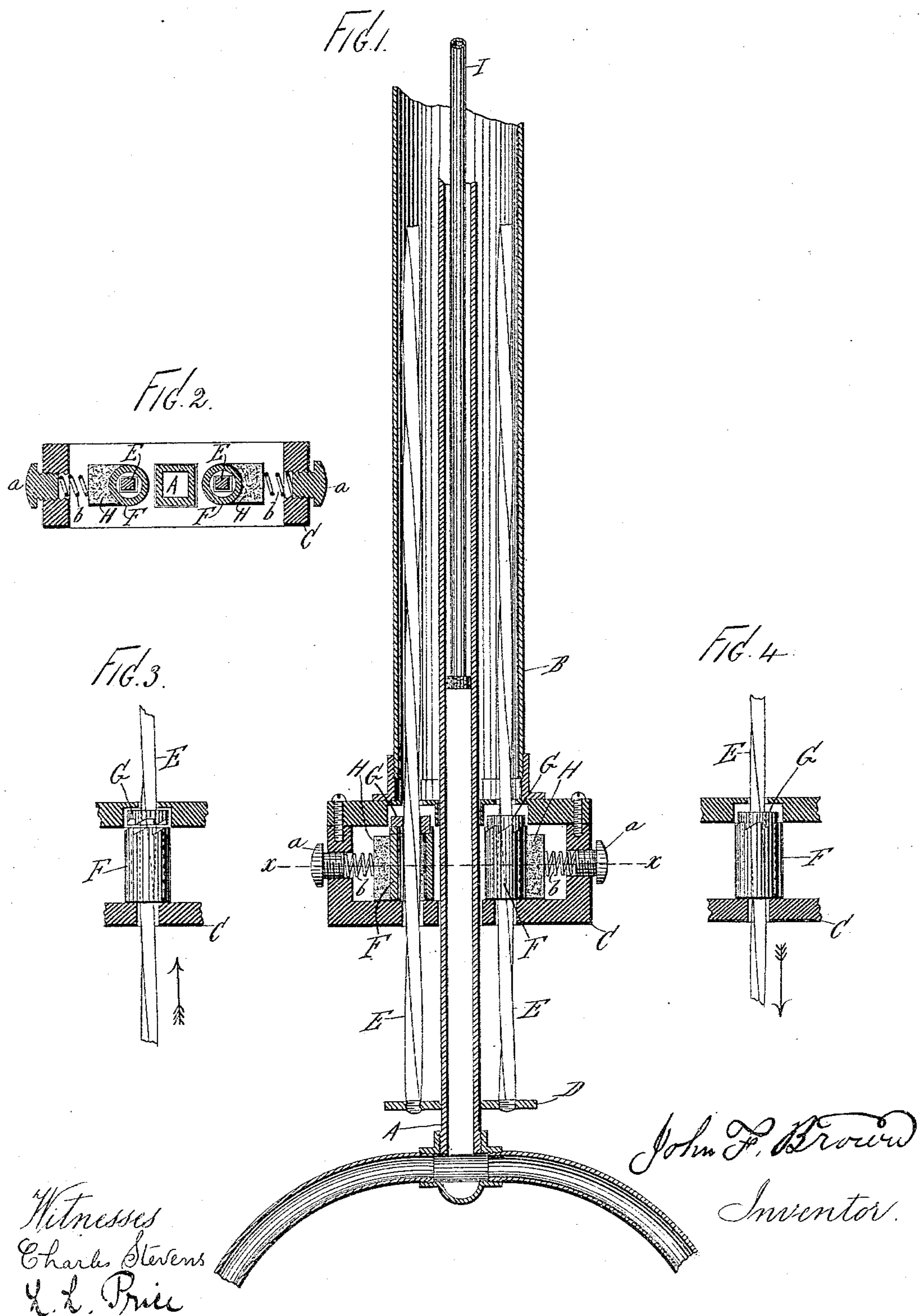


(No Model.)

J. F. BROWN.  
EXTENSION CHANDELIER.

No. 319,061.

Patented June 2, 1885.





# UNITED STATES PATENT OFFICE.

JOHN F. BROWN, OF BROOKLYN, NEW YORK.

## EXTENSION-CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 319,061, dated June 2, 1885.

Application filed August 19, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN F. BROWN, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful  
5 Improvements in Extension-Chandeliers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My improvements relate particularly to the means employed for sustaining the sliding tube and its attachments in a gas-fixture at any desired elevation; but it will appear from the following explanation of the device or im-  
15 provements that the same may be employed in connection with oil or other chandeliers.

The object of my invention is to provide the chandelier with simple, compact, durable, efficient, and easily-operating means for sustain-  
20 ing the sliding tube or rod at any elevation to which it may be adjusted, and permit the required adjustments of the sliding parts without undue friction.

