Aug. 12, 1969 O. G. DAHLIN 3,460,795

BOOK HOLDER

Original Filed June 9, 1965 4 Sheets-Sheet 1

Fig. 1

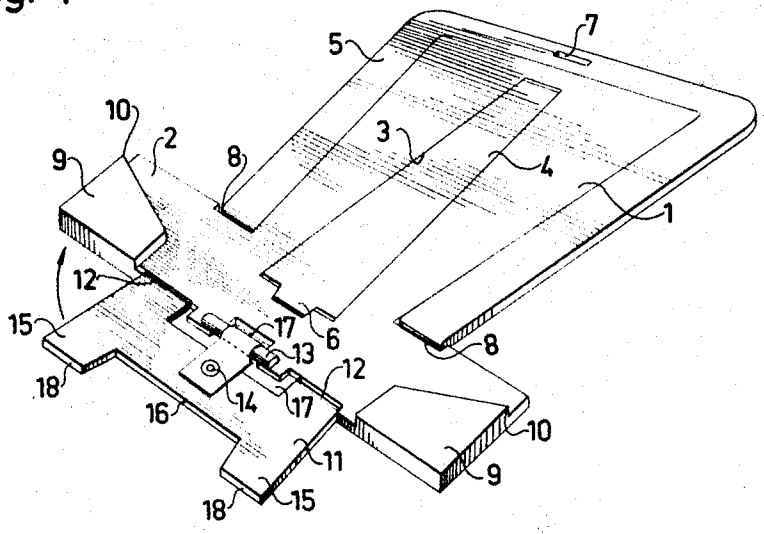
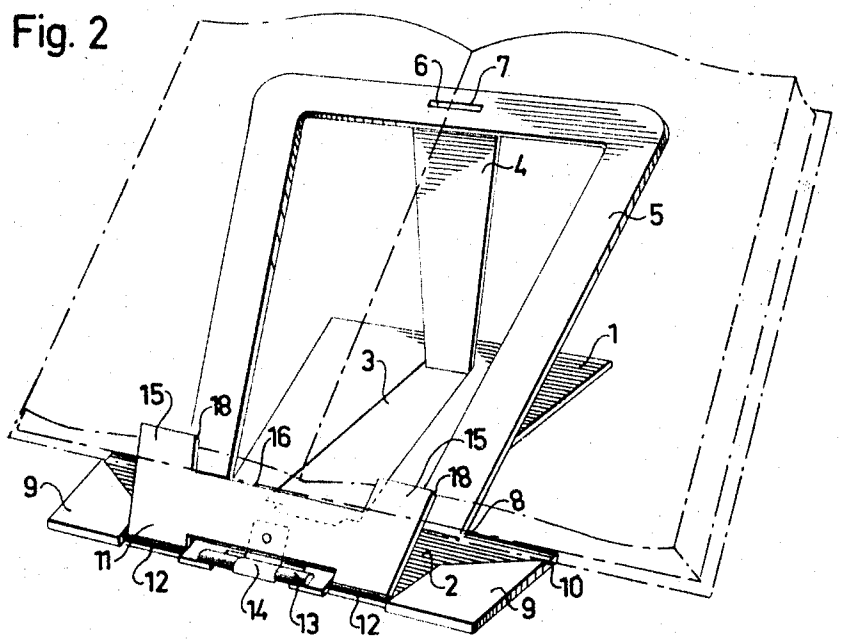


