H. S. RODGERS.

SIFTING CLOSURE FOR VESSELS.

APPLICATION FILED APR. 20, 1910.

985,634. Patented Feb. 28, 1911.

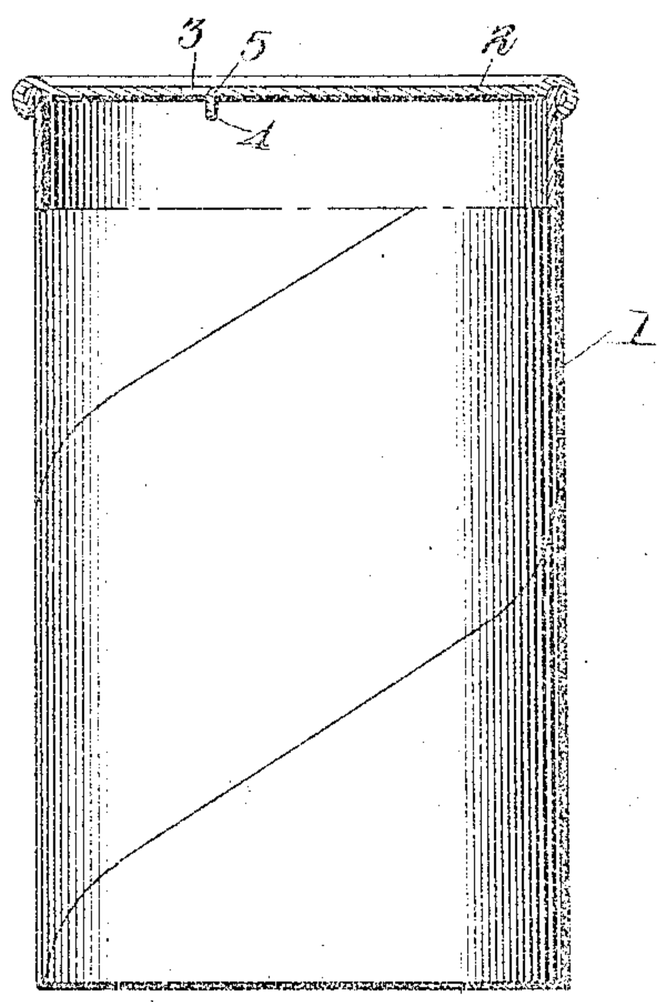


Fig. 1.

Fig. 2.

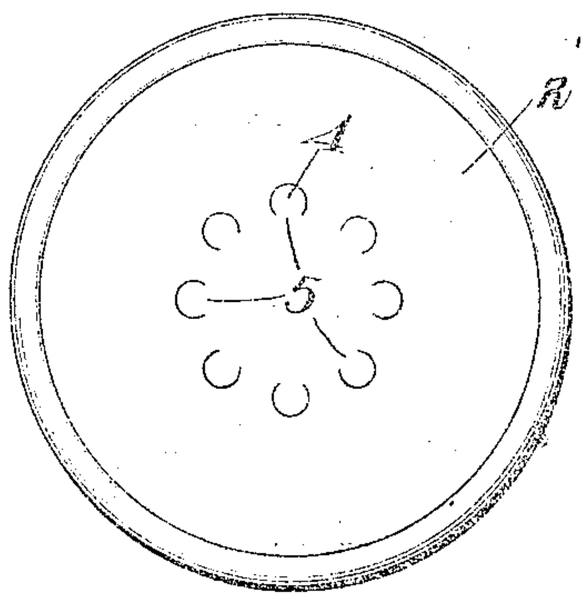


Fig. 3.

