

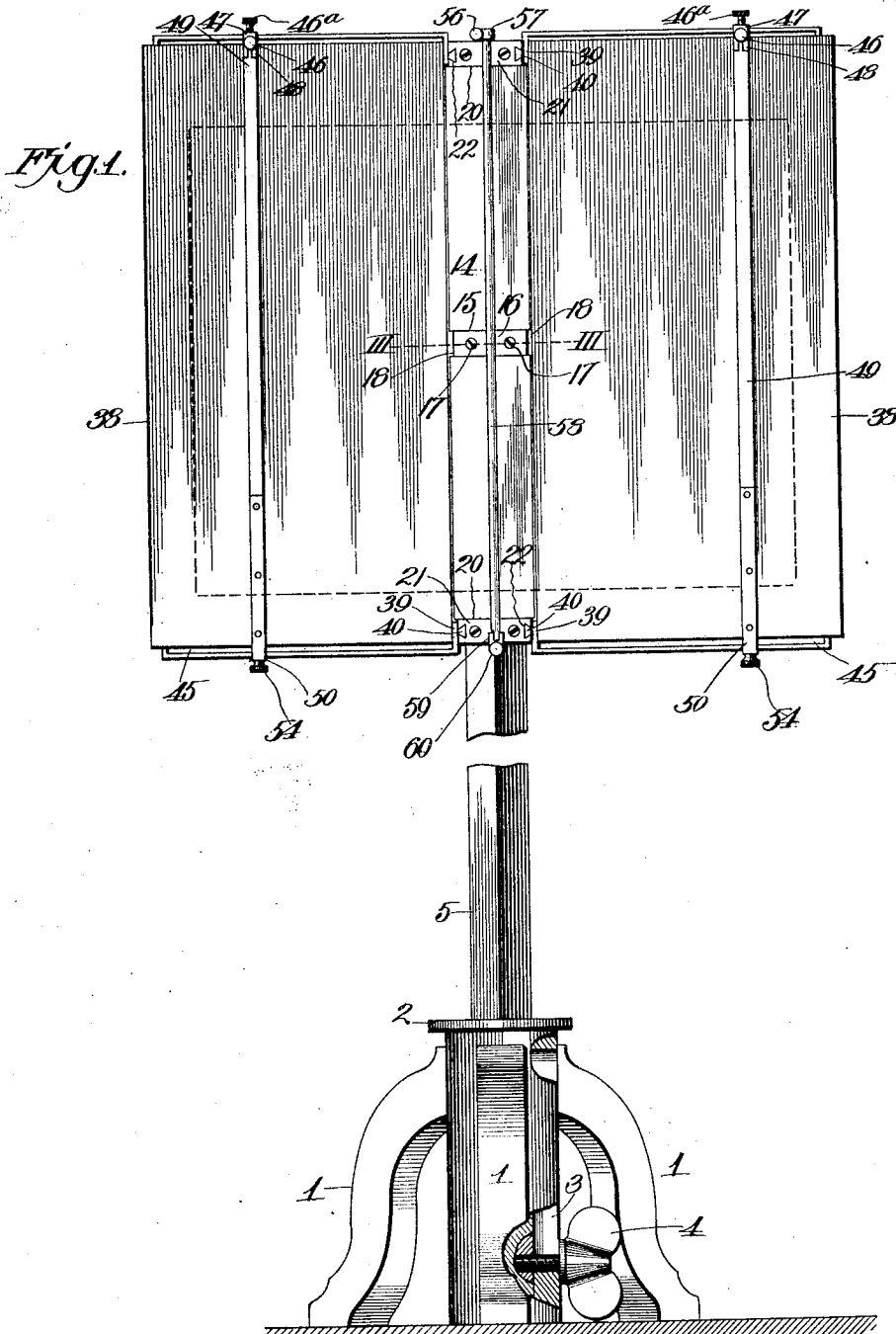
F. D. JONES.
COPY HOLDER.

APPLICATION FILED OCT. 6, 1908.

Patented Aug. 15, 1911.

