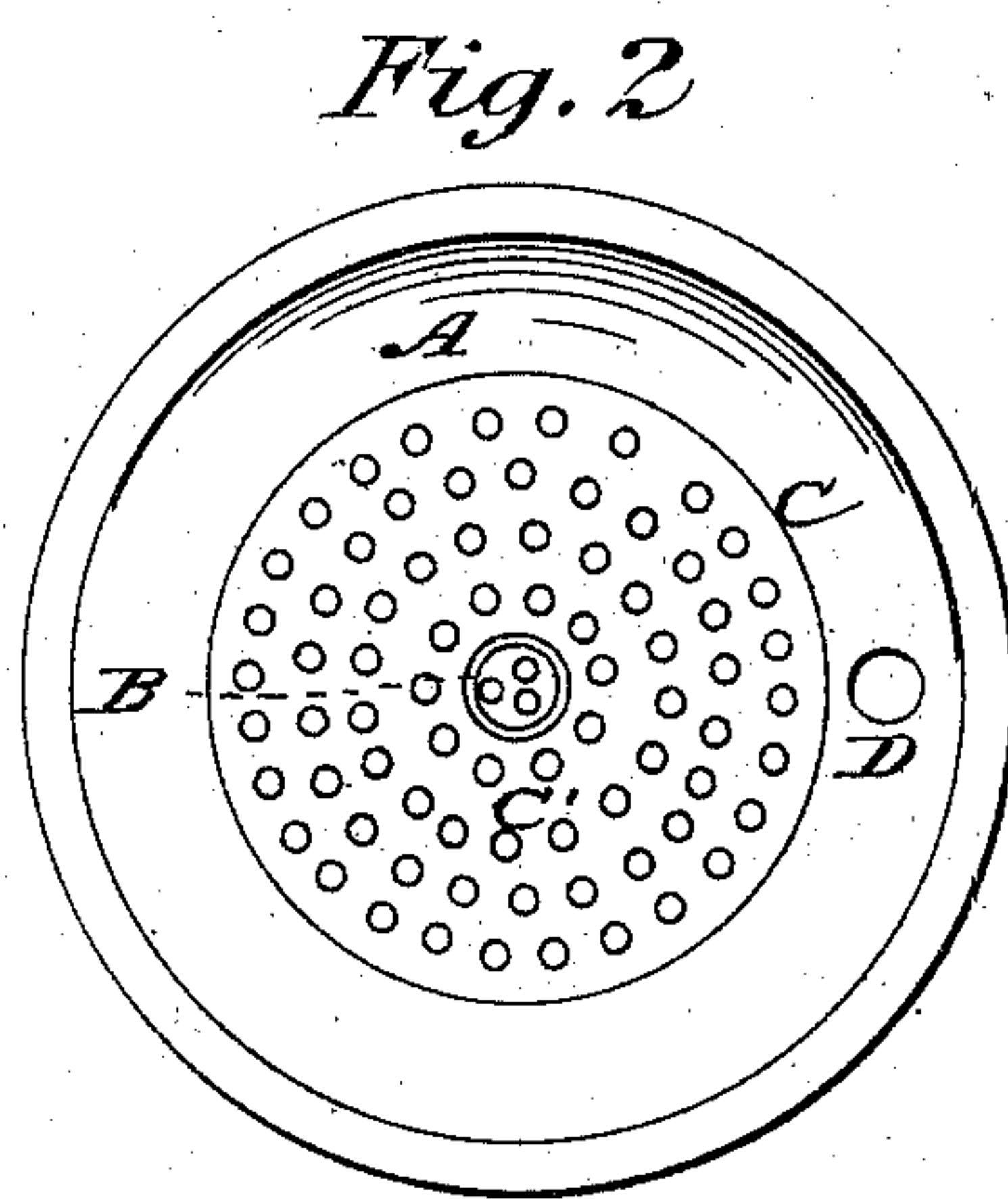
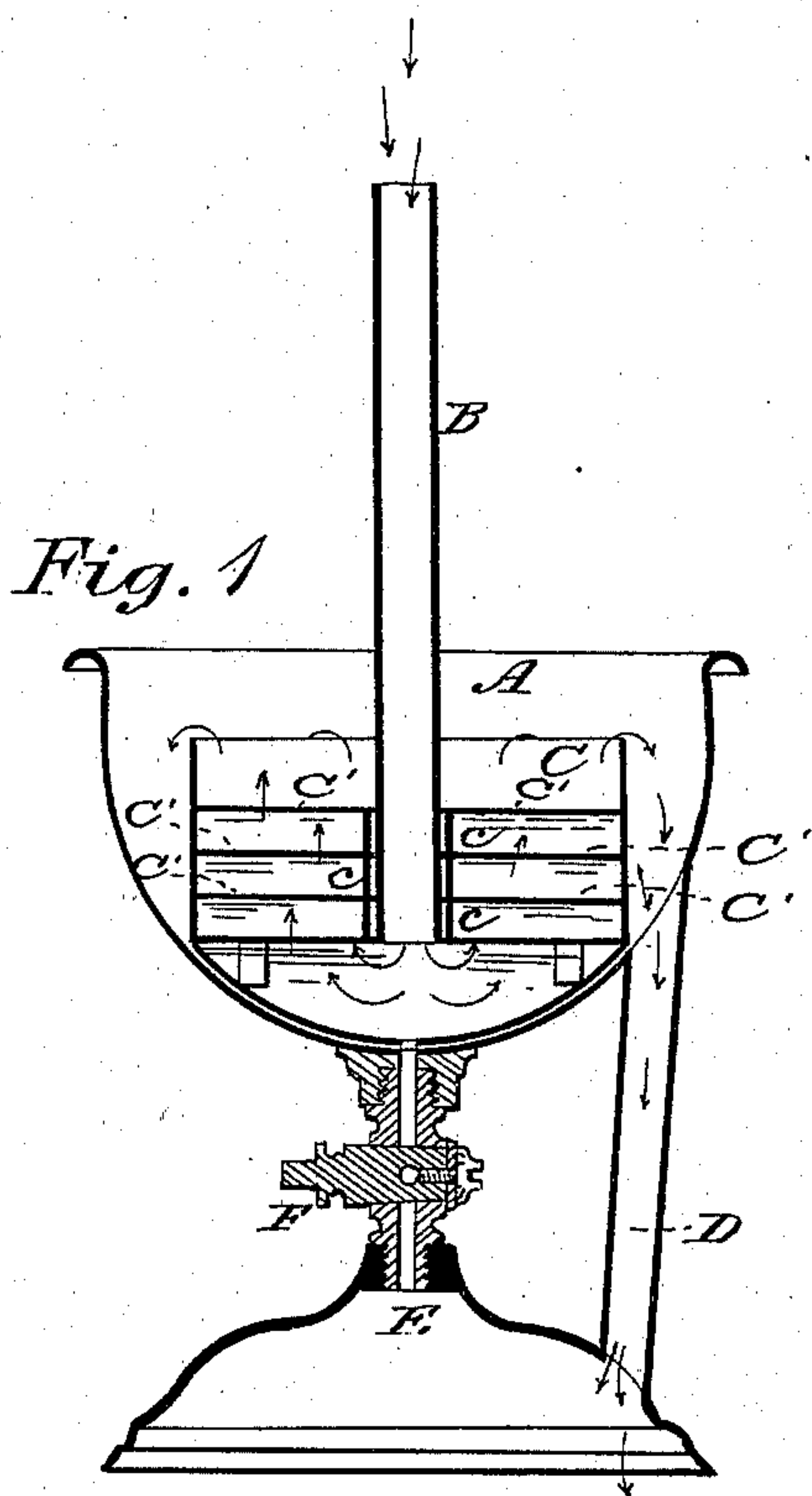


