Sept. 22, 1936. J. J. KESSLER 2,055,295

APPARATUS FOR ATTACHING PRINTING PLATES TO A CYLINDER

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Fig. 1

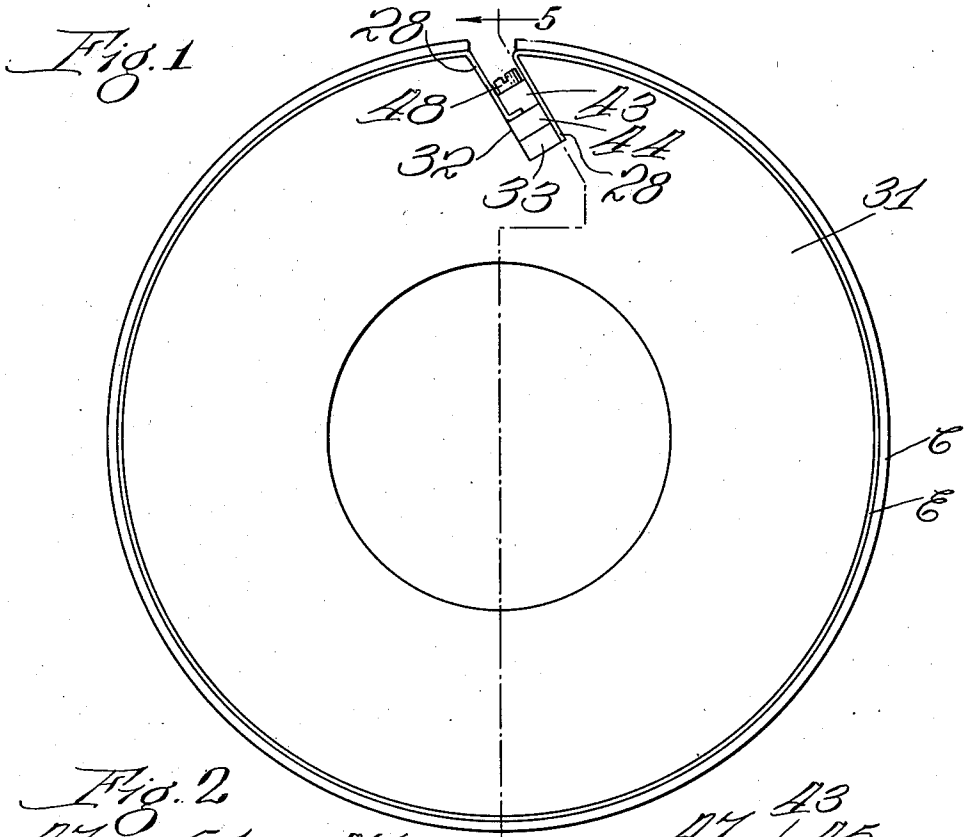


Fig. 2

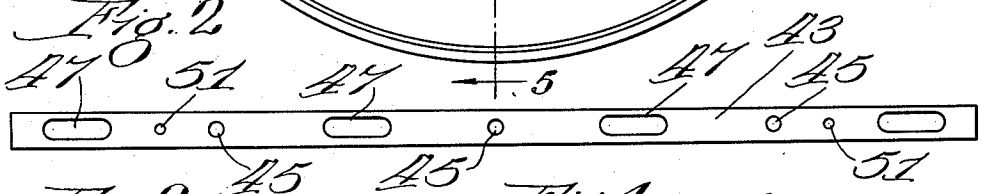


Fig. 3.

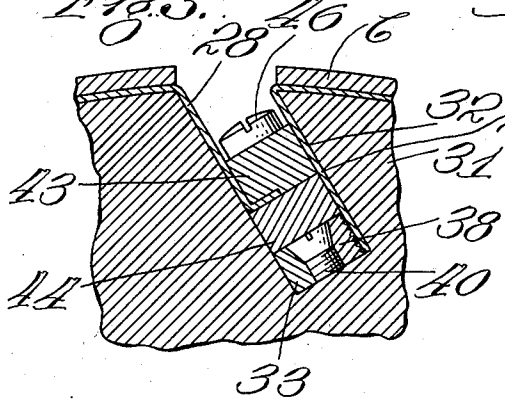
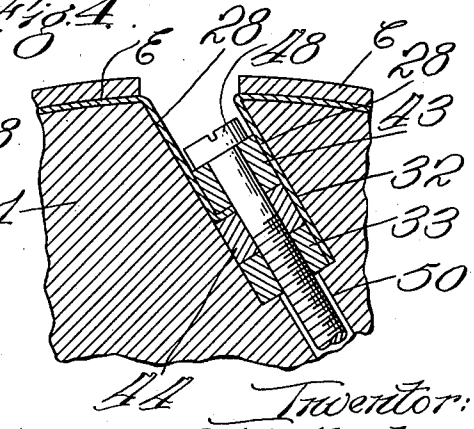


Fig. 4.



