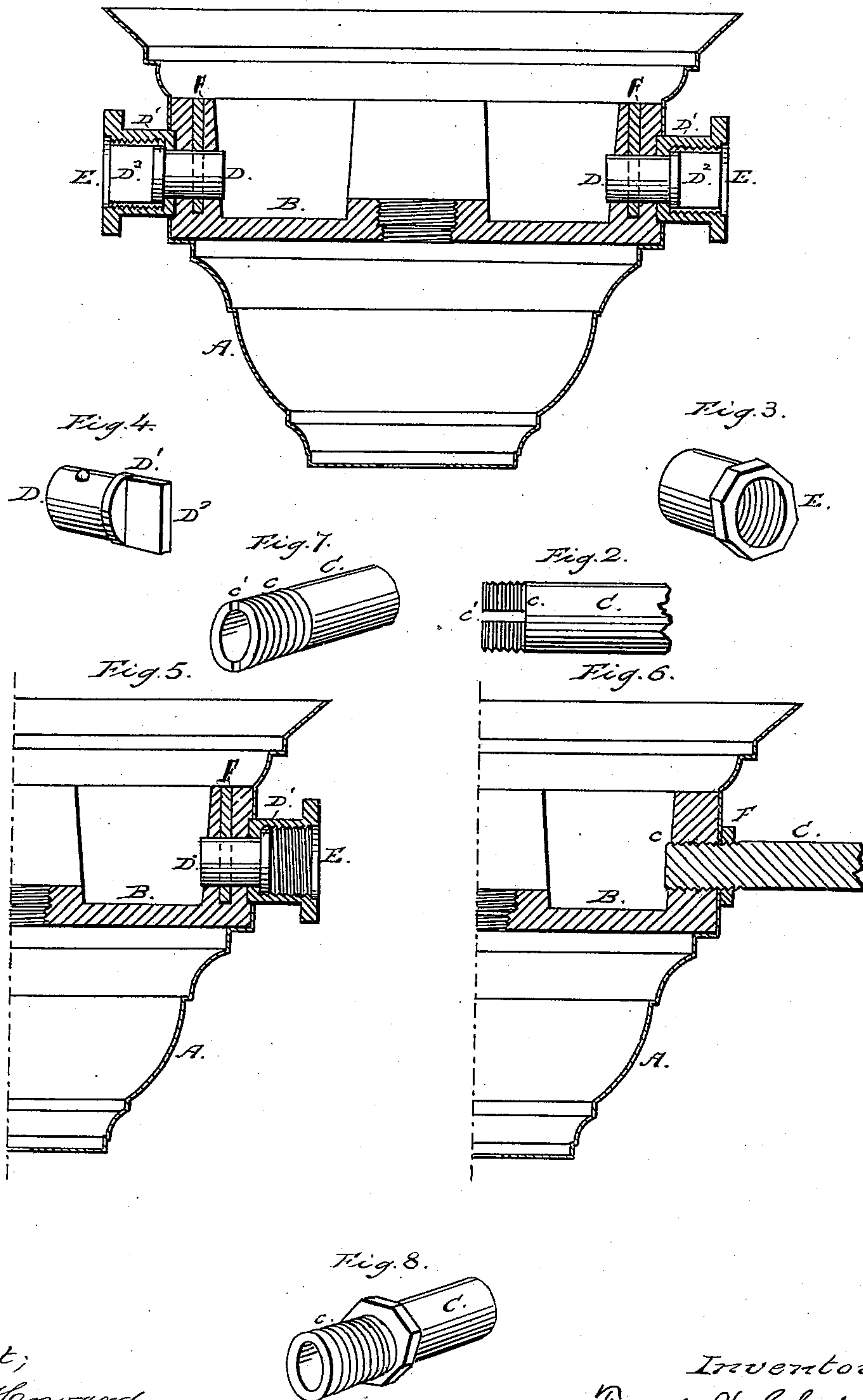


(No Model.)

F. H. CHAPMAN.
CHANDELIER.

No. 309,818.

Fig. 1. Patented Dec. 30, 1884.



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UNITED STATES PATENT OFFICE.

FRANK H. CHAPMAN, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
CHARLES PARKER COMPANY, OF SAME PLACE.

CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 309,818, dated December 30, 1884.

Application filed March 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. CHAPMAN, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Chandeliers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to chandeliers, and especially to chandelier center boxes and means for attaching the arms thereto.

It is an improvement on Patent No. 151,982; and it consists in the combination of arms screw-threaded on their inner ends, with a center box provided with an internal hub for supporting the said arms, said hub being provided with female screw-threads to receive the threads on said arms.

20 It further consists more particularly in the combination of screw-threaded sleeves with said hub and arms and the casing of the center box, said sleeves being rotatable independently of the arms and serving to draw the latter inward.

It also consists in the combination of guide-pieces for the ends of the arms with said arms, sleeves, hub, and the casing, the arms being slotted to fit on said guide-pieces, and the latter being arranged within said sleeves, as hereinafter particularly set forth and claimed.

