Sept. 28, 1943. E. L. ELLIOTT 2,330,778

COPY HOLDER

Filed Jan. 22, 1943 3 Sheets-Sheet 1

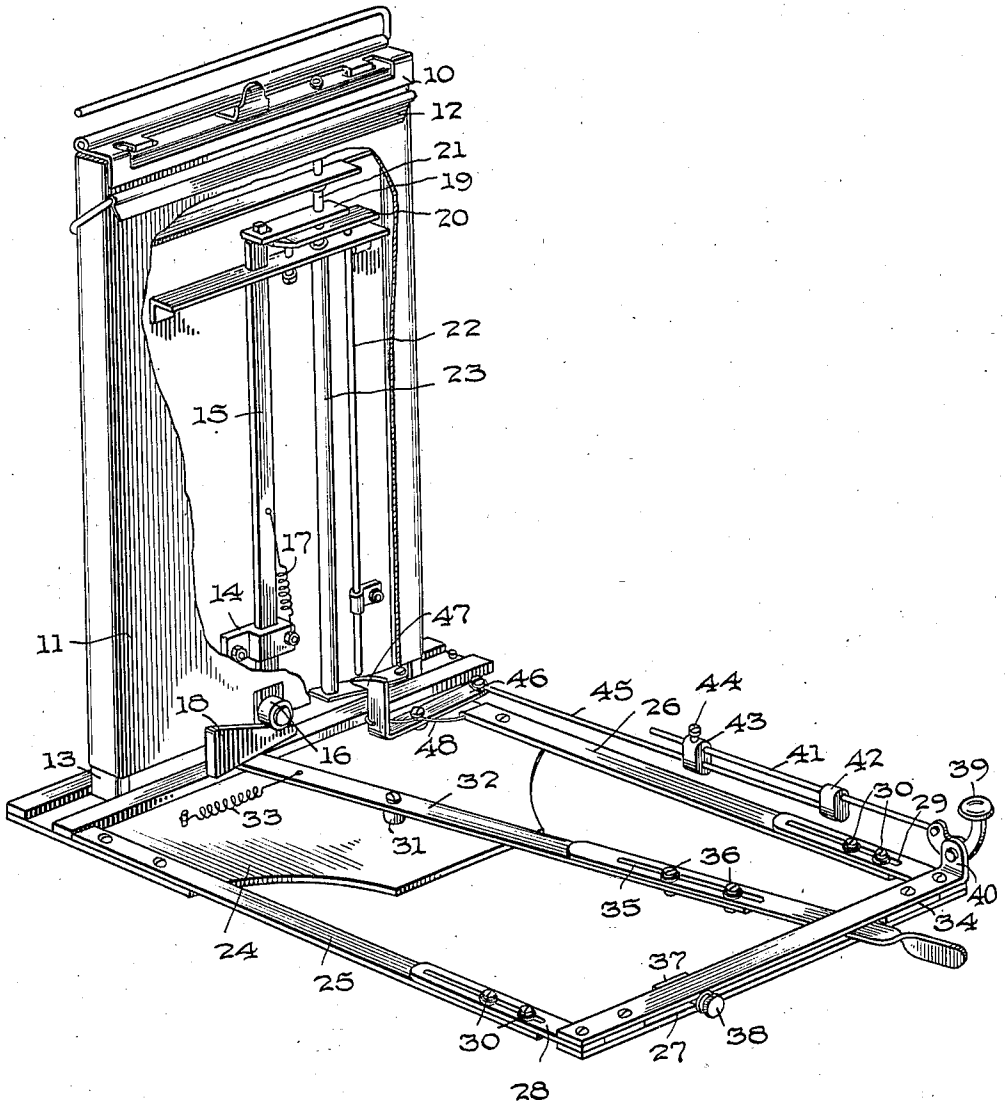


FIG. 1.

