Nov. 22, 1932. J. W. DIXON 1,888,494

POSTER SUPPORTING DEVICE

Filed Sept. 17, 1931 2 Sheets-Sheet 1

Fig. 1.

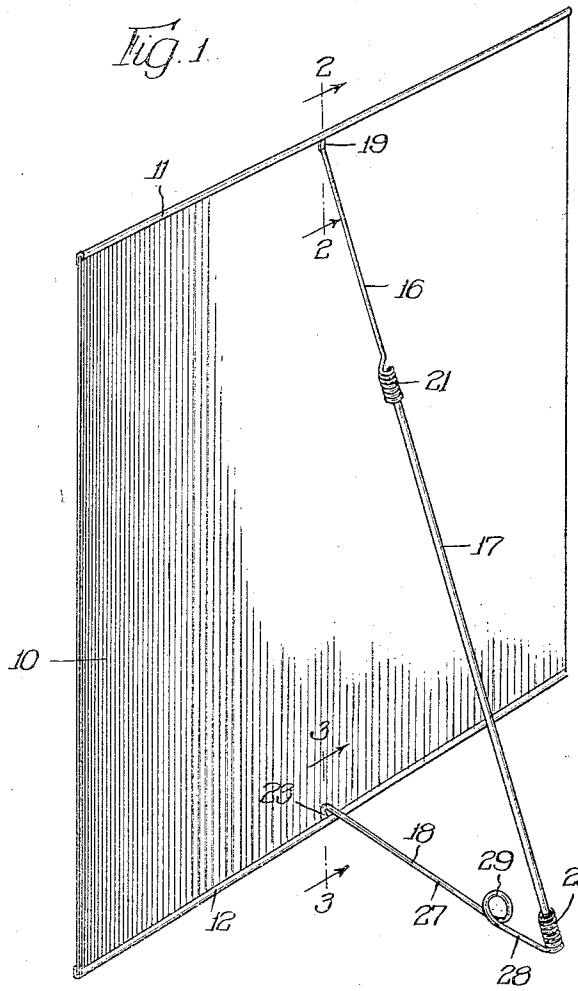


Fig. 2.

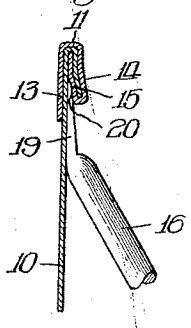


Fig. 3.

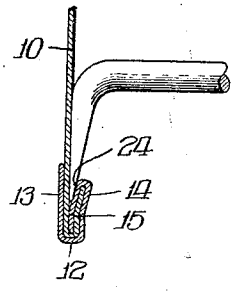
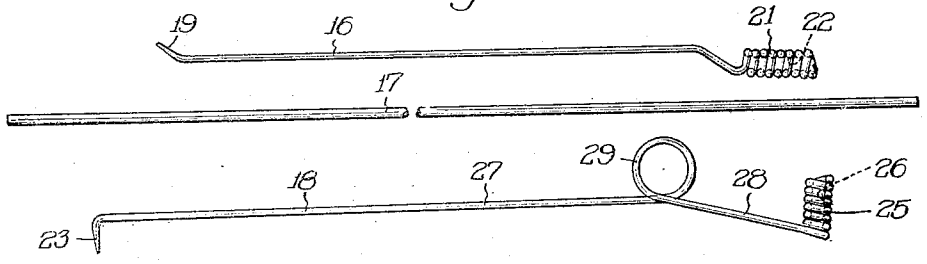


Fig. 4.



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Fig. 5.

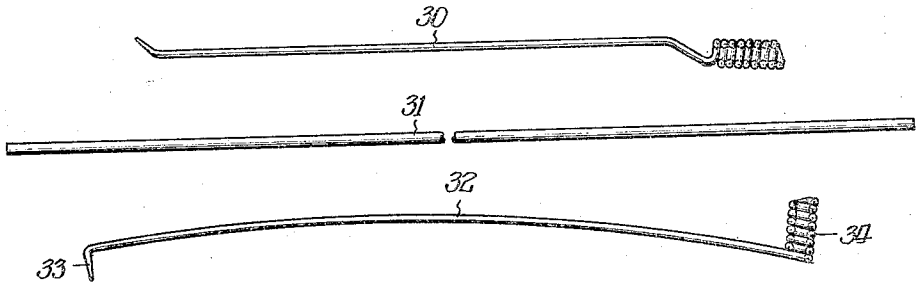


Fig. 6.

