

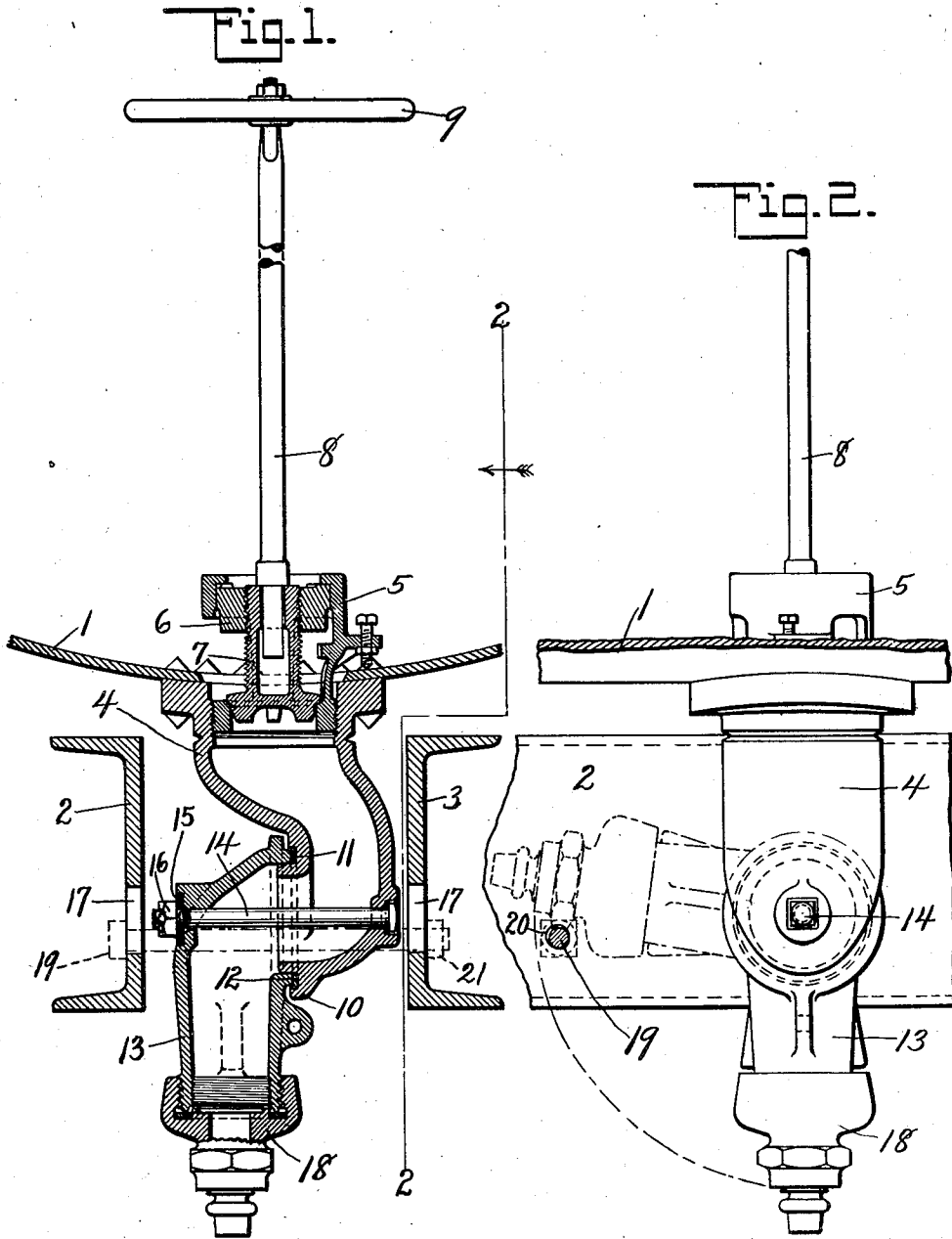
April 6, 1926.

1,579,223

J. J. McBRIDE

DISCHARGE OUTLET FOR TANK CARS

Filed Sept. 9, 1921



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Patented Apr. 6, 1926.

1,579,223

# UNITED STATES PATENT OFFICE.

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## DISCHARGE OUTLET FOR TANK CARS.

Application filed September 9, 1921. Serial No. 499,504.

To all whom it may concern:

Be it known that I, JOHN J. McBRIDE, residing at Bayonne, Hudson County, State of New Jersey, and being a citizen of the United States, have invented certain new and useful Improvements in a Discharge Outlet for Tank Cars, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof within the scope of the claims will occur to persons skilled in the art.

In said drawings:

Fig. 1 is a central vertical section of my improved discharge outlet for tank cars; and

Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1, the outlet being shown in raised position in dotted lines.

It is the object of my invention to provide an improved discharge outlet for tank cars of such construction that all parts of the device may be protected by the car sills when the device is not in use or the car is in transit.

