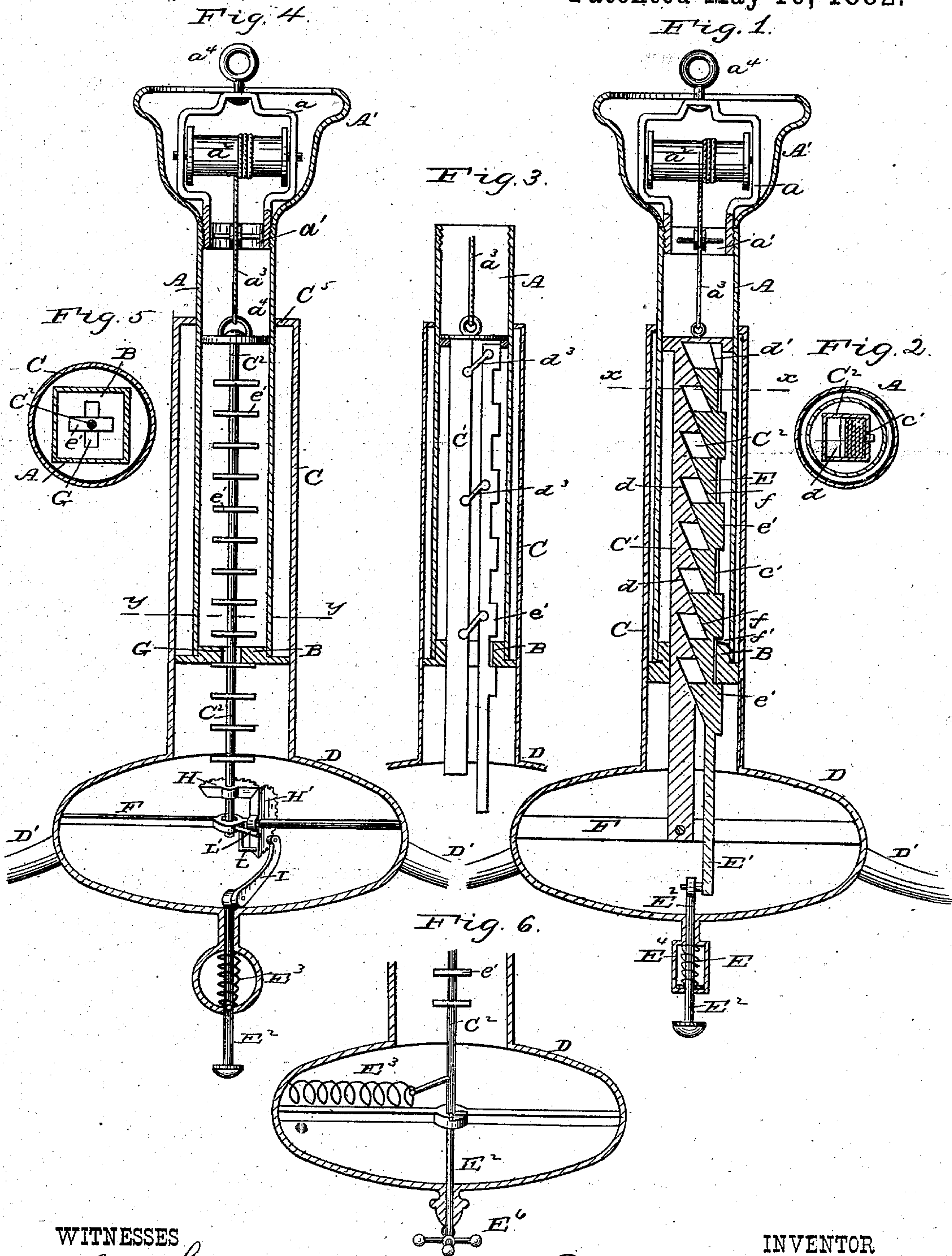


(No Model.)

S. S. NEWTON.
CHANDELIER.

No. 258,104.

Patented May 16, 1882.



WITNESSES

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CHANDELIER.

SPECIFICATION forming part of Letters Patent No. 258,104, dated May 16, 1882.

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To all whom it may concern:

Be it known that I, STEPHEN S. NEWTON, a citizen of the United States of America, residing at Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Chandeliers; and I do hereby declare the following to be a full, clear, 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a vertical section of a chandelier embodying my improvements. Fig. 2 is a cross-section on the line xx of Fig. 1. Fig. 3 shows a modification of the devices for withdrawing the catch-lugs. Fig. 4 is a section of another modified form, the sliding lugs or lock-pieces being arranged to engage on both sides of the center. Fig. 5 is a cross-section on the line yy of Fig. 4. Fig. 6 illustrates another modified form embodying the locking-lugs shown in Fig. 4.

