

(No Model.)

W. F. CLASS & A. J. WEATHERHEAD.

FAUCET.

No. 328,651.

Patented Oct. 20, 1885.

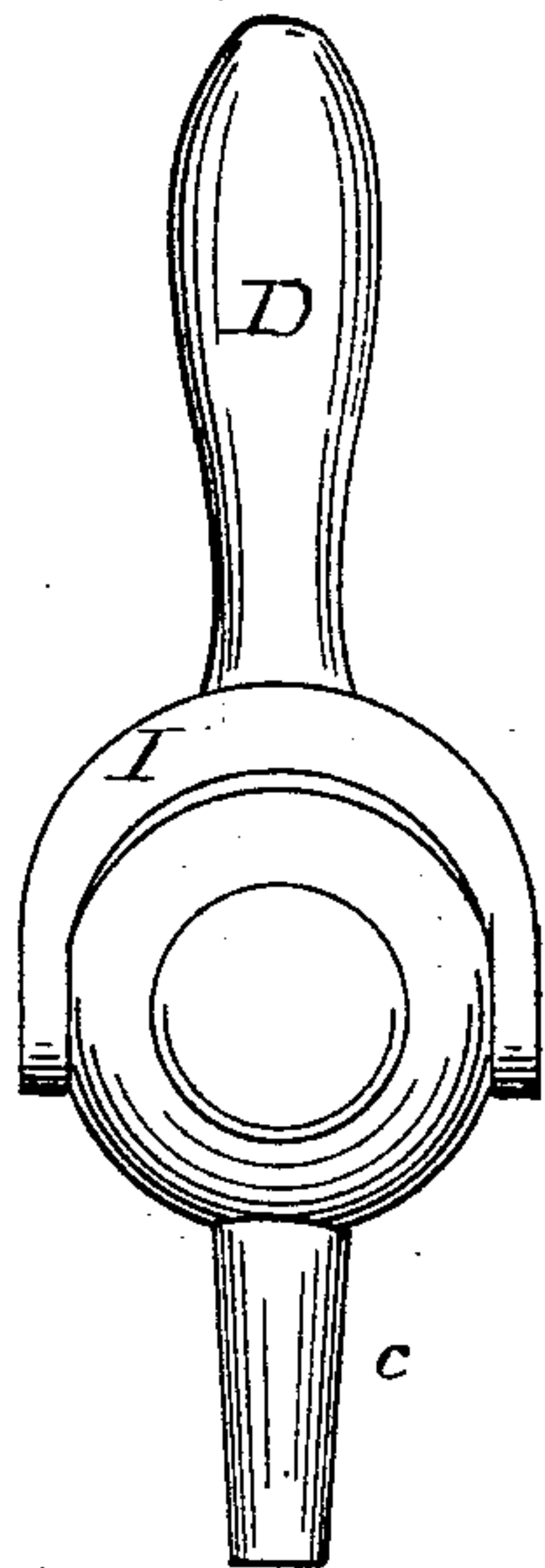


Fig. 3.

