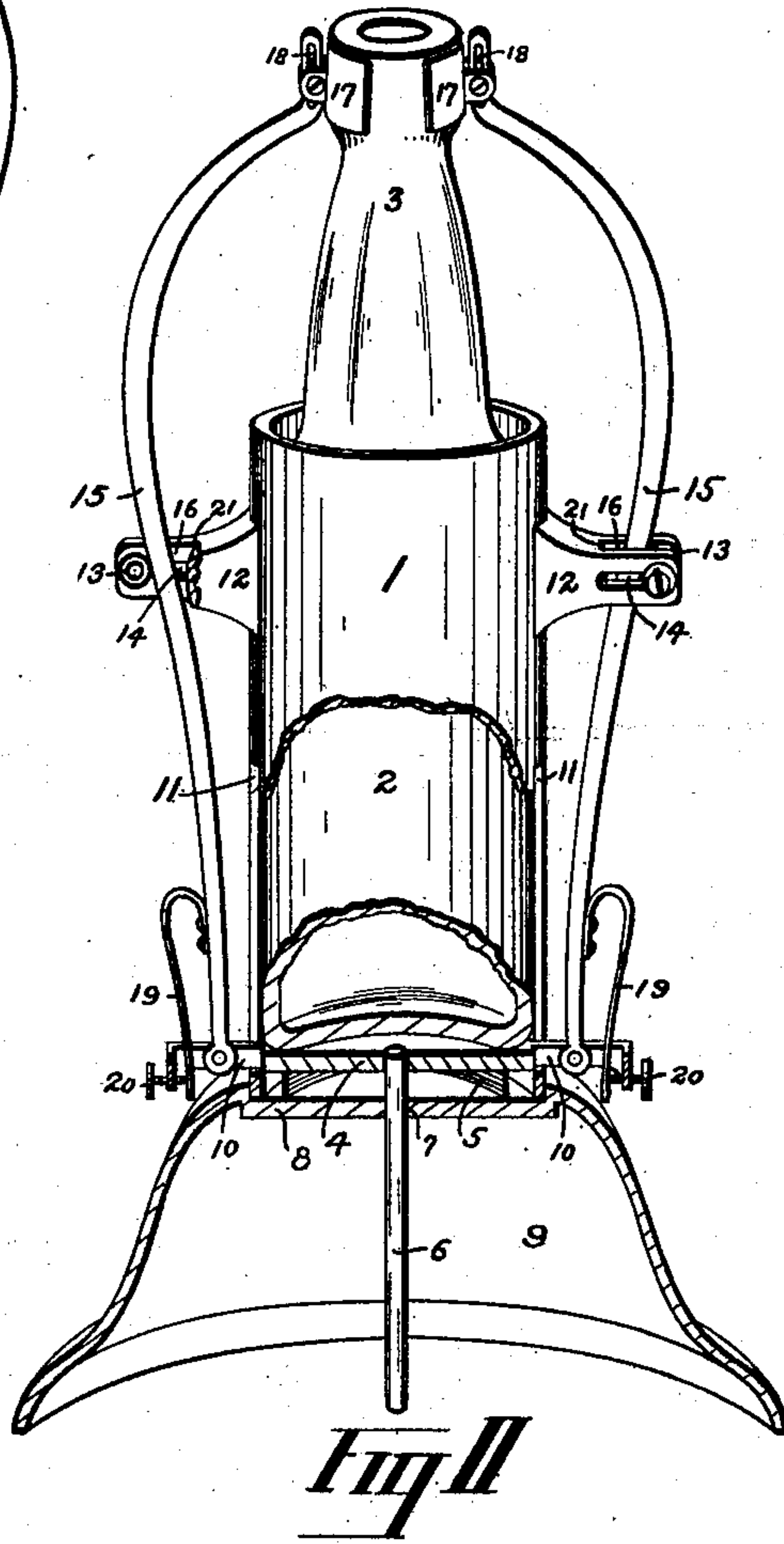
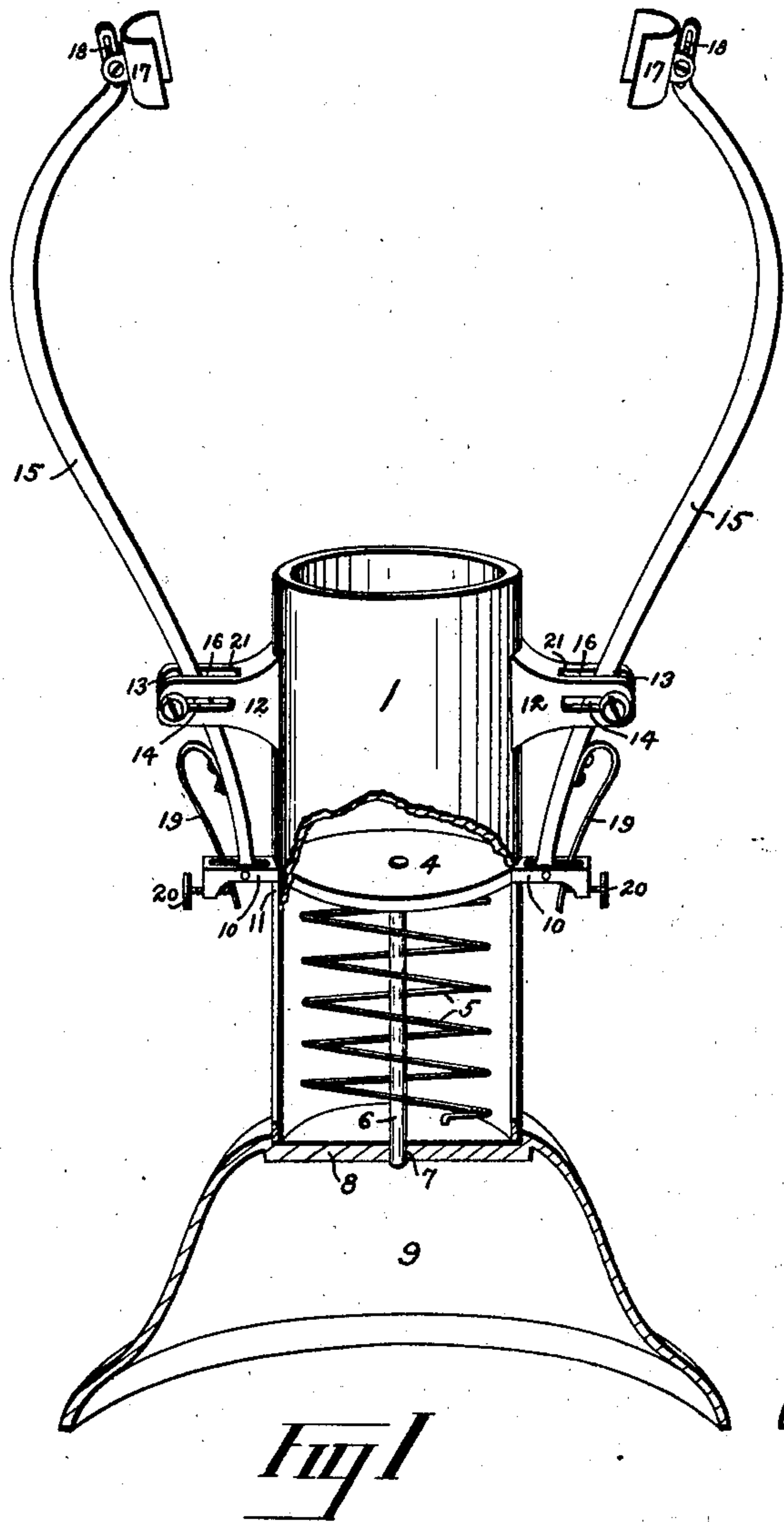


