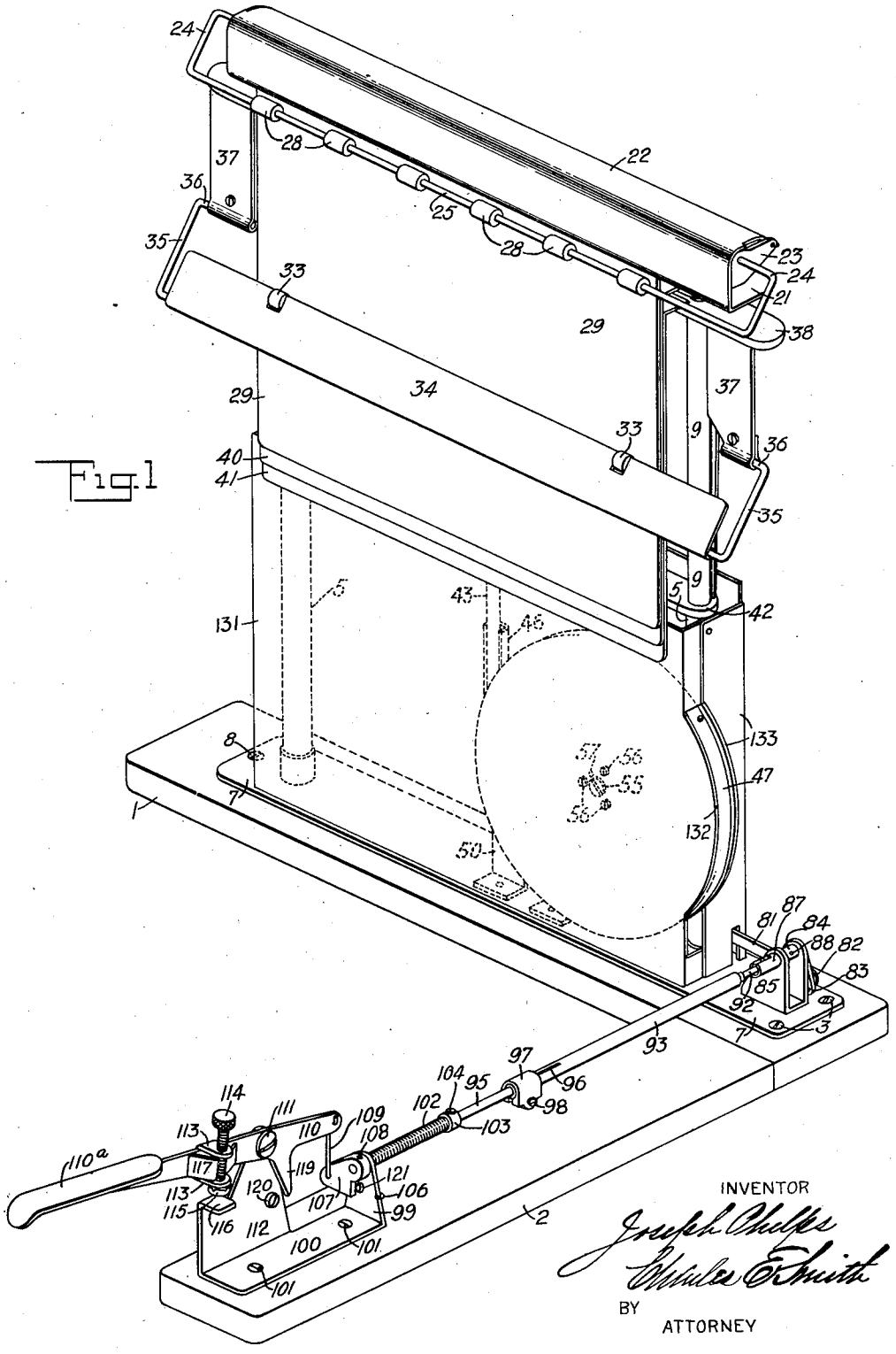
Dec. 25, 1934. J. PHELPS 1,985,740

COPYHOLDER

Filed Feb. 10, 1933 6 Sheets-Sheet 1

Fig. 1



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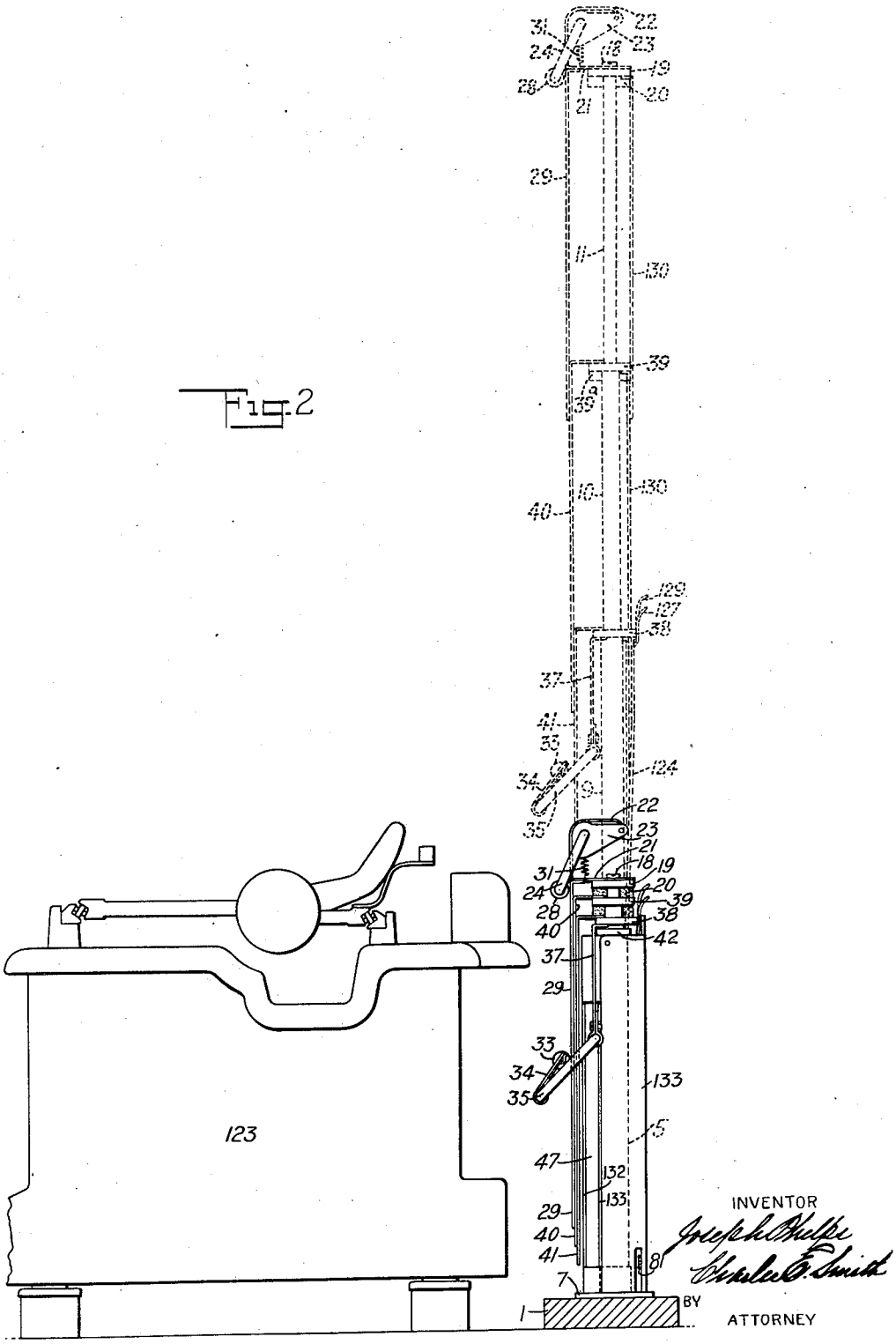
ATTORNEY

