

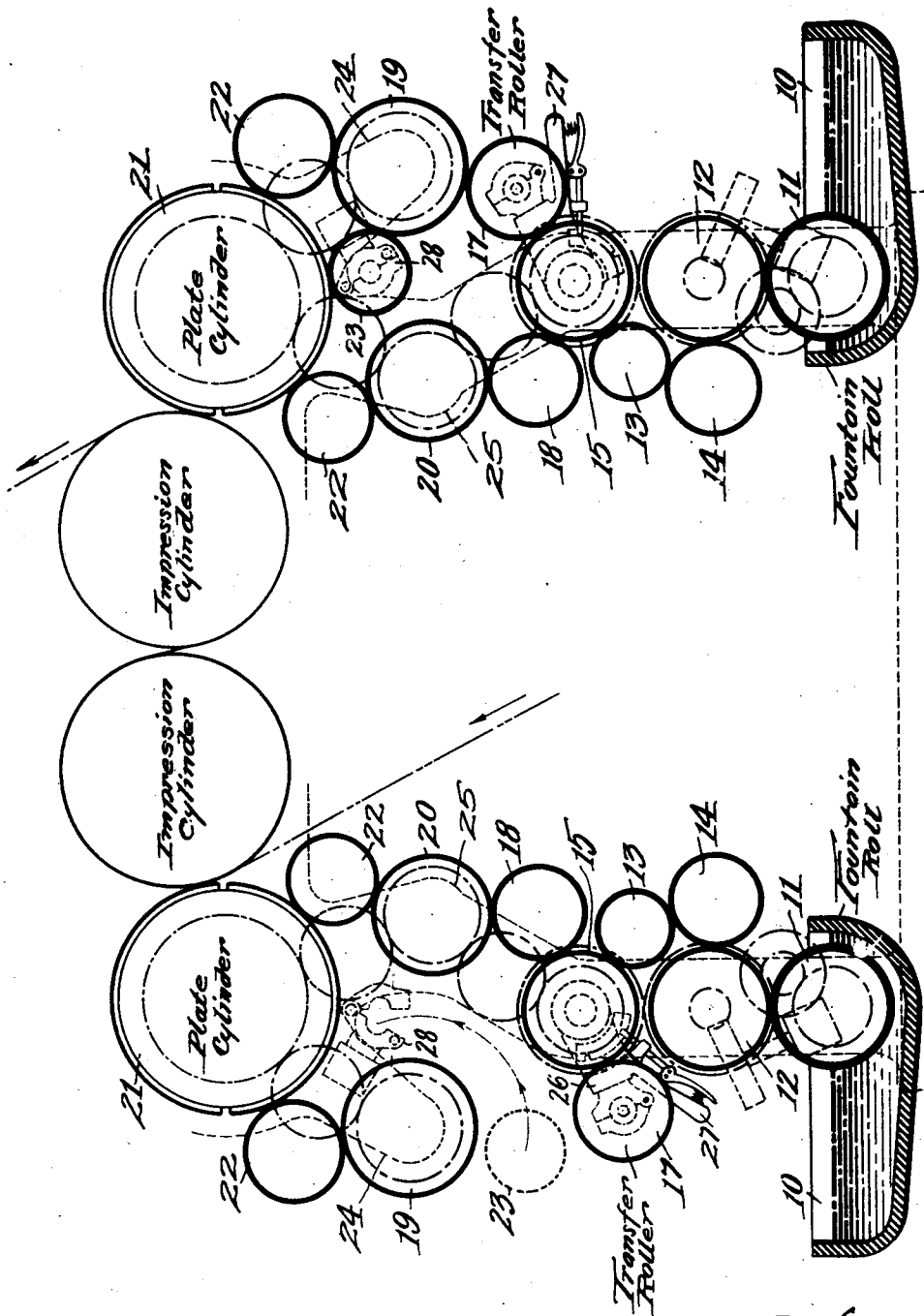
Mar. 5, 1929.

H. C. JORDHOY

1,703,887

THREE-ROLL INK MOTION

Original Filed June 15, 1926



Witness
C. J. Wilson

Inventor
Hans C. Jordhoy
by attorneys
Soudyate Fay & Kenney

UNITED STATES PATENT OFFICE.

HANS C. JORDHOY, OF NORTH PLAINFIELD, NEW JERSEY, ASSIGNOR TO WOOD NEWS-PAPER MACHINERY CORPORATION, OF NEW YORK, N. Y., A CORPORATION OF VIRGINIA.

THREE-ROLL INK MOTION.

Application filed June 15, 1926, Serial No. 116,072. Renewed July 25, 1928.

This invention relates to an inking device for rotary printing presses. The principal object of the invention is to provide an arrangement of ink distributing rolls of such nature that the plate cylinders can be inked by three rollers without the necessity of employing a removable ink carriage.

Reference is to be had to the accompanying drawing which is a side view of a press partly diagrammatic in form showing both inking systems, one of them on the right in the normal running position and the one on the left in the position assumed when the central roll is moved away from the plate cylinder for any purpose.

Ordinarily in newspaper presses, two form rollers are employed for applying the ink to each plate cylinder. When more than two form rollers are used, as in the case of magazine printing, it is necessary to have the ink motion roll away from the form in order to make it possible to remove the inside form rollers. The principal object of this invention is to avoid this and eliminate the removable ink carriage heretofore thought necessary.

