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CYLINDER PRINTING MACHINE

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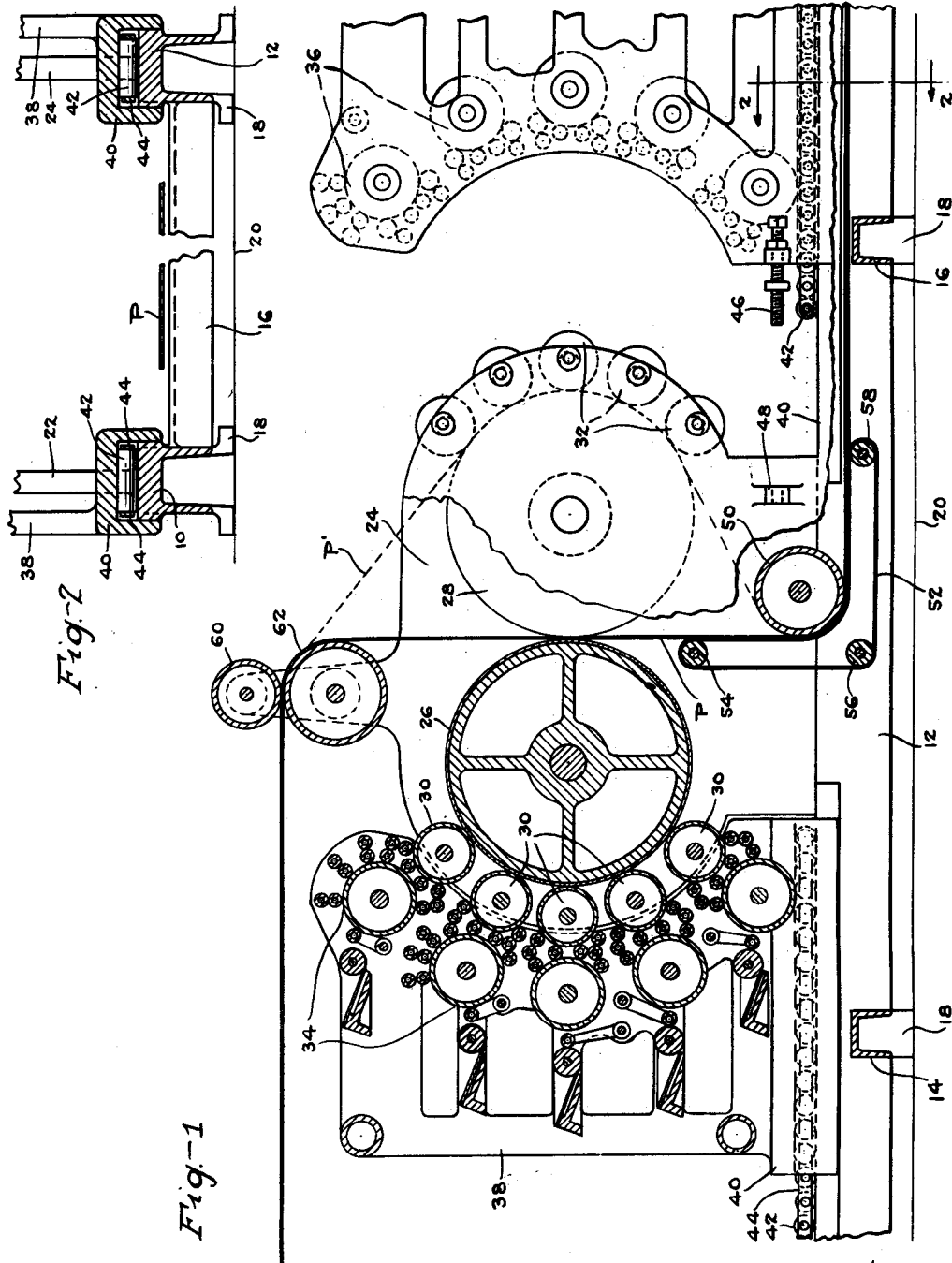


Fig-2

Fig-1

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CYLINDER PRINTING MACHINE

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Our invention relates to cylinder printing machines, and an object is to provide a machine of this character having inking mechanism which is adapted to cooperate with the type cylinder or cylinders and which is mounted on a retractable support so that the inking mechanism may be moved away from the cylinder or cylinders to afford easy access to the same for cleaning and replacement purposes.

