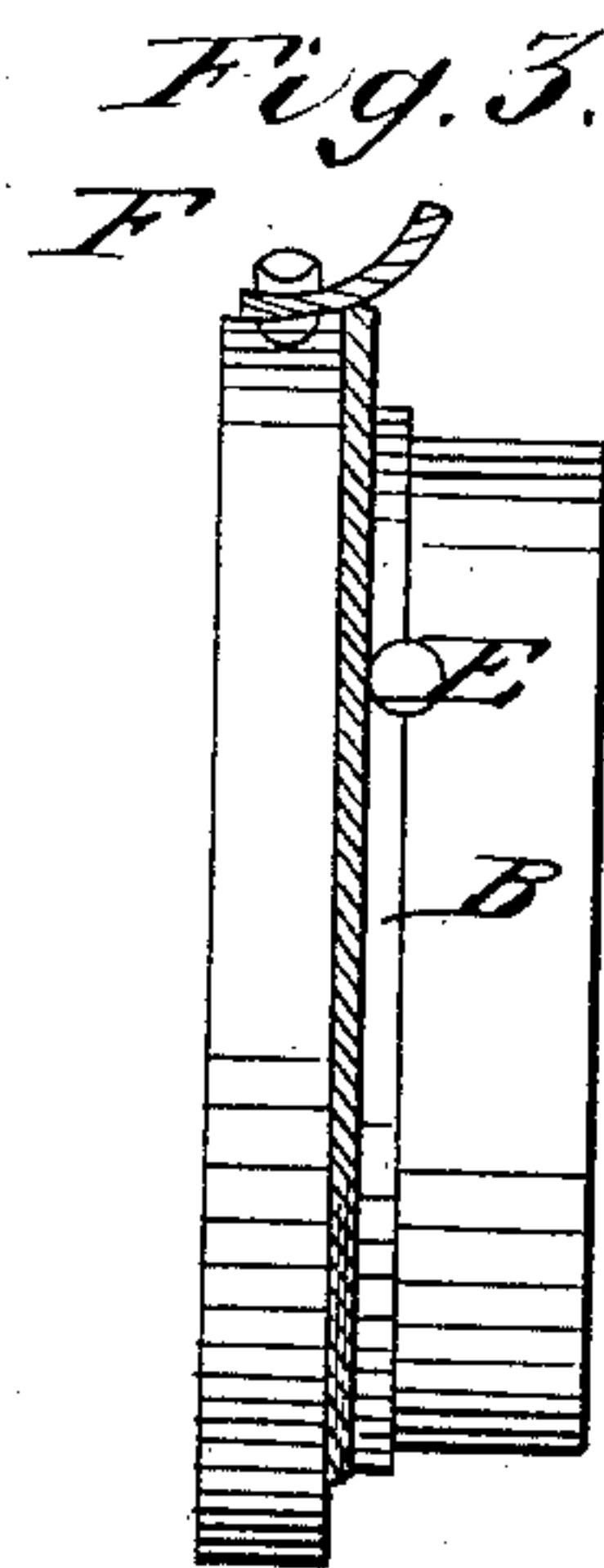
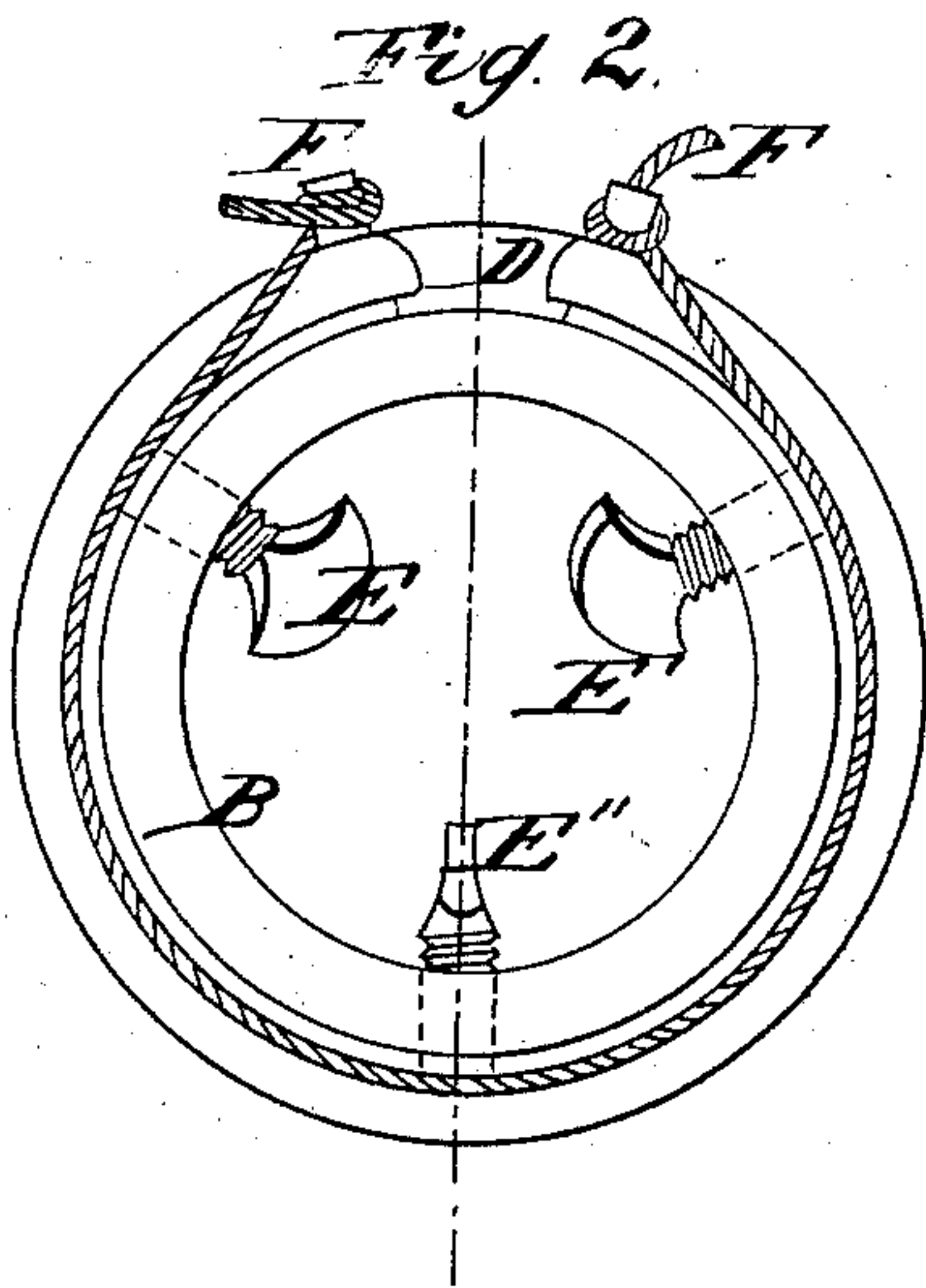
