

Jan. 26, 1937.

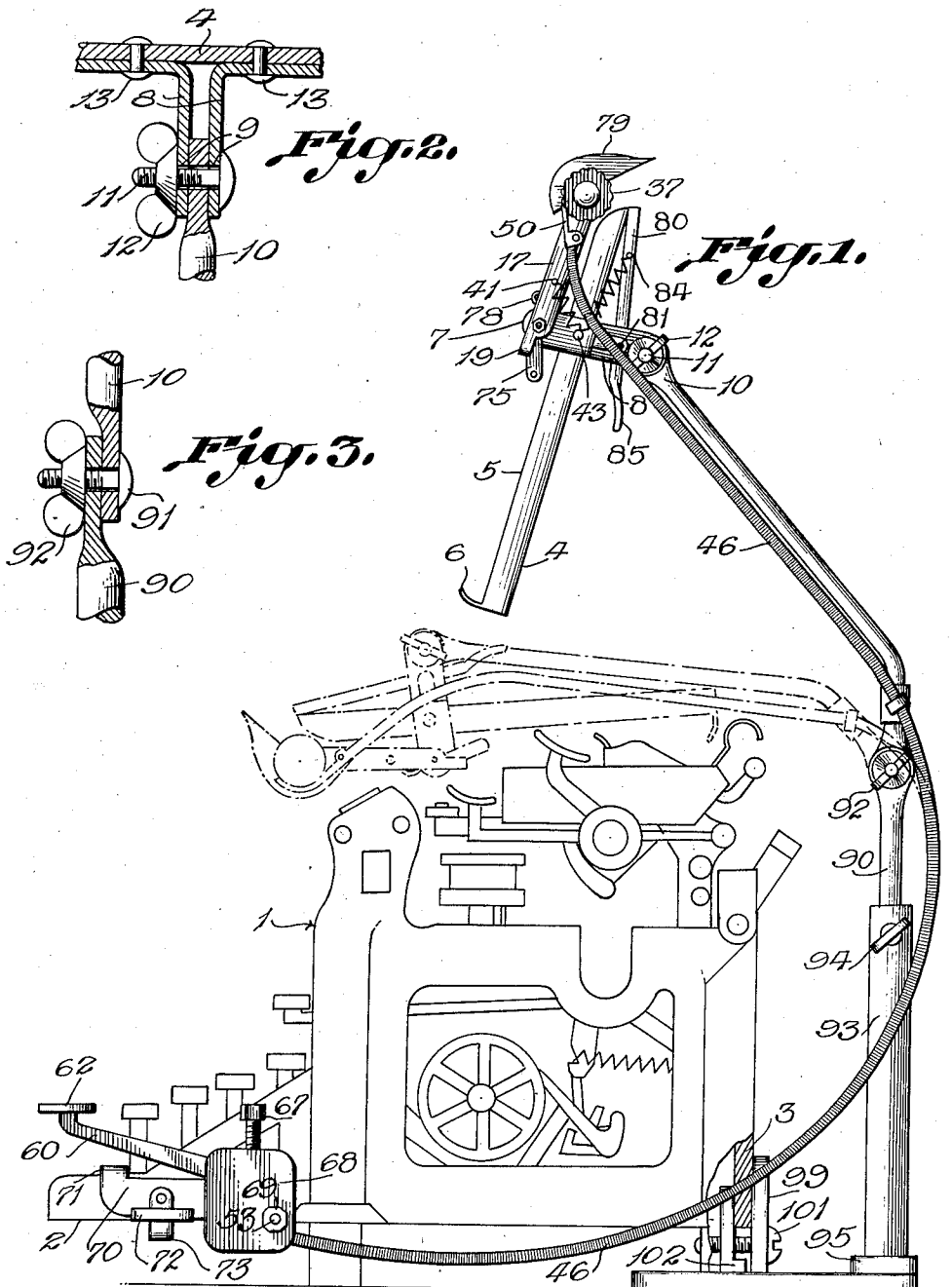
T. H. TALLEY

2,068,894

COPY HOLDER MACHINE

Filed Sept. 20, 1930

4 Sheets-Sheet 1



Inventor

Thurmont H. Talley

Jan. 26, 1937.

