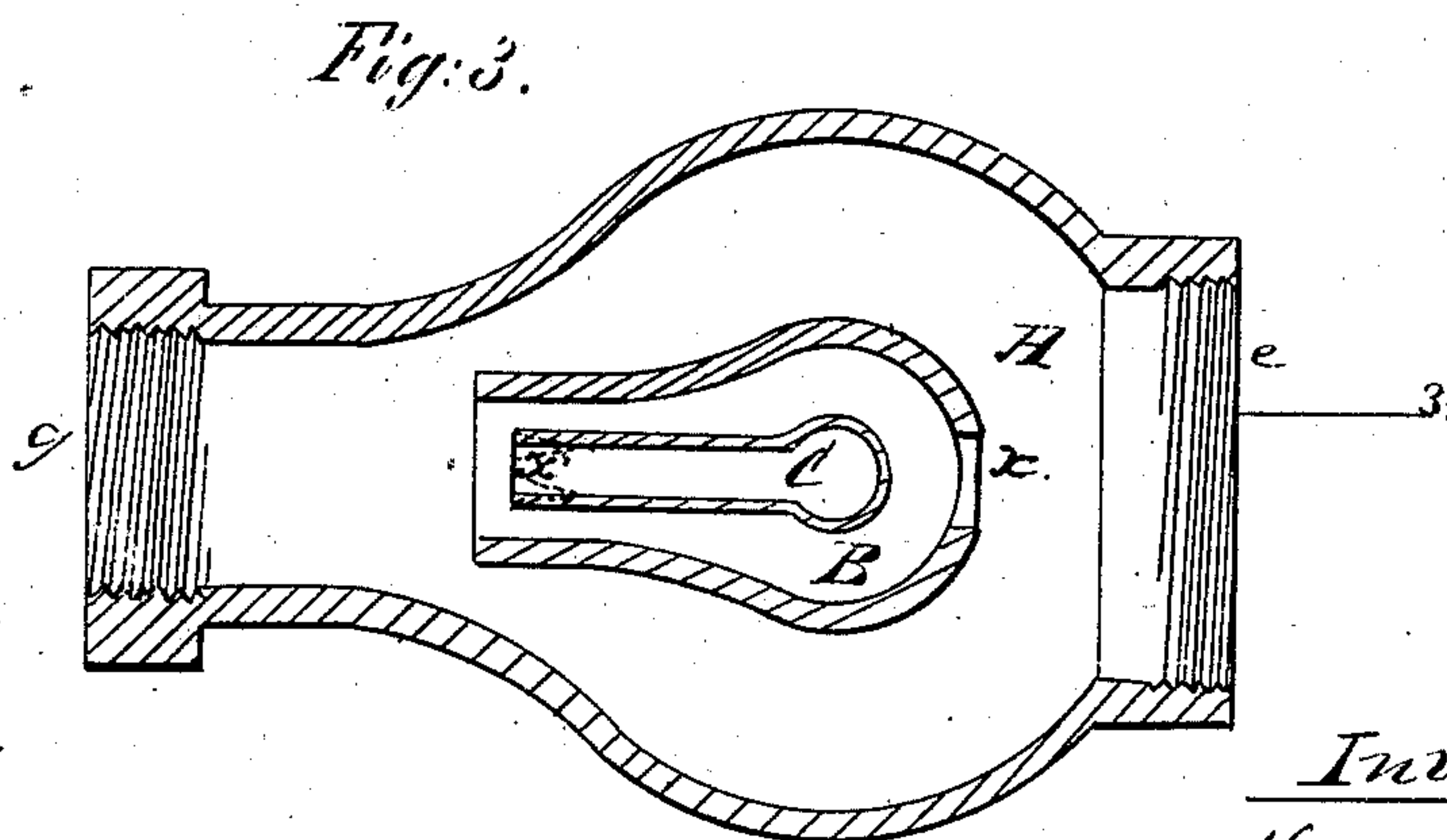
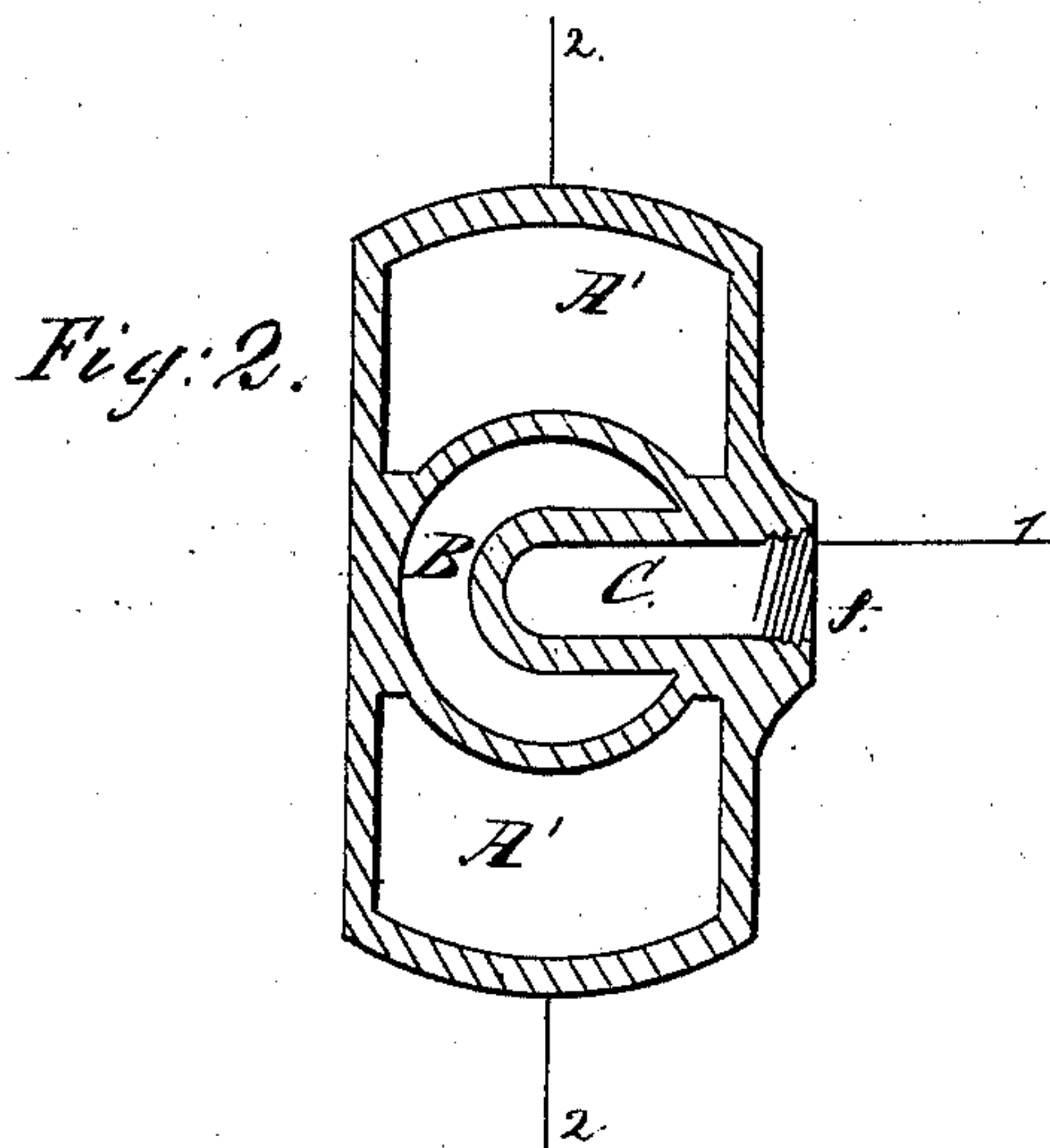
