

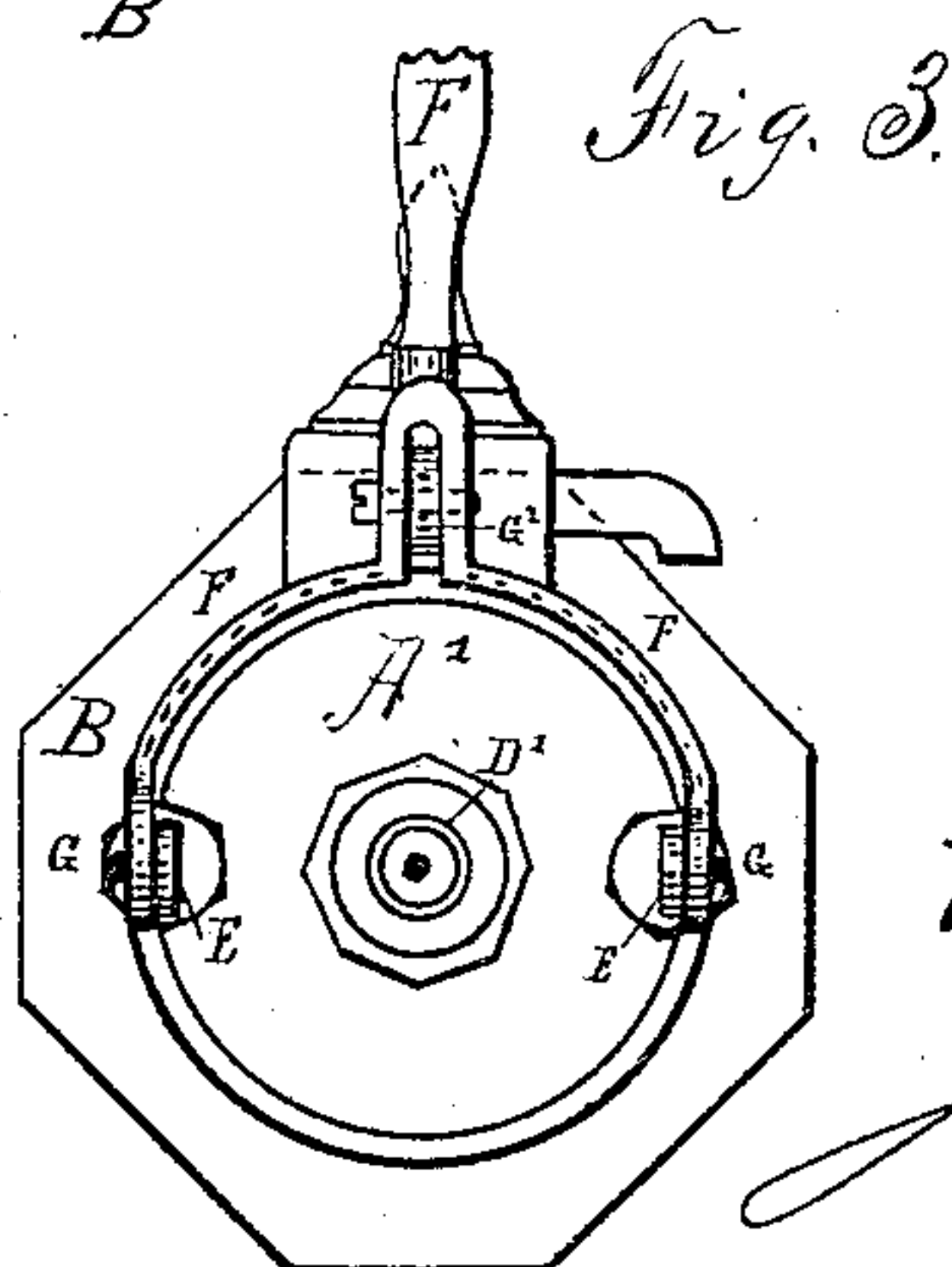
