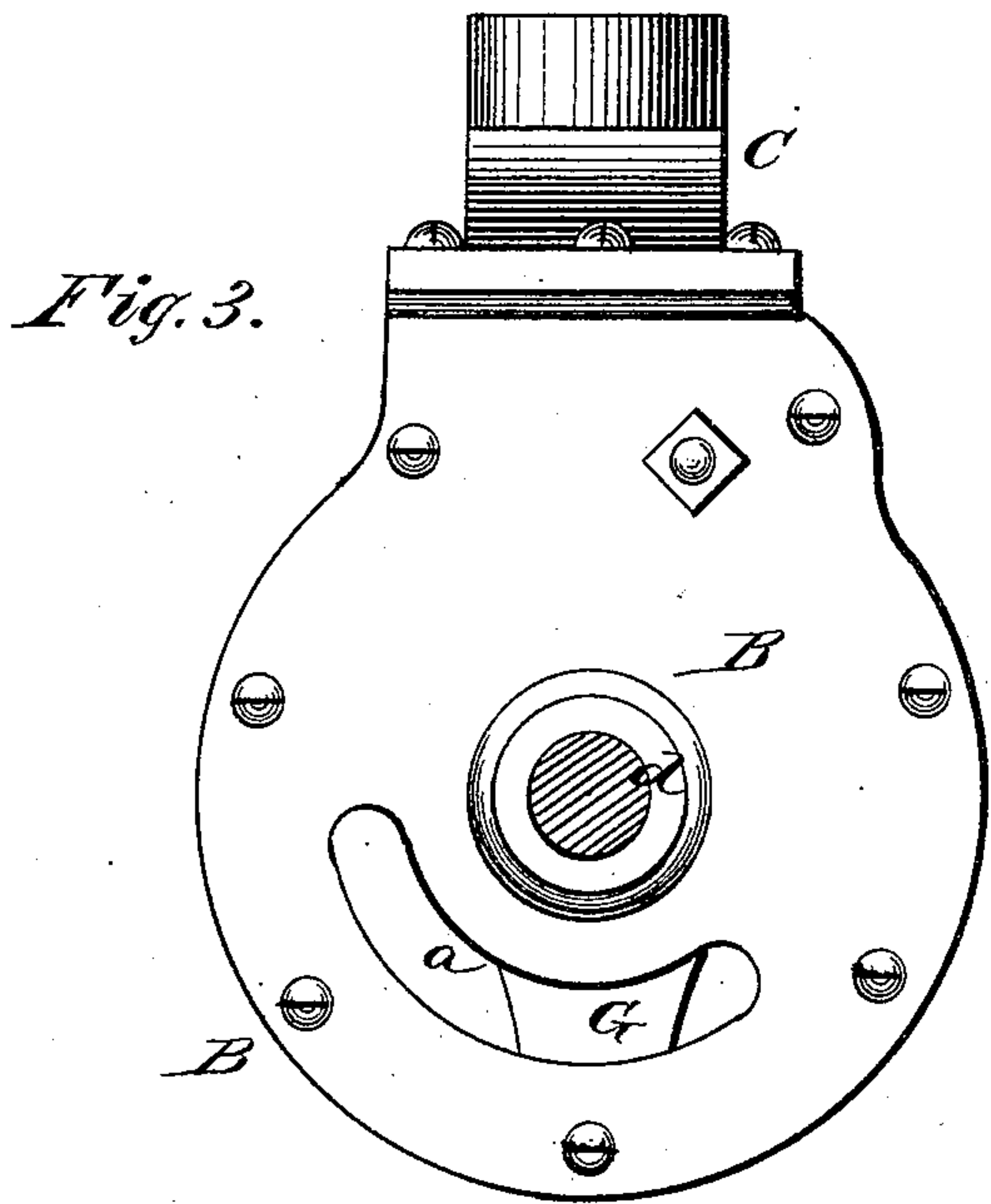
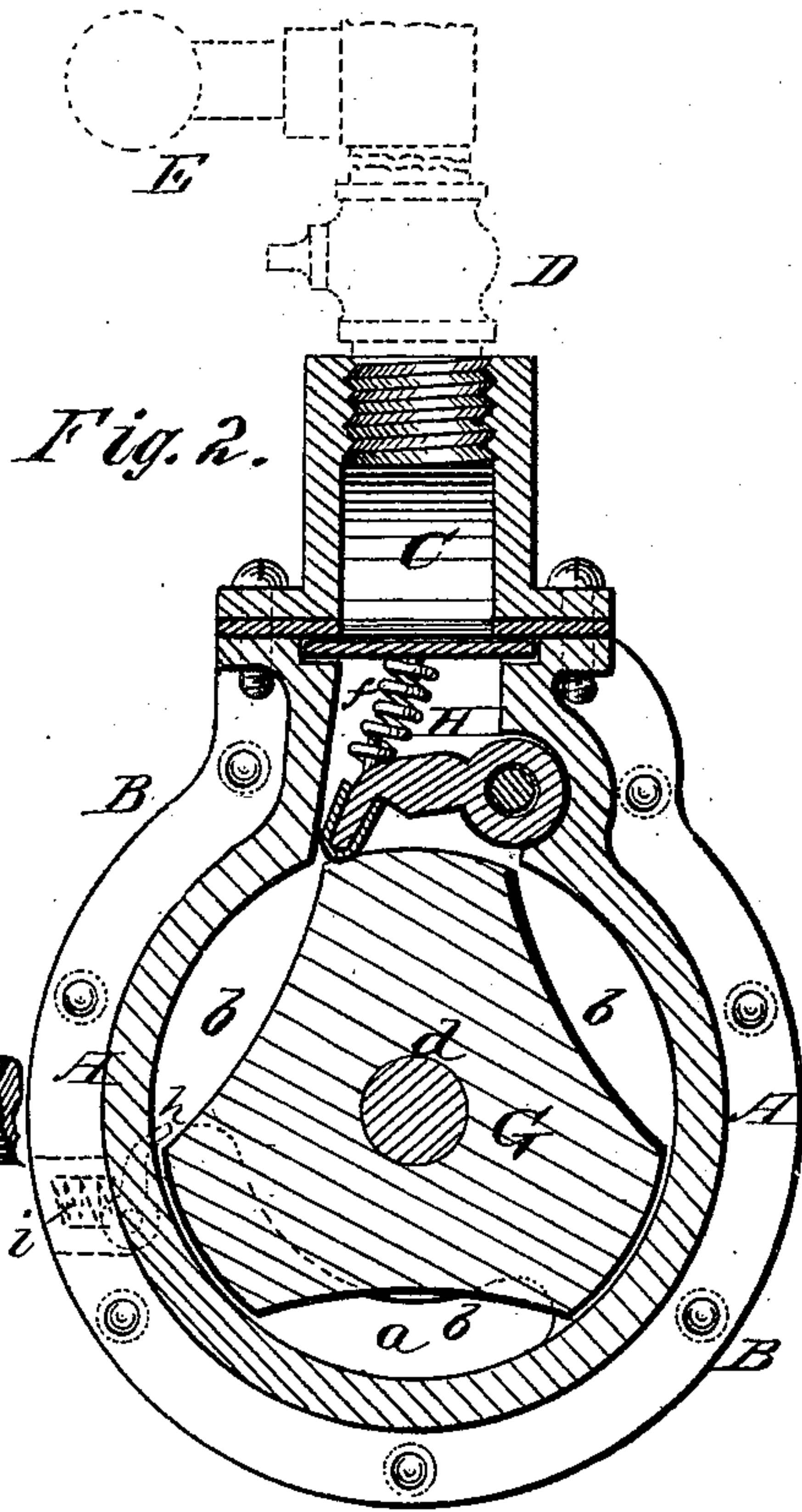
