

(No Model.)

3 Sheets—Sheet 1.

J. F. BUTZ.

DOUBLE DECK WATER AND FEED STOCK CAR.

No. 452,259.

Patented May 12, 1891.

Fig. 1.

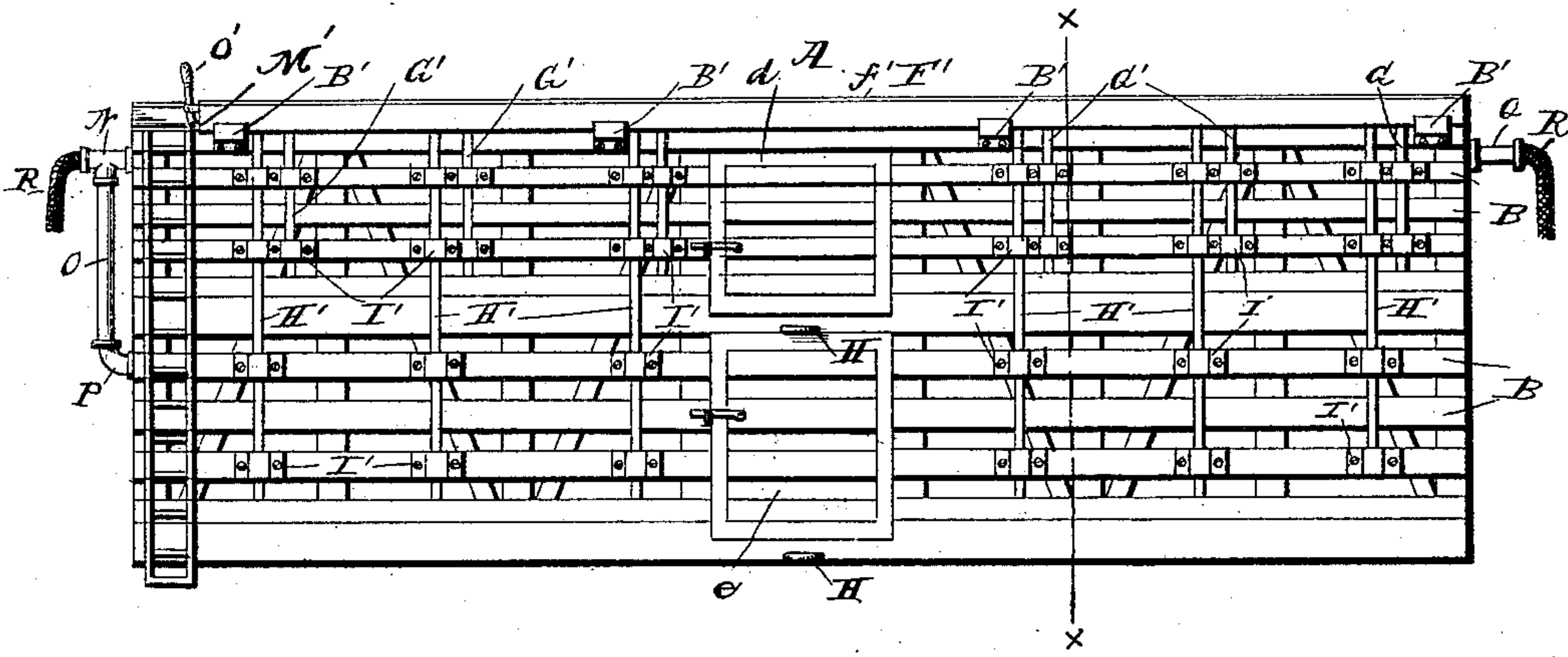


Fig. 2.

