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PRINTING PRESS PAPER PROTECTOR

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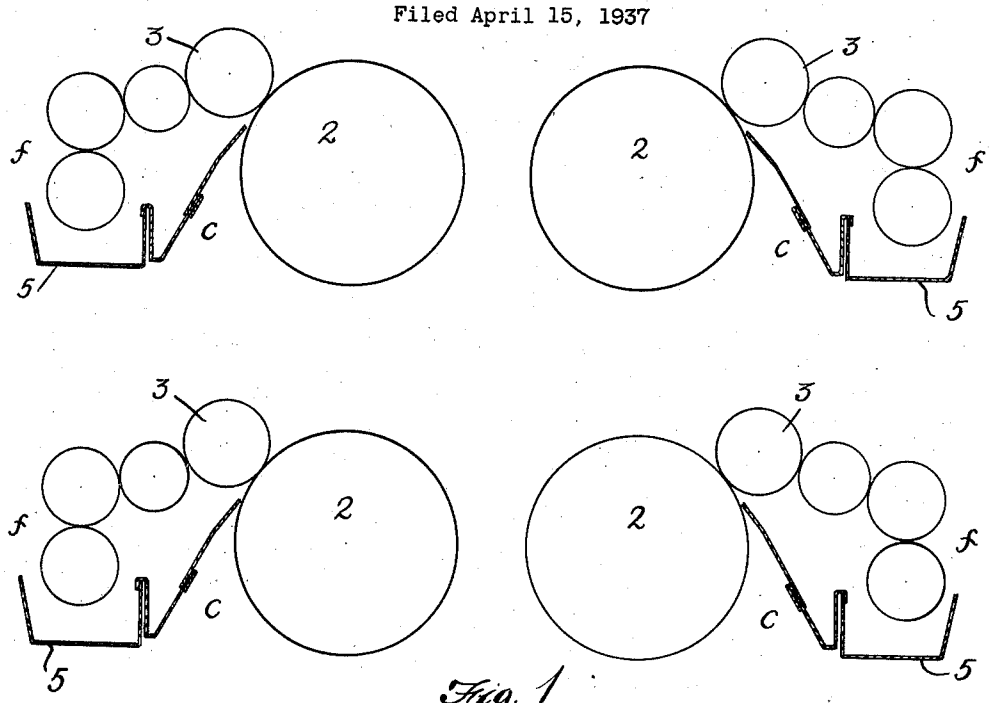


Fig. 1

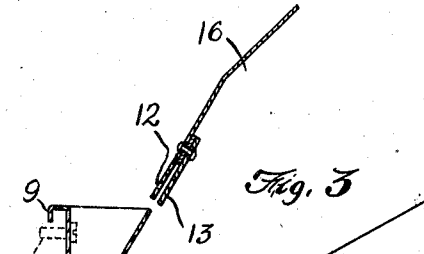


Fig. 3

Fig. 2

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PRINTING PRESS PAPER PROTECTOR

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5 Claims. (Cl. 101—350)

In the operation of printing presses, particularly high speed presses of newspaper character where pick-up and feed of ink must be very rapid, there is a tendency for droplets of ink and oil to be thrown onto the paper in its travel through the press. In accordance with the present invention this difficulty may be cured at its source, and in a manner readily adaptable to the range of press constructions extent, and without undue expense.

To the accomplishment of the foregoing and related ends, the invention, then, comprises the features hereinafter fully described, and particularly pointed out in the claims, the following description and the annexed drawing setting forth in detail certain illustrative embodiments of the invention, these being indicative however, of but a few of the various ways in which the principle of the invention may be employed.

In said annexed drawing:

Fig. 1 is a sectional semi-schematic showing of an embodiment of the invention; Fig. 2 is an enlarged detail in perspective; and Fig. 3 is a sectional view of the same, with parts slightly separated in order to better show the assembly.

In a press involving impression cylinders 2 supporting the paper, and plate cylinders or cylinders 3 carrying inked surfaces in contact with the paper in travel, there is associated a train of ink-feeding rollers *f*, and an ink fount 5, the number and the precise arrangement of the sets of cylinders and of rollers being as desired in any particular instance, in view of the work to be turned out, whether in black or colors, etc. In the structure at the points of particular hazard, there are incorporated combined collector and guard means *c* involving a base with a front wall 6, usually vertical, and a back wall 7, usually inclined, and an extension *e* thereabove. Usually it is preferable to include also closed ends 8, or otherwise a drain connection for draining the collected fluid to a place of disposal. On the front wall 6 which is adjacent the ink fount 5 there is an engaging flange 9, usually in the form of a down-turned U-extension, so as to seat firmly with the ink fount. Extending at the ends of the front wall are ears 10 having perforations so that the structure may be secured to the adjacent frame, as of the frame supports for the ink fount. Preferably, the ears 10 are perforated in the form of slots extending up from their lower margins, and thereby with use of cap screws tapped into the adjacent frame the entire base may be moved into and out of position on slightly loosening the cap screws a few turns without taking them out. With the base set in assembled position, the cap screws may be tightened up against the ear-projections, and the assembly is held firmly. The base should be made of sufficiently heavy plate or rolled sheet metal stock to maintain its form and stand up under the possible vibration to which it may be subjected in drastic usage conditions. Extending on up from the back wall 7 of the base is the extension plate which seats onto the upper edge of the back wall by a suitable means, for instance spaced flanges 12, 13, and intervening slot whereby to fit on such edge. With the flange 12 as a tongue flange seating within the upper edge of the back wall, and the other flange 13 spaced rearwardly of the thickness of the back wall to engage against the outside of said upper edge, the juncture is tight against leakage, and a reinforcement effect is at the same time obtained, further assisting against vibration. The extension plate *e* is secured to the base by suitable means of positive character, as for instance bolts 15. The precise shape of the extension plate *e* may vary somewhat in accordance with the spatial condition encountered in a given press construction, but usually such plate extends upwardly in the same plane as the back wall 7 of the base, for a portion of its height, and thence back further angularly as at 16.

