Oct. 12, 1948. W. G. H. FINCH ET AL 2,451,080

FACSIMILE TRANSMITTER SHEET LOADING AND STRIPPING MECHANISM

Filed Dec. 17, 1946 3 Sheets-Sheet 1

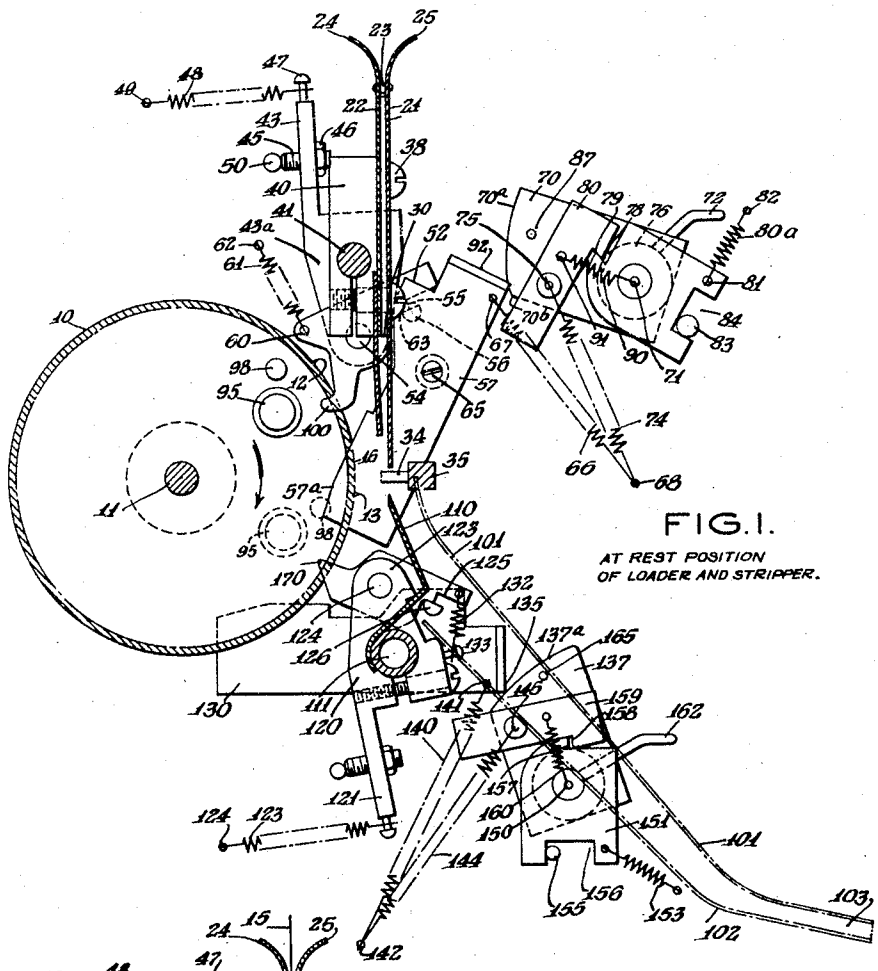

FIG. 1.

AT REST POSITION OF LOADER AND STRIPPER.

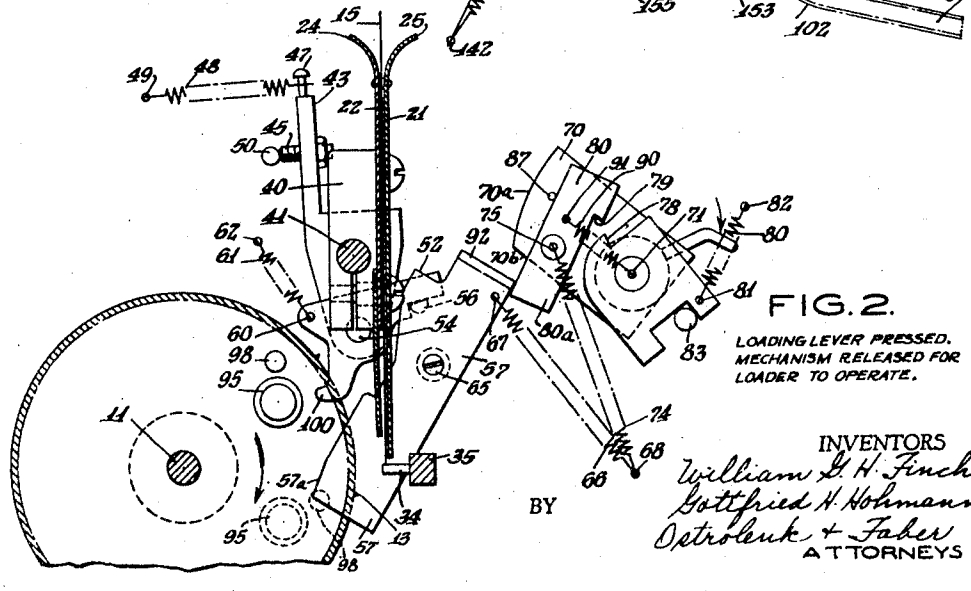

FIG. 2.

