

(No Model.)

C. P. SMITH.  
FAUCET.

No. 453,165.

Patented May 26, 1891.

Fig. 1.

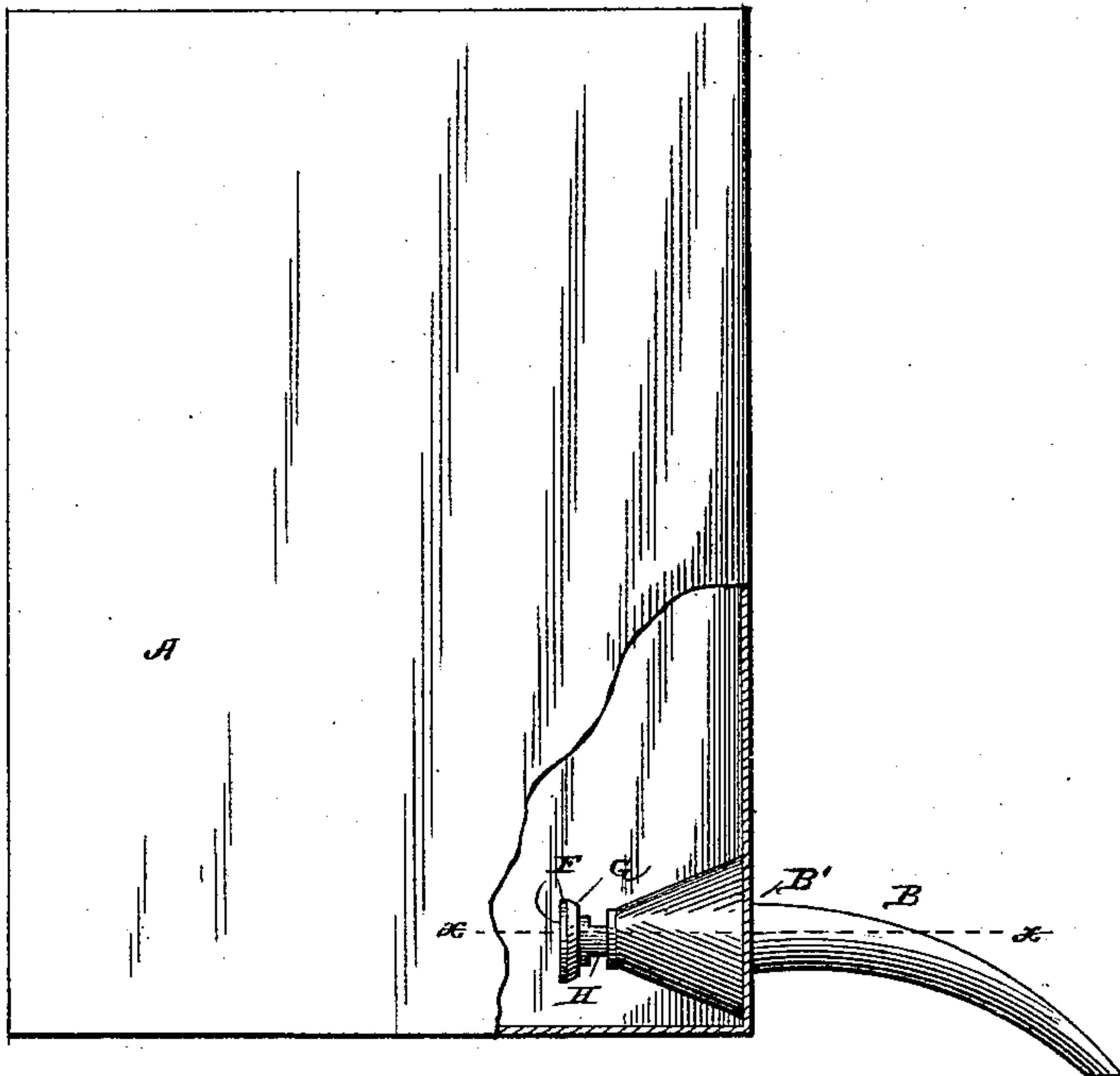


Fig. 2.

