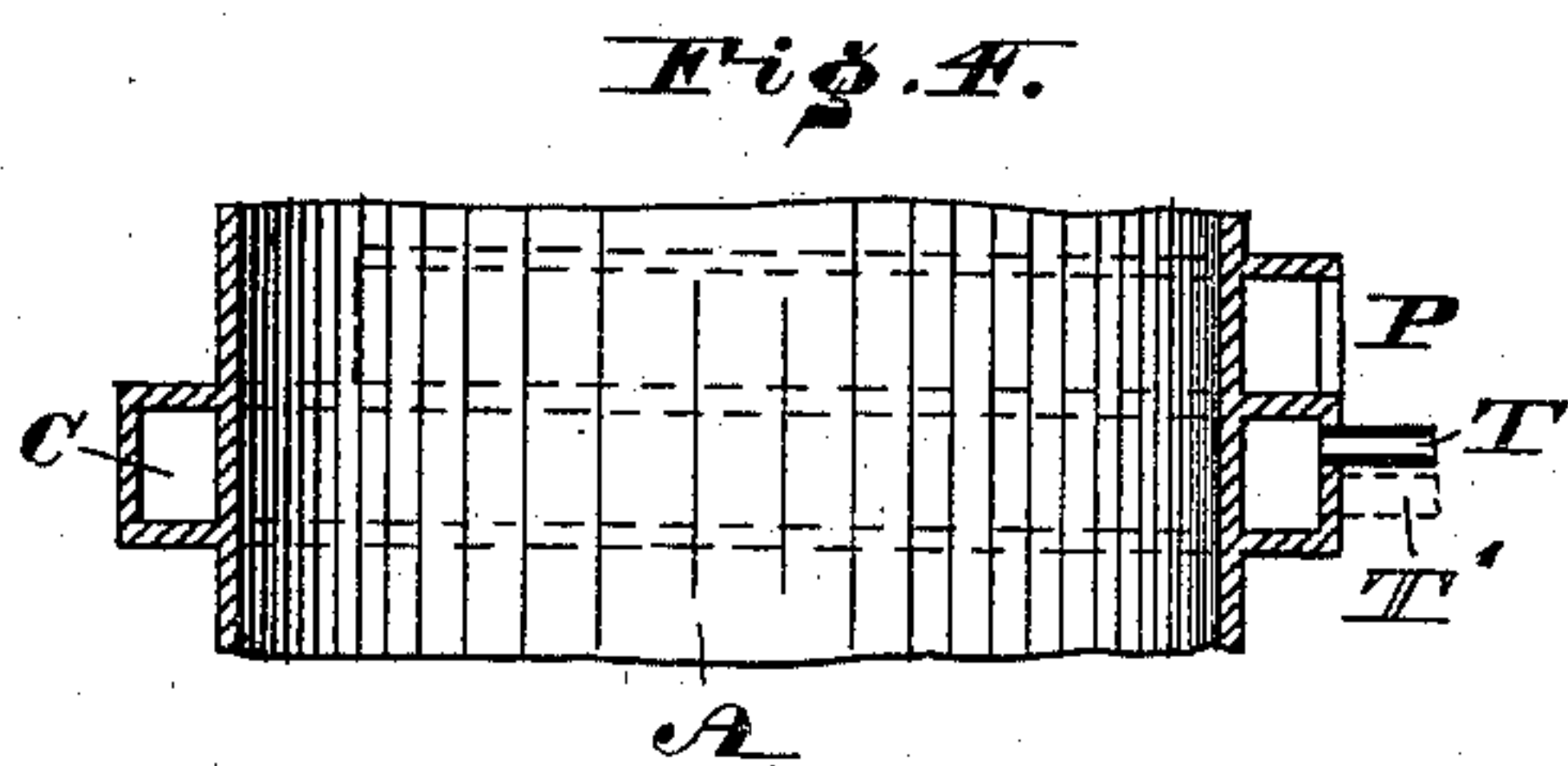
