

(No Model.)

J. T. DOUGINE.

STOCK CAR.

No. 302,897.

Fig 1.

Patented Aug. 5, 1884.

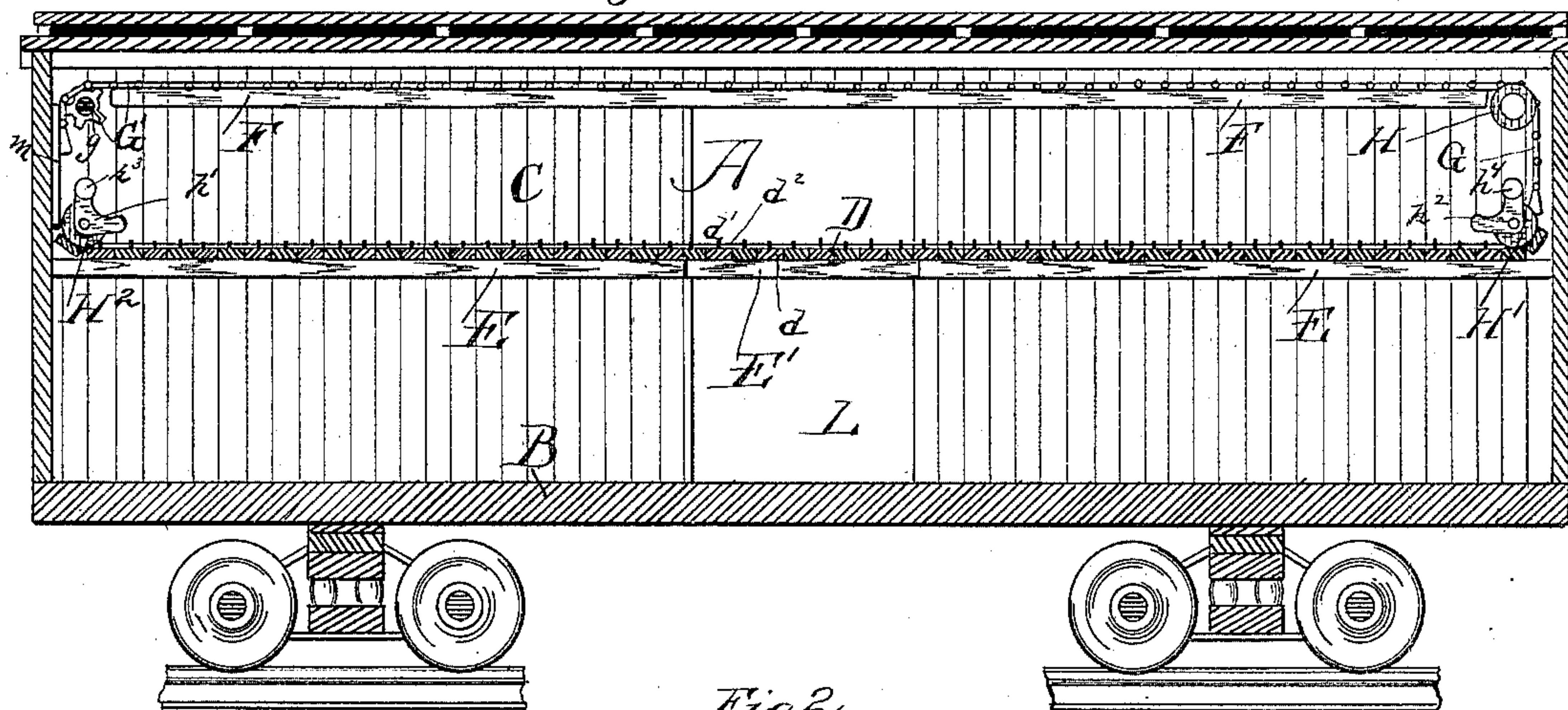


Fig 2.