Dec. 25, 1934. J. PHELPS 1,985,740

COPYHOLDER

Filed Feb. 10, 1933 6 Sheets-Sheet 2

Fig. 2



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Dec. 25, 1934. J. PHELPS 1,985,740

COPYHOLDER

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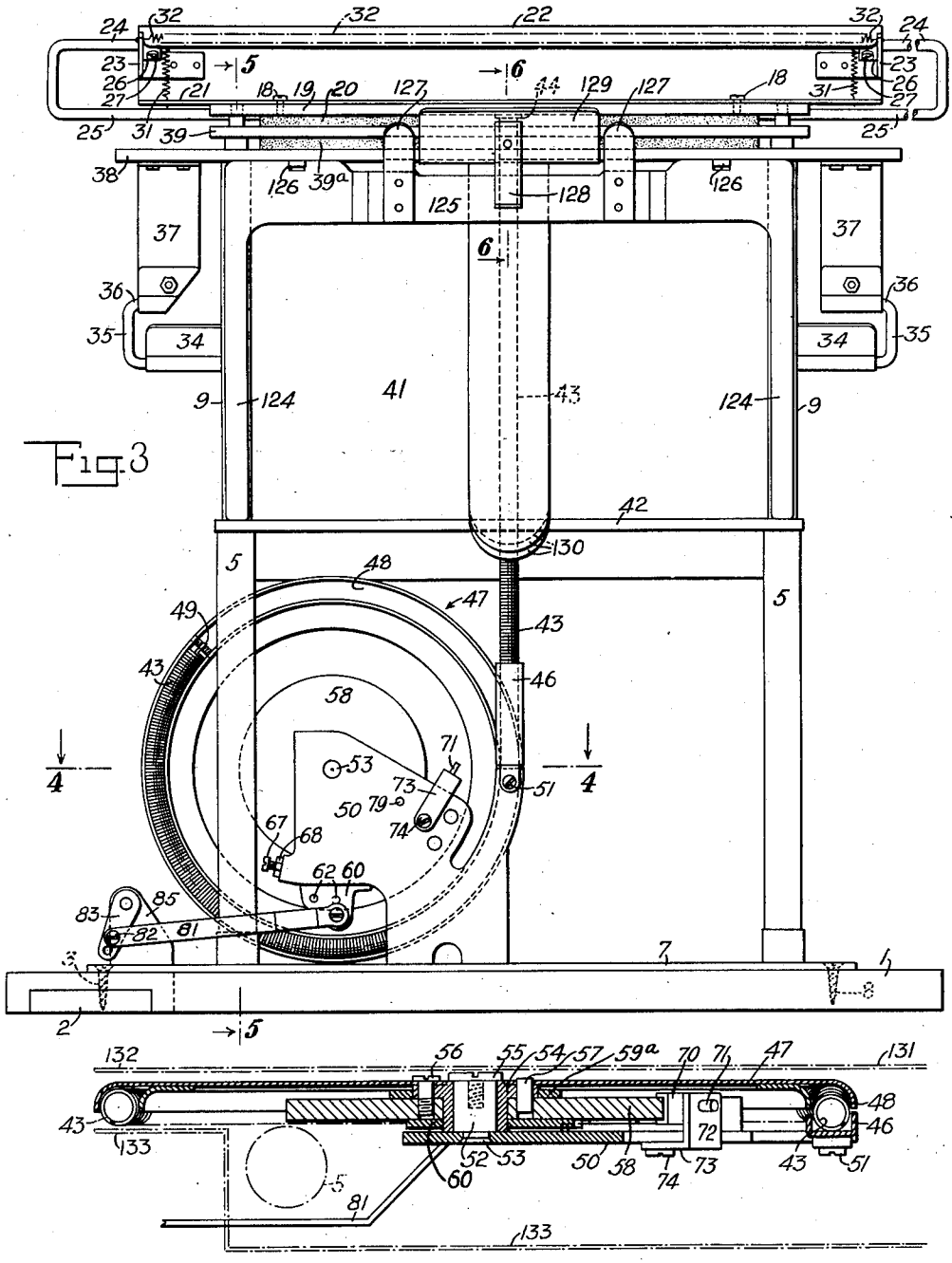


