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F. M. GREEN
FOUNTAIN DIVIDER
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Fig. 1.

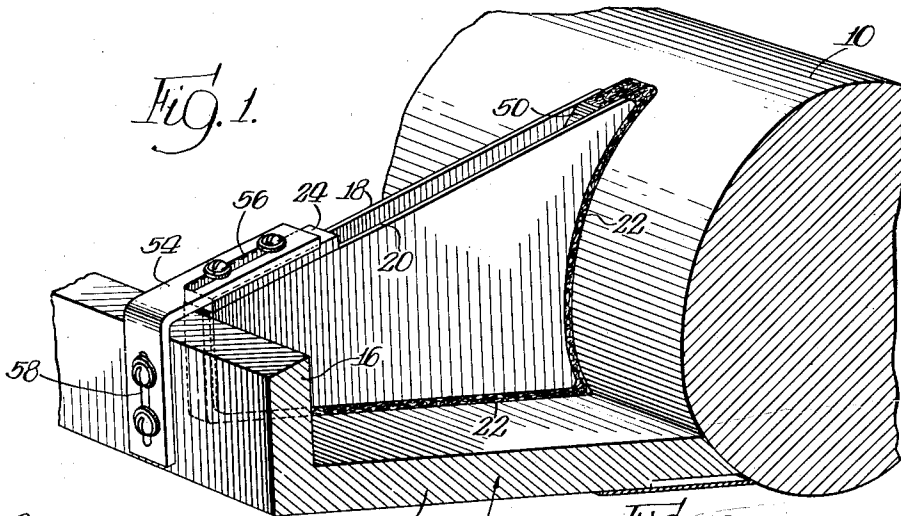


Fig. 2.

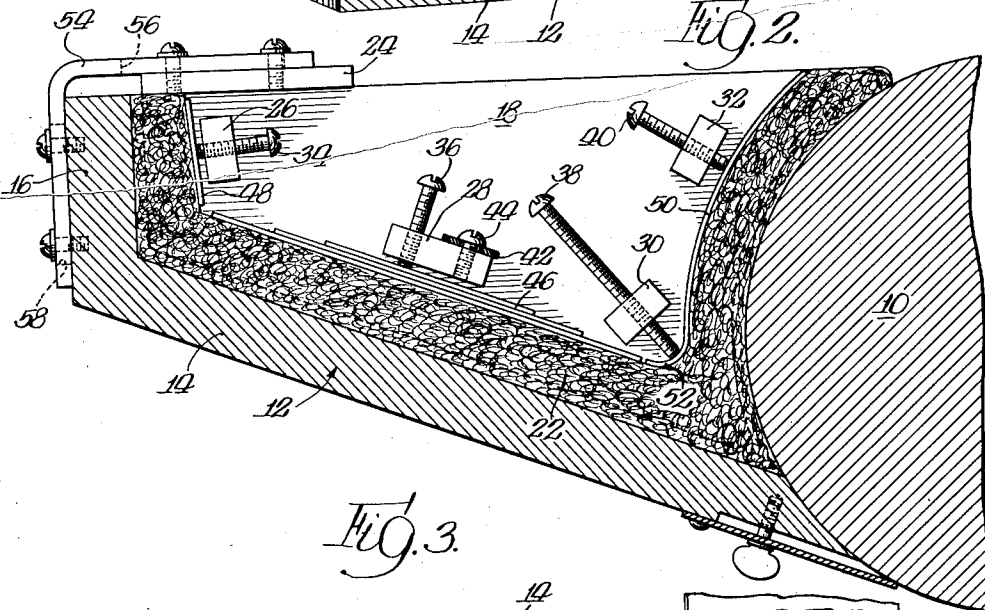
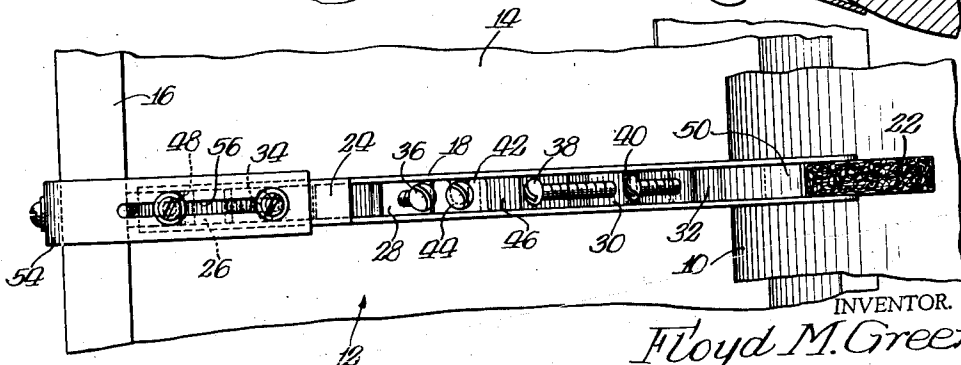


