

(No Model.)

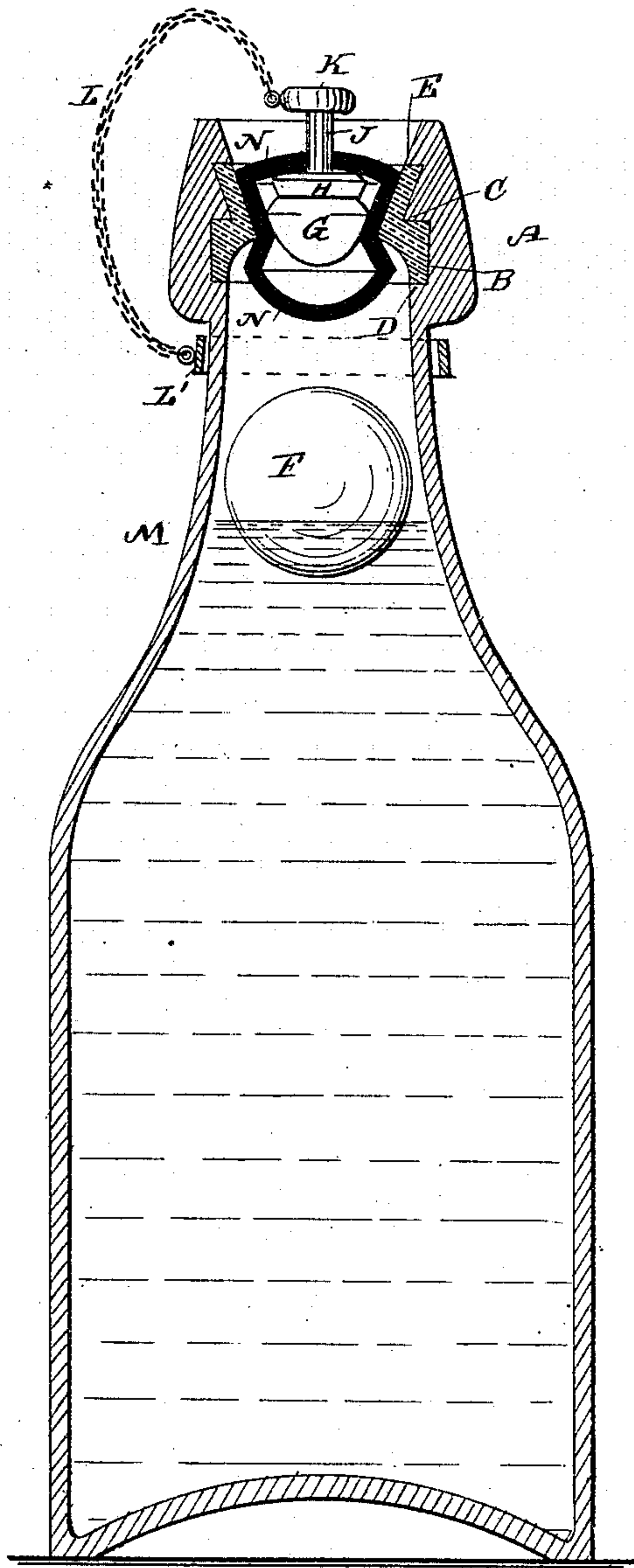
C. L. MOREHOUSE.

BOTTLE STOPPER.

No. 343,646.

Patented June 15, 1886.

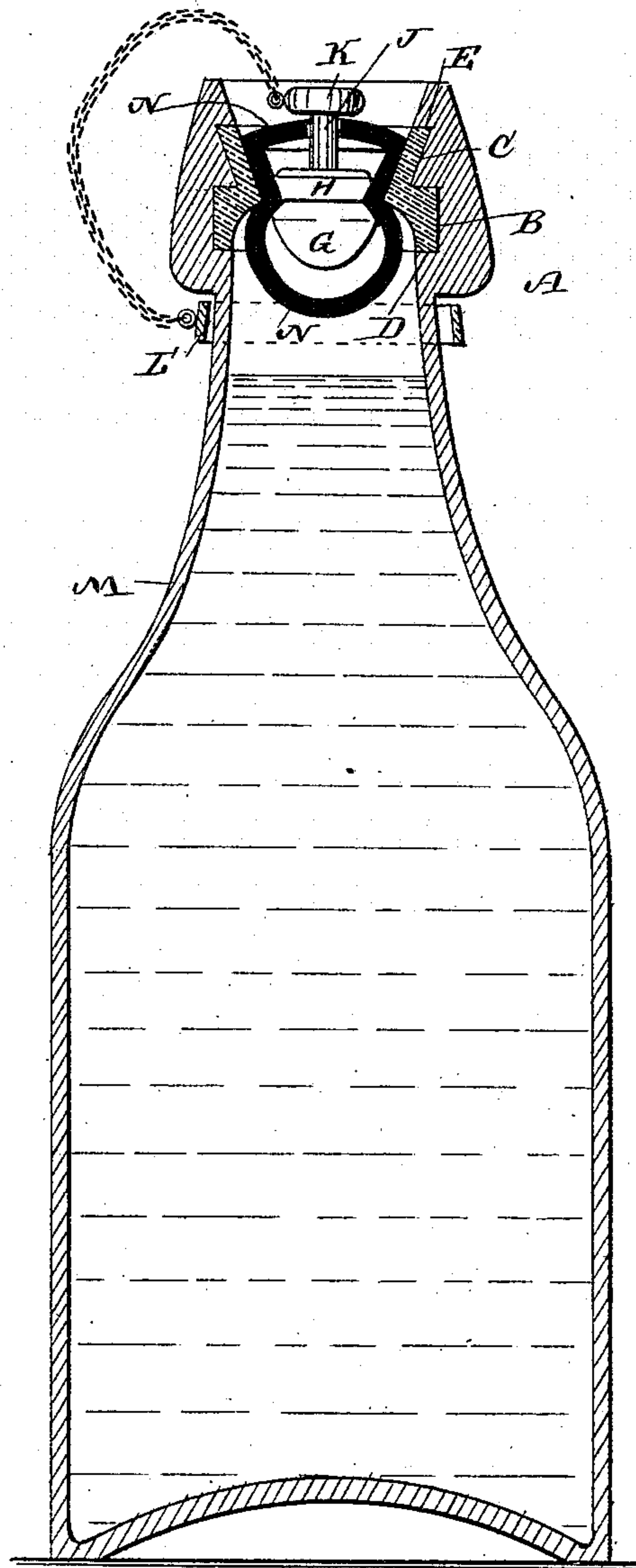
Fig. 1.



