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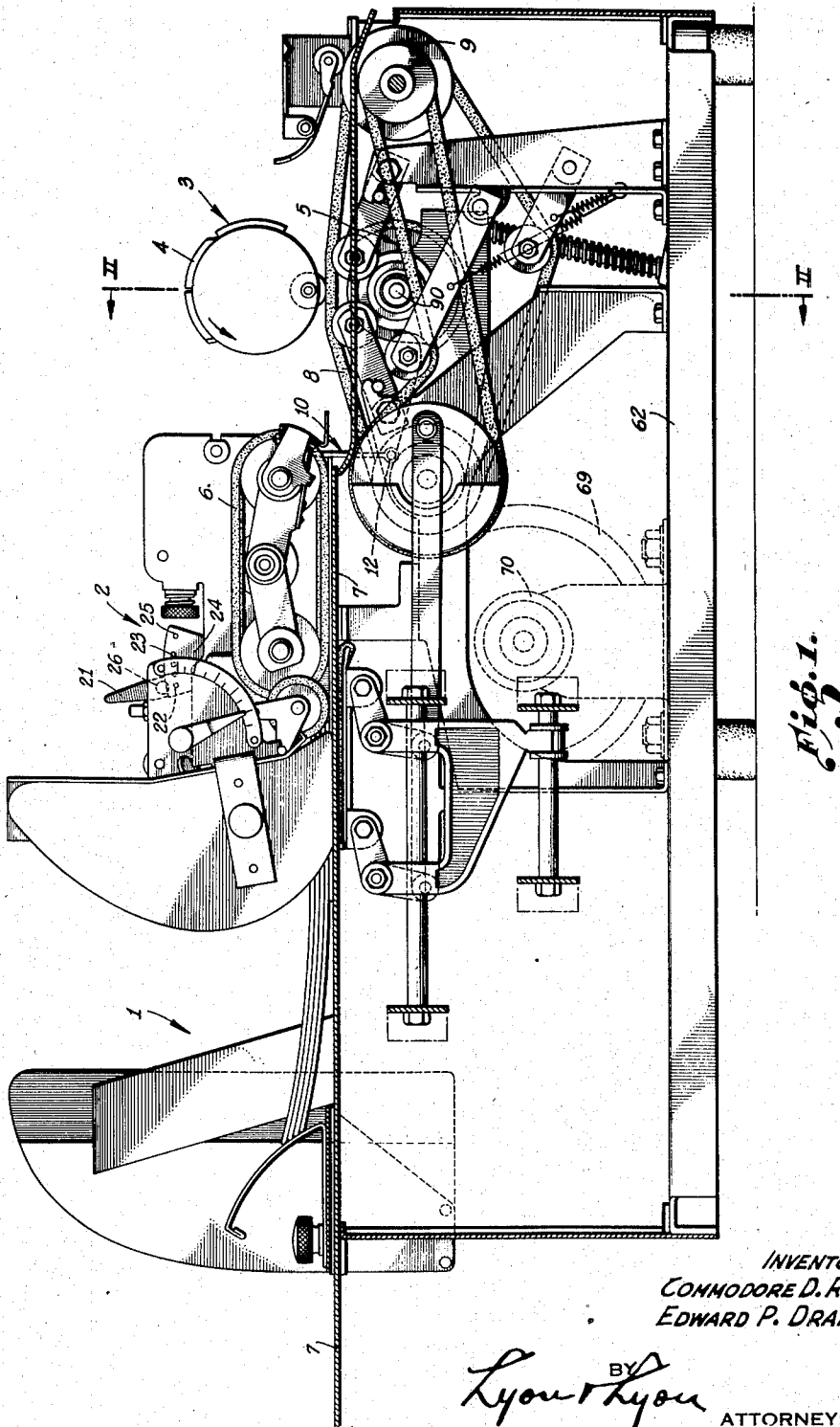
C. D. RYAN ET AL

