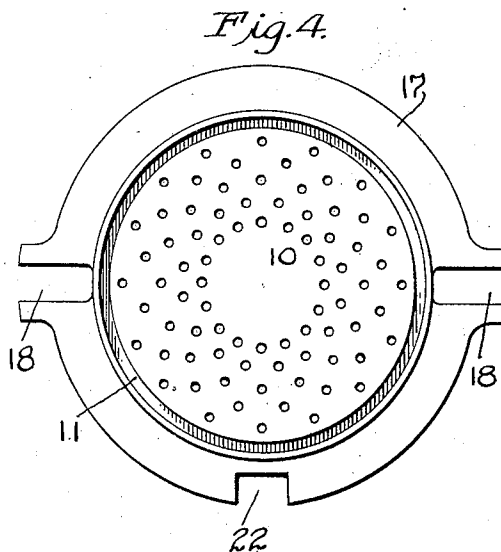
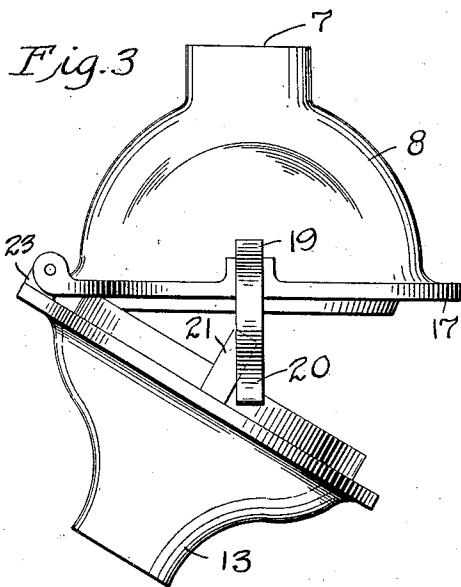
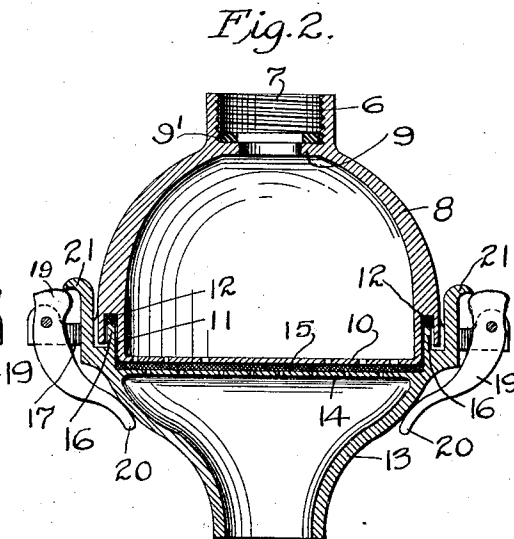
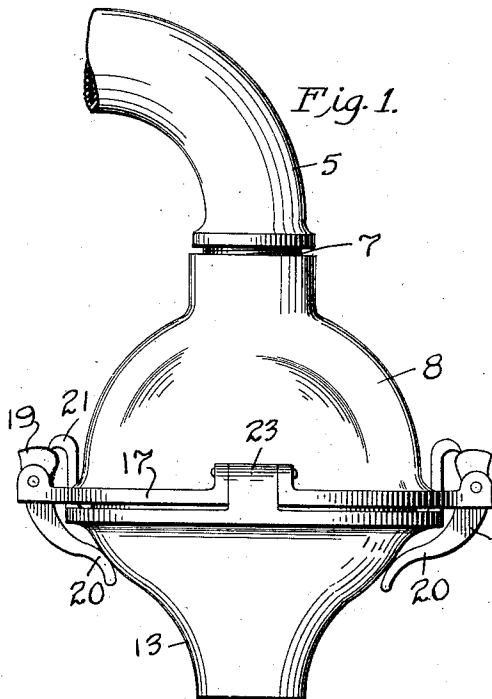


B. A. KANTROWITZ.
 FILTER.
 APPLICATION FILED OCT. 22, 1910.

1,047,070.

Patented Dec. 10, 1912.
 2 SHEETS—SHEET 1.



WITNESSES
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 BY *Victor J. Evans.*
 ATTORNEY

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2 SHEETS—SHEET 2.

Fig. 5.

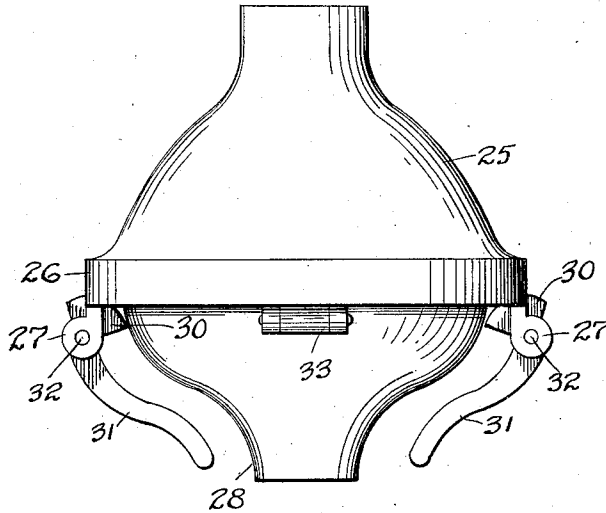
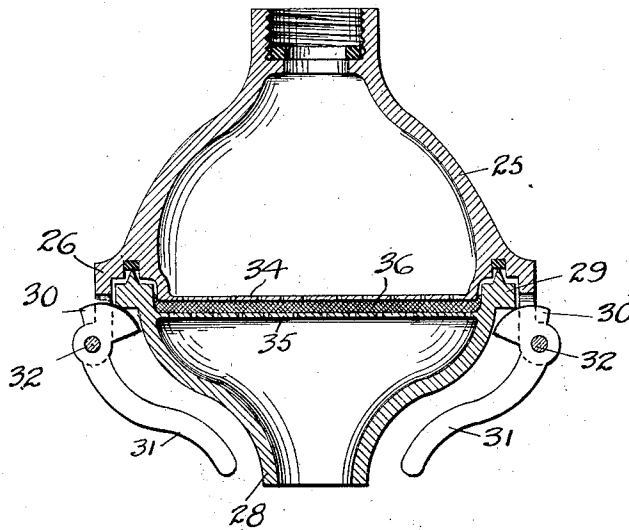


