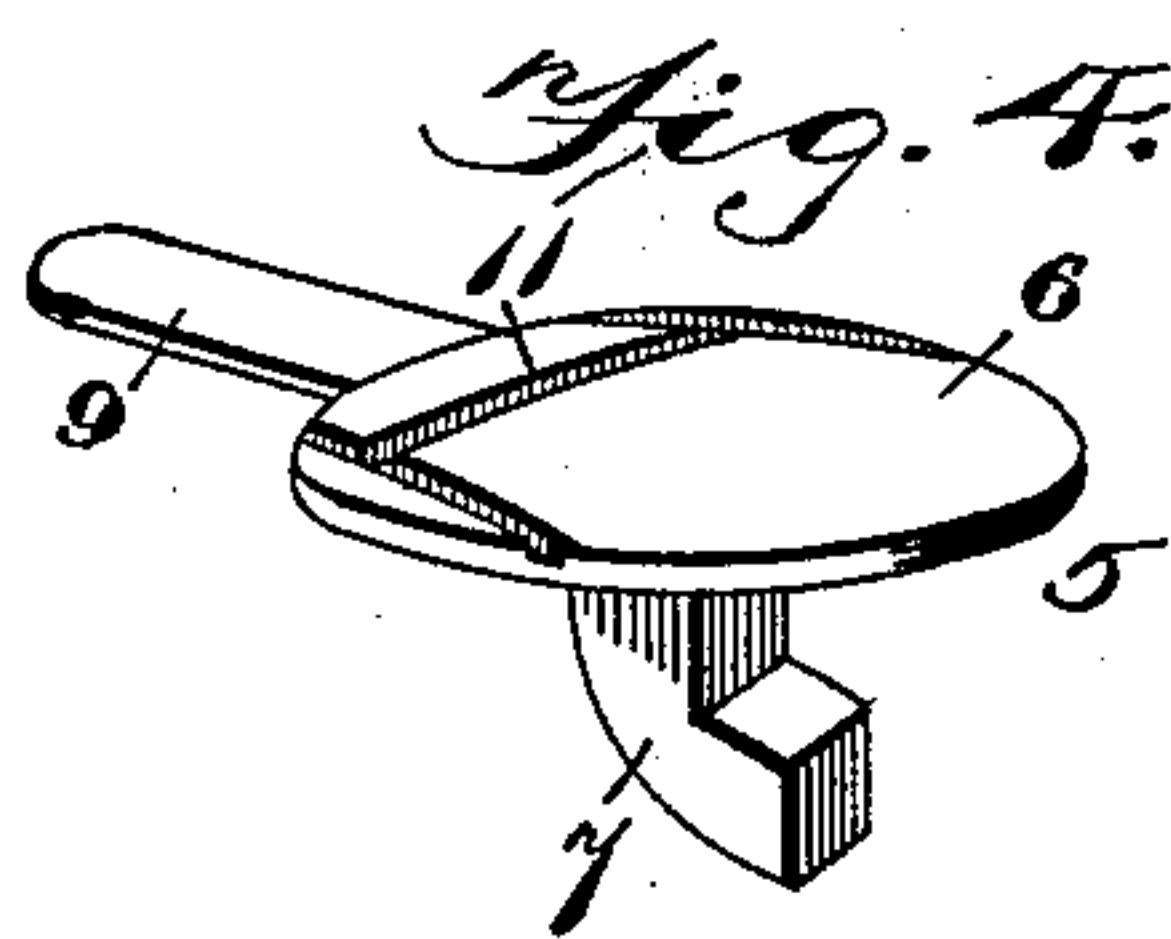
