July 23, 1929. J. M. THOMPSON ET AL 1,721,934

DISPLAY DEVICE

Filed July 8, 1927

Fig. 1.

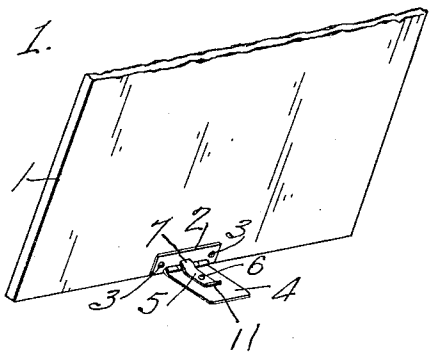
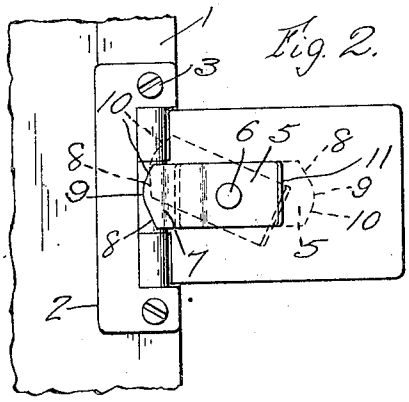


Fig. 2.



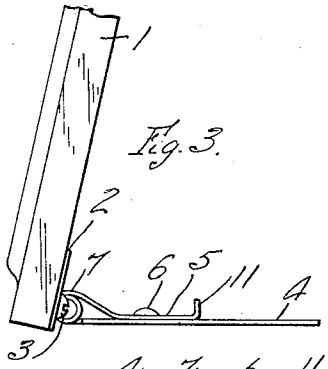
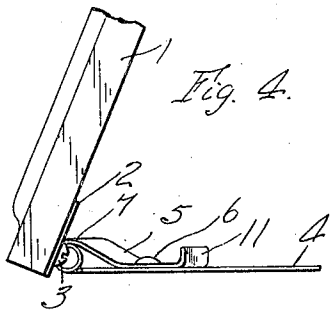


Fig. 3.

Fig. 4.



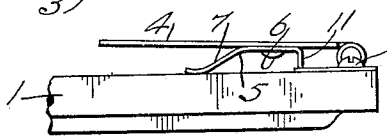
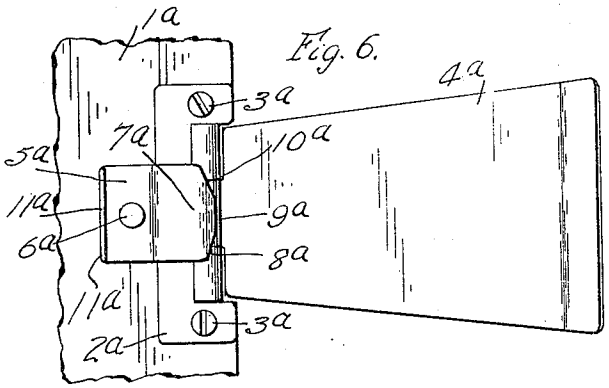


Fig. 5.

Fig. 6.



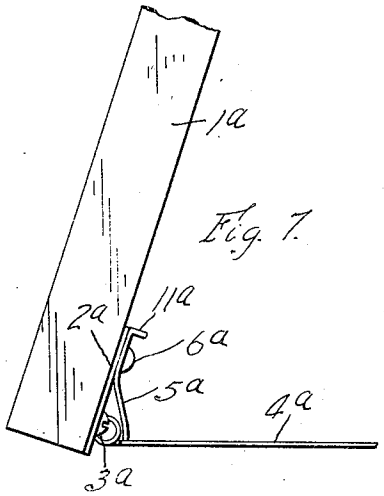


Fig. 7.

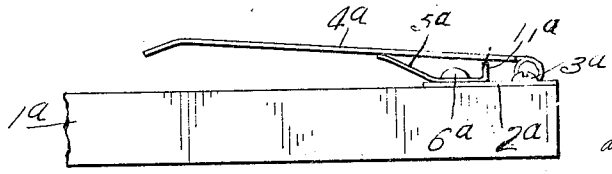


Fig. 8.

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Patented July 23, 1929. 1,721,934

UNITED STATES PATENT OFFICE.

JOHN M. THOMPSON AND WILLIAM H. THOMPSON, OF BUFFALO, NEW YORK; WILLIAM H. THOMPSON ADMINISTRATOR OF SAID JOHN M. THOMPSON, DECEASED, ASSIGNOR OF ONE-HALF TO MARY A. THOMPSON.

DISPLAY DEVICE.

Application filed July 8, 1927. Serial No. 204,315.