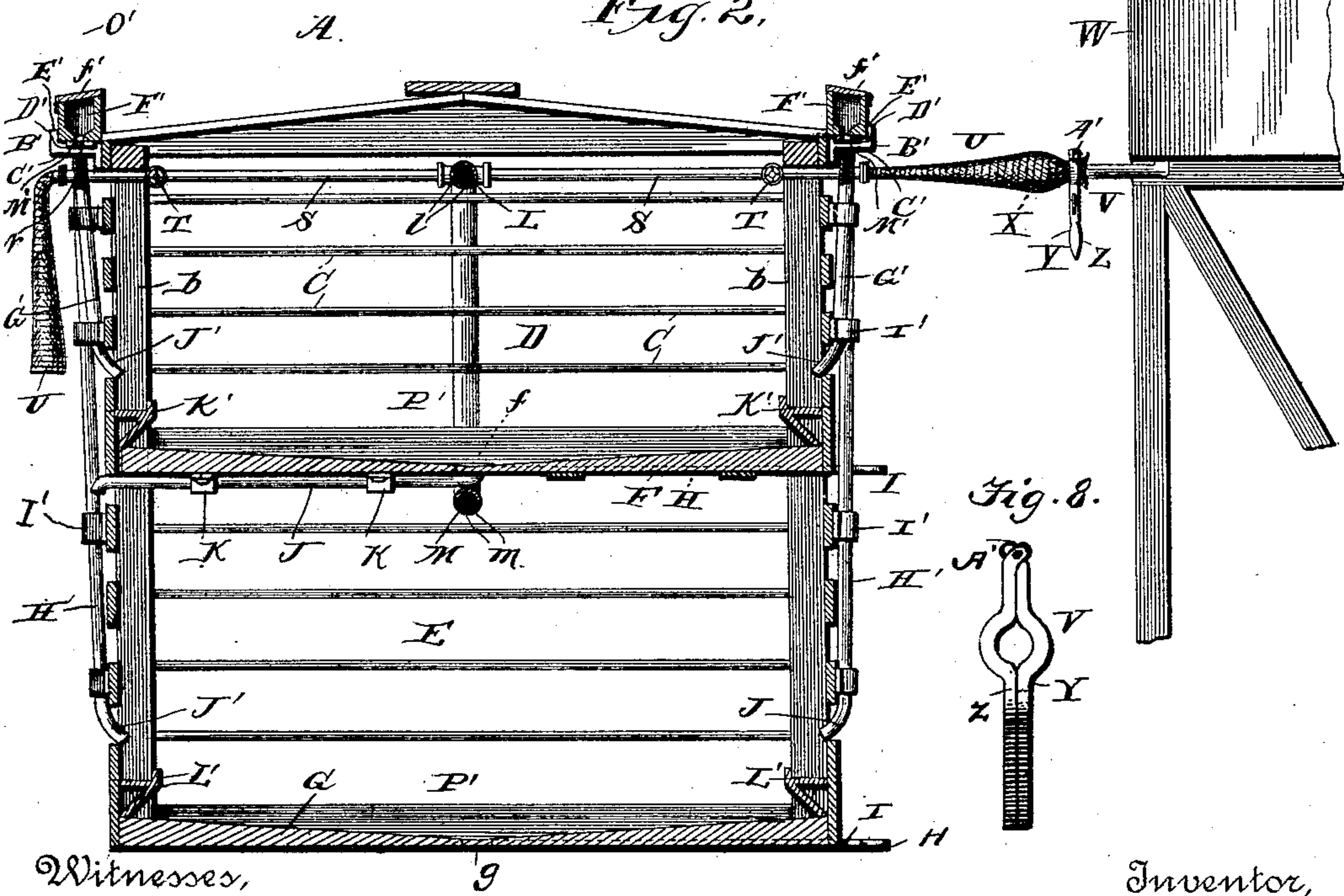
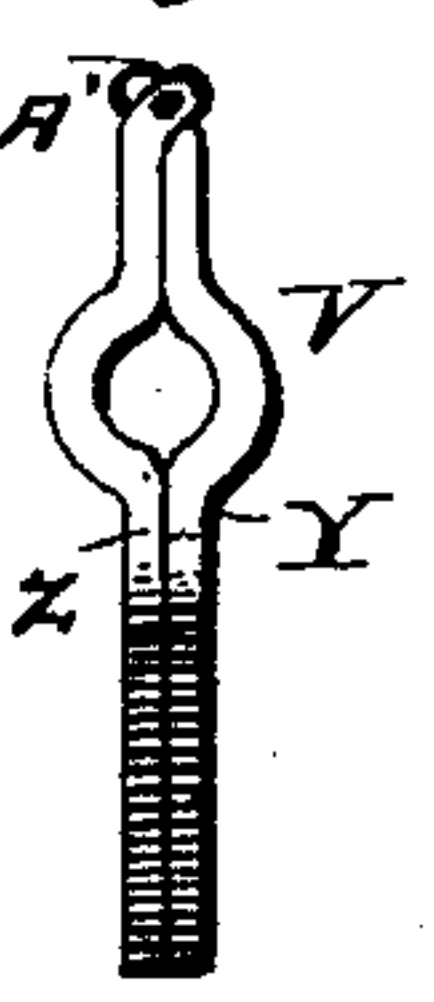


