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UNITED STATES PATENT OFFICE.

RICHARD ZULAUF, OF FRANKFORT-ON-THE-MAIN, GERMANY.

MANUFACTURE OF ENAMELED WRITING TABLETS.

No Drawing. Application filed May 26, 1921. Serial No. 472,864.

To all whom it may concern:

Be it known that I, RICHARD ZULAUF, manufacturer, a citizen of the German Republic, residing at Frankfort-on-the-Main, Germany, Stifterstrasse 28, have invented certain new and useful Improvements in the Manufacture of Enameled Writing Tablets, of which the following is a specification.

My invention refers to a process for the manufacture of enameled writing and the like tablets.

As a substitute for the slate tablets which, as is known, have the serious drawback of being very liable to break, writing tablets have been proposed which were made of sheet iron covered with a coating of enamel. In order to render it suitable for writing with slate, lead pencil or chalk and the like, the finished enamel coating was roughened by means of etching agents (such for instance as hydrochloric acid) or by applying certain chemicals to the enamel and stoving again.

It will be evident that enamel coatings subjected to such treatment will consequently be rendered less resistant to external influences, and will tend to crack or scale and the like. These drawbacks appeared especially in writing tablets which had been made by applying a single enamel coating or by even two coats of the same enamel mass.

However, as I have found, enameled writing tablets of very high durability can be obtained, without any subsequent treatment of the stoved enamel coating by working in the following manner:

A first coating of any usual composition is stoved on the iron sheet and thereupon a finishing enamel which differs from the well known masses in so far as a very large (double or three fold) proportion of clay is added in the mill. This gives a matt or dull enamel surface which is easily marked by slate, lead pencil, chalk or the like, does not require any subsequent treatment, adheres firmly to the sheet iron foundation and is very resistant, being consequently very durable and utilizable for a long period.

In accordance with the colour desired, the well known colouring agents are added, the so-called black pigments being mostly employed in order to obtain a product resembling slate.

As an example, 100 kilogs. of a covering or finishing mass (consisting of feldspar, cryolite and enamel spar are mixed in the mill with 20 kilogs. of white clay and 12 to 15 kilogs. of black pigment.

Moreover, I have found that for the purpose of obtaining surfaces quite equal to those of slate writing tablets, it is advisable to add to the finishing enamel mass, when being ground, a small percentage of zirconium fluoride, the addition of clay being somewhat reduced for—say—5 to 10 per cent with regard to the example given above.

What I claim is:

1. A process of manufacturing enamel-coated writing tablets which comprises stoving a first enamel coating of any known composition on a sheet iron foundation and thereupon stoving thereon a finishing coat of matt or dull enamel.

2. In the process as set forth in claim 1, grinding the finishing enamel mass with a disproportionately large addition of clay, and thereupon stoving it on the first coat.

3. A process of manufacturing enamel-coated writing tablets which comprises stoving a first enamel coating of any known composition on a sheet iron foundation and thereupon stoving thereon a finishing coat of matt or dull enamel, said finishing coat being prepared by grinding a fused enamelling mixture of ordinary composition with a considerably larger addition of clay than ordinarily employed.

4. A process of manufacturing enamel-coated writing tablets which comprises stoving a first enamel coating of any known composition on a sheet iron foundation and thereupon stoving thereon a finishing coat of matt or dull enamel, said finishing coat being prepared by grinding a fused enamelling mixture of ordinary composition with substantially 15 per cent of clay.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD ZULAUF.

Witnesses:
ADOLF BRAUBURGER,
FRANZ STICKEL.