Feb. 11, 1930. C. KNUTSSON 1,746,732

COPYHOLDER

Filed July 20, 1929 4 Sheets-Sheet 1

Fig. 1.

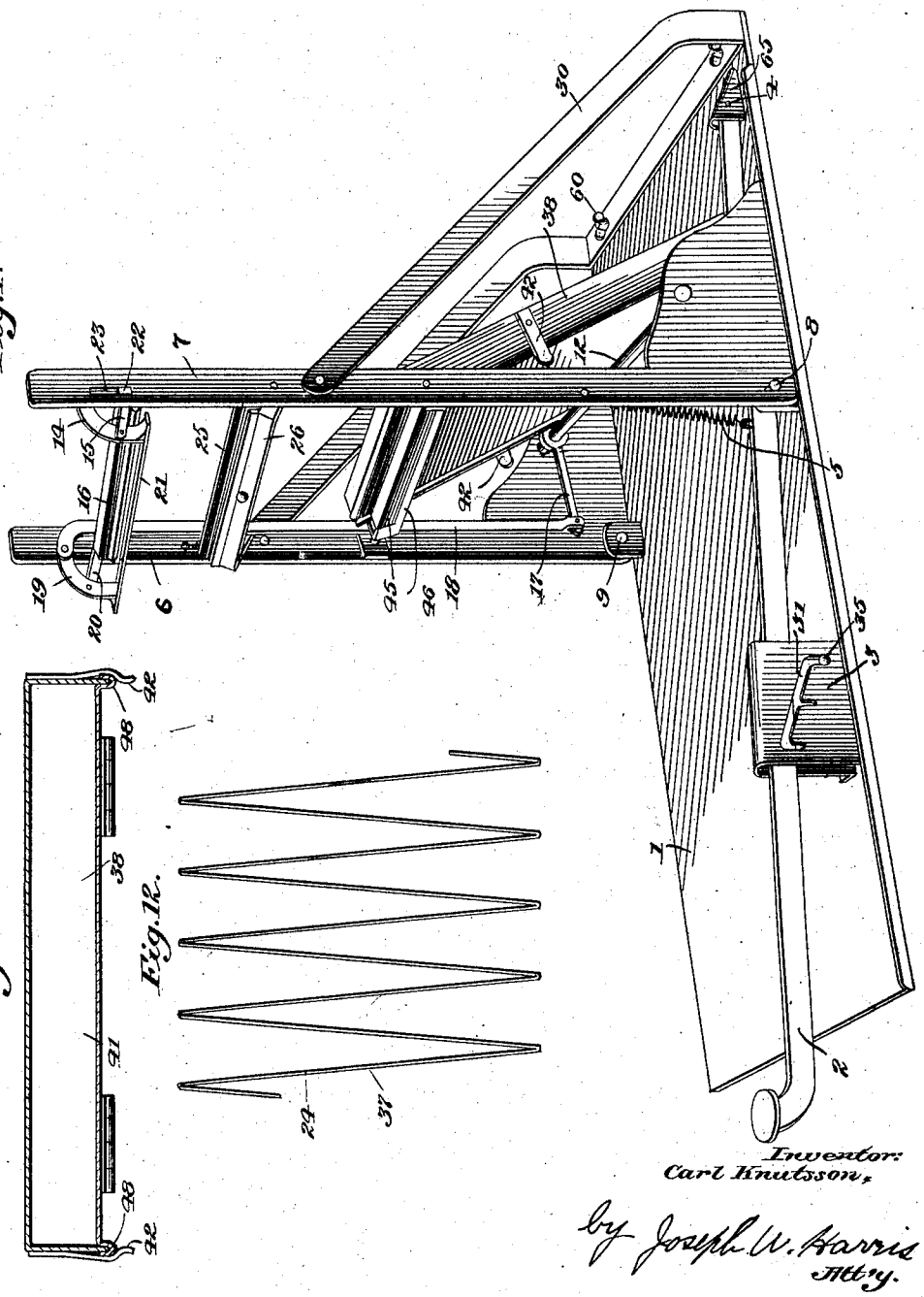


Fig. 10.

