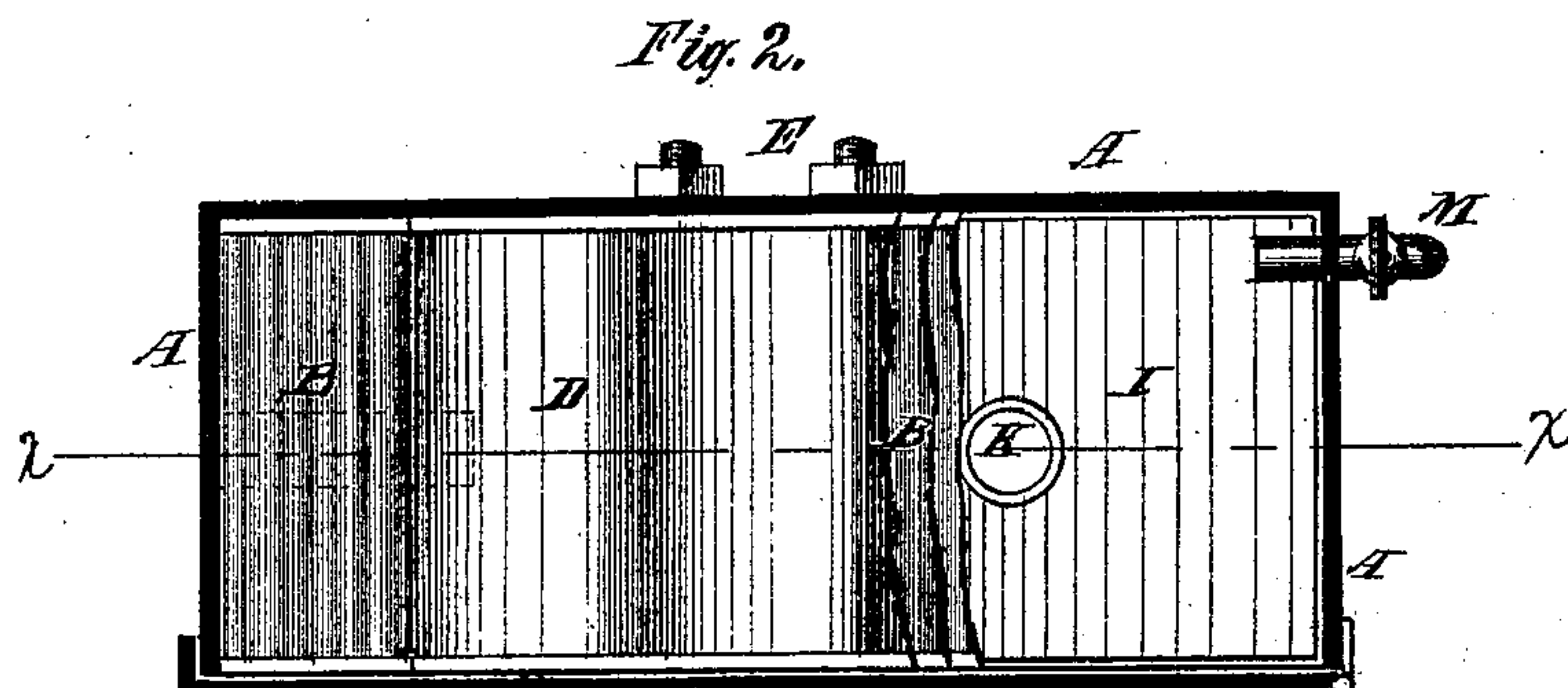
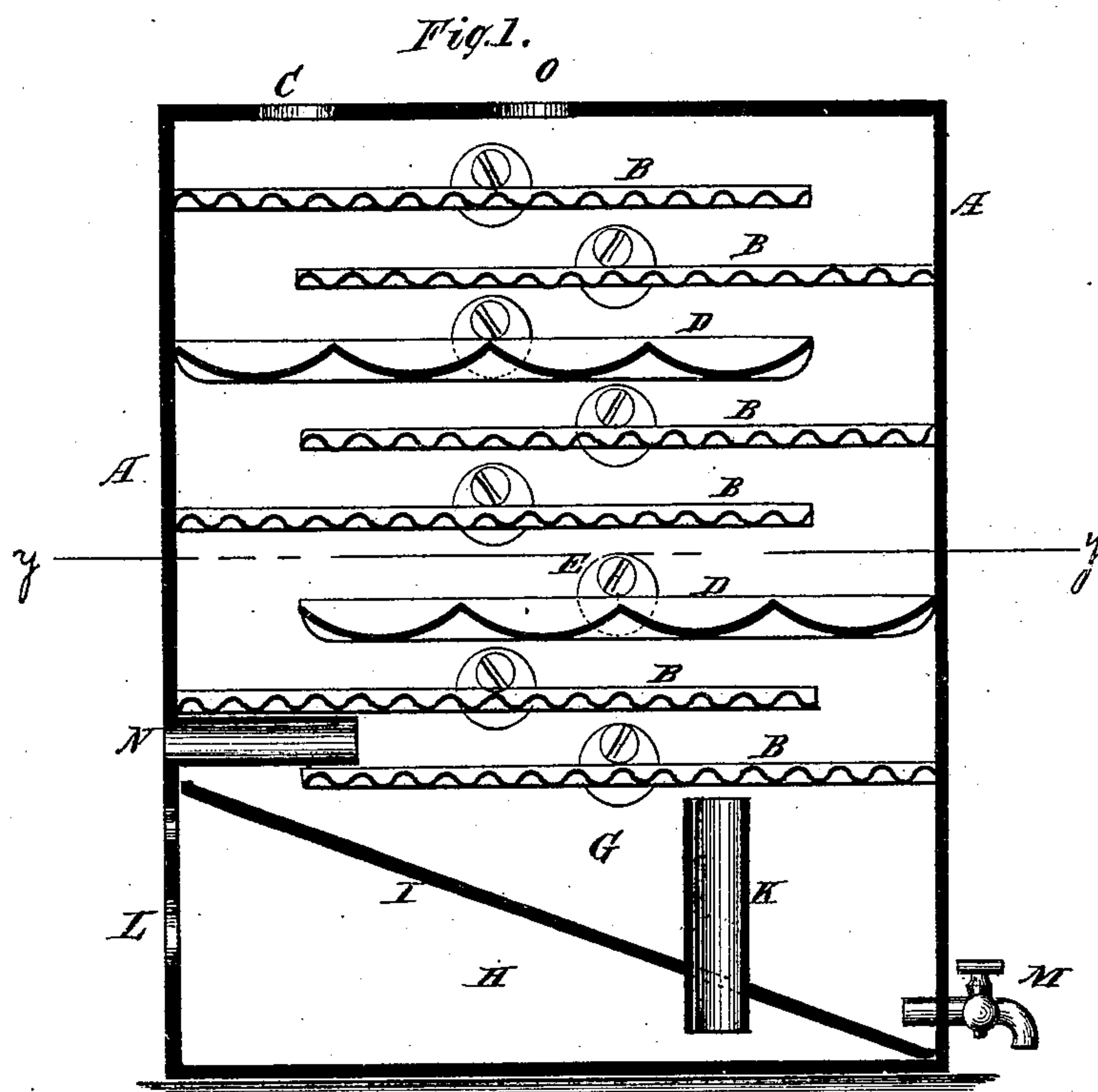


