

No. 724,851.

PATENTED APR. 7, 1903.

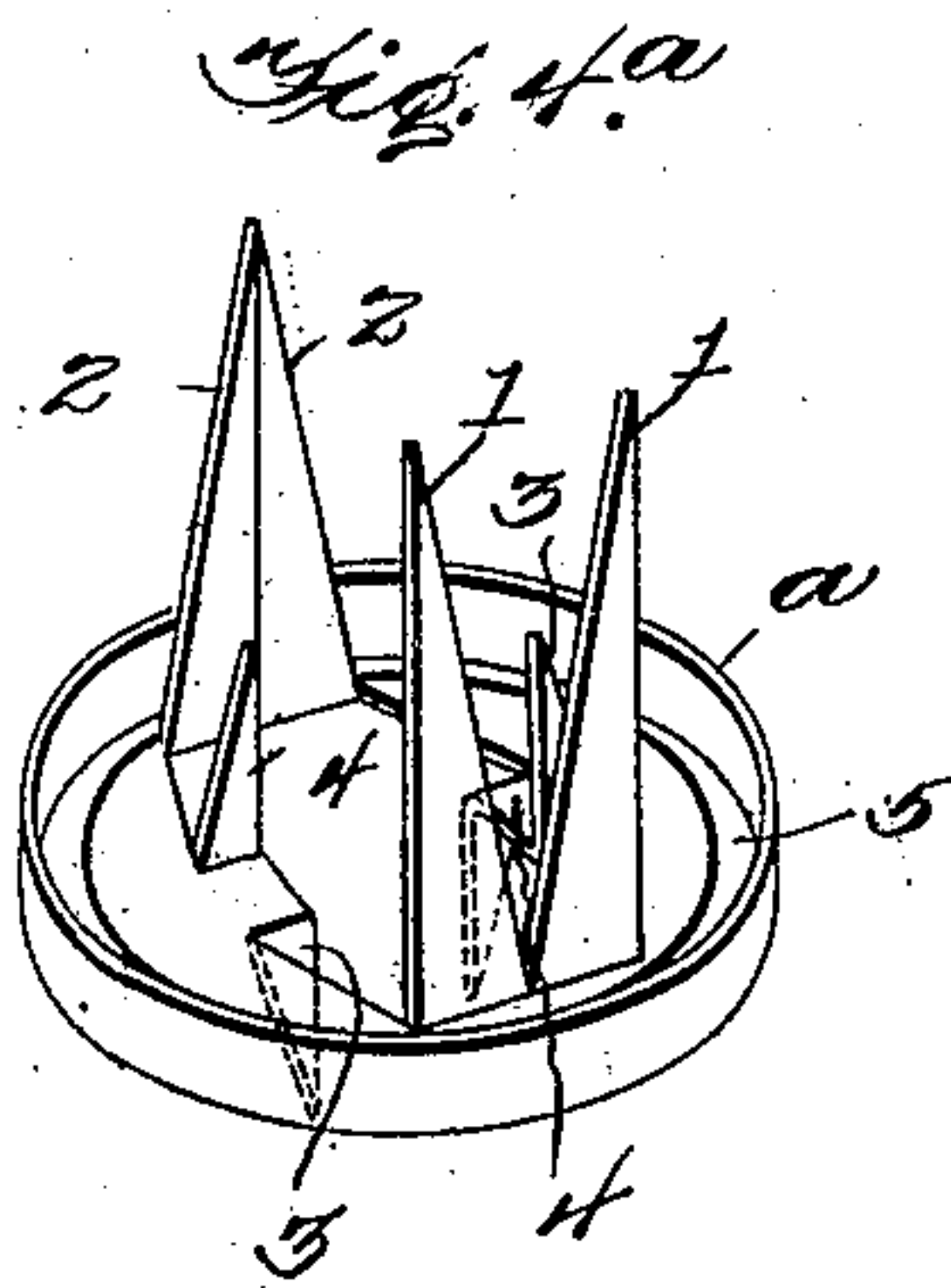
