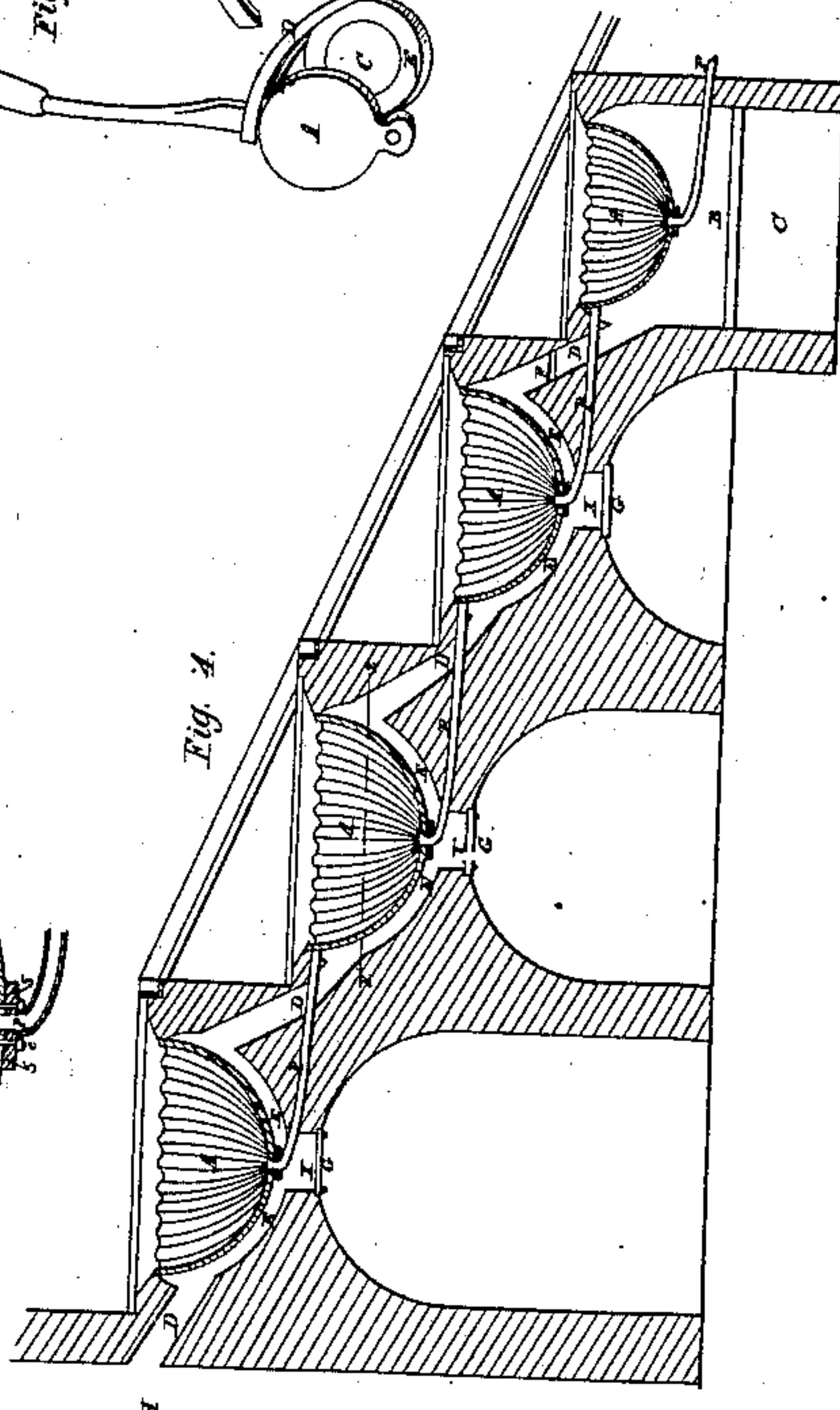