Fig. 12.

Inventor:
Carl Knutsson,
by Joseph W. Harris
Atty.

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Fig. 3.

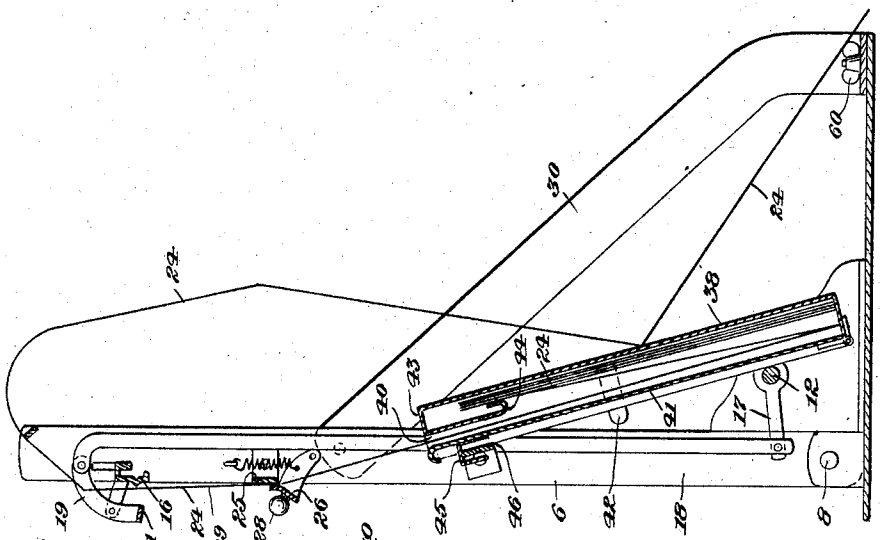


Fig. 9.

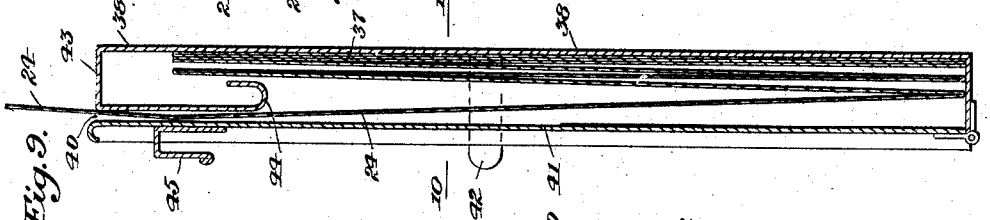
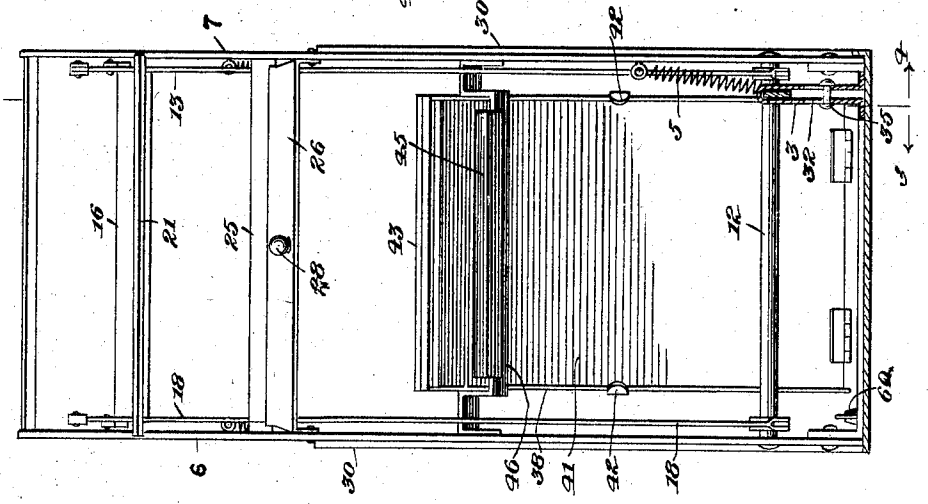


Fig. 2.



