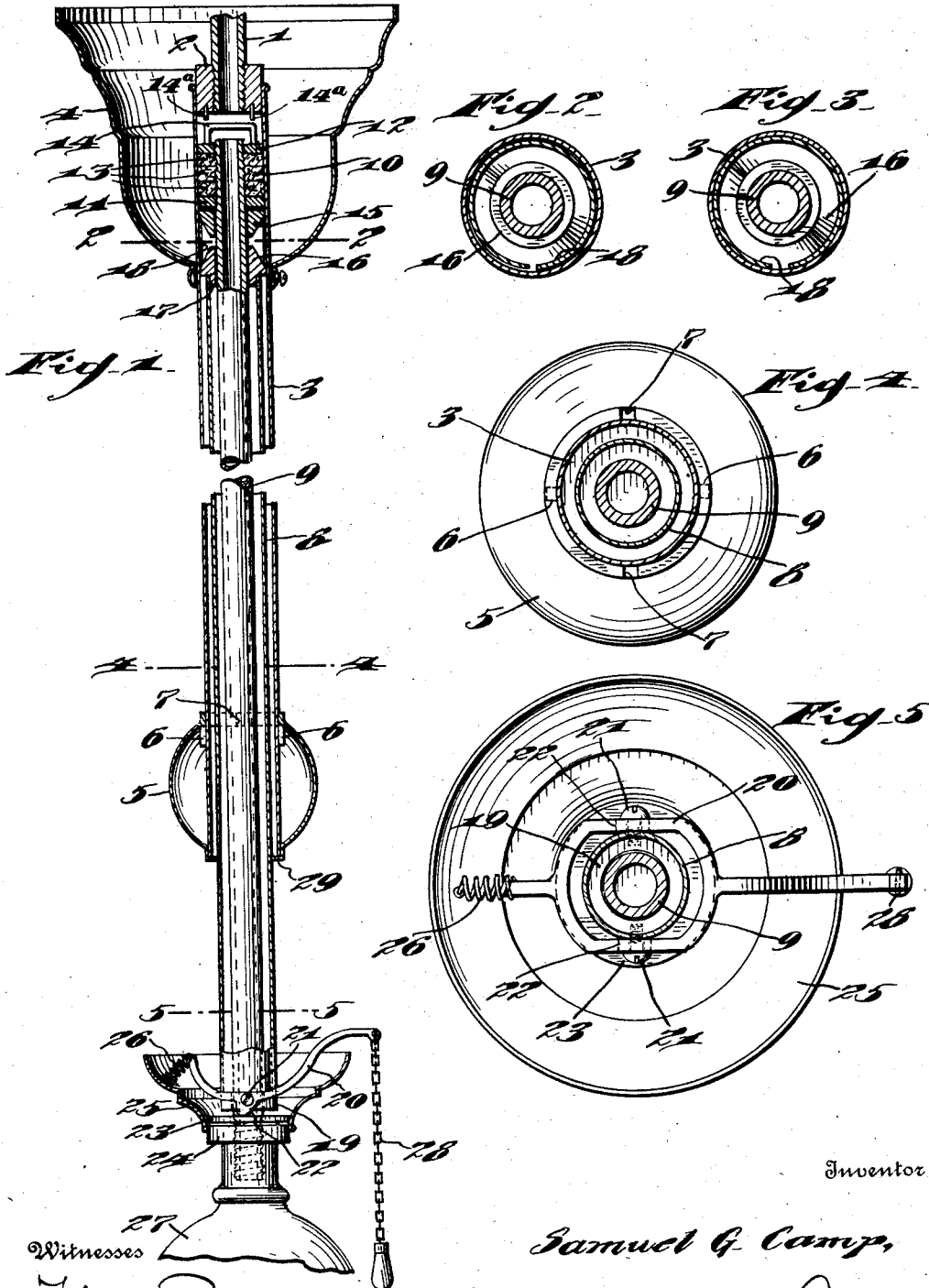


S. G. CAMP.
CHANDELIER.
APPLICATION FILED APR. 25, 1911.

998,323.

