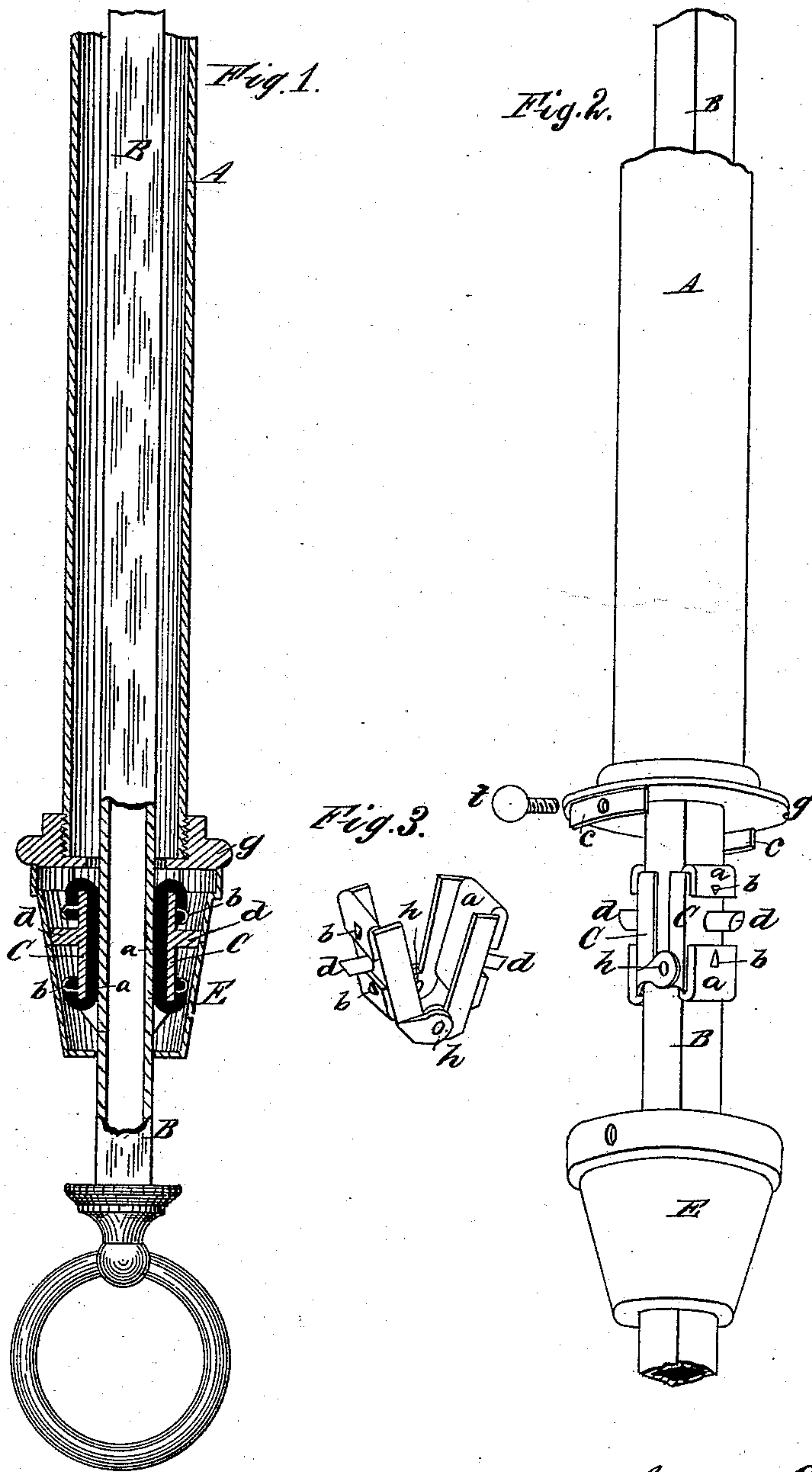


(No Model.)

J. E. BROWN.
Drop Light Gasalier.

No. 232,593.

Patented Sept. 28, 1880.



Attest:
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UNITED STATES PATENT OFFICE.

JAMES E. BROWN, OF WILLIAMSBURG, ASSIGNOR TO GEORGE PANCOAST,
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DROP-LIGHT GASALIER.

SPECIFICATION forming part of Letters Patent No. 232,593, 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 certain new and useful Improvement in Drop-Light Gasaliers, (Case B,) 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 vertically-adjustable 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 section, which carries the drop-light, in any required position and against any ordinary weight of fixtures or accessories likely to be applied to the said section, at the same time automatically adjustable to correspond with such applied weight, and opposing no appreciable extra resistance to the upward movement of the extensible section, to accomplish which my improvements involve the use of an elastic shell or casing in connection with the clamping mechanism and certain new and useful combinations or relative 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 and partial elevation of so much of a chandelier or gasalier as is necessary to illustrate the application of my improvements thereto, the working parts being shown as assembled for use. Fig. 2 is a perspective view, showing the casing, the cap, and the clamping mechanism detached from each other, but upon the sliding pipe, in the order in which they should be assembled. Fig. 3 is a perspective view of the hinged clamping-blocks as they appear when removed from the sliding pipe.

