Aug. 12, 1947. C. A. HARLESS 2,425,529

INKING MECHANISM FOR PRINTING PRESSES

Filed Sept. 14, 1944 6 Sheets-Sheet 1

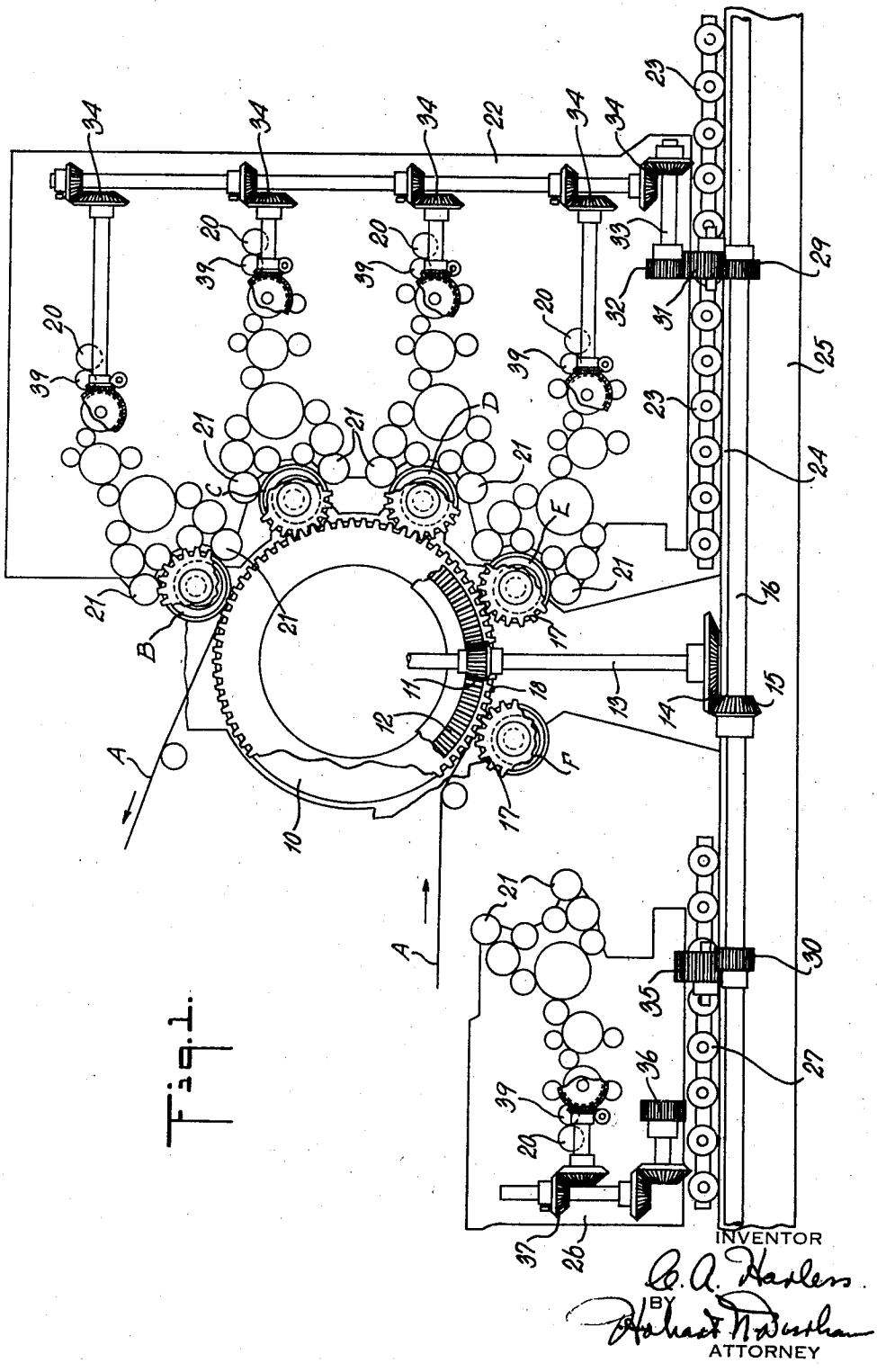

Fig. 1.

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INKING MECHANISM FOR PRINTING PRESSES

Filed Sept. 14, 1944 6 Sheets-Sheet 2

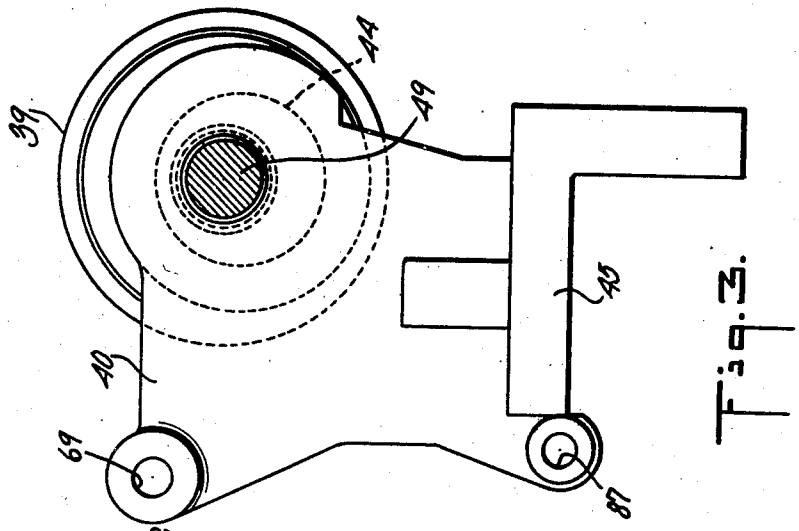

Fig. 3.

