

Nov. 6, 1928.

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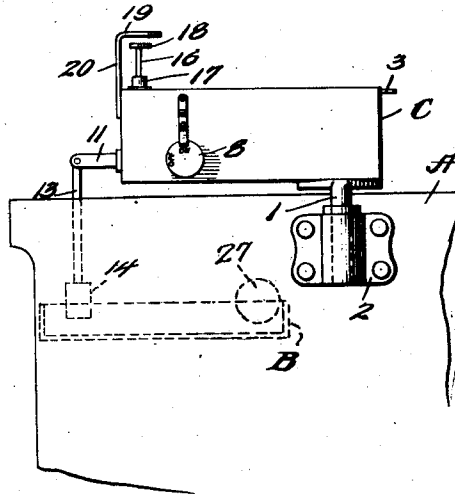
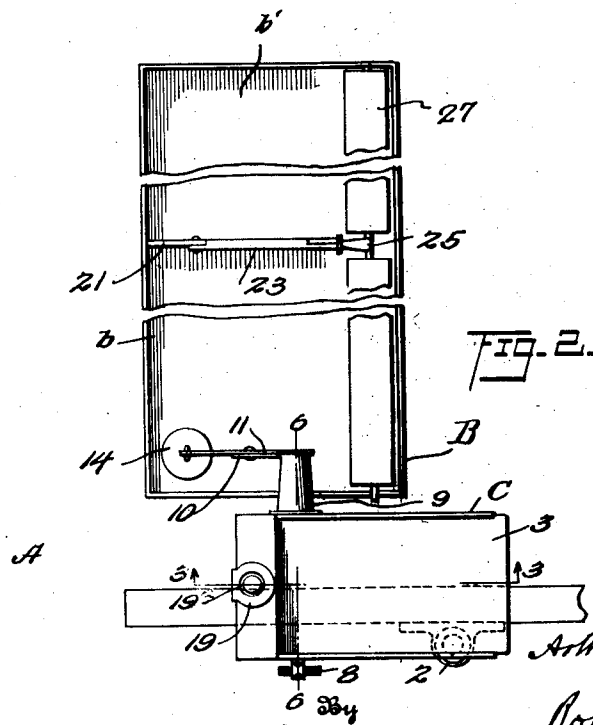
A. S. J. DAWE

INK SUPPLYING MEANS FOR PRINTING PRESSES

Filed Oct. 5, 1927

2 Sheets-Sheet 1

FIG. 1.