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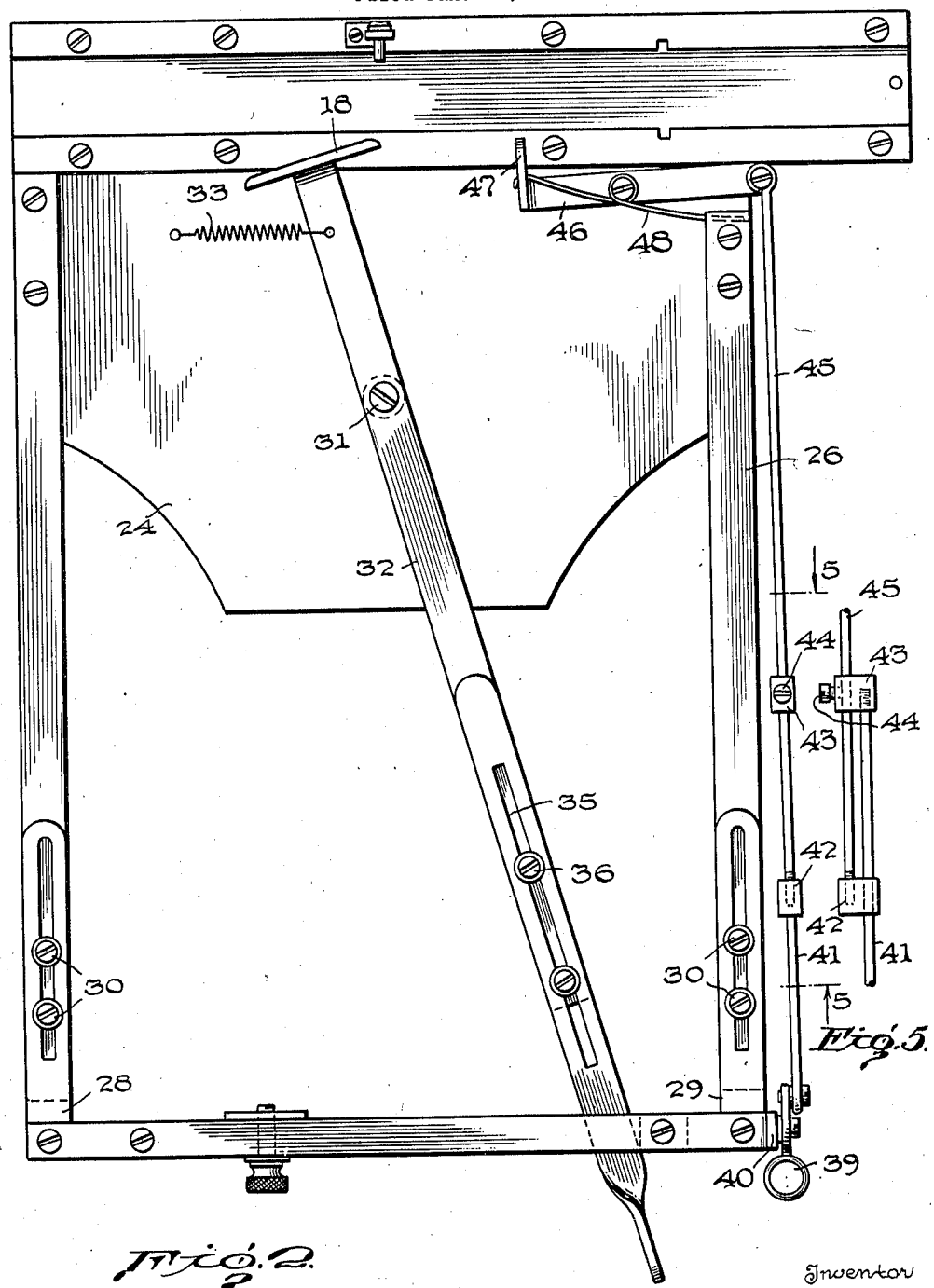


Fig. 2.

Fig. 5.

