

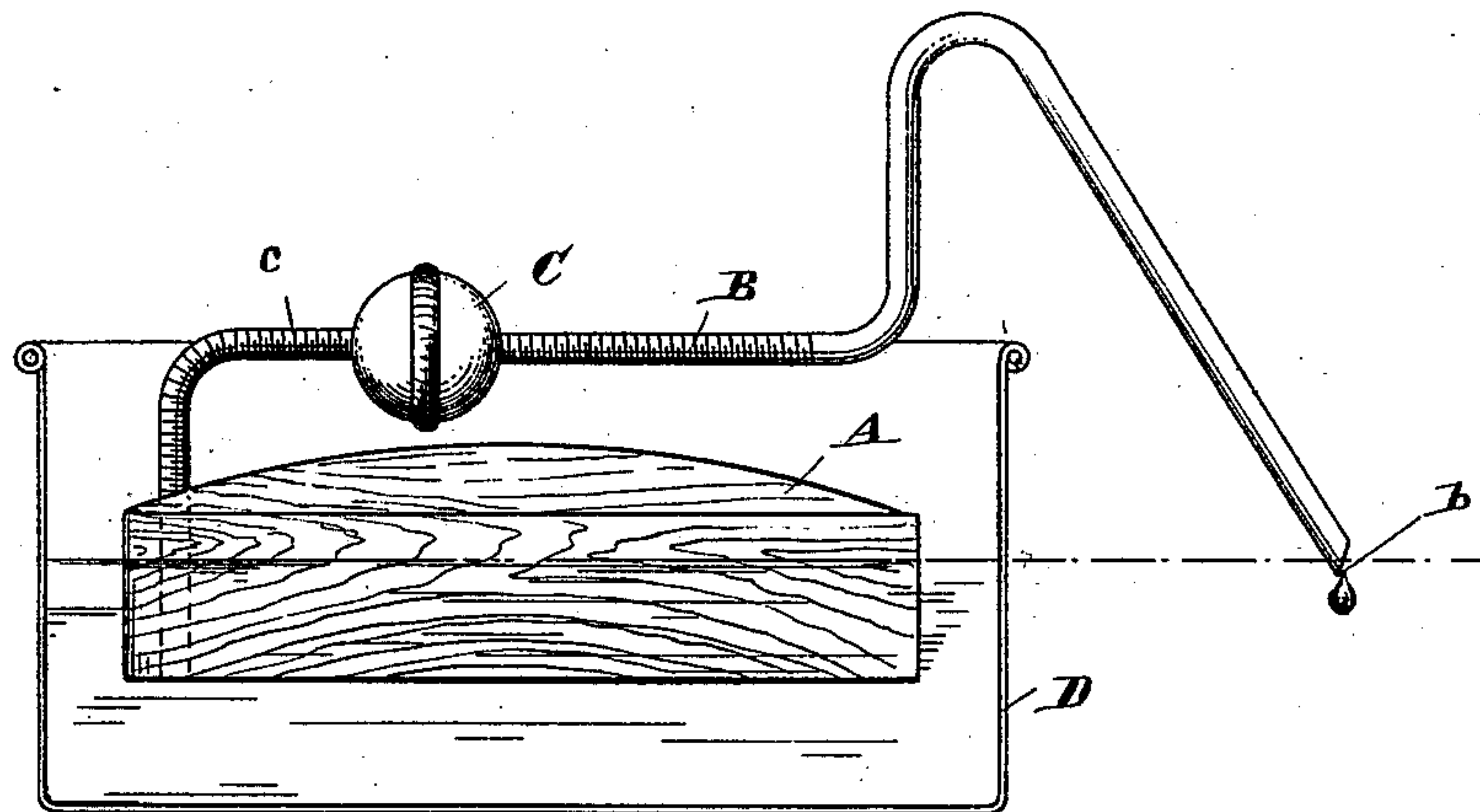
(No Model.)