Fig. 3.



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UNITED STATES PATENT OFFICE

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FOUNTAIN DIVIDER

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5 Claims. (Cl. 101-210)

My invention relates to a fountain divider of the type used in the ink fountain of printing presses to keep inks of different colors separated in the fountain.

The bottom of the fountain trough may not be perfectly smooth and uniform, and the space relation of the trough to the fountain roller may not be the same at all points along the length of the trough and the roller.

A divider which does not fit tightly at any point in the trough where its use may be desired allows seepage and intermixture of the inks. Ink must be discarded after the true color is lost by seepage from one division of the fountain to another.

It is therefore a primary object of my invention to provide a fountain divider which can be readily adapted and adjusted to give a tight, seepage-resisting fit when used at any point along the ink fountain.

More particularly, it is an object to provide a divider structure in which independent adjustment of the sealing means can be made at various points along the trough and roller engaging edges of the divider.

Another object is to provide a divider which can be easily and conveniently cleaned; one in which the various adjusting screws are conveniently accessible, and yet are protected from being fouled with ink; and one which can be economically manufactured and simply installed.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims and illustrated in the accompanying drawing, in which:

Figure 1 is a fragmentary perspective view, showing the fountain trough and roller in cross section, and illustrating the relation of my divider to those members.

Figure 2 is a vertical cross sectional view through the trough, roller and my divider.

Figure 3 is a top view of the same.

In the drawing the reference numeral 10 indicates the fountain roller. The fountain trough, indicated generally by the number 12, has an inclined bottom 14, and in some types of presses has an upstanding wall 16.

My divider consists essentially of two plates 18 and 20, mounted in closely spaced relation, a strip 22 of felt, rubber or similar resilient material being mounted between the plates in such

a way that it projects somewhat beyond the edges of the plate.

A block 24 is welded or otherwise fastened to the upper edge of the plate 18, to facilitate mounting of my divider on the fountain trough in a manner subsequently to be described. Welded to the inner face of the plate 18 are blocks 26, 28, 30 and 32, tapped to receive screws 34, 36, 38 and 40, respectively. A projecting lug 42 is affixed to the inner face of the plate 20, and furnishes means by which the plates 18 and 20 are fastened together. The lug 42 is slotted so that it may be received under the head of a screw 44 which is carried in a tapped opening in the block 28. The blocks 26, 28, 30 and 32 are approximately the same in height as the thickness of the resilient strip 22, so that when the plates are fastened together at a spacing determined by the height of the blocks, the resilient strip will be suitably retained between the plates.