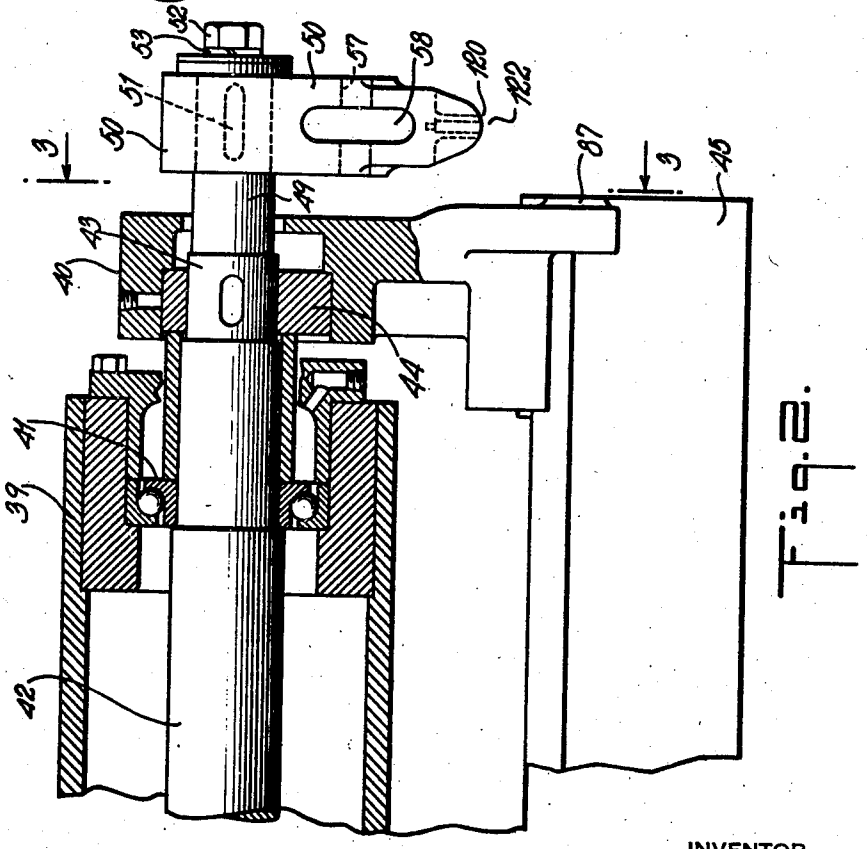

Fig. 2.

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INKING MECHANISM FOR PRINTING PRESSES

Filed Sept. 14, 1944 6 Sheets-Sheet 3

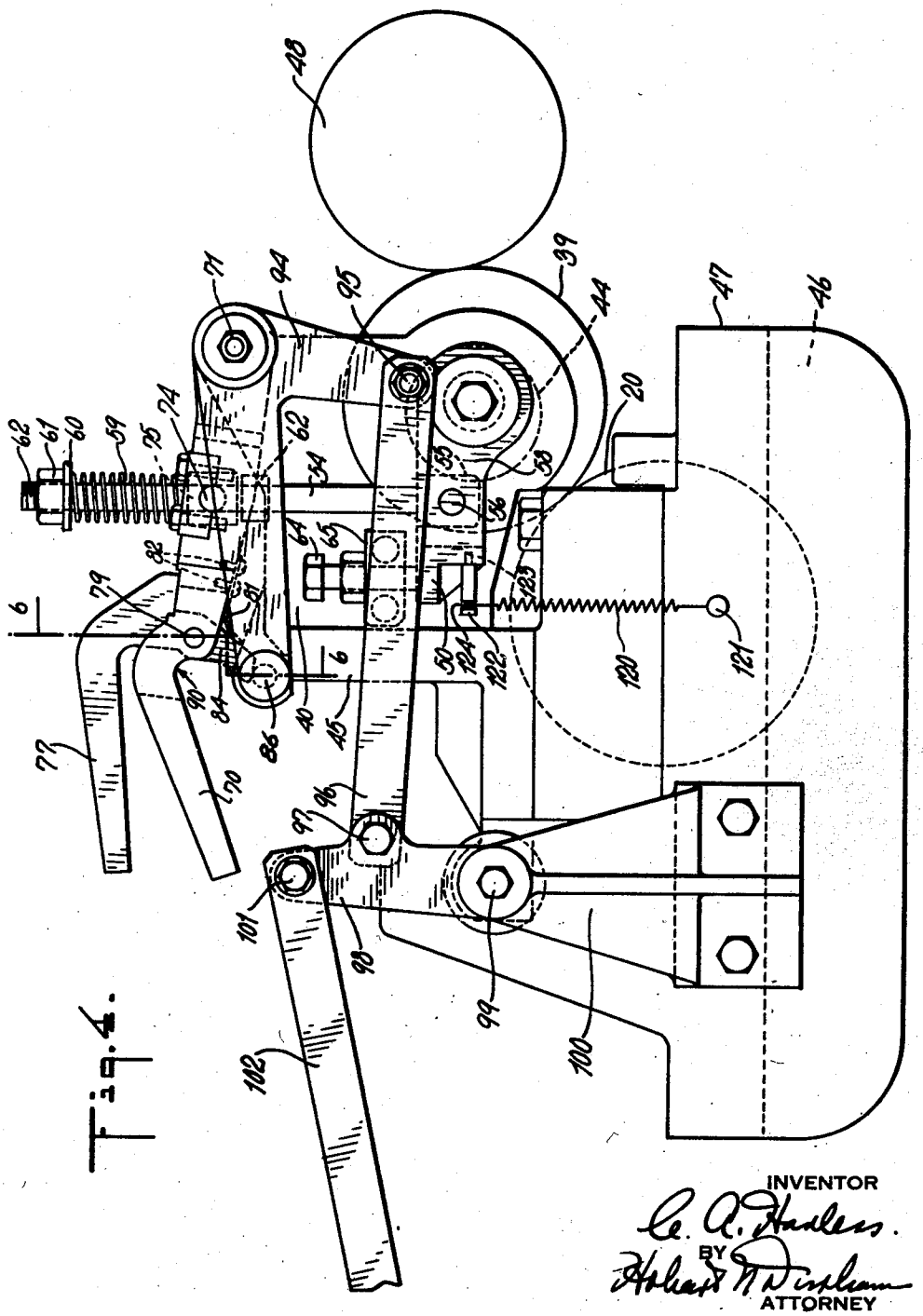

Fig. 4.

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Aug. 12, 1947. C. A. HARLESS 2,425,529

INKING MECHANISM FOR PRINTING PRESSES

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Fig. 5.

