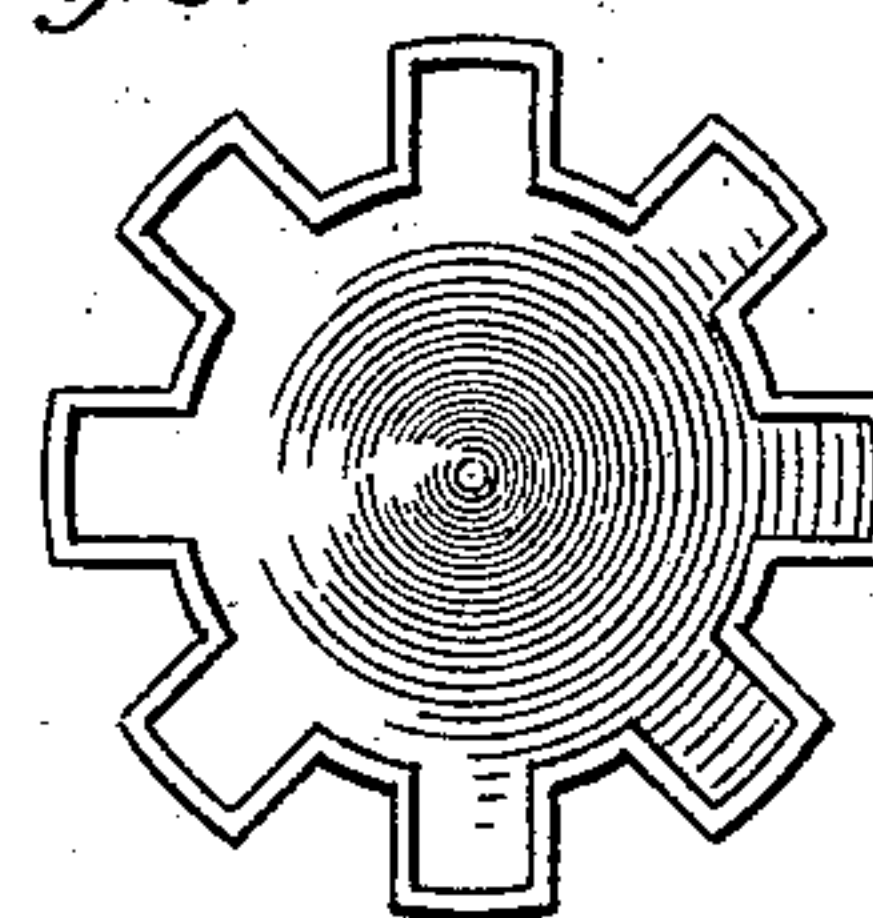
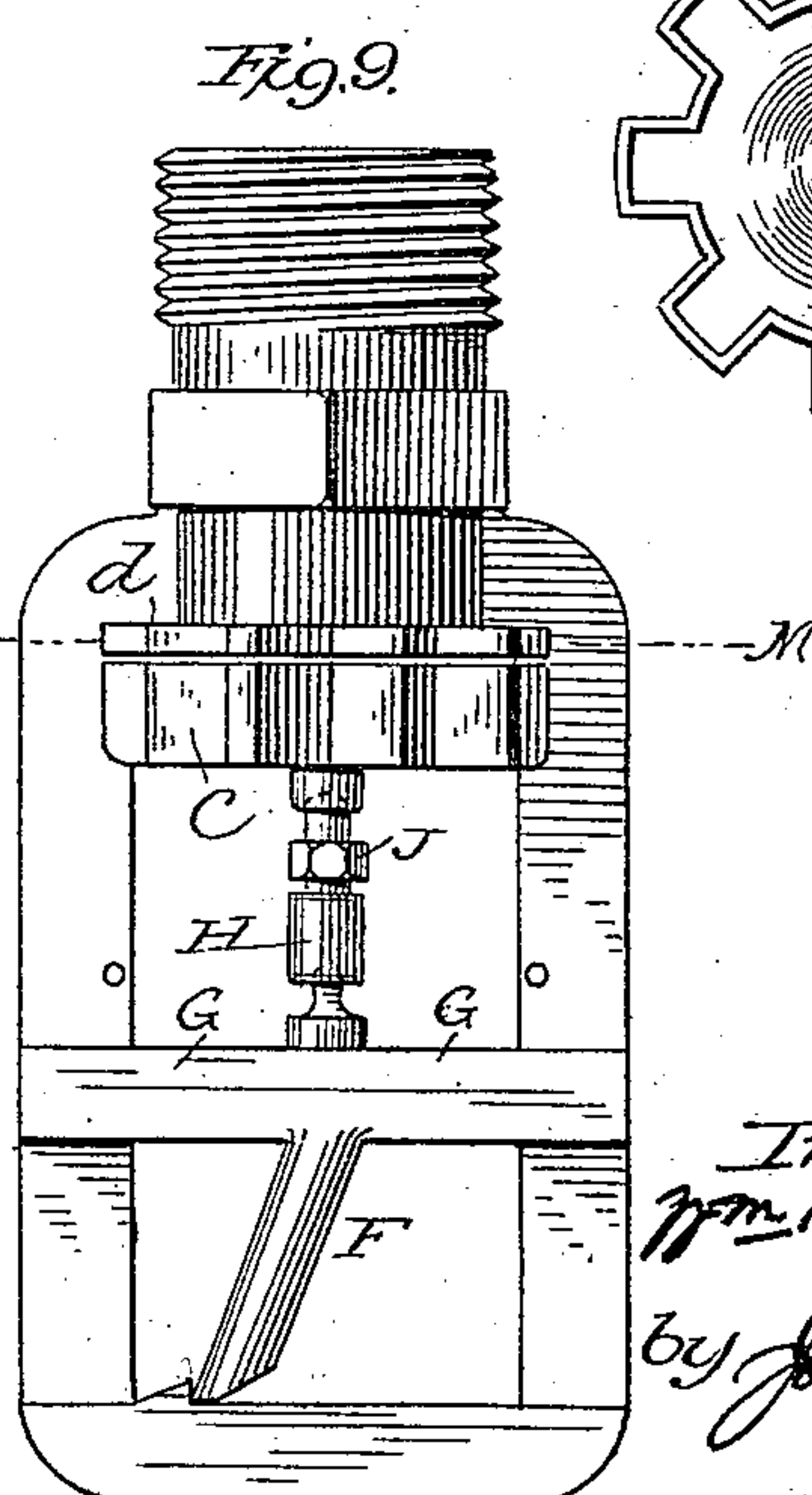
