J. J. LAWLER.

WATER-FILTERS.

No. 194,692. Patented Aug. 28, 1877.

Fig. 1.

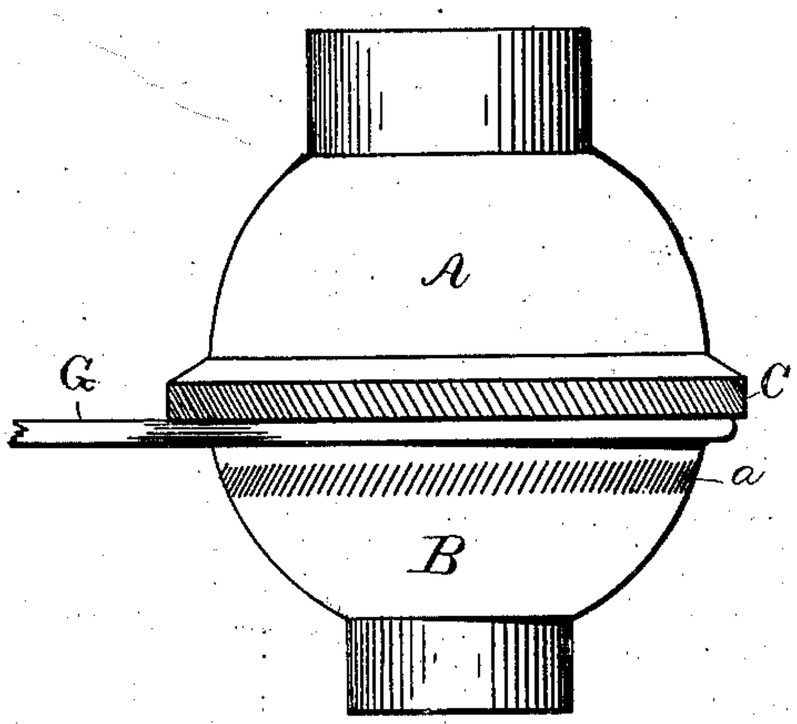

Fig. 2.

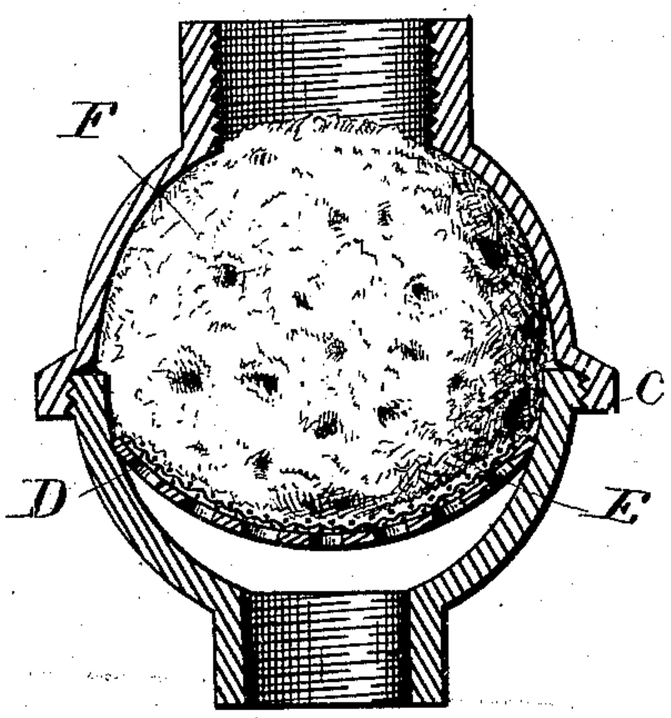

Fig. 3.