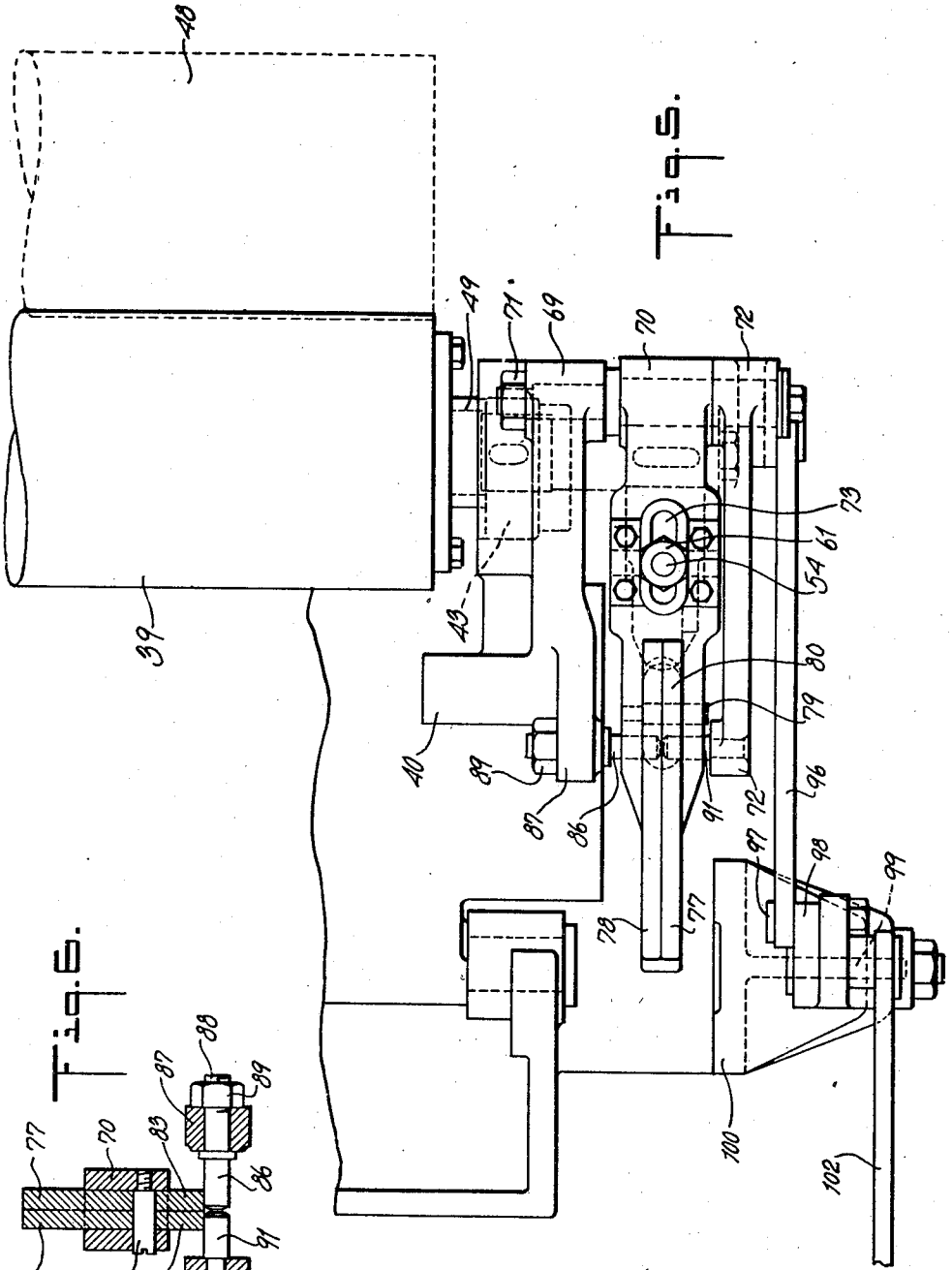

Fig. 6.

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INKING MECHANISM FOR PRINTING PRESSES

Filed Sept. 14, 1944 6 Sheets-Sheet 5

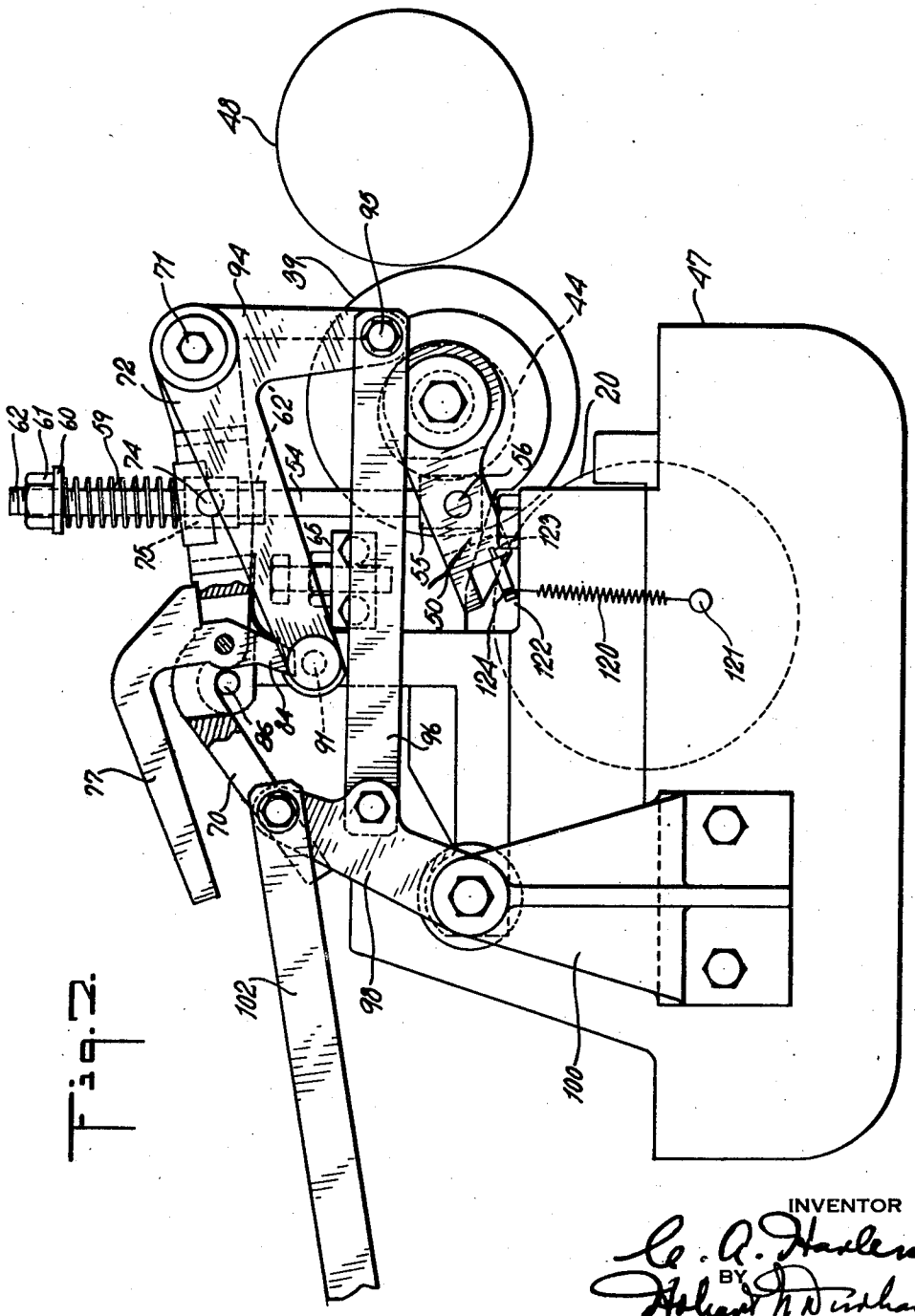

Fig. 2.

