

Feb. 13, 1945.

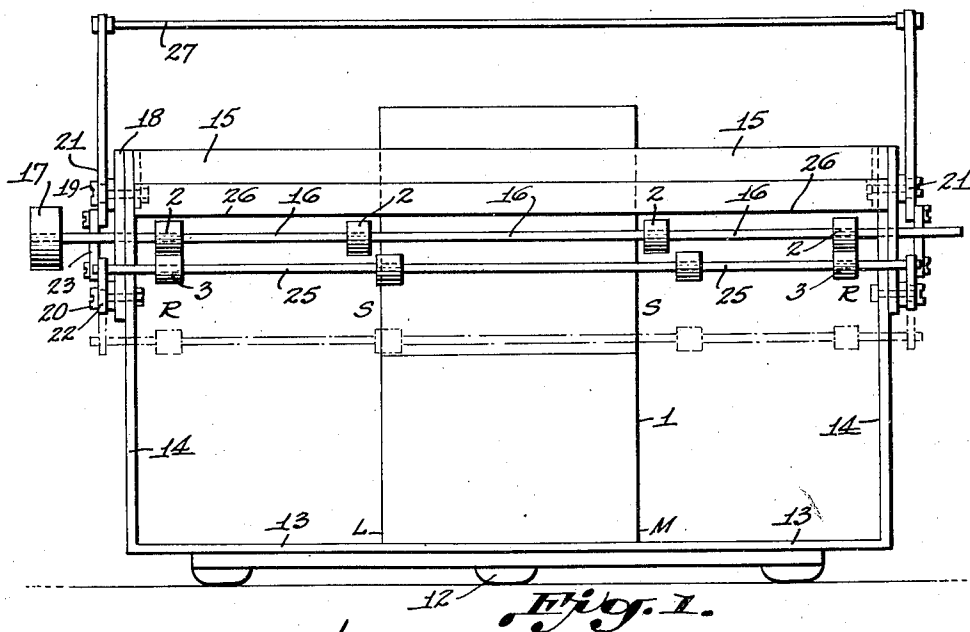
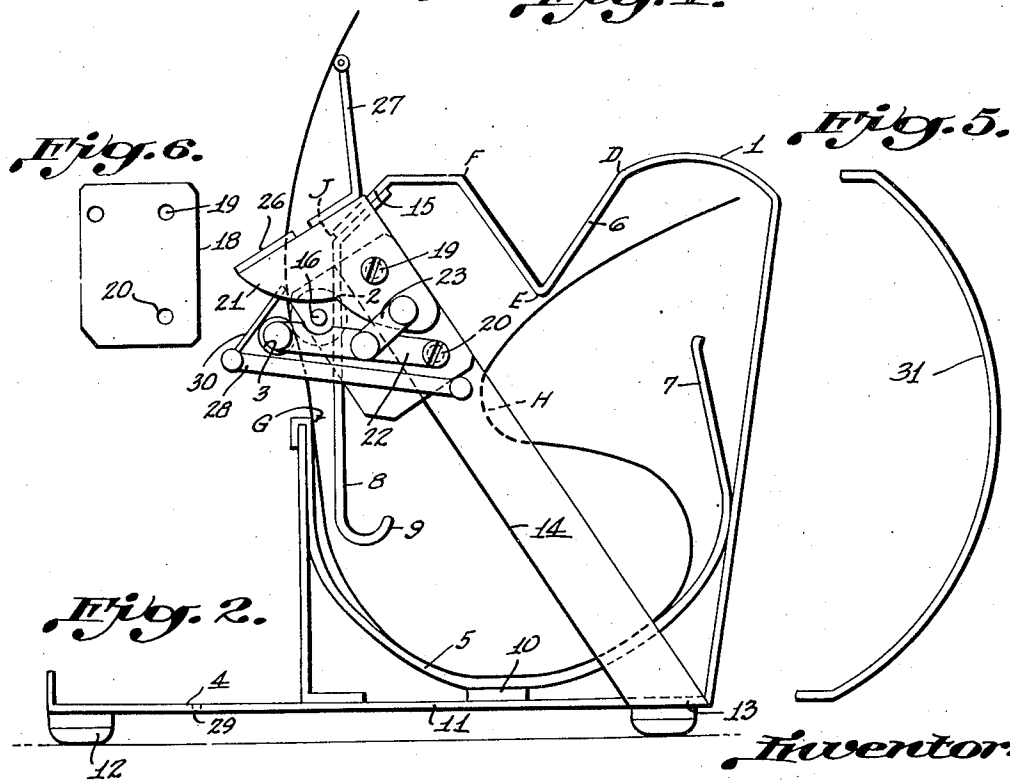
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2,369,241

