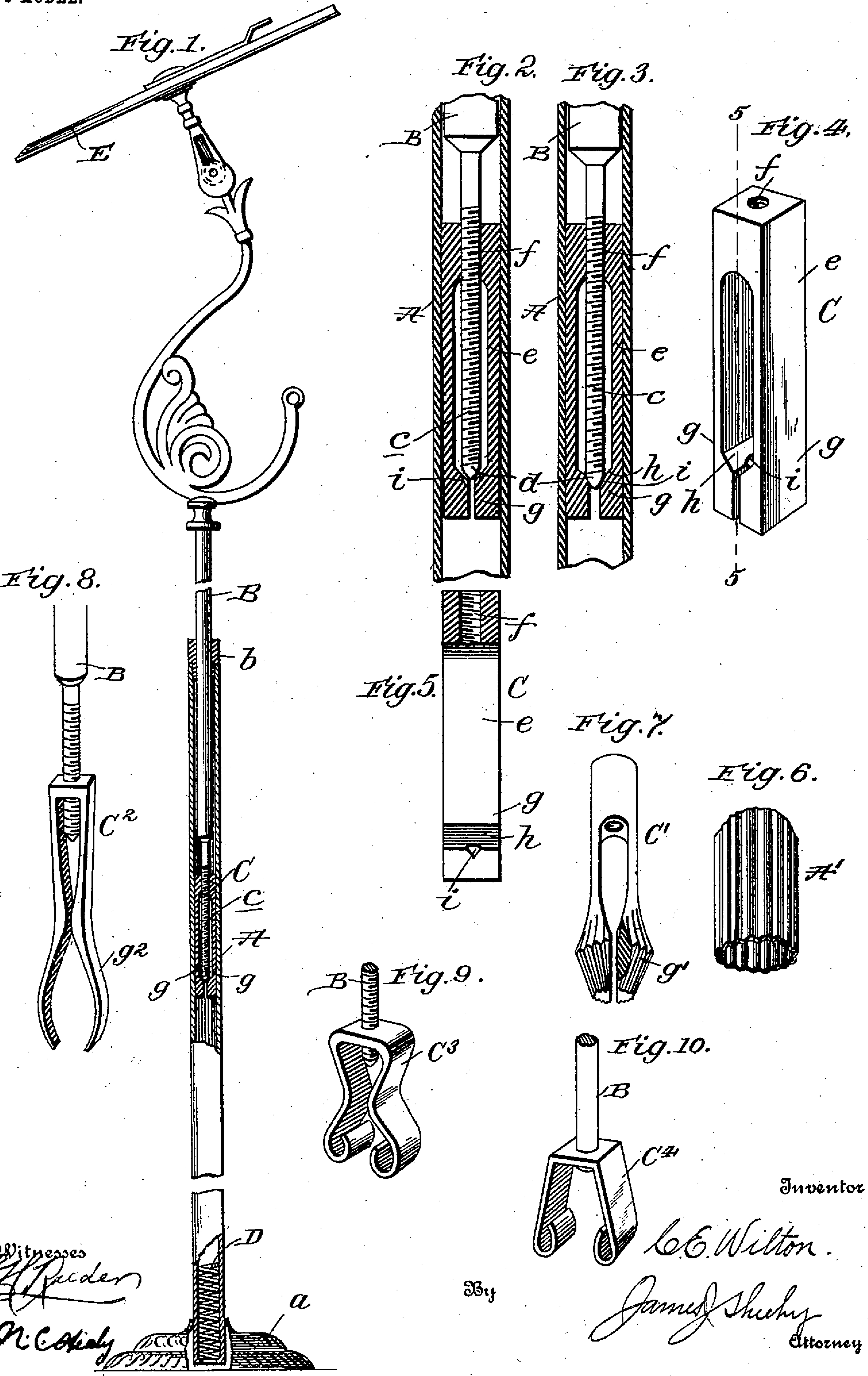
No. 773,241. PATENTED OCT. 25, 1904.

C. E. WILTON.

DISPLAY STAND.

APPLICATION FILED NOV. 23, 1903.

NO MODEL.



Witnesses

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No. 773,241. Patented October 25, 1904.

UNITED STATES PATENT OFFICE.

CARL EDWARD WILTON, OF BRISTOL, PENNSYLVANIA.

DISPLAY-STAND.

SPECIFICATION forming part of Letters Patent No. 773,241, dated October 25, 1904.