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INKING MECHANISM FOR PRINTING PRESSES

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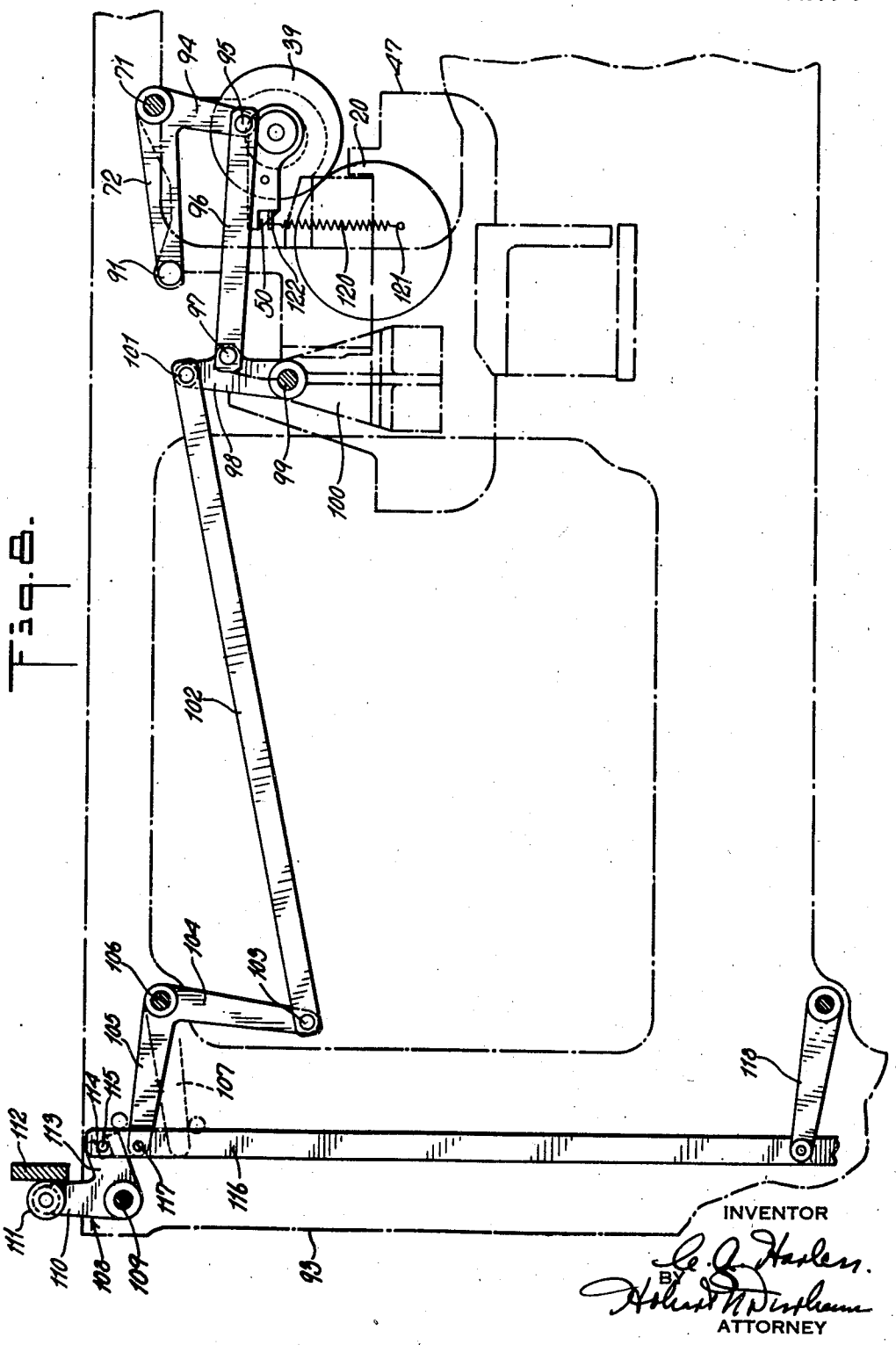

Fig. 8.

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Patented Aug. 12, 1947

2,425,529

UNITED STATES PATENT OFFICE

2,425,529

INKING MECHANISM FOR PRINTING PRESSES

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Application September 14, 1944, Serial No. 554,099

11 Claims. (Cl. 101—351)

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This invention relates to inking mechanisms for printing presses.

Objects and advantages of the invention will be set forth in part hereinafter and in part will be obvious herefrom, or may be learned by practice with the invention, the same being realized and attained by means of the instrumentalities and combinations pointed out in the appended claims.

The invention consists in the novel parts, constructions, arrangements, combinations and improvements herein shown and described.

The accompanying drawings, referred to herein and constituting a part hereof, illustrate embodiments of the invention, and together with the description, serve to explain the principles of the invention.

In printing presses of the kind with which the inking mechanisms accordling to the present invention are concerned, it is desirable to be able to discontinue the actual feeding of ink from the fountain roll to the various transfer and form rollers at the will of the operator. Also, particularly with multi-color printing presses, this feature of being able to silence or discontinue the feeding of ink from the fountain roll to the transfer and form rollers for each individual color is extremely desirable.

Furthermore, particularly in multi-color printing presses, but also in some other types of printing presses, the various inking mechanisms are mounted upon a carriage which is capable of being moved toward and away from the printing cylinders and conventionally, means are provided for bringing the various driven rollers of the inking train up to their running speed prior to effecting the last portion of movement of the carriage to place the form rollers of the inking train in contact with the plate cylinders. With such apparatus, it is very desirable that the commencement of feeding of ink from the fountain roll to the transfer and form rollers will take place automatically either during the speeding up of the inking train or after this has reached its desired speed, but in any case, prior to the contacting of the form rollers with the plate cylinders.

Accordingly, it is the general object of this invention to provide inking mechanisms for a printing press where new and useful means are provided for silencing or discontinuing the feeding of ink from the fountain roller to the transfer and form rollers.

It is a specific object of the present invention to provide inking mechanisms particularly for

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use with multi-color printing presses where feeding of ink from the fountain roller of each ink train to the transfer and form rolls of that same ink train can be silenced at the will of the operator.

It is a further specific object of the invention to provide an inking mechanism or a plurality of inking mechanisms for a printing press, such as a multi-color printing press, having the inking mechanisms supported by a carriage adapted to move relative toward and away from printing position, wherein the feeding of ink from the fountain roller to the transfer and form rollers of any one of the inking mechanisms can be discontinued preferably manually, by an operative, together with the automatic restoration of the inking mechanism to feeding position, by movements of the carriage toward printing position.

