

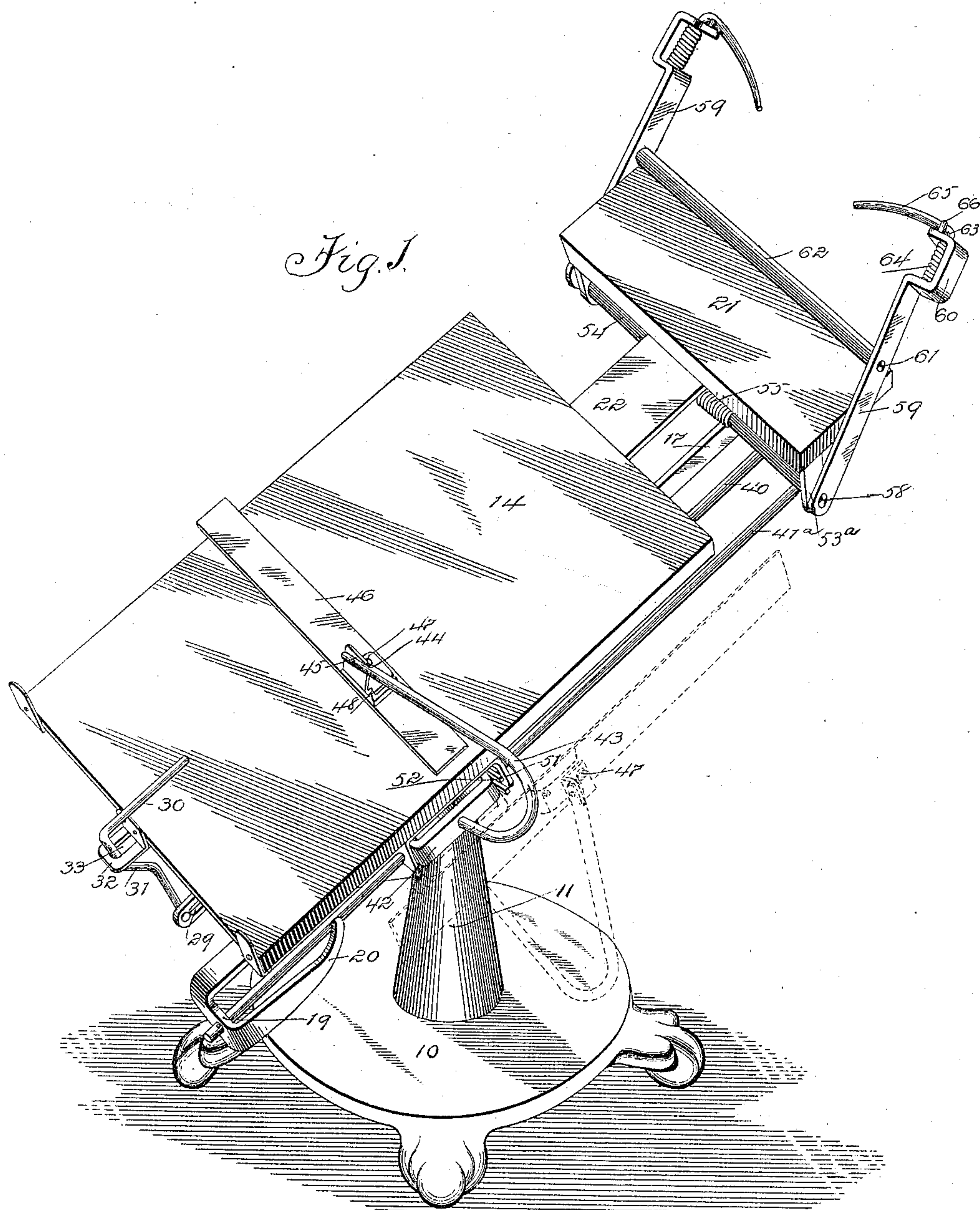
(No Model.)

