Jan. 15, 1929. 1,699,389

H. F. BETZINGER

INK DIVIDER FOR PRINTING PRESSES

Filed Jan. 18, 1928 2 Sheets-Sheet 1

Fig. 3.

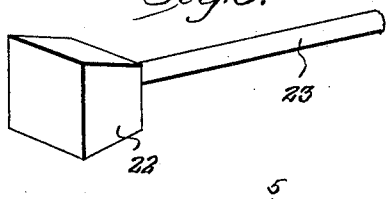
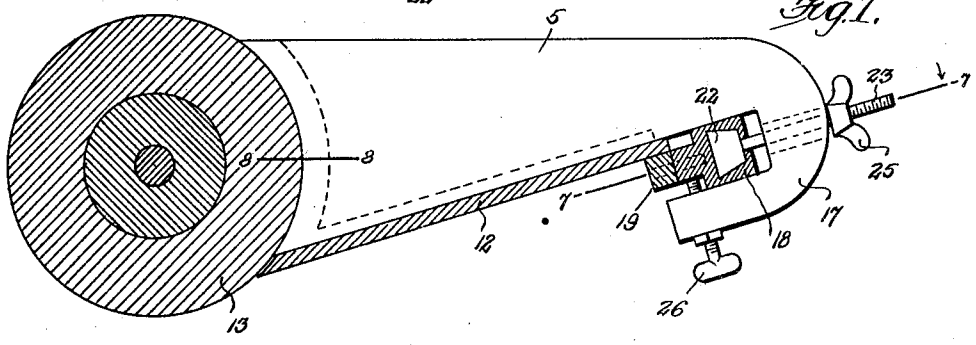


Fig. 1.



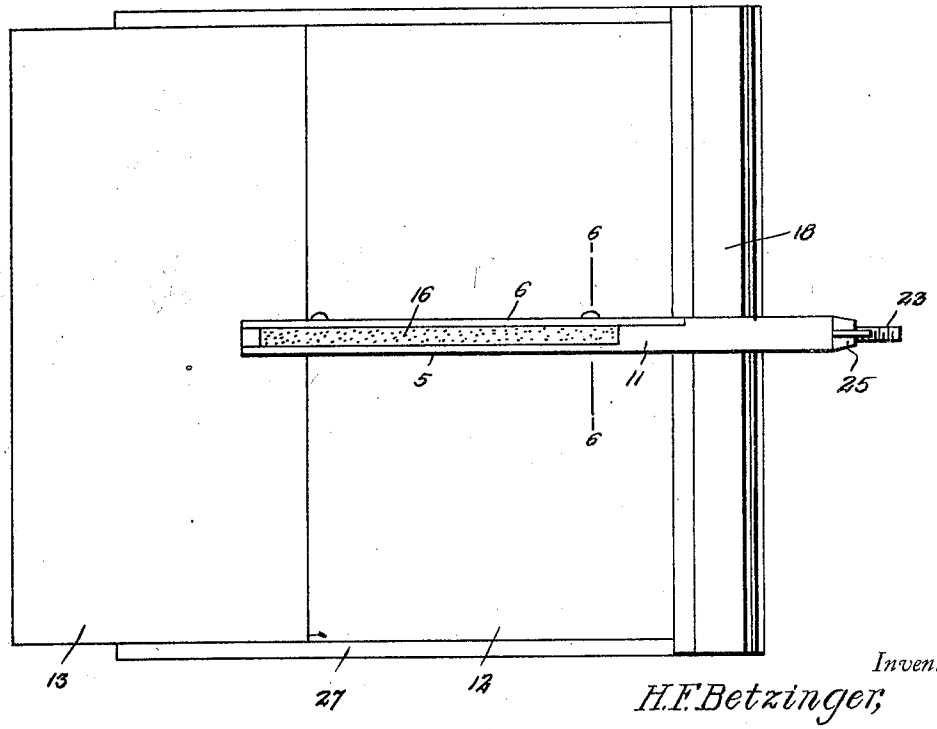


Fig. 2.

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Fig. 4.

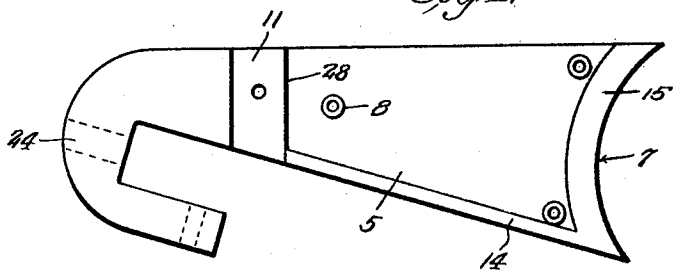


Fig. 5

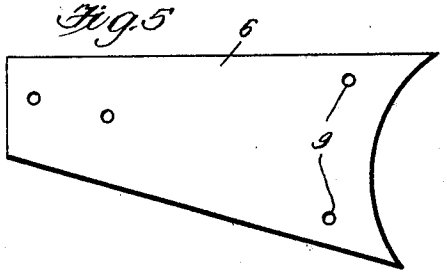
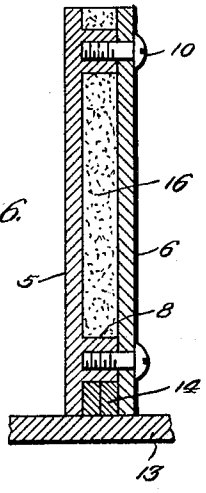


Fig. 6.



