Dec. 30, 1924. 1,520,850

A. S. BOYER

DEPOSITING PLATE FOR LEAD MOLD IMPRESSIONS

Filed July 3, 1923

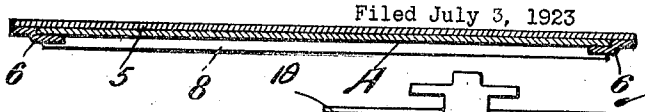


Fig. 2.

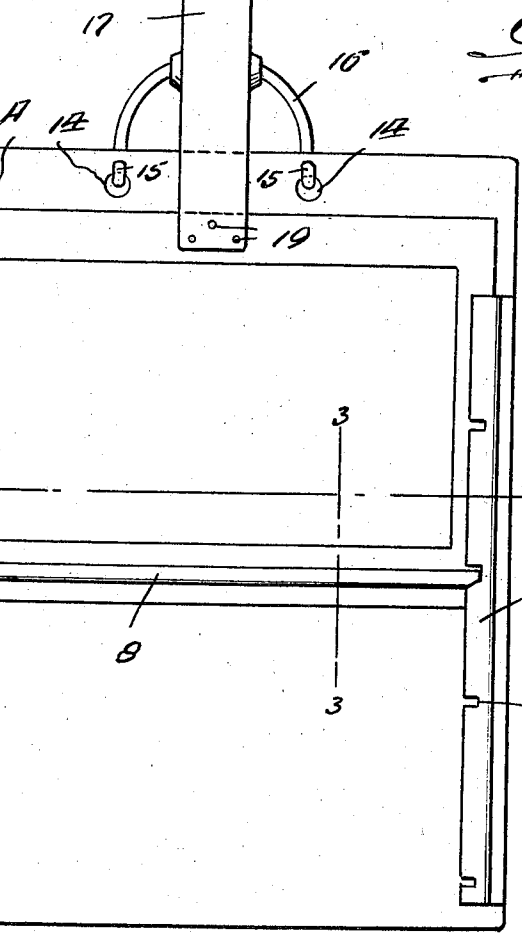


Fig. 1.

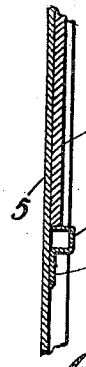


Fig. 3.

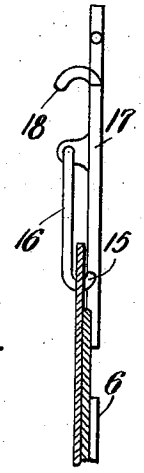


Fig. 4.

Fig. 7.

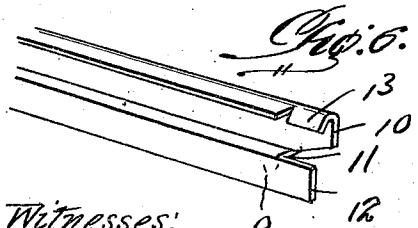
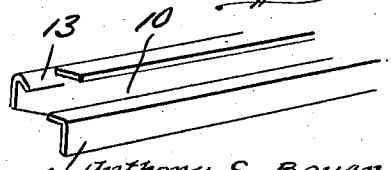


Fig. 6.



Witnesses:
F. L. Fox

Anthony S Boyer.
Inventor

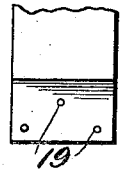


Fig. 5.

By Clarence O'Brien
Attorney

Patented Dec. 30, 1924. 1,520,850

UNITED STATES PATENT OFFICE.

ANTHONY S. BOYER, OF ST. PAUL, MINNESOTA.

DEPOSITING PLATE FOR LEAD MOLD IMPRESSIONS.

Application filed July 3, 1923. Serial No. 649,219.

To all whom it may concern:

Be it known that I, ANTHONY S. BOYER, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Depositing Plates for Lead Mold Impressions, of which the following is a specification.

My invention relates to an improvement in depositing plates for receiving lead mold impressions to be used in electroplates, and has for its primary object the provision of such a plate wherein the same consists of either a granite or enamel ware for thus producing a plate that will be absolutely acid resistant.

It has long been a want in the electrotyping industry to procure a depositing plate for receiving lead mold impressions to be used in electroplating that would be absolutely resistant to acid, and in an endeavor to obtain this, numerous complicated methods have been attempted which result in a great expenditure of both time and labor. One way of applying these lead impression plates, is by burning the edges of the lead sheet or impression into wax cases, which are made by pouring a warm mineral wax over metal sheets approximately four-sixteenths of an inch thick, which when combined with wax are heavy in handling, and are undesirable, and require a copper connection pasted in wax, which must be soldered to the lead impression, and that consequently requires a great deal of time and energy.

Another way of providing an acid resistant depositing plate is by nailing the impressions on to these cases, and bending the nails on back of the plate, but this method also requires time and work as the back must be painted with hot wax to prevent a deposition of mineral or copper on back of the case, which has only been mentioned as made of metal.

In view of the above, it is therefore, the purpose of this invention to provide a depositing plate for receiving lead mold impressions that will effectively overcome the above methods, that require considerable time and labor, and as above set forth, I overcome such disadvantages by providing a depositing plate that is made of granite or enamel ware, and therefore absolutely acid resistant.

A further object of this invention is to provide such a plate wherein the same may have associated therewith lead mold impressions of various lengths, and wherein an effective detachable connection is provided between these lead mold impressions, and the source of current, which connection is in reality carried by the plate, and also functions as a carrying means for the plate.

