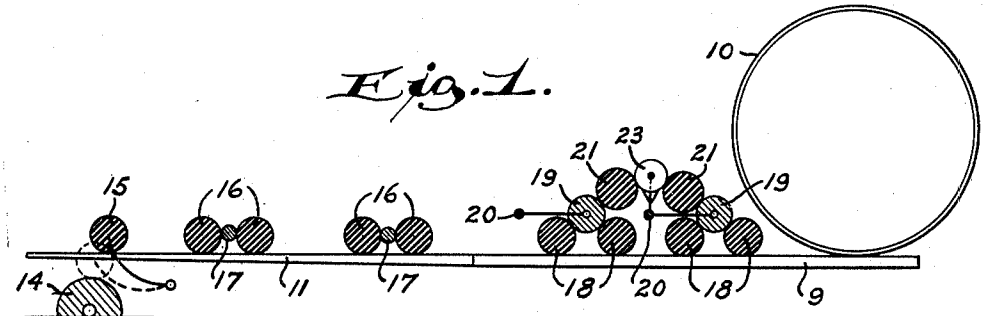
June 24, 1952 R. R. RICHTER 2,601,325

MEANS FOR SEGREGATING ADJOINING PRINTED IMPRESSIONS

Filed May 3, 1947 2 SHEETS—SHEET 1

Fig. 1.



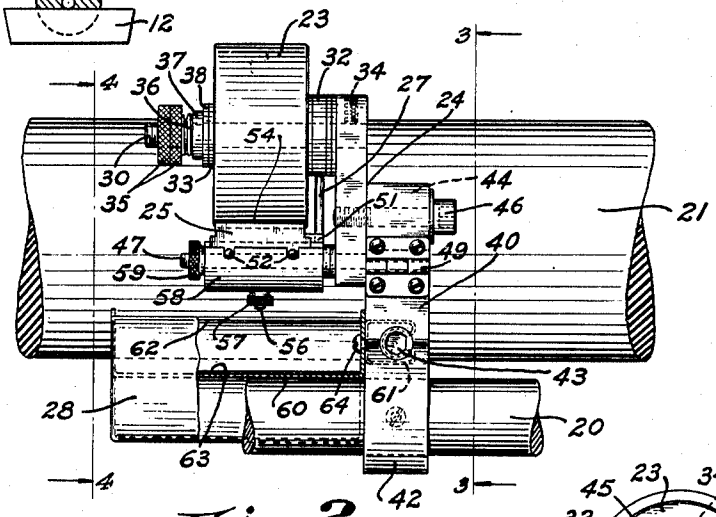


Fig. 2.

Fig. 3.

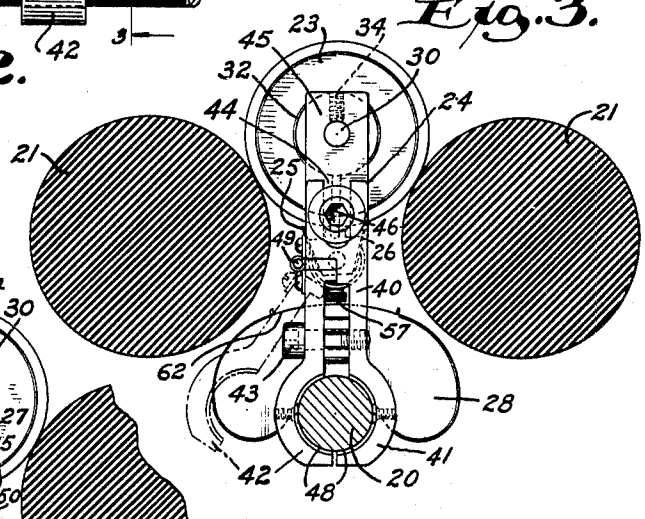
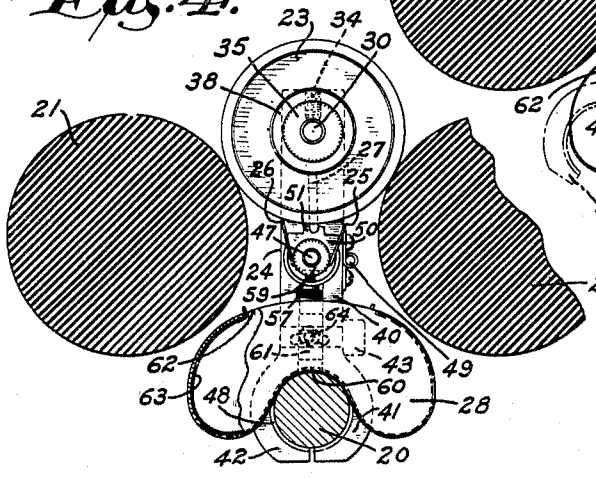


Fig. 4.