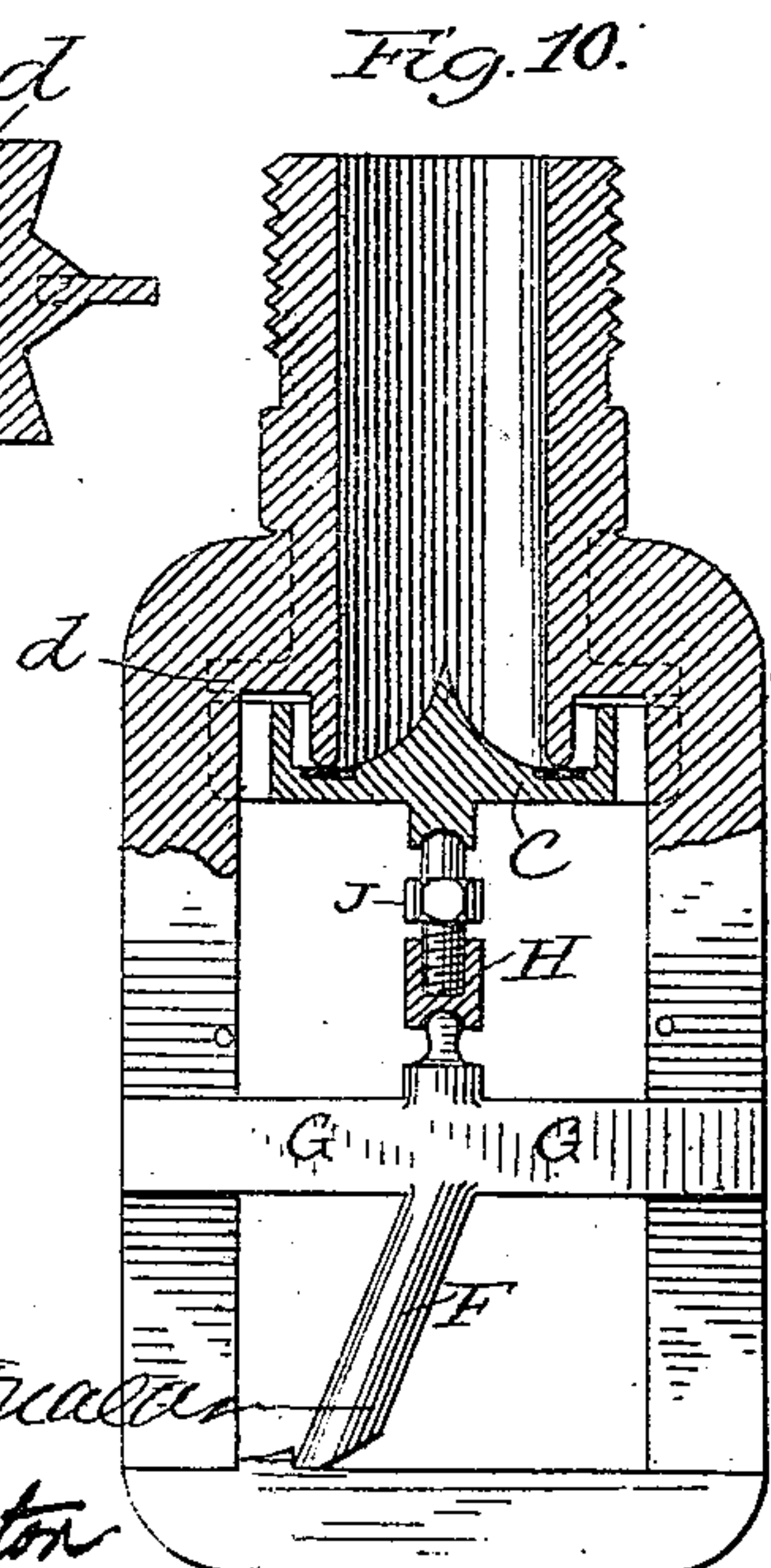
