C. H. CALDWELL.

FOLDING COPY HOLDER FOR TYPE WRITERS.

APPLICATION FILED FEB. 7, 1916.

1,236,050.

Patented Aug. 7, 1917.

4 SHEETS—SHEET 1.

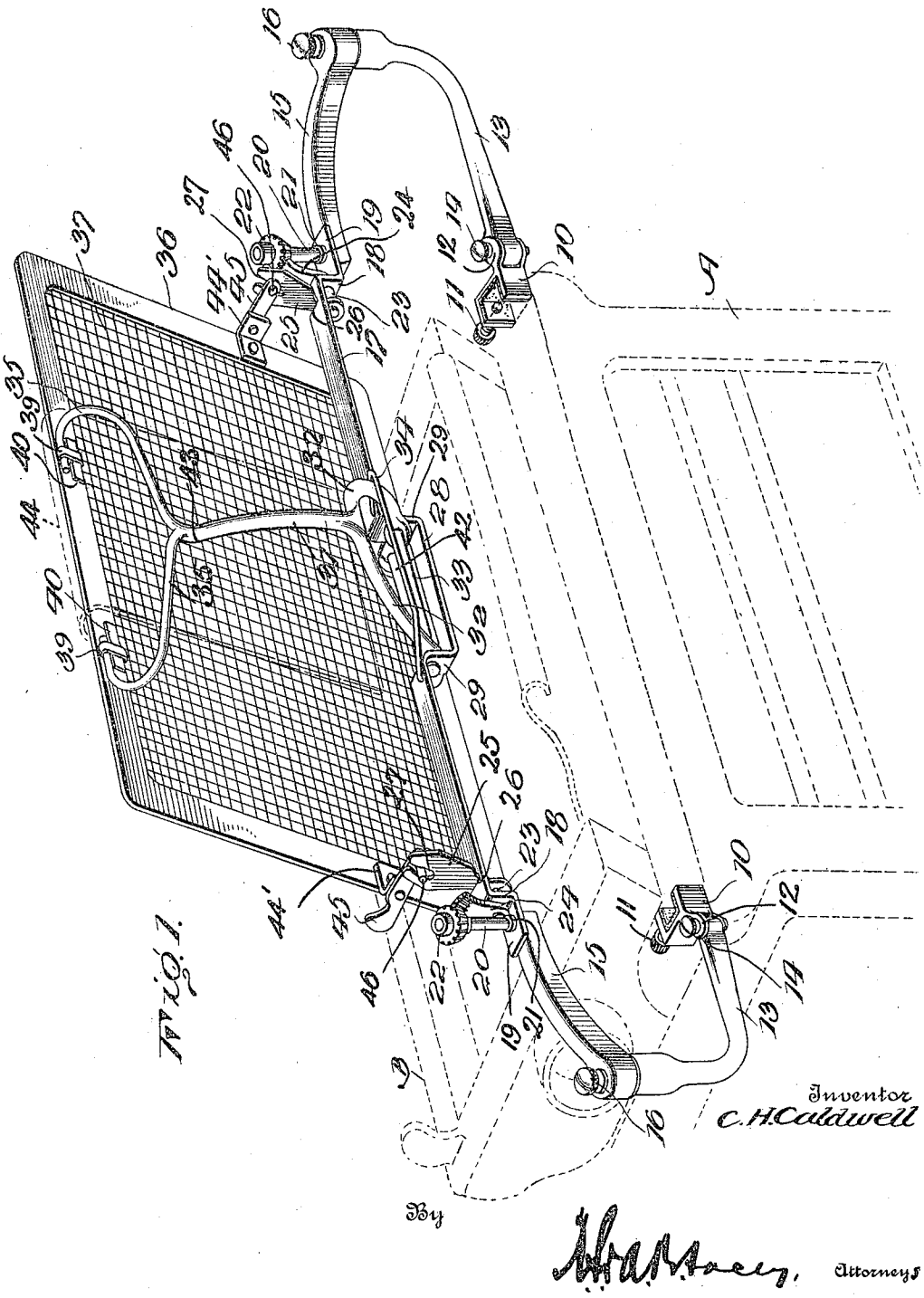


Fig. 1.

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4 SHEETS—SHEET 2.