No. 720,665.

PATENTED FEB. 17, 1903.

J. J. CAPPELEN.
BOTTLE NECK SUPPORTER.
APPLICATION FILED NOV. 12, 1902.

NO MODEL.



Witnesses;
Edward Nelson
Elsie Mallory.

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UNITED STATES PATENT OFFICE.

JOHN J. CAPPELEN, OF MASSILLON, OHIO.

BOTTLE-NECK SUPPORTER.

SPECIFICATION forming part of Letters Patent No. 720,665, dated February 17, 1903.

Application filed November 12, 1902. Serial No. 130,936. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. CAPPELEN, a citizen of the United States, residing at Massillon, in the county of Stark and State of Ohio, have invented a new and useful Bottle-Neck Supporter, of which the following is a specification.

My invention relates to a cup and a pair of clamps operating therewith for the purpose of receiving a freshly-molded glass bottle and of supporting the neck of the bottle in a central position until the same is cool enough to be rigid; and the object of the improvement is to close the clamps by the weight of the bottle when it is placed in the cup in such a manner that the clamps will automatically separate when the bottle is removed from the cup. I attain this object by the construction and mechanism illustrated in the accompanying drawings, in which—

Figure I is a perspective view of the supporter with the clamps separated ready to receive a bottle and showing the lower part of the cup in section, and Fig. II a similar view with a bottle in the cup and the clamps closed to support the neck.