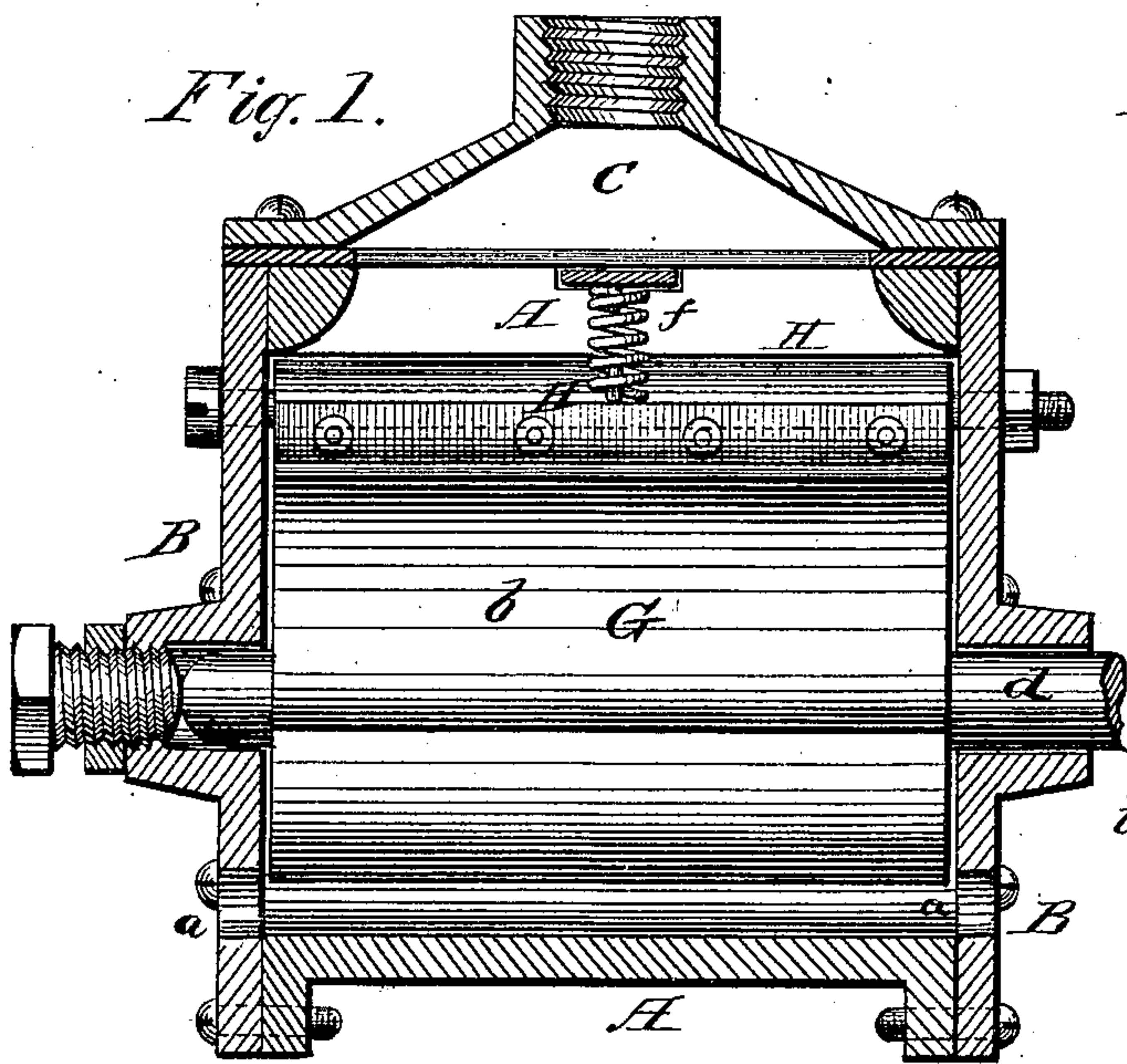