This invention relates to display devices and display supports for various articles, and has for an object to generally improve and simplify such devices and supports.

Another object of the invention is to provide an improved display device or article support, with which an article, such as a picture frame or other display device, may be supported, with a display face in an inclined position, on a supporting surface in a stable manner; with which the inclination at which the display face of the device of the article is supported may be selectively varied; with which the device or article and its support may be easily and quickly folded or collapsed into a flat condition in a simple manner for storage, packing, or shipping; with which danger of injury to the display section of the device or to the article to be supported, when so folded or collapsed will be minimized; with which the supporting parts will be inconspicuous; and which will be relatively simple, the support easily attached to various articles to be displayed, and relatively inexpensive.

Various other objects and advantages will be apparent from the following description of two embodiments of the invention, and the novel features will be particularly pointed out in the appended claims.

In the accompanying drawing:—

Fig. 1 is a perspective of a portion of an article supported in accordance with this invention;

Fig. 2 is a plan of a portion of the same opened flat;

Fig. 3 is a side elevation of the same, with the article supported in one inclined position;

Fig. 4 is a similar side elevation, but with the article supported in a different inclined position;

Fig. 5 is a side elevation of a portion of the same, with the support parts collapsed or folded against the rear face of the article;

Fig. 6 is a plan of another article also supported in accordance with this invention but with the support opened flat and illustrating a modification of the invention;

Fig. 7 is a side elevation of the same, with the article supported in an inclined position; and

Fig. 8 is a side elevation of the same, with the supporting parts arranged compactly in a flat condition adjacent the rear face of the article being supported.

In the embodiment of the invention illustrated in Figs. 1 to 5, the article 1 to be supported may be a picture frame, a display sign, or any other article which it is desired to prop or support in a more or less upright position upon a supporting surface. A plate or hinge member 2 is secured to this article 1 in any suitable manner, such as to the rear face thereof by screws 3, preferably along the lower edge of the article to be supported, as shown in Fig. 1. A second plate or hinge member 4 is hinged at one end to an edge of the member 2, so as to extend therefrom and be swingable toward and from the rear face of the article 1.

An abutment or blocking element 5 is mounted for adjustment upon one of the hinge members, such as the hinge member 4, and this mounting may be accomplished in a simple and convenient manner by pivoting the element 5 face to face to the hinged member 4 by a pivot pin or rivet 6 which extends approximately normal to the member 4. The pin 6 is preferably located intermediate the ends of the element 5 and also the hinge member 4. One end 7 of this blocking element 5 may be offset outwardly from the plane of the hinge member 4, so that when the element 5 is rotated to carry the offset end towards the hinge connection to the member 2, that offset end 7 will clear the hinge connection, abut at its end against the hinge member 2 and prop the latter and through it the article 1 in an inclined position, with the article 1 resting at its lower edge upon a supporting surface and with the hinge member 4 also engaging that surface.

The end edge of the offset end 7 of the abutment or blocking element 5 may be divided into a plurality of sections 8, 9 and 10 which intersect one another and are disposed at different distances from the pivot pin 6. From this it will be observed that any one of these end edge sections 8, 9 and 10 may be shifted into abutting relation against the hinge member 2 by moving the element 5 angularly about its pivot. One of these angular positions is shown in Figs. 1, 2 and 3, the edge section 9 being therein illustrated as in engagement

with hinge member 2. Since the section 9 is shown as being at the greatest distance from the pivot pin 6, the article 1 will be supported at the greatest inclination of the surface upon which it rests.

By moving the element 5 angularly from the full to the dash line position in Fig. 2, the edge section 8 of the offset end 7 of the element 5 will be shifted into blocking or abutting engagement with the hinge member 2, and since this edge section 8 is nearest the pivot pin 6, the article 1 will be supported at a less inclination to the surface upon which it rests. Such a position is shown in Fig. 4. Similarly the element 5 may be moved angularly in the opposite direction from the position shown in full lines in Fig. 2, so as to carry the edge section 10 into abutting or blocking relation to the hinge member 2, and when so positioned will support the article 1 at an inclination between those shown in Figs. 3 and 4. Obviously, other edge sections at other distances from the pin 6 may be provided, in order to increase the number of different inclined positions in which the article may be supported.

The end of the element 5, opposite the offset end 7, may be provided with a flange 11 projecting away from the plane of the hinge member 4. When one desires to collapse or fold up the support or device, the element 5 may be rotated from the position shown in Figs. 1 to 4 through approximately a half revolution, so as to place the offset end 7 farthest from the hinge connection and place the flange 11 nearest the hinge connection to the member 2. Then the member 4 may be swung over towards the rear face of the article, as shown in Fig. 5, until it is approximately parallel to the rear face of the article, that is, until the hinge members 2 and 4 are substantially parallel to one another, at which time the flange 11 will engage with the member 2 and limit further approach of the hinge members. This limit to the approach of the hinge members prevents possibility of the offset end 7 being forced too closely or too firmly against the rear face of the article in a manner which might injure it, particularly in the case of a picture frame, where the interior area of the rear face of the frame is not capable of withstanding considerable pressure. When the supporting parts are so arranged against the rear face of the article 1, the article and its supporting parts make a substantially flat and compact assemblage, which is easily packed in a flat package.

