

(No Model.)

2 Sheets—Sheet 1.

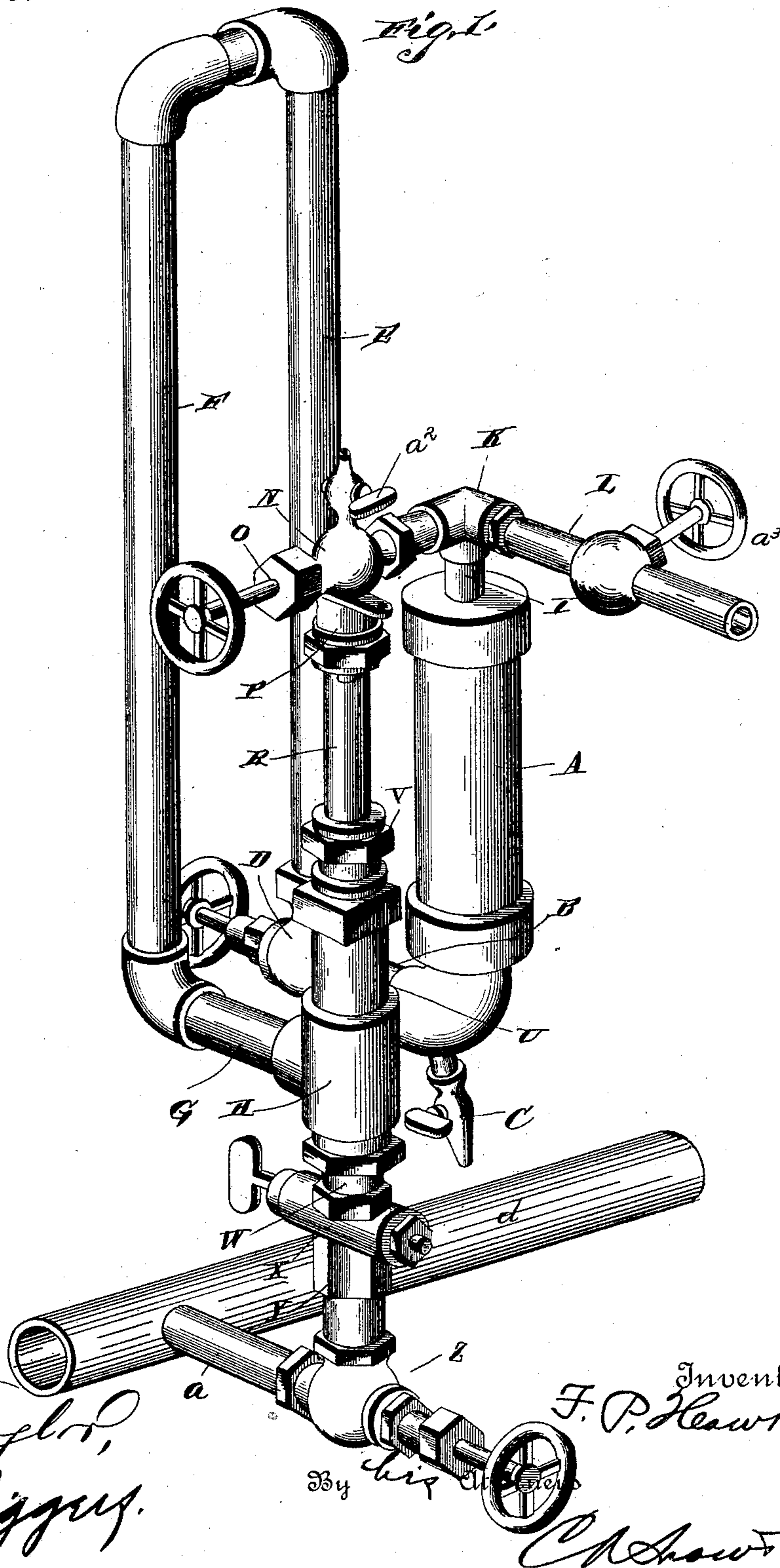
F. P. HAWKINS.

OILING MACHINE.

No. 395,778.

Patented Jan. 8, 1889.

Fig. 1.



Witnesses

O. B. Taylor,
E. J. Siggus.

Inventor.