Fig. 3.



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Fig. 3.

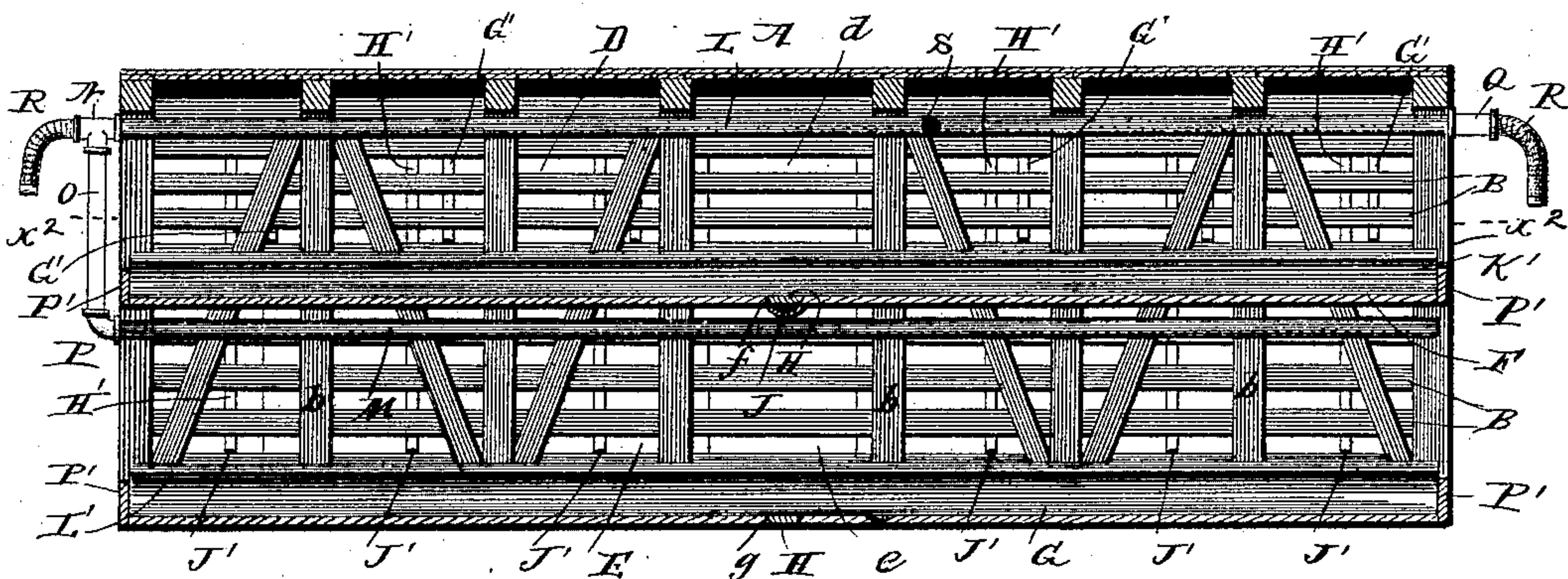
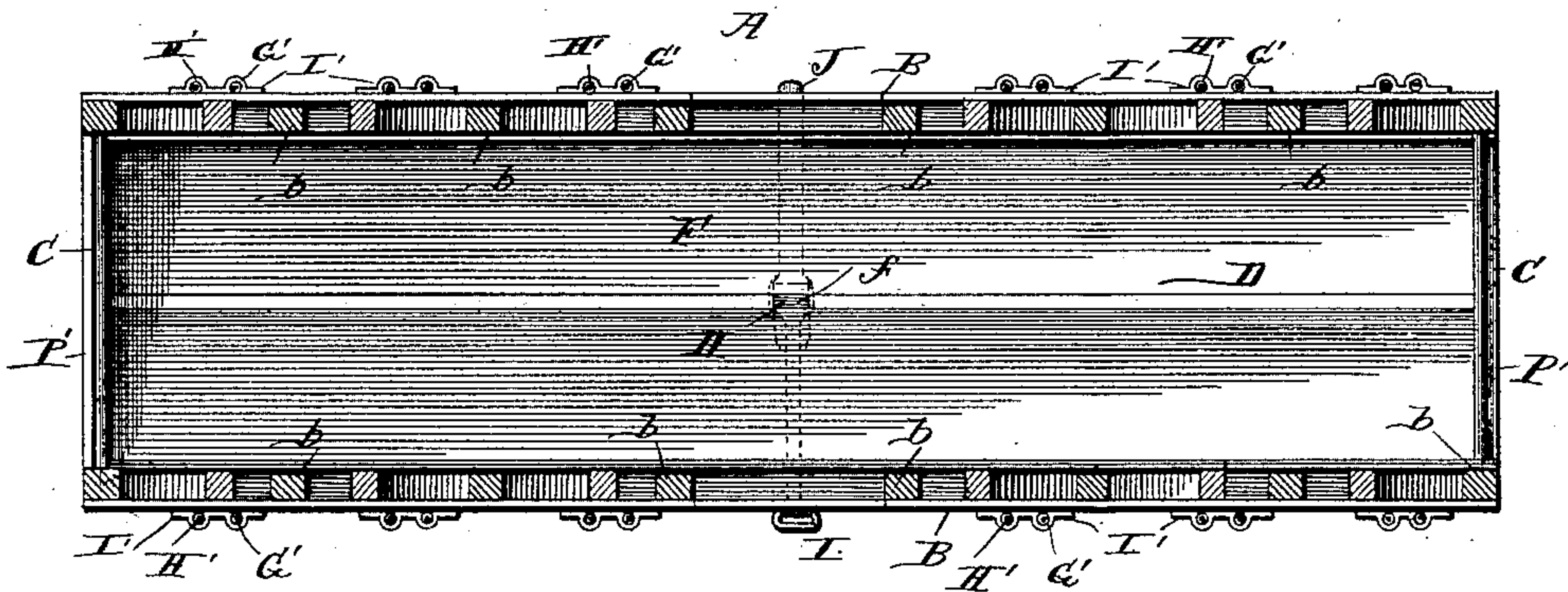