Fig. 2



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Fig. 3

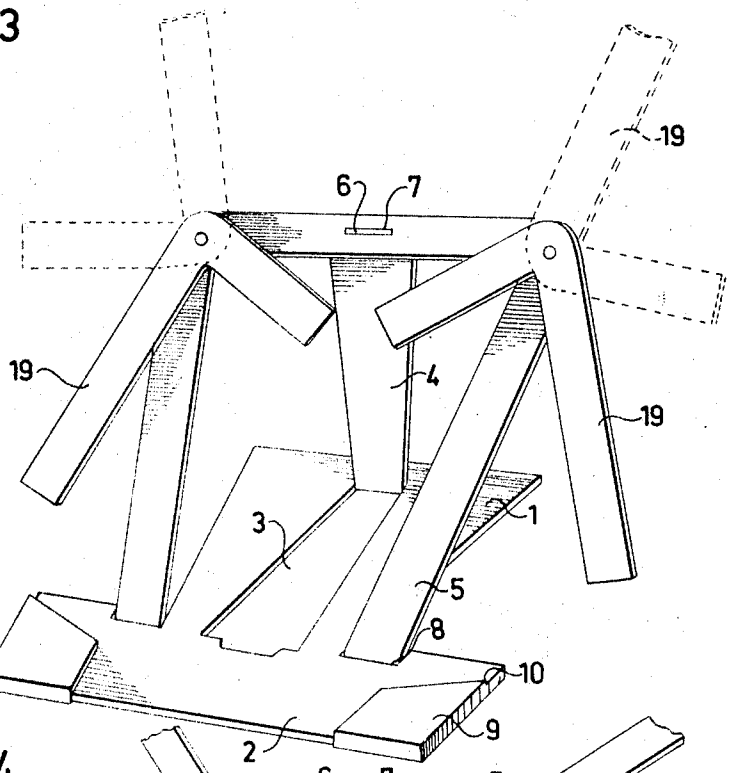
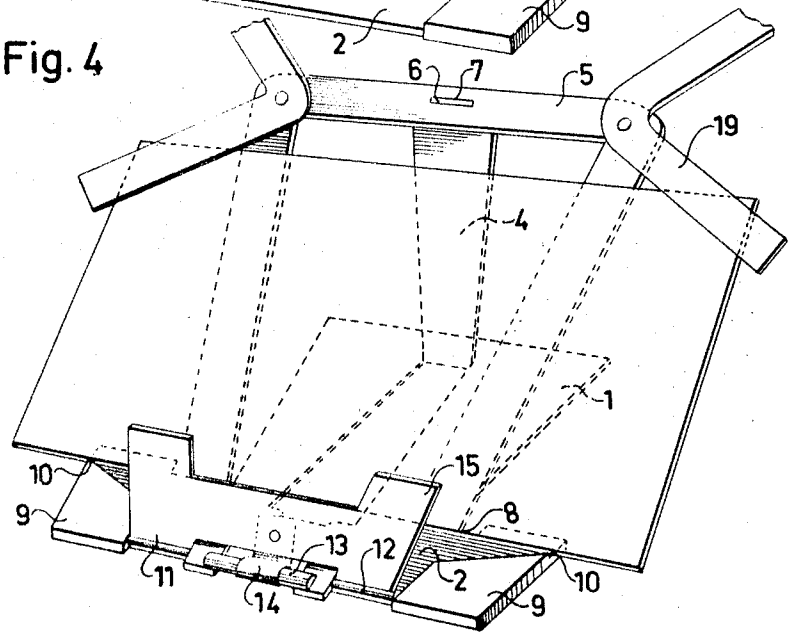


Fig. 4



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Fig. 5

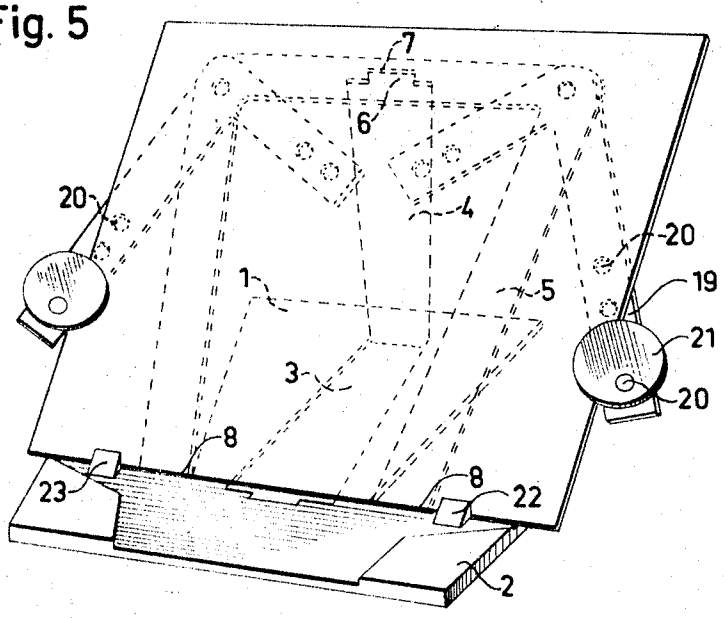
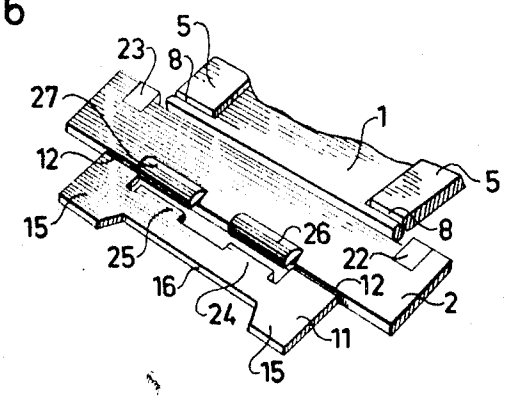


