

D. H. ROBERTS & J. PETERSON.
COPY HOLDER.

APPLICATION FILED JAN. 22, 1912.

Patented Nov. 19, 1912.

2 SHEETS—SHEET 1.

1,044,574.

Fig. 1.

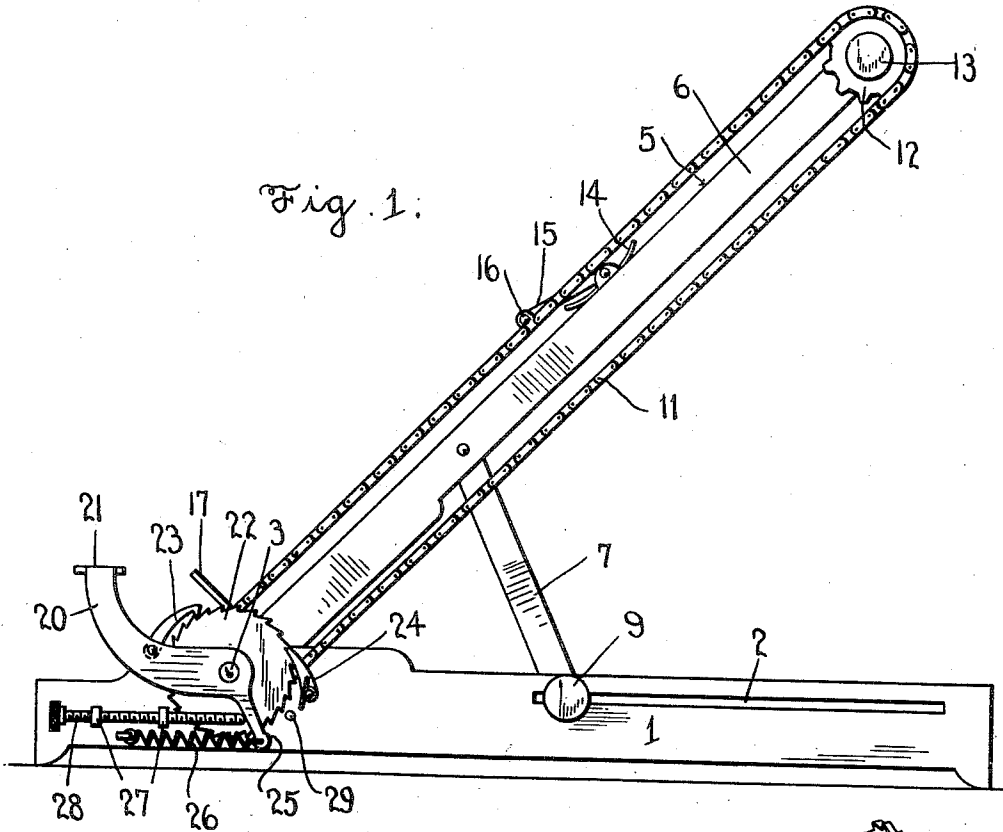


Fig. 5.

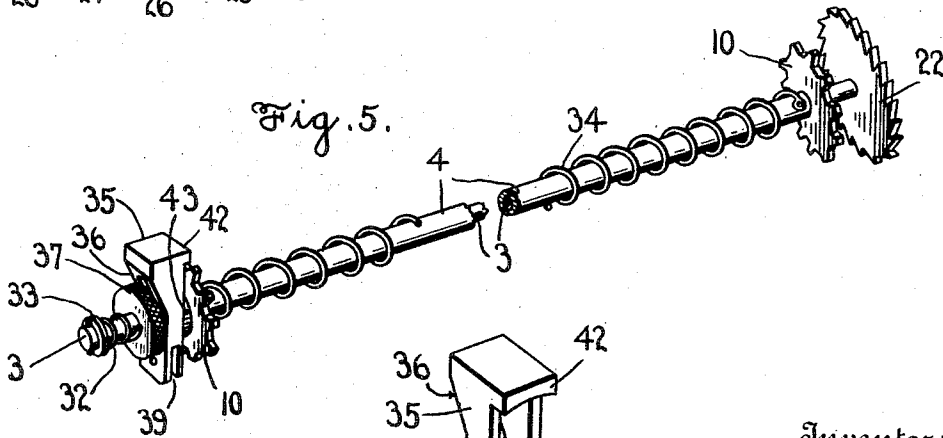
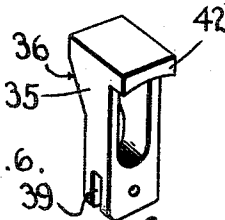


Fig. 6.



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2 SHEETS-SHEET 2.

