

(No Model.)

M. M. BEAR.  
STOPPER.

No. 584,451.

Patented June 15, 1897.

FIG. 1.

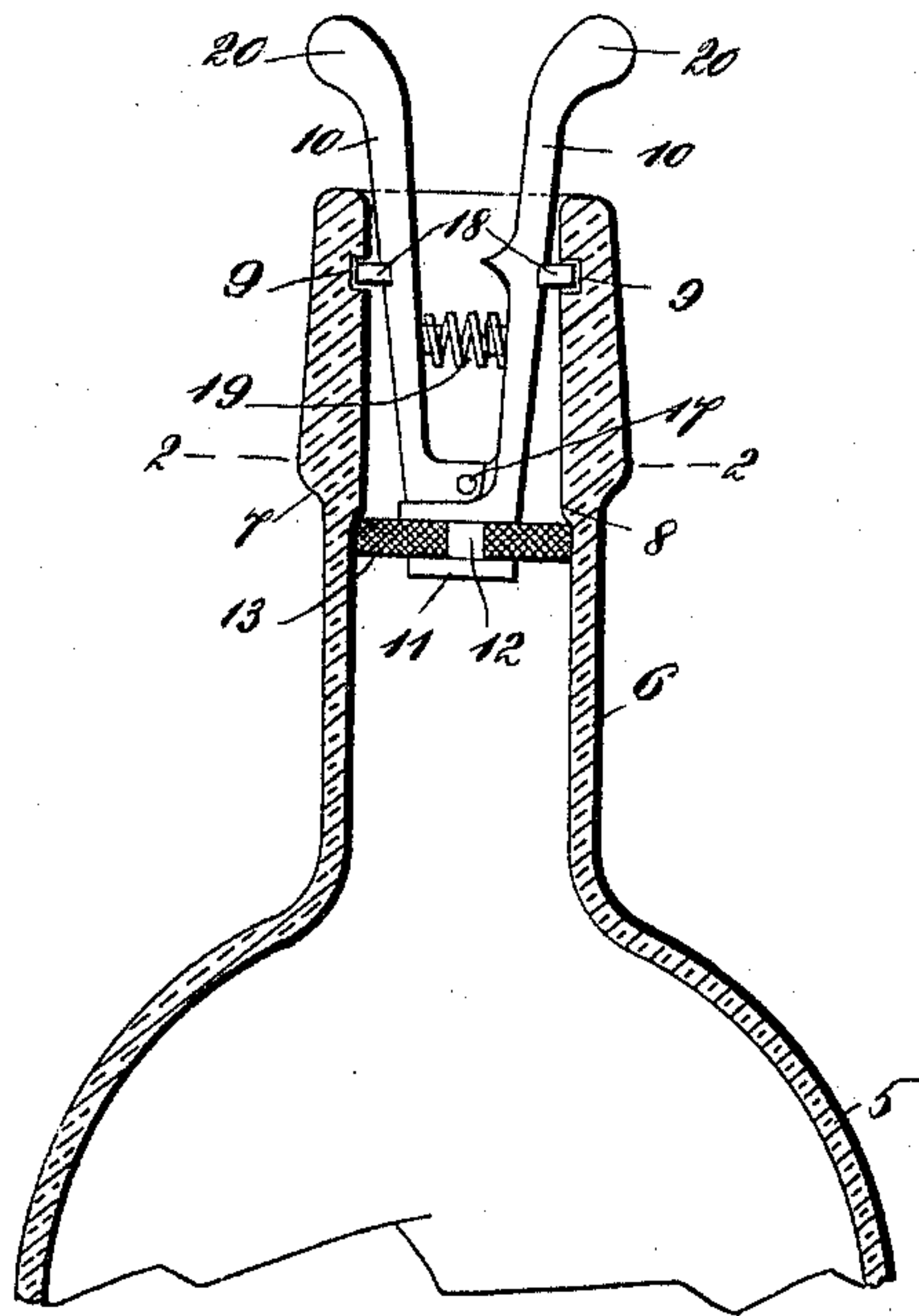
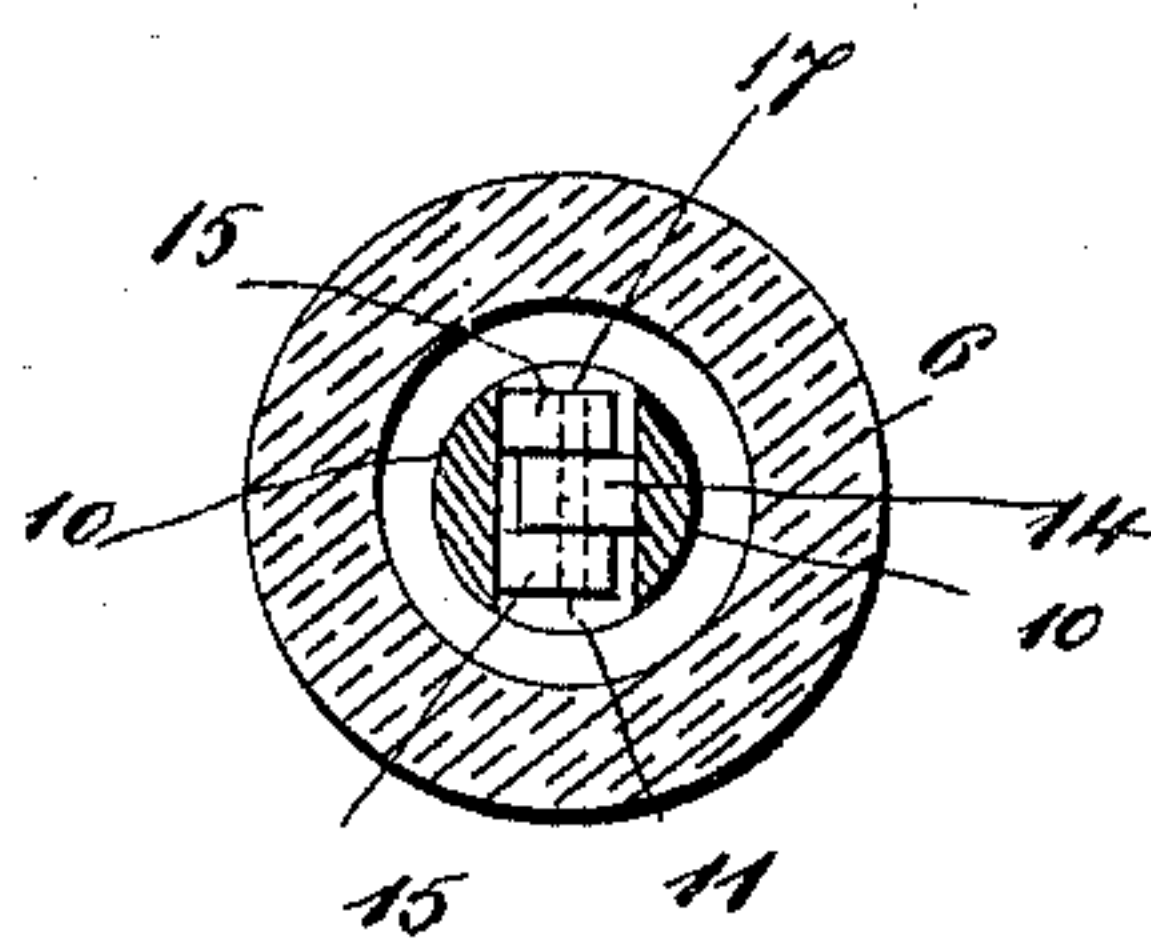


