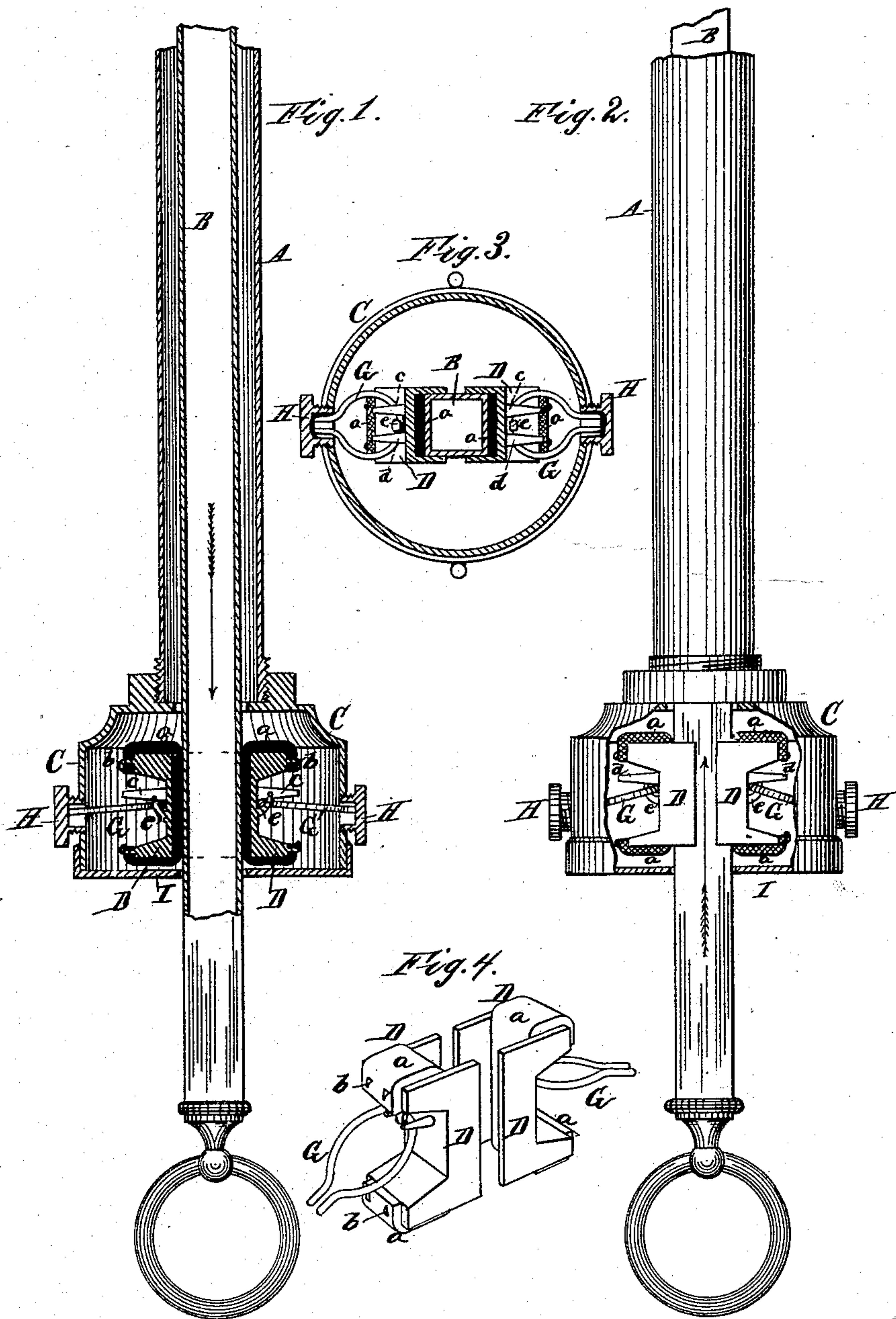


(No Model.)

J. E. BROWN.
Drop Light Gasalier.

No. 232,592.

Patented Sept. 28, 1880.



Attest:

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UNITED STATES PATENT OFFICE.

JAMES E. BROWN, OF WILLIAMSBURG, ASSIGNOR TO GEORGE PANCOAST,
OF NEW YORK, N. Y.

DROP-LIGHT GASALIER.

SPECIFICATION forming part of Letters Patent No. 232,592, dated September 28, 1880.

Application filed May 1, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. BROWN, of Williamsburg, in the county of Kings and State of New York, have invented a new and useful Improvement in Drop-Light Gasaliers, (Case A,) 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, the same not having been to my knowledge heretofore patented in any foreign country.

My invention has relation to that class of illuminating apparatus wherein a drop-light or extending section is employed, ordinarily denominated drop-light gasaliers or chandeliers; and the invention has for its object the provision of simple, cheap, and effective means for holding the sliding tube which carries the drop-light in any position and against any ordinary weight of fixtures or accessories likely to be applied to the said tube, at the same time easily adjustable to correspond with such applied weight, and opposing no appreciable extra resistance to the upward movement of the tube, to accomplish which my improvements involve certain new and useful combinations or arrangements of parts and peculiarities of construction, all of which will be hereinafter first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is an axial section of so much of a chandelier or gasalier as is necessary for the present description, showing my improved form of clamp applied to the central or movable tube thereof, and in the position it assumes when the central tube is being depressed. Fig. 2 is a side elevation of the same, having a portion of the wall of the case broken away, and showing the position which the clamp assumes when the movable tube is being elevated. Fig. 3 is a horizontal section upon a plane passing just above the pins *c* and *d*, and Fig. 4 is a perspective view of the clamping-blocks as they appear when detached from other parts of the structure.