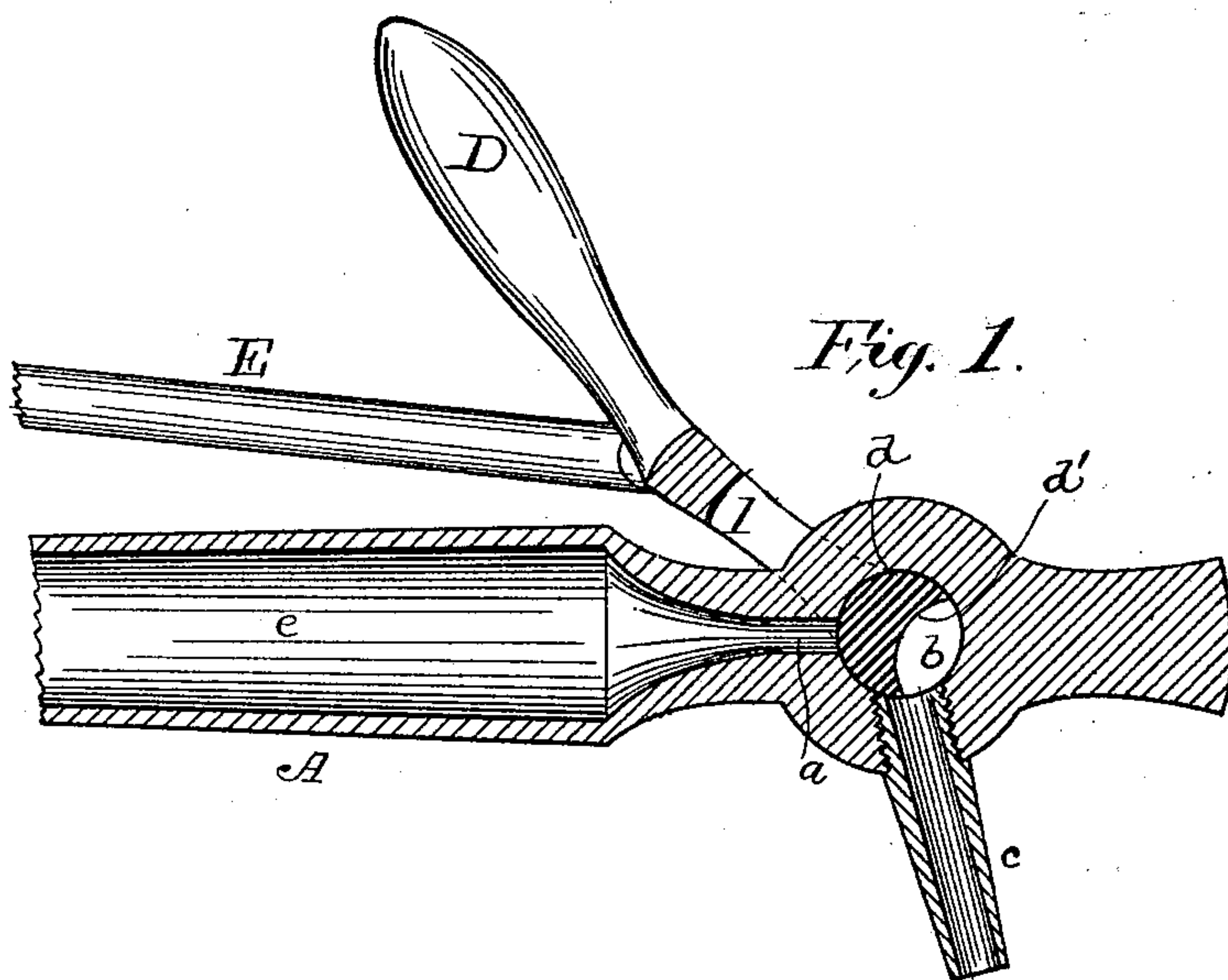


Fig. 1.