In Figs. 6 to 8, a very similar construction is illustrated, with the exception that the abutting or blocking element 5^a is hinged by pin 6^a to the hinge member 2^a instead of to the member 4^a. The offset end 7^a has the edge sections 8^a, 9^a and 10^a similar to the sections 8, 9 and 10, so that by engagement of any of those sections with the opposite hinge member 4^a, the article 1^a will be supported in different inclined positions. The angle of inclination may be varied by merely giving the element 5^a a small angular movement, the same as explaind for the construction shown in Figs. 1 to 5. By rotating the abutment element 5^a through approximately a half rotation, the offset end will be carried farthest from the hinge connection and will provide a stop against which the opposed hinge member 4^a may abut when the latter is swung towards the rear face of the article for storing purposes. A limit flange 11^a similar to flange 11 may also be provided, if desired. This offset end 7^a or flange 11^a, or both, thus prevents injury to the article to which the supporting parts are attached, by limiting the approach of the hinge member 4^a to the rear face of the article. The element 5^a is illustrated as in a position to support the article 1^a in one inclined position in Fig. 7, and in Fig. 8 the parts are shown as in a collapsed or relatively flat condition for packing, storage or shipping purposes.

It will be observed that the angle and inclination at which an article is supported upon a surface may be easily varied by varying the angular position of the element 5 or 5^a, and that element may be easily and quickly shifted into a position to permit the folding of the projecting hinge member into a flat relation adjacent to the rear face of the article to which the supporting parts may be attached. When arranged in a flat or collapsed condition, the danger of injury to the frame by blow or forces delivered to the projecting hinge member will be very greatly reduced or eliminated.

It will also be observed that the parts may be almost entirely formed of sheet material, such as sheet metal by the use of dies, so that the cost of manufacture will be relatively low. The hinge member 2 or 2^a may be provided with apertures or otherwise formed for attachment to the article to be supported, and while usually attached to the rear face of the article in order to be less conspicuous, it is of course obvious that it might be attached in any other manner to the article, such as to the lower edge thereof, and in the latter case, the blocking element might abut directly against the rear face of the article to be supported when the latter is in an inclined position.

It will be obvious that various changes in the details, which have been herein described and illustrated in order to explain the nature of the invention, may be made by those skilled in the art within the principle and scope of the invention as expressed in the appended claims.

We claim as our invention:—

1. A display support for picture frames and other articles which are to be propped in an inclined position on a supporting surface,

comprising a pair of articulately connected members, one of said members being attachable to said frame, with the other member extending therefrom and resting upon said supporting surface, and a blocking element rotatably carried by one of said members to present opposite ends for engagement with the other of said members to limit approach of said members by the falling bias of said frame, one end of said element when engaging with said other of said members enabling the support of said frame in an inclined position, the other end of said element being angularly bent to engage with the said other of said members and limit approach of said one of said members to a position in which it is approximately parallel with said frame.

2. A display support for articles to be propped in an inclined position on a supporting surface comprising a pair of members having a hinged connection between them, one of said members being connected to said article and extending therefrom for contact with said surface to prop said article in an inclined position on said surface, and a blocking element pivoted to one of said members and rotatable into and out of contact with the other of said members to limit the approach of said members when the article is propped in an inclined position, said blocking element having sections thereof disposed at different distances from its pivot, whereby when said sections are moved into position for abutting contact with the other member, the extent of approach between the two members before being limited by the blocking element may be varied so as to vary the inclination at which said article will be displayed.

3. A display support for articles to be propped in an inclined position on a supporting surface, comprising a pair of members hinged to one another, one of said members being formed for attachment to the article to be propped and thus constitute a part thereof, with the other member extending therefrom and engageable with said surface, and an abutment element pivoted to one of said members and having peripheral portions at different distances from the pivot for abutting engagement with the other member to limit variably the angular approach of said members and thereby permit support of said article in a plurality of different inclinations by merely varying selectively the peripheral section which is placed in abutting position.

