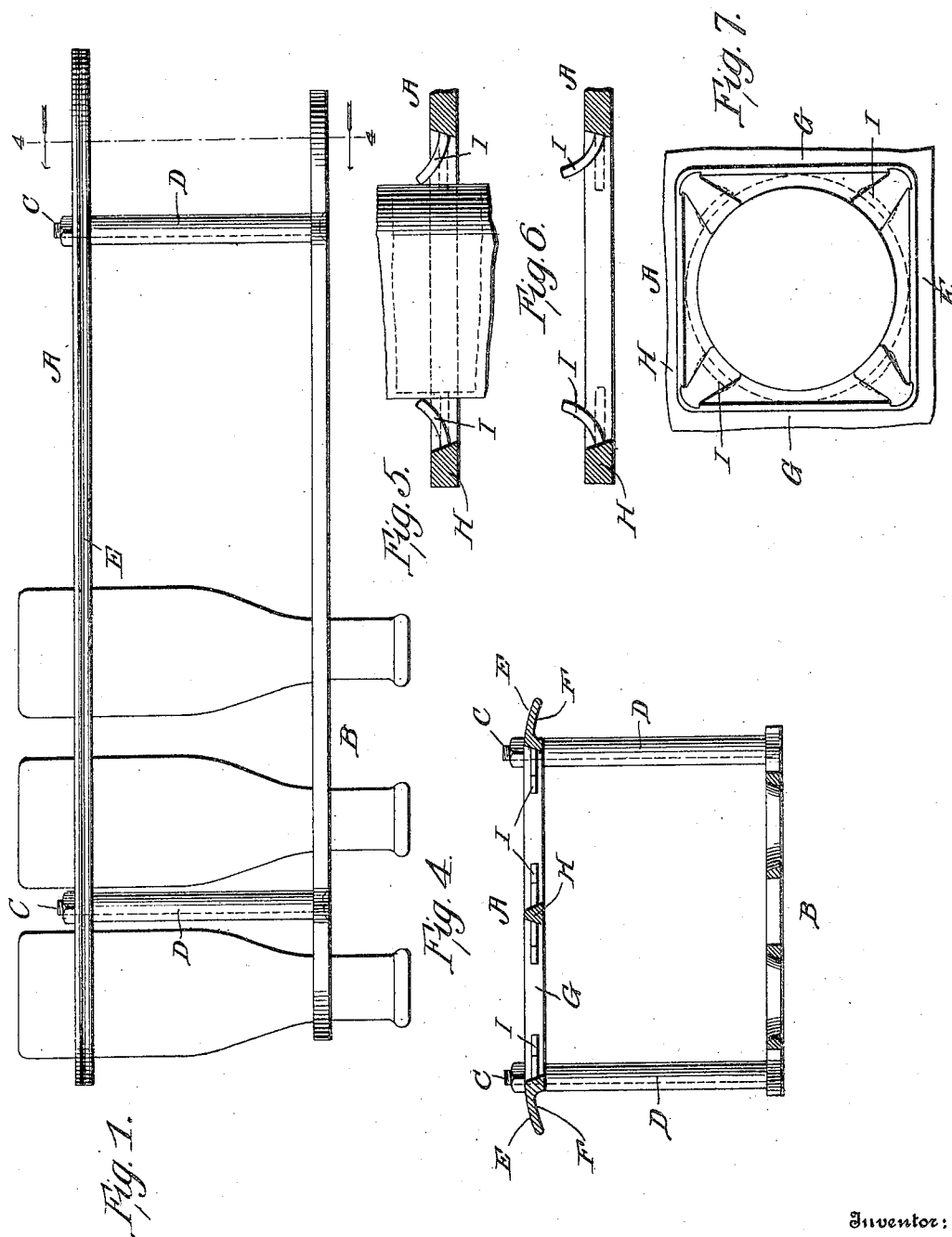


No. 808,824.

PATENTED JAN. 2, 1906.

