May 20, 1952 C. S. TRACY 2,597,206

UTILITY BOOKHOLDER

Filed June 22, 1949

FIG. 1

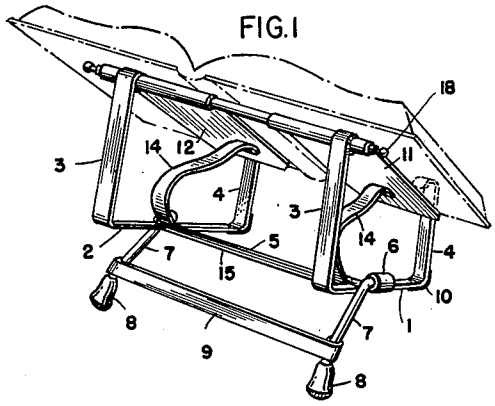


FIG. 2

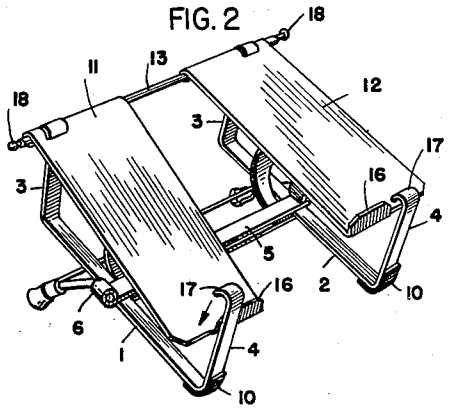


FIG. 3

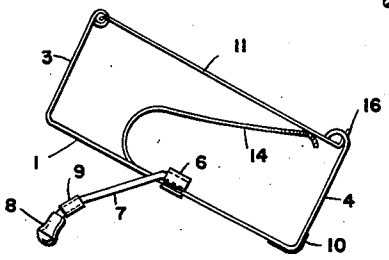


FIG. 4

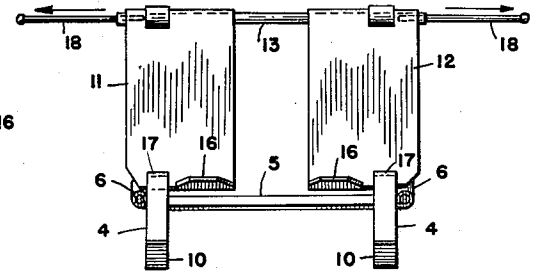


FIG. 5

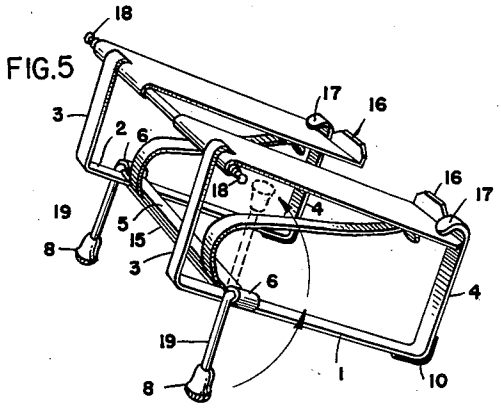


FIG. 6

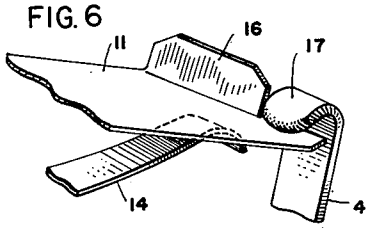
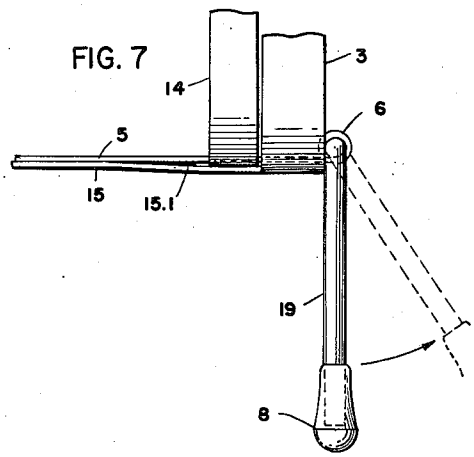


FIG. 7



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Patented May 20, 1952 2,597,206

UNITED STATES PATENT OFFICE

2,597,206

UTILITY BOOKHOLDER

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Application June 22, 1949, Serial No. 100,617

8 Claims. (Cl. 45—86)

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This invention relates to book holders and particularly to such devices for table use adapted to hold an opened book in an upwardly inclined position and maintain the opened pages thereof flat regardless of the relative thickness of the two sides of the book.

