

(No Model.)

A. T. CROSS.

METHOD OF ENAMELING OR JAPANNING HOLLOW ARTICLES.

No. 303,817.

Patented Aug. 19, 1884.



FIG. 1.



FIG. 2.

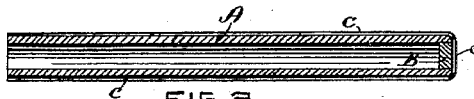


FIG. 3.



FIG. 4.



FIG. 5.

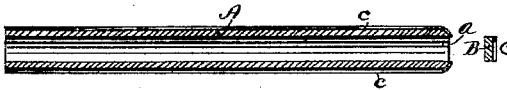


FIG. 6.

WITNESSES:

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METHOD OF ENAMELING OR JAPANING HOLLOW ARTICLES.

SPECIFICATION forming part of Letters Patent No. 303,817, dated August 19, 1884.

Application filed July 17, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALONZO T. CROSS, of Providence, in the State of Rhode Island, have invented an Improvement in the Method of Enameling or Japaning Hollow Articles, of which the following is a specification.

My invention relates to an improved method for coating hollow articles having an open aperture, so that the coating of enamel or japan may have a sharp terminal line at the boundary edge of the hollow aperture, thus adapting the same to form a clean-cut joint with other parts or materials adapted to enter the said aperture; and my invention consists in applying a temporary removable plug to the aperture prior to the process of coating and baking, with the subsequent forcible removal of the plug.

Figure 1 represents an elevation and partial section of a tube having a rounded end, and adapted, when finished, to form the outer case of a lead or crayon holder. Fig. 2 represents a longitudinal section of the same, showing an inserted plug by means of which the aperture at the rounded end is closed preparatory to enameling or japaning. Fig. 3 represents a longitudinal section of the same, when provided with a coating of enamel or japan. Fig. 4 represents a longitudinal section of the enameled or japanned tube with the plug removed, thus leaving a sharply-finished edge adapted to form a close joint with the adjoining parts of a lead or crayon holder. Fig. 5 is a plan view, and Fig. 6 an edge view, of a pasteboard plug adapted for closing the aperture of the tube and for subsequent ready removal to form the properly-finished edge.

In the accompanying drawings, A represents a tube one end of which is rounded from the outer side, *b*, to a sharp edge at the aperture *a* of the central bore; and heretofore in the process of enameling or japaning such tubes it has not been found practicable to secure the desired regularity in the finish at the rounded end of the tube, especially at the junction of the outer surface with the bore *a*; and in order to successfully accomplish the desired result, I have adopted the improved method of placing a narrow removable plug,

B, within the aperture *a*, and I preferably make the plug B of pasteboard, on account of the economy of manufacture and the adaptability of the material for the purpose required; but other suitable materials may be used. The plug B is inserted into the orifice *a* of the tube A so that the outer side of the plug will come flush with the end of the same. I then apply a continuous enamel or japan coating, *c*, to the tube A and plug B, as shown in Fig. 3, after which I drive out the plug B, as shown in Fig. 4; and practice has shown that the result of this method is the production of a desirably-true edge, which is adapted to form a practically-perfect joint with the projecting parts of a lead or crayon holder.

Although I have shown my invention, as applied to the manufacture of the case-tubes of lead or crayon holders only, it will be understood, of course, that I do not limit my invention to such tubes, but include the employment of a temporary removable plug inserted flush with the outer surface, for producing a finished edge at the open aperture of any hollow, enameled, or japanned article.

I am aware that removable plugs extending beyond the continuation of the exterior surface of the hollow article have been heretofore employed to prevent the flow of enamel or japan into the cavity of the same; but the removal of a plug so arranged will not produce the effect desired.

I claim as my invention—

The improved method of forming a sharply-defined boundary-line at the enameled or japanned surface of a hollow article, which consists in applying a temporary removable plug flush with the outer surface of the external aperture of the hollow article, and after coating the exterior of the article and removable plug with enamel or japan and baking the same, forcibly removing the plug, whereby a sharply-defined edge will be produced, substantially as described.

ALONZO T. CROSS.

Witnesses:

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JOHN S. LYNCH.