(No Model.)

L. T. SNOW.

DISPLAY FRAME.

No. 564,034. Patented July 14, 1896.

Fig. 1

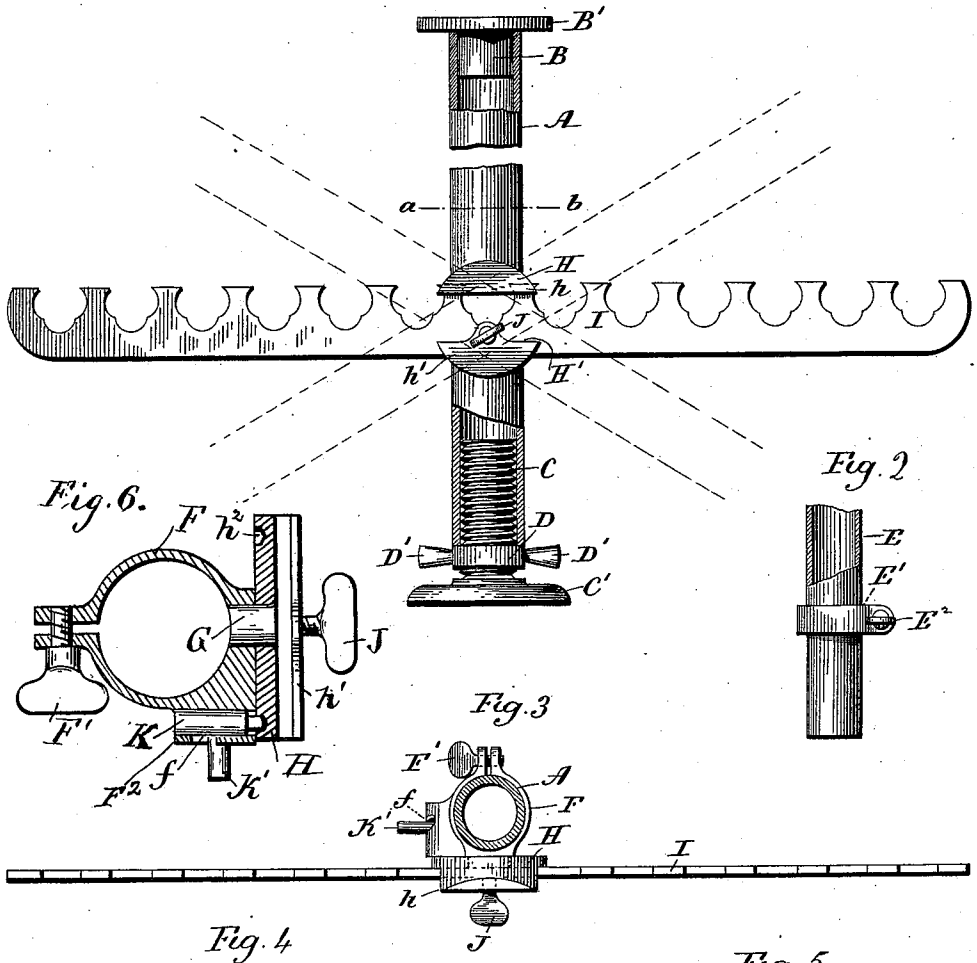


Fig. 6.

Fig. 2

Fig. 3

Fig. 4

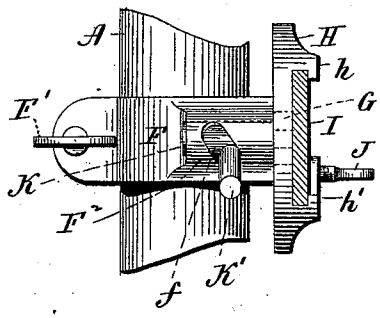
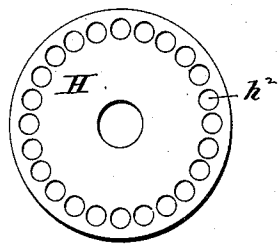


Fig. 5



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UNITED STATES PATENT OFFICE.

LEVI T. SNOW, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE NEW HAVEN DISPLAY FIXTURE CO., OF SAME PLACE.

DISPLAY-FRAME.

SPECIFICATION forming part of Letters Patent No. 564,034, dated July 14, 1896.

