(No Model.)

J. P. REINECKE.

COVER FOR OIL TANKS.

No. 289,557. Patented Dec. 4, 1883.

Fig. 1.

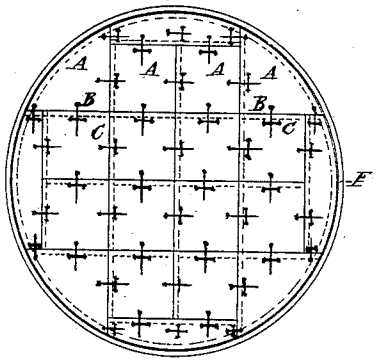


Fig. 2



Fig. 4.

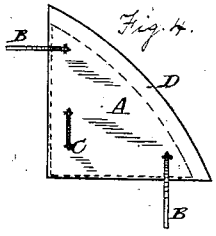


Fig. 3.

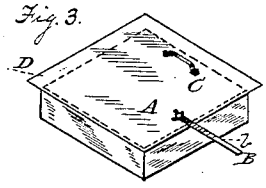
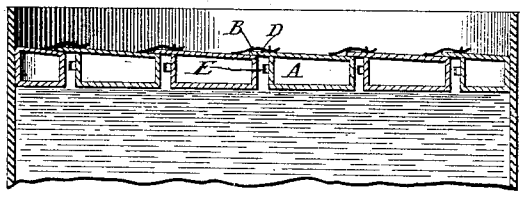


Fig. 5.



Witnesses—

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UNITED STATES PATENT OFFICE.

JOHN P. REINECKE, OF PITTSBURG, PENNSYLVANIA.

COVER FOR OIL-TANKS.

SPECIFICATION forming part of Letters Patent No. 289,557, dated December 4, 1883.

Application filed August 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. REINECKE, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Oil-Tanks; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an improvement in oil-tanks; and it consists in a floating cover placed inside of the tank, resting on the surface of the oil, and formed in sections so arranged that the float will expand or contract as the tank is expanded or contracted by changes in temperature, and will at all times form a perfect covering over the surface of the oil. The purpose of this self-adjusting cover is to prevent the evaporation of hydrocarbon oils by excluding the air from the surface thereof, and also to protect the oil from fire should the inflammable gases in the upper part of the tank become ignited.

I will now describe my invention so that others skilled in the art may manufacture and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of a tank, the cover being removed and showing my improved floating cover. Fig. 2 is a side elevation of one of the sections of which my cover is composed. Fig. 3 is a perspective view of one of the sections. Fig. 4 is a plan view of one of the sections. Fig. 5 is a vertical section of an oil-tank and its floating contracting cover.

Like letters of reference indicate like parts wherever they occur.

Inside of the oil-tank F, which is similar to those now in common use for storing petroleum and hydrocarbon oils, is a movable cover fitting around the inside circumference of the tank, and adapted to float on the surface of the oil. It is well known that the tanks, especially when formed of iron, being exposed to the rays of the sun, become heated and expand, while the movable cover, being protected by the tank, is expanded but slightly, if at all, and a space would be left around the circumference of the tank, where the air would have free access to the surface of the oil, and the cover would therefore no longer be a protection from fire or prevent evaporation.

In order that the cover shall expand with the tank and contract when the tank contracts, I form it of sections A, separated from each other vertically, as shown in Fig. 1. On the top of these sections are secured bolts B, either by pins or rivets, said bolts B being formed, preferably, of thin strips of metal, so as to be elastic and flexible, and eyes C, for the reception of the ends of the bolts B. At one or more of the sides of the sections A are horizontally-projecting wings D, adapted to fit over the top of the adjacent sections, and on one or more of the sides of each section is a spring, E, adapted to press against the sides of the adjacent sections. These sections A are preferably formed of sheet metal in the form of a hollow box, so as to have sufficient displacement to float on the top of the oil.

In order to form my improved cover, the sections A are placed side by side in the tank, the bolt B on one section passing through the eye C on the adjoining section, and the projecting wings D of one section projecting over the top of the adjoining sections. As these sections are placed closely together in the tank, side by side, the outer sections coming in contact with the inner circumference of the tank, the springs E are compressed. When the tank becomes expanded by heat, the force of the spring E separates the bodies of the sections from each other, the bolts B sliding easily in the eyes C. The wings D, however, still projecting over the tops of the adjoining sections, form a complete covering over the surface of the oil. When the tank becomes cool and contracts, the sides thereof press the bodies of the sections again toward each other.

The advantages of my improved cover are, that the surface of the oil in the tank is at all times protected from the air, and evaporation is thereby prevented, and the oil is also protected from fire should the gases in the upper portion of the tank become ignited.

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

1. A diametrically-contractible floating sectional cover for oil-tanks, substantially as and for the purposes specified.

2. In an oil-tank, a movable cover for protecting the surface of the oil, said cover be-

ing formed in sections having overlapping wings, substantially as and for the purpose specified.

3. In an oil-tank, a cover adapted to float on the surface of the oil, formed in sections having overlapping wings, and springs arranged between the adjacent sides, substantially as and for the purpose specified.

4. In an oil-tank, a cover adapted to float on the surface of the oil, formed in sections having overlapping wings, the said sections being united or joined by movable flexible or elastic fastenings, substantially as and for the purpose specified.

In testimony whereof I have hereunto set my hand this 15th day of August, A. D. 1883.

JOHN P. REINECKE.

Witnesses:

W. B. CORWIN,

JAMES K. BAKEWELL.