Fig. 3

Fig. 4

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COPYHOLDER

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Fig. 5

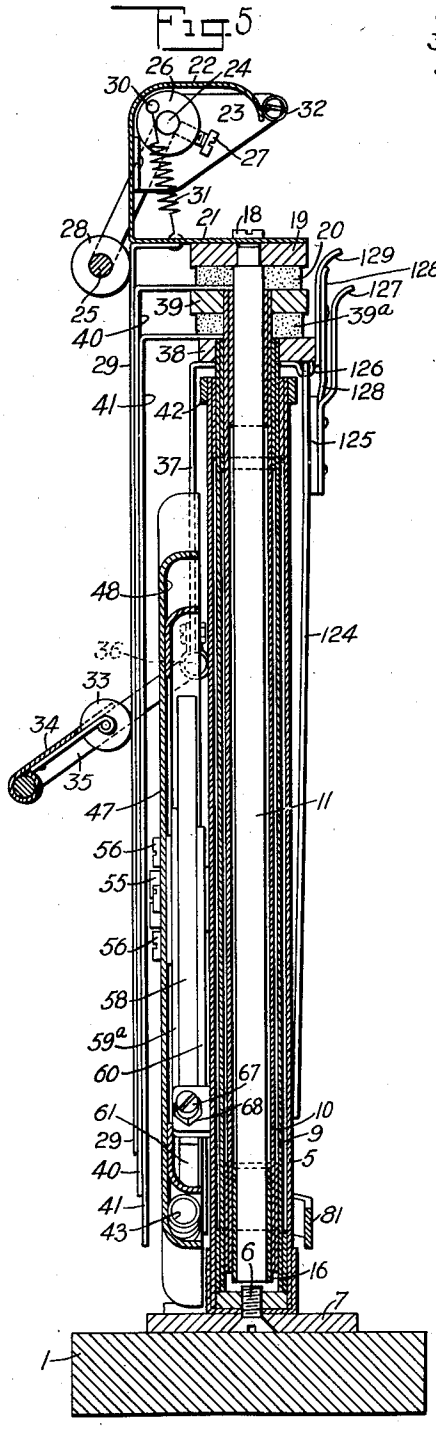


Fig. 6

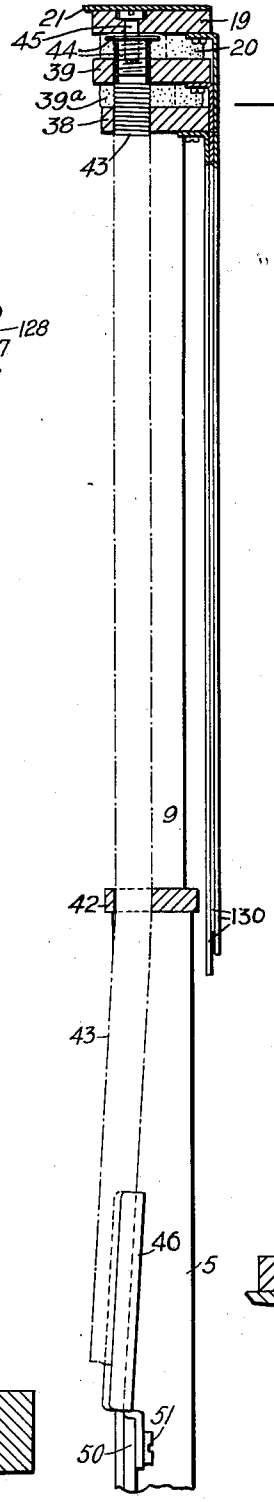
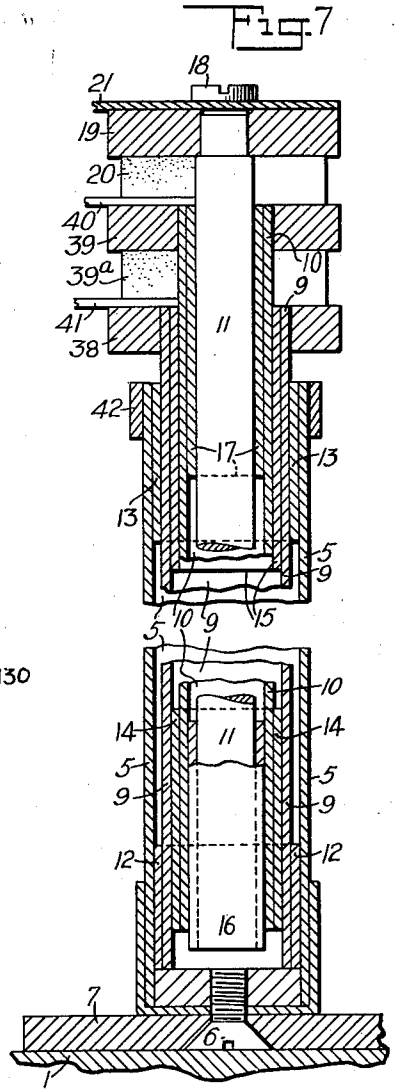


Fig. 7



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COPYHOLDER

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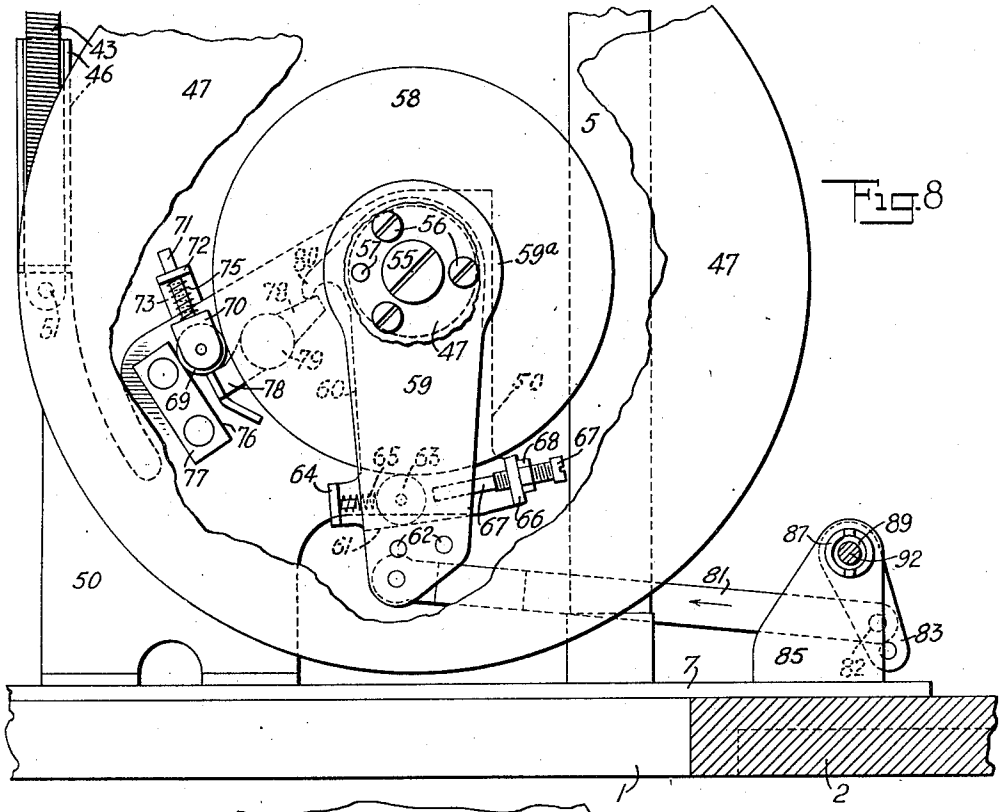


Fig. 8

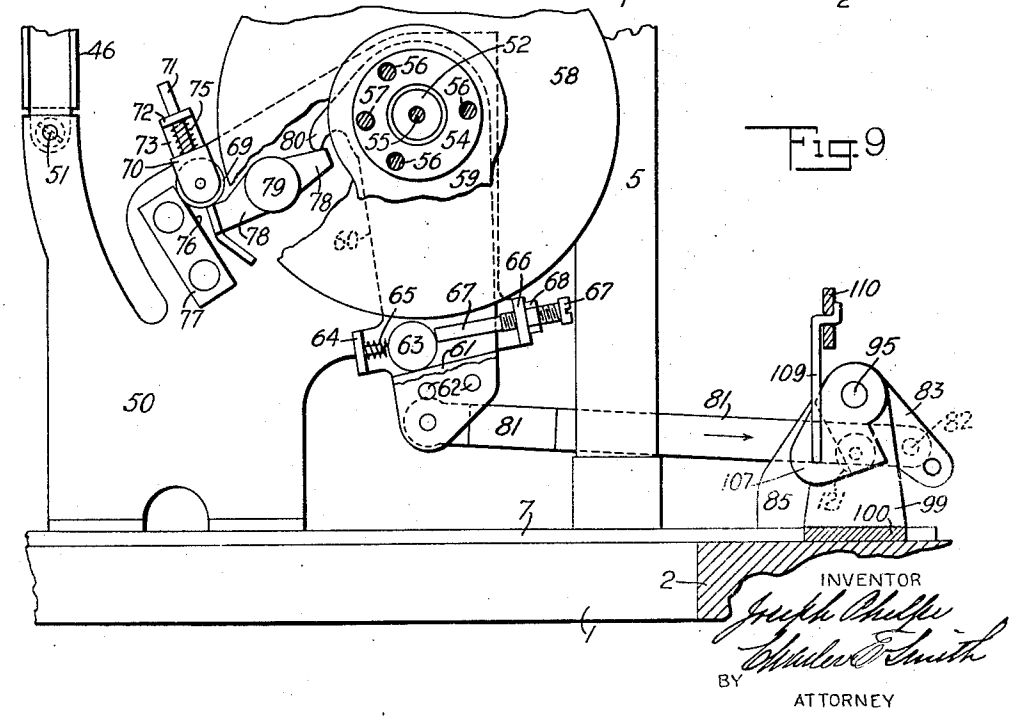


Fig. 9

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Dec. 25, 1934. J. PHELPS 1,985,740