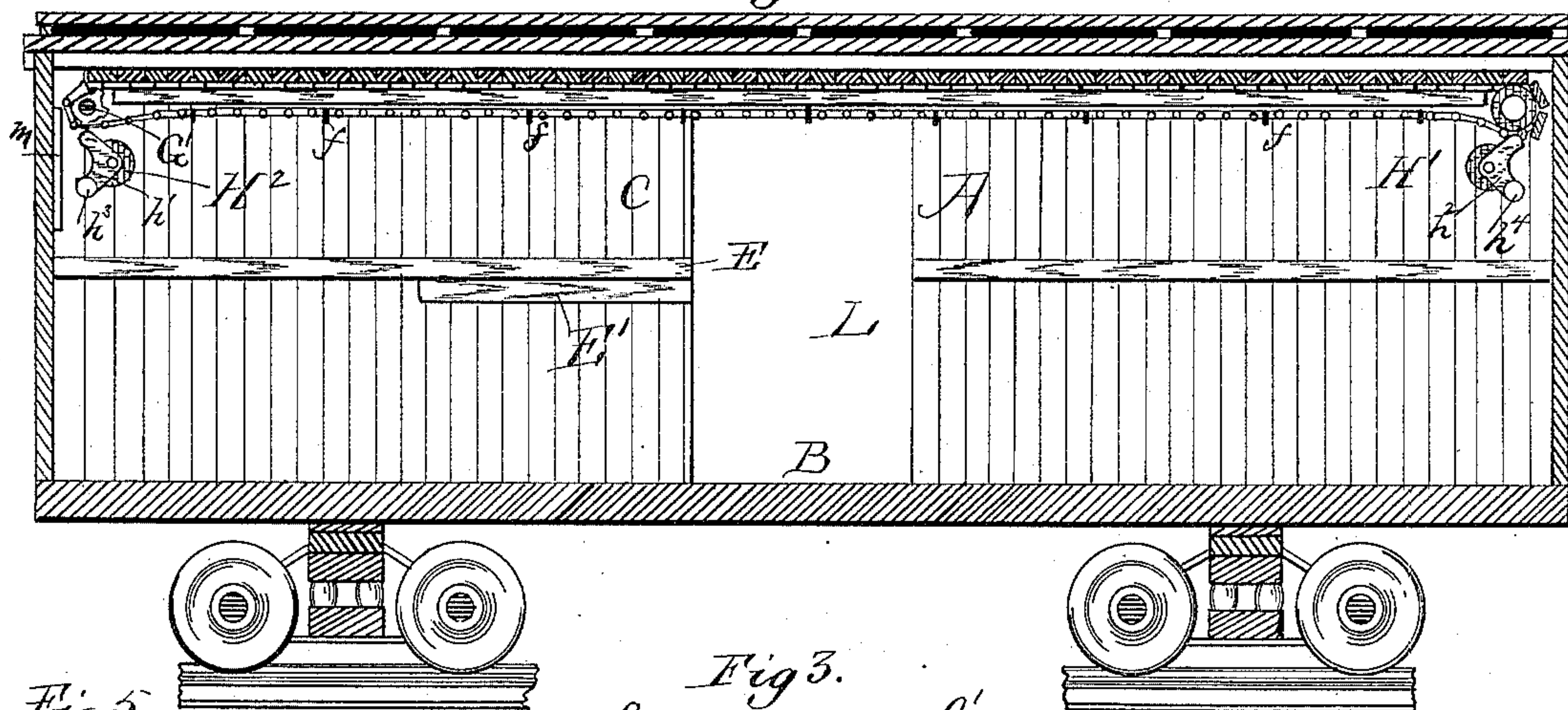


Fig 3.

