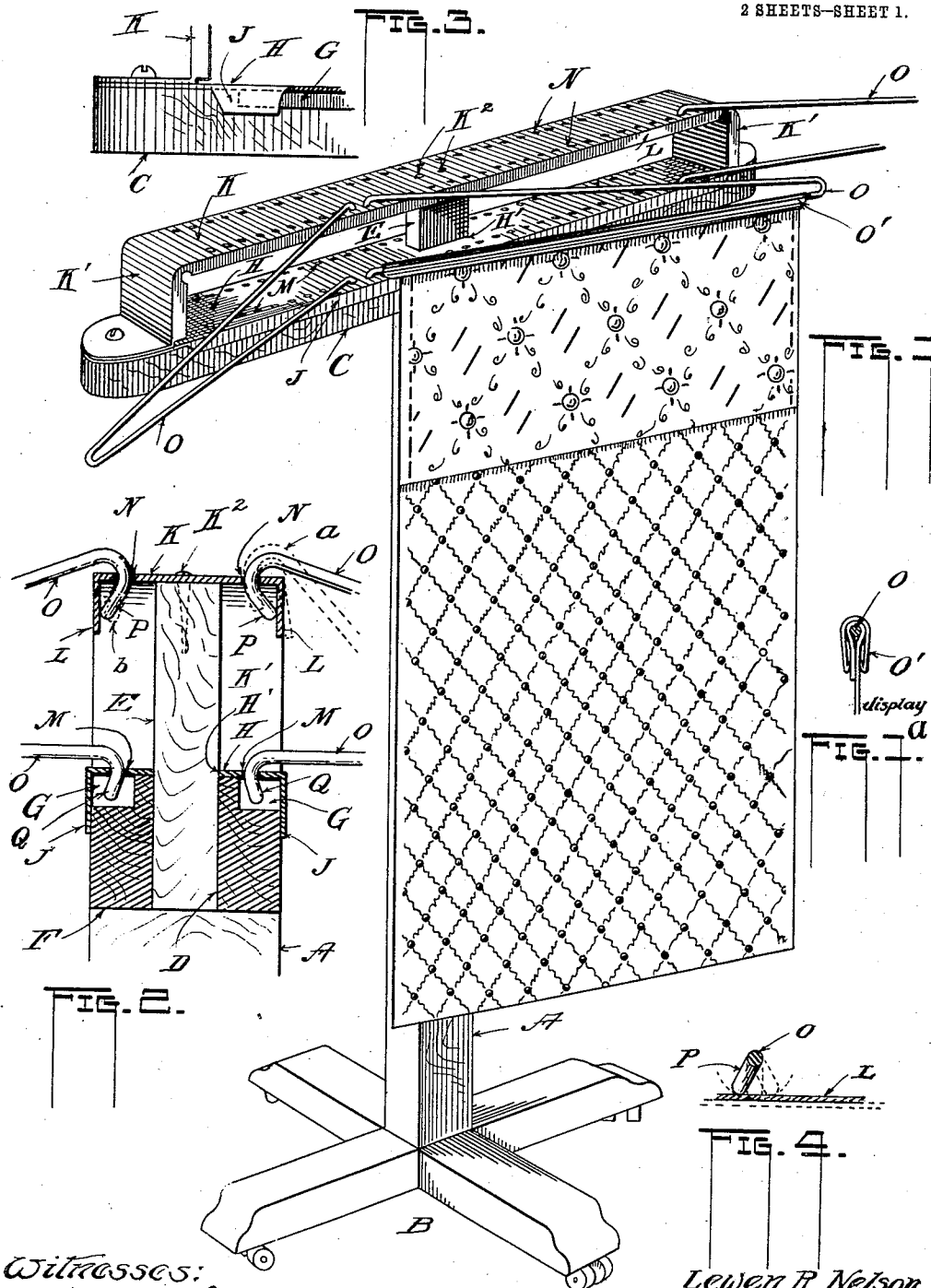


L. R. NELSON.
 DISPLAY RACK.
 APPLICATION FILED SEPT. 12, 1910.

1,061,001.

Patented May 6, 1913.

