

(No Model.)

W. HOLDEN.
STOCK CAR STALL.

No. 300,259.

Patented June 10, 1884.

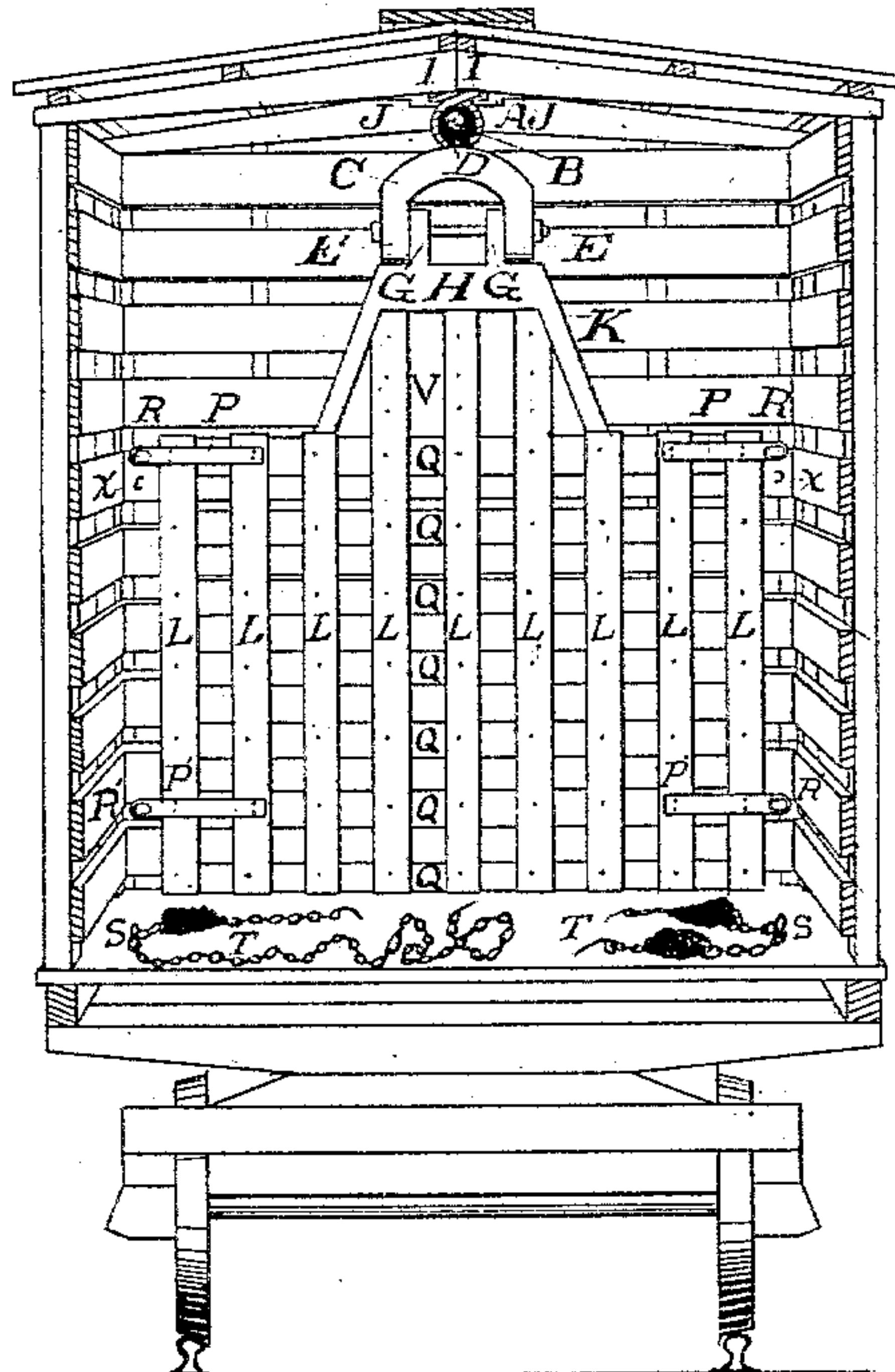


Fig. 1

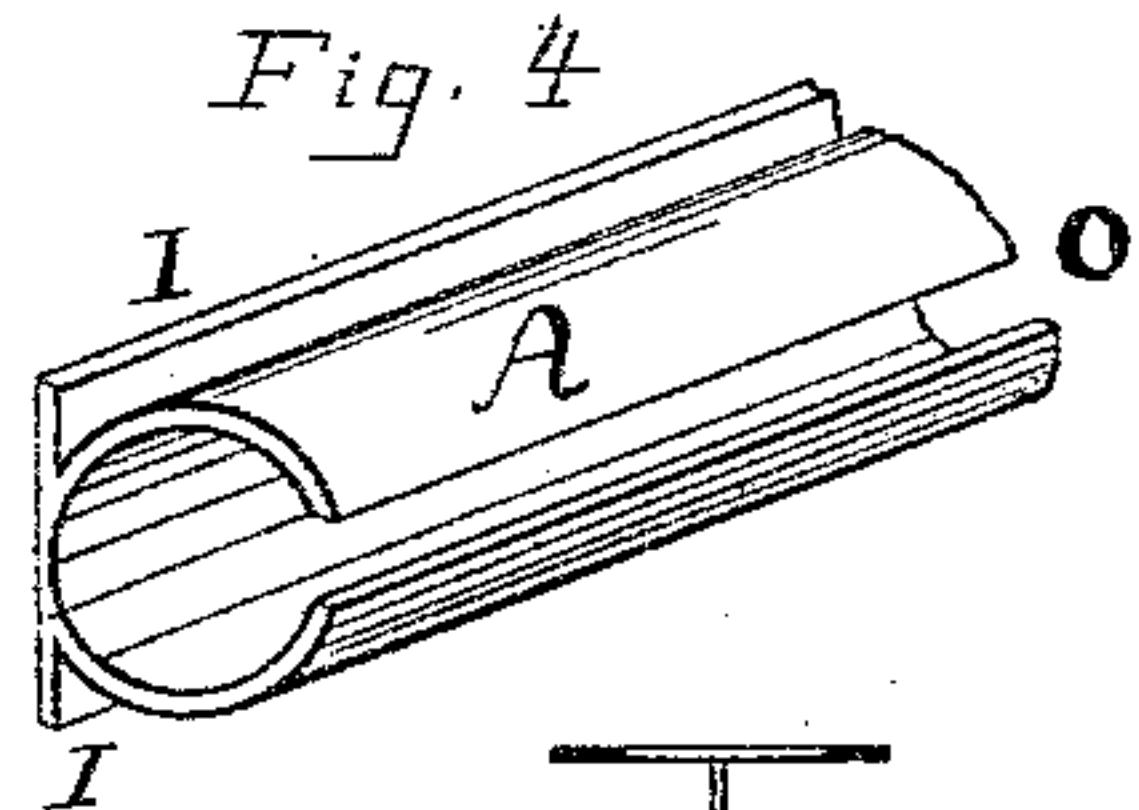


Fig. 4

Fig. 2.