Fig. 2

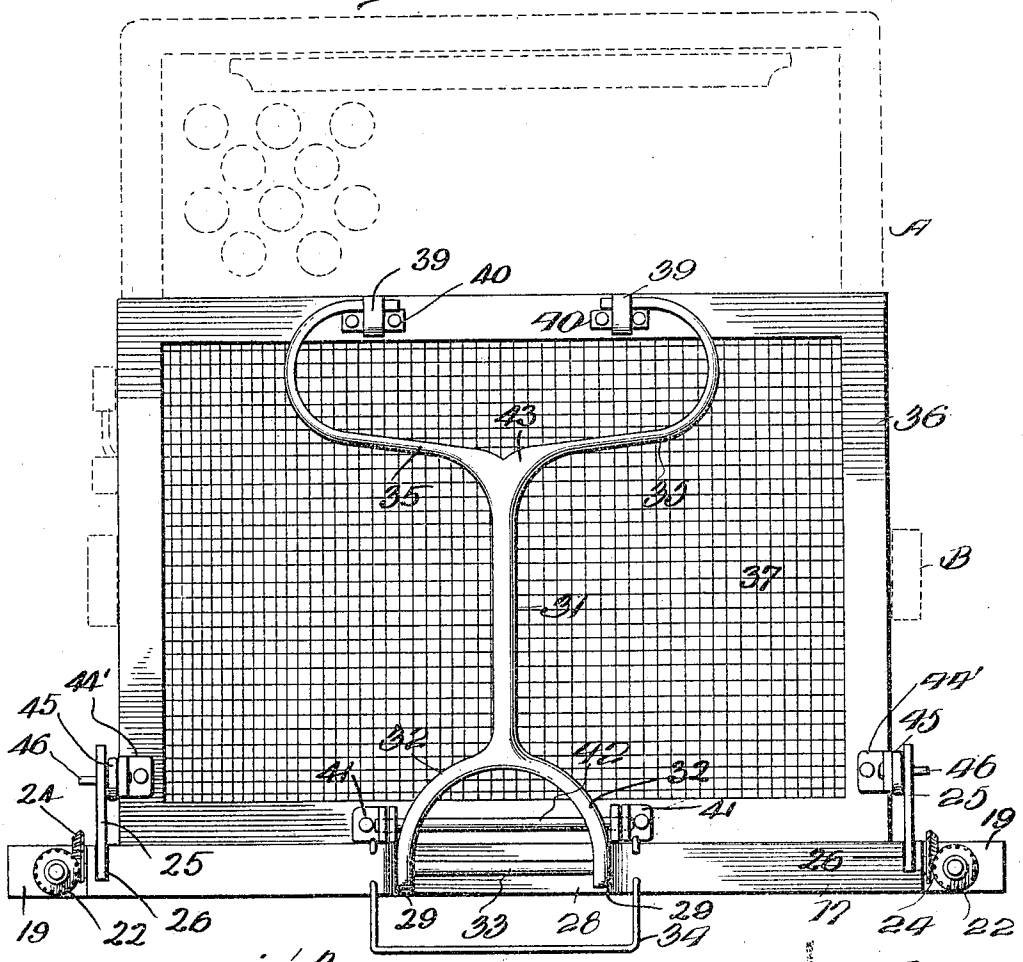
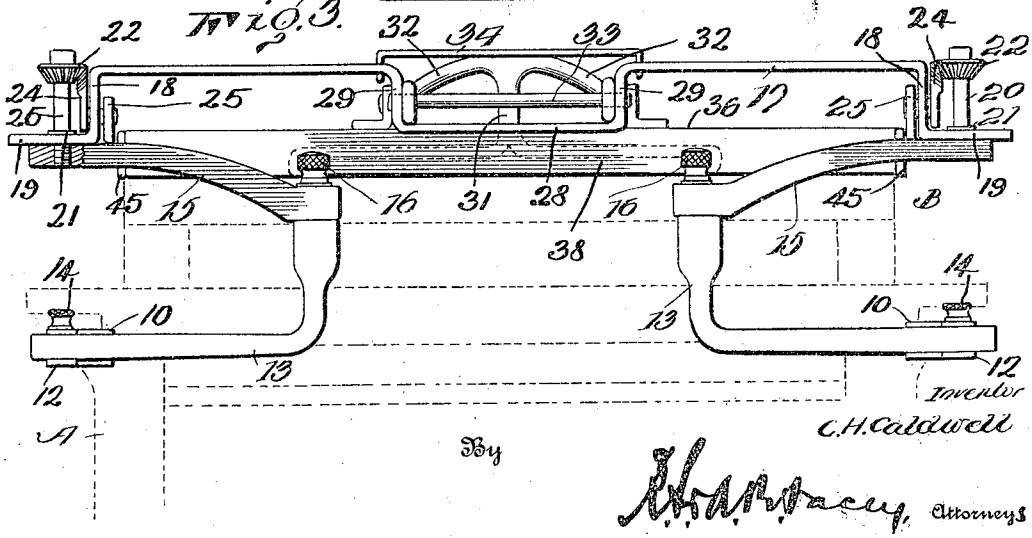


Fig. 3.