2 SHEETS—SHEET 1.



Witnesses:
 Clara Gerstner
 G. B. Buckhardt

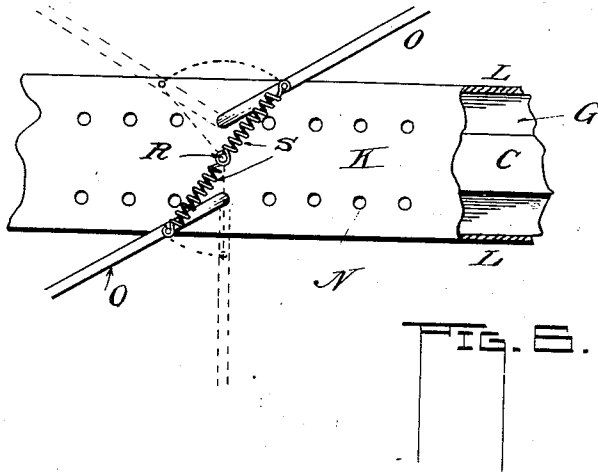
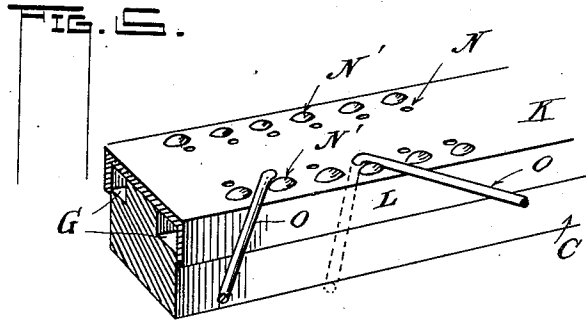
Lewen R. Nelson
 By J. M. Threlker
 Atty.

L. R. NELSON.
 DISPLAY RACK.
 APPLICATION FILED SEPT. 12, 1910.

1,061,001.

Patented May 6, 1913.

2 SHEETS—SHEET 2.



Witnesses:

L. L. Gerstner

J. B. Burkhardt

Inventor:

Lewen R. Nelson

By L. M. Thurston,
 Atty.

UNITED STATES PATENT OFFICE.

LEWEN RUSSELL NELSON, OF PEORIA, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO NICKERSON WALL PAPER EXHIBITOR CO., OF FAIRBURY, ILLINOIS, A CORPORATION OF ILLINOIS.

DISPLAY-RACK.

1,061,001.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed September 12, 1910. Serial No. 581,719.

To all whom it may concern:

Be it known that I, LEWEN R. NELSON, citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Display-Racks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention pertains to improvements in display racks of that class particularly designed for displaying wall paper, rugs, curtains, and the like, wherein a series of arms are employed to suspend the articles to be shown.

An object of the invention is to construct a display rack of a very simple design and one whose parts can be assembled quickly and easily without requiring careful and exact adjustments.

Another object is to construct a display rack having a series of arms, from which the goods to be displayed can be hung, that will positively remain in extreme positions in which they may be placed in use.

A further object is to provide means for positively holding the arms in their extreme positions whereby, for instance, when the device is of a portable form, when standing upon an uneven floor its said arms will not be caused to swing by gravity from the extreme positions in which they may be placed, nor will air drafts move said arms by blowing upon the goods suspended from them.

Besides the above objects the invention relates to certain details of construction as will be fully pointed out herein.

In the appended drawings:—Figure 1 illustrates, in perspective, my improved display device mounted on a standard, as one of its forms, showing but three of the many arms with which it may be provided. Fig. 1* is a cross section of an arm shown in Fig. 1 and a member to inclose the same. Fig. 2 is a transverse section of a part of the device showing the disposition of two of the arms thereon. Fig. 3 is a front elevation of a part of the device shown in Fig. 1. Fig. 4 is a horizontal section of part of a member showing a part of one of the arms also in cross section. Fig. 5 is a modification of means for holding the arms posi-

tively in position. Fig. 6 is a plan of a second modification of said means.

A indicates any suitable standard mounted upon any desired form of supporting base B preferably provided with casters to make it readily portable. C is a horizontally disposed member which, as shown in Fig. 2, is mortised at D to receive a reduced upwardly extending portion E of said standard A, said member C resting, for instance, upon a shoulder F of the standard. The upper opposite longitudinal edges of the member C are preferably provided with rabbets G and surmounting said member is a plate H preferably of flexible sheet metal having depending sides J extending down over and covering said rabbets G; said plate being provided with the necessary opening H' through which the said extension E rises.

