No. 710,285. Patented Sept. 30, 1902.

T. LINKE.

FILTER.

(Application filed Jan. 21, 1902.)

(No Model.)

Fig. 1.

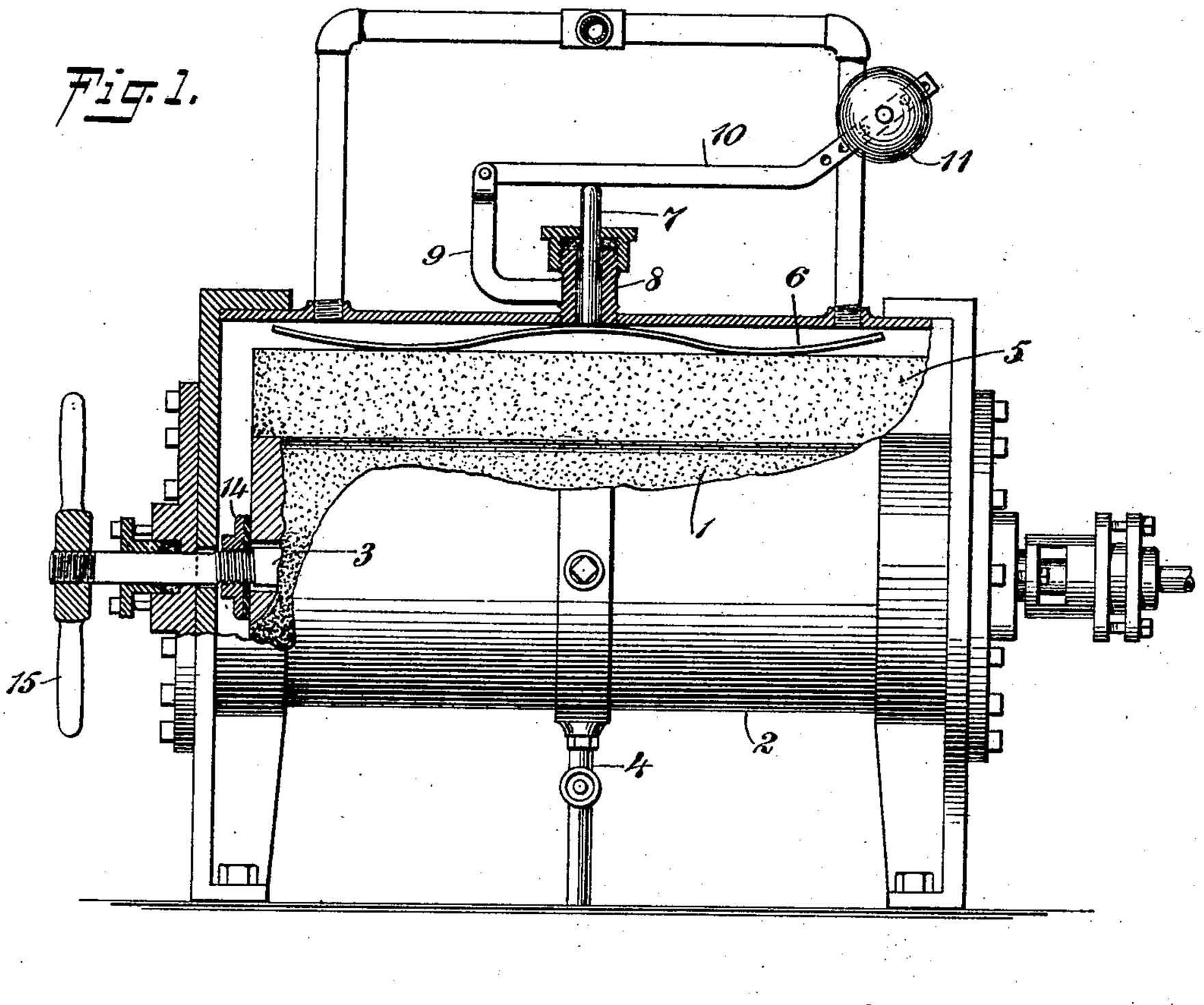


Fig. 2.