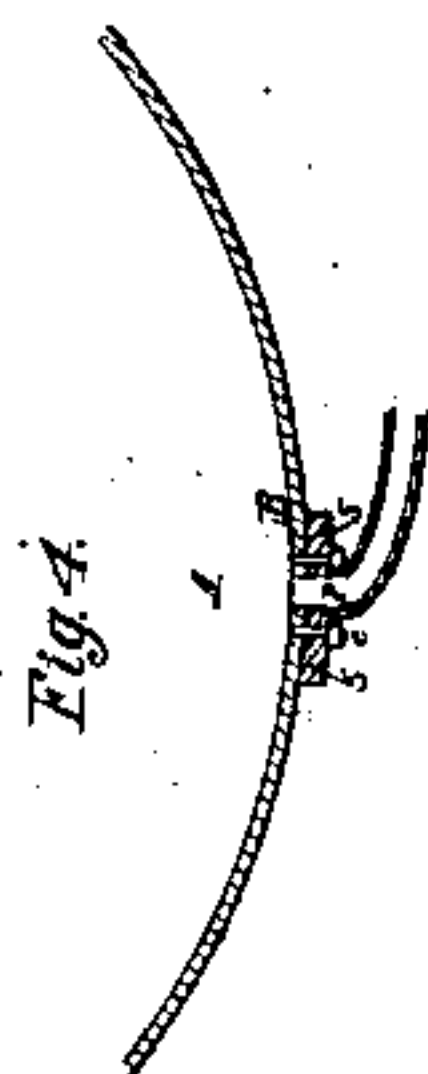
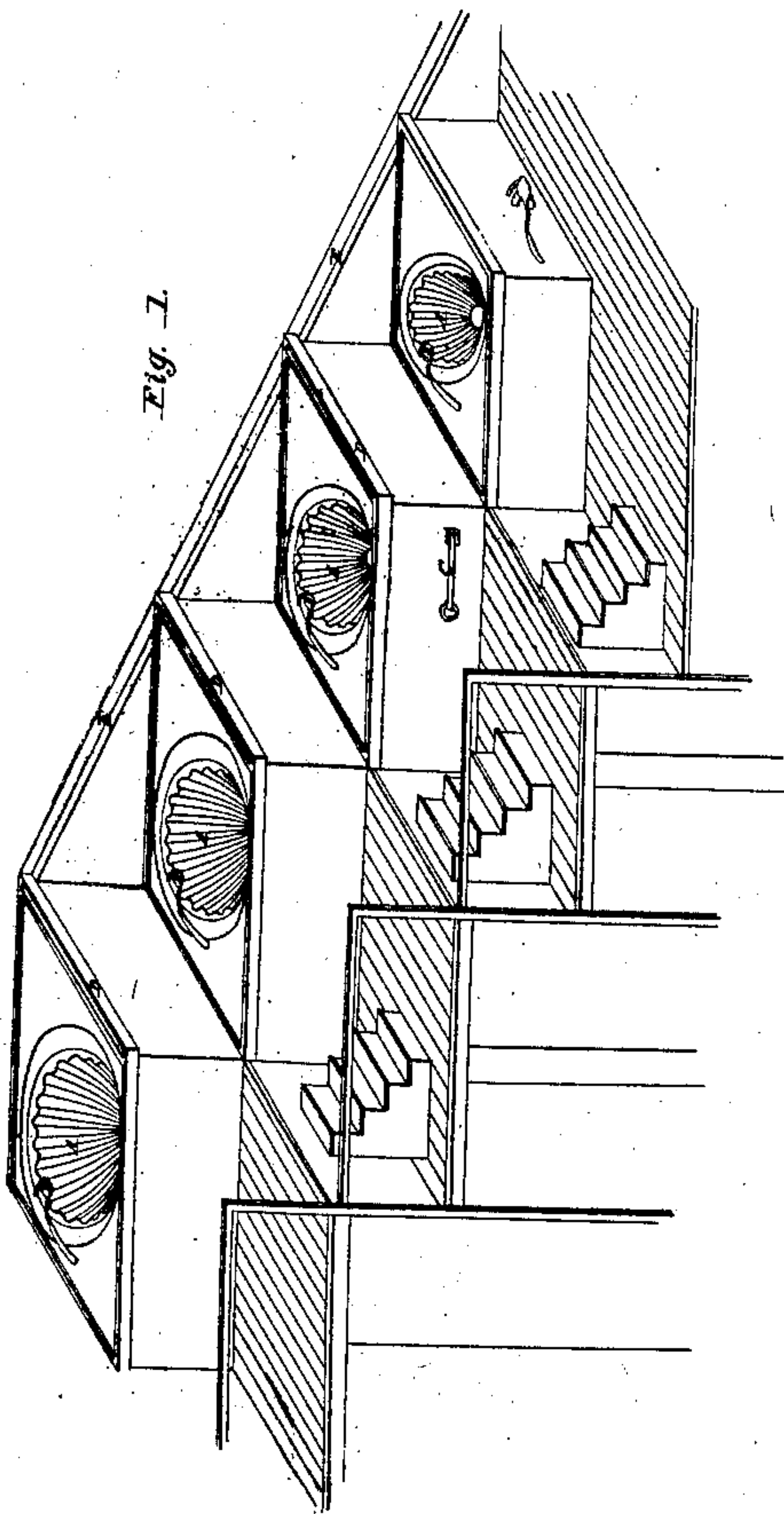