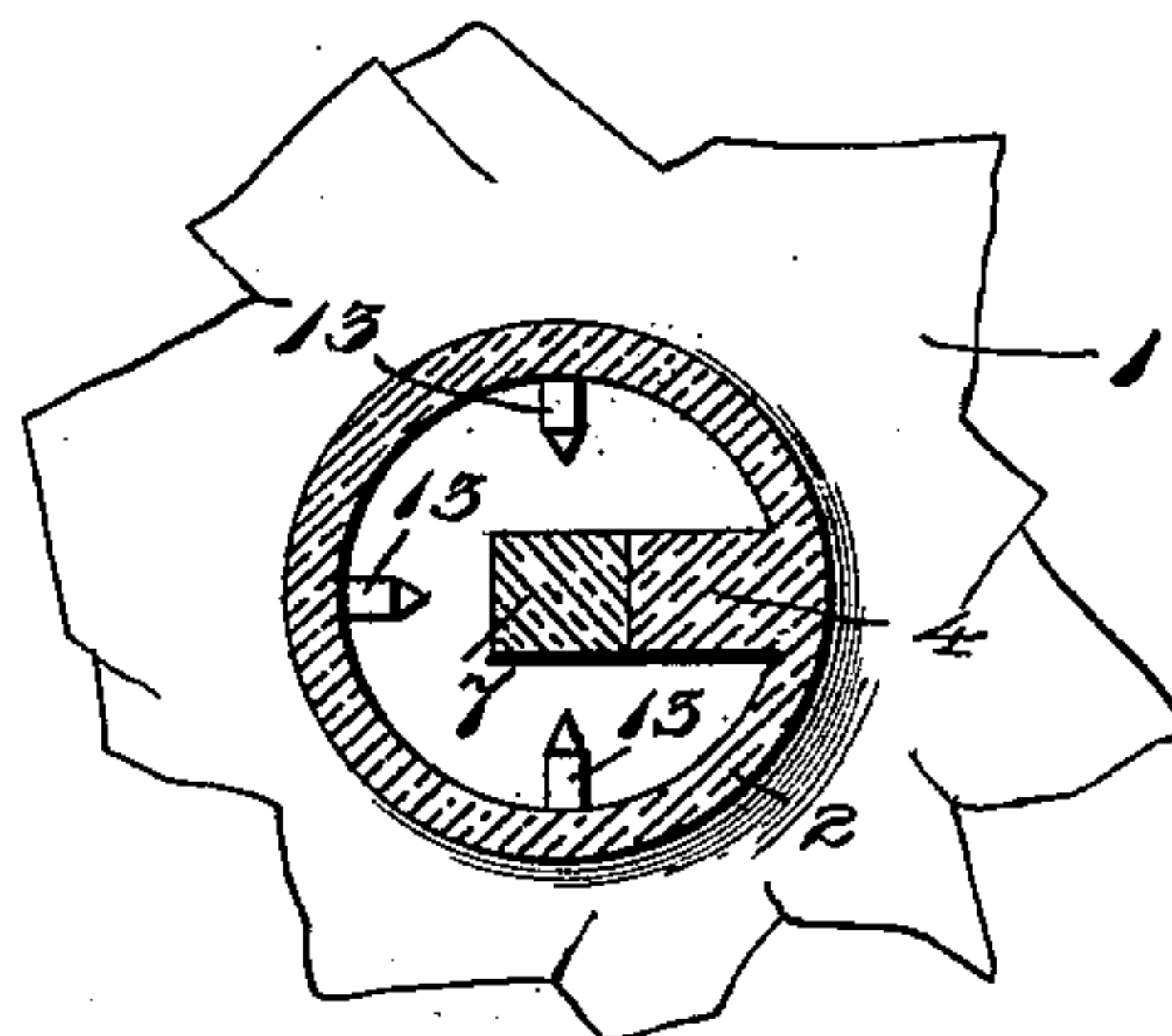
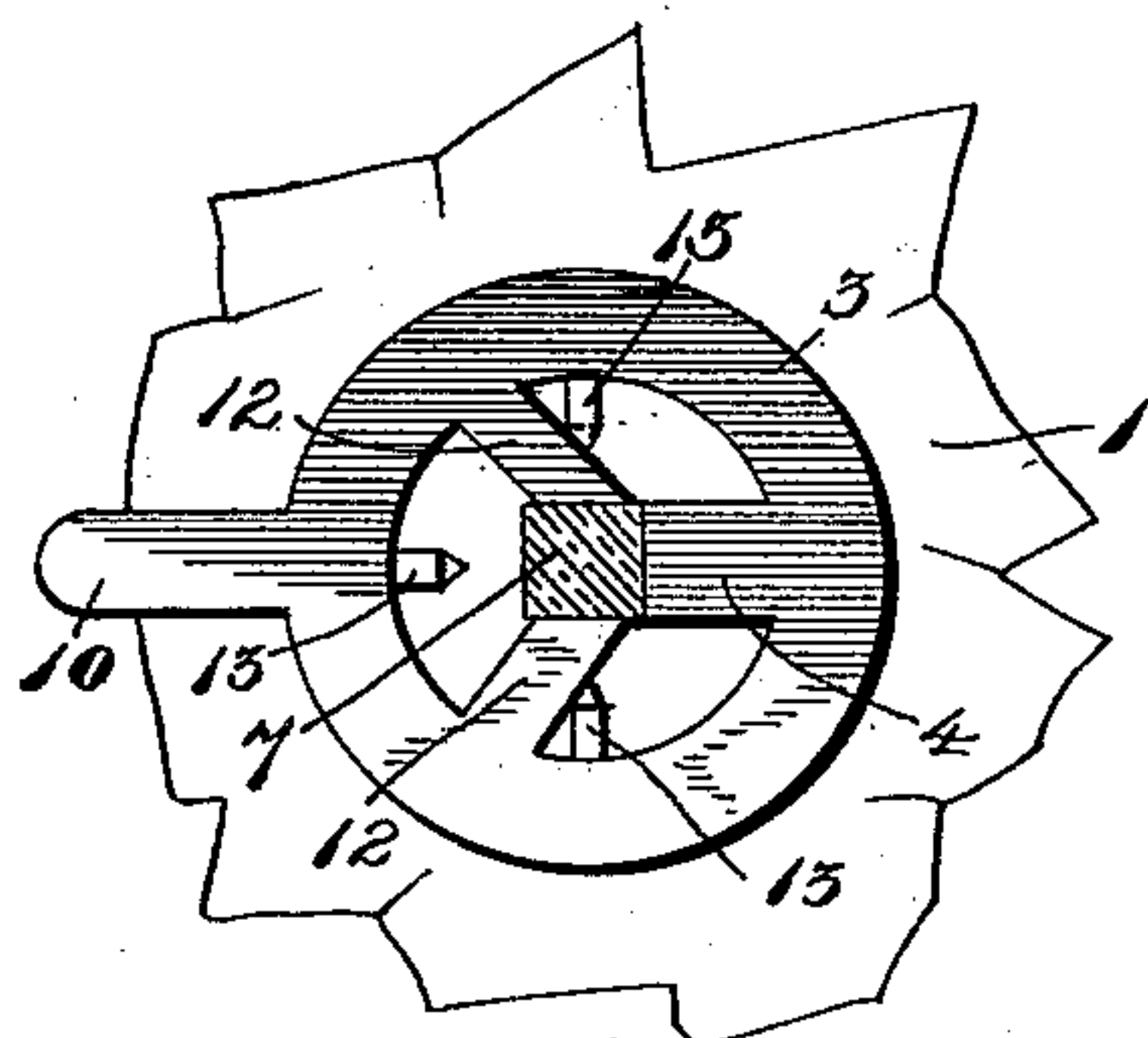