COPYHOLDER

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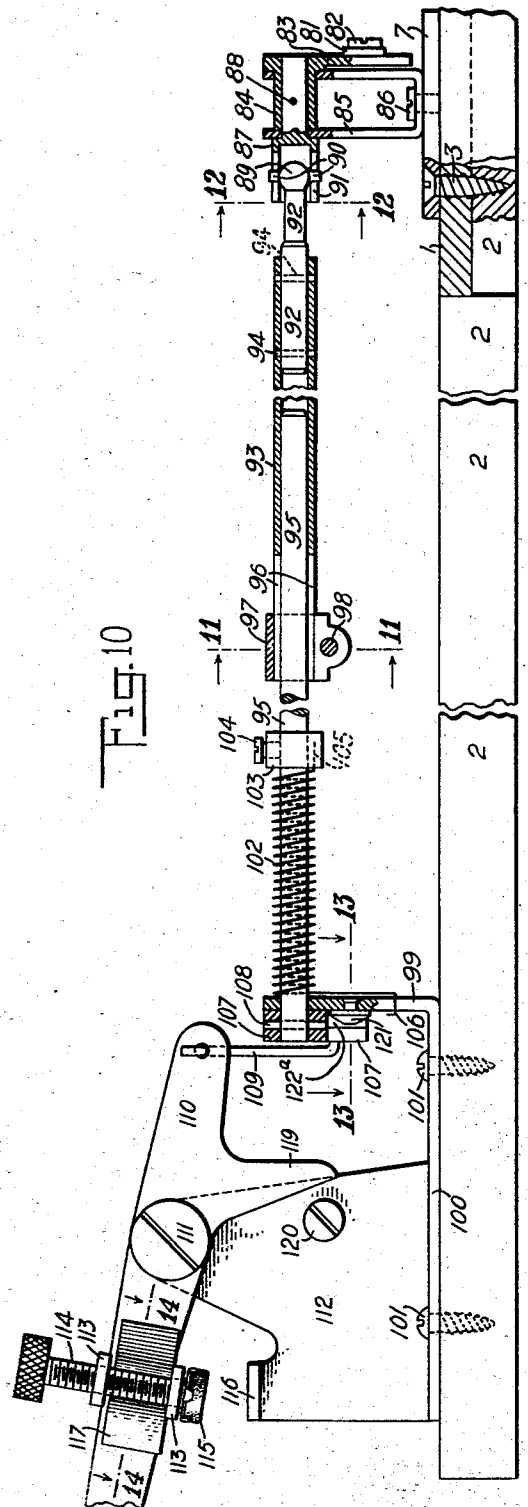


Fig. 10

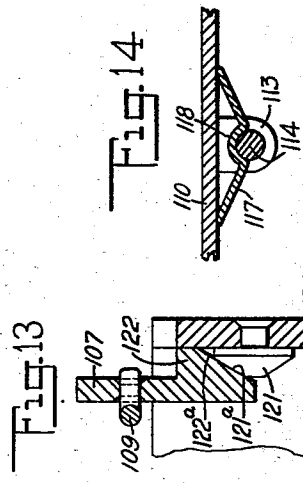


Fig. 14

Fig. 13

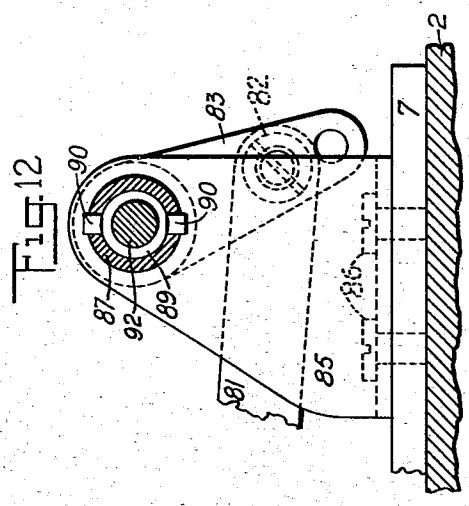


Fig. 12

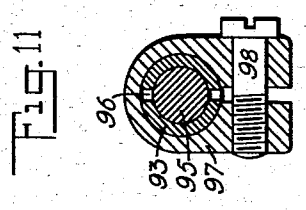


Fig. 11

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Patented Dec. 25, 1934 1,985,740

UNITED STATES PATENT OFFICE

1,985,740

COPYHOLDER

Joseph Phelps, Stamford, Conn., assignor to Remington Rand Inc., New York, N. Y., a corporation of Delaware

Application February 10, 1933, Serial No. 656,118

20 Claims. (Cl. 120—29)

My invention relates to copy holders and the objects of the invention, generally stated, are as follows:

To provide a highly effective and easily manipulated copy holder for indicating the lines successively line-at-a-time as they are being copied.

To provide simple and efficient means for intermittently and substantially noiselessly feeding the copy line-at-a-time and in which the extent of each line space intermittent feed may be varied at will.

To provide highly effective means that are simple and reliable in their operation for readily returning the work sheet carrier to its initial position with but little or no noise from any position to which the work sheet carrier may have been intermittently fed.

To provide improved means whereby a plurality of overlapping copy holder members may be readily expanded to their fullest height during the feed of the "copy", or may be readily collapsed to the first line indicating position.

To provide a construction of the character hereinbefore set forth with means whereby the copy holder may be further collapsed from its first writing line position to a position of non-use where it may be moved into a drop cabinet of a typewriting machine with said machine and without interfering with the movement of the machine into and out of the cabinet.

To the above and other ends which will hereinafter appear my invention consists in the features of construction, arrangements of parts and combination of devices set forth in the following description and particularly pointed out in the appended claims.

In the accompanying drawings wherein like reference characters indicate corresponding parts in the different views:

Fig. 1 is a perspective view of a copy holder embodying my invention, the parts being shown as they appear when the copy holder is in position to support the copy in the initial or first line position.

Fig. 2 is a side view of the same showing the copy holder in full lines in the fully collapsed position and associated with a typewriting machine and in condition to be housed in a drop cabinet therewith, the dotted lines indicating the fully expanded position of the copy holder.

Fig. 3 is a rear view of the copy holder with parts disposed as in Fig. 1 and with the cover plates removed.

Fig. 4 is a transverse sectional view of the same taken on the line 4—4 of Fig. 3 and looking in the direction of the arrows at said line.

Fig. 5 is a vertical sectional view taken on the line 5—5 of Fig. 3 and looking in the direction of the arrows at said line.

Fig. 6 is a detail, fragmentary, vertical sectional view taken on the line 6—6 of Fig. 3 and looking in the direction of the arrows at said line.

Fig. 7 is a detail, fragmentary, vertical sectional view corresponding in part to Fig. 5 but showing the parts on a larger scale.

Fig. 8 is a detail, fragmentary, front view showing the parts as they are disposed when an upward feed of the "copy" carrier is being effected.

Fig. 9 is a like view of the same showing the disposition of the parts as they appear when the copy holder is being collapsed to the initial or first line position.

Fig. 10 is a detail side view with parts in section of a part of the construction for effecting an expansion and a collapsing of the copy holder.

Figs. 11, 12, 13 and 14 are enlarged, detail, transverse sectional views of the same taken on the lines 11—11, 12—12, 13—13 and 14—14 respectively of Fig. 10 and looking respectively in the direction of the arrows at said lines.

The present invention is in the nature of an improvement on the construction disclosed in a companion application filed March 24, 1933, and bearing Serial No. 662,484. Features common to the two constructions are claimed in my said companion application, the claims herein being directed to features not disclosed in said companion application.

Generally stated the present construction involves a plurality of overlapping members that may be intermittently and noiselessly relatively fed to an expansible position represented in dotted lines in Fig. 2, and may at will be readily and noiselessly returned to the first line indicating position represented by the height of the first section as shown in dotted lines in Fig. 2. When it is desired to fully collapse the copy holder to the full line position shown in Fig. 2 to house the copy holder with the typewriting machine in a drop cabinet, this may be readily and noiselessly effected as will hereinafter appear.

