

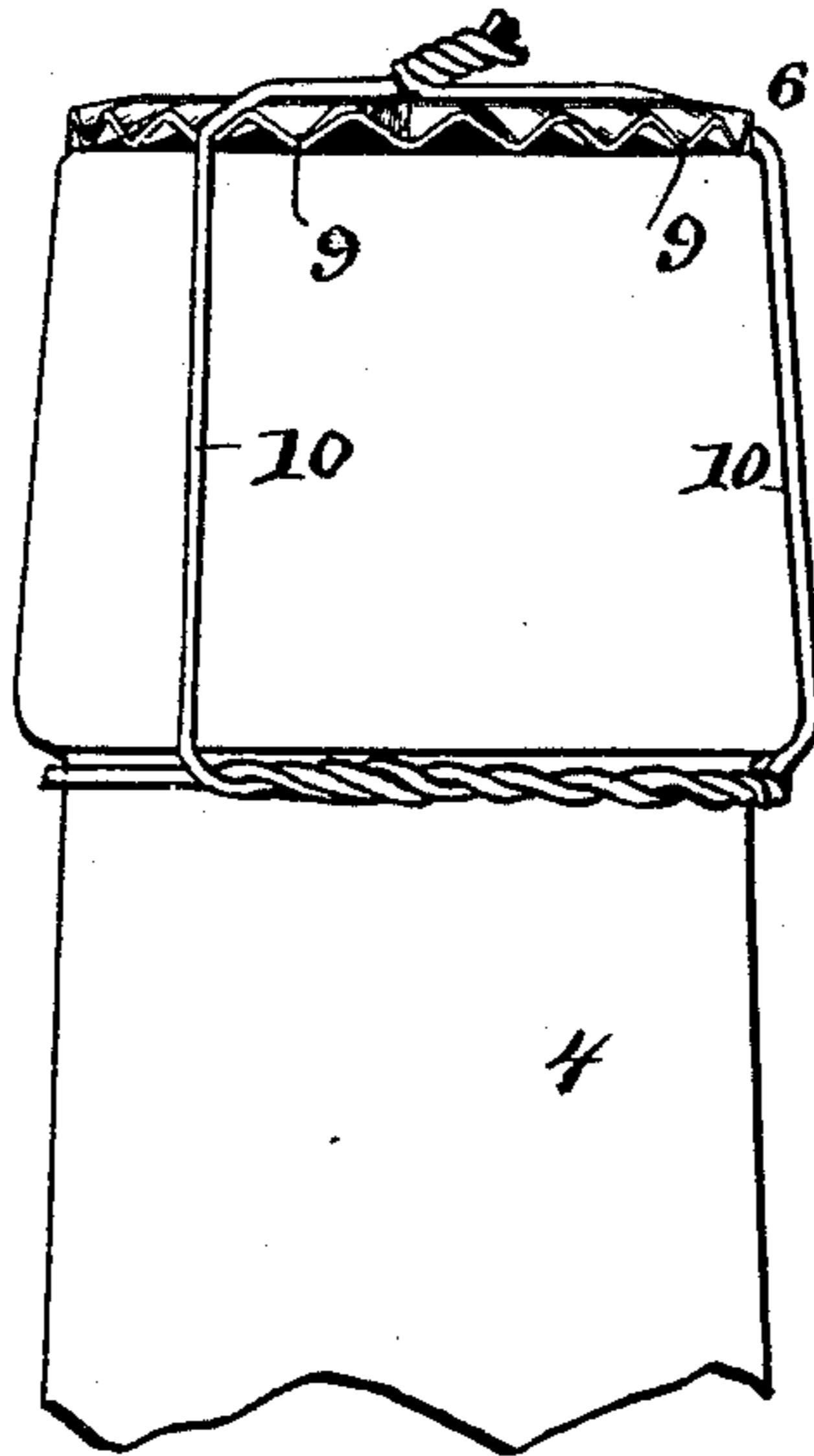
No. 713,693.

Patented Nov. 18, 1902.