Fig. 6



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Fig. 7

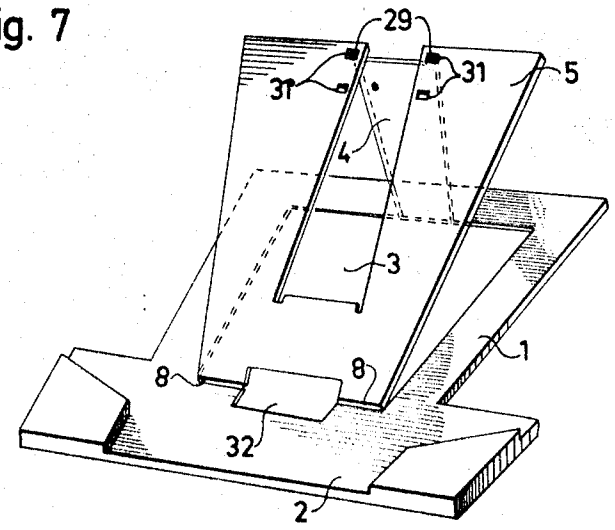
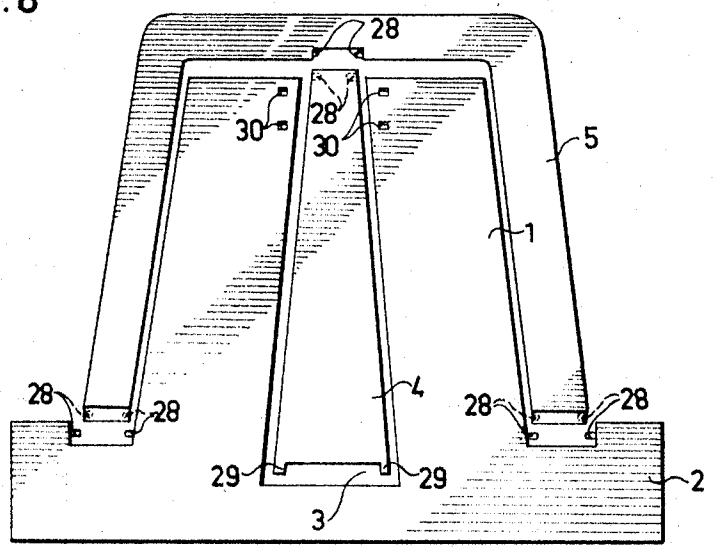


Fig. 8



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United States Patent Office 3,460,795
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3,460,795

BOOK HOLDER

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Continuation of application Ser. No. 462,634, June 9, 1965. This application July 24, 1967, Ser. No. 655,669
Int. Cl. A47b 97/08
U.S. Cl. 248—452 9 Claims

This application is a continuation of application S.N. 462,634 filed June 9, 1965.

This invention relates to a collapsible holder for books, magazines, loose sheets or other similar articles which are to be held in a convenient position for reading.

A main object of the invention is to provide a holder which can be adjusted to accommodate books or papers having different page sizes, and which includes book supporting elements capable of being extended to cover an area greatly exceeding the area occupied by the holder in its collapsed condition.

It is a further object of the invention to provide a book holder which can be adjusted to firmly hold books of varying thicknesses.

Another object of the invention is to provide an improved holder which may be folded or collapsed to a compact flat condition and which can be simply and inexpensively manufactured.