2,363,554

TRIP AND CONTROL MECHANISM FOR MAIL TREATING MACHINES

Filed June 23, 1941

5 Sheets-Sheet 1



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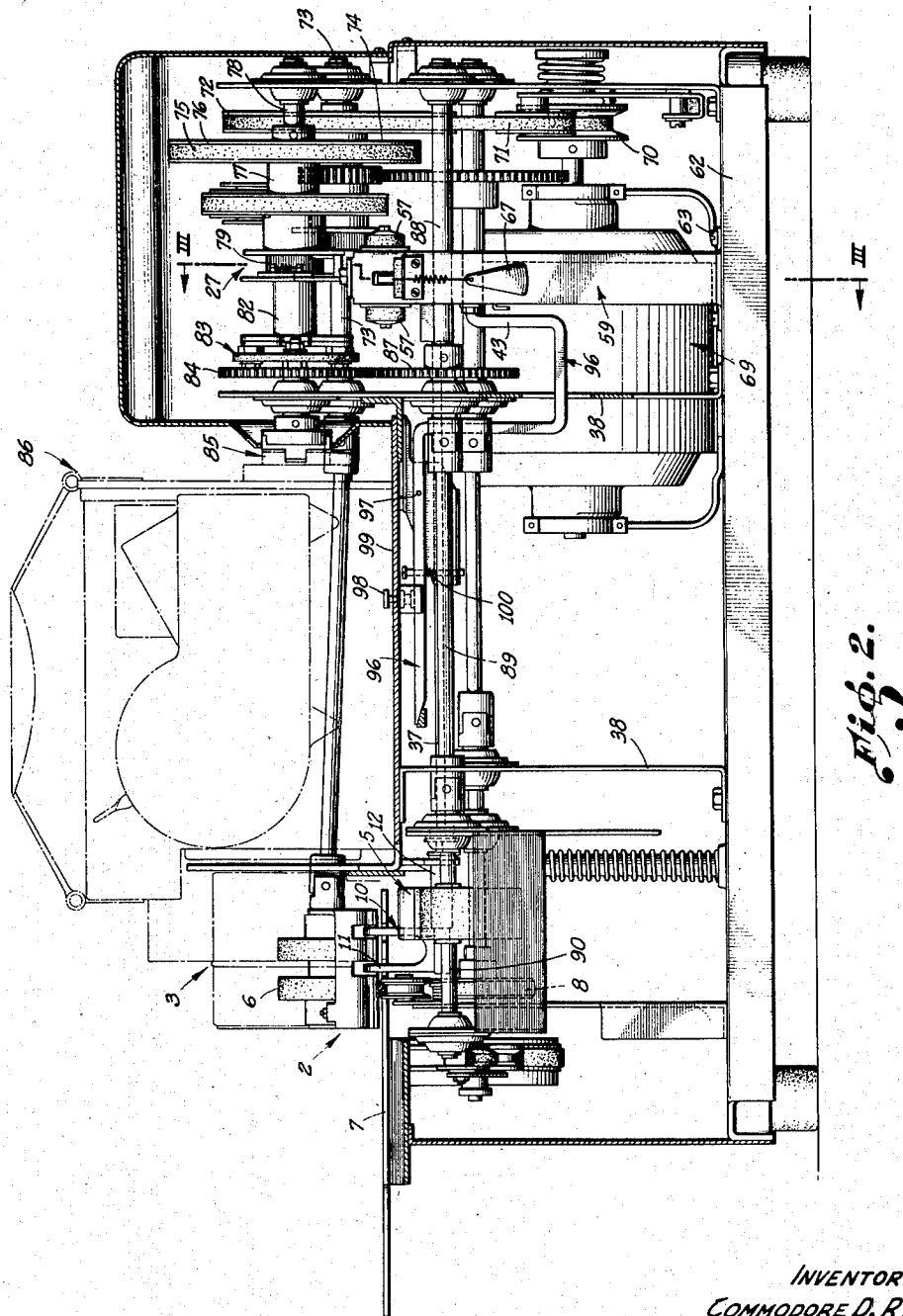


Fig. 2.

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Fig. 3.

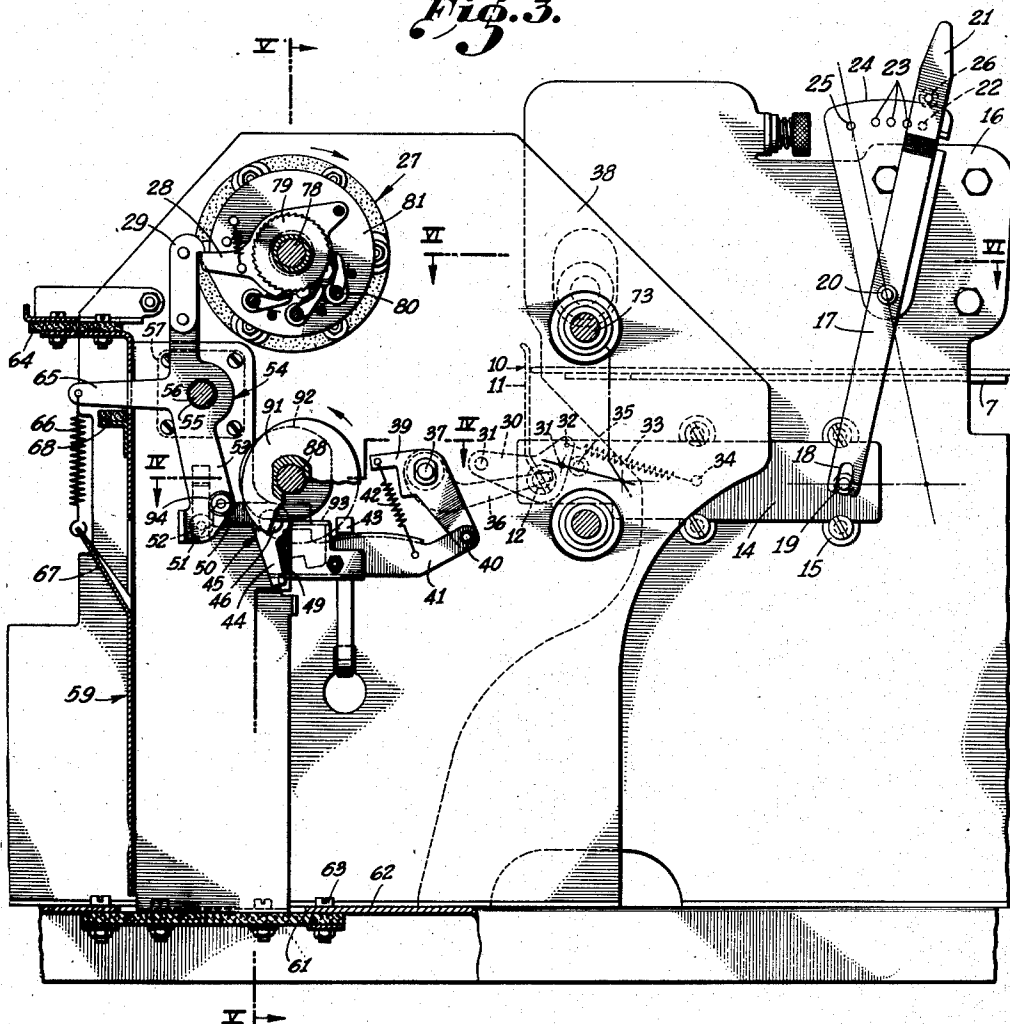
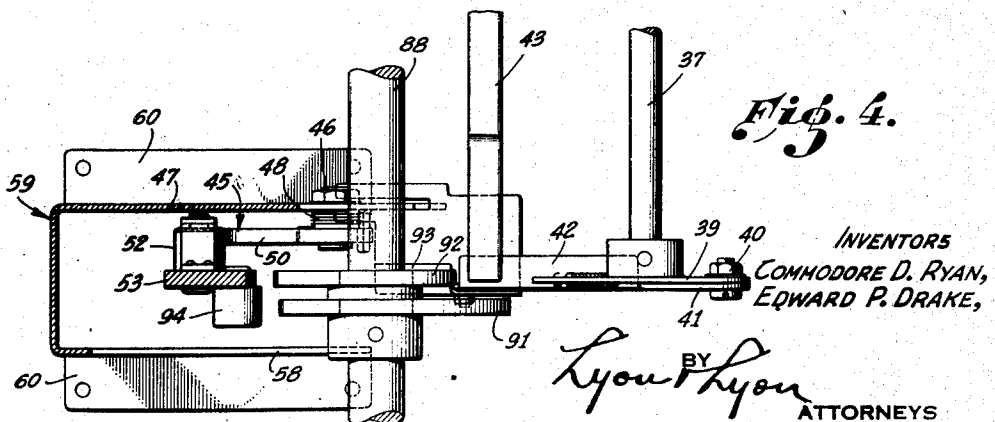


