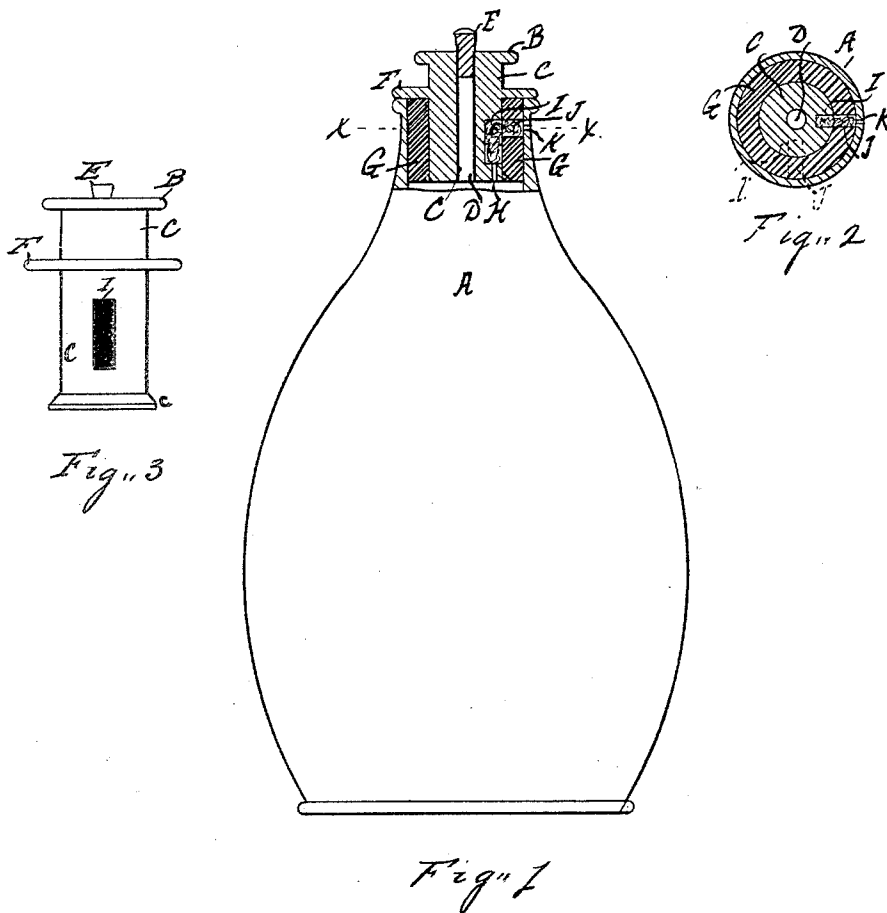


(No Model.)

G. R. SCHIMMEL.
NURSING BOTTLE FOR STERILIZING MILK.

No. 453,511.

Patented June 2, 1891.



Witnesses
Jestine H. Anderson
Geo H. Lottrop

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UNITED STATES PATENT OFFICE.

GUSTAV R. SCHIMMEL, OF DETROIT, MICHIGAN.

NURSING-BOTTLE FOR STERILIZING MILK.

SPECIFICATION forming part of Letters Patent No. 453,511, dated June 2, 1891.

Application filed January 27, 1891. Serial No. 379,262. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV R. SCHIMMEL, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Nursing-Bottles for Sterilizing Milk, of which the following is a specification.

My invention consists in an improvement in bottles for sterilizing milk, and nursing, hereinafter fully described and claimed.

Figure 1 is a side elevation of a nursing-bottle with a central section through the neck and stopper. Fig. 2 is a section on line *x x*, Fig. 1; and Fig. 3 is an elevation of the stopper.

A represents a glass bottle of any desired size and shape, the shape illustrated being that in which nursing-bottles are usually formed.

C represents a glass stopper formed to fit loosely within the neck of bottle A, having a flange F formed thereon below its top to fit over the top of bottle A, and having at its top another flange B to engage with an ordinary rubber nipple. At the bottom of stopper C is a small flange *c*, the space between flanges F and *c* being filled with a rubber sleeve G, which fits tightly around stopper C and closely fills the neck of bottle A when the stopper C is forced therein.

D represents a small passage extending longitudinally through stopper C, and E represents a cork for closing said aperture.

I represents a slot formed in the side of stopper C, from the bottom of which a small aperture H extends through the bottom of stopper C.

J represents cotton (absorbent, antiseptic, or borated) or equivalent fibrous material, with which slot I is filled. Opposite slot I the rubber sleeve G is perforated, the hole there-through being preferably smaller than the slot to hold the cotton J in position.

K represents a small hole through the neck of bottle A to register with the perforation in rubber sleeve G.

K, I, and H form an air-passage through the stopper.

The operation of my invention is as follows:

The bottle A is filled with milk to proper height, and then stopper C, having slot I filled with cotton and surrounded by sleeve G, is forced into the neck of bottle A until flange F prevents its farther entrance, and turned so that slot I and the corresponding perforation in sleeve G register with hole K. Passage D is closed by cork E, and the bottle is heated in a water bath to sterilize the milk. During this operation any pressure generated within the bottle is vented through H, I, and K. When the milk is sterilized, the bottle is withdrawn and stopper C turned until slot I and hole K no longer register, thereby preventing access of air and germs to the milk.

To use the milk, the cork E is removed, a nursing-nipple stretched over flange B, and the stopper C turned until slot I registers with hole K, when milk may be drawn through passage D and air admitted through hole K, slot I, and aperture H, but is forced to pass through the cotton J, whereby any germs carried in the air are strained out.

The cotton J can easily be removed and fresh cotton replaced, and all parts of the bottle and stopper can be readily cleaned.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a bottle having an orifice K in its neck, of a bottle-stopper having a milk-passage D and an air-aperture H, opening into a slot or recess containing fibrous material and placed into and out of coincidence with the orifice in the bottle-neck by the axial rotation of the bottle-stopper, substantially as described.

2. The combination, with a bottle having an orifice K in its neck, of a stopper C, having a flange F, milk-passage D, air-aperture H, slot I, containing fibrous material, and an elastic sleeve G, provided with a perforation opposite the slot in the stopper and placed into and out of coincidence with the orifice in the bottle-neck by the axial rotation of the stopper, substantially as described.

GUSTAV R. SCHIMMEL.

Witnesses:

GERTRUDE H. ANDERSON,
GEO. H. LOTHROP.