3 SHEETS—SHEET 1.

1,000,605.



Witnesses
Frank R. Glon
H. C. Rodgers.

Inventor
F. D. Jones
By George F. Thorpe Atty.

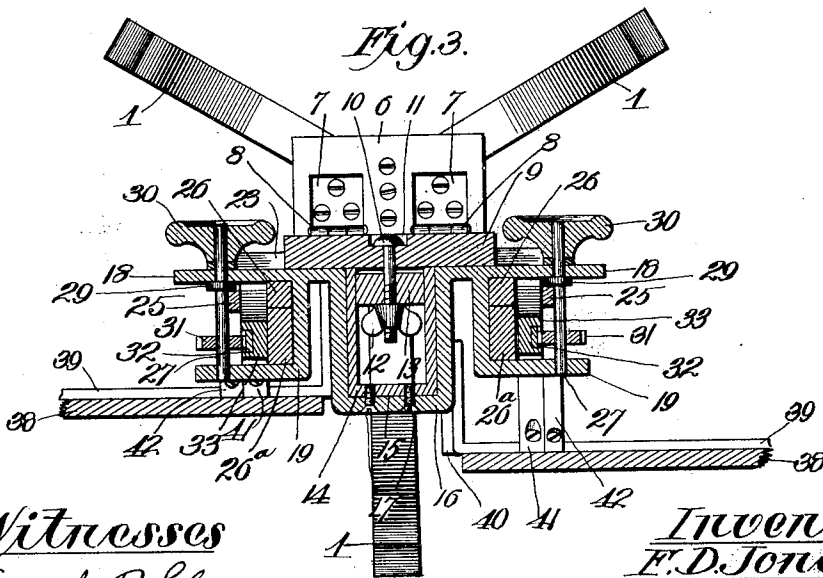
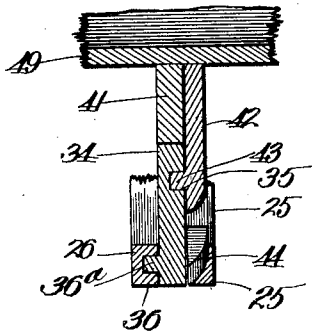