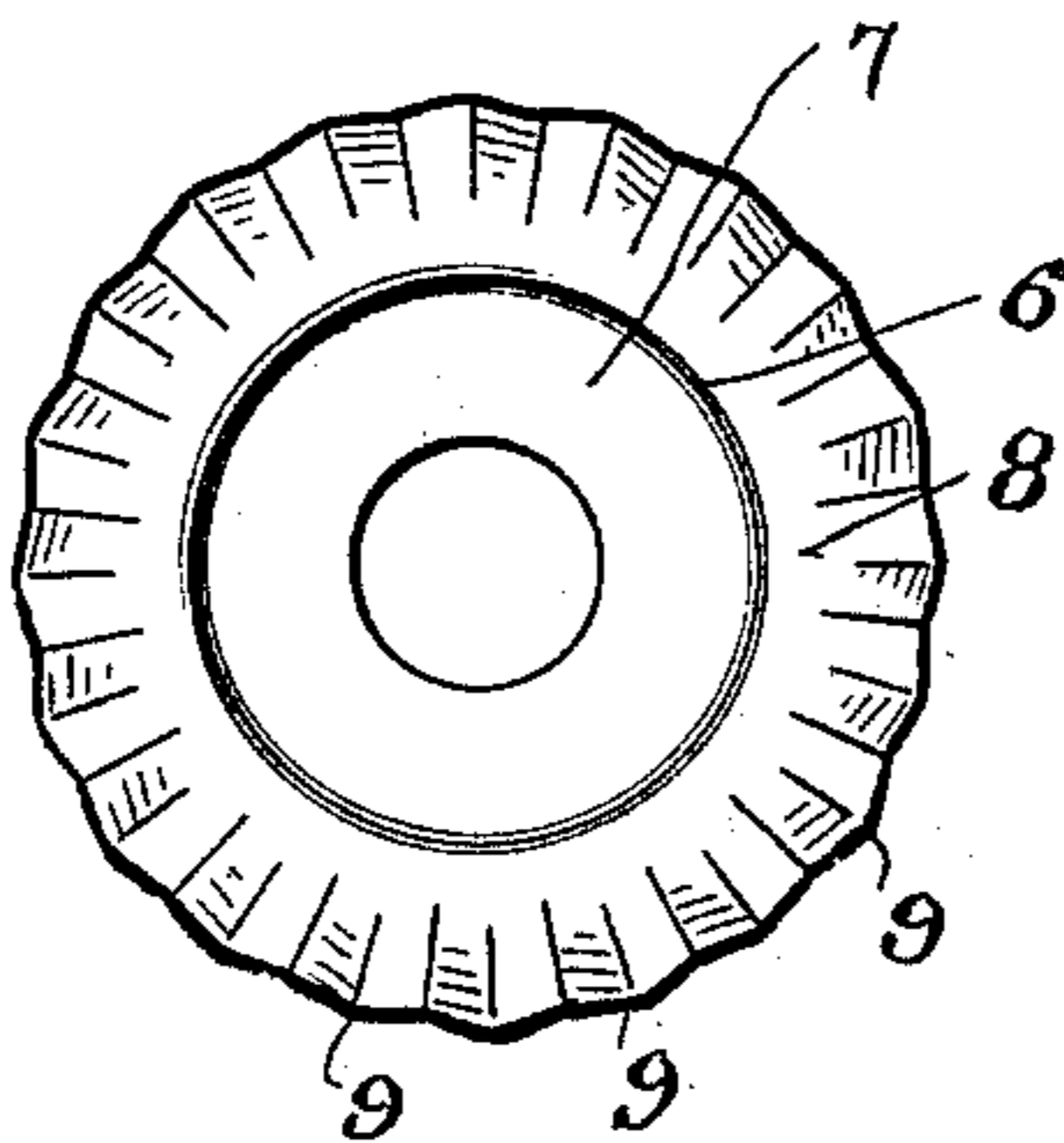
C. SCHROEDER.  
CAP FOR BOTTLE STOPPERS.

(Application filed July 31, 1902.)