Fig. 4.



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Fig. 5.

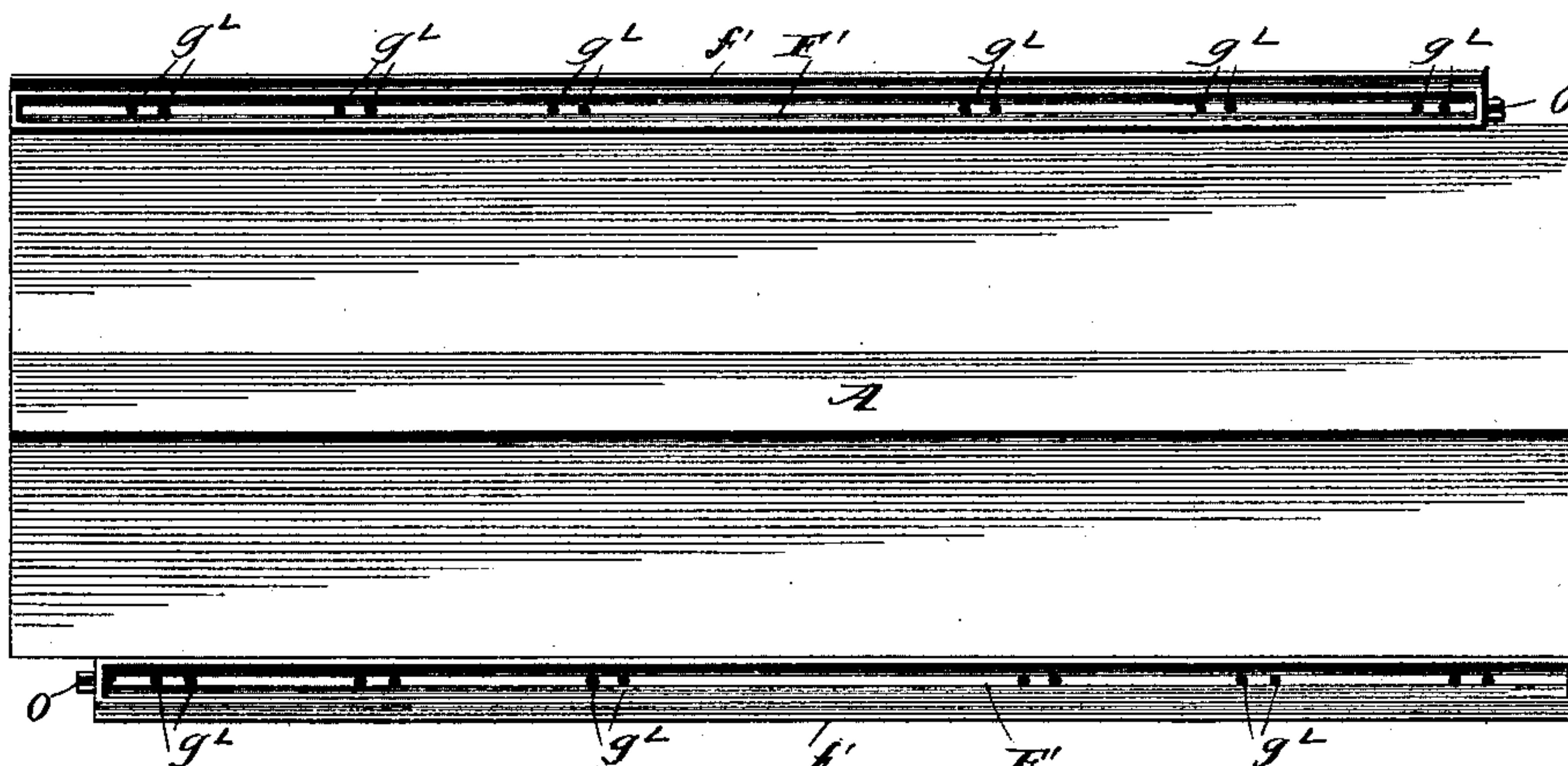


Fig. 6.

