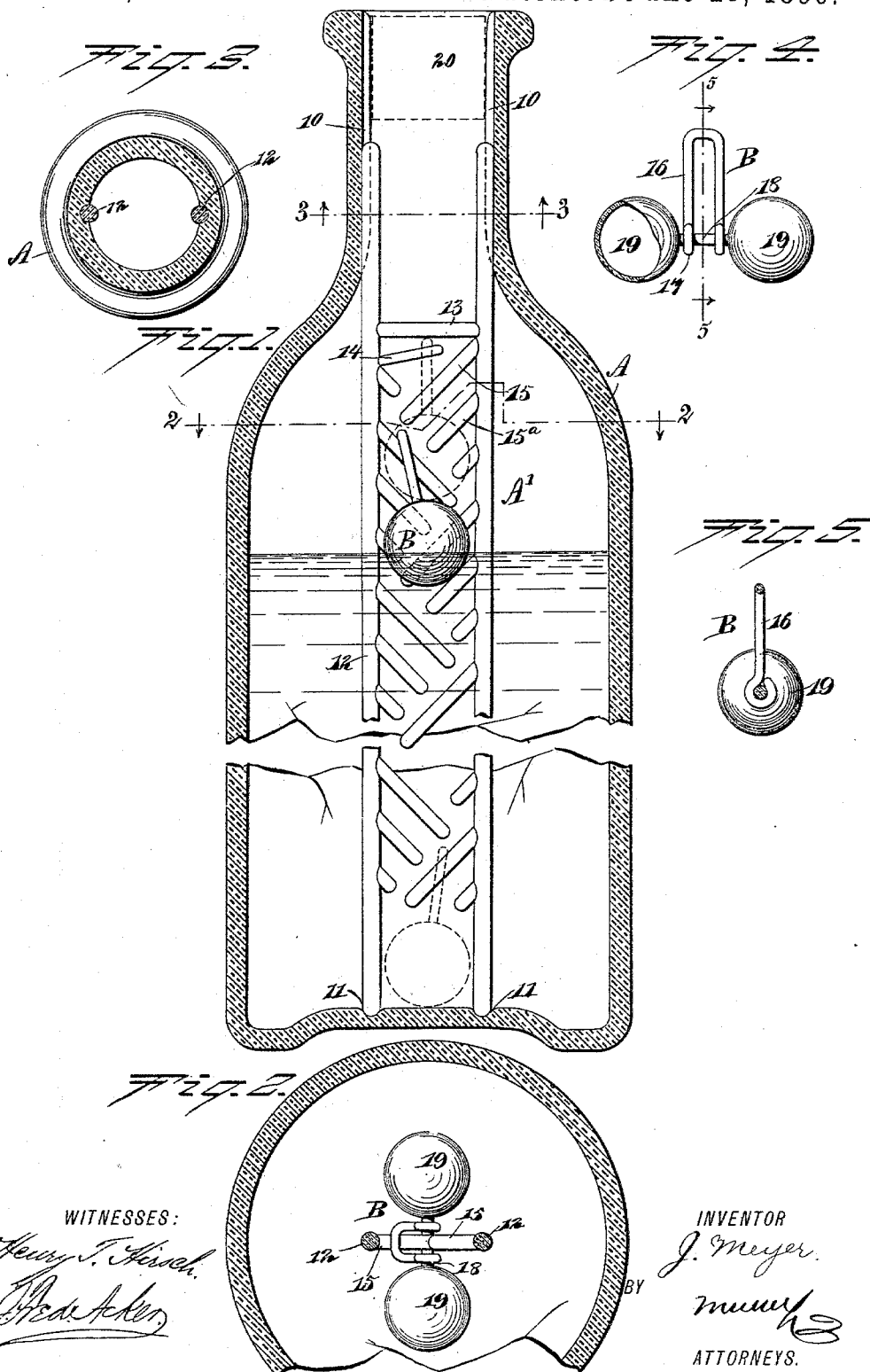


(No Model.)

J. MEYER.
INDICATING DEVICE FOR BOTTLES.

No. 562,637.

Patented June 23, 1896.



WITNESSES:

Henry T. Kirsch
Frederick

INVENTOR

J. Meyer

BY *Mumford*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHANNES MEYER, OF BROOKLYN, NEW YORK.

INDICATING DEVICE FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 562,637, dated June 23, 1896.

Application filed May 18, 1896. Serial No. 591,987. (No model.)

To all whom it may concern:

Be it known that I, JOHANNES MEYER, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Indicating Device for Bottles, of which the following is a full, clear, and exact description.

The object of my invention is to provide a device adapted to be contained in bottles or like receptacles, so arranged that it will indicate at a glance whether the liquid contained in the bottle is that with which the bottle was originally filled or liquid that has been introduced therein after the original contents have been emptied.

