No. 849,854. PATENTED APR. 9, 1907.

C. A. PROCTOR & A. GNAEGY.

BALLAST CAR.

APPLICATION FILED JAN. 3, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

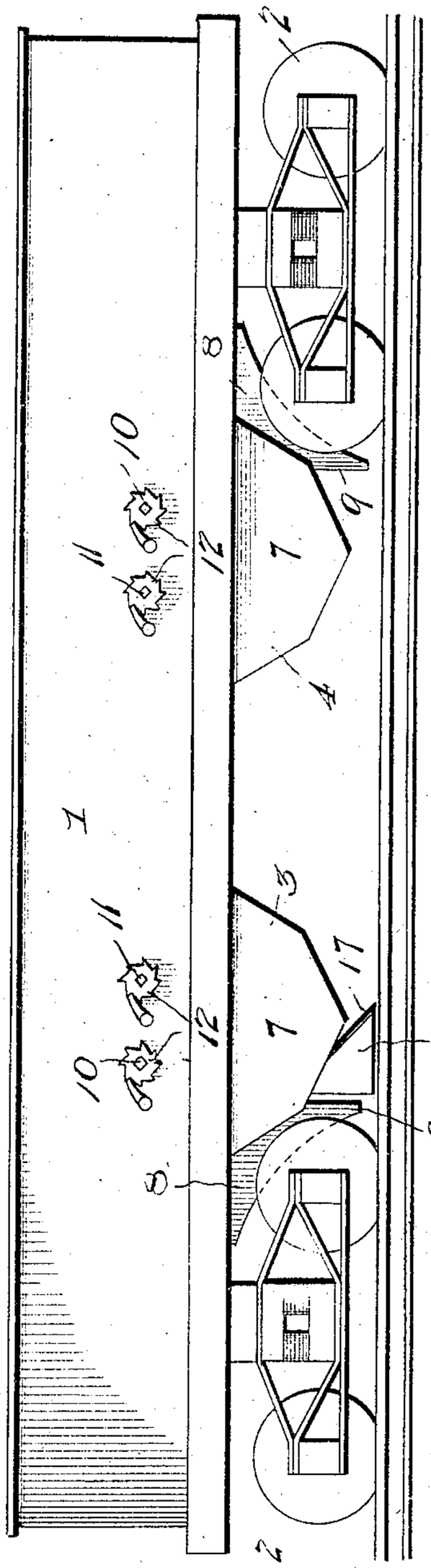
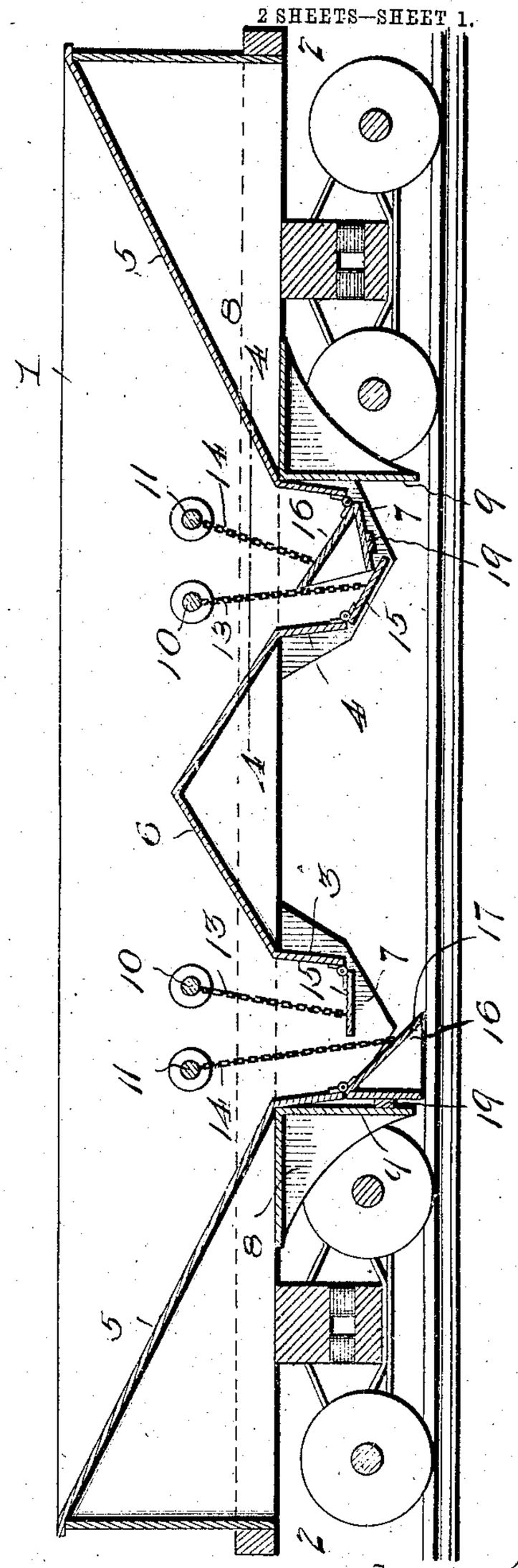


