Jan. 10, 1950 J. A. HOLTON, SR 2,494,129

COPYHOLDER

Filed Dec. 22, 1944

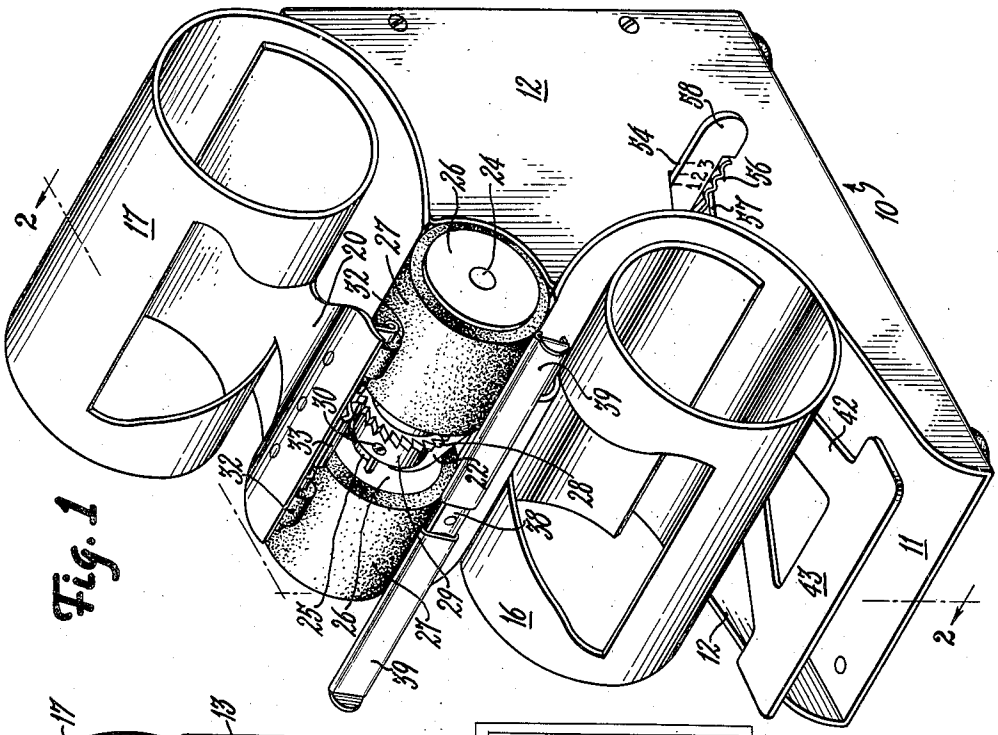


Fig. 1

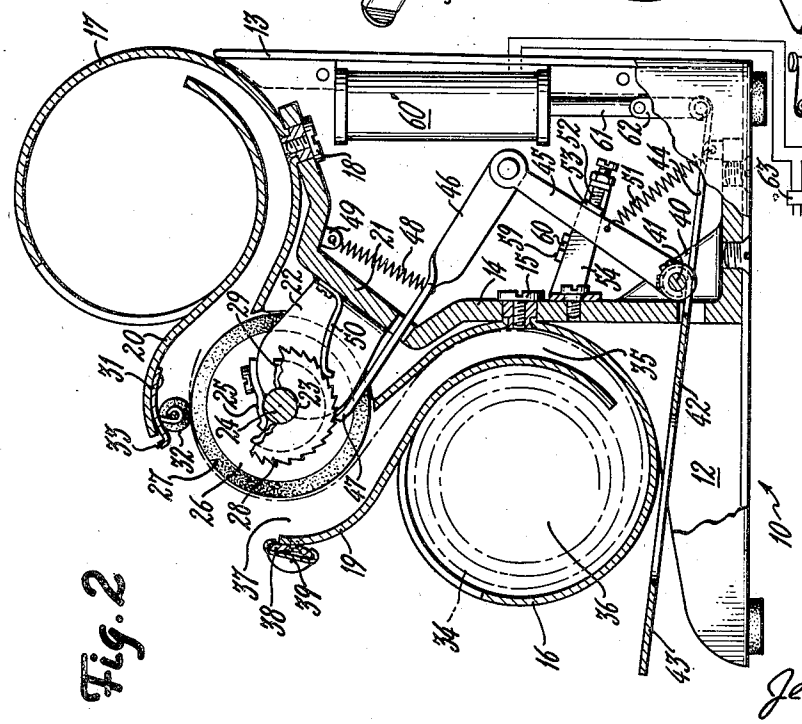


Fig. 2

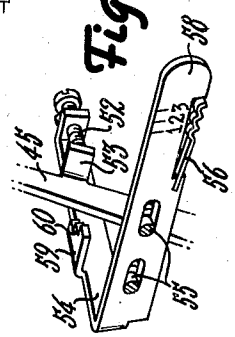


Fig. 3

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Patented Jan. 10, 1950 2,494,129

UNITED STATES PATENT OFFICE

2,494,129

COPY HOLDER

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Application December 22, 1944, Serial No. 569,319

5 Claims. (Cl. 120—32)

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This invention relates to copyholders and with regard to certain more specific features thereof to copyholders of the small or portable type adapted, in spite of their light weight and narrow width, to the accommodation of relatively wide sheets due to the fact that the width of the copy sheet associated with the holder is not limited by the width of the holder. Such copyholders employ as a basic principle a structure such as is shown in the U. S. patent to Caldwell, No. 216,654.

It it an object of the present invention to provide a relatively small and easily movable copyholder for the accommodation of long sheets or webs so that the copyholder is adapted not only for use with ordinary correspondence or legal size papers but to stenographic copying or public address reading from inscriptions made on very long sheets or rolls.

It is another object of the invention to provide reliably operative and inexpensive means for advancing such sheets from a container section of the copyholder to a receiver section where, after the completion of the copy, the sheet may be conveniently removed from the receiver section by widthwise withdrawal.

It is a further object to provide feed means which may be either operated locally at the copyholder, or by remote control from a machine on which the copy is being made, by incremental movements corresponding to the distance between the lines of write on the copy sheet, and to provide reliably operative and easily settable means for varying the length of the incremental movement either under control of the locally situated mechanical operating devices or the remote-controlled electromagnetic means for operating the feed means.

