(No Model.)

2 Sheets—Sheet 1.

A. MORISON.

FREIGHT CAR.

No. 265,427. Patented Oct. 3, 1882.

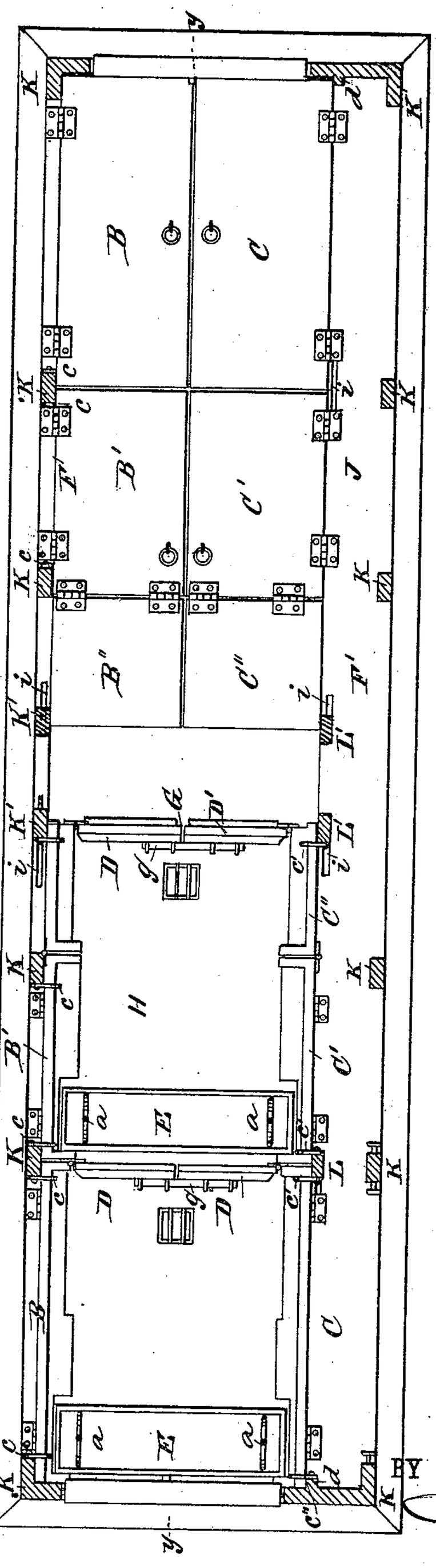

Fig. 1.

WITNESSES:

Thos. G. Hoster.

C. Sedgwick

INVENTOR:

A. Morison

BY Munn & Co

ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

A. MORISON.

FREIGHT CAR.

No. 265,427. Patented Oct. 3, 1882.