G. SCHWEMLEIN.

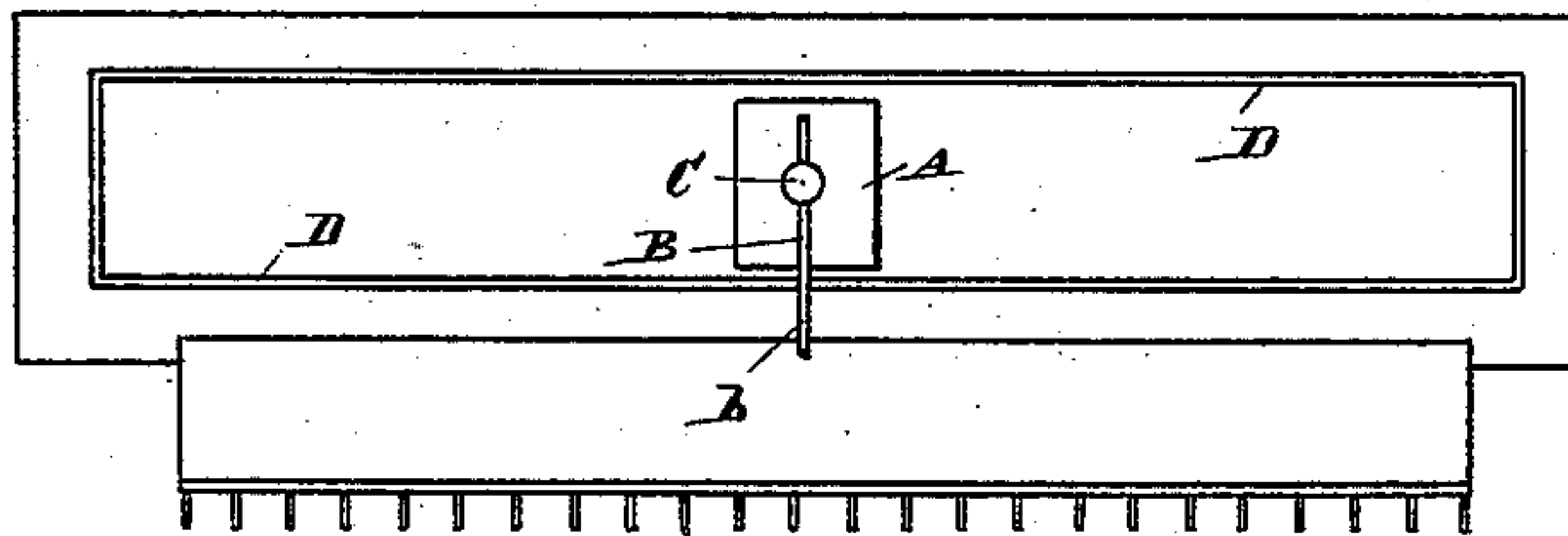
INK FEEDING DEVICE FOR RULING MACHINES.

No. 392,138.

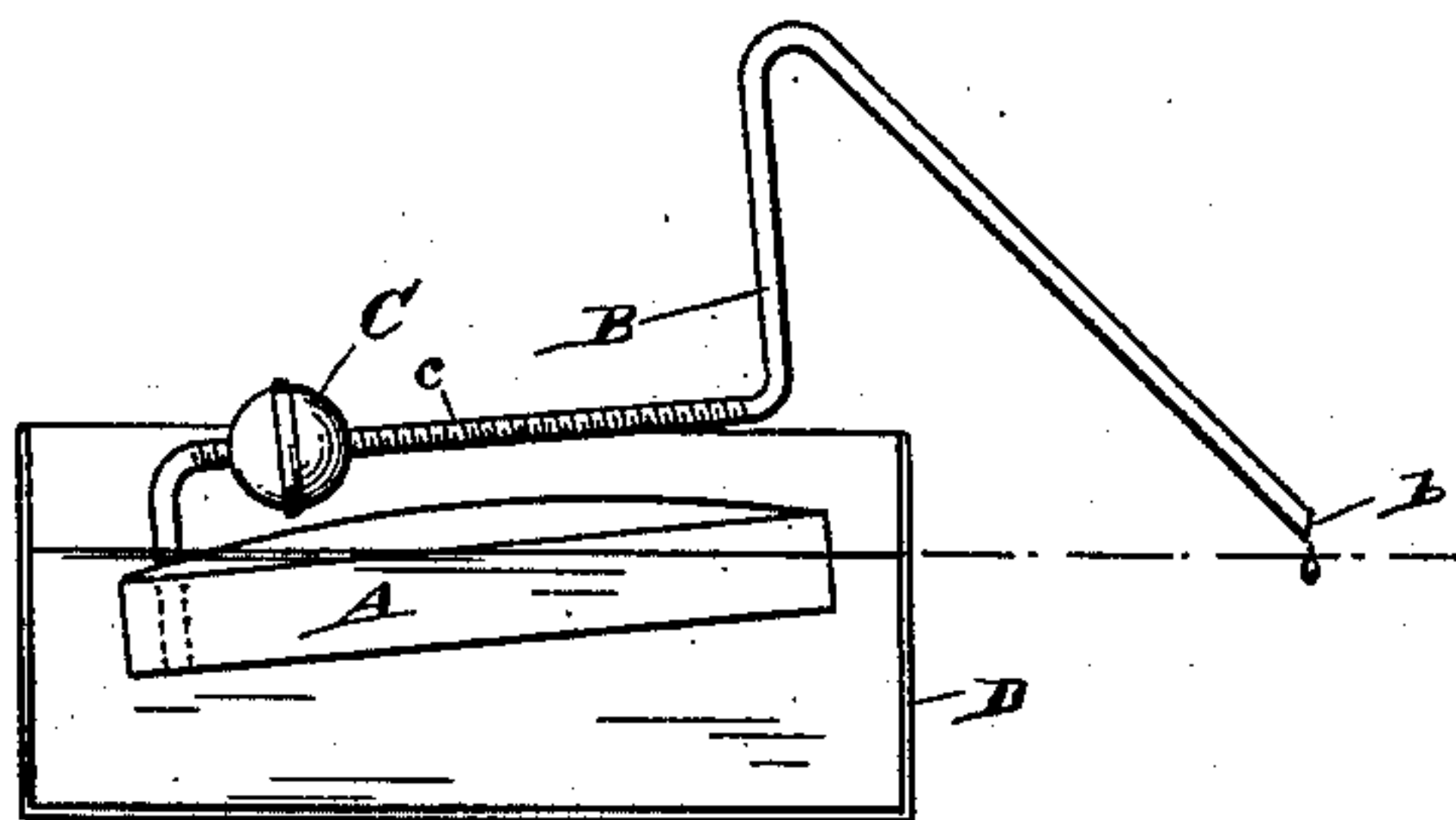
Patented Oct. 30, 1888.