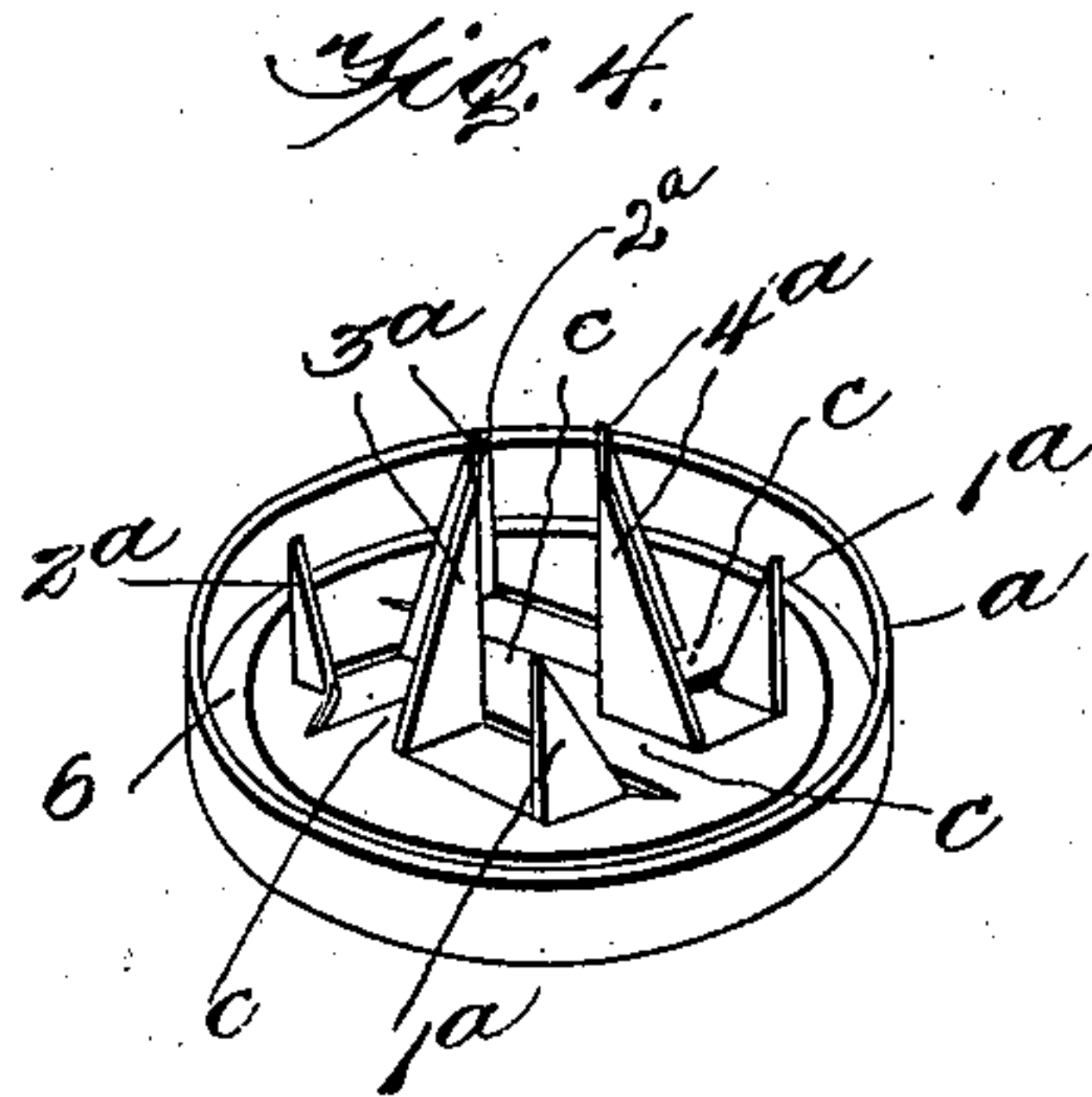
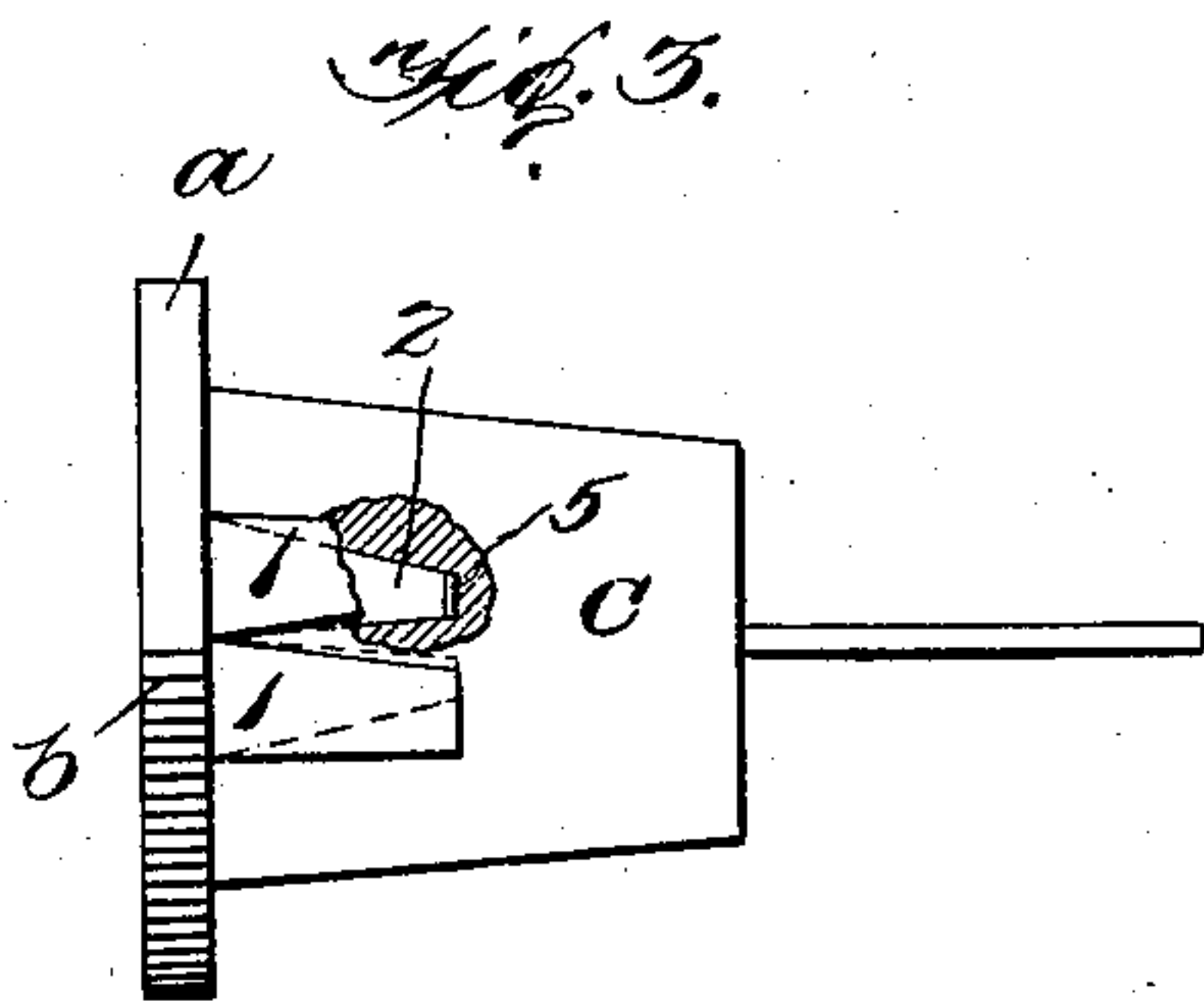