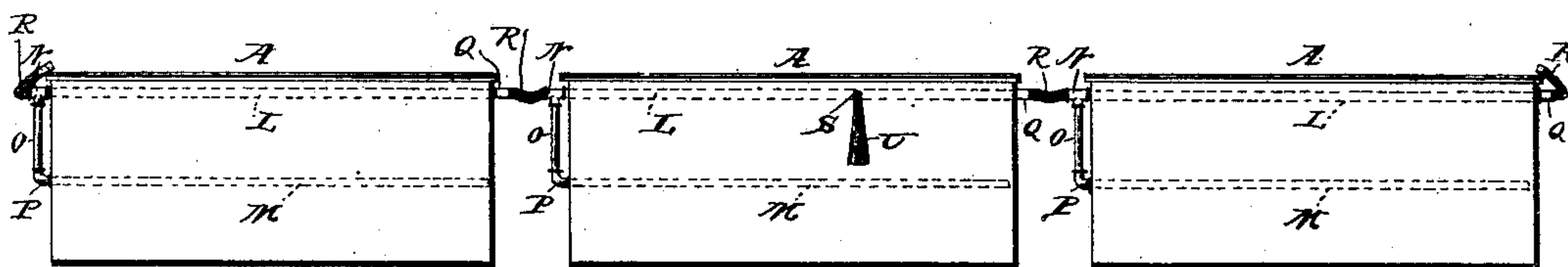
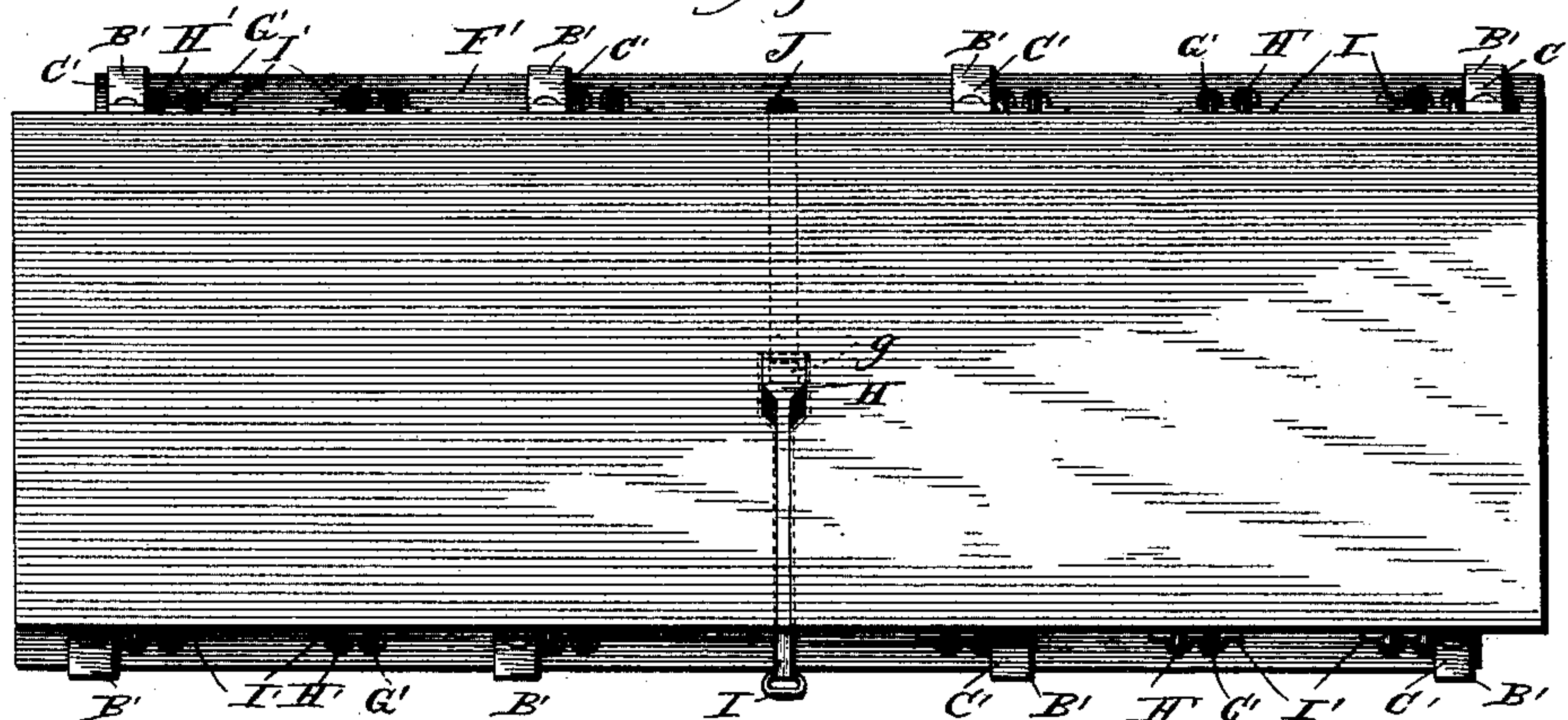


Fig. 7.

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UNITED STATES PATENT OFFICE.

JOHN F. BUTZ, OF WICHITA, KANSAS.

DOUBLE-DECK WATER AND FEED STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 452,259, dated May 12, 1891.

Application filed October 27, 1890. Serial No. 369,479. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BUTZ, of Wichita, Sedgwick county, Kansas, have invented certain new and useful Improvements in Double-Deck Water and Feed Stock-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an improvement in that class of inventions known as "double-deck water and feed stock-cars;" and it consists in the peculiar combination and arrangement of devices, as will be fully described hereinafter, and particularly pointed out in the claims.

