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TYPEWRITING MACHINE

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My invention relates to typewriting and like machines and more particularly to noiseless machines, such as the No. 6 Remington Noiseless, for example, in which the platen is adjustable to different set positions towards and from the types depending on the number of sheets being written at a single operation. The limited range of such adjustment of the platen is sufficient to take care of different thicknesses of paper on the platen, so that effective, uniform and substantially noiseless imprints may be produced irrespective of the number of sheets employed. Any forward adjustment of the platen beyond the limited range referred to above is apt to result in the production of noise in the operation of the type actions, for reasons which will hereinafter more clearly appear, and hence such machines are ordinarily conditioned so that the operator cannot adjust the platen beyond the limits mentioned.

It has been found, however, that in order to attain sufficient pressure for effectively cutting stencil plates or cards on the machine, the best results can be attained only by adjusting the platen forward farther than the usual limit of adjustment provides for. Even though this may result in the production of some noise in the operation of the type actions, it nevertheless is deemed highly desirable for effectively cutting the stencils to provide means for attaining this unusual and ordinarily undesirable extent of adjustment of the platen. It is important, however, that this unusual extent of adjustment be not accidentally attained and when attained at all must be with the deliberate will and intent of the operator, with the knowledge that such adjustment is only to be made for cutting stencils.

With the foregoing objects in view my invention consists in the features of construction, arrangements of parts and combinations of devices set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawing, wherein like reference characters indicate corresponding parts in the different views—

Fig. 1 is a fragmentary, fore and aft, vertical, central sectional view of a portion of a No. 6 Remington Noiseless machine embodying my invention.

Fig. 2 is an enlarged, detail, fragmentary sectional view of a portion of the adjusting means; the section being taken on the line 2—2 of Fig. 3 and looking in the direction of the arrows at said line.

Fig. 3 is an enlarged, detail, fragmentary

front elevation showing a portion of the adjusting means, represented as the parts appear when the platen is adjusted to the normal limit of its forward adjustment.

Fig. 4 is a view corresponding to Fig. 3 except that the parts are disposed as they appear when the adjusting means are set in an abnormal position for stencil cutting.

Fig. 5 is an enlarged, detail, fragmentary vertical sectional view of a portion of the adjusting means; the section being taken on the line 5—5 of Fig. 4 and looking in the direction of the arrows at said line.

I have shown my invention in the present instance embodied in a No. 6 Remington Noiseless typewriting machine employing carriage adjusting means of the same general character as those disclosed in my Patent No. 1,647,827 dated Nov. 1, 1927, modified as hereinafter indicated for the attainment of the ends of the present invention.

The frame of the machine comprises a lower body portion 1 and a top plate 2. A carriage support 3 has case shift links 4 pivoted thereto at 5. The rear ends of the case shift links are pivoted at 6 to depending ears 7 on the case shift frame or carriage support 8. A carriage comprising a supporting bar 9 and end plates 10 is supported on the case shift frame 8, by intervening rollers 11, to travel from side to side of the machine in the usual manner. A cylindrical platen 12 is carried by the carriage. The usual toggle controlled type actions, not completely shown, include type bars having type which are pressed against the front face of the platen, and a fragmentary portion of one of which type bars is shown in Fig. 1.

The support 3 is mounted for bodily sliding adjustment fore and aft of the machine, being supported at 13 and 14 on a member 15 which is secured to the frame of the machine. A forward extension 16 of the support 3 underlies a fixed member 17 with which the extension 16 has a sliding engagement and aids in maintaining the support 3 on the part 15. Contractile springs 18 are connected at their forward ends to posts 19 secured to the adjustable member 3. The rear ends of these springs are connected to pins 20 that project from the frame 1 of the machine. These springs are disposed on opposite sides of the center of the machine and exert their force to move the support 3 with the carriage towards the rear of the machine. A centrally disposed link 21 is pivotally connected at its rear end, as at 22, to the adjustable carriage support 3 and

has a screw 23 secured thereto at its forward end. This screw is received in an interiorly threaded bushing 24 seated in an opening in a depending flange 2^a of the top plate 2 of the machine and is free to turn therein.

A finger piece 25 is connected to a crank arm 26, the outer free end of which is pointed at 27 and constitutes an indicator or pointer that is adapted to cooperate with the segmentally arranged indices 28 on the face of an indicating plate 29. The plate 29 is spaced apart from the front of the flange 2^a by intervening spacing sleeves 30 and is secured in place by screws 31. The stems of screws 31 pass through openings in the indicator plate and are received at their threaded ends in tapped openings in the depending flange 2^a of the top plate 2. The inner hub-like end 32 of the crank arm 26 is serrated on one side to form engaging teeth 33 that constitute a clutch-like member or section that engages corresponding teeth 34 on the forward end of the bushing 24. Effective engagement between the two clutch members 33 and 34 is maintained by a headed screw 35, the stem of which passes through the hub 32 of the crank arm and is received in the tapped opening in the forward end portion of the bushing 24. The crank arm and bushing 24 are thus fixedly united by firmly tightening the screw 35. The crank arm 26 is bent at 36 so as to extend from behind the indicator plate 29 through a cut-out or opening 37 therein to the front of said indicator plate where it coacts with the indices thereon and its handle 25 is readily accessible to the operator to effect a turning adjustment of the bushing 24 and thus effect, through the threaded connection between said bushing and the link 21, a fore and aft adjustment of the carriage support. This provides an adjustment of the platen towards and from the type faces.