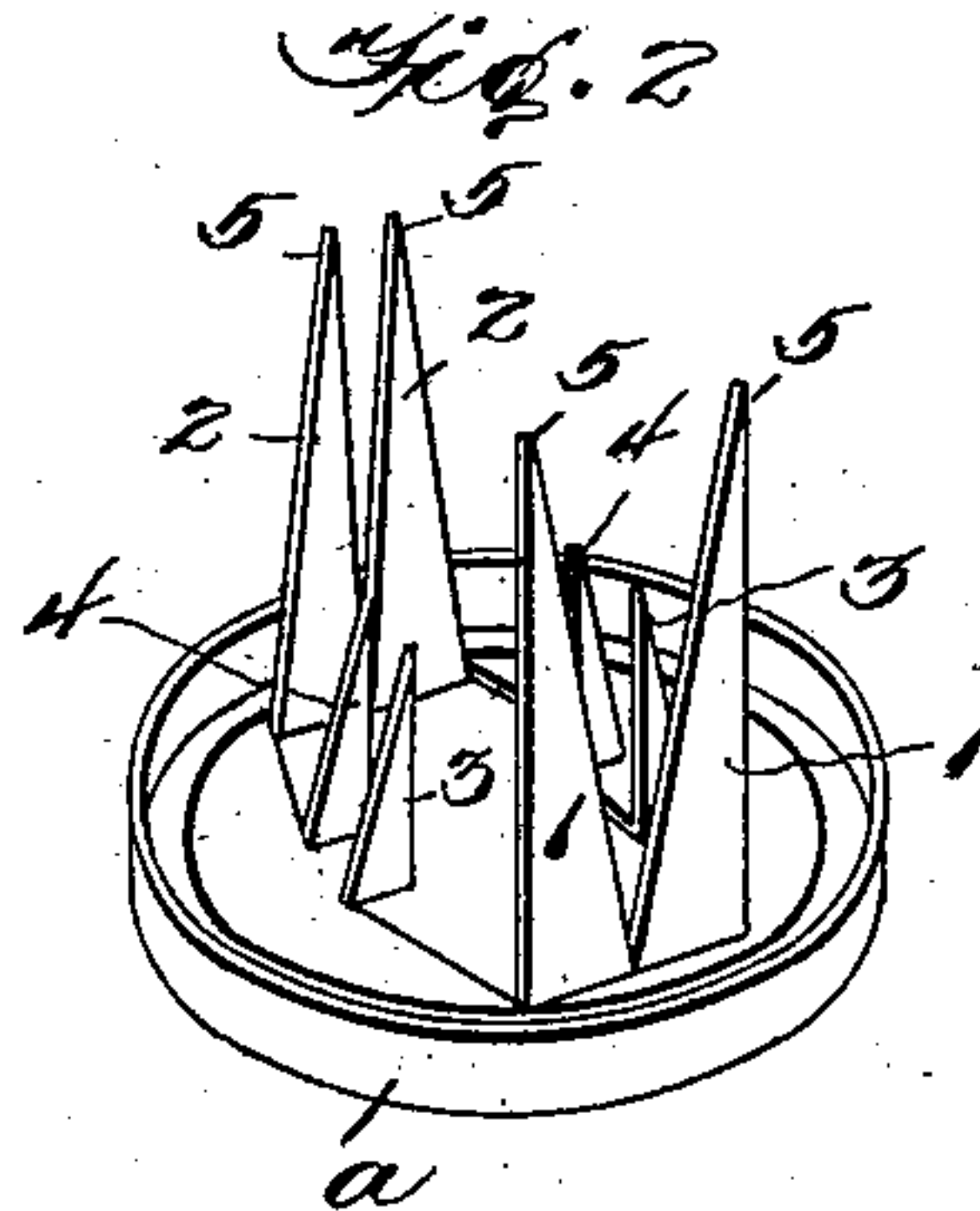
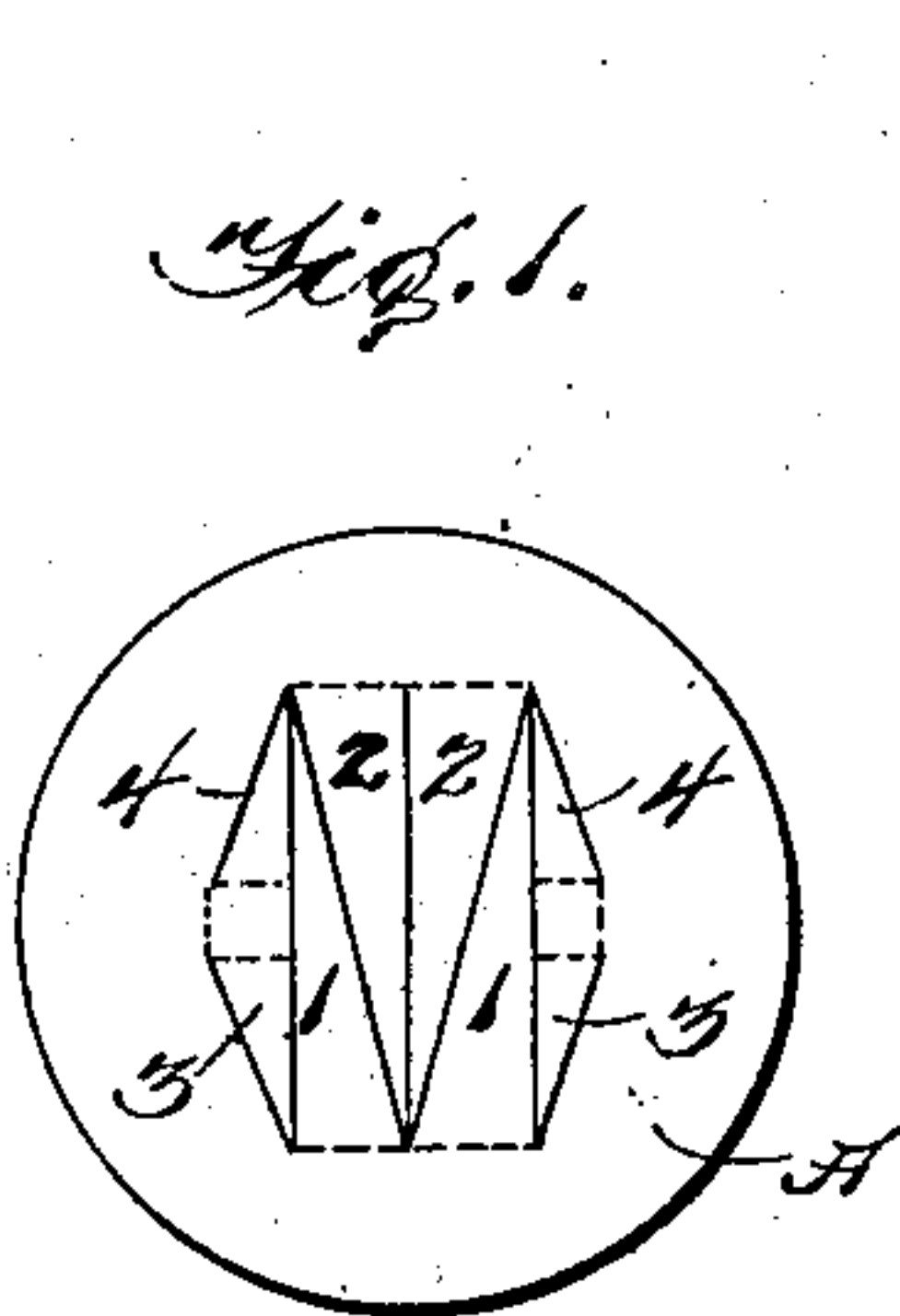
J. F. J. GUNNING.