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4 SHEETS—SHEET 3.

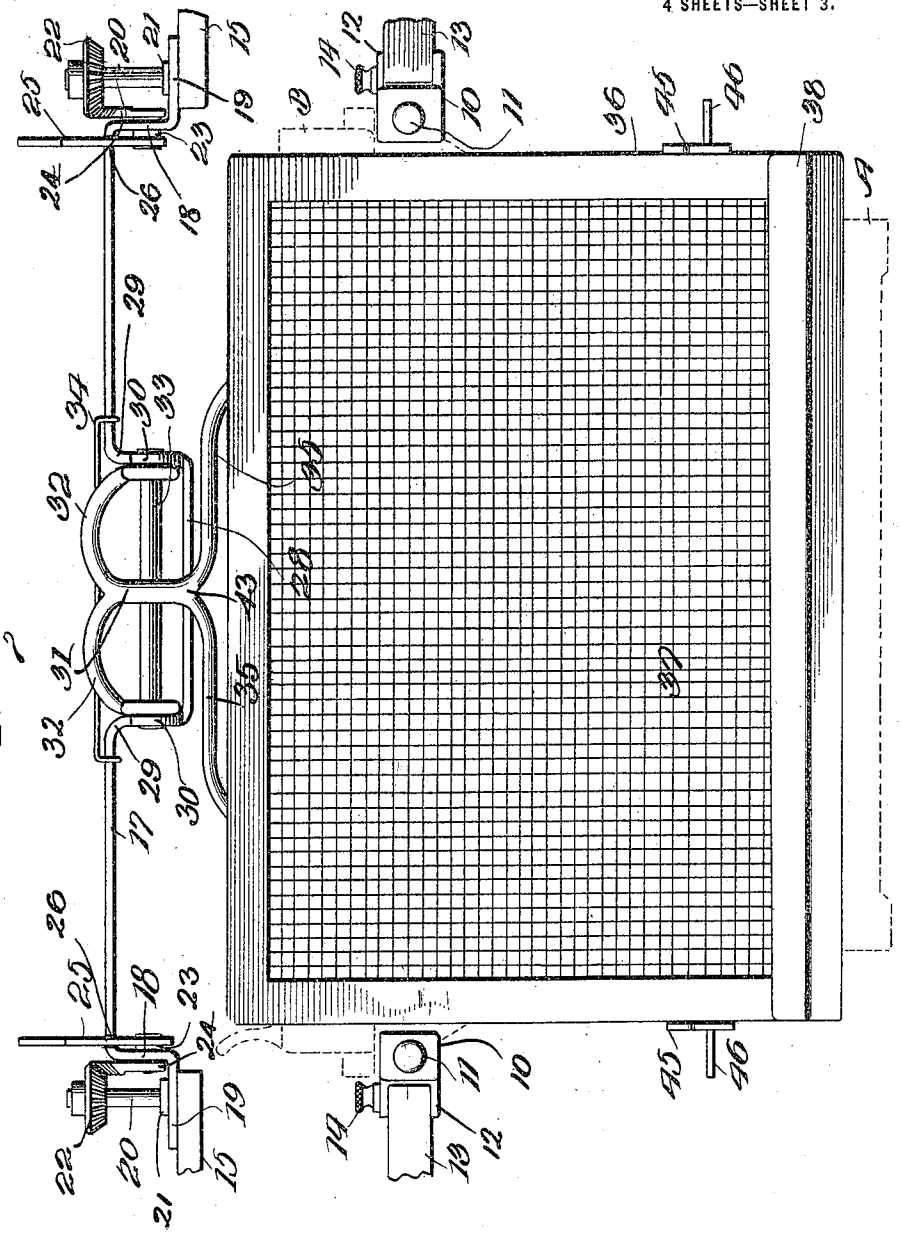


Fig. 4.

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4 SHEETS—SHEET 4.

