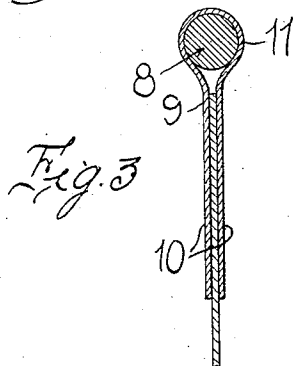
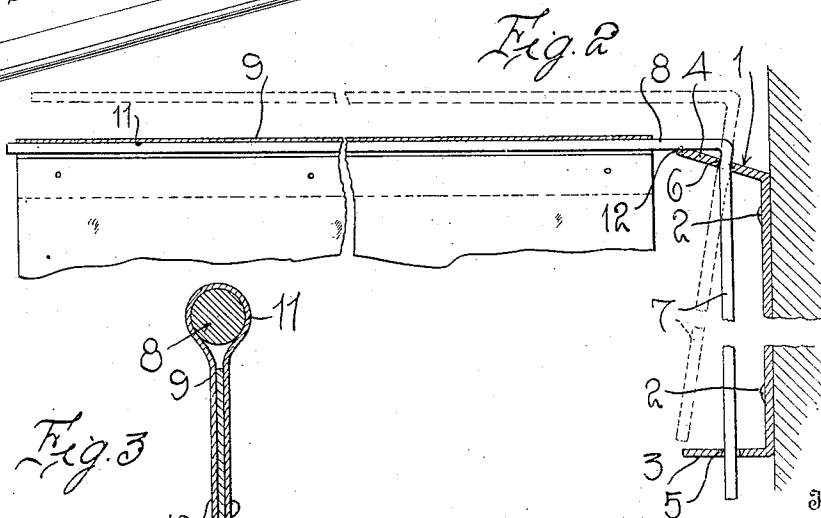
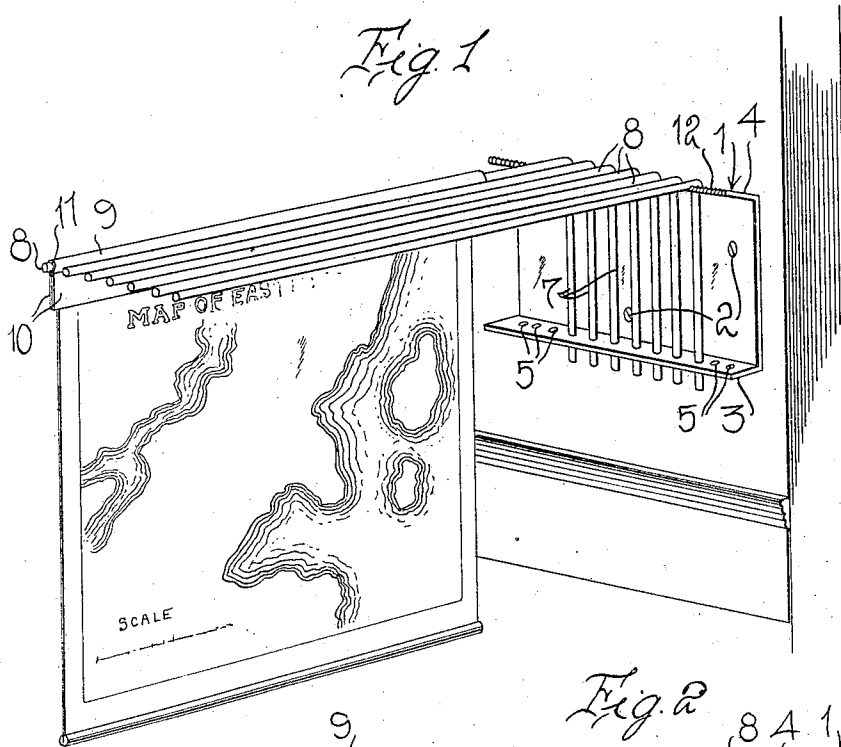


E. R. SMITH.
 DISPLAY DEVICE.
 APPLICATION FILED MAR. 28, 1916.

1,240,611.