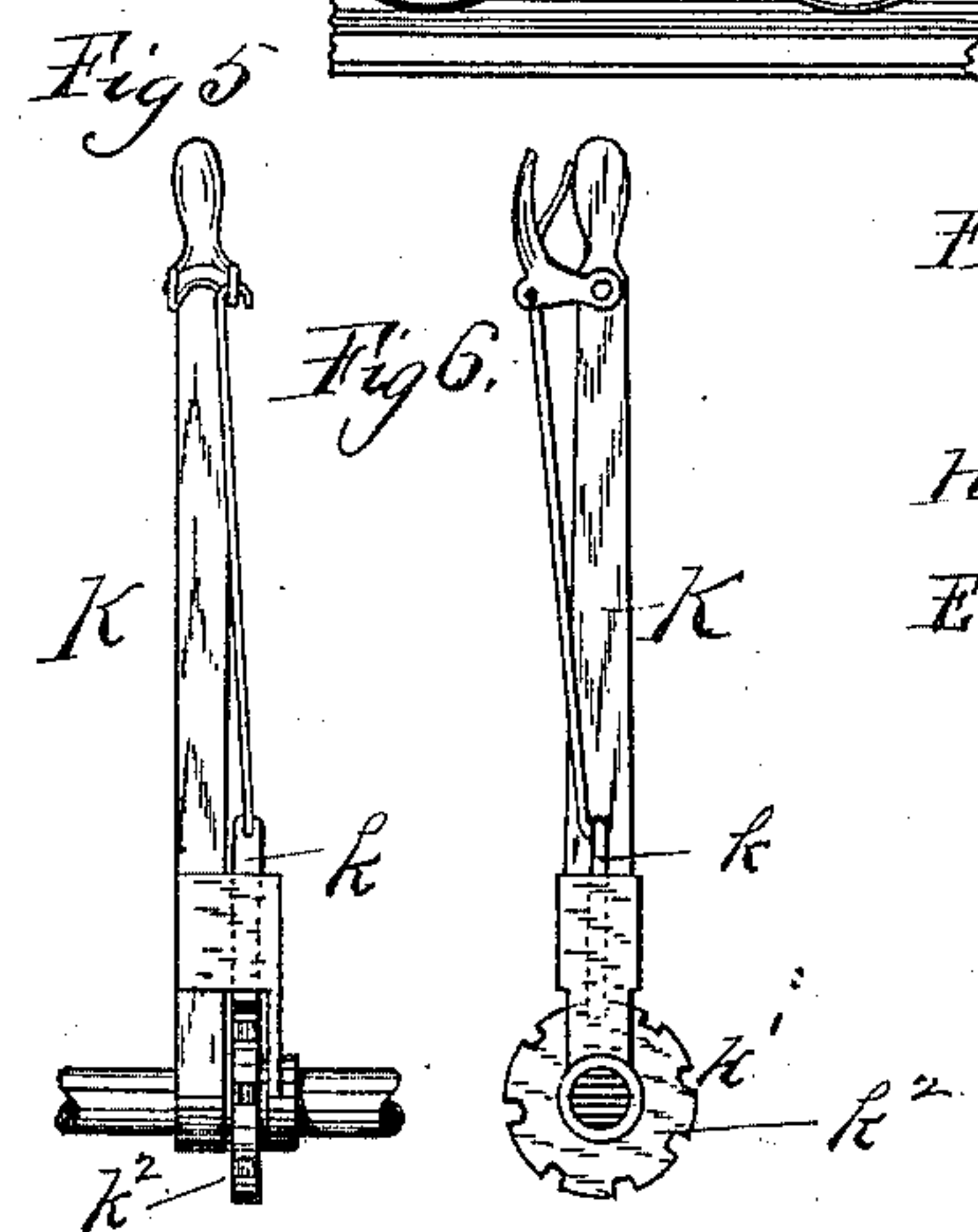


Fig 6.