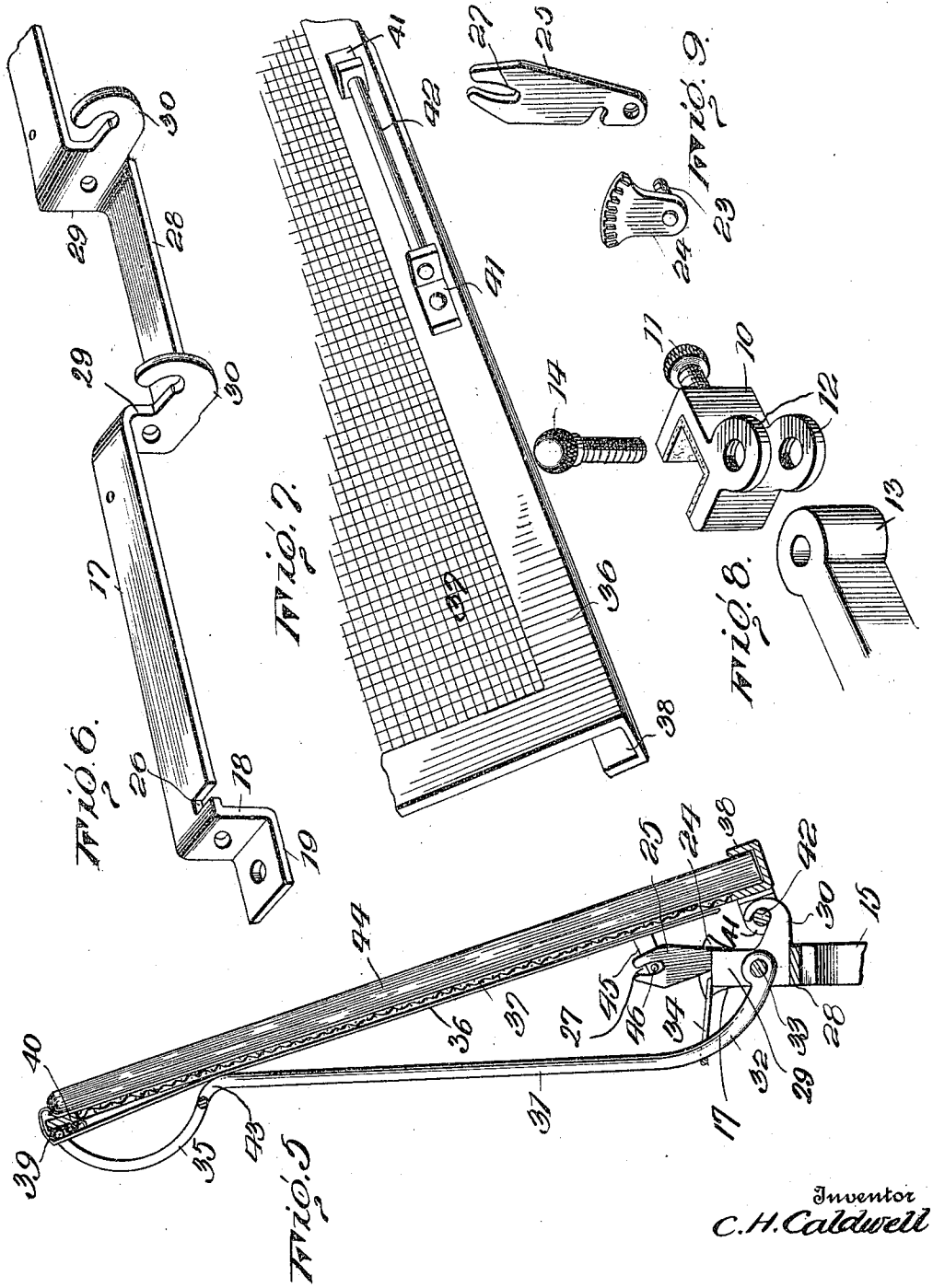


Fig. 6.

Fig. 7.

Fig. 8.

Fig. 9.

Fig. 5.

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UNITED STATES PATENT OFFICE.

CLARENCE H. CALDWELL, OF OAK PARK, ILLINOIS.

FOLDING COPY-HOLDER FOR TYPE-WRITERS.

1,236,050. Specification of Letters Patent. Patented Aug. 7, 1917.

Application filed February 7, 1916. Serial No. 76,634.

To all whom it may concern:

Be it known that I, CLARENCE H. CALDWELL, a citizen of the United States, residing at Oak Park, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Copy-Holders for Type-Writers, of which the following is a specification.

This invention contemplates an improved copy holder and has as its primary object to provide a device of this character which may be fixed to a type-writer to support a copy book in convenient position relative thereto.