The nature and advantages of the invention will be better understood when the following detailed description is read in connection with the accompanying drawings, the invention residing in the construction, combination, and arrangement of parts as claimed.

In the drawings forming part of this application, like numerals of reference indicate similar parts in the several views, and wherein:

Figure 1 is a front elevation of my improved depositing plate, the same being shown as carrying a lead mold impression.

Figure 2 is a detail longitudinal cross section of Figure 1, taken substantially upon the line 2—2 of Fig. 1.

Figure 3 is a fragmentary vertical cross section upon the line 3—3 of said Figure 1.

Figure 4 is a view similar to Figure 3, but taken upon a different line of Figure 1, for more clearly showing the carrying handle for the plate, as well as the means for electrically connecting the lead mold impression to the source of current.

Figure 5 is a fragmentary rear elevation of the lower end of this connection, and

Figures 6 and 7 are perspectives of different ends of a cross bar that forms an essential part of my depositing plate, whereby lead mold impressions of varying lengths may be employed in conjunction with the plate.

Now, having particular reference to the drawings, my novel depositing plate comprises a backing 5, preferably of the configuration as shown in Figure 1, and consisting of a granite or enamel ware. Upon opposite sides of this backing 5 and extending parallel with said sides thereof are guide members 7 for receiving the marginal vertical edges of a lead mold impression designated A. As more clearly shown in Fig. 2, these guide members 6 constitute strips of granite or enamel ware that are joined at their outer edges in any manner desirable to the edges of the backing 5, the inner portions of these guide members being

raised with respect to the backing, and formed with suitably spaced notches 7, the notches of one guide member being in transverse alinement with the notches of the opposite guide member.

Removably arranged between said guide members 6 and adapted to extend horizontally therebetween is a supporting guiding bar, it being of course understood that this guide bar 8 may be secured at its opposite ends within any pair of the said notches 7, and is adapted for supporting the lower edge of the lead mold impression in a position shown in Figure 1, it being manifest that at different positions of said bar between the guide members 6, lead mold impressions of varying lengths may be associated with my improved depositing plate.

This supporting bar 8 includes a strip of granite or enamel ware, and comprises a lower portion 9 for face to face contact with the backing 5 as shown in Figure 2, as well as an upper outwardly extending U-shaped portion 10, the top wall of which is adapted for supporting said lead mold impression A as also shown in Figure 3. One end of this bar 8, that is, the end shown in Figure 6, is notched at 11 between the portion 9 and portion 10 of the bar for providing a projecting tongue 12, that engages beneath the guide member 6 at one side of the plate. The opposite end of said bar, that is, the end shown in Fig. 7, has its portion 9 as well as the bottom wall of the U portion 10 cut away, whereby the bar may be raised from this end, and consequently disengaged from the notches. The top wall of the U portion 10 at opposite ends thereof is slit transversely for providing tongues 13, that are bent downwardly as shown, whereby when the bar 8 is engaged at its opposite ends between alined notches in the guide members 6, these tongues 13 will engage behind the lower edges of the notches for effectively maintaining the bar 8 in the position shown in Figures 1 and 3, it being manifest that when it is desired to remove said bar, it is necessary that the same be forced slightly upwardly.

Adjacent the upper edge of the backing 5 and at opposite sides of the central vertical axis thereof, the same is provided with openings 14 for receiving the hooked ends 15 of a yoke 16, which yoke is loosely mounted within a vertical copper plate 17. The upper end of this plate is formed with a cross arm 18, which as shown in Figure 4 is concavo-convex for providing a lifting handle for the plate. The lower end of said plate 17 is mortised upon its inner side, and within this mortised portion are inwardly extending pins 19 that are adapted to be embedded into the lead mold impression A, whereby when said plate is electrically connected to a source of current, this current will be conducted into the mold impression.

It will be obvious from the above description when considered in conjunction with the accompanying drawings, that I have provided a depositing plate for receiving lead mold impressions that will be absolutely acid resistant, and one that may be employed in conjunction with varying sizes of lead mold impressions, and whereby a considerable amount of time and labor will be saved through the employment of my plate.

Although I have herein set forth the most practical embodiment of the invention with which I am at present familiar, it is nevertheless to be understood that minor changes may be made therein, without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:

1. An electroplate support comprising a backing plate, spaced guide members mounted thereon, and having edge portions which are spaced from the adjacent surface of the backing plate, said portions being provided at intervals with notches, and a guide bar adapted to bridge the space between the guide members and having end portions adapted to enter the notches thereof and provided at its ends with downwardly disposed tongues adapted to engage behind the inner portions of the guide members and at the lower edges of the notches thereof.

2. An electroplate support comprising a backing plate, spaced guide members mounted thereon and having inner portions which are spaced from the adjacent surface of the backing plate, the said spaced portions of the guide members having notches located at spaced intervals from each other, a guide bar adapted to bridge the space between the guide members and having end portions adapted to enter the notches, the said guide bar being provided at its ends with tongues adapted to engage behind the inner portions of the guide members and at the lower edges of the notches thereof, said guide bar being provided at one end only with a tongue disposed in alinement with the longitudinal dimension of the bar and adapted to engage between the backing plate and the offset portion of one of the said guide members.

In testimony whereof I affix my signature.

ANTHONY S. BOYER.