(No Model.) 2 Sheets—Sheet 1.

H. J. SCHMICK.

COMBINED FREIGHT AND DUMPING CAR.

No. 559,222. Patented Apr. 28, 1896.

FIG. 1.

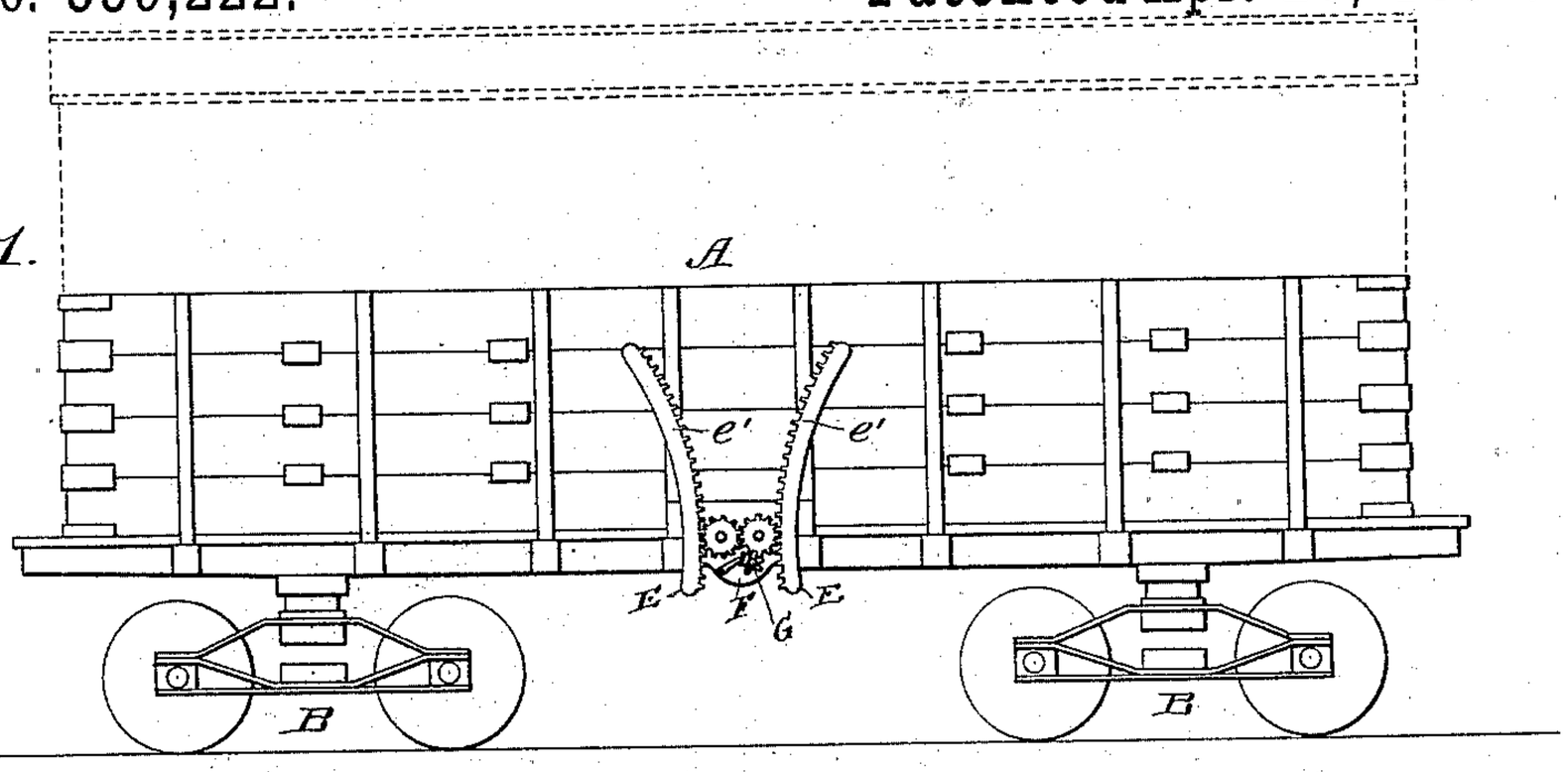


FIG. 2.