With this construction, the guards may be taken out for cleaning or other purpose as desired, by first removing the bolts 15 whereupon the extension plates *e* may be tilted and removed from between the cylinder rolls and more or less obstructing side frame elements. Then, the base *c* may be lifted slightly to disengage it from the ink fount, and may then be drawn out axially between the frame elements. In replacing, the reverse order of procedure is followed, the base *c* being set in first and hooked onto the edge of the ink fount by its flange line, and then the extension plate *e* is passed into position and is seated down with its flanges 12, 13, on the upper edge of the back wall 7, and the bolts 15 may be placed and tightened. The cap screws 17 which secure the assemblage to the frame may be tightened onto the ears 10 after the placement of the base or after location of the whole assembly, as most desirable in any given instance. In the operation of the press, droplets of liquid thrown from the rapidly rotating rollers *f* strike the plate *e* and drain down harmlessly into the base, while the paper therebeyond is safe from damage.

Other modes of applying the principle of the invention may be employed, change being made as regards the details described, provided the features stated in any of the following claims, or the equivalent of such, be employed.

I therefore particularly point out and distinctly claim as my invention:

1. In a printing press, a cylinder carrying inked surfaces in contact with the paper in travel, an impression cylinder supporting the paper, an ink fount and feed roller means for inking said first-named cylinder, collector and guard means parallel with the fount and between the fount and impression cylinder and including a base with ends and vertical front wall and inclined back wall, a down-turned flange on said front wall to engage the adjacent edge of the ink fount, ears extending at the ends of said front wall and having slots below to receive bolt means for securement to the ink fount frame supports, and an extension plate on said base having a tongue flange to seat within the upper edge of said back wall and another flange spaced rearwardly of said tongue flange to engage against the outside of said upper flange, and bolt means for fastening the plate thereto, said plate continuing in the direction of the back wall a portion of its extent and thence back more angularly.

2. In a printing press, a cylinder carrying inked surfaces in contact with the paper in travel, an impression cylinder supporting the paper, an ink fount and feed roller means for inking said first-named cylinder, collector and guard means parallel with the fount and between the fount and impression cylinder and including a base with ends and vertical front wall and inclined back wall, a down-turned flange on said front wall to engage the adjacent edge of the ink fount, ears extending at the ends of said front wall for securement to the ink fount frame supports, and an extension plate on said base having a tongue flange to seat within the upper edge of said back wall and another flange spaced rearwardly of said tongue flange to engage against the outside of said upper flange, and bolt means for fastening the plate thereto, said plate continuing in the direction of the back wall a portion of its extent and thence back more angularly.

3. In a printing press, a cylinder carrying inked surfaces in contact with the paper in travel, an impression cylinder supporting the paper, an ink fount and feed roller means for inking said first-named cylinder, collector and guard means parallel with the fount and between the fount and impression cylinder and including a base with ends and vertical front wall to engage the adjacent edge of the ink fount, ears extending at the ends of said front wall for securement to the ink fount frame supports, and an extension plate on said base having spaced flanges and intervening slot means to engage said back wall, and bolt means for fastening said plate thereto, said plate continuing in the direction of the back wall through a portion of its extent and thence on back more angularly.

4. In a printing press, a cylinder carrying inked surfaces in contact with the paper in travel, an impression cylinder supporting the paper, an ink fount and feed roller means for inking said first-named cylinder, collector and guard means parallel with the fount and between the fount and impression cylinder, ears extending at the ends of said front wall for securement to the ink fount frame supports, and an extension plate on said base engaging the upper edge of said back wall by spaced straddle flange means, and bolt means for fastening said plate thereto, said plate continuing in the direction of the back wall through a portion of its extent and thence on back more angularly.

5. In a printing press, a cylinder carrying inked surfaces in contact with the paper in travel, an impression cylinder supporting the paper, an ink fount and feed roller means for inking said first-named cylinder, collector and guard means parallel with the fount and between the fount and impression cylinder, ears extending at the ends of said front wall for securement to the ink fount frame supports, and an extension plate on said base engaging the upper edge of said back wall by spaced straddle flange means, and bolt means for fastening said plate thereto.

LORENZO T. BARKER.