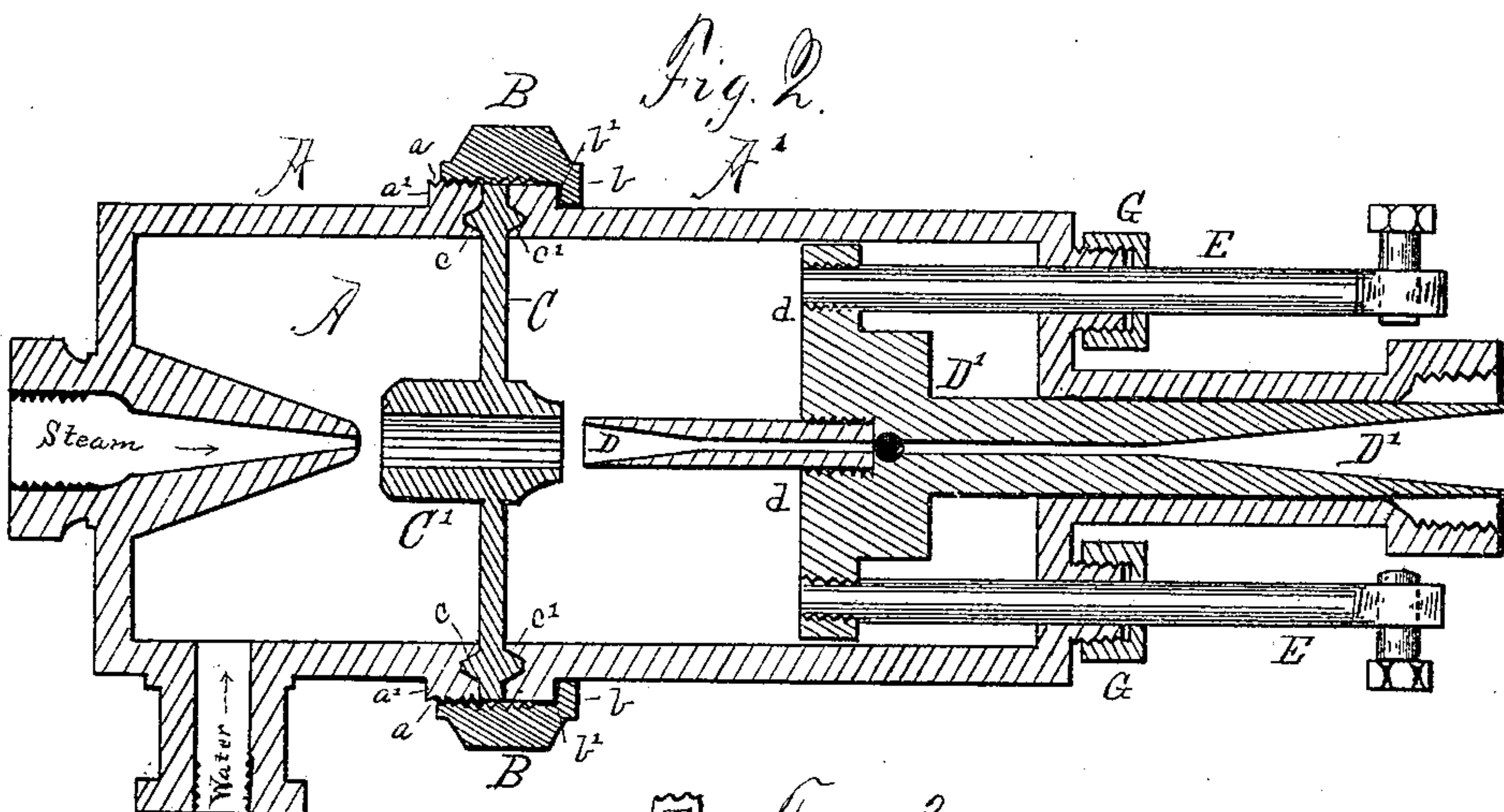