LOADING LEVER PRESSED. MECHANISM RELEASED FOR LOADER TO OPERATE.

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FACSIMILE TRANSMITTER SHEET LOADING AND STRIPPING MECHANISM

Filed Dec. 17, 1946 3 Sheets-Sheet 2

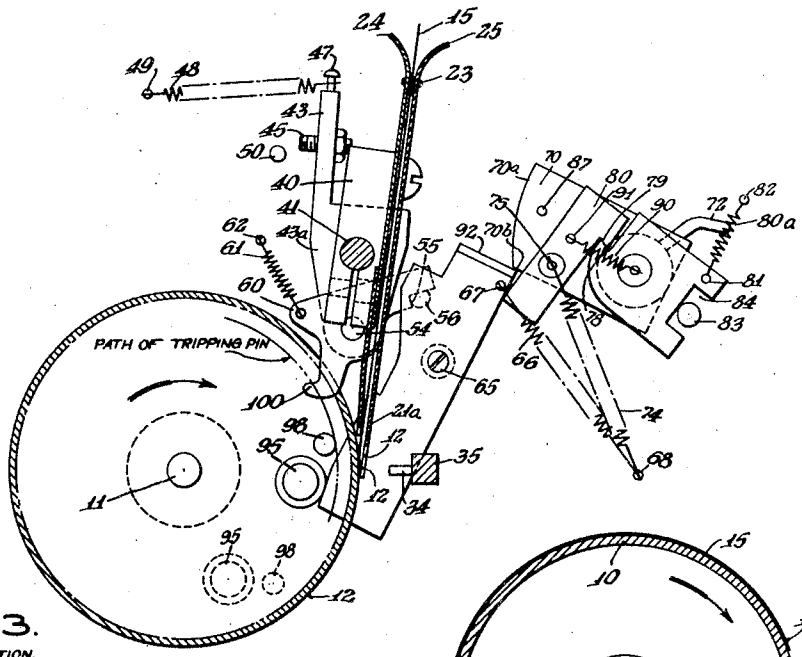

FIG. 3.

LOADING POSITION. MECHANISM READY FOR RESETING.

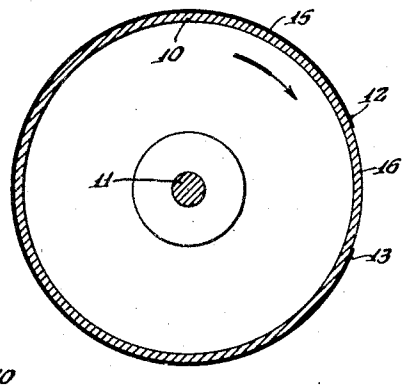

FIG. 5.

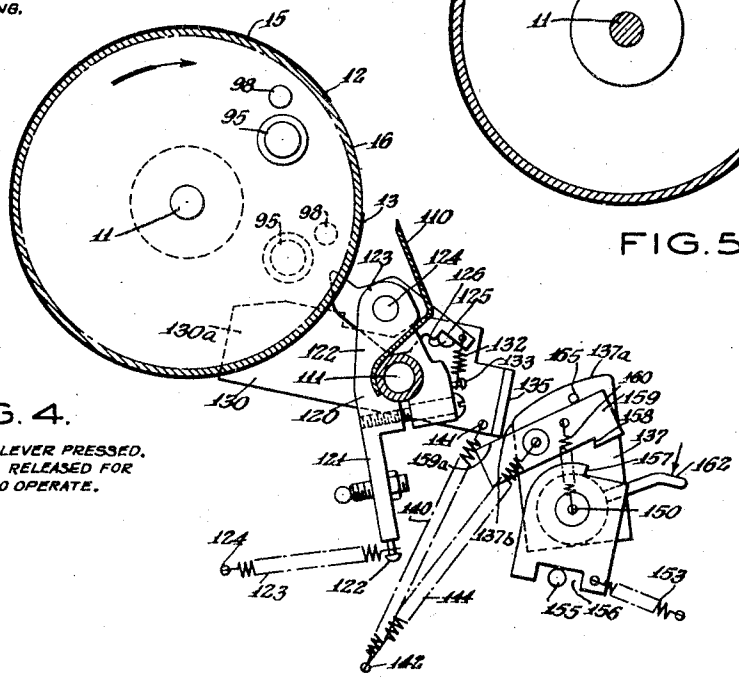

FIG. 4.

STRIPPING LEVER PRESSED. MECHANISM RELEASED FOR STRIPPER TO OPERATE.