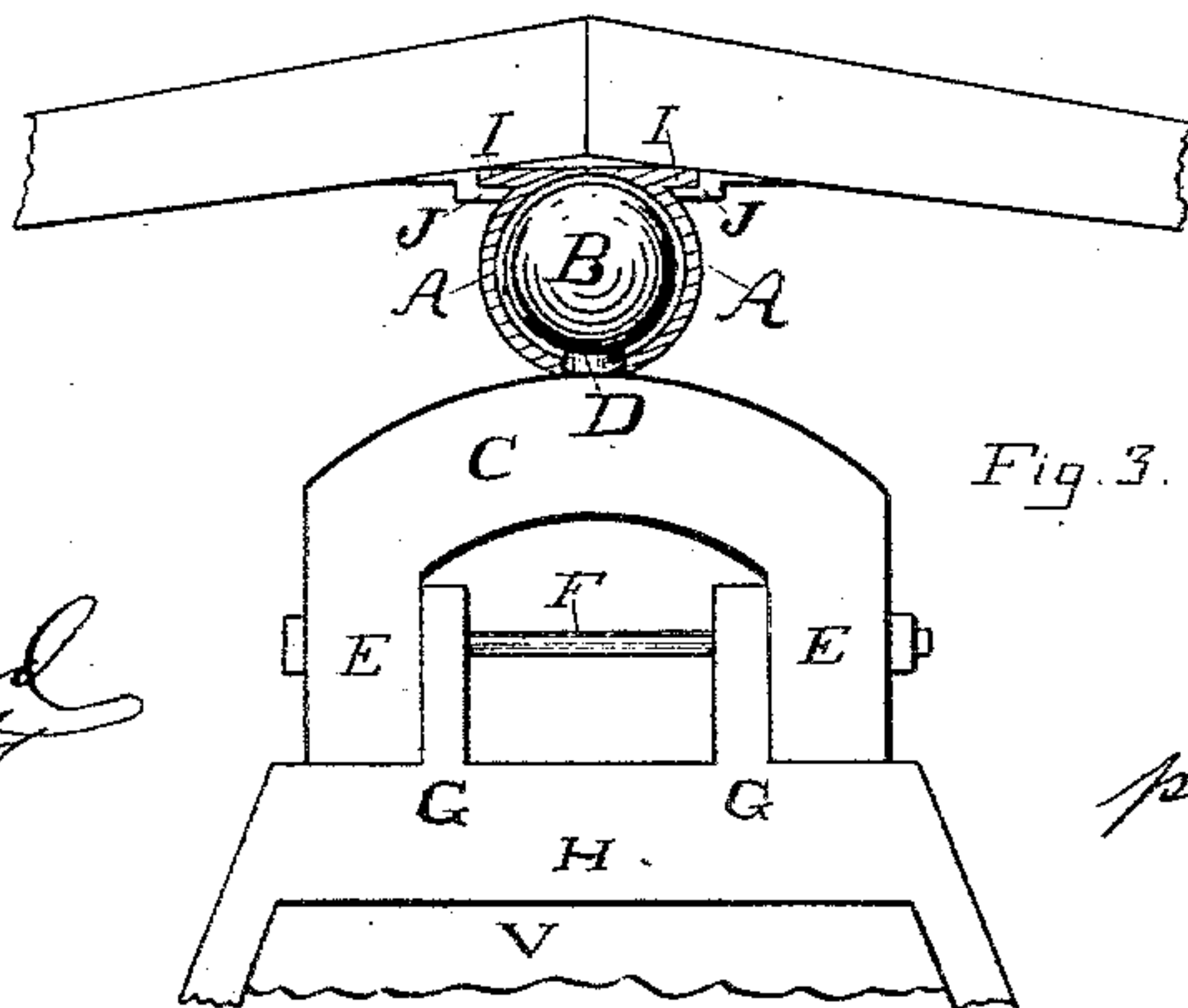