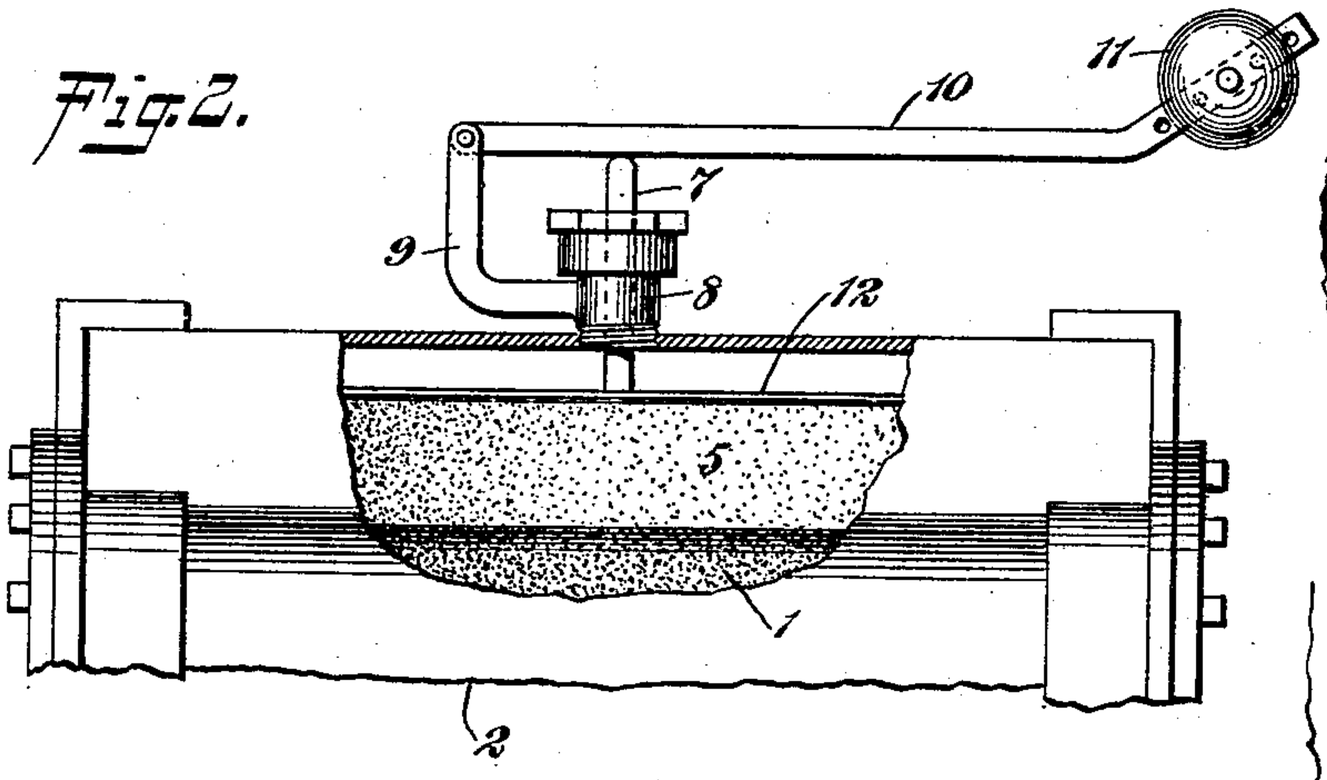
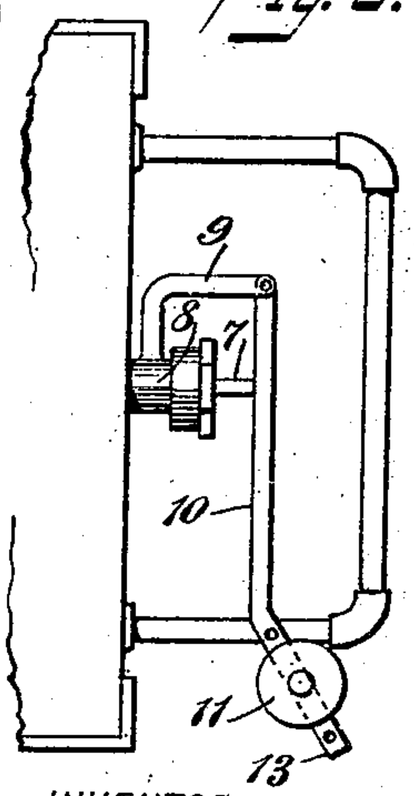


Fig. 3.