Fig. 2.



Witnesses

T. L. Macrum

James F. Brown

Inventors

Claud A. Proctor

Edfilbert Gnaegy

By Geo. S. Vashon

Attorney

No. 849,854. PATENTED APR. 9, 1907.

C. A. PROCTOR & A. GNAEGY.

BALLAST CAR.

APPLICATION FILED JAN. 3, 1907.

2 SHEETS—SHEET 2.

Fig. 3.

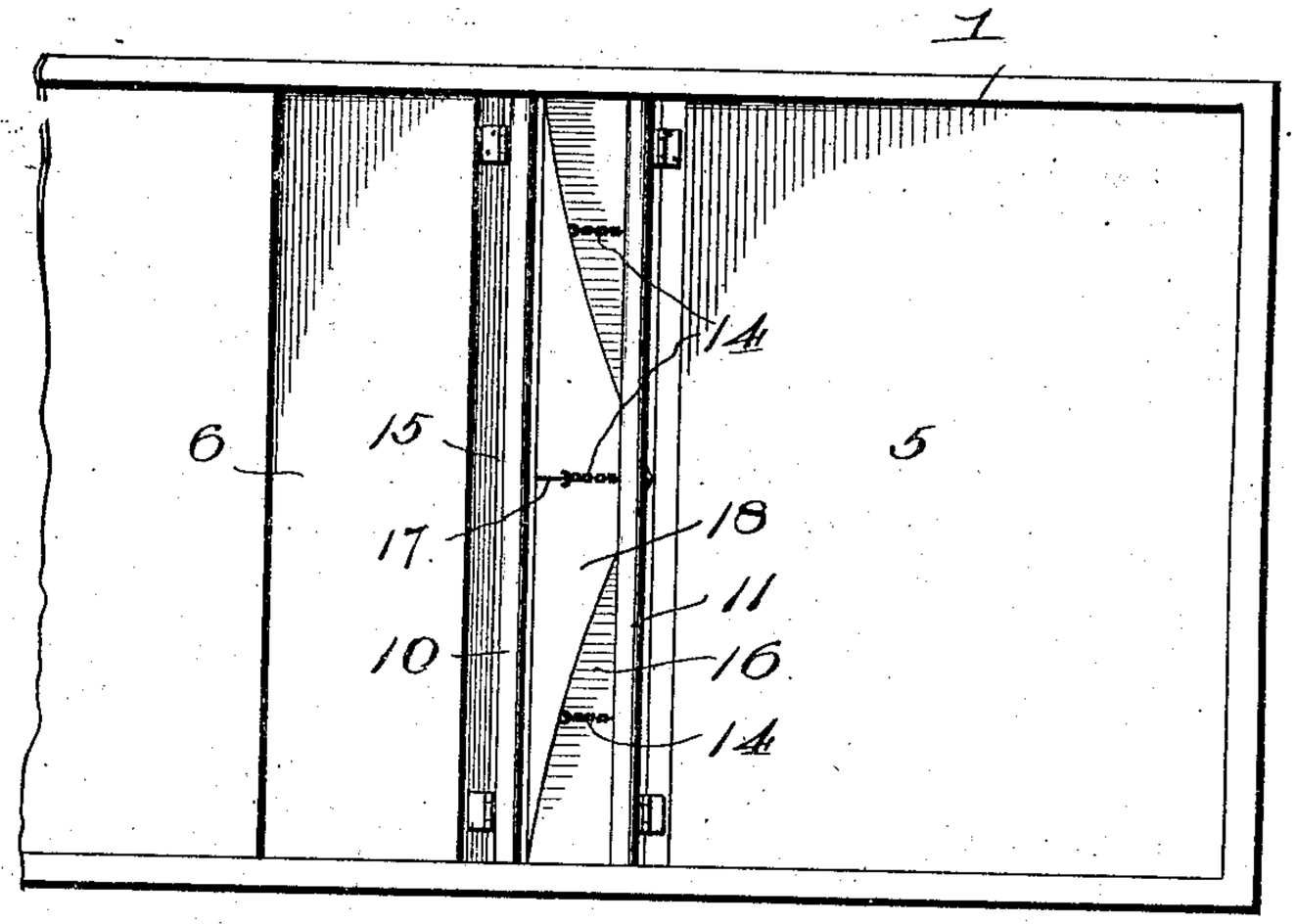
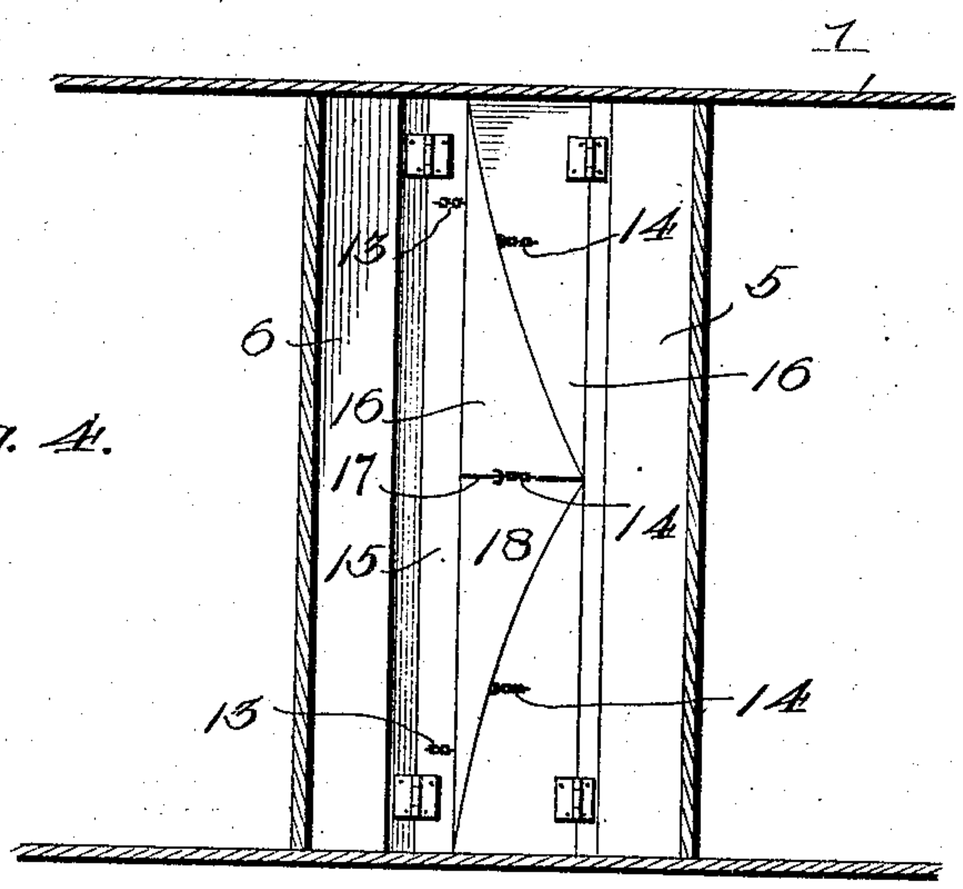


Fig. 4.



Witnesses

T. L. Mackaye

James F. Crown

Inventors

Claud A. Proctor

and Albert Gnaegy

By Geo. S. Vashon

Attorney

UNITED STATES PATENT OFFICE.

CLAUD A. PROCTOR AND ALBERT GNAEGY, OF CHESTER, ILLINOIS.

BALLAST-CAR.

No. 849,854. Specification of Letters Patent. Patented April 9, 1907.

Application filed January 3, 1907. Serial No. 350,653.

To all whom it may concern:

Be it known that we, CLAUD A. PROCTOR and ALBERT GNAEGY, citizens of the United States, residing at Chester, in the county of Randolph and State of Illinois, have invented new and useful Improvements in Ballast-Cars, of which the following is a specification.

This invention relates to ballast-cars for carrying and distributing or spreading ballast material over a railroad-bed.

