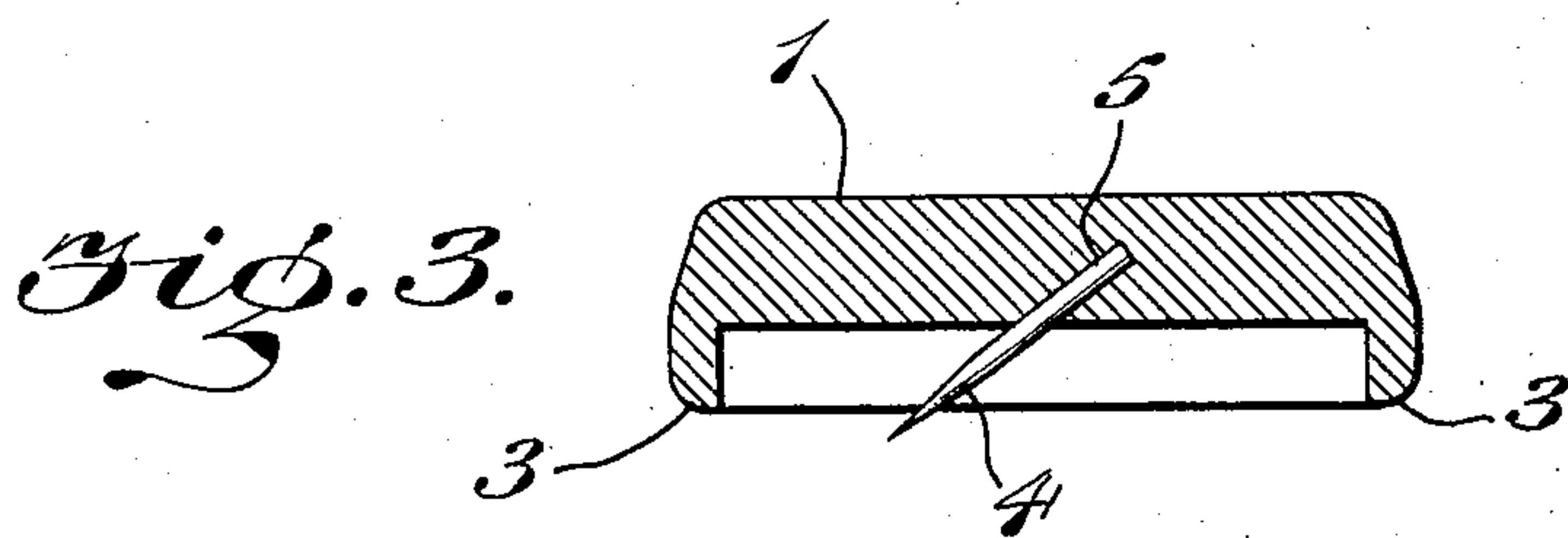