In the drawings, A is an upper stationary tube, with a bulb, A', at the top.

a is a bracket-frame with legs attached to or formed with a threaded ring, a' , screwed into the tube-section A. This bracket-frame a carries a spring-drum, a^2 , preferably having the spring concealed within it. a^3 is a chain or cord secured to the spring-drum at one end. a^4 is a swivel-eye for attaching the chandelier to the ceiling or other fixed point.

At the lower end of the stationary tube A is a stationary stopping device. In the construction shown in Figs. 1 and 3 this stationary stop consists of a round plate with a central square aperture. (See Fig. 2.) In the construction shown in Fig. 4 this stop B is a rectangular plate with an elongated or oblong aperture. (See Fig. 5.) By placing this stationary stop at the bottom of tube-section A the chandelier is permitted to move downward the full length of tube A. With this stationary stop engage movable stops, carried by sliding tube-section C. This tube-section carries the bulb D, which supports the bracket-arms for the lamps D'.

The stops which move with the tube-section

C and bulb D are represented by e' . They may be moved into such position as to engage with the stationary stop B, either by thrusting them outward, as in the construction shown in Figs. 1 and 3, or by rotating them, as in Figs. 4 and 6. In the construction shown in Fig. 1 they are thrust outward by means of wedges or inclined surfaces, preferably arranged as in the said figure—that is to say, said stops e' are formed upon a bar, E, the face of which, opposite to the stop-lugs, is formed with a series of inclined or wedge-like facets. These engage with corresponding wedge-like facets formed upon an opposing bar, C'. This opposing bar C' forms the one side of a square tube, C², adapted to slide through the central square aperture in the stationary tube A and stop B, the sliding bar E, which carries the stop-lugs e' , being situated within this square tube. Upon one side of the square tube there is a slot, c' , through which can pass the stop-lugs e' .

Tube C² is connected to the bulb and the sliding tube-section C by means of cross-bar F, rigidly secured in position within the bulb, to which bar the tube C² is attached. The cord or chain a^3 is fastened to the upper end of the tube C².

The bar E, which carries the stop-lugs e' , can be moved by the operator's hand by means of a rod or link, E', connected to bar E at the upper end and at the lower end connected to a thumb-link, E². This last said link passes through the bottom of the bulb D, and is connected with a spring, E³, which tends to thrust the link downward. It will now be seen that if a spring be used at a^2 , whose tendency is to constantly draw the chandelier upward, the wedge-faces d in the tube C² will crowd against the wedge-faces f of bar E and throw said bar outward, so that the stop-lugs e' shall bear against the stationary stop B and prevent any upward movement of the chandelier. When it is desired to unlock the parts the operator pulls down slightly upon the chandelier by means of the lower bulb or shell, E⁴, and at the same time pushes upward against the thumb-piece E². This latter action tends to force the bar E back toward the center, as there are one or more inclined faces or shoulders, d' , in the upper end of tube C², so arranged that they will

throw the bar E inward into tube C² when said bar receives upward pressure. If, on the other hand, the weight of the chandelier be greater than the power of the spring at a², then the spring E³ will tend to slide the lugs e' outward, so that one or the other of them shall rest on the top of the stop-piece B, and thus they can be made to lock the chandelier in any position. If desired, the top of the stop B and the bottom of each lug may be beveled, as shown at f'.

Instead of the wedge-faces d in tube C² and wedge-faces f on bar E and the return-wedges d', use may be made of a link-connection, such as shown at d² in Fig. 3. This connection may be formed by links at the sides of the sliding parts, or, preferably, by means of sockets cast in them and detachable links with enlarged heads to engage with said sockets, and at the same time allow flexibility of movement. In a construction like this the part C' need not be tubular or hollow, but may be in the form of a solid bar, as shown. When the spring tends to draw the part C' upward the spring E³ and the links d², Fig. 3, tend to thrust bar E outward, as described above. When the hand of the operator pushes upon thumb-piece E² said links tend to throw the part E inward again toward the part C².

The stop-lugs e', instead of being made to slide out and in, engage with and be disengaged from the stationary stop B, may be made to rotate around the center, devices adapted to perform this operation being shown in Figs. 4 and 6. In this construction the cord or chain a³ is connected by a swivel-connection, a⁴, with a central bar or rod, which is lettered C², as it operates to support the weight of the bulb D and the sliding tube-section C (being between the chain or cord a³ and the cross-bar F) in a manner similar to that of the operation of the part lettered C² in the construction shown in Fig. 1. The stop-lugs e' are attached to this central bar, C², they preferably, in this case, projecting from the bar on two opposite sides. The central part, C², passes through the stationary stop B, which is provided with an oblong aperture, G, through which the stop-lugs e' can pass when the bar is turned into one position. When the bar is turned into any other position the lugs above the stop B prevent the chandelier from moving downward, and the lugs below the said stop B prevent an upward movement. The bar may be rotated by any preferred devices for the purpose of causing the lugs e' to coincide vertically with the aperture G, and vice versa.