The main objects of this invention are to provide a simple differentially acting, book holder construction that can be manufactured at a relatively low cost; to provide a simple inexpensive book holder that will support a book in inclined position while holding the opened pages thereof flat, and which will at the same time permit the book pages to be easily turned and re-engaged; to provide such a device that is self-adjustable to accommodate the varying thickness of the two halves of an opened book; to provide such a device having an improved arrangement of individually yieldable platforms for supporting the halves of an opened book and differentially urging the book pages into marginal engagement with fixed page holding members; and to provide such a device wherewith the operator may easily release a page, turn it, and then re-engage the page with the use of but one hand.

A specific embodiment of this invention is shown in the accompanying drawings in which:

Figure 1 is a perspective view from the rear of the improved book holder showing its construction and the manner of its operation, a book held by the device being shown in dotted outline.

Fig. 2 is a front corner perspective view of the improved book holder, one of the book supporting platforms being shown in partially depressed position.

Fig. 3 is a side view of the device.

Fig. 4 is a front view of the same showing an arrangement of lateral extension arms for supporting extra large books and magazines.

Fig. 5 is a rear quarter perspective view of the book holder showing a construction having foldable legs.

Fig. 6 is an enlarged fragmentary perspective view showing the cooperative relation of one of the yieldable book supporting platforms and the page engaging means at the forward end of the device, and

Fig. 7 is an enlarged fragmentary rear view showing foldable leg arrangement for the device and illustrating the manner in which the yieldable platform springs are mounted and secured.

In the forms shown in the drawings, the improved book holder construction comprises a pair of rectangular, substantially U-shaped, frame

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members 1 and 2, each of which has a pair of upstanding arms or support means 3 and 4 of substantially equal length, the frame members 1 and 2 being disposed in laterally spaced parallel relation and connected together by means of a crossbar or connecting means 5 which extends transversely between the bottom or closed portions of the frame members and is suitably secured thereto, as by spot welding, to form a unitary structure or assembly.

As shown in Figs. 1 to 4 inclusive, the crossbar 5, which connects the frame members 1 and 2, is disposed substantially midway between the respective arms 3 and 4, and the ends of the crossbar 5 project somewhat beyond the frame members 1 and 2 where each of the said ends is turned upwardly to form a closed loop 6, and thereby provide a socket in which the end of a leg 7 may be secured. Each leg 7 has an upper end portion adapted to be secured in the loop portions 6, of the crossbar 5, and each leg is formed to project downwardly from the crossbar at an angle of about 45 degrees with respect to the bottom portions of the frames 1 and 2. The downwardly projecting ends of the legs 7 are each provided with a suitable tip 8 of rubber or other relatively soft material and the legs are so arranged that when the device is set on a flat surface, such as a table top, the frame members, which form the base of the device, will be supported in a forwardly tilted position on their forward bottom corners.

In the form shown in Figs. 1 to 4 inclusive, the legs 7 are fixed in the respective sockets 6 and are rigidly connected together by a crossbar 9, which extends between the legs and is suitably secured thereto, and the forward corner of each of the base frame members 1 and 2 is provided with pad 10 on its outer surface. These pads are of rubber or any other suitable material which will not scratch or mar the surface on which the device is rested.

As shown, a pair of laterally spaced platforms 11 and 12 are hingedly mounted on the upper ends of the rearward arms 3 by means of a common, horizontal, transversely extending hinge pin 13, suitably secured to the arms 3, and the platforms 11 and 12 extend forwardly from the hinge pin 13, substantially to the forward arms 4. A cantilevered leaf spring 14 is mounted on the crossbar 5 directly below each of the platforms 11 and 12, and each spring is formed and arranged to engage the lower surface of the respective platforms and normally urge it upwardly independently of the other platform.

Each of the leaf springs 14 is secured by one end to the crossbar 5, on the inner side of the frame members 1 and 2, by means of a clamp bar 15 which is spot welded to the crossbar 5 on the inner side of the respective spring member, as shown at 15.1 in Fig. 7; and the spring members 14 are in the form of an open or U-shaped loop curving rearwardly and upwardly from the crossbar 5 and then forwardly so that the free ends of the springs will engage the respective platforms 11 and 12 at their forward portions. The reason for mounting the springs 14 on the crossbar 5 in this manner is to avoid destroying the temper of the springs by the spot welding operation. It is to be understood however, that any other suitable means for mounting the springs may be employed.

Each of the platforms 11 and 12 is provided with an upturned edge or lip 16 at its forward end, and adjacent its inner edge, to provide rest means for supporting the bottom edges of an opened book positioned on the platforms 11 and 12, and each of the forward arms 4 of the device is provided with an inwardly turned upper end portion 17 which extends rearwardly to overhang the forward ends of the platforms 11 and 12. These inwardly turned ends 17 provide page engaging fingers or stop means adapted to bear downwardly on the lower margins of the pages of an opened book, resting on the platforms 11 and 12, and hold the pages flat. Also these fingers serve to limit the upward movement of the platforms under the influence of the springs 14.