2 Sheets—Sheet 1.

J. M. LLOYD.  
COPY HOLDER.

No. 600,922.

Patented Mar. 22, 1898.



Witnesses:  
 Jas. Bareb.  
 E. A. Sayre.

Inventor: John M. Lloyd,  
By Thomas C. and J. Ralph Orwig,  
Attorneys.

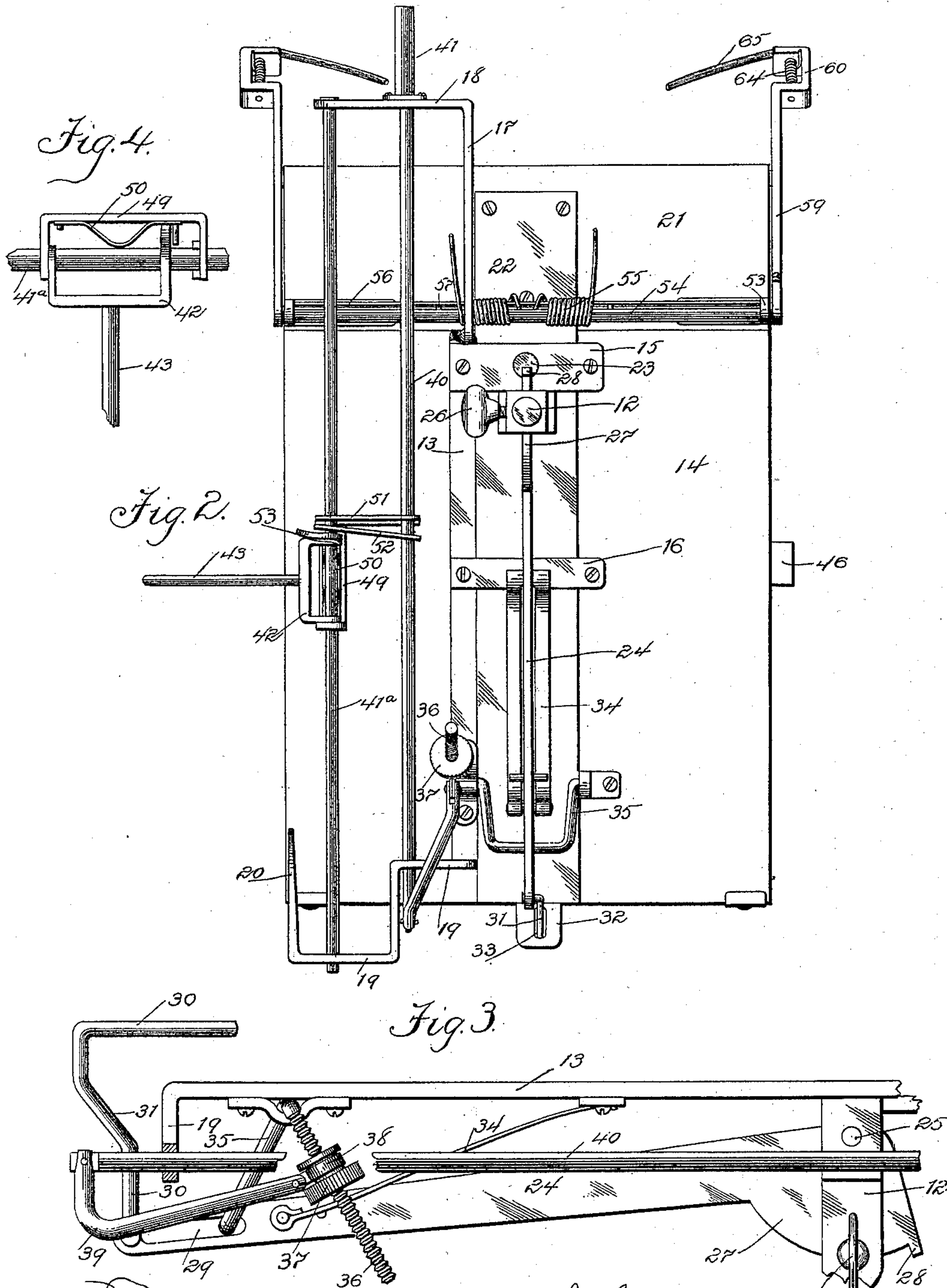
(No Model.)

