W. K. ACHERT.

DISPLAY DEVICE.

APPLICATION FILED FEB. 23, 1916.

1,250,937.

Patented Dec. 25, 1917.

Fig. 1.

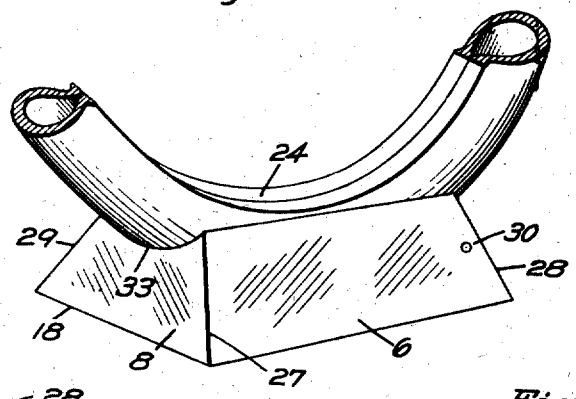


Fig. 2.

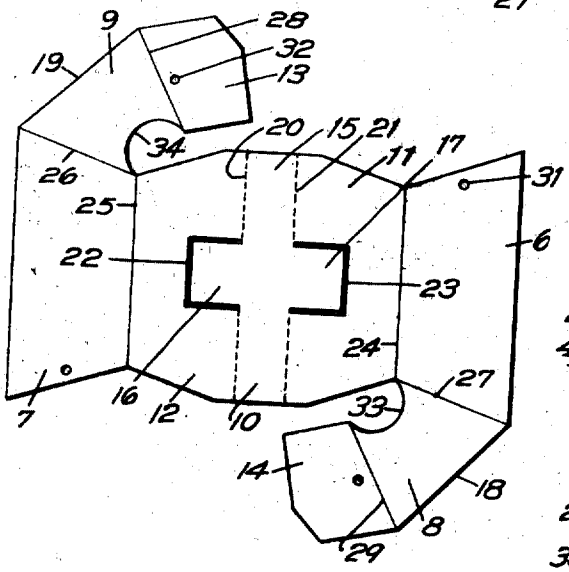


Fig. 3.

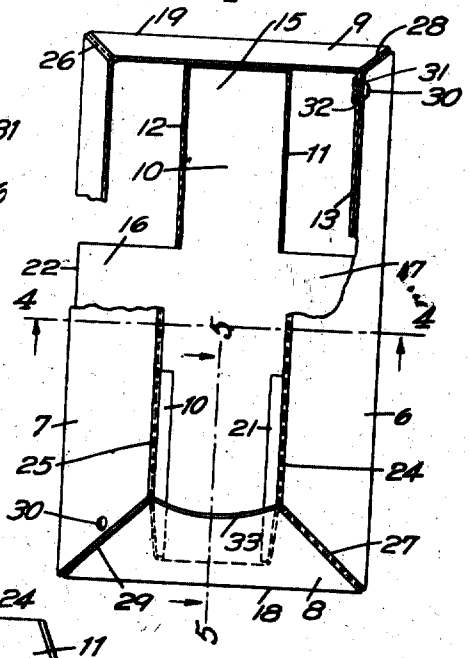


Fig. 4.

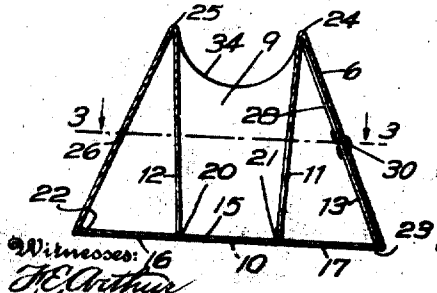
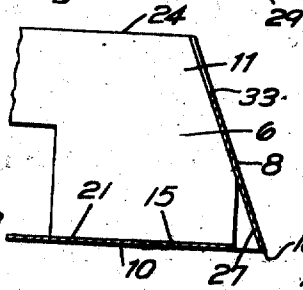


Fig. 5.



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DISPLAY DEVICE.

1,250,937. Specification of Letters Patent. Patented Dec. 25, 1917.

Application filed February 23, 1916. Serial No. 79,817.

