No. 690,373. Patented Dec. 31, 1901.

E. G. NICEWANER.

BOOK DISPLAYER.

(Application filed Nov. 16, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

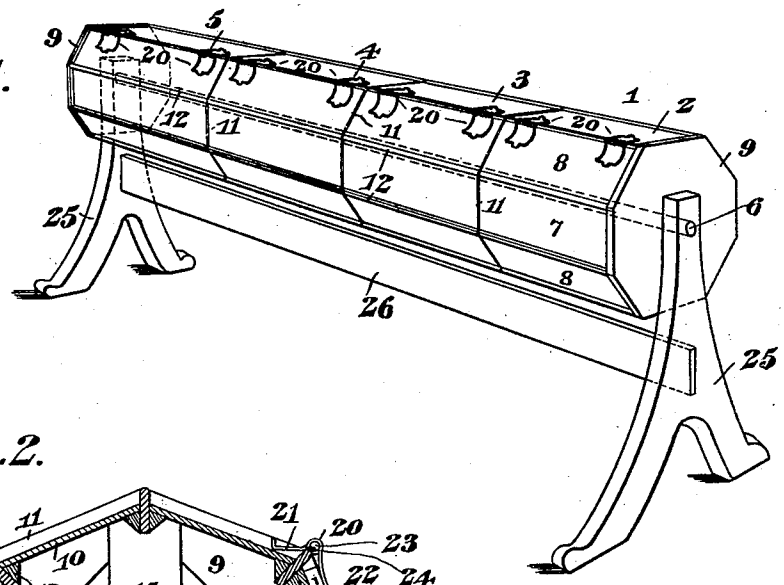


Fig. 2.

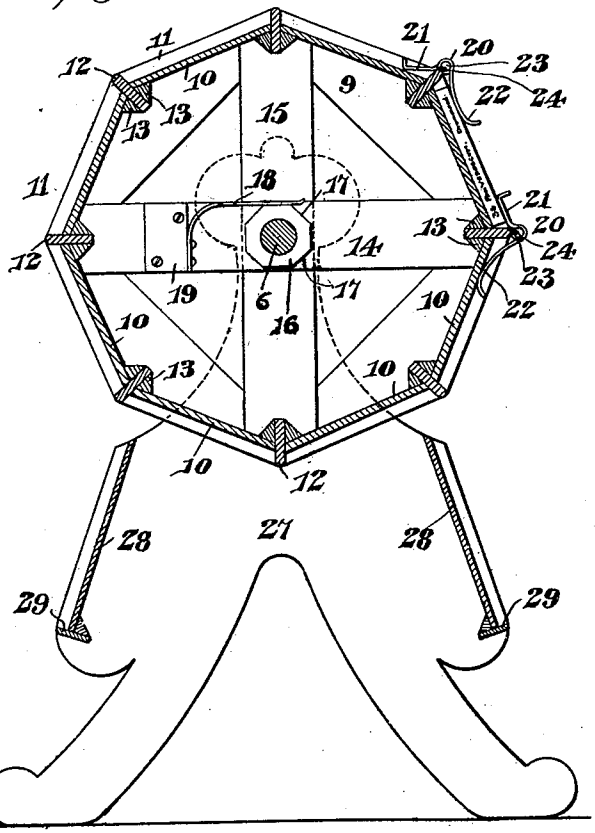
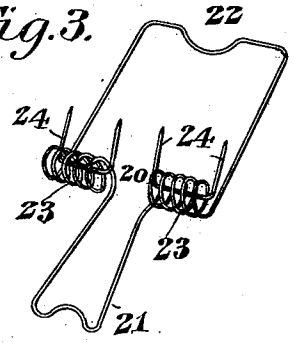


Fig. 3.



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Fig. 5.