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MEANS FOR SEGREGATING ADJOINING PRINTED IMPRESSIONS

Filed May 3, 1947 2 SHEETS—SHEET 2

Fig. 5.

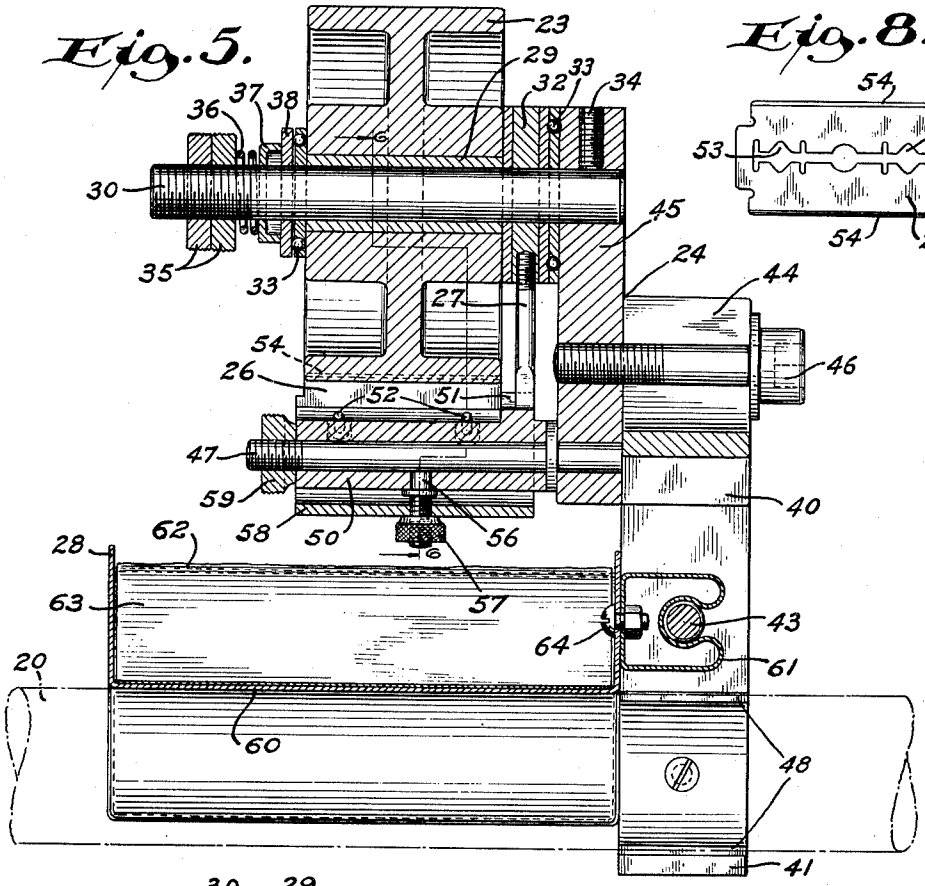


Fig. 8.

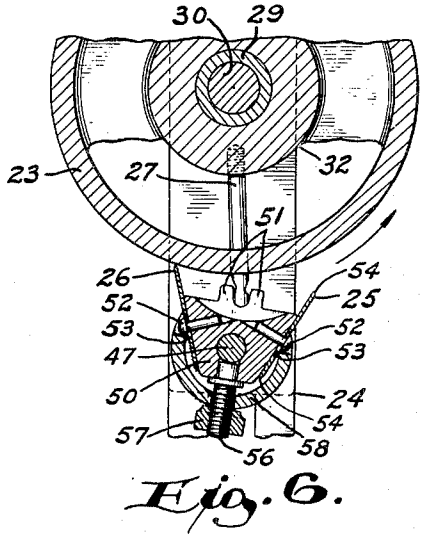


Fig. 6.