It is a still further object of the invention to provide a feed means employing coacting rollers arranged to engage the leading edge of the copy sheet for effectively gripping the sheet to advance it to the receiving unit.

Another object of the invention is to minimize manufacturing cost by constructing the container unit and the receiving unit of uniform shape, and striking from each unit a uniform section which serves in the case of the receiver unit as a mounting for feed rollers and serves in the case of the container unit as a mounting for a line-finder device.

Other objects will be in part obvious and in part pointed out particularly as this description proceeds.

The invention accordingly consists in the various features of construction, combination of elements, and arrangements of parts, which will be exemplified by the following description and the accompanying drawings, and the scope of the application of which will be indicated in the appended claims.

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Referring now more particularly to the drawings:

Figure 1 is a perspective view of the copyholder of the present invention.

Figure 2 is a cross-sectional view taken on the line 2—2 of Figure 1 with diagrammatic representation of the remote control means for operating the copy sheet feed, and

Figure 3 is a perspective view of certain details of the mechanism relating to the varying of the incremental feed and the means for adjusting the mechanism to obtain the variation.

Referring now more particularly to the drawings, there is shown a stamped metal casing 10 comprising a base member 11 and two upstanding side walls 12. A removable plate 13 extends between and is attached to the side walls at the rear of the copyholder.

Mounted upon the base plate 11 of the casing is an upstanding bracket 14 which may extend partially across the inside of the casing between the side walls. Secured to a vertical portion of the bracket 14 as by means of screw 15 is a volute open-ended sheet metal container member 16 corresponding in size, shape and general construction to a volute open-ended retainer member 17 which is secured to a rearwardly extending portion of bracket 14 by means of screw 18. The container member 16 has a portion struck from it to form a supporting arm 19 and the receiving member 17 has a similar struck-up portion 20.

