Dec. 16, 1941. I. J. WOMACK 2,266,350

ABSORBER

Filed April 13, 1940

Fig. 1.

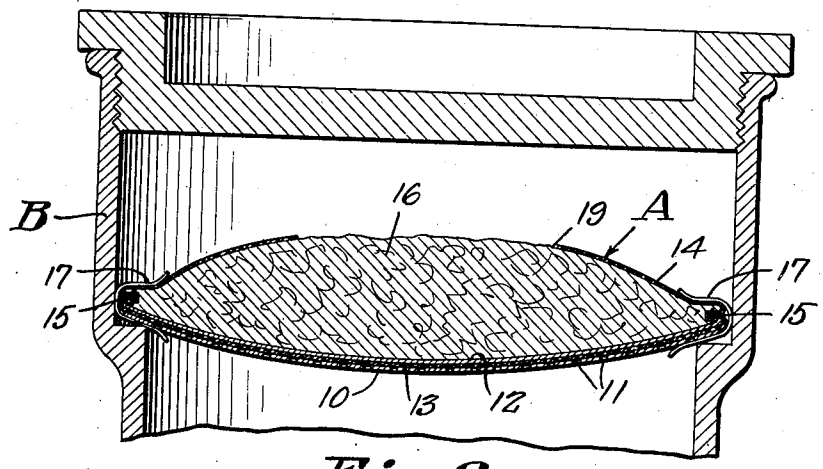
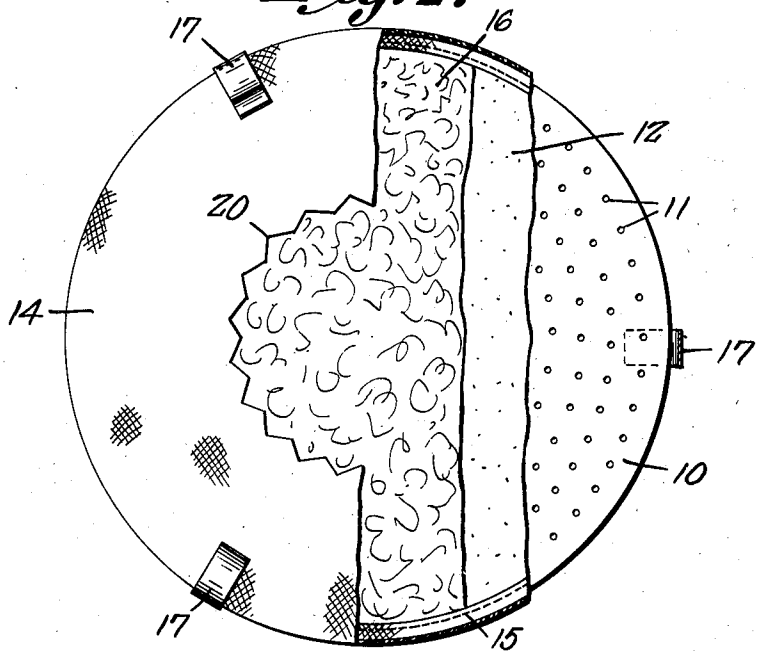


Fig. 2.



Isabelle Jones Womack, Inventor

By Paul J. Parker

Attorney

Patented Dec. 16, 1941 2,266,350

UNITED STATES PATENT OFFICE

2,266,350

ABSORBER

Isabelle Jones Womack, Scotch Plains, N. J.

Application April 13, 1940, Serial No. 329,571

2 Claims. (Cl. 210—170)

The invention relates to an absorber and more especially to a filtering device.

The primary object of the invention is the provision of a device of this character wherein a strainer medium is clipped to a plate constituting a base or support so that the device can be disposed and supported in position for confronting a liquid stream, especially a filling spout mouth, or the like, of a liquid receiver to have all sediment caught by said device, and in this way resulting in thoroughly cleansing the liquid before entering the receiver, receptacle, or the like.

