

M. H. KEYT.
 APPARATUS FOR REMOVING TARNISH FROM METALS.
 APPLICATION FILED FEB. 2, 1910.

959,227.

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Fig. 1.

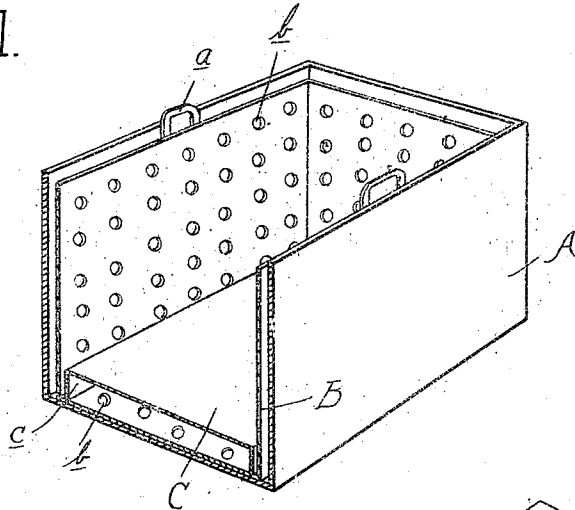


Fig. 2.

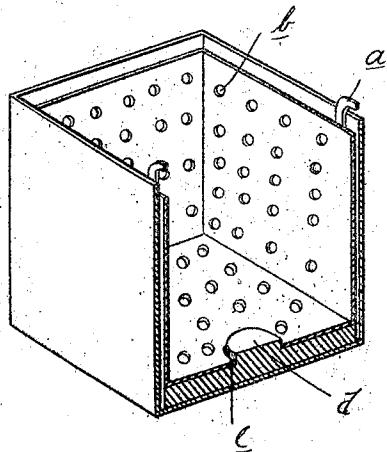


Fig. 3.

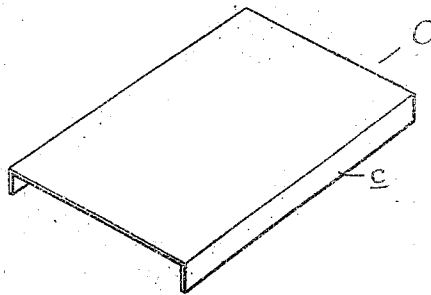
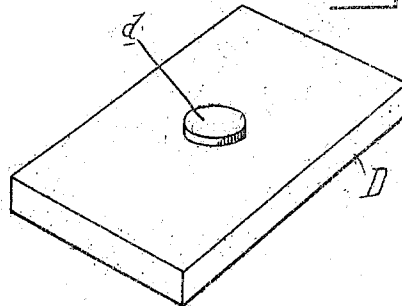


Fig. 4.



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APPARATUS FOR REMOVING TARNISH FROM METALS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARSHALL H. KEYT, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Apparatus for Removing Tarnish from Metals, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates primarily to a novel and simple construction of apparatus for removing the tarnish from metals, such as silverware, and it consists in the peculiar construction thereof, in the novel arrangement and combination of parts, and in various details of construction, as will be more fully hereinafter set forth and claimed.

In the drawings,—Figure 1 is a sectional perspective view of the preferred form of apparatus for carrying out the steps of the tarnish removing process; Fig. 2 is a similar view of a modified construction; and Figs. 3 and 4 are detached perspective views of the metallic members constituting the anodes of the apparatus.

The method or process in general consists in immersing in a suitable electrolyte a metal of a more electro-positive character than the article from which the tarnish is to be removed; in placing within the electrolyte, and in contact with the immersed metal constituting the anode—the metallic body that is to be cleansed; and, finally, removing the article and subjecting the same to a rinsing bath.

A represents a container of a suitable size and form for holding the electrolyte as well as the other parts of the apparatus. It is preferably made of an enameled ware impervious to the action of the electrolyte, and which may be readily cleansed.

Removably mounted within the container described is a carrier B for the article or articles from which the tarnish is to be removed. This is also formed of material similar to the container, for the reasons hereinafter stated, and is preferably box-shaped in configuration, producing a rigid structure that will withstand the usage to which it is subjected.

a represents suitable handles upon the carrier or tray for effecting its removal, and b are a plurality of apertures formed in the sides and bottom portion of the tray through

which the fluid may drain out when the tray is lifted out of the receptacle.

The reference-letter C designates a metallic plate constituting the anode of the apparatus and formed usually of zinc. This I have shown in Fig. 1 as resting upon the bottom of the tray section in a position where contact can be readily made with it by the articles to be cleansed.

In the method described, as the tarnish is removed from the metal a coating adheres to the anode, and it is essential for the proper operation of the method that this coating be removed and the metal forming the anode kept bright, in which case the electrolyte may be used over and over again. To permit of the easy removal of the anode, and a thorough scouring and cleansing of the same, I have constructed it in the form of a flat sheet of metal, presenting a plane surface to contact with the tarnished articles, which can be very easily and thoroughly cleansed. The plate is made some little shorter than the tray in which it is seated, and its sides are bent downwardly, as at c, leaving end portions that may be readily grasped by the operator. The electrolyte is an alkaline solution containing sodium carbonate and bicarbonate.

In the operation, the anode is placed within the tray, and upon it are arranged the various articles—as silverware—from which the tarnish is to be removed. The tray is then deposited within the solution within the container, when the electrolytic reaction immediately takes place, is left therein for a short period of time, and then removed, the liquid draining off from the tray through the various openings. The tray with its contents is then dipped within a rinsing bath, and subsequently the article or articles removed and dried, when they have the bright cleansed appearance desired.

It will be noticed from the description of the apparatus that at no time is it necessary for the operator to place the hands within the solution; and, further, that all of the parts of the apparatus may be easily cleansed and such parts as require it readily scoured.

In Fig. 4 of the drawings a modified form of anode is illustrated, consisting of a plate member D somewhat similar to the member C, but adapted to rest upon the bottom of the container instead of the tray, and being formed with a projection d that is designed

to extend upwardly through a corresponding opening *e* in the tray bottom. The surface of the anode within the tray exposed to the silverware or other material that is to be cleansed is sufficient for carrying out the method.

The enameled container and tray are particularly advantageous in use, as in addition to being capable of being readily cleansed, the material, being impervious to the action of the electrolyte, effectively prevents the attraction to the silverware or other metal that is to be cleansed of sulfids. In the ordinary tin or galvanized receptacles, the coating is quickly worn off in places, and the electrolyte acting on the exposed parts sets free the sulfur contained in the iron, causing it to settle on the silver or other ware, and tarnish it, thus defeating the primary object of the invention.

What I claim as my invention is,—

1. In an apparatus for removing tarnish from metals, the combination of a receptacle and a removable article-support therein, each formed of non-corrodible material, and a removable metallic member forming the

anode of the apparatus, presenting a surface within the carrier for contact with the article or articles therein.

2. In an apparatus for removing tarnish from metals, the combination of a receptacle and a carrier removably mounted therein, each formed of non-corrodible material, and a flat metallic plate constituting the anode of the apparatus arranged within the carrier and having depending portions contacting with the carrier bottom.

3. In an apparatus for removing tarnish from metals, the combination of an oblong receptacle and a box-shaped perforated tray removably mounted therein, each formed of non-corrodible material, and a flat metallic plate constituting the anode of the apparatus arranged within the tray and having downturned flanges at two of its sides contacting with the tray bottom.

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

MARSHALL H. KEYT.

Witnesses:

EDWIN B. KEYT,
MABEL GREGORY.