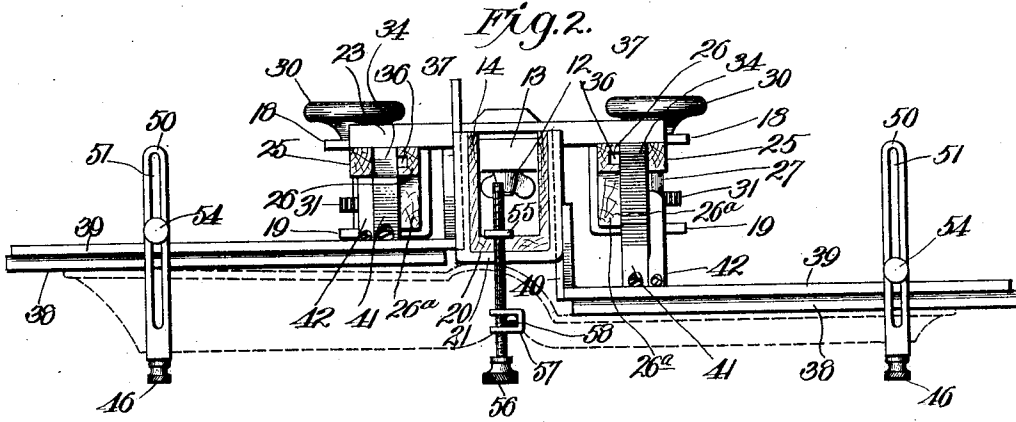
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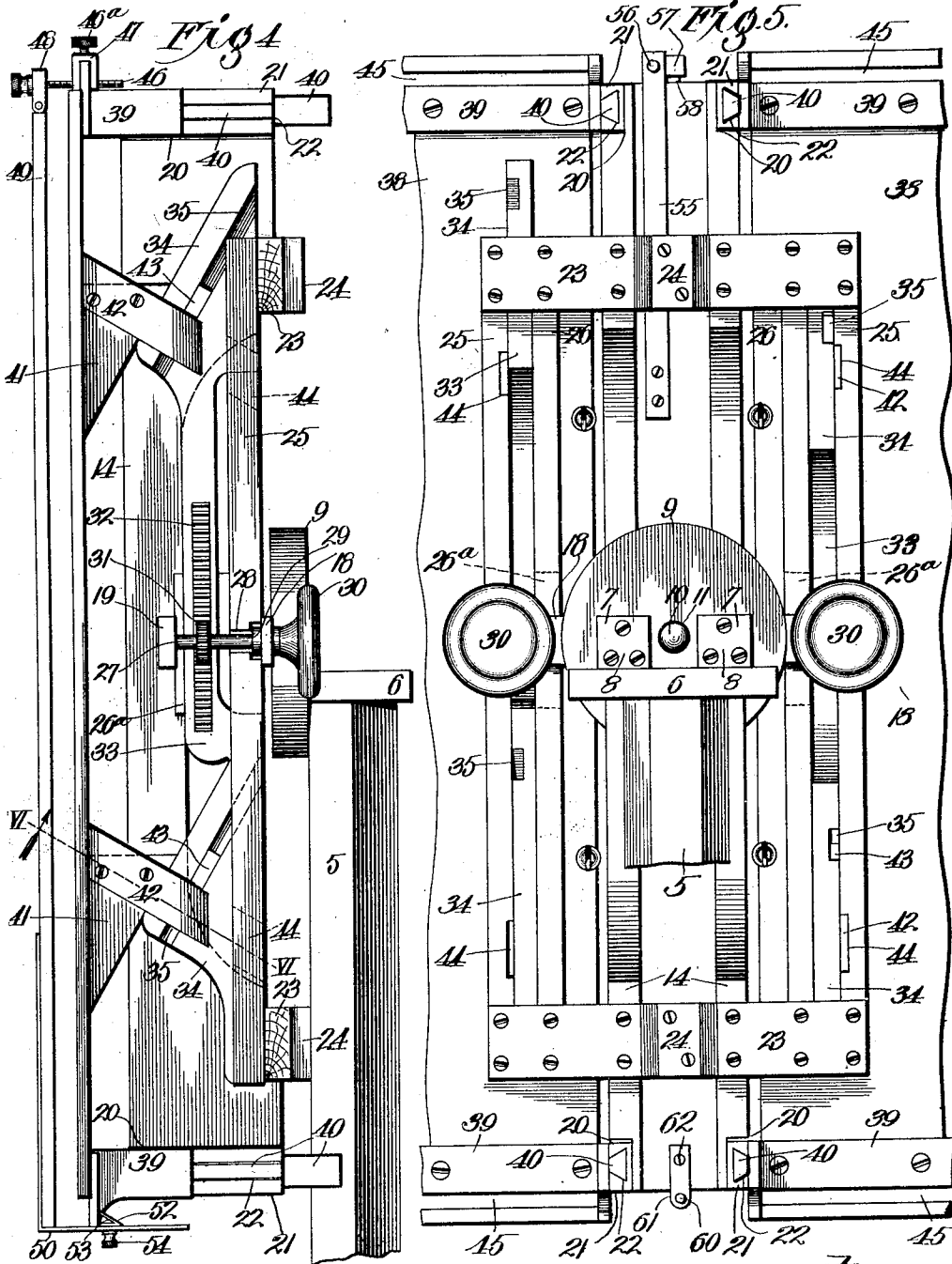
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3 SHEETS-SHEET 3.