Application filed September 7, 1894. Serial No. 522,321. (No model.)

To all whom it may concern:

Be it known that I, LEVI T. SNOW, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Display-Frames; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view, partly in vertical section and partly in side elevation, of one form which a display-frame constructed in accordance with my invention may assume; Fig. 2, a detached view, in side elevation, of the extension-piece which I may employ in connection with the said device; Fig. 3, a view in transverse section on the line *a b* of Fig. 1; Fig. 4, a detached broken view showing the bracket applied to the post in side elevation, the notched arm being represented in section; Fig. 5, a detached view, in inside elevation, of the rotatable head which carries the arm; Fig. 6, a detached view, in horizontal section, of the bracket and the rotatable head carried thereby.

My invention relates to an improvement in that class of display-frames which consist, essentially, of one or more tubular posts adapted to have their opposite ends supported, and one or more projecting arms applied to the said post or posts, the said frames being particularly designed to be used in the show-windows of stores for the display of haberdashery, fancy goods, hats and caps, boots and shoes, and other articles commonly displayed in show-windows.

The object of my present invention is to produce a simple, compact, convenient, and attractive device, the post or posts of which are adapted to be readily contracted or extended in length, as circumstances may require, and the arm or arms of which are adapted to have practically universal adjustment.

With these ends in view my invention consists in a display-frame having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

For the purposes of illustration and description, I have deemed it sufficient to show a display-frame having a single post and a single arm, although it is to be understood that I may employ two or more posts, and as many arms as may be required, without departing from my invention.

In carrying out my invention, I employ a tubular post A, which will be substantially of the required length. Into the upper end of this post I insert the sleeve B of a removable flanged bearing-head B′, while I set the lower end of the post down over the upper end of an externally-threaded standard C, terminating at its lower end in a foot C′, and having mounted upon it an adjusting-nut D, having oppositely-projecting handles D′ D′, the said nut being adjusted in position upon the threaded standard so that the lower edge of the post will rest upon it.

It will be readily understood that by turning the nut in one direction or the other the post will be raised or lowered, whereby it is virtually adjusted in length.

In putting up the device, the adjusting-nut is turned so as to lift the post until the flanged bearing-head has not only been firmly impinged against the ceiling, but also the lower end of the post has been firmly seated upon the adjusting-nut, and the foot of the threaded standard has been firmly pressed upon the floor.

If desired, the bearing-faces of the standard and bearing-head may be provided with teeth or otherwise roughened to prevent their turning or slipping. All of the parts of the device are thus placed under sufficient compression to give the post the required stability of position.

It will be equally clear that by reversely rotating the nut the post may be virtually contracted so as to be readily moved into a new position or taken down and carried away.

It will also be clear that the post may be virtually extended or contracted in length within the limit of the length of the threaded standard, so that the standard may be utilized to compensate for the usual variations in the height of the shop room or window at different points therein. Therefore, notwithstanding inequalities in the floor or ceil-

ing, the device may be moved about and set in different places without blocking it up or cutting off the post. The advantages just described will of course obtain also when the post is arranged horizontally between two side walls, as it may sometimes be.

While the threaded standard gives some range of adjustment, it may be desirable in some cases to provide for a considerable elongation of the post. With that end in view, I provide a tubular extension-piece E, substantially corresponding in external diameter to the internal diameter of the post, and furnished with an adjustable supporting band or collar E′, having a clamping-screw E^2 for clamping it upon the extension-piece. The said supporting band or collar is designed to rest upon the upper edge of the post and so suspend the tubular extension-piece therein, with the upper end thereof projecting more or less, according to the position of the supporting band or collar. By lowering the clamp upon the extension-piece the post will be virtually extended, while by raising the band or collar upon the extension-piece the post will be practically shortened. When the extension-piece is used, a flanged bearing-head B′, of proper size to fit the extension-piece, will be inserted into its upper end. I may mention here, however, that although I prefer to use a flanged bearing-head, it may be dispensed with altogether, as, for instance, where there is a wooden ceiling.

