UNITED STATES PATENT OFFICE.

ANSELME ASTRUC, OF COURBEVOIE, FRANCE.

MANUFACTURE OF BIMETALS.

No. 924,413. Specification of Letters Patent. Patented June 8, 1909.

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To all whom it may concern:

Be it known that I, ANSELME ASTRUC, citizen of the French Republic, residing at Courbevoie, Department of the Seine, have invented certain new and useful Improvements in Manufacture of Bimetals, of which the following is a specification.

The invention has for its object a process for the manufacture of bi-metals with a base of steel or any other metal, that is to say of metallic compounds comprising a metal, such as steel for example, covered on both faces or on one of them only by a casing metal, such as copper, nickel, silver, etc. or by an alloy, such as brass, bronze or the like. This process permits of obtaining perfect adhesion between the metallic casing and its support without melting either the casing or the support, and without interposing any welding preparation between the two metals, as in the usual processes.

The steel or other metal which is to serve as the support is used in the form of large plates or sheets of appropriate thickness. The face or faces to which the casing metal or alloy is to be applied is carefully cleaned and allowed to dry. A sheet of the metal or alloy intended to form the casing is cleaned carefully and allowed to dry. The casing metal is then arranged upon the metal support in such a manner that the latter is covered on one or both of its faces. The whole is heated in a furnace with a reducing atmosphere or at all events a non-oxidizing atmosphere until the metal support attains a temperature adjacent to the melting point of the metal casing; the whole is then passed rapidly through a rolling machine. The composite metal thus obtained is then converted into plates of the desired thickness. The adhesion of the metal support to the metal casing is obtained merely by the pressure of the rolling cylinders. No welding preparation is interposed between the two metals, the contact between which is thus absolutely intimate.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

The herein described process for the manufacture of bi-metals, comprising the cleaning and drying of two separate metallic bodies in sheet form, one of which is less refractory than the other, applying one of said bodies upon and over the other so that the contiguous faces of the two bodies will directly contact, then heating the associated bodies in a non-oxidizing atmosphere at a temperature lower than is required to melt the one body which is less refractory than the other, and then subjecting the associated bodies to the action of pressure rolls to cause the adherence of the two bodies.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANSELME ASTRUC.

Witnesses:
EMILE KLOTZ,
CARL BLUM.