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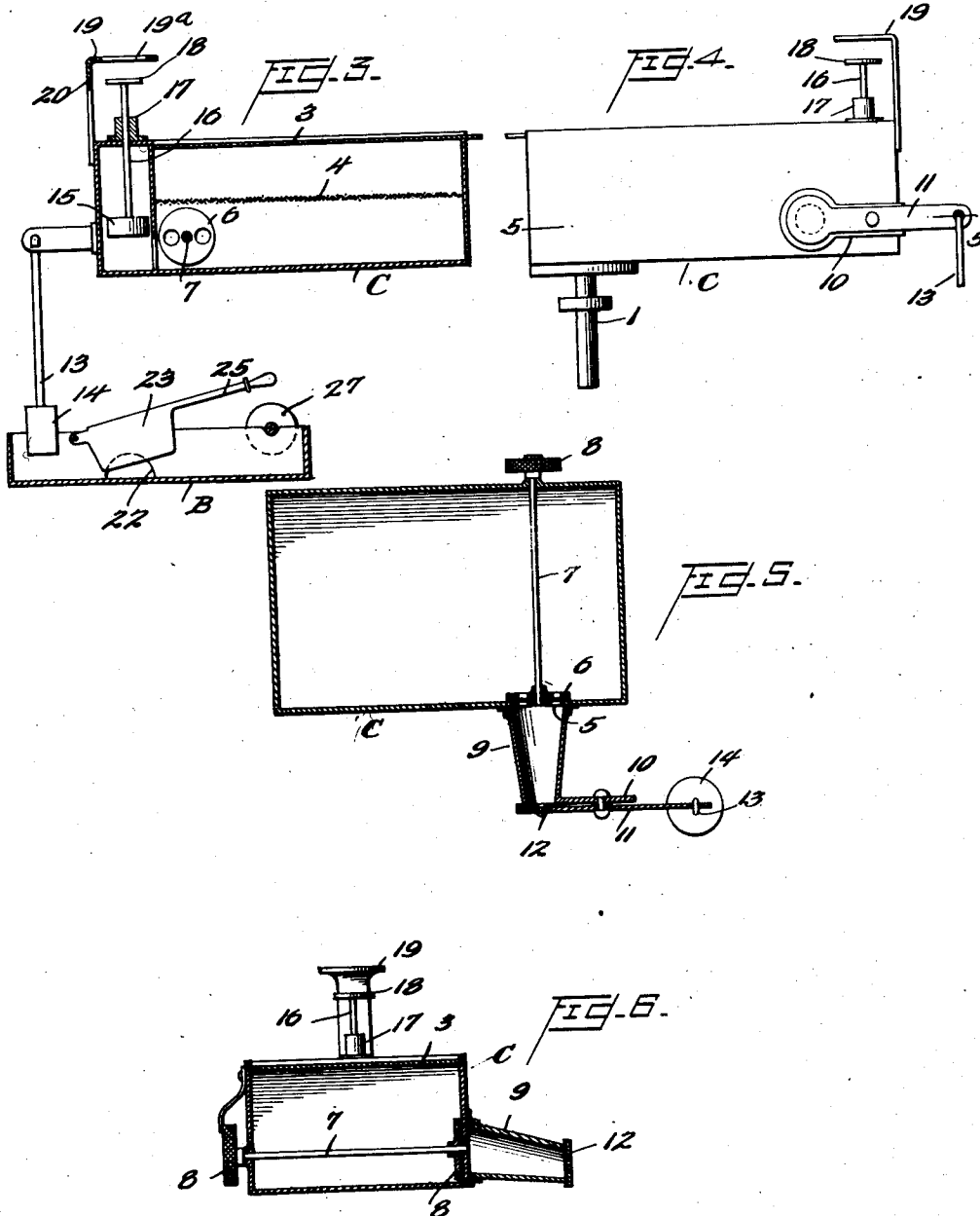
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INK SUPPLYING MEANS FOR PRINTING PRESSES

Filed Oct. 5, 1927

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

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INK-SUPPLYING MEANS FOR PRINTING PRESSES.

Application filed October 5, 1927. Serial No. 224,156.

This invention relates to an attachment for printing presses for supplying ink to an ink fountain. In carrying out the invention, I provide a tank or reservoir adapted to contain a relatively large supply of ink, and this is supported upon the frame of the press adjacent the ink fountain and above the same. This reservoir has an outlet spout arranged to deliver ink from the tank to the fountain, and a float in the fountain controls a valve which regulates the flow of ink from the reservoir so as to maintain a constant level of ink in the fountain. In printing presses embodying a large number of printing cylinders and ink fountains, one of my attachments will be placed at each ink fountain, and each reservoir may contain sufficient ink for the day's run, thus saving a large amount of hand labor required on such presses for keeping the fountains replenished. Furthermore, as the ink level in a fountain will always remain the same, the printing will always be uniform. In order that the attendant who supplies ink to the reservoirs may know when a reservoir needs replenishing, I provide a float in each reservoir and an indicator attached to the float for visually indicating the ink level in the reservoir.

As the delivery spout and the valve controlling the outlet of ink from the same may require cleaning at times, the reservoir is swiveled to the press frame so that it may swing away from the fountain to make the spout and float controlled valve more accessible for cleaning. A hand controlled valve is provided for cutting off the supply of ink to the spout so that the latter may be drained without the loss of ink in the reservoir when it is desired to clean the spout.

I have shown the attachment in connection with a double ink fountain having a dividing partition provided with a port and a hand controlled valve for opening and closing this port. When the port is open, the same ink level will be maintained in both compartments; but when it is desired to supply ink to the press from only one compartment, the valve may be closed and only the compartment containing the float will receive ink.

In the accompanying drawing,

Fig. 1 is a side elevation of part of a printing press having my attachment thereon;

Fig. 2 is a top plan view of the attachment and also of the ink fountain, the latter being partly broken away;

Fig. 3 is a section through the reservoir on

the line 3—3 of Fig. 2, the ink fountain also being shown in transverse section;

Fig. 4 is a side elevation of the reservoir, showing the side next to the fountain;

Fig. 5 is a section on the line 5—5 of Fig. 4; and,

Fig. 6 is a section on the line 6—6 of Fig. 2.

