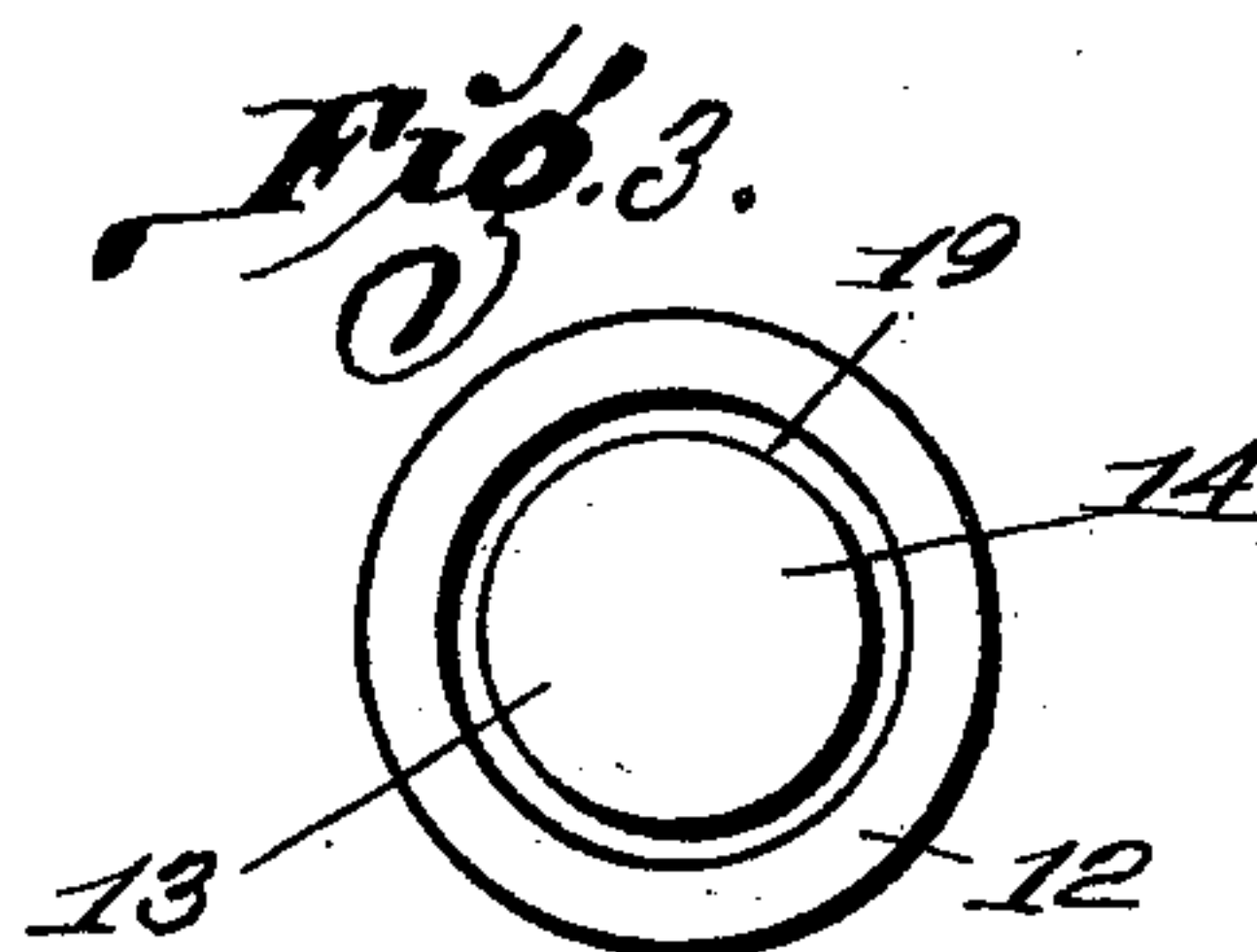
