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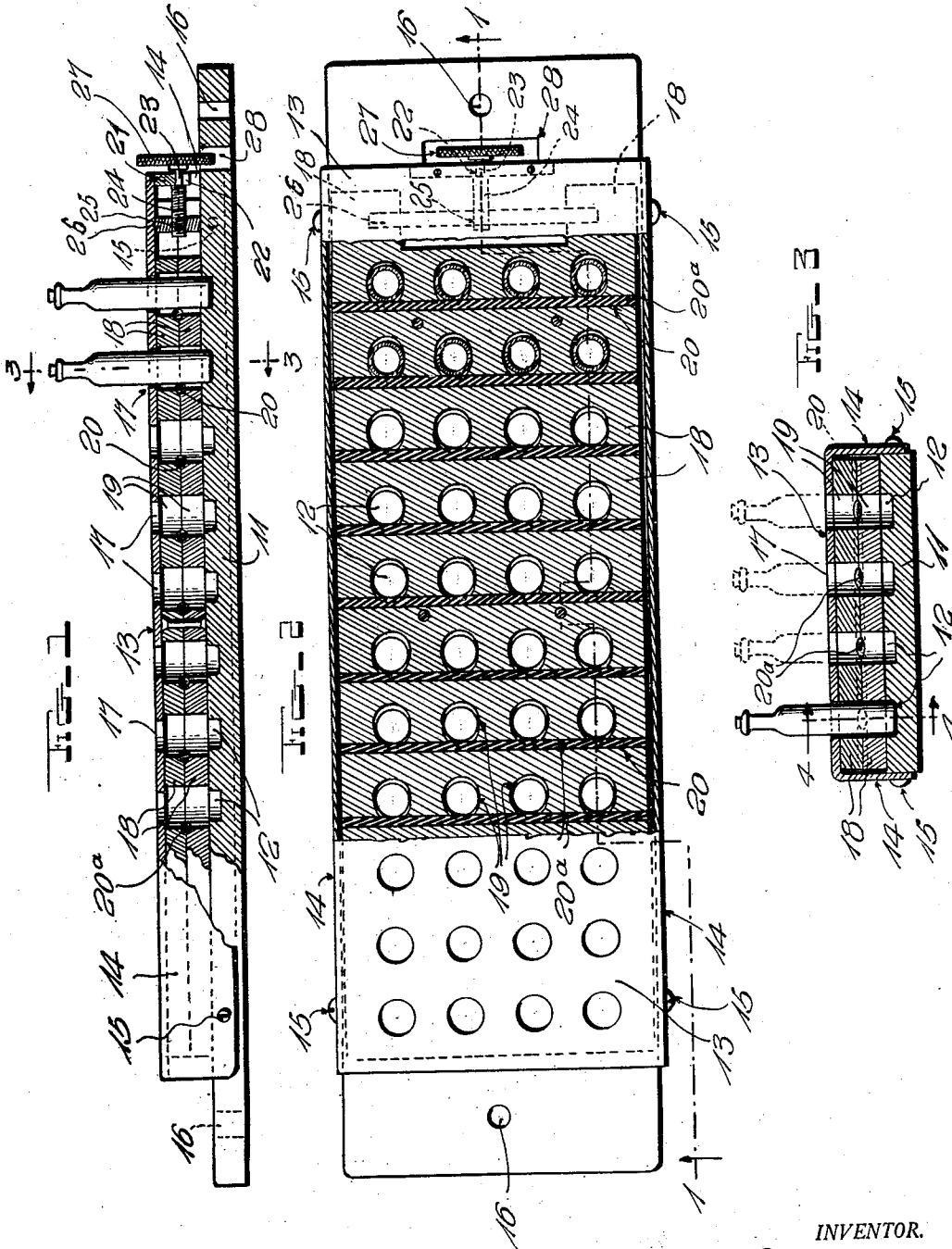
H. B. SILVER

