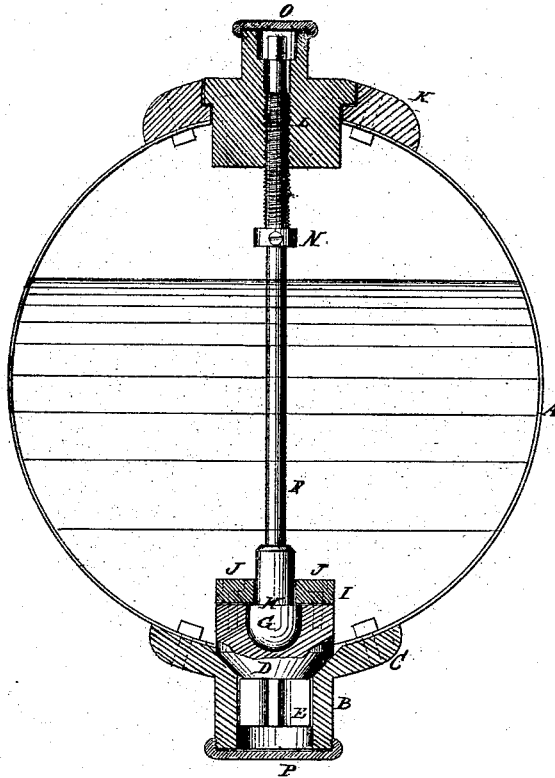


*W. J. Brundred,*

*Discharging Oil from Tanks.*

*No. 110,953.*

*Patented Jan. 17, 1871.*



**Witnesses:**

*Chas. Nide*  
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*W. J. Brundred*  
**PER** *Mmm & Co*  
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# UNITED STATES PATENT OFFICE.

WILLIAM J. BRUNDRED, OF OIL CITY, PENNSYLVANIA.

IMPROVEMENT IN DEVICES FOR DISCHARGING OIL FROM TANKS.

Specification forming part of Letters Patent No. **110,953**, dated January 17, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM J. BRUNDRED, of Oil City, in the county of Venango and State of Pennsylvania, have invented a new and useful Improvement in Oil-Tank Discharging Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The object of this invention is to provide convenient and ready means for discharging oil from tanks, more especially designed for tanks on railroad cars or trucks, but applicable to tanks or oil-reservoirs in other situations; and it consists in the construction and arrangement of parts, as hereinafter more fully described.

The accompanying drawing represents a vertical cross-section of an oil-tank, showing my improved valve arrangement (also in section) as applied to the tank.

Similar letters of reference indicate corresponding parts.

A is the tank, which may be of any desired length and diameter, elevated on a railroad-truck, or in any other manner, so that the contents may be readily discharged from its under side. B is the tubular casting forming the valve-seat, which is attached to the under side of the tank by bolts through the flange C, as seen in the drawing. D is the valve, which is provided with wings E (more or less in number) for guiding the valve as it is raised and lowered. F is the valve-stem. On the end of the valve-stem there is a bulb or enlargement, G, with a shoulder, H, on its upper side. This bulb or enlargement fits a cavity in the top of the valve. I is an annular plate or ring around the valve-stem, and attached to the top of the valve by screws J. The inner edge of this plate loosely covers the shoulder H, and connects loosely the valve with the valve-rod.

K is a casting bolted to the top of the tank, supporting the tubular casting L. There is a screw-thread cut in this casting, and a screw-thread cut on the upper portion of the valve-rod. The rod passes up entirely through the tank, and is moved up and down by revolving

in the casting L as in a screw-nut. The upper end of the valve-rod is constructed so as to receive a wrench or key for revolving it, and opening and closing the valve. N is an adjustable collar on the valve-stem, which is designed to strike the bottom of the casting L and limit the upward movement of the valve. O is a cap, screwed onto the casting L so as to cover the end of the valve-rod. P is a cap over the bottom end of the tubular casting B. These caps are for the purpose of protecting the tubular portions of the castings from dirt and dust, and to prevent leakage of oil at top of valve-stem and at bottom of discharge, and are of course removed when the valve is operated.

By removing the casting L from the top of the tank, it will be seen that the rod and valve may be removed from the tank for repairs or other purposes.

By this arrangement the oil can be discharged in the easiest and most expeditious manner, while any repairs may be made in the valve apparatus without going inside the tank, as heretofore.

The advantages of this device over any arrangement hitherto adopted are many, and must be apparent to all who are acquainted with the subject.

As oil-tanks have hitherto been constructed, it is extremely dangerous to life to enter them for repairs, on account of the suffocating gas remaining after the oil has been drawn off.

My improvement obviates the necessity of going into the tank at all, and allows the valve to be removed for repairs and replaced without drawing off the oil, which, with a three or four thousand gallon tank, is a matter of the utmost importance.

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

The tubular castings B, K, and L, valve D, rod F, and collar N, constructed and arranged to operate substantially as and for the purposes herein shown and described.

WILLIAM J. BRUNDRED.

Witnesses:

J. R. CAMPBELL,  
D. L. HATHAWAY.