Fig. 4.



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Fig. 5.

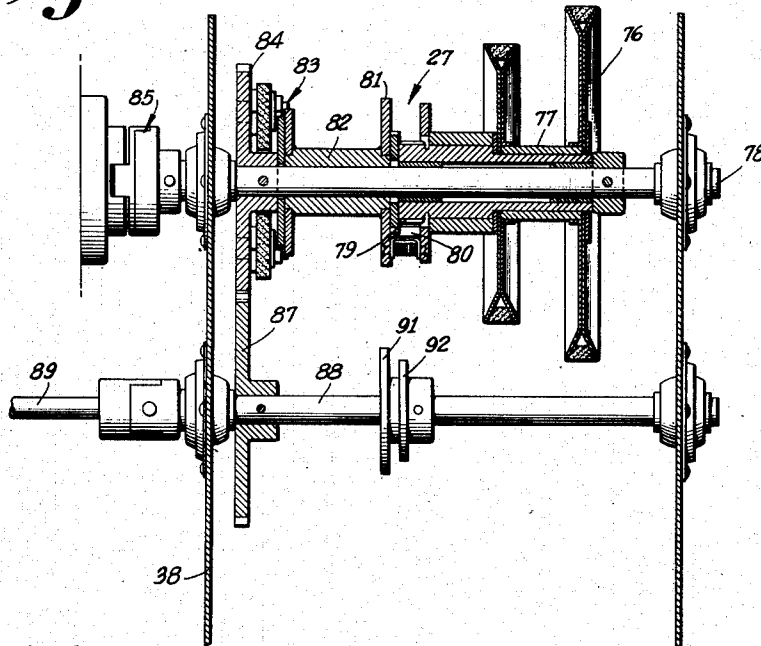
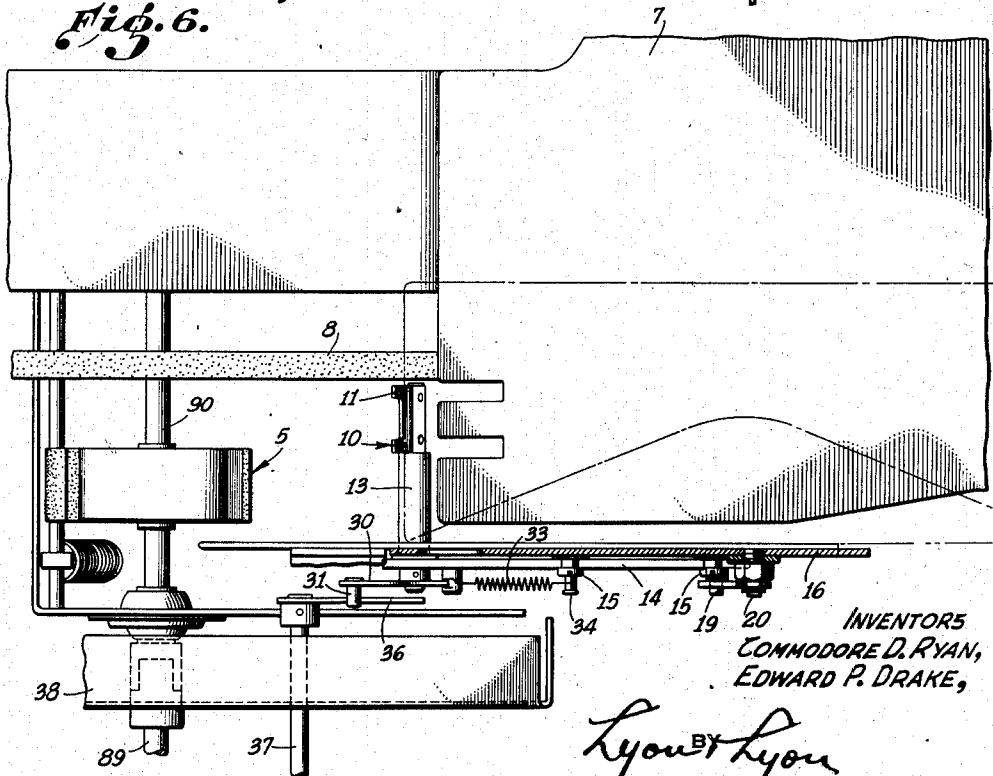


Fig. 6.