Another object of the invention is the provision of a device of this character in which the filtering medium is of novel construction, so that it can be maintained in a working condition, being easily and readily removed and replaced.

A further object of the invention is the provision of a device of this character which is simple in its construction, being composed of few parts, these being durable, thoroughly reliable, and efficient in operation, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawing, which discloses the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a fragmentary vertical sectional view through the filling spout of a liquid receiver, as for example, a gasoline tank showing the device constructed in accordance with the invention in an applied position.

Figure 2 is a top plan view of the device removed, the same being partly broken away.

Similar reference characters indicate corresponding parts throughout the several views of the drawing.

Referring to the drawing in detail, the device is denoted generally at A, and its construction is such as to be accommodated in a filling spout mouth or other entrance contrivance denoted at B for the filling of a container, receptacle, or the like, with liquid, more especially oil or gasoline. The device A is in the nature of a strainer or filter and comprises a concavo convexed disk-like base plate 10, having therein a plurality of perforations 11, these being arranged in circular courses spaced from each other and in the courses thereof, so that liquid can pass through this plate which is preferably made from aluminum or other alloys.

Adapted to be associated with this plate is a chamois 12, it being of approximately the shape of the plate 10. This chamois 12 is included in a strainer pad having a fabric bottom piece 13, a centrally perforated fabric top piece 14, these marginally thereof are joined together by stitches 15 so that a pocket results for the accommodation of absorbent cotton 16, which is placed within the said pocket for the filling of the pad.

Adapted to engage about the peripheries of the plate A, and the pad constituted as before stated, is a plurality of substantially V-shaped inherently resilient clips 17, each at the ends thereof being outwardly curled at 18 so that said clips can be snapped onto the parts before named, and in this way, these parts will be separately clamped or clipped together. The clips are arranged preferably at equal distances apart concentrically of the device. It is preferable to have the edge of the opening 19 centrally within the top of the pad fluted as at 20 and this set-up of pad functions as an absorber, strainer, or the like.

The liquid will percolate through the pad and through the perforations in the base or supporting plate, and all sediment or foreign matter within the liquid will be trapped or caught by the pad as should be obvious.

In the working of the device any water and dirt poured onto the said device will make its way to the bottom thereof while grease and oil remains uppermost. Therefore, when the liquid is poured into the mouth of a container in which the device is arranged, the same will percolate into the cotton and the oil or gasoline, kerosene, or the like, makes its way back up to the top of the device and comes out through the fabric while the sediment and water is caught in the cotton or filler while the chamois holds it until the pad filling can be renewed or removed for the cleaning thereof.

What is claimed is:

1. In a filter for filler necks of containers, a rigid concavo-convex perforated disk positioned in a filler neck with its convex face disposed lowermost, a chamois sheet matching the shape of said disk and resting on and completely covering the concave face of said disk for checking water from passing through the disk and permitting petroleum liquid to pass through said disk, a fabric sack covering said chamois sheet and having an open mouth disposed uppermost and opposite the concave face of the disk, and an absorbent fibrous pad completely filling the

sack to catch sediment and placed therein by way of the open mouth and the latter normally exposing a portion of the upper surface of the pad to the incoming liquid.

2. In a filter for filler necks of containers, a rigid concavo-convex perforated disk to intercept a flow of petroleum liquid into a container, a chamois sheet resting on and covering the convex face of said disk to separate and retain above said disk water contained in a petroleum liquid permitting the latter to pass through said disk, a porous sack resting on and covering said sheet and having an open mouth disposed centrally and uppermost of the sack, a loose fibrous absorbent pad filling said sack and placed therein and removed therefrom by way of the mouth with the latter normally exposing a portion of the upper surface of the pad to the incoming flow of petroleum liquid for catching and retaining sediment, and substantially V-shaped spring clips placed over the edges of the sack and the disk for removably binding said edges and the pad and the sheet together.

ISABELLE JONES WOMACK.