The principal object of this invention is to provide mold or case edge holding non-metallic holders for use in plating baths that is capable of detachably securing two molds or cases together while at the same time steadying them against undesirable movement during the plating process.

A further object of my invention is to provide non-metallic detachable side holding frames for molds or cases that materially eliminates the undesirable marginal edge nuggets formed during the plating bath.

A still further object of this invention is to provide marginal rim mold or case holders that may be quickly and easily installed or removed. These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawings, in which:

Fig. 1 is a front view of two of my devices placed around the side marginal edges of two cases.

Fig. 2 is an enlarged plan view of one of my devices being placed on the marginal edge of a case or cases.

Fig. 3 is an enlarged cross-sectional view of the device taken on line 5—5 of Fig. 1 and more fully illustrates its construction.

Fig. 4 is an enlarged longitudinal sectional view of one of my devices.

While my holders may be successfully used for many purposes where it is desired to embrace the marginal edges of one or more sheets, it is particularly adapted for use in holding sheet plates suspended in plating baths and this is particularly true in the process of electrotyping and stereotyping. Electrotyping has been found to be the answer in modern printing surface duplication, especially in regard to volume and speed required in production at minimum cost. Even in the printing of newspapers in great volume it is necessary for many duplicate plates to be made in order that several presses may accomplish the printing. Electrotyping in its application to printing is therefore a process that duplicates the form of type, the engraving of any combination of relief printing surfaces into a composite plate, or as many multiples of each composition as the capacity of the presses require and the volume of work necessitates. The most common type of electrotyping employs wax, graphite, and impression lead. However, the art has recently turned to the use of plastic materials, thereby eliminating the rather slow and costly wax, graphite, and impression lead method.

In either case large plating baths are employed, i.e., the use of copper plating tanks and nickel plating baths. After all of the preliminary operations have been completed the mold or “case” as it is usually called, after being prepared to take plating is deposited in the plating tank. The case is secured to a metallic hanger which in turn is supported on a rod above the tank through which electricity flows from an electric generator with the case itself suspended in the fluid in the tank. The plating material such as copper, nickel, or like is also in the tank and connected with the other pole of the electric generator. The result is electrolysis and plating with the plating being deposited on the face of the mold or case. The problem arises from the necessity of keeping the liquid in the plating tank agitated. This is accomplished either by pumping the solution until positive circulation is set up or by forcing air into the fluid. With the fluid in constant agitation it is a considerable task to keep a plurality of the molds or cases suspended in the tank properly spaced apart from each other and from striking each other. I have overcome this problem by my device, and which I will now describe in detail.

Referring to the drawings, I have used the numerals 10 and 11 to designate two molds or cases to be plated. Although not shown in the drawings, the faces of these two cases are irregular to provide the desired characters or indicia.

The numeral 12 designates the supporting metal clamp engaging the tops of these two cases and supporting it on the rod 13 above the plating bath as shown in Fig. 1. By placing the two cases back-to-back, two cases may be plated at one time suspended from a single member 12.

The numeral 14 designates my holder made of rubber or like flexible resilient material.

The numeral 15 designates a longitudinal slit opening in one side of the block member 14 designed to embrace the marginal edge of one or more cases. The numeral 16 designates a plurality of evenly spaced apart slits cut in the member 14 and extending across the side of the member 15 in which the longitudinal slit opening 15 is situated. These cuts 16 communicate with the slit opening 15 and extend transversely thereof, as shown in the drawings. The transversely arranged cuts 16 aid in making the member 14 more flexible and permitting its easy re-
removal or placement on a case or cases as shown in Fig. 2. In constructing the member 14 the depth of the slit 15 is substantially greater than that of the cuts 16 in order that the molds or cases will tighten within the device after they are forced in a distance beyond the bottoms of the slits 16 as shown in Fig. 3. These members 14 may be placed substantially around the marginal edges of the cases, but in Fig. 2 I show them on the two side edges of the cases with the members 14 extending vertically when the cases are suspended within the plating bath. With the members 14 so placed the two cases will be held securely back-to-back and sufficient weight will be added by the use of the members 14 that the cases will be held against undesirable movement in the tank during the time the plating bath is being agitated as herebefore explained. Obviously, during the plating process, many cases are suspended within the plating bath parallel with each other and even if by accident or agitation one case were to move toward another suspended case the rubber members 14 would first engage each other and prevent the two sets of cases from engaging each other.

Another advantage of my device is the prevention of undesirable nuggets forming on the side edges of the cases. These nuggets would otherwise have to be removed, thereby requiring extra effort and time and waste of material. With the use of my device the marginal edges of the cases that are protected by members 14 will be free from the formation of such incrustations.

Some changes may be made in the construction and arrangement of my improved mold or case holder for use in electrotyping without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. In a mold holder for use in electrotyping, an elongated flexible resilient member substantially rectangular in cross section having a longitudinal slit opening, and a plurality of spaced apart cross cuts communicating with said first-mentioned longitudinal slit opening; said cross cuts each having a depth less than the depth of said longitudinal slit opening.

2. In a mold holder for use in electrotyping, an elongated block member of rubber substantially rectangular in cross section, a longitudinal slit opening in one side of said elongated rubber member, and a plurality of spaced apart cross cuts in said rubber member communicating with said first-mentioned slit opening and each having a depth less than the depth of said slit opening; said elongated member being solid in cross section, except for said slit opening and said cross cuts.

WILLIAM F. CARL.

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