The invention is shown as employed with an ordinary ink fountain 10, fountain roll 11, pick-up roll 12, and distributing roll 13 receiving ink indirectly from the pick-up roll by another roll 14. The distributing roll applies the ink to a primary ink cylinder 15 which, by means of two transfer rollers 17 and 18, delivers ink to the secondary ink cylinders 19 and 20. These ink cylinders transfer ink to the plate cylinder 21 by ordinary form rollers 22 and an intermediate form roller 23. In this case the form roller 23 receives ink from one of the ink cylinders 19 the same as one of the form rollers 22. It is of smaller diameter so that irregularities of inking by either form roller will not be repeated on the plate cylinder in the same relation to those of the other. The other form roller 22 is the only path through which ink is delivered from the ink cylinder 20 to the plate cylinder 21.

It will be understood that these various rollers are geared together so as to rotate at desired surface speeds, which in ordinary cases are the same for all the rollers and equal to the surface speed of the cylinder 21. The gearing is not described in detail as that is provided for in a well known way.

It will be seen that the frame 25 of the inking device which supports the fountain also supports directly the bearings for all these rollers except the roll 17. The ink cylinder 19 is supported in overhanging lugs 24 integral with the frame and projecting outwardly and downwardly. The bearings of the transfer roll 17 are mounted on frames 26 pivoted on the axis of the ink cylinder 15. A handle 27 is provided for swinging this bearing frame 26 and a convenient means is provided for holding it in the position shown on the right in the drawings where it is in contact with the ink cylinder 19.

The roller 23 also is mounted in bearings 28 on the frame 25 from which it can be released and carried down by hand and swung around to the position on the left to get it out in front where it is readily accessible. It is for this reason that the cylinders 19 are mounted on the overhanging lugs and the frame 26 is made to swing on the shaft of the cylinder 15 down into the position shown on the left in the drawing. This clears the way for the form roller 23. A comparison of the positions shown on the right and left of the figure shows the whole motion and makes it clear that this exposure of the form roller 23 is possible by this arrangement.

Although I have illustrated and described only one form of the invention and shown it as applied to a particular inking system, I am aware of the fact that it can be applied to other systems and that modifications can be made by any person skilled in the art without departing from the scope of the invention as expressed in the claims.

Therefore I do not wish to be limited to all the details of construction herein shown and described, but what I do claim is:—

1. In an ink motion, the combination with three form rollers, arranged to contact with a single plate cylinder, an ink cylinder for delivering ink to certain of said form rollers, a transfer roller supplying ink to the ink cylinder, and means whereby the transfer roller can be moved away from its operative position to permit the inner one of the two form rollers to be taken out through the space normally occupied by said transfer roller.

2. In an ink motion, the combination with two form rollers arranged to transfer ink to

the same plate cylinder, of an ink cylinder for supplying ink to both form rollers, a roller for transferring ink to the ink cylinder, and means for mounting the bearings of the last named roller movably so that it can be moved bodily away from the ink cylinder to leave a space through which one of the form rollers can be removed.

3. In an ink motion, the combination with a frame having overhanging lugs on its sides for supporting bearings, an ink cylinder supported in said bearings, and a removable form roller supported in such manner relative to the ink cylinder at the inner side of said lugs for transferring ink from the ink cylinder to a plate cylinder that the form roller can be taken out around and under the ink cylinder.

4. In an ink motion, the combination with a frame having overhanging lugs on its sides for supporting bearings, an ink cylinder supported in said bearings, a removable form roller supported at the inner side of said lugs for transferring ink from the ink cylinder to a plate cylinder, and a roller for transferring ink to the ink cylinder, removably located near the bottom of the ink cylinder, whereby the form roller can be taken out around and under the ink cylinder.

5. In an inking system, the combination with a plate cylinder, of three form rollers for delivering ink thereto, two ink cylinders together delivering ink to the three form rollers, transfer rollers for delivering the ink to the ink cylinders, the central form roller being located between the ink cylinders and the outer transfer roller being mounted on a pivoted frame to swing down so that it will leave a space for the removal of the central form roller.

6. In an inking system, the combination with a plate cylinder, of three form rollers for delivering ink thereto, two ink cylinders together delivering ink to the three form rollers, transfer rollers for delivering the ink to the ink cylinders, the central form roller being located between the ink cylinders and being smaller than the others, one of said

transfer rollers being provided with a supporting frame pivoted at a distance from it and capable of swinging with said transfer roller out of the path of the central form roller to permit removal thereof.

7. In an inking device for a web press, the combination with a fountain, a primary ink cylinder, and an ink fountain roll, pick-up roll and distributing rolls for delivering the ink from the fountain roll to the primary ink cylinder, of a pair of transfer rollers in contact with said ink cylinder, two secondary ink cylinders in contact with the two transfer rollers for receiving ink therefrom individually, two form rollers in contact with one secondary ink cylinder and with the plate cylinder, a form roller for delivering ink from the other secondary ink cylinder to the plate cylinder, the three form rollers being arranged around the circumference of the plate cylinder and one of them being located between the two secondary ink cylinders and removable downwardly between them.

8. In an ink motion, the combination with three form rollers, arranged to contact with a single plate cylinder, an ink cylinder for delivering ink to two of said form rollers, a transfer roller supplying ink to the ink cylinder, and means whereby the transfer roller can be moved away from its operative position to permit the inner one of the two form rollers to be removed.

9. In an inking system, the combination with a plate cylinder, of three form rollers for delivering ink thereto, two ink cylinders together delivering ink to the three form rollers, transfer rollers for delivering ink to the ink cylinders, the central form roller being located between the ink cylinders, one of said transfer rollers being provided with a supporting frame pivoted at a distance from it and capable of swinging with said transfer roller out of the path of the central form roller to permit removal thereof.

In testimony whereof I have hereunto affixed my signature.

HANS C. JORDHOY.