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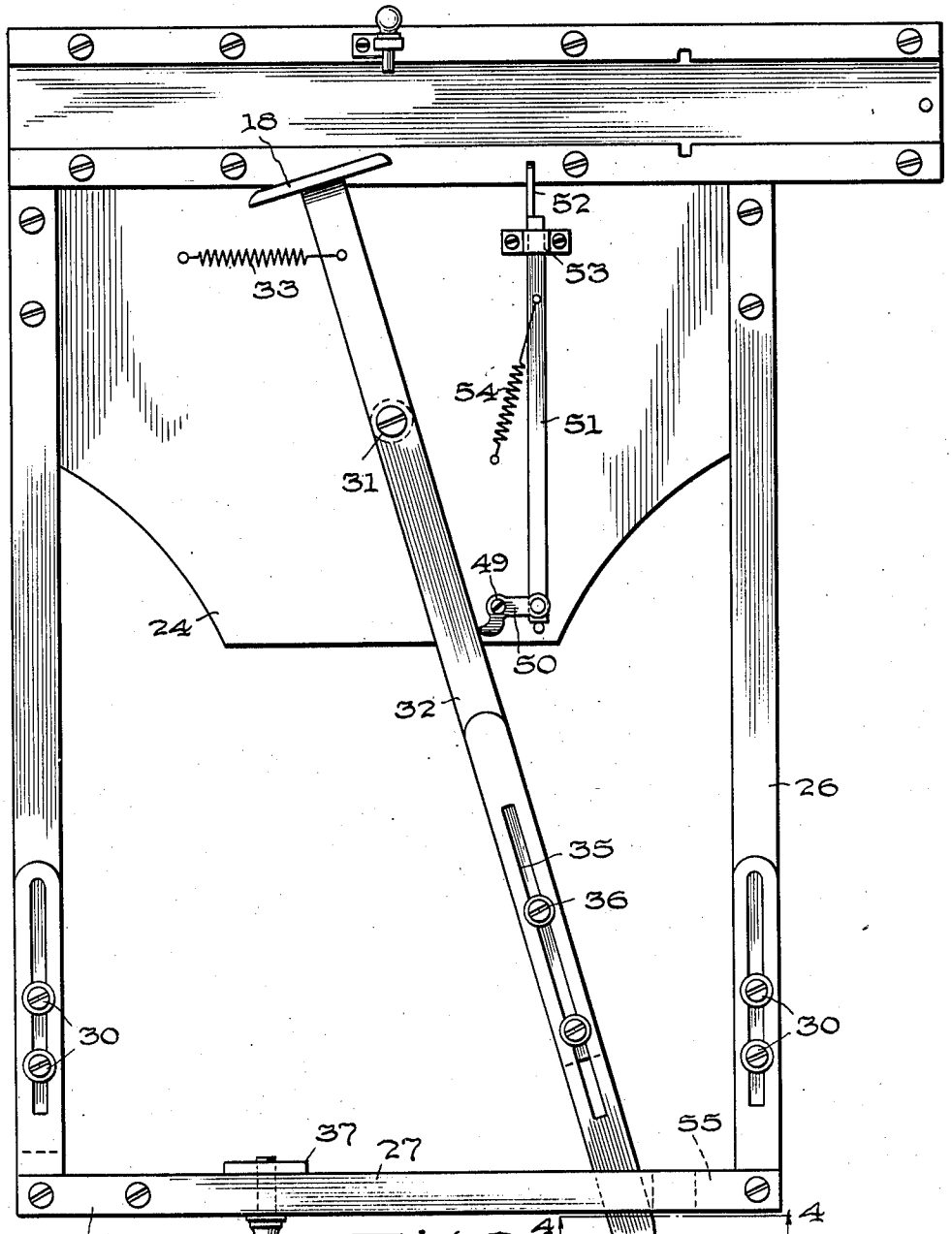


Fig. 3.

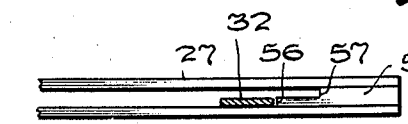


Fig. 4.