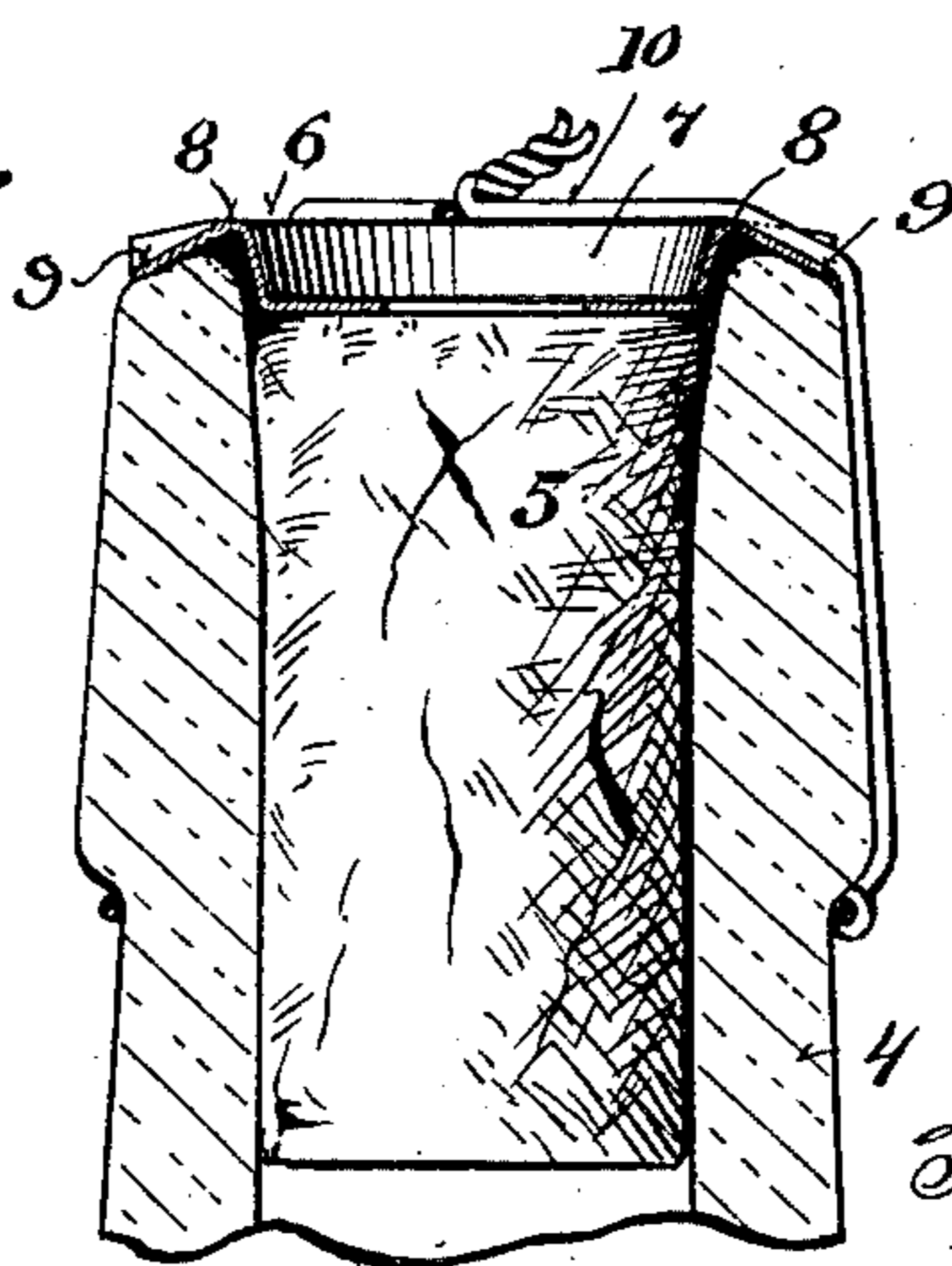
(No Model.)



*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

Witnesses:  
Geo. W. Young,  
Anna C. Faust.