2 Sheets—Sheet 2.

J. M. LLOYD.  
COPY HOLDER.

No. 600,922.

Patented Mar. 22, 1898.



Witnesses: *John M. Lloyd*  
*Jas. Bareb.* }  
*Edw. A. Sayre.* }  
Inventor: *John M. Lloyd*  
By *Thomas G. and J. Ralph Orwig*, Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN M. LLOYD, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO G. W. MARQUARDT, OF SAME PLACE.

## COPY-HOLDER.

SPECIFICATION forming part of Letters Patent No. 600,922, dated March 22, 1898.

Application filed June 28, 1897. Serial No. 642,763. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. LLOYD, a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented a new and useful Copy-Holder, of which the following is a specification.

The object of this invention is to provide a simple, strong, and durable copy-holder that may be readily and quickly adjusted both laterally and longitudinally to accommodate copy-books or papers of any ordinary length or width.

A further object is to provide a copy-holder of the class in which the copy is held at both ends, in which the entire operation of grasping a leaf and turning it over may be accomplished by one hand.

A further object is to provide means whereby the leaf is automatically prevented from returning after it has once been turned back.

A further object is to provide a line-indicator that will be automatically actuated to point out the line being copied by the operation of touching the holder, and, further, to provide means whereby the indicator may be adjusted, so as to accurately point to the lines of the copy to adapt itself to a copy having lines at any ordinary distance of separation, and, further, to provide a line-indicator that will be automatically thrown out of contact with the copy when at the end of the page, so that the copy may be readily turned over by one hand without interfering with the line-indicator.

My invention consists in certain details of construction, arrangement, and combination of the various features in the device, in the construction of the device for automatically releasing the lower end of the leaves when pressed by the operator's hands, and the construction of the device for automatically retaining the leaves after they have been folded, and the construction of the line-indicator and its arrangement and combination relative to the other parts of the device, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows the entire device in perspective ready for practical use and by dot-

ted lines the position that the line-indicator would assume when thrown outwardly. Fig. 2 shows an inverted plan view of the device with the base removed. Fig. 3 shows an enlarged detail perspective view of certain parts to illustrate the construction of the device for holding the lower end of the leaves to the plate and the device for adjusting the line-indicator, so that it will accommodate itself to the lines on the copy at different distances of separation. Fig. 4 shows a detail view illustrating the means for connecting the indicator with the guide-rod.

Referring to the accompanying drawings, the reference-numeral 10 is used to indicate a base having a cone-shaped hollow projection 11 at its central portion. 12 indicates an upright slidably mounted in said part 11 to be capable of a vertical adjustment therein. This upright 12 is bifurcated at its upper end and connected with the copy-holding plate.

The reference-numeral 13 indicates a frame secured to the under surface of the main copy-holding plate 14. Suitable cleats 15 and 16 are fixed to this frame and also to the under surface of the plate 14. The forward end of the said frame 13 is bent at right angles and then projects straight forwardly at 17 and is then turned at right angles to project laterally at 18. At its opposite end the said frame 13 is bent laterally at 19 and the extreme end thereof is formed into a curved guide 20, the function of which will be hereinafter made clear.

The reference-numeral 21 indicates an auxiliary copy-holding plate having secured to its under surface a guide 22, which is composed of a straight piece of metal and which is arranged to slide through the cleats 15 and 16 on the main plate, thus providing means for adjusting the auxiliary copy-holding plate relative to the main plate. A set-screw 23, seated in the cross-piece 15, provides means whereby the plate 21 may be held at any desirable position relative to the main plate.