Of the drawings:

Figure 1 is a diagrammatic elevation of part of a printing press of the type generally used for multi-color printing and showing a plurality of inking mechanisms each of which is adapted to be modified in accordance with this invention for the specified purpose;

Figure 2 is a cross section of part of a pick-up roller for use with the inking mechanism, in accordance with one embodiment of the present invention;

Figure 3 is a cross section of the roller of Figure 2 upon the lines 3—3 of Figure 2;

Figure 4 is an elevation of part of one form of mechanism in accordance with the present invention for silencing the feeding of ink from the fountain roller of an inking mechanism to a transfer roller, and showing the pick-up roller in active ink transferring position with respect to the fountain roller;

Figure 5 is a plan view of the mechanism of Figure 4;

Figure 6 is a cross section on the lines 6—6 of Figure 4;

Figure 7 is an elevational view similar to that of Figure 4 but showing the various operating parts of the mechanism in a different relative position and with the pick-up roller out of contact with the fountain roller and transfer roller; and,

Figure 8 is an elevational view showing the interconnection of various linkage for operating the apparatus of Figures 4, 5, 6 and 7 by movement of one of the inking carriages shown in Figure 1.

Generally, in carrying out the present invention, one of the rollers of an inking train is

adapted to be disconnected from contact with other rollers of the inking train under manual control of an operative to which end a pick-up roller, which may be in the form of a spiral roller, is mounted in eccentric bearings and is adapted to be swung within these bearings by means of an operative handle. The manually operated handle has a pair of latches linked thereto and the handle and latch operating arms can be simultaneously gripped by an operative and lowered beyond the parts which normally retain the latches downwardly to act upon the eccentric bearings to throw the pick-up roller into inoperative feeding contact with the fountain roller.

The two latches on the operating handle are tripped from supporting studs or pins by pressing the operating arm of each latch toward the handle thus permitting the lowering of the arm manually to disconnect or silence the feeding of ink from the fountain roller through the pick-up roller to the last of the ink train.

One of the studs or pins is permanently fixed and supports the lowered handle while the other of these pins or studs is operatively linked to mechanism associated with the inking carriage which supports the inking train so that upon the inking carriage being moved out of operative printing position, this stud or pin will be placed in a lowered position and upon the return movements of the carriage toward operative printing position the lowered studs or pin will contact one of the latches pivoted to the operating handle and under urge of movements of the carriage will lift the latches and handle upwardly and to a position to actively associate the pick-up roller with the fountain roller for the feeding of ink.

It will be understood that the foregoing general description and the following detailed description as well are exemplary and explanatory of the invention but are not restrictive thereof.

Referring now specifically to the accompanying drawings, and particularly Figure 1, which shows somewhat diagrammatically part of one type of printing press to which the present invention may be applied, a web A passes in the direction of the arrows around an impression cylinder 10 rotatably driven by gears 11 and 12 from a shaft 13 which is in turn driven through bevel gears 14 and 15 from a main drive shaft 16 extending longitudinally of the printing press.

Cooperating with impression cylinder 10 are a plurality of plate cylinders B, C, D, E and F each being suitably driven by a gear 17 meshing with a driving gear 18 carried by impression cylinder 10.

Each of the plate cylinders B, C, D, E and F have individual ink train mechanisms permitting individual supply of ink thereto, for example, for different colors.

Each ink train comprises a conventional series of coacting rollers, as shown, passing the ink forward from a fountain roller 20 to the form rollers 21, which latter actually apply ink to each plate cylinder.

It is usual in presses of the type illustrated to provide means for moving each set of the form rollers 21 out of contact with its plate cylinder and to this end, as shown, the ink train assembly for each of plate cylinders A, B, C, D and E are mounted on a common carriage 22 which is supported for movements bodily toward and away from impression cylinder 10 by a plurality of rollers 23, running on a track 24 supported by the bed frame 25 of the printing press. In

similar manner the ink train assembly for plate cylinder F is mounted on a carriage 26 which moves also on track 24 by means of rollers 27.

In Figure 1, the carriage 26 is shown completely out of contact with its plate cylinder F, and spaced away therefrom, while carriage 22 is in operative printing position with each set of the form rollers in operative contact with their respective plate cylinders.

Each of the ink train assemblies are adapted to have their driven parts driven from the main drive shaft 16 and to this end, pinions 28 and 30 are fast upon shaft 16, pinion 29 operating through a gear 32 mounted on carriage 22 through an intermediate gear 31 mounted on main frame 25, gear 31 being mounted on a shaft 33 adapted to operate the ink trains for plate cylinders A, B, C, D and E through bevel gear trains 34 mounted to be operated from a common shaft, and the other pinion 30 operating through a gear 36 mounted on carriage 26 by means of an intermediate gear 35 mounted on main frame 25 to drive the bevel gears 37.

It will be noted that the intermediate gears 31 and 35 are wider than the gears intermeshing therewith this being for the purpose of allowing the ink trains to be brought up to running speed in a position close to but not in contact with their plate cylinders and thereafter, when a desired speed has been attained, a contact is established between the form rollers 21 and their respective plate cylinders.

Thus, in the press illustrated in Figure 1, inking trains can be run up to speed a few inches away from their operative position, this dimension depending on the increased width of intermediate gears 31 and 35 which permits gears 32 and 36 respectively to be operatively driven prior to engagement of the form rollers 21 with their respective plate cylinders.

In a printing press of the general type described, it is a desirable feature that the actual supplying or passing forward of ink with respect to each individual ink train shall be stopped at the will of the operator, whereby the ink train will continue to run but without any supply of ink being fed. This is particularly desirable when running the inking trains up to speed in the stand-off position of the carriages 22 and 26, to prevent oversupply of ink. For the purpose, in actual practice, it is often usual to cause throw-off of the pick-up ductor or like transfer roller which is in contact with the fountain or feed roller, and in Figure 1 the various pick-up rollers are shown diagrammatically at 39.

In accordance with the present invention, means are provided for silencing the actual feed of ink from the fountain roller to the rest of the ink train of each individual inking mechanism, such means being manually operated, and automatically replaced and being either separably or collectively operated for each ink train, as desired, as hereinafter brought out.

As embodied, each of the pick-up rollers 39 of the ink trains are mounted in eccentric bearings and means operate to move the eccentric bearings around the center of rotation of the rollers 39 to cause a sufficient gap between the operating surface thereof and the surface of the cooperating fountain roller to prevent feeding of ink from the fountain roller to the pick-up roller.

Referring particularly to Figures 2 and 3, the pick-up roller 39 of each inking train is mounted to rotate under frictional contact with the surface of its cooperating fountain roller by an-

tifriction bearings 41 which support the roller 39 on a shaft 42 and permits rotation of the roller relative to supporting shaft 42, only one bearing 41 being illustrated at the one end of the roller 39. Shaft 42 extends outwardly, at the end illustrated, through a supporting bracket 40 and has a reduced section 43 mounted in said bracket by an eccentric bearing 44, the supporting parts being duplicated at the other end (not illustrated) of the roller 39. Only one end of roller 39 and its operating mechanism has been illustrated, this being the operating end, the other end being supported simply by bearings similar to 41, an eccentric similar to 44 and a bracket similar to 40, shaft 42 terminating relatively flush with the outside of its bracket 40.

