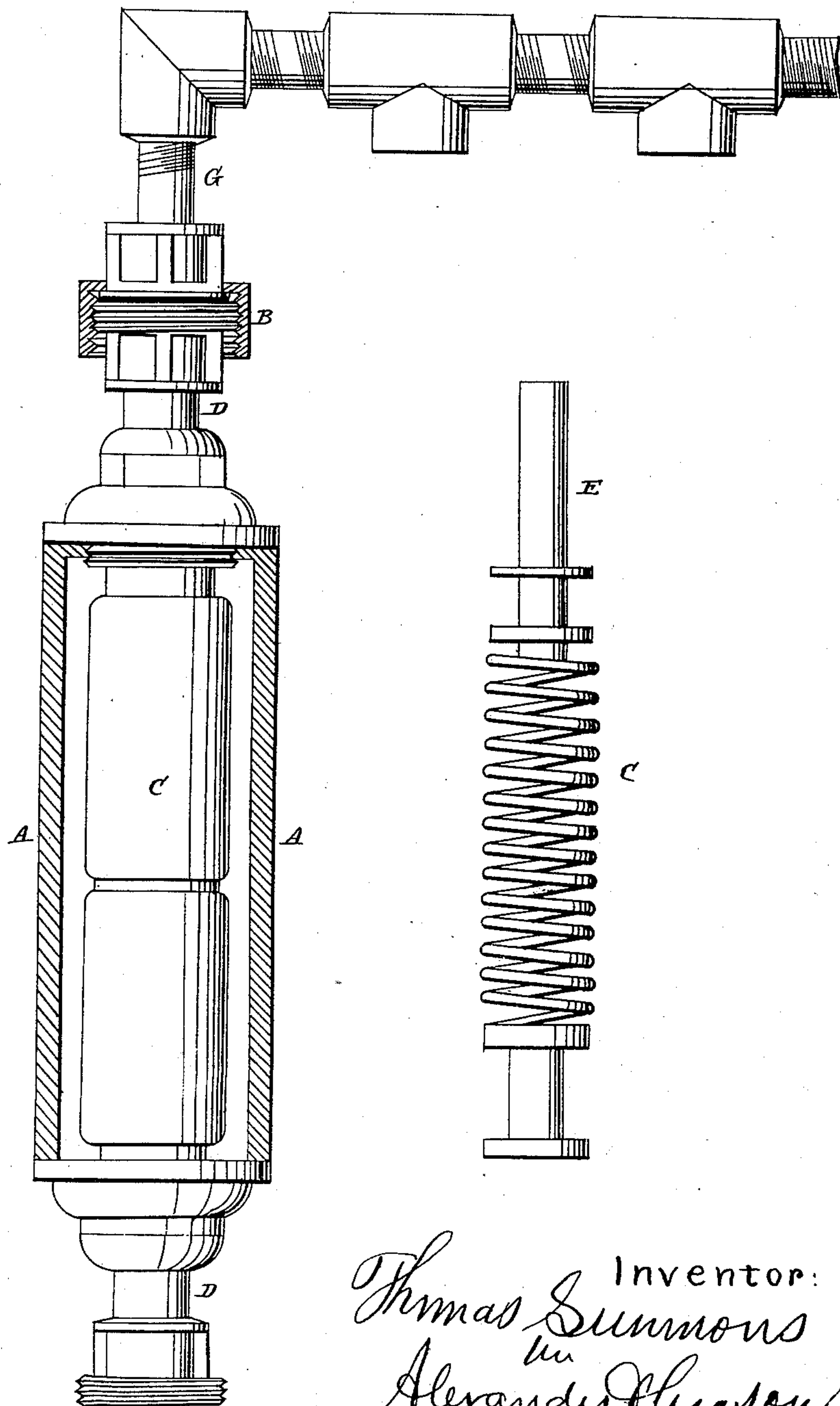


T. Simmons,

Water Filter,

Nº 82,255.

Patented Sep. 15, 1868.



Witnesses:

Leopold Evers
John M. Stork

Inventor:
Thomas Simmons
by
Alexander Pearson
Atty

UNITED STATES PATENT OFFICE.

THOMAS SIMMONS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FILTERS.

Specification forming part of Letters Patent No. 82,255, dated September 15, 1868.

To all whom it may concern:

Be it known that I, THOMAS SIMMONS, 5 Hicks street, Brooklyn, L. I., in the county of Kings, and in the State of New York, have invented certain new and useful Improvements in Filters; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings, making part of this specification, A represents a hollow cylinder, which I use as a case for my filter. One head of this cylinder is movable and the other is stationary, and to each head is connected a pipe, D, upon which is a screw-thread for connecting it by means of a union, B, to a pipe, G, through which the liquid to be filtered is conducted from a force-pump.

Within the cylinder A is placed a frame, C, which consists of a coil of wire with heads secured to it at each end. The frame C is covered with any suitable fibrous textile material, and the ends of this covering are tied or bound fast to the heads of said frame. A pipe, E, passes into this frame C, and one end of said pipe connects with that pipe D which conducts the liquid into the frame.

The pipe D connects with a pipe, G, which leads to a force or other suitable pump, and said pipe is provided with a series of branch pipes, to which a series of similar filters to the one above described may be attached. The frame C can be reversed in the cylinder A, so that when it becomes clogged or obstructed by impurities calculated to prevent the free action of the same the liquid can be made to cleanse it.

The outer ends of the pipes D D being both provided with screw-threads, by means of

which the union B connects either one of them to the pipe G, it will readily be seen that, when the filter becomes foul, by reversing it and connecting its lower end to the pipe G, water or any other suitable liquid can be forced through it for the purpose of removing all obstructions from its interstices.

This filter may be used for filtering water or any other liquid.

The above-described invention is an improvement upon my patent for a filter bearing date April 11, 1865.

The improvement consists in the use of the single coil C dispensing with the jointed spring and intermediate double flange in the movable head, and the pipes D D, with their screw-threads, so that the filter may be reversed for cleansing, &c., and in the pipes G, as and for the purposes set forth.

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

1. The case A, provided with a movable head, and each of its heads being provided with the pipes D D, upon which screw-threads are formed, so that the filter can be reversed and cleansed, substantially as set forth.

2. The frame C, as constructed and combined with the case A and pipes D D and G, when used with a force-pump, as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of April, A. D. 1868.

THOMAS SIMMONS.

Witnesses:

S. BROCK,
EDGAR KETCHUM, Jr.