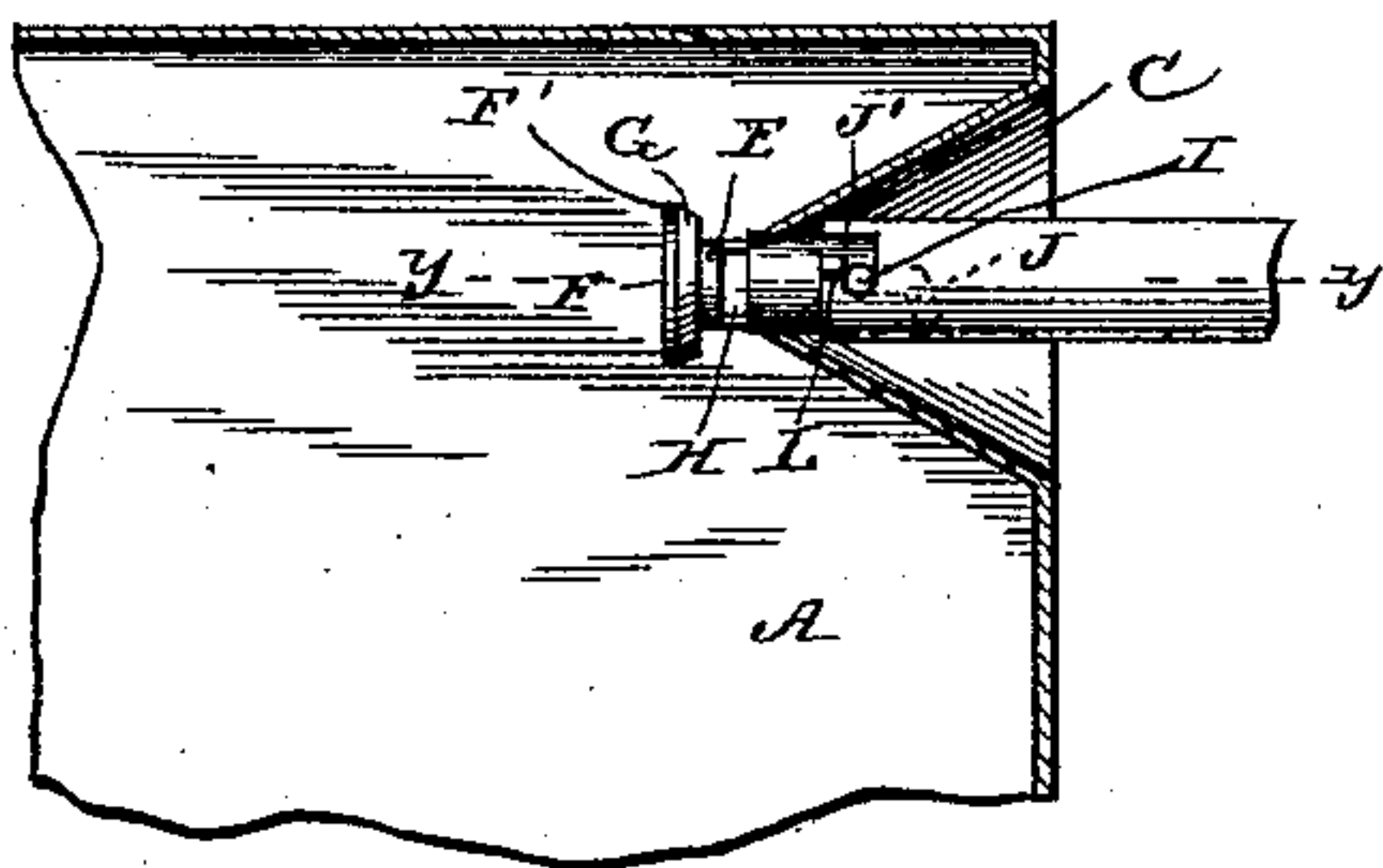


Fig. 3.