In the accompanying drawings I have shown an L-shaped base comprising two wooden members 1 and 2 which are preferably detachably united or hinged together by suitable means to enable the copy holder to be compactly packed when desired. In the present instance screws 3

firmly connect the members 1 and 2 together. The base member 1 constitutes a support for the copy holder proper and the member 2 constitutes a support for the manually controlled handle and certain of the connections controlled thereby. However, the so-called base members 1 and 2 may be dispensed with and the copy holder secured directly to the top of desk or table on which it is to be supported. For the purposes of the present case the base members 1 and 2 may be regarded as the equivalent of a desk or table to which the copy holder is secured.

Two pa allel upright guide tubes or sleeves 5 are firmly secured at their lower ends by screws 6 (see Fig. 5) to a metal base plate 7 which in turn is fastened by screws 3 and 8 to the base member 1 or to the top of a desk or table. Received and telescoping in each guide tube 5 are two tubular members 9 and 10 respectively and an inner telescoping solid rod 11. Any suitable means may be provided for limiting the telescoping movements of the members 9, 10 and 11 relatively to one another and to the supports 5. Thus, by referring more particularly to Fig. 7 it will be seen that the member 9 carries a sleeve 12 which is fixed at the lower end thereof and projects from the periphery of said member and is adapted to coact with and guide the member 9 in the tube 5. The sleeve 12 also coacts with a like sleeve 13 secured to and projecting inward from the companion guide member 5 to limit the upward telescoping movement of the tubular member 9 in its guide 5. In a like manner the tubular member 10 has a sleeve 14 fixed at the lower end thereof and cooperative with a sleeve 15 secured to the member 9 at the upper end thereof. The lower end of the rod 11 carries a sleeve 16 that coacts with a sleeve 17 fixed at the upper end of the telescoping member 10. In this manner the members 9, 10 and 11 are guided and the upward telescoping movements thereof to the dotted line position in Fig. 2, and relatively one to another and to the associated guide tube 5, are limited.

The upper reduced end of each rod 11 is seated in an opening in a cross bar 19 that carries a pad 20 at the under side thereof. This pad in the present instance comprises two sections with an intervening space between them and is made of sponge rubber but may be of felt, cork or other suitable material. A sheet metal supporting bracket 21 is secured by the screws 18 to the cross bar 19 and extends upward and then backward to form a sheet metal paper guide and support 22. Rearwardly projecting brackets 23 are supported on the guide 22 at the ends thereof and these brackets are apertured to provide bearing openings to receive arms 24 (Fig. 3) of a bail 25 and thus provide a pivotal support for said bail. As shown in Figs. 3 and 5, each arm 24 carries a collar 26 arranged inside of the associated bracket 23 and secured to its arm 24 by a set screw 27. Each collar 26 bears against its associate bracket 23 on the inside thereof and they thus prevent an axial movement of the arms 24 in their bearings.

The bail 25 carries a series of rubber covered clamping rollers 28 which are adapted to bear against the outer face of the sheet to be supported by the copy holder and press it against a depending sheet metal plate or support 29 against which the copy sheet is pressed by the rollers 28 and which is fixedly connected at its upper rearwardly bent end to the bracket 21.

In order to cause the rollers 28 to press against the copy sheet each collar 26 carries a pin 30 to which one end of a contractile spring 31 is attached, each spring being anchored at its opposite end to the bracket 21. The force of these springs is thus exerted against the bail to force the rollers 28 to grip the copy sheet and hold it in place at the upper end portion thereof. By swinging the bail 25 upward and back to an ineffective position the upper ends of the springs 31 will be carried to the rear of the pivotal center of the arms 24. The springs 31 will then exert their force to maintain the bail in its released position.

When using the copy holder to support a stenographic notebook, or attached sheets for example, the unused or copied leaves thereof may be bent back over the top of the support 22 and be held under a long contractile spring 32 which is anchored at its ends to the brackets 23.

The upper line indicating edge of a sheet metal line indicator 34 stands adjacent to the depending plate 29 and successively registers with the lines of the copy as the latter is elevated a line at a time.

Rollers 33 are received in cut-out portions in the effective edge of a sheet metal line indicator 34 and are carried by and project beyond the indicating edge of said line indicator, for purposes which will hereinafter appear. The line indicator is turned at its lower edge and pivotally supported to turn on a wire bail 35 with sufficient friction thereon to remain in the position to which it may be pivotally adjusted on the bail. Each of the upper inwardly turned ends 36 of the bail 35 receives a bearing in a depending sheet metal bracket 37 secured at its upper end to a cross bar 38 to be hereinafter described. There is sufficient friction on each arm 36 to hold the bail in any position to which it may be adjusted around its pivotal center.

In the event that the plate 29 should be dropped from a height where the lower edge thereof is above the line indicator 34, and the indicator is adjusted too close to said plate, then the lower edge of said plate 29 will contact with the rear inclined faces of the rollers and be deflected rearward and clear the line indicator instead of catching thereon and preventing the plate from dropping to its initial position, as might occur in the absence of the rollers 33.

The upper section of the copy holder, comprising the cross bar 19 and the parts carried thereby including the plate 29, rollers 28 etc., has power directly transmitted thereto to expand the copy holder from its most compact position shown in full lines in Fig. 2, to the fully expanded dotted line position shown in this figure.

There is another cross bar 39 similar to and underlying the cross bar 19 and to which the upper ends of the tubular members 10 are attached. This cross bar 39 also carries a supporting plate 40 which is in the rear of and is overlapped by the similar plate 29, and is provided with a pad 39^a on the under side thereof. Each pad is made of two sections with an intervening space between them. In a like manner the cross bar 38, hereinbefore referred to, has the upper ends of the tubular members 9 secured thereto. This cross bar 38 also carries a supporting plate 41 corresponding to and arranged in the rear of the plate 40 and overlapped thereby. The supporting plates 29, 40 and 41 overlap to the greatest extent when the copy holder is contracted to its fullest extent as shown in Fig. 5, and overlap to the least extent when the copy holder is expanded to its fullest extent as shown in dotted lines in Fig. 2. A

cross bar 42 is connected to and maintains the fixed tubular guides 5 properly spaced apart.

While the plates 29, 40 and 41 are shown contiguous in the drawing they preferably are maintained free from contact in practice, so as not to retard their freedom of movement in returning to the lowered position.

The means whereby the sections which make up the copy holder are moved to an expanded position and may be brought into contracted relationship will now be described.

As shown in Fig. 6 the upper end of a flexible controlling, moving or driving member, or follower in the nature of closely coiled spring 43, receives the exterior threads of a nut or screw 44 that is interiorly threaded to receive the stem of a screw 45 by which the flexible moving member 43 is fixedly connected to the cross bar 19 midway in the length thereof. There should be a slight play between the screw 45 and the cross bar 19 to prevent a throwing of the spring out of line when the screw is tightened. The driving member 43 extends down to and enters an upright fixed guide 46 (see Figs. 3 and 4) which is closed on three sides and is open on that side thereof that faces a drum 47 mounted to turn on a horizontal axis. The guide 46 is arranged tangentially to, and at its lower end registers with, a channel 48 provided in the rear side of the drum 47 near the periphery thereof. The lower end of the flexible driving member 43 is fastened, as at 49, in the channel 48. From an inspection of Fig. 4 it will be seen that member 43 is entirely surrounded by the guide 46 and the walls of the channel of the drum and in the plane of said channel so that the flexible member is accurately guided in said plane as it moves into and out of the drum during the turning movement of the latter.

An upstanding bracket plate 50 is secured to the base plate 7 and forms a support for the guide 46 which is connected thereto by a screw 51. The bracket 50 forms a continuation of the guide 46 along the rear wall thereof and forms a further means for retaining the flexible member 43 in the drum channel. The bracket 50 has a stub shaft 52 riveted thereto at 53 and on this stub shaft the drum 47 and other devices, to be hereinafter described, are mounted to turn.