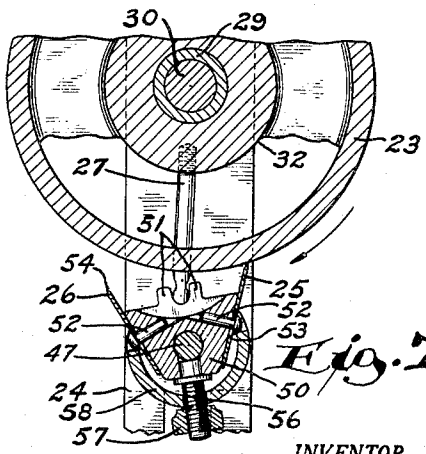


Fig. 7.

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MEANS FOR SEGREGATING ADJOINING PRINTED IMPRESSIONS

Raymond R. Richter, Milwaukee, Wis.

Application May 3, 1947, Serial No. 745,837

10 Claims. (Cl. 101—204)

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This invention relates generally to improvements in the art of printing, and relates more especially to improved mechanism for automatically and cleanly segregating adjoining printed impressions being applied simultaneously to common sheets with inks having different characteristics.

In my prior Patent No. 2,492,181, granted December 27, 1949, I have disclosed an improved method of and apparatus for automatically producing clean separation of adjacent impressions while the latter are being applied simultaneously to sheets of paper or the like, with inks of different colors. The improved method revealed in the prior application is preferably carried on with the aid of local ink removal rolls adapted to coact with selected local peripheral portions of the ink transfer rollers of the printing press and to be rotated by these rollers, in a manner whereby the revolving local rolls remove the ink from the transfer rollers and from the type of the form bed, at the division lines or zones between adjoining impressions, so that clean-cut segregation of the final impressions deposited upon the paper sheets results while messy intermingling of the different inks at these division zones is positively eliminated. With my improved method as set forth in said application, the desired result is accomplished without grooving or otherwise marring the ink transfer rollers, and the excess ink removing rolls may be adjusted at will to cooperate with any desired peripheral portions of the elongated cylindrical transfer rollers in order to cooperate with impressions of various widths.

While this prior method and apparatus have proven highly successful and satisfactory for the intended purpose, it was rather difficult to apply and remove the ink removing roll units, and to quickly and conveniently adjust these units to different locations. The prior ink removing roll assemblages also utilized special and costly scraper blades coacting with the local rolls, which were quite difficult to remove for cleaning and replacement; and the prior devices moreover did not make ample provision for collecting and effecting rapid removal of the accumulating excess ink which was scraped off by the knife blades.

It is therefore a primary object of the present invention to simplify and to improve the construction of excess ink removing units of the above described general class, and to facilitate adjustment and use of such devices.

A more specific object of my present invention is to provide an improved roll and scraper ink removing assemblage for printing presses having elongated cylindrical ink transfer and distributing rollers, which will enable rapid and convenient adjustment of such assemblages along and fixed positioning thereof at the selected locations relative to the transfer rollers, so that accurate segregation of impressions of various widths may be readily effected.

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Another specific object of the invention is to provide an improved roll and scraper unit for removing excess ink between adjoining laterally disposed printed impressions made by a press, wherein standard safety-razor blades may be utilized to effectively remove the ink from the segregating rolls, and in which the scraper blades are easily removable and reinsertible for reversal or replacement.

A further specific object of this invention is to provide an improved impression segregating device for printing presses, having considerable receiving and storage capacity for removed excess ink, and from which the accumulated ink may be conveniently withdrawn or dispensed.

Still another specific object of my invention is to provide various improvements in the construction and operation of printed impression segregators and excess ink removers, whereby the various parts of such structures are adapted to be readily assembled, adjusted, or removed, and are also made easily applicable to printing presses of diverse kinds.

An additional specific object of the present invention is to provide an improved colored ink impression separating assembly, which is simple, compact and durable in construction, and which is also flexible in its adaptations and highly efficient in operation.

These and other specific objects and advantages of the invention will be apparent from the following detailed description.

A clear conception of the features constituting my present improvement, and of the mode of constructing and of operating typical printed impression segregators embodying the invention, may be had by referring to the drawings accompanying and forming a part of this specification in which like reference characters designate the same or similar parts in the various views.

