(No Model.)

S. NEWMAN & H. R. BOTHWELL.

DISPLAY STAND.

No. 595,196. Patented Dec. 7, 1897.

Fig. 1.

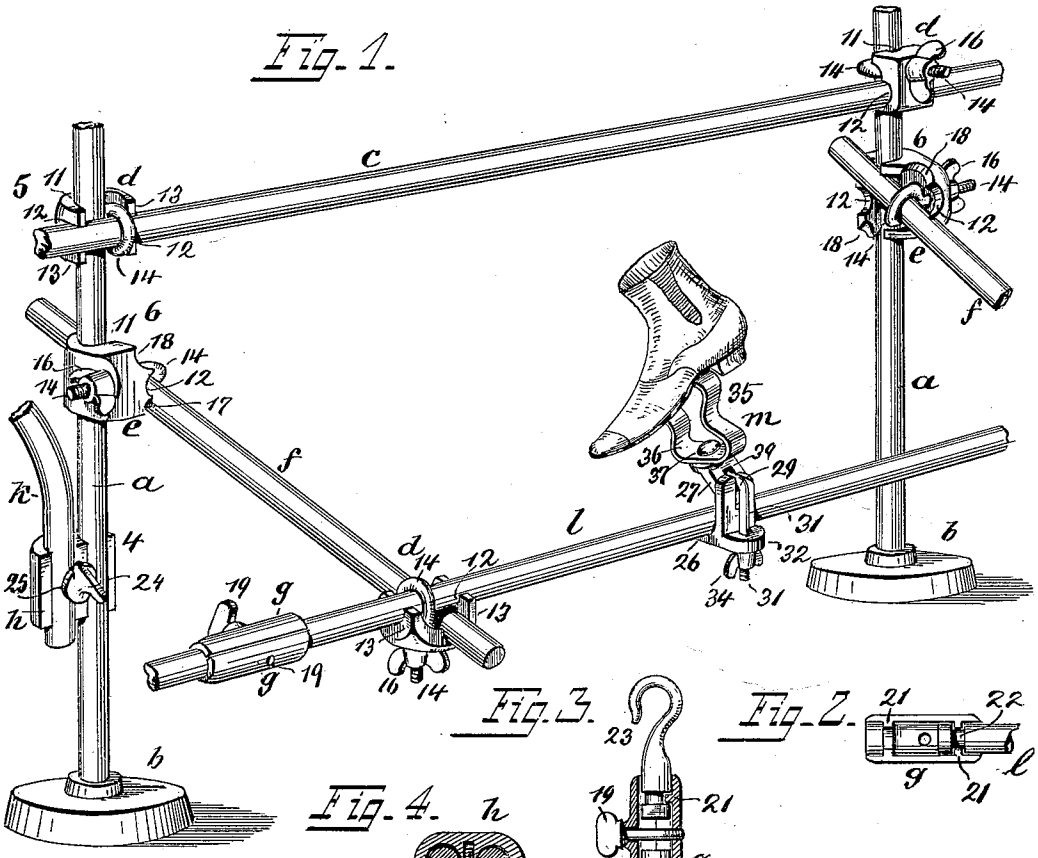


Fig. 3.

Fig. 2.

Fig. 4.

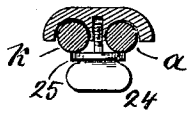


Fig. 5.

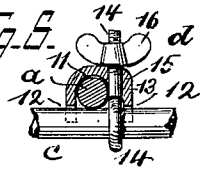


Fig. 8.

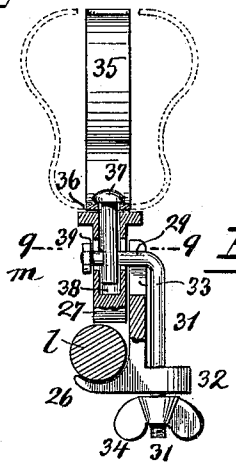


Fig. 6.

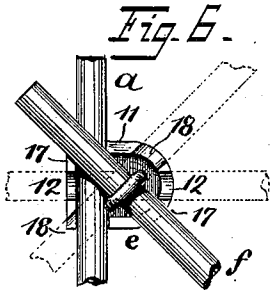


Fig. 7.

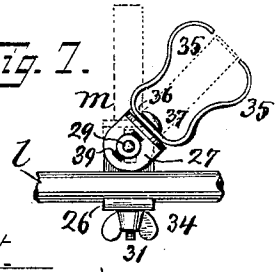
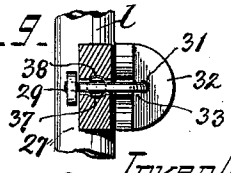


Fig. 9.