Patented Sept. 18, 1917.



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UNITED STATES PATENT OFFICE.

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1,240,611.

Specification of Letters Patent.

Patented Sept. 18, 1917.

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To all whom it may concern:

Be it known that I, EUGENE R. SMITH, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Display Devices, of which the following is a specification.

This invention comprehends certain new and useful improvements in display devices, and relates particularly to a hanger rack for use in school rooms, offices, stores and other places generally, for displaying any desired number of charts, maps, specimens, samples and the like, in a most convenient manner.

The invention has for its primary object a simple, durable and efficient construction of a device of this character which will be composed of comparatively few parts that may be very cheaply manufactured and readily assembled and which will not be liable to get out of order, the parts being so constructed and arranged that space will be economized to a maximum degree, and providing means whereby the charts or the like may be very quickly and expeditiously interchanged, as required for use, or when not desired may be stored away.

More specifically considered, the invention has for a further object a hanging device of this type including a novel and useful construction of bracket designed to be secured to a wall or other support, a plurality of swinging arms designed to be readily connected in an operative manner to the bracket and in such a way that easy access may be had to any arm desired and the arms swung to any required angular relation to the bracket, and binding members that may be very easily slipped upon and from the swinging arms, said members being crimped upon or otherwise secured, either permanently or detachably, to the cardboard sheets or the like which constitute the subject-matter to be displayed.

A still further object of the invention is an improved device of this kind, wherein simple and efficient means are provided for holding the arms at the required adjusted positions and which will at the same time not detract from the facility by which any of the arms may be swung back out of the way when not desired for use.

And the invention also aims to generally

improve devices of this class so as to render them more useful and commercially desirable.

With these and other objects in view, as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter more fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which—

Figure 1 is a perspective view showing one application of my invention.

Fig. 2 is a transverse sectional view through the device, and

Fig. 3 is an enlarged detail sectional view through one of the binding members and the suspension arm upon which it is slipped.

Corresponding and like parts are referred to in the following description and designated in all of the views of the accompanying drawing by like reference characters.

Referring to the drawing, the numeral 1 designates the bracket of my improved display or hanging device, said bracket being of any desired size, and of any desired shape, except as hereinafter noted, and being formed of any desired substance or material, metal preferred. The bracket 1 is, in the present embodiment of the invention, in the form of a plate provided at any desired points with any number of apertures to receive screws or similar fastening devices whereby the bracket may be readily secured to a wall or other support, and the plate is formed at its lower and upper edges with preferably integral outstanding flanges designated 3 and 4 respectively. The lower flange 3 is formed with any desired number of apertures 5 extending therethrough, and the upper flange 4 is correspondingly formed with the same number of apertures 6 disposed in vertical alinement with the apertures 5, said apertures being designed to receive and accommodate the angularly disposed end portions or shanks 7 of rod-like suspension arms 8 which are preferably formed of suitably strong wire possessing some characteristics of resilience.

The charts, maps, cardboards of specimens, or samples of any desired type or character that are to be displayed by my

device, are secured at their upper edges to binding members 9. Each of these binding members comprises a preferably single or integral strip of metal or other substance or material doubled upon itself at a median line to form two plies 10, between which the edge of the display matter is inserted and held by crimping or by independent fastenings of any desired character, while the upper edge of each binding member is rounded into the form of a hollow bead 11, as shown, which forms an elongated socket by which the binding member may be readily slipped upon any one of the arms 8 hereinbefore referred to.

From as much of the description as has preceded, in connection with the accompanying drawing, the general operation and use of my improved display or hanging device will be at once apparent. In the practical use of the device, the binding members with the display matter suspended thereby and secured thereto, are slipped upon the swinging suspension rods 8 and readily supported thereby without the necessity of any fastening devices being employed between the binding members and rods, and the latter are effectively supported by the bracket 1 by having their shanks or angularly disposed portions 7 slipped down into corresponding upper and lower apertures 6 and 5 in the upper and lower flanges 4 and 3 respectively.