COPYHOLDER

Filed Nov. 23, 1940

2 Sheets-Sheet 1



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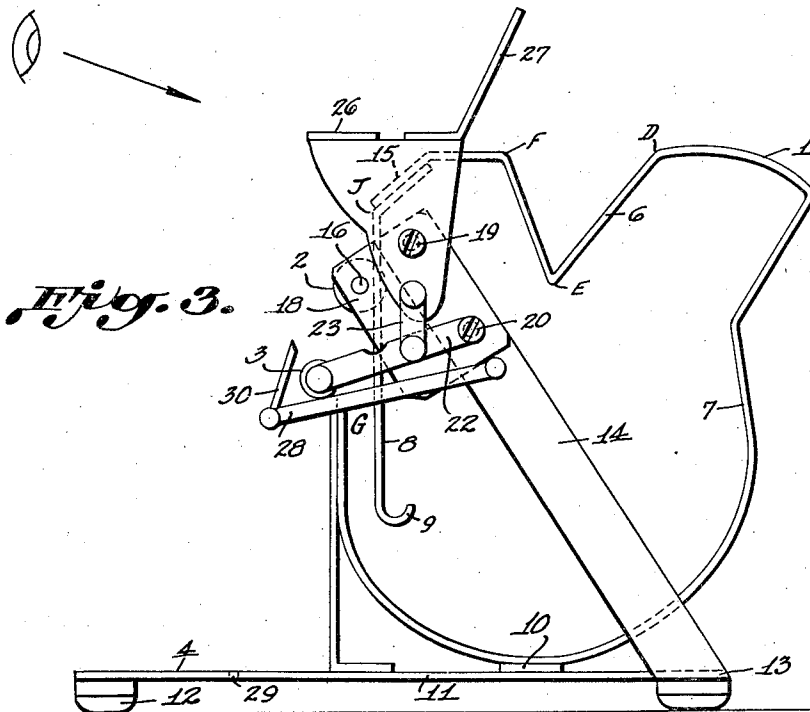
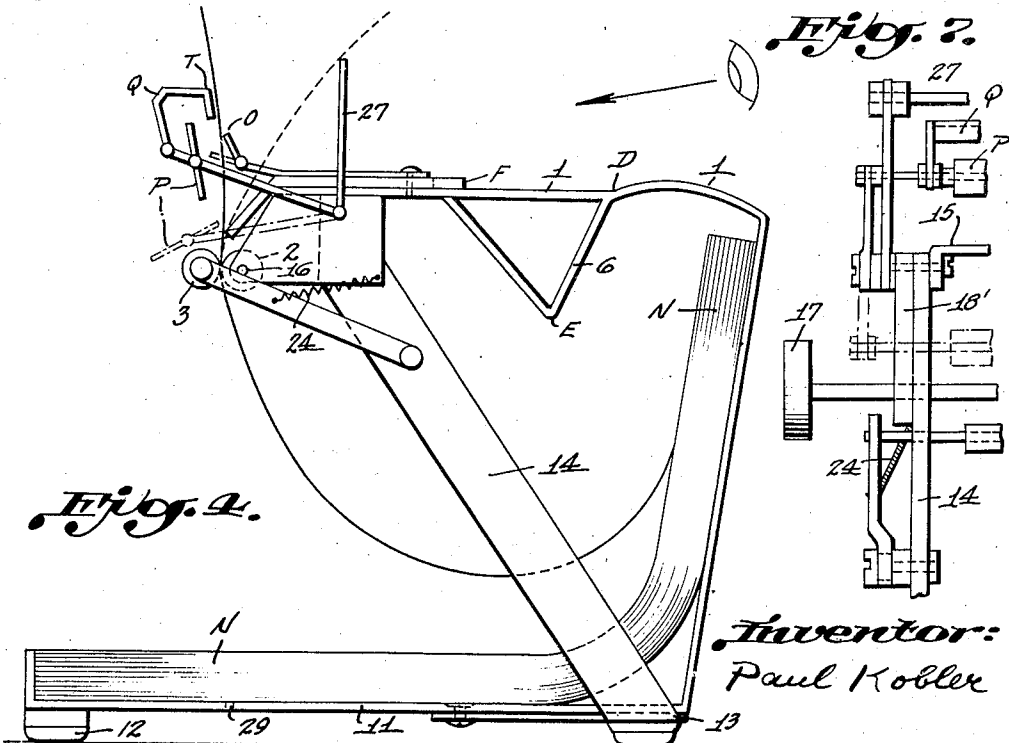
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,369,241