Like letters of reference wherever they occur indicate corresponding parts in all the figures.

A is the main or stationary pipe, within which pipe B, which is intended to support the drop-light, is made adjustable.

C is the case for the clamping mechanism, connected with pipe A in any preferred manner.

D D are two clamping-blocks, which afford the requisite pressure and friction against the sliding pipe B.

For covering the faces of the blocks I employ a strip of ordinary felting, as at *a*, which is found to afford all the desired friction without danger of slipping, to permit the tube B to be drawn down easily against the action of the blocks, to readily release the tube when pushed upwardly, and by reason of its yielding nature to admit any inequalities on the surface of tube B to pass through the clamping mechanism smoothly, and without creating those sudden interruptions or irregularities in the movement which are noticeable in many previous constructions when substances other than felt are employed. Leather has been heretofore commonly employed in similar situations, but does not possess any of these desired characteristics. The felting *a* is secured in place by slight projections *b*, preferably cast upon the blocks, and this method of attaching it possesses several advantages over the cementing or gluing processes heretofore followed in connection with leather and rubber strips, inasmuch as it is less liable to dislocation or disarrangement, may be readily removed and replaced by a new piece, and is more easily fixed in place. All that is necessary is to properly place the strip over the pins *b* and strike it with a hammer, when it will be forced down upon the pins.

The blocks D are each provided with a metallic ring or loop, G, hinged thereon and extending through a perforation in the shell or case C, which perforation is fitted with a recessed screw-plug, H, as plainly shown. Upon the side of each block are projecting pins *c* and *d*, one of which, *c*, is bent upon the material of the ring and maintains it against disarrangement. The others, *c* and *d*, located above the ring G, bear upon the upper surface, and are sufficiently long to prevent the blocks from descending so far as to carry the rings or loops below the horizontal.

The rings G form the levers through which the requisite pressure is obtained, and they

are made elastic so as to yield a little to the strain produced by any effort to draw tube B down, and at the same time they are rigid enough to afford all the desired resistance.

5 The pressure upon the blocks, and consequently the friction upon the sliding pipe, may be easily regulated by turning the screw-plugs H, which adjust the rings with respect to the blocks.

10 The lower plate, I, when in place, prevents the possibility of the blocks being withdrawn by any extra strain which might be applied, and the blocks should be arranged so as to touch this plate when in their lowermost position. Of course the blocks should be disposed about the sliding tube in such a manner as to allow said tube to pass between them, when moving either up or down, without bearing against the walls of the perforation in
20 plate I. This may all be accomplished by suitable manipulation of screw-plugs H.

The clamping mechanism being constructed and organized substantially in accordance with the foregoing explanations and applied in the manner indicated, it is apparent that as the tube descends the friction against the blocks tends to carry them down with the tube, and thus to bring the loops or rings G more and more nearly to a horizontal position, in which
30 position they produce the greatest pressure. The rings being prevented from descending below the horizontal plane through the axes of screw-plugs H, it is plain that whenever the tube B is pushed upwardly the blocks D will be carried up with it, and thus the pressure and friction upon the tube instantly released, which leaves only the weight of said tube and its appendages to be overcome or elevated.

40 The clamping-blocks are located in shell C in such relation with respect to plate I that when the extension is being depressed said plate will prevent the possibility of the blocks D being pulled down too far.

45 Instead of a square or angular tube, B, being employed, as indicated in the drawings, any cylindrical or other form may be used in connection with my improved clamping mechanism, it being only necessary to make the bearing-surfaces of the clamping-blocks to
50 correspond with the contour of the pipe.

For use in connection with gas, the sliding pipe is packed in any of the well-known ways

to prevent leakage. For other lights than gas-lights, as lamps, &c., instead of the tube B a solid rod might be employed, if desired. 55

The elastic levers or rings connected with the clamping-blocks, the smoothness of descent provided for the ready regulation of the degree of friction to correspond with the weight to be supported, and the instantaneous release
60 of the sliding pipe upon being elevated, all tend to render the improved device applicable to large and small or heavy and light gasaliers, and when constructed and arranged substantially in accordance with the foregoing description the improvements admirably answer
65 the several purposes and objects of the invention, as previously stated.

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

1. In a drop-light chandelier or gasalier of the character herein specified, the combination, with the sliding pipe or rod carrying the drop-light, of the clamping-blocks adapted to bear
75 against the same, each block being faced with a strip of felting secured thereon by projecting pins *b b*, substantially as and for the purposes set forth.

2. In a drop-light gasalier or chandelier, the combination, with the casing which incloses the clamping mechanism, of the hollow screw-plugs H, adapted to adjust the holding-levers with respect to the sliding pipe or rod, substantially as shown and described. 80

3. In combination with the clamping-blocks, the adjustable levers G, in the form of elastic rings or loops, the same being hinged to the blocks between the projections upon said blocks, substantially as shown and described. 90

4. In combination with the clamping-blocks and the levers hinged thereon, the projections *c d*, adapted to bear upon the upper surfaces of the levers and to prevent said levers from being forced down to a position below the
95 horizontal, substantially as shown and described.

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

JAMES E. BROWN.

Witnesses:

WORTH OSGOOD,
ARTHUR M. PIERCE.