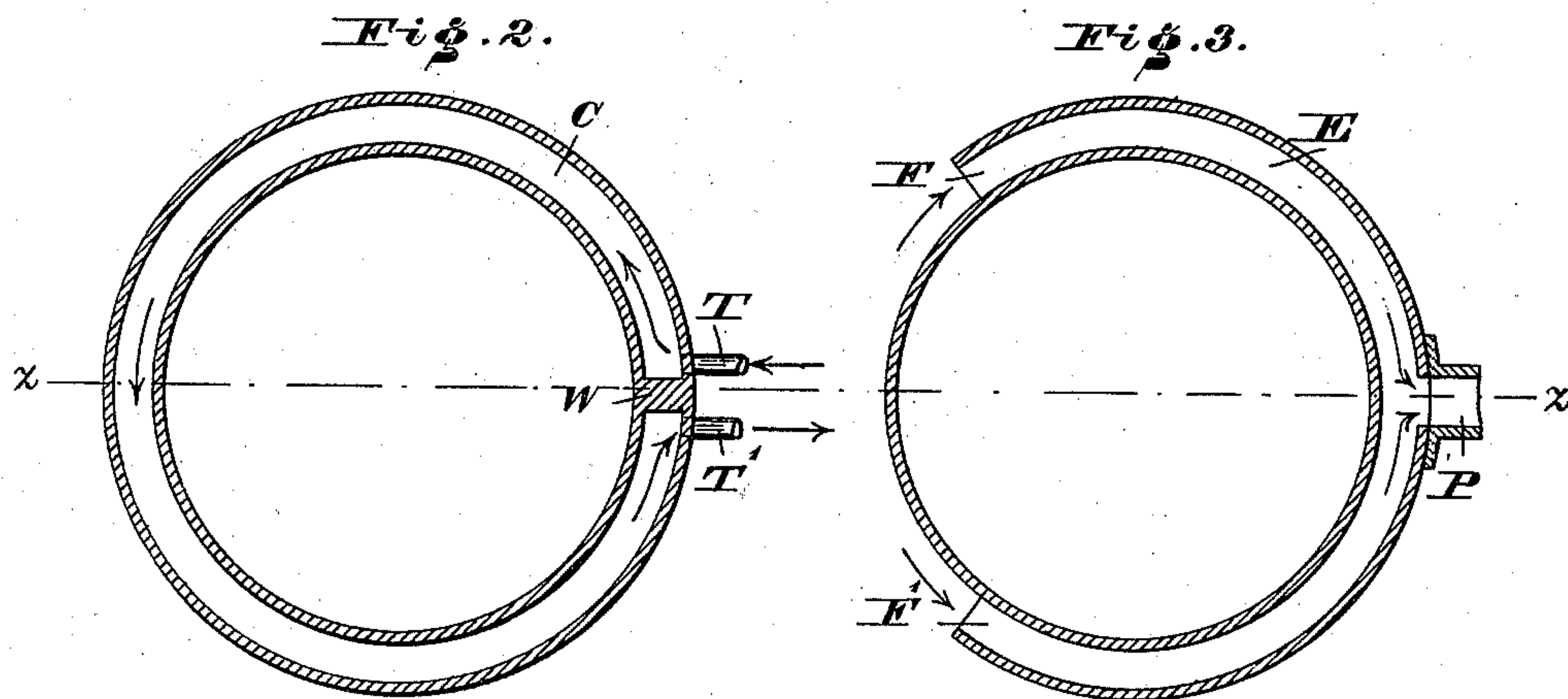