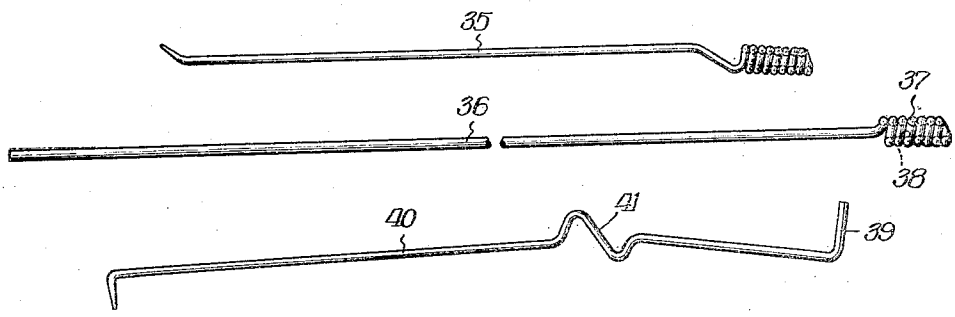
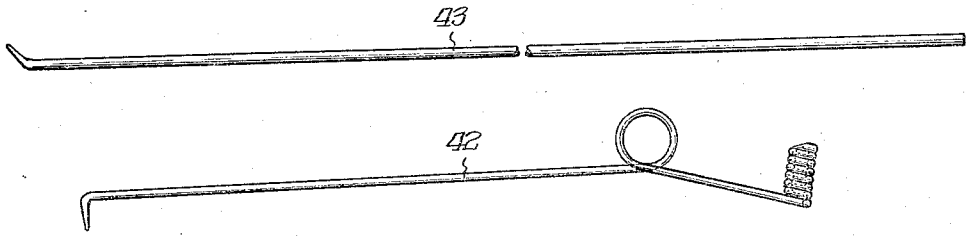


Fig. 7.



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UNITED STATES PATENT OFFICE

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POSTER-SUPPORTING DEVICE

Application filed September 17, 1931. Serial No. 563,287.

This invention has to do with poster-supporting devices of the type disclosed in Jones Patent No. 1,701,236.

The purpose of the invention is to provide certain hereinafter described improvements in the device of the Jones patent.

A poster-supporting device constructed in accordance with the present invention is very inexpensive to manufacture, is easy to assemble with a poster, will hold the poster upright in a perfectly flat, smooth and taut condition without danger of tearing the same, will not cast any shadow on the poster when the latter is illuminated from behind, is quite light in weight, and will fit compactly within the poster when the latter is rolled up and inserted in a mailing tube.

While the foregoing statements are indicative in a general way of the nature of the invention, other objects and advantages will be apparent to those skilled in the art upon a full understanding of the construction, arrangement and purpose of the parts comprising the improved device.

A preferred form of the invention, and several slightly modified forms thereof, are presented herein for the purpose of exemplification, but it will of course be appreciated that the invention is susceptible of embodiment in still other forms coming equally within the scope of the appended claims.

In the accompanying drawings:

Fig. 1 is a perspective rear view of the improved poster-supporting device, assembled with a flexible poster;

Fig. 2 is a fragmentary sectional view through the upper edge of the poster, at the location of the supporting device, taken on the line 2—2 of Fig. 1;

Fig. 3 is a similar view through the lower edge of the poster, at the location of the supporting device, taken on the line 3—3 of Fig. 1;

Fig. 4 shows the component parts of the device disconnected from each other and grouped together in readiness for insertion in a tube with the poster;

Fig. 5 is a view corresponding to Fig. 4, showing a modified form of the device;

Fig. 6 is a similar view which shows another modified form; and

Fig. 7 is a similar view which shows still another modified form.

The device which forms the subject matter of the present invention is intended for use with a flexible poster made of paper, fabric or other suitable material. Large quantities of such posters are used for advertising and other display purposes. The posters are usually rolled up and shipped in mailing tubes, and the devices which are used to support the posters when unrolled are ordinarily inserted in the tubes along with the posters. Since posters of this type are widely distributed and go to all sorts of places, it is absolutely necessary that the supporting devices furnished for use with the same be not only light and compact, but so simple and foolproof that practically anyone without any experience at all can set one of them up properly in a moment's time without spoiling the poster.