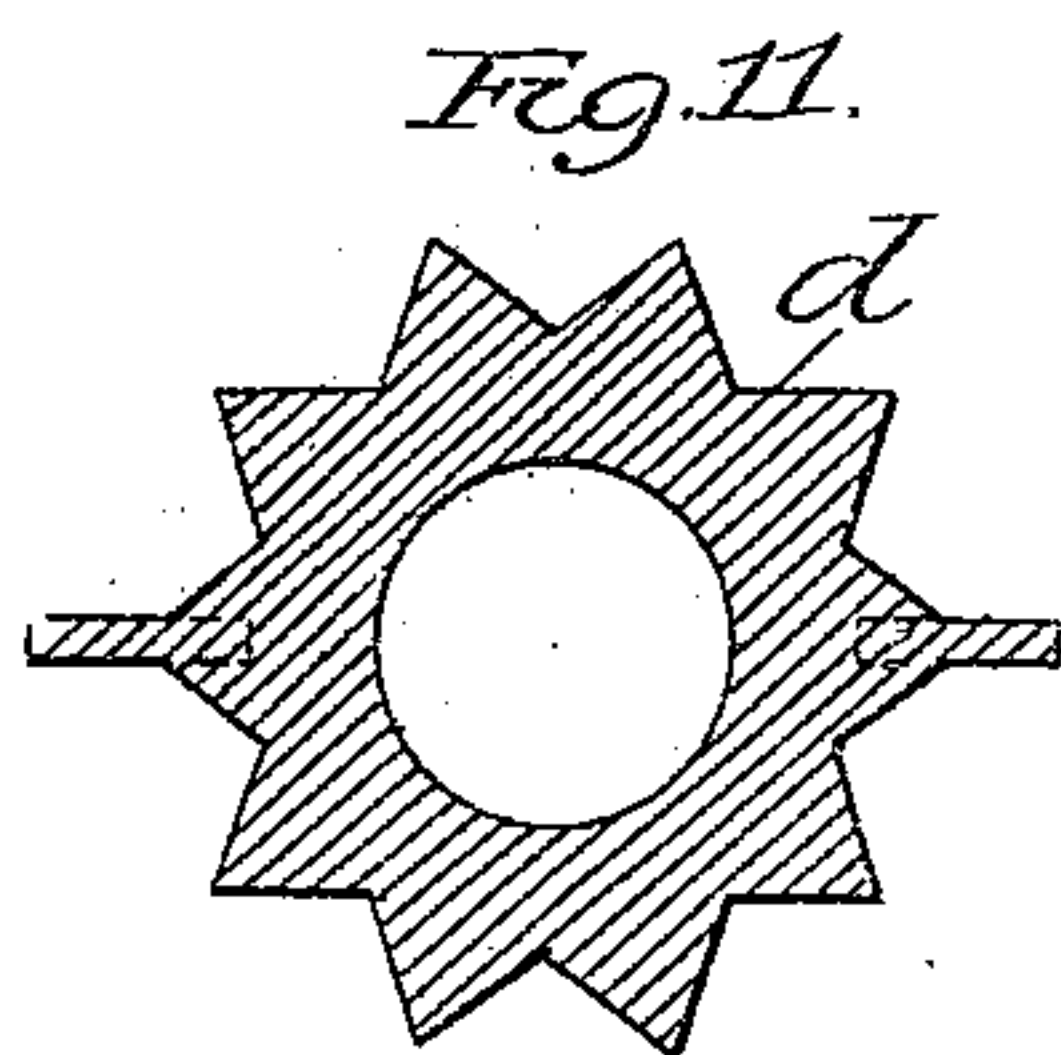
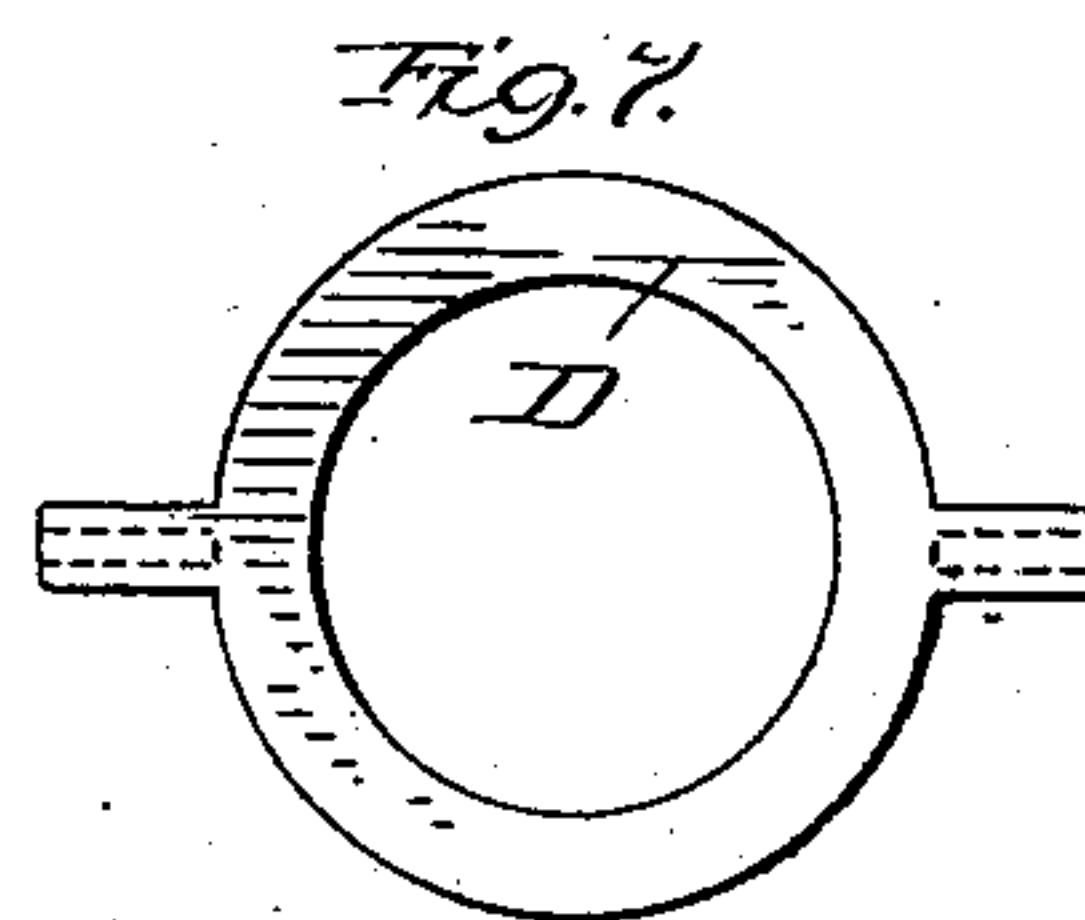