The reference-numeral 24 is used to indicate an arm pivotally mounted in the bifurcated end of the upright 12 by means of the pivot 25, and 26 indicates a set-screw seated in the said upright to engage a segmental ex-



tension 27 on the said arm 24. A shoulder 28 on the end of the segment 27 is provided to limit the motion of the upright 12 relative to said segment. Hence it is obvious that by means of the set-screw 26 the angle of the arm 24 may be adjusted relative to the upright. At the lower end of the arm 24 is a longitudinal slot 29, and a holder 30 is pivotally mounted in the extreme end and projects first upwardly and then rearwardly at an angle of about forty-five degrees at the point designated by the numeral 31 and then upwardly a slight distance and then straight forwardly to overlap the lower end of the plate 14.

32 indicates a guide-plate fixed to the under surface of the plate 14 and having a longitudinal slot 33 therein through which the said holder 30 is passed. This slot 33 and the inclined part 31 are so arranged relative to each other that when the lower end of the plate 14 is depressed the said incline will engage the edge of the slot, and upon a further depression of the plate the holder 31 will spring outwardly in a direction away from the plate 14 to thereby disengage a sheet of paper upon the plate 14.

The reference-numeral 34 indicates a leaf-spring bifurcated at one end and fixed to the arm 24 and having its other end extended upwardly and forwardly to engage the cross-piece 16 to thereby hold the copy-holding plate 14 separated from the arm 24.

The reference-numeral 35 indicates a crank-shaft mounted in suitable bearings in the frame 13 and having its crank-arm passed through the slot 29 in the arm 24. On one end of the said crank-shaft is a screw-threaded extension 36, and a thumb-nut 37 is mounted upon this screw-threaded extension and capable of moving longitudinally thereof.

38 indicates a collar rotatably mounted upon the nut 37, and 39 indicates an arm pivoted to the collar 37 at one end and to a straight rod 40 at its other end. This rod 40 is slidably mounted in the extensions 18 and 19 of the frame 13, and a protecting-sleeve 41 is passed over the upper end of the rod 40 and secured to the extension 18. The said screw-threaded extension 36 and the arm 39 are so arranged and disposed relative to the other parts of the machine that the movement that will be imparted to the rod 40 will be greater in proportion to the distance that the nut 37 assumes from the shaft 35, assuming, of course, that the plate 14 is depressed to its full limit at each stroke. I have utilized this variable longitudinal movement of the rod 40 in actuating the line-indicator, and it is obvious that by means of the thumb-nut 37 the length of movement imparted to the line-indicator may be varied by adjustment of the said thumb-nut to accommodate itself to a copy having lines at different degrees of separation.

The line-indicator comprises a guide-rod 41<sup>a</sup>, fixed to the ends 18 and 19 of the frame

13. A yoke 42 is slidably mounted upon the said rod 41<sup>a</sup>, and an arm 43 is fixed to the said yoke and curved to overlap the plate 14.

44 indicates an L-shaped bar pivotally connected at 45 with the end of the arm 43 and also pivotally connected with the line-indicator proper, 46, by means of the screw 47. A projection 48 on the surface of the line-indicator limits the movement of the line-indicator relative to the said L-shaped bar, so that normally the line-indicator is held at right angles to the copy-holding plate, and the arm 43 bearing the line-indicator may at any time be turned to the position shown by dotted lines in Fig. 1, and then the line-indicator may be turned at right angles to its supporting-arm 43, as also shown in dotted lines. 49 indicates a second yoke slidably mounted upon the rod 41<sup>a</sup> and having the yoke 42 admitted between its ends. A leaf-spring 50 is secured to this yoke 49 and held in frictional contact with the rod 41<sup>a</sup> to thereby limit and restrict the movement of the said parts relative to the rod. An extension 51 is formed on or fixed to this yoke 49 to extend laterally where it is made to encircle the rod 40, which is capable of sliding through the opening in the said extension.

