

Stock Car.

Patented Aug. 2, 1864.

Fig. 1.

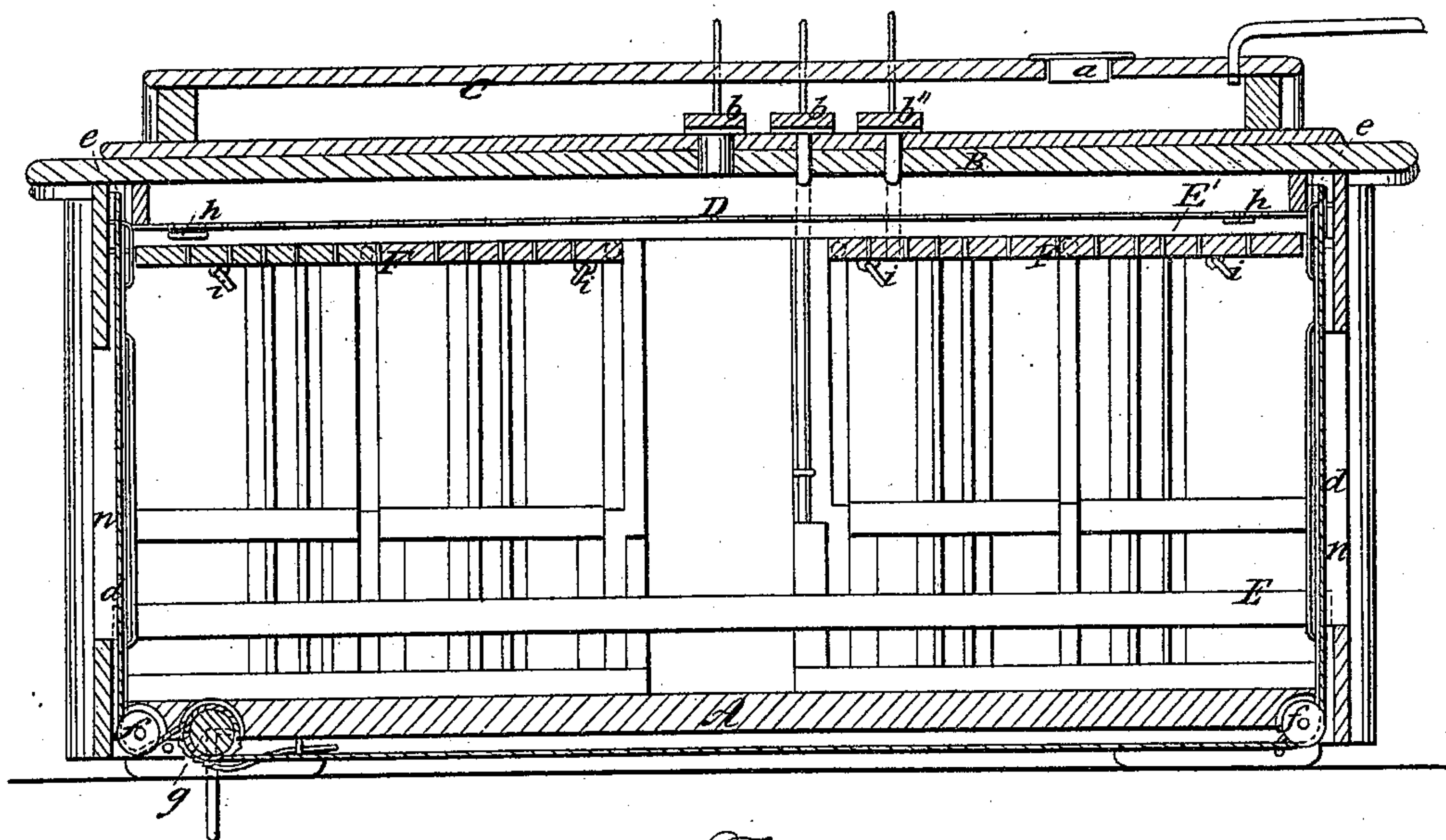


Fig. 2.