Inventor:  
Conrad Schroeder.  
By Benedict, Mosell & Green,  
Attorneys

# UNITED STATES PATENT OFFICE.

CONRAD SCHROEDER, OF MILWAUKEE, WISCONSIN.

## CAP FOR BOTTLE-STOPPERS.

SPECIFICATION forming part of Letters Patent No. 713,693, dated November 18, 1902.

Application filed July 31, 1902. Serial No. 117,743. (No model.)

*To all whom it may concern:*

Be it known that I, CONRAD SCHROEDER, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Caps for Bottle-Stoppers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in caps for bottle-stoppers.

The stoppers or corks of bottles used for containing beer, liquors, mineral waters, &c., are when such bottles are steamed or pasteurized subjected to great pressure. Heretofore in order to resist this excessive pressure during the steaming or pasteurizing process long corks have been employed. In order, however, to avoid the expense incident to the use of long corks, a shorter and consequently cheaper cork has been employed; but in order to enable this cork to resist the internal pressure it has been necessary to use a binding wire or medium passed upon or across the cork and twisted around the neck of the bottle. This expedient has been open to objection in view of the fact that when the cork is subjected to the internal pressure referred to the wire embeds itself into and cuts the cork. To obviate this, metallic caps have been provided, which are placed against the cork and held thereto by the binding-wire, and hence act as an interposed barrier against the wire being embedded in the cork. These caps also have not given entirely-satisfactory results, inasmuch as oftentimes the wire which is passed across the outer side of the cap slips, and consequently said wire instead of binding the cap evenly to the cork subjects said cap to an uneven binding force, and hence causes a tilting of the cap. It has been attempted to overcome this difficulty by providing on the upper or outer flat surface of the caps small rounded nodules or elevations; but these likewise have not been found to fill the requirements, inasmuch as they afford no safeguard against the wire slipping thereover.

It is the primary object of my invention, therefore, to provide an improved form of cap which will effectually prevent the wire from slipping; and with this end in view the invention consists of the device and its parts or the

equivalents thereof, as hereinafter more fully set forth.

The accompanying drawings represent the invention on an enlarged scale.

In the drawings, Figure 1 is an elevation of a fragment of a corked bottle with my invention applied thereto. Fig. 2 is a detail view of the cap looking at the outer side thereof, and Fig. 3 is a vertical sectional view through Fig. 1.

Referring to the drawings, the numeral 4 indicates the neck end of a beer or analogous bottle, and 5 a short cork inserted therein.

My improved cap is indicated by the numeral 6, and this cap by preference is provided with a central depressed portion 7 of the proper diameter to extend into the mouth of the bottle and to bear against the outer end of the cork. The outer rim or edge of the cap is indicated by the numeral 8, and this edge or rim when the central depression is employed is in the nature of a raised circular flange. The novel feature of my invention resides in providing the outer edge of this rim or raised flange with a series of crimps or corrugations, forming a series of depressions 9, in which the different portions of the binding-wire 10 are seated and thereby prevented from slipping. The wire 10, as is common in this class of devices, is passed across the cap and then bent downwardly and secured around the neck of the bottle. The upper engaging points of the wire, therefore, are the portions thereof which bend over the edge of the rim or raised flange, and it is at these points where the slippage occurs. By reason of the fact that in my device the grooves formed by the crimps or corrugations are at the outer edge of the rim or raised flange and continue inwardly therefrom for a desired distance the portions of the wire most liable to slip are held secure against slippage. In the form of caps in which rounded nodules are provided on the upper flat surfaces of the caps it will be evident that slippage or movement of the wire is not effectually guarded against.

By preference the projections formed by the crimps or corrugations are oppositely beveled, so that even should the wire ride up a projection the apex or point of said projection would not afford sufficient width of surface

for the wire to seat itself thereon, and consequently said wire would naturally reseal itself in the groove.

It will be seen from the above description that my device provides a construction whereby the wire is held secure against slippage, so that the cap remains in exactly the position in which it is left and bound by the machine or hand operation of wiring.