To accomplish this, the invention consists in  
25 a novel construction and arrangement of the retaining device or clamping mechanism, as hereinafter described and claimed.

In the accompanying drawings, wherein like letters of reference indicate corresponding  
30 parts throughout, Figure 1 represents a partial section and elevation of so much of a slide-chandelier as is necessary for the purposes of the present description. Fig. 2 is a horizontal section through line *xx* of Fig. 1. Fig. 3 is an elevation and partial sectional view of a part of the  
35 clamping device detached from the other parts in the position which it assumes when the sliding tube or rod is being moved upwardly, and Fig. 4 is a like view showing the position  
40 of the clamp when the said tube or rod is held at rest or being pulled downwardly.

A represents the sliding tube or rod, which may be of any figure in horizontal section, preferably angular, so that it may be easily  
45 prevented from turning as it is moved up or down. B is the main or pendent tube of the fixture, upon which side arms may or may not be mounted, and which is suspended from the ceiling or otherwise. Upon the lower end of  
50 this tube is a box, C, of any form, which contains the friction-producing clamps.

Connected with the central rod or tube, A, as by the cross-bar D, are one, two, or more twisted or spirally-ribbed rods, E, preferably  
of smaller diameter than the sliding tube or rod 55 A, and so located that they will move up and down in the main tube B, wherein they are concealed when the sliding portion is pushed up. The rods E pass through cylinders F, the  
60 upper surfaces of which cylinders are notched or serrated, as plainly shown, and they also pass through blocks G, which are correspondingly serrated on their under surfaces, and arranged to engage with the cylinders F when in  
65 proper place for that purpose. The blocks G fit closely upon the twisted rods E, or so that when the rods are moved down the blocks G will be compelled to revolve. When the rods  
70 are pushed upward, it is plain that the blocks will rise from off the top of cylinders F, and will produce no turning effects thereon. They are prevented from being displaced by reason  
of being located in suitable recesses provided for them in the top or cap of the box C. When  
75 the rods E are pulled down, the blocks G engage with cylinders F and cause them to revolve.

To prevent the rods E, and thus the drop-light which is connected therewith, from descending below the point to which adjusted,  
80 friction-brakes are applied to the cylinders F to prevent them from turning, and thus holding the sliding part stationary. The brakes shown are of simple construction, consisting of a piece of leather or other substance made to  
85 bear against the surface of the cylinder F, to produce the required friction. These friction-blocks may be adjusted and the amount of friction thus regulated by means of a simple  
90 set-screw, *a*, and intermediate springs, *b*, or by other equivalent means. The friction being by these means regulated to correspond with the weight of the sliding part, a slight pull downwardly is all that is necessary to overcome the holding-power. The  
95 rods E may be hollow or solid, as most preferred, it being only necessary that they cause the blocks G, and through them the cylinders F, to revolve at the times and in the manner  
100 stated.

When used in connection with gas apparatus, the tube A is employed to conduct the gas



to the movable burner, and for this reason a central supply-pipe, I, having a packing-gasket at its lower end, is employed within the tube A. In oil or other chandeliers where gas is not employed this interior tube is not necessary, and in such cases, also, the tube A may be replaced by any rod. The screws *a*, for regulating the amount of friction, are shown as passing through the ends of the box C; but they may be located at any other convenient point. From a consideration of the construction and the arrangement indicated it will readily appear that the friction-producing mechanism is not made to bear upon the sliding pipe or tube, and that this pipe or tube, if made angular, is prevented from twisting or turning by being passed through a corresponding opening in the top of the box C. By employing two rods, E, the liability of damage to the sliding parts by reason of any failure of the clamping mechanism to hold is much reduced, because if one rod or its clamp should fail to work the other would prevent the too rapid descent of the slide. The movable burner or light-giving contrivance is applied upon A in any of the usual ways. The arrangement is compact, and all the parts are readily accessible for adjustment or repairs. The action of the clamp is noiseless, and there are no parts liable to get out of order.

I am aware that in extension-chandeliers the central sliding tube or rod has heretofore been twisted or spirally ribbed and made to pass

through the clamping mechanism, and I do not desire to be understood as making any claim to such construction; but,

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

1. In an extension-chandelier having a sliding tube or rod, one or more twisted or spirally-ribbed rods or tubes movable up and down simultaneously with said sliding tube or rod, and combined with friction-producing mechanism, substantially in the manner and for the purposes set forth.

2. In an extension-chandelier, the main pipe or pendant, the sliding tube or rod movable therein, one or more twisted or spirally-ribbed rods or tubes, also movable within the main tube, and friction-producing mechanism operated by said twisted rods or tubes, combined and arranged substantially as shown and described.

3. The combination of the main tube B, sliding rod or tube A, one or more twisted rods, E, clamp F G, box C, and friction-producing block H, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JOHN F. BROWN.

Witnesses:

CHARLES STEVENS.

L. L. PRICE.