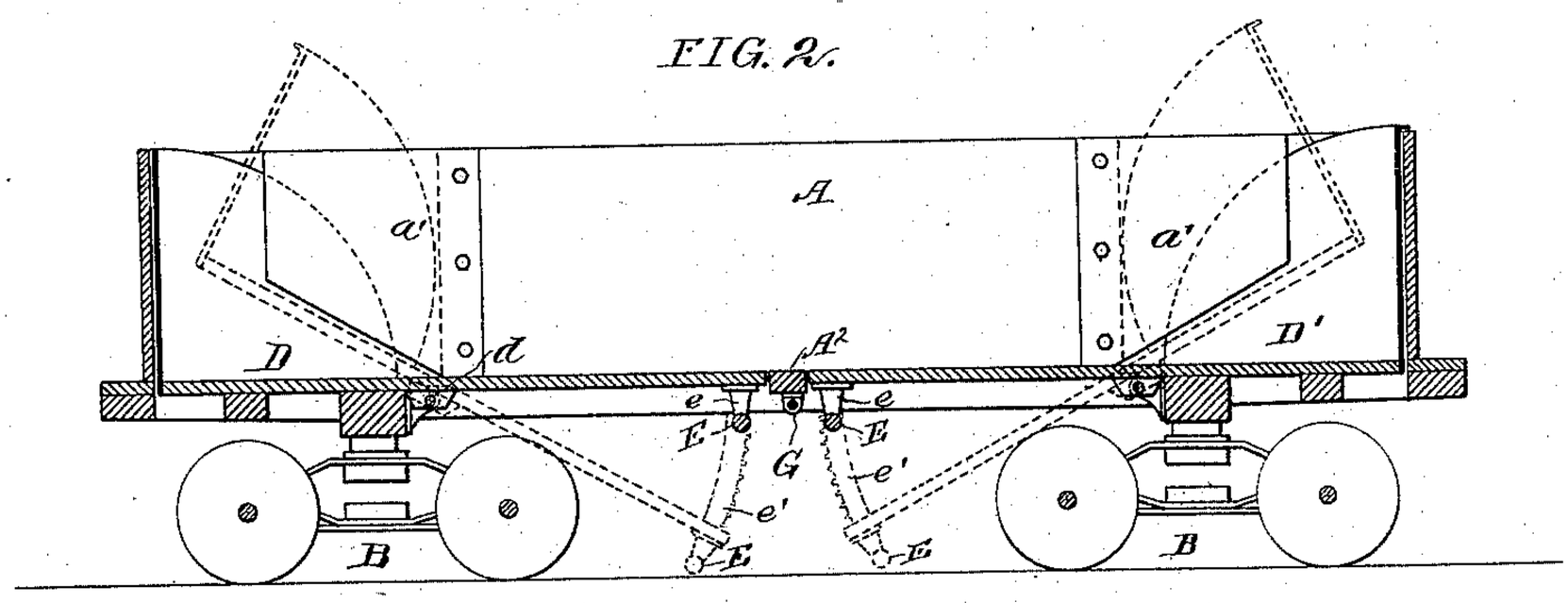


FIG. 3.

