No. 617,857. Patented Jan. 17, 1899.

J. H. FRANKLIN.

TANK.

(Application filed Apr. 1, 1898.)

(No Model.)

Fig. 1.

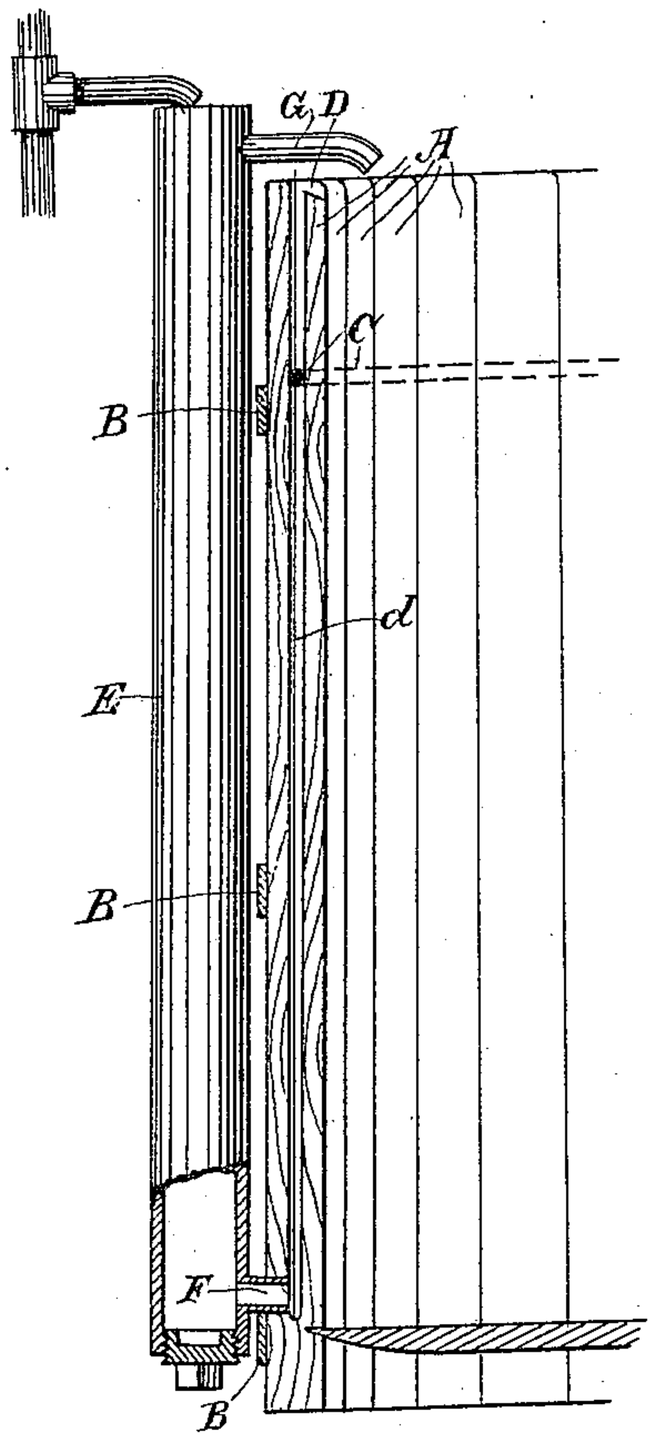
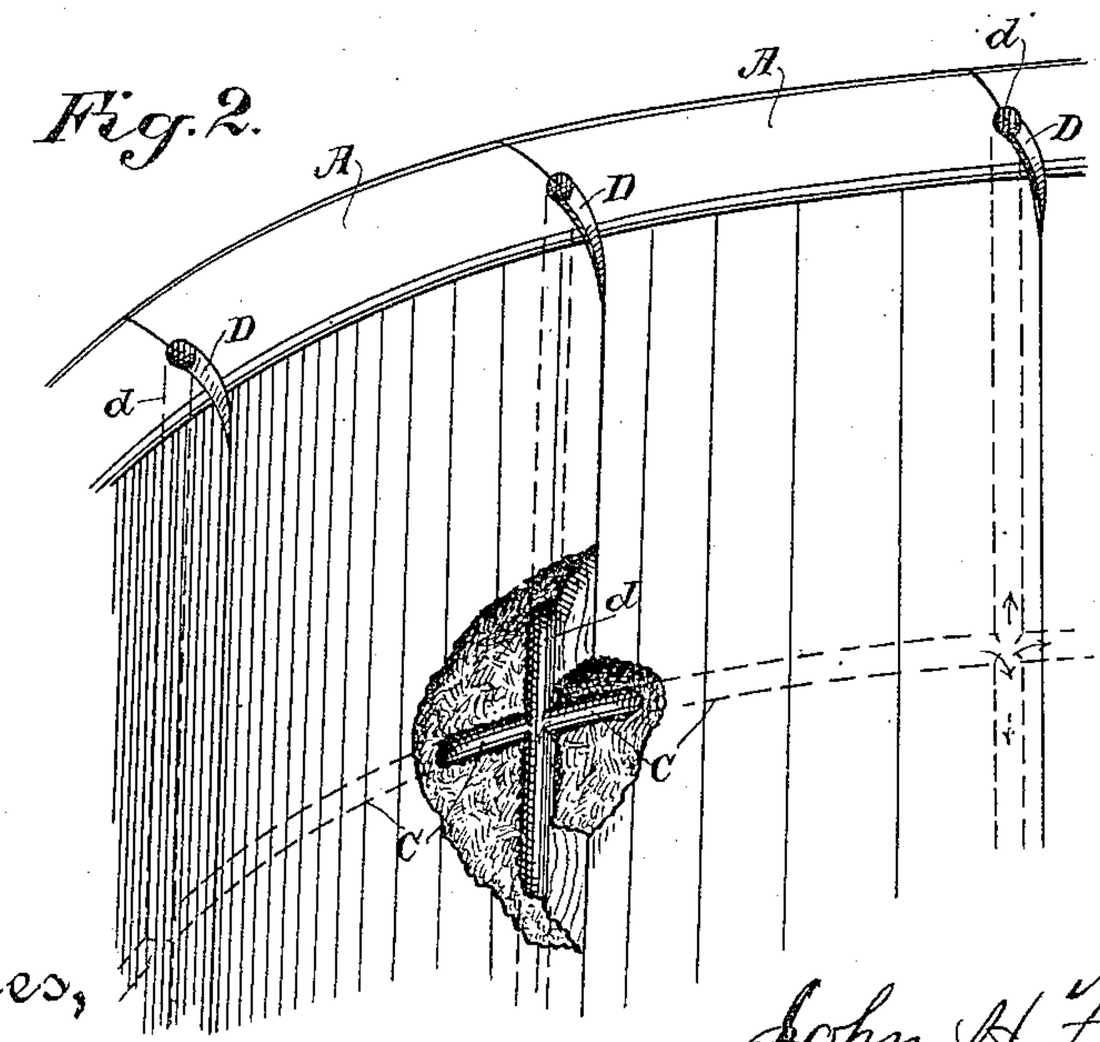