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FACSIMILE TRANSMITTER SHEET LOADING AND STRIPPING MECHANISM

Filed Dec. 17, 1946 3 Sheets-Sheet 3

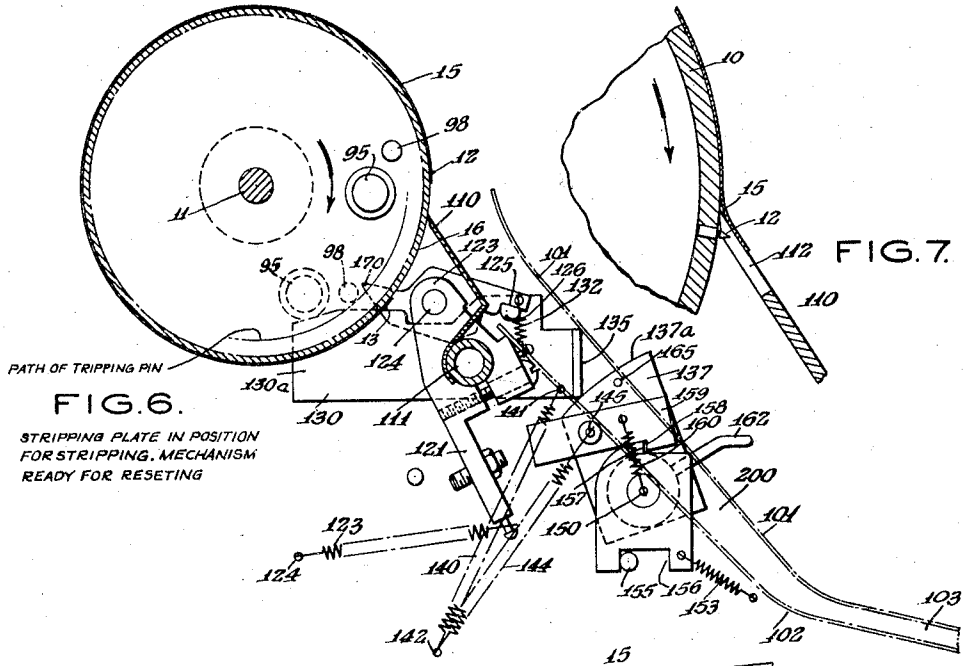

FIG.6.

STRIPPING PLATE IN POSITION FOR STRIPPING. MECHANISM READY FOR RESETING

FIG.7.

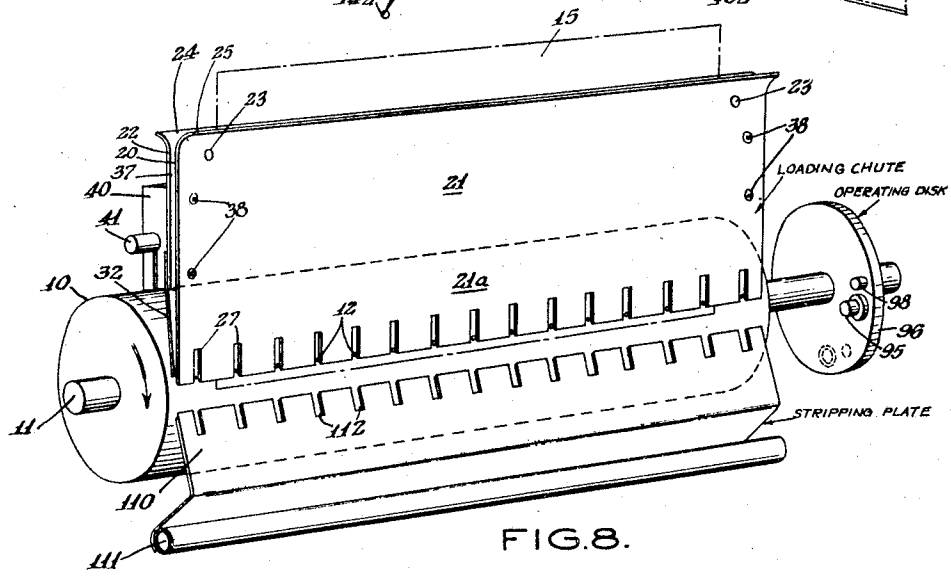

FIG.8.

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2,451,080

FACSIMILE TRANSMITTER-SHEET LOADING AND STRIPPING MECHANISM

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Application December 17, 1946, Serial No. 716,772

7 Claims. (Cl. 271—3)

1

Our present invention relates to facsimile apparatus of the type in which a record sheet is helically scanned on a drum and more particularly to automatic means for mounting and securing a record sheet on the drum and for automatically removing the same at the conclusion of the scanning operation. Heretofore, various devices requiring manual operations have been utilized for mounting facsimile sheets on both the transmitting and receiving drums of facsimile apparatus. These devices have included clamps, garter springs and various other arrangements which required manual wrapping of the sheet around the drum and manipulation of the various securing elements.

