(No Model.)

L. S. BIGELOW.

INK FOUNTAIN FOR PAPER RULING MACHINES.

No. 509,861. Patented Dec. 5, 1893.

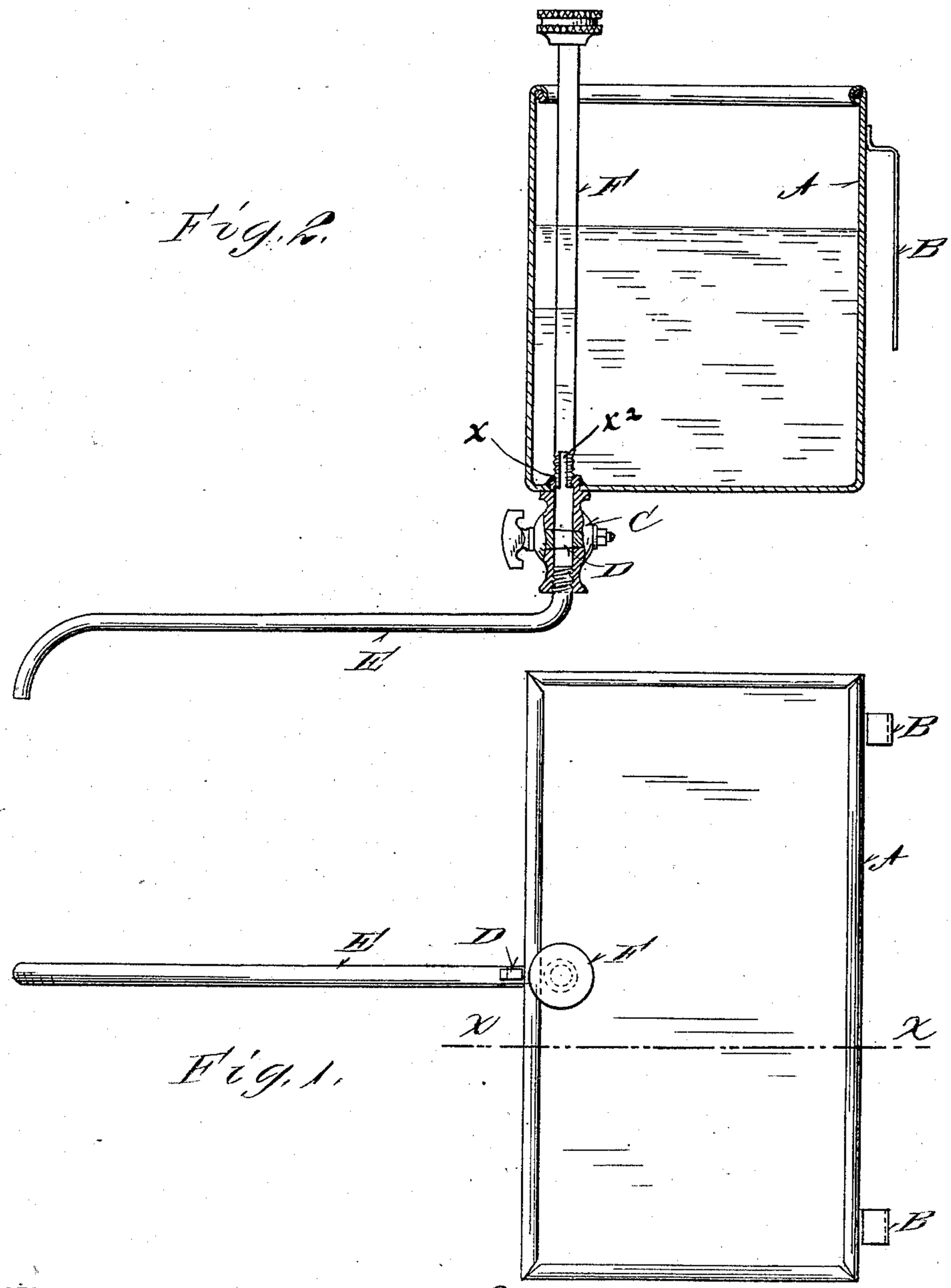

Fig. 2.