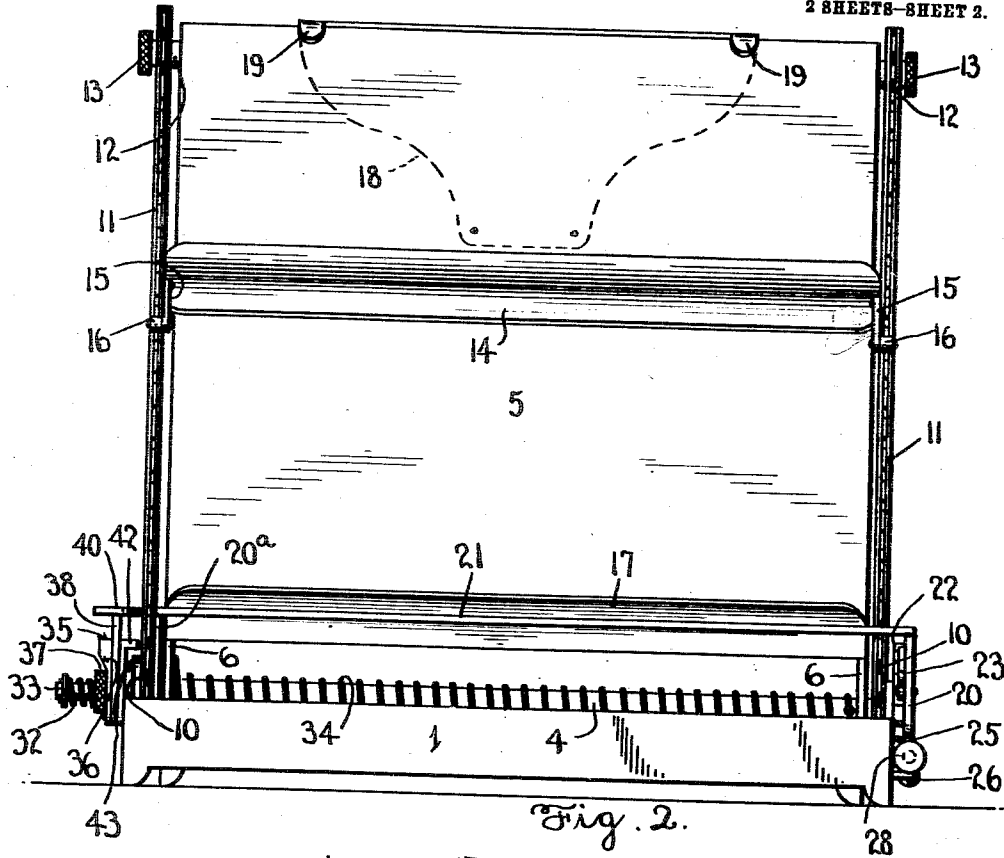


Fig. 2.

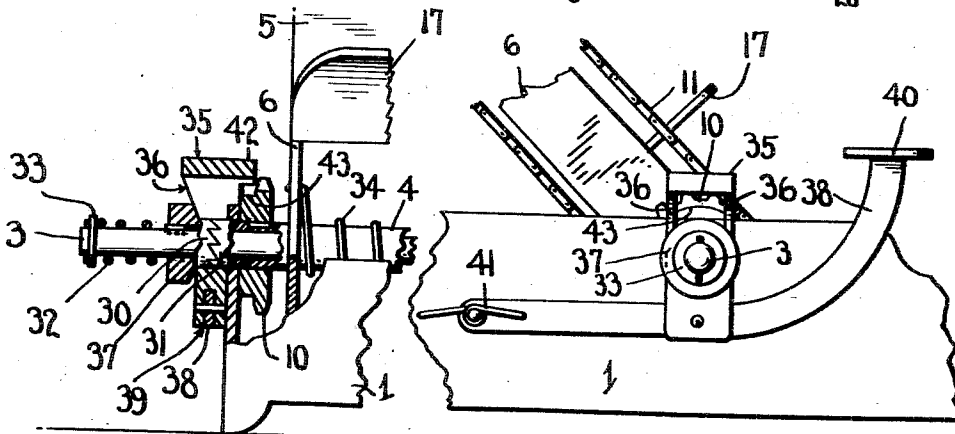


Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

DERMONT H. ROBERTS, OF POCATELLO, IDAHO, AND JAMES PETERSON, OF PRICE, UTAH, ASSIGNORS OF ONE-THIRD TO FRANK CARLTON JOHNSON, OF SALT LAKE CITY, UTAH.

COPY-HOLDER.

1,044,574.

Specification of Letters Patent.

Patented Nov. 19, 1912.