J. C. BREWSTER.

Amalgamator.

No. 99,630.

Patented Feb. 8, 1870.



Witnesses:
Clod Dugan
Edward C. Osborn

Inventor:
John C. Brewster

United States Patent Office.

JOHN C. BREWSTER, OF NEW YORK, N. Y.

Letters Patent No. 99,630, dated February 8, 1870.

IMPROVED AMALGAMATOR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN C. BREWSTER, of the city, county, and State of New York, have invented a new and useful Improvement in Amalgamators; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional view of my invention, and

Figure 2, a top view of the same.

Similar letters of reference indicate like parts in the several drawings.

My invention consists in a novel arrangement and combination of parts, whereby I am enabled to make a marked improvement in amalgamators.

To enable others skilled in the art to make and use my invention, I will describe the construction and operation of the same.

A represents the outer vessel, provided with a discharge-tube, D, and formed with an inner vessel or receiver, C, which holds the quicksilver.

This receiver is provided with a tube, E, furnished with a stop-cock, F, for drawing off the amalgam.

Within the receiver C is arranged a series of perforated plates, C' C', surrounding the receiving-tube B, and separated the required distance apart by the rings or washers c c. The office of these plates is to break up and separate the current of ground ore and water that is forced down through the tube B, so that the particles of metal may be brought in more intimate contact with the quicksilver within the receiver. They

may be constructed of metallic plates, as shown, or of wire gauze, with the rings c c arranged upon their outer edges, to preserve a proper distance between them.

The operation will be as follows:—

The receiver C is filled with the quicksilver nearly up to the level of the top plate C', as represented by the red lines in fig. 1; and the stream of ground ore, mixed to the proper consistency with water, being forced down the tube B into the receiver, the quicksilver amalgamates with the particles of metal, while the refuse matter flows over the receiver into the vessel A, and is discharged through the tube D. After the amalgam has been washed, by forcing a stream of water through the receiving-tube, it is drawn from the receiver, through the tube E.

I am aware that a perforated plate has been used, in combination with a vessel or basin, an example of which may be seen in the patent of Crosby & Ladd, of September 30, 1862, and I therefore disclaim such combination; but

I claim—

The combination and arrangement of the series of perforated plates C' C', within the amalgam-reservoir C, the basin A, and the receiving and discharging-tubes B D E, the whole constructed and operating substantially as described and set forth.

JOHN C. BREWSTER.

Witnesses:

C. A. DURGIN,

EDWARD E. OSBORN.