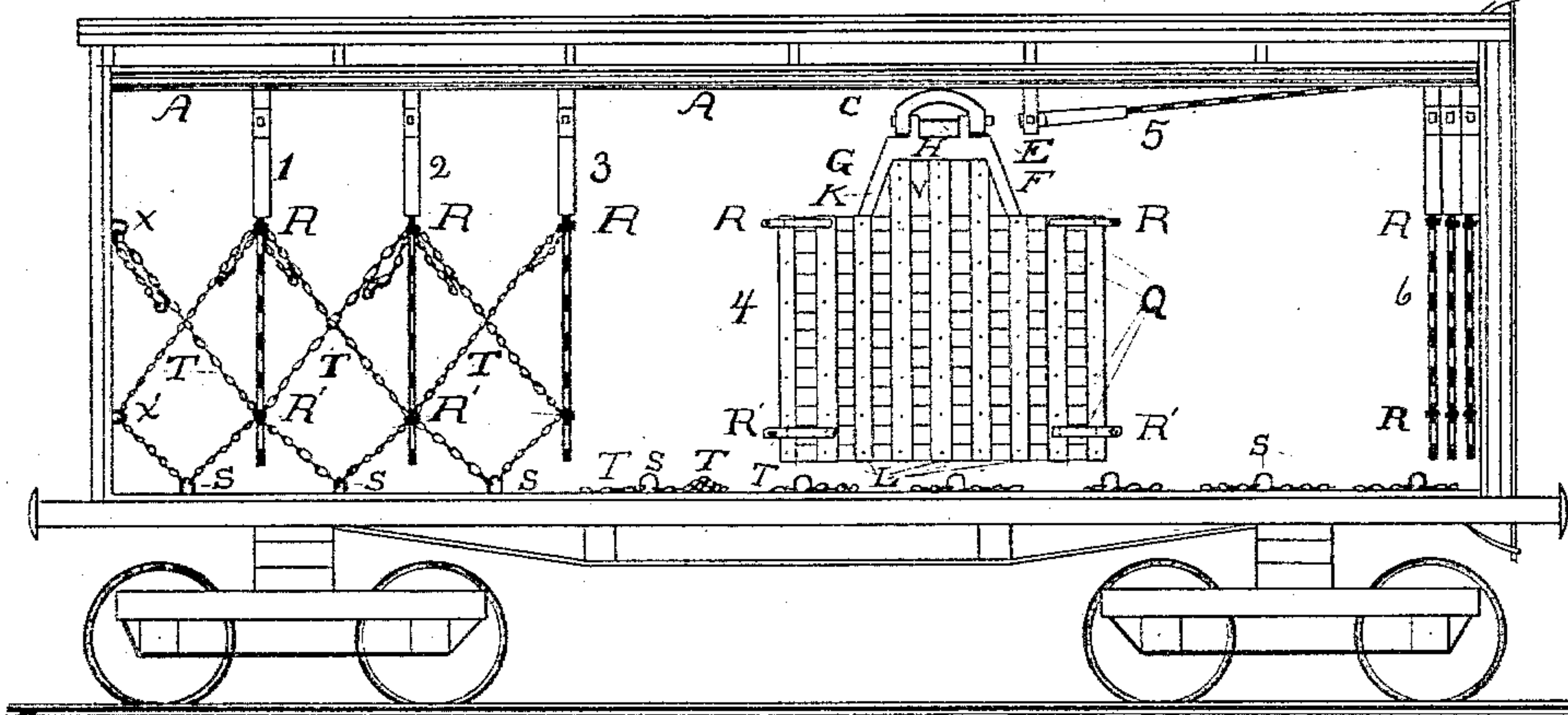