Preferably, as best illustrated in Fig. 1, the upper flange 4 is inclined upwardly and outwardly from the plate-like main portion of the bracket 1 whereby it will present its edge to the arms 8, and, by reason of the direct engagement between said edge and the arms, assist in preventing the arms from swinging too freely and tend to hold them at any desired adjusted positions or angular relations to the bracket; and preferably the upper surface of the upper flange 4 is roughened along the edge or margin thereof, as indicated at 12, which will further assist in holding the arms 8 in the required positions. It is furthermore to be noted that the apertures 5 and 6 are preferably of such a diameter that the shanks 7 will snugly fit therein. Consequently to insert the shanks 7, they are first inserted through the apertures 6 in the upper flange at an oblique angle to the face of the bracket 1 and when subsequently turned inwardly to be inserted through the corresponding lower aperture 5, will tend to bind in the upper aperture and by the spring action or tension imposed upon the shank to insert it through the lower aperture 5, will spring out against the forward portion of the wall of such aperture, whereby frictional means are provided for preventing the arms from swinging too freely and for holding the arms steady at any desired adjusted position.

It will thus be seen that I have provided a very efficient display or hanging device which is composed of comparatively few parts that may be easily manufactured and readily assembled and which will not be liable to get out of order and by the use of which all of the display material may be conveniently maintained in accessible shape. Furthermore, by the construction and arrangements of the parts hereinbefore described and illustrated in the accompanying drawing, it will at once be evident that a relatively large amount of material may be kept in a small space, and that the material, owing to its being mounted on cards or the like bound with the members 9, may be instantly interchanged and kept permanently and displayed whenever required, as it is only necessary to slip the binding member from one arm and slide it upon another one, as the occasion may require. Thus, for example, the device will be found of exceptional advantage in connection with schools. In the office of the head of the school, a bracket may be kept with a large number of sets of apertures therein and in each school room a corresponding, but preferably smaller, bracket may be mounted. When the charts, for example, are not in use, they may be kept on the larger bracket in the office of the head or principal of the school, such larger bracket acting as a central station and from which the material wanted by a class any day is taken to that class and placed on the hanger in the school room. Hence, all of the material is kept in accessible shape as above stated, and the teachers are encouraged to prepare such material, since it becomes a permanent part of the school equipment.

While the accompanying drawing illustrates what I believe to be the preferred embodiment of my invention, yet it is to be understood that the invention is not limited thereto, but that various changes may be made in the construction, arrangements and proportions of the parts, without departing from the scope of the invention as defined in the appended claims.

What is claimed, is:

1. A device of the character described including a supporting bracket provided with upper and lower outstanding and substantially rigid and unyielding flanges having openings extending therethrough, the upper flange being inclined upwardly toward its free edge, the opening in the upper flange being spaced from the free edge of said flange and having its axis disposed obliquely relative to the axis of the opening in the lower flange, and a suspension arm provided with an angularly disposed flexible shank receivable in said openings whereby it will be flexed and frictionally held therein, said arm extending over the free edge of the up-

per flange and engaged therewith at a point spaced from said shank, substantially as shown and described.

2. A device of the character described, including a supporting bracket provided with upper and lower outstanding and substantially rigid and unyielding flanges extending laterally thereon and each having a plurality of openings extending through the flange, the upper flange being inclined upwardly and outwardly and having its free edge roughened, said openings in the respective flanges being arranged in vertically registering pairs and the openings of the upper flange having their axes disposed obliquely to the axes of the lower openings, and a plurality of suspension arms provided with

angularly disposed flexible shanks receivable in said openings whereby said shanks will be flexed, for the purpose specified, the openings in the upper flange being spaced from the roughened free edge thereof and the suspension arms extending forwardly from said last named opening over the roughened edge of the upper flange and engaging the roughened edge thereof at a point spaced from their shanks.

In testimony whereof I affix my signature in the presence of two witnesses.

EUGENE RANDOLPH SMITH.

Witnesses:

J. LEE MYERLY,

WILLIAM HEFESTAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."