The clutch device (indicated by the reference-numeral 52) comprises a straight piece of metal bifurcated at its one end to overlap the rod 41<sup>a</sup> and having an opening in its other end just slightly larger than the diameter of the rod 40, the said rod 40 being passed through this opening.

53 indicates a cam-shaped arm formed on or fixed to the under surface of the yoke 42 and in a position to engage the clutch device 52 when the indicating-arm is swung to the position indicated by dotted lines in Fig. 1, and when in this position the said cam-shaped extension 53 will hold the clutch device 52 into a position parallel with the part 51, and when in this position the indicator may be moved freely upon the rods 41 and 40. However, when the indicator-arm is in its normal position the cam 53 will not engage the clutch device 52, and when the rod 40 is moved longitudinally the clutch 52 will be carried with it a slight distance, and then when the said rod 40 engages the opposite sides of the opening in the clutch device 52 the said clutch device will bind upon the rod and the entire indicating device will be moved upon the rod 41<sup>a</sup>. Then when the rod 40 is returned by means of the spring 34 the clutch device 52 will be moved toward the part 51 and will prevent the clutch device from moving beyond a position at right angles to the rod, and hence the clutch device cannot bind upon the rod when it is moving in that direction. By means of the device just described it is obvious that when the plate 13 is depressed the crank-shaft 35 will be moved, the extension 36 will be swung forwardly, and the rod 40 be moved longitudinally by means of the connection 39,



and this movement of the rod 40 will cause the clutch device 52 to engage the rod and to thereby move the line-indicator downwardly relative to the plate. Then as the plate is again elevated by the spring the clutch device will not engage, and hence the line-indicator is held stationary.

I have provided means for preventing the leaves of the copy from folding backwardly after they have once been turned over and have also provided means whereby the devices which hold them backwardly may be adjusted laterally to fit leaves of copies of any ordinary width. This mechanism comprises two perforated ears 53<sup>a</sup>, formed on or fixed to the under surface of the auxiliary top 21 to receive a sleeve 54, which is rotatably mounted therein and which is slotted longitudinally.

55 indicates a spring with its central portion wound upon the sleeve and its ends extended straight forwardly to engage the under surface of the auxiliary top.

56 indicates a sleeve or tube to extend transversely across the upper end of the auxiliary top. On each side of this top is a device comprising a metal rod to enter the tube 56 and having a lug 57 formed on its end to project through the slot in the sleeve. This obviously will cause the rod in the tube 56 to be acted upon through the resiliency of the spring 55, and, furthermore, each of the said rods in the tubes 56 may be moved longitudinally therein to and from the auxiliary plate 21. On the ends of these rods 58 in the tubes 56 I have fixed the straight arms 59, which are arched laterally at their outer ends at 60 for purposes hereinafter made clear. A rod 61, fixed to one of these arms, and a sleeve 62, fixed to the other one of the arms 59, provide means whereby the said arms may be separated and a cross-piece connecting the arms be extended across the top of the auxiliary copy-holding plate. It is obvious that the spring 55 will normally hold the cross-pieces 61 and 62 into yielding engagement with the top of the auxiliary copy-holding plate. In each of the arches 60 a rod 63 is rotatably mounted, and a coil-spring 64 is wound upon it. The upper end of the rod 63 is curved laterally at 65, and a pin 66 is provided to limit the rotation of the said arm. The said spring 64 is arranged to exert its pressure in a direction tending to hold the arm 65 in engagement with the said pin 66. It is obvious that when a sheet of paper has been passed over the copy-holder and through between the arms 65 the said arms will be moved downwardly and outwardly until the sheet passes them. They will then be automatically returned to intercept the path of the sheet, and hence the sheet may not return to its position over the copy-holding plate, and, furthermore, these arms may be readily and quickly adjusted laterally to approximately fit a sheet of any size placed on the copy-holder, and this without inter-

fering in any manner with the operation of any of the parts.