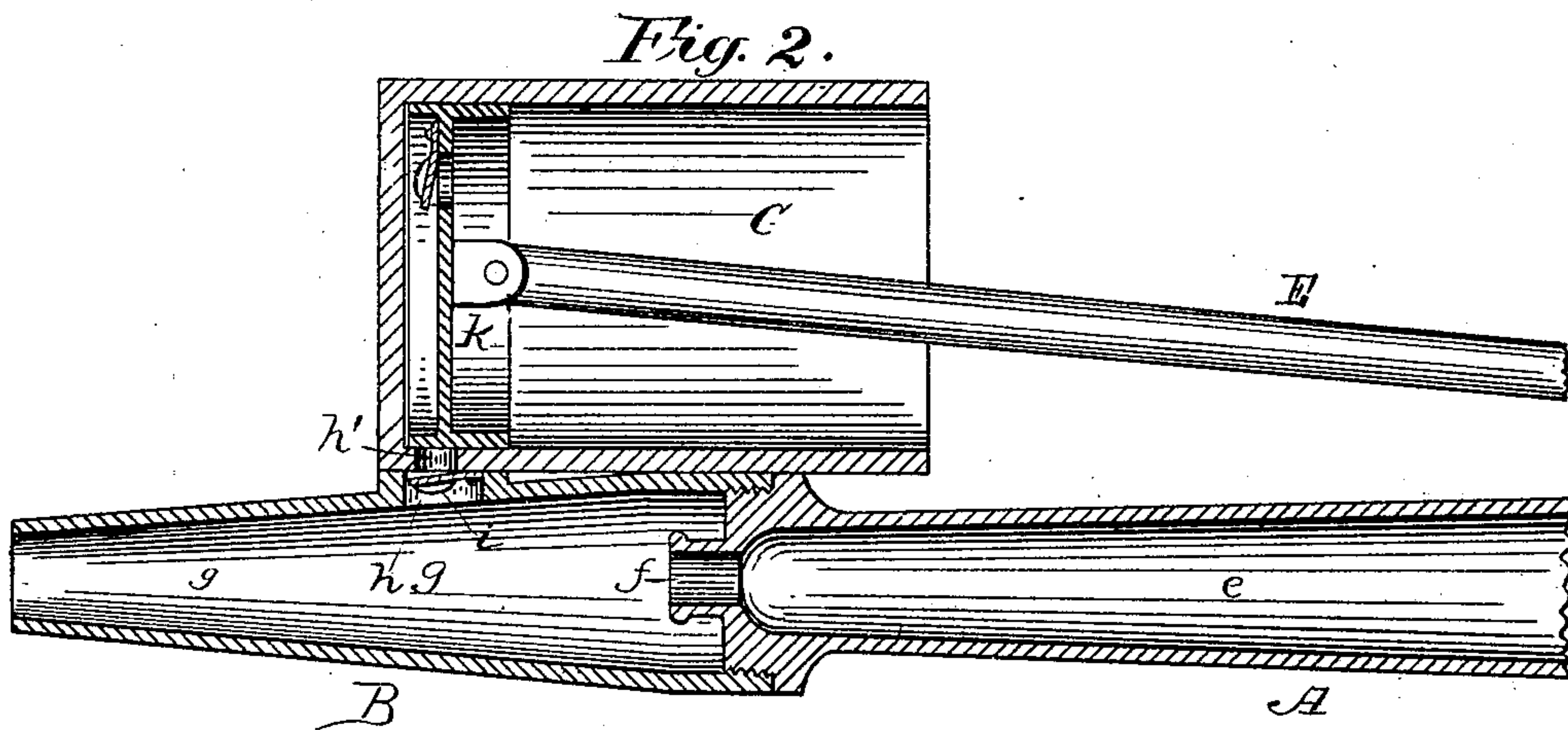


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

WILLIAM F. CLASS AND ALBERT J. WEATHERHEAD, OF CLEVELAND, OHIO,
ASSIGNORS OF ONE-THIRD TO GEORGE COLLINS, AND SAID CLASS AS-
SIGNOR, BY MESNE ASSIGNMENTS, OF HIS REMAINING RIGHT TO JACOB
J. MAYER, ALL OF SAME PLACE.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 328,651, dated October 20, 1885.

Application filed April 21, 1884. Serial No. 128,812. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM F. CLASS and ALBERT J. WEATHERHEAD, citizens of the United States, residing in Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Beer-Faucets, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to a beer-faucet having an air-forcing attachment for supplying air under pressure to the keg or barrel containing the beer.

Beer-faucets having air-forcing attachments have heretofore been so constructed that the air-forcing apparatus and the cock of the faucet are operated simultaneously.

The object of this invention is to provide a faucet having an air-forcing attachment permanently connected with and forming a part of said faucet, both pump and faucet being operated either simultaneously or independently at the will of the operator.

The object of this invention is, further, to provide a faucet having an air-forcing attachment and containing aerating-chambers wherein the beer is thoroughly aerated before its discharge through the faucet-nozzle. The advantage of this construction is that the full effect of the air is imparted to a given quantity of beer within the faucet, whereby a superior head is produced on the beer when discharged into the glass, a greater foam being secured with less pumping, especially when the keg is nearly exhausted of beer.

In the accompanying drawings, Figure 1 is a central longitudinal section of the front portion of this improved beer-faucet. Fig. 2 is a central longitudinal section of the rear portion of this improved faucet, said faucet being shown as broken into two parts in order to illustrate it on a larger scale upon the annexed drawings. Fig. 3 is a front elevation. Similar letters of reference indicate corresponding parts in the different figures.

The faucet-tube A has a horizontal duct, *a*, near its front end, leading into the valve-cham-

ber *b*, and a lateral discharge-nozzle, *c*, leading from said chamber. A valve, *d*, having a port, *d'*, turns, preferably, on a horizontal axis within the valve-chamber *b*, occupying about one-third of its circumference, said valve being provided with stems which project at opposite sides of the faucet. The faucet-tube has an enlarged secondary aerating-chamber, *e*, back of the duct *a*, and is provided with a backwardly-projecting contracted nipple, *f*, which is shown as provided with an exterior flange. This chamber *e* is preferably tapered abruptly where it forms connection with the duct *a*, and is shown as gradually tapered from a point near its front end toward its rear end. The inner end of the faucet-tube is provided with a screw-thread.