The invention has as a further object to provide a device of this character wherein the body of the holder may be folded to inoperative position to lie upon the typewriter carriage and wherein movement of the body to such position will simultaneously shift the arms supporting the device from a position extending laterally from the body of the typewriter to inoperative position folded in the rear of the typewriter.

A further object of the invention is to provide a device of this character wherein the body of the holder may be positioned above the typewriter carriage either toward or away from the operator so that the copy book may be brought within easy vision.

The invention has as a further object to provide a copy holder wherein the body of the holder may be easily moved to a position overlying the key-board of the typewriter so that the body of the holder may be used to support a copy book when taking notes.

And a still further object of the invention is to provide an improved copy holder having a supporting bracket of such construction that the said bracket will coact with the body of the holder to efficiently maintain the copy book in proper position upon the holder.

Other and incidental objects will appear as the description proceeds and in the drawings wherein I have illustrated the preferred embodiment of the invention and wherein similar reference characters designate corresponding parts throughout the several views.

Figure 1 is a perspective view looking at the rear side of my improved copy holder and showing the device in normal operative position upon a conventional type of typewriter,

Fig. 2 is a top plan view showing the body of the holder folded to inoperative position to lie upon the carriage of the typewriter,

Fig. 3 is a rear elevation showing the position of the supporting bracket for the body of the holder when the body of the holder is moved to assume the position illustrated in Fig. 2,

Fig. 4 is a fragmentary front elevation showing the body of the holder moved to overlie the key-board of the typewriter in which position, the body of the holder may be used as a rack to support a copy book when taking notes,

Fig. 5 is a fragmentary sectional view taken through the body of the copy holder and particularly showing the mounting thereof as well as the mounting and arrangement of the supporting element for the body of the holder,

Fig. 6 is a fragmentary perspective view of the carriage which supports the body of the holder and particularly illustrating the hooks formed on the said carriage which pivotally receive the body of the holder,

Fig. 7 is a fragmentary perspective view of the lower end of the body of the holder and particularly showing the pivot pin carried thereby for engagement within the hooks of the carriage,

Fig. 8 is a perspective view of one of the attaching clamps employed for connecting the bracket arms of the holder to the typewriter, and

Fig. 9 is a perspective view showing one of the toothed segments carried by the body of the holder and the operating lever or finger associated therewith.

Since the copy holder of the present invention is designed for attachment to a typewriter I have, in order that the mounting and operation of the device may be fully understood, illustrated in the drawings a conventional type of typewriter indicated at A and in this connection, it may be stated that my improved copy holder is designed for use in connection with any conventional type of typewriting machine.

In carrying out the invention, I employ attaching clamps 10 one of which is illustrated in detail in Fig. 8 of the drawing. These clamps are formed to embrace the rear uprights of the frame of the typewriter A at their upper extremities and are provided with set screws 11 adjustable to engage the

said uprights with the said set screws extending forwardly of the typewriter frame beneath the typewriter carriage which has for convenience, been designated B. Extending laterally from the clamps 10 are spaced ears 12 and pivoted at their inner extremities between the said ears, are bracket arms 13 detachably connected to the ears by pivot pins 14. The arms 13, at their outer extremities, are curved upwardly and are terminally enlarged to pivotally receive carriage supporting arms 15. The arms 15 are longitudinally bowed to extend inwardly toward the carriage B of the typewriter and terminate at their inner extremities in a plane above the carriage. At their outer extremities, the arms 15 are terminally enlarged to rest against the terminal enlargements at the outer ends of the arms 13 and are detachably connected thereto by pivot pins 16.

Extending between the inner extremities of the arms 14 in a plane above the carriage B of the typewriter, is a carriage 17. This carriage may be formed from a strip of sheet metal or other similar material and adjacent its extremities, is provided with offset portions 18 with the terminals 19 of the carriage seating against the upper faces of the arms 15 at their free extremities. Pivotally connecting the carriage 17 to the arms 15 are upstanding stub shafts 20 which extend freely through the terminals 19 of the carriage 17 and are fixed in the inner extremities of the said arms. The stub shafts 20 are provided with collars 21 which engage the terminals 19 of the carriage, said shafts being preferably screw threaded, as more particularly shown in Fig. 3 to engage the arms 15 and being thus detachably connected thereto. At their upper extremities, the shafts 20 are provided with beveled gears 22 keyed to the said shafts or secured thereto in any other suitable manner. It will be noted that the offset portions 18 of the carriage are arranged to extend upwardly from the arms 15 and mounted upon the said offset portions and extending freely therethrough are rock shafts 23 to the outer extremities of which are fixed toothed segments 24 meshing with the beveled gears 22. Fixed to the inner extremities of the said rock shafts and preferably detachably connected thereto, are operating levers or fingers 25 shown in detail in Fig. 9 of the drawings. The fingers 25 are each notched upon one side thereof to fit within suitable notches 26 formed in the carriage 17 adjacent the offset portions 18 thereof and, at their free extremities are provided with longitudinally extending slots 27 having contracted throats.