In practice I prefer to mount the drum 47 as close as possible to the right hand guide tube 5 in order to bring about as nearly as possible a straight vertical movement of the flexible member 43 between the point where it leaves the drum and its point of connection with the bar 19.

Referring more particularly to Figs. 4, 8 and 9, it will be seen that the drum which is designated as a whole by the reference numeral 47 comprises the following elements. A hub 54 receives a bearing on the stub shaft 52 and is held against displacement therefrom by a headed screw 55 received at its threaded end in a tapped opening in the end of the stub shaft. The sheet metal portion of the drum is fixed by screws 56 and a dowel-pin 57 to the hub 54 and to a disk 58, the periphery of which is adapted to be gripped by roller clutches to effect an intermittent anticlockwise feed thereof as the parts are shown in Fig. 3, and also to prevent a backward turning of the drum as will now be described.

A depending sheet metal member 59 (see Figs. 4, 8 and 9) is provided at the upper end thereof with a circular bearing portion 59a that surrounds the hub 54 and provides a pivotal support for the member 59 thereon and around the axis of the drum. A corresponding depending member 60 is pivotally supported in a like manner on the hub 54, the two members 59 and 60 being maintained separated at their lower ends by a spacing block or plate 61, all of the elements 59, 60 and 61 being riveted together at 62. These elements constitute a pivoted carrier for a clutch roller 63 loosely confined between the two members 59 and 60 and resting on the upper inclined edge or tread of the spacing block 61. Said clutch roller is adapted to coact with the periphery of the disk 58 to clutch the latter to move with the carrier 59, 60 when the latter is moved in a clockwise direction from the normal position as the parts are shown in Fig. 8. A forwardly extending ear 64 is provided on the member 60 and said ear carries a pin on which is received a coiled expansion spring 65. One end of this spring bears against the ear 64, whereas the other end of the spring bears against the clutch roller 63 tending to force the latter into clutching engagement with the contact face on the block 61 and with the periphery of the disk 58. An ear 66 extends forward from the fixed bracket 50 and is tapped to receive a screw 67, the inner end of which screw constitutes a stop or abutment with which the clutch roller 63 coacts. The screw stop 67 may be held fixed in its adjusted position by a lock nut 68. It follows therefore that when the clutch roller carrier 59—60 is moved to the right from the normal Fig. 8 position, to that indicated in Fig. 9, the clutch roller 63 will be released from clutching engagement with the disk 58, and the drum of which said disk forms a part is then free to turn backward or anticlockwise as the parts are shown in Fig. 8. The weight of the different sections of the copy holder is sufficient at this time to lower them to the first line indicating position shown in Fig. 3, but not to the fully collapsed position for reasons which will hereinafter appear, it being understood that the members 9, 10 and 11 are sufficiently loose to permit this movement.

In order to hold the drum against backward turning movement during the intermittent forward feed movement thereof, I have provided a second clutch roller 69. This clutch roller is pivotally mounted in a yoke 70 that has a stem 71 guided in an opening in an ear 72 of a bracket 73. This bracket is secured by a screw 74 (Fig. 3) to the fixed bracket 50. An expansion spring 75 surrounds the stem 71 and is interposed between the yoke 70 and the ear 72 and exerts its force against the yoke and tends to force the clutch roller 69 into contactive engagement with the periphery of the disk 58 and with the upper contact face 76 of a bearing block or member 77 fixed to the bracket 50.

Any backward turning movement of the disk 58 and the drum is ordinarily prevented by the clutch roller 69. When, however, the device is manipulated to cause the collapse of the sections to the first line indicating position by a movement of the carrier 59, 60, to the Fig. 9 position, this will result in automatically releasing the clutch roller 69 from its effective position as will now be pointed out.

A releasing lever or device 78 (Figs. 8 and 9) is pivoted at 79 to the bracket 50. One arm of this lever extends below and contacts with the roller 69, whereas the other arm of said lever extends into the path of a projecting finger 80 on the member 60. It follows that when the carrier 59—60 is shifted to the releasing position shown in Fig. 9, the releasing lever 78 will be

shifted to the position indicated in this figure. This results in shifting the roller 69 to the releasing position as shown against the force of the spring 75 and holding it in this releasing position as long as the carrier 59—60 is held in the Fig. 9 position. At this time therefore, the drum is freed from control of the clutch roller 69 as well as from control of the clutch roller 63 and the drum is free to turn backward and lower the sections of the copy holder.

I will now describe the means for controlling the movements of the carrier 59—60 to bring about a feed of the drum, or its release, as hereinbefore pointed out.

As best shown in Figs. 8 to 14 inclusive the carrier 59, 60 is connected to one end of a link 81 which has its opposite end pivoted at 82 to a crank arm 83 secured to a hollow shaft section 84. This shaft section is supported in a bearing opening in a U-shaped bracket 85 secured by a screw 86 to the base plate 7. A second shaft section 87 has a stem that is received in the hollow section 84 of the shaft and is secured therein by a pin 88. The section 87 also has a hollow portion that receives a ball 89 from which project in opposite directions two pins 90. These pins extend into slots 91 in the walls of the hollow portion of the section 87. This provides a universal joint between the shaft sections so that an accurate alignment thereof when mounting the copy holder on its support is not so essential. The ball 89 constitutes one end of a shaft section that comprises the solid member 92 and a hollow member 93 fixedly connected together by pins 94. The hollow member 93 receives a shaft section 95 and is slotted longitudinally at 96 to form a clamp which is tightened against the shaft section 95 by a split collar 97 contracted by a screw 98 so as to firmly, though detachably, unite the two shaft sections 95 and 92—93. This construction provides a means for readily lengthening or shortening the shaft 93, 95 to accord with typewriting machines of different lengths with which the copy holder may be used.

The forward end of the shaft section 95 has a bearing received in an opening in an arm 99 forming part of a bracket 100 secured by screws 101 to the base member 2 or to a desk or table top. In this manner the connected members 92—93, and 95 turn together in order to transmit a rocking movement to the crank arm 83, and may also receive a longitudinal movement relatively to the shaft section 87 without becoming disconnected from the latter, for purposes which will hereinafter more clearly appear. A coiled expansion spring 102 bears at one end against the bracket arm 99 and at the other end against a collar 103 secured by a screw 104 to the shaft section 95. One end of the spring is secured to the collar at 105, whereas the other end of the spring is anchored to the bracket arm 99 as indicated at 106. In this manner the spring 102 not only exerts its force lengthwise of the shaft, or to the right as the parts appear in Fig. 10, but also tend to turn the shaft and restore it and the parts controlled thereby to normal position. By effecting an adjustment of the collar 103 longitudinally of the shaft the expansion force of the spring on the shaft to resist the longitudinal movement of the latter may be varied. By a circular adjustment of the collar 103 on the shaft the force of the spring exerted to turn it and return the parts to normal position may be varied.

The construction of the shaft and its mounting, as thus far described, facilitates the assembly of the parts and also affords a longitudinal movement of the shaft without disconnecting it from the devices which control the drum 47, for purposes which will hereinafter more clearly appear.

Referring more particularly to Figs. 9 to 14 inclusive it will be seen that the forward end of the shaft section 95 has a crank arm 107 fixed thereto with the aid of a pin 108 or by any suitable means. Connected to this crank arm is a link 109 that is pivoted at its opposite end to a manually controlled lever 110 pivoted at 111 on an arm 112 forming part of the bracket 100. This lever is provided with a finger piece or handle 110^a (Fig. 1) at its forward end and has tapped ears 113 that receive a screw stop 114 carrying a padded stop 115 at the lower end thereof. The stop 115 coacts with a laterally projecting ear or stop 116 on the bracket arm 112 to limit the movement of the lever in one direction from its normal position, i. e., in the direction of its actuating movement effected by depressing the handle 110^a. In order to hold the screw 114 against accidental displacement from its adjusted position I have provided a friction spring 117 (see Fig. 14) provided with a seat 118 that bears against the screw 114 and tends to hold it against turning movement, the free ends of the spring bearing against the lever 110 and maintaining the spring under tension.