WITNESSES:

William P. Goebel.

C. R. Ferguson

INVENTOR

Theodore Linke

BY

Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

THEODORE LINKE, OF NEW YORK, N. Y.

FILTER.

SPECIFICATION forming part of Letters Patent No. 710,285, dated September 30, 1902.

Application filed January 21, 1902. Serial No. 90,663. (No model.)

To all whom it may concern:

Be it known that I, THEODORE LINKE, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Filter, of which the following is a full, clear, and exact description.

This invention relates to improvements in water-filters of the type having a filter-stone mounted to rotate and a cleaner-stone therefor; and the object is to provide a simple means for causing the cleaner-stone to follow the reduced diameter of the filter-stone when it wears away and to maintain an equal pressure at all times.

I will describe a filter embodying my invention, and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation, partly in section, of a filter embodying my invention; and Figs. 2 and 3 show modifications.

It may be here stated that I employ a weight for causing the pressure of the cleaner-stone instead of a spring, because the power and consequent pressure of a spring loosens it as it expands, while the action of a weight is at all times uniform.

Referring to the drawings, 1 designates a cylindrical filter-stone supported in a casing 2 of the usual construction and mounted on a tubular shaft 3, through which the filtered water passes, while the sediment and unfiltered water may be drawn off through a pipe 4. The cleaner-stone 5 is supported on the filter-stone and is designed to clean the same by a rotary movement of the said filter-stone. In Fig. 1 I have shown a spring-plate 6 as engaging the upper side of the stone 5, and bearing upon the center of this spring-plate is a pin 7, having a movement through a tube 8 on the top of the casing. Attached to this tube 8 is an arm 9, and mounted to swing on said arm 9 and engaging with the upper end of the pin 7 is a lever 10, on the free end of which is a weight 11. Obviously, as the stone 1 wears away by the occasional turning of the same for the purpose of cleaning, the weight 11 will cause the stone 5 to move downward and bear evenly at all points upon the stone 1.

The spring-plate 6 may be omitted and the pin 7 bear directly upon the cleaner-stone, or, as shown in Fig. 2, a metal plate 12 may be placed upon the upper side of the cleaner-stone and the pin 7 engage therewith.

In Fig. 3 I have shown the lever 10 as hanging downward, and the weight 11 is adjustably placed on an outwardly-turned portion 13 of said lever. This construction is used when the filter-stone and cleaner are placed vertically instead of in the horizontal position shown in Fig. 1.

It will be noted in Fig. 1 that the filter-stone 1 is held rigidly in engagement with the shaft 3 by means of a washer 14 engaging with a threaded portion of the shaft, and on the outer end of this shaft is a hand-wheel 15, which also engages with the threaded portion of the shaft. The threads, however, are turned in opposite directions, so that upon turning the shaft through the medium of the hand-wheel the washer 14 will not become loosened.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a filter comprising a filter-stone and a cleaner-stone, a pin movable in a wall of the filter-casing for pressing on said cleaner-stone, a lever engaging with the pin, and a weight on said lever, substantially as specified.

2. In a filter comprising a filter-stone, a cleaner-stone and a casing in which the stones are located, a tube attached to the outer wall of said casing, a pin movable through said tube, a plate mounted on the cleaner-stone and with which said pin engages, an arm extended from said tube, a lever pivoted to said arm, and a weight on the free end of said lever, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THEODORE LINKE.

Witnesses:
C. R. FERGUSON,
EVERARD BOLTON MARSHALL.