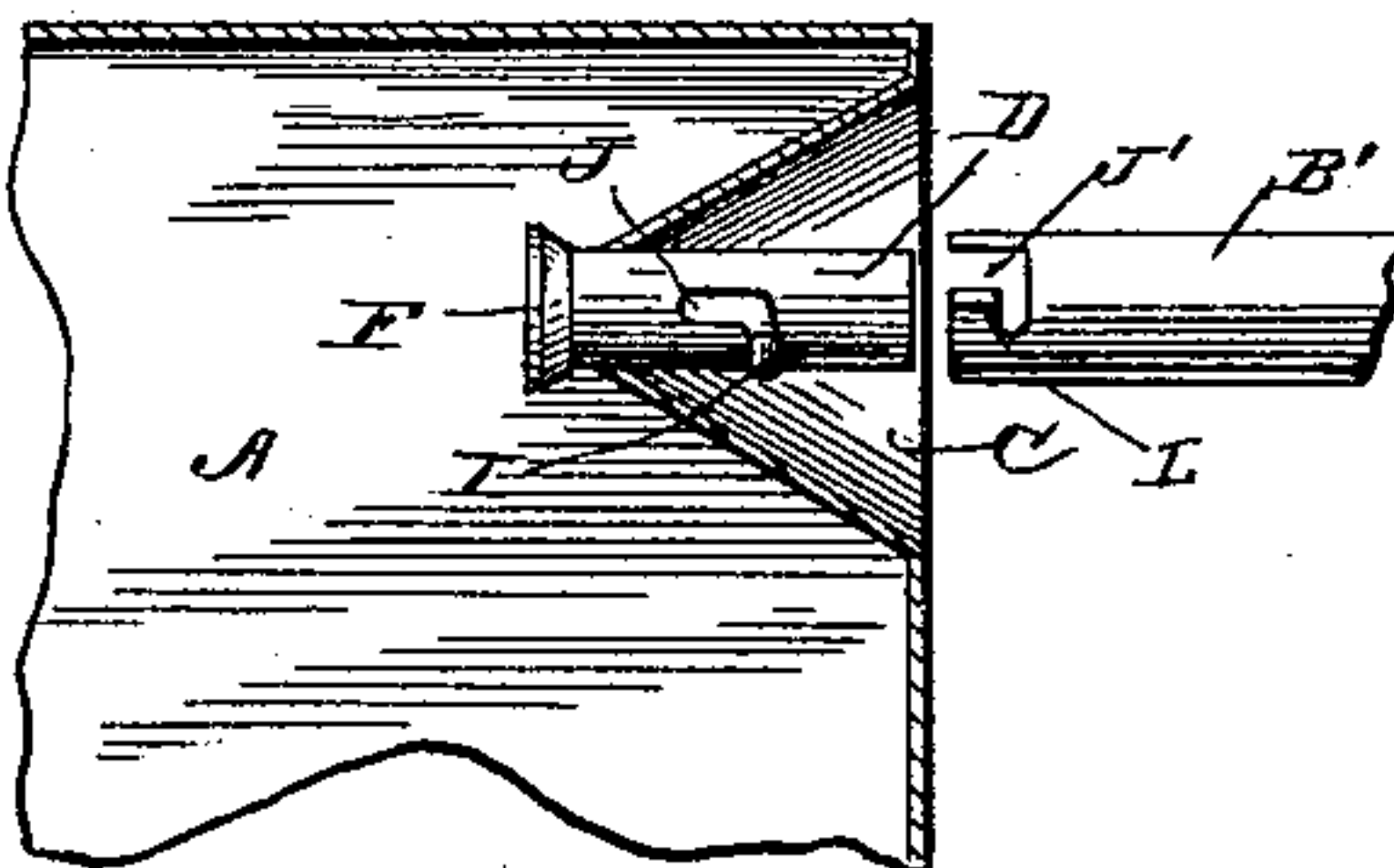