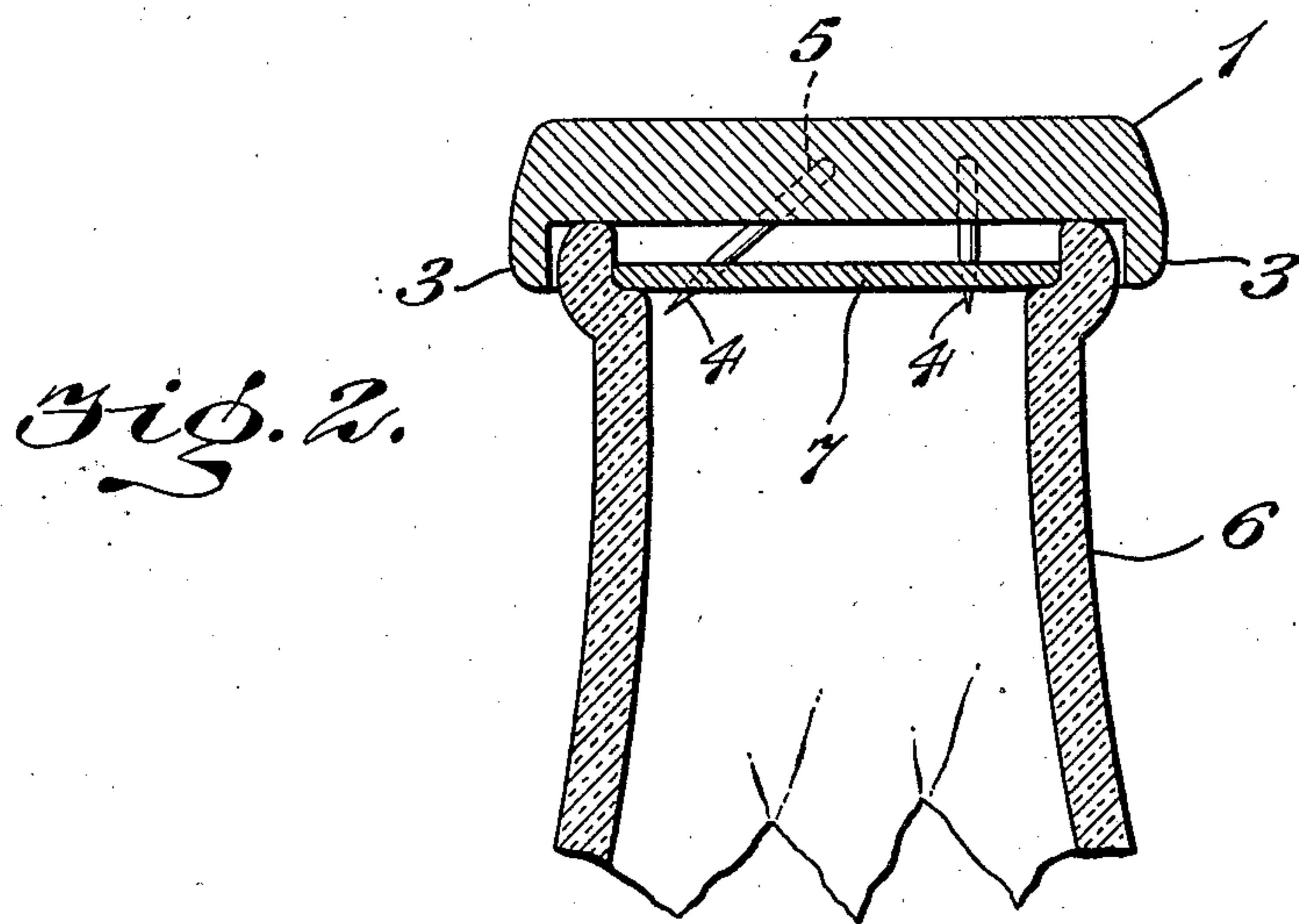