1,869,717

BOTTLE HOLDER

Filed Feb. 12, 1930

2 Sheets-Sheet 1



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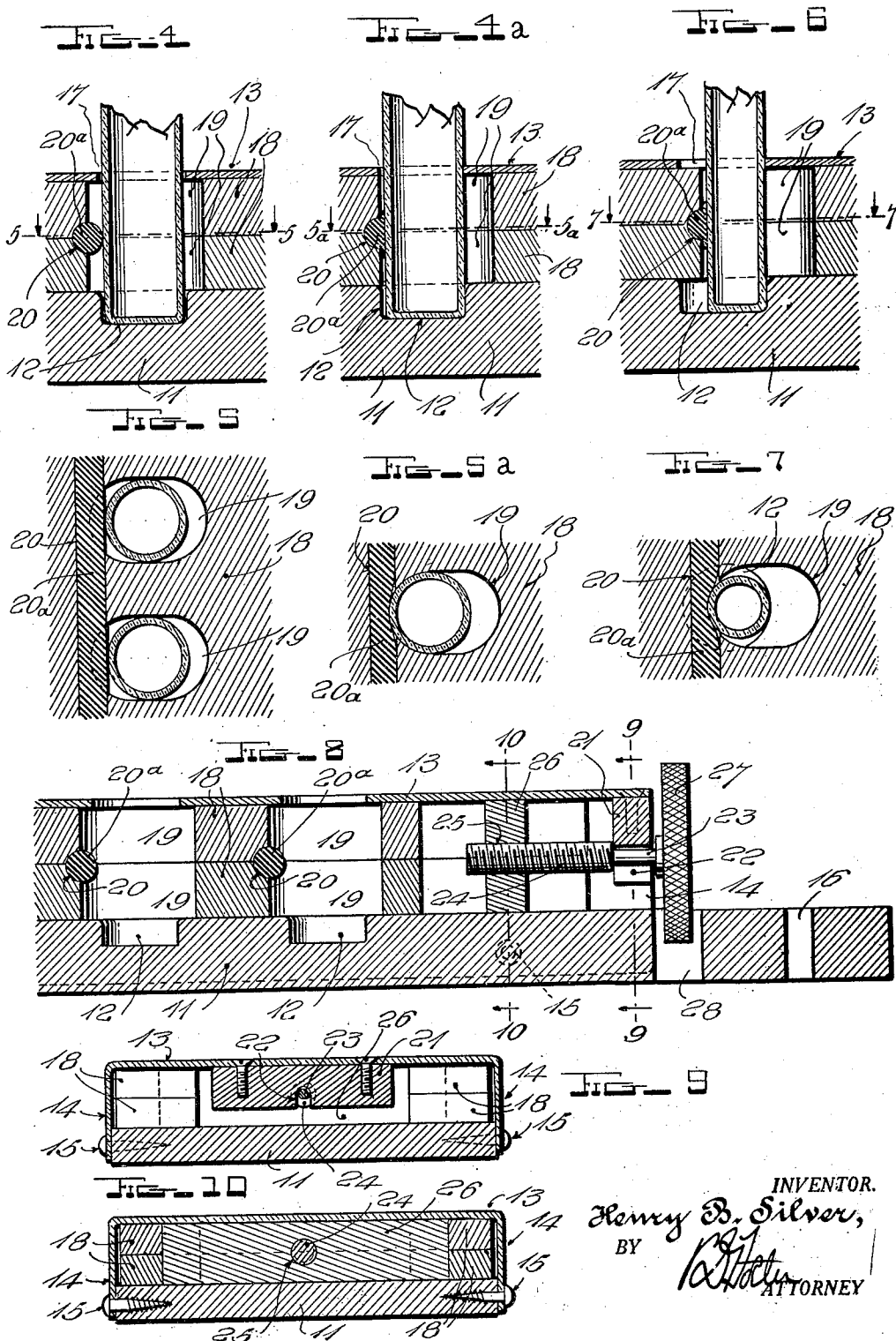
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UNITED STATES PATENT OFFICE

HENRY B. SILVER, OF NEW YORK, N. Y.

BOTTLE HOLDER

Application filed February 12, 1930. Serial No. 427,841.

In an application filed June 24, 1927, Serial No. 201,206 there is disclosed an apparatus for dipping and sealing the closed ends and necks of bottles. This apparatus includes boards for supporting a plurality of the bottles in inverted position so that they may be simultaneously dipped.

The object of the present invention is to provide an improved means for holding the bottles for this dipping operation.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a longitudinal sectional view through the bottle holder, on the line 1—1 of Figure 2.

Figure 2 is a plan view with parts broken away to illustrate the internal structure and arrangement.

Figure 3 is a cross sectional view on the line 3—3 of Figure 1.

Figure 4 is a vertical sectional view on the line 4—4 of Figure 3 and on an enlarged scale, with the vial released.