Our invention contemplates a device in which the user of the facsimile apparatus will simply drop a sheet into a slot and press a button; the apparatus will then wrap the sheet around the drum and secure the sheet thereon.

At the conclusion of the transmitting and recording operation, the operator of the apparatus need merely press another button and the machine will thereupon release the sheet from the drum and deliver the same to the outside of the machine.

Essentially, our invention contemplates a construction in which the drum is provided with two rows of pins or other similar securing members extending parallel to the axis of the drum; the space between the pins being relatively small, slightly larger than the angular rotation of the drum required for synchronizing purposes.

Our apparatus includes a pressure plate so arranged that it may receive and hold a sheet with means for moving the leading edge of the sheet against one of the rows of pins so that the sheet may be impaled thereon. Subsequent rotation of the drum winds up the sheet around the drum and when the trailing edge passes the second row of pins, this edge is also impaled thereon. On completion of the scanning operation, a stripper bar or blade is moved into engagement with the drum to pick up the leading edge of the sheet from the pins. The stripper bar or blade remains in contact with the drum for one revolution until it strips off the trailing edge of the sheet from the drum. The sheet then slides out through an appropriate opening in the housing of the apparatus.

A primary object of our invention is, therefore, the provision of novel means for mounting a sheet on the drum of facsimile apparatus.

Another object of our invention is the provision

2

of novel automatic means for securing a sheet around the drum of facsimile apparatus.

Another object of our invention is the provision of novel automatic means for mounting and removing facsimile sheets with respect to the drums of facsimile apparatus.

Heretofore such a stripping and loading mechanism designed to perform essentially the same function utilized spring biased members in order to force the pressure plate or the stripper bar into engagement with the drum and utilized cam members to force the pressure plate or stripper bar away from the drum.

While apparatus of this type, shown in application Serial No. 643,105, is feasible and practical, it has been found to be better practice to use a positively driven member to actuate the pressure plate or stripper bar into engagement with the drum at exactly the proper moment and to use the spring member for resetting purposes.

Accordingly, the primary object of the present application is the provision of novel operating means for the pressure plate and stripper bar, the said operating means depending on direct mechanical action to actuate the pressure plate and stripper bar into engagement with the drum at exactly the proper moment and utilizing spring members for resetting purposes only.

The foregoing and many other objects will become apparent in the following description and drawings in which:

Figure 1 is a schematic side view of our pressure plate and stripper bar actuating mechanism, showing the same in the at rest positions.

Figure 2 is a view of the pressure plate or loading plate mechanism showing the apparatus in the initial loading position with the loading lever pressed.

Figure 3 is a view corresponding to that of Figure 2 showing the pressure or loading plate in the actual loading position.

Figure 4 is a side view corresponding to the lower portion of Figure 1 showing the stripper bar mechanism in the initial position for stripping a sheet from the drum.

Figure 5 is a cross sectional view of the drum showing the paper or sheet mounted thereon.

Figure 6 is a view corresponding to that of Figure 5 showing the full unloading position of the stripper bar.

Figure 7 is an enlarged view showing the manner in which the stripper bar operates to unload a sheet from the drum.

Figure 8 is a view in perspective showing the

cooperation between the loading plate and the stripping bar and the drum.

Referring first to Figures 1 to 8, the drum 10 mounted on shaft 11 is provided with a row of pins 12 and a row of pins 13. In operation, the loading mechanism hereinafter described impales the leading edge of the sheet carrying an image to be transmitted on the pins 12; then as the drum 10 continues to rotate, it pulls the sheet 15 from the loading mechanism and winds it around the drum until the trailing pins 13 move opposite the loading mechanism when the trailing edge of the sheet is impaled on the drum.

The gap 16 on the drum between pins 12 and 13 is provided in order to permit the loading mechanism and the sheet stripping mechanism hereinafter described to operate. The operations are mechanically timed although they are manually initiated; that is, although the loading and stripping levers may be pressed at any time, the pressing of these levers simply presets the mechanism so that the loading or stripping plates will be tripped at the proper position at the appropriate time with respect to the pins 12 and 13. Thus the loading mechanism is operated mechanically so that the loading plate will engage the drum 10 when the area 16 thereof moves opposite the end of the loading plate so that the pins 12 will first impale the leading edge of the sheet to be loaded. The loading plate of the mechanism remains in position against the drum until pins 13 have passed the plate and then the loading plate is withdrawn from engagement with the drum while the area 16 registers with the loading plate. Similarly the stripper bar, after the stripper lever has been pressed, is mechanically actuated into engagement with the drum when the area 16 of the drum passes the edge of the stripper bar. The stripper bar then moves into engagement with the area 16 before the pin 12 reach the stripper bar. The stripper bar then peels the sheet from the drum 10, remaining in engagement with the drum until the pins 13 pass the stripper bar; the stripper bar is then withdrawn mechanically from the drum as the area 16 passes the stripper bar.