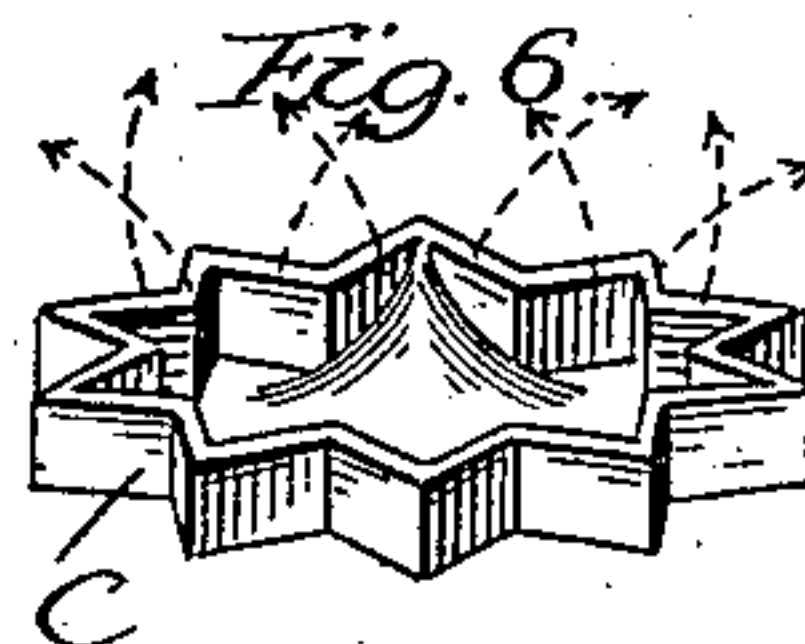