1,000,605.



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UNITED STATES PATENT OFFICE.

FLOYD D. JONES, OF KANSAS CITY, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
COMMERCIAL CAMERA COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

COPY-HOLDER.

1,000,605.

Specification of Letters Patent.

Patented Aug. 15, 1911.

Application filed October 6, 1908. Serial No. 456,504.

To all whom it may concern:

Be it known that I, FLOYD D. JONES, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Copy-Holders, of which the following is a specification.

This invention relates to copyholders, and more especially to devices of this character for supporting large and heavy books containing records to be photographed, and my object is to produce a copyholder of this type in which the body and wings to which the book or other record is clamped, may be arranged horizontally to facilitate the securing of the book thereto or its removal therefrom and then be disposed vertically to enable the photographer to more readily focus the camera upon the book or record.

A still further object is to produce a copyholder embodying an adjustable body and wings of the character outlined which is vertically adjustable to bring the book or other record directly in line with the camera.

A still further object is to produce a copyholder embodying a body and wings capable of the two adjustments named and also of rotary adjustment so as to dispose either page of the book or any particular part of the record opposite the camera in order that the reproduction of such page or book may be of the greatest possible size.

A still further object is to produce a copyholder of the character outlined in which either of the wings may be arranged forward of the plane of the companion wing to dispose the opposite pages of the opened book, irrespective of where opened, in the same vertical plane and consequently at the same distance from the camera.

With these and other objects in view as hereinafter appear, the invention consists in certain novel and peculiar features of construction and organization as hereinafter described and claimed; and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a face view of a copyholder arranged in operative position, and partly broken away. Fig. 2 is an enlarged top view of the body of the copyholder, with one wing in a plane forward of that of the other. Fig. 3 is a horizontal section taken

on the line III—III of Fig. 1 and on a slightly larger scale than Fig. 2. Fig. 4 is an enlarged edge view of the upper part of the copyholder. Fig. 5 is a back view of the upper part of the copyholder on the same scale as Fig. 4. Fig. 6 is a section on the line VI—VI of Fig. 4.

In the said drawings, 1 indicates three or more supporting legs extending divergently downward from the upper end of a vertical tubular base 2, provided with a vertical slot 3 to accommodate vertical adjustment of a clamping screw 4 extending through said slot and carried by a standard 5 fitting slidably and nonrotatably in said tube.

6 is a horizontal head rigidly secured on the upper end of said standard as shown in Fig. 3 or in any other suitable manner, and provided in its upper side with recesses 7 to receive hinges 8 uniting said head 6 and a circular block 9, so that said block may stand in a vertical position and bear against the front side of head 6 and standard 5 or may rest flatly and horizontally upon the former, it being noted in this connection that one of the legs 1 projects from the front side of tube 2 and by preference will be of somewhat greater length than the companion legs in order to guard against any tendency of the copyholder to tip in a forward direction.

10 indicates a pivot bolt extending centrally through block 9 with its head occupying a recess 11 in said block so as to permit the same to be arranged flatly upon the head 6, and engaging the threaded end of the bolt is a clamping nut 12.

Swiveled on bolt 10 is a book-carrying frame, constructed as follows: 13 indicates a central cross piece pivoted on bolt 10 between block 9 and clamping nut 12 and rigidly connecting the arms of the U-shaped back frame or body 14, said back frame or body being provided externally midway its length, with a U-shaped groove 15 for the reception of a U-shaped bracket 16 secured rigidly to said back frame or body by screws 17 or equivalent fastening devices, said U-shaped bracket being provided at the ends of its arms with laterally projecting flanges 18, and angle arms 19 projecting from the sides of flanges 18 opposite to block 9. At each end the back frame or body 14 is externally recessed at 20 for the

reception of U-shaped brackets 21 provided with dove-tail grooves 22 in the outer sides of their arms and rigidly secured to frame 14 in the same manner that bracket 16 is secured or in any other suitable manner. The back or body frame 14 is also provided with a pair of cross bars 23 at equal distances from its center and inward of and near the U-shaped brackets 21 said cross bars being provided centrally with blocks 24 at their sides opposite from frame 14 and at their ends outward of the sides of said frame and at their sides opposite from blocks 24, with connecting bars 25 and 26 extending parallel with the sides of back frame 14, filling blocks 26^a secured to bars 26 filling the space between said bars and arms 19.