Figure 4a is a view similar to Figure 4, but with the vial clamped.

Figure 5 is a sectional view on the line 5—5 of Figure 4.

Figure 5a is a sectional view on the line 5a—5a of Figure 4a.

Figure 6 is a view similar to Figure 4a but illustrating a smaller vial in place.

Figure 7 is a sectional view on the line 7—7 of Figure 6.

Figure 8 is a vertical sectional view through the end of the mechanism and showing the clamp operating means.

Figures 9 and 10 are respectively vertical sectional views on the lines 9—9 and 10—10 of Figure 8.

In the embodiment disclosed, a base-board 11 is employed which is provided with rows of sockets 12 to receive the bottoms of the bottles or vials to be held. A casing member, preferably of sheet metal, includes a top wall 13 and side walls 14, the latter overlapping the edges of the base-board 11 and being secured thereto by screws 15 or other suitable fasteners. The casing member, it will be noted, is shorter than the board and

the projecting ends of said board are provided with openings 16 for the reception of the supporting posts of the dipping machine on which the device is intended to be placed. The top wall 13 of the casing member is provided with rows of openings 17 alined with the sockets or openings 12 of the base-board.

The base-board and casing member form an open-ended guideway in which is slidably mounted a clamping plate. This clamping plate is preferably formed of sections 18 suitably secured together and having transverse openings 19 therethrough, these openings being preferably of elongated form and so arranged that they will register with the sockets 12 and openings 17. The clamping plate is furthermore provided with cross openings 20 formed partly in both sections 18. These openings 20 intersect the openings 19. In the openings 20 are fitted rods 20a of yielding material, such as sponge rubber, that thus project into the openings 19 at what may be termed the rear sides of the same.

At one end of the casing is a transverse bridge-piece 21 provided with a notch 22, in which is journaled the unthreaded shank 23 of an adjusting screw 24 that extends longitudinally within the casing and has a threaded engagement at 25 with a cross bar 26 mounted in the adjacent end of the clamping plate. The outer end of the screw is provided with a knurled operating head 27 that is exposed and preferably has its lower portion operating in a slot 28 formed in the base-board behind the opening 16.

With this structure, it will be evident that if the screw is properly turned, the clamping plate can be moved in either direction. Obviously therefore if bottles or vials are placed in the holder, upon the movement of the clamping plate in the proper direction the exposed portions of the yielding rods 20a are caused to bear against the sides of the vials and bring them snugly against the opposite walls of the openings 17 and sockets 12. The vials are thus securely clamped in place and the holder can be inverted and placed on the supporting posts of the dipping

mechanism, as will be clear by reference to the disclosure in the afore-mentioned application. More than that the screw provides sufficient movement of the clamping plate, so that vials of various diameters can be clamped as will be indicated by a comparison of Figures 4a and 5a with Figures 6 and 7.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim, is:

1. A holder of the character set forth, comprising a base board having a plurality of bottomed sockets, a casing secured thereto and having a wall spaced therefrom provided with openings alined with the sockets and side flanges secured to the base board, said base board, casing and flanges forming a guideway, a clamping plate slidable in the guideway and having openings that move into and out of register with the casing openings and board sockets, and a device journaled in the casing and engaged with the plate to move the same.

2. A holder of the character set forth, comprising a base board having a plurality of bottomed sockets, a casing secured thereto and having a wall spaced therefrom, provided with openings alined with the sockets, said base board and casing forming a guideway, a clamping plate slidable in the guideway and having openings that move into and out of register with the casing openings and board sockets, and rods of yielding material in the plate intersecting the openings at one side of the same.

3. A holder of the character set forth, comprising a base board having a plurality of bottomed sockets, a casing shorter than the base board secured thereto and having a wall spaced therefrom provided with openings alined with the sockets, said base board and casing forming a guideway, and the ends of the base board being perforated for mounting on the posts of a dipping machine, a clamping plate slidable in the guideway and having openings that move into and out of register with the casing openings and board sockets, and a screw journaled in the casing and having a threaded engagement with the plate to move the same.

4. A holder of the character set forth, comprising a casing having a guideway and provided with spaced walls having alined openings for the reception of articles to be held, a clamping plate movable in the guideway and having openings movable into and out of register with the openings in the walls,

said plate comprising sections secured together, and yielding material interposed between and held by the sections and intersecting the openings to form cushions therein.

In testimony whereof, I affix my signature.

HENRY B. SILVER.

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