At a point midway its ends, the carriage 17 is formed with a depending substantially U-shaped portion 28 upon the sides 29 of which are formed spaced laterally projecting and upwardly presented hooks 30 extending forwardly from the carriage. Swingingly mounted upon the U-shaped portion 28 of the carriage 17 is a supporting arm or bracket 31. This bracket, adjacent its lower extremity, is provided with a forked terminal 32, the arms of which, at their outer extremities fit freely between the sides 29 of the U-shaped portion 28 of the carriage and are swingingly connected to the carriage by a pivot rod 33 extending between the said sides with the arms of the said fork curving longitudinally and rearwardly from the carriage. Arranged to support the bracket 31 in a relatively upright position with respect to the carriage, is a stop member or loop 34. This loop may be formed from a length of wire or other suitable material and is terminally connected to the carriage 17 upon opposite sides of the U-shaped portion 28 thereof with the loop extending rearwardly from the said U-shaped portion and adapted to receive the arms of the fork 32 to engage therewith in the manner best illustrated in Figs. 1 and 5 of the drawings.

Adjacent its upper extremity, the bracket 31 is bifurcated to form laterally and oppositely projecting arms 35 which are longitudinally bowed to extend rearwardly of the carriage 17 and the free terminals of which are presented toward each other to receive the body portion 36 of the copy holder. The body portion 36 of the copy holder will, for convenience, be termed a rack body and includes a suitable frame which may be formed of metal or other suitable material and to which is connected a reticulate body portion 37. At its lower extremity, the frame of the rack body is provided with a channel member 38 adapted to engage the lower end of a copy book with the book resting against the reticulate body portion 37 of the rack body. Pivotally connecting the rack body to its supporting bracket 31, are loops 39 which are swingingly connected to the inwardly presented terminals of the arms 35 of the said bracket and engage loosely within clips 40 secured to the rear side of the frame of the rack body at its upper extremity. Connected to the frame of the rack body, at its lower extremity and upon the rear side thereof, are spaced lugs 41 which project laterally and rearwardly from the rack body and carry a pivot rod 42. This pivot rod is adapted to be detachably received within the hooks 30 of the carriage 17 in the manner best shown in Fig. 5 of the drawings to coöperate with the bracket 31 in supporting the rack body in normal operative position upon the carriage with the said rack body inclined rearwardly relative to the carriage, as illustrated.

Attention is now directed to the fact that the bracket 31 is longitudinally curved adjacent the inner extremities of the arms 35

thereof to extend inwardly toward the rack body and is thus formed with a shoulder 43 against which the rear side of the rack body is adapted to abut for supporting the rack body in normal operative position, as particularly shown in Fig. 5. As illustrated in this figure, a copy book conventionally shown at 44, may be placed against the rack body with the lower end of the book engaged within the channel member 38. As the leaves of the book are turned, they are preferably carried over the upper end of the rack body and inserted between the arm 35 of the bracket 31 to confront the rear side of the rack body. The leaves so turned will consequently be disposed between the shoulder 43 of the said bracket and the rack body and the bracket 31 will thus coöperate with the rack body to provide a clamp or holding member for the leaves of the book so turned, it being observed that the rack body when in normal operative position, will gravitate at its upper extremity toward the bracket 31 to effectually hold the leaves of the book between the rack body and the said bracket.

It will therefore be readily seen that I provide a very convenient and efficient arrangement whereby the copy book will not only be held in proper position upon the rack body but also wherein the used leaves of the book, as they are turned will be held in a position out of the way.