27 are rods journaled at their ends in flanges 18 and arms 19 thereof and by preference extending through opening 28 in bars 25 and provided on opposite sides of flanges 18 with collars 29 and hand-wheels or heads 30 respectively, the latter to be employed in turning the rods, which are equipped with gear pinions 31 meshing with rack-bars 32 extending parallel with back frame 14 and secured rigidly to a pair of slide bars 33 terminating at their ends in cam portions or wedges 34 provided in their outer sides with grooves 35 paralleling the oblique or pitched edges of said cams. The cam-equipped slide bars fit between bars 25 and 26 and are provided at their inner sides with longitudinal ribs 36^a engaging corresponding grooves 36 in the adjacent faces of bars 26 so as to compel the slide bars to move in a longitudinal direction only with respect to bars 25 and 26.

38 indicates a pair of wings at opposite sides of back frame 14, and 39 are angle brackets, corresponding arms of which are secured to said wings at their rear sides, the other arms of said angle brackets fitting flatly against the dove-tail arms of brackets 21 and provided with dove-tail ribs 40 engaging the dove-tail grooves of said brackets 21.

41 indicates a pair of wedge or cam blocks secured rigidly to and projecting from the rear side of each wing 38, with their pitched or oblique edges engaged by the corresponding edges of the wedge or cam ends of the slide bars, and 42 are arms rigid with said wings and the blocks 41 and arranged at the outer side of the latter and overlapping the corresponding sides of the wedge or cam ends of the slide-bars and provided with oblique or pitched guide ribs 43 engaging the grooves 35 of said slide-bars so as to hold the latter in operative relation at all times to the wedge or cam blocks of the wings, it being of course understood that the dove-tail connection between brackets 21 and 39 guards against any longitudinal movement of the wings while permitting the latter to move forward or rearward with re-

spect to back frame 14. To accommodate the rear or free ends of the arms 42 projecting from the wings when the latter are flush or approximately flush with the bridge portion of the U-shape back frame 14, the bars 25 are provided in their inner sides and near the cross bars 23 with recesses 44.

The angle brackets 39 project beyond the ends of the wings and are provided with slots 45 paralleling such ends and extending through one of the slotted brackets of each wing is a screw 46, each screw also extends through a U-shaped clip 47 fitting on such bracket and carrying a set-screw 46^a whereby it may be clamped at any desired point on the bracket. Swiveled on each of said screws 46 near its headed end and therefore forward of the adjacent wing 38, is a block 48 and pivoted to said block is a bar 49 of substantially the same length as the adjacent wing. Secured to the opposite end of bar 49 is a resilient angle bar 50, one arm extending rearwardly beyond the adjacent angle bracket 39 and provided with a longitudinal slot 51.

52 is a slidable clamp fitting against the bracket 39 and secured thereto by a screw 53 extending outwardly through slot 51 and engaged at its outer end by a nut 54 employed for clamping the slidable clamp at the desired point along the length of slot 51.

55 indicates a spring plate secured to the rear side of and projecting beyond one end of the bridge portion of back frame 14, and engaging the projecting end of said plate with a threaded relation is a clamping screw 56 projecting beyond the front side of said back frame 14. 57 is a U-shaped bracket through the arms of which said screw extends with a threaded relation, and projecting through said bracket is the adjacent end of a longitudinal clamp-bar 58 disposed forward of frame 14, and provided at its opposite end with a pivoted block 59 carrying a clamping screw 60, said screw standing in parallel relation to screw 56 and also extending with a threaded relation through one end of a spring plate 61 fitting against the rear face of the bridge portion of the U-frame 14 and secured rigidly thereto as at 62.