F. P. Hawkins

By

his

attorney

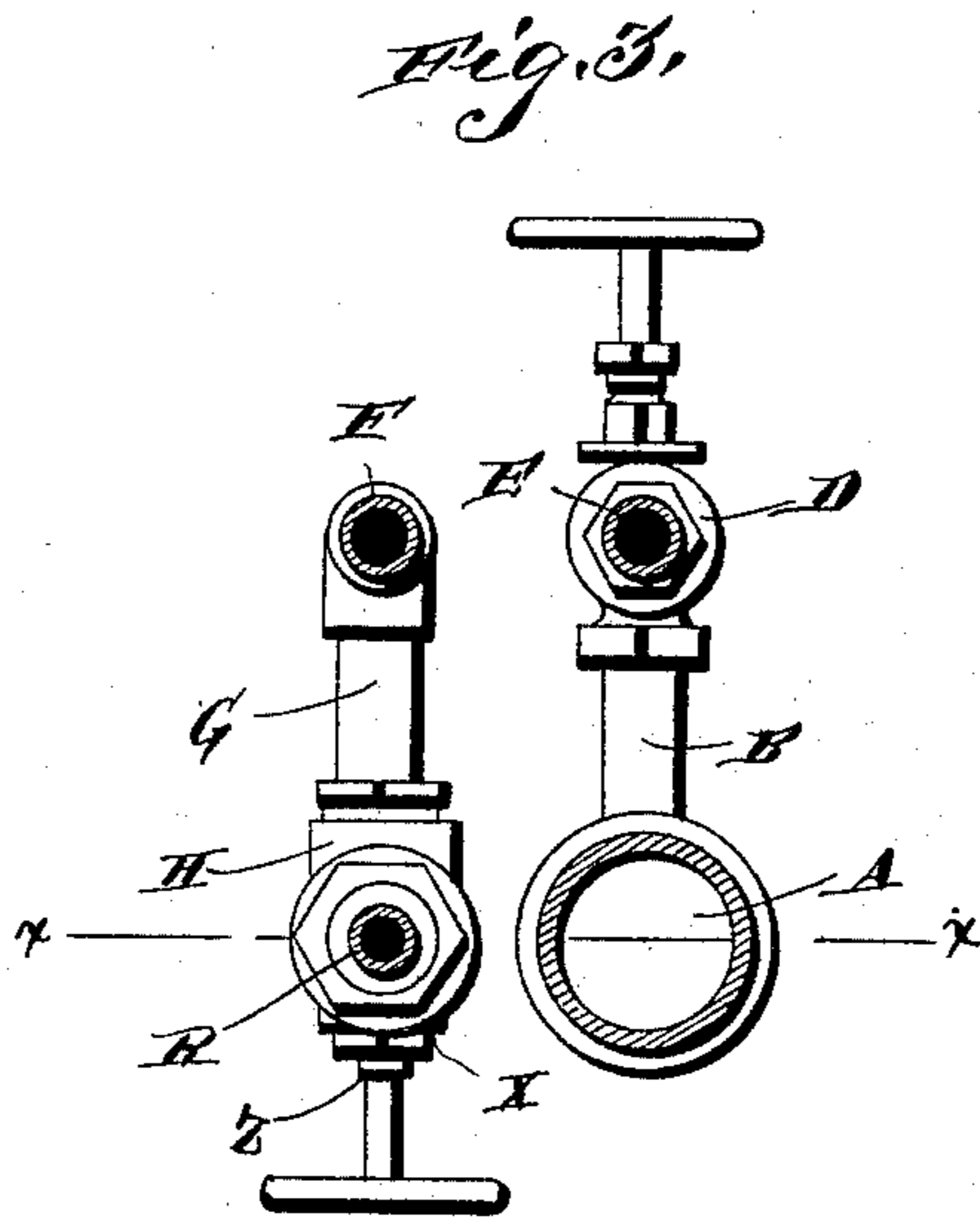
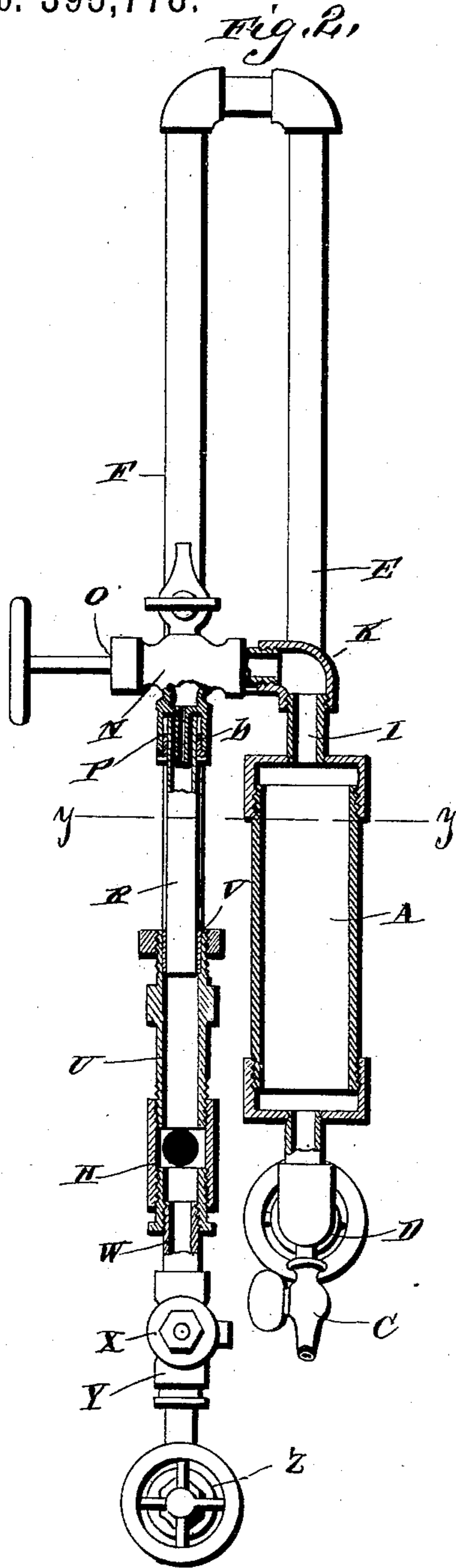
C. A. Shaw & Co.