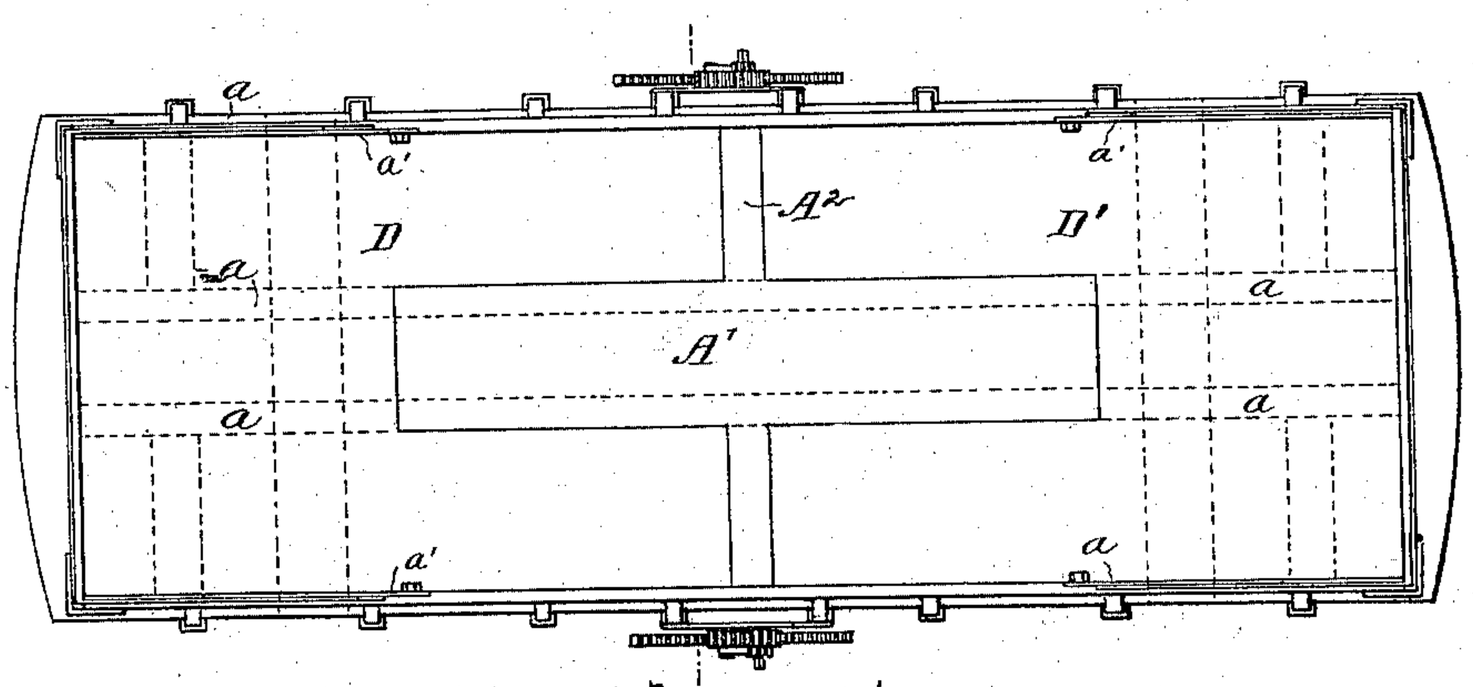
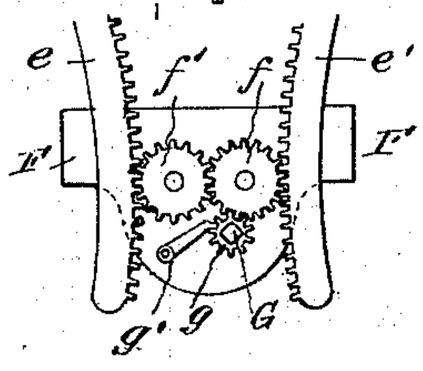


FIG. 7.



Witnesses:
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Chas. Le Bon.

Inventor:
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by his Attorneys
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(No Model.) 2 Sheets—Sheet 2.

H. J. SCHMICK.

COMBINED FREIGHT AND DUMPING CAR.

No. 559,222. Patented Apr. 28, 1896.

FIG. 4.

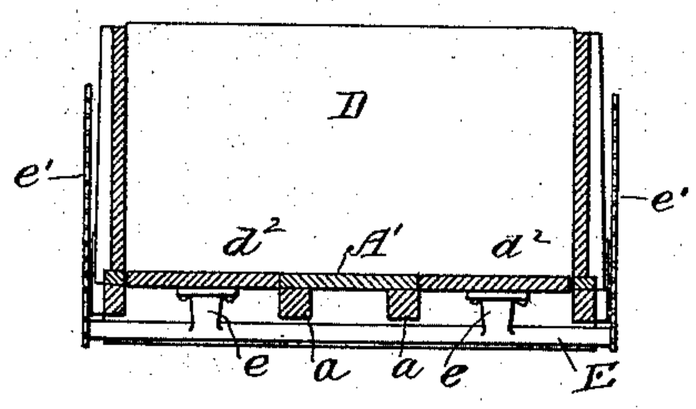


FIG. 5.