In practical use and assuming that it is desired to secure a copy-book in position it is obvious that the holder may be adapted in size to accurately fit the copy-book by moving the auxiliary copy-holding plate 21 relative to the main plate as required to adjust the copy-holder as to length. To adjust the copy-holder as to width, the rods 58 may be moved laterally within the tubes 56. These operations may be performed without the adjustment of screws or fastening devices of any kind, and hence the copy-holder may be made to accurately fit a book of any ordinary size. The book is inserted under the cross-pieces 61 and 62, which are normally held in yielding engagement with the book by means of the springs 55 to thereby firmly secure the book to the copy-holding plate. The lower end of the copy-book is held to the plate by means of the arm 30, that projects upwardly and forwardly at the bottom of the copy-holding plate. When a leaf is turned over, the said leaf will engage the arms 65 and move them rearwardly, and the springs connected with said arms will then return them to their normal positions, where they will prevent the leaf from turning backwardly. Assuming that the line-indicator has been placed in position so that it will point to the first line on the page, it is obvious that when the operator reaches the end of a line he may readily and quickly move the indicator relative to the copy-book, so that the indicator will point to the next line below by the simple operation of touching the plate 14. Then assuming that the line-spaces through which the indicator is carried do not register accurately with the line-spaces on the copy this may readily and quickly be adjusted by a movement of the thumb-nut 37, and the line-spaces indicated will be greater in proportion to the distance that the nut 37 assumes from the shaft 35. It is obvious, further, that when the copy-holding plate reaches the lower limit of its movement the line-indicator will be automatically thrown to a position at right angles to the copy, as indicated by dotted lines in Fig. 1, and when in this position it may be moved freely upon its supporting-rods 40 and 41<sup>a</sup>. It is obvious, further, that when the operator desires to turn over a leaf it may be readily and easily accomplished with one hand only, because when the operator grasps the leaf he may at the same time depress the copy-holding plate 14 to release the copy from the holding device 30 at the lower end of the plate.

What I claim as my invention is—

1. In a copy-holder, the combination of a holder, a support therefor having a frame pivoted thereto, an arm connected with the support and extended longitudinally of the frame, a spring interposed between the arm and frame to normally separate them, an arm



pivoted to the free end of the aforesaid arm projected through an opening in the frame and having its upper end extended over the holder, for the purposes stated.

5 2. In a copy-holder, the combination of a support, a frame pivoted to the support, an arm connected with the support and extended longitudinally of the frame, means for adjusting the incline of the frame relative to the support, a leaf-spring fixed to the arm to engage  
10 the under surface of the frame, a rod pivoted to the free end of the said arm to project upwardly through an opening in the frame and having a forward bend therein and its upper  
15 end inclined forwardly to overlap the holder, for the purposes stated.

3. In a copy-holder, the combination of an upright, a paper-holding plate pivoted thereto to swing in a vertical plane, a yielding pressure device for normally holding the lower  
20 end of the plate to its upper limit of movement, a slotted projection at the lower end of the said paper-holding plate, an arm pivoted to a fixed support below the plate and extended straight upwardly, and then bent at  
25 an angle rearwardly, and then again straight upwardly, and then forwardly to overlap the end of the paper-holding plate, and so arranged that when the lower end of the paper-  
30 holding plate is depressed the said inclined portion will engage with the end of the said slot and thereby cause the part that overlaps the paper-holding plate to spring rearwardly beyond the end of the plate, substantially as  
35 and for the purposes stated.