CAP OR COVER FOR BOTTLE OR OTHER CLOSURES.

APPLICATION FILED OCT. 6, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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2 SHEETS—SHEET 2.

Fig. 4.b

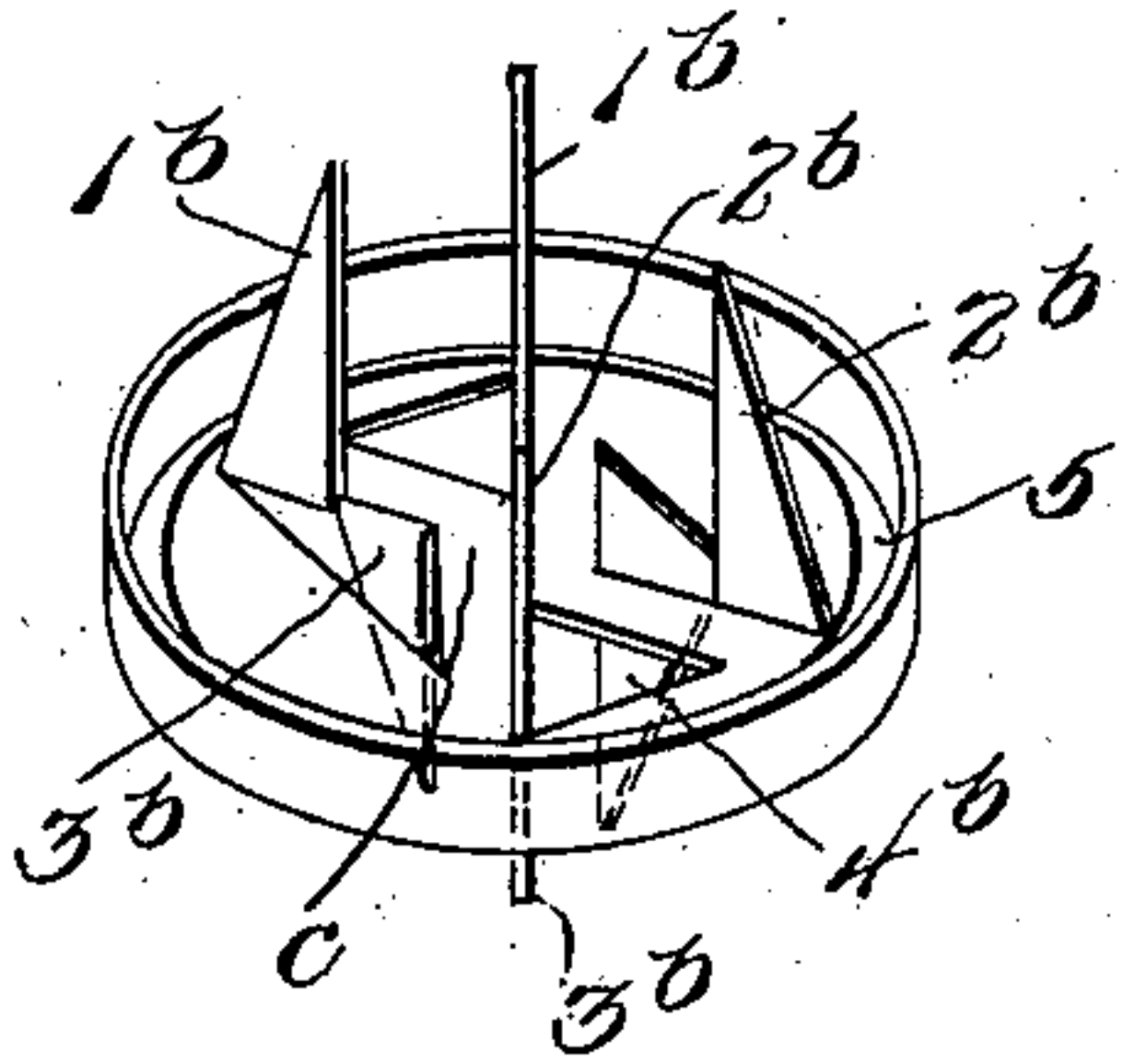


Fig. 4.c

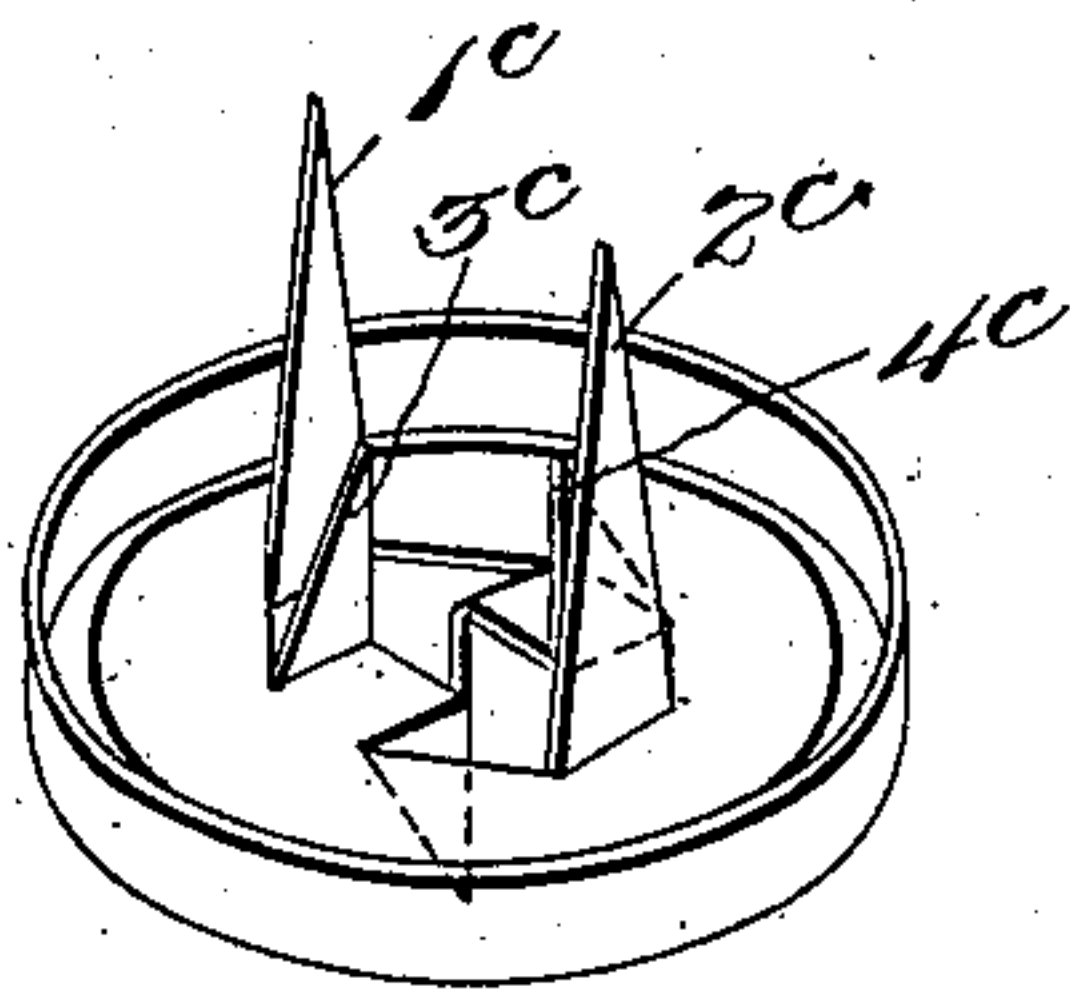


Fig. 5.

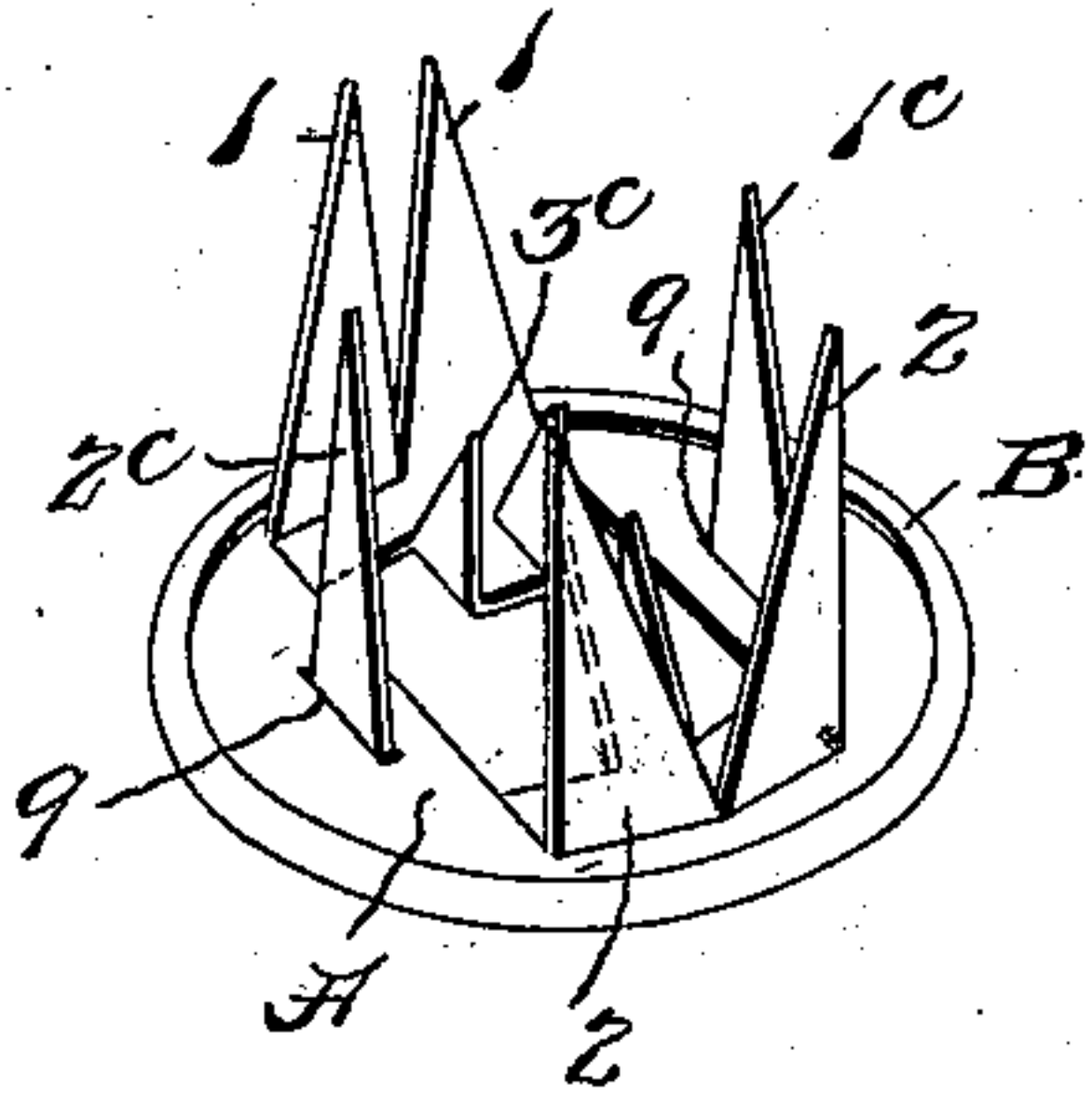


Fig. 7.