Each of the brackets 40 will be suitably supported by the main frame of the carriage 22 or 26 of Figure 1 as by angle brackets 45, whereby rotation of eccentrics 44 within brackets 40 will cause roller 39 and shaft 42 to move bodily relatively to the fountain roller 20.

As shown in Figure 4, the fountain roll 20 rotates within a body of ink 46 in a fountain 47 and in contact with the periphery of pick-up roller 39, which in turn is in contact with a transfer roller 48 of the ink train, to pass the ink forward to the other rollers of the ink train, when in the ink feeding position illustrated.

Shaft 42 extends at the one end beyond the bracket 40 by a further reduced section 49 which has attached thereon an operating lever 50, suitably keyed and feathered, as at 51, to the shaft extension 49, and held in position thereon by a screw 52 with lock washer 53 on a tapped bore of extension 49. Thus, swinging of the arm 50 about the axis of rotation of shaft 42 will cause the desired movements of roller 39 toward or away from fountain roll 20, in order to make inking contact therebetween or alternatively to cause a stoppage of feeding of ink from the fountain roll 20 to the pick-up roller 39.

In accordance with the present invention, means are provided, actuated manually by an operative, to effect this discontinuance of ink feeding, at any desired time, by swinging arm 50 and shaft 42 around the axis of rotation of roller 39 to disconnect roller 39 from fountain roll 20 by means of eccentrics 44.

As more clearly shown in Figures 5, 6 and 7, arm 50 has a rod 54 movably attached thereto by means of a terminating eye 55 linked thereto by a pin 56, pin 56 passing through a bore 57 in arm 50 (Figure 2) and traversing a slot 58 by which the eye 55 is embraced, permitting limited movement of the eye within the slot.

Rod 54 is spring-loaded upwardly by a spring 59 surrounding the rod and acting between a retaining washer 60 and a nut 61 on an upper threaded portion 62 of the rod, and a stop collar 62' suitably mounted on the rod 54. Adjustments of nut 61 on thread 62 permit a variability of spring pressure on arm 50 through rod 54 to cause the normal position of arm 50 to be substantially horizontal as illustrated in Figure 4, in which position roller 39 is in firm ink feeding contact with fountain roll 20.

In order to adjust the amount of clearance to be obtained between the roller 39 and fountain roll 20 when the arm 50 is depressed, by means to be described hereinafter, to the inoperative feeding position of Figure 7, a stop screw 64 is threadedly mounted in a bracket 65 attached to any suitable part of the frame of the carriage 22 or 26 of Figure 1, and the lower end of screw

64 contacts the tail of arm 50 depressing this to the desired point to ensure the preselected clearance under the constant throw off of the rod 54.

Pivotally mounted in a bore 69 in bracket 40 there is arranged an arm 70, this arm being carried in the bore 69 by a long pivot pin 71 which is adapted to also pivotally carry on the same pivot a lever 72 for the purpose hereinafter described. Arm 70 is slotted in a center portion as at 73 to receive the rod 54 therewithin and is connected to the rod 54 by a cross pin 74. The lower end of spring 59 bears upon an upper surface of the shackle 75 through which pin 74 passes so that movements of the arm 70 upwardly and downwardly around its pivot 71 coact with movements of the rod 54.

Pivotally mounted on arm 70 are a pair of parallelly arranged latch members 77 and 78, these being suitably mounted upon the arm 70 by a pin 79 which passes through an opening or slot 80 in which the latches 77 and 78 are seated. Figure 4 shows the normal ink feeding position of the latches 77 and 78 and arm 70 with the eccentrically mounted roller 39, in inking contact with the fountain roller 20 and in this position both of the latches 77 and 78 are retained by a spring 81 this being a leaf spring suitably mounted on the arm 70 by means of screws 82. The lower portion of each latch 77 and 78 terminates in a protruding section which forms the tongue of the latch and each of these sections 83 and 84 is adapted to rest upon one or a pair of pins, which pins are normally parallel and aligned in the position shown in Figure 4 and are provided for the purpose of supporting the latch portions 83 and 84 against the action of the spring 59 and thus normally retaining the eccentrically mounted roller 39 in operating inking position.

Upon the operator desiring to disconnect the eccentrically mounted roller 39 from inking contact he has only to simultaneously grasp the arm 70 and the latch members 77 and 78 and pull these together thus causing the latch members 77 and 78 to simultaneously swing about their pivot 79 in a counter-clockwise direction, to disengage the tongue portions 83 and 84 from the retaining pins and thus permit the arm 70 to be bodily swung in a counter-clockwise direction about its pivot 71 to cause the arm 50 to be rocked and thus eccentrically swing roller 39 out of contact. The amount of movement downwardly of the arm 70 is governed and limited by one of the pins already mentioned, this pin 86 being permanently mounted in a fixed position in a bore 87 in the bracket 40 by means of a screw threaded end 88 and a nut 89 thereon. Pin 86 is normally associated with tongue 83 of latch 77 and when the latches 77 and 78 are grasped together with arm 70 and lowered the arm 70 engages with this permanently located pin 86 by means of a curved section 90 contoured to seat upon the upper portion of the pin and is retained in lowered position thereby, this being as shown in Figure 7 where the parts already described and to be described are illustrated in the lowered position with the roller 39 out of contact with both the fountain roller 20 and the transfer roller 48 as is clearly seen.

The other pin 91 is carried by the lever 72, being attached thereto in any desired manner, this lever 72 being pivotally carried by the pivot pin 71, as previously mentioned, and thus being capable of rotation about its pivot with respect to the bracket 40. Lever 72 is connected by a

series of links, hereinafter to be described, in such manner that upon backing away of the carriage 22 or 26, shown in Figure 1 and previously described, automatically the lever 72 will be swung about its pivot in a counter-clockwise direction to lower the pin 91 to the position shown in Figure 7, which is below the normal extent in lowered position of the tongue portion 84 of latch 78, as supported by portion 90 of arm 70 on pin 86.

As is common practice in utilizing a printing press of the type generally defined hereinbefore, whenever the feeding of ink has been stopped for any purpose the carriage with respect to that particular inking mechanism will be moved away from operative printing position and thereafter when the necessary adjustments, changes or the like have been made, the said carriage will be returned toward its operative printing position. When the said carriage is close to its operative printing position with the driving gears, for example, 30 to 35, in mesh the various driven rollers of the inking train will be brought up to speed, as previously described, and thereafter contact between the form rollers 21 and their respective printing plates will be made. Just prior to that time, it is desired that the eccentrically mounted roller 39 be placed in contact with the fountain roller 20 and the transfer roller 48, to start the ink flowing from the fountain roller 20 through the train to the form rollers 21.