Fig. 3.

Witnesses,

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UNITED STATES PATENT OFFICE.

WILLIAM HOLDEN, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF ONE-HALF
TO THOMAS WRIGHT, OF SAME PLACE.

STOCK-CAR STALL.

SPECIFICATION forming part of Letters Patent No. 300,259, dated June 10, 1884.

Application filed January 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HOLDEN, a citizen of the United States, residing at the city of Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Cattle-Stalls, of which the following is a specification.

My invention is more particularly adapted for use in cattle-cars, but may be used wherever it is desirable that the partitions between the stalls be movable and adjustable to different distances apart.

The object of my invention is to so construct and mount the partitions between the stalls that they may be readily adjusted to any distance apart, easily placed in any position desired, and conveniently packed into small space when not in use. A further object is to combine strength and lightness in the construction of the partitions. These objects I accomplish by means of the device described herein and illustrated in the accompanying drawings, in which—

Figure 1 is a cross-section of a cattle-car provided with my invention, showing one of the partitions hanging in position to secure an animal in the car. Fig. 2 is a longitudinal elevation of the interior of a cattle-car provided with my invention, the side of the car being cut away to expose the same to view. In this figure the partitions 1, 2, and 3 are shown secured in place. 4 is swung round in line with the tube A. 5 is swung up and attached to the roof of the car, while the remaining partitions, 6, are packed closely against the end of the car. Fig. 3 is an elevation of the upper part of the partition, showing the manner of its attachment to the car. Fig. 4 is a perspective view of a section of the supporting-tube A.

The partitions are constructed of three layers of thin strips of spring-steel laid at intervals apart. The strips Q Q of the middle layer cross the strips L L of the two outer layers at right angles, so as to form a lattice. The opposite strips of the two outer layers coincide with each other, and the lattice is held together by rivets passing through the strips at each point of junction. A head-plate, V, is attached to the upper edge of the lattice by the middle strips of the two outside layers of the lattice, which are

longer than the other strips of the same layers, and extend upward from the lattice on either side of the head-plate V, to which they are secured by rivets. This head-plate V is provided with ribs K K at its sides and a cross-rib, H, at the top to give it strength. Two arms, G G, extend upward from this head-plate, and are connected by means of a bolt, F, with two arms, E E, which depend from the cross-head C, thus forming a hinge upon which the partition swings to and fro. A ball, B, is attached to the middle of the upper side of the cross-head C by a short cylindrical neck, D. This ball is of such a diameter as to fit the interior of a slotted tube, A, which is attached to the middle of the top of the car, and extends from end to end thereof, thus forming a continuous bearing for the ball throughout the entire length of the car. This ball, resting upon the inner side of the tube, forms a pivotal bearing upon which the partition may be rotated.

For convenience in attaching the tube A to the car, the tube is provided upon each side, near the top, with a flange, I, which extends throughout the entire length of the tube, forming a projection, under which the shoulders on the clamps J J may extend, thus sustaining the tube when the clamps are attached in place upon the rafters of the car. Staples S S, with chains T T attached thereto, are set in the floor at intervals of about two feet. Two iron straps, P P, having eyes or rings R R', are riveted upon each end of each partition, one being placed near the top and the other near the bottom thereof. These straps are split to receive the lattice, which is clamped firmly thereby, the straps being secured by rivets passing through the lattice strips. Staples x x' are set in the ends of the car on a line with the eyes R' R.

To provide an ordinary cattle-car with my invention, I remove the cross-heads from such a number of partitions as may be required in the car by drawing the bolt F. I then attach the cross-heads to the supporting-tube A by inserting the balls in the cavity and slipping them along the tube, the neck D passing along the slot O. I then attach a number of the clamps, J J, to the rafters of the car, so as to be in line with the flange on the tube A

when the tube is in position. I then place the tube in position, resting the flange I on the shoulders of the clamps J, and secure it in place by attaching a line of clamps to the rafters upon the other side of the tube, allowing the shoulders of the clamps to project under the flange. When the tube is thus secured, I attach the partitions to the cross-heads, as shown in the drawings. The bolt F is provided with a nut or a key to prevent it from slipping out. The staples $x x$ are then affixed to the end walls of the car, and the staples S S, with their chains T T, are set in the floor of the car. The car is then completely furnished with my invention and is ready for use.

When it is desired to use the car for other purposes than that of transporting cattle, the partitions may be slipped to one end, where they will occupy a very small space, as shown at 6 in Fig. 2; or they may be swung up against the roof and secured as shown at 5 in Fig. 2.