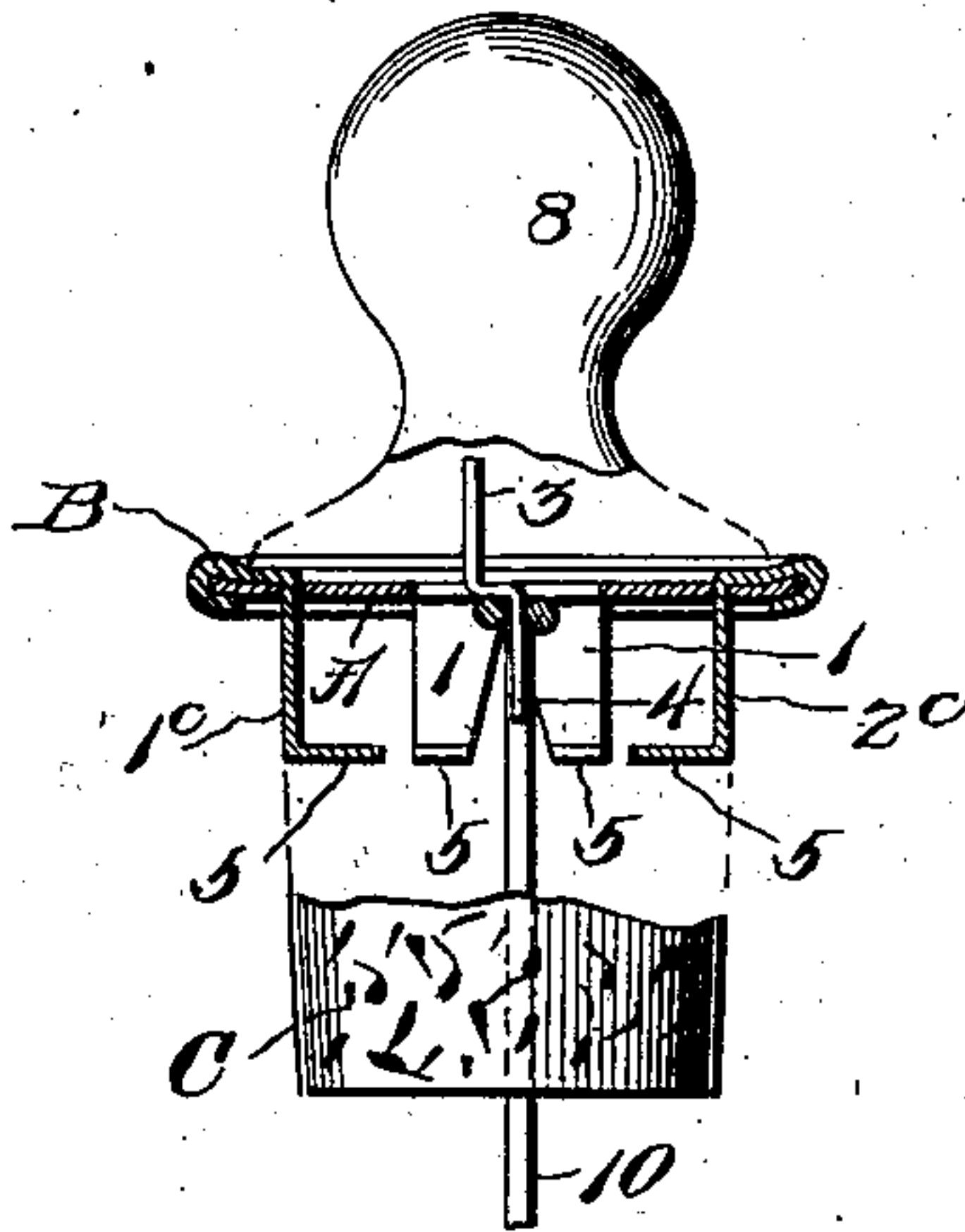


Fig. 8.

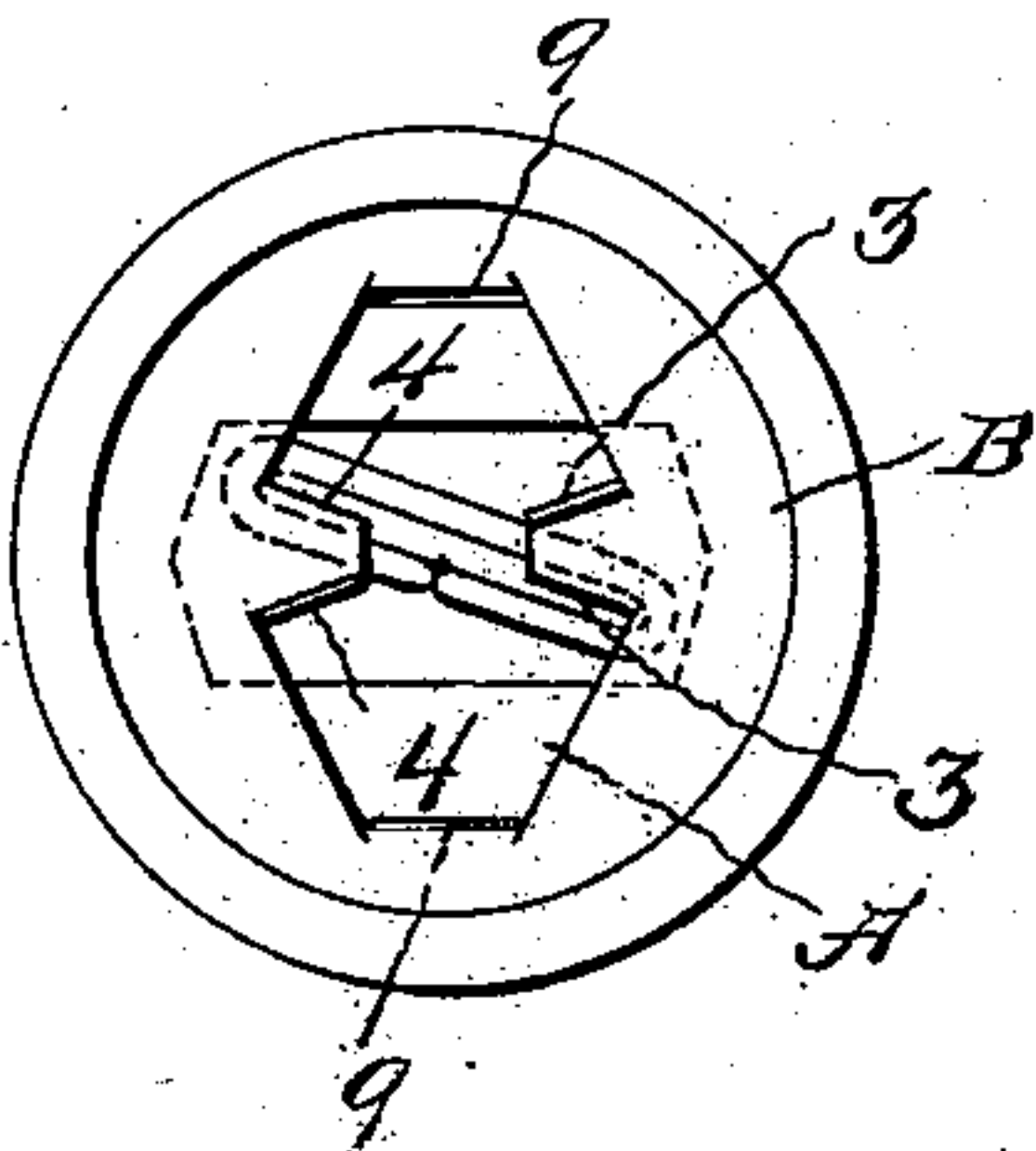
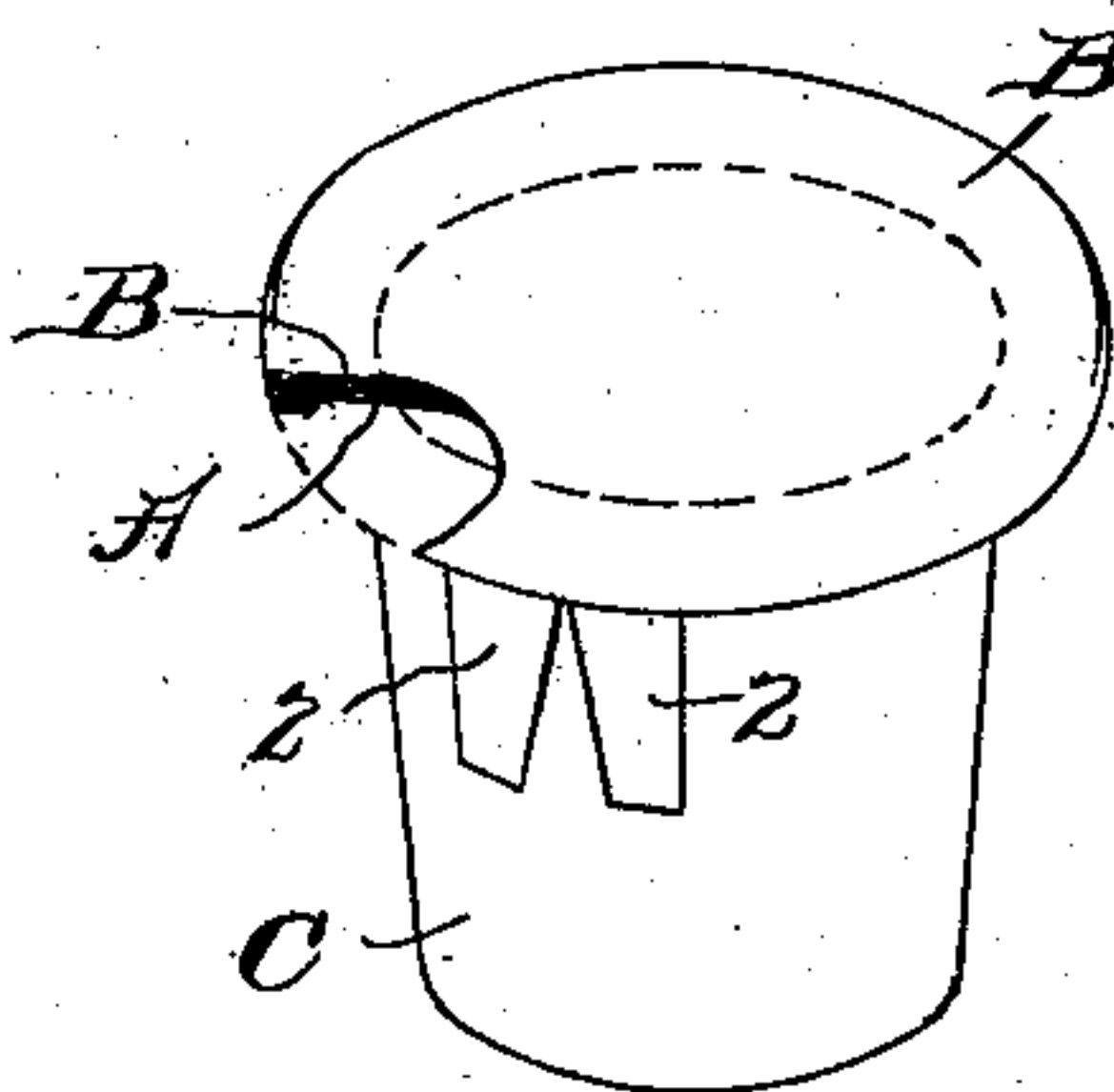