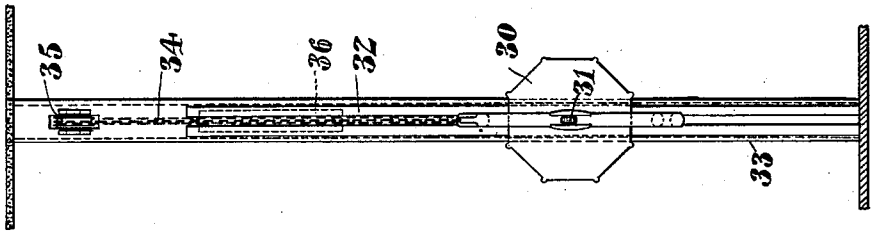
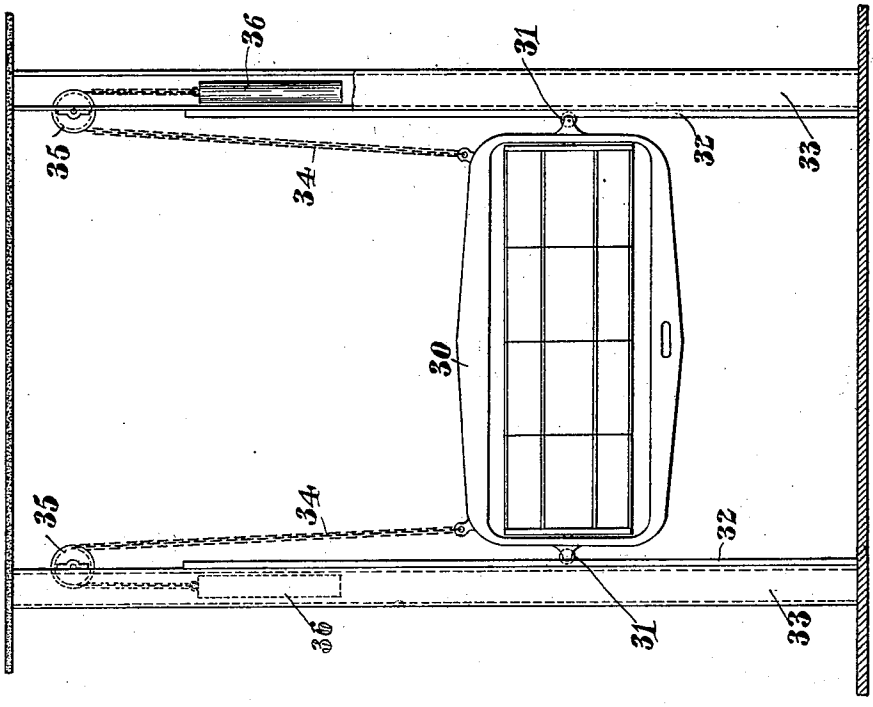


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWIN G. NICEWANER, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO GEORGE C. KEIM, OF JOHNSTOWN, PENNSYLVANIA.

BOOK-DISPLAYER.

SPECIFICATION forming part of Letters Patent No. 690,373, dated December 31, 1901.

Application filed November 16, 1900. Serial No. 36,768. (No model.)

To all whom it may concern:

Be it known that I, EDWIN G. NICEWANER, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Book-Displayer, of which the following is a specification.

My present invention relates to a novel display device, and has for its primary object to effect a maximum display within a minimum space. The device is designed to economize wall and floor space in a store or counter space upon news-stands and to facilitate the inspection, for instance, of a large number of books by several people, each of whom may inspect the entire stock without disturbing other individuals similarly engaged.

To the accomplishment of this object the invention consists in suitably supporting, for instance, upon standards or from pendants or upon wall-brackets a rotary display body or member composed of independently rotary sections, each of which is of hollow polygonal form to provide any desired number of display-faces for the support of books or other display retained by clips or other retaining members, each section being equipped with internal retaining means in order that the individual faces of the sections may be successively brought into position to facilitate the inspection of the display and held stationary during such inspection.