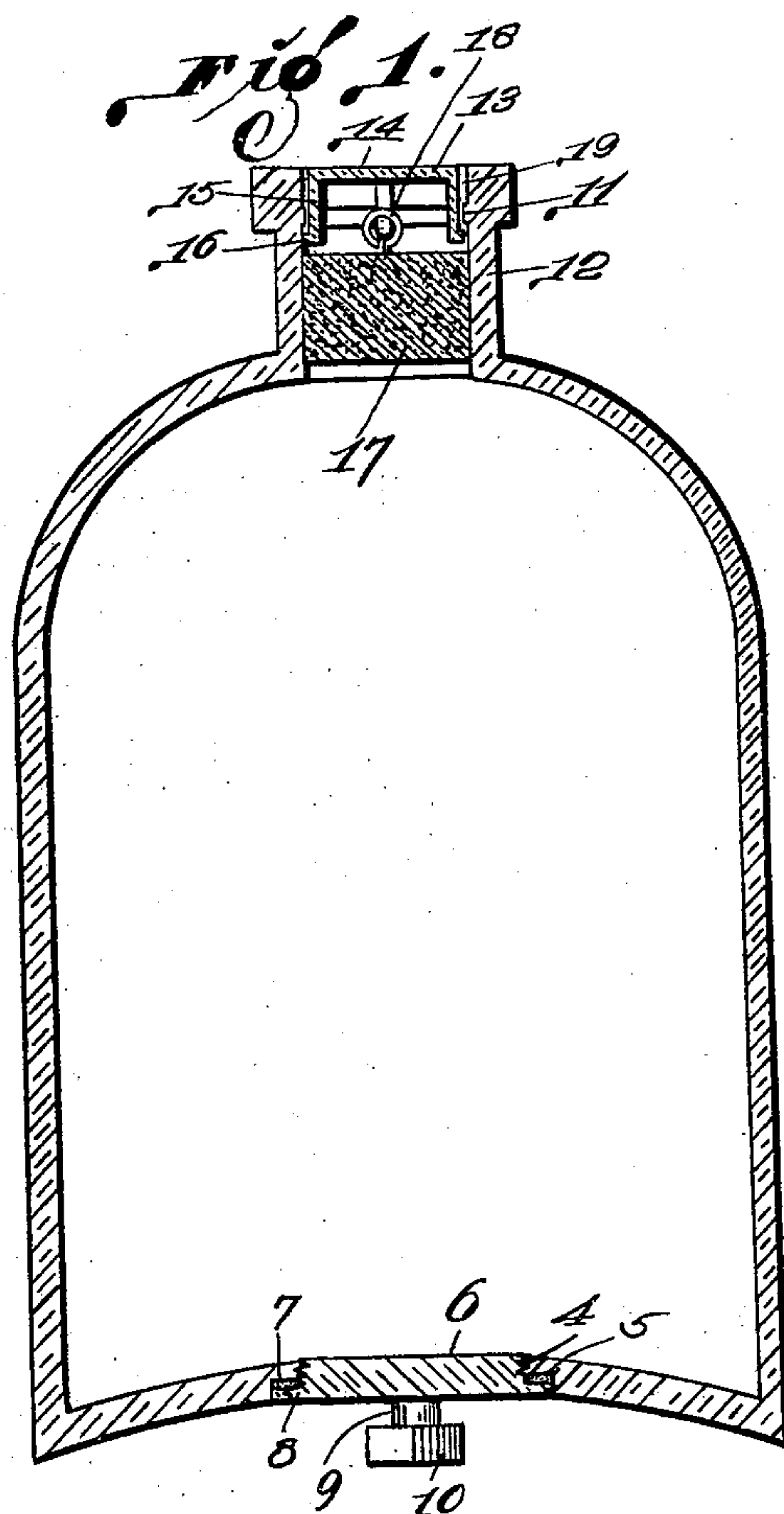