In Figure 1 we have shown both the loading plate and stripper mechanism in the at rest position. In Figures 2 and 3 we have shown the operation of the loading mechanism. In Figures 4 and 6 we have shown the operation of the stripping mechanism. In Figure 8 we have shown the arrangement of the loading plate and stripper plate.

The loading plate 20 actually comprises a pair of parallel plates 21 and 22 spaced from each other in any appropriate manner as, for instance, by the spacing rivets 23. The upper ends of plates 21 and 22 are flared outwardly at 24 and 25 in order to permit a sheet readily to be inserted therebetween.

The front plate 21 extends down to the point of contact with the drum being provided with a series of open ended slots 27—27 in order to permit the lower end of the plate 21 to clear the pins while the lower end of the plate is in engagement with the drum. The back plate 22 terminates at 30 substantially above the area of contact with the drum and is provided with a plurality of leaf spring extensions 32 extending down and furnishing a lower guide for the sheet 15 as shown in Figures 1, 2, 3 and 8.

The sheet 15 rests, as shown in Figure 2, on the pins or studs 34 carried by the cross bar 35 which prevents the sheet from dropping down out of the chute formed by plates 21 and 22.

When the loading plate is actuated from the position shown in Figure 2 to the position shown in Figure 3, the lower end 21a of plate 21 impales the sheet on the pins 12 and the sheet, of course, by this movement is moved off the pins 34. The open ended slots 27 in the lower end 21a in plate 21 permit the pins to pass the plate 21 while nevertheless the pins impale the leading edge of sheet 15.

The entire chute formed of plates 21 and 22 is integrated or bound together by the side pieces 37 and the screws 38 which are only end pieces or shims to provide clearance for the paper sheet. The rivets 23 fix the maximum width of sheet that can be loaded into the chute. The screws 38 also secure the chute, consisting of plates 21 and 22 to the cross bar 40 which cross bar is in turn rotatably mounted on the shaft 41.

Thus the loading chute consisting of plates 21 and 22 may swing from the positions of Figures 1 and 2 to the position of Figure 3 for loading purposes. The cross bar 40 also has the lever 43 secured thereto and also rotatably mounted on the shaft 41. The upper end of lever 43 is provided with the bolt 47 connected to tension spring 48, the opposite end of which spring is connected to the stationary pin 49 mounted on the frame of the machine. The tension spring 48 thus biases the loading chute consisting of plates 21 and 22 in a counterclockwise direction to the position shown in Figure 1.

The at rest position of the loading chute shown in Figure 1 is obtained by the adjusting screw 45 on lever 43 which may be locked in adjusted position by the lock nut 46 and which bears against the stationary pin 50 on the frame of the machine to limit the counterclockwise rotation of the chute 21—22 about the shaft 41 to approximately the vertical at rest position shown in Figure 1.

The lower end 43a of the lever 43 below the shaft 41 carries the latch 52 rotatably mounted on the pin 54. The latch is provided with a latch detent to engage the latch element 56 on the operating lever 57 hereinafter described. The end of the latch member 52 opposite the latching detent 55 is connected at 60 to the tension spring 61, the opposite end of which spring is connected to the stationary pin 62. Thus the latch lever 52 is biased into a clockwise rotation by spring 61 about the pin 54.

The latch lever is restrained against clockwise rotation under the influence of spring 61 by reason of the fact that its under surface 63 rests on the latching element 56. The operating lever 57 is rotatably mounted on the pin 65 and is biased into clockwise rotation by the tension spring 66 connected at 67 to the operating lever and at its opposite end to the stationary pin 68.

An operating cam 70 is rotatably mounted on the pin 71 and is provided with the lever 72 which lever may be manually depressed to rotate the operating cam 70 in a clockwise direction. The operating cam 70 is biased, however, to counterclockwise rotation by the tension spring 74 connected to the pin 75 on the operating cam 70 and connected at its opposite end to the pin 68.

A one-tooth ratchet member 76 is rotatably mounted on the pin 71 concentrically with the operating cam 70, the single tooth 78 thereof engaging the pin 79 on the lever 80, which lever is pivotally mounted on the pin 75 carried by the operating cam 7. The ratchet 76 is provided with a tension spring 80 connected at 81 to the ratchet and at 82 to the stationary pin on the

frame of the machine with tension spring 80 biasing the ratchet 76 towards counterclockwise rotation.

The stationary pin 83 operating in the recess 84 of the single tooth ratchet 76 limits the counterclockwise rotation of the ratchet member 76 in the at-rest position. The operating cam is also provided with a stop pin 87 to limit rotation of the small lever 80 hereinafter described.