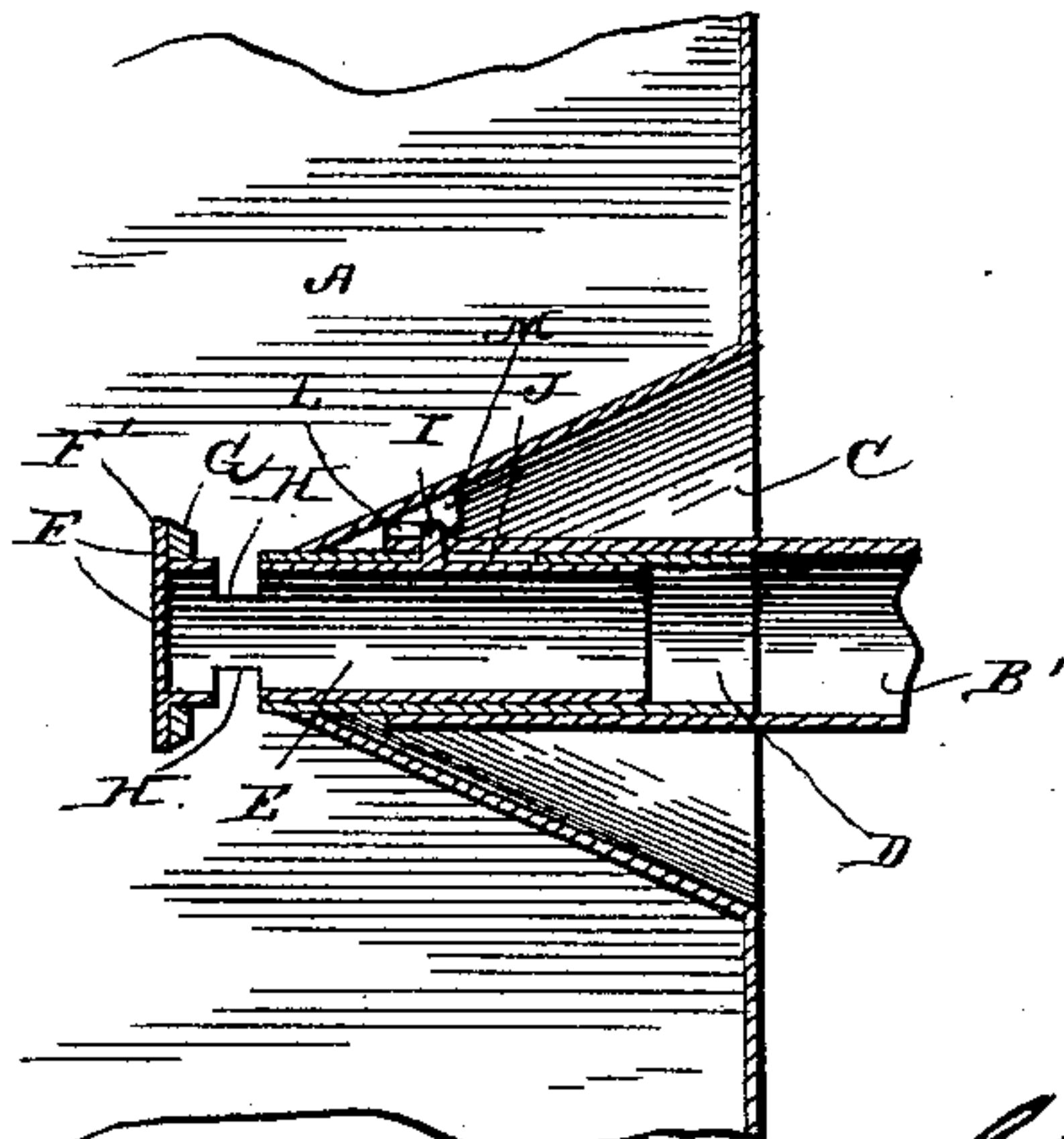


