W. D. KAHN.

VALVE FOR FLUID CONTAINERS.

APPLICATION FILED MAR. 27, 1915.

1,166,690.

Patented Jan. 4, 1916.

Fig. 1.

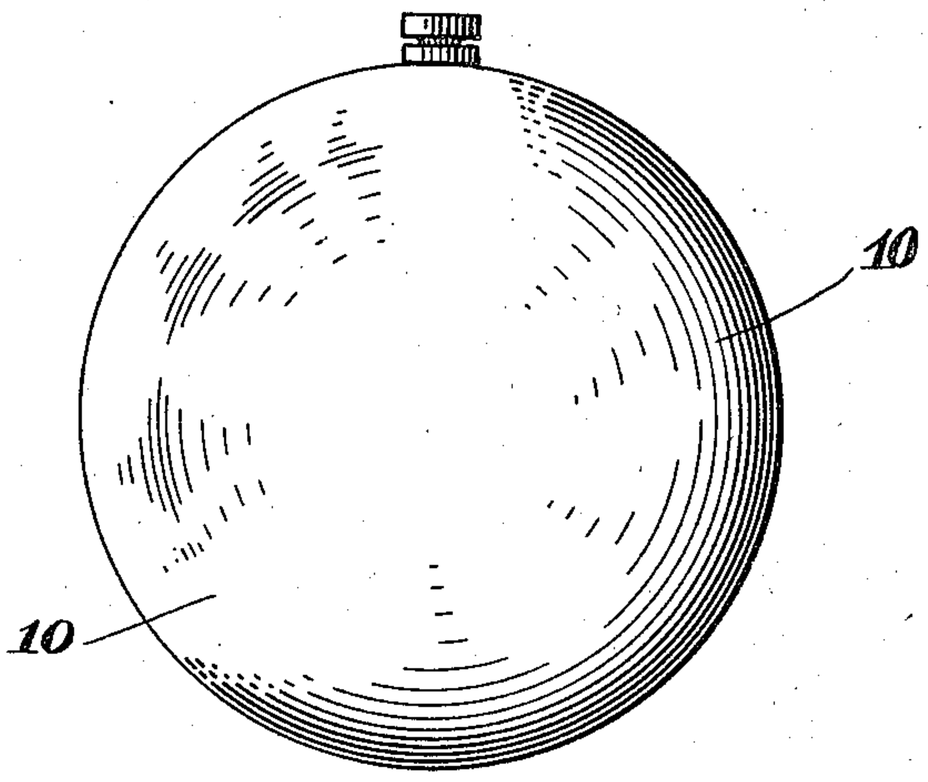


Fig. 2.

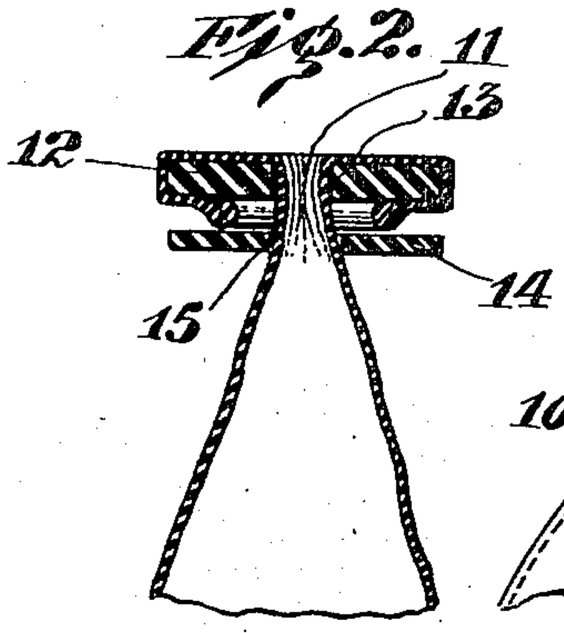


Fig. 3.