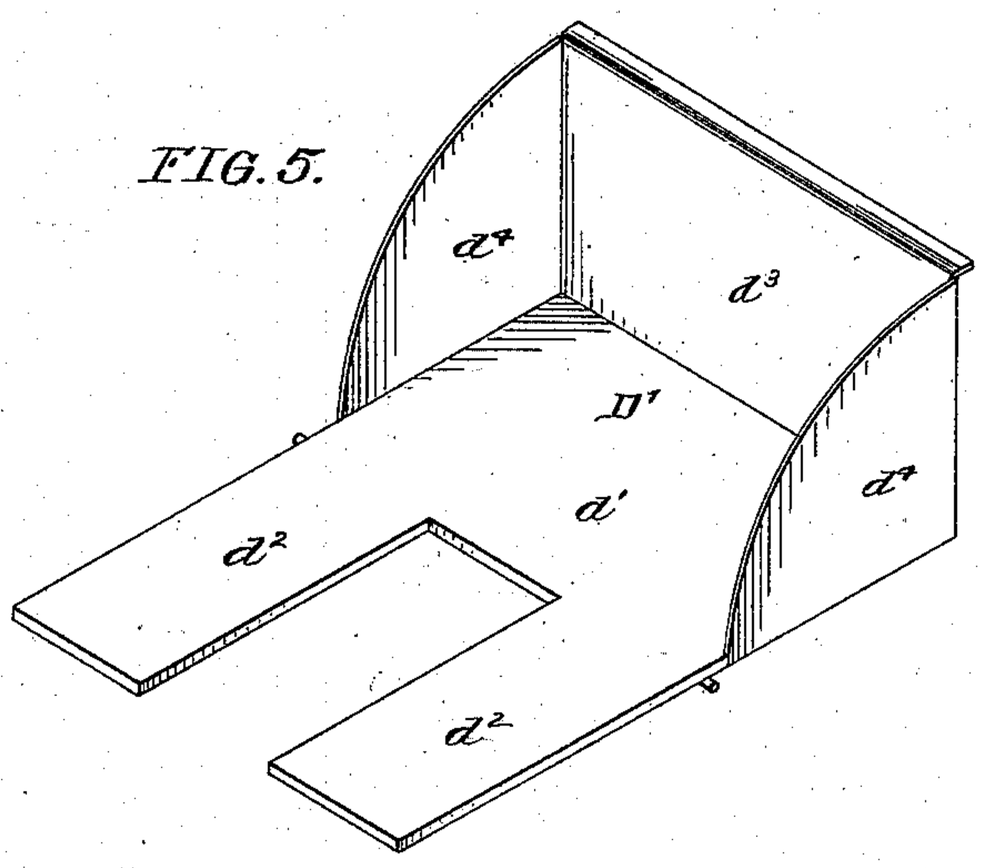
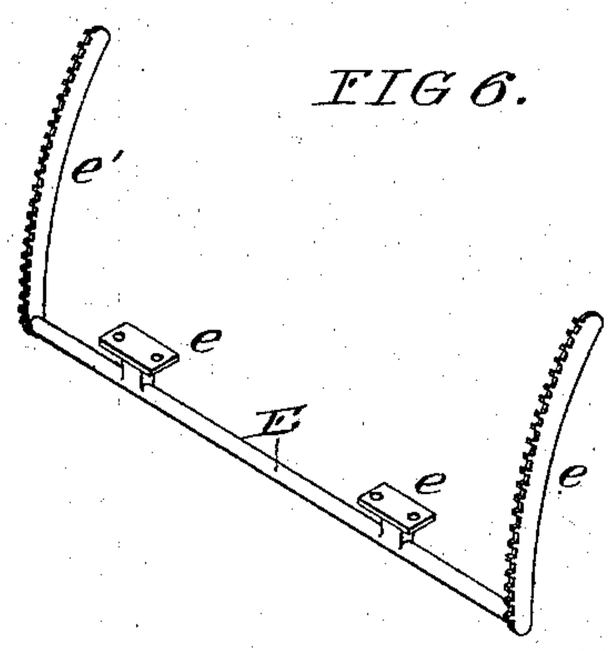


FIG 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

HENRY J. SCHMICK, OF HAMBURG, PENNSYLVANIA, ASSIGNOR OF THREE-EIGHTHS TO FRANK R. WAGNER, OF SAME PLACE, AND JOHN M. KUTZ, OF MAHANOY CITY, PENNSYLVANIA.

COMBINED FREIGHT AND DUMPING CAR.

SPECIFICATION forming part of Letters Patent No. 559,222, dated April 28, 1896.

Application filed May 3, 1895. Serial No. 548,052. (No model.)

To all whom it may concern:

Be it known that I, HENRY J. SCHMICK, a citizen of the United States, and a resident of Hamburg, Berks county, Pennsylvania, have invented certain Improvements in a Combined Freight and Coal Car, of which the following is a specification.