The lever 80 is, however, biased to clockwise rotation about the pin 75 by the tension spring 90 connected at 91 to the lever 80, the opposite end of the tension spring 90 being connected to the pin 71. In the at-rest position shown in Figure 1, the upper end 92 of the operating lever 57 bears against the surface 70a of the operating cam 70 which thus resists the bias of spring 66 which would otherwise rotate the operating lever 57 in a clockwise direction about the pin 65.

When now the manual lever 72 is depressed to the position shown in Figure 2, the operating cam 70 is rotated in a clockwise direction. The tension spring 80 thus rocks the ratchet 76 counterclockwise with respect to the cam 70 to disengage the tooth 78 thereof from the tooth 79 of the small lever 80 on the operating cam 70 and the cam surface 70a of the operating cam 70 is removed from engagement with the upper end 92 of the operating lever 57.

The spring 66 now rotates the operating lever 57 clockwise about the pin 65 so that the upper end 92 of the operating lever 57 strikes the lower end 80a of the lever 80 rotating the lever 80 counterclockwise about its pin 75 against the tension of spring 90. The lever 80 thus rotates to a position where it is stopped against the pin 87, thus furnishing an accurate stop for the operating lever 57.

When the manual operating lever 72 is immediately thereafter disengaged, the spring 74 tends to return the operating cam 70 to its initial position but as shown in Figure 3, the surface 70b of the operating cam 70 now rests on the top end 92 of the operating lever 57, and the operating lever 57 has been rotated from the position of Figure 1 where it will not engage the actuating pin 95 to the position of Figure 3 where it will be engaged by the actuating pin 95. The actuating pin 95 is mounted on the operating disk 96 which is concentric with the drum 10 and secured to the shaft 11 on which the drum rotates.

The pin 95 engages the lower end 57a of the operating lever 57 at the time when the area 16 of the drum has moved opposite the lower end of the loading plate 21. The actuating pin 95 is longer than the resetting pin 98 hereinafter described, so that the resetting pin 98 my move under the end 57a of the operating lever 57 without having any effect on the same, while however, the actuating pin 95 actually contacts the lower end 57a of the operating lever 57 and the operating lever 57 is in the position of Figure 3 but does not contact the operating lever 57 when the operating lever 57 is in the position of Figure 1.

At the same time, when the operating lever 57 reaches the position of Figure 2, the latch element 56 thereof engages the latching detent 55 of the latch 52. Consequently, any counterclockwise movement of the operating lever 57 will result in clockwise rotation of the loading plate 21 about its shaft 41 since the latch 52 is secured to the loading plate 21 in the manner previously described below the shaft 41.

Now therefore when the actuating pin 95 engages the lower end 57a of the operating lever 57 when the operating lever 57 is in the position of Figure 2, it will move all of the elements from the position of Figure 2 to the position of Figure 3 and the operating lever 57 through the latch element 56 and latching detent 55 of latch 52 will move the loading plate 21 so that the lower end 21a thereof moves against the drum 10 at the region 16 so that the leading edge of the sheet will be in a position to be impaled by the pins 12.

It will be noted that the release pin 98 has already passed the release lever 100 of the latching lever 52 at this time so that the loading plate 21 will continuously remain in the position of Figure 3 until the release occurs and thus the sheet will be pulled out of the chute 21—22 until the trailing edge of the sheet is impaled on pins 13. Immediately thereafter the release pin 98 will engage the tip or trigger lever 100 of latching lever 52 rotating the latching lever 52 counterclockwise about its pin 54 to release the latching detent 55 from the latch element 56 so that spring 48 may snap the chute 21—22 back to the position of Figure 1 and the loading operation is complete.

It will be noted that Figure 3 shows the movement of the plate 21 to the loading position just before the same has been fully completed. At this time the actuating pin 95 has not completed its stroke with respect to the lower end 57a of the operating lever 57. At the completion of the stroke of operating pin 95 with respect to the operating lever 57, the upper end 92 of the operating lever has been moved to the position of Figure 1 so that spring 74 may restore the cam 70 and its associated elements to the position of Figure 1.

At this time, however, the operating lever 57 has completed the job of impaling the leading edge of the sheet on pins 12 and the chute 21—22 is maintained in the loading position by the detent 55 of latch 52 engaging latch element 56. Consequently the operating lever 57 is also back in the position of Figure 1 but the engagement of elements 55—56 maintains the chute 21—22 in loading position until the latch 52 is tripped as above described by the pin 98.

Thus in order to load a sheet, the lever 72 must be depressed and must be held depressed until the operating pin 95 engages the lower end 57a of the operating lever 57. As soon as this engagement is achieved and the leading edge of the sheet is impaled upon the pins 12, the loading lever 72 may be released and the operation will proceed through to the full loading in accordance with the cycle established by the machine.

Then the cross bar 35 above described which carries the sheet supporting pin 34 is mounted in any suitable manner, as for instance across the frame of the machine or on the upper wall 101 of the delivery chute.