Assuming that it is desired to reproduce by photography or otherwise the printed matter of two pages of a book, the operator first adjusts standard 5 to the proper height and clamps it in such position by means of the screw 4. He then arranges the body portion 14 and the wings 38 horizontally, the block 9 in such arrangement resting squarely upon the head 6 of standard 5. The book, opened at the proper point, is then slipped under clamp rod 58 and the screws 56 and 60 are adjusted to cause said clamp rod to engage the face of the book at the junction of its leaves and clamp the same

firmly against the body 14, the spring 61 yielding sufficiently to avoid chance of injury to the book. If the book is opened near its center the wings 38 will be disposed 5 in the same horizontal plane, but if the book is opened at one side of the center so as to dispose more leaves at one side than at the other as shown by dotted lines in Fig. 2, the wing underlying that portion of the cover 10 adjacent to the fewest number of leaves, is adjusted upwardly until the printed pages exposed occupy substantially the same horizontal plane, it being understood that to adjust the said wings as explained the adjacent rod 27 is turned through the medium 15 of its head 30 so as to cause pinion 31 to engage and move the rack bar longitudinally in the desired direction, this movement of the rack bar being accompanied by the connected cam-equipped slide bar. The longitudinal movement of said slide bar through the engagement of its cam ends with cams 41, pushes the latter forwardly as will be readily understood. After the machine is adjusted as described the operator adjusts the clamp bars 49 and connections upon brackets 39 until said bars overlie the outer edges of the exposed leaves as shown in Figs. 1 and 2. The clamps 52 are then adjusted 30 against the backs of the adjacent brackets 39, and the screws 46 are operated to cooperate with the adjustment of said brackets in clamping bars 49 firmly against the book so that the latter shall be movable with respect to the wings 38. The operator then swings the book and the parts carrying the same from the horizontal position to the vertical position shown in the drawings so that the pages to be copied shall be opposite 40 and by preference at right angles to the camera, not shown, by which the page is to be reproduced. If it be desired to reproduce only one page of the book and have the reproduction as large as possible, the book is turned 45 to an angle of ninety degrees so that the clamp bars 49 shall extend horizontally instead of vertically as shown in Fig. 1, the body 14 of course, turning on the pivot bolt 10. If in such turning movement the center 50 of the page to be copied is thrown too high or too low for the camera, the standard 5 can be vertically adjusted downward or upward as desired.

From the above description it will be apparent that I have produced a copyholder embodying the features of advantage enumerated as desirable and which is susceptible of change without departing from the spirit and scope of the appended claims. 60 Having thus described the invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a copy-holder, the combination with a main support, of a body, a pair of wings 65 at opposite sides of the body independently

adjustable forward and rearward with respect to the face thereof, a pivotal support for the body and wings permitting them to be rotated together in their own planes and connections between the main support and the pivotal support permitting the latter to be moved bodily to carry the body and wings between upright and substantially horizontal positions while said parts are in fixed positions of adjustment relatively to each other. 75

2. In a copy-holder, a body, a pair of wings at opposite sides of the body and independently adjustable forward and rearward with respect to the face of the body, means 80 to clamp an open book against the body and means for clamping the leaves thereof against said wings.

3. In a copy-holder, a body, a pair of wings at opposite sides of the body and independently adjustable forward and rearward with respect to the face of the body, a rod for engagement with the open face of a book arranged against said body and wings at the junction of the leaves of such book, means to move said rod toward the body to clamp the back of the book against the latter, rods fitting against the open face of the book near the free edges of its leaves, and independent means for adjusting said last-named rods toward the wings to clamp the interposed portions of the book against the wings. 85

4. In a copyholder, a body, a pair of wings at opposite sides of the body and capable of independent movement back and forth with respect thereto, cam blocks secured to the wings, and bars slidable longitudinally of the body and provided with cam ends engaging said blocks and adapted 100 when slid in one direction to force the cam blocks and the wings forwardly from the body. 105

5. In a copyholder, a body, a pair of wings at opposite sides of the body and capable of independent movement back and forth with respect thereto, cam blocks secured to the wings, and bars slidable longitudinally of the body and provided with cam ends engaging said blocks, and cam 110 grooves paralleling the cam faces of its ends, and guide ribs rigid with said wings and engaging said grooves. 115