Fig. 1 is a diagrammatic side view of a typical Miehle type of printing press, showing some of the ink distributing and transfer rollers in section, and also depicting the approximate location and mounting of my improved impression separating units;

Fig. 2 is a somewhat enlarged front elevation of one of the improved impression segregating units, showing the same coacting with a fragment of one of the cylindrical ink transfer rollers and with its mounting shaft;

Fig. 3 is a similarly enlarged side elevation of

the assemblage shown in Fig. 2, applied to transverse sections taken along the line 3—3 through the adjacent ink transfer rollers and the mounting shaft, and also illustrating the mounting and adjusting clamp for the assemblage in released position in dot-and-dash lines;

Fig. 4 is a likewise enlarged opposite side elevation of the same assemblage applied to transverse sections through the adjacent ink transfer rollers and the mounting shaft, taken along the line 4—4 of Fig. 2;

Fig. 5 is a further enlarged central vertical section through one of the improved impression segregating units, the mounting shaft therefore being shown in dot-and-dash lines;

Fig. 6 is a similarly enlarged transverse section taken through a fragment of the assemblage of Fig. 5 along the line 6—6, and showing the position of the scraper blades for one direction of rotation of the excess ink removing roll;

Fig. 7 is a likewise enlarged transverse section similar to that of Fig. 6, but depicting the scraper blades for rotation of the excess ink removal roll in the opposite direction; and

Fig. 8 is a correspondingly enlarged plan view of a typical standard safety razor blade adapted to be utilized to scrape the ink from the segregating roll.

Although the improvements have been shown and described as being applicable to a particular style of printing press, it is not my desire or intention to unnecessarily limit the utility of the improved features by virtue of this restricted embodiment, since the invention is in fact more generally applicable to other kinds of printing equipment.

With reference to Fig. 1 of the drawing, the typical printing press shown therein comprises generally, a horizontally movable or reciprocable form plate or bed 9 constructed to support several printing plates or forms and being movable back and forth beneath the periphery of a paper carrying impression cylinder 10 so as to deposit successive printed impressions upon the sheets during each return stroke of the bed 9; an inking plate 11 located in horizontal alinement and normally reciprocating with the bed 9; one or more ink supply fountains 12 each having an ink delivery roller 14 therein cooperating with a pivotally suspended roller 15 to deposit batches of ink upon the moving plate 11; and a plurality of successive sets of ink distributing and transfer rollers coacting with the top surfaces of the plate 11 and of the forms carried by the bed 9 in order to spread and to uniformly distribute the ink and to transfer the same to the type or printing plates during successive reciprocations of the plate 11 and bed 9.

As illustrated in Fig. 1, two similar sets of initial ink distributing rollers which extend entirely across the inking plate 11, are provided; and each of these initial sets consists of a pair of spaced parallel elongated cylindrical rollers 16 formed of rubber or the like coacting with the plate 11, and an intervening metallic roller 17 coacting with the peripheries of both rollers 16 of the set. Two similar sets of final ink distribution and transfer rollers likewise spanning the forms carried by the bed 9, are also provided; and each of these final sets consists of a pair of spaced parallel elongated cylindrical rollers 18 formed of rubber or the like coacting with the forms carried by the bed 9, a metallic cylindrical roller 19 swingably suspended from a pivot shaft 20 and resting upon the peripheries of the two

adjacent rollers 18, and an upper elongated cylindrical roller 21 formed of rubber or the like bearing against the metallic roller 19. The upper ink transfer rollers 21 are spaced apart and are located on opposite sides of the vertical plane of the axis of the front horizontal pivot shaft 20, and the metallic rollers 19 are normally locked for snug coaction with the lower rollers 18, but may be released and swung away from these rollers about the pivot shafts 20, in a well known manner.

All of the press mechanism just described, is old and well known, and in commercial practice any desired number of adjoining forms or impression plates may be mounted in the bed 9 and caused to cooperate with ink supply fountains 12 containing inks of different colors, whereby adjoining differently colored impressions are simultaneously printed upon the sheets which are brought in contact with the forms or type carried by the bed 9. The initial ink spreading rollers 16 coact only with the inking plate 11, and this plate is moved forwardly into contact with the lower rollers 18 when the form carrying bed 9 is moved forwardly, thus causing the upper rollers 21 to rotate in one direction; but during the return stroke of the inking plate 11 and bed 9, these reciprocating elements contact the lower rollers 18 and cause the upper rollers 21 to rotate in the opposite direction. The rollers 18, 19, 21 are thus alternately revolved in opposite directions during normal operation of the printing press, and while the rollers 18 are constantly supplied with considerable ink, this relatively tacky printer's ink must be thoroughly kneaded and spread and distributed uniformly upon the impression plates, and the metallic rollers 19 cooperate with the pliable rollers 18, 21 to perform this function. When impressions of different colors are being simultaneously printed on the same sheets coacting with the impression cylinder 10, the inks of the adjoining impressions tend to spread and mix at the margins of the latter, so that some provision must be made for removing excess ink along these margins in order to produce clean and unmarred edges or boundaries.