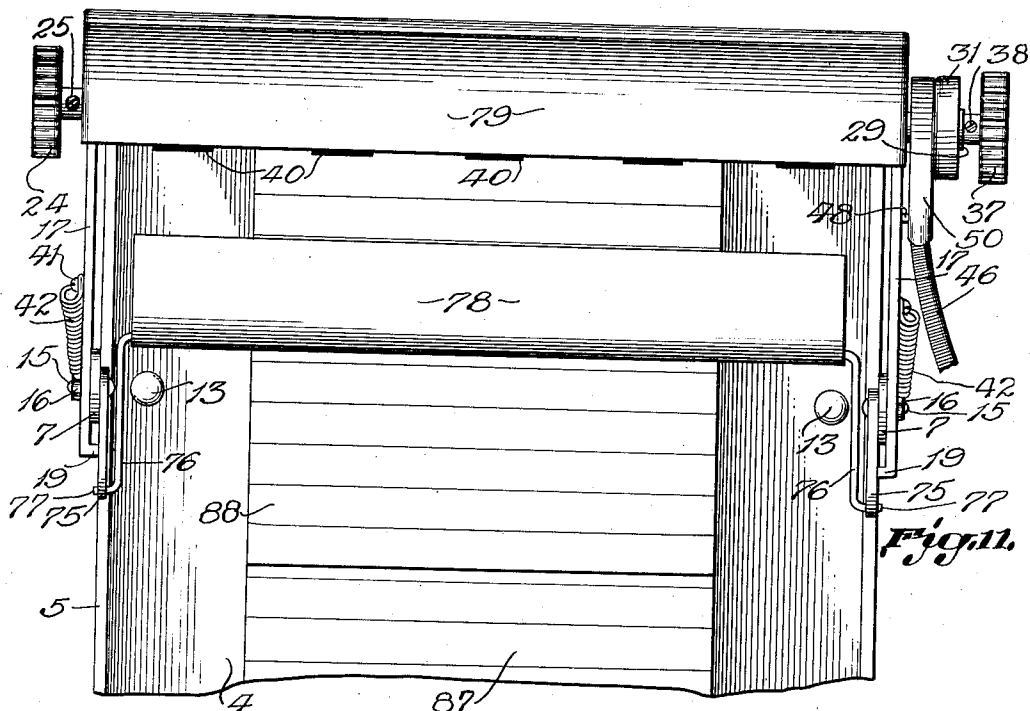
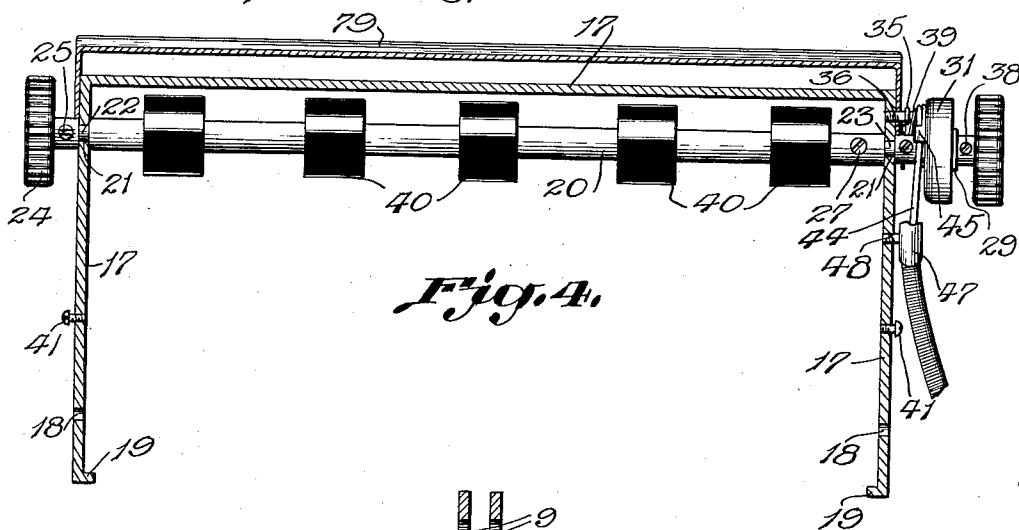
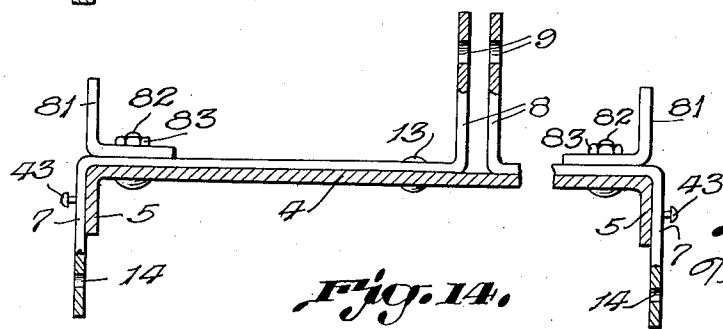
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4 Sheets-Sheet 2



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4 Sheets-Sheet 3

Fig. 6.

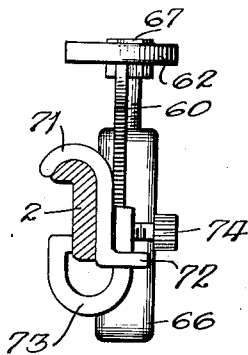


Fig. 5.