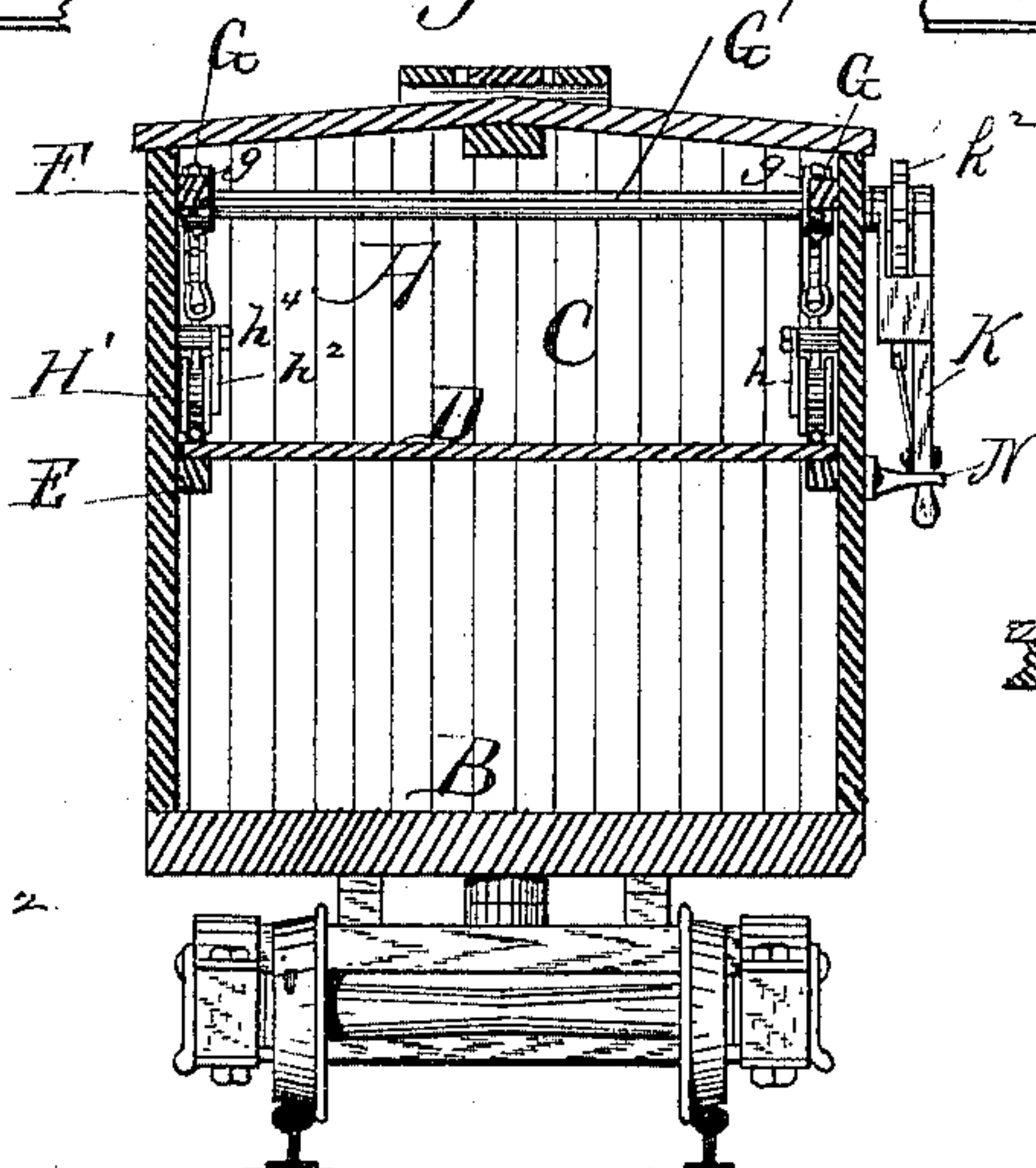
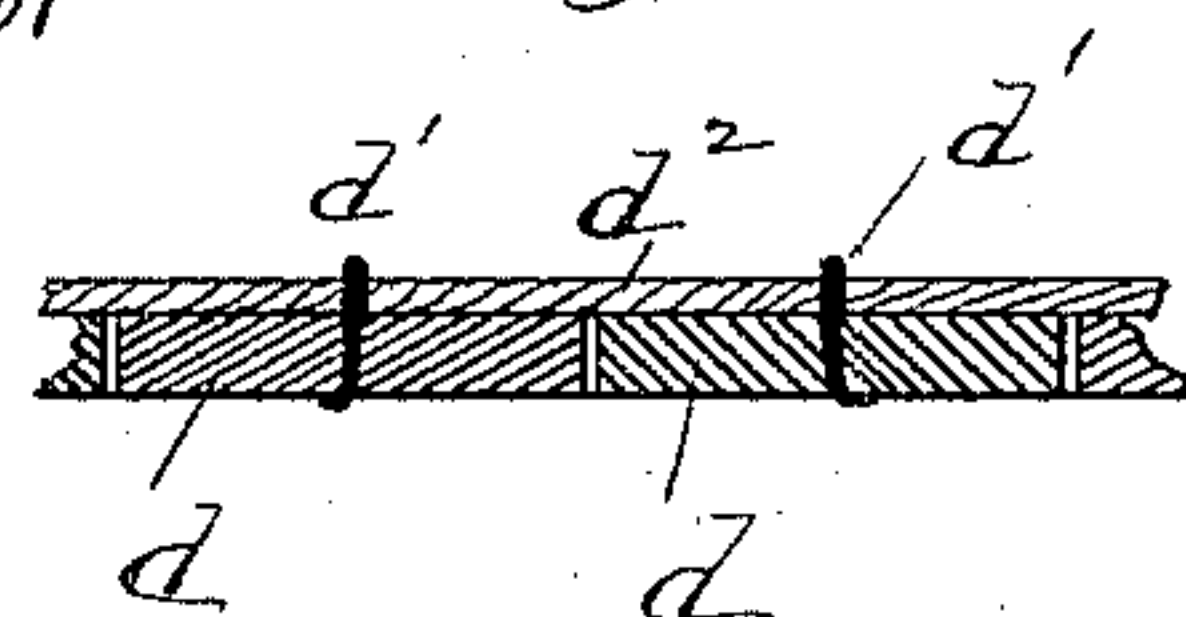