Patented July 18, 1911.
2 SHEETS—SHEET 1.



Witnesses

Thos. Brennan.
R. H. Krenkel.

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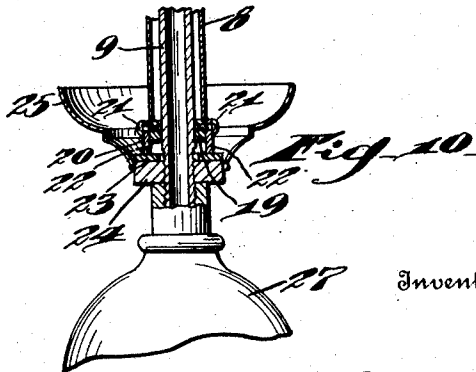
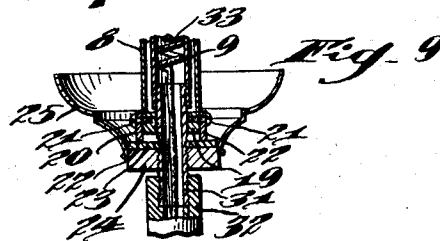
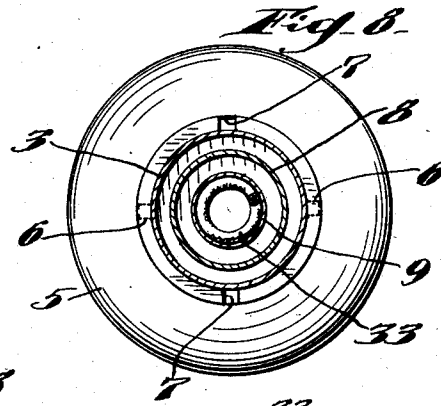
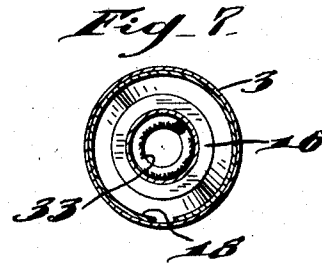
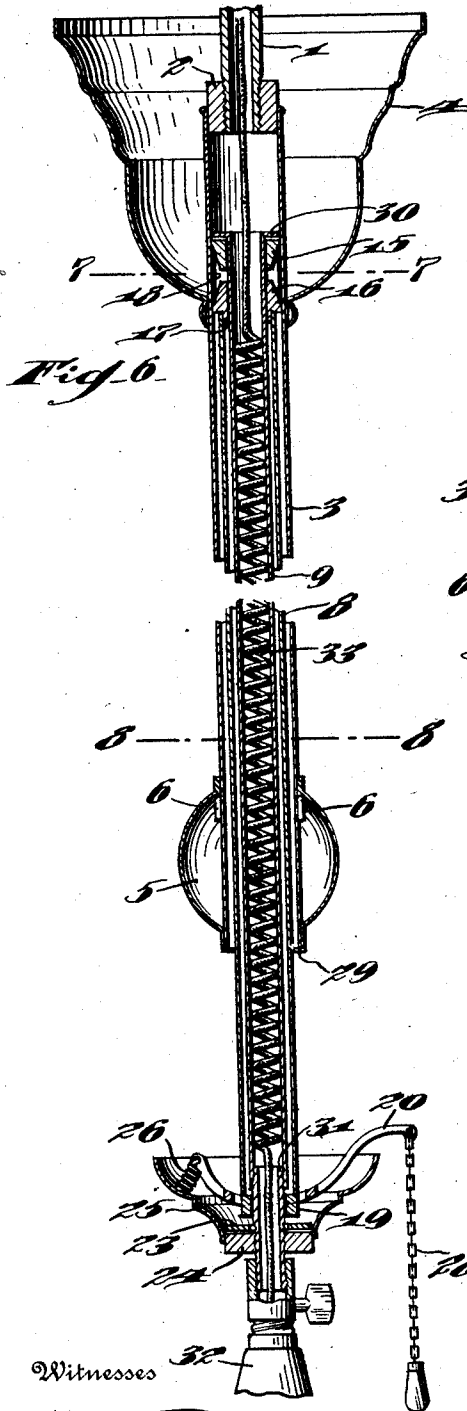
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UNITED STATES PATENT OFFICE.