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 (the support for the drop-light) is intended to move. C C are the clamping-blocks, made to press against the sliding pipe and to create the necessary friction for holding said pipe in any position to which it may be adjusted, sustaining the weight of the drop-light and whatever accessories or attachments may be connected therewith. These blocks are hinged together, as shown at *h h*, so as to move simultaneously either to clamp pipe B or to release it, and the sliding pipe moves up and down between them without interference with the hinges. The clamping-blocks are each faced with a strip of felting, *a*, secured thereon by being beaten down over projections *b b* upon the backs of the blocks, as plainly shown, and for purposes and in manner as fully set forth in a separate application for patent of even date herewith. The inner faces of the blocks are made to conform to the size and shape of the sliding pipe, which may be of any approved pattern, and the filling produces the required friction without roughness, avoiding all tendencies to irregularities of motion in the sliding pipe and readily releasing said pipe on the instant the drop-light is pushed upwardly. Upon the back of each block is a projection, *d*, the outer end of which is inclined to correspond with the inclination of the conical casing E, and intended to furnish a bearing of limited surface against the interior of said casing. That the sliding pipe may ride smoothly through the opening in the bottom of the casing, the length of these projections *d* should be adjusted so as not to crowd said pipe either to one side or the other.

The clamping-blocks being in place and the conical casing held stationary upon the outer or main pipe, A, it is plain that any downward strain upon pipe B will tend to draw the blocks down with it, and by reason of the inclination given the interior of the casing the farther the blocks are depressed in it the closer will they hug the sliding pipe and the more friction will they produce thereon. Any tendency to elevate the sliding pipe will instantly relieve the pressure of the blocks, and all that remains to be overcome will be the weight of the drop-light and its appendages.

The casing E is held in place by being at

tached to cap-plate *g* in some convenient manner, as by the screws, as at *t*, and the cap-plate is made to screw upon the stationary pipe or is connected therewith in any of the well-known ways.

The conical casing for the clamping mechanism is made of thin metal, so as to have a certain degree of elasticity and allow the blocks to yield to an extent necessary to secure a yielding pressure against the sliding pipe, and thus avoid the permanent wedging of the clamping-blocks and obviate that rigid holding which is commonly noticeable in many forms of clamps. The elastic bearing of the casing renders the release of the blocks more ready and certain upon any upward tendency of pipe B, since it tends always to throw the blocks upwardly through the medium of the projections *d*, having inclined bearing-surfaces, and into a position to relieve the pressure.

The free action of the elastic casing would be somewhat imperfect if its bearing upon the cap-plate should be made continuous and rigid, and for this reason I cut away the attaching-rim of the cap-plate over the region of that portion of the casing against which projections *d d* are made to bear, leaving the sections *c c*, which form convenient seats for the attaching-screws *t*. This construction leaves the casing free to expand in the direction desired, and enables me to utilize the elasticity of the entire casing. Equivalent results would follow if the casing were made rigid and the projections *d* elastic; but I have shown one form of elastic lever for the clamping-blocks in my aforesaid separate application of even date herewith, and do not desire to be understood as embracing such features herein.

The device, constructed and arranged substantially in accordance with the foregoing description, contains but few parts, is easily and cheaply made, not liable to get out of order, and is found to embody all the characteristics essential to the successful operation of an appliance of the class to which it belongs.

Instead of a pipe, B, a solid rod may be employed when required to support lights other

than those consuming gas, and when used in connection with gas-chandeliers the sliding pipe is of course to be packed after any of the ordinary customs.

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

1. The combination of the sliding pipe or rod carrying a drop-light, the clamping-blocks, hinged together at their lower ends and provided with projecting lugs having inclined faces, and the conical shell or casing, attached to the stationary pipe and adapted to force the hinged blocks together by friction against the inner inclined face of said shell, substantially as shown and described.

2. In a drop-light chandelier or gasolier of the character herein specified, the combination, with the stationary pipe, of an elastic shell or casing secured thereon and inclosing the clamping mechanism, said shell or casing being made conical and producing a yielding frictional bearing for the movable clamping-blocks, substantially as shown and described.

3. The herein-described conical elastic casing for the clamping mechanism, the same being provided with cap-plate *g*, cut away, as explained, so as to leave the rim of the casing free to yield, said cap serving to unite the casing with the stationary pipe, substantially as shown and described.

4. In a chandelier or gasolier of the character herein set forth, the combination of the stationary pipe, the hinged clamping-blocks faced with felting and having bearing-lugs with inclined faces, the elastic conical casing covering the clamping mechanism, the sliding pipe or rod, and the cap-plate, cut away as explained, the whole being constructed and arranged to operate 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.