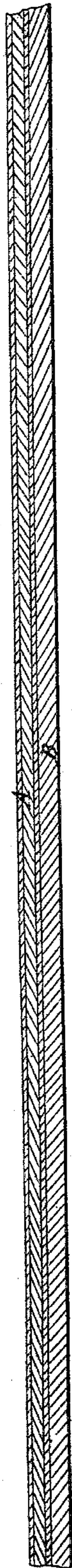


JOHN J. LOCKE.

Improvement in Sheet Metal.

No. 115,748.

Patented June 6, 1871.



Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN J. LOCKE, OF WHITESTONE, NEW YORK.

IMPROVEMENT IN SHEET METALS.

Specification forming part of Letters Patent No. 115,748, dated June 6, 1871.

To all whom it may concern:

Be it known that I, JOHN J. LOCKE, of Whitestone, in the county of Queens and State of New York, have invented a new and useful Improvement in Combination Sheet-Metal Plates; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention consists in combining sheet-zinc with tinned-iron plates, the two being connected together or secured in contact by solder, by which the rusting or oxidizing of the tinned plate is prevented, a result due to a galvanic action generated by contact of the zinc with it.

Tinned-iron plates are most generally used for roofing purposes—that is to say, for flat roofs or those having a slight pitch—and in order to prevent the plates oxidizing it is necessary to keep them well covered with paint, as the tin coating does not perfectly cover the iron even when the coating of the plates is done with the utmost care, for there will be extremely minute pores or openings in the tin to expose the iron. Hence the only way to keep a tin roof in good preservation is to have it painted at short intervals. The same difficulty exists in the use of tinned ware for culinary vessels, cups, wash-basins, &c. By my invention I effectually obviate this difficulty.

The accompanying drawing represents a section of my combination sheet-metal plate.

A represents a tinned-iron plate, and B a sheet of zinc. These two plates are connected together by solder in any proper way; but in

the manufacture of the same on a large scale the most economical plan would probably be to roll the sheets in contact between pressure-rollers when the solder between the plates is in a soft or fused state, and the tin which answers for the covering of the iron of the plates A may answer for a solder. I do not, however, confine myself to any particular process or mode of manufacture. By having the zinc plate and tinned-iron plate thus connected in contact the prevention of the oxidation of the iron is effected, owing, as is generally supposed, to a galvanic action; for iron bars for railings and other purposes, where exposed, are now generally galvanized, as it is termed—that is, immersed in molten zinc and thereby covered with the same. A covering of zinc for sheet-iron plate, however, would not answer for the manufacture of ware which is now made of tinned plate, as it has not a good appearance and cannot be kept bright like a tinned surface.

By my invention, therefore, I obtain the advantage of the galvanic action with the tinned surface, so that sheet-metal plates suitable for roofing purposes and for the manufacture of culinary and other vessels may be produced at a very moderate cost.

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

The combination of sheet-zinc and tinned-iron plates soldered in contact, substantially as and for the purpose herein set forth.

JOHN J. LOCKE.

Witnesses:

WM. F. MCNAMARA,
ALEX. F. ROBERTS.