Above the plate H is a second plate K also having the depending sides L. The ends K' of said plate K are bent downward to form supports, which together with the said plate H, is suitably secured to the member C. The downturned ends K' mentioned, and the portion E of the standard above the plate H are preferably equal in length and the said plate K rests upon the top of the said portion and is preferably secured thereto in any good manner as for example, screws represented by K². Near opposite edges of both the plates H and K is a row of holes; those in the lower plate being indicated by M and those in the upper by N and the holes of corresponding rows are vertically in line so that a line passed, for instance, through one of the top holes will likewise pass through the hole below. I now provide an arm O which consists preferably of a single length of wire doubled upon itself substantially in the form of a V and from which the article to be displayed is suspended and having its extremities bent downward so as to lie in the same plane in which the two extensions of the arm lie, for instance, as in Fig. 2. The upper of the bent extremities indicated by P is rather in the form of a hook being bent in the direction of the arm-extension, of which it is a part, so as to engage the depending portion L of the plate K when lying in the hole N. The lower bent extremity Q of the other arm-extension is also slightly bent into a hooked form; this however, merely

being a preference in order to prevent its too easy removal from the hole M in which it lies.

The manner of placing the arms in position is indicated in broken lines at *a* in Fig. 2 this being the position which the arm O must occupy in order to insert the hook P into the hole N. The other end of the arm (not shown), having the hooked end Q, is carried beneath the member C in order to permit the insertion of said hook P. When the latter is entered and the arm O is brought to the position shown in full lines in said figure the said other extremity of the arm is raised so that its hook Q can be brought opposite and dropped into its hole M; it being necessary to spring the arm slightly so that said hook can be entered into the hole and pushed into place. As the arm is permitted to regain its proper form the said hook Q then takes the position shown and cannot be accidentally raised out of its hole since its underhanging extremity if raised directly upward while in the position shown, would tend to wedge into the hole M and the friction due to such wedging would be sufficient to prevent its removal. This, however, is a preference and may not be resorted to, or other means of preventing such removal may be used. The distance from the depending portion L of the upper plate K to the hole N is less than the length of the hook P from its extremity to the bend where it lies in said hole, so that when the arm O is swung so as to lie at right angles to the longest measurement of the member C the said hook P will engage the said depending portion L and force it outward, for instance, as shown in broken lines in Fig. 4, said portion acting as a spring throughout its entire length, and when the arm is thrown away from the central position, as also shown in Fig. 4, the depending portion L will spring back to its original position and hold the arm O, through the hook P, in either of the positions shown in Fig. 1, and considerable force is required to move the arm from one of those extremes to the other, since, when the hook P meets the depending portion, that portion must be forced outward by the hook and as it springs to its normal position it has the effect of assisting in throwing the arm to its extreme position as the hook passes by the central position.

It may be stated that the holes N, especially an upper one, in being slightly larger than the wire of which the arm O' is made, as it must be in order to permit the introduction of the hook, the said arm will be permitted to play therein so that though its hook P were inflexible, as also the part L, the weight of the arm and its display article would serve to hold said arm in either of its two positions while a positive pressure side-

wise against the arm would swing it past the central position causing it to be raised slightly as it passes that position due to the meeting of the inflexible parts this in fact occurring to a greater or less extent in the operation above described depending, of course, upon the degree of flexibility of the parts.

It may now be seen that one of the purposes is to provide a display rack in which some sort of means is employed to positively control the arms of the series in a positive manner so that air currents in blowing upon the articles suspended from them, when suspended from the wall, for instance, will not be moved from either of their extreme positions, and further, that when used as a portable display rack the arms will not swing by the force of gravity when the standard rests upon uneven floor surfaces.

Referring again to Fig. 2 I have indicated in broken lines at *b* the hook P acting as a spring, the spring action being more or less free depending, of course, upon the gage of wire of which the arm is composed, this form being used in case the plate K and its depending portion L are employed in the form of a casting.