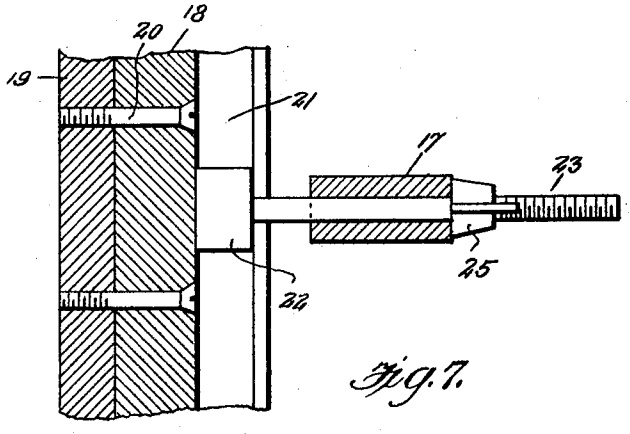
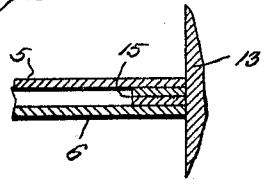


Fig. 7.

Fig. 8.



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UNITED STATES PATENT OFFICE.

HENRY FERDINAND BETZINGER, OF ALBANY, NEW YORK.

INK DIVIDER FOR PRINTING PRESSES.

Application filed January 18, 1928. Serial No. 247,624.

The present invention relates to an ink divider for use in connection with the inking fountains of printing presses and has for its object to form a division wall between sections of the inking fountain whereby to provide separate inking compartments therein permitting various colored ink to be used in the fountain and fed to the inking roller and preventing the different colored ink from running into each other.

A further object of the invention is to provide a divider of this character which may be adjustably carried on the fountain permitting an adjustment in the compartment of the inking fountain and thus regulate the proportion of the inking roller to which a particular colored ink is fed.

A further object is to provide an attaching means enabling any desired number of dividers to be secured in position upon the inking fountain in order to permit a multiplicity of various colored ink to be simultaneously fed by the fountain to separate portions of the inking roller.

A still further object is to provide a divider of this character of simple and practical construction which is efficient and reliable in performance, which may be easily and quickly detached for cleaning and repair purposes, inexpensive to manufacture and maintain in operation and otherwise well adapted to the purposes for which the same is intended.

Other objects and advantages reside in the special construction and combination of the various elements comprising the invention, reference being had to the accompanying drawings forming a part hereof, wherein:

In the drawings:

Figure 1 is a side elevational view of one of the dividers with the inking roller and fountain shown in section and illustrating the manner of attaching the divider in operative position with respect thereto,

Figure 2 is a top plan view,

Figure 3 is a perspective view of the bolt providing an adjustable attachment for the divider,

Figure 4 is a side elevational view of the main divider plate,

Figure 5 is a similar view of the removable plate,

Figure 6 is a vertical sectional view through the divider illustrating the use of the paraffin filler used for hardening the absorbent material arranged on the lower edge of the divider and providing an air-tight and liquid tight seal between the ink compartment formed in the fountain,

Figure 7 is a sectional view through the attaching means for the divider taken substantially along the line 7—7 of Figure 1 and

Figure 8 is a fragmentary sectional view through the inking roller engaging edge of the divider taken substantially along a line 8—8 of Figure 1.

Referring now to the drawings in detail, the invention comprises an ink divider for the ink fountain of a printing press, said divided being formed of a pair of spaced sections comprising main and supplemental sections indicated at 5 and 6 respectively. Each of the plate sections 5 and 6 are constructed of sheet material, comparatively thin, with one end of each thereof concaved as indicated at 7. The width of the plate decreases toward their opposite ends and upon one face of the main section 5 is formed a plurality of bosses 8 having threaded openings formed therein and in the supplemental section 6 is formed a plurality of openings 9 adapted to register with the openings in said bosses whereby to receive screws 10 for securing the plates together in spaced parallel relation.

Toward the reduced end of the main plate section 5, on the place thereof provided with the bosses 8, is formed a shoulder 11 of a height above the surface of the plate equal to that of the bosses and upon which the narrow end of the supplemental plate section 6 may rest forming a closure for the space between the plates at such end thereof.