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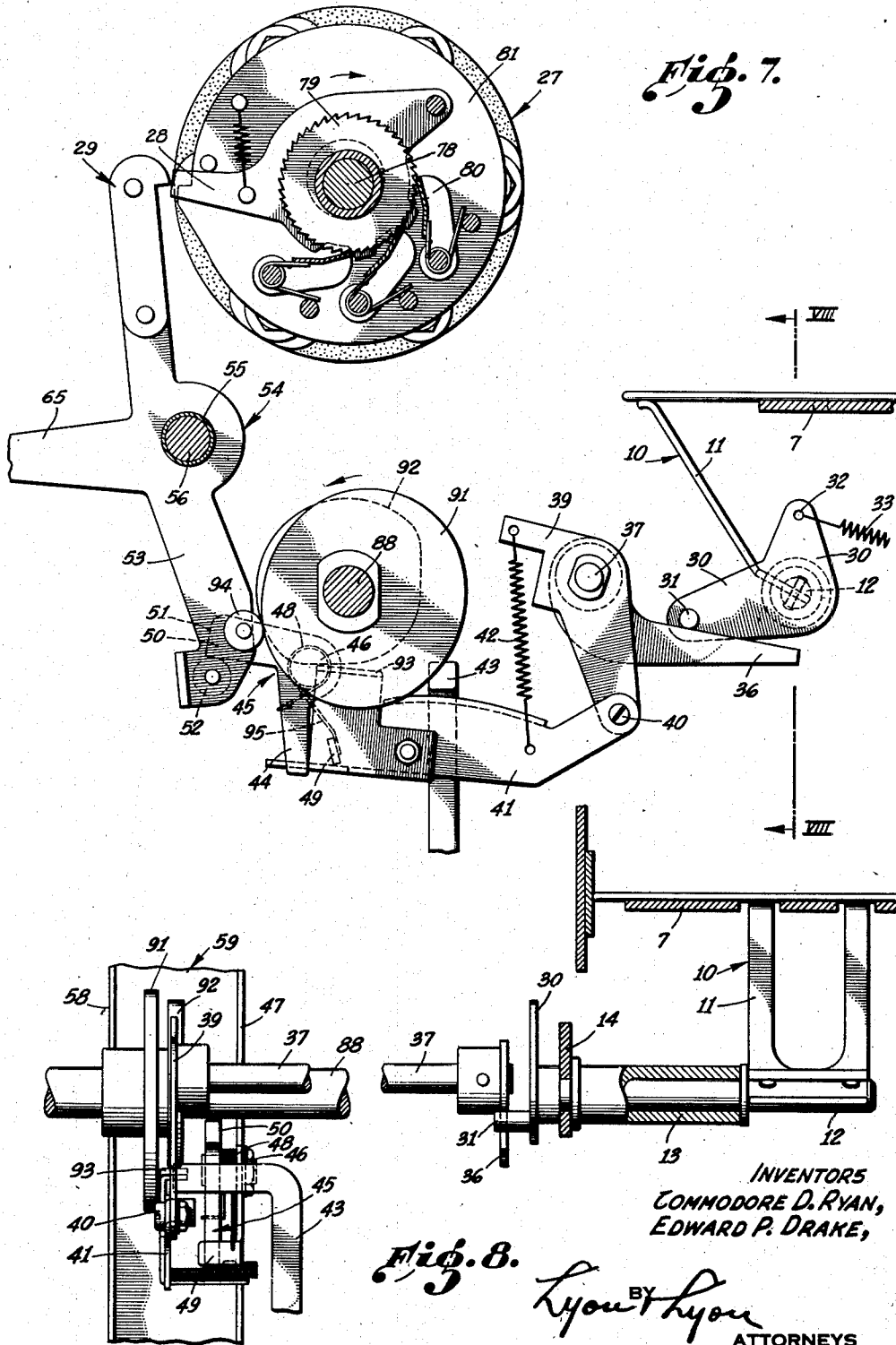
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UNITED STATES PATENT OFFICE

2,363,554

TRIP AND CONTROL MECHANISM FOR
MAIL-TREATING MACHINESCommodore D. Ryan and Edward P. Drake, Los
Angeles, Calif., assignors to Commercial Con-
trols Corporation, a corporation of Delaware

Application June 23, 1941, Serial No. 399,324

11 Claims. (Cl. 101—235)

This invention relates broadly to automatic machines for treating small objects, and is particularly applicable to mail-treating devices such as postage printing machines, in which a mechanism for acting upon a piece of matter is brought into action by movement of the object against a trigger.

An object of the invention is to provide a machine of the type referred to in which the trigger mechanism is extremely sensitive so that it can be positively actuated by contact thereagainst of very light and thin objects, without damage to the objects.

Another object is to provide a machine of the type referred to which is simple in construction, inexpensive to manufacture, reliable in operation, and inexpensive to maintain.

Another object of the invention is to provide a particularly simple and effective mechanism for adjusting the position of the trigger in a machine of the type referred to, and disabling the trigger when the machine is to be used for certain special purposes.

Other objects and features of the invention will become apparent from the detailed description to follow of a particular embodiment of the invention as incorporated in a postage printing machine.

Briefly, a postage printing machine of the type to which this invention relates, comprises a rotatable printing head and a cooperating rotatable platen adapted to be rotated by a suitable motor when an envelope or other piece of mail is fed to the printing head and platen with a trigger positioned in the path of the matter as it moves toward the printing head and a clutch mechanism for connecting the motor to the printing head and platen to start their rotation when the piece of matter is properly positioned to be engaged by the printing head and platen. The present invention relates chiefly to the construction of the trigger and the tripping mechanism actuated thereby for engaging the clutch that connects the motor to the printing head and platen. The construction of this trigger and tripping mechanism is such as to require very little pressure on the trigger to actuate it, while at the same time insuring positive operation of the tripping mechanism.