A further object of the invention is to construct a device of the above character which will be simple, durable, and economic.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through a bottle, illustrating the indicating device in side elevation. Fig. 2 is a transverse section taken substantially on the line 2 2 of Fig. 1. Fig. 3 is a transverse section taken on the line 3 3 of Fig. 1. Fig. 4 is a side elevation of the floats, a portion of one of them being broken away; and Fig. 5 is a vertical section taken substantially on the line 5 5 of Fig. 4.

In carrying out the invention, the bottle A is provided in its neck portion with opposing longitudinal grooves 10, and in the bottom of the bottle recesses 11 are made, ordinarily two in number.

The indicating device consists of a lattice structure A' and a float B accompanying the said lattice structure.

All parts of the device are preferably made of glass, and the various parts of the lattice structure are preferably circular in cross-section.

The lattice structure consists of two uprights 12, which are contained within the grooves 10 at the neck portion of the bottle and enter the recesses 11 in the bottom. The

two uprights are connected near their upper ends preferably by a cross-bar 13, and below the said cross-bar a substantially straight and shorter bar 14 is located.

Below the cross-bar 13 and the shorter bar 14 a series of inclined bars or steps 15 is located between the side uprights 12, and all of the said step-bars 15 are given a downward inclination, but alternate step-bars are secured to opposite uprights, so that the step-bars are at angles to one another, but a space is made to intervene all of the opposing step-bars, forming thereby a zigzag passage from the top practically to the bottom of the aforesaid lattice structure.

Beneath the main step-bars 15 a series of auxiliary step-bars 15^a are located, graduated in length and having the same inclination and being attached to the same upright as the main step-bar beneath which they are placed. Therefore the zigzag passage from the bottom to the top is interrupted, and while an article may be readily rolled down the zigzag passage between the various steps from the top to the bottom of the structure it cannot be floated upward or rolled upward, owing to the various interruptions caused by the aforesaid minor or auxiliary steps 15^a. Preferably the steps 15 and 15^a are omitted from the extreme upper and lower portions of the structure. The upper portion of the lattice structure is cemented or otherwise permanently secured in the bottle.

The float consists of a yoke 16, which is practically of the same length as the length of the main steps 15, and each member of the yoke terminates in an eye 17, through which a bar 18 is passed, carrying a hollow ball 19 at each end, the balls being at each side of the yoke. All portions of the yoke are preferably made of glass.

Before the bottle is filled with liquid the yoke 16 is hung upon the upper short bar 14, the balls being at each side of the lattice structure, as shown in dotted lines in Fig. 1. The bottle is then filled with liquid and is closed by a cork 20 of any description. When the bottle is filled, the balls 19 will be floated by the liquid, and before the bottle is wrapped for transportation, or is placed on sale, it is shaken so as to dislodge the yoke 16 from the upper support 14, bringing the yoke upon the

uppermost step-bar 15. As the liquid is poured out from the bottle the float will descend to the level of the liquid, the yoke traveling down the zigzag path between the step-bars, until, when all of the liquid has been emptied from the bottle, the float will be at the bottom of the lattice structure and will separate therefrom, and in the event the bottle is again filled will be carried to the top outside of the lattice structure, since it will be practically impossible to cause the yoke and attached balls to travel the upwardly-interrupted zigzag path of the lattice structure to occupy the position it held when the bottle was originally filled, thereby plainly indicating that the contents of the bottle are other than were originally placed therein.

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

1. An indicating device for liquid-receiving receptacles, consisting of a lattice-like structure having a zigzag path uninterrupted in one direction and interrupted in the opposite direction, and a float adapted to travel along the said zigzag path, as and for the purpose specified.

2. An indicator for bottles and like receptacles, consisting of a lattice-like structure arranged to be secured within the bottle, the said structure consisting of uprights, and

steps having a downward inclination extending in series alternately from opposite uprights, whereby the steps are at angles to one another and form between them a zigzag path uninterrupted from one end in direction of the other and being interrupted in the reverse direction, a yoke adapted to travel along the zigzag path between the steps, and floats attached to the said yoke, as and for the purpose specified.

3. An indicator for bottles and like receptacles, consisting of a lattice-like structure arranged to be secured within the bottle, the said structure consisting of uprights and steps having a downward inclination and extending in series alternately from opposite uprights, whereby the steps are at angles to one another and form between them a zigzag path uninterrupted from one end in direction of the other and being interrupted in the reverse direction, a yoke adapted to travel along the zigzag path between the steps, floats attached to the said yoke, and a temporary support for the said yoke located in the lattice structure at one end of the aforesaid zigzag path, as and for the purpose set forth.

JOHANNES MEYER.

Witnesses:

ALFRED LURCOTT,
JAMES M. HENLEY.