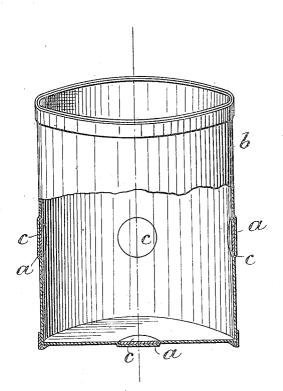
N. C. NIELSEN. VESSEL FOR STORING AND TRANSPORTING MILK AND OTHER LIQUIDS. APPLICATION FILED MAY 28, 1807.

Patented Nov. 3, 1908.



Witnesses, laherty

902,758.



## UNITED STATES PATENT OFFICE.

## NIELS CHRISTIAN NIELSEN, OF HELLERUP, NEAR COPENHAGEN. DENMARK.

## VESSEL FOR STORING AND TRANSPORTING MILK AND OTHER LIQUIDS.

No. 902,758.

Specification of Letters Patent.

Patented Nov. 3, 1908.

Application filed May 28, 1907. Serial No. 376,211.

## To all whom it may concern:

Be it known that I, NIELS CHRISTIAN NIELSEN, a subject of the King of Denmark, residing at Hellerup, near Copenhagen, Den-

- residing at Hellerup, near Copenhagen, Den-5 mark, have invented a new and useful Improvement in Vessels for Storing and Transporting Milk and other Liquids; and I do hereby declare the following to be a full, clear, and exact description of the same.
- 10 As is well known, tanks of tinned iron used extensively for storing and transporting milk and other liquids, become very quickly attacked by rust, and thus are rendered useless. This formation of rust is due
- 15 to the fact that the liquid penetrates through the pores of the layer of tin to the iron, which results in electrolytic decomposition of the fluid which develops oxygen at the iron. It is very difficult in practice to sup-
- 20 ply the tinning in such manner as to avoid entirely any pores.

The object of the present invention is therefore, a tinned iron vessel in which this formation of rust is prevented or at least sub-25 stantially reduced.

The annexed partially sectional drawing shows, as an example, an embodiment of the invention.

- On the inside of the tank, b, before it is 30 tinned, are made at one or more suitable places according to the size or shape of the tank, recesses, a, of suitable dimensions and shape, for instance, circular recesses of about one inch in diameter. The tank is then
- **35** tinned, and the above mentioned recesses are filled up by soldering thereinto a metal or alloy, c, also tinned (throughout) or not

tinned, which is more electro-positive than iron.

If the liquid (milk) penetrates through  $_{40}$  the pores of the layer of tin and thus simultaneously comes into contact with the iron and with the more electro-positive metal, an electric current is produced which counteracts the currents generated between the iron  $_{45}$ of the tank and its layer of tin, and also endeavors to remove oxygen from the iron.

Experiments have shown that for filling the above mentioned recesses, zinc is the best material, but other metals or alloys which 50are more electro-positive than iron can be used.

What I claim is:

1. A vessel for storing and transporting milk or other liquids, comprising a hollow 55 iron body provided with a tinned inner surface, and with a plurality of pieces of metal which is more electro-positive than iron attached directly upon said tinned surface. 2. A vessel for storing and transporting 60

2. A vessel for storing and transporting 60 milk or other liquids, comprising a hollow iron body having a plurality of recesses formed in its inner surface, a coating of tin upon said surface and within said recesses, and with pieces of metal more electro-positive than iron and fitted within said recesses and attached directly upon the tinned surfaces therein.

In witness whereof I have hereunto set my hand in presence of two witnesses.

NIELS CHRISTIAN NIELSEN.

Witnesses:

MARCUS WALLER, SIGURD ROTKJA.