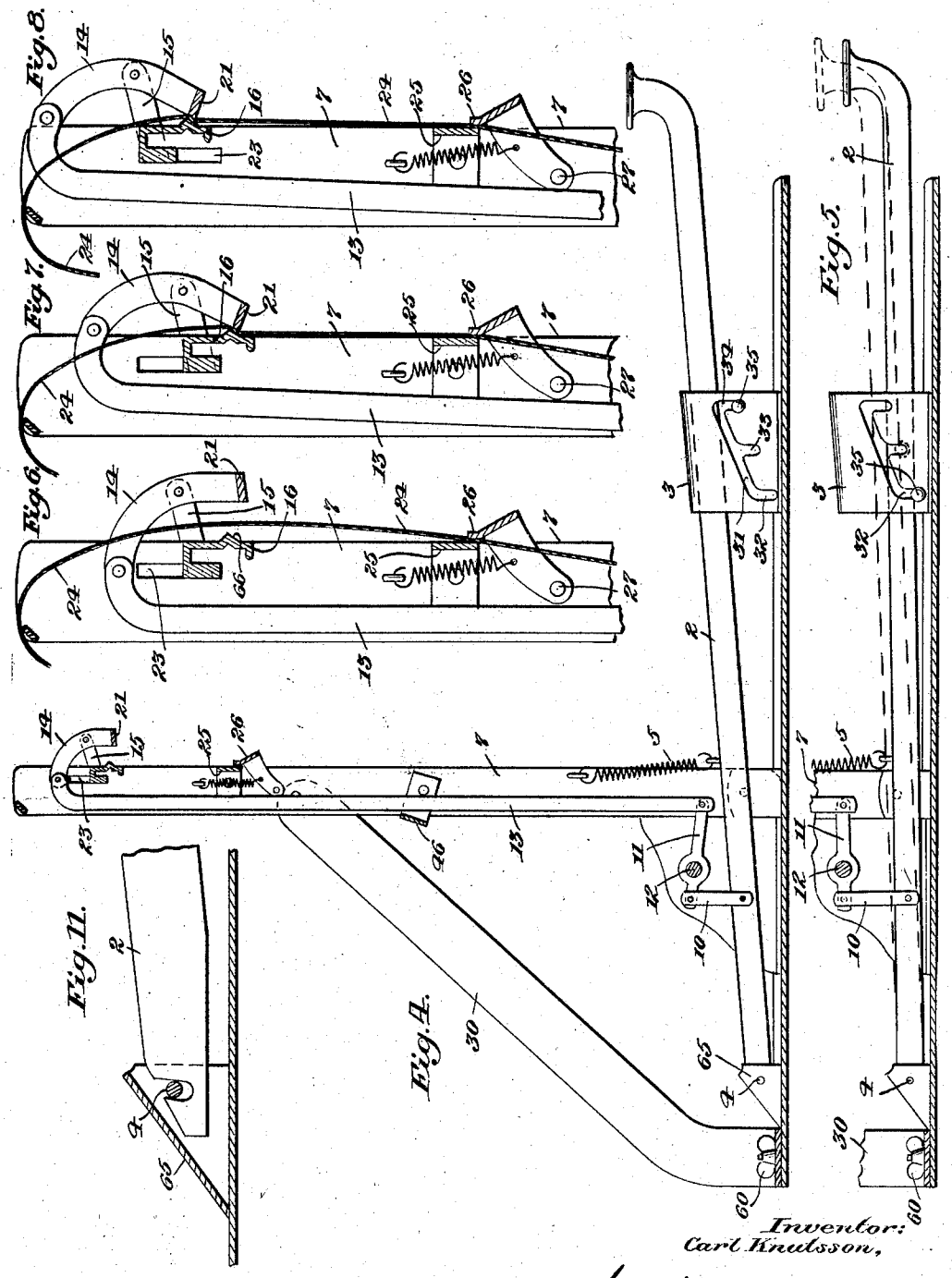
Inventor:
Carl Knutsson,

by Joseph W. Harris
Atty.