S. J. SADLER & H. VOLMAR.
Feed-Water Heaters and Purifiers.

No. 141,517.

Patented August 5, 1873.



Witnesses:
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PER *Mum*
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UNITED STATES PATENT OFFICE.

SAMUEL J. SADLER AND HENRY VOLMAR, OF CLEVELAND, OHIO.

IMPROVEMENT IN FEED-WATER HEATERS AND PURIFIERS.

Specification forming part of Letters Patent No. **141,517**, dated August 5, 1873; application filed February 21, 1873.

To all whom it may concern:

Be it known that we, SAMUEL J. SADLER and HENRY VOLMAR, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Feed-Water Heater and Purifier, of which the following is a specification:

The invention consists in separating the reservoir by a diagonal plate into two parts, of which one retains the water until the sediment is precipitated and then allows it to flow over the other from the surface.

Figure 1 is a sectional elevation of our improved apparatus taken on the line *xx* of Fig. 2, and Fig. 2 is a horizontal section taken on the line *yy* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents a rectangular case of sheet metal, in which is a series of shallow corrugated pans, B, placed one above another, at suitable distances apart, and arranged to cause the water which enters at C to flow across the case forward and back to have the greatest amount of travel and exposure to the steam. D represents another series of deeper corrugated pans, arranged at intervals between the others to retain the water in large quantities for a time to settle. These pans, of both kinds, are attached by a bolt, E, and a rest against the sides of the case, so that they can be read-

ily taken out to remove the deposits of foreign matters from time to time. G and H represent a water-reservoir of two parts in the lower part of the case, separated by the diagonal plate I, and communicating by a tube, K, by which the water passes from the surface in part G to the other part, from which it is drawn at L to the pump. The part G is designed to receive the settlings from the water to be drawn off from time to time by the cock M. N is a waste-pipe in the upper part of the reservoir to allow the steam to pass off from the surface of the water so as not to pass into the pump and interfere with its working; it is also to allow any excess of water to escape and prevent it from rising up over the heating-pans. O is the escape-passage at the top for the exhaust steam.

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

The reservoir divided in two compartments by the diagonal dividing-plate I and connected by the communicating-pipe K, arranged substantially as specified.

SAMUEL J. SADLER.
HENRY VOLMAR.

Witnesses:

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