In accordance with my improved method of segregating these adjoining differently colored adjacent impressions, I provide one or more ink removing units adapted to be adjustably mounted upon the front pivot shaft 20 of the press, and to coact with any selected portions of the peripheries of the upper ink distribution rollers 21 to remove the ink therefrom without necessitating grooving or other marring of these rollers. As shown in Figs. 2 to 8 inclusive, each of the impression separating units comprises in general, a cylindrical ink removing roll 23 snugly cooperable with the resilient peripheries of both of the elongated cylindrical upper rollers 21; a supporting bracket 24 for effecting adjustable mounting of the roll 23 upon the pivot shaft 20; a pair of scraper blades or knives 25, 26 alternately cooperable with the periphery of the roll 23; a toggle arm 27 for alternately throwing the scraping edges of the knives 25, 26 into engagement with the roll periphery as the direction of rotation of the roll 23 is reversed; and a surplus ink catching receptacle or pan 28 detachably secured to the adjacent bracket 24 and resting upon the pivot shaft 20 beneath the roll 23 and knives, 25, 26.

The ink removing roll 23 of each of the improved units, is preferably formed of metal and

of sufficient width to remove the ink from impression segregating or dividing paths of desired width, and the peripheries of these cylindrical rolls 23 should be polished and smooth. The roll 23 of each assemblage is provided with a durable central bushing 29 which is journalled for free rotation in either direction about a stub-shaft 30, and the corresponding ends of the roll hub and bushing 29 snugly engage a friction collar or disk 32 which in turn coacts with an anti-friction bearing 33, while the opposite ends of these elements coact directly with another anti-friction bearing 33. The end of the stub shaft 30 adjacent to the disk 32 is fixedly but detachably secured to the bracket 24 by a set screw 34, while the opposite overhanging end of this shaft 30 is threaded for the reception of a pair of knurled nuts 35, and a compression spring 36 which surrounds the shaft 30 has one end reacting against the nuts 35 while its opposite end presses against a collar 37 which in turn coacts with a disk 38 engaging the adjacent anti-friction bearing 33. With this assemblage of elements, the roll 23 which is alternately rotatable in opposite directions by virtue of its snug engagement with the reversely rotatable rollers 21, will alternately oscillate the disk 32 and the toggle arm 27 about the shaft 30 in opposite directions, and the frictional engagement between the roll and disk necessary to insure such reverse oscillation of the disk 32 and arm 27 may be attained by adjusting the nuts 35 to compress the spring 36 more or less, while the anti-friction bearings 33 eliminate excessive friction tending to retard free revolution of the roll 23 and oscillation of the disk 32.

The improved roll supporting bracket 24 of each unit, comprises a lower clamping section 40 provided at one end with an integral jaw 41 adapted to cooperate with a movable jaw 42 and with a clamping screw 43 to firmly secure the section 40 to the mounting shaft 20, and also having an upwardly open slot 44 in its upper end; and an upper roll carrying section 45, the medial portion of which is adapted to be firmly but adjustably and removably secured within the slot 44 of the lower section 40 by means of a cap screw 46, while its upper end carries the stub shaft 30 and its lower end has an auxiliary shaft or blade pivot pin 47 projecting therefrom parallel to the shaft 30. The clamping jaws 41, 42 are semi-circular in shape and are preferably provided with gripping liners 48, and the movable jaw 42 is connected to the bracket section 40 by a hinge 49 so that this jaw may be released and swung into the dot-and-dash line position shown in Fig. 3, in order to facilitate application of the bracket 24 to any desired portion of the shaft 20, or removal of the unit from this shaft. The lower bracket section 40 may therefore be adjusted longitudinally of the shaft 20 and rollers 21 to any desired position, and the upper bracket section may be raised or lowered or swung about the axis of the cap screw 46 to cause the roll 23 to properly coact with and to bear against the rollers 21.