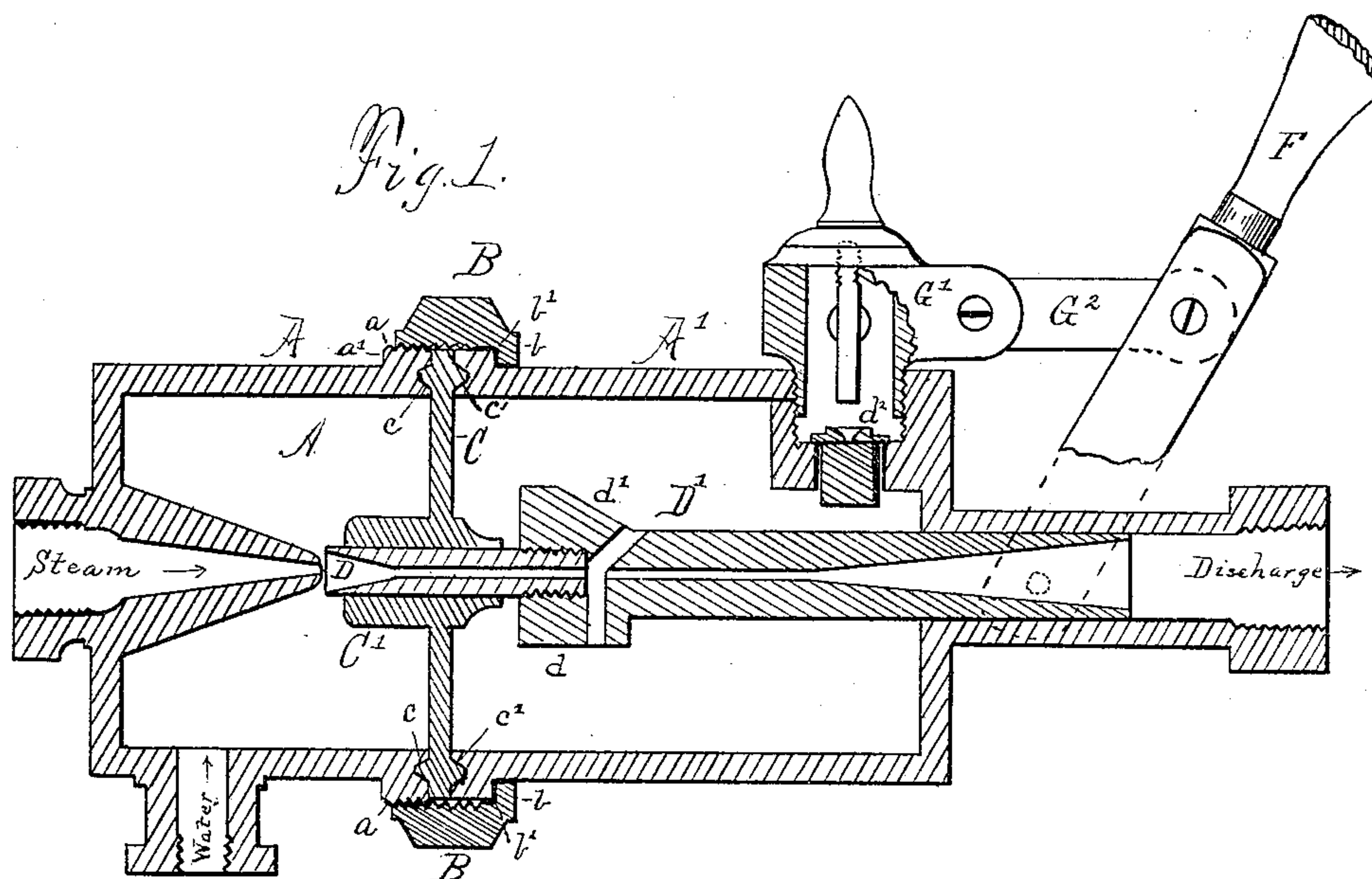
(Model.)