Earlier known book holders suffer from several disadvantages. For example the holder shown in U.S. Patent No. 2,583,097 comprises a bottom plate in form of a frame, a support plate hingedly secured to this bottom plate, and means to hold the support plate in a desired reading position. It also includes an additional relatively narrow plate member furnished with a pair of spring arms. An open book rests with its lower edge against this narrow plate and its upper part against the support plate. The rest of the book has no direct support either from behind in front or on the sides. More flexible reading material, such as a newspaper, would unavoidably sag and bend on such a holder. Also while a book is being read and the number of unread pages is being reduced, the book would tend to shift steadily forward in the holder. The earlier known holders are also bulky and expensive to manufacture. Furthermore they must be placed on a flat surface in order to function properly.

Another disadvantage is that one cannot place the book in the desired position with the two covers and back of the book lying substantially in a single plane. Damage to the book can occur when turning pages, and the book can be easily tipped over. Besides the holder is unnecessarily large even in its collapsed condition.

The holder according to the present invention, besides being more simply and inexpensively manufactured, is able to hold the book, bagazine, paper, in a steadier position than was possible using earlier holders.

The present invention renders it possible to reduce the dimensions of the holder to a minimum without reducing the capacity of the holder. Also when the holder is in its collapsed condition, it lies substantially in a single plane.

The book holder according to the present invention holds the book, magazine, etc. steadily in the best reading plane and allows the user to quickly turn pages without any risk of the edges of the pages catching on a supporting ledge. The book holder can be moved with the book securely resting in its place and can be used for example in bed where the holder stands on a relatively unstable surface. It will also function properly on a moving plane, ship, train, etc. without allowing the reading material to fall or slide forward, backward or to the side even if the supporting surface is not horizontal.

In its collapsed condition the present book holder is flat without any jutting parts and occupies a minimum of space, yet it is designed to hold both large and small books or papers in the proper reading position. Also the tendency of printed material to bend or roll at the edges or corners is overcome by the present holder.

The present book holder is designed to accommodate magazines, newspapers, bound or loose sheets, etc. and to hold them in a convenient reading position. Manuscripts or other material which is to be typed can be held so that the typist can work in a comfortable position.

These objects and advantages are achieved by the present book holder which includes an inclinable support member flexibly connected to a bottom plate and which in addition to a lower fixed supporting abutment at said bottom plate for holding the lower edge of the book and other reading material also includes at least one support element which can be adjusted to bear against the front face of the reading material being supported and thus prevent it from falling or sliding forward, backward, or sideways.

The book holder may also be constructed with a combination of at least one support element adjustably connected to the bottom plate and at least one additional support element adjustably connected to the inclinable support member. The support element or elements connected to the bottom plate can serve to hold the pages of the book while the support elements connected to the inclinable support member can serve to hold the front and back covers of the book. Thus, the covers of the book can be held firmly even while the book's pages are being turned. Also the support elements connected to the inclinable support member may serve as page holders.

Several embodiments of the present invention are shown in FIGURES 1 through 8 of the accompanying drawing.

FIG. 1 shows an embodiment of the invention in a collapsed more or less flat condition.

FIG. 2 shows the embodiment of FIG. 1 in a standing position.

FIG. 3 shows another embodiment of the invention including two adjustable cover or page holders.

FIG. 4 shows a further embodiment similar to FIG. 3 with an additional page holder.

FIG. 5 shows an embodiment of the invention with four page holders.

FIG. 6 shows a partial view of a book holder with lockable page holder.

FIG. 7 shows an additional embodiment of the invention in a standing position.

FIG. 8 shows an embodiment which can be more simply produced.