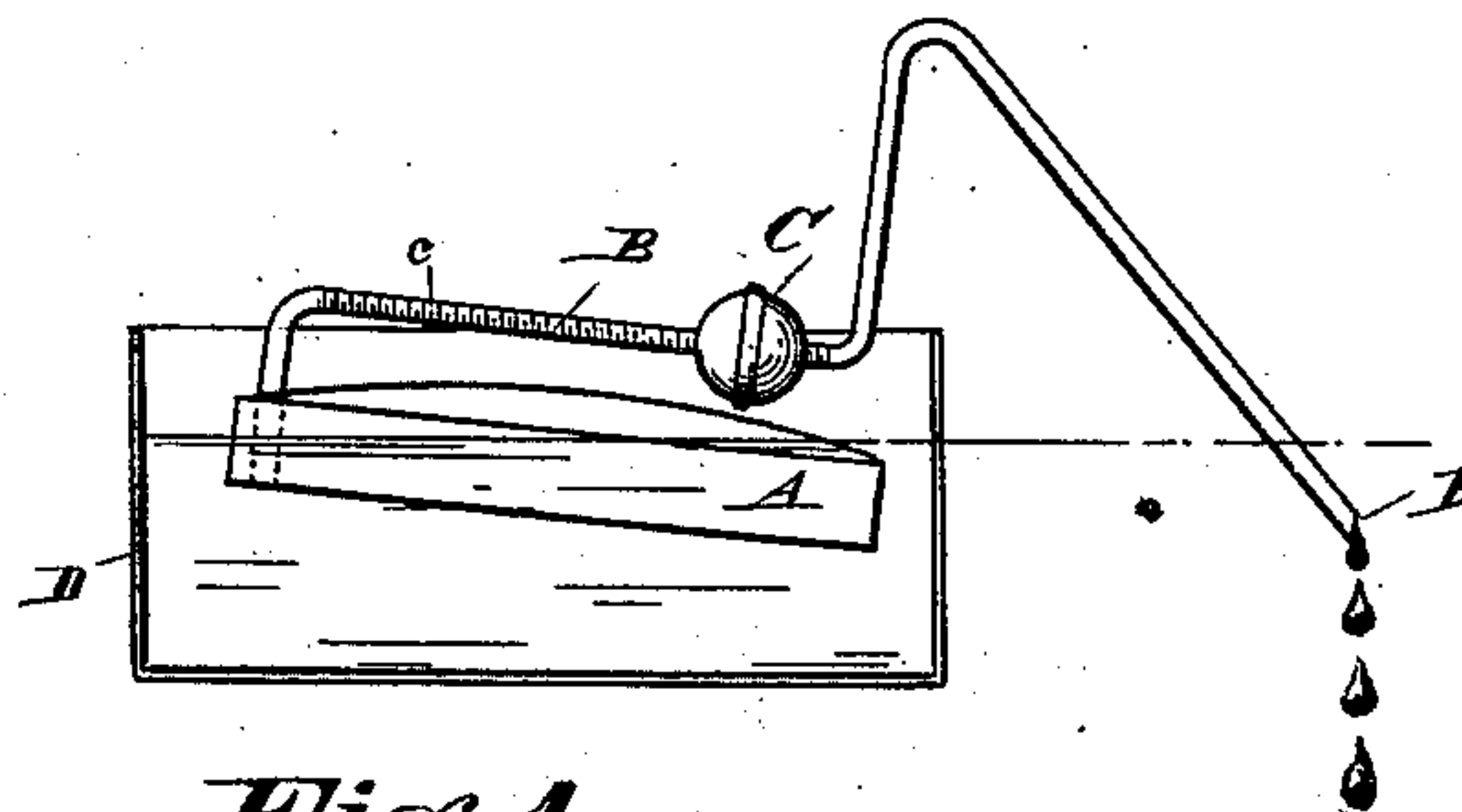
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

*Attest.*  
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# UNITED STATES PATENT OFFICE.