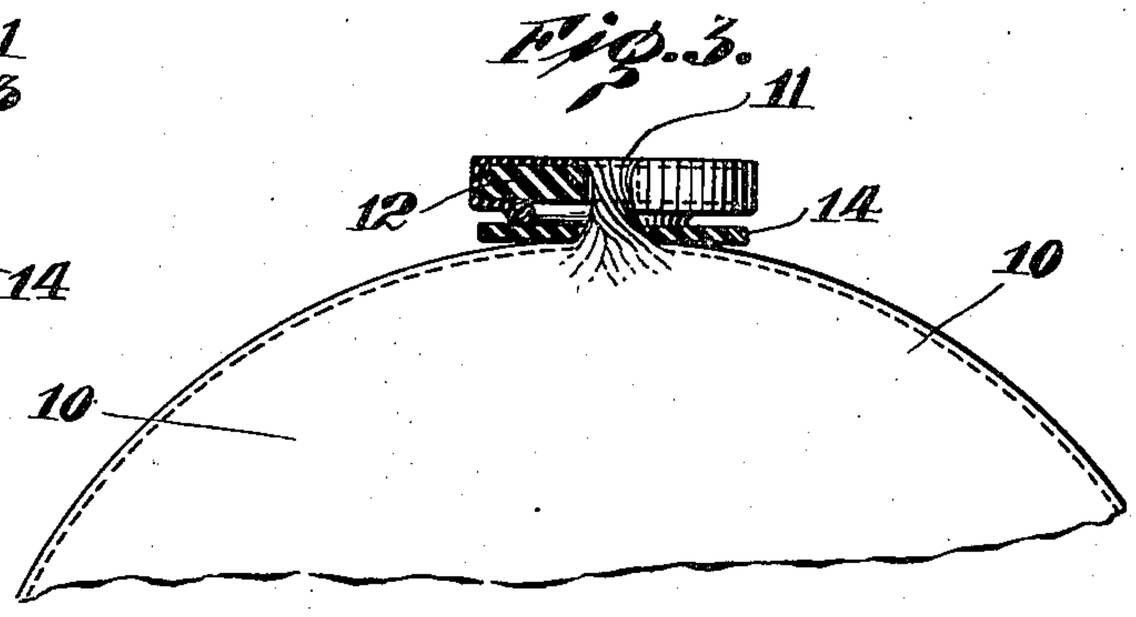
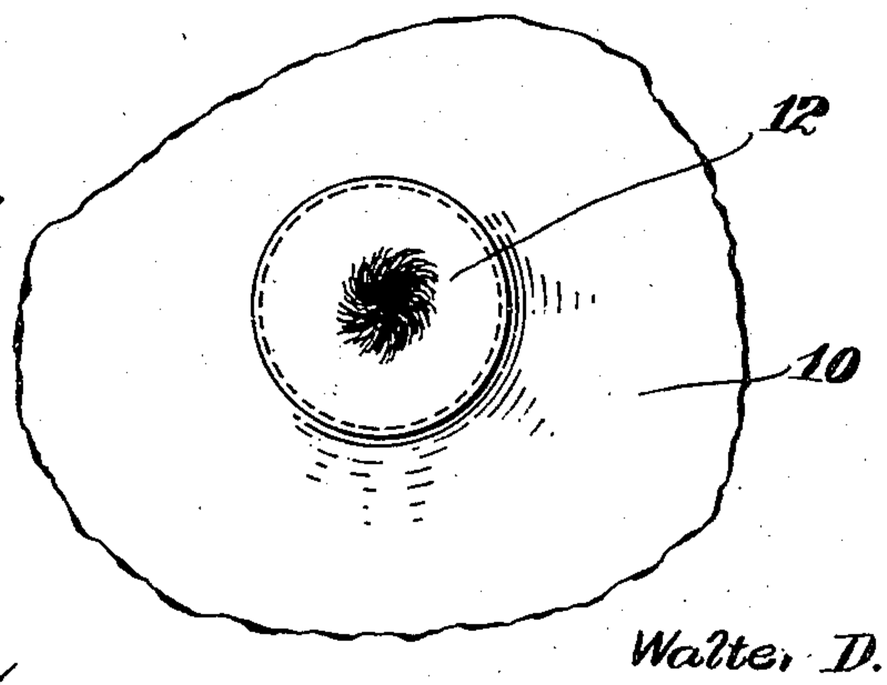


Fig. 4.