(No Model.)

E. JUNKER.
NON-REFILLABLE BOTTLE.

No. 591,280.

Patented Oct. 5, 1897.



Attest
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UNITED STATES PATENT OFFICE.

EDWARD JUNKER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
CHARLES GREIMANN, OF SAME PLACE.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 591,280, dated October 5, 1897.

Application filed June 7, 1897. Serial No. 639,686. (No model.)

To all whom it may concern:

Be it known that I, EDWARD JUNKER, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Non-Refillable Bottles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to non-refillable bottles; and it consists of the novel construction, combination, and arrangement of parts hereinafter shown, described, and claimed.

Figure 1 is a vertical central section of a non-refillable bottle constructed in accordance with the principles of my invention. Fig. 2 is a view in elevation of a non-removable cap which I employ. Fig. 3 is a plan view of the mouth of the bottle.

In the construction of a bottle in accordance with the principles of my invention I form a screw-threaded opening in the bottom of the bottle in alinement with the mouth of the bottle, the screw-threads of said opening being indicated by 4, and there being a shoulder 5 below said screw-threads. A screw-threaded plug 6 fits in the opening. A packing-ring 7 is placed against the shoulder 5, and a flange 8 projects from the plug 6 and holds the packing-ring 7 in position. A neck 9 projects downwardly from the center of the plug 6, and a head 10 is formed upon the lower end of the neck. The head 10 is designed as a handle for operating the plug in closing and sealing the bottle, and may be square or hexagonal, as required, to be operated by a wrench, or it may be of any other convenient form, and the neck 9 is designed to be broken after the bottle has been sealed. An annular lug 11 is formed in the neck 12 of the bottle, and the non-removable cap 13 is held in position by the lug 11. The cap 13 is constructed of glass or other suitable frangible material, and consists of the circular central portion 14 and the arms 15, projecting downwardly from the edge of the portion 14. The cap is of such a size that it will pass upwardly through the opening formed by the lug 11 to a position on a level with or slightly above the upper edge of the bottle. The lugs 16 project outwardly from the lower ends of the arms 15 and engage be-

low the lug 11. The cork 17 is placed in position in the neck 12 of the bottle and below the cap 13, and an eye 18 is attached to the cork.

The cap 13 is inserted through the opening in the bottom of the bottle and passes upwardly into the neck 12 until the lugs 16 engage the lug 11. Then the cork 17 is inserted through the opening in the bottom of the bottle and pressed into position in the neck 12. Then the bottle is filled and the plug 6 is screwed firmly into position to close and seal the bottom of the bottle. Then the neck 9, projecting from the plug 6, is broken, and the bottle cannot be opened without removing the cap 13, and the cap 13 cannot be removed and replaced. There is an opening 19 around the cap 13 and inside of the upper edge of the bottle, as shown in Fig. 3, and when it is desired to remove the cap 13 a suitable instrument is inserted into the opening 19 under the edge of the circular portion 14, and sufficient force is applied to break the arms 15, thus allowing the cap to be removed from the bottle. Then the cork 17 is pulled in the ordinary way. The bottle cannot be refilled and restored to its original condition with the cap 13 in its neck.

I claim—

1. In a non-refillable bottle, a bottle constructed with an opening in its bottom, a cap of frangible material inserted through said opening and located in the neck of the bottle, said neck and said cap being so constructed that the cap cannot be removed outwardly from the neck without being broken, substantially as specified.

2. In a non-refillable bottle, a bottle constructed with an opening in its bottom, a cap of frangible material inserted through said opening and located in the neck of the bottle in such a way that it will not pass through the neck of the bottle without breaking, and means of sealing said opening in the bottom of the bottle, substantially as specified.

3. In a non-refillable bottle, a bottle constructed with an opening in its bottom, a cap of frangible material inserted through said opening and located in the neck of the bottle in such a way that it will not pass through the neck of the bottle without breaking, a

plug screw-seated in said opening in the bottom of the bottle as required to seal said opening, said plug having an operating-handle connected to it by a frangible neck
5 designed to be broken off after the plug has been placed in position, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD JUNKER.

Witnesses:

B. J. MCCAULEY,
S. G. WELLS.