COPYHOLDER

Paul Kobler, Lynbrook, N. Y.

Application November 23, 1940, Serial No. 366,863

4 Claims. (Cl. 120—30)

My invention relates to improvements in copyholders, particularly in copyholder types that use a casing or retainer to retain the paper before it passes a line marker. Such copyholders are used by typewriter or key punch operators.

My invention will be understood by reference to the accompanying drawings, where the same parts are indicated by the same numerals throughout the several views.

Fig. 1 is a front view of the copyholder with the paper holding members closed.

Fig. 2 is a side view with the paper holding mechanism closed.

Fig. 3 is a side view of a somewhat differently shaped retainer with the paper holding mechanism open.

Fig. 4 is a side view having the front part of the casing removed.

Fig. 5 is a side view of a curved retainer.

Fig. 6 is a face view of a metal plate which supports some of the mechanism, as in Fig. 3.

Fig. 7 is a fragmentary rear view of the device shown in Fig. 4.

The copyholder shows the application of a paper retainer 1 in combination with paper feeding rollers 2 and 3. The paper retainer 1 is back of the paper feeding means and has an open space 4 in front which can be used as a cardholder. The paper retainer 1 may be made of one piece of sheet metal as illustrated in Fig. 3 or out of an outer piece and an inside piece or pieces 5 and 6. 6 is a slanting piece going from point D to point E. The outside metal piece 1 may also go straight over from point D to point F. In this case an inside metal piece 6 is necessary, but it is not necessary that such an inside metal piece 6 be connected between points E and F.

Inside piece 5 has at one end piece 7, which piece may also be a part of the outside piece 1, as seen in Fig. 3.

With other words slanting pieces 6 and 7 lead the paper first up to point D. The paper inserted in the retainer at point G is flexible. As soon as the paper touches point D in the retainer, a further pushing of the paper into the retainer will fold the paper at point H and the paper inside the retainer will form the shape of an S. It is easily understood that a retainer which forms the paper to an S shape will take care of extra length in paper forms. For normal size sheets it is therefore possible to make the part of the retainer that forms the S paper shape much smaller in height and size than shown in the drawings.

Quite important is also piece 8 which goes straight down from point J of the retainer. The straight piece 8 has at its end a round end 9 which will hold the paper inside the retainer in position. Inside piece 5 is preferably raised a little at 10 over the supporting plate 11 with rubber 12. This elevation of inside piece 5 will prevent the paper from touching supporting bars 13, as inside and outside retainer stand in the middle of the copyholder between points L and M. The retainer is supported by plate 11 which is of the same width as the retainer and is itself supported in the rear by bar 13. Bar 13 has on both ends side piece 14. These side pieces, preferably in a forward slanting position support the paper feeding mechanism and give also support by a horizontal bar 15, which is attached to the paper retainer, to the paper retainer itself. The paper retainer which is in its outside form shaped like an M in cross section, is absolutely independent from the paper feeding mechanism and in no way connected with it.