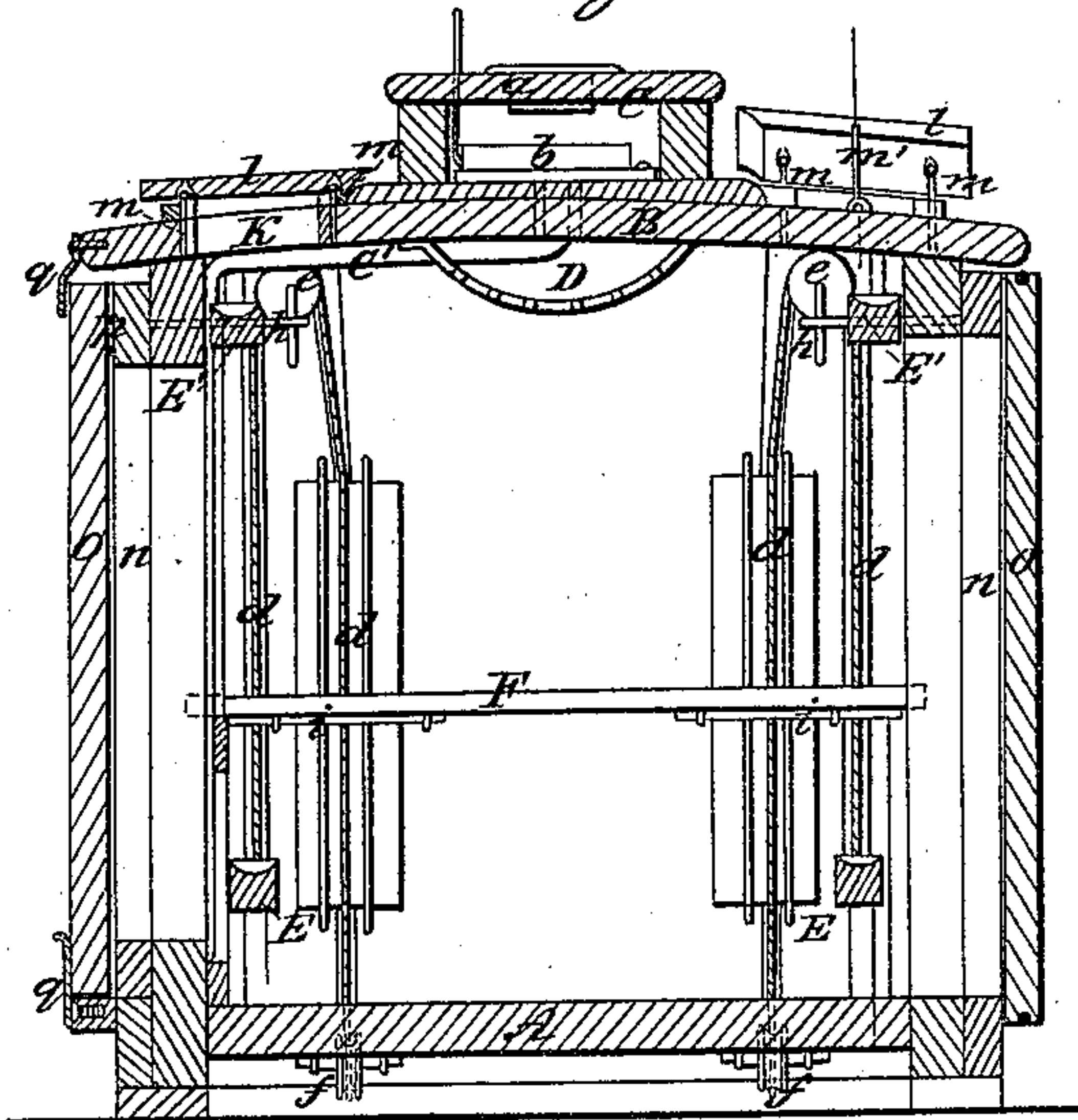


Fig. 4.

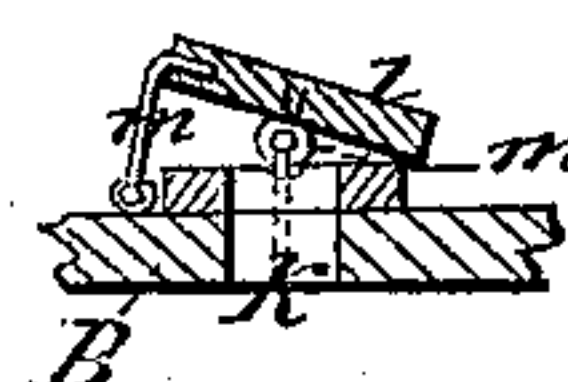
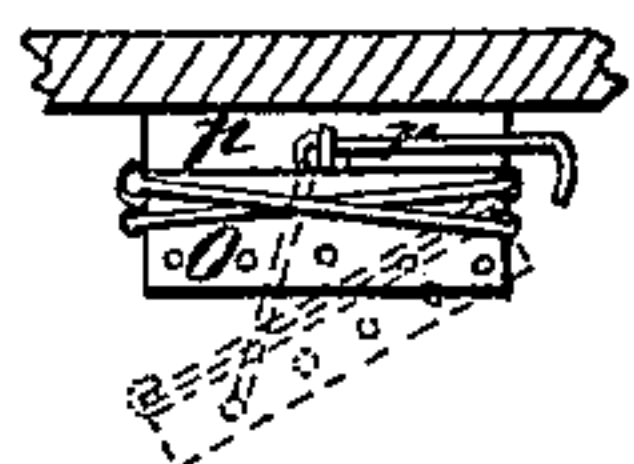


Fig. 3.



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IMPROVEMENT IN STOCK-CARS.

Specification forming part of Letters Patent No. 43,720, dated August 2, 1864; antedated July 21, 1864.

To all whom it may concern:

Be it known that I, WILLIAM STARK, of Bronson, in the county of Branch and State of Michigan, have invented a new and Improved Stock-Car; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my invention. Fig. 2 is a transverse vertical section of the same. Fig. 3 is a horizontal section of a portion of its side, showing the hinged shutters. Fig. 4 is a transverse section of a portion of the top, showing the ventilating-caps.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to facilitate the feeding and watering of the stock, to provide for a thorough ventilation of the car, to increase the capacity of the same by introducing a movable deck, and to provide the means for sprinkling the stock in the car in an easy and ready manner.