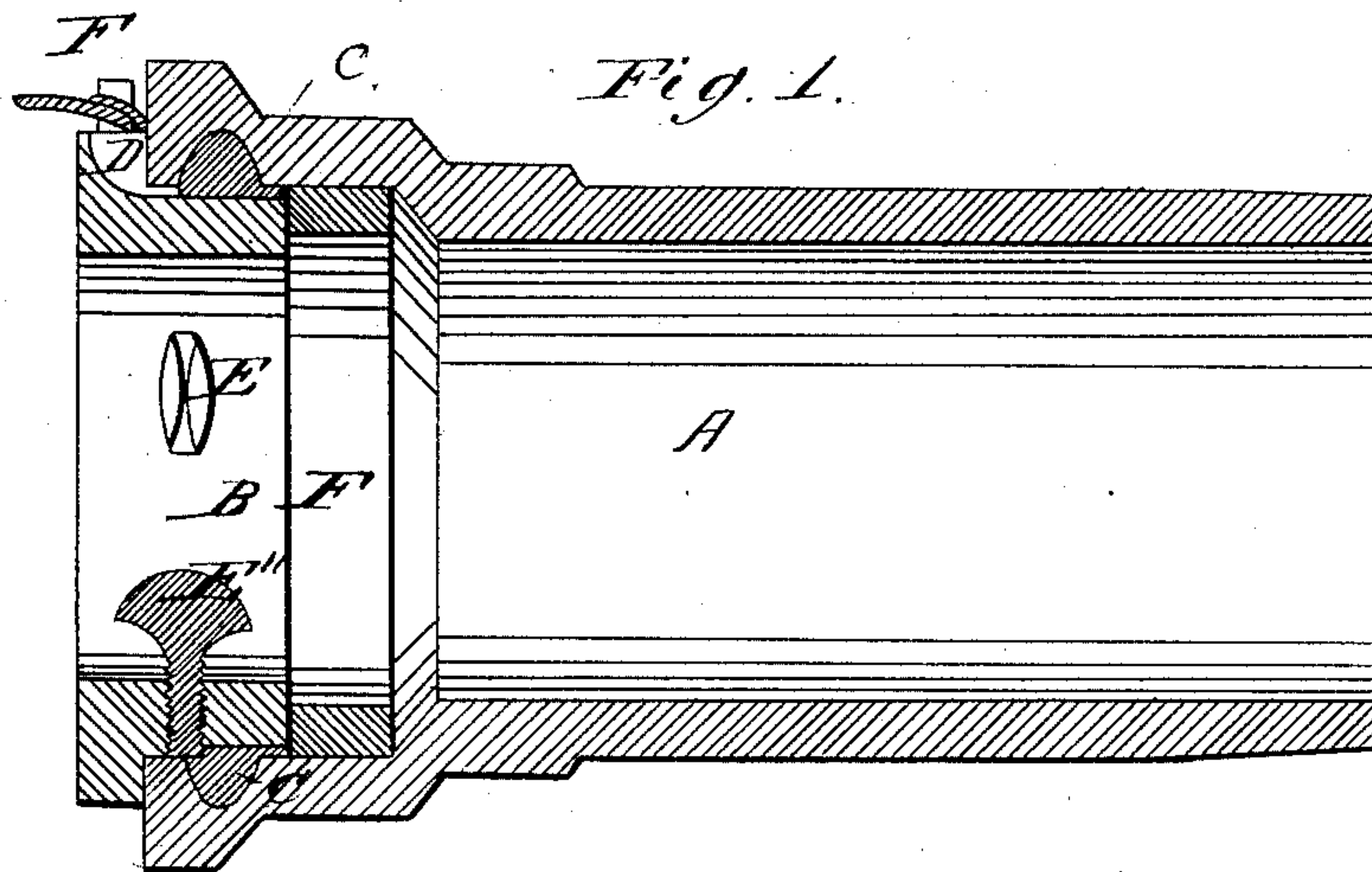