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To all whom it may concern:

Be it known that we, DERMONT H. ROBERTS, a citizen of the United States, residing at Pocatello, county of Bannock, State of Idaho, and JAMES PETERSON, a citizen of the United States, residing at Price, in the county of Carbon and State of Utah, have invented certain new and useful Improvements in Copy-Holders; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in copy holders.

One object of the invention is to provide a copy holder having a line guide bar provided with an improved construction and arrangement of operating mechanism whereby the same may be brought down the page of the copy as the lines are read or transcribed therefrom, and which may be rapidly shifted back to the top of the holder after the last line on the page has been read.

Another object is to provide a copy holder of this character in which the line guide bar may be adjusted or swung outwardly from the copy supporting plate to permit copy or books of different thickness to be placed beneath the guide bar.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a side view of our improved copy holder; Fig. 2 is a front view of the same; Fig. 3 is an enlarged front view of the lower end of the holder and operating mechanism for the line guide bar, parts being broken away and in section; Fig. 4 is a side view of one end of the part shown in Fig. 3 illustrating the construction and arrangement of the releasing devices for the operating mechanism of the guide bar; Fig. 5 is a detail perspective view of the drive shaft and sleeve for the copy operating mechanism; Fig. 6 is a detail perspective view of the clutch shifting member of the device.

Referring more particularly to the drawings, 1 denotes the base of the holder, said base being preferably in the form of a rectangular frame having in its opposite sides near its rear ends horizontally disposed slots

2. Revolvably mounted in the side bars of the frame near the forward side thereof is a supporting and operating shaft 3 having thereon a sleeve or tube 4. Loosely connected at its lower end to the sleeve 4 on the shaft 3 and extending upwardly and rearwardly at a suitable angle is a copy supporting plate 5, said plate being preferably formed of heavy sheet metal having its side edges bent rearwardly at right angles to form flanges 6 in the lower ends of which are formed openings which receive the shaft 3 and sleeve 4. The plate 5 is adjustably supported at the desired angle by brace bars 7 pivotally connected at their upper ends to the side flanges 6 of the plate and having in their lower ends thumb screws 9 which engage the slots 2 in the sides of the base frame and are adapted to clamp the lower ends of the brace in engagement with said side bars thereby securely fastening the brace to hold the supporting plate in the desired position. Fixedly mounted on the shaft 3 adjacent to the outer sides of the flanges 6 on the copy supporting plate are sprocket gears 10 which are connected by sprocket chains 11 to sprocket gears 12 revolvably mounted on bearing screws 13 arranged in the side flanges 6 on the supporting plate.

Arranged across the copy supporting plate is a line guide bar 14 which is preferably formed of sheet metal and has its upper and lower edges curved upwardly to a slight extent to prevent said edges from catching into any rough places or obstructions with which the bar may come into engagement when being moved across the page. The bar 14 is loosely connected by attaching bars 15 to lugs 16 on one of the links of each of the sprocket chains 11 whereby when the chains are moved in one direction or the other a corresponding movement will be imparted to the guide bar. By loosely attaching the bar to the chains as herein shown and described the bar may be swung upwardly or outwardly to any desired distance beyond the outer side of the plate, thus permitting books or copy of any thickness to be placed beneath the same on the supporting plate. The lower end of the supporting plate 5 is bent upwardly at right angles to form a rest 17 to receive the book or copy, the upper edge of which is held by a spring clip 18, said clip comprising

ing a spring metal plate riveted or otherwise secured at its inner edge to the rear side of the supporting plate 5 and having on its upper edge and near its ends forwardly curved copy engaging lugs 19 which
 5 spring over the upper edge of the plate 5 and grip the upper edges of the book or copy on the supporting plate.

The shaft 3 and sleeve 4 are actuated to
 10 move the chains 11 and guide bar 14 downward by a suitable operating mechanism comprising levers 20 and 20^a one of which is loosely mounted on the right hand end of the shaft 3 and the other on the opposite
 15 end of the sleeve 4 and have their upper ends connected by a finger bar 21 by means of which the levers are actuated by the operator. On the shaft 3 adjacent to the right hand lever 20 is fixedly mounted a ratchet
 20 gear 22 with which is adapted to be engaged an operating pawl 23 pivoted to the lever 20 and with which is also engaged a spring projected locking pawl 24 pivoted on the base frame and which holds the gear against
 25 retrograde movement. The pivoted end of the lever 20 has formed thereon a stop lug 25 to which is connected one end of a coiled spring 26 the other end of which is secured to the adjacent side of the base frame 1.
 30 Arranged on said side of the frame are lugs 27 having interiorly threaded passages with which are engaged a stop screw 28 with the inner end of which engages the stop lug 25 and limits the movement thereof by the
 35 spring 26. Also arranged in this side of the frame 1 is a stop pin 29 which is disposed in the path of movement of the lug 25 and is engaged by the latter when the finger bar 21 and levers 20 are depressed, thus limit-
 40 ing the downward movement of said levers and bar.