Feb. 11, 1930. C. KNUTSSON 1,746,732

COPYHOLDER

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Inventor:
Carl Knutsson,
by Joseph W. Harris
Atty.

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COPYHOLDER

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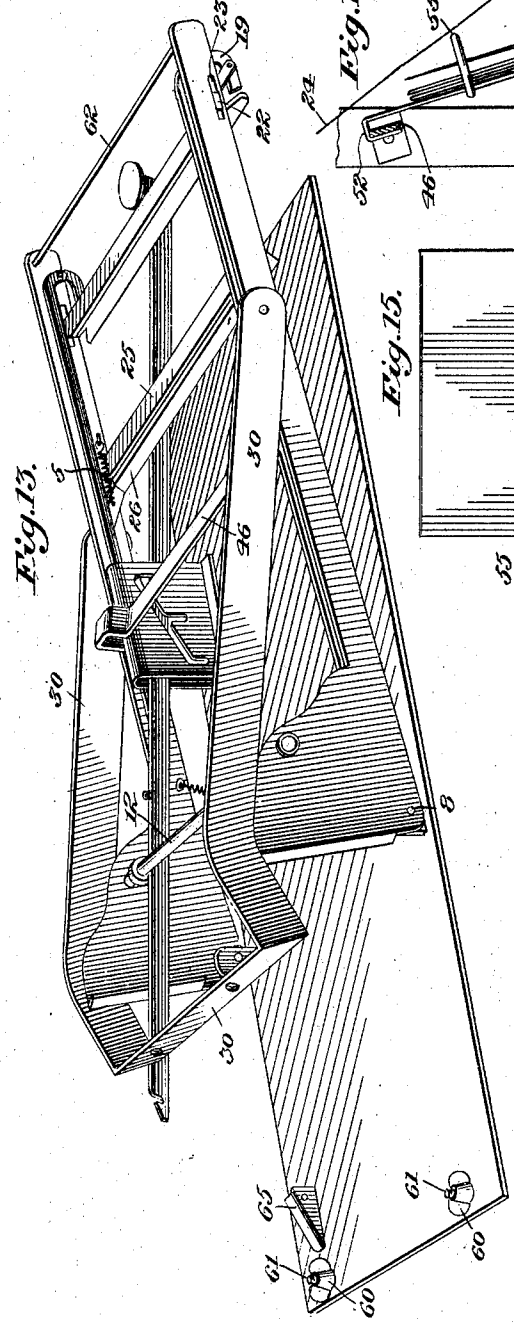


Fig. 13.