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Patented Sept. 28, 1943 2,330,778

UNITED STATES PATENT OFFICE

2,330,778

COPYHOLDER

Edward L. Elliott, Arlington, Va., assignor to Federal Business Machines Corporation, Washington, D. C., a corporation of Delaware

Application January 22, 1943, Serial No. 473,221

9 Claims. (Cl. 120—29)

This invention relates to copy holders wherein successive lines of written or printed matter are exhibited to the copyist in step-by-step manner with reference to a stationary line guide. More particularly, it comprises a copy holder, the forwardly extending base and actuating means of which are extensible to accommodate typewriters or other keyboard machines of different sizes and dimensions.

In order to minimize physical strain on the copyist the material to be copied is desirably supported on a holder which is positioned rearwardly of the typewriter and in the direct line of vision. When so positioned, however, the operator must either reach around or across the machine to adjust the holder or guide to exhibit successive lines of text, or an adjusting mechanism must be provided for remote actuation so that the operator, without removing the hands far from the keyboard of the machine, can manipulate the copy holder as required. Such an operating mechanism is disclosed in my co-pending application, Serial No. 405,429, filed August 4, 1941.

It has heretofore been necessary to manufacture copy holders of this general type in a variety of styles and sizes to accommodate typewriters of different dimensions, and other keyboard machines. It is an object of my present invention to provide a copy holder, the base and controlling mechanism of which are extensible to accommodate the same for use with machines of different sizes and dimensions.

A further object of the invention is to provide a remotely actuated copy holder wherein a single, horizontally movable lever at the front of the machine is actuated within selective limits normally to cause the copy support to advance step-by-step with respect to a line gauge but in extreme position to release the copy holder for return to its initial position.

Other and further objects will be apparent from the following description and drawings in which

Figure 1 is a perspective view of the improved copy holder.

Figure 2 is a plan view.

Figure 3 is a plan view of a modified form of the invention which dispenses with a separate release key.

Figure 4 is a section view taken along the line 4—4 of Figure 2.

Figure 5 is a fragmentary side view between the lines 5—5 of Figure 2.

Referring more particularly to the drawings:

Although it will be understood that this invention may be employed in copy holders wherein either the copy support or the line guide is moved, one relatively to the other, I have shown by way of illustration the type wherein copy material is retained by clamp 10 on a supporting panel 11 which is movable with respect to a fixed line guide 12. In this construction the panel 11 is slidably mounted on a vertical standard 13 which carries a bracket 14 for guiding a push rod 15. At its lower end the push rod mounts a roller 16 which is urged by spring 17 into contact with the surface of a cam 18, while the reduced upper end of push rod 15 engages a pair of jacks 19 and 20. A plunger 21 which is connected to the panel 11 extends through holes formed in the jacks 19 and 20 of sufficiently oversize diameter to permit it to pass freely therethrough when the jacks are in horizontal position. When either one or the other of the jacks is canted, however, it grasps the plunger. Thus, in upward movement of the push rod 15 the upper jack engages the plunger and raises it with the attached panel 11, and upon return of the push rod the lower jack 20 locks the plunger against retrograde movement. Thus the copy supporting panel is advanced in steps and to an extent at each step dependent upon the extent of reciprocation of the push rod.

When it is desired to lower the panel to its initial position the lower jack 20 is raised to release the plunger 21, by upward movement of the push rod 22 which brings the jack to horizontal position so that the plunger slides freely through the hole therein. The panel is then lowered by gravity and is cushioned in its return movement by air which escapes gradually from the tubular barrel 23 into which the plunger 21 extends.

The standard 13 is vertically mounted on a base or frame 24 which has forwardly extending side members 25 and 206, and a pair of spaced parallel bars 27 which connect the sides and thereby constitute the front edge of the base or frame. The bars 27 are held spaced apart by interposed members 28 and 29 which extend inwardly and are adjustably secured to the sides 25 and 26, being formed for this purpose with elongated slots through which bolts 30 project. By tightening nuts on the bolts 30 the front portion of the frame may be secured in any adjusted position.