In the drawings:

Fig. 1 is a front elevation of a postage printing machine incorporating the invention, with portions of the case of the machine cut away to reveal the interior mechanism;

Fig. 2 is a vertical section in the plane II—II of Fig. 1;

Fig. 3 is a vertical section in the plane III—III of Fig. 2;

Fig. 4 is a horizontal section taken substantially along the line IV—IV of Fig. 3;

Fig. 5 is a vertical section, taken substantially along the line V—V of Fig. 3;

Fig. 6 is a horizontal section, taken in the plane VI—VI of Fig. 3;

Fig. 7 is a skeleton view showing the trigger, clutch and tripping mechanism in a different position of operation from that shown in Fig. 3; and

Fig. 8 is a skeleton view taken substantially in the plane VIII—VIII of Fig. 7;

Referring first to Fig. 1, the postage printing machine therein disclosed comprises as its main essential elements a hopper 1 for containing a stack of objects, such as envelopes, to be stamped; a stripping and conveying mechanism 2 for removing envelopes from the hopper one at a time and moving them toward the printing mechanism; and a printing mechanism 3 which includes a printing head 4 positioned above the path of travel of the envelopes and a cooperating platen 5 positioned below the printing head.

The exact construction of the hopper and stripping mechanism is of no particular interest in connection with the present invention, and will not be described further. Suffice it to say that the envelopes are removed one at a time from the hopper and delivered to a conveyor 6 which frictionally engages the upper surface of each envelope and advances it along a table 7. As each envelope is projected past the table 7, it is engaged by an additional conveyor belt 8 which carries it between the printing head 4 and the platen 5. Whereas the conveyor belts 6 and 8 operate continuously, the printing head 4 and platen 5 are normally stationary but are started automatically in response to delivery of an envelope thereto, are rotated through one revolution to print on the envelope, and are then stopped pending the delivery of another envelope by the conveyor 6. As each envelope is discharged from between the printing head 4 and platen 5, it passes over an ejector roll 9, which ejects it from the machine.

The mechanism for tripping the printing head and platen into action includes a trigger 10 positioned in the path of the envelopes closely adjacent the discharge end of the table 7. This trigger 10 comprises a bifurcated arm 11 projecting upwardly from a horizontal shaft 12 which extends rearwardly through a supporting journal 13 (Figs.

6 and 8). The journal 13 is rigidly connected to a slidable bar 14 which is supported for longitudinal sliding movement by screws 15 secured to a vertical wall 16 of the machine. The bar 14 (Fig. 3) can be adjusted into any one of a plurality of different longitudinal positions, and held in any of the positions by a lever 17 having a slot 18 at its lower end engaging a pin 19 in the bar 14. The lever 17 is fulcrumed at 20 to the wall 16 and its extreme upper end constitutes an actuating handle 21. A short distance below the handle 21 there projects forwardly (rearwardly with respect to Fig. 3) from the lever 17 a short pin 22 which is adapted to engage different ones of a plurality of holes 23 or a hole 25 in a segment 24 positioned alongside and attached to the wall 16. By pressing the handle 21 of lever 17 forwardly, the pin 22 can be disengaged from a hole 23 to permit the lever to be moved into position to engage another of the holes 23, or the hole 25. Rearward movement of the upper end 21 of lever 17 is limited to a range sufficient only to disengage the pin 22 from the holes 23 and 25, by a headed pin 26 which extends from the lever 17 across the upper edge of the segment 24. The head of pin 26 limits the movement of the lever 17 away from the segment 24 just sufficiently to disengage the pin 22 from the holes 23 and 25.

Movement of the lever 17 to shift the sliding bar 14 longitudinally into a new position shifts the trigger 10 longitudinally in the path of travel of the envelopes.

The printing head 4 rotates into position to initiate the printing operation at a fixed time following the actuation of the trigger 10 by an envelope. Hence by adjusting the longitudinal position of the trigger, the position of the stamp printed on the envelope can be varied.

The drive from an electric motor to the printing head and platen will be described in detail later. Suffice it to say at this point that this drive includes a clutch 27 (Fig. 3) which has an arm 28 normally engaged by a latch 29, under which conditions the clutch is disengaged and the printing head and platen are held stationary in a neutral position. When the latch 29 is rocked out of engagement with the arm 28 the clutch 27 engages automatically to couple the printing head and platen to the motor for rotation through one revolution, at the end of which the latch 29 again engages the arm 28 and disengages the clutch. The latch 29 is adapted to be disengaged in response to actuation of the trigger 10, and the mechanism for performing this function will now be described.

Secured to the rear end of the trigger shaft 12 is a bellcrank 30 (Fig. 8) having on one arm a pin 31 (Fig. 3) and having in the other arm a hole 32. A tension spring 33 is stretched between the hole 32 and a pin 34 on the slide bar 14, which urges the bellcrank 30 counter-clockwise (clockwise as viewed in Fig. 3) into neutral position, in which position the bifurcated trigger arm 11 extends substantially vertical. With the trigger assembly in neutral position and the lever pin 22 in one of the holes 23, as shown in Fig. 3, the pin 31 lies above an arm 36 on a shaft 37 (Fig. 6), which shaft extends rearwardly through frame members 38 (Fig. 2) in which it is journaled, and has secured to its rear end a bellcrank 39 (Figs. 3 and 4), one arm of which is pivotally connected by a pivot 40 to the right end (with reference to Fig. 3) of a link 41. A tension spring 42, connected between the other arm of the bellcrank 39 and the link 41, tends to lift the latter at all times.