Application filed November 23, 1903. Serial No. 182,387. (No model.)

To all whom it may concern:

Be it known that I, CARL EDWARD WILTON, a citizen of the United States, residing at Bristol, in the county of Bucks and State of Pennsylvania, have invented new and useful Improvements in Display-Stands, of which the following is a specification.

My invention pertains to extensible devices, more particularly extensible stands for display and other purposes; and it has for its object to provide a simple, compact, and neat device adapted to be expeditiously adjusted as to length or height and adjustably fixed.

With the foregoing in mind the invention will be fully understood from the following description and claims when taken in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view, partly in elevation and partly in vertical section, of a display-stand constituting one embodiment of my invention; Fig. 2, a detail section, on an enlarged scale, illustrating the shoe of the stand as it appears when free to move in the hollow member thereof; Fig. 3, a similar view illustrating the shoe as set or adjustably fixed in the hollow member; Fig. 4, a perspective view of the shoe removed; Fig. 5, a vertical section of the shoe, taken in the plane indicated by the line 5 5 of Fig. 4; Fig. 6, a broken perspective view of a portion of a modified hollow member; Fig. 7, a perspective view, partly in section, of the shoe used in combination with the modified hollow member; and Figs. 8, 9, and 10, views of other modified shoes.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 5 thereof, A is the hollow member of my novel device, which is preferably an upright fixed to and rising from a foot or base *a*, as shown in Fig. 1. The said hollow member is of angular, preferably rectangular, form in cross-section, and its upper end is closed by a bushing or apertured plug *b*, brazed or otherwise secured thereto.

B is a rod member movable in the hollow member and designed to carry a display-bracket, as illustrated, or any other device to be supported. Said rod member terminates at its lower end in a threaded portion or screw *c*, the lower end of which is tapered, as indicated by *d*, for a purpose presently set forth.

C is the shoe, arranged in the hollow member and having for its function to adjustably fix the rod member with respect to said hollow member when the device is increased or diminished in length to the extent desired. The shoe is of angular form and such size in cross-section that it is held against turning on its axis in the hollow member and yet is free when the screw *c* is in the position shown in Fig. 2 to move lengthwise in said hollow member. It comprises a body portion *e*, having a threaded bore *f*, receiving the screw *c* and jaws *g*, formed integral with the body portion, and having interior beveled shoulders *h* and recesses *i* therein. The jaws are resilient, and when the screw *c* is in the position shown in Fig. 2 the shoe C and the rod member B may be freely moved in the hollow member A to increase or diminish the length of the device. When, however, the rod member B is turned in one direction through a part of a revolution, it will be noticed that the jaws will be forced outwardly by the screw *c* and into frictional contact with the wall of the hollow member, as shown in Fig. 3, with the result that the shoe and the rod member will be securely fixed with respect to the hollow member. To release the shoe and the rod member subsequent to the described fixing thereof with respect to the hollow member, it is simply necessary to turn the rod member through a part of a revolution in the direction opposite to that first mentioned. With this done both shoe and rod member may be freely moved lengthwise in the hollow member.

In virtue of the angular form of the shoe C in cross-section and the arrangement thereof in the hollow member of angular form in cross-section it will be noticed that the shoe is effectually held against turning on its axis incident to the axial rotation of the rod member to fix the shoe to or release it from the hollow member.

When my improvements are embodied in a display-stand, as shown in Fig. 1, it will be observed that the rod member B may with one hand be quickly and easily turned on its axis

to release the shoe, moved endwise with the shoe to increase or diminish the height of the stand, and again turned axially to fix the shoe with respect to the hollow member; also, that when the rod member is adjustably fixed against endwise movement in the hollow member said rod member is enabled to sustain all the weight which display-stands and similar devices are ordinarily required to bear. It will further be observed that the stand is simple, compact, and neat in appearance and embodies no delicate parts, such as are liable to get out of order after a short period of use, or parts that are likely to get misplaced or lost.

In order to prevent shock and jar in case the shoe is rendered loose in the hollow member and permitted, together with the rod member, to fall within said hollow member, I provide a cushion-spring D, Fig. 1, at the lower end of the latter member. This spring will serve when the rod member is used to support a glass display-disk E to prevent breakage of said disk in the event of the rod member and shoe falling as stated.