The base 24 has a vertical pivot 31 for a lever 32 which is normally urged to one of its extreme positions by a spring 33. A block 34 between

the parallel bars 27 serves as a stop to limit the swing of the lever 32 in that direction and to retract the cam 18, thus permitting the push rod 15 to assume its lowered position. The lever is formed in two sections, one of which has an elongated slot 35 in which one or more bolts 36 are received. Thus, the lever may be extended as required and by tightening nuts on the bolts 36 it will be secured in adjustment.

The free end of the lever 32 is guided in its horizontal movement by the horizontal bars 27 at the front of the frame, and, as previously described, the extent of its travel in one direction is limited by the block 34. The other extreme of its movement is determined by a slidably adjustable stop 37. This stop may be secured by conventional means as for example a thumb screw 38, or by a dog and ratchet latching means.

The mechanism for operating the push rod 22 to release the copy holder and permit its return to initial position is operated by a key 39 in the form of a bell crank lever pivoted on an upstanding ear 40 at the end of one of the front bars 27. Connecting rod 41 is secured in clamping sleeves 42 and 43 by means such as set screw 44, these sleeves also serving to secure a second section 45 of the rod which carries a swinging trip lever 46. A cam lip 47 on the trip lever is adapted to engage and raise the push rod 22 but is normally held retracted out of operating position by a spring 48.

In order to accommodate the copy holder to any particular machine the nuts on bolts 30 and 26 and the set screw 44 are loosened whereupon the front end of the assemblage is extended so that the free end of lever 32 and key 29 will be accessible to the operator immediately in front of the machine, and the parts are then secured in selected position.

In the modification shown in Figures 3 and 4 the operation of extending the base or frame is simplified by eliminating the release key and the corresponding adjustment of its connecting rod. In this form of the invention provision is made for normally locking out the lever 32 from an extreme position in which it actuates the release mechanism. In this case the base 24 has a pivot 49 upon which a bell crank lever 50 is mounted in position to be locked by contact with the lever 32 when the latter is in its extreme position. The other arm of the bell crank lever 50 actuates a connecting rod 51 which has a cam 52 for raising the push rod 22 and releasing the copy holder slide. A bridge strip 53 serves to guide the connecting rod 51, and spring 54 holds it normally retracted.

In order to prevent accidental release of the copy holder slide the normal throw of the adjusting lever 32 is limited by a stepped block 55 between the front bars 27 of the frame or base, the lower step 56 of which lies in the horizontal plane in which the lever moves. By raising the lever, however, at this limit of its movement, and clearing the step 56, further movement is permitted to the extent of the upper step 57. In this extreme of its movement the lever 32 rocks the bell crank and thereby actuates the release mechanism so that the slide then returns to its normal position.

From the foregoing it will be apparent that my invention provides a copy holder of standardized construction which by selective adjustment is adapted for use with a variety of machines of different kinds and sizes.

What I claim is:

1. In a copy holder having a copy support and an associated line guide, adjustable one relative to the other in a step-by-step manner, a base to which said copy holder is secured in vertical position, a sectional lever for effecting such relative adjustment, said lever being mounted to extend beneath a machine with which said copy holder is used, and means permitting the extension of said sectional lever to project beyond the forward edge of such machine.

2. In a copy holder having a copy support and a line guide, means for adjusting one relative to the other in a step-by-step manner, a base to which said copy holder is secured in vertical position and adapted to extend beneath a machine with which said copy holder is associated, a lever for actuating said adjusting means, said lever and base being formed in sections which are extensible, and means for securing the sections in selected position wherein the free end of said lever projects forwardly beyond the front edge of such machine.

3. In a copy holder having a copy support and a line guide, means for adjusting one relative to the other in a step-by-step manner, a base to which said copy holder is secured in vertical position, said base including side members each formed of extensible sections and a front member secured therebetween for adjustment toward and away from said copy support, means for securing said extensible side members in position, a lever for actuating said adjusting means, said lever being formed of extensible sections, and means for securing the sections thereof in position wherein the free end of said lever projects forwardly beyond the front edge of such machine.

