A. KLEIN.

METHOD OF MAKING A LEAD COATED COPPER SHEETING.

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Fig. 1,

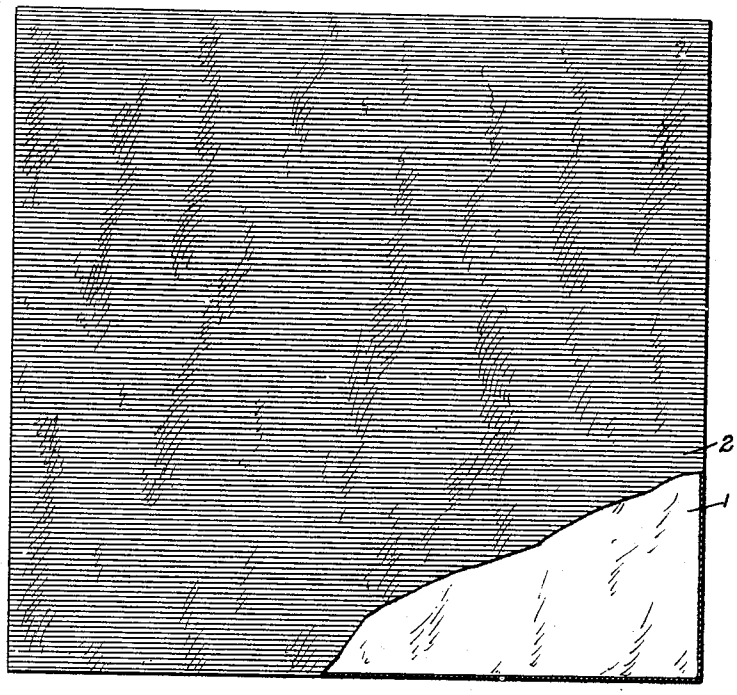


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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METHOD OF MAKING A LEAD-COATED COPPER SHEETING.

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To all whom it may concern:

Be it known that I, ADOLPH KLEIN, a citizen of the United States and a resident of the city of New York, borough of Bronx, in the county of Bronx and State of New York, have invented a new and Improved Method of Making a Lead-Coated Copper Sheeting, of which the following is a full, clear, and exact description.

This invention relates to coated metallic sheeting, and has particular reference to a lead-coated copper sheeting and method of making the same.

An object of the invention is to provide a lead-coated copper sheeting and method of making the same whereby all the beauty of lead for use on buildings, in the shape of gutters, leaders, etc., may be retained and at the same time retaining all the good qualities of copper where used for the aforementioned purposes.

Another object resides in the provision of a method whereby this article of manufacture may be described and economically produced with a minimum of expenditure of time and labor.

A further object resides in the particular procedure whereby a lead-coated copper article of manufacture is produced having an artistic, antique and weathered appearance which adds beauty to any structure with which it is used.

The sheeting is shown in the drawings, of which—

Figure 1 is a plan view of a sheet partly broken away to show the base metal; and

Figure 2 is a section.

In the performance of my method, I take a sheet of copper, such as 1, of any suitable quality and dimensions, and, preferably, run it through a mangle machine, the roller surface of which is not smooth but very uneven. By this step I mangle or make uneven the surface of the copper sheet. This unevenness may also be produced by hammering or beating, to give the sheet the uneven, artistic, antique appearance usually found in beaten copper.

After being mangled the sheet is washed with a solution of any suitable chemical for the purpose of removing any dirt, grease, oil or other impurities, which solution, preferably, is zinc chloride. After thus being washed, the sheet is run in any suitable manner through a bath of molten lead. The immersion in the lead may take place as many times as desired and for as long a period of time as is necessary to produce the proper coatings, such as 2 and 3. After the sheet has cooled, it is washed with any suitable oxidizing agent, which may be, and is preferably, a solution of sulphuric acid, or of sulphate of iron or zinc, or a solution of sodium or potassium chloride, which agents accelerate the action of nature and oxidize the lead surface.

By the performance of the above-mentioned steps, I produce in a simple and economical manner a coated sheeting for any desired use, which has an antique, artistic appearance, usually resident in lead material, and which at the same time, retains all the advantageous properties and qualities of copper.

What I claim is:

1. The method of producing lead-coated copper sheeting, which comprises mangling the copper to produce an uneven, irregular surface thereon, treating the copper surface with a cleansing agent, passing the copper surface through a lead bath, and then treating the lead surface with an oxidixing agent after it has cooled.

2. The method of producing lead-coated copper sheeting, which comprises mangling the copper to produce an uneven, irregular surface, cleaning the copper with a solution of zinc chloride, running the copper through a bath of molten lead, and then oxidizing the lead surface with sulphates of iron and zinc and sodium or potassium chloride.

3. The method of producing antique lead-coated copper sheeting, which comprises mangling the copper to produce an irregular, uneven surface, cleaning the copper surface with zinc chloride, running the copper through a bath of molten lead, and then treating the lead, after cooling, with an oxidizing agent to produce a weathered appearance.

ADOLPH KLEIN.