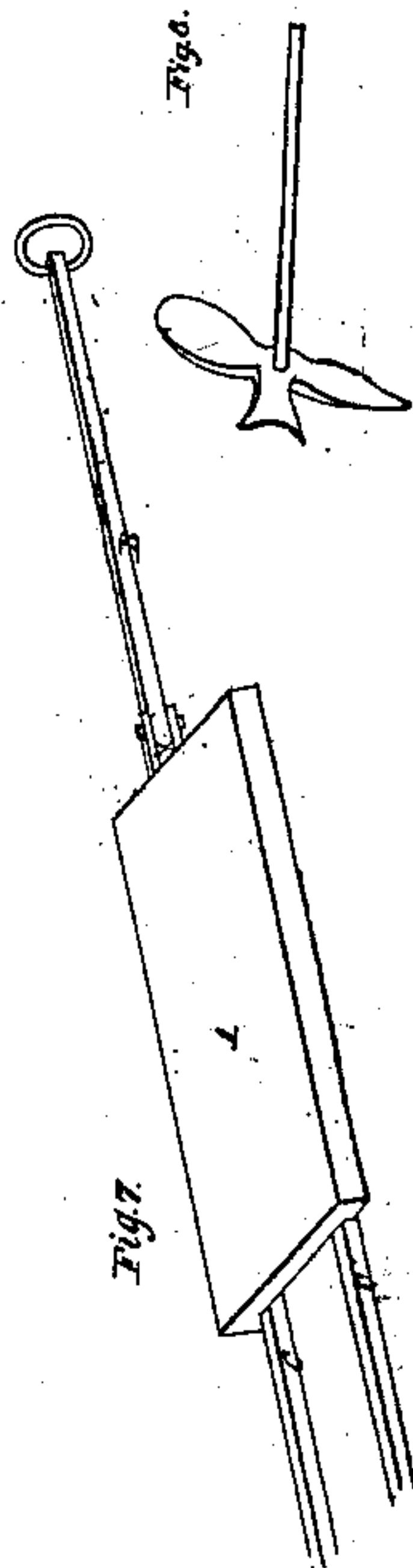