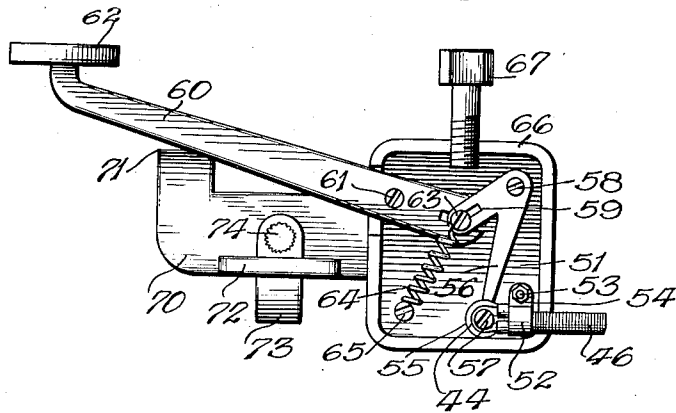
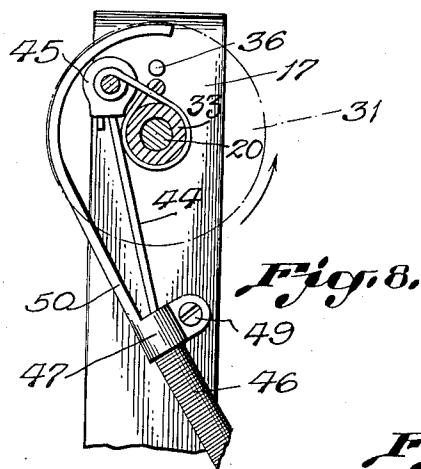
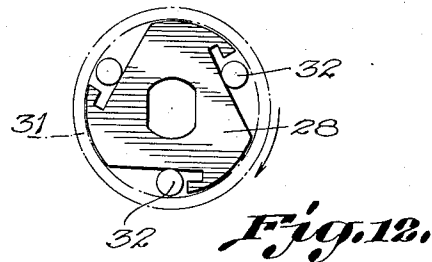
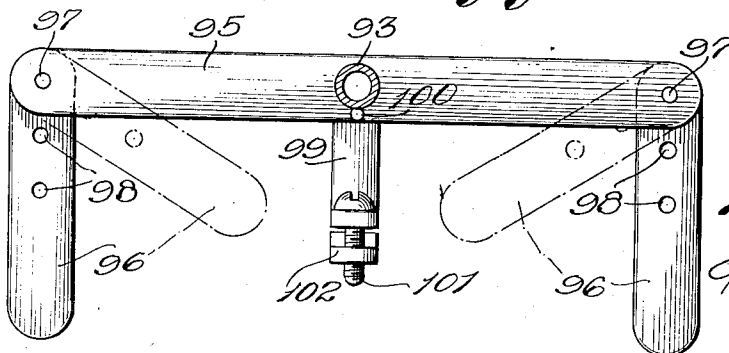


Fig. 7.



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Fig. 10.

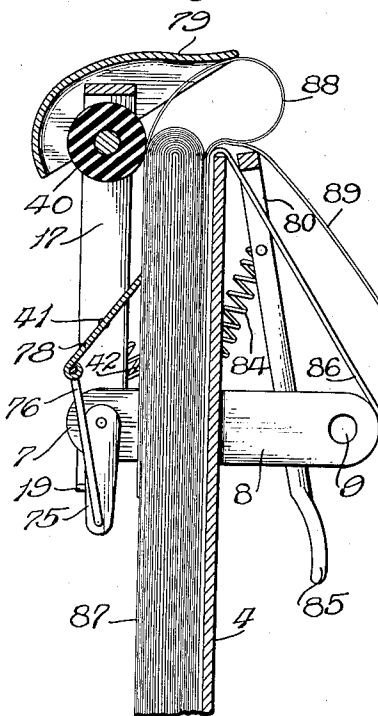


Fig. 9.

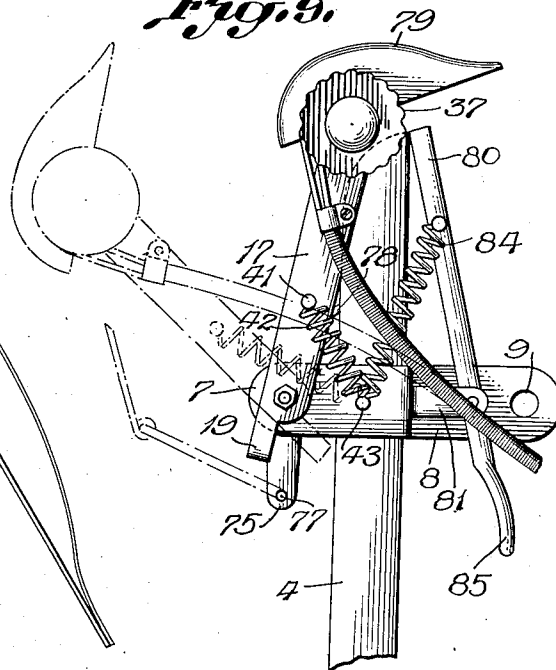


Fig. 13.