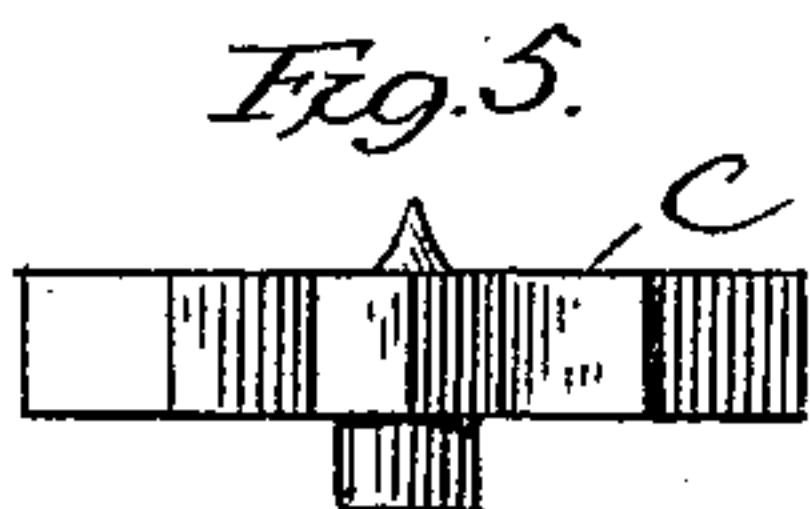
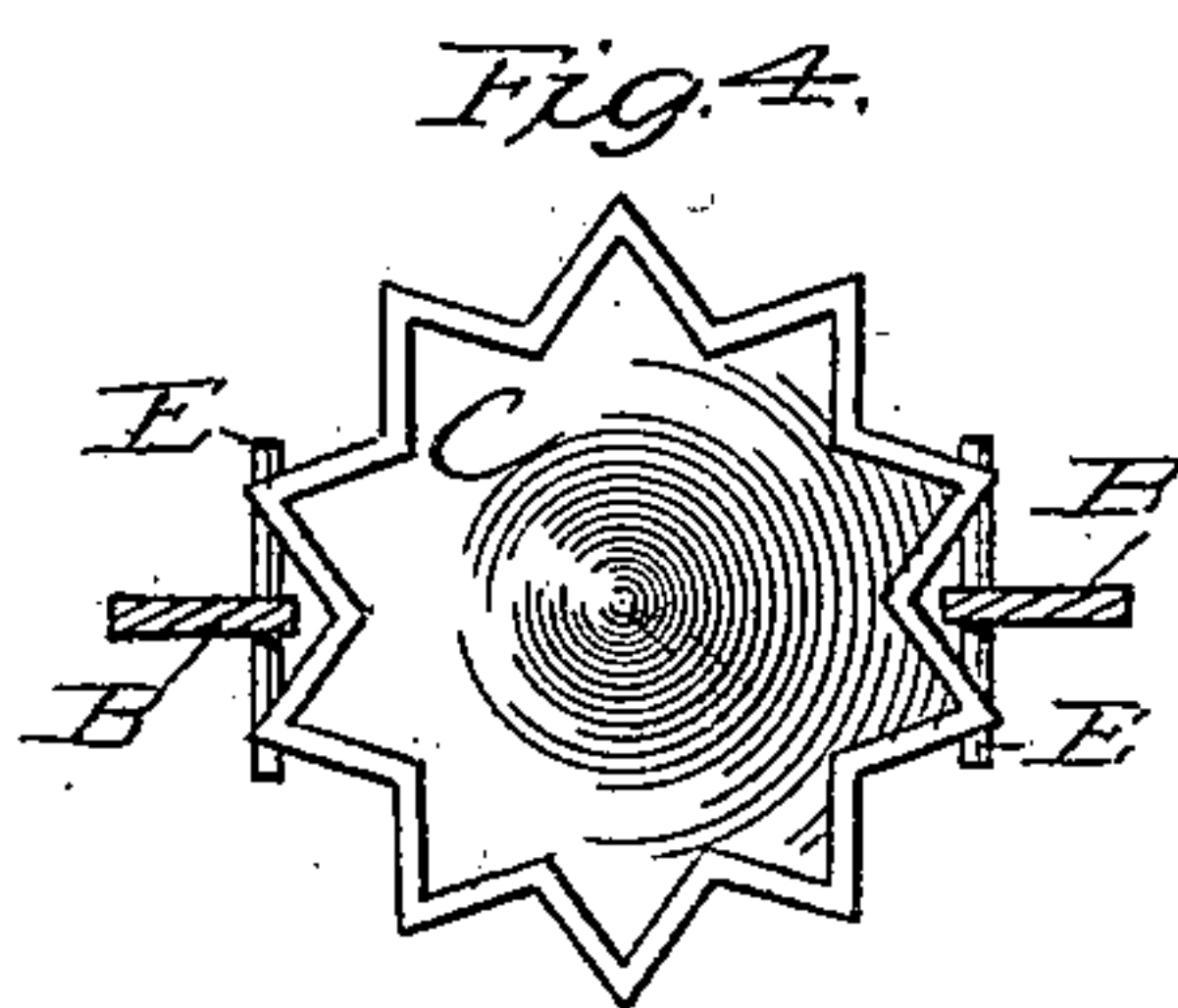