6. In a copy-holder, a body, a pair of wings at opposite sides of the body and capable of independent movement back and forth with respect thereto, cam blocks secured to the wings, and bars slidable longitudinally of the body and provided with cam ends engaging said blocks, and cam grooves paralleling the cam faces of its ends, bars projecting rearward from and rigid with said cam blocks, and guide ribs rigid with said bars and engaging said cam grooves. 120 125

7. In a copy-holder, a body, a pair of 130

wings at opposite sides of the body and provided at their rear sides with cam blocks and slidably connected to the body so as to move back and forth with respect thereto, a pair of bars at each side of and parallel with said body and rearward of said wings, a slide bar fitting between each of said pairs of bars and bearing a tongue-and-groove relation thereto and provided with cam ends engaging the cam blocks and with cam grooves paralleling said cam ends, bars rigid with and projecting rearwardly from the cam blocks and fitting against the outer sides of said slide bar, and ribs rigid with said bars and engaging said cam grooves.

8. In a copy-holder, a body, a pair of wings at opposite sides of the body and provided at their rear sides with cam blocks and slidably connected to the body so as to move back and forth with respect thereto, a pair of bars at each side of and parallel with said body and rearward of said wings, a slide bar fitting between each of said pairs of bars and bearing a tongue-and-groove relation thereto and provided with cam ends engaging the cam blocks and with cam grooves paralleling said cam ends, bars rigid with and projecting rearwardly from the cam blocks and fitting against the outer sides of said slide bar, ribs rigid with said bars and engaging said cam grooves, and a rack-and-pinion mechanism for sliding each of said slide bars endwise in one direction or the other.

9. In a copy-holder, a body, a pair of wings at opposite sides of the body and provided at their rear sides with cam blocks and slidably connected to the body so as to move back and forth with respect thereto, a pair of bars at each side of and parallel with said body and rearward of said wings, a slide bar fitting between each of said pairs of bars and bearing a tongue-and-groove relation thereto and provided with cam ends engaging the cam blocks and with cam grooves paralleling said cam ends, bars rigid with and projecting rearwardly from the cam blocks and fitting against the outer sides of said slide bar, ribs rigid with said bars and engaging said cam grooves, a rack-and-pinion mechanism for sliding each of said slide bars endwise in one direction or the other, and a circular head or handle rotatable with each pinion.

10. In a copy-holder, a body, a pair of wings at opposite sides of the body and provided at their rear sides with cam blocks and slidably connected to the body so as to move back and forth with respect thereto, a pair of bars at each side of and parallel with said body and rearward of said wings, a slide bar fitting between each of said pairs of bars and bearing a tongue-and-groove relation thereto and provided with cam ends engaging the cam blocks and with cam grooves

paralleling said cam ends, bars rigid with and projecting rearwardly from the cam blocks and fitting against the outer sides of said slide bar, ribs rigid with said bars and engaging said cam grooves, a rack-and-pinion mechanism for sliding each of said slide bars endwise in one direction or the other, a circular head or handle rotatable with each pinion, a suitable supporting standard, and a block rigid with the body and hingedly connected to the top of said standard so as to be capable of resting horizontally thereon or standing edgewise and bearing against the standard below the hinge point.

11. In a copy-holder, a U-shaped body, U-shaped brackets secured to the ends of the body and provided with parallel grooves, a pair of wings at opposite sides of the body, angle bars secured to the wings and provided with ribs slidably engaging said grooves, and means for independently moving said wings forward or rearward with respect to the body.

12. In a copy-holder, a U-shaped body, U-shaped brackets secured to the ends of the body and provided with parallel grooves, a pair of wings at opposite sides of the body, angle bars secured to the wings and provided with ribs slidably engaging said grooves, one of the angle bars of each wing having a slot paralleling the adjacent end of such wing, adjustable clamps mounted on the slotted angle bars, screws carried by said clamps and extending through said slots, a pair of bars forward of the wings, blocks mounted on said screws and pivotally connected to the adjacent ends of said last-named bars, angle brackets secured to the opposite ends of said last-named bars and projecting rearwardly beyond the adjacent ends of the wings and the angle brackets secured thereto and provided with slots, brackets carried by said angle brackets and adjustable in the slots thereof and bearing against the rear sides of the adjacent arms of angle bars, and means to clamp said adjustable brackets at the desired point of adjustment.