A poster of the type above referred to is shown in Fig. 1. As will be observed, the poster consists of a flexible sheet 10 of rectangular form which is provided along its upper and lower edges with sheet metal binding strips 11 and 12. These strips are characterized by relatively wide front flanges 13, relatively narrow rear flanges 14, and inturned flanges 15 on the rear flanges which clamp against folded marginal portions of the sheet 10, all as clearly shown in Figs. 2 and 3.

The improved poster-supporting device which is shown in Figs. 1 to 4 inclusive is made entirely of ordinary round wire and consists of three separate but easily assembled parts 16, 17 and 18.

The wire 16 forms the upper part of the support and is bent and flattened at its upper end to provide a thin flat chisel-like extremity 19. The end 19 is adapted to be forced into a narrow slit 20 which is formed in the upper edge strip 11 of the poster between the back of the sheet 10 and the inturned clamping flange 15, the relatively wide front flange 13 of such strip serving to guide the end 19 into the slit and prevent the end from punc-

turing the sheet. Except for the angular arrangement of the end 19, the wire 16 is substantially straight. The lower end of the wire 16 is wound into a tight hollow-centered coil 21 which forms a socket 22 in substantial alignment with the axis of the wire 16. The socket 22 is adapted to receive and provide a sung fit for one of the ends of the intermediate wire part 17.

The wire 17 is a plain straight rod which is preferably made of slightly heavier gauge wire than the previously described part 16. When the upper end of the wire 17 is inserted in the coil 21 on the lower end of the wire 16, the two wires will be in substantial alignment with each other and will extend from the top of the slightly inclined poster downwardly and rearwardly to a point on the supporting surface some distance to the rear of the bottom of the poster.

The third part 18 of the device is a wire which is provided on its front end with a downwardly bent and flattened chisel-like extremity 23, which end is adapted to be inserted in the upwardly opening slit 24 in the lower edge strip 12 of the poster. From the end 23, the wire 18 extends rearwardly into engagement with the lower end of the wire 17. The rear end of the wire 18 is wound into a tight hollow-centered coil 25 which projects upwardly and forms a socket 26 for the reception of the lower end of the wire 17. The wire 18 is characterized, between the front and rear ends of the latter, with two straight sections 27 and 28 which are normally disposed at an angle to each other and are integrally connected by a coil spring section 29. While the section 29 may consist of more than one loop, a single loop will be found sufficient to produce the desired spring action.

When the wires 16, 17 and 18 are connected together and assembled with a poster in the manner shown in Fig. 1, the spring loop 29 in the wire 18 will yield resiliently to allow the adjoining sections 27 and 28 of the wire 18 to move substantially into alignment with each other, and the force exerted through such sections on the other parts of the device will stretch the poster taut and hold it in a perfectly smooth and flat condition. The rear end of the wire 18 will rest upon any suitable supporting surface and hold the assemblage substantially upright.

The supporting device may be easily assembled with a poster in but a moment's time by unrolling the poster and placing it face down on a surface; hooking the end 23 of the wire 18 into the slit 24 in the rear part of the lower edge strip 12; inserting one end of the wire 17 into the tube-like coil 25 on the wire 18 and inserting the other end of the wire 17 in the tube-like coil 21 on the wire 16; drawing the free end 19 of the wire 16 downwardly against the resiliently yielding action of the spring section 29 into proximity to the upper edge strip 11; and then forcing the end 19 into the slit 20 in the back of such strip.

It is impossible to assemble the device in any other than the right way because the parts cannot be made to fit together in any other way. By employing edge strips 11 and 12 which have front portions which extend inwardly beyond the rear portions, the material of the poster is prevented from tearing at the locations of the wires 16 and 18 and the flat-faced ends 19 and 23 of such wires are given a rigid backing to bear against, thereby causing the edge strips to be held firmly by the ends 19 and 23 in the plane of the poster, and causing the device to stand out rigidly from the poster without pivoting relative to the same.

In the modification shown in Fig. 5, the poster-supporting device consists of three wires 30, 31 and 32 which correspond respectively to the wires 16, 17 and 18 in the previously described form. The wires 30 and 31 are identical with the wires 16 and 17, but the wire 32 differs somewhat from the wire 18. The wire 32, instead of having a spring coil formation intermediate the ends 33 and 34 thereof, is curved uniformly from the end 33 to the end 34. When the device is assembled under tension, the curved wire 32 will assume a substantially straight position.

In the modification shown in Fig. 6, the device is again composed of three wires. The upper wire 35 is the same as the wire 16 in the first form of the invention. The intermediate wire 36, however, is provided on its lower end with a tightly wound helical coil 37 which forms a socket 38 for the reception of an upturned end 39 on the lower wire 40. The spring formation in the lower wire 40 is shown as being a double reverse bend 41, but it will of course be appreciated that any other suitable spring formation might be employed.