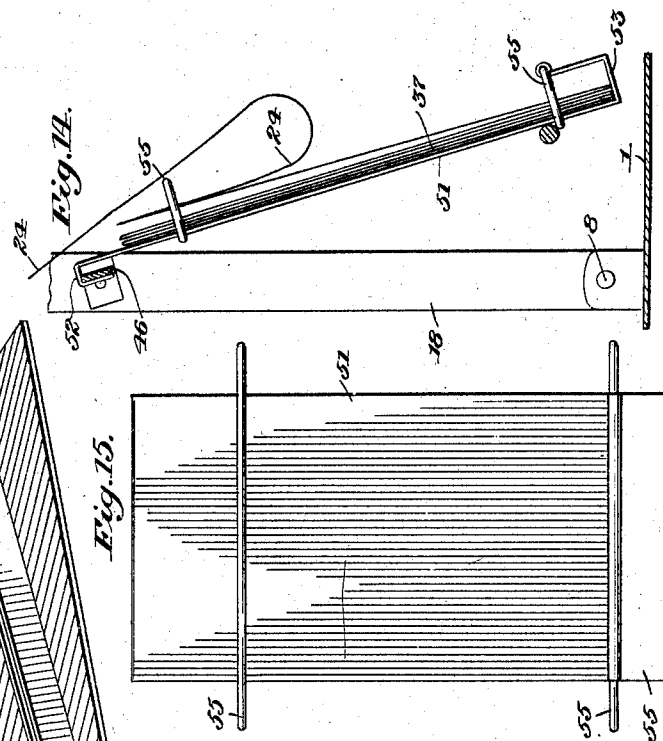


Fig. 14.

Fig. 15.

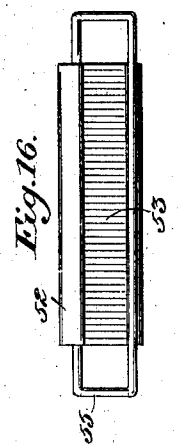


Fig. 16.

Inventor:
Carl Knutsson,
by Joseph W. Harris
Atty.

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UNITED STATES PATENT OFFICE

CARL KNUTSSON, OF CHARLESTON, SOUTH CAROLINA

COPYHOLDER

Application filed July 20, 1929. Serial No. 379,755.

This invention relates to copy holders, for use in connection with the operation of type writing machines, to hold the stenographic copy of matter which is to be copied by a typist.

An object of the invention is to provide a copy holder in which a long sheet of stenographer's note paper may be supported in a suitably folded state, and fed by a step-by-step-movement through the holder, the paper finally passing over the top of the holder, and collecting at the back thereof.

A further object is to provide a copy holder in which may be used a zig-zag folded pad of paper, the pad of paper being removable, and to be used to receive dictation, after which it is placed in the copy holder, and the dictated matter copied by the typist.

A further object is to provide a copy holder in which a single stroke of a lever will advance a controlled length of paper, the length of paper advanced being varied by an adjustment of the stroke of the feed lever.

A further object is to provide a copy holder which may be folded, or knocked down, or collapsed, for packing and shipping.

A further object is to provide a paper holder, or receptacle, from which the paper is progressively fed by step-by-step stages, as may be desired.

Other objects will be apparent on reading the specification.

In the accompanying drawings:

Fig. 1 is a view in perspective of the copy holder, upon the base of which is to be placed the type writing machine;

Fig. 2 is a front view of the copy holder, with a part of the lever broken off, and showing the paper holding box, without the paper sheet;

Fig. 3 is a longitudinal sectional view from the right side of the copy holder, on the line 3—3 of Fig. 2, showing the folded strip of paper in the box, with paper being fed through the copy holder;

Fig. 4 is a longitudinal sectional view of the holder from the left on the line 4—4 of Fig. 2, with the paper box removed;

Fig. 5 is a detail view of Fig. 4 with the lever in the lower depressed position; and a dotted outline of the lever depressed to the intermediate position;

Figs. 6, 7, and 8 are detail sectional views of the right upright and paper clamp in different positions;

Fig. 9 is a vertical sectional view of the paper holding box, showing the folded paper inside;

Fig. 10 is a horizontal sectional view of the paper holding box, on the line 10—10 of Fig. 9 showing the construction of the lid;

Fig. 11 is a detail view showing the detachable connection at the end of the lever;

Fig. 12 is a view of an expanded paper pad, folded zig-zag, to be used to receive the stenographer's notes, and then placed in the copy holder;

Fig. 13 is a view of the holder shown in the knock-down, or collapsed condition, for shipment;

Fig. 14 is a partial sectional view of the copy holder showing in section a modified paper holder;

Figs. 15 and 16 are front and top views of the modified paper holder shown containing paper in Fig. 14.