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN H. FRANKLIN, OF SAN FRANCISCO, CALIFORNIA.

TANK.

SPECIFICATION forming part of Letters Patent No. 617,857, dated January 17, 1899.

Application filed April 1, 1898. Serial No. 676,062. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. FRANKLIN, a citizen of England, residing in the city and county of San Francisco, State of California, have invented an Improvement in Tanks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in tanks which are designed to contain liquids; and it consists of the parts and the construction and combination of parts hereinafter described and claimed.

Referring to the accompanying drawings, Figure 1 is a vertical section of one side of the tank; Fig. 2 shows a portion of the inside of a tank with part broken away to show passages.

In the use of large containing-tanks, which are ordinarily built of vertical staves hooped together, it is found very difficult to prevent such tanks becoming leaky, and more particularly where they are employed for containing oil and other liquids which have a tendency to dry the wood and to cause such shrinkage as will leave open spaces or passages between the staves. In large oil-containing tanks the loss often amounts to as much as two or three hundred gallons in the course of a year in spite of all efforts to keep them tight. In tanks which are designed to contain water the same difficulty of shrinkage of the wood and consequent leakage takes place if ever the tanks are allowed to become empty, and in any event where the tanks are not kept absolutely full to overflowing the upper part will shrink and become leaky. My invention is designed to prevent this shrinkage and leakage and is carried out as follows:

The tank is composed of vertical staves A, fitted together, having any suitable or desired taper, and the staves are held together by hoops B of any suitable or ordinary construction. The meeting edges of each of the staves A has a groove or channel plowed or otherwise formed in it about midway between the outer and inner faces of the stave, and these grooves or channels extend very nearly to the bottom of the tank, so that when the staves are finally set up the grooves in each of the opposing faces form a complete channel extending from the top of the tank to near the bottom. Holes C are bored transversely through the staves at any suitable or desired point, so as to connect these channels successively all the way around the tank, and by thus connecting the channels, if any one of them is filled, the water will seek its level and eventually fill all the others, the supply being sufficient.

From the top of the staves, if desired, small channels D may be made connecting each of the vertical channels with the interior of the tank, so that any overflow may pass into the tank, if it is a water-tank, or, if preferred, the channels may be made outwardly, so that the flow will take place upon the outside. I, however, prefer to stop the upper ends of these openings to prevent evaporation.

E is a tube of any suitable or desired diameter which stands vertically against or adjacent to the side of the tank. This tube preferably extends a little above the top of the tank and may be filled with water by means of a pump, faucet, or other convenient supply, and by means of a pipe G at the top the tank may also be filled directly from the tube E. From the lower part of the tube, a short distance above the bottom, a pipe F extends into the side of the tank, connecting with either of the interior or vertical passages between the staves, so that water from the tube E can flow through the pipe F and eventually fill the passages or channels between the staves.

The advantage of this construction is that any dirt or sediment which is contained in the water will be allowed to settle in the tube E before being delivered into the tank or the channels, and such sediment can be drawn off from time to time by means of a cock or discharge-opening in the bottom of the tube E. Whenever the mill or other source of supply stops, it leaves the tube E full, and this keeps the channels supplied until the water flows again. The channels between the staves are preferably semicircular in section to give the greatest strength.

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

The combination with a tank composed of

vertical staves having their meeting edges grooved or channeled with transverse passages connecting said grooves or channels, of a water-supply tube fixed exterior to the tank, having a pipe extending from its lower portion and connecting with the passages between the staves, and a second pipe extending from its upper portion and adapted to discharge into the tank, said tube extended below the lower pipe to form a sediment-chamber, having a draw-off or discharge.

In witness whereof I have hereunto set my hand.

JOHN H. FRANKLIN.

Witnesses:
L. A. LARSEN,
J. F. FRANKLIN,
LINCOLN SONNTAGG.