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES F. J. GUNNING, OF TORONTO, CANADA.

CAP OR COVER FOR BOTTLE OR OTHER CLOSURES.

SPECIFICATION forming part of Letters Patent No. 724,851, dated April 7, 1903.

Application filed October 6, 1902. Serial No. 126,142. (No model.)

To all whom it may concern:

Be it known that I, JAMES F. J. GUNNING, a citizen of the United States, and a resident of Toronto, Canada, have invented certain new and useful Improvements in Caps or Covers for Bottle or other Closures, of which the following is a specification.

My invention relates to closures for bottles, jars, and other like receptacles, and more particularly to a combined stopper binder, extractor, and protector in which a stopper, such as a cork, is provided with means which act as a binder to preserve the integrity of the cork or stopper and as a protector or cover for the same and finally as a means whereby the cork or stopper may be extracted from the bottle, jar, or other receptacle without the use of independent or separate extracting devices, such as corkscrews or the like.

My object is to provide a bottle-closure of the kind indicated with, first, a simple, inexpensive, and effective binder which will preserve the integrity of the closure, such as a cork or other stopper, no matter how often it may be extracted and replaced; second, to provide a cap which, in addition to its binding facilities, affords a cover or protection for said closure; third, to provide such a device as will embody means in itself which will permit the ready extraction of said closure from its seat in the mouth of the bottle, jar, or other receptacle without the employment of independent extracting devices and without injury to the closure; fourth, to provide such a cap and protector as will be susceptible of ornamentation, stamping, or the like without interfering with the mechanical functions of the cap and protector; fifth, to provide a reinforced cap or protector of the kind indicated embodying all the utilities above indicated, and, finally, to provide a device of the character indicated which shall be economical of manufacture, effective and durable in use, and which shall be susceptible not only in use as a closure or stopper, but which shall constitute a holder of the best form for a brush stem or shank, such as are used in bottle-closures for shoe-polish and like substances, either liquid or solid.

With these objects in view my invention

consists of the novel construction and details thereof, as hereinafter described, with reference to the accompanying drawings, and more particularly pointed out in the claims, the advantages of which will appear more fully in the description to follow.

In the drawings, Figure 1 represents a marked blank from which one form of my invention may be made. Fig. 2 represents a cap or protector struck up from said blank ready for application to a stopper or closure. Fig. 3 represents said device applied to a stopper or closure, as a cork. Fig. 4 represents a modified form of my invention ready for application. Figs. 4^a, 4^b, and 4^c represent further modifications of the same. Fig. 5 represents a further modification in which a reinforced cap or cover is combined with my said protector or cap. Fig. 6 represents a further modification in which the cap or protector is reinforced by an imperforate cover capable of ornamentation. Fig. 7 is a central longitudinal section of a modification applied to a cork or stopper bearing a shank or stem, and Fig. 8 is a top plan view thereof with the knob or handle removed.

Referring now to the drawings, in which the same or corresponding characters relate to the same or corresponding parts in all the views, it will be observed that I form in all cases my cap or protector from a blank A of suitable shape, preferably circular, especially when it is designed to embody the extractor feature. This blank is selected of a slightly larger size than the closure or cork to which it is to be applied, so that it overlaps the top of the same, and thus forms a peripheral flange which is adapted to seat upon the top of the mouth of the bottle, jar, or other receptacle for which it is intended, so that it may not only act as an additional seal against escape of the contents from the bottle or other receptacle by reason of the break-joint thus formed, but may also be readily acted upon by the hand to facilitate the removal of the stopper or cork from such receptacle.