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Filed Sept. 1, 1933 2 Sheets-Sheet 2

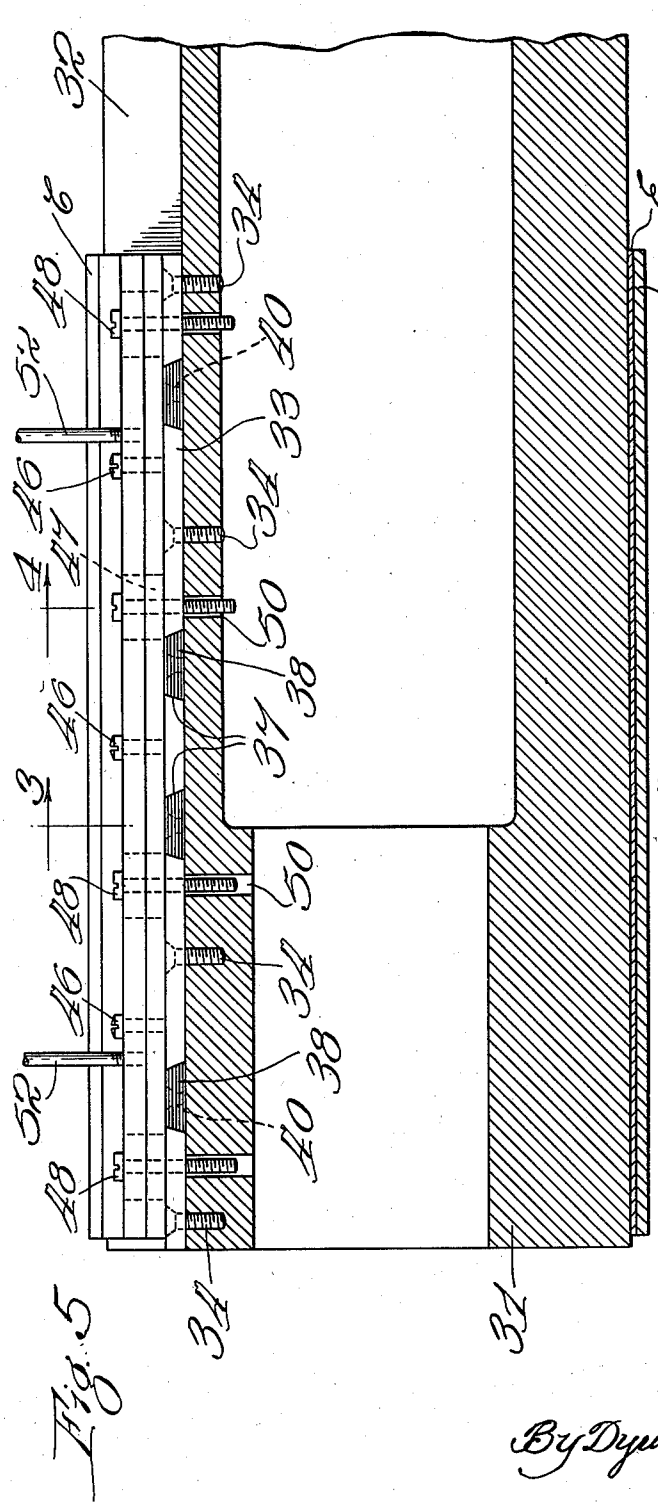


Fig. 5

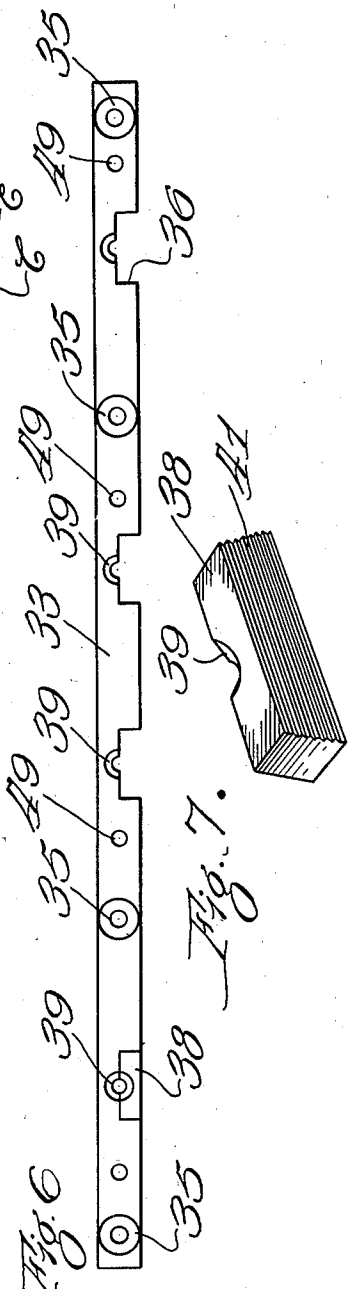


Fig. 6

Fig. 7.