When it is desired that the hollow member of my novel device be of circular form in cross-section, I prefer to employ a longitudinally-fluted hollow member A′, such as shown in Fig. 6, and in combination therewith a shoe C′, Fig. 7, having longitudinally-ribbed jaws g', the ribs of the jaws being designed to rest in the ways of the hollow member, and thereby hold the shoe against axial movement incident to such movement of the rod member, while permitting the shoe to freely slide endwise with the rod member when the jaws of said shoe are in their normal positions. I do not desire, however, to be understood as confining myself to fluting the hollow member and ribbing the shoe when the same are of circular form in cross-section, as in some cases the resiliency of the jaws may be depended on to afford sufficient frictional contact between the shoe and the hollow member to hold the shoe against axial movement during such movement of the rod member.

In lieu of the shoe C (shown in Figs. 1 to 5) either of the shoes shown in Figs. 8, 9, and 10 may be employed without involving departure from the scope of my invention. The shoe C^2, Fig. 8, has all of the salient features of the shoe C, but differs therefrom in that its resilient jaws g^2 are curved outwardly. The shoe C^3, Fig. 9, differs from the shoes C and C^2 in that its resilient jaws C^3 are curved outwardly and inwardly and upwardly. The shoe C^4, Fig. 10, is suitably connected to and movable with its rod member B, and the tendency of its resilient jaws to spring outwardly is depended on to create sufficient frictional contact between said jaws and opposite walls of a hollow member, such as A, Figs. 1 to 3, to support the rod member and the weight thereon. While the said frictional contact between the jaws of the shoe C^3 and the walls of the hollow member will hold the shoe and rod member against casual downward movement, it is obvious that when pressure or pull is applied to the rod member the shoe may be moved in the hollow member.

I have entered into a detailed description of the construction and relative arrangement of the parts embraced in the present and preferred embodiments of my invention in order to impart a full, clear, and exact understanding of the same. I do not desire, however, to be understood as confining myself to such specific construction and relative arrangement of parts, as such changes or modifications may be made in practice as fairly fall within the scope of my invention as claimed.

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

1. In an extensible stand, the combination of a hollow, upright member, a rod member loosely arranged in and extending upwardly from the hollow member, means contained in the hollow member for adjustably fixing the rod member against lengthwise movement when said rod member is turned axially, and means in the lower portion of the hollow member for cushioning the rod member and the said fixing means in the event of the same falling in the upright member.

2. In an extensible stand, the combination of a hollow, upright member, a rod member loosely arranged therein, a shoe on the rod member and in the hollow member for frictionally holding the rod member against casual movement in the hollow member, and means in the lower portion of the hollow member for cushioning the rod member and the shoe in the event of the same falling in the upright member.

3. In an extensible device for display purposes, the combination of a hollow member, a rod member slidable endwise and movable axially in the hollow member and extending therefrom; said rod member being threaded, and a shoe slidably adjustable in the hollow member and comprising a body portion having a threaded bore receiving the threaded portion of the rod member, and jaws arranged to be engaged by the rod member and pressed outwardly against the hollow member, whereby the shoe may be positively and adjustably fixed in the rod member.

4. In a display-stand, the combination of an upright, hollow member of angular form in cross-section, a rod member slidable endwise and movable axially in the hollow upright member and extending upwardly therefrom and equipped to hold an article; said rod member being threaded, and a shoe slidably adjustable in the hollow member and comprising a body portion having a threaded bore receiving the threaded portion of the rod member, and jaws arranged to be engaged by the

rod member and pressed outwardly against the hollow member; said jaws having an angular shape in cross-section conforming to the angular form of the hollow member in cross-section.

5. In an extensible stand, the combination of a hollow upright member, a rod member loosely arranged in and extending upwardly from the hollow member, means contained in the hollow member for adjustably fixing the rod member against lengthwise movement when said rod member is turned axially, and a spring in the lower portion of the hollow member for cushioning the rod member and the said means in the event of the same falling in the upright member.

6. In an extensible stand, the combination of a hollow upright member, a rod member loosely arranged in and extending upwardly from the hollow member, means contained in the hollow member for adjustably fixing the rod member against lengthwise movement when said rod member is turned axially, a glass plate supported by the rod member, and a spring in the lower portion of the hollow member for cushioning the rod member and the said means in the event of the same falling in the upright member.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CARL EDWARD WILTON.

Witnesses:
THOS. G. LESLIE,
JOHN T. THORNE