From the foregoing description it will be understood that an adjustment of the screw stop 114 varies the extent of actuating movement that may be transmitted to the lever 110 and therefore determines the extent of actuating movement that may be transmitted to the carrier 59—60. It follows that this determines the extent of line spacing movement that is transmitted through the member 43 with a pushing force exerted thereby on the copy holding section at each actuation of the lever 110.

The following means are provided to limit the movement of the lever 110 in the opposite direction from its normal position, or the releasing movement of the lever effected by lifting the handle 110^a instead of depressing it as previously described.

An extension 119 on the lever 110 coacts with a stop screw 120 carried by the bracket arm 112 to limit the movement of the lever when the handle 110^a is lifted in its releasing movement.

The lever 110, the shaft connected therewith, and the parts controlled by the shaft are limited in their return movement to normal position under the force of the spring 102 by a stop stud 121 (Fig. 13) projecting from the forward side of the bracket arm 99. This stud or stop 121 coacts with a laterally extending projection or stop 122 on the crank arm 107 to limit the return movement of said crank arm, and the parts connected therewith, under the action of the spring 102. However, when it is desired to move the parts to the Fig. 9 position and thus release the clutch rollers 63 and 69 and permit the copy sheet holding section to return to the first line indicating position, this may be readily effected by moving the crank arm 107 beyond the position where it is normally arrested by the coaction of the stops 121, 122 as will now be described.

From an inspection of Fig. 13 it will be seen that each of the coacting stops 121, 122 has a bevel or cam face where it coacts with the cooperative stop. The cam on the stop 121 is indicated at 121^a, whereas the cam on the stop 122 is indicated at 122^a. These stops coact effectively to arrest the parts in their return movement to normal

position under the action of the spring 102. When, however, a greater force is exerted on the parts by lifting the handle 110ª this brings the camming action of the stops into play with the result that the crank arm 107 and the shaft to which it is connected will be cammed forward against the expansion force of the spring 102, thereby enabling the stops 122 to clear the stop 121 and bring about a movement of the parts to the Fig. 9 position and effect a release of the clutches. The longitudinal movement of the shaft thus brought about is permitted by the sliding connection between the shaft sections 87, 92. The parts remain in the condition described as long as the handle 110ª is held elevated by the operator due to the fact that the high points or dwells on the cams 121ª and 122ª coact to prevent a rearward movement of the crank arm 107 and the shaft to which it is connected. When the operator releases the handle the shaft will be rotated by its spring 102 and when stops 121, 122 reach normal relation the spring 102 will shift the shaft rearward thus bringing about a restoration of the parts to normal position.

Thus far I have referred to dropping or returning the copy sheet carrying section to the first line indicating position, where the first line of the "copy" is in register with the line indicator 34, and have pointed out that such position is higher than the fully collapsed position represented in Fig. 5 and in full lines in Fig. 2. This is in order that the copy holder when in use may support the line indicator 34 above the typewriting machine 123 arranged in front of the holder, as indicated in dotted lines in Fig. 2, and clearly present the matter to be copied to the operator's view.

I will now describe the means by which the arrest of the copy holding section may be arrested in the first line indicating position each time the handle 110ª is lifted and which are nevertheless so constructed to enable the copy holder to be fully collapsed to the full line position shown in Fig. 2 when it is desired to condition the holder for non-use and for storing in the drop cabinet with the typewriting machine.

From an inspection of Figs. 2, 3 and 5 it will be seen that a sheet metal arresting member or frame comprising depending arms 124 united by a cross bar 125 is pivoted at 126 to bracket arms fixed to the under side of the cross bar 38. Secured to said cross bar are upwardly extending finger pieces 127 by which the frame may be given a pivotal movement to releasing position. A leaf spring 128 is fixed at its upper end to a sheet metal arm 129 secured to the cross bar 38 about midway in the length thereof. The lower end of this spring bears against the cross bar 125 below the pivots 126 thereof and tends to force the arms 124 of the frame forward to a position where the lower ends of said arms will be positioned above the fixed cross bar 42 and rest thereon, to support the different collapsible sections so that they cannot drop below the Fig. 3 position as long as the pivoted frame thus engages the fixed cross bar 42. This engagement is shown in Fig. 3 and in dotted lines in Fig. 2, and the spring 128 will automatically cause the stop frame to move to this position as soon as the cross bar 38 has been elevated high enough to enable the arms 124 to snap forward to a position to coact with the cross bar 42, and thereafter the sections will always return to this position when the handle 110ª is elevated to release the clutch rollers 63 and 69.

When the operator desires to fully collapse the copy holder to the full line Fig. 2 position, also shown in Fig. 5, it is merely necessary to press forward on the finger pieces 127, or either of them, and elevate the handle 110ª thus permitting the parts to drop to the fully collapsed position.

From an inspection of Figs. 3 and 6 it will be seen that each of the cross bars 19, 39, and 38 is provided with a depending centrally disposed guard arm 130 secured thereto at the upper end of the arm. These arms overlap but are preferably free from contact with one another and are arranged directly in the rear of the flexible member 43 to prevent the latter from being grasped and bent by the operator or otherwise interfered with.

I prefer to house or partly house the various working parts of the construction by detachable cover plates. Thus a front plate 131 is mounted in front of the drum 47 and its connections and extends from side-to-side of the copy holder. A projection 132 on this plate covers that part of the drum that extends beyond one side of the copy holder. A corresponding cover plate 133 is arranged at the rear side of the copy holder. Both plates 131 and 133 overlap at their ends to enclose the parts at the sides of the copy holder.

From the foregoing description it will be understood that I have provided a highly effective copy holder that is comparatively simple in construction, that is substantially noiseless in its operation and which may be readily fully collapsed when not in use, so that it may be stored with a typewriting machine in a drop cabinet when desired or when not in use.

Various changes may be made in the construction, and certain of the features thereof may be employed without others, without departing from my invention as it is defined in the accompanying claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a copy holder, the combination of a base member, a plurality of bodily and relatively movable collapsible copy supporting sections, and means for controlling the relative expansion and contraction of said sections comprising a drum, and a flexible controlling member wound on said drum and operatively connected to certain of said sections to exert a pushing force thereon.

2. In a copy holder, the combination of a plurality of bodily and relatively movable collapsible copy supporting sections, means for controlling the relative expansion and contraction of said sections comprising a drum, a flexible controlling member wound on said drum and operatively connected to and exerting a pushing action on certain of said sections, and controlling means including a finger piece operable in one direction from its normal position for intermittently turning said drum in one direction to expand said sections and effect a line feed of the copy sheet.

3. In a copy holder, the combination of a plurality of bodily and relatively movable collapsible copy supporting sections, means for controlling the bodily and relative expansion and contraction of said sections comprising a drum, and a flexible controlling member wound on said drum and operatively connected to said sections to exert a pushing force thereon, controlling means including a finger piece operable in one direction from its normal position for intermittently turning said drum in one direction to expand said sections and effect a line feed of the copy sheet,

and adjustable means for varying the position of arrest of said finger piece and thereby determine the extent of line feed of the copy sheet.