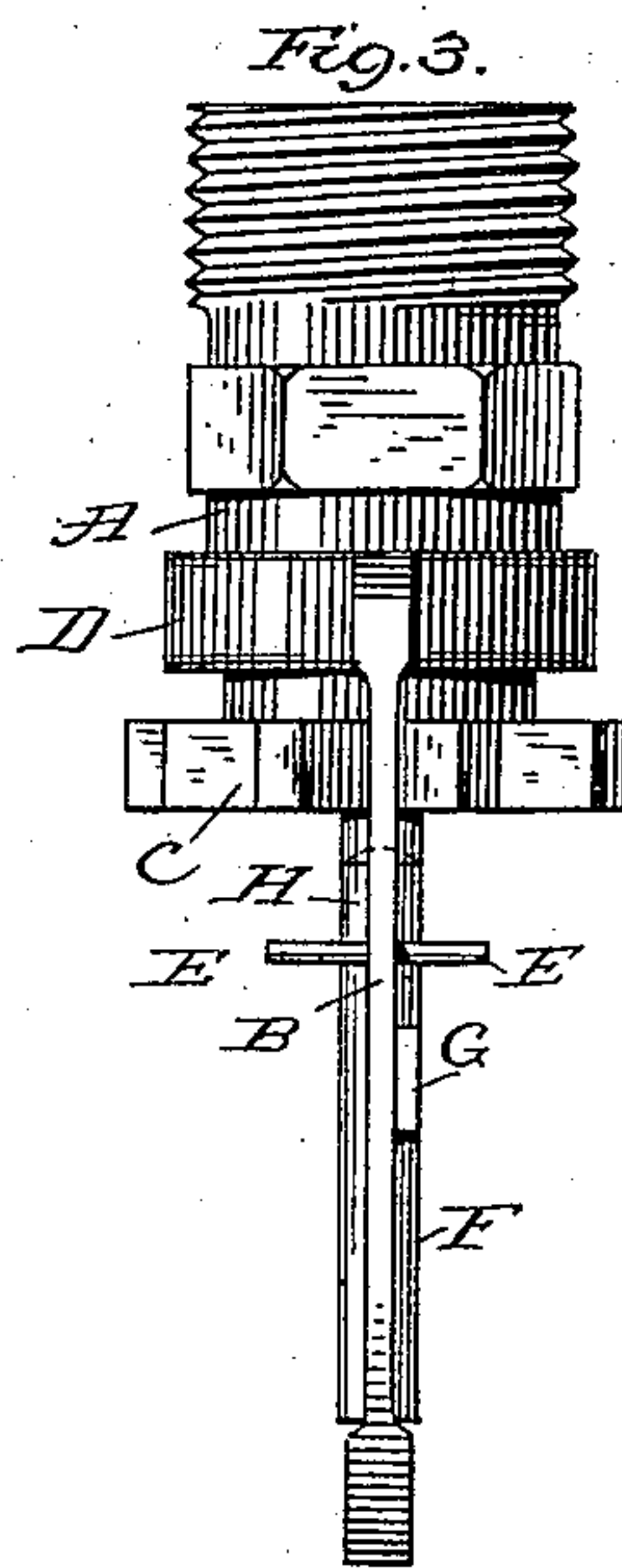