The bottom plate **1** as shown in FIG. 1 is of suitable form and shape so that it will perform its function even if it extends partially beyond the edge of the table or surface on which it is resting. The front edge portion **2** of the bottom plate is wider than the back edge. This shape achieves stability in a holder of comparatively small dimensions. A cut out **3** is placed in the middle of the bottom plate by punching or other methods which simultaneously form a foldable brace **4** from the bottom plate material. Thus the brace **4** which can be rotated upward from the bottom plate fits inside the cut out **3**. The cut out **3** extends partly into edge portion **2** so that the lower part of the back of the book can sink down into the opening and thus damage to the bottom of the binding is avoided. A rear support member **5** is loop shaped and its dimensions are chosen to accommodate most common sized books. The support member **5** may be punched, stamped, or otherwise formed from a single piece of material with the bottom plate. Thus, in its collapsed position the loop shaped support member **5**

may partially surround the outer contour of the bottom plate. The end portion **6** of brace **4** mates with cavity **7** in support **5** to thus hold the support member **5** in its inclined position when the holder is being used. Hinge positions **8** are located between bottom plate **1** and support member **5**. Two stops or abutments **9** are located on edge portion **2**. The end portions **10** of stops **9** serve to keep the book or paper from sliding forward even when the additional holder **11** is not in use. This sheet or page holder **11** is hingedly connected at **12** to edge portion **2** so that it can be rotated toward or away from support member **5**. When used with very thick books, this holder **11** may be folded away from support member **5** so that a virtual extension of bottom plate **1** is obtained. Page holder **11** may be folded completely down toward edge portion **2** between stops **9** and then will lie in the same plane as these stops. A leaf spring **14** may be attached by means of a rivet or other fastener to page holder **11** and this spring may surround an element such as a cylindrical portion **13**. Cut outs **17** allow the necessary freedom of movement for the spring. The fitting pressure between the spring and the cylindrical portion is chosen so as to cause friction to maintain the page holder in the position to which it is rotated. It can be seen that hinge connections **12** may be omitted and leaf spring **14** will be sufficient to insure the operation of the page holder. FIG. 2 shows page holder **11** functioning as a holder for a book shown in outline form.

The page holder comprises two contact surfaces **15** and thus is really two organs which are formed into a single piece. Contact surfaces **15** press against the bottom margins of the pages of the book on each side of the center binding of the book. When the page holder is rotated toward support member **5** the whole book is pressed against the support and held firmly in the desired reading position.

Page holder **11** may be furnished with finger grip portion **16** to facilitate its maneuvering. If the page holder is rotated completely toward edge portion **2**, the outer ends **18** of the page holder may be brought in contact with the two covers of the book without contacting the pages of the book. In this position the pages may be turned freely.

The embodiment of FIG. 3 is essentially similar to that of FIGURES 1 and 2 in respect to the bottom plate **1**, support member **5** and brace **4**. In addition the support member **5** is furnished with page holder **19** which may be shaped substantially the same as support **5** and be made of elastic material. Page holder **19** is divided in the middle and the separate parts are rotatably mounted on support **5** by means of fasteners such as rivets. Thus these parts can be swung outward, inward, upward, etc. in relation to support **5** and thus be adapted to support large books and newspapers or small pieces of reading material and prevent their falling backward. Also these holders (as shown in FIG. 4) may act as locks if desired to lock book covers, sheets, etc. in the desired position. FIG. 4 also shows how page holders **11** and **19** cooperate to press an object against support **5**.

FIG. 5 shows an embodiment where holders **19** are furnished with a number of holes **20**. On each holder is located an eccentrically mounted holder element **21** which is removably mounted in one of the holes. These holder elements can assist in holding the cover of a book or the cover plus the pages of the book in a steady, convenient reading position. Also FIG. 5 shows two hinged holder elements **22** and **23** in upstanding positions. These holders are located on each side of the center of the book and may be located near the book's binding.

FIG. 6 shows these last mentioned holders in folded down positions. They are hingedly connected to edge portion **2** and when folded down they lie in the same plane as this edge portion. Instead of holes **20**, grooves could be arranged in holder **19**. Holder elements **21** could be shifted in these grooves to occupy the desired positions depending on the size of the reading material. FIG. 6 shows a particular form of holder **11** and edge portion **2** of bottom plate **1**. In this case holder **11** is made of resilient material and includes two tongues **24** and **25**. Edge portion **2** is furnished with two semicircular, grooved protrusions **26** and **27**. The center axis of the semicircles coincides with the axis of rotation of the hinge joints **12**. When page holder **11** is rotated toward support **5**, tongues **24** and **25** engage the grooves on protrusions **26** and **27** respectively. In this way a catch effect is obtained to keep holder **11** in the chosen position. The grooves may with advantage be displaced in relation to each other. Parts **26** and **27** are formed of the same material and as integral parts of edge portion **2**. Likewise tongues **24** and **25** are formed as integral parts of page holder **11**.