Fig 4.



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UNITED STATES PATENT OFFICE.

JAMES T. DOUGINE, OF CHICAGO, ILLINOIS.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 302,857, dated August 5, 1884.

Application filed April 24, 1884. (No model.)

To all whom it may concern

Be it known that I, JAMES T. DOUGINE, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Stock-Cars, of which the following is a specification.

The object of the present invention is to produce, for transportation of swine, sheep, and calves, a double-deck stock-car of a strong, simple, and durable construction, and which may be easily and quickly converted either from a double-deck to a single-deck car or from a single-deck to a double car whenever occasion may require, and which will also permit of the utilization of all or nearly all the space of the car, whether it be used as a single or a double deck car.

This result I accomplish, and herein my invention consists, by employing a flexible sliding floor for the upper deck of the car, which rests upon suitable rails, guides, or supports secured to the side of the car at the proper height, and which may be turned or slid along said rails up under the roof of the car, similar rails or guides being provided at the top and suitable pulleys at the end of the car for the floor to slide and rest upon. The separate slats, scantlings, or narrow boards composing the floor are separately secured at each end to a flexible rope, chain, or band; or other equivalent means may be employed of flexibly connecting the separate pieces of the sliding floor together—as, for example, by hinging or pivoting the same together at their edges. To facilitate the sliding of the floor, suitable pulleys are provided therefor at one end of the car. The sliding of the floor is effected by means of sprocket-wheels and chains, the extremities of each chain being attached to the extremities of the floor—one chain at each side of the floor; or other equivalent devices may be employed for sliding the floor. Instead of pulling the sliding floor, it may, for example, be pushed. The sprocket-wheel shaft is provided with a crank or lever for operating the same. When the car is used as a single-decker, the secondary floor is turned up under the roof or top of the cars, so as to be entirely out of the way, and thus takes up little

or no available room in the car. The rails or supports extending across the doorway for the upper floor, when it is in use, are made removable, so the doorway may be free and clear from obstruction when the car is used as a single-decker, and the sprocket-wheel chain is at this time also laid upon suitable hooks or devices along the roof of the car. To slacken the chain for this purpose I mount the lower pulleys on pivoted arms or brackets, so that the pulleys may be swung up under or near the roof of the car; or other equivalent means may be employed—as, for example, uncoupling links of the chain and then hanging it up out of the way.