By means of the operating mechanism just described the shaft 3 is driven and in order to impart the movement of the shaft
 45 to the sleeve 4 thereon and to the sprocket gears and chains for moving the guide bar, we provide a clutch connection between the opposite end of the shaft and sleeve. The clutch connection between these parts com-
 50 prises a clutch member 30 which is slidably keyed to the opposite end of the shaft from that to which the ratchet gear 22 is secured, said clutch member 30 being adapted to be forced inwardly and normally engaged with
 55 a clutch member 31 formed on the adjacent end of the sleeve 4 by a coiled spring 32 arranged on the end of the shaft between a stop collar 33 thereon and the end of the clutch as shown. When the shaft and sleeve
 60 are thus locked together it will be seen that the movement of the shaft by its operating mechanism will turn the sleeve 4 and the sprocket chains thereon in the proper direction for operating the sprocket chain to
 65 move the guide bar 14 downwardly in a step

by step movement across the page of the copy.

In order to quickly move the guide bar back to the upper end of the supporting plate 5 after the bottom of the page has
 70 been reached, we provide a retracting mechanism comprising a coiled spring 34 arranged on and having one end secured to the sleeve 4 and its opposite end to one of the flanges 5 of the supporting plate where-
 75 by when said sleeve is turned to move the guide bar downwardly the spring will be wound up on the sleeve so that when the latter is released the force of the spring will be applied to revolve the sleeve and
 80 gears 20 in a reverse direction, thus causing the chains 11 to retract the guide bar by pulling it back up to the top of the holder.

In order to disengage the clutch member
 85 30 from the clutch member 31 on the sleeve 4, we provide a clutch releasing mechanism comprising a frame 35 which is slidably engaged with the clutch members and has its upper end offset to form an inclined or cam
 90 clutch engaging surface 36 which, when the frame is depressed or drawn downwardly will be brought into engagement with the inner surface of the head 37 formed on the
 95 outer end of the clutch member 30, thus retracting said clutch member against the pressure of the spring 32 and out of engagement with the clutch member 31 on the
 100 sleeve. The frame 35 is depressed or pulled downwardly by a clutch releasing lever 38 pivotally mounted at its inner end on the adjacent side of the base frame 1 and having
 a pivotal connection near its outer end in a recess 39 in the lower end of the releasing
 105 frame 35. On the outer end of the lever is arranged a knob or finger engaging plate 40 whereby the lever may be readily depressed to pull the frame 35 downwardly. The lever 38 is provided at its inner end with a
 110 retracting spring 41 by means of which the lever and the clutch shifting frame 35 are brought upwardly to inoperative positions after being depressed and released by the operator.

In order to prevent the spring 34 from
 115 moving the guide bar 14 upwardly at too great a speed and to provide means for quickly stopping the bar at any desired point, we provide a brake mechanism comprising a flange 42 formed on the inner side
 120 of the clutch releasing frame 35, said flange having a segmental inner surface which, when the clutch shifting frame is depressed is adapted to be brought into engagement with a hub or annular boss 43 on the outer
 125 surface of the sprocket gear 10 or the adjacent end of the sleeve 4. By means of the braking mechanism just described it will be seen that the flange 42 may be brought into frictional engagement with the hub or boss
 130 43 with greater or less pressure by the lever

38, thus placing the retracting or upward movement of the guide bar under the perfect control of the operator.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as claimed.

Having thus described our invention what we claim is;

1. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate having on its side edges depending flanges adapted to receive said sleeve whereby said plate is loosely connected thereto, sprocket gears fixedly mounted on the ends of the sleeve, sprocket gears loosely mounted on the upper end of the plate, sprocket chains to operatively connect said gears, a line guide bar secured to said chains and movable over the copy supporting plate, a ratchet gear fixedly mounted on one end of said shaft, operating levers loosely mounted on said shaft and sleeve, a finger bar connecting said levers, a pawl carried by one of said levers and adapted to engage said ratchet gear whereby the shaft is driven, a clutch connection between the opposite end of the shaft and the adjacent end of the sleeve whereby the sleeve is turned by the shaft to actuate said sprocket gears and chains thereby moving the guide bar downwardly, means whereby the bar is automatically retracted or moved in the opposite direction, mechanism for restraining the retracting means, and means for tripping the restraining mechanism.

2. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate loosely connected at its lower end to said sleeve, a line guide bar, a bar operating mechanism connected with and driven by said sleeve, a ratchet gear fixedly mounted on one end of said shaft, operating levers loosely mounted on said shafts and sleeve, a finger bar connecting said levers, a pawl carried by one of said levers and adapted to engage said ratchet gear whereby the shaft is turned, a pawl to hold said ratchet gear against retrograde movement, a spring to retract said levers and finger bar after being depressed, an adjustable stop to limit the movement of said levers by said spring, a fixed stop to limit the downward movement of the levers and finger bar, a clutch member slidably keyed to the shaft, a clutch member on the sleeve and adapted to receive the clutch member on the shaft whereby the

sleeve is locked to and operated by the shaft to move the guide bar in one direction, means to disengage said clutch members at will, and means to automatically retract the guide bar when said clutch members are separated.

3. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate loosely connected at its lower end to said sleeve, a line guide bar, a bar operating mechanism connected with and driven by said sleeve, operating levers loosely mounted on said shaft and sleeve, a finger bar connecting said levers, a spring projected clutch member slidably keyed to one end of the shaft, a clutch member arranged on the adjacent end of the sleeve and adapted to receive the clutch member on the shaft whereby the sleeve is locked to and operated by the shaft to move the guide bar in one direction, a clutch releasing mechanism, and a spring arranged on said sleeve and adapted to be wound up by the movement of the sleeve by the shaft whereby when said clutch members are disengaged, the spring will revolve said sleeve in a reverse direction thereby moving said guide bar back across the copy supporting plate.

4. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate loosely connected to said sleeve, a line guide bar, a bar operating mechanism connected with and driven by said sleeve, operating levers for said mechanism whereby the same is driven, a spring operated clutch member keyed to the opposite end of the shaft, a clutch member arranged on the adjacent end of the sleeve and adapted to receive the clutch member of the shaft whereby the sleeve is locked to and operated by the shaft to move the guide bar in one direction, a clutch releasing mechanism comprising a frame having a cam clutch engaging surface, a lever operatively connected with said frame and adapted to be depressed and to thereby pull said frame downwardly, thus disengaging said clutch members, and a spring operatively connected with said sleeve and adapted to be wound up by the movement thereof whereby when said clutch members are released the spring will revolve the sleeve in a reverse direction to move said guide bar back across the shaft supporting plate.

5. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate loosely connected at its lower end to said sleeve, a line guide bar, a bar operating mechanism connected with and driven by said sleeve, operating levers loosely mounted on said shaft and sleeve, a

finger bar connecting said levers, a spring projected clutch member slidably keyed to one end of the shaft, a clutch member arranged on the adjacent end of the sleeve and adapted to receive the clutch member on the shaft whereby the sleeve is locked to and operated by the shaft to move the guide bar in one direction, a clutch releasing mechanism, a spring arranged on said sleeve and adapted to be wound up by the movement of the sleeve by the shaft whereby when said clutch members are disengaged, the spring will revolve said sleeve in a reverse direction thereby moving said guide bar back across the copy supporting plate, and a braking mechanism actuated by said clutch releasing mechanism to retard the reverse movement of the line guide bar.

6. A copy holder comprising a base frame, a shaft revolubly mounted therein, a sleeve loosely mounted on said shaft, a copy supporting plate loosely connected to said sleeve, a line guide bar, a bar operating mechanism connected with and driven by said sleeve, operating levers for said mechanism whereby the same is driven, a spring operated clutch member keyed to the opposite end of the shaft, a clutch member arranged on the adjacent end of the sleeve and adapted to receive the clutch member of the shaft whereby the sleeve is locked to and operated by the shaft to move the guide bar

in one direction, a clutch releasing mechanism comprising a frame having a cam clutch engaging surface, a lever operatively connected with said frame and adapted to be depressed and to thereby pull said frame downwardly, thus disengaging said clutch members, a spring operatively connected with said sleeve and adapted to be wound up by the movement thereof whereby when said clutch members are released the spring will revolve the sleeve in a reverse direction to move said guide bar back across the shaft supporting plate, a braking mechanism comprising an annular boss fixed on one end of said sleeve, and a brake flange formed on said clutch releasing frame and adapted to be brought into frictional engagement with said boss when the frame is retracted to release the clutch.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

DERMONT H. ROBERTS.
JAMES PETERSON.

Witnesses to the signature of Dermont H. Roberts:

ALFRED BUDGE,
E. G. GALLET.

Witnesses to the signature of James Peterson:

BERNARD J. WOJTALEWICZ,
GUSTAV P. GABEL.