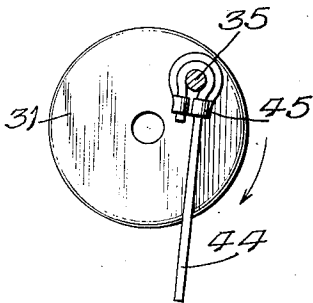
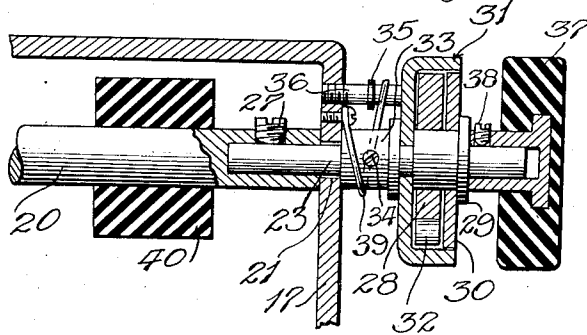


Fig. 15.



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UNITED STATES PATENT OFFICE

2,068,894

COPY HOLDER MACHINE

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corporation of New York

Application September 20, 1930, Serial No. 483,288

11 Claims. (Cl. 120—30)

This invention relates to apparatus for the use of stenographers, copyists, or those who transcribe or copy matter written or printed on sheets of paper or in a stenographer's note book or other books of similar type, the invention having reference more particularly to apparatus for holding a note book or a plurality of single sheets, and for turning the pages or sheets line by line, and for turning the pages or sheets one at a time successively without removing the hand from the keyboard of the typewriter or similar machine.

An object of the invention is to provide a page-turning copy holder that may be adjusted to various positions, and to hold the copy in the most convenient position for the best light on the copy, and to hold the copy at the most convenient distance from the eyes to relieve eye-strain.

A further object is to provide a page turning apparatus that may be operated from a remote control device, having a demountable operating device, with means for a variable adjustment to regulate the spacing of the page turning apparatus, and a flexible means of connection between the control device and the page turning apparatus.

A still further object is to provide a page turning copy holder that may be folded down on top of the typewriter to be inclosed in a desk with a typewriter, also to provide means for securing the base of the copy holder to the typewriter base, so when the typewriter is moved on the desk the copy holder retains its proper position.

With the above and other objects in view, the invention consists in novel apparatus for holding a note book or a plurality of single sheets, to move the pages or sheets up to reveal the copy line by line, and to turn the pages or sheets successively one at a time, without removing the hand from the keyboard of the typewriter or similar machine, and the invention consists also further in the novel parts and combinations and arrangement of parts as hereinafter particularly described and set forth in the claims appended hereto.

Referring to the drawings, Figure 1 is a side elevation of apparatus constructed substantially in accordance with the invention and arranged in connection with a typewriter machine shown mainly by light lines; also dotted lines showing position of the page turning apparatus when it is folded down on top of the typewriter when it is to be inclosed in a desk with the typewriter; Figure 2 is a fragmentary sectional detail show-

ing on an enlarged scale, the means for connecting the page turning apparatus to the support shaft; Figure 3 shows the adjustable joint in the support shaft; Figure 4 is a vertical longitudinal central section of the pivotally supported roller frame, on an enlarged scale with the top shield cover and the cable guard removed; Figure 5 is a side elevation of the operating and control apparatus on an enlarged scale with the cover removed; Figure 6 is an end view of the base block; Figure 7 is a top plan view of the base support for the page turning apparatus, and the clamp for securing the base support to the base of a typewriter frame; Figure 8 is a side elevation of the cable guard and the cable, also showing the clutch-return spring and the association thereof; Figure 9 is a fragmentary side elevation of the page turning apparatus; Figure 10 is a section thereof showing a note book in the page turning apparatus and the method of shifting the copy, and turning the pages of a note book; Figure 11 is a fragmentary front elevation of the page turning apparatus; Figure 12 is a side elevation of the clutch-cam; Figure 13 is a side elevation of the clutch-drum; Figure 14 is a horizontal sectional view of the page turning apparatus showing the support brackets and their relative associations; Figure 15 is a fragmentary vertical sectional view of the clutch unit and relative associations on an enlarged scale.