R. C. Robbins,
Pipe Coupling.

N^o 4,413.

Patented Jan. 26, 1864.



Witnesses.

At Park Collin
Norton S. Collin

Inventor

Richard C. Robbins

UNITED STATES PATENT OFFICE.

RICHARD C. ROBBINS, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, HENRY L. CASE, JESSE M. KEEN, AND JOHN W. MASON.

IMPROVEMENT IN CASTING PACKING-RINGS IN GAS AND WATER PIPES.

Specification forming part of Letters Patent No. 41,413, dated January 26, 1864.

To all whom it may concern:

Be it known that I, RICHARD C. ROBBINS, of the city, county, and State of New York, have invented a Device for Casting Soft-Metal Packing-Rings in Gas and Water Pipes and Similar Articles; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

The object of this invention is to carry out in practical operation the design of the invention described in Letters Patent of the United States granted to me on the 13th day of January, 1863, and for full description of the invention embodied in said patent reference is made to the said patent.

My invention consists in, first; a forming-ring adapted to fit into the larger end of the said pipes to form the inner portion of the mold for casting the said rings; second, in the combination therewith of set-screws, arranged as described, to keep it in position while the ring is being cast; third, in the combination, with the said forming-ring, of an india-rubber ring, or its equivalent, made to fit in the said pipe and to meet the inner end of the forming-ring, so as to prevent the escape of metal into the interior of the pipe beyond the proper position.

In the accompanying drawings, Figure 1 is a vertical longitudinal section, showing the parts of my device adjusted in the end of a joint of pipe. Fig. 2 is an end view of the forming-ring, showing the opening through which the metal is poured and the manner of packing the joint between the outer end of the pipe and the flange of the forming-ring. Fig. 3 is a side elevation of the forming-ring, also showing the same feature.

A is a joint of pipe intended to convey gas or water or some other fluid or gaseous substance, and constructed as represented.

B is the forming-ring, which forms the inner portion of the mold to cast the soft-metal packing into the groove C to receive the small end of the next joint of pipe. This ring is turned so as to nearly fit the casting, but so that it may be readily inserted and removed. It has an opening, D, in the flange at the top to allow the metal to be poured in. To se-

cure it in place I provide three set-screws, E E E, which extend through the former, and may be screwed against the pipe, as represented in Fig. 1, to secure the former in place during the operation of casting.

F is an india-rubber ring made so that it will fit closely into the pipe, in the manner represented, so as to prevent the soft metal from escaping into the interior of the pipe. The end of the forming-ring B is pressed against this india-rubber ring, and forms a close joint, by which the purpose above specified is accomplished.

F F are pins in the flange of the former B for the convenience of securing the packing used to prevent the escape of the metal between the outer end of the pipe and the said flange.

In using this apparatus I first insert the india-rubber ring in the pipe in which the packing is to be cast, and then press the forming-ring B in against it, so as to make a closely-fitting joint. I then secure the forming-ring with the set-screws, and after this is done I wind the joint between the end of the pipe and flange of the forming-ring B with a piece of common candle-wick or other suitable material, securing the same by winding it upon the pins F F. This being done, I pour in the lead or other metal to form the soft packing, and as soon as it is settled, which will be almost immediately, I remove the candle-wick packing, withdraw the set-screws, and remove the forming-ring B from the pipe, after which I also withdraw the india-rubber ring and cut off the superfluous metal where the metal is poured in, when the operation is completed.

Having thus fully described my invention, I claim—

1. The forming-ring B, constructed as described, for the purpose set forth.
2. The combination therewith of set-screws, arranged as described, to secure it in place.
3. The combination, with the said forming-ring B, of the india-rubber ring G, substantially as described, and for the purpose set forth.

RICHARD C. ROBBINS.

Witnesses:

L. A. ROBERTS,
CHAS. E. HORE.