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UNITED STATES PATENT OFFICE

2,055,295

APPARATUS FOR ATTACHING PRINTING PLATES TO A CYLINDER

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Application September 1, 1933, Serial No. 687,853

2 Claims. (Cl. 101—415.1)

This invention relates to improved means for attaching the rubber printing plates to a roll of a cylinder press with all of the forms in proper spaced relation.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which—

Fig. 1 is an end elevational view of a printing cylinder with a rubber printing plate attached in accordance with the present invention; Fig. 2 is a plan view of a clamping bar used to grip an end of the printing plate; Fig. 3 is a vertical sectional view taken as indicated at line 3 of Fig. 5; Fig. 4 is a vertical sectional view taken as indicated at line 4 of Fig. 5; Fig. 5 is a broken sectional view of a printing roll; Fig. 6 is a plan view of an anchor bar used to attach one end of the printing plate to the printing cylinder; and Fig. 7 is a dove-tail shaped insert for the anchor bar.

As shown in Fig. 1 the printing cylinder 31 is provided with a groove, or slot, 32 which is angularly disposed with respect to the radius of the cylinder. One end of the printing plate is first attached within the groove, or slot, by means of an anchor bar 33 which is rigidly fastened to the bottom of the groove, or slot, 32 by means of machine screws 34 which extend through countersunk openings 35 in the bar. The anchor bar is provided with cut out portions 36 which are beveled downwardly at 37, as shown in Fig. 5, and are adapted to receive dovetail shaped inserts 38. As shown in Fig. 6, the insert and anchor bar together form a tapped countersunk opening 39, forming a sort of split-nut for a machine screw 40. Preferably, the outer side of the insert 38 is provided with serrations as indicated at 41 in Fig. 7. One marginal end 28 of the brass plate E is inserted between the anchor bar assembly and the wall of the slot 32 as shown in Fig. 3. The screws 40 are then tightened up and as there is a differential between the size of the countersink 39 in the bar and insert, and that of the bevel of the head of the screw 40, the insert is spread slightly, not more than .010 inch, and one end of the plate is clamped in position.

The opposite end of the printing plate is then gripped by a pair of clamping bars 43 and 44 which are drilled and tapped at 45 so that they may be drawn together by means of screws 46. As shown in Fig. 2 these bars are equipped with longitudinal slots 47 through which machine screws 48 may project and extend down into tapped holes 49 provided in the anchor bar. The printing cylinder 31 is provided with openings 50 to permit the screws 48 to extend downwardly therein. It will be understood that by this apparatus one end of the printing plate is first gripped by the inserts 38 and after the plate has been wrapped around the cylinder the other end may be drawn down into position by tightening the screws 48. By this means the plate may be stretched and held snugly on the printing cylinder.

As shown in Figs. 3 and 5, the upper clamping bar is provided with tapped openings 51 which may be engaged by hand-tools 52 to facilitate the removal of the printing plate from the machine.

No invention is claimed in the present application for the material used in forming the rubber printing plate nor in the fabric used for cementing the brass backing plate to the rubber printing plate. These are articles of manufacture obtainable in the open market.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

What I regard as new, and desire to secure by Letters Patent, is:

1. In a machine of the character set forth: a printing cylinder having a transverse slot; and means for wedging a plate within said slot comprising an anchor bar adapted to be bolted to the cylinder at the bottom of said slot, said anchor bar having dove-tail cut out portions, and dove-tail inserts within said cut-out portions forming a split nut with said anchor bar by providing a tapped countersunk opening for a machine screw adapted to spread the same.

2. In a machine of the character set forth: a printing cylinder having a transverse slot; and means for stretching and securing a flexible printing plate to said cylinder comprising an anchor bar bolted to the cylinder within said slot, wedge-blocks within said bar to clamp one end of the plate within said slot, a tail-piece adapted to clamp onto the opposite end of said plate after the plate is wrapped around the cylinder, and screw means for drawing said tail-piece down against the anchor bar.

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