FIG. 7 shows an embodiment with brace **4** mounted on bottom plate **1** which is loop shaped while support **5** comprises essentially a divided plate. The upper end of this plate is furnished with two cavities **31** into which pegs **29** on brace **4** can be fitted. A cut out **32** is located in edge portion **2** to accommodate the lower edge of the book binding.

FIG. 8 shows an embodiment where the brace is hinged on the support member **5** instead of on the bottom plate **1**. Parts **1**, **2**, **4** and **5** may be located in displaced positions in a tool so that an inexpensive assembly is possible when the parts are taken from the tool and shifted toward each other so that lock elements **28** located at hinge positions come in contact with each other. Brace **4** is furnished with two pins **29**, which, when the book holder is set up, are arranged to be inserted in cavities **30** in the rear part of bottom plate **1**. This gives a certain amount of rigidity to the divided end of the bottom plate as well as holding the supporting member in the desired position. Several pairs of cavities **30** are located in the bottom plate so that the angle of the supporting member can be varied to a certain extent.

One advantage of the book holder according to the present invention is that the lower edges of the reading material such as a book come in near contact with the surface on which the book holder is resting. In fact, part of the lower edge of the book can actually rest on the supporting surface.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined in the claims.

I claim:

1. A book holder comprising a flat bottom plate, a support member hingedly connected to said bottom plate near a first end of said bottom plate, a brace hingedly connected to said bottom plate near the opposite end of said base plate, and at least one support element rotatably connected to said first end of said bottom plate, means for pivoting said support element manually as one single unit toward said support member to bear on said book and press it against said support member, and resilient frictional means associated with said support element for strongly resisting displacement by said pivoting of said support element when engaging a book.

2. A book holder according to claim **1**, wherein said support element rotates about a first axis which lies in the plane of said bottom plate.

3. A book holder according to claim **2**, wherein a grooved cylindrical protrusion is located on said bottom plate, said cylindrical protrusion having a cross section which forms a half circle, the axis of which lies in the plane of said bottom plate, and a tongue element is connected to rotate with said support element and engages the grooves in said cylindrical protrusion.

4. A book holder according to claim **2**, wherein said support element is connected to said bottom plate by means of a leaf spring element.

5. A book holder according to claim **1**, comprising at least one page holder mounted on the support member,

said page holder having a shape generally the same as that of a portion of the support member remote from the hinged connection between the support member and the bottom plate, and means connecting the page holder to the support member for selective movement of the page holder from a position in which it generally coincides with said portion of the support member to one in which at least a part of the page holder extends substantially outwardly beyond the support member.

6. A book holder according to claim 5, wherein the said portion of the support member is disposed at a corner of said support member, the page holder has a corner, and comprising means pivotally connecting the page holder to the support member at said apices.

7. A book holder according to claim 6, wherein the said portion of the support member has two arms intersecting at an apex, the page holder has two arms intersecting at an apex, and comprising means pivotally connecting the page holder to the support member at said apices.

8. A book holder according to claim 1, wherein the support member is loop-shaped, said support member is rotatable from a collapsed position in the plane of the base plate to an erected position inclined to said base plate, and the loop-shaped support member partially surrounds said base plate when said support member is in its collapsed position.

9. A book holder according to claim 8, comprising two similar page holders mounted in symmetrically opposite positions on the part of the support member which lies uppermost when the support member is erected, said page holders having shapes generally the same as those of the portions of the support member on which they are mounted, and means connecting the page holders to the support member for selective movement of the page holders from positions in which they generally coincide with said respective portions of the support member to positions in which at least a part of each page holder extends substantially outwardly beyond the support member.

References Cited

UNITED STATES PATENTS

989,633	4/1911	Nuckalls	248—451
1,038,280	9/1912	Burnett	248—451
1,666,568	4/1928	Jackson	248—293
2,012,551	8/1935	Steen	248—455 X
2,591,170	4/1952	Levinson et al.	248—456

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U.S. Cl. X.R.

248—453, 465