Similar reference characters in the different figures of the drawings indicate corresponding elements or features of construction herein referred to in detail.

A typewriter machine 1 is shown which will be readily recognized as one style of many similar machines, each having a keyboard, the main frame of the machine usually having a rear lower rail 3.

The page turning apparatus proper includes a flat copy support plate 4, (and in some instances it is preferred to have a flange 5 turned forward on each side of the copy support plate and also to have a flange or shelf 6 formed on the bottom of the copy support plate to hold a plurality of cards to be operated through the apparatus similar to a note book). Two alining Z-shaped support brackets are transversely mounted on the back of the copy support plate 4 by means of rivets 13 and bolts 82 and nuts 83, or by spot-welding, two rearwardly extending arms 8 and 8 are formed on the support brackets to support the page turning apparatus on a support shaft 10. A pivot hole 9 is formed in each arm near the end thereof, the support shaft 10 is

flattened at the end and a pivot hole is formed therein, the flattened end of the shaft is inserted between the ends of the arms 8 and 8; a bolt 11 passes through the holes in the arms and the hole in the support shaft having a thumb nut 12 screwed on the end of the bolt. Two forwardly extending arms 7 and 7 are formed on the support brackets to extend forward of the copy support plate 4, on each side thereof, pivot holes 14 and 14 are formed in the ends of arms 7 and 7, pivot screws 15 and 15 are mounted in the pivot holes, having nuts 16 and 16 screwed on the ends thereof, a U-shaped frame 17 having pivot holes 18 and 18 formed in each end of the frame, is pivotally supported on the pivot screws 15 and 15, and a lug 19 is formed on the lower end of each arm of frame 17 to engage against a corresponding arm 7 when frame 17 is tilted forward. A roller shaft 20 is rotatably supported between the arms of the U-shaped frame, in journaled bearings 21 and 21, on spindles 22 and 23. Spindle 22 is formed on the end of the roller shaft, a twirler knob 24 is secured on the end of spindle 22 by means of a screw 25, a socket is formed in the opposite end of the roller shaft 20, and the spindle shaft 23 of the clutch unit is rotatably supported in the journaled bearing 21 and engages in the socket and secured therein by means of a set screw 27. The clutch unit is composed of a spindle shaft 23 having a cam 28 tightly mounted thereon. A radial shoulder 29 is formed on the spindle shaft and a washer 30 is mounted on the shaft between the shoulder 29 and the cam 28, and a cup shaped clutch-drum 31 is rotatably mounted on the spindle shaft 23 covering the cam 28 and the washer 30. Three small rollers or balls 32 are loosely mounted in the recesses formed in the cam to frictionally engage the cam 28 and the rim of the clutch drum 31 when the clutch drum is rotated forward. The clutch drum is held in place by a collar 33 mounted on the spindle shaft and secured thereto by means of a pin or screw 34, a screw stud 35 is mounted in the clutch drum to engage against a stop post stud 36 mounted in the end of frame member 17, and a twirler knob 37 is mounted on the outer end of spindle shaft 23 and secured thereto by means of a screw 38. A spring member 39 is loosely mounted around the collar 33 as indicated in Fig. 4 to return the clutch drum to proper position when it is rotated, one end of the spring 39 being bolted to the frame 17 and the other end of the spring engaging the screw stud 35 on the clutch drum. A plurality of rubber rolls 40 are mounted on the roller shaft 20. Stud 41 and 41 are mounted in the arms of the frame member 17, and springs 42 and 42 are engaged on the studs. The opposite ends of the springs engage studs 43 and 43 on arms 7 and 7 on the support brackets to keep the rubber rollers in tension against the top of the copy support plate 4. A grommet 45 is mounted on the end of a flexible cable 44 and the grommet is mounted on the screw stud 35 on the clutch drum. The end of a flexible cable shield 46 is anchored to the arm of the frame 17 just beneath the clutch by means of a clamp 47 and a screw 48 passing through the holes in the clamp 47 and through the hole 49 in the cable guard 50 and screwed into a threaded hole in the arm of frame member 17. The flexible cable shield is preferably made of a wire spring closely wound, and the cable 44 passes through the flexible cable shield 46 to a remote control device. The end of the flexible

cable shield 46 is secured to the base block 51 on the control device by means of a clamp 52 around the end of the cable shield and engaged on a screw 53 in the base block, and a nut 54 on the screw. A grommet 55 is mounted on the end of the flexible cable 44 and the grommet is pivotally mounted on a screw stud 57 screwed in the end of an L-shaped or bell crank lever 56. The L-shaped lever 56 is pivotally supported on a shoulder screw 58 on the upper rear portion of the base block 51, and a slot 59 is formed in the arm of the L-shaped lever. A stud 63 is mounted in the end of lever 60 and slidably engages in the slot 59. The operating lever 60 is pivotally supported on a screw stud 61 mounted in the upper portion of the base block 51 and a knob 62 is formed on the free end of the lever 60. The end of a spring 64 is engaged on the stud 63 and the other end of the spring is engaged on a stud 65 mounted in the base block to hold the levers in proper position.