When the plates have been secured to each other the divider is adapted to rest on one edge thereof upon the upper surface of the inking fountain 12 with the arcuate or concaved edge thereof fitted against the inking roller 13. Between the plates 5 and 6 along the lower edge thereof is inserted a plurality of strips of absorbent material 14, such as blotting paper, the end of the plate engaging the roller 13 likewise being provided with similar strips of absorbent or blotting material as shown at 15.

The tightening of the screws 10 provided for securing the plates together serve to

retain the strips of material 14 and 15 in position about the respective bottom and end edges of the plate, and serving to provide an air tight and liquid tight seal for the strips of absorbent material 14 and 15 about the lower end and edges respectively of the divider. A plastic binder 16, such as paraffin or the like may then be poured between the plates, which will permeate the absorbent material and cause a hardening thereof whereby to prevent saturation by the different colored inks in the fountain at the opposite sides of the divider.

As clearly illustrated in Figures 1 and 2 of the drawing the divider extends outwardly from the inking roller 13 along the upper surface of the fountain 12, the end of the main plate section 5 remote from the roller extending beyond the outer edge of the fountain 12 and formed into a downwardly extending hook 17 arranged to fit over a guide 18 secured to the outer edge of a strip 19 carried under the outer edge of the fountain 12, screws 20 being provided for securing the guides longitudinally along the outer edge of the fountain as shown in Figure 7 of the drawings.

A dovetailed groove 21 is formed longitudinally in the guide 18 within which is slidably arranged a dovetailed head 22 formed on a bolt 23, said bolt extending through an opening 24 formed in the hooked end 17 of the divider, a wing nut 25 being carried on the end of the bolt whereby to secure the divider in adjusted position with respect to the guide.

A tightening bolt 26 is also carried at the end of the hooked portion 17 of the divider, extending upwardly through the hooked end thereof with its upper end engaging the under side of the guide 18 and adapted upon being tightened to draw the divider downwardly upon the upper surface of the fountain 12.

It will be observed from an inspection of Figure 1 of the drawing that the tightening of the nut 25 serves to draw the divider inwardly toward the roller 18 so as to cause the arcuate end 7 of the divider to fit snugly against the surface of the roller in wiping contact therewith.

The divider may be placed in position upon the upper surface of the fountain 12 at any desired point between the sides 27 thereof so as to separate the fountain into a pair of separate inking sections, each adapted to feed ink of a different color to the inking roller 13. It is to be understood of course that any desired number of the dividers may be placed in position upon the fountain so that a multiplicity of different colored inks may be fed to different portions of the roller at the same time, the edge of the divider in engagement with the roller serving to prevent the different colored ink from running together when applied to the roller for feeding to the work.

Also it is apparent that when relatively narrow work is being printed the divider may be properly positioned so as to necessitate the ink being applied to only that portion of the inking roller arranged in feeding relation with respect to the work. Furthermore the width of the divider may be decreased when desired by removing the supplemental section 6 and attaching in place thereof a substitute plate section of a suitable area adapted to have its inner edge abut against the edge 28 of the shoulder 11 whereby to eliminate the space between the pair of plates. For this purpose the substitute plate section has openings formed therein adapted to receive the bosses 8, and in such construction a relatively narrow sheet of absorbent paper is interposed between the main plate section 5 and the substitute plate section, the lower and inking roller engaging edges of said absorbent paper being disposed even with the edges of the plate sections so as to prevent the seepage of ink from one side of the divider to the other thereof.

It is obvious that the invention is susceptible of various changes and modifications, without departing from the spirit or scope of the invention or sacrificing any of its advantages, and I accordingly claim all such forms of the device to which I am entitled.

Having thus described my invention, what I claim as new is:

1. In a divider for inking fountains of printing presses comprising a pair of plate sections comprising a main plate and a supplemental plate, means for attaching the sections in spaced relation, one end of said plate being of an arcuate formation conforming with the curvature of the inking roller of the press and disposed in wiping contact therewith, and with one end of said plate disposed upon the upper surface of the fountain, means formed about the roller and fountain engaging edges of said plate adapted to prevent the passage of ink from one side of said plate to the other thereof, attaching means for said plate for securing the same upon the fountain and permitting the adjustment thereof longitudinally with respect to said roller and pressure adjusting means for the fountain and roller engaging edges of said plate.

2. An ink divider for printing press fountains comprising a pair of spaced sections including a main section and a supplemental section adapted for connection in spaced relation, with one end of said section of an arcuate formation conforming to the curvature of an inking roller with which the same is disposed in contacting relation, one edge of said plate being disposed upon the upper surface of the fountain, a strip of

absorbent material interposed between said sections adjacent said roller and said fountain, a plastic binder arranged in the space between said sections and adapted to permeate said absorbent material whereby to cause a hardening of the same upon the setting of the binder and attaching means at the end of said section remote from the roller adapted to adjustably secure said section longitudinally with respect to the roller and to pressurally secure the respective edges of said section in engagement with the roller and said fountain.

In testimony whereof I affix my signature.

HENRY FERDINAND BETZINGER.