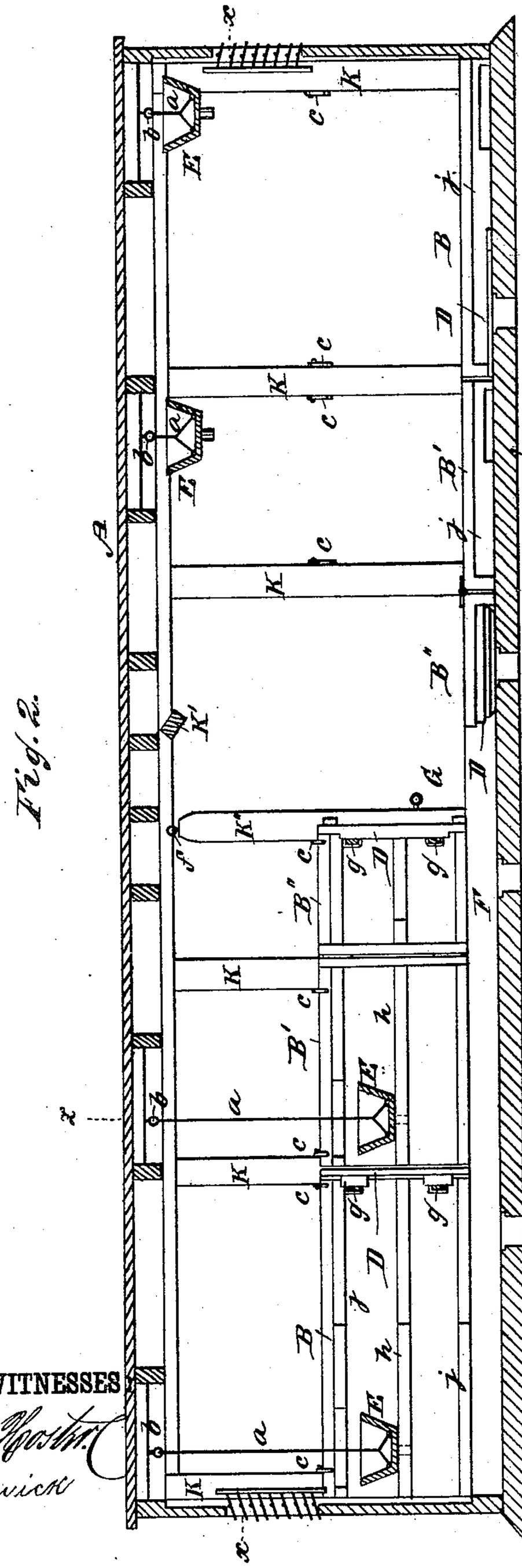

Fig. 2.

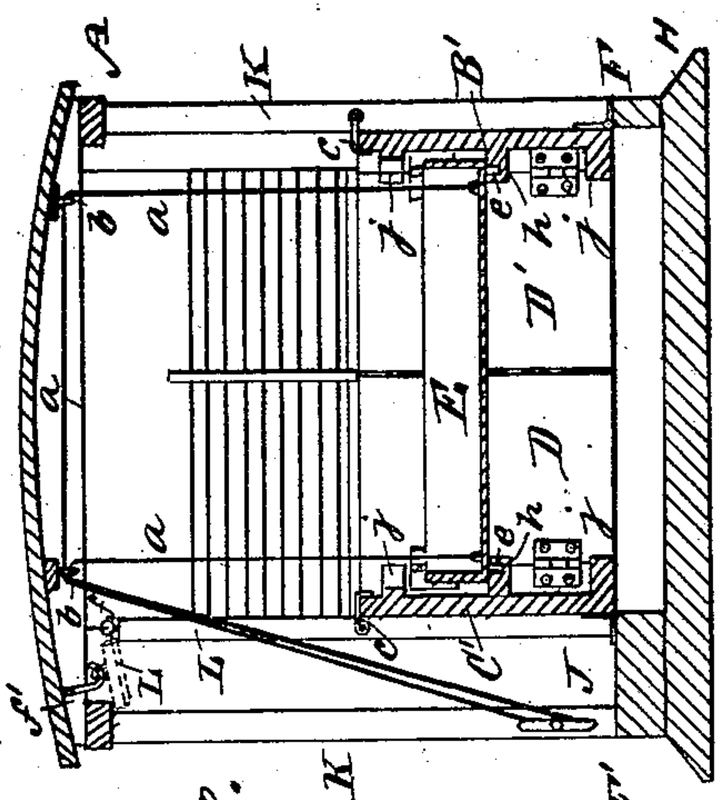

Fig. 3.

WITNESSES:

Theo. G. Hoster.

C. Bedgwick

INVENTOR:

A. Morison

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ALEXANDER MORISON, OF ALPENA, MICHIGAN, ASSIGNOR OF ONE-THIRD TO D. E. THOMAS, OF SAME PLACE.

FREIGHT-CAR.

SPECIFICATION forming part of Letters Patent No. 265,427, dated October 3, 1882.

Application filed June 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER MORISON, of Alpena, in the county of Alpena and State of Michigan, have invented a new and and useful Improvement in Railroad Freight-Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide a railroad freight-car that can be easily changed so as to adapt it for carrying ordinary freight or for carrying stock, or both, as circumstances may require, and one having such construction that the stock may be easily fed and watered without taking them out of the car; and to these ends my invention consists in the peculiar construction and arrangement of parts, as hereinafter more fully set forth.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional plan view of my new and improved freight-car, taken in the line *x x* of Fig. 2, the false bottom in one half of the car being folded and closed down for forming the floor of the car, the other half being shown raised to form the sides and compartments of the car. Fig. 2 is a sectional elevation of the car, taken on the line *y y* of Fig. 1, and Fig. 3 is a cross-sectional elevation taken on the line *z z* of Fig. 2.