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EDWARD C. MILLS, OF SAME PLACE.

## INK-FEEDING DEVICE FOR RULING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 392,138, dated October 30, 1888.

Application filed May 7, 1888. Serial No. 273,107. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE SCHWEMLEIN, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Ink-Feeding Devices for Ruling-Machines, of which the following is a specification.

The object of my invention is to provide a device for feeding ink to ruling-machines, which can be readily and accurately gaged to supply any desired quantity of ink in a regular and even dropping flow to the ruling-pens.

In the drawings accompanying this specification, Figure 1 is a view in side elevation of the device in position in the tank, the mouth of the siphon being about on a level with the ink. Fig. 2 is a top view of the device, tank, feeder, and ruling-pens, showing the parts in position. Fig. 3 is a view similar to Fig. 1, showing the float tilted backward, the mouth of the siphon being raised above the level of the ink. Fig. 4 is a view similar to Fig. 3, showing the float tilted forward and the mouth of the siphon being below the level of ink in the tank.

My invention is intended more particularly for use in connection with ruling-machines and to take the place of the ordinary valve-feeding devices now commonly in use. The difficulty in the valve-feeding devices is to obtain a steady and even dropping flow of ink to the ruling-pens, which difficulty my invention is intended to obviate.

The device consists of a float, A, siphon B, and, preferably, of a screw-threaded ball, C, the latter being adapted to rotate and move forward and backward over the screw-threaded portion *c* of the siphon, as shown.

The float A is preferably made of porous wood, but may be made of any light material that will float upon the surface of the ink. When constructed of this material, the float is preferably soaked in paraffine or like impervious liquid substance. The float may also be made hollow, of any suitable light metal. The top of this float is preferably oval in configuration and flat at bottom. The tube forming the siphon is passed through the float near its rear end, as shown, the opening of the si-

phon coming about flush with the bottom of the float.

The tank D, containing the ink, is placed on the frame of the ruling-machine at an elevation to the ruling-pens, in the ordinary manner. The float and siphon are placed in the ink-tank at any desired point. Where but one of the feeding devices is used, it is preferably placed near the center of the tank, so that the flow of ink from the siphon to the woolen feeder may drop near the center of the latter to insure an even and thorough distribution of ink in either direction to all the ruling-pens. This siphon permits the ink to begin dropping as soon as the mouth *b* is below the level of ink in the rear end of said siphon.

To regulate the flow of ink from the siphon, I have provided the following preferable device, consisting of a screw-threaded gage-ball, C, adapted to rotate and travel forward and backward over the screw-threaded portion *c* of the siphon. When this ball is near the center of the float, as shown in Fig. 1, the siphon is in position to start a slowly-dropping flow of ink. When the ball is rotated forward, its weight causes the front end of the float to sink deeper into the ink, thus lowering the mouth of the siphon below the level of ink, as shown in Fig. 4, causing the ink to flow more rapidly. When the ball is rotated backward, the float is correspondingly sunk at rear, raising the mouth of the siphon and causing the flow of ink to diminish as the ball is rotated backward, and when the ball is rotated far enough backward the mouth of the siphon is raised above the level of ink, causing the ink to cease flowing. The rotation of the ball forward or backward increases or decreases the flow of ink proportionately as the ball is rotated in either direction from the center of gravity.

While the afore-described ball-gage is preferably employed for tilting the float, any suitable device may be attached to said siphon for accomplishing this purpose.

The siphon is preferably of the configuration shown, but may be of any suitable form.

The advantages of my device over the old method of feeding ink to ruling-pens are apparent. By the use of my improved feeding device a steady even flow of ink is secured,



which may be increased or diminished at pleasure. The device is very simple in construction, and is cheap of manufacture.

While the afore-described device is preferably employed in connection with ruling-machines, it may be used in any other connection where it is desired to draw liquid from a tank slowly—as, for example, to moisten the surface of grindstones, &c.

10 What I claim as new, and desire to secure by Letters Patent, is—

1. In a liquid-feeding device, a siphon at-

tached to a float, and means, substantially as set forth, for tilting said float forward or backward, as and for the purposes set forth.

2. In a liquid-feeding device, the combination of float A, siphon B, and ball-gage C, the latter being attached to said siphon and adapted to be rotated and operated forward and backward thereon, substantially as set forth.

GEORGE SCHWEMLEIN.

Witnesses:

HENRY WOOST,

O. M. HILL.

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