The invention consists in the arrangement on the top of the car of a reservoir provided with a receiving and three discharging valves, in combination with a shower and with movable troughs in the interior of the car in such a manner that by raising one of the valves the water from the reservoir discharges through the shower on the animals in the car, and by raising either of the two other valves the water can be let into the upper or into the lower set of troughs, for the purpose of watering the stock, as may be desirable.

It consists, further, in the application of an upper deck capable of being raised and lowered with the watering-troughs by means of a suitable windlass in such a manner that in carrying swine or sheep or other small animals said deck can be lowered and brought in use, and in carrying cattle or other large animals the deck can be raised to the top of the car.

It consists, further, in the arrangement of X-shaped hinges in combination with the shutters closing the ventilating-openings in the sides and ends of the car in such a manner that said shutters can be opened in either di-

rection with equal facility, and that by their action the ventilation of the car is facilitated.

It consists, finally, in the employment or use of vertically-sliding eyebolts connecting with the caps which close the openings in the top of the car by means of hinges in such a manner that by raising said eyebolts the caps can be set to any desired inclination in either direction, according to the direction in which the car moves.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation with reference to the drawings.

A represents a stock-car made in the usual shape and of the ordinary size. The top B of this car is furnished with a reservoir, C, which extends over the whole length of the car, or nearly so, and which is capable to contain a quantity of water. This reservoir is provided with a receiving-aperture, *a*, that is closed by a suitable valve, and with three discharge-valves, *b b' b''*, the stems of which extend through the top of the reservoir, so that they can be operated from the outside. The valve *b* closes the aperture leading to the shower D, which is made of a semicircular piece of sheet metal perforated with a large number of small holes, whereby the water is equally distributed throughout the whole car. The valve *b'* is situated over the mouth of a pipe, *c'*, which leads to the lower pair of troughs E, and the valve *b''* closes the mouth of the pipe *c''*, leading to the upper pair of troughs E'. By raising the valves *b' b''*, therefore, the troughs E E' can be filled with water whenever it may be desired. The lower troughs, E, are suspended from ropes *d*, which run over pulleys *e f* on the top and at the bottom, and which are secured to a windlass, *g*, so that by turning this windlass in one direction the troughs are raised, and by turning it in the opposite direction the troughs are lowered. The upper troughs, E', are secured to the sides of the car near its top by means of pins *h*, or in any other convenient manner.

F is the movable deck or platform, which consists of a series of perforated planks provided at their ends with dowels, which catch into grooves in the sides of the car. Bolts *i*,

attached to the under sides of said planks, serve to fasten the same at the desired height from the bottom of the car.

If the car is to be used for carrying swine, sheep, or other small animals, the deck is lowered and secured at the proper height, leaving room below and above for the animals. In this case the upper and the lower troughs, *E E'*, are required for feeding and watering; but if the car is to be used for cattle or other large animals, the deck is raised, and, in order to effect this purpose, the troughs *E* are raised until they touch the planks. The planks are now unfastened, and by turning the windlass *g* in the proper direction the whole deck is raised. The top or roof of the car is provided with apertures *k*, which are closed by caps *l*. These caps are fastened by means of eyebolts *m*, which slide up and down in suitable sockets, and to which the caps are hinged. By raising the eyebolts in their sockets the caps can be turned down in either direction according to the direction in which the car moves, so that dust and cinders are excluded and still a thorough ventilation is effected. In this position said caps are fastened by hooks *m'*. The openings *n* in the sides and ends are closed by shutters *o*, which are fastened to the side and ends of the car by means of X-shaped hinges *p*, so that they swing open in either direction. Buttons *q* fasten the shutters when closed, and hooks *r*, which catch into suitable holes in the top edges of the shutters, serve to set them to and hold them in the desired position. By means of the X shaped hinges and hooks

the shutters can be opened to and fastened in any position, as clearly shown in Fig. 3 in red outlines, according to the direction in which the car moves, so that dust and cinders are excluded and at the same time the air is allowed to circulate quite freely through the car.

Where two or more of my cars are used in the same train, the several reservoirs can be made to connect by suitable flexible pipes or hose, so that in filling said reservoirs the train need not be moved. This car is very convenient for the transportation of stock of every description, and it saves much labor in feeding and watering; and, furthermore, the animals do not suffer from want of ventilation, as they do in ordinary stock-cars.

If desired to separate large animals, the planks forming the deck are turned down, turning on their journals at each end until they arrive at and drop into their proper grooves, forming stalls.

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

1. The arrangement of the X-shaped hinges *p*, in combination with the shutters *o* and hooks *r*, as and for the purpose set forth.
2. The arrangement of the vertically-movable eyebolts *m*, in combination with the hinged caps *l*, apertures *k*, and hooks *m'*, as and for the purpose described.

WILLIAM STARK.

Witnesses:

WARREN BYRNS,
W. L. WOOD.