The invention further consists in certain other features of construction and arrangement, all as will hereinafter more fully appear as the invention is developed in the succeeding description of those preferred embodiments of my invention which are illustrated in the accompanying drawings and embraced within the scope of the appended claims.

In said drawings, Figure 1 is a perspective view of one embodiment of my invention. Fig. 2 is a transverse sectional view thereof, showing a slightly-modified form of standard or supporting-frame. Fig. 3 is a perspective view of one of the retaining members detached. Fig. 4 is a view of another embodiment of my invention, showing the display member supported in a frame pendent from counterbalancing mechanism; and Fig. 5 is an end view of the subject-matter of Fig. 4, with one side or jamb of the frame removed.

Referring to the numerals employed to designate corresponding parts and structural characteristics throughout the views, 1 indicates a display member or body composed of one or a series of rotary sections 2, 3, 4, and 5, mounted for independent rotation upon a shaft 6, which may be fixedly supported in a variety of ways. The sections of the member 1 are of polygonal form to define angularly-related longitudinally-disposed seats 7 and 8, to which I have applied these numerals alternately for convenience of designation in the succeeding description.

Considered in its broad aspect the invention does not comprehend any particular specific construction of the member sections, since it is believed to reside essentially in the provision of a display member composed of independent sections each having a series of fixed peripheral seats for the support of goods to be displayed, external retaining devices for the articles displayed, and internal restraining means arranged to restrain the sections for the purpose of holding the display-seats in predetermined positions. As illustrated in Fig. 2, however, I prefer to employ hollow sections comprising suitable frames 9 for the support of longitudinally-disposed face-plates 10, each of which constitutes a fixed peripheral seat for the reception of books and the like.

In order to facilitate the retention of the display, each seat of each section is bounded by transverse ribs 11 at the ends of the face-plates 10 and by longitudinal ribs 12, formed by narrow strips of suitable material fitted edgewise between the opposed longitudinal edges of contiguous plates 10 and extended upon the interior of the section for the attachment of longitudinally-disposed beads 13, preferably of triangular cross-sectional contour and secured in any suitable manner to the opposite sides of the inwardly-projecting portions of the strips and seated against the under sides of the plates 10, at the longitudinal edges thereof, for the purpose of rigidly uniting the strips and plates at the an-

gles of the polygonal body. Within each member thus constructed I provide a plurality of right-angularly related diametrical bearing-bars 14 and 15, pierced by the shaft 6 and designed to stiffen the structure and to maintain the axial relation of the shaft with respect to the section.

We now have a single display member, or one composed of a series of independently rotary sections in coaxial relation and of polygonal form to define peripheral series of angularly-related faces or seats bounded by outwardly-extending ribs or rails. This arrangement obviously enables a person inspecting the display carried by the display member to rotate the sections independently for the purpose of bringing the faces of each section successively into position to facilitate the inspection. It is desirable to further facilitate the inspection by preventing too-free rotation of the section—as, for instance, in the event of the overbalancing of the latter by the unequal distribution of the display—by providing yielding means for restraining or checking the movement of the section whenever the latter is advanced the distance of one face or seat. One embodiment of such means comprehends the employment of a polygonal check 16, fixed upon the shaft 6 within the section and having its angularly-related faces 17 corresponding in number to the faces or seats of the member or members and disposed for engagement by a check-spring 18 of any suitable form, but preferably a stout leaf-spring bearing at its free end upon the check and having its opposite end fixed to a supporting-bracket 19, movable with the member and preferably secured to one of the diametrical bearing-bars—as, for instance, the bar 14.

Now if the section is rotated to effect the displacement and replacement of the peripheral seats such movement will be resisted by the check-spring 18, which is forced back to permit it to ride over the angle defining the juncture between two of the faces 17 of the check; but as the section is moved the distance of one peripheral seat the check-spring will bear against the succeeding face 17 of the check and will retain the section against further movement unless the section is urged with sufficient force to overcome the resistance opposed by the spring. Thus the section or sections may be readily rotated by the application of slight force, but will be restrained or checked to retain each of the seats as they are successively presented in position to facilitate the inspection of the display mounted thereon.