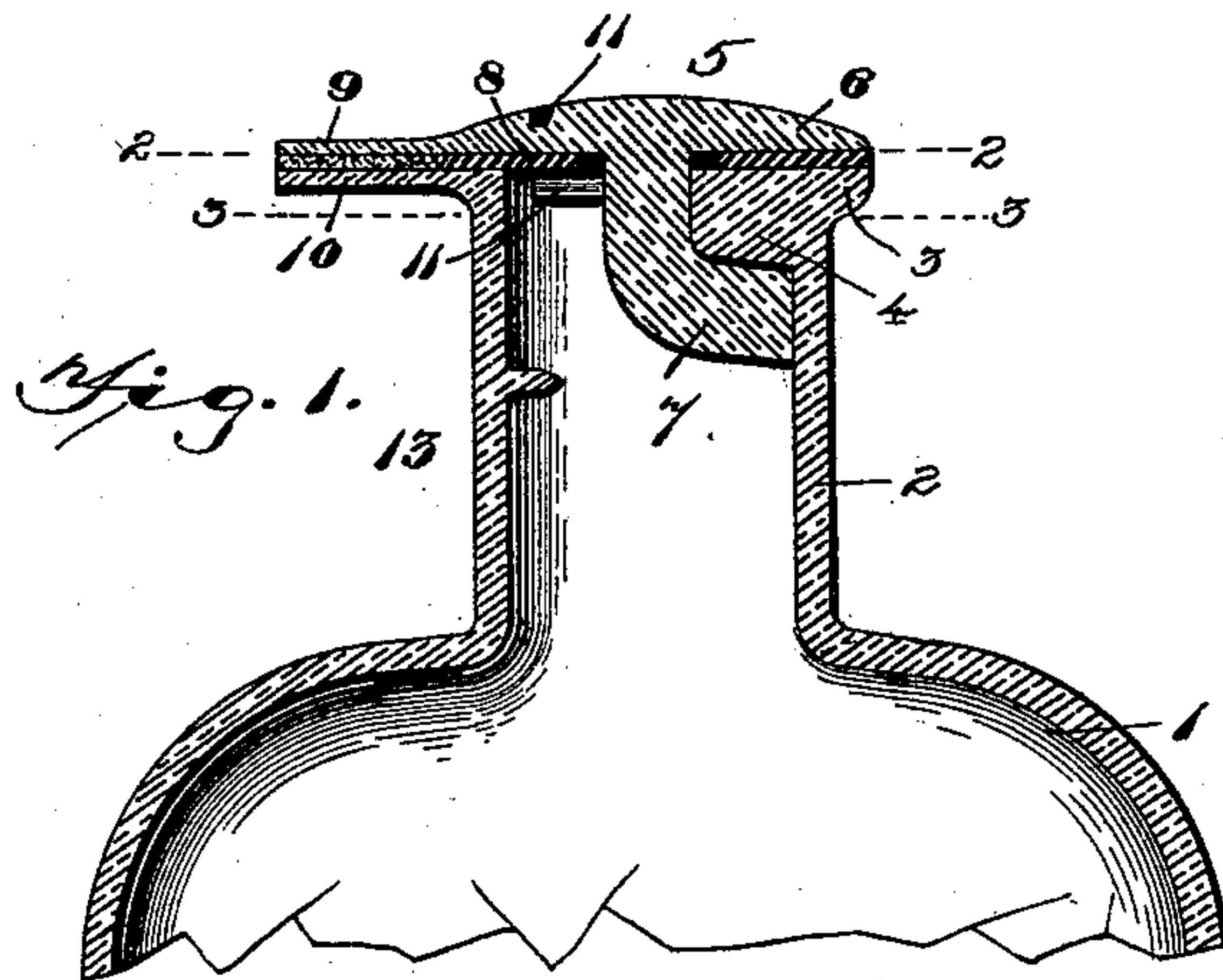