Clockwise rocking movement of the trigger 10 (counterclockwise with reference to Figs. 3 and 7) by a letter, carries the pin 31 down against the arm 36, rocking the latter downward which rocks the shaft 37 clockwise with reference to Fig. 3 to shift the link 41 to the left.

The foregoing movement of the arm 36 in response to rocking movement of the trigger assembly takes place only when the lever 17 is in position in which the pin 22 engages one of the holes 23. When the lever 17 is moved to engage the pin 22 with the hole 25, the slide bar 14 is shifted a distance great enough to carry the pin 31 clear of the outer end of the arm 36 so that actuation of the trigger by an envelope then has no effect on the clutch 27. The handle 21 is moved into this latter position when articles are to be fed through the machine without being printed on, as for example, when it is desired to only seal envelopes. A sealing mechanism is incorporated in the machine but has not been disclosed or described herein because it is fully disclosed in the copending application of Sager, et al., Serial No. 332,305, hereinafter referred to.

Under normal conditions, the upward movement of the link 41 in response to the tension of the spring 42 is limited by contact of a follower 93 on the link with a cam 92, to the position shown in Fig. 3, in which a slot in the left end of the link 41 engages one arm 44 of a bellcrank lever 45 pivotally supported by a bolt 46 on a stationary wall 47 of bracket 59. This bellcrank 45 is urged counterclockwise with reference to Fig. 3 by a light torsion spring 48 (Fig. 4), thereby holding the arm 44 against a stop ear 49 turned out from the wall 47. The other arm 50 of the bellcrank 45 normally extends substantially horizontal and its end 51 acts as a stop for a roller 52 on the lower end of an arm 53 of a three-armed lever 54, another arm of which constitutes the clutch latch 29.

The lever 54 has a hub 55 rotatably supported on a shaft 56. The shaft 56 is supported at its opposite ends in rubber bushings 57, one of which is mounted in the wall 47 and the other is mounted in a wall 58. The two walls 47 and 58 constitute the two sides of a vertically extending channel-shaped bracket 59 (Fig. 4) and the walls 47 and 58 have outwardly extending flanges 60 at their lower ends which are secured to a rubberized fabric web 61 (Fig. 3) which covers a hole in the base 62 of the machine and is bolted to the latter by bolts 63. The rubberized fabric web 61 shock insulates the U-shaped bracket 59 from the main frame of the machine. The upper end of the U-shaped bracket 59 is insulatingly supported from the main frame of the machine by a rubberized fabric strip 64.

The latch 29 (Fig. 3), as previously stated, is constituted by an upwardly extending arm of the three-armed lever 54. The third arm 65 of this lever extends substantially horizontally, and is urged downwardly by a tension spring 66 connected between the end of the arm and a bent-out portion 67 of the stationary bracket 59. A stop member 68, of yieldable material, in the path of the arm 65 limits rocking movement of the lever 54 to an angle only sufficient to disengage the latch 29 from the clutch arm 28.

Under normal conditions, the arm 50 of the bellcrank 45 lies in the path of the roller 52 and prevents the lever 54 from being rocked by the spring 66 to disengage the latch 29. However, the movement of link 41 to the left in response to movement of the trigger arm 11 by an envelope,

as previously described, rocks the bellcrank 45 clockwise (with respect to Fig. 3), to carry the arm 50 upward out of the path of the roller 52, whereupon the spring 66 rocks the lever 54 to disengage the latch. Thereupon the clutch 27 is engaged to drive the printing head and platen as shown in Fig. 7.

The drive from the motor to the printing head and platen may be traced as follows:

The motor 69 (Fig. 2) has a pulley 70 coupled by a belt 71 to a pulley 72 on a shaft 73 which shaft carries a smaller pulley 74 coupled by a belt 75 to a pulley 76 secured to a sleeve 77 rotatably mounted on a shaft 78 journaled in the frame members of the machine. This sleeve 77 is coaxial with and is connected to a ratchet wheel 79 of the clutch 27 (Fig. 3). When the clutch is tripped by disengagement of the latch 29 from the arm 28, one of a plurality of pawls 80 on a driven shaft 81 of the clutch is engaged with the ratchet 79 so that the disc 81 is positively driven. The disc 81 is connected to a sleeve 82 which in turn is connected through a flexible connection 83 to a gear 84 which is secured to the shaft 78, previously mentioned. This shaft 78 is connected at its forward end by a coupling 85 to the coupling of a postage meter 86 in which the printing head is incorporated.

The gear 84 on the shaft 78 meshes with a gear 87 of the same size on a shaft 88, which shaft is connected through a shaft 89 and suitable universal couplings with a shaft 90, which carries the platen 5 so that the printing head 4 and the platen 5 rotate at the same speed but in opposite directions.

The details of the clutch 27 do not constitute a part of the present invention, but are disclosed in detail in the application of Ryan, et al., Serial No. 377,418, filed February 5, 1941, on Power operated printing machine. Likewise, the exact construction of the flexible connection 83 is of no moment in connection with the present invention, but it is described in detail in the above-mentioned application.

A complete disclosure of a postage meter corresponding to the meter 86 of Fig. 2, may be found in the copending application of Sager, et al., Serial No. 332,305, filed April 29, 1940, on Mail treating machine.

Referring again to Fig. 3 the latch 29 is restored shortly after the arm 28 swings clear of the latch, so that it will be in position to again engage the arm 28 and stop the clutch after the latter has made one revolution. This restoration of the latch 29 is effected by a mechanism that is power-driven through the clutch 27 itself, and includes a pair of cams 91 and 92, respectively, on the shaft 88, which is driven in counterclockwise direction (with reference to Figs. 3 and 7) through the gears 84 and 87 (Fig. 2) whenever the clutch 27 is engaged.