J. M. MARTY.

INJECTOR.

No. 328,594.

Patented Oct. 20, 1885.



Attests.
J. Charles Ingram.
William Winsor

Inventor.
John M. Marty
by his Atty.
John S. Duffie

UNITED STATES PATENT OFFICE.

JOHN M. MARTY, OF CLEVELAND, OHIO.

INJECTOR.

SPECIFICATION forming part of Letters Patent No. 328,594, dated October 20, 1885.

Application filed March 9, 1885. Serial No. 153,191. (Model.)

To all whom it may concern:

Be it known that I, JOHN M. MARTY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Injectors; and I do declare the following to be a full, clear, and exact description of the invention, such as it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to improvements in injectors, as hereinafter fully described and set forth.

Figure 1 is a longitudinal vertical sectional view of my injector. Fig. 2 is a longitudinal horizontal sectional view of the same. Fig. 3 is an end view of the discharge end of my injector.

My invention is described as follows:

The body consists of two pieces, A and A', jointed and connected, similar to a common pipe-union, threads *a* being cut on the shoulder *a'* of the part A, and a large nut, B, whose shoulder *b* bears against a corresponding shoulder, *b'*, of the part A', is screwed over the threads *a* on the part A, drawing the two parts together, provided their axes are true. Between the two parts is inlaid a disk, C, its periphery being equal in circumference to the periphery of each of the parts, and fitting between the two. Near the periphery of this disk C are shoulders *c c'*, which fit into corresponding sockets. Said disk is secured in place and becomes steam-tight when the nut B is screwed home. This disk C bears in its center, which is cast with it and is a part of it, a tube, C'.

The mixer-tube D is screwed into the discharge-tube D'. The discharge-tube D' has two large shoulders, *d d'*, the receiving-side of which extends far enough from the tube to receive two rods, E E, which are connected with a lever, F, outside of the injector. There are two stuffing-boxes, G G, for the rods E to work through. I also have an incline shoulder, *d'*, on the pipe D', which lifts the overflow-valve *d²* when the pipe is pushed back.

When the lever F is pushed back, it forces the tubes D and D' forward until the tube D enters the tube C', as shown in Fig. 1, thus

creating an ejector or lifter by enlarging the second tube, (not by making the steam-tube smaller, as heretofore, as in most injectors,) making the ejector much more powerful. As soon as the water appears at the overflow move the tubes D and D' forward into the discharge-tube C' of ejector, as shown in Fig. 1 until the overflow is dry.

Lever F is pivoted to the free end of an oscillating fulcrum, G². The other end of said fulcrum is pivoted to an arm, G', of the overflow.

The combination of the parts A and A', with the nut B, enables me to do away with the necessity of joints on the ends, as the halves can be screwed on the connections first and then be put together. This manner of connecting the parts also facilitates greatly in cleaning the injector.

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

1. The disk C, having the tube C', adapted to receive the tube D, the shoulders *c* and *c'*, fitting into the corresponding sockets in the parts A and A', substantially as shown and described.

2. The combination of the disk C, having the tube C' and shoulders *c* and *c'*, with parts A and A', and nut B, binding the whole together, substantially as shown and described.

3. The combination of the lever F, pivoted on the oscillating fulcrum G², with rods E E, working through the stuffing-boxes G G, their front ends screwed into shoulders *d d'* of the tube D', tube D' having shoulders *d d'*, and the incline shoulder *d'*, adapted to raise the valve *d²* of the overflow, and tube D, screwed into the forward end of the tube D', its front end adapted to enter tube C', all substantially as shown and described, and for the purposes set forth.

4. The combination of the arm G' of the overflow with oscillating fulcrum G², pivoted to said arm, lever F, pivoted on the free end of said fulcrum, its short end pivoted to the rear ends of rods E E, all substantially as shown and described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN M. MARTY.

Witnesses:

FRANK STRAUS,
GEO. C. WING.