(No Model.)

M. R. SCHAFFER.  
BOTTLE.

No. 594,565.

Patented Nov. 30, 1897.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

MARTIN R. SCHAFFER, OF SLATINGTON, PENNSYLVANIA.

## BOTTLE.

SPECIFICATION forming part of Letters Patent No. 594,565, dated November 30, 1897.

Application filed December 5, 1896. Serial No. 614,598. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN R. SCHAFFER, a citizen of the United States, residing at Slatington, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in antirefilling bottles.

The object of the invention is to provide a bottle of the class described which will prevent the same being refilled after the original contents have been removed therefrom and thereby overcome the liability of adulterated liquids being placed in the bottle and sold for the original contents; and, further, the invention aims to increase the effectiveness of the bottle by providing in its construction means for preventing a cork or other stopper being fastened hermetically therein after the original stopper has been removed.

With these objects in view the invention consists substantially in the construction, combination, and arrangement of parts, as will be hereinafter fully illustrated, described, and claimed.

In the accompanying drawings, Figure 1 is a vertical sectional view of a bottle constructed in accordance with the present invention. Fig. 2 is a sectional plan view on the line 2 2, Fig. 1. Fig. 3 is a similar view on the line 3 3, Fig. 1. Fig. 4 is a detail perspective view of the stopper for the bottle.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the drawings, 1 designates the body of a bottle, which is provided with a neck 2, having at its upper end an annular flange 3, and projecting inwardly from the upper end of the neck 2 is a lug 4, the latter being formed integral with the neck and having its lower inner side slightly beveled for a purpose to be presently stated.