The object of my invention is to provide a means whereby the stock may be watered and fed at regular intervals without losing valuable time, as my watering device may be coupled to the ordinary tank used for supplying the locomotive, the valve operated, and by means of the arrangement of the conducting-pipes the stock upon the upper and lower decks of every car may be watered thoroughly.

Another great sanitary advantage is the cleansing of the car of refuse by operating the slide-valve arranged suitably in openings in both decks, the water running down the inclined upper surfaces and escaping through conveyers from the upper decks and upon the road-bed below from the lower decks.

The stock may be fed when desired by simply operating levers connecting with the board valve, arranged to slide longitudinally under the base of the feed-troughs, which are situated at the upper side edges of every car, allowing the corn or feed to descend into the interior feed-troughs through a series of conveyers suitably secured without the necessity of stopping the train.

Referring to the drawings which illustrate my invention, Figure 1 is a side elevation of a stock-car constructed in accordance with my invention. Fig. 2 is a cross-sectional view on the line $x x$ of Fig. 1, looking in the direction of the arrow and showing the connection between the watering-pipes and supply-tank.

Fig. 3 is a central vertical longitudinal section of the same. Fig. 4 is a horizontal sectional view on the line $x^3 x^3$ of Fig. 3. Fig. 5

is a top plan view of the stock-car, showing the feed-troughs thereon with the lids thrown open. Fig. 6 is a bottom plan view of the car. Fig. 7 is an outline view of a series of cars, showing the connections between them of the several water-supply pipes. Fig. 8 is a detail view of the clamping device y .

Similar letters refer to similar parts throughout the figures, in which—

A represents the stock-car, provided with the side or longitudinal bars B and the end or transverse rods C, the said car being divided into the upper and lower compartments D and E, provided with the usual doors d and e .

The upper surfaces of the floors F and G incline downwardly from either side toward the center, and are provided about the middle portion of the car with the openings f and g , normally closed by means of the similar slide-valves H, which, extending transversely toward the side of the car, are provided with handles I, by which means they may be operated.

Suitably arranged and directly beneath the opening f of the upper deck is the inner end of an escape-pipe J, which, when the upper valve H is operated, conveys the water and refuse beyond the side of the car. This pipe is secured by means of strap-irons K or other suitable manner.

Extending longitudinally through the cars in vertical alignment with each other and situated in the upper middle portion of the compartments D and E are the spray-conducting pipes L and M, the pipe L being at one end provided with the T-coupling N, by which it is connected through the medium of the vertical pipe O and elbow P with the lower spray-pipe M. The opposite end of said pipe M is closed, as shown. The opposite end of pipe L is provided with a coupling Q, the rear end of which engages the forward end of a rubber hose or conducting-pipe R, which is connected, respectively, to the forward end or rear end of the T-coupling N of the next succeeding or preceding car, as will be readily understood.

The spray or sprinkling pipe L of one of the cars A is provided with the laterally-extending and communicating pipes S, provided

with suitably-arranged valves T and adapted to be coupled according to the direction in which the car is moving through the medium of suitably-arranged hose-coupling U to the spout or exit-pipe V of the ordinary water-tank W. This hose is so constructed or flared at its outer end that it may surround or inclose the enlarged spherical-shaped head X of the pipe V and be suitably secured thereon by means of a clamping device Y, consisting of the handles Z, pivoted together at their upper ends A' and provided each with the semi-circular enlargements which encircle the rest of the pipe V.

Bolted to the upper longitudinal side bars B of the car at suitable intervals are supporting-brackets B', which are provided with the horizontally and outwardly extending base-plate C', provided with the longitudinally-extending grooves D' and the upwardly-extending or vertical flanges E' at their outer edges.