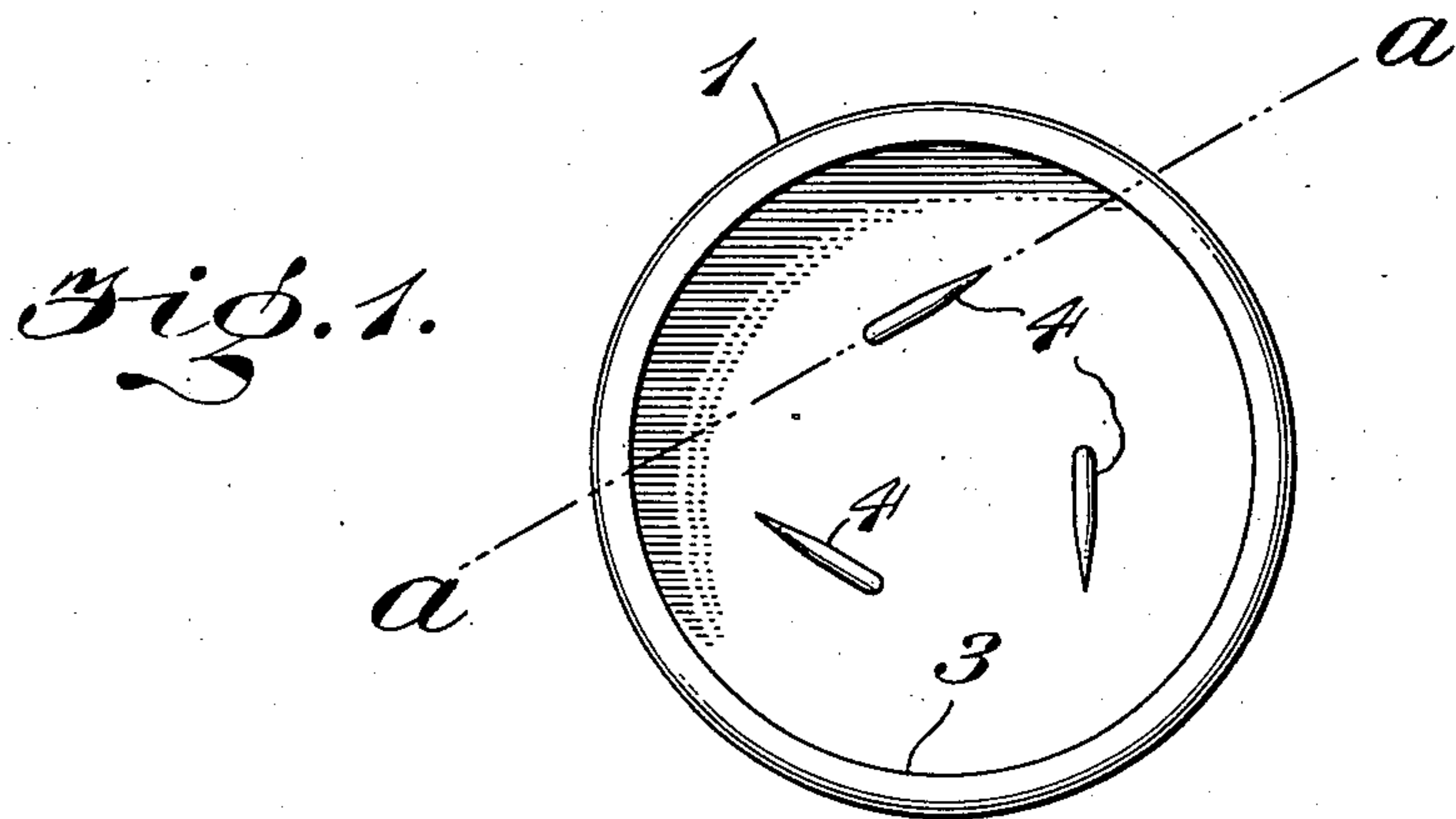