In the preferred embodiment of my device shown in the drawings, a tank of any desired construction having a tank sheet 1 is mounted upon a suitable car frame having the center sills 2 and 3. Secured to the tank sheet 1, as by rivets, not shown, is a discharge outlet comprising a casting 4, threaded internally at one end to receive a valve cage 5 in which a valve sleeve 6 and discharge valve 7 are operated by means of a valve rod 8 and hand wheel 9. At its other end, the casting 4 is provided with an annular flange 10 having a groove 11 in which is seated a packing washer 12 of any suitable material, as asbestos.

Rotatably mounted on the casting 4 is a casting 13 having an end adapted to surround the end of the casting 4 and engage with the packing washer 12, the casting 13 being held in position on the casting 4 by the bolt 14 which passes through openings in the castings 4 and 13 and is provided with a spring washer 15 and nut 16. The adjust-

ment of nut 16 on bolt 14 is such that the casting 13 may be rotated on the casting 4 and there will not be leakage past the washer 12. Openings 17 are provided in the sills 2 and 3 for the insertion of the bolt 14 and the bolt 14 is held against rotation by having its head seated in an angular recess in the casting 4. The other end of the casting 13 is closed by an outlet cap 18 in the usual manner.

When the outlet is in use, the casting 13 will be in the position shown in Fig. 1 and when the car is in transit the casting 13 will be in the position shown in dotted lines in Fig. 2, that is, rotated on the casting 4 until all parts are above the lower edges of the center sills 2 and 3. The casting 13 is held in this position by a bolt 19 which passes through openings 20 in the center sills 2 and 3 and is held in position by nut 21.

What I claim is:

1. In a tank car, sills, a discharge outlet having a swiveled portion and means engaging said sills adapted to hold said swiveled portion in raised position.

2. In a tank car, sills, a discharge outlet having a swiveled portion adapted to project below said sills and means adapted to hold said swiveled portion in raised position.

3. In a tank car, sills, a discharge outlet having a swiveled portion adapted to project below said sills and means carried by said sills adapted to hold said swiveled portion in raised position between said sills.

4. In a tank car, sills, a discharge outlet having a swiveled portion adapted to project below the sills and means adapted to hold said swiveled portion above the lower edges of said sills.

5. In a tank car, sills, a discharge outlet mounted between said sills and having a swiveled portion adapted to project below said sills and means carried by said sills adapted to hold said swiveled portion above the lower edges of said sills.

6. In a tank car, sills and a discharge outlet mounted between said sills and having a swiveled portion adapted to be moved in a vertical plane from a position in which it projects below the sills to a position in which it lies above the lower edges of the sills.

7. In a tank car, sills, a discharge outlet

having a swiveled portion adapted to be moved in a vertical plane from a position in which it projects below the sills to a position in which it lies above the lower edges of the sills and means carried by the sills to hold the swiveled portion in raised position.

8. In a tank car, sills, a discharge outlet casing mounted between said sills and comprising a rigid portion and a portion swiveled to said rigid portion and a cap carried by said swiveled portion, said casing being adapted to retain the leakage.

9. In a tank car, sills, a discharge outlet casing mounted between said sills and comprising a rigid portion lying above the bottom edges of the sills and a portion swiveled to said rigid portion and adapted in one position to project below said sills and in another position to lie above the bottom edges of the sills.

10. In a tank car, sills, and a discharge outlet casing mounted between said sills, said casing comprising swiveled sections adapted to project below said sills in one position and to lie above the bottom edges of the sills in another position and to retain leakage in both positions of said casing.

11. In a tank car, sills and a discharge outlet casing mounted between said sills and comprising a rigid section and a movable section swiveled to said rigid section and adapted in one position to project below said sills and in another position to lie above the bottom edges of said sills, said casing being adapted to retain leakage in both positions of said swiveled section.

12. In a tank car, sills, a tank carried by said sills, a discharge outlet casing between said sills comprising a casing section fixed to said tank and a casing section pivoted on said fixed section so as to maintain the passages in the two sections connected and means maintaining a fluid-tight joint between said casing sections.

13. In a tank car, sills, a tank carried by said sills and a discharge outlet casing for said tank between said sills comprising a casing section fixed to said tank and a casing section pivotally mounted on said fixed casing section and having a fluid-tight connection therewith.

14. In a tank car, sills, a tank carried by said sills and a discharge outlet casing for said tank between said sills comprising a section fixed to said tank and a section pivotally connected to the fixed section so as to provide a fluid-tight connection of the sections in all positions of the pivotally connected section.

15. In a tank car, sills, a tank carried by said sills, a jointed discharge outlet casing for said tank comprising a section fixed to said tank and a section pivotally mounted on said fixed section and a cap for said pivotally mounted section, the passages in said casing sections having a fluid-tight connection in all positions of the pivotally mounted section.

In witness whereof I have hereunto set my hand.

JOHN J. McBRIDE.