The bracket 14 has an oblique portion 21 from which two spaced journal arms project, one of these arms being shown at 22 and the other is spaced an equal distance from the center line of the copyholder on the opposite side and not shown in the drawings. These journal arms 22 are recessed as shown at 23 to receive a shaft 24 which may be forced in under spring clips 25 to receive and hold the shaft 24 for rotation. The shaft 24 has fixed on it at opposite ends rolls 26, each covered with a band of friction material 27 such as soft rubber, felt or other suitable material. Centrally on the shaft 24 there is fixed a ratchet wheel 28 which has oppositely disposed hubs 29 secured to the shaft by set screws 30.

On the underside of the projection 20 struck out from the receiver member 17 is a leaf spring

member 31 which receives and rotatably holds at its opposite ends, respectively, a pair of rollers 32. The spring member 31 is tensioned to apply the rollers 32 with feeding pressure on the feed material covering 27 of the rollers 26, thus constituting a feed means which may be temporarily released by slight upward pressure on the lip 33 of spring member 31 to allow the leading edge of the copy sheet to be introduced to the bite of the rolls.

The copy sheet is indicated in Figure 2 of the drawings at 34 by the dot-and-dash line. In the event that it is a long roll, it may be introduced laterally by separating the leading portion of the roll slightly to pass edgewise into the channel 35 while the body of the roll is passed into the body 36 of the container member. Ordinary correspondence or legal sheets may be entered into the volute container member by passing the bottom portion of the copy sheet down through the mouth 37. A straight downward movement will enter the sheet through the channel 35 and around to the required extent in the body 36.

The struck-out arm 19 of the container member has mounted thereon a laterally extending bar 38 upon which are mounted two slidable extension members 39 which serve as a line finder and are conveniently extensible on the bar 38 and frictionally held thereon to provide any reasonable length of line finder desired.

It having been described how the copy sheet may be entered as shown in Figure 2 ready for feeding, the mechanism for operating the feed means incrementally and for varying the increments of feed will now be described. Suitable webs 40 provided on the bracket 14 journal a shaft 41 to which is secured an operating lever 42 having a finger-piece operating end 43 and a rearward extension 44. Also secured to the shaft 41 is an arm 45 connected at its outer end to a pawl 46 having a nose 47 normally held in engagement with a tooth of ratchet wheel 28 by a spring 48 connected to a lug 49 on the bracket 14. A detent 50 mounted on the oblique portion 21 of bracket 14 also engages teeth of ratchet wheel 28 for the purposes of correctly positioning the ratchet wheel at the end of an increment of movement and preventing overthrow. Arm 45 and pawl 46 are normally held rearward by a spring 51 secured to the foot of bracket 14 and an adjusting screw 52 determines the normal or rearward position of the arm and pawl by engagement with a lug 53 on arm 45. The adjusting screw 52 is mounted in a bracket 54 adjustable laterally on the bracket 14 by slot-and-shoulder-screw connections indicated in Figure 3 at 55. A spring detent member 56 arranged in bracket 54 engages with the edge of one side wall 12 of the casing where it is recessed at 57, and a finger-piece 58 is provided projecting slightly outside of the casing for manipulation of the bracket into any of the positions 1, 2 and 3 indicated by these numbers. A lug 59 is turned inwardly on the bracket 54 and is provided with stepped shoulders 60 which are selectively brought into line with the movement of arm 45 by manipulation of the finger-piece 58. This provides for stopping the pivotal movement of arm 45 at varying points calculated to allow variable movement of pawl 46 to produce rotative movement of feed roller 26 so that it may be moved to feed the copy sheet in accordance with the typewritten line-spacing conditions on the sheet.