O. EICK.
BOTTLE HOLDING RACK.
APPLICATION FILED AUG. 10, 1905.

2 SHEETS—SHEET 1.



Witnesses
Alfred Bendine
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By

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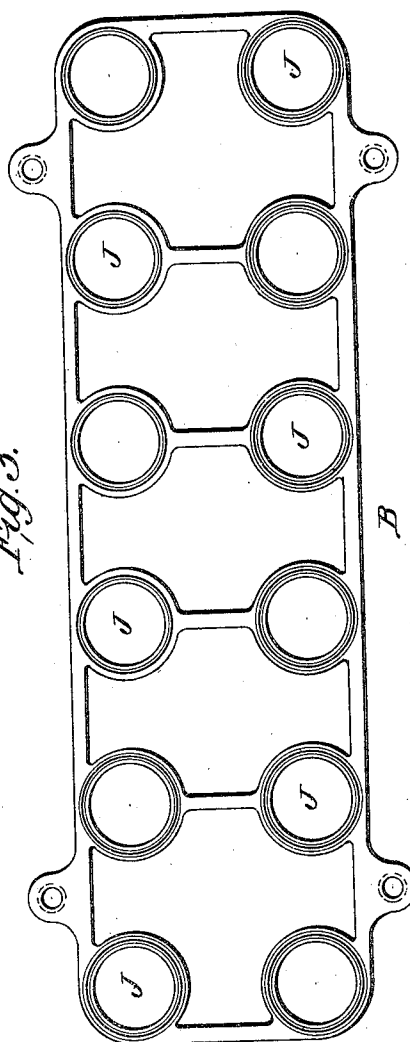
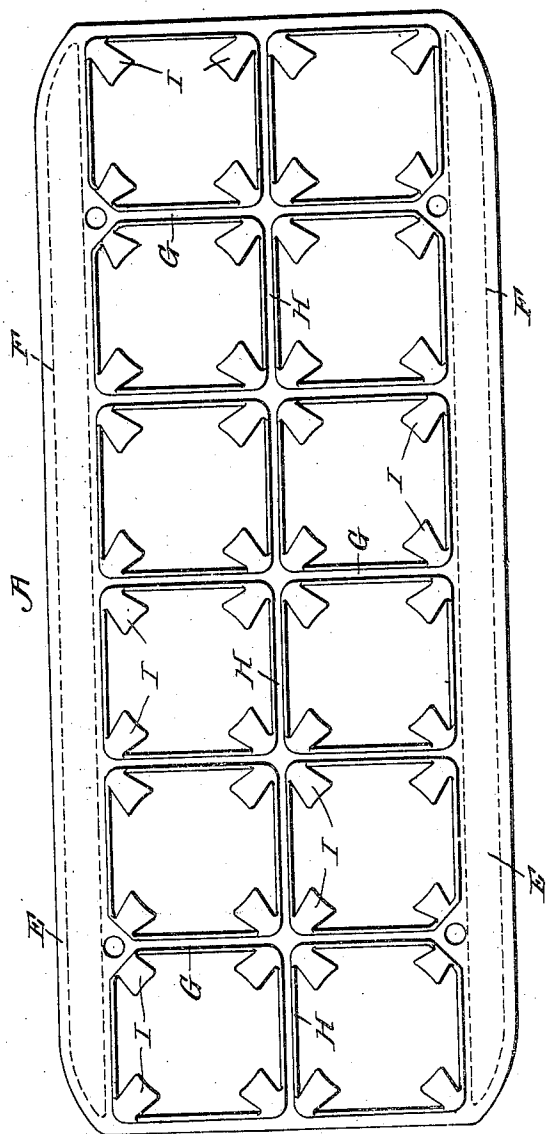
Inventor:

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UNITED STATES PATENT OFFICE.

OTTO EICK, OF BALTIMORE, MARYLAND.

BOTTLE-HOLDING RACK.

No. 808,824.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed August 10, 1905. Serial No. 273,611.

To all whom it may concern:

Be it known that I, OTTO EICK, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Bottle-Holding Racks, of which the following is a specification.

My present invention pertains to improvements in bottle-holding crates, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein—

Figure 1 is a side elevation of the crate, several bottles being shown therein; Fig. 2, a top plan view of the upper member; Fig. 3, a similar view of the lower member; Fig. 4, a transverse vertical sectional view taken on the line 4 4 of Fig. 1; Figs. 5 and 6, detail sectional views of a portion of the upper member, illustrating the manner in which the positioning fingers or lugs may be bent to accommodate bottles of varying sizes or diameters; and Fig. 7, a top plan view of the same.

The object of the invention is to so construct a crate that it may be readily adjusted to accommodate bottles of varying diameters.

It is well known that beer "pints" and wine or champagne pints and quarts vary in diameter; and the present invention has for its object the production of a crate which will accommodate or hold either.

