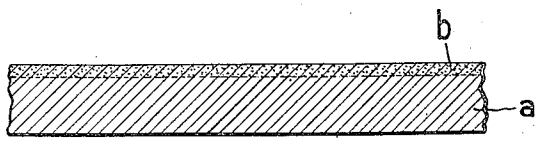
May 5, 1925. 1,536,524

V. PFERSDORFF

PROCESS FOR THE MANUFACTURE OF ARMOR PLATING

Filed Aug. 8, 1922



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Patented May 5, 1925. 1,536,524

UNITED STATES PATENT OFFICE.

VICTOR PFERSDORFF, OF HAYANGE, LORRAINE, FRANCE.

PROCESS FOR THE MANUFACTURE OF ARMOR PLATING.

Application filed August 8, 1922. Serial No. 580,547.

To all whom it may concern:

Be it known that I, VICTOR PFERSDORFF, a citizen of the French Republic, and resident of Hayange, Lorraine, France, have invented a new and useful Process for the Manufacture of Armor Plating, of which the following is a full, clear, and exact specification.

This invention relates to a process for the improvement of armor plating by means of a hardening material added to the metallic mass thereof. It consists in distributing a granular hardening material, of the abrasive type, such as corundum, carbonundum or the like, over the metallic plating in the form of a layer or stratum and pressing it thereinto in a warm state to form an integral strengthening and protecting layer on the metal plating, which is particularly efficient against missiles of all kinds and in general considerably increases its resistance to penetration. This hardening material is not introduced irregularly into the metal for alloy purposes or merely as ballast, but in such a manner as to provide throughout a regular or uniform strengthening layer or stratum which by reason of its granular structure at the surface of the armor plating renders more difficult the penetration of shells and the like into the mass of the metal.

The quantity to be employed and the method of admixture of the hardening material can vary and may even depend upon the special employment to which the armor plate is to be put.

The artificial hardening material can be introduced into the armor plate to be hardened by applying it, during the rolling of the plate by means of a suitable distributor in the rolling apparatus, over the desired breadth or at the desired parts in layer formation and pressing it into the surface of the hot or heated plate. Strips of greater or lesser width or plates or bars or insertions can be introduced which can be located between the armor plates in order to strengthen these without modifying their structure.

The invention is especially applicable to aluminium, aluminium bronze, nickel steel and the like. Armor plating strengthened in this manner can be employed for all purposes and particularly for flying vessels and machines.

To illustrate the invention, the accompanying drawing shows by way of example a fragmentary portion of an armor plate hardened according to the present invention and wherein *a* represents the plate body, for example of nickel steel, and *b* its hardening covering, for example of carborundum, pressed into the plate body in a warm state thereof.

What I claim is:

A process for the improvement of armor plates by means of hardening material, which consists in distributing a granular hardening material, of the abrasive type, over the metallic plate body in the form of a layer or stratum and in pressing it into said plate body in a warm state thereof to form an integral strengthening and protecting layer on the plate body capable of increasing its resistance to penetration.

In witness whereof I have hereunto signed my name this 26th day of July, 1922, in the presence of two subscribing witnesses.

VICTOR PFERSDORFF.

Witnesses:

AMAND BRAUN,

MARGUERITE HAEHELY.