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OILING MACHINE.

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Witnesses
W. Taylor,
E. J. Figgers.

Inventor,
F. P. Hawkins
By *his* Attorneys
C. A. Howden

UNITED STATES PATENT OFFICE.

FRANKLIN POWERS HAWKINS, OF PLANO, ALABAMA.

OILING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 395,778, dated January 8, 1889.

Application filed June 15, 1888. Serial No. 277,191. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN POWERS HAWKINS, a citizen of the United States, residing at Plano, in the county of Cherokee and State of Alabama, have invented new and useful Improvements in Oiling-Machines, of which the following is a specification.

My invention relates to an improvement in apparatus for lubricating the cylinders and pistons of steam-engines; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a lubricating apparatus embodying my improvements. Fig. 2 is a sectional view of the same, taken on the line xx of Fig. 3. Fig. 3 is a horizontal sectional view taken on the line yy of Fig. 2.

A represents a vertical cylindrical oil-reservoir of suitable dimensions, from the lower end of which extends a horizontal pipe, B, which is provided at its inner end with a valve or faucet, C. Screwed to the outer end of said pipe is a stop-cock or valve, D, from the upper side of the case of which projects a vertical pipe, E.

F represents a vertical pipe, which is arranged in proximity to the pipe E and has its upper end connected thereto, as shown. To the lower end of the pipe F is coupled a short horizontal pipe, G, to the outer end of which is secured a T-coupling, H.

Extending from the upper end of the oil-reservoir is a short vertical pipe, to the upper end of which is attached a T-coupling, K. From one side of the said T-coupling projects an oil-supply pipe, L, which is provided with a valve, and from the opposite side of the said T-coupling projects a valve-case, N, having a valve, O, and having a coupling, P, on its lower side adapted to receive and effect a tight joint with the upper end of a glass gage-tube, R. On the upper side of the valve-case N is an air-cock, a^2 .

From the upper side of the T-coupling H extends a short vertical pipe, U, which is provided with a packing-gland, V, at its upper end to form a tight joint with the lower end of the glass gage-tube, and depending from

the lower side of the said T-coupling H is a pipe, W, which has a stop-cock, X, and is provided at its lower end with a coupling, Y, adapted to connect with a short branch pipe, a , from the steam-supply pipe d , that leads from the boiler to the engine at a point preferably between the throttle-valve and the steam-boiler. (Not shown.)

A stop-cock, Z, is coupled to the lower end of pipe W and to one end of branch pipe a .

The operation of my invention is as follows: A suitable quantity of oil is introduced to the cylinder A from any suitable vessel through the pipe L, and the stop-cock or valve a^3 in said pipe is then closed. The cocks Z, X, and D are then opened and a portion of the steam that flows to the engine passes from the pipe d through the pipes A and W and past the cocks Z X into the pipe F and from the latter into the pipe E, when it becomes condensed, and the resultant water is forced by the pressure of the steam into the lower end of the cylinder A and caused to rise in the said cylinder. The oil in the cylinder rises on the top of the column of water and is forced past the valve or cock O and through the nozzle b , and is caused to drip from the said nozzle through the glass tube R and the pipe W into the pipe a , from whence it finds its way into the steam-pipe d and is carried by the steam into the engine and caused to lubricate the cut-off valve and piston thereof. The function of the valve O is to regulate the quantity of oil that is fed from the cylinder to the pipe a . The function of the valve D is to regulate the supply of water under pressure to the cylinder, and the function of the valve Z is to regulate the quantity of steam supplied to the apparatus, and thereby regulate the pressure thereof. When an excess of oil is being fed to the engine, the same may be cut off or the supply diminished by turning the valve X. The cock C enables the contents of the cylinder A and pipe E to be discharged when desired, and the air-cock a^2 serves as a vent to facilitate this discharge.

Having thus described my invention, I claim—

The combination of the reservoir A, the pipe E, communicating with the lower end thereof, the valve D and cock C, for the pur-

poses set forth, the supply-pipe communicating with the upper end of the reservoir and having the valve A³, the pipe F, communicating with the upper end of pipe E, the pipes
5 connecting the upper end of the reservoir and the pipe F, the drip-nozzle in one of said pipes, said nozzle having the valve N and air-cock a², and the pipes connecting the lower end of pipe F to the steam-pipe of an engine and

having the valves W Z, substantially as described.

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

FRANKLIN POWERS HAWKINS.

Witnesses:

ELLIS HALE,
FRANK SAVAGE.