In the form shown in Figs. 1 and 2 the tines or spurs 1 and 2 and 3 and 4 are stamped from the body of the blank by a suitable die, the former extending the full diameter of the opening formed by the striking up of said

tines, such length being determined by the width of the head of the stopper or cork to which the cap is to be applied. These tines are disposed so as to extend along and closely embrace the side of the cork of stopper C and having, when applied as shown in Fig. 3, their ends bent inwardly and embedded in the sides of the said cork or stopper when the cap is pressed firmly down upon the head of the cork or stopper, while the tines 3 and 4 project at right angles to the cap and are embedded in the cork or stopper, extending in a longitudinal direction with respect thereto. These latter tines, it will be observed, are struck up from a portion of the metal oblique to the periphery of the cap, and they serve as a means of binding the cap to the stopper or cork and holding said cap from lateral displacement, while the tines 1 and 2, embracing the sides of the cork or stopper with their bent ends entering said sides, confine the cap thereto not only laterally, but longitudinally as well. The edge of the cap may be turned or rolled, as at *a*, so as to form a smooth finish and constitute a handhold for twisting or turning the cork when desired to extract the same, or it may be milled or serrated, as desired, for this purpose, as indicated at *b*, while it is manifest that the overlapping flange 6, seated upon the receptacle-mouth, will constitute a break-joint against the escape of the contents from the receptacle. Furthermore, the annular or peripheral lip thus formed may be provided with a correspondingly-shaped washer for additional safeguard against leakage, such washers being common in bottle-closures. Such a cap therefore combined with the cork constitutes not only an effective closure, but a means for binding and preserving the integrity of the cork and facilitates the extraction of said cork or stopper, in that it dispenses with the necessity for the employment of independent extracting devices, it being noted that the tines present a flat surface against the lateral displacement of the cap with respect to the cork or stopper, thereby avoiding the tendency to fracture of the material, especially when of soft cork, under the twisting or turning strain to extract the same, which would otherwise occur were sharp edges presented in the direction of such twisting or turning. Moreover, it will be observed that in the formation of the tines no material is wasted, since they are all cut upon such lines as to secure the proper disposition of the tines of triangular shape without involving the necessity of further shaping or cutting or finishing the same for the intended functions, the tools needed being a simple die and the hand or pincers for bending the appropriate tines for side entry into the body of the cork or stopper, and, moreover, the embodiment of extracting means as a part of the cap or protector prevents the mutilation of the corks, thereby preserving them for repeated use without impairing their utility to any appre-

ciable extent, thereby reducing the cost of such closures to a minimum for obvious reasons.

Instead of providing the cap with tines 1 and 2 of greater length than the tines 3 and 4 these tines may be formed of lesser length from the blank A by striking them up in the manner shown in Fig. 4, where the tines 1^a and 2^a are cut with their outer edges on lines parallel to a diameter of the cap and the tines 3^a and 4^a, with their inner edges cut upon similar lines inside of the former, while the opposite edges are cut on a line oblique thereto, thus leaving webs *c* meeting at the central portion of the cap, in which form, it will be noted, the tines struck from each section of the cap join the body at the opposite sides of the openings formed when the material is displaced, thereby affording the strongest support for the individual tines. The tines in this form are applied to the closure in the manner as hereinbefore described, the tines 1^a and 2^a having their ends bent and entering the sides, as before, while 3^a and 4^a pass longitudinally into the closure. It will be further noted that in this form the oppositely-disposed tines 3^a and 4^a have their sides in a plane passing through the center of the cap, by which arrangement the maximum resistance to displacement of the cap with respect to the cork or closure is attained, while the tines 1^a and 2^a still have their sides disposed longitudinally to the sides of the closure, thereby forming a close binder for the same and facilitating the insertion of the bent ends into the sides and permitting the body of the said tines to be pressed into the yielding material of which the closure is usually formed, so as not to destroy the continuity of its surface.

It is sometimes desirable to apply a knob or handle to the top of the closures in which the tines 1 and 2 of the form shown in Fig. 4 may be bent from the side of the cap opposite to some of the tines 3 and 4 and a knob or handle 8 (see Fig. 7) applied thereto, the shorter tines 3 and 4 so arranged acting as the securing means for said knob or handle, or the tines may be cut on slightly-different lines, as shown in Fig. 4^b, where the outer tines 1^b and 2^b extend downwardly for engagement with the closure and the inner set 3^b and 4^b extend from the opposite face of the cap for engagement with the knob or handle, in which case the oppositely-disposed tines 3^b and 4^b are in a plane passing through the center of the cap, as in the previous construction, or, again, this form of my invention may be varied, as shown in the modification Fig. 4^c, where, it will be observed, the pairs of tines 3^c and 4^c are bent from opposite faces of the cap, the said pairs being in a plane passing through the center of the cap, as before, while one pair of the elongated tines 1^c and 2^c is used instead of two pairs, the elongated tines and the inner short tines 3^c and 4^c on the same side therewith constituting the fas-

tening means for applying the cap to the stopper, while the remaining pair of tines 3° and 4° is the attaching means for the knob or handle.

5 It is frequently desirable, especially for receptacles containing gummy or sticky substances, to provide additional strength to the cap and closure, and for this purpose I have devised the form shown in Fig. 5, in which
10 form the main cap may be made as in Fig. 2, with the elongated tines 1 and 2 projecting from the same face of both pairs or all of the shorter tines 3° and 4°, while a supplementary cap B is provided with a pair of elongated tines 1° and 2° cut from the central portion of the cap and extending in a similar direction to the tines 1 and 2 of the cap A, the former of which are passed through slits 9 in the cap A, thus confining the supplementary
15 cap to the main cap, the tines 1° and 2° being thus disposed at quadrant distances from the tines 1 and 2 and all adapted to embrace the sides of the cork or stopper and having their ends bent into the sides thereof.

25 When it may be desired to ornament the cap or impress thereon names, numbers, or other indicia, the reinforce-cap or supplementary cover may be imperforate, as shown in Fig. 6, and pressed upon the main cap of the form shown in Figs. 1 and 2, for example, the edges being turned over and inclosing the edge of said main cap.

I may also apply my protector and extractor-cap to a stopper carrying a brush or other shank, as in shoe-polish bottles and the like, in which relation it may not only be caused to serve the purposes hereinbefore specified, but likewise perform the additional function of securing and confining the shank or stem of the brush to the stopper, a feature which is of considerable importance in this class of closing devices. Such a form of my invention is shown in Fig. 7, where the wire stem or shank 10 is passed through the stopper and
35 the end looped across the head and passed downwardly into the central aperture of the shank or stem, two of the tines 3 and 4 being passed downwardly into the stopper-body between the contiguous parts or portions of the loop, thus preventing the shank from displacement, especially in a lateral direction. The other two tines 3 and 4 may be bent upwardly or from the opposite face of the cap to form fastening means for the knob or handle where such is desired, or they may be embedded in the stopper, as in Fig. 2, where the tines 1 and 2 are disposed as before.

In all the forms of my invention herein described and illustrated as examples of some
60 of the practical embodiments of my invention it will be observed that the tines or spurs are formed of material displaced from the body of the blank by a simple stamping action and that any suitable or desired number of such tines may be formed either projecting from the same face of the cap or from opposite faces thereof, and divided between said

faces to suit the particular kind of closure to which the cap is to be applied, and such result may be attained by a single operation, 70 as will be understood by those skilled in the art and without the loss or waste of any material.

Where I have used the plural in describing the sets of tines in the specification and claims, 75 it is to be understood that I intend to include within the scope of my invention and the claims covering the same such forms as may embody, when desired, one or more of the respective tines, either for side entry or for head or top of the closure, though I prefer to utilize two or more of each set for its particular function. 80

It is to be understood that any suitable material may be employed for the manufacture 85 of my improved cap or cover; but I prefer to use a malleable material—such, for example, as sheet metal.

I claim as my invention—

1. As a new article of manufacture, a cap 90 for a bottle or other receptacle closure comprising a body having tines or spurs extending therefrom, some of which are adapted for engagement with the side of the closure and others for engagement with the top or head 95 of the same, substantially as described.