O. T. DOUGHERTY.
MILK BOTTLE OPENER.
APPLICATION FILED APR. 6, 1906.

948,392.

Patented Feb. 8, 1910.



WITNESSES

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OWEN T. DOUGHERTY, OF CHICAGO, ILLINOIS.

MILK-BOTTLE OPENER.

948,392.

Specification of Letters Patent.

Patented Feb. 8, 1910.

Application filed April 6, 1906. Serial No. 310,206.

To all whom it may concern:

Be it known that I, OWEN T. DOUGHERTY, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain Improvements in Milk-Bottle Openers, of which the following is a specification.

This invention relates to certain improvements in that class of devices which are especially designed and adapted for use for the removal of the paper caps or closures commonly employed for covering and protecting the mouths of milk bottles against the entry of dirt, dust and other impurities, and the object of the invention is to provide a device of this character of a simple and inexpensive nature and of a strong, compact and durable construction which shall be capable of convenient use for the removal of such paper caps or closures, being provided with improved means for holding such caps or closures after the removal thereof from the milk bottles, so that the device may, if desired, be further adapted to serve as a tight fitting cover for the bottle to prevent entry of impurities after the bottle has been opened.

The invention consists in certain novel features of the construction and combinations and arrangements of the several parts of the improved milk bottle opener, whereby certain important advantages are attained and the device is rendered simpler, cheaper and otherwise better adapted and more convenient for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the claim.

In the accompanying drawings which serve to illustrate my invention—Figure 1 is an underside view showing a milk bottle opener constructed according to my invention; Fig. 2 is a transverse section taken centrally and vertically through the device constructed as shown in Fig. 1, and showing the same applied for use for removing the cap or closure of a milk bottle or the like, and—Fig. 3 is a sectional view somewhat similar to Fig. 2 but taken in the plane indicated by the line *a-a* in Fig. 1, and showing the manner of securing the pointed metal piece in position in the body portion of the device.

As shown in the drawings, the device comprises a body portion 1 which is made in the form of a circular cap of a diameter

adapted to fit loosely over the mouth of a milk bottle, and as shown in Fig. 1, this body portion or cap is formed from an integral piece of wood the marginal or edge portion 3 of which is extended downward to form a pendent flange encircling the same and adapted to take down around the lip of the milk bottle 6 and upon the underside of the body portion or cap 1 and within said annular pendent flange 3 there are held a plurality of metal pins 4, 4 of which any desired number may be provided and which have sharp pointed extremities and are of such stiffness or inflexibility as to be adapted, when the cap or body portion is pressed down upon a closed milk bottle 6, to penetrate the paper closure 7 thereof at different sides of the center thereof. Said pins 4, 4 are also set in a substantially spiral arrangement, being extended at downward inclinations with respect to each other and to the underside of the body portion 1 so that when a slight turning movement is imparted to said body portion at the time of pressing the same down on the mouth of the milk bottle, such inclination of the pins will serve to draw the paper closure 7 upward and out of sealing engagement with the mouth of the bottle and to hold such paper closure 7 fast upon the underside of the body portion so that when the device is lifted off from the milk bottle 6 after having been pressed down and slightly turned thereon, the paper closure of the bottle will also be removed with said device.

The pendent marginal flange 3 is turned out as an integral part of the wooden body portion of the device and the pins 4, 4 have their upper ends 5, 5 embedded in the wooden body portion and secured by means of glue or the like, if desired. Where this construction of the device is employed, the body portion being formed from wood will swell slightly from absorption of moisture, and thereby the upper ends of the pins 4, 4, will be securely held and prevented from accidentally dropping therefrom during service.

The improved milk bottle opener constructed according to my invention is of an extremely simple and inexpensive nature and is especially well adapted for use by reason of the readiness with which it may be employed for the removal of the paper caps and also for covering the bottle when the said cap has been removed from the mouth thereof and it will also be evident

from the above description that the device is capable of some modification without material departure from the principles and spirit of the invention and for this reason
5 I do not desire to be understood as limiting myself to the precise form and arrangement of the several parts of the device as herein set forth in carrying out my invention in practice.

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

15 A device of the character described having a body portion formed from wood with an undersurface adapted to fit over the mouth of a milk bottle or the like and inflexible pointed pins, straight from end to end, having their upper ends embedded

within the wooden body portion so as to be capable of being retained in position by the swelling of the wood from which said body portion is produced, and having their lower pointed extremities spaced apart and extended at inclinations to the undersurface of said body portion in position to engage and pierce a paper bottle closure at different sides of its center when the body portion is turned. 20 25

In testimony whereof I have hereunto signed my name at Chicago, Illinois, this 20th day of February in the presence of two subscribing witnesses. 30

OWEN T. DOUGHERTY.

Witnesses:

J. D. CAPLINGER,
C. S. KELLEY.