The full objects and advantages of our invention will appear in connection with the detailed description thereof, and the novel features of our inventive idea will be particularly pointed out in the claims.

In the accompanying drawing which illustrates the application of our invention in one form in which it may be embodied,—

Fig. 1 is a sectional, elevational view of the machine. Fig. 2 is a view in vertical section on the line 2—2 of Fig. 1.

Referring to the construction shown in the drawing, the numerals 10 and 12 designate two longitudinal track members forming part of the frame of the machine and which are held together in properly spaced relation by cross members 14 and 16. These track members may be supported in any suitable manner and as shown are provided with feet 18 for resting upon a horizontal surface 20. The track members carry a support consisting of standards 22 and 24 between which offset printing or blanket cylinders 26 and 28 are mounted. A number of type or plate cylinders 30 are in engagement with the printing cylinder 26 while a number of type or plate cylinders 32 are in engagement with the printing cylinder 28. A number of inking mechanisms 34 are adapted to cooperate respectively with the cylinders 30 while a number of similar inking mechanisms 36 are adapted to cooperate respectively with the cylinders 32. The inking mechanisms are supported between pairs of standards or supports 38, the lower ends of which have channel members 40 which rest upon a series of rollers 42 mounted in side straps 44 as shown in Fig. 2 which keep the rollers in properly spaced relationship. These rollers are adapted to travel on the tracks 10 and 12, the

channel members 40 being prevented from slipping sidewise by the flanges thereon which are of sufficient depth to engage the sides of the tracks. The movable standards 38 carry adjustable bolts 46 which fit into perforations of lugs 48 carried by the fixed standards 24 so that when nuts are turned down upon the ends of the bolts, the inking mechanisms will be secured in proper position for inking the type cylinders 30 and 32. This is the position shown at the left in Fig. 1. Upon removing these nuts, the inking mechanisms may be rolled back into the position shown at the right in Fig. 1, thus exposing the type cylinders so that they may be readily cleaned and also replaced by other type cylinders if desired. The paper P which is to be printed may be drawn from a customary roll of paper so as to pass underneath a roller 50 mounted in the lower portion of the standards 22 and 24. An endless belt 52 passes around three small rollers 54, 56, and 58, these rollers being so arranged that the belt cooperates with the roller 50 to feed the paper from a horizontal position into a vertical position for passing between the two blanket cylinders 26 and 28. This path of the paper is shown in a full line and it will be understood that the paper will be printed on both sides when both of the cylinders 26 and 28 are used as blanket cylinders. Instead of passing the paper directly upward, it may be deflected so as to pass between the cylinder 28 and the type cylinders 32 as indicated by the dotted line P' in which case the paper will be printed on one side only and directly from the type cylinders 32. In the embodiment shown, there are five of the cylinders 32 each of which has its own inking mechanism so that printing in five colors may be performed. A like arrangement is shown in connection with the type cylinders 30. It will, of course, be understood that any desired arrangement of type or plates may be carried by the cylinders 30 and 32, and that portions of these cylinders may be left blank so as to have no printing effect. The paper after it is printed passes between rollers 60 and 62 which, if desired,

may be short rollers which engage only the unprinted margins of the paper.

We claim:

1. In a printing machine, the combination
5 of a blanket cylinder, type cylinder mechanism for cooperating with said blanket cylinder, inking mechanism for cooperating with said type cylinder mechanism, a retractable support for said inking mechanism,
10 and roller mechanism below said blanket cylinder for deflecting upwardly from a horizontal position paper to be printed by said blanket cylinder, said roller mechanism being so arranged that when the inking mechanism is retracted the paper may be readily
15 passed for direct printing between said blanket cylinder and said type cylinder mechanism.

2. In a printing machine, the combination
20 of two juxtaposed blanket cylinders, type cylinder mechanisms for cooperating with said blanket cylinders respectively, inking mechanisms for cooperating with said type cylinder mechanisms respectively, a retractable support for at least one of said inking
25 mechanisms, and roller mechanism below the space between said blanket cylinders for deflecting from a horizontal position paper to be printed between said blanket cylinders, said roller mechanism being so arranged that
30 the paper may be readily passed between one of said blanket cylinders and the associated type cylinder mechanism when the associated inking mechanism is retracted.

35 In testimony whereof we hereunto affix our signatures.

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WALTER F. BENSON.

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