

J. SGAMBATI.

FILTER.

APPLICATION FILED DEC. 16, 1912.

1,059,773.

Patented Apr. 22, 1913.

Fig. 1.

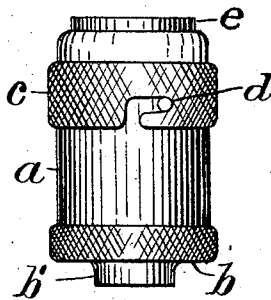


Fig. 2.

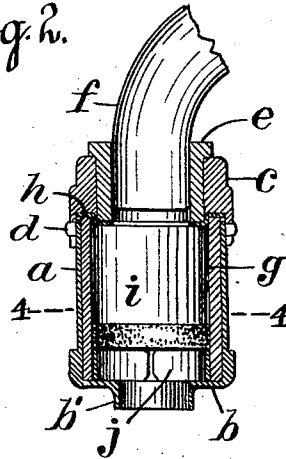


Fig. 3.

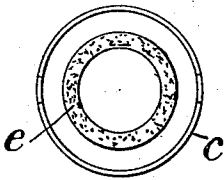


Fig. 4.

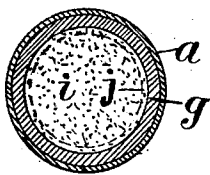


Fig. 5.

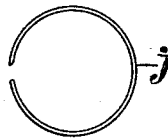
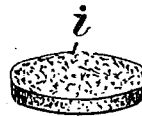


Fig. 6.



Witnesses:  
Lo. Lee.  
J. Walter Greenbaum.

Inventor  
John Sgambati, per  
Thomas S. Crane, Atty.

# UNITED STATES PATENT OFFICE.

JOHN SGAMBATI, OF NEW YORK, N. Y.

## FILTER.

1,059,773.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed December 16, 1912. Serial No. 736,890.

*To all whom it may concern:*

Be it known that I, JOHN SGAMBATI, a subject of the King of Italy, residing at 350 East One Hundred and Ninth street, New York, county of New York, and State of New York, have invented certain new and useful Improvements in Filters, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The object of this invention is to furnish a compact construction for a filter which may be secured by mere friction upon the nozzle of a faucet, and in which the filtering agent is composed of a porous disk so supported in the casing of the filter that it may be instantaneously removed for cleansing or renewal.

The invention will be understood by reference to the annexed drawing, in which—

Figure 1 is an outside view of the filter; Fig. 2 is a vertical section of the same with the nozzle of a faucet; Fig. 3 shows the cap of the filter inverted; Fig. 4 a section on line 4—4 in Fig. 2; Fig. 5 a plan of the disk-supporting ring; and Fig. 6 a perspective view of the filter-disk.

*a* designates a cylindrical filter-casing having a lower head *b* with discharge-outlet *b'* at the bottom. A cap *c* is secured upon the top of the casing by bayonet-locks *d*, and has a bushing *e* of india-rubber with bore adapted to fit elastically upon the nozzle *f* of a faucet and thus hold it thereon by friction.

A cylindrical lining of india-rubber *g* is fitted snugly to the bore of the casing, contacting with the lower head *b* and projecting a little above the casing at the top. The bushing *e* in the cap projects from the cap a little inside the lining *g*, and a packing-washer *h* is inserted between the two and forms a tight joint when the cap is secured upon the casing.

The filtering agent is a porous disk *i* of natural or artificial stone, which is made of suitable size to fit snugly within the elastic lining *g* and thus form a water-tight joint therewith.

The filter-disk is supported above the bottom *b* by a split collar *j* which is made a little larger than the bore of the lining and compressed to fit inside the same in contact with the head *b*. This collar supports the

filter-disk far enough above the bottom *b* to form a chamber beneath the disk into which the water passes before reaching the outlet *b'*.

When the filter-disk becomes clogged by impurities, the cap is readily detached from the casing and the disk can then be pushed upward by inserting the finger or any other object into the outlet *b'*. The disk may thus be removed from the casing and its position in the filter reversed, and its sides thoroughly scrubbed, so as to entirely renew its capacity.

Heretofore, it has been found necessary to clamp the upper and lower edges of a filter-disk between shoulders within the casing, but such construction involves the use of separable parts, which is avoided in the present construction by lining the filter-casing with an elastic sleeve of soft india-rubber, and making the filter-disk to fit snugly within such sleeve, which compresses elastically when the disk is forced to its seat upon the split collar *j*.

The filter is cheap in construction, and its efficiency is secured by making the disk so readily removable from the casing, so that it can be kept in a clean and efficient condition.

Having thus set forth the nature of the invention, what is claimed herein is:

1. In a filter, the combination, with the cylindrical filter casing *a* having the lower head *b* with the discharge outlet *b'* and a cap *c* secured detachably upon the top, of a cylindrical lining of india-rubber fitted to the bore of the casing and contacting with the lower head *b*, means for pressing the lower end of the lining outwardly against the bore of the casing, and the porous disk *i* having its edge in elastic contact with the bore of the lining above the bottom of the casing, thereby forming beneath the disk a chamber having the full area of the disk.
2. In a filter, the combination, with the cylindrical filter-casing *a* having the lower head *b* with the discharge outlet *b'*, and a cap *c* secured detachably upon the top, of a cylindrical lining of india-rubber fitted to the bore of the casing and contacting with the lower head *b*, the split collar *j* fitted to the bottom of the lining and performing the double function of holding the same in close contact with the bore of the

casing, and sustaining the disk above the lower head *b*, to form an outlet-chamber of the same area as the disk.

3. The combination, with a cylindrical  
5 filter-casing having an outlet at the bottom  
and an elastic lining projected above the top  
of the casing, of a filter-disk having its  
edge in elastic contact with the bore of the  
lining, a cap with bayonet-lock for securing  
10 it upon the casing, an elastic bushing *e* in  
the said cap for elastic engagement with

the faucet-nozzle, and a packing-washer *h*  
between the said bushing and the projecting  
top of the elastic sleeve.

In testimony whereof I have hereunto set 15  
my hand in the presence of two subscribing  
witnesses.

JOHN SGAMBATI.

Witnesses:

L. LEE,

THOMAS S. CRANE.

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