4. A display support for articles to be propped in an inclined position on a supporting surface, comprising a pair of members hinged to one another, one of said members being formed for attachment to the article to be propped and thus constitute a part thereof, with the other member extending therefrom and engageable with said surface, and an abutment element pivoted to one of said members and having peripheral portions at different distances from the pivot for abutting engagement by the other member to limit variably the angular approach of said members and thereby permit support of said article in a plurality of different inclinations by merely varying selectively the peripheral section which is placed in abutting position, said abutment element being also movable to permit close approach of said members and having a portion projecting from the plane of the member to which it is attached for engagement with the other member to limit their approach to an approximately parallel relation when said element permits a close approach of said members, whereby the article will be protected from danger of injury by too close an approach of the hinged member extending therefrom.

5. A display device comprising a display member and a second member hinged thereto so as to extend therefrom at a plurality of angles and engageable with the supporting surface on which the display member is to be supported, and an abutment element pivoted face to face against one of said members and movable about its pivotal axis to carry an edge portion thereof into and out of abutting engagement with the opposed face of the other of said members so as to limit the approach of said members.

6. A display device comprising a display member and a second member hinged thereto so as to extend therefrom at a plurality of angles and engageable with the supporting surface on which the display member is to be supported, and an abutment element pivoted face to face against one of said members and movable about its pivotal axis into and out of abutting engagement with the opposed face of the other of said members so as to limit the approach of said members, said abutment element having abutment surfaces thereof at different distances from it pivot and being angularly adjustable about its pivot to carry said surfaces into abutting relation with said opposed face, and thereby vary the angle of inclination at which the displaying member will be supported.

7. A display support for articles which are to be propped at an inclined position on a supporting surface, comprising a member formed for attachment to the rear face of the article to be supported, a second member hinged to the first member so as to extend therefrom and engage with said supporting surface, and a blocking element pivoted intermediate of its ends against a face of one of said members at a point materially distant from the hinge connection between said members, one end of said blocking element being offset outwardly from the member to which it is connected, to engage the other opposed member and limit the approach of said members, whereby said element will prop said

article in an inclined position, rotation of said element moving said offset end out of blocking relation to said opposed member.

8. A display support for articles which are to be propped at an inclined position on a supporting surface, comprising a member formed for attachment to the rear face of the article to be supported, a second member hinged to the first member so as to extend therefrom and engage with said supporting surface, and a blocking element pivoted intermediate of its ends against a face of one of said members at a point materially distant from the hinge connection between said members, one end of said blocking element being offset outwardly from the member to which it is connected to engage the other opposed member and limit the approach of said members, whereby said element will prop said article in an inclined position, rotation of said element moving said offset end out of blocking relation to said opposed member, the opposite end of said element having a projecting portion engageable with the opposed member when said element is rotated to carry said offset end out of blocking relation to said opposed member, whereby said projecting portion will limit folding movement of said extending member to a position approximately parallel with the rear face of said article, and protect the rear face of the article from injury by said offset end.

9. A display support for articles to be propped in an inclined position on a supporting surface, comprising a member formed for attachment to the rear face of said article, a second member hinged thereto, and a blocking element pivoted to one of said members about an axis approximately normal to the plane of that member, and having an end offset from that said plane, rotation of said element carrying said offset end towards the hinged connection to engage the other of said members and by limiting their approach support said article in an inclined position on said surface, rotation of said element also carrying said offset end out of blocking engagement with the other of said members and permitting movement of said second member into a position flat against the rear face of said article.

10. A display support for articles to be propped in an inclined position on a supporting surface, comprising a member formed for attachment to the rear face of said article, a second member hinged thereto and a blocking element pivoted to one of said members about an axis approximately normal to the plane of that member, and having an end offset from that said plane, rotation of said element carrying said offset end towards the hinged connection to engage the other of said members and by limiting their approach support said article in an inclined position on said surface, rotation of said element also carrying said offset end out of blocking engagement with the other of said members and permitting movement of said second member into a position flat against the rear face of said article, the offset end of said element having contact sections at different distances from its pivot, whereby angular movement of said element about its pivot will carry any selected one of said sections of the offset end into blocking engagement with the other of said members and prop said article in different inclined positions selectively.

11. A display support for articles to be propped in an inclined position on a supporting surface comprising a pair of sheet metal plates hinged to one another, one of said plates being formed for attachment to the article to be supported and thus constitute a part thereof with the other plate extending therefrom and engageable with a support upon which the article rests, and an abutment element formed of a strip of sheet metal pivoted to a face of one of said plates for movement about an axis approximately normal to the plane of the plate to which it is secured, one end of said strip being offset outwardly from the plate to which said element is connected, whereby when said element is rotated to carry the offset end nearest to the hinge connection between said plates, said offset end will be engageable with the opposed plate to limit the approach of said plates and thereby support said article in an inclined position.

In testimony to the foregoing, we hereby subscribe our names.

JOHN M. THOMPSON.
WILLIAM H. THOMPSON.