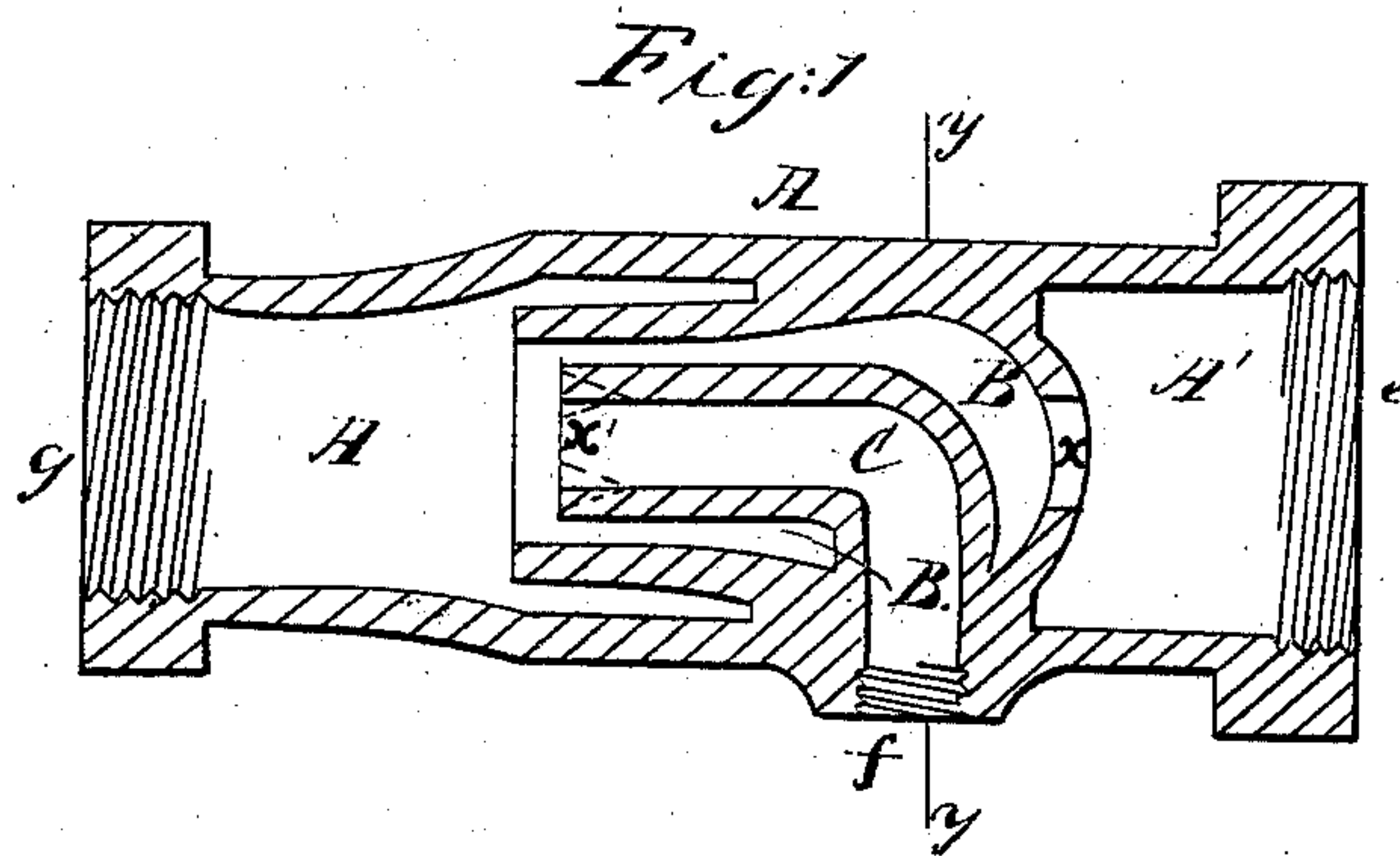