The object of my invention is to construct a freight-car with a movable bottom in such a manner that it can be used for carrying coal or other granular material in the same manner as an ordinary hopper-bottom coal-car and can also be used as a flat-car for carrying merchandise. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of my improved freight-car. Fig. 2 is a longitudinal sectional view. Fig. 3 is a plan view. Fig. 4 is a transverse sectional view. Fig. 5 is a perspective view of one of the pivoted sections. Figs. 6 and 7 are views of details of the operating mechanism.

A is the body of the car, mounted, as usual, on trucks B B. The body (shown in full lines in the drawings) is that of an ordinary open freight-car; but I have shown by dotted lines in Fig. 1 a closed car to which my invention may be applied.

The stringers *a* of the car run the entire length, and in the center of the car is a fixed floor A′, and under this floor is mounted the air or steam brake cylinder and other fixed appliances of the car.

D D′ are pivoted sections hung to suitable pivots *d d* on the frame of the car. These sections are formed, as shown in Fig. 5, having a portion *d′* extending entirely across the car and portions d^2 extending each side of the fixed floor. Each section extends from one end of the car to the middle and is provided with an end plate d^3 and side plates d^4. The side plates work in ways in each side of the car and are covered by plates *a′*, so that particles of coal cannot collect in the ways and prevent the operation of tilting.

E is a bar having brackets *e e*, by which it is secured to the under side of each tilting section, as shown in Fig. 2, and on each end of the bar are segmental racks *e′*, which engage with the toothed wheels *f f′*, mounted on studs projecting from plates F, secured in the present instance to each side of the body of the car.

A pinion *g* on each end of a shaft G meshes with the toothed wheel *f* at each side of the car, so that on turning the shaft by a crank handle or wheel the toothed wheels *f f′* are turned, imparting motion to the racks.

When the shaft G is turned in one direction, the pivoted sections D D′ are moved from the position shown in full lines, Fig. 2, to that shown in dotted lines in said figure, so that if the car is loaded with coal it will discharge the same from the bottom of the car at the center between the trucks the same as an ordinary hopper-bottom coal-car. By reversing the movement of the shaft G each section can be returned to its normal position and locked by the pawl *g′*, which engages the pinion *g* or a ratchet-wheel on the shaft G, as the case may be. In the present instance the shaft G extends across the car under a strip A^2, forming a part of the permanent floor. This strip acts as a meeting rail for the two pivoted sections.

In some instances the shaft may run across the car above the floor or on a level with the floor and the pinions *f* may be mounted on this shaft, dispensing with the pinion *g*.

Other means of operating the pivoted sections may be used without departing from the main features of my invention.

By pivoting the sections as shown—that is, placing the pivot midway or thereabout between the portions *d′* and d^2 of each section—I utilize the coal above the sections *d′* to counterbalance the coal at the center of the car, so that elaborate and cumbersome retaining mechanism for the sections is avoided, and when the sections are in their normal position the end portions are supported directly by the stringers and cross-bars of the car-frame.

I claim as my invention—

1. The combination of the car-body, consisting of the sides, ends and longitudinal stringers, a fixed floor mounted upon the central stringers, pivoted sections, each section having a portion *d′* extending across the car

at one end thereof, and portions d^2 extending from the portion d' on each side of the fixed floor, end and side plates for each section, with means for operating the pivoted sections, substantially as described.

2. The combination in a freight-car adapted to carry coal and merchandise having a level floor, the fixed car-body consisting of the sides, ends and longitudinal stringers, with two floor-sections, transverse pivots for each section, end plates and side plates secured to each section, the side plates extending to a point near the pivot, with cover-plates a' secured to the fixed sides of the car-body and overlapping the side plates of the pivoted sections, and means for operating the sections so that the entire contents of the car can be discharged at the center, substantially as described.

3. The combination in a freight-car adapted to carry coal and merchandise having a level floor, of the fixed car-body consisting of the sides, ends and longitudinal stringers, two pivoted floor-sections extending from side to side of the car and having end and side plates, a transverse bar E secured to the under side of each section, segmental racks e' on the ends of the said bar and extending outside of the car-body, a transverse shaft G geared to the said racks and means for turning the shaft so that the pivoted floor-sections can be tilted to discharge the contents, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY J. SCHMICK.

Witnesses:
WILL A. BARR,
FRANK E. BECHTOLD.