The scraper knives 25, 26 utilized in the improved ink removing unit, are preferably standard safety-razor blades such as shown in Fig. 8, and these knives 25, 26 are detachably and reversibly mounted upon a toggle block 50 which is oscillatably mounted upon the pivot pin 47 and is provided with spaced integral end lugs 51 coacting with the lower swinging end of the toggle arm 27, as shown in Figs. 5, 6 and 7. The elongated toggle block 50 is provided with opposite relatively inclined plane side surfaces each of which is provided with a pair of protruding pins 52 having heads insertible through openings 53 in the blades, so that each knife 25, 26 may be applied over the pin heads and subsequently lowered to position the flat blade against the adjacent flat side surface of the block 50 with either of the sharp knife edges 54 directed upwardly, and with the heads of the pins 52 firmly engaging the outer blade surfaces above the openings 53. The mid-portion of the block 50 is provided with a depending threaded pin 56 with which a clamping nut 57 coacts, and a U-shaped elongated blade clamp 58 has a central hole for receiving the pin 56, and is also provided with upper edges adapted to clampingly engage the knives 25, 26 when the nut 57 is applied to the threaded end of the pin 26. The block 50 is retained upon the pivot shaft 47 by means of another nut 59 so as to permit endwise removal of the blade and block assemblage for cleaning and for reversal or renewal of the knives 25, 26, and the scraping edges 54 of these knives are alternately cooperable with the smooth periphery of the roll 23 whenever the direction of rotation of this roll is reversed.

The improved surplus ink catching receptacle or pan 28 may be formed of sheet metal, and should be of sufficient length so as to extend well beyond the opposite sides of the roll 23 of each unit, but this pan 28 should be firmly held in order to avoid touching the peripheries of the adjacent ink transfer rollers 21. The pan 28 is therefore provided with a lower central longitudinal recess 60 adapted to coact with the pivot shaft 20, and is also provided with a spring clip 61 at one end thereof which is secured to the pan by a bolt 64 coacting with an arcuate slot in the pan end wall, and is cooperable with the medial portion of the bracket clamping screw 43 between the jaws 41, 42 as illustrated in Figs. 2 to 5 inclusive. Each receptacle 28 spreads laterally as far as possible so as to provide maximum capacity and is swingably adjustable relative to the bolt 64 in order to avoid touching the rollers 21; and the top of each of these pans is provided with an ink receiving opening 62 while the pan interior is covered by a readily removable liner 63 of paper or the like, which when loaded with removed ink may be readily withdrawn through the opening 62, thus providing simple means for cleaning the pans 28.

During normal use of the printing press, and while utilizing the improved impression segregating units to remove the ink from between the adjoining printed impressions, the brackets 24 may be conveniently applied to the front pivot shaft 20 so as to properly position the ink removing rolls 23 supported by these brackets at any desired locations relative to the peripheries of the adjacent transfer rollers 21, by merely manipulating the clamping screws 43 of these units. The rolls 23 should be accurately disposed in the planes of the dividing areas between the differently colored printed impressions and should be caused to properly engage the resilient peripheries of the rollers 21 by utilizing the cap screw 46, and the clamping jaws 41, 42 should be firmly clamped to the shaft 20 so as to prevent subsequent shifting of the ink removing rolls. The ink catching receptacles 28 should then be applied to the shaft 20 and to the respective clamping screws 43 so as to avoid touching the rollers 21, and the tension of the springs 36 of the several units should be adjusted by manipula-

tion of the nuts 35 so as to cause the rolls 23 and bushings 29 to frictionally engage the disks 32 and to confine the rolls and disks between the anti-friction bearings 33 surrounding the stub shafts 30. The blades or knives 25, 26 should also be clamped against the blocks 50 by manipulation of the nuts 57 and these blocks should be secured to their pivot pins or shafts 47 with the aid of the nuts 59, whereupon the units are ready for automatic functioning.