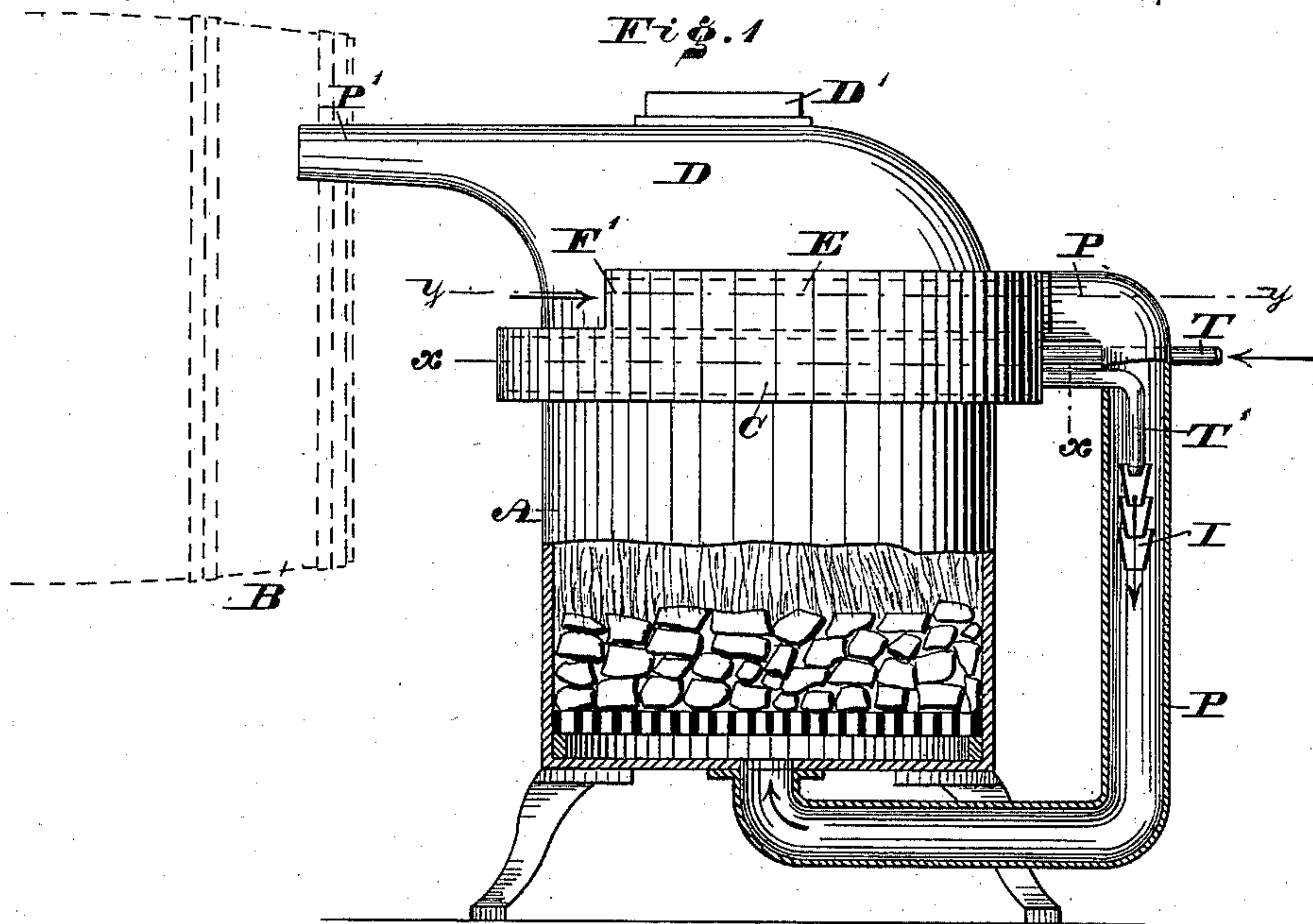