30 In the accompanying drawings, Figure 1 represents a vertical section through a center box and proximate ends of chandelier-arms embodying my invention, the arms being detached. Fig. 2 represents a detail plan view of the slotted inner end of one of the arms. Fig. 3 represents a detail inner perspective view of the sleeve. Fig. 4 represents a detail perspective view of the guide-piece. Fig. 5 represents a sectional view similar to Fig. 1 of a part of one of my center boxes which does not use the guide-piece. Fig. 6 represents a similar sectional view of a part of one of my boxes which does not use either the tube or the guide-piece. Fig. 7 represents a perspective view of the end of the chandelier-arm suited to the box shown in the Fig. 1, and Fig. 8 represents a similar view of the arm for Fig. 2.

50 The construction shown in Fig. 1 has con-

siderable and obvious advantages over the constructions shown in Figs. 5 and 6.

A designates the exterior casing of the center box, and B the hub arranged within the same, as in the patent aforesaid. 55

C designates the arms of the chandelier, having at and near their inner ends external screw-threads, *c*, and, as shown in Figs. 2 and 7, longitudinal slots *c'*, extending forward from said ends through the screw-threaded portions 60 aforesaid. As these arms are preferably tubular, each of them has two of these slots *c'* arranged in the same longitudinal plane, either vertical, horizontal, or inclined, and adapted to receive the same guide-piece, D. Each 65 guide-piece is removably attached to said hub by transverse pins F, as indicated in the drawings, or in any other convenient manner, and extends outward through the casing of the box, and through the rear end of a metal sleeve 70 or cap, E, which is provided with an opening to receive the same. Within said sleeve or cap the said piece D is provided with a disk, D', which braces said cap and, being larger than the rear opening in the latter, prevents 75 it from separating from the box. The outer part, D², of said guide-piece is flattened so as to fit said slots *c' c'*, and the inner face of said sleeve or cap E is screw-threaded to fit the screw-threads *c* on the inner end of said arm. 80 The piece D holds said sleeve or cap loosely against the hub B, and allows said sleeve or cap to turn freely. The outer casing, A, of the center box has openings of slightly greater diameter than that of said sleeves or caps, so 85 that they may turn therein, said casing serving to protect and hide the inner ends of said sleeves.

In applying each arm the slots *c'* are first fitted on the outer edge of the guide-piece D, 90 and the screw-threads at the ends of the sleeve and arm are thus brought into contact. The sleeve or cap is then turned until the arm has been drawn home into the socket formed by said sleeve. The guide-piece D prevents said 95 arm from turning, thus causing it to retain the proper position for supporting the illuminating device on its outer end, and also insuring its being drawn in with the least expenditure of time and effort. 100

In Fig. 5 no part corresponding to D^2 is shown, for in this form of my improved arm-attaching devices the sleeve E has no guiding device, and the arm is rotated to screw it home. The disk D' is retained, and so is the inner part of piece D, but solely for the purpose of attaching the sleeve to the hub of the center box and allowing it to turn. In Fig. 6 the sleeve is also dispensed with, and the arm is screwed directly into the hub B, the latter having been screw-tapped to allow of such attachment. A set-nut, F, is employed to prevent the detachment of said arm from the center box, said nut being in engagement with the screw-threads c of said arm and in contact with the outer face of said box. In Figs. 6 and 8 the arms are not slotted.

The screwing the parts together, as hereinbefore described, makes the attachment much more secure than where the arms are simply hooked into the hub and provided with external braces. By this construction I am enabled to attach the arms easily and strongly to the hub B, or devices attached thereto, without in any way straining the casing A, and I may use a casing which is in one piece as readily as a sectional casing. There is no need to take the center box apart or loosen any portion of it for the purpose of inserting and attaching the arms.

I am aware that it is not new to screw chandelier-arms into a center box. Such construction and combination I do not broadly claim.

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

1. A center-box hub, in combination with internally-screw-threaded sleeves or caps E, removably secured thereto, and chandelier-

arms which are screw-threaded at their inner ends to engage with the screw-threads of said caps or sleeves, substantially as set forth.

2. A set of chandelier-arms which are screw-threaded at their inner ends, in combination with caps or sleeves which are internally screw-threaded, attached to the hub of the center box, and independently rotatable, substantially as set forth.

3. A set of chandelier-arms which are slotted at their inner ends, in combination with guide-pieces attached to the hub of the center box and entering said slots, and sleeves or caps for attaching said arms to said hub, for the purpose set forth.

4. A set of chandelier-arms which are screw-threaded and slotted at their inner ends, in combination with the center-box head, guide-pieces attached thereto and adapted to enter the slots of said arms, and screw-threaded caps or sleeves which engage with the screw-threads on said arms, and are independently rotatable for the purpose of drawing the latter home, substantially as set forth.

5. A guide-piece, D, provided with disk D' and flat part D^2 , in combination with the hub B, to which it is attached, the internally-screw-threaded sleeve E, which it holds in place, the casing A, provided with openings which allow said sleeve to turn, and a chandelier-arm having its inner end screw-threaded and slotted to engage with said sleeve and fit upon said flat part D^2 of the guide-piece, substantially as and for the purpose set forth.

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

FRANK H. CHAPMAN.

Witnesses:

DEXTER W. PARKER,
WM. T. RIGHTMYER.