

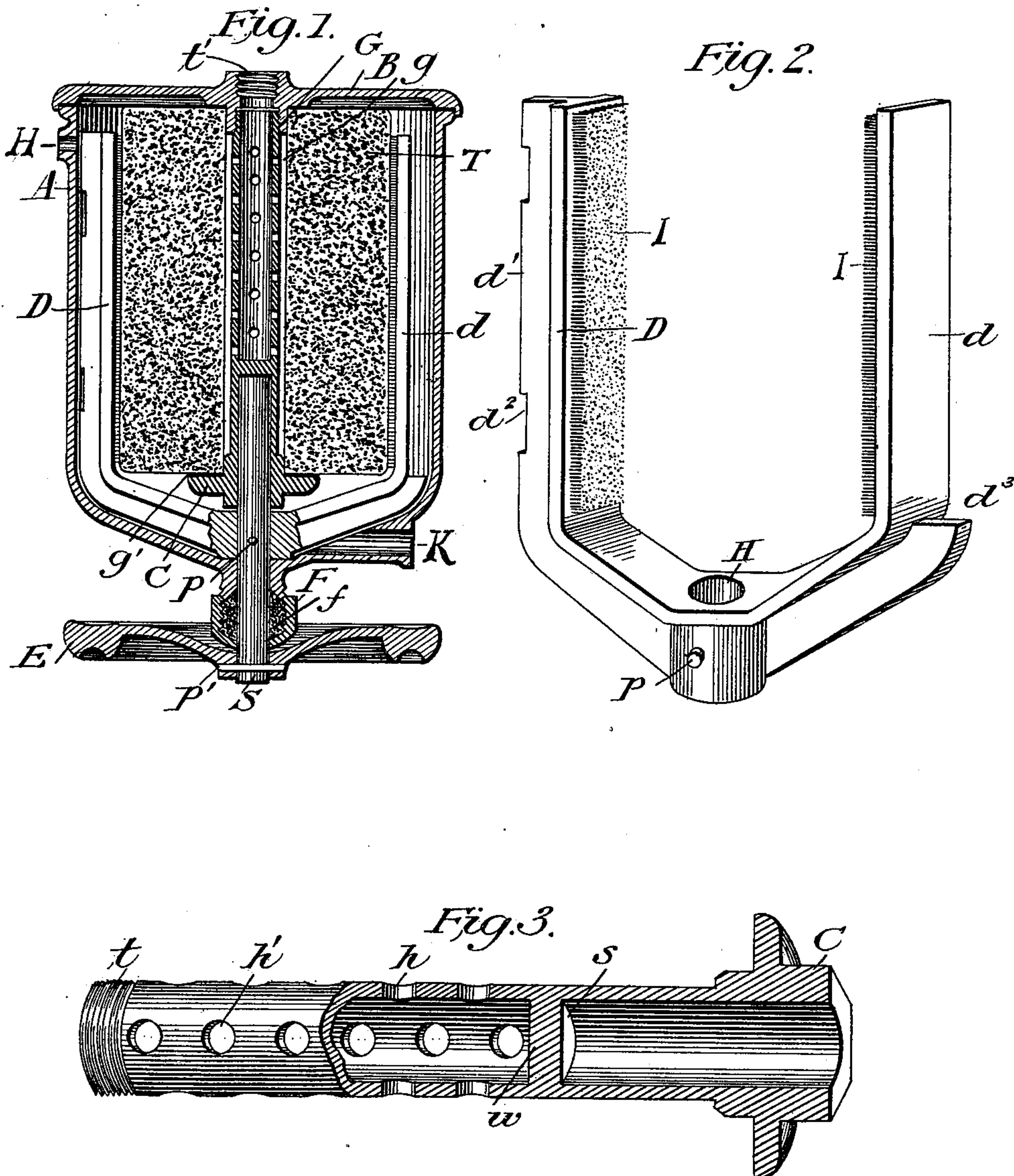
No. 672,003.

Patented Apr. 16, 1901.

E. P. LYNN.
WATER FILTER.

(Application filed Oct. 8, 1900.)

(No Model.)



Witnesses:

Stanley Shaffer

Wm. H. Schmidt

Inventor:

Elmer P. Lynn

per John Weld Peck,
Attorney.

UNITED STATES PATENT OFFICE.

ELMORE PETTET LYNN, OF CINCINNATI, OHIO, ASSIGNOR TO THE LYNN
FILTER MANUFACTURING COMPANY, OF SAME PLACE.

WATER-FILTER.

SPECIFICATION forming part of Letters Patent No. 672,003, dated April 16, 1901.

Application filed October 8, 1900. Serial No. 32,383. (No model.)

To all whom it may concern:

Be it known that I, ELMORE PETTET LYNN, a citizen of the United States of America, and a resident of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Water-Filters, of which the following is a specification.