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CHANDELIER.

998,323.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAMUEL G. CAMP, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Chandeliers, of which the following is a specification.

My invention relates to improvements in chandeliers, the primary object of the invention being to provide a chandelier which may be adjusted vertically, improved means for holding the chandelier at any vertical adjustment, and improved means for limiting the adjustment to prevent any possibility of a separation of the gas supply pipes.

A further object is to provide improvements of this character, which are designed for use as a gas chandelier, an electrical chandelier, or a combination of both, and which is simple in construction, neat and attractive in appearance, strong and durable in use, and which may be operated easily by any one of average intelligence to raise and lower the chandelier, and lock it at any adjustment. Chandeliers of this kind are particularly adapted for use in dining rooms having the ornamental domes or shades illuminated by gas or electric lights, or both, but the invention is not limited to this particular use.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view partly in vertical section and partly in elevation illustrating my improvements as a gas chandelier. Fig. 2, is a view on an enlarged scale on the line 2—2 of Fig. 1, showing the spring band contracted. Fig. 3, is a similar view showing the spring band extended. Fig. 4, is a view on an enlarged scale on the line 4—4 of Fig. 1. Fig. 5, is a similar view in section on the line 5—5 of Fig. 1. Fig. 6, is a view similar to Fig. 1, but illustrating a slight modification showing the employment of an electric conducting wire in the chandelier. Fig. 7, is a view on an enlarged scale on the line 7—7 of Fig. 6. Fig. 8, is a similar view on an enlarged scale on the line 8—8 of Fig. 6. Fig.

9, is a fragmentary view in longitudinal section through the lower portion of Fig. 6, taken at right angles to Fig. 6, and Fig. 10, is a view similar to Fig. 9, but taken at right angles to Fig. 1.

1, represents the gas supply pipe, which projects through the wall, and is connected by means of a nut or coupling 2 with the upper end of the outside and largest tube 3 of my improved chandelier. Around the upper portion of this outside tube 3, an ornamental fixture 4 is secured, so as to hide the unattractive gas pipe 1, and on the lower end of this outside tube 3, an ornamental spherical fixture 5 is secured. This fixture 5 has a definite function in my improved chandelier, and it is firmly held against accidental movement by means of lugs 6 on the sides of tube 3 at points removed from the lower end of the tube. Fixture 5 is made with recesses 7, which may register with the lugs 6 in positioning the fixture on tube 3, and when turned out of register with said lugs, said fixture 5 will be securely held against movement.

8, represents a tube which is smaller in diameter than tube 3, and telescopes in the latter, and inside of this tube 8, a gas pipe 9 is located. On the extreme inner end of the gas pipe 9, a piston 10 is provided, which comprises heads 11 and 12, both of which are screwed onto the threaded end of pipe 9, and clamp packing rings 13 between them, which are tightened so as to form a gas tight juncture with the inner surface of tube 3.

Outer head 12 is provided with a finger hold 14 to facilitate its movement. Around pipe 9, adjacent piston 10, two oppositely positioned conical rings 15 and 16 respectively are located. Ring 15 is adapted to bear against the piston 10, while ring 16 is made with a projecting flange 17, positioned within tube 8 with the end of the tube 8 bearing against ring 16. Around these conical rings 15 and 16, a spring band 18 is located. This band is split as shown, and when said rings are forced toward each other, the ring is expanded to clamp the inner face of tube 3, and when the rings are moved apart, spring band 18 contracts to allow the tubes to be adjusted as will hereinafter appear.

On the pipe 9, where it projects below tube 8, a ring 19 is located, and on this ring

a forked lever 20 is pivotally secured by screws 21. This forked lever 20 straddles the ring, and is provided at both sides with cams 22, which engage a washer 23 positioned against a ring 24, the latter securely fixed to pipe 9.