When the partitions are allowed to hang down as shown in Fig. 1, they may be rotated at pleasure, so as to form a barrier in any direction desired, the ball and the tube forming a pivotal bearing for the support of the partition.

The arms E E and G G, with their connecting-bolt F, form a hinge, which allows the partition to swing to and fro. The principal advantages gained by this manner of construction consists in the facility with which the position of the partitions may be changed and the flexibility secured in the partitions, whereby as the cattle are thrown back and forth by the movement of the car they receive a gradual support, and are not subjected to the contusions resulting from contact with unyielding partitions. The cross-head C fits closely against the bottom of the tube A, so as to allow the cross-head to have only a rotary motion, the vibratory motion of the partition being given wholly by the hinge at F. The partitions are of such a length as to allow a space of about one foot between their ends and the sides of the car. The partitions may extend as close to the floor as may be deemed desirable.

When it is desired to fill the car with cattle, the partitions are moved to one side of the middle door of the car, the chain next to the end of the car is passed through the lower staple in the end wall of the car, the first animal is then driven to that end of the car, and the first partition is pushed up against him. The chain passing through the lower staple, x' , is drawn up and passed through the upper eye R and fastened. The other chain attached to the first staple S is then passed through the lower eye R on the partition, and thence across to the upper staple, x , through which it is passed and fastened. The operation at the other end of the partition is similar. The next animal is then driven in, and the next partition put in place and secured by the chains of the second staple, S, the chain being passed through the eyes R' R, instead of the staples

$x' x$, as before. The operation is repeated until the car is filled to the edge of the door, then the remaining partitions are moved to that side of the door, and the other end of the car is filled in the same manner. When the last chain is fastened, a continuous connection is formed from end to end of the car, and each partition has a firm support. If the car is not filled with cattle, the last partition may be secured by the chains of the next adjoining staple by passing one of the chains through the lower and the other through the upper eye. By this simple and convenient means the animals are separated and sustained in an upright position, at the same time allowing the car to be as closely filled as though there were no partitions in the car.

The straps P P on the partitions should be at such a height that the crossing of the chains between the partitions will be below the neck of the animal, thus allowing it to put its head over the chains.

Small troughs may be placed along the sides of the car between the partitions, so that the cattle may be fed without removing them from the car. The chains and partitions will prevent each animal from getting any food except that placed in its own trough.

Any desirable fastening may be provided for the chains; but I prefer the ordinary toggle, providing several long links and fastenings, so that the fastening may be made at various points in the chain.

Any suitable material may be used in the construction of the various parts; but I believe malleable iron is most suitable for the head-plate and cross-head, and that spring-steel is most suitable for the lattice of the partitions. Ropes may also be used to connect the partitions instead of the chains, which I believe to be preferable.

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

1. The improvement in cattle-stalls consisting of thin flexible partitions suspended from a horizontal longitudinally-slotted tube by means of a ball inclosed within the tube, and connected with the partition by means of a cross-head, to which the partition is hinged, and to which the ball is attached by means of a short cylindrical connection passing through the slot in the tube, all being constructed and combined substantially as described, and the partitions being connected to each other and to the floor and walls of the building, substantially as set forth.

2. In cattle-stalls, a depending partition hinged to a horizontal cross-head, such cross-head having a ball attached to the center of its upper side by a cylindrical connection, and being sustained by a horizontal slotted tube, in which the ball is held, substantially as and for the purpose set forth.

3. In cattle-stalls, the improved device for mounting the partitions, consisting, substantially as shown, of a horizontal tubular sup-

port, slotted upon its under side, and retaining within its cavity balls, from which the partitions are suspended, whereby the partitions are allowed to be rotated and shifted in position throughout the length of the tube.

5 4. In cattle-stalls in which the partitions are supported by globular mountings, substantially as described, a longitudinally-slotted

tube for supporting such mountings, having flanges extending along the top of the tube, 10 substantially as shown, and for the purpose set forth.

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Witnesses:

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