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UNITED STATES PATENT OFFICE.

SAMUEL NEWMAN AND HENRY R. BOTHWELL, OF CINCINNATI, OHIO; SAID BOTHWELL ASSIGNOR TO SAID NEWMAN.

DISPLAY-STAND.

SPECIFICATION forming part of Letters Patent No. 595,196, dated December 7, 1897.

Application filed December 16, 1896. Serial No. 615,843. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL NEWMAN, a citizen of the United States, and HENRY R. BOTHWELL, a subject of the Queen of England, both residents of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Display-Stands; and we do declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference letters and numerals marked thereon, which form a part of this specification.

This invention relates to improvements in the construction, parts, and fittings required to form display-stands for show-windows, stores, &c.

It relates particularly to such stands which are composed of rods in sections of various lengths, some of which are used to form standards or uprights, while others carried by these uprights form the direct supports for the goods to be displayed, serving also as means to connect the uprights, constituting with them the frame or stand complete. These rods for purposes of forming a stand are connected and held together in various ways by fittings and may be adjusted in length by coupling one or more sections together, all parts and fittings being interchangeable, so that frames and structures of different styles, shapes, and sizes may be erected, which may at any time be taken down and converted to form other frames of different size, shape, and style to change the appearance of the show-windows for the purpose of maintaining their attractiveness.

In addition to the parts referred to there are special fittings which by their particular arrangement are adapted to serve as supports for shoes, hats, &c., and all of which as to one of their parts are of universal construction, to be capable of attachment at any point of the erected structure, while their other parts are of such special construction as is best suited to support the particular article which they are intended to display.

The novelty of our invention relates to features of construction of the different fittings—that is, those whereby rod-sections are connected to each other or to other parts in certain ways and for certain purposes—of such fittings whereby the rods are connected to compose the frame or structure which forms the display-stand complete, and finally of those which are attached to the completed stand and serve as direct supports for articles.

The principal object of our invention is to improve the construction of all the parts mentioned, to simplify and facilitate their manipulation.

In the following specification, and particularly pointed out in the claims, is found a complete description of our invention and its manner of use, parts, and their construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 shows in a perspective view a display-stand erected in primitive style, but showing application of all features of our invention. Fig. 2 is a view of one member of a coupling whereby rods are connected endwise, with the end of one of the rods to be connected in position. Fig. 3 is a sectional view through this coupling when all parts and the adjoining rod ends are in position and connected. Fig. 4 is a horizontal section of a fitting and joint whereby two rods are connected sidewise. (See left standard of Fig. 1.) Fig. 5 is a horizontal section through a fitting and joint whereby two rods are connected at right angles. The particular joint through which the section is taken is indicated by 5 in Fig. 1. Fig. 6 is a side elevation of a fitting and joint indicated by 6 in Fig. 1 and whereby two rods are connected to each other at an angle other than a right angle. Fig. 7 is a front elevation of an independent fitting which may be attached anywhere and is intended for articles requiring a special support, like shoes or hats, for instance. Fig. 8 is an enlarged sectional side view of Fig. 7, and Fig. 9 is a horizontal section on line 9 9 of Fig. 8.

The principal parts of these structures are rods or tubes, either plain, fluted, or corrugated, and should all be of equal thickness

to simplify the construction of the fittings whereby they are connected and to facilitate their interchange.

For erecting a standing frame rod-pieces *a* of desired length are first selected to form the uprights and are either directly connected to or screwed to the floor of the show-window or to suitable blocks forming bases *b*. For arms projecting from these uprights or for the purpose of connecting them other pieces *c* are used, which are secured by fittings *d*. These fittings are substantially of a yoke shape and have on one side rod-bearings 11 and 12 12, arranged at right angles to each other and one below the other. Rod-bearing 11 is formed in the deepest part of the yoke, while bearings 12 are formed in the lateral members 13 thereof. The depth of these latter bearings is such that when a rod is placed in them it lies and is capable of bearing against the rod placed first in bearing 11. Before this first-mentioned rod, which is last put in position, is placed in its bearings 12 12 the eye of an eye-screw 14 is slipped on it, the shank of which is passed through an opening 15 in the bottom of the yoke and to one side of rod-bearing 11. By means of a nut 16, placed on the projecting end of screw 14, the upper or outer rod is drawn closely into its bearings 12 12, thereby also pressing against the lower or inner rod and securely holding the same in its bearing 11.

