

UNITED STATES PATENT OFFICE.

FRANKLIN RUDOLPH, OF CHICAGO, ILLINOIS.

PROCESS OF MANUFACTURING TIN-PLATE.

SPECIFICATION forming part of Letters Patent No. 492,588, dated February 28, 1893.

Application filed June 23, 1892. Serial No. 437,688. (No specimens.)

To all whom it may concern:

Be it known that I, FRANKLIN RUDOLPH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in the Manufacture of Tin-Plate, of which the following is a specification.

The article of trade known as tin, or tin plate, consists of sheet-iron coated on both surfaces with tin, ordinarily by dipping the sheet metal into a bath of molten tin. For many purposes of the use of tin plate, only one surface of the sheet-iron is required to be protected by the tin coating, and for such purposes, therefore, tin coating on the other surface is superfluous and adds, unnecessarily, to the expense of production and cost of the article. Among the purposes referred to may be mentioned tin roofs, trunk-coverings and tin cans of the class having labels covering their exterior surfaces, and thus hiding whatever finish the tin coating might otherwise present. In fact the tin on the outer surfaces of tin cans of the class referred to presents the disadvantage of rendering the more difficult perfect fastening, by an adhesive substance, of the labels in place.

My object is to provide a process of manufacturing tin plate whereby the tin coating shall be readily applied to one surface of the sheet-iron without thereby also coating the other. Accordingly I treat two sheets at a time (or even a single sheet folded flatwise upon itself thus forming, practically, two sheets, or which may be subsequently severed in two) of the metal to be tinned, using a surface of one to shield one surface of the other against access to either of the molten tin, by placing them flatwise together and subjecting them simultaneously to the coating operation, either by dipping them in a bath of molten tin or running them between the rollers of a

suitable coating machine which may be supplied with the molten tin coating material from a bath or fount as in printing or painting and varnishing machines. When the process of coating is that of dipping or immersing the double sheets in a bath of molten tin, particularly, they should be sealed about their edges to prevent access between them of any of the molten tin. The sealing may be effected with wax, putty, glue or the like, or in any effective manner. Or, if it be desired to observe the precaution stated of preventing access between the sheets of the molten tin, another way of accomplishing it is to coat the surfaces to be left untinned with a substance, such as oil or asphaltum, that will prevent adhesion to them of the molten tin.

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

1. The process of manufacturing tin plate having one surface uncoated with tin, which consists in placing flatwise together two sheets of the sheet-iron to be tinned, thereby causing the metal sheets mutually to shield each other against access to their opposing surfaces of the molten tin, and subjecting the said sheets together to the tin-coating operation, substantially as described.

2. The process of manufacturing tin plate having one surface uncoated with tin, which consists in placing flatwise together two sheets of the metal to be tinned and sealing the edges, thereby causing the metal sheets to be shielded against access to their opposing surfaces of the molten tin, and subjecting the said sheets together to the tin-coating operation, substantially as described.

FRANKLIN RUDOLPH.

In presence of—

J. N. HANSON,
M. J. FROST.