The primary object of the invention is to provide a car adapted for general carrying or freighting use with means which may be readily disposed to engage and spread ballast.

A further object of the invention is to provide a car with movable spreading means which when not in use forms a part of a closure for an outlet-opening in the bottom of the car.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter specified.

In the drawings, Figure 1 is a side elevation of a car, illustrating the features of the invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is an enlarged top plan view of one extremity of the car. Fig. 4 is a horizontal section on the line 4 4, Fig. 2.

Similar characters of reference are used to designate corresponding parts in the views.

The numeral 1 designates a car-body supplied with the usual trucks 2. The car as an entirety, but particularly the body 1, will be preferably constructed of steel of suitable thickness, and in the present instance the bottom is shown as provided with two depending hoppers 3 and 4, having downwardly and inwardly inclined end members 5 and an intermediate ridge 6, also continuing into opposite side portions thereof to facilitate the outflow or deposit of the load of the car through the hoppers either in spreading ballast or relieving the car of its contents when used for general freighting purposes. The hoppers also have fixed depending ends 7. Between the inner extremities of the trucks 2 and the outer sides of the hoppers 3 and 4 braces 8 are secured to the car-body and also preferably formed of steel. These braces are angular in contour and have vertically-depending contact members 9, which extend transversely across the full width of the car close to the outer sides of the respective hoppers.

Above each hopper a pair of parallel shafts 10 and 11 are rotatably mounted in the car-body sides and have end ratchets and pawls 12 coöperating therewith for obvious reasons. These shafts are operated by suitable means and have chains 13 and 14 connected thereto within the body of the car and depend therefrom and are also secured to a hinged gate 15 and a hinged plow 16, disposed in movable relation to the open bottom of each hopper. The chains 13 are connected to the shafts 11 and gates 15, and the chains 14 are secured to the shafts 12 and plows 16, as many of these chains being used as may be found necessary. The gates 15 are hinged or otherwise movably attached to the lower ends of the inner sides of the hoppers, and the plows are movably connected to the lower ends of the outer sides of said hoppers. Each plow has a central point 17, and from this point the plowshare 18 recedes toward opposite ends in concave planes to provide an effective spreader. Each plow projects equally in opposite directions across the under portion of the car-body a distance equal to a little less than the transverse extent of the hopper into which the plow is adapted to move and form with the adjacent gate a closure for the hopper. After either of the hoppers is opened to deliver the ballast onto a road-bed the plow is allowed to remain lowered and the adjacent gate is raised, as shown at the left of Fig. 2. When it is desired to close the hopper-bottom, the gate is lowered sufficiently to permit the plow to clear the same, and after the plow is fully drawn up the gate is closed thereagainst, as shown at the right of Fig. 2. Each plow is also strengthened by a stiff brace 19, extending across the back and adapted to bear against the contact member 9 of the brace 8 when the plow is let down.

The hoppers and plows are used in duplicate to accommodate movement of the car in opposite directions. When the plows are not in use and closed up in the hoppers, they are protected against breakage and also relieve the bottom of the car of depending projections, which would be objectionable. Furthermore, by having the plows serve as portions of the bottom closures for the hoppers the necessity of providing other closing devices or additional structural features is avoided.

When the use of the plows is undesirable or when the car is used for ordinary freighting purposes, the plow attachments and gates will be operated similarly to ordinary hopper-car constructions to relieve the car of its load.

What we claim is—

1. A car having a hopper with a gate, and a movable plow forming the closing means for the bottom thereof.

2. A car having hoppers on opposite sides of the center thereof, and a gate and a movable plow forming the closing means for the bottom of the hopper.

3. A car having a hopper with a plow forming part of the closing means for the bottom thereof, and movable upwardly thereinto.

4. A car comprising a body with hoppers on opposite sides of the center, and a movable plow coöperating with each hopper and forming part of the closing means therefor, each plow being adapted to be independently lowered.

5. A car comprising a body with outlet-hoppers, and a movable plow forming part of the closing means for each hopper, the plows of the hoppers being independently operable.

6. A car comprising a body with an outlet-hopper, a movable plow forming part of the closing means for the hopper, and a brace depending from the body and against which a portion of the plow has bearing.

In testimony whereof we affix our signatures in presence of two witnesses.

CLAUD A. PROCTOR.
ALBERT GNAEGY.

Witnesses:
WILLIAM ORTH,
CHAS. H. KOLB.