Where it is desired to have the joining-rods connected at an angle other than a right one, it is only necessary to change the position of the rod-bearings with reference to each other or to provide additional rod-bearings for angle positions. For such a contingency a fitting *e* is provided, as shown in Fig. 6 and in its application in Fig. 1, where it is used to connect rods *f* to uprights *a* at an angle of about forty-five degrees. In addition to the rod-bearings 11 and 12 at right angles it has bearings 17 17 and 18 18 at intermediate angles to the bearings first mentioned.

The connection by eye-screw 14 is the same as in fitting *d*. In shape it differs somewhat from fitting *d*, looking more like a cup of irregular shape, in the margin or side of which the additional bearings are cut down edgewise. Having also bearings at right angles to each other, it may be used in place of fitting *d*.

For connecting rod-sections endwise to form rods of extended length, as shown in Fig. 1, (lower rod,) couplings *g* are used, which consist, substantially, of a lengthwise-split sleeve the sections of which when in place fit around the rod and are held together, with the rod ends between, by a screw 19, passing loosely through one of the sections and entering a screw-threaded hole in the other. An inwardly-projecting feather 21 is provided near each end of at least one of the sleeve-sections fitting into grooves 22, one near the end of each of the rod-sections to be connected, prevents the ends of these latter from slipping endwise out of the connecting-sleeve. Sometimes display-fixtures are suspended from the ceiling, in which case this coupling may be used to connect a suitable hook 23 to the rod to be suspended, as shown in Fig. 3. It may also be found necessary or desirable to connect rods sidewise, which is done by a fitting *h*, as shown in Fig. 4 and in its application at 4 in Fig. 1. It is principally used where a curved rod *k* in form of a lateral branch connects to another rod and not at the end of the same. It consists, substantially, of two rod-bearings arranged parallel side by side and is provided with a screw 24, entering between them. The latter has a flange 25 of a size to reach at least to the center of each rod, to either side of it, which is sufficient to hold them in place and completes the connection. Additional horizontal rods *l* may be used and connected either to uprights *a* or arms *f*, or both, as may be expedient. Fittings *d* or *e* are used for this purpose. The articles to be displayed are either hung directly upon these horizontal rods or are carried by fittings *m*, which are attached to them, and which consist, substantially, of two parts, one part whereby they are attached in place and the construction of which is alike in all of them to permit attachment at any point, while the other part serves to carry the article which it is intended to display and is specially constructed so as to support the article in the most suitable way according to its nature. It is preferable, and in our case made a particular object, that the second or supporting part have an extended adjustment on the first part, so that after an article is placed it may be turned and inclined in any way to display it to the best advantage. The part whereby this fitting *m* is secured to the rods is substantially a clamping device and consists of the two opposing members 26 and 27, capable of sliding on each other and having clamping-faces which engage the rod between them. Member 27 has a twofold adjustment with reference to member 26, one being a reciprocatory one to or from the other member and constitutes the clamping action. The other adjustment is a pivotal one and permits the clamping attachment to be secured with member 27 in a position either straight or more or less inclined to either side with reference to the other member or to the rod between them. For such purpose the connection between these two members is by a screw, the upper part 29 of which is bent at right angles to the shank 31 thereof and passing through the two members forms the pivotal connection between them. The shank passes down on the outside of member 26 and loosely through a flange 32 thereof. As between member 27 and screw part 29 the connection is not a rigid one, part 29 passing simply through a round hole to permit the pivotal adjustment above mentioned. As to member 26 screw part 29 passes through a slot 33 thereof, so that screw

part 29, with member 27, may move to or from the clamping-face of member 26, as the case may be, and obedient to the action of a nut 34 on screw-shank 31, and whereby the clamping action of the device is obtained for the purpose of attaching the fitting.

It may be mentioned yet that the clamping-face of member 27 should be round, as best shown in Fig. 7, to permit its angular adjustment. The other part of fitting *m*—that is, the one which supports directly the article to be displayed—is, as said before, constructed to be best adapted to the nature of the latter.

In our case we have shown two spring-arms 35, between the ends of which, by reason of their opposing action, certain articles may readily be held. This construction is particularly well adapted to support shoes to be displayed. In order to be able to exhibit them from any side, the base 36, from which arms 35 rise, is pivotally connected to the upper part of member 27, so that the shoe may be rotated to show any particular part of it, and since member 27 is also capable of an angular adjustment in which arms 35 participate it follows that in addition to the rotary adjustment the shoe may also be tipped to show its sole or inside, as may be desired.