Resting upon the base-plate C' and against the inner side of the flanges E' of the brackets D' are the feed receptacles or troughs F', which extend longitudinally nearly the whole length of the car and are provided at their upper surfaces with the hinged lids f'. The upper surfaces of the bottom or base board of these feed troughs or receptacles F' are so inclined as to direct the feed toward openings or perforations g², arranged at suitable intervals through the bottom or base board of said receptacle and in vertical alignment with and above the upper open ends of a series of conveying-pipes G' and H', secured by strap-irons I' or other suitable means to the outer side bars of the car, the pipes G' and also the pipes H' having their lower ends curved inward, as shown at J', and adapted to convey or conduct the feed to the longitudinally-arranged troughs K' and L' in the upper and lower compartments D and E of the stock-car, respectively.

Suitably arranged in the longitudinal grooves D' of the brackets B' and adapted to operate longitudinally directly beneath the lower surface of the base or bottom of the feed-receptacles are the slide-valves M', which are provided with suitably-arranged perforations N', adapted, when levers O' are pivoted at their lower ends to one end of said valve M' and fulcrumed to the adjacent end of the receptacle immediately above said valve, to be thrown into vertical alignment with and between the perforations g² of the bottom of said receptacle and the upper end of the conveying or conducting pipes G' and H', as will be readily understood.

The opposite end of the stock-cars are provided with the end walls or bars P', extending for a suitable distance above the inclined upper surface of the floors of the compartments D and E and adapted to prevent the escape of water until the slide-valves H H are operated, as will be readily understood.

The operation of my invention is as follows: The stock is suitably watered before the

train leaves the station, and to cleanse the cars before again sprinkling or providing them with water the valves H H, closing the exit-openings f and g through the floors F and G of the compartments, are operated, allowing the water and accumulated refuse to escape from the upper compartment through the conveying or conducting pipe J beyond one side of the car and from the lower compartment vertically beneath the car on the road-bed, as will be readily understood. When reaching a supply-tank and desiring again to supply the stock with water, the rubber-hose coupling U, connecting with the outer end of the transverse supply-pipe S adjacent to the tank, is slipped over the enlarged or spherical head of the pipe V and secured thereon by means of the clamping device Y. The valve T of said pipe S is operated, allowing, when the valve of the tank V is operated, the water to pass from the tank through the pipe S to the longitudinally-arranged pipe L, the water escaping from thence through the perforation l and spraying the interior of the upper compartment, as shown in Fig. 2, and at the same time being forced in considerable volume through the vertically-arranged pipe O and the elbow P to the pipe N, arranged in the upper middle portion of the lower compartment of the stock-car. This pipe M, being also provided with the suitable perforations m, sprays the interior of the said compartment, and, as will be readily understood, the opposite end of said pipe M being closed, prevents the water escaping any further in that direction. The water at the same time is conveyed to the preceding and succeeding cars provided with the similarly-arranged spraying and conducting-pipes through the rubber-hose connections R, thus spraying at the same time the stock in the upper and lower compartments of all the cars, as will be readily understood. During operation, to prevent the escape of water from the hose-coupling R R at the outer end of the forward and rear cars of the train, the said coupling-hose is bent in such manner, as shown in Fig. 7, and so secured that it is impossible for the water to escape through them. To feed the animals at any desired time the levers O' are operated from the top of the car, causing the openings in the slide-valves M' to pass into alignment with the escape-openings of the feed-receptacle F' and the upper open end of the pipes G' and H', which are suitably arranged to convey the feed to the troughs K' L' on the interior of the car, as will be readily understood.

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

1. A stock-car having two decks therein, one above the other, each of the said decks sloping toward the middle and having an aperture therein, a valve H, sliding in each of the said decks to close the aperture therein and having a handle projecting beyond the

side of the car, and a pipe J, having its inner end below the aperture in the upper deck and its outer end projecting beyond the side of the car, as described.

- 5 2. A stock-car having two decks therein, one above the other, each of the said decks sloping toward the middle and having an aperture therein, a cross-bar P' at each end of each of the said decks, perforated distributing-pipes for water above each of the said
10 decks, a valve H, sliding in each of the said decks and adapted to close the aperture there-

in, and having a handle projecting beyond the side of the car; and a pipe J, having its inner end below the aperture in the upper 15 deck and its outer end projecting beyond the side of the car, as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. BUTZ.

Witnesses:

S. N. DIGGS,

H. E. PRICE.