It is the combination between an independently working paper feeding mechanism and a casing or means that fold the paper in S shape and hold the paper upwards before it passes the feeding mechanism, like shown in Fig. 4 that is the main object of my invention. To illustrate the independence of the paper feeding mechanism from the paper casing, this casing may well be attached 1 inch or more backwards, away from the feeding mechanism as shown in Fig. 4. This has the advantage that a bunch of papers N may be arranged inside the retainer. The copyholder will then be turned around so that the eye of the operator will look like illustrated in Fig. 4 and see each line at point O. Fig. 4 also shows a line marker P that can be folded upwards and may have an attachment Q. If many sheets are inserted in the paper feeding mechanism the attachment Q will stop these papers from moving forward and only the first sheet that is taken outside the attachment Q by hand will slide forwards when the paperfeeding mechanism is moved.

When the frame that holds the paper feeding mechanism is rigidly connected with the top of the retainer, frame and retainer support each other. This is obvious, as a casing that is substantially square in its outer form could easily be pressed out of shape and on the other hand the casing gives strength by its connection to the forwardly inclined frame of the feeding mechanism. The feeding mechanism is entirely supported by a frame. This frame consisting

of forward slanting side pieces 14 and bottom bar 13 with rubber feet far apart and the top bar 15, which serves as paper guide. Fig. 6 shows the metal piece that is attached on each side of the frame. Through them, placed in the upper part of the side pieces 14 goes shaft 16 with rubber rollers 2 and handwheel 17. Shaft 16 is supported by the same metal piece 18 which is fastened to piece 14 on each side of the frame through holes 19 and 20. Hole 19 is the turning point for piece 21 and hole 20 is the turning point for piece 22. Piece 21 and 22 are connected by piece 23. By pressing piece 21 upwards, the connecting piece 23 will turn piece 22 downwards. Piece 22 supports shaft 25 with rubber rollers 3. These rubber rollers are mounted on steel bushings so that they can turn freely on shaft 25. When larger size sheets are to be copied with the copyholder the rubber rollers are arranged in the following way. Four rubber rollers are mounted solidly on the driving shaft and four rubber rollers are mounted solidly on the idle shaft. The idle shaft may be moved sideways. As only two rubber rollers have an opposite partner and the other two rubber rollers have the opposite partner somewhat on the left or right side, the moving of the idle shaft sideways will engage the rubber rollers that were single before and will separate the rubber rollers that were engaged before.

Fig. 1 shows only two rubber rollers on the idle shaft 25 with the idea that these rollers can be moved inside from R to S.

On piece 21 is attached line marker 26, and bar 27. This bar 27 will hold the paper in upward position and will at the same time serve as convenient handle to open and close the mechanism.

The driving shaft may be held in position on one end by a screw with a pin. When the screw is opened the pin slides out of the driving shaft which makes it easy to remove the driving shaft from the copyholder, when the old rubber rollers have to be replaced by new ones. Another feature of my invention is that the movable piece 22 may be mounted at its turning point 20 on an eccentric bolt. By adjusting this eccentric bolt the point where rubber rollers 3 touch rubber rollers 2 will be changed accordingly. When the rubber rollers 3 are underneath the horizontal middle line of rubber rollers 2 the paper will fall forwards as soon as it passes these rollers. When the rubber rollers 3 are somewhat above the horizontal middle line of rubber rollers 2 the paper will fall backwards, as soon as it passes these rollers.

This feature makes it possible to use the same copyholder looking as indicated on Fig. 3 from the front, or in Fig. 5 from the back, without needing extra paper guides.

For sheets where the last line is very near the bottom of the page an extra line marker 30 pivotal on its supporting piece 28 is placed underneath piece 22 in such a way that when piece 22 is moved downwards, piece 28 moves downwards too. Piece 28 will be adjusted to its normal position by pushing it upwards by hand.

Another feature of my invention is that when the mechanism is opened it stays open by itself; this is attained by having in its open position the turning points of connecting piece 23 and the turning point of piece 21 in a straight line as shown in Fig. 3. Spring 24 shown in Fig. 4 will close the mechanism as soon as bar 27 is moved forward. To make it possible to attach

the copyholder in back of punching machines, a hole 29 is provided in plate 11.