Where an article—a shoe, for instance—is to be supported in an intermediate inclined position—that is, one with its heaviest part not in the lowest position to which gravitation would tend to move such part—then it becomes necessary to hold it in such intermediate position, because otherwise and by reason of the pivotal connection of the base 36 of arms 35 these parts would simply swing around obedient to the weight of the article. It becomes, therefore, desirable to also lock this second (article-supporting) part after its adjustment to the first part—that is, to that part whereby the whole fitting is attached to the display-stand. This is accomplished by drawing, by means of the head of pivot 37, base 36 tightly against the upper part of member 27 and holding it there. For such purpose the shank of pivot 37 occupies a bore 38 in member 27, within which it is capable of a slight longitudinal movement. The bent part 29 of screw 31 passes also through the shank of pivot 37, which latter is in reality the means of connecting member 27 to screw 29 31. Where part 29 of screw 31 passes through member 27 and on opposite sides of bore 38, the openings for it are slightly enlarged above and below, as shown at 39, to enable it to move with pivot 37 when the latter goes through its slight longitudinal movement by which its head locks base 36 against rotation.

The manipulation and operation of these parts are as follows: The fitting is placed on the display-stand at the desired point with the rod between the clamping-faces of members 26 and 27. The position of arms 35, which support the article, is now adjusted laterally by rotation about pivot 37 or inclined to either side to the desired angle by turning about part 29 of screw 31, or a position due to the conjoint use of the two adjustments may be selected. With the parts so held, nut 34 is screwed against the under side of fitting 26, which causes screw 31 29 to be drawn downward. The first effect will be on the shank of pivot 37, which, being drawn inwardly in its bore, causes its head to tighten on base 36, thereby locking the latter against the upper part of member 27. When all these parts have come in close contact, the continued action of nut 34 transfers its effect upon members 27 and 26, which are drawn toward each other, causing their clamping-faces to engage the rod between them, holding also at the same time member 27 in any angular position to which it has been adjusted. It will thus be seen that with one nut and one operation of it the fitting is not only secured in place, but also held and locked in any one of the many positions permitted by either one of the two adjustments or by a combination of them, as described.

Sections of rods of different lengths, as well as fittings of all the kinds described, are provided in sufficient numbers so that display-stands of various and changeable styles may be erected and provided with the necessary number of fittings *m* to support articles.

Having described our invention, we claim as new—

1. A fitting *d* substantially yoke-shaped for connecting rod-sections of display-stands at an angle, having rod-bearings 12, 12, in its projecting members 13, 13 and a rod-bearing 11 in the deepest part between said members 13, 13, and an eye-screw 14 the screw-shank of which also enters between said members and the eye of which receives the rod occupying bearings 12, 12, thereby connecting the same to the fitting, with the rod occupying seat 11 clamped between them.

2. A fitting substantially cup-shaped for connecting rod-sections of display-stands at an angle, having a number of rod-bearings cut in edgewise in its raised or projecting margin, being all in one plane and a rod-bearing 11 at a deeper plane from the outside of said margin, the difference in depth being substantially equal to the thickness of the rods and an eye-screw 14 adapted to connect the rod occupying one of the outer or higher bearings of the fitting with the other rod clamped between.

3. A fitting for display-stands consisting of a clamping device having two members, connected in a manner to have a reciprocatory adjustment on each other which constitutes the clamping action, said members having also an independent pivotal adjustment on each other in each position of the reciprocal adjustment and one of said members being provided with a supporting device adapted to carry articles to be displayed which latter device has a rotary adjustment of the member which carries it and which adjustment is

independent of the reciprocal as well as pivotal adjustment of said member and one screw connection whereby all parts, that is the members of the clamping device as well as the supporting device are secured in their adjusted positions.

4. A fitting for display-stands consisting of the two clamping members 26 and 27, a bent screw 31 whereby they are connected in a manner to have a reciprocatory as well as pivotal adjustment on each other and a supporting device 35 provided on one of the clamping members.

5. A fitting for display-stands consisting of the two clamping members 26 and 27, a bent screw 31 whereby they are connected in a manner to have a reciprocatory as well as pivotal adjustment on each other and a supporting device 35 secured to one of the clamping members in a manner to have an independent pivotal adjustment thereon.

6. A fitting for display-stands consisting of the two clamping members 26 and 27, a suitable supporting device 35, a pivot 37 whereby this latter is secured to one of the clamping members and the shank of which pivot is seated in a bore in such clamping member and the bent locking-screw 31, 29 which connects all parts in the manner and for the purpose described.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

SAMUEL NEWMAN.
HENRY R. BOTHWELL.

Witnesses:
C. SPENGEL,
ARTHUR KLINE.