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

BERNARD A. KANTROWITZ, OF NEW YORK, N. Y.

FILTER.

1,047,070.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed October 22, 1910. Serial No. 588,467.

To all whom it may concern:

Be it known that I, BERNARD A. KANTROWITZ, a subject of the Czar of Russia, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Filters, of which the following is a specification.

This invention relates to filters, and its object is to provide a simple and cheap device capable of being quickly cleansed and taken apart for that purpose as will be more fully described in the following specification, set forth in the claim and illustrated in the drawings, wherein—

Figure 1 is a side elevation of the filter. Fig. 2 is a vertical sectional view of same. Fig. 3 is a view showing the filter open for cleaning. Fig. 4 is a view looking up into the top part of the filter. Fig. 5 is a view in elevation of a modified construction of filter. Fig. 6 is a vertical sectional view partly in elevation of the form shown in Fig. 5.

The filter is adapted to be screwed on to a faucet 5 and for that purpose has screw threads 6 in an opening 7 at the top of the upper part 8 of the shell which is preferably hemispheric and has near the opening 7 the angular flange 9, carrying the gasket 9'. The lower end of this top part 8 is provided with a perforated diaphragm 10 around which is a groove 11 to contain the packing 12. The lower part of the filter 13 is also provided with a perforated diaphragm 14 adapted to fit beneath the diaphragm 10 and between which may be placed a packing of paper cloth or asbestos strainer 15. Around this diaphragm 14 is an upwardly extending flange 16, which is adapted to extend into the groove 11 and against the packing 12. The upper portion 8 is provided with a flange 17 extending around its lower end, and having slots 18 for the cams 19, which are pivoted in adjacent ears. Below the pivotal point these cams are provided with arms 20 for the purpose of operation, and the cams themselves play upon vertical extensions 21 from the lower portion 13, the cam face bearing upon the extension and forcing it upward so as to exert a pressure upon the packing 12 and upon the strainer 15 to hold the latter and permit of the passage of water through same to relieve it of impurities. The flange

17 is also provided with a slot 22 into which fits the hinge member 23 from the lower part 13.

When it is desired to separate the parts to take out the strainer and clean same, the levers 20 are pulled outward carrying the cams around on their pivots so as to permit the projections 21 to drop as the lower portion swings on its hinge member 23. The strainer may then be removed or repairs made to the filter, and on closing same the two parts are locked together as shown in Figs. 1 and 2. This act may be quickly performed and the device is simple and substantial, but it is obvious that the details may be modified without departing from the essential features as above described.

Fig. 5 shows a modified form of the filter, and Fig. 6 is a sectional view of same, wherein the two part shell is employed, the upper shell 25 having a depending flange 26 with ears 27. The lower section 28 of the shell also has the flange 29 against which bears the cam faces 30 at the upper ends of levers 31, fulcrumed in the ears. The two figures show the filter in its closed position, but when it is desired to clean same, the levers 31 are swung outward until the front sides 30 of the levers are turned to the rear and the section 28 is then allowed to drop although still retained in connection with the upper portion by means of the hinge 33. This modified form also includes the diaphragms 34 and 35 between which is placed the strainer 36 preferably of lint which may be inclosed between these two members, and when filled with an accumulation of dirt may be readily removed and another strainer substituted.

It is obvious that this device may be further modified and the parts otherwise arranged without departing from the construction above described, and shown.

The upper diaphragm 10 is devoid of perforations at its central point and directly beneath the inlet to diffuse the water as it enters the filter and distributes it to the perforations equally.

The object of this device is to provide a filter, which will not accumulate dirt as when the filtering pad becomes filled with dirt and impurities it may be thrown away, and a new and clean one substituted. Pads of lint have been found most serviceable and

inexpensive so they are the most effectual in preventing the passage of dirt, and cost but little.

This construction provides a filter using
5 no rivets, screws or bolts which are apt to become loosened or lost and often rust, and are difficult to unscrew when it is desired to renew the pad or strainer.

What I claim as new and desire to secure
10 by Letters Patent is:—

In a filter, the combination with a shell divided into two parts, and having perforated coöperating diaphragms, a filter be-

tween the diaphragms, a washer fitted in the groove in one of the sections, a flange
15 in the other section and adapted to enter the groove, cams pivoted in one of the sections, and projections on the other section to be engaged by the cam to cause the diaphragms to compress the filter. 20

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

BERNARD A. KANTROWITZ.

Witnesses:

JAMES F. DUHAMEL,
CHARLES LA RUE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
