(No Model.)

F. E. & A. S. ELMORE.

TANK OR CELL FOR ELECTROLYTIC PURPOSES.

No. 524,940. Patented Aug. 21, 1894.

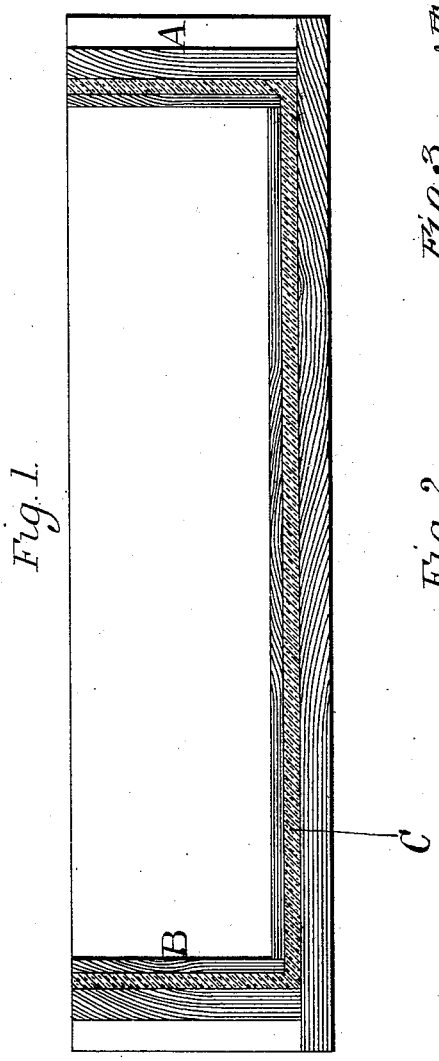

Fig. 1.

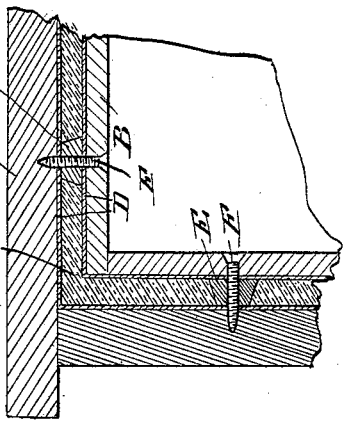

Fig. 3.

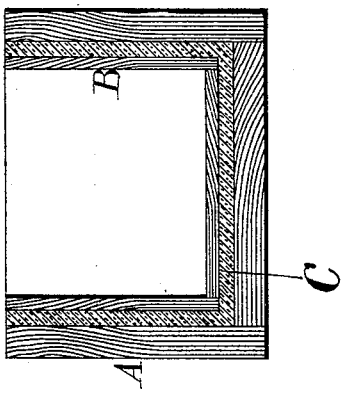

Fig. 2.

Witnesses.
Geo. W. Rea
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Inventors.
Francis E. Elmore.
Alexander S. Elmore,
By Munn & Co. Norris. Atty.

UNITED STATES PATENT OFFICE.

FRANCIS EDWARD ELMORE AND ALEXANDER STANLEY ELMORE, OF LEEDS, ASSIGNORS TO THE ELMORE'S AMERICAN AND CANADIAN PATENT COPPER DEPOSITING COMPANY, LIMITED, OF LONDON, ENGLAND.

TANK OR CELL FOR ELECTROLYTIC PURPOSES.

SPECIFICATION forming part of Letters Patent No. 524,940, dated August 21, 1894.

Application filed November 25, 1892. Serial No. 453,042. (No model.)

To all whom it may concern:

Be it known that we, FRANCIS EDWARD ELMORE and ALEXANDER STANLEY ELMORE, electrometallurgists, citizens of England, residing at Spring Grove, Thwaite Gate, Hunslet, Leeds, in the county of York, England, have invented a new and useful Improvement in Tanks or Cells for Electrolysis and Like Purposes, of which the following is a specification.

This invention relates to the construction of a tank or cell suitable for electrolysis, containing cells for secondary batteries and similar purposes, as we shall describe referring to the accompanying drawings.

Figures 1 and 2 are respectively a longitudinal and a transverse section of a tank or cell according to our invention, and Fig. 3 is a detail sectional view.

The tank or cell consists of a wooden box A within which is placed another wooden box B leaving a narrow space between the two boxes, which may be from half an inch to an inch wide. The two boxes are held in their relative position by small distance pieces E having very narrow contacts with the boxes. The space between the two boxes is then filled up with soft plastic material C, preferably of bituminous character, poured in while the inner box is firmly held in position. The bituminous composition, being thus supported on both its sides, may be made of so soft consistence that there is no danger of its being caused to crack by changes of temperature, or by the expansion or contraction of the tank when it is filled or emptied.

We find a suitable composition for filling the space between the boxes is a mixture of pitch, rosin, and plaster of paris, in about equal parts along with such a proportion of resin oil, as will give the whole mass when it is cold, a consistence such as putty.

The inner box is covered externally with canvas or other fabric as at D and the outer box may be similarly lined internally, but, when the pieces of wood which constitute the boxes have no wide gaps between them, such covering and lining are unnecessary.

The distance pieces E interposed between the inner and outer boxes are secured in proper position by screws F which are inserted from the inside of the inner box and extend through the distance pieces into the outer box, as clearly shown in Fig. 3. The canvas or other fabric D extends between the distance pieces and the inner box.

Having now particularly described and ascertained the nature of this invention and the best means we know of carrying the same into practical effect, we claim—

An electrolytic cell consisting of two wooden boxes of unequal size placed one within the other, wooden strips arranged intermediate said boxes and secured thereto, a canvas cover disposed over the inner box, and a packing of plastic bituminous composition interposed between the walls of said boxes, substantially as described.

In testimony whereof we have hereunto set our hands, in presence of two subscribing witnesses, this 14th day of November, A. D. 1892.

FRANCIS EDWARD ELMORE.
ALEXANDER STANLEY ELMORE.

Witnesses:
CHARLES E. WATSON,
ARTHUR S. TRYER.