Connected to the frame of the rack body, at its ends, and adjacent the lower extremity of the said body, are laterally projecting brackets or arms 44′, the outer terminals of which are bent laterally and rearwardly and pivotally support catch members 45 adapted to extend in the rear of the rack body to confront the inner sides of the operating levers or fingers 25. Fixed to the outer extremities of the said catch members, are laterally projecting pins 46 adapted to be removably received within the slots 27 of the said levers in the manner illustrated in Fig. 1 of the drawings with the catch members disposed in substantially horizontal position. The purpose in providing the slots 27 with contracted throats as previously set forth, will now be apparent since it will be seen that under ordinary circumstances, the said throats will act to maintain the pins 46 of the catch members engaged within the said slots.

From the preceding description, it will be seen that my improved copy holder may be attached to substantially any conventional type of typewriter in the manner illustrated in Fig. 1 of the drawings with the rack body supported above the carriage of the typewriter to receive a copy book. The space between the arms 13 and 15 of the copy holder is such that the carriage of the typewriter will move freely therebetween and accordingly, the arms 13 may be moved about their pivot pins 14 and the arms 15 simultaneously and correspondingly moved about their pivot pins 16 to position the rack body 36 of the copy holder either toward or away from the operator of the typewriter to bring the copy book within easy vision. I further provide an arrangement whereby the rack body 36 may be used as a support in taking notes. To accomplish this end, the pivot rod 42 of the rack body is disconnected from the hooks 30 of the carriage 17. The forward extremities of the catch members 45 are then depressed to disengage the pins 46 of the said catch members from within the slots 27 of the operating levers 25. The lower extremity of the rack body may then be moved forwardly over the carriage when the bracket 31 will swing upon its pivot rod 33 so that the rack body may be positioned to overlie the key-board of the typewriter in the manner shown in Fig. 4 of the drawings with the lower extremity of the rack body resting against the key-board and with its upper extremity resting against the typewriter frame. When so arranged, it will be seen that an operator may readily place a note-book against the rack body to be held in convenient position thereby so that notes may be taken without difficulty.

As will be well understood, my improved copy holder will normally be arranged upon the typewriter as shown in Fig. 1 of the drawings with the rack body supported in position to receive a copy book. In order that the typewriter may be covered or disposed within a desk in the well known manner without the necessity of removing the copy holder, I provide an arrangement wherein the copy holder may be folded to inoperative position upon the typewriter. The carriage 17 of the device is first shifted to a position adjacent the rear of the typewriter with the arms 15 disposed over the arms 13 as particularly shown in Fig. 1. The rack body 36 is then swung upon the hooks 30 by its pivot rod 42 when the loops 39 will swing about the arm 35 of the bracket and within the clips 40 to permit bracket 31 to swing about its pivot rod 33 so that the rack body may be moved to a position resting upon the carriage B of the typewriter as illustrated in Fig. 2 of the drawings. When the rack body 36 is thus swung about its axis, the catch members 45 will engage the levers 25 to move the said levers forwardly in an arc, the pins 46 of the said catch members moving within the slots 27 of the said levers and the catch members rocking upon their pivots as the rack body is shifted. Such movement of the levers 25 will, as will be readily seen, be communicated through the rock shafts 23 to the toothed segments 24 which will then engage the beveled gears 22 to turn the stub

shafts 20. The stub shafts 20 being fixed to the inner extremities of the arms 15, rotation of the said shafts by the forward movement of the levers 25 will swing the arms 13 and 15 simultaneously about the pivot points 14 to dispose the arms to folded position in the rear of the typewriter as shown in Fig. 3 of the drawings. Consequently, when the rack body is swung to inoperative position to lie against the carriage of the typewriter, the arms 13 and 15 of the holder will be automatically swung to inoperative position in the rear of the typewriter so that the typewriter may be covered or disposed within a desk without the necessity of removing the copy holder. When the rack body 36 is again swung from inoperative position to operative position, as shown in Fig. 1, the stub shafts 20 will, as will be readily understood, be rotated in an opposite direction from that previously described to again simultaneously swing the arms 13 and 15 about the pivot points 14 to operative position. It will therefore be seen that I provide a very convenient and efficient construction for the purpose set forth.

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

1. A device of the character described including a rack body, arms operatively supporting the said body for pivotal movement and adapted for swinging connection to a supporting structure, and an operative connection between the rack body and said arms for swinging the said arms about the axes thereof in a plane substantially at right angles to the plane of movement of the rack body upon the pivotal movement of the said rack body.

2. A device of the character described including a rack body, arms operatively supporting the said body for pivotal movement and adapted for swinging connection to a supporting structure, and pivoted means carried by the rack body and operatively engaging said arms for swinging the arms about their axes to folded position upon the pivotal movement of the said rack body to inactive position.