I have shown in Figs. 5 and 6 modifications of my device the first of which shows opposite each hole N, a raised portion created, for instance, by forming up a teat N' from the metal over which the arm can be made to pass as it swings from one extreme to the other; either gravity or the spring in the arm O being employed, or both. In Fig. 6 a pin R, for instance, is placed behind the hole N and a spring S is connected at one end thereto and at its other end to the arm carried in said hole, while a similar spring is connected to the pin and to an opposite arm. It is to be observed that the spring will hold the arm in either position since as said arm is moved from one position to the other said spring is carried past the pivotal point of said arm.

An arm of the form shown having an upper and lower extension swung in the manner shown is exceedingly strong and cannot sag under the weight likely to be imposed upon it and above all the arms will properly remain in the position placed without regard to outside influences. It is not necessary to have the axes of the pairs of holes exactly coincident and therefore it is not required that the plate K be located with precision upon the plate H and for this reason the device can be assembled quickly and in having but few parts it can be manufactured at low cost while being thoroughly efficient in all respects.

I do not wish to be confined to the exact arrangement of the device shown in Figs. 1 and 2 since various changes may be made without departing from the spirit and in-

tent of the invention, for instance, while an arm of two extensions is preferable, for the reason that it is capable of better supporting a weight, a single arm would be held as positively in its extreme positions.

I prefer to make the arm O of a light gage of wire since its upper stretch is a tension member by being under strain in supporting the weight of the goods under display. The lower member of the arm is a compression member since the weight of the goods places pressure on it in the direction of its length. This pressure tends to buckle or bend the lower member laterally and in order to provide against such a tendency I furnish a member indicated at O'. This is merely a strip of metal in the form of an inverted U which is slipped upon the said lower member before the arm is placed in the support H, K. This member O' serves to prevent the arm-member bending laterally by meeting the walls thereof and besides this the said member serves as a retainer for the display whether wall paper, a rug or other goods. Said member O' as shown has its edges rounded by recurving or doubling the metal upon itself. This strengthens said member and also allows it to be easily placed upon the arm O. The article of display is first hung upon the latter and then the member O' is forced down over it and said arm and constitutes a clip. The inturnd edges allow the member to be readily forced over the article and removed without tearing or cutting it. By using a light gage of wire for the arm the cost of production is reduced very materially and the member O' described serves an admirable purpose. The form of the support for the arms O is novel and provides a convenient structure and one of low cost in that the two members H and K are both made of sheet metal but with the desired form and which in having the depending flanges are rigid throughout and will support considerable weight, the said flanges being preferable as a structural feature irrespective of what means may be employed to hold the arms at their extreme positions and I need not depend upon the grooved form of the member F since that is described merely as one manner of constructing my improved rack.

I claim:

1. A display rack comprising a support having an extension, an arm mounted to

swing thereon and adapted to lie normally in one of two positions each of said positions being at one side of a central one, said arm having a recurved extension co-acting with the support to hold said arm in one of its said extreme positions.

2. A display rack comprising a support, a member having pivotal support thereon and adapted for a swinging movement to two extreme positions, and a second member with which the first is adapted to have contact in a part of its movement and for positively holding said first member in one of its extreme positions, one of said members adapted to flex.

3. A display rack comprising a support, a swinging arm mounted thereon adapted to have two extreme positions, and means located in the path of the arm substantially midway of said positions with which the arm engages and by which it is positively held in said extreme positions.

4. A display rack comprising a support, an arm mounted thereon adapted to swing to two extreme positions, and means located between said positions and adapted for controlling the arm and to positively but yieldingly hold it in either of its said two extreme positions.

5. A display rack comprising an upper and a lower member, one of them having a hole and also having a depending flexible portion, a swinging arm having an extension to enter said hole, said extension being bent in the direction of the free end of the arm to engage the said flexible portion, said arm also including a second extension to engage the other of the described members.

6. In a device of the class described, the combination of two superimposed horizontally disposed members of metal, one of them having an extension to separate it from and to rest on the other, lying substantially parallel to one another and fixed relatively, one of them having a flange extending lengthwise thereof and one of them having, also, a series of holes, and an arm having two extensions, one of them to engage one of the holes, and the other having pivoted support on the other of the members.

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

LEWEN RUSSELL NELSON.

Witnesses:

E. J. ABERSOL,
L. M. THURLOW.