The copy holder is provided with an enlarged base 1, upon which is placed a type writing machine, with lever 2 at the right side, where it will be convenient for the typist. The lever moves within a guide 3, is detachably pivoted at 4 in the hood 65, and is retained retracted by the spring 5. Uprights 6, 7, are pivotally secured at 8 and 9 to supports secured to the base 1. The uprights 6 and 7 are rigidly braced by the detachable bracket 30 (Figs. 1, 3, and 4). Attached to the lever 2 is the arm 10, (Fig. 4) which latter is pivotally joined by the member 11 to the vertically reciprocating bar 13, the upper end of the latter being pivotally joined to the curved arm 14, and the latter pivotally joined to an extension 15 of the paper clamp bar 16. On the other end of the shaft 12 (Figs. 1 and 2) is secured an arm 17 which is pivotally joined to the vertical reciprocating bar 18, the latter being pivotally joined to a curved arm 19, resembling the curved arm 14, and is pivotally joined to an extension 20 of the paper clamp bar 16. The curved arms 14 and 19

are the bent up extremities of a face bar 21 (Figs. 1, 4, 6, 7, and 8), the face bar 21 co-operating with the bar 16 to form a normally open clamp, the bar 21 being firmly pressed against the inclined face 66 of Fig. 6 of the paper clamp bar 16 by the upward movement of the reciprocating bars 13 and 18 upon pressing the lever 2, the upward movement of bars 13 and 18 clamping the paper and raising it and the paper clamp bar 16, the outer ends of the latter, 22, of which slide in the slots 23, 23, in the uprights 6 and 7. Figs. 4, 6, and 7 show the bar 16 at the bottom of the slot 23. Fig. 7 shows the bar 21 pressing against the clamp bar 16 and engaging the paper 24, while in Fig. 8, the face bar 21 and clamp 16 and the paper 24 have been raised, the clamp 16 is now at the top of the slot 23. Release of the pressure upon the lever 2 disengages the bar 21 from contact with the paper 24 and clamp bar 16, separating them, and restoring the bar 21 and clamp 16 to the position shown in Figs. 1, 4, and 6 by the retracting spring 5, (Figs. 1, 2, and 4,) which spring engages the lever 2 and upright 7. The paper is also independently clamped between the faces of the normally closed spring pressed clamp members 25, 26, the bent ends of the member 26 being pivotally mounted on the uprights 6, 7, at 27; and the front of the member 26 being provided with a suitable handle 28 which permits separating the clamp to manually insert the paper 24 therebetween, as shown in Figs. 1, 4, and 5.

The portion of the paper from which the dictated matter is copied, is shown at 29, in Fig. 3. The paper receives a controlled step-by-step feed with each stroke of the lever 2, the guide 3 which encloses the lever being provided with means to limit the stroke of the lever, and thereby limit the upward movement of the bars 13, 18, thereby limiting and controlling the feed of the paper 24. The means illustrated to accomplish the controlled feed of the paper 24 consists in providing the guide 3 with slot 31, and the depending cuts 32, 33, 34, and adjustable bolt 35, see Figs. 1, 2, 4, and 5. In Fig. 4, the bolt 35 is shown in the depending cut 34; while in Fig. 5 the bolt 35 is shown in full lines in cut 32, and an additional showing of the bolt 35 in dotted lines is in cut 33. In Fig. 4, with the bolt 35 in the cut 34, the lever 2, on being pressed, will have a short stroke, and therefore will feed the paper 24 a short length; with the bolt 35 in the cut 33, as shown in Fig. 5, the lever 2 will have an intermediate stroke, and feed the paper 24 an intermediate length; with the bolt 35 in the cut 32, as shown in full lines in Figs. 1 and 5, the lever 2 will have a full stroke and accordingly feed the paper the desired full length. As the paper 24 is fed through clamps 16—21, it moves over the top and falls down at the back, see Fig. 3.