Accordingly, it is a feature of the present invention that as the carriage is moved the last small portion inwardly toward operative printing position with the various inking rollers running at speed, automatically the eccentrically mounted roller 39 will be thrown into operative position and for this purpose the linkage mentioned above is provided, this cooperating with lever 72 and the pin 91 as now brought out.

Referring specifically to Figure 8, there is illustrated this linkage as generally supported in part by a carriage similar to 21 or 26, which is shown chain-dotted at 93. Lever 72 has an arm 94 attached thereto and projecting substantially at right angles to form an L-shaped lever 72—94.

Pivotally connected to the section 94 thereof as at 95 is a link 96 the other end of which is pivoted at 97 to a crank 98. Crank 98 is pivotally supported at 99 in a bracket 100 which bracket may be suitably attached to the side wall of the fountain 47 as shown particularly in Figures 4 and 7. The upper end of crank 98 has pivotally attached thereto, at 101, a link 102 which in turn is linked pivotally at 103 to one arm 104 of an L-shaped lever the other arm of which 105 is adapted to swing around its pivot 106 from the full line position (Figure 8) to the dotted-line position shown at 107, in order to cause an alteration of the position of the pin 91 between the position shown in Figure 4 and the position shown in Figure 7 under urge of movements of the carriage 93. This is accomplished by a bell crank lever 108 pivotally mounted at 109 onto the carriage 93 and having one arm 110 extending beyond the carriage and carrying a roller 111 at the extremity thereof which roller abuts against a fixed operating bar attached to any part of the bed frame 25 of the printing press (Figure 1) in fixed position, whereby as the carriage 93 moves relative to said frame, roller 111 will contact 112 and progressively rock the bell crank lever 108 about its pivot. The other arm of the bell crank lever 113 terminates in a fork 114 which embraces a pin 115 and thus

raises or lowers lever 116 to which lever arm 105 of the L-shaped operating lever is pivotally kept connected at 117.

An examination of the linkage shown in Figure 8, all of which is in the final position assumed by the carriage with respect to the printing parts of the press whereby the inking train is running at speed and the eccentrically mounted roller 39 is in contact with the fountain roller 20, will show that upon movements to the left of Figure 8, of the carriage 93. The linkage will so operate as to drop the pin 91 downwardly. Thus, when the operative has disconnected roller 39 by, as previously described, swinging arm 70 and latches 77 and 78 downwardly, the carriage 93 is rolled back or to the left in Figure 8 and due to the particular formation of linkage and by correct proportioning of relative weights of the levers and links as the carriage moves back the pin 91 will progressively drop until a maximum lowered position is reached which is determined by the relationship of the parts of the linkage.

Upon moving the carriage 93 to the right as in Figure 8 the roller 111 of bell crank 108 will contact the bar 112 and will cause cooperation of the various linkage to start to raise pin 91 upwardly. As seen in Figure 7, when this is done pin 91 will contact the tongue 84 and cause the latch 78 to be bodily moved upwardly by means of this contact, thus carrying upwardly the arm 70 and both the latches 77 and 78 all about pivot 71 and against the action of spring 59. The linkage is so propositioned that there is a slight overtravel of the link mechanism to permit latch 77 to pass over the stationary pin 86 and thereafter, due to the spring 81, the tongue 83 will spring into position to rest over pin 86 so that the mechanism is again in the position shown in Figure 4.

Thus, there has been provided means whereby manual disconnection of the pick-up roller 39 from its fountain roller 20 may be obtained at any time, whether the press is running or not, to discontinue the feeding of the ink and thereafter automatically the apparatus is put into operative inking condition by the normal procedure of withdrawing the carriage from operative printing position to an inoperative position and returning the carriage thereafter to its printing position, the automatic throwing on into operative inking position of roller 39 taking place at the desirable time when the inking train has attained its speed and just prior to the actual contact between the form rollers and the printing cylinders.

Inasmuch as several inking trains may be connected together and carried by one carriage, for instance as shown in Figure 1, with respect to carriage 22, it may be desirable to simultaneously cause the return to operative inking position of any of the rollers 39 which may have been disconnected, and accordingly, as will be seen in Figure 8, the lever 116 which operates vertically up and down may be connected to several L-shaped operating levers similar to 104–105, an arm 118 being shown in Figure 8 with respect to another inking train.

While operating arm 50 which directly rocks the eccentric portions of the bearing for roller 39 has been shown as spring operated, it is obvious that the spring 59 could be replaced by other loading means such as hydraulic means (not shown).

While the means for permitting lever 50 to drop and thus disconnect the pick-up roller 39 from fountain roll 20 normally rely upon gravity to

cause this downward movement when the handle or arm 70 and latches 77 and 78 are grasped and swung down beyond pins 86 and 91, it is desirable in some instances to provide additional means to urge the lever 50 downwardly when disconnection is desired since the frictional resistance between pick-up roller 39 and the transfer roller 48 may be too great to allow gravity alone to positively and immediately cause the disconnection.

Accordingly, as a modificaton, a tension spring 120 is provided mounted between a fixed stud 121 on a suitable part of the fountain 47 and a lug 122 suitably attached to the arm 50 as by screw threads 123, lug 122 having a reduced neck portion 124 to accommodate the end of spring 120.

In Figure 7, spring 120 is shown unextended, with arm 50 in its lowest position, and as arm 50 is swung upwardly toward ink feeding position of rollers 20, 39 and 48, the spring 120 is extended to the ultimate position as in Figure 4. Thus, the resilient urge of spring 120 is at all times available to assist the gravitational downward swing of arm 50 upon unlatching of the means for maintaining the condition of ink feeding of Figure 4, and by selection of the correct strength for spring 120 a rapid breaking of contact of roller 39 with respect to rollers 20 and 48 can be accomplished without too much shock being applied to the operating parts or to the operators hand through the handle 70 and latches 77 and 78.

The invention in its broader aspects is not limited to the specific mechanisms shown and described but departures may be made therefrom within the scope of the accompanying claims without departing from the principles of the invention and without sacrificing its chief advantages.

What is claimed is:

1. For a printing press, an inking mechanism including in combination, a fountain roller, a plurality of rolls for transferring ink to the printing plates of the press, a pick-up roller normally in contact with the fountain roller and with a roll of the plurality of rolls, and adapted for manual actuation for removing the pick-up roller from contact with the fountain roller at any desired time, said means including an eccentric mounting for the pick-up roller actuated to rock said pick-up roller away from said fountain roller an inker carriage in which said roller and rolls are mounted for movement toward and away from a printing cylinder to be inked, and means actuated by movement of said carriage for moving said eccentric mounting to rock said pick-up roller into contact with said fountain roller.