In the accompanying drawings, which form a part of this specification, Figure 1 is a longitudinal sectional view of a car embodying my invention, showing the same when in use as a double-deck car. Fig. 2 is a similar view of the same converted into a single-deck car. Fig. 3 is a cross-section; and Figs. 4, 5, and 6 are detail views.

In said drawings, A represents a car; B, its lower or stationary floor; C, its sides or walls, and D the upper flexible sliding floor, which is composed, preferably, of narrow boards or scantlings *d*, each about two inches thick by four inches wide, and secured each by staples *d'* to the wire ropes, chain, or other flexible connection *d''*, one of said ropes being at each end of the floor-pieces *d*. The flexible sliding floor D rests and slides upon suitable rails, guides, or supports, E, secured to the sides C of the car on the inside thereof at a suitable height thereon for the upper floor or deck of the car. Similar rails, F, are secured to the sides of the car near the top, just under the roof, upon which the sliding floor D rests when the car is used as a single-decker. Just space enough should be left between these guide-rails F and the top or roof of the car to give room for the floor.

G G are sprocket-wheel chains, the extremities of which are secured to the ends of the sliding floor D. These chains G pass around sprocket-wheels *g g* on the shaft G', and around pulleys H, H', and H'', mounted in suitable brackets, *h h' h''*, secured to the sides of the car. The lower brackets, *h h'*, which are located

just above the upper deck or floor of the car, are made of triangular shape, the upper arms, $h^3 h^4$, of said brackets being pivoted to the side of the car at their upper ends, so that when the lower arm of the bracket is loosened the bracket may be turned up, as shown in Fig. 2, for the purpose of slackening the chain and permitting it to be hooked up under the rail F, so as to be out of the way.

f represent these hooks for the chains. The sliding floor or deck D is slid or moved along these rails or guides E and F by means of these sprocket-wheels and chains, the sprocket-wheel shaft G' being provided with a ratchet-lever, K, for this purpose. The ratchet-lever K has a spring-pawl, k , which engages with the teeth k' of the ratchet-wheel k^2 on the sprocket-wheel shaft G'. The rails E, which support the flexible sliding deck D when it is in use, are provided with removable sections E' opposite the doors L of the car, so that by removing this section E' the door will be left free and clear when the upper deck is not in use, but stored away under the roof of the car, as shown in Fig. 2.

$m m$ are stops secured to the end of the car, to prevent the flexible floor D being revolved or moved too far.

N represents a catch on the outside of the car, for the ratchet-lever K to lock or hold the same in position. The weight and position of the deck D upon its rails or supports will, however, prevent any danger of the same moving out of position, even if the lever K is not locked or held fast.

My double-deck car may not only be used for transporting hogs, sheep, and calves, but it is also of great advantage in the transporta-

tion of many vegetables and products—like cabbage and potatoes, for example—which are liable to injury if piled too deep.

The flexible sliding floor D, instead of being stored away under the roof, as shown, may be interposed directly upon the lower floor, B; but the preferable construction is that first indicated.

I claim—

1. A stock-car provided with an upper flexible sliding floor or deck, substantially as specified.

2. The combination of a stock-car provided with guide rails or supports E and F on its sides, with a flexible sliding floor, D, resting and sliding upon said rails, and a sprocket-wheel and chain for operating the same, substantially as specified.

3. The combination, with a stock-car, of an upper flexible sliding floor or deck, and rails secured to the sides of the car near the top, for supporting said sliding floor under the roof of the car, substantially as specified.

4. The combination of the flexible sliding floor D, composed of narrow strips or boards d , separately secured to a flexible wire rope or connection, d^2 , with a stock-car provided with rails or supports E and F, secured to the sides of said car for said floor, sprocket-chains G G, sprocket-wheels $g g$, shaft G', and pulleys H H' H², said pulleys H and H' being mounted on swinging or pivoted brackets $h h'$, and said rails E having a removable section, E', at the doors of the car, substantially as specified.

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Witnesses:

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