O. F. SCHULTZ.
 ROTARY-PUMP.

No. 177,079.

Patented May 9. 1876.



Witnesses:

F. C. Dieterich
F. H. Duffy

Inventor:
O. F. Schultz

Per: *C. H. Watson & Co.* Attorneys.

UNITED STATES PATENT OFFICE.

OTTO F. SCHULTZ, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN ROTARY PUMPS.

Specification forming part of Letters Patent No. **177,079**, dated May 9, 1876; application filed March 2, 1876.

To all whom it may concern:

Be it known that I, OTTO F. SCHULTZ, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a water-elevator, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a central vertical section, Fig. 2 is a central cross-section, and Fig. 3 is an end elevation, of my invention.

A represents a cylinder of suitable dimensions, provided with heads B B, having each an aperture, *a*, for the admission of the water or liquid to be raised. On top of the cylinder is formed a chamber, C, above which is an ordinary jack-valve, D, and above the same again is an ordinary air-chamber, E. G is a rotating plunger, fitting within the cylinder A, and having two, three, or more cavities or recesses, *b b*, in its periphery. This plunger is secured on a shaft, *d*, to which the power is

applied. Above the plunger G in the bottom of the chamber C is a valve, H, made of hard metal, or of flexible material, as desired, and kept in position by means of a spring, *f*.

By rotating the plunger the water or other liquid admitted into the cavities *b* is forced into the upper part of the cylinder, the valve H admitting it into the chamber or water-chest C, but preventing its return; and as the volume of water rises it is forced through said water chest into the pipe to the check D, and passing under the pressure from the air-chamber E to the escape.

h represents another valve, with spring *i*, to keep the plunger tight, so that the water cannot run back.

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

The combination of the cylinder A B, with inlets *a*, rotating plunger G, with cavities *b*, valve H, with spring *f*, and water-chest C, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

OTTO F. SCHULTZ.

Witnesses:

AUGUST SCHAEFFER,
SAML. T. SHELLEY.