4. In a copy holder having a copy support and an associated line guide, adjustable one relative to the other in a step-by-step manner, a base to which said copy holder is secured in vertical position and adapted to extend beneath a machine with which said copy holder is used, side members secured to said base each comprising slotted sections which afford extension of said side members, means for securing the respective sections, a pair of spaced front members extending between said side members and connected thereto, an extensible lever for actuating said adjusting means, the free end of said lever extending between said spaced front members and guided thereby, and an adjustable stop movable along said front members to vary the limits of lever movement, whereby to cause relative adjustment of the copy support and line guide according to different line spacings of copy.

5. In a copy holder having a copy support and an associated line guide, with means for adjusting one relative to the other in a step-by-step manner, the improvement comprising a frame having sectional side members extending forwardly from the copy holder beneath a machine associated therewith and a front member connecting said side members, a sectional lever pivoted to swing along the said front member, and extensible connections for said sectional side members and lever whereby the same may be adjusted to accommodate different machines with said lever accessible at the front edge of the machine.

6. In a copy holder, an extensible base adapted for association with a machine and including a portion which extends below the lower surface of the machine and is extensible to a position adja-

cent the front of the machine, an upwardly extending standard member in fixed relation to the rear portion of the base, a member in vertically movable relation with respect to the standard member, one of said members being provided with copy holding means and the other with line indicating means, lever operated means adjacent the lower end of the standard member for moving the movable member with respect to the standard member, an extensible lever laterally movable in a horizontal plane along the front of the machine to operate said moving means, an adjustable stop carried by the base in the path of travel of said lever for adjustably limiting the extent of its movement, and means for securing said base and lever in selectively extended positions to accommodate different machines.

7. In a copy holder, an extensible base adapted for association with a machine and including a portion which extends below the lower surface of the machine and is extensible to a position adjacent the front of the machine, an upwardly extending standard member in fixed relation to the rear portion of the base, a copy holding member carried on the standard member for vertical movement with respect thereto, means for lifting said copy holding member, an extensible lever pivoted on said base for actuating said lifting means by lateral movement in a horizontal plane, holding means engaging the copy holding member and the lifting member to hold the same in successive, adjusted positions, a releasing member therefor, an extensible connection leading forwardly therefrom, and means for securing said extensible base, lever, and releasing means in extended position to accommodate different machines.

8. In a copy holder comprising an upright standard and copy holding slide mounted thereon with means for raising said slide and separate means for holding it in raised position, a horizontally movable lever arranged for raising said slide in increments determined by the extent of its throw, an adjustable stop for varying the throw of the lever in one direction of its movement, a stepped stop normally restricting the extent of its movement in the opposite direction, means located out of the normal path of said lever for releasing the slide holding means but engaged by said lever when the same is shifted from its normal horizontal plane of movement to clear the lower abutment of said stepped stop, thereby actuating the release means when the lifting means is inactive.

9. In a copy holder, a base adapted for association with a machine and including a portion which extends below the surface of the machine, a fixed, upwardly extending standard and a copy holding slide mounted thereon, lifting means for said slide and holding means for retaining it in different adjusted positions, a lever for actuating said lifting means, said lever comprising a pivotally mounted section and an extensible section extending forwardly therefrom to project at the front edge of the machine, release means for said holding means, a bell crank lever and connecting rod for actuating said release means, a stepped stop for limiting the normal extent of movement of said lever in lifting the copy holder slide to different positions but permitting greater movement of the lever when the same is moved out of its normal horizontal plane to clear the lower abutment of said stepped stop, said bell crank lever being mounted to be engaged by said lever and serving to release said slide holding means when engaged by said lever in further movement clearing the lower abutment of said stepped stop, and means for securing said lever in any extended position to accommodate different machines and to be accessible at the front edge thereof.

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