Similar numerals refer to similar parts throughout the drawings.

In the manufacture of glass bottles when the freshly-molded bottle has cooled enough to be removed from the mold the bottle is usually placed in a cylindrical cup 1, which supports the body 2 of the bottle in an upright position until it is cool and rigid; but the neck 3 of the bottle being unsupported frequently settles in the body or sags or bends sidewise thereon, and thus it cools and sets out of true line with the axis of the bottle. While there may be only a slight deflection of the neck, it is a very objectionable defect, and especially so when the bottle is corked by machinery, for in this event the eccentricity of the mouth of the bottle usually results in the breaking of the neck by the corking machinery. To overcome this difficulty, I provide the false bottom 4 in the cup, which false bottom rests on the coil-spring 5 and is preferably guided and steadied in its operation by the central stem 6, extending downward and operating through the aperture 7 in the bottom 8 of the cup. A suitable base 9 is provided for the cup, which gives the neces-

sary height of the movement of the stem. From each side of the false bottom project the radial bars 10, which extend through and operate in the vertical slits 11 in the sides of the cup, and on the sides of the cup, above the slits, are provided the brackets 12, which carry the rollers 13, which rollers preferably have a lateral adjustment in the brackets by means of the horizontal slots 14. The arms 15 are pivoted at their lower ends to the false-bottom bars and pass upward on each side of the cup through the vertical radial slots 16 in the brackets. On the upper ends of the arms are pivoted the clamps 17, which are each curved to fit neatly around the side of the bottle-neck at or near its upper end, and the clamps preferably have a vertical adjustment on the arms by means of the slots 18 to accommodate bottles and necks of various heights. The clamp-arms are provided with the springs 19, which act to throw the arms outward against the bracket-rollers, and the expansive force of these springs is preferably adjustable by means of the set-screws 20, and the arms are so curved upward and outward from the lower ends and then inward to the upper ends and the parts are so adjusted that when the false bottom is elevated to its normal position by action of the coil-spring the arms are thrown outward by action of their respective springs, as shown in Fig. I, and that when the false bottom is depressed, as by the weight of a bottle placed upon it, the arms will be drawn inward by action of the bracket-rollers, and the clamps will close against the bottle-neck on each side and hold it firmly in the axial line of the bottle, as shown in Fig. II.

After the bottle is stiffened and set by cooling it is lifted out of the cup, whereupon the clamp-arms are automatically thrown outward by the raising of the false bottom by the coil-spring. In practice it is found that two supporters can conveniently be used by each molder and that one bottle will cool and become rigid in one supporter during the time another bottle is being placed in the other supporter.

It will be understood that plain bars can be substituted for the rollers in the brackets and that other forms of springs can be used than those illustrated without affecting the nature of my invention, and that the stem of

the false bottom can be omitted and the same guided by its radial arms or other suitable means, and also that the connection or attachment of the several parts can be varied
5 in many ways without affecting the principle of their operation. The springs acting to throw the clamp-arms outward can also be omitted, in which event these arms are thrown outward by the inner ends 21 of the radial
10 slots in the brackets.

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

1. A bottle-neck supporter composed of a cup, there being slits in the sides of the cup
15 and brackets having radial slots and rollers above said slits; a false bottom in the cup, there being radial bars on said bottom extending through said slits; a spring acting to raise said bottom; and arms pivoted to said
20 bars extending upward through the bracket-slots inside of the rollers, there being clamps on the ends of said arms adapted to embrace the neck of a bottle, and springs acting to throw the arms outward.

2. A bottle-neck supporter composed of a 25 cup, there being radially-slotted brackets on said cup, a false bottom in said cup, a spring acting to raise said bottom, and arms pivotally connected with said bottom extending upward through said bracket-slots, there being 30 clamps on the ends of said arms adapted to embrace the neck of a bottle.

3. In a bottle-neck supporter, a cup, there being slits in the sides of the cup; a false bottom in the cup, there being radial bars on 35 said bottom extending through said slits; and a spring acting to raise said bottom.

4. A bottle-neck supporter composed of a cup, a false bottom in said cup, and laterally-acting arms operated by the movement of said 40 false bottom.

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

JOHN J. CAPPELEN.

Witnesses:

ELSIE MALLORY,
HARRY FREASE.