The crate may be said to comprise an upper member A and a lower member B, connected together by suitable bolts C and interposed sleeves D, the sleeves encircling the bolts and serving to space the members A and B a proper distance apart.

The member A, as will be seen upon reference to Fig. 4, is provided with downwardly-projecting flanges E upon the long sides thereof, the under faces of which flanges are curved, as at F. These flanges are designed to rest upon rails or suitable supports in the machines through which the crates are passed—as, for instance, in the washing and sterilizing machine shown in Letters Patent of the United States granted to me under date of June 13, 1905, No. 792,010.

The upper member A is provided with a series of substantially rectangular openings defined by the cross-bars G, the sides of the flanges or ribs E, and the intermediate longitudinally-extending bar or rib H. Projecting inwardly into the rectangular openings thus formed and from each corner thereof is a finger or lug I, the outer end of which is pref-

erably concave or curved upon a radius the center of which is at the center of the rectangular opening into which the finger or lug projects. Each finger or lug is preferably made tapering, so that the outer end is wider than the neck portion thereof adjacent to the cross-bars from which it extends. The fingers being of the same length and the outer ends thereof being curved, as above noted, it will be seen that they will all take a bearing upon the outer face of a bottle the outside diameter of which is equal to the distance between the faces of two diametrically-disposed fingers. A bottle is indicated as being in position in Fig. 7, wherein it will be seen that all four of the fingers bear against the outer face of the body thereof.

The plate or member A, with its integrally-formed fingers, will preferably be made of malleable iron or like metal which can be bent, and inasmuch as the fingers are made relatively thin they may be bent upwardly or downwardly, thereby increasing the distance between the ends thereof.

In Fig. 5 the fingers are shown as having been bent upwardly to a slight extent, and a bottle of a larger diameter than could be accommodated between them when they stood in a truly-horizontal plane is shown in position between the upturned fingers.

In Fig. 6 the fingers are shown as turned upwardly to a greater extent, whereby a bottle of larger diameter may be accommodated between them.

Upon reference to the dotted lines shown in Fig. 7 it will be seen that when the fingers are bent up to a considerable extent the side faces of the bars G and H and the side wall of the adjacent flange E will coact with the ends of the fingers to hold the bottle.

In practice it is designed that the fingers shall be bent or deflected by machinery, though of course it is conceivable that they may be deflected by hand with the assistance of a suitable tool.

The lower member B has the form of a skeleton frame provided with a series of circular openings J, which receive the bottle-necks, the center of each of said openings standing in vertical alinement with the center of a rectangular opening immediately above the same. The openings J may be made of a size sufficient to take an ordinary bottle-neck, and inasmuch as the necks of the bottles do not vary to any considerable extent there is no necessity for changing the member

B when the fingers are adjusted for different-sized bottles.

Having thus described my invention, what I claim is—

5 1. A bottle-holding rack, comprising a member provided with openings to receive the bottle-necks, and a second member spaced therefrom, said second member being provided with a series of openings, and fingers extending in-
10 wardly into the openings.

2. A bottle-holding rack having a plate provided with a series of openings therein, with fingers extending inwardly into said openings and capable of being flexed.

15 3. A bottle-holding rack provided with a plate having a series of rectangular openings therein, a series of fingers extending diagonally into said openings and capable of being flexed.

20 4. A bottle-holding rack having a member provided with a series of substantially rectangular openings, with a finger extending inwardly from each corner of each of said openings toward the center thereof.

25 5. A bottle-holding rack having a member provided with a series of openings substantially rectangular in shape, with a finger extending inwardly from each corner of each of

said openings, the outer ends or faces of the fingers being curved. 30

6. A bottle-holding rack having a member provided with a series of substantially rectangular openings, a finger extending inwardly from each corner of each of said openings, the outer end of each finger being curved, 35 while the neck thereof is reduced, substantially as described.

7. In a bottle-holding rack, the combination of a member provided with a series of circular openings adapted and designed to receive 40 the bottle-necks, a second member spaced from the first member and secured thereto, said second member being provided with a series of substantially rectangular openings the centers of which are coincident with the cen- 45 ters of the circular openings in the first-named member, and a finger extending inwardly from each corner of each of said rectangular openings toward the center thereof.

In testimony whereof I have signed my name 50 to this specification in the presence of two subscribing witnesses.

OTTO EICK.

Witnesses:

HOWARD E. CRUSE,
HARRY R. MILLER.