When the ink removing units have been thus applied and the press is operating, different colored inks will be constantly withdrawn from the several fountains 12 and applied to the reciprocating inking plate 11, and the inks thus applied will be spread and uniformly distributed over the respective areas of this plate 11 and will ultimately be transferred to the rollers 18, 19, 21 and to the forms or type carried by the likewise reciprocating form plate 9. During reciprocation of the plates 9, 11 the rollers 18, 19, 21 will be alternately reversely rotated, thus causing the ink removing rolls 23 which bear against the upper ink transfer rollers 21 to be alternately reversely rotated. The resilient rollers 21 will bear against the local rolls 23 and the latter will remove the ink from the contacted areas of these transfer rollers, and during rotation of the rolls 23 in a counterclockwise direction as viewed in Fig. 6, the knives 26 will be thrown into scraping engagement with the peripheries thereof by the toggle arm 27 and toggle block 50, whereas clockwise rotation of the rolls 23 as viewed in Fig. 7 will cause the toggle mechanism to automatically throw the knives 25 into scraping position. The knives 25, 26 will thus alternately scrape the ink removed from the local areas of the rollers 21 by the rolls 23, off of the latter and will deposit this excess ink by gravity into the receptacles 28 from which the accumulated ink may be periodically withdrawn by merely removing the liners 63 through the pan openings 62 and by inserting fresh liners.

By thus removing the ink from the local division areas of the transfer rollers 21, all objectionable ink is effectively removed from the impression forms carried by the form plate 9, at the areas between the adjoining impressions delivered to the sheets coacting with the impression cylinder 10, thus producing sharp and clean boundaries at the adjacent edges of the successive differently colored impressions. The rolls 23 should be adjusted with the aid of the screws 46 so that they properly contact the adjacent rollers 21 but avoid grooving the surfaces of these soft rollers, and the separable jaws 41, 42 coacting with the clamping screws 43 permit the rolls 23 to be quickly disposed at any desired positions along the rollers 21 and shaft 20 and to effectively remove the ink along the several division lines, without grooving or otherwise marring the rollers 21. The blade carrying assemblages may also be conveniently removed either by merely removing the retainer nuts 59 and by sliding the blocks 50 off of the pivot pins 47, or by releasing the screws 46 and thereafter lifting the bracket sections out of the open slots 44; and the knives 25, 26 may be readily inserted or removed by merely releasing the nuts 57 and the blade clamps 58 sufficiently to permit the knife blades to be applied to or withdrawn from the pins 52. By utilizing double edged reversible blades or knives 25, 26, the life of these scrapers is prolonged, and the use of standard safety-razor blades vastly reduces the cost of maintenance of the units. The pans or receptacles 28 are firmly held so as to avoid contacting the rollers 21 by the spring clips 61 and bolts 64 while still being freely removable, and the use of the receptacle liners 63 for catching the surplus ink greatly facilitates removal of the accumulated batches of this excess ink.

From the foregoing description it should be apparent that my present improvements provide a simple, compact and highly efficient impression segregating unit for printing presses, adapted to commercially exploit the method revealed in my prior application hereinabove referred to. The various improvements forming the subject of the present invention facilitate installation and adjustment of these ink removing assemblages, and greatly enhance the capacity and utility thereof, while reducing the cost of maintenance to a minimum. The improved units may also be quickly and conveniently applied to presses of various types, and entirely eliminate interference with and possible marring or defacement of the soft transfer rollers 21 when the rolls 23 are properly adjusted. The present improved device may be easily assembled or dismantled for inspection and cleaning, and the various parts may be adjusted so as to insure most effective functioning thereof, while the anti-friction bearings 33 reduce the power consumption and wear to a minimum. The improved ink removing rolls 23 may be caused to bear against only one or both of the rollers 21, and the rolls 23 together with their knife assemblies may be readily removed from the lower bracket sections 40 by merely releasing the screws 46 and lifting the same out of the open slots 44, thus also permitting unobstructed access to the receptacles 28. The improved assemblies have gone into extensive and highly successful commercial use, and are especially useful when simultaneously printing impressions with inks of different color in the same printing press.

It should be understood that it is not desired to limit this invention to the exact details of construction and operation, herein shown and described, for various modifications within the scope of the appended claims may occur to persons skilled in the art; and it is also intended that specific descriptive terms employed herein be given the broadest possible interpretation consistent with the disclosure.

I claim:

1. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected ink conveying portions of at least one of the ink transfer rollers to remove excess ink from said portions, a mounting bracket for said roll having a shaft upon which the roll is rotatably journalled, an ink scraper carried by said bracket and being cooperable with the periphery of said roll, toggle mechanism carried by said bracket and being operable by frictional engagement with one end of said roll to swing said scraper toward and away from the roll periphery, means for resiliently urging said roll toward said mechanism, and an anti-friction bearing between said means and the opposite end of said roll.

2. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected ink conveying portions of at least one of the ink transfer rollers to remove excess ink from said portions, a mounting bracket for said roll having a shaft upon which the roll is rotatably journalled, an ink scraper carried by said bracket

and being cooperable with the periphery of said roll, toggle mechanism carried by said bracket and being operable by frictional engagement with one end of said roll to swing said scraper toward and away from the roll periphery, an adjustable compression spring for constantly urging said roll into frictional engagement with said toggle mechanism, and an anti-friction bearing interposed between said spring and the opposite end of said roll.

3. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected portions of at least one of the ink transfer rollers to remove ink therefrom, a pair of scraper blades alternately cooperable with the periphery of said roll to scrape ink therefrom, an oscillatory support for said blades, toggle mechanism operable by said roll to oscillate said support, and a clamp common to both of said blades for detachably securing the blades to said support.

4. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected portions of at least one of the ink transfer rollers to remove ink therefrom, a pair of scraper blades alternately cooperable with the periphery of said roll to scrape ink therefrom, an oscillatory support for said blades, toggle mechanism operable by said roll to oscillate said support, and a clamp common to both of said blades for detachably securing the blades to said support, each of said blades having several scraping edges interchangeably cooperable with said roll periphery.

5. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected ink conveying portions of at least one of the ink transfer rollers to remove excess ink from said portions, a mounting bracket for said roll having a shaft upon which the roll is rotatably journalled, an ink scraper carried by said bracket and being cooperable with the periphery of said roll, toggle mechanism carried by said bracket and being operable by frictional engagement with one end of said roll to swing said scraper toward and away from the roll periphery, means for resiliently urging said roll toward said mechanism, and anti-friction bearings between said means and the opposite end of said roll and between said toggle mechanism and said bracket.

6. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected ink conveying portions of at least one of the ink transfer rollers to remove excess ink from said portions, a mounting bracket for said roll having a shaft upon which the roll is rotatably journalled, an ink scraper pivotally mounted upon said bracket and being cooperable with the periphery of said roll, mechanism operable by frictional engagement with one end of said roll to swing said scraper toward and away from the roll periphery, means for urging said roll toward said mechanism, and an anti-friction bearing between said means and the opposite end of said roll.

7. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected portions of at least one of the ink transfer rollers to remove ink therefrom, a mounting bracket for said roll, a pair of scraper blades alternately cooperable with the periphery of said roll to scrape ink therefrom, an oscillatory support for said blades pivotally mounted upon said bracket, toggle mechanism operable by said roll to oscillate said support, and a clamp common to both of said blades for detachably securing the blades to said support.

8. In an impression segregating unit for printing presses having ink transfer rollers for inking the impression forms, a roll cooperable with selected ink conveying portions of at least one of the ink transfer rollers to remove excess ink from said portions, a mounting bracket for said roll having a shaft upon which the roll is rotatably journalled, an ink scraper pivotally mounted upon said bracket and being cooperable with the periphery of said roll, mechanism operable by frictional engagement with one end of said roll to swing said scraper toward and away from the roll periphery, means for resiliently urging said roll toward said mechanism, and anti-friction bearings between said means and the opposite end of said roll and between said mechanism and said bracket.

9. In an impression segregating unit for printing presses having parallel ink transfer rollers for inking the impression forms and also having a shaft located parallel to and between but beneath the rollers, a roll cooperable with selected portions of at least one of the ink transfer rollers to remove ink therefrom, a supporting bracket for said roll adjustably secured to said shaft, a scraper carried by said bracket and coacting with the periphery of said roll, and an ink catching receptacle having a bottom recess resting upon said shaft beneath said roll and scraper, said receptacle also having deep pockets on opposite sides of said shaft and being provided with an end portion secured to said bracket.

10. In an impression segregating unit for printing presses having parallel ink transfer rollers for inking the impression forms and also having a shaft located parallel to and between but beneath the rollers, a roll cooperable with selected portions of at least one of the ink transfer rollers to remove ink therefrom, a supporting bracket for said roll adjustably secured to said shaft, a scraper carried by said bracket and coacting with the periphery of said roll, and an ink catching receptacle having a semi-cylindrical bottom recess loosely resting upon said shaft beneath said roll and scraper, said receptacle also having deep pockets on opposite sides of said shaft and recess and being provided with an end wall detachably secured to said bracket.

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