T. & G. T. SNOWDEN & I. V. LYNN.
STEAM PUMP.

No. 98,810.

Patented Jan. 11, 1870.



Witnesses:

Geo. H. Thomas
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Inventor:

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By their attorney
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United States Patent Office.

THOMAS SNOWDON, GEORGE T. SNOWDEN, AND ISAAC V. LYNN, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 98,810, dated January 11, 1870.

IMPROVED STEAM-PUMP.

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

To all whom it may concern:

Be it known that we, THOMAS SNOWDON, GEORGE T. SNOWDEN, and ISAAC V. LYNN, all of the city of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in Steam-Pumps; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The nature of our invention consists in the construction of a steam-pump with chambers, arranged and operating with relation to each other, in the manner hereinafter described.

To enable others skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

In the accompanying drawings, which form part of our specification—

Figure 1 is a longitudinal section of our improvement in steam-pumps, when cut through at lines 1 and 3 of figs. 2 and 3.

Figure 2 is a transverse section of the same, when cut through at line *y* of fig. 1.

Figure 3 is a longitudinal section of the same, when cut through at line 2 of fig. 2.

In the accompanying drawings—

A represents the case or body of the pump, which is provided with three chambers marked A' B C. These chambers are formed by "coring out" the case or body A in the process of casting it. The operation of forming the chambers, by means of a "core," will readily be understood by the skilful iron or brass-moulder, by reference to the accompanying drawings.

The chambers A' and B are for the water, and the chamber C for steam.

The chambers A' and C are provided with screw-threads, as indicated at *e*, *f*, and *g*, for the purpose of attaching pipes to them.

To the case or body A, at *e*, is attached the suction or water-supply pipe; at *g* is attached the exit-pipe, and at *f* is attached the steam-pipe.

As the construction of our pump will be readily understood from the foregoing description, and by reference to the accompanying drawings, we will proceed to describe its operation.

Steam being admitted into chamber C, it will cause the water to flow through the supply-pipe into chamber A', and a portion of the water will pass into the chamber B, through the opening *x*, and flow from chambers A' and B out through the exit-pipe attached at *g*.

By contracting or enlarging the extreme end *x* of chamber C, we have found that the power of the pump is increased. We have also found that chambers constructed, arranged, and combined as herein described, form a very powerful and efficient pump. But the *rationale* of operation of chambers thus combined, we cannot give, therefore, we leave this to those who are versed in the sciences of pneumatics and hydrostatics.

Having thus described the nature, construction, and operation of our improvement,

What we claim as of our invention, is—

The combination of the chambers A', B, and C, constructed, arranged, and operating, substantially as herein described.

THOMAS SNOWDON.
GEORGE T. SNOWDEN.
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Witnesses:

GEO. H. THOMAS,
JAMES J. JOHNSTON.