2. For a printing press, an inking mechanism including in combination a fountain roller, a plurality of rolls for transferring ink to the printing plates of the press, a pick-up roller normally in contact with the fountain roller and with a roll of the plurality of rolls, means to bodily move said rollers and rolls relative to said printing plates, manually actuated means for removing the pick-up roller from contact with the fountain roller, said means including an eccentric mounting for the pick-up roller, an oscillatable lever, a second lever connected to move said eccentric and a latch carried by said second lever and engaging said oscillatable lever whereby said second lever is releasably connected with but may be moved by said oscillatable lever.

3. For a printing press a plurality of ink mechanisms each including in combination a fountain roller, a plurality of rolls for transferring ink to a specific series of printing plates of the press, a pick-up roller normally in contact with the fountain roller and with a roll of the plurality of rolls, an eccentric mounting for said pick-up roller, manually actuated means for swinging said pick-up roller in its eccentric mounting to remove it from contact with the fountain roller, each of the pick-up rollers of the plurality of inking mechanisms being independently capable of silencing feeding of ink from its fountain roller an inker carriage in which said ink mechanisms are mounted for movement toward and away from the printing plates to be inked thereby and means actuated by movement of the carriage into operative inking position for restoring said pick-up rollers to operative position.

4. For a printing press, inking mechanism including in combination a carriage, an inking train supported on the carriage, a fountain roller normally feeding ink to a pick-up roller forming part of the ink train, an eccentric mounting for the pick-up roller, manually operable means mounted on the carriage acting in one position to cause the pick-up roller to be rotated in its eccentric mounting out of contact with the fountain roller to discontinue the feeding of ink to the ink train, and in another position to normally maintain the pick-up roller in effective inking contact with the fountain roller, a lever connected to move said eccentric mounting, a second lever oscillated by movements of the carriage into and out of inking engagement, latch means connecting said levers whereby the eccentric is moved by the carriage with the latch connecting the levers and the eccentric may be moved independently of the oscillated lever with the latch in unlatched position.

5. For a printing press, inking mechanism including in combination an inking train, a fountain roller feeding inking thereto through a normally contacting pick-up roller, an eccentric mounting for the pick-up roller, resilient pressure means for normally urging the eccentric mounting into a normal operating position where close peripheral contact is established between the fountain roller and inking train for feeding ink, a handle adapted to be unlatched manually from the normal operating position and moved pivotally to another position, and linkage means connecting said handle with said eccentric mounting for the pick-up roller for rocking said eccentric mounting and disconnecting the peripheral contact of the pick-up and fountain roller in the other position of the handle.

6. For a printing press, inking mechanism including in combination an inking train, a fountain roller feeding inking thereto through a normally contacting pick-up roller, an eccentric mounting for the pick-up roller, pressure means for normally urging the eccentric mounting into a normal operating position where close peripheral contact is established between the fountain roller and inking train for feeding ink, a handle adapted to be operated manually from the normal operating position and moved to another position, and means connecting said handle with said eccentric mounting for the pick-up roller for rocking said eccentric mounting and disconnecting the peripheral contact of the pick-up and fountain roller in the other position of the handle.

7. For a printing press, inking mechanism including in combination a movable carriage, an inking train and a fountain roller supported by said carriage, an eccentrically mounted pick-up

roller in peripheral contact normally with the fountain roller and with the ink train, pressure means for normally urging the pick-up roller into said peripheral contact, a handle provided with a pair of latches and connected to said pick-up roller, said handle being normally held in latched position and with the pick-up roller in said peripheral contact but adapted to be manually unlatched to move the pick-up roller eccentrically out of peripheral contact and thus discontinue to supply ink to the ink train, a lever moved by said carriage and engagable with one of said latches for moving said handle to latched position as the carriage is moved from non-inking to inking position.

8. For a printing press, inking mechanism including in combination a movable carriage, an inking train and a fountain roller supported by said carriage, an eccentrically mounted pick-up roller in peripheral contact normally with the fountain roller and with the ink train, pressure means for normally urging the pick-up roller into said peripheral contact, a handle provided with a pair of latches and connected to said pick-up roller, one of said latches being held by a fixedly associated stud and the other latch being held by a stud adapted to be vertically moved relative to its latch, said handle being normally held in latched position with both studs in the same plane and supporting their respective latches, and with the pick-up roller in said peripheral contact but adapted to be manually unlatched to move the pick-up roller eccentrically out of peripheral contact and thus discontinue to supply ink to the ink train, a lever moved by said carriage and engagable with one of the latches on said handle for moving the handle from unlatched position to latched position as the carriage is moved to operative inking position.

9. For a printing press, an inking mechanism including in combination, a fountain roller, a plurality of rolls for transferring ink to the printing plates of the press, a transfer roller normally in contact with the fountain roller and with a roll of the plurality of rolls, and adapted for manual actuation for removing the transfer roller from contact with the fountain roller at any desired time, said means including a mounting for the pick-up roller actuated to swing said transfer roller away from said fountain roller an inker carriage in which said inking rollers and rolls are mounted moveable toward and from a printing cylinder to be inked and means actuated by movement of the inker carriage into operative inking

relation for moving the transfer roller into contact with the fountain roller.

10. For a printing press a plurality of ink mechanisms, each including in combination, a fountain roller, a plurality of rolls for transferring ink to a specific series of printing plates of the press, a pick-up roller normally in contact with the fountain roller and with a roll of the plurality of rolls, a mounting for said pick-up roller, manually actuated means for swinging said pick-up roller in its mounting to remove it from contact with the fountain roller, each of the pick-up rollers of the plurality of inking mechanisms being independently capable of silencing feeding of ink from its fountain roller an inker carriage in which said inking mechanisms are mounted for movement toward and from the printing plates to be inked, and means operated by movement of the carriage into operative inking position for restoring said pick-up rollers to operative position.

11. For a printing press, inking mechanism including in combination a carriage, an inking train supported on the carriage, a fountain roller normally feeding ink to a plurality of rolls including a transfer roller forming part of the ink train, an eccentric mounting for the transfer roller, manually operable means mounted on the carriage acting in one position to cause the eccentric mounting to be rotated to move the transfer roller out of contact with the other rolls of the inking train to discontinue the feeding of ink to the ink train, and in another position to normally maintain the transfer roller in effective inking contact with the other rolls of the inking train, means operated by said carriage and releasably engaging said manually operable means for moving the transfer roll into contact with the other rolls as the carriage is moved into operative inking position.

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