WITNESSES:

Thos. G. Foster
C. Sedgwick

Fig. 2.



INVENTOR:

C. L. Morehouse

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES L. MOREHOUSE, OF BROOKLYN, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE MOREHOUSE BOTTLE STOPPER COMPANY, OF NEW YORK, N. Y.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 343,646, dated June 15, 1886.

Application filed September 11, 1885. Serial No. 176,796. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. MOREHOUSE, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Bottle-Stopper, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved combined internal and external bottle-stopper which is simple in construction and closes the bottle effectively.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and then pointed out particularly in the claims.

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

Figure 1 is a cross-sectional view of a bottle provided with my improved bottle-stopper, the plug being raised. Fig. 2 is a similar view of the same, the plug being pressed down.

The bottle-head A is provided in its inner surface with the annular groove B, having the triangular rabbet C.

The packing-ring D, made of pure rubber, is provided with the flange E a short distance from the outer circular edge of the ring, and beveled upward and outward, as shown, so that the ring and its flange fit snugly in the groove B and against its rabbet C, thus forming an absolutely tight joint. The packing-ring is beveled downward and inward from the top edge and upward and inward from the bottom edge, the bevels being slightly rounded. A buoyant hard-rubber or other ball-valve, F, is placed in the bottle before the packing-ring is inserted, the said ball being adapted to fit against the bottom bevel of the packing-ring.

The plug G, made of metal or other suitable hard material, is tapered on a rounded line toward its lower end, and has said lower end rounded, and the plug is provided a short distance from its upper end with an annular V-shaped groove, H. A stem, J, projects upward from the top of the plug G, and is provided at its upper end with a handle-piece, K, of greater or less length, which is connected by a chain, L, with a wire or spring, L', passed around the bottle-neck M directly below the head A. The plug G is surrounded

loosely by a soft pure-rubber cap, N, having an aperture in its top, at which aperture the said cap fits snugly on the stem J.

The operation is as follows: When the bottle contains a gaseous or effervescent liquid—such as, for instance, carbonic-acid water or the like—the plug-stopper is not used, and hangs down at the side of the bottle, or is removed. The gas-pressure holds the ball-valve F snugly against the bottom bevel of the packing-ring D, and thus closes the bottle effectually. For bottling beer, wine, and other like liquids, the plug-stopper only is used. The said stopper is pressed into the bottle-head, as shown in Fig. 1, the plug being raised in the rubber cap, and the annular beveled projection on the inside of the packing-ring resting against the annular groove formed in the outer surface of the cap. Then the plug is pressed down, causing the top bevel of the groove H to press the upper part of the cap N against the top bevel of the packing-ring D, and the bottom of the tapered part of the plug pressing the lower part of the cap against the bottom bevel of the packing-ring, whereby the bottle is closed absolutely tight.

The plug-stopper can be pressed into the bottle or removed from the same very easily and rapidly.

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

1. The combination, with a bottle provided in the inner surface of its neck with the annular groove B, having the triangular rabbet C, that part of the groove above the rabbet being inclined parallel with the inner bevel of the top of the neck, and that part of the groove below the rabbet being vertical—that is, parallel with the longitudinal axis of the bottle—of the packing-ring D, having its outer surface formed to fit in said groove and against the rabbet, and having its inner side beveled from the top downward and inward and from the bottom upward and inward, the lower bevel being on a concave line, whereby a sharp-edged annular ridge is formed on the inner side of said packing-ring, substantially as herein shown and described.

2. The combination, with a bottle provided in the inner surface of the neck with the an-

nular groove B, having the triangular rabbet C, that part of the groove above the rabbet being inclined parallel with the inner bevel of the top of the neck, and that part of the groove
5 below the rabbet being vertical—that is, parallel with the longitudinal axis of the bottle—of the packing-ring D, having its outer surface formed to fit in said groove and against the rabbet, and having its inner side beveled from

the top downward and inward and from the bot- 10
tom upward and inward, the lower bevel being in a concave line, the plug G, and cap N, of a corresponding construction with the packing-ring, substantially as set forth.

CHARLES L. MOREHOUSE.

Witnesses:

OSCAR F. GUNZ,
EDGAR TATE.