Each post is provided with one or more vertically-adjustable brackets F, of which only one is shown herein, the said bracket being furnished with a clamping-screw F′, by means of which it is clamped in any desired position upon the post. The opposite end of the bracket has a flat bearing-face, from which a stud G projects horizontally, the said stud forming a center for the support of a vertically-arranged, rotatable, circular head H, the outer face of which has a diametric groove H′ to receive the notched arm I, which is held in place by inwardly-extending flanges *h* and *h′*, formed integral with the head, the flange *h′* being extended farther inward than its fellow and adapted to receive a clamping-screw J, the inner end of which impinges against the arm I to prevent the same from moving longitudinally. By loosening the clamping-screw J, the arm may be moved through the head in one direction or the other, as desired, while by turning the head on the stud G the arm may be given inclination in one direction or the other, or placed in a horizontal position, in which it will stand at a right angle with the post.

For the purpose of locking the head against rotation, I form in its inner face a circular series of conical holes h^2, which receive the conical inner end of a locking-bolt K, arranged horizontally in a chambered lug F^2, formed to receive it on one side of the bracket, the outer wall of the said lug being cut away to form an inclined slot *f*, through which projects an operating-pin K′, mounted in the bolt. The said slot is arranged in pitch so that its outer wall coacts with the operating-pin to shoot the bolt forward and seat the conical end thereof in one of the conical holes in the rotatable head, whereby the same is firmly locked against rotation, whereas, on the other hand, when the pin is raised from its locked position it coacts with the opposite wall of the slot and operates to positively withdraw the bolt from the head and permit the same to be turned as required.

From the foregoing it will be clear that the arm may be adjusted longitudinally in the head, that the head may be rotated so as to change the inclination of the arm, and that the bracket may be adjusted vertically on the post so as to change the vertical position of the arm. Furthermore, the bracket may be rotated upon the post, whereby the arm may also be given other positions.

By adapting the post to be adjusted in length, so as to permit it to be shifted about as required and used in different places, I secure an important advantage over display-frames as formerly constructed, which were not extensible nor adapted to be placed under longitudinal compression, but required to have their opposite ends attached to the floor or ceiling by screws or corresponding means. Furthermore, by the employment of the extension-piece I am enabled to secure so great a range of extension that one device may be used in different stores and windows, the device therefore being practically universal in its use, whereas devices of this class as now constructed have to be made with reference to some one particular place and used there exclusively unless made over to meet other requirements.

By constructing the device so as to secure the wide range of adjustment in the arms that I have mentioned I am enabled to adapt the device to be used in almost any situation and to conform it to almost any scheme or form of display. I am also enabled to remove the arms for the convenient transportation of the device.

As a whole, the device, by reason of its construction, is readily knocked down for storage and transportation and as readily reassembled.

I do not limit myself to using the extension-piece nor to employing the particular form of bracket and head and notch arm herein shown and described, though the construction shown I have found satisfactory in use.

If preferred, I may employ an arm which is not notched, and in case I use an extension-piece I may transfer the bracket from the post to the same.

I would therefore have it understood that I do not limit myself to the exact construction shown and described, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I am aware that a display-frame having a tubular post, a bracket adjustably mounted thereupon, a rotatable head connected with the bracket, and a notched longitudinally-adjustable arm mounted in the said head is old. I am further aware that it is old to provide a tubular brace with an adjustable end piece comprising a screw adapted at one end to enter the brace and at its opposite end to take a bearing, and also comprising a nut mounted upon the screw and impinging against the end of the brace, which is virtually lengthened or shortened by the turning of the screw in one direction or the other to decrease or increase the extension of the screw into it. I do not, therefore, claim either of these constructions broadly.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a display-frame, the combination with a tubular post and means for supporting the same in an upright position, of a bracket mounted on the post, vertically adjustable thereon and constructed with a flat bearing-face located in a vertical plane and with a horizontal, chambered lug, a vertically-arranged, rotatable circular head bearing against the said bearing-face of the bracket, mounted upon a stud projecting horizontally from the said face, having a circular series of holes formed in its inner face, and constructed with a diametric groove formed in its outer face and with flanges extending inward over the edges of the said groove, one of the said flanges being furnished with a thumb-screw; a longitudinally-movable notched arm fitting in the said groove and held in place therein by the said thumb-screw, and a bolt located in the chambered lug of the bracket, and taking when projected into one hole of the series of holes formed in the inner face of the said head, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

LEVI T. SNOW.

Witnesses:
FRED C. EARLE,
GEO. E. HALL.