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UNITED STATES PATENT OFFICE.

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VALVE FOR FLUID-CONTAINERS.

1,166,690. Specification of Letters Patent. Patented Jan. 4, 1916.

Application filed March 27, 1915. Serial No. 17,311.

To all whom it may concern:

Be it known that I, WALTER D. KAHN, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Valves for Fluid-Containers, of which the following is a description.

My invention relates to valves for fluid containers by means of which such containers may be filled with fluid, and which may thereafter be operated to prevent the escape of fluid from the container.

The object of my invention is to provide such a valve which shall be of simple construction and effective in operation.

In the drawing, Figure 1 is an elevation of a fluid container provided with my improved valve. Fig. 2 is a fragmentary sectional view of my improved valve and part of the container, showing the relative position of the parts when the container is empty. Fig. 3 is a fragmentary view partly in section of the parts shown in Fig. 2 but showing the relative positions thereof when the container is full of fluid, and Fig. 4 is a plan view of the valve as shown in Fig. 3.

In Fig. 1, 10 represents a fluid container, for example, a rubber toy balloon for containing the air, gas or other fluid under pressure. This container is provided with an orifice such as is shown at 11 in Fig. 2 for the entrance and egress of the fluid when desired. The material of the container adjacent the orifice 11 is connected in any suitable way to a disk 12, preferably made of relatively stiff material, such as fiber. As shown herein, this disk is provided with a central opening 13 through which the material of the container adjacent the orifice 11 is adapted to pass. After passing through this opening 13, the material may be stretched over disk 12 in the manner shown to substantially inclose it.

Interposed between the body portion of the container 10 and disk 12 is a disk or washer 14, which is preferably flexible so as to adapt itself to the contour of the container and otherwise better perform its functions. Disk 14 is provided with a central opening 15 for the passage of the material of the container adjacent the orifice 11.

As seen in Fig. 2, when the container is empty, a free passage of fluid into or out of the container through the orifice 11 is permitted. After the container has been filled with the desired fluid in any suitable manner, disk 12 to which the material of the container adjacent the orifice adheres, is twisted until the orifice 11 has been closed. This will, of course, prevent the escape of fluid through the orifice 11. The disk 14, heretofore referred to, now operates to retain disk 12 in the position to which it has been turned and thus retain the orifice 11 closed. This result is obtained by disk 14 being forced against disk 12 or the material inclosing said rubber disk by the pressure exerted against the disk 14 by the fluid pressure within the body portion of the container as shown in Fig. 3.

The advantages of my improved valve should be apparent from the above description. There is practically nothing to get out of order, the form comprising as it does merely two disks or washers which may be of any desired material, such as rubber. Also by the use of this valve the orifice into the container may be closed as tightly as desired by merely turning the disk 12 the desired amount.

While I have shown a particular embodiment of my invention, I do not wish to limit myself thereto, since obviously, many changes may be made therein without departing from the spirit of my invention.

What I claim is:—

1. A valve for the orifice of a fluid container, comprising a disk to which the material of the container adjacent the orifice is adapted to be connected, whereby the material may be twisted to close the orifice and a second disk adapted to be interposed between the first disk and the container for retaining the material in twisted condition.

2. A valve for the orifice of a fluid container comprising a disk which is provided with a central opening for the passage of the material of the container adjacent the orifice and which is adapted to be substantially inclosed by said material and a second disk adapted to be interposed between the first disk and the container and also provided with a central opening for the passage of such material.

3. A valve for the orifice of a fluid container comprising a relatively stiff disk,

provided with an opening for the passage of the material of the container adjacent its orifice, and a flexible disk interposed between the stiff disk and the container and also provided with an opening for the passage of such material.

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

WALTER D. KAHN.

Witnesses:
THOS. STACEY,
SAM HEYMAN.