Referring to the drawing, A indicates a part of the frame of a web printing press, and B indicates an ink fountain of the press. A supply tank C is mounted upon the frame adjacent the ink fountain. The tank shown in the drawing is oblong and has a supporting pin 1 projecting from its lower side near one of its corners, and this pin fits within a bearing 2 secured to the press frame. The tank is thus pivotally supported so that it may swing in a horizontal plane toward and from the ink fountain. The tank has a sliding cover 3, which may be pulled outwardly to permit ink to be poured into the tank, and it also has a horizontal screen or filter 4 to prevent foreign substances from passing with the ink to the ink fountain. Below the screen 4, the tank has an outlet opening 5 in one side which may be closed by a rotary valve 6, the latter mounted upon a valve stem 7, which extends horizontally through the tank and is provided with a thumb-piece 8, by which the valve may be turned. An outlet pipe or spout 9, surrounding the opening 5, projects laterally from the tank, and an arm 10 projects laterally from the outer end of the spout. A lever 11 is centrally pivoted to the arm 10 and carries a valve 12, at one end, which fits against the outer end of the spout and is adapted to open and close the same. A wire link 13 is connected to the opposite end of the lever and extends downwardly therefrom into the ink fountain, and a float 14 is arranged upon the lower end of this link. The arrangement is such that the float will open the valve 12 when the supply of ink in the fountain goes below a certain level, and ink from the reservoir will flow through the spout 9 into the fountain until the required level therein is restored, when the float will close the valve 12 and the flow of ink from the reservoir will stop.

The reservoir is provided with a float 15, arranged on the lower end of an indicator rod 16, which slides vertically in a sleeve 17, arranged in the top of the reservoir. A disk 18 is arranged upon the top of the rod 16 and the height of the liquid in the reservoir is determined by comparing the position of this disk with respect to the index arm 19,

projecting horizontally from a support 20 which is attached to and extends above the reservoir. The arm 19 is shown with an opening 19^a, concentric with the disk 18, the purpose of this opening being to permit the operator, while pouring ink into the reservoir, to see the disk 18.

The reservoir is pivotally mounted upon the press in order that it may be swung away from the fountain so that the spout 9 may be readily removed for the purpose of cleaning the same, and also for the purpose of flushing out the tank when necessary.

The reservoir may be of any desirable size and may contain ink enough for a day's run of the press. It will be evident from the foregoing that the ink will be fed to the ink fountain only as fast as it is used by the press and that a constant level will be kept in the fountain.

The fountain is shown with a transverse partition 21, having an opening 22 in its lower portion, and a valve 23 is provided for closing this opening. As shown, the valve comprises a flat plate pivoted at 24 to the partition and having a handle 25. By raising the handle, the opening 22 will be uncovered and ink may flow from one compartment *b* of the fountain to the other compartment *b'*, and by lowering the handle communication between the compartments will be cut off. It will be understood that separate ductor rolls 26 and 27 extend into these compartments, but, at times in the operation of the press, it may be necessary to feed ink from only one compartment. With the arrangement described herein, a supply of ink may be kept

at even height in the compartment *b* to supply one inking roller while the supply of ink to the other compartment *b'* will be cut off; or, if it is desired to use ink from both compartments, the valve 23 will be opened and the attachment described will maintain a constant level of ink in both compartments.

What I claim is:

1. The combination with a printing press including an ink fountain and a ductor roller for feeding ink from said fountain, of an ink reservoir supported above the fountain, said reservoir having an outlet to permit ink to flow into the fountain, a valve controlling said outlet, and a float in the fountain connected to said valve.

2. The combination with a printing press frame and an ink fountain, of an ink reservoir swiveled to the frame and adapted to swing toward and from the fountain, a spout on the reservoir for delivering ink into the fountain, a valve controlling the flow of ink from the spout to the fountain, and a float in the fountain controlling said valve.

3. The combination with a printing press of an ink fountain having a transverse partition dividing it into two compartments, said partition having a port therethrough, a hand operated valve for closing said port, a reservoir above the fountain and having an outlet for delivering ink into one of said compartments, a valve controlling said outlet, and a float in said latter compartment connected to said valve.

In testimony whereof I hereunto affix my signature.

ARTHUR S. J. DAWE.