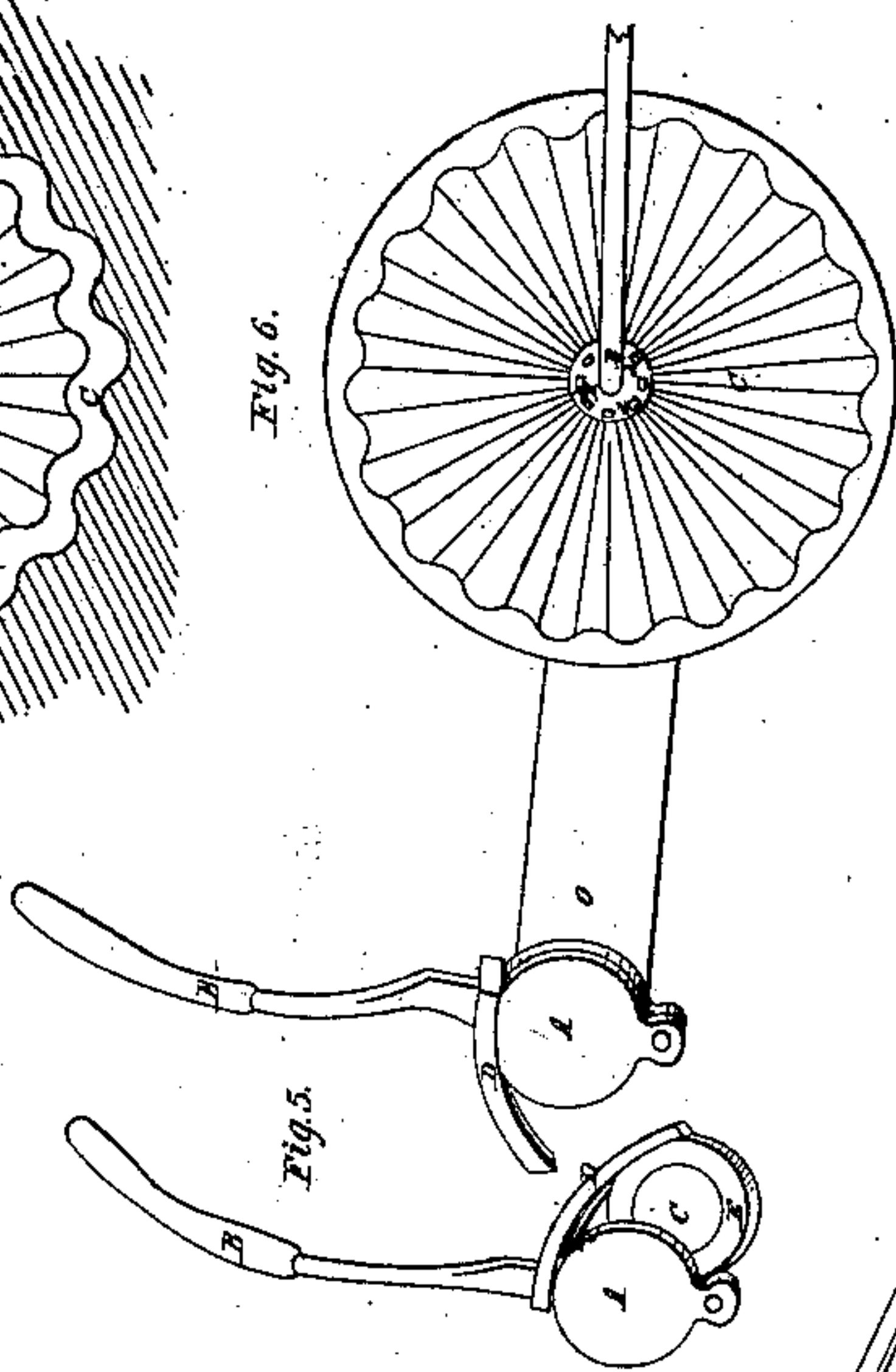
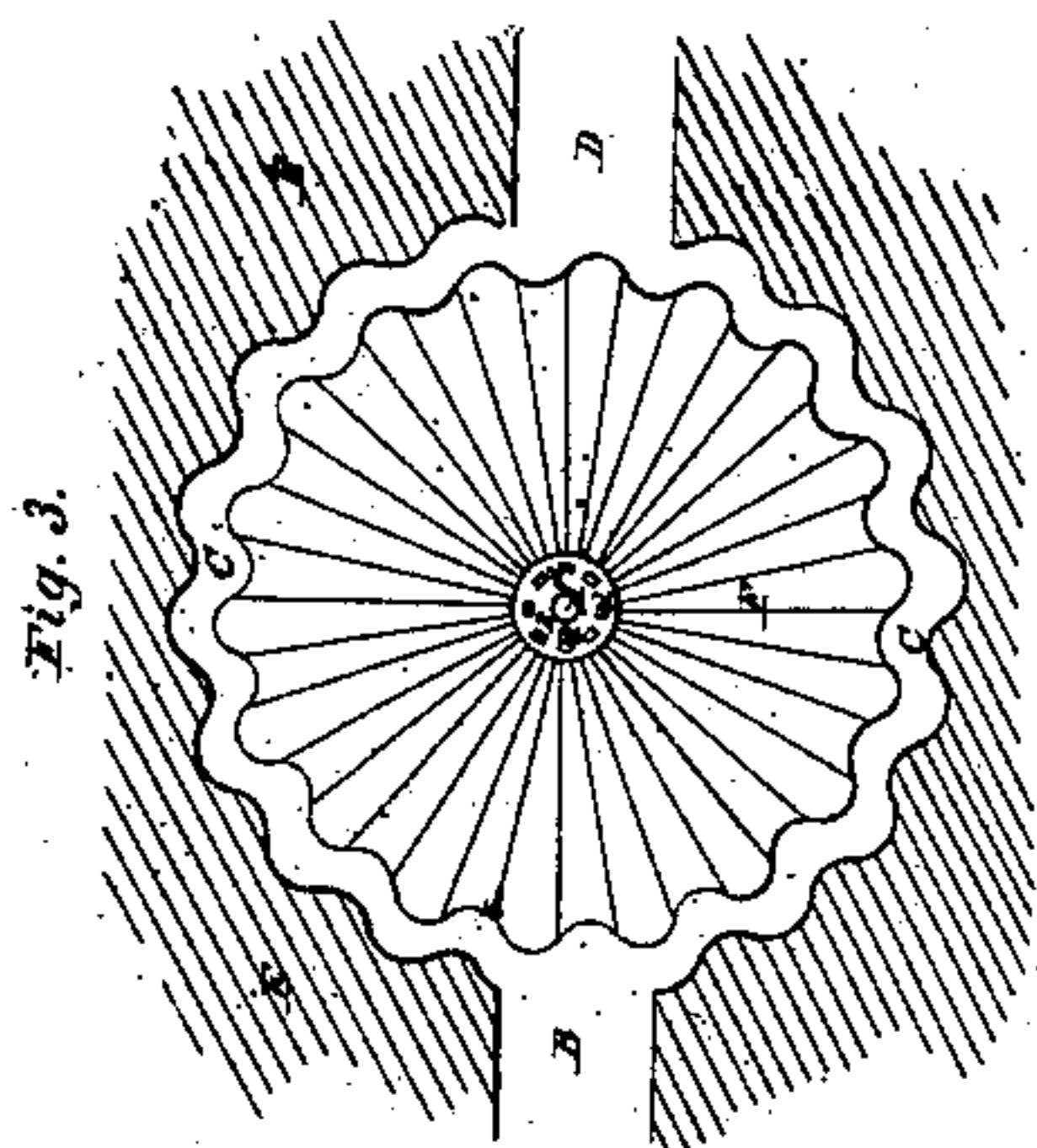