In the modification shown in Fig. 7, the lower wire 42 is identical with the lower wire in the first form of the invention, but the upper wire 43 is as long as the upper and intermediate wires 16 and 17 together and takes the place of both. This arrangement is possible and even quite desirable when the device is to be used with a poster which is greater in width than in height, since the long wire 43 can then fit with the poster into a mailing tube without projecting from one end of the latter.

The spring formation employed in the lower wire may of course vary considerably in design. If desired, the spring formation, instead of being located in the lower wire, may be placed in the upper wire, but its location in the lower wire has been found to give very good results and is therefore recommended.

I claim:

1. A device for supporting a flexible post-

er, consisting of a plurality of members which are adapted to be connected with each other and with the upper and lower edges of the poster, said members being made of ordinary wire of uniform cross section, and the end of one of the wire members being wound into a straight helical coil of substantially the same inside diameter as the wire to form a socket for the reception of the end of another member.

2. In combination, a flexible poster provided with sheet metal edge-clamping strips, and a knock-down supporting device for the poster provided with thin flat end portions for coaction with the strips, said strips lapping the front of the poster more than the back, and said end portions being inserted in grooves in the strips at the back of the poster.

3. The combination with a flexible poster having edge strips at the top and bottom thereof, of a support for the same consisting of a member which extends downwardly and rearwardly from the top strip, another member which extends rearwardly from the bottom strip, a fixed angular connection between the rear ends of said members, and a spring incorporated in one of said members for exerting a separating force on the edge strips, said members being made of round wire, and said connection therebetween consisting of a helical coil on the rear end of one in which the rear end of the other is telescoped.

4. The combination with a flexible poster having edge strips at the top and bottom thereof, of a support for the same consisting of a member which extends downwardly and rearwardly from the top strip, another member which extends rearwardly from the bottom strip, a fixed angular connection between the rear ends of said members, and a spring formation localized in one of said members intermediate the ends thereof for exerting a separating force on the edge strips, said members being made of wire, and said formation being an offset section of the wire.

5. The combination with a flexible poster having edge strips at the top and bottom thereof, of a support for the same consisting of a member which extends downwardly and rearwardly from the top strip, another member which extends rearwardly from the bottom strip, a fixed angular connection between the rear ends of said members, and a spring loop in the lower member intermediate the ends thereof for exerting a separating force on the edge strips.

6. A flexible poster for application to a support having stretching tips at its upper and lower edges, which poster is characterized by sheet metal strips of generally U-shaped cross section which engage over the upper and lower edges of the poster and extend farther inwardly at the front face of the poster than at the rear at the locations where the stretching tips of the support are adapted to be attached, whereby to provide reinforcements for the poster at such locations to prevent puncturing of the latter.

7. A flexible poster for application to a support having thin flat attaching portions, which poster is characterized by sheet metal strips of generally U-shaped cross section which engage over the upper and lower edges of the poster and extend farther inwardly at the front face of the poster than at the rear, said strips being turned back in at the back of the poster, thereby providing round-edged grooves at the back of the poster for the reception of the attaching portions of the support.

8. In combination, a flexible poster provided with sheet metal edge-clamping strips, and a knock-down supporting device for the poster provided with thin flat end portions for wedged insertion between the back of the poster and the inner edges of the strips, said strips lapping in front of the poster more than the back to reinforce the poster at the locations of said end portions.

9. The combination with a flexible poster having edge strips at the top and bottom thereof, of a support for the same consisting of a member which extends downwardly and rearwardly from the top strip, another member which extends rearwardly from the bottom strip, a fixed angular connection between the rear ends of said members, one of said members being a spring and serving when flexed to exert a separating force on the edge strips, said second mentioned member terminating at its rear end in a portion which forms the bottom of the rear part of the support and at the same time provides a mounting for the first mentioned member thereabove.

10. A device for supporting a flexible poster, consisting of a plurality of members which are adapted to connect with each other and with the upper and lower edges of the poster, one of said members being composed of two sections of wire which are adapted to be arranged in substantially straight end-to-end relation, and one end of one of said wire sections being wound into a straight tight open-centered helical coil of rigid formation, which coil constitutes a supporting socket for the adjacent end of the other wire section.

In testimony whereof I have hereunto subscribed my name.

JOHN W. DIXON.