A rectangular shaped flange 66 is formed on the base block 51, and a thumb screw 67 is screwed in a threaded hole in the upper part of the flange so the lower end of the screw will engage against the rear end of lever 60 forming a micrometer adjustment to regulate the stroke of the lever also regulating the space the copy in the page turning apparatus is moved at each stroke on the operating lever 60. A cover 68 is provided to cover the rectangular flange 66 and is held in place by a nut 69 on the end of the screw 53. A forwardly extending arm 70 is formed on the base block 51, a hook 71 is formed on the forward end of the arm to hook over the typewriter frame, a slot is formed in the lateral portion 72 on the lower part of the arm 70, one end of a U-shaped clamp 73 passes through the slot and a thumb screw 74 is screwed into a threaded hole in the end of the U-shaped clamp engaging the arm 70 and clamping the operating control apparatus to the typewriter frame 2.

A line indicator is adjustably and pivotally supported between the arms 7 and 7 on the pivot screws 15 and 15 in the forward portion of the support brackets comprising flat short arm members 75 and 75 pivotally supported on the pivot screws 15 and 15 and a U-shaped wire member 76 having the ends thereof formed in adverse right angles 77 and 77 pivotally supported in pivot holes in the free ends of arms 75 and 75, with a flat piece of metal 78 having one side thereof formed around the U-shaped wire member 76 and pivotally supported thereon.

A curved cover shield and paper deflector 79 is supported on top of the pivotally supported U-shaped frame 17 to form a cover for the rubber rolls 40 and deflect the pages of the note book to the rear of the apparatus as they are pulled through the apparatus by the rubber rolls 40.

A book holder clamp 80 is pivotally supported on two L-shaped brackets 81 and 81 at the rear of the copy support plate 4 with the top of the clamp member 80 to engage against the top of the copy support plate. The L-shaped brackets 81 and 81 are supported on the rear of the support brackets, and secured thereto by means of screws 82 and 82 and nuts 83 and 83, two springs 84 and 84 engaging in a hole in each arm of the U-shaped book clamp 80 and the opposite ends of the springs engaging the studs 43 and 43 on arm 7 and 7 on the support brackets. The ends of the arms of the book clamp extend below the pivots and are formed into

handles 85 and 85 as means for opening the book clamp.

An adjustable support shaft and a support stand are provided to hold the page turning apparatus and hold it in various positions as may be desired, comprising a shaft 10 having a pivot hole formed in each end thereof. One end of the shaft 10 is pivotally engaged between the arms 8 and 8 on the support brackets by means of a bolt 11 engaged in the pivot holes in the ends of arm 8 and 8 and also in the pivot hole in the end of the shaft 10 and a thumb nut 12 on the end of the bolt. A shaft 90 having a pivot hole in the end thereof, is pivotally mounted on the lower end of shaft 10 by means of a bolt 91 engaged in the pivot holes in the ends of the shafts and a thumb nut 92 on the end of the bolt. The lower end of the shaft 90 telescopes into an upright tubular member 93 with a thumb screw 94 screwed in a threaded hole in the tubular member 93 near the top thereof and engaging against the shaft 90. The tubular member 93 is mounted in a horizontal base 95. Two foot members 96 and 96 are pivotally mounted on each end of the base member 95 by means of rivets 97 and 97, holes 98 and 98 being formed in the foot members as means for securing the foot members to the feet of a typewriter or for securing them to the desk by means of screws in the holes 98 and 98 and screwed into the desk.

A steady bracket clamp is provided to secure the base support of the page turning apparatus to the base of a typewriter frame, comprising an L-shaped member 99 having a lower horizontal arm secured to the base plate 95 by means of a screw 100. A hole is formed in the lower portion of the upright arm and a screw 101 is loosely mounted in the hole. A small L-shaped member 102 having a threaded hole in the upright arm thereof is screwed on the end of the screw 101, the upright arm of the L-shaped member 99 engaging the outside of the rail 3 on the lower rear portion of the typewriter frame and the upright arm of the small L-shaped member 102 engaging the inside of the rail 3. When the screw 101 is tightened, it clamps the two upright arms against the rail 3 on the typewriter frame.