To all whom it may concern:

Be it known that I, WILLIAM K. ACHERT, a citizen of the United States of America, and resident of Norwood, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Display Devices, of which the following is a specification.

This invention relates to improvements in display supports and particularly to display supports for tires.

An object of my improved display support is to provide means for supporting tires in an upright position on the counter or in a show window.

A further object is to produce a collapsible means for supporting tires, which may be folded and stored compactly in great numbers or instantly set up for use.

A further object is to produce an improved tire display support which is light, strong, cheap, and durable, and which may be made of a single sheet of card board.

These and other objects are attained in the tire support described in the following specification and illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of a tire support embodying my invention, with a tire supported thereby, the tire being shown fragmentally.

Fig. 2 is a plan view of the card board blank from which my display support is constructed.

Fig. 3 is a fragmental sectional view taken on the line 3—3 of Fig. 4.

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 3.

Fig. 5 is a fragmental sectional view taken on the line 5—5 of Fig. 3.

My improved display support consists of sides 6 and 7, ends 8 and 9, a bottom 10, inner walls 11 and 12, and locking flaps 13 and 14. These divisions are preferably formed in one piece and cut from a sheet of card board, each division being distinguished from its adjacent attached division by lines of scoring as shown in full and dotted lines in Fig. 2. The bottom consists of a longitudinal portion 15 extending the entire length of the inner walls 11 and 12, and provided on each side with extensions 16 and 17 which are cut from the material of the inner walls 11 and 12, and which are of a width equal to the length of the bottom edges 18 and 19 of the ends 8 and 9. The inner walls 11 and 12 are of a width slightly less than the sides 6 and 7 so that when the inner walls 11 and 12 are bent upwardly on the scored lines 20 and 21, indicated by dots in Fig. 2, they will occupy positions at right angles to the bottom 10, while the sides 6 and 7 being of greater length than the inner walls 11 and 12, will extend from the top edge thereof in an outwardly inclined direction so that their lower edges abut the ends 22 and 23 of the projections 16 and 17 of the bottom 10. In bending the sides 6 and 7 with relation to the inner walls 11 and 12, they are bent along the scored lines 24 and 25 in a direction opposite to that of the bends on the lines 20 and 21. The lines 24 and 25 have been shown as full lines to indicate that the bend on these lines is to be made in a manner such that the apex between the sides and the inner walls will extend toward the observer when viewing the blank as shown in Fig. 2.

The end edges of the sides 6 and 7 and the end edges of the inner walls 11 and 12 are inclined to one another so that the edges at the bottoms of the sides 6 and 7 and the edges at the bottoms of the inner walls 11 and 12 will be at a greater distance apart than at their tops. This permits of the ends 8 and 9 being inclined toward one another in the same manner that the sides 6 and 7 are inclined toward one another. Because of the inclination of the sides 6 and 7 the ends 8 and 9 are so shaped as to close the substantially triangularly shaped opening left between the inclined end edges of the sides. Each end is attached at one edge to one end edge of each side and is distinguished therefrom by lines of scoring 26 and 27 which are indicated by full lines. These lines of scoring permit the ends 8 and 9 to be moved at right angles to the sides 6 and 7 with the apices formed by the lines of scoring extending toward the observer when viewing the blank as shown in Fig. 2, in the same manner as the apices formed on the lines 24 and 25. The inclined edges opposite the inclined edges 26 and 27 of the ends 8 and 9 are provided with the attached flaps 13 and

14 and are distinguished therefrom by lines of scoring 28 and 29, the full lines thereof indicating that these flaps are to be folded with relation to the ends, in the same manner that the ends are folded with relation to the sides. These flaps are adapted to be brought at right angles to the ends 8 and 9 and to lie against the inner surfaces of the sides 6 and 7 so that when the blank from which the support is constructed, is folded to form the support, the flaps may be secured to the sides in any suitable manner, as by gluing them thereto if it is desired to retain the support permanently in its folded condition or, as I prefer, the flaps may be detachably secured to the sides 6 and 7 by means of suitable fastening devices such for example, as the well known McGill paper fasteners 30 which are passed through apertures 31 and 32 respectively formed in the sides and flaps, as shown in Figs. 1 to 4 inclusive. In this folded position of the support the lower edges of the sides abut the end edges 22 and 23 of the portions 16 and 17 of the bottom 10. In addition to this the inner walls 11 and 12 have been brought to substantially parallel positions as shown in Figs. 3 and 4 to provide a space in which the tire is located.