My invention relates to improvements in water-filters which are composed of a cylindrical filtering medium inclosed in a metallic casing having a rotary cleaning device operated from the outside; and the objects of my invention are, first, to provide means for carrying, balancing, or centering the rotary cleaning device true with the cylinder the surface of which is to be cleaned, and, second, to provide means for locating or centering the cylindrical filtering medium within the casing, so as to bring the center of the same true and parallel with the axis of the rotary cleaning device and to hold it securely in its proper place. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the filter. Fig. 2 is the fork, the arms of which carry the cleaning device and is an enlarged view of the part designated by the letters D, *d*, and *p* in Fig. 1. Fig. 3 is the tube, which fits in the center of the cylinder, the lower section of which forms a socket for the axle or bearing of the prong which carries the cleaning device, and said tube is designated in Fig. 1 by the letter C.

Similar letters refer to similar parts throughout the several views.

The whole filter is inclosed in a metallic casing A B. The filtering medium is a cylinder T, of stone, artificial stone, or other filtering material, hollow through its center or axis. Through the center or axis of the cylinder runs the tube. (Shown by Fig. 3 or designated in Fig. 1 at its lower extremity by the letter C.) This tube does not fit closely to the inner surface of the cylinder excepting at its extremities, but leaves a space *g* surrounding it. The casing at the part where it meets the upper end of the tube is brought down, so as to form a hub or boss G, over which the upper end of the hollow interior of the cylinder T fits. The boss or hub is for the purpose of

holding the cylinder true upon its center at all times. The upper end of the tube screws into a thread on the interior of the hub or boss G. The lower end of the tube C fits plumb against the lower end of the cylinder with its shoulder or flange. The tube is divided into two sections by the partition *w* in Fig. 3 to prevent the passage of unfiltered water from below into the upper end of the tube. Above the partition the tube is perforated by any convenient number of holes, so that water may pass freely into it from the space *g* without. The fork or prong D *d* is carried upon the axle or bearing S, being fastened to it by a pin run through it at the point marked *p*. This is made for convenience in the form of a two-tined D *d* fork, but need not be so, as it may carry more than two or only one tine if convenient. The said axle or bearing S fits into the lower section of the tube C, being free to revolve therein, and extends downward, carrying the fork or prong at the point *p* through the casing and through the stuffing-box F *f*, being fixed at its lower extremity in the wheel E by the pin *p'*. The prong or fork, which is represented in Fig. 2, or by the letters D *d*, is fastened to the axis or bearing S at the point *p*, and, being moved by the said axis, is free at all other points so that its arms or tines D *d* may revolve about the cylinder, carrying around the cylinder upon its said arms D *d* such brushes I I, scrapers, or other cleaning devices as may be fastened thereto. The cleaning device here shown consists of brushes, one on the inner surface of each tine of the fork D *d*; but it needs not necessarily be so, as scrapers of metal or other suitable material and convenient shape may be substituted. The bearing S extends above the point *p*, at which it bears the fork, into the tube C, in order that the said axis or bearing may always be true and parallel with the center of axis of the cylinder, and so that the arms D *d*, carrying the cleaning device, may always be true and parallel with the outer surface of the cylinder.

The method of operation of my invention is as follows: The unfiltered water enters the casing under hydrant-pressure at any point convenient where it may be tapped, as at H,

and surrounds and percolates through the cylinder T to the space *g* between the interior of the cylinder and the tube, passes in through the holes of the tube above the partition *w*,
5 and passes out of the tube at the outlet *t'*. In order to clean the filter, the outlet is closed, the waste-pipe K, which may be fitted to the casing at any point in the lower portion of its surface, is opened, a back pressure or flow
10 of water resulting from what remains above the filter in the outlet pipe or reservoir, if there be one. The wheel E is revolved, thus revolving the fork or prong D *d*, carrying the brushes or other cleaning device, around the
15 exterior of the cylinder T, and removing such foreign matter as may be collected thereon and permitting it to pass off with the water through the waste.

What I claim as my invention, and desire
20 to secure by Letters Patent, is—

1. The combination in a water-filter of a

casing, a cylindrical filtering medium, and a prong or fork which can be revolved carrying a cleaning device of brushes or scrapers around the cylinder which has its axle or
25 bearing within a tube in the center of the said filtering-cylinder, all substantially as set forth.

2. The combination in a water-filter of a cylindrical filtering medium, hollow through
30 its center, a cleaning device working around said cylinder upon an axis which is parallel to the center of said cylinder, and a casing having a hub or boss onto which the hollow cylinder fits, all substantially as set forth. 35

Signed by me at Cincinnati, Ohio, this 6th day of October, 1900.

ELMORE PETTET LYNN.

Witnesses:

JAMES E. ROBINSON,
LOUIS H. ZETER.