3. A device of the character described including a carriage, supporting arms pivotally connected to the carriage, means swingingly supporting said arms and a rack body mounted upon the carriage and having operative connection with said arms with the rack body movable upon the carriage to swing the said arms about their axes in a plane at right angles to the plane of movement of the rack body.

4. A device of the character described including a carriage, supporting arms therefor adapted for swinging connection to a supporting structure, stub shafts pivotally connecting said arms with the carriage, a rack body pivotally mounted upon the carriage, and means carried by the rack body and operatively engaging said shafts for swinging the said arms about their axes upon the pivotal movement of the rack body.

5. A device of the character described including a carriage, supporting arms therefor adapted for swinging connection to a supporting structure, stub shafts pivotally connecting the carriage with said arms, rock shafts mounted upon the carriage and operatively engaging said stub shafts, operating levers carried by said rock shafts, a rack body pivotally mounted upon the carriage, and means carried by the rack body and engaging said operating levers for swinging the said arms about their axes upon the pivotal movement of the rack body.

6. A device of the character described including a carriage, supporting arms therefor, a bracket swingingly mounted upon the carriage, and a rack body having pivotal connection with the carriage and with the bracket to be supported in active position by the said bracket with the bracket abutting the rear side of the rack body to provide a clamp adapted to hold the pages of a copy book disposed upon the rack body.

7. A device of the character described including a carriage formed intermediate its ends with a laterally extending hook, supporting arms for the carriage, a bracket swingingly connected to the carriage, and a rack body swingingly connected to said bracket and pivotally supported by the said hook for rotation about the hook.

8. A device of the character described including a carriage, supporting arms therefor, a bracket swingingly connected to the carriage, a rack body carried by the bracket and pivotally connected with the carriage, and a loop carried by the carriage to form a stop member embracing the lower extremity of the bracket for limiting the bracket in its movement upon the carriage to support the rack body in active position.

9. The combination with a typewriting machine, of a copy holder therefor, the said copy holder including a carriage, arms swingingly mounted upon the typewriter and pivotally connected to the carriage to support the carriage above the typewriter, a rack body associated with the carriage and movable to inoperative position thereon to rest upon the typewriter, and means carried by the rack body and operatively engaging said arms for swinging the said arms about their axes to a position in the rear of the typewriter upon the movement of the rack body to inoperative position.

10. A device of the character described including a carriage, supporting arms therefor adapted for swinging connection to a supporting structure with the said arms piv-

otally connected to the carriage, levers having operative connection with said arms, a rack body pivotally mounted upon the carriage, and catch members pivotally connected to the rack body and freely engaging said levers for shifting the said levers upon the pivotal movement of the rack body to swing the said arms about their axes.

11. A device of the character described including a rack body, arms operatively supporting the said body for pivotal movement, clamps adapted for attachment to a supporting structure and swingingly supporting the said arms, and an operative connection between the rack body and the arms for swinging the said arms about their axes upon the pivotal movement of the rack body.

12. A device of the character described including a carriage, supporting arms therefor, a bracket pivotally connected to the carriage, a rack body, links loosely connecting the rack body to the bracket, and a pivot rod carried by the lower extremity of the rack body and engaged with the carriage for swingingly supporting the rack body upon the carriage with the said bracket normally acting to support the rack body in active position and movable to overlie the rack body in the inactive position thereof.

13. A device of the character described including a carriage, supporting arms therefor, spaced hooks projecting forwardly from the carriage, a rack body having a pivot rod received by said hooks for supporting the rack body to swing about the said hooks to inactive position, and a bracket pivoted upon the carriage in the rear of said hooks and arranged to normally support the rack body in active position.

14. A device of the character described including a carriage, supporting arms therefor adapted for swinging connection to a supporting structure, stub shafts pivotally connecting the carriage with said arms, beveled gears carried by the said shafts, rock shafts mounted upon the carriage and provided with operating levers, toothed segments carried by the rock shafts and meshing with said beveled gears, and a rack body pivotally mounted upon the carriage and having operative engagement with said levers for swinging the said arms about their axes upon the pivotal movement of the said rack body.

15. The combination with a typewriter, of a copy holder therefor, said holder including arms swingingly connected to the typewriter, a carriage mounted upon said arms, a rack body pivotally mounted upon said carriage, and an operative connection between the rack body and the said arms for swinging the arms toward the typewriter to folded position upon the pivotal movement of the rack body to inactive position upon the carriage.

In testimony whereof, I affix my signature.

CLARENCE H. CALDWELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."