Fig. 5 shows a curved casing. Two or more of such curved parts 31 may replace the retainer shown at 1 in Figs. 1 and 2 when the same copyholder for a lower price and for normal length paper sheets is desired. In this case piece 8 as shown in Fig. 2 will be left away.

The operation of my device is as follows:

The operator opens the paper feeding device by pressing bar 27 backwards. The paper may now be inserted between the rubber rollers as well in front of the copyholder as shown in Fig. 3 or from the back pushing the paper from below between the rubber rollers as shown in Fig. 4. The feeding device stays open until it is closed again by hand. As shown in Fig. 3 there is plenty of space between the opened feeding rollers. When the inside retainer 5 is not removed a long sheet of paper may be pressed so far into the retainer that it forms inside the retainer the shape of an S. The upper part of the paper is then pushed underneath line marker 26 or line marker 26 is removed and line marker 30 is used instead as previously stated. Attention is given to the fact that the first line on the paper has to be in perfect line with the line marker. The paper is then held firmly and the other hand gives to the line marker a forward movement, whereby the feeding rollers close immediately and the line marker snaps to its forward position. Now the lines of the inserted paper can be made visible along the line marker by turning the handwheel which may be attached to either side of the feeding roller.

When the inside retainer is removed as shown in Fig. 4, a bunch of paper sheets may be placed in the copyholder. The operator may then insert a single sheet at a time as shown in Fig. 4 having turned before the copyholder around so that the view on the paper sheet is from the back. The procedure to feed the paper with the paper feeding rollers is the same as stated before, unless the whole bunch is inserted at one time between the feeding rollers. In such a case it is necessary to separate the first paper from the bunch by turning the feeding rollers first backwards and then forwards. The backward movement of the feeding rollers will first turn the first sheet away from the paper stop T (the paper stop T prevents the paper bunch from moving) whereupon it is easy to bend the first page away from the paper bunch so that a forward movement of the feeding rollers will slide the first paper over stop T.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States is:

1. In a copyholder a paper retainer for storing a plurality of sheets inside the copyholder structure with means preferably strips in back of the paper retainer to lead the sheets upwards and then away from the backwall of the retainer towards the middle of the retainer and then backwards again to a stop whereby a folding of the paper inside the paper retainer is achieved.

2. In a copyholder a paper retainer for storing a plurality of sheets inside the copyholder structure with means preferably strips in back of the paper retainer to lead the sheets upwards whereby the height of the retainer is used to store the sheets and reduce the depth of the retainer combined with a paper feeding mechanism consisting of a stationary frame structure,

a shaft with feeding rollers carried by said frame, means pivoted to said frame carrying a second shaft with feed rollers cooperating with said first rollers for gripping and feeding a sheet of copy, a transverse bar, and means connecting said bar to said pivoted means for opening and closing said shafts.

3. In a copyholder a paper retainer for storing a plurality of sheets inside the copyholder structure with means preferably strips in back of the paper retainer to lead the sheets upwards whereby the height of the retainer is used to store the sheets and reduce the depth of the retainer combined with a paper feeding mechanism consisting of rubber rollers on two paper feeding shafts, bearings rotatably supporting said shafts four cooperating pairs of rollers carried by said shafts, the two inside rollers on one of the shafts being offset by an equal amount from the respective inside rollers of the other shaft when the outside rollers of both shafts are in registry, one of said shafts being mounted

so as to be shiftable laterally to bring said intermediate rollers into registry and said outer rollers out of registry.

5 4. In a copyholder a paper retainer for storing a plurality of sheets inside the copyholder structure with means preferably strips in back of the paper retainer to lead the sheets upwards whereby the height of the retainer is used to store the sheets and reduce the depth of the re-
10 tainer combined with a paper feeding mechanism consisting of a stationary frame structure, a shaft with feeding rollers carried by said frame, means pivoted to said frame carrying a second
15 shaft with feed rollers cooperating with said first rollers for gripping and feeding a sheet of copy, a transverse bar, and means connecting said bar to said pivoted means for opening and closing said shafts with means supporting said
20 bar above said shafts and spaced therefrom to serve as a rest for the upper end of a sheet of copy.

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