The stripper bar 110 is rotatably mounted on the shaft 111 and is provided with a series of open ended slots 112 to clear the pins 12 and 13. When the stripper bar engages the drum as shown in Figure 6 and in the enlarged view of Figure 7, the rotation of the drum 10 against the stripper bar permits the stripper bar to peel the sheet 15 from the drum 10.

The stripper bar 110 remains in engagement with the drum 10 for one complete revolution so that it may peel the sheet from the pins 12 and continue to remove the sheet as the drum rotates until the sheet is pulled off the pins 13. The sheet then slides down the outer surface of

the stripper bar 110 and through any suitable delivery chute.

The stripper bar 110 has secured thereto the lever 120 having the downward extension 121 which is connected at 122 to the tension spring 123 which tension spring is connected to the stationary pin 124 thereby biasing the lever 120 and the stripper bar into counterclockwise rotation away from the drum.

The upper end of the lever 122 carries the latching lever 123 pivotally mounted at 124 on the said upper end 122 of lever 120. Latching lever 124 is provided with the latching detent 125 to engage the latching element 126 on the operating lever 130. The latch 123 is biased to clockwise rotation by the tension spring 132 engaging the pin 133 on the main lever 120.

In the at-rest position of all of the parts, the upper end 135 of the operating lever 130 bears against the surface 137*a* of the operating cam 137. The operating lever 130 is biased to clockwise rotation by the tension spring 140 connected at 141 to the operating lever and the opposite end of the spring being connected to the stationary pin 142. The operating cam 137 is biased to counterclockwise rotation by the tension spring 144 connected at one end to pin 145 on the operating cam 137 and connected at its other end to the pin 142.

The operating cam 137 is rotatably secured on the stationary pin 150. The single tooth ratchet 151 is also rotatably mounted on the pin 150, being biased by the tension spring 153 to rotation in a counterclockwise direction, but being limited in this rotation by the stop pin 155 operating in slot 156 of the ratchet 151. The single tooth 157 of the ratchet 151 engages the tooth 158 on the auxiliary lever 159 which lever is also pivoted on pin 145.

The auxiliary lever 159 is biased in a clockwise direction to the position shown in Figure 1 by the tension spring 160. When now the manual operating lever 162 is manually depressed to rotate the operating cam 137 from the position of Figure 1 to the position of Figure 4, the upper end 135 of the operating lever 130 drops off the cam surface 137*a* to strike portion 159*a* of lever 159 and moves the lever 159 from the position of Figure 1 to the position of Figure 4 where it is stopped by the stop pin 165.

Since the lever 130 has rotated from the position of Figure 1 to the position of Figure 4, the latching element 126 engages the latching detent 125 of the latch 123. On release of the operating lever 162, the cam 137 moves back to the position where the surface 137*b* thereof rests on the end 135 of lever 130. The lower end 130*a* of lever 130 has now moved to a position where the actuating pin 95 will strike the same. When the actuating pin 95 strikes the lever 130, the elements are moved from the position of Figure 4 to the position of Figure 6 where the end of the stripper bar 110 is moved against the section 16 of the drum and held against the section 16 of the drum for one revolution of the drum to strip the sheet 15 from the drum in the manner previously described.

The sheet then drops down the chute 200 formed from the chute walls 101 and 102 for delivery through opening 103.

When the actuating pin 95 moves the operating lever 130 to the full stripping position of Figure 6, the end 135 of the operating lever 130 rides up on the cam surface 137*a* of the operating cam 137 so that while the operating lever

130 has been replaced, the engagement of latch elements 125—126 holds the stripper bar 110 into engagement until it is tripped out. The tripping out occurs by the tripping pin 98 engaging the trigger 170 of the latching lever 122 to disengage elements 125—126 and thereby permit the spring 123 to move the stripper bar away from the drum.

By this means, therefore, a simplified apparatus is provided for positively mechanically forcing the loading plate against the drum and for positively mechanically forcing the stripper bar against the drum. When the loading mechanism or the stripping mechanism is forced into cooperative position with the drum, it is latched in by the latching elements 55—56 for the loading plate and latch elements 125—126 for the stripper bar until these latching elements are released by the tripping pin 98 actuating the trigger of the respective latching levers.

In the foregoing, we have described one preferred specific embodiment of our invention. Many variations and modifications of our invention will now be obvious to those skilled in the art, and we prefer therefore to be bound, not by the specific disclosures herein, but only by the appended claims.

We claim:

1. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; a loading plate having one end engageable with said drum; said loading plate including means for supporting a facsimile sheet; said loading plate being biased away from said drum; and means for driving one end of said loading plate against said drum; said last-mentioned means comprising an operating cam biased to a predetermined position and manually operable to a second predetermined position; an operating lever for moving the loading plate toward said drum and biased against said cam; and latch members connecting said operating lever and said loading plate; said latch members being normally disengaged; the movement of said operating cam to said second position causing said latch members to engage and permitting the operating lever to rotate to a second position under the influence of its bias; a pin movable with said drum and engaging an end of said lever to rotate the same back toward the first position thereof at a predetermined angular position of the drum; said engaged latch members transmitting the motion of the lever to the loading plate at said predetermined angular position of the drum.

2. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; a loading plate having one end engageable with said drum; said loading plate including means for supporting a facsimile sheet; said loading plate being biased away from said drum; and means for driving one end of said loading plate against said drum; said last-mentioned means comprising an operating cam biased to

a predetermined position and manually operable to a second predetermined position; an operating lever for moving the loading plate toward said drum and biased against said cam; and latch members connecting said operating lever and said loading plate; said latch members being normally disengaged; the movement of said operating cam to said second position causing said latch members to engage and permitting the operating lever to rotate to a second position under the influence of its bias; a pin movable with said drum and engaging an end of said lever to rotate the same back toward the first position thereof at a predetermined angular position of the drum; said engaged latch members transmitting the motion of the lever to the loading plate at said predetermined angular position of the drum and another pin on said drum engaging one of the latch members at another angular position of the drum to disengage said latch members and permit the loading plate biasing element and the operating lever biasing element to return them to their original positions.

3. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; and a stripper bar having a blade engageable with said drum; said stripper bar being biased away from said drum; and means for driving one end of said stripper bar against said drum; said last-mentioned means comprising an operating cam biased to a predetermined position and manually operable to a second predetermined position; and an operating lever for moving the stripper bar toward said drum and biased against said cam; latch members connecting said operating lever and said stripper bar; said latch members being normally disengaged; the movement of said operating cam to said second position causing said latch members to engage and permitting the operating lever to rotate to a second position under the influence of its bias; a pin movable with said drum and engaging an end of said lever to rotate the same back toward the first position thereof at a predetermined angular position of the drum; said engaged latch members transmitting the motion of the lever to the stripper bar at said predetermined angular position of the drum.

4. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; and a stripper bar having a blade engageable with said drum; said stripper bar being biased away from said drum; and means for driving one end of said stripper bar against said drum; said last-mentioned means comprising an operating cam biased to a predetermined position and manually operable to a second predetermined position; and an operating lever for moving the stripper bar toward said drum and biased against said cam; latch members connecting said operating lever and said stripper bar; said latch members being normally disengaged; the movement of said operating cam to said second position causing said latch members to engage and permitting the operating lever to rotate to a second position under the influence of its bias; a pin movable with said drum and engaging an end of said lever to rotate the same back toward the first position thereof at a predetermined angular position of the drum; said engaged latch members transmitting the motion of the lever to the stripper bar at said predetermined angular position of the drum; and another pin on said drum engaging one of the latch members at another angular position of the drum to disengage said latch members and permit the stripper bar biasing element and the operating lever biasing element to return them to their original positions.

5. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; and a facsimile sheet handling plate engageable with said drum; said plate being biased away from said drum; and means for driving one end of said plate against said drum; said last-mentioned means comprising an operating cam biased to a predetermined position and manually operable to a second predetermined position; an operating lever for moving the plate toward said drum and biased against said cam; and latch members connecting said operating lever and said plate; said latch members being normally disengaged; the movement of said operating cam to said second position causing said latch members to engage and permitting the operating lever to rotate to a second position under the influence of its bias; a pin movable with said drum and engaging an end of said lever to rotate the same back toward the first position thereof at a predetermined angular position of the drum; said engaged latch members transmitting the motion of the lever to the plate at said predetermined angular position of the drum.

6. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; and a sheet handling plate engageable with said drum; said plate being biased away from said drum; an operating lever; a member movable with said drum; manually operable means for moving said operating lever from a first position to a second position where it may be engaged by said member movable with the drum at a predetermined angular position of the drum; and a coupling between the operating lever and the plate; said coupling being disconnected in the first position of the operating lever and being connected in the second position thereof; said member movable with said drum engaging the lever when the lever is in the second position to move the sheet handling plate to the drum.

7. In facsimile apparatus, a rotatable cylindrical drum; means for mounting a facsimile sheet on said drum; said means comprising two rows of pins extending from the surface of the drum parallel to the axis of the drum; one row of pins

being adapted to impale one margin of said facsimile sheet; the other row of pins being adapted to impale the opposite margin of said facsimile sheet; and a sheet handling plate engageable with said drum; said plate being biased away from said drum; an operating lever; a member movable with said drum; manually operable means for moving said operating lever from a first position to a second position where it may be engaged by said member movable with the drum at a predetermined angular position of the drum; and a coupling between the operating lever and the plate; said coupling being disconnected

in the first position of the operating lever and being connected in the second position thereof; said member movable with said drum engaging the lever when the lever is in the second position to move the sheet handling plate to the drum, and another member movable with the drum disconnecting the coupling of another angular position of the drum.

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No references cited.