In the drawings the rotating mechanism consists of two small bevel wheels or sectors, one, H, attached to the bar C², and the other, H', mounted (preferably loosely) on cross-bar F and a link, I, connected to the thumb-piece E². If the thumb-piece be thrust upward, the wheels or sectors H' and H will rotate the bar C² sufficiently far to bring the lugs e' e' in the same plane as the aperture G, whereupon the chandelier can be moved up or down to any

desired point. When at such point the thumb-piece E² is released and the bar C², through wheels H and H', link I, and thumb-piece E², is turned back by the spring E³ into such position that the lugs e' can no longer pass through aperture G, whereupon the chandelier will be locked in position. In this construction, with the upper tube-section, A, and the sliding tube-section should be combined devices to prevent these tubes from rotating relatively to each other. This may be accomplished by having the tube-section A square and having a square aperture in the upper end, C⁵, of tube C; or tube A may be round and provided with a feather fitting in a groove or aperture in the tube-section C.

By means of the stops L and L', secured to the stationary part of the chandelier, the movements of the rotating parts can be properly limited.

The bar C² may be rotated by the hand of the operator, if desired, as shown in Fig. 6—that is to say, said bar can be extended continuously to the thumb-piece E², part of it operating as the thumb-piece, and being provided with a handle, such as shown at E⁶. In this case the returning-spring E³ may be related with the other parts, as shown in this figure.

I am aware that use has been heretofore made of telescoping or sliding tubes having a series of stops on the movable part and a catch on the stationary part, and I do not broadly claim such as my invention; but I believe myself to be the first to construct a chandelier with the details set forth, whereby within the chandelier there are concealed a series of stops or lugs carried by the sliding part, and a stationary collar which both strengthens the stationary tube and stops the sliding section. The devices which have heretofore been used have been unsightly, owing to the defective manner in which the parts have been arranged, whereas when arranged as I have set forth nothing is visible but the tubes and bulbs, which may be made as ornamental as desired.

What I claim is—

1. In a chandelier, the combination, substantially as set forth, of the following elements—namely: the upper stationary tube-section, a cord-winding mechanism attached to said stationary tube-section, a horizontal and inwardly-projecting supporting-stop at the lower end of said stationary tube, a lower sliding tube-section, a series of locking lugs or spurs carried by and concealed entirely within the lower section and arranged to be moved laterally relatively thereto, a cord attached to said series of locking lugs or spurs and to the winding mechanism in the stationary section, means, substantially as set forth, to move said lugs or spurs laterally relatively to the supporting-stop to throw them into engagement therewith, and the means which withdraw them to permit them to pass vertically through the supporting-stop.

2. In a chandelier, the combination of an upper stationary tube-section, a supporting-

stop attached to said section, a lower sliding tube-section, a series of vibrating locking-dogs carried by the sliding section and arranged to engage with the supporting-stop on the stationary section, and two opposing wedges, of which one is connected by a cord to the stationary section and the other is connected to the sliding section, said wedges being operated by the weight of the chandelier to crowd the vibrating locking-dogs into engagement with the supporting-stop on the stationary section to provide a positive support for the sliding section, substantially as set forth.

3. In a chandelier, the combination of an upper stationary tube-section, a supporting-stop attached to said section, a lower sliding tube-section, a series of vibrating locking-dogs carried by the sliding section and arranged to engage with the supporting-stop on the stationary section, and two opposing wedges, connected respectively to the stationary section and to the sliding section and operated by the weight of the chandelier to crowd the vibrating locking-dogs into engagement with the supporting-stop on the stationary section to provide a positive support for the sliding section, substantially as set forth.

4. In a chandelier, the combination, with the upper tube-section having an inwardly-projecting shoulder or supporting-surface, B, of the slotted tube-section C², provided with inclined

faces *d*, the vibrating locking-bar E, and devices, substantially as described, which throw said bar inward when it is moved upward relatively to the sliding tube-section, substantially as set forth.

5. In a chandelier, the combination, with the stationary tube-section, the sliding tube-section, and the vibrating locking-bar E, of the devices which are operated by the weight of the chandelier to move said locking-bar outward, and the stem E', projecting through the bottom of the sliding portion and arranged, substantially as set forth, to permit the vibrating locking-bar to be pushed upward relatively to the sliding portion, substantially as set forth.

6. In a chandelier, the combination, with the stationary section having a stop, and the sliding section, of a locking-bar carried by the sliding section, and having a series of stops upon one side and one or more wedges formed upon the opposite side, and wedging devices attached to the sliding section and arranged to crowd the locking-bar outward by engaging with the wedge or wedges on said bar, substantially as set forth.

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

STEPHEN S. NEWTON.

Witnesses:

A. W. CUMMING,
JOHN H. GRANT.