4. In a copy holder, the combination of a base member, a plurality of bodily and successively movable collapsible sections, means for controlling the relative expansion and contraction of said sections comprising a drum, and a flexible controlling member wound on said drum and operatively connected to said sections to exert a pushing force on one of them and thereby successively move said sections to expanded position, controlling means including a finger piece operable in one direction from its normal position for intermittently turning said drum in one direction to expand said sections and effect a line feed of the copy sheet, and means operable by an actuation of said finger piece in the opposite direction from its normal position for releasing the drum from control of its controlling means and thereby enable the sections to be collapsed to a contracted condition.

5. In a copy holder, the combination of a plurality of collapsible sections including a series of overlapping relatively movable copy supporting plates, and means for controlling the relative movements between said plates comprising an intermittently actuated controlling member connected to the uppermost of said plates to control it, and means for successively moving the remaining plates to expanded position by the movement of the uppermost plate.

6. In a copy holder, the combination of a plurality of collapsible sections including a series of overlapping relatively movable copy supporting plates, and means for controlling the relative movements between said plates comprising an intermittently actuated controlling member connected to the uppermost of said plates to control it, means for successively moving the remaining plates to expanded position by the movement of the uppermost plate, arresting means for limiting the return movement of said plates to the first line indicating position and before said plates reach the fully collapsed condition, and means operable at will for shifting said arresting means to ineffective position in order to enable the plates to reach a fully collapsed condition.

7. In a copy holder, the combination of a plurality of collapsible sections including a series of overlapping relatively movable copy supporting plates, and means for controlling the relative movements between said plates comprising a flexible controlling member connected to the uppermost of said plates and exerting a pushing force thereon to elevate it, a drum on which said flexible controlling member is wound, means for successively moving the remaining of said plates to expanded position as the uppermost plate is elevated, and means for controlling the movements of said drum.

8. In a copy holder, the combination of a plurality of collapsible sections including a series of overlapping relatively movable copy supporting plates, and means for controlling the relative movements between said plates comprising a flexible controlling member connected to the uppermost of said plates and exerting a pushing force thereon to elevate it, a drum on which said flexible controlling member is wound, means for successively moving the remaining of said plates to expanded position as the uppermost plate is elevated, means for controlling the movements of said drum including a finger piece or handle, means controlled thereby for intermittently turning said drum in one direction, and means controlled by said handle for freeing the drum from control of its intermittently operating turning means and thus enable the plates to drop to a collapsed position.

9. In a copy holder, the combination of a plurality of bodily and relatively movable collapsible copy supporting sections, and means for controlling the bodily movement and relative expansion and contraction of said sections comprising a drum, a flexible controlling member wound on said drum and operatively connected to said sections and exerting a pushing action thereon, and guiding means cooperative with said flexible controlling member to guide it in its movement to and from said drum.

10. In a copy holder, the combination of a plurality of bodily and relatively movable collapsible copy supporting sections, and means for controlling the relative expansion and contraction of said sections comprising a drum, a flexible controlling member wound on said drum and operatively connected to said sections and exerting a pushing action thereon, and guiding means cooperative with said flexible controlling member to guide it in its movement to and from said drum, and for holding it properly seated on the drum.

11. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a flexible controlling member connected to and capable of pushing on said copy holding member to elevate it, a drum on which said controlling member is wound, and guiding means cooperative with said flexible controlling member on three sides and arranged to guide it tangentially to the drum and substantially in the plane thereof in the movement of said flexible member to and from the drum.

12. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a flexible controlling member connected to and capable of pushing on said copy holding member to elevate it, a drum on which said controlling member is wound, and means for controlling the movements of said drum including an intermittently actuated roller-clutch for feeding the drum, a holding roller clutch for holding the drum against backward turning movement, and means operable at will for freeing both of said roller clutches to enable the drum to turn backward.

13. In a copy holder the combination of a copy holding member, and means for controlling the movements thereof comprising a drum, and means for controlling the movements of said drum including an intermittently actuated roller clutch for feeding the drum, a holding roller clutch for holding the drum against backward turning movement, and means operable at will for freeing both of said roller clutches to enable the drum to turn backward.

14. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a drum, and means for controlling the movements of said drum including an intermittently actuated roller clutch for feeding the drum, a holding roller clutch for holding the drum against backward turning movement, a handle, means controlled by a movement thereof in one direction from its normal position for actuating said intermittently actuated roller clutch to turn the drum forward, and means controlled by a movement of the handle in the opposite direction from its normal position for freeing both of said roller clutches

and enabling the copy holding member to return to normal position.

15. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a drum, and means for controlling the movements of said drum including an intermittently actuated roller clutch for feeding the drum, a holding roller clutch for holding the drum against backward turning movement, a handle, means controlled by a movement thereof in one direction from its normal position for actuating said intermittently actuated roller clutch to turn the drum forward, adjustable means for limiting the movement of the parts under the last mentioned actuation of the handle to thereby vary the extent of line spacing effected thereby, and means controlled by a movement of the handle in the opposite direction from its normal position for freeing both of said roller clutches and enabling the copy holding member to return to normal position.

16. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a drum, and means for controlling the movements of said drum including an intermittently actuated roller clutch for feeding the drum, a holding roller clutch for holding the drum against backward turning movement, and means operable at will for freeing both of said roller clutches to enable the drum to turn backward and the copy holding member to return to and be arrested at the first line indicating position, and independent means that arrest the copy holding member in the first line indicating position and that are operable at will to enable the copy holding member to be lowered beyond the first line indicating position to a position of non-use.

17. In a copy holder, the combination of a copy holding member, and means for controlling the movements thereof comprising a flexible controlling member connected to and capable of pushing on said copy holding member to elevate it, a drum on which said controlling member is wound, guiding means cooperative with said flexible controlling member on three sides and arranged to guide it tangentially to the drum and substantially in the plane thereof in the movement of said flexible member to and from the drum, means for holding the drum in the position to which it is advanced, means for releasing said drum to lower the copy holding member, normally effective arresting means that arrest the copy holding member in the first line indicating position when it is released as stated, and means for rendering said arresting means ineffective and thus enable the copy holding member to be lowered below said first line indicating position to a position of non-use.

18. In a copy holder, the combination of a copy holding member, and means for controlling the movements of said member comprising a drum, connecting means intermediate said drum and member, a pivoted carrier, a roller clutch carried by said carrier and coacting in its movement in one direction with said drum, holding means for preventing a backward turning of said drum, a handle, means controlled by a movement of said handle in one direction from its normal position for moving said carrier to turn the drum and elevate said copy holding member, and means controlled by the handle during the movement from its normal position in the opposite direction for releasing said roller clutch and holding means and thus enable the drum to turn backward and the copy holding member to be lowered.

19. In a copy holder, the combination of a base member, a plurality of plate-like collapsible copy supporting sections against which the copy is adapted to bear and which are mounted for bodily and relative vertical movement only, means for controlling the relative expansion and contraction of said plate-like sections as well as the movement thereof relatively to said base member, said means comprising a drum, a flexible controlling member wound on said drum and operatively connected to said sections, and means for intermittently actuating said drum to expand said sections and also to move them relatively to said base member.

20. In a copy holder, the combination of a base member, a plurality of plate-like collapsible copy supporting sections against which the copy is adapted to bear and which are mounted for bodily and relative vertical movement only, means for controlling the relative expansion and contraction of said sections as well as the movement thereof relatively to said base member, said means comprising a drum, a flexible controlling member wound on said drum and operatively connected to said sections, means for intermittently actuating said drum to expand said sections and also to move them relatively to said base member, and means operable at will to free the drum from control of said intermittently operated actuating means in order to enable the drum to receive a reverse rotation and the sections to be collapsed to a contracted condition relatively to one another and to said base member.

JOSEPH PHELPS.