To operate the page turning copy holder the pivoted frame 17 is tilted forward to the position shown by dotted lines in Figure 9, the lug 19 engaging against the arm 7 to hold the frame in proper position. Then the lever 85 on the book holder clamp 80 is pressed and the back or a portion of the note book is placed between the clamp and the copy support plate 4. The springs 84 and 84 hold the clamp against the book and keep it in proper position, the first page to be copied or transcribed being face forward in front of the copy support plate 4. The roller support frame 17 is then lifted up and springs 42 and 42 hold the rubber rolls 40 in tension against the top part of the page to be transcribed. Then the knob 62 on the operating lever 60 of the remote control operating device is pressed. This pulls the rotatable clutch drum 31 forward, the small rollers 32 frictionally engage the clutch drum to the clutch cam 28 secured on the roller shaft thus rotating the rubber rolls 40 forward and the friction of the rubber against the top page on the note book causes the page to slide upward. The distance the page is moved at each stroke on the lever 60 and knob 62 may be regulated by adjusting the thumbscrew 67 on the operating device. When the end of the first page has passed under the rubber rolls the rubber rolls then engage

against the top of the next page, thus all the remaining pages may be pulled through the page turning apparatus line by line or a number of lines at one stroke, and the pages of the book turned successively without removing the hand from the proper position on the keyboard of the typewriter, or similar machine.

When it is desired to inclose the copy holder in a desk with the typewriter, the page turning apparatus and the support shaft may be adjusted to the position shown by dotted lines in Figure 1.

I am aware that many changes may be made, and numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not propose to limit the patent granted hereon, otherwise than is necessitated by the prior art and the appended claims.

I claim:

1. A page turning copy holder including a page turning apparatus, said holder comprising a copy support plate, two aligning transverse support brackets secured to the copy support plate, said brackets having holes in the ends thereof, a support shaft pivotally supported between two rearwardly extending arms of the support brackets, said shaft having a hole in the end thereof, a bolt engaged in the hole in the shaft and in the holes in the rearward extending arms on the support bracket, a thumb nut on the end of the bolt, two arms of the support brackets extending forward of the copy support plate, a pivot engaged in the hole in the end of each forwardly extending arm, a U-shaped frame pivotally supported on the pivots, bearings in the upper portion of the arms of the U-shaped frame, a roller shaft rotatably supported in the bearings, twirler knobs mounted on the ends of the roller shaft, a plurality of rubber rolls mounted on the shaft between the arms of the U-shaped frame, a rotatable clutch mounted on the roller shaft, means for rotating the clutch from a remote control, two springs having ends engaging studs on the arms of the U-shaped frame, the opposite ends of the springs engaging studs in the support bracket, a lug formed on the end of one arm of the U-shaped frame to engage against the support bracket, a curved cover shield and paper deflector mounted on top of the U-shaped frame, and secured thereto, a cable shield anchored to one arm of the U-shaped frame, a cable guard also mounted on said arm of the U-shaped frame, by means of a screw.

2. A page turning copy holder including a copy support plate, support brackets mounted on the plate, a U-shaped frame pivotally supported on the brackets, a roller shaft rotatably supported in the frame, a plurality of rubber rolls mounted on the shaft engaging the top of the copy support plate, means for rotating the shaft from a remote control, a flange turned forward on each side of the copy support plate, a flange turned forward on the bottom of the copy support plate.

3. A page turning copy holder including a copy support plate, support brackets secured to the plate, two L-shaped brackets one mounted on each of the support brackets, and secured thereto, a book holder clamp comprising a U-shaped member pivotally supported on the L-shaped brackets, the ends of the arms of the U-shaped member extending below the pivot points, handles formed on the ends of the arms, two springs engaging the upper portion of the arms, the op-

posite ends of the springs engaging studs in the support brackets.

4. A page turning copy holder including a page turning apparatus, a support therefor, a stay bracket clamp for securing the copy holder support to the base of a typewriter, comprising an L-shaped member having a vertical arm and a horizontal arm, the horizontal arm secured to the copy holder support, a hole in the vertical arm, a screw loosely engaged in the hole, a smaller L-shaped member having a threaded hole in the vertical arm thereof, screwed on the end of the screw.

5. A page turning copy holder including a copy support plate, brackets mounted on said support plate, a U-shaped frame pivotally supported on said brackets, a roller shaft rotatably supported in said frame, a rotating clutch mounted on said roller shaft, a remote control and operating mechanism for operating said rotating clutch at variable distances from said clutch, comprising a base block formed of an upright side having flanges at right angles thereto, said block adapted to be demountably supported on a typewriter frame, a slotted arm on the forward portion of said base block, a hook on said arm, a U-shaped clamp member loosely engaged in said slot, in said arm, a thumb screw mounted in one end of said clamp member, an operating lever pivotally mounted on the upper portion of said base block, a knob on the free end of said lever, a stud mounted in the rear end of said lever, an L-shaped lever pivotally mounted on the rear portion of said base block, and having a slot therein, said stud slidably engaging said slot, a spring engaging said stud, the opposite end of said spring engaging a stud on said base block, a cover for said flanges, a thumb screw mounted in the upper flange, to engage against the rear end of the operating lever, a flexible cable shield having one end anchored to said base block, and having one end thereof anchored to one arm of the U-shaped roller frame on the page turning apparatus, a flexible cable having one end pivotally supported on a stud in the free end of the L-shaped lever, said cable passing through said cable shield, and the opposite end thereof pivotally supported on the clutch.