Fig. 1.

WITNESSES:
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INK-FOUNTAIN FOR PAPER-RULING MACHINES.

SPECIFICATION forming part of Letters Patent No. 509,861, dated December 5, 1893.

Application filed April 21, 1893. Serial No. 471,243. (No model.)

To all whom it may concern:

Be it known that I, LUCIUS S. BIGELOW, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Ink-Fountains for Paper-Ruling Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in ink fountains for paper ruling machines.

The object of the invention is to provide a device for controlling the outflow of ink from the fountain, one branch of the device operating to merely regulate the exact quantity of the outflow, and the other branch of it operating to shut off entirely the outflow or to permit the free discharge of the ink, the peculiarities of which will be hereinafter more fully described and particularly pointed out in the claims.

In the accompanying drawings on which like reference letters indicate corresponding parts: Figure 1, represents a plan view of an ink fountain with my improvements applied thereto; and Fig. 2, a transverse section on the line *x x*.

The letter A designates a vessel of any suitable form adapted to contain a sufficient quantity of the ink and provided with hooks B, or other devices, for attachment to a fixed part of the frame of a paper ruling machine, so that the ink flowing from the tank may be conducted to the usual flannel or other absorbent from which the ink oozes or passes to the pens proper.

The letter C designates a discharge cock secured to the vessel and communicating with its interior, preferably at or near the bottom. The usual cut-off plug D is supplied, while from the lower end of the cock extends the conveying tube E. Within the vessel stands a post F constituting the regulator proper, its lower end being screw threaded to match with an interior thread X formed in the inner upper end of the cock. The lower end of the regulator post is also provided with a transverse incision or slit X^2, more or less of which is exposed above the outlet opening, according to the adjustment of the post, so that the quantity of ink which will be allowed to flow from the fountain can be regulated with the greatest nicety.

As before observed, the ink supplied by ink fountains of this kind is conducted to a flannel, usually in the form of a heavy strip, or to some equivalent absorbent which, upon being oversaturated, permits the surplus ink to slowly trickle or ooze from it to the pens of a ruling machine. This is well understood in this art. Practice has demonstrated to me the necessity of being able to absolutely control the outflow of ink, and at the same time to be able to nicely adjust the quantity of the outflow in such a manner that the quantity determined upon shall not in anywise be varied by the frequent and incidental shutting off of the ink entirely, as is required from time to time in the operation of the machine. The essential point may be stated to be, that the adjusted or regulated quantity of outflow, having once been determined upon by ascertaining just how much ink the particular number of pens require, the size of the pens demand, the character of them makes necessary, the amount of ink the paper will carry without running or blurring, then this adjustment should be preserved, and undisturbed each time the ink is turned on or entirely cut off by the cock. My improved devices carry out this operation with ease and accuracy in practice. If I want to increase or decrease the amount of outflow, I do it by the adjustment of the regulator post. If I want to cut off the ink entirely or turn it on, I operate the cock. Having adjusted the regulator, any subsequent turning on or cutting off of ink with the cock does not affect the adjustment.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As an improved article of manufacture, the herein described fountain for ruling machines, the same consisting of a vessel A, a cock C having a cut-off plug intermediate its ends, a conveying tube E at its lower end and screw-threaded at its upper end where it communicates with said vessel, a post F extending outside of the vessel, for hand manipula-

tion, and down into the vessel, screw-threaded to fit said screw-threaded opening and transversely slotted, and a hook B to engage the vessel with its support.

2. As an improved article of manufacture the herein described ink fountain, the same consisting of a vessel A, a cock E having a cut off plug intermediate its ends, a conveying tube at its lower end and communicating at its upper end with the vessel, the vessel having a screw-threaded aperture leading into the cock, and a post transversely slotted and threaded to fit said aperture, the post extending through the outside of the vessel.

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

LUCIUS S. BIGELOW.

Witnesses:
HARRY C. HANTZ,
S. SCHRIVEN.