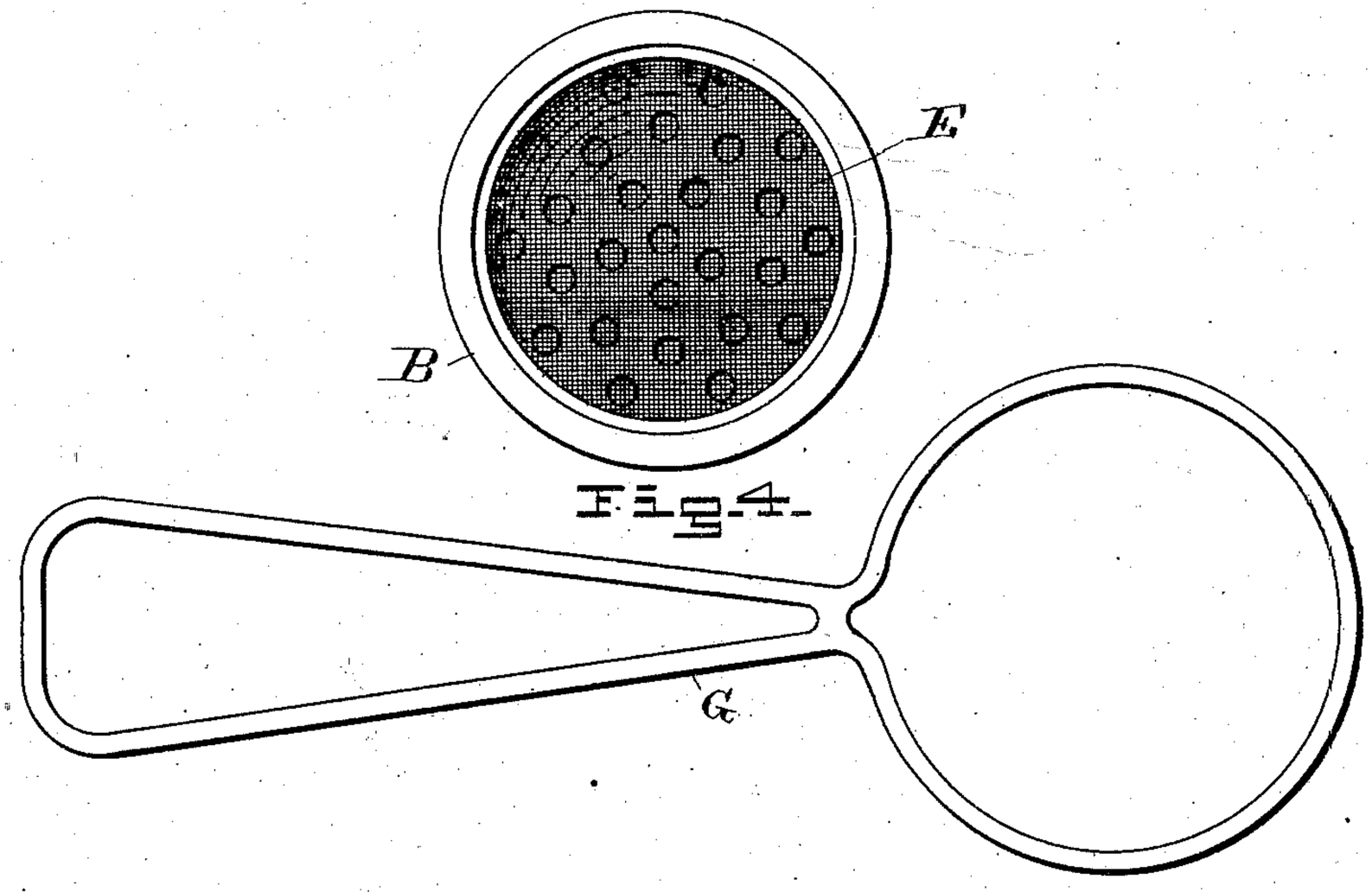

Fig. 4.

WITNESSES:

Jas. F. Duthamel

Albin. McLong.

INVENTOR:

James J. Lawler.

PER

H. J. Abbott.

ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES J. LAWLER, OF SCRANTON, PENNSYLVANIA.

IMPROVEMENT IN WATER-FILTERS.

Specification forming part of Letters Patent No. **194,692**, dated August 28, 1877; application filed July 20, 1877.

To all whom it may concern:

Be it known that I, JAMES J. LAWLER, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented certain new and useful Improvements in Combined Filter and Strainer; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in combined water filters and strainers; and the invention consists in the special construction and arrangement of parts, which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make, construct, and use the same, I will now proceed to describe its construction, arrangement, and operation, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view. Fig. 2 is a central vertical section. Fig. 3 is a view with the top of the strainer removed, showing the wire-cloth and its perforated supporting-plate beneath. Fig. 4 shows the device for holding the strainer.

This strainer, when the two sections A and B are connected together, is nearly round. The section A is provided with a collar, C, serrated on the outside, and provided with screw-thread on the inside. The section B is knurled at *a*, as shown, and provided at the top with a screw-thread. This section is screwed up inside the collar C of the section A, forming an air-tight joint. In the section B, near the top, is placed a concave perforated plate, D, and on the top of this plate is placed wire-cloth E, made concave so as to lie flat or rest on said plate. They are both soldered at their edges to the member B, to prevent any displacement.

By this construction more straining-surface is provided, which is very essential in order to allow a compact and steady flow from the nozzle.

The perforated plate supports the wire-cloth, giving it a solid bearing-surface, and at the same time allowing the free passage of the fluid.

When the strainer is to be attached to a hydrant, it is provided with a sponge, F, about one-fourth larger than the space on the inside, to act as a filter. By having the sponge larger than the space inside it is, when the two sections are screwed together, compressed, thereby catching more sediment and checking the force of the water so as to prevent small worms from being washed through the wire cloth.

This strainer may also be used for straining milk, coffee, and other heavy or bodied fluids. In this case the sponge F is removed and a holder or handle, G, used, as shown in Fig. 1 of drawings, for holding the strainer.

The manner in which the sections A and B are connected together prevents any leakage; but if such should occur by reason of the two sections not being tightly connected, the water will follow down the sides and fall from the nozzle with the strained fluid.

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

A globe filter, the case of which is in two equal separable sections, A B, adapted to contain a single mass of filtering material resting upon a concave base consisting of a perforated plate and wire-gauze, D E, said segmental base being of larger diameter than the case, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES JOSEPH LAWLER.

Witnesses:

JAS. H. TORREY,

A. HARRIS.