(No Model.)

L. & O. HAGGENMILLER.
APPARATUS FOR PITCHING BARRELS.

No. 385,178.

Patented June 26, 1888.



WITNESSES:

Th. Rolle.
James F. Kelly.

INVENTORS:
Louis Haggemiller.
Otto Haggemiller.
BY *G. S. Schaefer & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

LOUIS HAGGENMILLER AND OTTO HAGGENMILLER, OF PHILADELPHIA,
PENNSYLVANIA.

APPARATUS FOR PITCHING BARRELS.

SPECIFICATION forming part of Letters Patent No. 385,178, dated June 26, 1888.

Application filed November 18, 1887. Serial No. 255,463. (No model.)

To all whom it may concern:

Be it known that we, LOUIS HAGGENMILLER and OTTO HAGGENMILLER, citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Apparatus for Pitching Barrels, which improvement is fully set forth in the following specification and accompanying drawings.

Our invention relates to improvements for pitching barrels and similar articles.

It consists in a novel form of apparatus for injecting dry or superheated steam and air into a barrel, and is so arranged that the steam is carried from an adjacent boiler to a superheating steam-jacket, and afterward mingled with inflowing air, the same being then injected through the body of a furnace into the barrel or article to be pitched.

Prior to our invention it was old in the art of pitching barrels to inject mingled superheated steam and air into and through a furnace, and ultimately to the inner surface of the barrel or article to be pitched, through the agency of separate steam and air pipes, the furnace connected to a boiler, and the latter to a fan or blower.

It is the especial object of our invention to simplify this apparatus by utilizing the injecting force of the steam from the boiler, and causing it to draw the air after or with it through the furnace.

The invention will be better understood by reference to the accompanying drawings, in which—

Figure 1 represents a side elevation of our improved apparatus, showing parts thereof in section. Fig. 2 represents a horizontal cross-section thereof, taken on line *xx*, Fig. 1. Fig. 3 represents a similar section taken on line *yy*, Fig. 1. Fig. 4 represents a vertical section on line *zz*, Figs. 2 and 3.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A represents the body of the furnace, having the usual grate, and P is an air or draft pipe extending from the side of the superheating-chamber E, as shown in Figs. 1 and 3, to the base of the furnace beneath the grate.

T represents a steam-pipe, connected at one

end to an adjacent boiler, (not shown,) and at the other to a steam-jacket, C, encompassing the furnace-chamber A. This steam-jacket is divided by a solid wall, W, and has an outlet-pipe, T', extending downward into the air-pipe P, and provided with injector-nozzles I. The air-chamber E has inlets or openings F F', to admit air into it, as shown in Fig. 3.

P' represents the exit-nozzle for the superheating steam and air after it has passed through the furnace, and B the barrel to be pitched.

The operation is as follows: A fire is started in the furnace and steam admitted into pipe T in the direction of the arrows. As the steam passes through the jacket or superheating-chamber C in the direction of the arrows, it is heated, and emerges ultimately through the injector-nozzles I into the air-pipe P, where it draws with it, after the manner of an injector, the superheated air from chamber or jacket E, as shown by the arrows at F F'. In this manner dry or superheated air and steam are forced through the furnace, giving increased combustion, and therefore advantageous heat, at the nozzle or pipe P', where the heat is utilized.

The hood D, to which the exit-nozzle is attached, has an inlet for supplying fuel to the furnace, said inlet being closed by a cap or plug, D'.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a device for pitching barrels, a furnace having a steam-injection pipe connected to a superheating-jacket, in combination with an air-pipe connected to a second superheating-jacket, the air-pipe surrounding the injection-pipe and connected to the base of the furnace at a point below the bed of the fire, substantially as described.

2. In a device for pitching barrels, two superheating-jackets arranged in close proximity to a furnace, in combination with a steam-injection pipe and an air-pipe, each connected to one of said superheating-jackets, and so arranged that the admission of steam through the injector forces intermingled superheated steam and air through the furnace, substantially as described.

3. A barrel-pitching apparatus consisting of

a furnace with hood having a nozzle, an air-heating chamber with air-pipe leading therefrom into the base of the furnace, and a steam-pipe leading into said air-pipe, said parts being combined substantially as described.

4. In a barrel-pitching apparatus, the combination of an air-tube connected to the base of a furnace with a steam-injector located within said air-tube, the air-tube and the in-

jector being connected, respectively, to super-heating chambers and jackets, substantially as described.

LOUIS HAGGENMILLER.
OTTO HAGGENMILLER.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. JENNINGS.