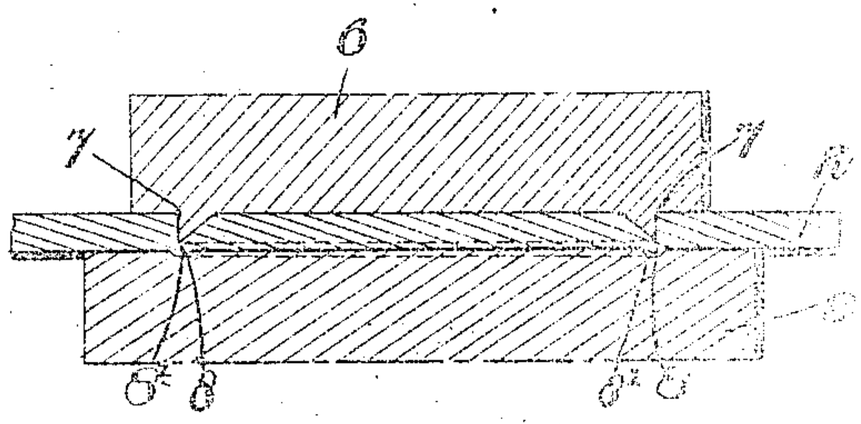


Fig. 4.

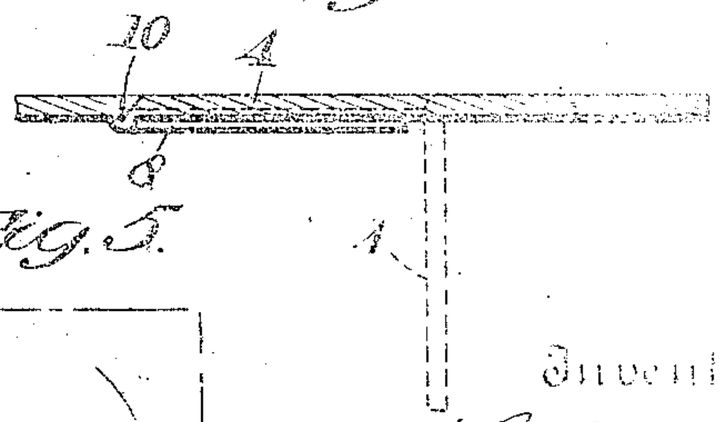


Fig. 6.

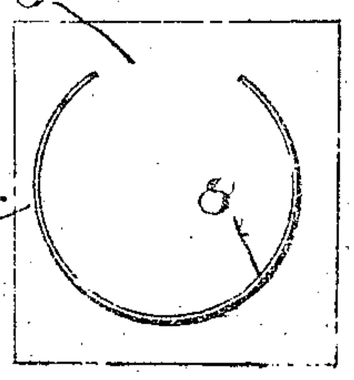
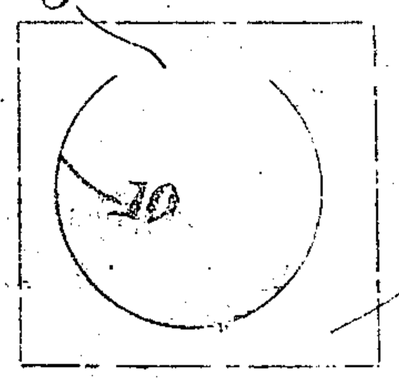


Fig. 5.



Witnesses
Geo. H. Boyd.
B. B. Collings.

Inventor
H. S. Rodgers by
Wiedersheim Fish
& Wiedersheim
Attorneys

UNITED STATES PATENT OFFICE.

HOWARD S. RODGERS, OF NEW YORK, N. Y., ASSIGNOR TO SINGLE SERVICE PACKAGE CORPORATION OF AMERICA, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

SIFTING-CLOSURE FOR VESSELS.

985,634. Specification of Letters Patent. **Patented Feb. 28, 1911.**

Application filed April 20, 1910. Serial No. 556,639.

To all whom it may concern:

Be it known that I, HOWARD S. RODGERS, a citizen of the United States, residing at New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Sifting-Closures for Vessels; 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 sifting tops for vessels, and has for its object the provision of sifting holes which may be readily opened, and yet at the same time will be ordinarily securely closed so that no danger will be incurred of losing the contents of the can.