It will be obvious that depression of lever 42 to its fullest extent will advance the pawl 46 to the particular shoulder stop 60 which is aligned with the arm 45, and thus full depression of lever 42 advances the copy sheet the required distance. Release of the finger-piece 43 allows spring 51 to return the arm 45 and present the nose of pawl 46 to a new bite position in the ratchet 28.

The portable characteristic of this type of copyholder enables its ready movement to present the copy sheet in the most favorable light and position to suit the operator and frequently this position is at some distance from the operator's hands located at the keyboard of the machine on which the copying is being done. It is, therefore, highly desirable to have a control for the operation of the feed of the copy sheet located on the typewriter or other machine where the copy is being made. To this end there is provided a solenoid operation for the lever 42 and its associated arm 45 and pawl 46.

The solenoid is shown at 60' in Figure 2 suitably mounted on the back plate 13 and having a core 61 with its lower end connected by a pivoted link 62 to the rearward extension 44 of lever 42. The solenoid is connected by suitable wiring directed through the casing and having a plug 63 for association with a wall or light socket and a key-operated switch 64 carried on a clamp 65 which may be associated with the frame of the operator's copying machine by any suitable means, such as the thumb screw 66.

It will be obvious from the foregoing that the copying operator, either by depression of the finger-piece 43, and mechanical operation of the feed means, or by depression of the key of switch 64 remote from the copyholder, and electromagnetic operation of the feed means, may cause the copy sheet to be advanced incrementally until it is entirely rolled up in the receiver 17, from which it may be quickly and conveniently withdrawn by a lateral movement as soon as its trailing edge has passed from the bite of the feed rolls. For withdrawing the copy sheet during the copying process for the purpose of checking or other purpose, it is only necessary to lift the lip 33, reach behind the paper in the vicinity of roller 26 and draw it forwardly, the trailing portion of the paper again taking its position in the channel 35 and the container member 16.

What I claim is:

1. A copy holder of the character described comprising in combination a containing member having a longitudinal opening through which a length of copy sheet may be introduced into and withdrawn from the containing member, a receiving member having a longitudinal opening through which a length of copy sheet may be introduced into the receiving member, the openings of said containing and receiving members being spaced apart and in opposed relation, operable feed means positioned to be engaged at the said opening of the receiving member with a copy sheet whereby said feed means when operated draws the copy sheet from the containing member and directs and feeds the sheet into the receiving member through its said opening and means for operating said feed means step by step.

2. A copyholder as set forth in claim 1 and in which the containing and receiving members are open ended and of volute shape in transverse cross-section.

3. In a copyholder of the character described, in combination, a copy sheet receiving member having a longitudinal opening through which a

copy sheet may be introduced into the receiving member, said receiving member having an extension extending forwardly from the top of said opening, and operable cooperating feed means including a friction roller and a pressure roller adapted to feedingly engage a copy sheet between them and adapted when operated to feed an engaged copy sheet through said opening and into the receiving member, said pressure roller being carried on the underside of said extension.

4. In a copyholder of the character described, in combination, a copy sheet receiving member having a longitudinal opening through which a copy sheet may be introduced into the receiving member, said receiving member having an extension extending forwardly from the top of said opening, and operable cooperating feed means including a friction roller and a pressure roller adapted to feedingly engage a copy sheet between them and adapted when operated to feed an engaged copy sheet through said opening and into the receiving member, said pressure roller being flexibly mounted on the underside of said extension and being yieldingly liftable from the friction roller to facilitate insertion of an end of a copy sheet between said rollers.

5. A copyholder of the character described comprising in combination a containing member having a longitudinal opening through which a length of copy sheet may be introduced into and withdrawn from the containing member, a receiving member having a longitudinal opening through which a length of copy sheet may be introduced into the receiving member, the openings of said containing and receiving members being spaced apart and in opposed relation, feed means, including a friction roll and a pressure roll pressing against the friction roll and positioned to engage a copy sheet between them and to draw the sheet from the containing member and to feed and direct the sheet through the opening of and into the receiving member, said receiving member having an extension projecting outwardly thereof at the top of its said opening and overlapping said pressure roll of the feed means.

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