2. As a new article of manufacture, a cap for a bottle or other receptacle closure comprising a body having tines struck up from the body of the blank, some of which are 100 adapted for engagement with the side of the closure and others for engagement with the head or top of the same, substantially as described.

3. As a new article of manufacture, a cork 105 or stopper for a bottle or other receptacle, having a protecting cap or cover consisting of a body of malleable material having tines extending along the side of the cork or stopper with bent ends embedded therein, and 110 other tines entering the head of the cork or stopper, substantially as described.

4. As a new article of manufacture, a cap for a bottle or other receptacle closure comprising a body having tines or spurs extending therefrom, some of which are adapted for engagement with the side of the closure and others for engagement with the top or head of the same, and a peripheral flange adapted to overlap the mouth of the receptacle, substantially as described. 120

5. As a new article of manufacture, a cap for a bottle or other receptacle closure comprising a body having tines struck up from the body of the blank, some of which are 125 adapted for engagement with the side of the closure and others for engagement with the head or top of the same, and a peripheral flange adapted to overlap the mouth of the receptacle, substantially as described. 130

6. As a new article of manufacture, a cork or stopper for a bottle or other receptacle, having a protecting cap or cover consisting of a body of malleable material having tines

extending along the side of the cork or stopper with bent ends embedded therein and other tines entering the head of the cork or stopper, and a peripheral flange adapted to overlap the mouth of the receptacle, substantially as described.

7. As a new article of manufacture, a cap or cover for a cork or stopper consisting of a body of malleable material having tines or spurs extending therefrom, some of which are embedded in the head of the cork or stopper and having their sides in the same plane and presenting flat surfaces in the direction of turning movement of the cork or stopper, substantially as described.

8. As a new article of manufacture, a cap or cover for a cork or stopper consisting of a body of malleable material having tines or spurs extending therefrom, some of which are embedded in the head of the cork or stopper and having their sides in a plane passing through the center of the cap, substantially as described.

9. As a new article of manufacture, a cap or cover for a cork or stopper consisting of a body of malleable material having tines or spurs extending therefrom, some of which are embedded in the head of the cork or stopper and having their sides in a plane passing through the center of the cap, and other tines extending along and having bent ends embedded in the side of the cork or stopper, substantially as described.

10. As a new article of manufacture, a cap or cover for a cork or stopper comprising a body having tines extending therefrom, some of which extend downwardly into the head of the cork or stopper and others along the side of the same with bent ends embedded therein, and a peripheral flange overlapping the cork or stopper, the outer edge of which flange is formed as a handhold for extracting the cork, substantially as described.

11. As a new article of manufacture, the herein-described cap or cover for a cork or stopper comprising a body of malleable material having tines struck up therefrom, some of which extend downwardly into the head of the cork or stopper and others alongside of the same with bent ends embedded therein, and a peripheral flange overlapping the cork or stopper and having its edge constructed to form a handhold for extraction of the cork or stopper, substantially as described.

12. As a new article of manufacture, the herein-described cap or cover for a cork or stopper comprising a body of malleable material having tines struck up therefrom, some of which extend downwardly into the head of the cork or stopper and others alongside of the same with bent ends embedded therein, and a peripheral flange overlapping the cork or stopper and having its edge rolled to form a handhold for extraction of the cork or stopper, substantially as described.

13. As a new article of manufacture, a reinforced cap or cover for a cork or stopper con-

sisting of a main cap composed of a body having tines extending therefrom, some embedded in the head of the cork or stopper and others extending along, and embedded in the side of, the same, a peripheral flange seated against the head of the cork or stopper, and a supplementary cap secured thereto, substantially as described.

14. As a new article of manufacture, a reinforced cap or cover for a cork or stopper consisting of a main cap composed of a body having tines extending therefrom, some embedded in the head of the cork or stopper and others extending along, and embedded in the side of, the same, a peripheral flange seated against the head of the cork or stopper, and a supplementary cap having tines extending therefrom through the main cap and having bent ends embedded in the side of the cork or stopper, substantially as described.

15. As a new article of manufacture, a cap or cover for a cork or stopper consisting of a body portion having tines extending from one face thereof, some of which are embedded in the head of the cork or stopper and others extending along, and having bent ends embedded in, the side of the same, and other tines extending from the opposite face of the cap and embedded in a supplementary knob or handle, thereby securing the same to said cap, substantially as described.

16. As a new article of manufacture, a cap or cover and brush or like holder for a cork or stopper consisting of a body portion having tines extending therefrom, some of which are embedded in the head of the cork or stopper and others extending along, and having bent ends embedded in, the side of the same, and a stem or shank passing through the cork or stopper and having its end looped across the head and passed into the cork, the contiguous parts of the loop clamping the head-securing tines between them, substantially as described.

17. As a new article of manufacture, a cap or cover and brush or like holder for a cork or stopper consisting of a body portion having tines extending therefrom, some of which are embedded in the head of the cork or stopper and others extending along, and having bent ends embedded in, the side of the same, and a stem or shank passing through the cork or stopper and having its end looped across the head, the contiguous parts of the loop clamping the head-securing tines between them, substantially as described.

18. As a new article of manufacture, a cap or cover and brush or like holder for a cork or stopper consisting of a body portion having tines extending therefrom, some of which are embedded in the head of the cork or stopper and others extending along, and having bent ends embedded in, the side of the same, a stem or shank passing through the cork or stopper and having its end looped across the head, the contiguous parts of the loop clamping the head-securing tines between them,

and other tines extending from the upper face of the cap and embedded in a knob or handle to secure the same thereto, substantially as described.

5 19. As a new article of manufacture, a cap or cover and brush or like holder for a cork or stopper consisting of a body portion having tines extending therefrom, some of which are embedded in the head of the cork or stopper
10 and others extending along, and having bent ends embedded in, the side of the same, a stem or shank passing through the cork or stopper and having its end looped across the head and passed into the cork, the contigu-
15 ous parts of the loop clamping the head-securing tines between them, and other tines extending from the upper face of the cap and embedded in a knob or handle to secure the same thereto, substantially as described.

20 20. As a new article of manufacture, a combined reinforced cap or cover for a cork or stopper and brush or other holder, consisting of a main cap having tines extending there-
25 from, some of which are embedded in the head of the cork or stopper and others extending along, and having ends bent into, the side of the same, and a peripheral flange seated against the head of the cork or stopper, said stem or shank passing through the cork with
30 its end looped across the head of the cork, the contiguous parts of which clamp the head-securing tines between them, and a supplementary cap secured to the main cap, substantially as described.

35 21. As a new article of manufacture, a combined reinforced cap or cover for a cork or stopper and brush or other holder, consisting of a main cap having tines extending there- from, some of which are embedded in the

head of the cork or stopper and others extend- 40 ing along, and having ends bent into, the side of the same, a peripheral flange seated against the head of the cork or stopper, said stem or shank passing through the cork with its end looped across the head of the cork, the con- 45 tiguous parts of which clamp the head-securing tines between them, and a supplementary cap having tines passing through the main cap and along the side of the cork or stopper with bent ends entering the side of the same, 50 substantially as described.

22. As a new article of manufacture, a combined reinforced cap or cover for a cork or stopper and brush or other holder, consisting of a main cap having tines extending there- 55 from, some of which are embedded in the head of the cork or stopper and others extending along, and having ends bent into, the side of the same, a peripheral flange seated against the head of the cork, a stem or shank passing 60 through the cork with its end looped across the head of the cork or stopper, the contiguous parts of which clamp the head-securing tines between them, and a supplementary cap having tines passing through the main cap 65 and along the side of the cork or stopper with bent ends entering the side of the same, and other tines extending from the upper face of the main cap and embedded in a knob or handle to secure the same to the cap, substan- 70 tially as described.

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

JAS. F. J. GUNNING.

Witnesses:

R. T. FRAZIER,
M. H. MILES.