An ornamental fixture 25 is secured to ring 24, and a coiled spring 26 connects one end of lever 20 with the fixture 25, so that the lever is normally held in a position to exert a downward pressure on ring 24, and pipe 9, to expand band 18 and securely hold tube 8 against movement in tube 3.

Any suitable ornamental dome or other fixture 27 may be secured on the lower end of pipe 9, and a chain or other suitable operating device 28 may be connected to the free end of lever 20 to operate said lever.

To prevent any possibility of tube 8 being drawn entirely out of tube 3, the lower end of the ornamental fixture 15 is provided with an inwardly projecting circular flange 29, which projects inwardly far enough to be struck by ring 16, so that the tube 8 cannot be drawn out of tube 3 until fixture 5 is removed.

Fig. 1, shows the parts above described in normal position. If it is desired to extend the fixture, or in other words, lower the globe, it is simply necessary to pull the chain 28, which causes the lever 20 to so swing that downward pressure of the cams 22 is released from washer 23, and ring 24. This allows the spring band 18 to contract, moving rings 15 and 16 apart. When in this position, the tube 8 may be adjusted longitudinally in tube 3, and when the desired adjustment is had, a release of the pull on chain 28 will permit spring 26 to move cams 22, and draw downwardly pipe 9. This movement of pipe 9 moves ring 15 toward ring 16, expanding the band 18, and securely clamping tube 8 in tube 3. If the piston wears, so that it is not gas tight, it may be expanded by turning the fixture 27, when the tube 9 is forced inwardly as far as it will go, because when in this position, the finger-hold 14 will be held against rotary motion by means of lugs 14^a on coupling 2, and when pipe 9 is turned, while ring 12 is held, packing 13 will be expanded, and the tubes made gas tight.

In the modification illustrated in Figs. 6, 7, 8, and 9, I illustrate my improvements as an electric chandelier, which in many respects corresponds to the structure above described, and for convenience, I have utilized the same reference characters to indicate the same parts in the two structures. In this modified structure, the piston 10 is omitted, as it is not necessary in an electric fixture, unless such a fixture were to combine in its utility gas lights as well as electric lights. To engage the ring 15, an annular flange 30 is provided on the end of pipe 9. A tubular

extension 31 is screwed into the lower end, and serves as a coupling of an electric light 32, and also acts as a support for ring 19, and the other cooperating device for operating the holding means. 33, represents the electric wire which is preferably insulated, and is coiled throughout substantially the length of pipe 9, and the convolutions of the coil are so closely related, that the adjustment of the feature has little appreciable effect upon the coil, so that it naturally returns to contracted position after being expanded, and contracted.

While I have described two forms of my improvements, it is to be understood that my invention is not limited to the precise details set forth, but I consider myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, and means at the outer end of the inner tube for moving said conical rings, substantially as described.

2. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, said pipe projecting beyond the outer end of the inner tube, a ring around said pipe at the end of the inner tube, a lever fulcrumed on said ring, a collar secured to said pipe, a cam on said lever engaging said collar, and a spring bearing against one end of said lever normally holding the cam in position to press against said collar, and moving the conical rings toward each other, substantially as described.

3. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, said pipe projecting beyond the outer end of the inner tube, a ring around said pipe at the end of the inner tube, a lever fulcrumed on said ring, a collar secured to said pipe, a cam on said lever engaging said

collar, a spring bearing against one end of said lever normally holding the cam in position to press against said collar and moving the conical rings toward each other, a
 5 fixture secured to said ring, and to which one end of said spring is secured, and a flexible device connected to the opposite end of said lever, substantially as described.

4. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said pipe engaging the outer tube, opposed conical rings on said pipe between the piston
 10 and the end of the inner tube, a split expansion ring around said conical rings, means at the outer end of the inner tube for moving said conical rings, a fixture secured on the end of the outer tube, and means on
 15 said fixture adapted to be engaged by one of said conical rings preventing the inner tube from being drawn entirely out of the outer tube, and preventing the separation of said tubes until said fixture is removed, substantially
 20 as described.

5. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said
 30 pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, said pipe projecting beyond the outer end of the
 35 inner tube, a ring around said pipe at the end of the inner tube, a lever fulcrumed on said ring, a collar secured to said pipe, a cam on said lever engaging said collar, a spring bearing against one end of said lever
 40 normally holding the cam in position to press against said collar, and moving the conical rings toward each other, a fixture secured on the end of the outer tube, and means on said fixture adapted to be engaged
 45 by one of said conical rings preventing the inner tube from being drawn entirely out of the outer tube, and preventing the separation of said tubes until said fixture is removed, substantially as described.

6. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said
 50 pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, said pipe projecting beyond the outer end of the inner
 55 tube, a ring around said pipe at the end of the inner tube, a lever fulcrumed on said ring, a collar secured to said pipe, a cam on said lever engaging said collar, a spring bearing against one end of said lever normally holding the cam in position to press
 60 against said collar and moving the conical

rings toward each other, a fixture secured to said ring, and to which one end of said spring is secured, a flexible device connected to the opposite end of said lever, a fixture
 70 secured on the end of the outer tube, and means on said fixture adapted to be engaged by one of said conical rings preventing the inner tube from being drawn entirely out of the outer tube, and preventing the separation of said tubes until said fixture is re-
 75 moved, substantially as described.

7. In a chandelier of the character described, the combination with two tubes, one tube telescoping within the other, a pipe located within the inner tube, a piston on said
 80 pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split expansion ring around said conical rings, means at the outer end of the inner tube for
 85 moving said conical rings, lugs on the outer tube, a fixture fitting the outer tube and having recesses to receive said lugs, and when turned out of register with said lugs, securely held on the tube, and an inwardly
 90 projecting circular flange on the lower end of said fixture bearing against the lower end of said outer tube, and projecting inwardly into said outer tube far enough to be engaged by one of said conical rings, where-
 95 by said fixture prevents a separation of said inner and outer tubes, substantially as described.

8. In a chandelier of the character described, the combination with two tubes, one
 100 tube telescoping within the other, a pipe located within the inner tube, a piston on said pipe engaging the outer tube, opposed conical rings on said pipe between the piston and the end of the inner tube, a split ex-
 105 pansion ring around said conical rings, said pipe projecting beyond the outer end of the inner tube, a ring around said pipe at the end of the inner tube, a lever fulcrumed on said ring, a collar secured to said pipe, a
 110 cam on said lever engaging said collar, a spring bearing against one end of said lever normally holding the cam in position to press against said collar, and moving the conical rings toward each other, lugs on the
 115 outer tube, a fixture fitting the outer tube and having recesses to receive said lugs, and when turned out of register with said lugs, securely held on the tube, and an inwardly projecting circular flange on the lower end
 120 of said fixture bearing against the lower end of said outer tube and projecting inwardly into said outer tube far enough to be engaged by one of said conical rings, whereby said fixture prevents a separation of said in-
 125 ner and outer tubes, substantially as described.

9. In a chandelier of the character described, the combination with two tubes and a pipe, one tube telescoping within the other, 130

and the pipe located within the inner tube, of a piston on said pipe engaging the outer tube, a screw threaded ring on one end of the pipe bearing against the packing of the piston, a finger hold on said ring, a gas supply pipe, a coupling around said gas supply pipe and secured within the outer tube, and lugs on said coupling adapted when said piston is in its extreme position to be engaged by said handhold and hold the ring against rotary movement permitting the packing to be adjusted, substantially as described.

10. In a chandelier of the character described, the combination with two tubes and a pipe, one tube telescoping within the other, and the pipe located within the inner tube, of a piston on said pipe engaging the inner tube, a screw threaded ring on one end of the tube bearing against the packing of the

piston, a finger hold on said ring, a gas supply pipe, a coupling around said gas supply pipe and secured within the outer tube, and lugs on said coupling adapted when said piston is in its extreme position to be engaged by said hand-hold and hold the ring against rotary movement permitting the packing to be adjusted, means for limiting the movement of the inner tube in the outer tube, and means for holding the inner tube at various adjustment in the outer tube, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL G. CAMP.

Witnesses:

R. H. KRENKEL.

CHARLES E. POTTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."