As shown in Fig. 6 the fingers 17 on the upper ends of the arms 4, are turned downwardly and their ends are rounded in order to provide a smooth surface for engaging the book pages which surface will be devoid of any sharp corners that might tear the pages.

Also, the hinge pin 13 is preferably a tubular member having open ends in which extension rods 18 may be slidably inserted. The extension rods 18 are arranged to telescope into the tubular hinge pin and to be slidably extended therefrom to provide laterally projecting arms, when necessary, to support a book of large size or a magazine, and hold the pages thereof in a generally common plane.

In the arrangement of the device shown in Figs. 5 and 7, the legs 19, by which the device is supported in forwardly tilted position on the flat surface upon which it rests, are arranged to be folded upwardly, so that when the device is not in use it may be set flatly on the bottom portion of the frame members 1 and 2 and occupy a minimum of space. This foldable arrangement of the legs is had by mounting the upper ends of the legs 19 in the loops 6 with a tight frictional fit so that while the legs will be held in the loops 6 with sufficient friction to maintain the position to which they are set, they may still be forcibly turned through 180 degrees to either extend the legs or fold them up as the case may be. As shown in Fig. 5, the foldable legs 19 are arranged to project downwardly from the bottom portion of the frame members 1 and 2 at right angles, and in this case the crossbar 5, which connects the frame members 1 and 2, is moved rearwardly to a point adjacent the rearward arms 3 of the frame members, thereby supporting the book holding device at its rearward portion in such a manner as to obviate any possibility of the device tipping backwardly. Also, with this arrangement of the legs the angle of tilt of the book holder can be adjusted by merely swinging the legs, about their pivot axes, toward a horizontal position thus varying the height that the rear end of the device will be held above the table surface. The legs 19, of course, are provided with suitable tips or feet 8, as in the case of the device shown in Figs. 1 to 4, which will prevent their slipping or scratching the surface on which they bear.

In the operation of the improved book holder, the opened book is set on the platforms 11 and 12 with each half of the book supported by a respective platform and with the bottom edges of the book halves engaging the respective upwardly turned portions 16. The platforms 11 and 12 are pressed downwardly, against the action of the springs 14, when the book is placed so that the lower margins of the opened pages will pass beneath and become engaged by the fingers 17. The platforms 11 and 12, being hingedly connected at the upper ends of the rearward arms 3, are individually yieldable in the vertical direction and thus differentially accommodate the varying thicknesses of the two halves of the open book as the reader progresses through the book. In this manner the opened pages of the book are maintained in substantially the same plane regardless of what portion of the book may be opened; and as the pages are turned and the thickness of the book halves shifts, from one side of the book to the other, the platforms 11 and 12 will automatically adjust themselves so that in any case the bottom margins of the opened pages will be engaged by the overhanging tips of the fingers 17 and held in a substantially flat position.

When it is desired to turn a page of the book, as when the reader is progressing through the book, the reader lifts the page by its upper corner and inserts his hand beneath the page while pressing downwardly on the corresponding half of the opened book. This downward pressure of the reader's hand depresses the respective spring 14 and releases the page from engagement with the fingers 17, permitting it to be readily turned to the opposite half of the book, and the page is then re-engaged beneath the opposite finger 17 by merely pressing downwardly on that half of the book and slipping the page beneath the finger. Thus, the operation of turning the pages of a book mounted in the improved book holder is safe and exceedingly simple, and only one hand is required for its performance.

The principal advantages of this invention reside in the extremely simple structural arrangement of the device and in the provision of differentially acting book supporting platforms in a low-cost construction. Other advantages reside in the simple arrangement of the dual, independent book supporting platforms whereby the book may be held in an upwardly inclined position for convenient reading and yet have the advantage of a differential platform action whereby the opened book pages are also maintained in a common plane. Still further advantages are to be found in the coacting arrangement of the book supporting platforms and the page holding fingers at the forward end of the device whereby the pages may be easily and quickly turned without any danger of their being torn.

Although but one specific embodiment of this invention is herein shown and described, it will be understood that details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. A book holder comprising a base having rigid upwardly extending front and rear support means, a pair of laterally spaced platforms hingedly mounted on horizontal axes on the rear support means and having free ends extending forwardly therefrom, individual spring means normally urging the free end of each of said platforms to swing upwardly, and a pair of laterally spaced inwardly projecting stop members on the forward support means each adapted to limit the upward movement of the free end of the respective platform and to overhang and engage the bottom margins of the respective pages of an opened book supported on said platforms, said stop members being disposed at a lower level than the hinge axes of said platforms.

