E. E. HENDRICK.

Iron Tank for Holding Petroleum.

No. 210,324. Patented Nov. 26, 1878.

Fig. 1.

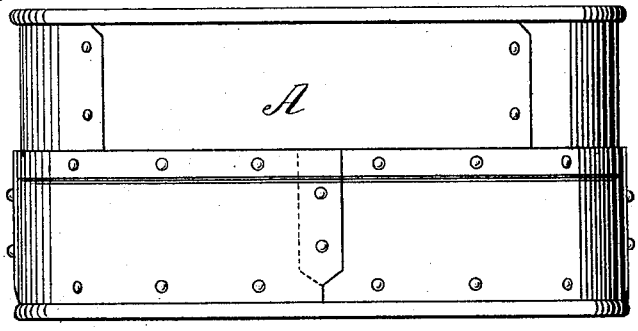
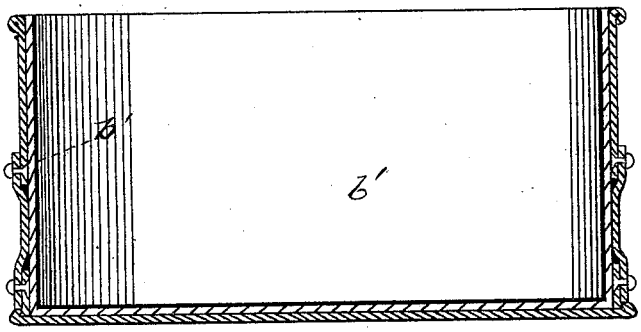


Fig. 2.



WITNESSES

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ELI E. HENDRICK, OF CARBONDALE, PENNSYLVANIA.

IMPROVEMENT IN IRON TANKS FOR HOLDING PETROLEUM.

Specification forming part of Letters Patent No. **210,324**, dated November 26, 1878; application filed October 7, 1878.

To all whom it may concern:

Be it known that I, ELI E. HENDRICK, of Carbondale, in the county of Lackawanna and State of Pennsylvania, have invented a new and valuable Improvement in Iron Tanks for Holding Petroleum and other Liquids; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of my improved tank, and Fig. 2 is a vertical central section thereof.

The nature of the invention consists in the construction and novel arrangement of an iron oil-tank made of sections riveted together, and having the interior lap-joints and rivet projections plastered with a cement filling, and covered with a lining of cloth or paper cemented to the interior of the tank, and covered with a water and oil proof composition, as hereinafter shown and described.

In the annexed drawings, the letter A designates the body of the tank, which is constructed of iron of less thickness than that ordinarily employed. To the inside surface of the tank the lining *b'* is secured by a suitable cement. A cement I find to answer the purpose is composed of one part of red lead to two parts of linseed-oil, boiled together until all the lead is dissolved, and applied hot to the inside of the tank, and also to the lining. This lining may then be secured to the wall of the tank by simply bringing it to place and thoroughly rubbing it down. This cement adheres strongly, and resists water, petroleum, and other oils.

The sheets of lining should overlap each other, so that the said lining will be continuous and without flaw.

If paper is used as a lining, it is coated over with any suitable covering—as, for instance, a paint composed of linseed-oil, red lead, and hydraulic cement or lime. Two or three coats of this paint render the paper absolutely oil and water proof. A coating of boiled coal-tar has proved very effective for resisting either oil or water.

The paper used is a good strong Manila stock or other fibrous paper, and I may sometimes use that quality known as "leather-paper," the same being both cheap and strong. When oil or rubber cloth is used no coating is necessary.

In lining iron tanks it is not absolutely requisite to cover the entire interior surface of the tank. It will suffice if the laps or joints and heads of the rivets are well covered.

To overcome the difficulty of covering with paper the projections caused by the laps and rivets, the joint and rivet-heads are carefully plastered over with a cement made of red lead, hydraulic lime, and linseed-oil until a swell is formed, to the shape of which the paper will readily adapt itself.

The advantages of a tank constructed as above are obvious. In iron tanks as commonly constructed the metal must be of sufficient thickness to allow the joints to be calked, as in boiler-making, in order to prevent leakage, although, for strength, one-tenth of the thickness would perhaps be sufficient; but by lining the joint I dispense with calking, and am able to use iron of just sufficient strength to hold the contents of the tank, thus greatly lessening its cost and weight. Furthermore, the workmanship of the tank need not be of such a superior order, as strength only is required, the oil-proof joints being perfected by the lining.

I am aware that wooden oil-barrels have been saturated with silica compounds to prevent contraction and expansion, and then lined; also, that petroleum-tanks have been made mainly of paper or paper-pulp covered with a wooden casing, and freely separable along the joints of the staves of the outer casing. I do not claim such construction.

What I claim as new, and desire to secure by Letters Patent, is—

An iron oil-tank made of sections riveted together, and having the interior lap-joints and rivet projections plastered with a cement filling, and covered with a lining of cloth or paper cemented to the interior of the tank, and covered with a water and oil proof composition, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ELI E. HENDRICK.

Witnesses:
THOS. F. MITCHELL,
L. A. BASSETT.