

E. R. HOYT.
ROLLED METAL.
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1,061,674.

Patented May 13, 1913.

Fig. I.

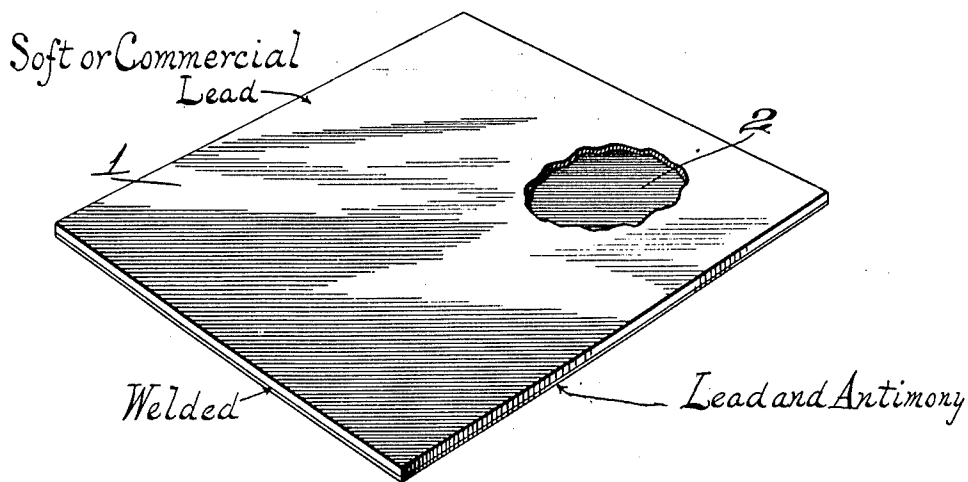


Fig. II.



attest.
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UNITED STATES PATENT OFFICE.

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ROLLED METAL.

1,061,674.

Specification of Letters Patent.

Patented May 13, 1913.

Application filed June 29, 1908. Serial No. 440,887.

To all whom it may concern:

Be it known that I, EDWARD R. HOYT, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Rolled Metals, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the production of rolled metal for use in the manufacture of tanks or vats in which chemicals are placed, the object of the invention being to provide rolled metal of this description which, when used in a chemical tank or vat, has a thick inner layer of commercial lead with which the acid in the tank or vat contacts and a strengthening thin outer layer of lead alloy that is of such nature as to prevent the occurrence of corrosion at the exterior of the tank or vat.

Figure I is a perspective view of a rolled sheet of metal made in accordance with my invention and with one of the layers of the metal partly broken out. Fig. II is an enlarged fragmentary edge view of the sheet shown in Fig. I.

In the accompanying drawings: 1 designates the thick inner layer of the layers of a sheet of rolled metal constructed in accordance with my invention and which consists of what is known to the trade as soft or commercial lead.

2 is a second thin outer alloy layer that is perfectly welded to the inner layer 1 and consists of an alloy composed of lead and antimony, the two layers being so united as to be distinct from each other and to prevent the commercial lead layer from being contaminated with antimony from the alloy layer.

When the rolled metal herein described is used in the manufacture of a chemical tank or vat, the commercial lead layer of the

metal is placed at the inside of the vat and therefore receives the contact of any acid placed therein, this arrangement being necessary for the reason that commercial lead is required in the construction of works in which sulfuric acid or other chemicals are to be manufactured. The alloy layer which is at the exterior of the tank serves as a backing for the commercial lead layer that is softer than the alloy layer and therefore stiffens the metal and prevents buckling and cracking of the metal. In addition the alloy layer, which is practically non-corrodible, provides a surface for the rolled metal that is not subject to corrosion, due to the action of the fumes of chemicals thereon, as such surface would be if some other substance than antimony was used as a stiffening agent in the alloy layer.

In the manufacture of my rolled metal the commercial or soft lead may constitute from five to ninety-five per cent. of the entire thickness of the metal and the alloy layer may contain from two to twenty per cent. of antimony, not exceeding five per cent. of another ingredient, other than antimony and lead, and the balance of soft lead.

I claim:—

1. A rolled metal sheet for tanks or vats, comprising a thick inner layer of commercial lead, and a thin outer alloy layer containing lead and antimony, the latter being at least two per cent. of the whole of said alloy layer.

2. A rolled metal sheet for tanks and vats, comprising a thick inner layer of commercial lead, and a thin outer alloy layer containing lead and antimony, the latter being from two to twenty per cent. of the whole of said alloy layer.

EDWARD R. HOYT.

In presence of—

BLANCHE HOGAN,
HOWARD G. COOK.