6. The combination with a sheet supporting member having an upper edge over which a sheet is arranged to be thrown, work clamping means for holding the sheet in a suspended condition on the sheet supporting member, and a feeding mechanism engaging with the suspended sheet adjacent the upper edge of the sheet supporting member to draw said sheet upwardly, said feeding mechanism embodying a movable sheet engaging roller in front of the sheet supporting member, and a pivoted support for said roller, the pivot of the support being below the axis of the turning of the roller and also in front of the vertical plane of said axis, so that the roller may be swung away from the sheet holding member to permit the work to be inserted in place by a downward movement along an unobstructed path and thereby secured by the clamp.

7. A cable operating mechanism for the sheet feeding mechanism of a copy holder comprising an extension provided with a portion for engagement on one side with one side of a typewriting machine, an apertured ear projected from the other side of said portion, a U-shaped member passed through the aperture and having its two arms lying on opposite sides of said portion, and a clamping screw passed through a threaded

opening in one arm to engage one side of said portion while the other arm engages the typewriter to clamp the machine against the one side of said portion.

8. A copy holder construction comprising a sheet metal main supporting plate and feeding means carried thereby, which said feeding means comprises a series of rollers mounted on a horizontally and transversely extending shaft that is located near the upper portion of but in front of said sheet metal main supporting plate, swinging ears at the upper ends of which said shaft is revolvably mounted, forwardly projecting members carried by said main plate member upon which said forwardly projecting members the lower ends of said swinging ears are pivotally mounted, the arrangement of the roller carrying shaft relative to the pivotal supports for the swinging ears and the structure of the pivotal parts being such that the rollers normally engage the outermost portion of a copy sheet with sufficient friction whereby when the rollers are rotated they can feed the sheet portion engaged thereby, the construction being such that the upper ends of the swinging ears and the roller carrying shaft can be swung forwardly and downwardly and thereby leave the holder structure unobstructed from above, whereby the sheets of copy work can be inserted into a holding position along an unobstructed downward path.

9. A copy holder as per claim 8 in which there is employed a horizontally and transversely extending line guide bar vertically positionable in respect to the main supporting plate and in which there is mounted on the pivoted roller carrying construction a guide member arranged to direct in an upward and rearward direction papers delivered thereagainst by the feed rollers, whereby ultimately when a sheet is fully fed by the rollers past the rollers it will completely turn over and depend behind the main supporting plate.

10. A copy holder construction comprising in combination an upright main support for copy sheets including a backing plate, two relatively bodily movable members at the top of said support and backing plate for pinching a copy sheet between them and embodying as one such element a feed roll extending horizontally from side to side of the main support and adapted when rotated to force a sheet upwardly and rearwardly between it and its companion element, bearing supports for the feed roll on the main support at the sides of the backing plate, a housing mounted on the bearing supports extending from a point forwardly of to a point above and thence rearwardly of the feed roll in spaced relationship thereto and terminating rearwardly in an upwardly inclined portion adapted to deflect the copy sheet rearwardly of the backing plate, elements mounted on the sides of the backing plate and extending forwardly therefrom below the feed roll, and a line guide adjustably mounted on the last mentioned elements and extending between them to move up and down toward and from the lower edge of the housing element and cooperate therewith to form a restricted reading opening.

11. A copy holder construction comprising in combination an upright main support for copy sheets including a backing plate, two relatively bodily movable members at the top of said support and backing plate for pinching a copy sheet between them and embodying as one such element a feed roll extending horizontally from side

to side of the main support and adapted when
rotated to force a sheet upwardly and rearwardly
between it and its companion element, swinging
bearing supports for the feed roll pivoted on a
5 horizontal axis below the latter on the main sup-
port at the sides of the backing plate to carry
the feed roll bodily forwardly and rearwardly, a
housing mounted on the bearing supports ex-
tending from a point forwardly of to a point
10 above and thence rearwardly of the feed roll in
spaced relationship thereto and terminating
rearwardly in an upwardly inclined portion
adapted to deflect the copy sheet rearwardly of
the backing plate, and a horizontal line guide
adjustably mounted on the support to move for- 5
wardly and rearwardly and up and down toward
and from the lower edges of the housing element
and cooperate therewith to form a restricted
reading opening.

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