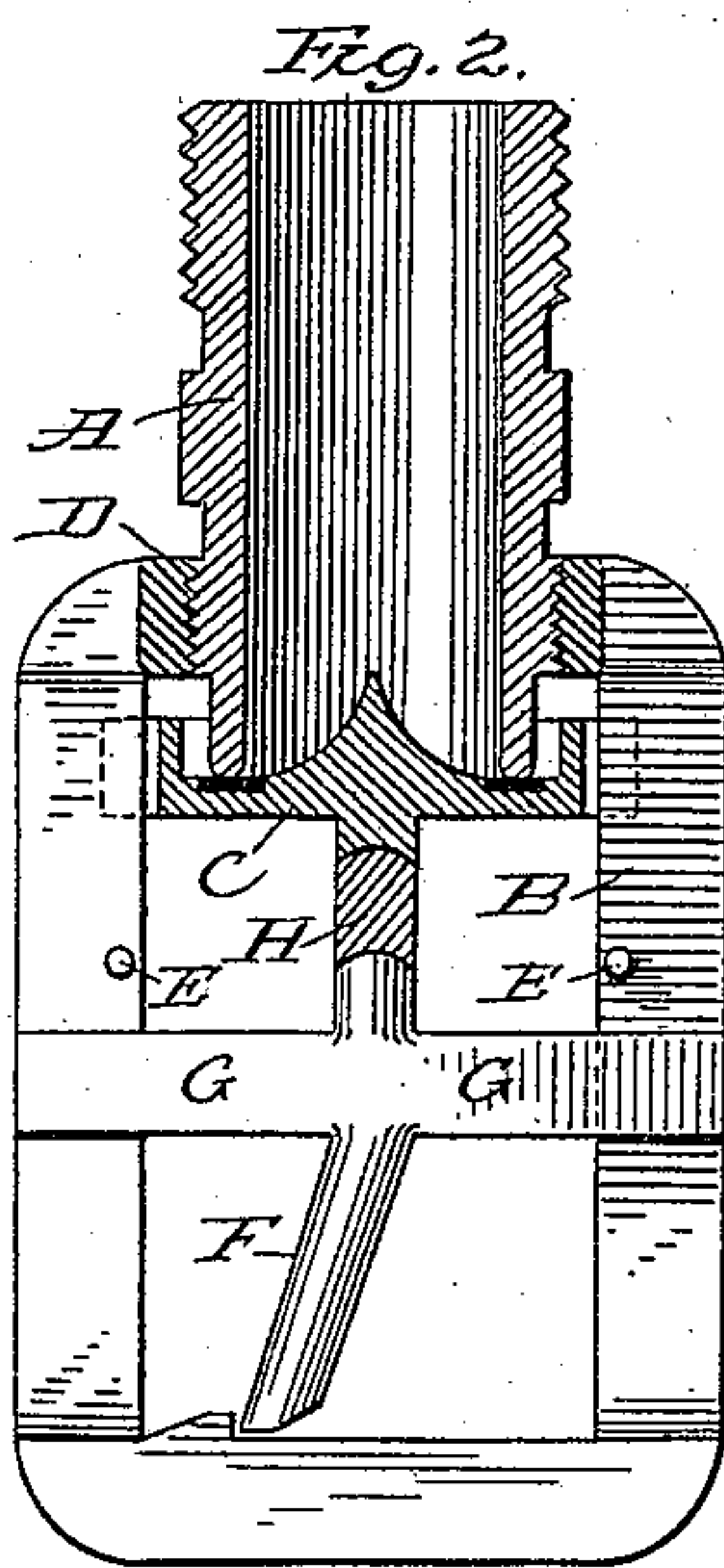
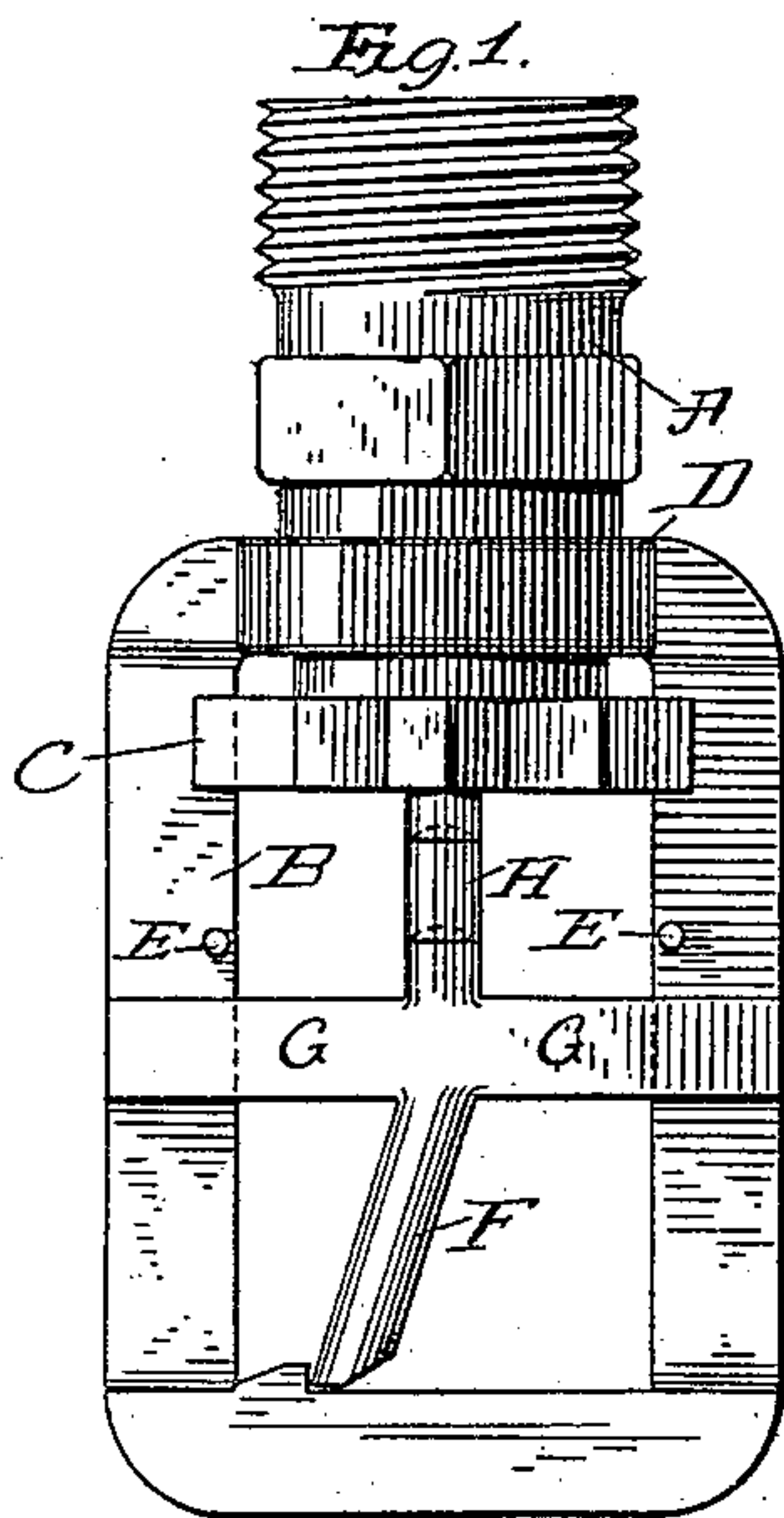