The stenographic note paper preferably used is the kind known as "zig-zag" folded strip, folded into a pad, 37, as is shown in Fig. 12. The folded paper is used as a pad when receiving dictation, and later is placed in the folded condition in the paper holding box 38, Figs. 1, 2, 3, 9, and 10, with one end of the paper 24 projecting through an opening 40 in the top of the box; or the paper 24 may be placed in the holder shown in Fig. 14. The paper 24 travels from the box 38 bending around the curved edge 44 and passing out the slot 40, and then through the clamps 25, 26, and then through the feed clamps 16, 21, and over the top of the machine, collecting at the back. The paper-holding box 38 is provided with a hinged lid 41, which is retained closed by the clasps 42, Figs. 9, and 10. The upper end 43 of the box is narrow, Figs. 3 and 9, thereby providing the opening 40 referred to above. The upper edge 43 of the box extends down inside, and is provided with a curved end, 44, Figs. 3 and 9, over which the strip of paper 24 easily travels as it is withdrawn from the box by the paper feed clamps. The lid 41 of the box is provided with a hook 45, which hangs on the cross bar 46, attached to the uprights 6, 7. Figs. 1, 2, 3. As shown in Fig. 10, the lid 41 of the box is constructed with a grooved edge 48 which engages the edges of the box, and provides an inside fit for the lid, thereby preventing the folded paper from getting caught in the joint between the lid and box.

A modified open paper holder 51 is shown in Figs. 14, 15, and 16, and may be used in place of the box 38, shown in Figs. 1, 2, and 3. The holder consists of a metal sheet, folded as shown at 52 into a hook by which it is supported by the bar 46, and rests against the bar 12. The lower end of the holder is folded into a channel 53 in which the paper 24 rests. Wire guards, or loops, 55, 55, retain the paper in place. The holder 51 may be riveted to the bar 46 if desired. The operation of this modification is otherwise as described in connection with Figs. 1, 2, and 3.

An expanded zig-zag paper pad, 37, consisting of a long folded sheet of the paper 24 for receiving the stenographer's notes, is shown in Fig. 12. This pad is inserted in the paper holding box 41, on the open type of holder 51.

In Fig. 13, the copy holder is shown in the knock-down, or collapsed condition, for shipment. To fold the copy holder, the wing nuts 60, Figs. 1, 3, and 4, are removed, the detachable bracket 30 is lifted from the bolts 61, which carry the wing nuts, 60, and the spring 5, unhooked, the lever 2 is now detached from the bar 4, Fig. 11, and the top 62 of the copy holder is then pressed over into the collapsed position, Fig. 13. The wing nuts 60 may be then replaced on the bolts 61.

To operate the copy holder, the paper pad 37 containing the stenographic notes, is placed in the paper holder 38, or 51, the end of the paper is then drawn through the normally closed clamps 25, 26, and inserted within the normally open feed clamps 16, 21. The bolt 35 is placed in one of the cuts 32, 33, 34, according to the feed desired, and after copying the notes on the exposed portion 29 of the paper, the lever 2 is depressed, which closes the clamp bars 16 and 21 against the paper, and also raises the clamps thereby drawing the paper upward the length of the stroke, determined by the location of the bolt 35. The lever 2 is then released, opening the clamps 16 and 21, leaving the paper in its upward position, and dropping the bars 13 and 18, and clamps 16 and 21. On repeating the operation, the paper 24 will be fed through the copy holder.

I claim:

1. A copy holder, comprising a set of normally closed paper holding clamps, a set of normally open paper drawing clamps, means to close and then move upward said normally open clamps upon said paper and to draw said paper through the normally closed clamps, and means to control the extent of the movement of the normally open clamps.

2. A copy holder comprising means to support paper in an exposed position, said means consisting of a plurality of members including movable clamping members, a hand operated lever, a guide for said lever, said guide provided with means to vary and control the stroke of said lever, the controlled stroke imparting a controlled movement to said plurality of members.