2. A book holder comprising a base frame adapted to rest upon a plane surface and having rigid upwardly extending front and rear members, a pair of laterally spaced parallel platforms hingedly mounted individually on said rear members and extending forwardly therefrom, said platforms being each adapted to swing hingedly in a vertical arc and each extending substantially to said front members, spring means on said base frame for urging the forward ends of said platforms individually in an upwardly direction, and laterally spaced rearwardly projecting finger means on said front members adapted to overhang the forward ends of said platforms respectively and to limit the upward movement thereof under the influence of said spring means.

3. A book holder comprising a base frame having rigid upwardly extending front and rear members, the upper ends of said rear members being disposed at a higher elevation than the upper ends of said front members, a pair of laterally spaced platforms hingedly mounted on the upper ends of said rear members and extending forwardly therefrom substantially to said front members, said platforms being mounted on a common axis and adapted to swing individually in parallel vertical arcs, spring means for urging said platforms individually in an upward direction, and individual laterally spaced rearwardly projecting finger means on said front members adapted to overhang and engage the lower margins of the respective pages of an opened book disposed on said platforms.

4. A book holder comprising a pair of laterally spaced upwardly projecting rear members having a hinge pin extending horizontally between and supported by their upper ends, a pair of laterally spaced flat platforms pivotally mounted at their rearward ends on said hinge pin and adapted to swing individually in the vertical direction, said platforms extending forwardly from said hinge pin and having free forward ends, spring means for each of said platforms adapted to urge the free ends of said platforms individually in an upward direction, and upwardly projecting front members disposed forwardly of the free ends of said platforms and having individual laterally spaced inwardly projecting finger means adapted to overhang and engage the end portions of said platforms, said finger means being disposed to limit the maximum upward movement of said platforms to a forwardly and downwardly inclined position, and said upwardly projecting front and rear members being substantially parallel with each other and connected together at their lower ends to form a unitary structure.

5. A device of the class described comprising a pair of substantially U-shaped frame members disposed in spaced parallel relation and having upwardly projecting front and rear arms, connecting means extending transversely between the bottom portions of said frame members and secured thereto, a shaft mounted on and extending horizontally between the rear arms of said frame members, a pair of spaced platforms adapted to support the respective halves of an opened book, each platform having one end pivotally mounted on said shaft and the other end extending forwardly therefrom, a spring associated with each frame member and adapted to normally urge the free end of a respective platform in an upward direction, and rearwardly projecting stop means on each of the front arms of said frame members adapted to overhang the bottom margins of the respective pages of an opened book disposed on said platforms.

6. A device of the class described comprising a pair of substantially U-shaped frame members disposed in spaced parallel relation and having upwardly projecting front and rear arms, connecting means extending transversely between the bottom portions of said frame members and secured thereto, a shaft mounted on and extending horizontally between the rear arms of said frame members, a pair of spaced platforms adapted to support the respective halves of an opened book, each platform having one end pivotally mounted on said shaft and the other end extending forwardly therefrom, a spring associated with each frame member and adapted to normally urge the free end of a respective platform in an upward direction, a rearwardly projecting stop means on each of the front arms of said frame members adapted to overhang the bottom margins of the respective pages of an opened book disposed on said platforms, and means to support said frame members in a forwardly tilted position whereby the rear arms thereof are disposed at a higher level than the front arms.

7. A device of the class described comprising a pair of substantially U-shaped frame members disposed in spaced parallel relation and having upwardly projecting front and rear arms, connecting means extending transversely between the bottom portions of said frame members and secured thereto, a shaft mounted on and extending horizontally between the rear arms of said frame members, a pair of spaced platforms adapted to support the respective halves of an opened book, each platform having one end pivotally mounted on said shaft and the other end extending forwardly therefrom, a spring associated with each frame member and adapted to normally urge the free end of a respective platform in an upward direction, a rearwardly projecting stop means on each of the front arms of said frame members adapted to overhang the bottom margins of the respective pages of an opened book disposed on said platforms, and a supporting leg pivotally mounted on each of said frame members and adapted to be adjusted to a downwardly projecting position to tilt said frame members forwardly.

8. A device of the class described comprising a pair of substantially U-shaped frame members disposed in spaced parallel relation and having upwardly projecting front and rear arms, connecting means extending transversely between the bottom portions of said frame members and secured thereto, a shaft mounted on and extending horizontally between the rear arms of said frame members, a pair of spaced platforms

adapted to support the respective halves of an opened book, each platform having one end pivotally mounted on said shaft and the other end extending forwardly therefrom, a pair of U-shaped springs mounted on said connecting means, one adjacent each frame member, and each formed to have one leg extending upwardly and forwardly to engage the bottom side of a respective platform adjacent the free end thereof, said springs being adapted to urge the respective platforms upwardly, and a rearwardly projecting finger on each of the front arms of said frame members adapted to overhang the lower margin

of the respective half of an opened book disposed on said platforms.

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