Under the block 28, as seen in the cross sectional view of Figure 2, I provide a pressure strip 46, which may if desired be made of several leaves, as shown. When the screw 36 is brought to bear against the strip 46, the pressure is distributed throughout the portion of the strip 22 which bears on the inclined bottom 14 of the fountain trough. Similarly, a pressure strip 48 is provided, whereby the screw 34 may be adjusted to apply pressure against the wall 16 of the trough. At the roller end of the divider I provide another pressure strip 50, and this strip is controlled by two screws 38 and 40. This makes possible great flexibility of control, since the relative pressure in two regions along the roll can be adjusted. The strip 50 is provided with a hooked end 52, and the engagement of the screw 38 with this hooked end serves to keep the strip in its proper position. The screw 38 controls the sealing effect of the divider at a critical point, right where the ink runs out of the trough onto the roller. Some wear of the strip 22 inevitably occurs along the portion which is in contact with the rotating roller, but such wear can easily be compensated by adjustment of the screws 38 and 40.

The divider is mounted in a trough of the kind shown by an angle bracket 54 which may be attached to the trough in any suitable way. I have shown the angle bracket provided with a slot 56 through which screws pass into tapped openings in the block 24, and with a slot 58 through which screws pass into the wall 16 of the trough. It may be preferable to supply clamping means on the bracket for attachment to the trough, and

troughs of different shape will require a modified form of support, differing somewhat from the angle bracket shown. The precise method of support is not a part of my invention.

It will be observed, however, so far as the structure of the divider itself is concerned, that I have provided a device wherein the sealing pressure of the resilient strip may be easily and conveniently adjusted at various critical points along the roller and trough. Even if the trough is sprung somewhat, the divider can be made to work with equal effectiveness at various points along the trough, because it can be adjusted to take up the differences in shape. If wear occurs in the roller or trough, or in the resilient sealing strip itself, the adjustments provided will still enable an effective seal to be maintained.

It will be noted further that the outer surfaces of my device which are exposed to the ink in the trough are perfectly smooth and hence readily cleaned. The adjusting screws are readily operated by a screw driver, which is inserted into the space between the plates 18 and 20, yet nevertheless, the location of the screws is such that they are not likely to become fouled by the ink used in the fountain. If ink should get into the working parts, however, the plate 20 can be removed by loosening of the single screw 44, so that any necessary cleaning can be quickly and easily effected.

Some changes may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims any modified forms of structure, or use of mechanical equivalents, which may be reasonably included within their scope.

I claim as my invention:

1. A printing press fountain divider including spaced side members, mounting means adjacent the top of one of said side members, adapted to connect with means for supporting said divider in the ink trough of a printing press, members removably supporting the other of said side members in spaced relation with said one side member, a sealing strip, and means housed between said side members adapted to press said sealing

strip against the adjacent portions of the fountain when said divider is mounted in a printing press fountain.

2. In a divider for a printing press ink fountain having a trough and a roller, a pair of side members adapted to be supported in parallel spaced relation in the trough perpendicular to the axis of the roller, a resilient member retained between said side members and projecting beyond the edges thereof, and adjusting means adapted to vary the extent of projection of said resilient member.

3. A fountain divider including spaced side members, resilient sealing means supported between said members and extending beyond the edges thereof, and a plurality of adjusting elements whereby the extension of various portions of the sealing means in selectively controllable, said adjusting elements being located entirely in the space between said side members.

4. In a divider for a printing press ink fountain having a trough and a roller, a pair of plates having an outline substantially conforming to the cross sectional outline of the trough and the adjacent portion of the roller, means retaining said plates in parallel spaced relation, a strip of resilient material received between the edges of said plates adjacent said trough and said roller, means adapted to press a portion of said strip against the bottom of the trough, a pressure plate behind the portion of said strip bearing on said roller, and independent adjusting means adjacent each end of said plate.

5. In a divider to fit in a printing press ink fountain having a trough and a roller, spaced side plates, sealing means supported between said plates and extending beyond the edges thereof, means mounted between said plates, controlling the pressure of said sealing means against the trough, a pressure strip bearing on the portion of said sealing means adjacent the roller, and adjusting screws between said side plates, bearing on said pressure strip, said strip having a hooked portion at its lower end engaged by one of said screws.

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