Fig. 4.



Witnesses:

Harry S. Rohrer.  
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Inventor:

Clayton P. Smith  
by  
Laurel, Childs & Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

CLAYTON PATTERSON SMITH, OF SAN DIEGO, CALIFORNIA, ASSIGNOR OF  
TWO-TWENTIETHS TO PATTERSON SPRIGG AND JOEL LIGHTNER, BOTH  
OF SAME PLACE.

## FAUCET.

SPECIFICATION forming part of Letters Patent No. 453,165, dated May 26, 1891.

Application filed June 25, 1890. Serial No. 356,680. (No model.)

*To all whom it may concern:*

Be it known that I, CLAYTON PATTERSON SMITH, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to faucets of which the part external to or projecting beyond the vessel may be detached when desired, leaving the vessel securely closed. It is fully shown in the accompanying drawings, in which—

Figure 1 is a side elevation of an ordinary can provided with my devices, parts being broken away to show the interior. Fig. 2 is a partial section on the line  $x x$ , Fig. 1, the spout being in position. Fig. 3 is a like view, the spout being disengaged. Fig. 4 is a section on the line  $y y$ , Fig. 2.

In the figures, A represents a can or other receptacle for liquids, having near the bottom a detachable discharge-spout B, whose connection with the vessel is to be described. The wall of the vessel is bent inward to form a tapering recess C and then outward to form a cylindrical open tube D in the axis of that recess and terminating just within the general surface of the vessel. Over this tube slips the spout B', which thus communicates with the interior of the vessel. In practice the spinning of the metal of the can-wall into the tapering recess and axial tube being less convenient, they are made in separate pieces and united to each other and to the perforated wall in any manner adapted to render the connection liquid-tight. Within the tube D slides a tube E, having its inner end closed by a cap F and its outer end open. At H, near its inner end, it is cut away in order that when this part is pushed inward beyond the inner end of the tube D liquid from the vessel may enter and pass out through it to the spout. When the openings H are brought within the tube D by drawing the inner tube outward the flow of liquid is arrested, and all leakage is prevented by a flange F', having an elastic facing G, which, being in annular form, meets

all parts of the inner end of the tube D. In order that this tube E, with its flange, may be operated from without, it is provided with a rigid stud I, that projects through the tube D and is at will engaged by the spout B. To permit the passage of the stud, the tube D is provided with an L-shaped slot J, having one part longitudinal and the other circumferential and inclined slightly forward. The first part is substantially equal in length to the distance through which the inner spout slides, and the other part is inclined forward, so that if the stud be forced to follow it the flange-facing G may be pressed very firmly against the end of the tube D. The straight end B' of the spout has a corresponding slot J' extending inward from its margin in order that it may engage and be disengaged from the stud. Let us now suppose that the faucet is closed, as in Fig. 3, the stud being in the circumferential limb of the slot J. The spout end may be slipped over the end of the tube D, and if it be properly turned the stud passes into the slot J'. Rotation of the spout then causes the stud to enter the circumferential limb, and when it has reached the limit of this limb further rotation forces the stud out of the corresponding limb of the slot J and the faucet is unlocked. If then the spout be pressed directly inward, the stud is forced back in the slot J, and the tube E, being carried with it, the faucet is opened, as seen in Figs. 1, 2, and 4. Reversing these movements of the spout evidently closes the faucet and detaches the spout. It is not, however, necessary to remove the spout whenever the faucet is closed; but it may be drawn outward and rotated slightly in order to completely cut off the liquid, and be then left projecting like non-detachable faucets. To guard against the possibility of detaching the spout without first closing the inner tube, the spout is provided at its inner end with a lug L and the conical tube with a lug M, lying alongside its path and preventing its rotation until the spout is drawn out far enough to close the inner tube. When a curved spout is used, the parts are so arranged that unlocking the faucet by means of the spout brings the latter into a vertical plane.



It is evident that the exact form shown need not be followed and that the device is equally applicable to wooden casks or other vessels.

What I claim is—

- 5 1. The combination, with a vessel for containing liquid, of a tube fixed transversely in the wall of the vessel, a second tube sliding in the first and provided with lateral openings, a cap closing the inner end of the second  
10 tube and projecting as a flange adapted to meet the end of the first tube when the inner tube is drawn outward, and a spout detachably connected with the inner tube for sliding it in or out.
- 15 2. The combination, with the conical tube C, of the tube D, fixed in the inner end thereof and projecting within the cone, the laterally-perforated tube E sliding in the tube D and provided with the stud projecting through the  
20 tube last named in an L-shaped slot therein,

the cap closing the inner end of the inner tube and forming an annular flange about it, and the spout adapted to pass over the end of the tube D and to detachably engage the projecting end of the stud.

- 25 3. The combination, with the tube D, having the lateral L-shaped slot, the tube E, sliding in the first, closed at its inner end, provided with the lateral openings, the flange, and the rigid stud projecting through said slot, 30 of the spout B, having the L-shaped slot extending inward from its margin, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CLAYTON PATTERSON SMITH.

Witnesses:

C. L. BARBER,  
PATTERSON SPRIGG.