(No Model.)

W. NERACHER.
AUTOMATIC FIRE EXTINGUISHER.

No. 297,432.

Patented Apr. 22, 1884.



Attest
J. L. Middleton

Inventor
Wm. Neracher
by J. L. Middleton

Atty's.

UNITED STATES PATENT OFFICE.

WILLIAM NERACHER, OF CLEVELAND, OHIO.

AUTOMATIC FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 297,432, dated April 22, 1884.

Application filed January 21, 1884. (No model.)

To all whom it may concern.

Be it known that I, WILLIAM NERACHER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Automatic Fire-Extinguishers; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to automatic fire-sprinklers of that class in which the sprinkler is attached to a pipe, said pipe being closed by a distributor held in position by fusible connection.

The invention consists of an improved form of distributor, and of improved details of construction in the devices by which it is held in place.

In the accompanying drawings, Figure 1 shows a front elevation of a distributor with the pipe closed. Fig. 2 shows a similar elevation, with the pipe and valve in section. Fig. 3 shows a side elevation one-quarter turned from Fig. 1. Fig. 4 is a top view of the distributor. Fig. 5 is a side elevation of the same. Fig. 6 is a perspective view of the same. Fig. 7 is a plan view of the supporting collar and frame. Fig. 8 represents a plan of a modified form of the distributor. Fig. 9 is a front elevation of the extinguisher, with the frame and pipe or body in one piece. Fig. 10 is a similar elevation, with the body and valve in section. Both these figures represent additional details hereinafter explained. Fig. 11 shows a horizontal section on line M M of Fig. 9.

In these drawings, A is a tubular body, threaded and provided with faces for connection with the pipe end. To it is attached a frame, B, removable or integral therewith, which frame furnishes support for the distributor C.

As shown in Fig. 2, the frame B is attached to ring D, screwed upon the body A, and vertically adjustable thereon.

The distributor C is a dish having a bottom provided with a central cone and a continuous rim, with salient angles or projections. The distributor may be star-shaped, as shown in Fig. 4, or with angular projections, as shown in Fig. 8. In both cases the rim is vertically continuous; but as the different parts of the wall or rim stand at various angles to each other, they turn the water in an oppo-

site direction, and throw it at angles as varying as those of the faces of the rim, as shown in Fig. 6 by the arrows. The distributor is placed and guided between the sides of the frame B, as shown in Figs. 1 and 4, and is held up against the lower end of the body A by means of a post, F, having arms G. The post F bears against a spur on the bottom piece of the frame, and the upper part bears upon a second post, H, pressing directly against the concave boss or stud on the bottom of the distributor and valve. The post is brought into position to press firmly against the distributor, and both of the arms G are connected to the frame B by means of solder of low melting-point. The distributor, where it bears against the end of the tube, has an annular slat of solder or other fit material.

To bring the post F and arms G into proper position, an adjustable connection is convenient. This is furnished by the vertically-adjustable ring D; but a more convenient device is shown in Figs. 9 and 10, in which the supplemental post H has an extensible screw-plug, J. The bearings of the post H above and below are rounded, as shown, or made like ball-bearings, to allow the post to be straightened from a crooked position like a toggle-lever. It will be understood that when the arms G are released by heat the pressure of the water throws down the distributor. It is guided by frame B, and rests on pins E in said frame. In this position it is directly underneath the opening and receives the impact of the water. This is thrown by rebound up against the walls of the distributor, the bottom, and the inner faces of the rim in all directions, as above explained. Any accumulation of sediment is readily washed out, and no liability occurs of clogging.

In Figs. 9 and 10 is shown an annular plate, d, around the lower end of the body A, and sufficiently above its seat to admit the rim of the distributor. It is cast with A, and serves as a cover for the distributor, to exclude dust, and when in action the water thrown upward strikes against it, and is better distributed by reason of its serrated edge shown in Fig. 11. The form shown in Figs. 9 and 10 has the advantage of simplicity in respect to A and B, being cast in one piece, and in respect to the

extensible plug in the post H, which may be turned up to close the valve after the solder has been applied.

I claim—

5 1. In an automatic fire-sprinkler, a distributor having continuous vertical walls with salient projections, said distributor being located to receive the water from the pipe and to distribute it in various directions, substantially as described.

10 2. In an automatic fire-extinguisher, the distributor having vertical continuous wall, said wall being provided with salients and with a central cone, substantially as described.

15 3. In an automatic fire-extinguisher, the body A, having frame B, and a distributor with supporting-posts and arms G, adapted by

means of solder to hold the distributor to the body, substantially as described.

4. In a distributor, the body, a frame, a distributor adapted to close the body, a supporting-post having arms adapted to be connected to the frame by solder, and post H and extensible post J, the parts being constructed and arranged in their relation to each other substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM NERACHER.

Witnesses:

A. H. L. FRITZSCHE,
F. W. RUHTZ.