13. In a copy-holder, a body, a pair of wings at opposite sides of the body and independently adjustable forward and rearward with respect to the latter, a plate secured to and projecting beyond one end of the body, a set screw engaging said plate and projecting forwardly beyond the body, a block carried by said set screw, a rod extending longitudinally forward of the body and pivoted at one end to said block, a U-shaped clip receiving the other end of said rod, a set screw extending through said clip, and a spring bar secured to the back of the body and projecting beyond the adjacent end of the same and receiving the last-named set screw.

14. In a copy-holder, the combination with

a support, of a body, a pair of wings at opposite sides of the body and independently adjustable forward and rearward with respect to the latter, a block hinged to the support, and a pivot bolt carried by said block and forming a journal for the body to permit the same to be rotated on the block.

15. In a copy-holder, a body, a pair of wings at opposite sides of the body and independently adjustable forward and rearward with respect to the latter, a block, a pivot bolt carried by said block and forming a journal for the body to permit the same to be rotated, and a nut engaging said pivot bolt to clamp the body in rigid relation with said block.

16. In a copy-holder, a suitable base, a standard rising therefrom, a cap for the standard and a block hinged to the cap, in combination with a body bearing a journaled relation to said block, and wings adjustable back and forth with respect to the face of the body.

17. In a copy-holder, the combination with a support, of a pair of leaf supporting wings for the oppositely turned pages of an open book mounted on the support to swing from a substantially horizontal book inserting position to an upright copying position and means for adjusting one of said wings to a position forwardly or rearwardly of the other, and means permitting the wings to be rotated in their own planes while in either position.

18. In a copy-holder, the combination with a main support, of an intermediate support hinged thereto, a pair of leaf supporting wings for the oppositely turned pages of an open book carried by the intermediate support to swing therewith from a substantially horizontal book inserting position to an upright copying position and means for rotating the wings on the same center, relatively to the intermediate support.

19. In a copy-holder, the combination with a supporting structure and a pair of leaf supporting wings for the oppositely turned pages of an open book mounted thereon, of cooperating elements on one of said wings and the supporting structure respectively, having contacting faces inclined to the supporting face of said wing and means

for moving one of said elements parallel with the face of the wing and against the other to throw the wing to a position forwardly or rearwardly of the other wing.

20. In a copy-holder, the combination with a supporting structure including a back having guides thereon, of a pair of leaf supporting wings for the oppositely turned pages of an open book mounted thereon, one of said wings being movable in the guides to different positions forwardly or rearwardly of the other, cooperating elements on one of said wings and the supporting structure respectively, having inclined contacting faces and means for moving one of said elements against the other to cause it to ride thereon and advance the wing in its guides.

21. In a copy-holder, the combination with a supporting structure including a back having guides thereon, of a pair of leaf supporting wings for the oppositely turned pages of an open book mounted thereon, one of said wings being movable in the guides to different positions forwardly or rearwardly of the other, cooperating elements on one of said wings and the supporting structure respectively, having inclined contacting faces, one of said elements embodying a longitudinally movable bar, and a rack and pinion for operating the bar against its cooperating element to cause it to ride thereon and advance the wing in its guides.

22. In a copy-holder, the combination with a supporting structure comprising a back having two sets of guides thereon, of a pair of leaf supporting wings for the oppositely turned pages of an open book mounted thereon, one of said wings being provided with a part having an inclined face, and movable in one set of guides to different positions forwardly or rearwardly of the other wing, a cam bar mounted in the other set of guides having a face cooperating with the incline of the wing and means for moving the bar longitudinally in its guide.

In testimony whereof I affix my signature, in the presence of two witnesses.

FLOYD D. JONES.

Witnesses:

H. C. RODGERS,
G. Y. THORPE.