Mounted upon the exterior of the upper end of the neck 2 and adapted to close said neck is a stopper 5, the latter comprising a disk 6, depending from the lower central side of which is a locking-hook 7, which is adapted

to be brought into engagement with the lug 4 of the neck 2, and for enabling the ready engagement and release of the locking-hook 7 with the lug 4 said hook is slightly beveled at its upper side, so as to readily slide beneath the lower beveled side of the lug 4. The disk 6 has at its under side a lining 8, which may be of cork or rubber and is preferably in the shape of a washer, the opening of which receives the locking-hook 7. Projecting outwardly from the disk 6 is a sealing-tab 9, corresponding to and adapted to be seated and cemented upon a similar tab 10, formed integral with and projecting outwardly from the neck 2, and formed in the upper surface of said disk 6 is a series of diverging fracture-grooves 11, by which the stopper may be readily broken when it is desired to remove the contents of the bottle.

The upper end of the neck 2 at the flange 3 is provided with a plurality of inwardly-extending keepers 12, formed integral with the neck 2, and after the stopper 5 has been placed over the neck 2 and the locking-hook 7 engaged with the inwardly-projecting lug 4 the inner ends of the keepers 12 lie against the sides of the locking-hook 7 and are thus adapted to prevent rotation of the stopper or such movement thereof as will tend to release the locking-hook 7 from engagement with the locking-lug 4.

In order to prevent a cork or other form of stopper being inserted within the neck 2 of the bottle and forming a hermetic joint therewith after the original stopper has been broken, a series of inwardly-extending pins 13 are formed integral with the inner side of the neck 2, said pins being arranged in different planes, and together with the inwardly-extending lug 4 and the keepers 12 effectually serve to prevent a stopper being made of such form as will correspond with the contour of the inner side of the neck 2.

After the bottle 1 has been filled with suitable contents, to seal the same it is simply necessary to insert the hook 7 of the stopper 5 into the neck 2 and then move the disk 6 in such a manner as to force the locking-hook beneath the inwardly-extending lug 4, the sealing-tabs 9 and 10 thereby becoming seated upon each other. When this has been done, the sealing-tabs are dipped into a suitable



cement, by which the same are securely fastened together, and by reason of the inner ends of the keepers 12 contacting with the locking-hook 7 at different points the locking-hook is prevented being rotated from beneath the lug 4 or being slid therefrom. The bottle is now sealed, and when the contents are to be removed a sufficient pressure is applied to the sealing-tabs 9 and 10 to fracture the same, thereby also breaking the stopper through the grooves 11 and rendering such stopper unfit for further use. This releases the stopper 5 and permits removal of the contents of the bottle. When the stopper has been thus removed, it is quite obvious that it is impossible to insert another stopper within the neck 2, since the keepers 12, the pins 13, and the lug 4 will prevent the insertion of such stopper as to form an air-tight joint with the neck 2.

From the foregoing description it will be seen that I have provided a bottle which is effective in its use, simple in its construction, and designed to effectually prevent the subsequent insertion of a stopper so as to render the bottle air-tight.

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

1. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-projecting lug, of a stopper mounted upon the exterior of the neck and having means for engagement with said lug, and sealing-tabs arranged at the exterior of the neck for locking the stopper into engagement therewith, substantially as set forth.

2. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-projecting lug, of a stopper adapted to be mounted on said neck and provided with a locking-hook adapted to engage with said lug, and keepers arranged upon the neck and adapted to lock said hook in engagement with the lug, substantially as set forth.

3. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-projecting lug, of a stopper adapted to be mounted on said neck and provided with a locking-hook adapted to engage with said lug to retain the stopper upon the neck, keepers carried by the neck and adapted to lock said hook in engagement with said lug, and sealing-tabs formed on the neck and on the stopper and adapted to be secured together so as to seal the bottle, substantially as set forth.

4. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug and having a series of inwardly-projecting pins arranged in different planes and adapted to prevent insertion within the neck of a stopper after the original stopper has been removed therefrom, of a stopper having at its lower side a locking-hook adapted to engage with the in-

wardly-extending lug of the neck, means for hermetically sealing the stopper on the neck, and keepers carried by the neck and adapted to retain the locking-hook in engagement with the inwardly-extending lug of the neck and preventing disengagement of the same therefrom, substantially as set forth.

5. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug and having a series of inwardly-projecting pins arranged in different planes adapted to prevent insertion within the neck of a stopper after the original stopper has been removed therefrom, of a stopper having at its lower side a locking-hook adapted to engage with the inwardly-extending lug of the neck, means for hermetically sealing the stopper on the neck, keepers carried by the neck and adapted to retain the locking-hook in engagement with the inwardly-extending lug of the neck and prevent disengagement therefrom, and sealing-tabs formed on the neck and the stopper, said tabs being adapted to be sealed together to securely retain the stopper in said neck, substantially as set forth.

6. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug and having a series of inwardly-projecting pins arranged in different planes, said pins being adapted to prevent the insertion within the neck of a stopper after the original stopper has been removed therefrom, said neck being further provided with a series of keepers, of a stopper adapted to be mounted upon the neck and provided with a locking-hook, and also having a lining whereby said stopper may be hermetically sealed to the neck, said locking-hook being adapted to engage with the inwardly-extending lug of the neck and be retained in engagement therewith by said keepers, and sealing-tabs formed on the neck and the stopper and adapted to be securely fastened together so as to seal the bottle, substantially as set forth.

7. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug and having a series of inwardly-projecting pins arranged in different planes, said pins being adapted to prevent the insertion within the neck of a stopper after the original stopper has been removed therefrom, said neck being further provided with a series of keepers, of a stopper adapted to be mounted upon the neck provided with a locking-hook and also having a lining whereby said stopper may be hermetically sealed to the neck, said locking-hook being adapted to engage with the inwardly-extending lug of the neck and be retained in engagement therewith by said keepers, a sealing-tab formed integrally with the stopper and projecting therefrom, and a sealing-tab formed integrally with the neck and corresponding with the sealing-tab of the stopper, said tabs being adapted to be securely



fastened together so as to seal the bottle, and be fractured to permit opening of the latter, substantially as set forth.

8. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug, and having a series of inwardly-projecting pins arranged in different planes, said pins being adapted to prevent the insertion within the neck of a stopper after the original stopper has been removed therefrom, said neck being further provided with a series of keepers, of a stopper adapted to be mounted upon the neck and provided with a locking-hook, and also having a lining whereby said stopper may be hermetically sealed to the neck, said locking-hook being adapted to engage with the inwardly-extending lug of the neck and be retained in engagement therewith by said keepers, said stopper being further provided with a plurality of fracture-grooves, a sealing-tab formed integrally with the stopper, and a sealing-tab formed integrally with the neck and corresponding with the sealing-tab of the stopper, the sealing-tab of the latter being adapted to be seated and securely fastened upon the sealing-tab of the neck, whereby the bottle is sealed, substantially as set forth.

9. In a bottle of the class described, the combination with the neck thereof provided with an inwardly-extending lug, the lower side of which is beveled, and having a series

of inwardly-projecting pins arranged in different planes, said pins being adapted to prevent the insertion within the neck of a stopper after the original stopper has been removed therefrom, said neck being further provided with a series of keepers, of a stopper adapted to be mounted upon the neck and provided with a locking-hook the upper side of which is beveled to correspond with the beveled lower side of the inwardly-projecting lug, and also having a lining whereby said stopper may be hermetically sealed to the neck, said locking-hook being adapted to engage with the inwardly-extending lug of the neck and be retained in engagement therewith by said keepers, said stopper being further provided with a plurality of fracture-grooves, a sealing-tab formed integral with said stopper, and a sealing-tab formed integral with the neck and corresponding with the sealing-tab of the stopper, the sealing-tab of the latter being adapted to be held and securely fastened upon the sealing-tab of the neck, whereby the bottle is sealed, substantially as set forth.

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

MARTIN R. SCHAFFER.

Witnesses:

OLIVER J. BENNER,  
DAVID MCKENNA.