It is desirable however, to provide a suitable formation at the top edges of the ends 8 and 9 in order to receive the curved transverse contour of the tire and for this purpose I have provided curved edges 33 and 34 corresponding in curvature with the surface of the tire adapted to be received between the inner walls 11 and 12. These curved edges permit the tire to be located far enough into the space between the inner walls 11 and 12 to permit its lowest point to contact the bottom 10 and to be in a measure supported thereby. With the tire in this position the bottom is held against slippage from one side to the other because of the engagement of the outer edges 22 and 23 of its projections 16 and 17 with the inner lower edge surfaces of the sides 6 and 7. Thus the support is held rigidly and the tire supported in an absolutely vertical position without danger of tilting to one side or the other. In order to maintain the lower edges of the sides 6 and 7 into engagement with the surface upon which the support is resting, so that the edges 22 and 23 of the projections 16 and 17 of the bottom, will not slip from under the lower edges of the sides, the greater proportion of weight of the tire is brought to bear upon the curved edges 33 and 34 of the ends so that the support will be positively held into engagement with its supporting surface and prevented from springing therefrom.

By means of a support embodying my above described construction it will be seen that I may ship great numbers of them in the flat condition, and that the salesmen and tire agent may readily set up the supports as shown in Fig. 1 in a short time and with the employment of a few paper fasteners, which method I prefer since the support may again be easily dismantled and placed in its unfolded position ready for packing and shipment as shown in Fig. 2.

The outer surfaces of the sides and ends may be suitably ornamented with advertising matter printed or lithographed thereon as desired.

Having thus described my invention, what I claim is:

1. A display support comprising oppositely disposed sides, oppositely disposed ends extending from side to side, a bottom, and inner walls extending between the bottom and tops of the sides, said sides, ends, bottom, and walls being formed integrally and suitably distinguished from each other by scoring.

2. In a display support the combination of a bottom, sides located on each side of the bottom, inner walls connecting the bottom and sides, ends secured to diagonally opposite edges of the sides, and flaps secured to the unattached edges of the ends, adapted to detachably unite the unattached edges of the ends and sides.

3. In combination in a display support, a bottom, sides, inner walls connecting the bottom and top edges of the sides, ends secured to diagonally opposite end edges of the sides and having their side engaging edges converging from their bottoms to their tops, and flaps secured to the free edges of the ends, adapted to be detachably secured to the free edges of the sides to hold the sides at the inclination of the inclined edges of the ends.

4. In combination in a display support, a bottom, sides, inner walls connecting the bottom and top edges of the sides, ends secured to diagonally opposite end edges of the sides and having their side engaging edges converging from their bottoms to their tops, and flaps secured to the free edges of the ends, adapted to detachably connect the free edges of the sides and ends, to hold the sides at the inclination of the inclined edges of the ends, and to hold the walls substantially parallel to one another and at right angles to the bottom, whereby a tire receiving space is provided between the walls.

5. In a tire support the combination of inner walls, a bottom between the inner walls having projections cut from the inner walls and formed integrally with the bottom, sides joining the inner walls, and ends secured to each side and a flap secured to each end, the parts being separated by scor-

ing so that when folded the inner walls will stand substantially parallel with each other with the sides in contact with the projections on the bottom and the flaps in engagement with the sides.

6. A display stand including a pair of oppositely inclined cradle members with widening bases, a pair of oppositely inclined brace members with widening bases making edge to edge engagement with said cradle members, a trough member extending between said cradle members and consisting of opposite vertical walls and a bottom, said bottom making engagement with the opposite brace members.

In testimony whereof, I have hereunto subscribed my name this 8th day of February, 1916.

WILLIAM K. ACHERT.

Witnesses:
J. A. SPLAIN,
W. W. PATTERSON.