FIG. 2.



WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE.

MONTAGUE M. BEAR, OF CHICAGO, ILLINOIS.

## STOPPER.

SPECIFICATION forming part of Letters Patent No. 584,451, dated June 15, 1897.

Application filed December 9, 1896. Serial No. 615,005. (No model.)

*To all whom it may concern:*

Be it known that I, MONTAGUE M. BEAR, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stoppers, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to bottles, jugs, jars, and similar vessels; and the object thereof is to provide an improved stopper for this class of vessels, a further object being to provide an improved stopper for beer-bottles, mineral-water bottles, and other vessels of this class which may be reused as often as desired.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a central vertical section of the upper part of a bottle provided with my improvement, and Fig. 2 a section on the line 2-2.

In the drawings forming part of this specification I have shown my invention applied to a bottle, and the separate parts thereof are designated by the same numerals of reference throughout the several views.

In the practice of my invention I provide a bottle 5, having a neck 6, the upper end of which is enlarged in the usual manner, as clearly shown in Fig. 1, whereby an annular shoulder 7 is formed in the outer walls of the neck, and formed in the inner walls of the neck, preferably just below the annular shoulder 7, is an annular inwardly-directed shoulder or projection 8. The inner walls of the neck are also provided, at a predetermined distance below the top thereof, with notches or recesses 9, or an annular groove may be substituted for these notches or recesses, and I also provide a stopper which comprises two separate jaws or levers 10, one of which is provided with a circular head 11, in which is formed an annular groove 12, in which is mounted or placed an annular disk or valve 13, of rubber or similar material, and one of the jaws or levers 10, preferably that on which the head 11 is formed, is provided just above said head with a central inwardly-directed lug or projection 14, and the opposite jaw or lever is provided with two similar inwardly-

directed lugs or projections 15, and said jaws or levers are preferably connected by means of said lugs or projections, as shown at 17. Each of the jaws or levers 10 is provided on its outer side with a projection 18, which is adapted to enter the notches or recesses 9, and mounted between said jaws or levers and between said projection 18 and the pivotal connection at 17 is a strong spiral spring 19, which is adapted to force the upper end of the jaws or levers outwardly. Each of the jaws or levers 10 is also provided at its outer end with an outwardly-directed knob or handle 20, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

Whenever it is desired to close a bottle or other vessel by means of my improved stopper, the upper ends of the jaws or levers 10 are drawn together, and the lower end thereof, with the annular disk or valve in position, is forced downwardly into the neck of the vessel until the projections 18 enter the notches or recesses 9, and in this position of the parts the stopper will be securely held by said projections, and the neck of the vessel will be securely closed by the annular disk or valve 13. The spring 19 forces the upper ends of the jaws or levers 10 outwardly and securely holds the projections 18 in the notches or recesses 9, and when the parts are in this position the annular disk or valve 13 will rest immediately below the annular shoulder or projection 8 in the walls of the neck of the vessel.

The inwardly-directed annular shoulder or projection 8 is not absolutely necessary, and may or may not be employed, and my improved stopper, when constructed as described, is well adapted to accomplish the result for which it is intended, and is also comparatively inexpensive.

Whenever it is desired to remove the stopper, all that is necessary is to draw the upper ends of the jaws or levers 10 together and pull outwardly thereon, and said jaws or levers and the parts connected therewith may be made of any desired material, but are preferably made of metal or a combination of metals which will not corrode or be injuriously effected by fluids or acids.

Having fully described my invention, I



claim as new and desire to secure by Letters Patent—

1. A stopper for bottles and other vessels, comprising two separate jaws or levers which  
5 are pivotally connected at their lower ends, and one of which is provided with a circular head in which is formed an annular groove in which is mounted an annular elastic disk or valve, said jaws or levers being also pro-  
10 vided near their upper ends with outwardly-directed projections which are adapted to enter corresponding openings formed in the inner walls of the neck and said jaws or levers being also provided between said projections  
15 and the pivotal connection with a spiral spring by which they are forced outwardly, substantially as shown and described.

2. A stopper for bottles and other vessels, comprising two separate jaws or levers which  
20 are pivotally connected at their lower ends, and one of which is provided with a circular

head in which is formed an annular groove in which is mounted an annular elastic disk or valve, said jaws or levers being also provided near their upper ends with outwardly-directed projections which are adapted to enter corresponding openings formed in the inner walls of the neck and said jaws or levers being also provided between said projections and the pivotal connection with a spiral spring by which they are forced outwardly, and said jaws or levers being also provided at their upper ends with handles or knobs, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 5th day of December, 1896.

MONTAGUE M. BEAR.

Witnesses:

CHAS. W. DAVIS,  
GEORGE R. SPARKS.