The construction as thus far described is similar to that disclosed in my hereinbefore mentioned patent, although in said patented construction the crank arm 26 could not be adjusted downwardly beyond the position indicated in Fig. 3. In accordance with my present invention I extend the cut-out 37 in the indicator plate 29 down to a stop face indicated at 38 so as to afford a movement or adjustment of the crank arm in certain circumstances down to the position indicated in Fig. 4, where it is arrested by the bent portion 36 of the crank arm abutting the stop edge 38 of the indicator plate. Under normal conditions, however, the crank arm could not be adjusted to the Fig. 4 position, but is limited in the extent of its adjustment in this direction to the position shown in Fig. 3. This I attain by the provision of a spring plate or resilient arresting member 39 secured in position at one end by one of the screws 31, and fixedly held in place thereby between the indicator plate and one of the spacing sleeves 30. This spring member 39 is projected to the left beyond the indicator plate, as indicated at 40, so as to provide a finger piece by which the member 39 may be flexed from the full to the dotted line position indicated in Fig. 2. The member 39 is provided with a laterally extending lug or stop 41 which extends through the cut-out 37 in the indicator plate and into the path of movement of the crank arm in an anti-clockwise direction. The effect of the lug 41 when in normal position is to provide a stop with which the crank arm coacts in the Fig. 2 position to prevent further movement of the crank arm in an anti-clockwise direction

beyond the zero position indicated in said figure. This position of adjustment of the crank arm corresponds to the farthest forward adjustment of the platen under the normal conditions of use. Should the operator desire to bring the platen farther forward in order to more effectively cut stencils on a machine, this may be readily done by the operator flexing the member 39 rearward to the dotted line position, indicated in Fig. 2, thereby withdrawing the stop lug 41 from the path of the crank arm 26 and enabling the latter to receive a farther downward adjustment to the abnormal Fig. 4 position. The act of moving the crank arm to this position brings the stop lug 41 to the rear of the full body portion of the crank arm, thereby maintaining the member 39 flexed in the rearward position. When, however, the crank arm is again adjusted to, or upwardly beyond the position indicated in Fig. 3, the lug 41 will snap forward under the spring force of the member 39 and be again interposed in the path of the crank arm to limit its anti-clockwise movement to the position indicated in Fig. 3. If at any time it should again be necessary or desirable to effect an abnormal forward adjustment of the platen for stencil cutting, it will be necessary for the operator to flex the member 39 rearwardly to the dotted line position, indicated in Fig. 2, in order to move the stop lug 41 from the path of the crank arm before such abnormal adjustment can be effected.

From the foregoing description it will be understood that I have provided simple and effective means by which various normal adjustments of the platen may be effected without, however, incurring the liability of adjusting the platen to the abnormal position required only for stencil cutting, and which is indicated by the position of the crank arm in Fig. 4, and that this unusual position or range of adjustment can only be attained deliberately by the will of the operator and after first flexing the member 39 to the dotted line position indicated in Fig. 2, to move the stop lug 41 from the path of the crank arm 26.

It is obvious that when the platen is adjusted to the stencil cutting position the usual toggles that control the type actions cannot reach as close to the straightened position that they do when the platen is adjusted within the usual range required for noiseless writing on various thicknesses of paper. The first mentioned adjustment of the platen may therefore result in the production of some noise which would be objectionable for noiseless writing but nevertheless renders the actions more effective for stencil cutting. It will be seen therefore that the toggles function somewhat differently when the platen is adjusted for stencil cutting than they do in the usual noiseless printing operations.

While I have described in detail one specific form of construction or train of connections by which the adjustment of the platen may be effected, it should be understood that any suitable means may be provided for this purpose as long as the fundamental features of the present invention are included and the construction is brought within the invention as it is defined in the accompanying claims.

What I claim as new and desire to secure by Letters Patent, is:

1. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment

for the operation of said toggles in noiseless writing on various thicknesses of paper, and means providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation.

2. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment for the operation of said toggles in noiseless writing on various thicknesses of paper, and means providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation, said last mentioned means comprising a stop for limiting the normal range of adjustment of said adjusting means in one direction, and means for removing said stop from effective position thus enabling the adjusting means to receive an adjustment in one direction to an unusual or abnormal position.

3. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment for the operation of said toggles in noiseless writing on various thicknesses of paper, and means providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation, said adjusting means comprising an indicating scale and pointer, and said means for providing a further adjustment of the platen comprising means controllable at will to enable said pointer to be adjusted beyond the range of said scale when it is desired to adjust the platen to stencil cutting position.

4. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment for the operation of said toggles in noiseless writing on various thicknesses of paper, and means

providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation, said last mentioned means comprising a stop for limiting the normal range of adjustment of said adjusting means in one direction, means for removing said stop from effective position thus enabling the adjusting means to receive an adjustment in one direction to bring the platen to a stencil cutting position, and a second stop for limiting the adjustment of the said adjusting means within the stencil cutting range.

5. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment for the operation of said toggles in noiseless writing on various thicknesses of paper, and means providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation, said adjusting means comprising a manually controlled crank arm at the front of the machine, said means for providing a further adjustment of the platen comprising a stop normally in the path of said crank arm, and means that enable said stop to be shifted at will out of the path of said crank arm.

6. The combination with the usual toggle controlled noiseless type actions, of a platen, means for adjusting the platen towards and from the type faces to different set positions, said adjusting means having a normal range of adjustment for the operation of said toggles in noiseless writing on various thicknesses of paper, and means providing a further adjustment of said platen toward said type faces whereby said toggles function with said platen differently than in the noiseless operation to produce a stencil cutting operation, said adjusting means comprising a manually controlled crank arm, said means for providing a further adjustment of the platen comprising a resiliently mounted stop normally in the path of said crank arm and manually shiftable at will out of the path of said crank arm to afford a movement thereof to stencil cutting position.

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