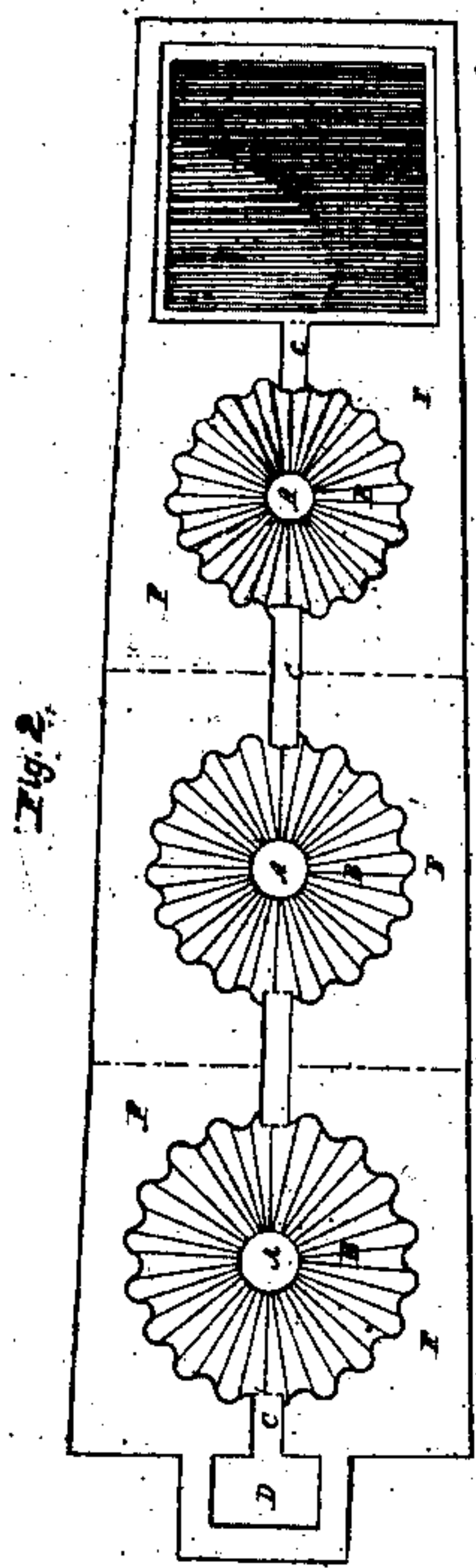