4. In a copy-holder, the combination of a support, a paper-holding plate pivotally mounted on said support to swing in a vertical plane, an arm connected with the support to extend beneath the paper-holding  
40 plate and having a slot in its lower end, a paper-holding arm pivoted to the said arm and extended straight upwardly, and then rearwardly at an angle, and then straight upwardly, and finally forwardly to overlap the  
45 lower end of the paper-holding plate, a slotted projection on the paper-holding plate through which the said device is passed, a crank-shaft mounted on the under surface of the paper-holding plate and extended through  
50 the slot in the said arm that is fixed to the support, and having an extension on its one end to project at an angle to the crank formed thereon, a guide-rod mounted beneath the  
55 paper-holding plate to extend longitudinally thereof, a line-indicator slidingly mounted on said rod and extended across the top of the paper-holding plate, and means for connecting the extension on the said crank-shaft  
60 with the said indicator so that a movement of said extension caused by a depression of the plate will actuate the line-indicator upon its guide-rod, for the purposes stated.

5. A line-indicator for copy-holders, comprising in combination, a copy-holding plate capable of a slight tilting movement in a ver-

tical plane, a crank-shaft pivoted to its under surface, a screw-threaded extension on one end of the crank-shaft, a nut adjustably mounted upon said extension, a stationary  
70 slotted support in which the said crank may slide, a rod slidingly mounted in suitable bearings beneath the paper-holding plate, means for connecting the said rod with the said nut, a guide-rod parallel with the said  
75 sliding rod, an indicator slidingly mounted upon the said guide-rod and having a cam-shaped projection thereon, a device fixed to the indicator and extended at right angles to the guide-rod and slidingly connected with the  
80 guide-rod and with the aforesaid sliding rod, and a straight clutch device slidingly mounted upon the guide-rod between the aforesaid device and the said cam-shaped projection, and also slidingly mounted upon the sliding  
85 rod, and so arranged that when extended at a considerable angle relative to the said rods it will clamp on the sliding rod, all arranged and combined substantially in the manner set forth and for the purposes stated. 90

6. In a copy-holder, the combination of a paper-holding plate, a guide-rod beneath the plate, a line-indicator pivotally and slidingly mounted thereon, means for operating the  
95 line-indicator longitudinally of the paper-holding plate, and a curved arm arranged at the lower end portion of the paper-holding plate to be engaged by part of the line-indicator when the same approaches the lower  
100 end of the paper-holding plate so that the said indicator will be automatically swung to a position at the side of the paper-holding plate, substantially as and for the purposes stated.

7. The combination with a copy-holder, of  
105 an auxiliary top slidingly connected with the main top, a slotted sleeve rotatably mounted on the under side of the auxiliary top, a spring for holding said slotted sleeve to its limit in one direction, two rods having later-  
110 ally-projecting lugs on their ends slidingly mounted in said sleeve with their lugs projecting through the said slot, an arm formed on or fixed to the outer end of each of said  
115 arms, a sleeve on one of said arms and a rod on the other, inserted in the sleeve to normally engage the top surface of the copy-holder and be held by the resiliency of the said spring against the top surface of the  
120 holder, substantially as set forth and for the purposes stated.

8. The combination with a copy-holder, with an auxiliary top slidingly connected with the main top, a slotted sleeve rotatably mounted on the under side of the auxiliary top, a  
125 spring for holding said slotted sleeve to its limit in one direction, two rods having laterally-projecting lugs on their ends slidingly mounted in said sleeve with their lugs projecting through the said slot, an arm formed  
130 on or fixed to the outer end of each of said arms, a sleeve on one of said arms and a rod



on the other inserted in the sleeve to normally engage the top surface of the copyholder and be held by the resiliency of the said spring against the top surface of the  
5 holder, and an arm pivotally mounted at the upper end of each of said arms to extend toward each other, a spring for holding each of said arms to its upper limit, and a stop for

limiting said upward movement, all arranged and combined substantially in the manner so set forth and for the purposes stated.

JOHN M. LLOYD.

Witnesses:

J. RALPH ORWIG,  
THOMAS G. ORWIG.