An extension-tube, B, is attached to the faucet-tube A by means of screw-threads on its interior. This extension-tube contains an enlarged primary aerating-chamber, *g*, which preferably tapers from its front toward its rear end. When the tubes A and B are put together the nipple *f* of the former extends into the larger end of the latter. The chamber *g* is provided with a lateral duct *h*.

An air-pump, C, is mounted on the extension B. This pump is provided with a lateral duct, *h'*, which communicates with the lateral duct *h* of said extension-tube, being provided with a check-valve, *i*. The pump C is provided with an automatic induction-valve, which is shown as located on the piston *k* of said pump.

A lever, D, the lower part of which is bifurcated or bail-shaped, is connected at its forked ends *l* with the laterally-projecting stems of the valve *d* at opposite sides of the faucet. The body of this lever is diametrically opposite the port of the valve.

A piston-rod, E, is hinged at its inner end to the piston *k* of the air-pump C, and is hinged at its outer end to the bifurcated lever D, whereby it is permitted to play laterally in respect to its axis, as it is reciprocated longitudinally by said lever. The port *d'* of the valve *d* is so arranged in relation to the duct *a* and the lever D that the latter may have a

stroke for actuating the pump-piston of eighty degrees, or thereabout, without opening the valve of the faucet.

The operation is as follows: When it is desired to establish the required pressure in the keg or barrel the lever L is given a number of rapid oscillations through the larger part of its stroke without opening the faucet, and air is thereby forced by the action of the pump into the extension and faucet tubes and through the former into the keg or barrel. When beer is to be drawn from the keg or barrel, the lever L is given one full-stroke backward and forward. By the backward motion of the lever air is forced into the primary aerating-chamber *g* of the tube B. This air coming directly into contact with the given quantity of beer inclosed within said chamber thoroughly aerates it, and a portion of the air passes through the contracted nipple *f* into the secondary aerating-chamber *e* in a needle-stream or jet. This jet first permeates the center of the tube of beer within this secondary chamber and then radiates laterally therein, whereby the beer is thoroughly and evenly impregnated with the air. The lever L is then drawn forward to the end of its stroke, and the port *d'* of the valve *d* establishes communication between the duct *a* and the discharge-nozzle *c*, and the thoroughly-aerated beer contained in the chambers *g* and *e*, sufficient in quantity to fill a glass, or thereabout, is discharged into the glass in a high state of foam, owing to its thorough aeration near the point of discharge. The beer is thus made exceedingly lively without the excessive use of chemical ingredients for that purpose.

The invention herein described combines in a single structure all the elements of a drawing-faucet and an air-forcing apparatus, in such manner that the latter may be operated independently of the former or simultaneously therewith, at the will of the operator, the device combining at the same time the properties of simplicity and compactness of construction and facility of operation.

The faucet-tube and the extension-tube car-

rying the air-pump being detachable, they may be readily separated to facilitate packing for transportation or for other purposes.

We claim as our invention—

1. The combination of a faucet-spigot provided with a transverse valve-chamber, a longitudinal duct opening into said chamber, and a lateral duct approximately at right angles to said longitudinal duct and also opening into said chamber, a valve extending through said chamber beyond said faucet-spigot on opposite sides thereof, said valve being provided with a port for connecting said ducts, occupying about one-third of its circumference, a bifurcated lever the forked ends of which are connected to the extended stems of said valve, the body of said lever being diametrically opposite the port of said valve, an air-pump the cylinder of which is fixed to said faucet-spigot parallel therewith, a valved duct connecting said pump-cylinder with said spigot, and a hinged piston-rod connected at one end to the piston of said pump and at the other end to said bifurcated lever, substantially as described.

2. The combination of a faucet the tube of which is provided with an enlarged aerating-chamber, a detachable extension-tube connected with said faucet-tube, and also provided with an enlarged aerating-chamber, and an air-pump attached to said extension-tube and in direct communication with the aerating-chamber thereof, substantially as described.

3. The combination of a faucet the tube of which is provided with an enlarged aerating-chamber, and with a projecting nipple at the rear end of said chamber, an extension-tube detachably connected to said faucet-tube and surrounding said nipple, and an air-pump attached to said extension-tube and communicating therewith, substantially as described.

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