What I claim as my invention is—

1. In combination with a bottle-neck, a cork inserted in the mouth thereof, a cap fitting over and engaging the top of the neck of the bottle and adapted to bear against the cork, the outer non-pendent edge of said cap which bears against the top of the neck of the bottle being provided with a series of grooves, and a binding wire or medium for securing the cap in place, said wire extending over the upper side of the cap and into the grooves at the outer edge of said cap, and thence continued downwardly and passed around the neck of the bottle.

2. In combination with a bottle-neck, a cork inserted in the mouth thereof, a cap fitting over and engaging the top of the neck of the bottle and adapted to bear against the cork, the outer non-pendent edge of said cap which bears upon the top of the neck of the bottle being corrugated or crimped to form a series of grooves, and a binding wire or medium for securing the cap in place, said wire extending over the upper side of the cap and into the grooves at the outer edge of said cap, and thence extended downwardly to and passed around the neck of the bottle.

3. In combination with a bottle-neck, a cork inserted in the mouth thereof, a cap fitting over and engaging the top of the neck of the bottle and adapted to bear against the cork, the outer non-pendent edge of said cap which bears against the top of the neck of the bottle being corrugated or crimped to form a series of grooves and raised projections, said raised projections being of substantially conical form, and a binding wire or medium for securing the cap in place, said wire extending over the upper side of the cap and into the grooves at the outer edge of said cap and thence extended downwardly and passed around the neck of the bottle.

4. In combination with a bottle-neck, a cork inserted in the mouth thereof, a cap fitting over and engaging the top of the neck of the bottle, said cap having a central depressed portion adapted to fit in the mouth of the bottle and bear against the cork, the portion of the cap surrounding said central depressed portion forming an outer non-pendent flange which rests on the top of the neck of the bottle, said raised flange having its outer edge provided with a series of grooves, and a binding wire or medium for securing the cap in place, said wire extending over the upper side of the cap and into the grooves at the outer edge of the raised flange, and thence

extended downwardly and passed around the neck of the bottle.

5. In combination with a bottle-neck, of a cork inserted in the mouth thereof, a cap fitting over and engaging the top of the neck of the bottle and adapted to bear against the cork, the outer non-pendent edge of said cap which bears against the top of the neck of the bottle being provided with a series of radial grooves, and a binding wire or medium for securing the cap in place, said wire extending over the upper side of the cap and into the grooves at the outer edge of said cap, and thence continued downwardly and passed around the neck of the bottle.

6. As an improved article of manufacture, a bottle-stopper cap, the central portion thereof adapted to fit against the outer end of the stopper of a bottle, and the outer non-pendent portion thereof adapted to rest against the top of the neck of the bottle, said outer portion provided with a series of binding-wire grooves.

7. As an improved article of manufacture, a bottle-stopper cap, the central portion thereof adapted to fit against the outer end of the stopper of a bottle, and the outer non-pendent portion thereof adapted to rest against the top of the neck of the bottle, said outer portion provided with a series of crimps or corrugations, to form a series of binding-wire grooves.

8. As an improved article of manufacture, a bottle-stopper cap, the central portion thereof adapted to fit against the outer end of the stopper of a bottle, and the outer non-pendent portion thereof adapted to rest against the top of the neck of the bottle, said outer portion provided with a series of corrugations or crimps, to form a series of grooves and projections, said projections being of substantially conical form.

9. As an improved article of manufacture, a bottle-stopper cap, having a central depressed portion adapted to fit against the outer end of the stopper of a bottle, the portion of the cap surrounding said central depressed portion forming an outer non-pendent flange adapted to rest against the top of the neck of the bottle, said outer non-pendent flange provided with a series of binding-wire grooves.

10. As an improved article of manufacture, a bottle-stopper cap, the central portion thereof adapted to fit against the outer end of the stopper of a bottle, and the outer non-pendent portion thereof adapted to rest against the top of the neck of the bottle, said outer portion provided with a series of radial binding-wire grooves.

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

CONRAD SCHROEDER.

Witnesses:

A. L. MORSELL,  
ANNA V. FAUST.