3. A copy holder, comprising a base portion, pivoted uprights upon said base, a bracket pivoted to said uprights, means to detachably secure said bracket to said base and hold said uprights rigid, a lever, said lever detachably pivoted to said base, a spring to keep said lever under tension, reciprocating bars actuated by the movement of said lever, a normally open feed clamp, levers connecting said reciprocating bars to said normally open paper feed clamp, said connected levers arranged to close said normally open paper feed clamp upon the movement of said reciprocating bars and draw paper into an exposed position in said copy holder.

4. A copy holder, comprising a base portion, uprights upon said base, a bracket pivoted to said uprights, means to detachably secure said bracket to said base and hold said uprights rigid, a lever, said lever detachably pivoted to said base, a spring to keep said lever under tension, a pair of normally closed paper clamps, reciprocating bars actuated by the movement of said lever, a normally open paper feed clamp, levers connecting said reciprocating bars to said normally open paper feed clamp, said connected levers arranged to close said normally open paper feed clamp upon the movement of said reciprocating bars and draw paper through said normally closed clamps into an exposed position in said copy holder.

5. In a copy holder, movable elements comprising a pair of normally open paper feed clamps, a first member of said clamps provided with an inclined face, a second member of said clamps connected by levers to said first member, said second member arranged to be actuated and moved into firm contact with said inclined face, reciprocating bars, said reciprocating bars connected to said normally open clamps, a hand operated lever, said hand operated lever connected to said reciprocating bars, and all of said movable elements arranged to be actuated by the movement of said hand operated lever.

6. A copy holder consisting of a base and a plurality of elements thereon, said elements comprising a pair of uprights pivoted to said base, a hand operated lever detachably pivoted to said base, a guide for said lever, means in said guide to variably control the stroke of said lever, a detachable spring connecting said lever with said uprights, a bracket pivoted to said lever, means to detachably secure said bracket to said base, reciprocating members connected to and arranged to be actuated by the movement of said lever, a pair of normally open paper feed clamps connected to and actuated by said reciprocating members, a pair of normally closed clamps supported by said uprights, a paper holder supported by said uprights, said copy holder adapted to be collapsed after detaching said bracket from said base, detaching said hand lever from its pivot, and detaching the detachable spring from said lever.

7. In a copy holder, a pair of uprights, a pair of reciprocating bars, a pair of normally open clamp members, one of said members provided with upturned extremities; the ends of said extremities pivoted to the ends of said reciprocating bars, the second of said clamp members provided with a lug at each end, said uprights having slots, one of said lugs in each slot, connecting links pivoted to the upturned extremities and joined to said clamp member, said second clamp member provided with a ridge having an inclined face, and said first member adapted to be pressed against said inclined face and closing said normally open clamp upon the upward movement of said reciprocating bars, the continued upward movement of said reciprocating bars raising said closed normally open clamp.

8. In a copy holder, a pair of uprights, a pair of reciprocating bars, a pair of normally closed clamp bars, a pair of normally open clamp members, one of said members provided with upturned extremities; the ends of said extremities pivoted to the ends of said

reciprocating bars, the second of said clamp members provided with a lug at each end, said uprights having slots, one of said lugs in each slot, connecting links pivoted to the upturned extremities and joined to said second clamp member, said second clamp member provided with a ridge having an inclined face, and said first member adapted to be pressed against said inclined face and closing said normally open clamp upon the upward movement of said reciprocating bars, the closing of the normally open clamp members engaging a strip of paper, the continued upward movement of said reciprocating bars raising said closed normally open clamp and drawing the paper through the normally closed clamp and exposing a new portion of said paper.

9. A copy holder, comprising a paper-holder. said paper holder consisting of a detachable box, a lid therefor, a curved inside depending edge within said box, said lid parallel to and spaced from a wall of said depending edge, thereby providing a passage for travelling paper within said copy holder.

In testimony whereof I hereby affix my signature.

CARL KNUTSSON.