For the purpose of retaining the book or other display I provide upon the outer edge of each longitudinal rib 12 a series of spring retaining members 20, comprising oppositely-disposed spring-clips 21 and 22, bearing upon the seats at opposite sides of the rib, each retaining member thus serving to retain the upper edge of a book or the like upon one section 8 and the lower edge of the book displayed upon the adjacent seat 7 at the opposite side of the rib upon which the member is mounted. Each member 20 is preferably formed from a single strand of wire bent to define the clips 21 and 22 and an intermediate spring-coil 23, through which securing-staples 24 are passed and which presents sufficient resistance to the elevation of the clips to render them effective for the retention of the display.

In Fig. 1 I have illustrated one form of support for a display member constructed and designed to be operated in the manner recited, said support comprising a pair of end standards 25, carrying the opposite ends of the shaft 6 and braced by a connecting-bar 26.

In Fig. 2 of the drawings the form of the standards 27 is slightly different from that shown in Fig. 1, and instead of a single connecting-bar 26 I have shown a pair of such connecting-bars 28 disposed adjacent to the opposite edges of the standards immediately below the display member and provided with foot-rails 29, whereby the connecting-bars are converted into racks for the display of magazines, long folios, and the like. A further variation of the support for the display member is shown in Figs. 4 and 5 and comprehends the mounting thereof in a vertically-adjustable support 30, having end rollers 31, guided between rails 32, formed upon the opposed faces of a pair of hollow uprights or jambs 33. The frame 30 is suspended at the lower ends of a pair of flexible pieces—as, for instance, chains 34, passed over pulleys 35, mounted upon the face of the jamb—which are connected at their opposite extremities to counterbalancing-weights 36, housed within the jambs 33 and designed to support and counterbalance the frame 30 and the weight carried thereby in a manner to permit said frame to be readily elevated or lowered by the application of slight power and to be retained in such adjusted position to facilitate the manipulation of the display member.

It is evident that various other applications or adaptations of the invention may be effected—as, for instance, the provision of folio-racks mounted above the display members, as well as below them, or the arrangement of a series or tier of display members disposed one above another between standards or other supports common to all of them. Therefore, while the illustrated embodiments of my invention are believed to comprehend the preferable forms thereof, I do not wish to limit myself to the details of construction and arrangement illustrated and described, but reserve the right to effect any and all changes, modifications, and variations which may be suggested by expedience, so long as they are properly embraced within the scope of the protection prayed.

What I claim is—

1. A display device comprising a rotary display member provided with a series of fixed

seats and intermediate ribs, retaining members mounted upon the ribs and having oppositely-extending spring-clips, and means for restraining the member at predetermined intervals of movement.

2. A display device comprising a display member composed of a series of coaxial, independently rotary hollow sections having angularly-related faces, and internal restraining means disposed to aline the faces of adjacent sections.

3. A display device comprising a display member composed of a series of hollow, independently rotary sections, each having angularly-related flat seats, and interior means for restraining the movement of each of said sections at predetermined intervals, said means being disposed to compel the alinement of the seats of adjacent sections when said sections are at rest.

4. In a display device, the combination with a shaft, of a display member mounted thereon and composed of a series of hollow independently rotary polygonal sections, having flat angularly-related peripheral display-faces, an interior restraining device for checking each section at predetermined intervals of movement, and an exterior retaining device carried by each section and disposed to retain the display upon the peripheral faces thereof.

5. A display device comprising a shaft, a polygonal hollow display member mounted upon the shaft and composed of independently rotary sections having angularly-related faces, and an independent internal restraining device for each section, the restraining devices of the several sections being disposed to insure the alinement of the angularly-related faces of the several sections when said sections are at rest.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

EDWIN G. NICEWANER.

Witnesses:

JNO. S. TITTLE,

JOHN H. STEPHENS.