L. Lefebvre.

Evaporating Pan.

Patented Nov. 23, 1858.

N^o 22, 126.



UNITED STATES PATENT OFFICE.

L. LEFEBVRE, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN FURNACES FOR EVAPORATING SUGAR-JUICES.

Specification forming part of Letters Patent No. **22,126**, dated November 23, 1858.

To all whom it may concern:

Be it known that I, LOUIS LEFEBVRE, of New Orleans, parish of Orleans, State of Louisiana, have invented a new and Improved Mode of Setting Sugar-Kettles; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view. A A A A are the kettles; B B B B, emptying-valves to empty the liquid from one kettle to another; C, handle of the damper; D D D, gutters to receive the scum and convey it to the larger one E.

Fig. 2 is a ground plan. A A A show the deposit of ashes; B B B, corrugated part of the brick-work corresponding with the wrinkles of the kettle; C C C, the flue of the chimney; D, the chimney; E, the grate of the furnace; F F F F, the common plain brick-work.

Fig. 3 is a section on the line X Z of Fig. 4. A is the emptying-hole; B, the part of the kettle on which the emptying-pipe is fastened; C, the corrugated flue under the kettle; D, the common flue communicating from one kettle to another; E, the common brick-work; F, the inside of the kettle.

Fig. 4 is an elevation. A A A A are the kettles; B, the furnace; C, ash-pan in the ground; D, flue of the chimney; E, corrugated part of the flue; F, damper to intercept the fire when emptying the kettles; X X X, deposit of ashes; G G G, doors giving access to the places X X X in order to clean them; H, chimney; P P P P, emptying-pipes; S S S S, the pieces fastened with screws to the bottom of the kettle. Fig. 4^{his}. A, the kettle; B, thickness of the kettle; P, the emptying-pipe; S, the sledge of the pipe fastened to the kettle by the screws C C C.

Fig. 5 is the emptying-valve. A is the shutter; B, the wooden handle of the shutter; C, the spout; D, the side of the shutter; E, the part of the valve fixed to the emptying-pipe; O, Fig. 6, kettles seen underneath; A, the piece fixed to the bottom of the kettles by the screws D D D D; B, the emptying-pipe; C, the kettle.

Fig. 7 shows the damper A. B shows the handle; C C, the rails on which the damper slides.

Fig. 8 shows the form of an instrument to be used in cleaning the wrinkles or furrows of the kettles.

The object of my invention is to prevent the rapid passage of the products of combustion through the flues surrounding the kettles. The nature of the invention consists in fluting or corrugating the surface of the kettle and constructing the surface of the brick-work which constitutes the opposite face of the flue with corresponding corrugations or flutings, so as thereby to produce an undulating passage for the products of combustion, which, by preventing the rapid transit thereof, render them more effectual in producing the desired effect upon the contents of the kettle. These flues conform in shape to the form of the kettle, as shown by C, Fig. 3, and E, Fig. 4, extending from the top of the kettle to beneath its bottom, the products of combustion entering at the upper portion thereof and passing around the kettle through the undulating passage between the brick-work and the kettle issue by passage D in Fig. 4. The fluted form of kettle gives a greater surface to a given capacity, all of which is rendered effective by making the brick-work of the flue conform to the elevations and depressions of the kettle bottom.

I make no claim to the fluting or corrugating of kettles separately considered; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

In combination with the fluted outer surface of the kettle, forming the masonry constituting the opposite face of the flue with corresponding fluting or corrugations, as to surround the kettle with an undulating passage for the products of combustion, substantially as and for the purposes set forth.

L. LEFEBVRE.

Witnesses:

J. B. BRADFORD,
I. I. MICHEL.