, to provide a convenient means for watering the stock.

In the accompanying drawings, in which identical parts are indicated by similar reference-letters throughout the various views, Figure 1 is a sectional plan view of a railway-car embodying our improvements. Fig. 2 is a side view, one of the doors being elevated. Fig. 3 is a vertical transverse section of the closed car. Fig. 4 is the pipe-joint connecting the water-troughs, enlarged. Fig. 5 is a detail view of part of water-pipe extending to the outside of the car, and Fig. 6 is an enlarged view of the clasp-nut and a portion of the screw-shaft for quickly adjusting the stall-sides.

Referring to the parts, A is the body of the car. It is divided longitudinally through the center by slatted partitions formed of bars B, united together by jointed links *b*, and adapted to slide vertically in grooved upright stiles braced between the roof and floor of the car. Each side of the car is subdivided into stalls placed diagonally to the sides of the car, opposite to each other and in the same line, so that when the central partition and doors are raised there will be a straight passage through the car between the stall-sides. The stall-sides are each formed of two cross-bars, C. These are armed at each end with metal socket-pieces *c*, which are bent at an angle and perforated to pass loosely over screw-shafts D, of which there are eight, four being placed near the floor of the car and the other four at a sufficient height above to allow the animals to pass beneath them upon entering or leaving the car. The stall-sides are secured firmly in position by clasp-nuts E, which, when the sides are adjusted to the desired position, are screwed against each side of the end clip-pieces, *c*.

The nut E, Fig. 6, is divided centrally, hinged upon one side, and provided with a clasp, *e*, upon the other side. The purpose of this arrangement of the nut is to speedily change the stall-sides, which is done by unclasping the nut, sliding it back to the position desired, and closing it upon the shaft.

Upon each side of the cross-shaped partitions are two springs, *c' c'*. These are spring-metal straps bowed out in the center and united at their junction by a rivet. The ends are secured by staples c^2 passing into the bars C, under which staples the springs have end-wise play. The end of the spring-pieces are turned into a scroll or provided with a projection which prevents its withdrawal. The bowed part of the spring will be about the center of the animal's body when standing, and will prevent it from being injured by the sudden starting or stopping of the car.

The side doors of the car are constructed in the same manner as the central partitions, and like them are adapted to slide vertically in grooved upright stiles. There are upright brace-pieces *a* placed outside of the car-doors, to resist pressure from within the car.

The doors upon one side of the car and the central partitions are united by cords F. One end of the cord is secured to the lower bar of the central partition. The cord is then passed over two pulleys, *f f*, at the top of the car, and then down and under a similar pulley secured to the floor. The opposite end of the

cord is secured to the bottom rail of the vertically-sliding door. Now, it is evident that when the doors upon this side of the car are elevated the central partitions will be simultaneously elevated.

The feed and water troughs are sustained upon one of the cross-bars B, and will be elevated and lowered with the partitions and doors. They may be hooked onto the inside of the bar or over its top edge, or in any convenient manner which will admit of their being moved laterally along the bar to occupy a central position in the stall when the stall-sides are moved to enlarge or lessen the size of the stall. The water-troughs project above the feed-troughs, so that all of them upon the same side may be connected by the sliding jointed pipes G H, Fig. 4. The sections G are secured upon opposite ends of the water-troughs, and the sliding section H unites the end pipe of one trough with the end pipe of the next. The sliding pipe in the end of the troughs nearest the ends of the car extends to the outside of the car. The supply-pipe may be provided with a coupling for attaching a hose or a funnel. (See Fig. 5.) The two rows of troughs may be provided with independent supply and discharge pipes, or may be united by a branch pipe, *h*, on the outside of the car.

The hay-racks I are secured to the stationary portion of the car-side and central partition.

At each end of the car we make one stall at right angles to the car-sides for convenience in loading, as seen plainly in Fig. 1. The small angular spaces J J are thus left. For long journeys these spaces may be provided with bins for grain or "short" food. The bin should be provided with a flexible discharge-tube near its bottom, which can be drawn through the lower opening between bars B, so that food may be obtained without opening the car.

The feed-troughs K may be supplied from the outside by passing a funnel into them from the outside of the car.

In loading the car the independent doors upon one side are left closed. The opposite doors and central partition being elevated, the cattle are driven in until all the stalls are occupied, when the doors are closed down, thus confining each animal in a separate stall.

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

1. In a stock-car, the combination, substantially as specified, of the vertically-sliding central partitions dividing the car longitudinally and a series of diagonal stalls arranged upon each side of said car, opposite each other, and leading, when the central partitions are removed, in a direct line through the car.

2. In a stock-car such as described, the combination of vertically-sliding doors upon one side of the car and vertically-sliding partitions centrally dividing a series of stalls, said doors and partitions being formed of bars B and links *b*, with a coupling-cord, F, by which the doors upon one side and the central partitions are simultaneously elevated.

3. In combination with the stall-sides of a stock-car, the springs *c' c'* and attaching-staples c^2, said springs being bowed out and united at their central junction, and their ends adapted to slide loosely under the attaching-staples, substantially as specified.

4. The combination, substantially as specified, of the crossed stall-sides C, screw-shafts D, and clasp-nuts E, arranged to operate in the manner set forth.

5. In a stock-car provided with movable stall-sides for enlarging or decreasing the size of the stalls, the combination of the movable water-troughs with the telescopic pipes G and H, for the purpose specified.

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