To these ends, the invention consists in the novel details of construction and combination of parts, more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals refer to like parts in all the views: Figure 1 is a view partly in section of a vessel provided with a top made in accordance with my invention. Fig. 2 is a plan view of the parts shown in Fig. 1. Fig. 3 is an enlarged detail view showing the dies for forming the perforations in my can top. Fig. 4 is an enlarged detail view of one of the perforations employed in my invention. Fig. 5 is a top plan view of the parts shown in Fig. 4, and Fig. 6 is a bottom plan view of said parts.

1 represents a vessel which may be made of any suitable material, and 2 a sifting closure therefor which may likewise be of any suitable material and construction.

3 represents sifting perforations in the closure 2 which are preferably formed by cutting out disks 4 around a large portion of their circumference leaving a portion 5 integral with the can top 2.

Heretofore in making sifting openings for can tops, it has been customary to punch the metal through and to leave an integral portion such as 5 to form a hinge for the disk 4. The punching operation, however, causes the disk 4 to be bent to a greater or less degree out of the plane of the top 2, and unless said disk 4 was bent back into the plane of the disk 2, the contents of the can would be lost during shipment owing to the perforation 3 being open. This bending operation, however, besides being inconvenient, would often cause the hinge 5 to break, thus leaving the perforation 3 entirely open. Especially would this be the case when the perforation 3 was made through an imperfect spot in the metal. In order to avoid the above objections I do not cut the perforations entirely through the metal, but, on the other hand, provide a cutting die 6 with cutting edges 7 which are very slightly shorter than the thickness of the metal to be operated upon. The top 2 is thereupon supported upon a die 9 which is provided with very slight depressions 8′ opposite the cutting edges 7, and when the two dies come together the metal is not severed entirely through as indicated in Fig. 3, but it is provided with a very slight skin-like bulge 8 which serves to hold the parts together, but which may with a slight pressure from the thumb nail or from any convenient instrument be broken and thereby permit the perforation 3 to be opened. In other words, as clearly shown in Fig. 4, should pressure be brought upon the disk 4, the metal would break along the circular bulge 8, and the said disk 4 would be forced down into the dotted line position shown in Fig. 4, thereupon completely opening the perforation 3. I regard these skin-like bulges 8 as an important feature of my invention for the reason that metal often possesses hard spots, and when only partially cut through over one of these spots it is not possible to easily dislodge the disk and to complete the perforation. On the other hand, if the cutting edges 7 are made sufficiently long to dislodge or displace the metal into the depressions of the lower die thereby forming the webs or bulges 8 these webs become as easily ruptured when formed from hard spots as when formed from ordinary metal and therefore, no trouble is experienced at all in completing the sifting perforations by pushing in the disks. Furthermore, I regard a groove cut into the metal as much superior to a displacement of the whole disk-like body by a shearing action, and for the reason that the frangible webs can be more certainly and uniformly made and, therefore, they can be made thinner and more easily ruptured. The circular cut 10, which extends only partially through the metal as shown, need not extend

through an angle of 360 degrees, but may leave the integral tongue 5 to form a hinge as has been heretofore customary.

It is obvious that the operation of only partially cutting through the metal as indicated above, can be rapidly and inexpensively done, and that the cost of producing the sifting openings by the means disclosed is trifling. It is also obvious that this same procedure applies to other sheet material as well as to metal, and it is useful in many cases when applied to fibrous material, such as paper.

What I claim is:

1. A sifting closure for vessels provided with a plurality of disks partially severed from the material of the closure by grooves leaving integral readily frangible circular bulging skins between said material and said disks, and also leaving integral unscored hinges between said disks and material, substantially as described.

2. In a vessel, the combination of a body part and a sifting closure provided with a plurality of disks partially separated from the material of said closure by grooves not passing through said material and leaving bulging integral readily frangible films joining said disks and material, and also having integral unscored hinges between said disks and material, substantially as described.

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

HOWARD S. RODGERS.

Witnesses:

FRANK F. EDWARDS,

J. H. GEWECKE.