A represents the body of the car, which may be of any approved construction; B B′ B″ and C C′ C″, the corresponding sections upon the sides of the car, which, when closed down, form the false bottom or floor, and when raised the partial side walls of the car; and D D are the folding sections, hinged to the ends of the side sections, B B″, for dividing the car when the side sections are raised into compartments or stalls; and E E represent the troughs or boxes, which may be raised to the top of the car when not in use, and lowered to the position shown clearly in Fig. 3 for feeding or watering the stock. This raising and lowering of the troughs or boxes is accomplished by means of the small cords or ropes *a a* attached thereto and passing through the rings *b b*, secured at the top of the car; or any other suitable means may be used. There are two sets of these side sections, B B′ B″ and C C′ C″, and folding sections D D, arranged at either end of the car, so as to leave the passage G, leading from one side door to the other across the center of the car, and these side sections, B B′ B″ and C C′ C″, are by preference hinged to the timbers F F′, secured at the sides upon the main bottom H of the car, as shown clearly in Figs. 1 and 3. The timber F′ is by preference made of considerable width, as shown in Figs. 1 and 3, so that when the sections C C′ C″ are raised up for fitting the car for carrying stock the passage J will be formed along one side of the car, between the outside studding, K, (or the wall or sheathing of the car, as the case may be,) and the said sections, of sufficient width to permit a person to pass for attending to the stock. This side passage, J, may be omitted, if desired, in which case the timber F′ will be narrow, like the timber F. In all cases the combined width of the sections B B′ B″ and C C′ C″ in pairs should be equal to the distance between the edges of the timbers F F′, so that when the sections are tipped down to form the floor of the car the edges will meet and make an entire false bottom or floor, as shown in Fig. 1.

The hinged sections B B′ B″ and C C′ C″ are held in upturned position by means of the hooks *c c′ c″*; or any other suitable means for holding them may be used. In case the wide timber F′ is not used these hooks will be attached to the edges of the main studs K, or to the inside of the main wall on both sides of the car; but if this wide timber is used the auxiliary posts or studs L will be used upon that side of the car which has the said timber F′, to which studs the hooks *c′* or other fastenings will be attached. These auxiliary posts or studs will be placed at suitable intervals along the center of the car, the cleats *d d* being provided at the ends of the car for supporting the outer ends of the sections C C, the hooks *c″* being attached thereto for holding the same, as shown in Fig. 1. These auxiliary studs are removable, and by preference are held at their lower ends in the elongated slots *i*, made in the upper surface of the timber F′ near its inner edge. The upper ends of these studs are by preference hinged at the top of the car, as shown at *f*, Fig. 3, so that when the car is used for ordinary freight they can be swung up out of the

way and held upon suitable hooks, *f'*, as shown in dotted lines in Fig. 3.

L' and K' represent intermedial auxiliary studs or posts placed in the center side doors or entrances of the car for the free ends of the sections B'' and C'' to come against, as will be readily understood from Fig. 1, and these studs are also removable, and are held at top and bottom in the same manner that the studs L, just described, are.

The folding section or doors D D' are, as above stated, hinged to the ends of the sections B B'' and C C'', and they are so arranged that when the said sections are let down to form the floor they are adapted to be folded under the said sections, and when the sections are raised to swing across the car and divide the car into compartments, as shown clearly in Figs. 1 and 2. They are held in this position across the car by the sliding bars *g g*, which move in staples on the inside of the sections; or other suitable fastenings may be used.

The sections B B' B'' and C C' C'' are provided with the central cleats, *h h*, upon their inner sides for strengthening them and for supporting the boxes or troughs E E when they are lowered for use, the bottom of the boxes being provided with the pins or studs *e e*, which enter suitable holes in the said cleats, as shown in Fig. 3, for holding the boxes or troughs steady. The cleats *j j* are also secured to the inner surfaces of the section at or near their edges for supporting the sections when they are tipped down to form the floor.

By this construction of the car it will be seen that the stock may be put in the car so as to stand lengthwise of the car, which will relieve them to a great extent from the jar of the car, and that they can be easily fed and watered while on the car, and that the car can be easily changed to adapt it to receive ordinary freight as soon as the stock are taken out, the sections always presenting a clean surface for the floor, thus avoiding the necessity of running the car empty over the road. The car is also adapted to carry stock in one end and common freight in the other; and my invention may be put into any freight-car now built or into new cars built for receiving it.

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

1. The combination, with the false bottom of the car, adapted to be raised and lowered, as set forth, of the folding doors or sections D D' for dividing the car into compartments or stalls, as described.

2. In a freight-car, the combination, with the hinged sections B B' B'' and C C' C'', adapted to be raised and lowered, as set forth, of the folding hinged sections D D', substantially as described.

3. The combination, with the hinged false bottom composed of the sections B B' B'' and C C' C'', of the wide timber F' and its removable studs L, substantially as described.

ALEXANDER MORISON.

Witnesses:
JUDSON D. HOLMES,
FREDERICK N. BARLOW.