As best shown in Fig. 7, the cam 92 cooperates with a follower 93 on the link 41, and the cam 91 cooperates with a follower roller 94 on the arm 53 of the three-arm lever 54. Fig. 7 shows the positions of the parts immediately after the latch 29 has been disengaged from the clutch arm 28 by movement of the arm 50 upward out of the path of the roller 52. It will be observed that at this stage of operations a rise on the cam 92 is just beginning to bear against the follower 93 on the link 41, and further movement will carry the left end of the link 41 downwardly clear of the lower arm 44 of the bellcrank 45. The link 41 thereafter no longer prevents counterclockwise

return of the bellcrank 45 (by the torsion spring 48), but such return is prevented by the fact that the roller 52 is blocking downward movement of the arm 50. Continued rotation of the shaft 88 carries the high part of the eccentric cam 91 against the roller 94, which swings the three-arm lever 54 back into normal position against the force exerted by the spring 66 (Fig. 3). During this return movement of lever 54, the cam 92 maintains the link 41 in lower position clear of the arm 44 so that as soon as the restoring movement of the lever 54 carries the roller 52 out from under the arm 50 of the bellcrank 45, the latter is rocked by its spring 48 back into the position shown in Fig. 3, in which the end of the arm 50 blocks return movement of the roller 52, and the arm 44 rests against the stop 49. In response to final rotation of the shaft 88 back into normal position, as shown in Fig. 3, the cam 92 permits the link 41 to be raised by the spring 42. If the trigger arm 11 has been restored to normal position, then the end of the link 41 can clear the arm 44 and it will move up into the normal position, as shown in Fig. 3. If the trigger arm 11 has not been restored to normal position at the time that the cam 92 permits upward movement of the link 41, then the latter comes to rest against the lower end of the arm 44 until such time as the trigger arm 11 is released, whereupon the link 41 will be retracted to the right (with reference to Figs. 3 and 7) until the left end of the link slips past the end of arm 44.

It will be observed from the foregoing description that the movement of the three-arm lever 54 into clutch-disengaging position is effected by the spring 66, and that the only work that has to be performed by the envelope acting against the trigger arm 11 is that necessary to lift the arm 50 clear of the roller 52. The energy required to perform this operation is very slight because the movement of the arm 50 is substantially perpendicular to the direction of movement of the roller 52. Furthermore, the corner of the arm 50 contacts the roller 52 very near the dead center line between the fulcrum 46 and the center of the roller 52, so that following a very slight initial movement of the arm 50 the force of the spring 66 becomes effective to help in the upward movement of the arm 50.

The spring 66 can be made as heavy as necessary to insure prompt and positive disengagement of the latch 29 because the power for resetting the lever 54 and tensioning the spring 66 is derived from the motor through the cam 91. Of course the power necessary to reset the link 41 is also supplied from the motor through the cam 92.

It has previously been explained that the pin 31 (Fig. 3) is positioned above the arm 36 to make the trigger arm 11 effective to rock the arm 36 and disengage the clutch whenever the lever 17 is so positioned that the pin 22 engages one of the holes 23. When it is desired to disable the tripping mechanism, the lever 17 is moved to engage the pin 22 with the hole 25, which shifts the sliding bar 14 a distance great enough to carry the pin 31 clear of the outer end of the arm 36 so that actuation of the trigger arm then has no effect on the clutch 27.

A stop bar 43, positioned above the link 41, forms part of an interlock mechanism for disabling the clutch tripping mechanism when the postage meter is not in proper position on the machine, or is inoperative. Thus the bar 43 constitutes the rear end of a lever 96 (Fig. 2) which is fulcrumed near its middle on a fulcrum 97 and

extends forwardly of its fulcrum below an interlock pin 98 in the bed 99 which supports the postage meter 86.

As fully described in copending application of Sager, et al., Serial No. 332,305, filed April 29, 1940, on Mail treating machine, the postage meter 88 has a pin cooperating with the pin 98 which depresses the latter when the postage meter is in operative position and is properly locked down to the base 99, thereby depressing the forward end of the lever 96 and raising the rear end constituting the stop bar 43 into the position shown in Fig. 3. However, if for any reason the pin 98 is not depressed by the associated pin in the postage meter, then the forward end of the lever 96 is urged upwardly by a helical compression spring 190 and the rear end of the bar 43 is moved downwardly to carry the link 41 clear of the arm 44, so that although the link 41 can still be shifted longitudinally in response to actuation of the trigger arm 11, it is ineffective to release the clutch latch 29.

Although for the purpose of explaining the invention specific embodiments thereof have been described in the substantial detail, it is to be understood that various changes may be made in the particular constructions shown without departing from the invention, which is to be limited only to the extent set forth in the appended claims.

We claim:

1. In an object-treating machine having a treating mechanism, conveyer means for successively delivering objects past said treating mechanism, a driving means, a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operating directly on said clutch, means for actuating said control member including a shaft and an arm for rocking the shaft, trigger means adapted to be tripped by movement of each object to said treating mechanism, including a trigger, a slidable member pivotally supporting said trigger and slidable in the direction of movement of said objects, lever means fulcrumed on said slidable member and connected to said trigger to be rocked thereby, said lever means having a crank normally positioned above said arm, whereby rocking movement of the trigger rocks the crank down against said arm to rock the latter and actuate said control mechanism, said slidable member being movable through a range of longitudinal positions in which said crank is positioned above said arm in operative relation therewith, and an extreme position in which the crank is clear of said arm, whereby operation of the trigger is ineffective to actuate said control member, a lever having a pin and slot connection with said slidable member at one end for moving said slidable member longitudinally in response to rocking movement of the lever, and detent means on said lever for releasably locking it in any one of a plurality of positions corresponding to said different positions of adjustment of said slidable member.

2. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member

toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof to its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, and means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot means.

3. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof to its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot means, and trigger means adapted to be tripped by movement of each object to said treating mechanism for effecting shifting movement of said link.

4. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof at its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot

means, and interlock means movable against one edge of said link to hold it clear of said lever to prevent actuation of said lever in response to said longitudinal movement of the link.

5. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof at its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot means, and interlock means movable against one edge of said link to hold it clear of said lever to prevent actuation of said lever in response to said longitudinal movement of the link, said edge of said link being curved to compensate for the departure from linear movement of said pivot means whereby the said other end of the link is moved linearly.

6. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof to its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot means, said latch comprising a lever rockable into and out of the path of said control member, a trigger adapted to be tripped by movement of each object to said treating mechanism, a link responsive to tripping of said trigger for tripping said latch out of holding relation with said control member to render said bias means effective to move said control member into its clutch engaging position to engage said clutch, pivot means supporting said link at one end, means for moving said pivot

means substantially longitudinally with respect to said link in response to tripping of said trigger, spring means urging said link about said pivot means into the path of said lever, whereby longitudinal movement of said link rocks said lever out of holding relation with said control member, spring means urging said lever into holding relation with said control member, and means driven by said driving means for resetting said control member into its clutch disengaging position.

7. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a control member operatively associated with said clutch and movable between clutch engaging and disengaging positions, means for biasing said control member toward said clutch engaging position, a latch normally engaging said control member and holding it in its clutch disengaging position against the force of said bias means, said latch comprising a lever rockable between a first position in which an end of said lever holds said control member in its clutch disengaging position and a second position in which said end of said lever releases said control member to permit movement thereof to its clutch engaging position, a link, pivot means rotatably supporting said link at one end, means for rocking said link about said pivot means into and out of the path of one end of said lever, means for moving said pivot means to shift said link substantially longitudinally whereby said link actuates or fails to actuate said lever depending upon the position of angular adjustment of said link about said pivot means, said latch comprising a lever rockable into and out of the path of said control member, a trigger adapted to be tripped by movement of each object to said treating mechanism, a link responsive to tripping of said trigger for tripping said latch out of holding relation with said control member to render said bias means effective to move said control member into its clutch engaging position to engage said clutch, pivot means supporting said link at one end, means for moving said pivot means substantially longitudinally with respect to said link in response to tripping of said trigger, spring means urging said link about said pivot means into the path of said lever, whereby longitudinal movement of said link rocks said lever out of holding relation with said control member, spring means urging said lever into holding relation with said control member, means driven by said driving means for resetting said control member into its clutch disengaging position, said resetting means comprising a first cam for rocking said link about its pivot out of engagement with said lever to permit return of the lever by its spring when said control member is returned to its first position, and a second cam operating in synchronism with said first cam for thereafter moving said control member into its clutch disengaging position.

8. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: a shaft on which said clutch is mounted, a countershaft, gear means connecting said shafts, control means movable between clutch engaging and disengaging positions, a latch normally holding said control means in

clutch disengaging position, means actuated by movement of each object toward said treating device for releasing said latch and control means to effect clutch engagement, means responsive to an inoperative condition of said treating mechanism for disabling said last-mentioned means to prevent release of said latch and said control means when said treating mechanism is in inoperative condition, and means on said countershaft and rotatable therewith for resetting said control means to its clutch disengaging position during the operating cycle of the machine.

9. In an object treating machine having a treating mechanism for treating objects successively delivered thereto, a driving means and a clutch for coupling said driving means to said mechanism, means for engaging and disengaging said clutch comprising: control means associated with said clutch and movable between clutch engaging and disengaging positions, means including a lever actuated by movement of each object toward said treating device, a link pivotally connected to said lever and adapted upon movement thereof to move longitudinally with respect to said control means for moving said control means to its clutch engaging position, interlock means movable against one edge of said link to hold it clear of said control means to prevent actuation thereof in response to the longitudinal movement of said link, and means associated with said link to compensate for the departure from linear movement of the pivotal connection between said link and lever, whereby the other end of said link is moved linearly.

10. In control mechanism for a clutch in a mail treating machine or the like, said clutch being adapted to operate cyclically one revolution per

each complete cycle of operation, said clutch having a member movable between clutch engaging and disengaging positions, a support column disposed in said machine adjacent said clutch, a control lever pivotally mounted on said support adapted to move between engaging and disengaging positions with respect to said clutch member and accordingly to effect engagement or disengagement of said clutch, a latch pivotally mounted on said column for normally holding said lever in clutch disengaging position, and means for moving said lever into clutch engaging position when said lever is released by said latch.

11. In control mechanism for a clutch in a mail treating machine or the like, said clutch being adapted to operate cyclically one revolution per each complete cycle of operation, said clutch having a member movable between clutch engaging and disengaging positions, a support column disposed in said machine adjacent said clutch, a control lever pivotally mounted on said support adapted to move between engaging and disengaging positions with respect to said clutch member and accordingly to effect engagement or disengagement of said clutch, a latch pivotally mounted on said column for normally holding said lever in clutch disengaging position, means for moving said lever into clutch engaging position when said lever is released by said latch, means for moving said lever into clutch disengaging position subsequent to its release by said latch, and mounting means for said lever for absorbing the shock of reengagement between said clutch member and said lever upon disengagement of said clutch.

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