No. 812,549. PATENTED FEB. 13, 1906.

W. E. COTTON & L. C. MOOR.

EXTENSION GAS CHANDELIER.

APPLICATION FILED SEPT. 21, 1904.

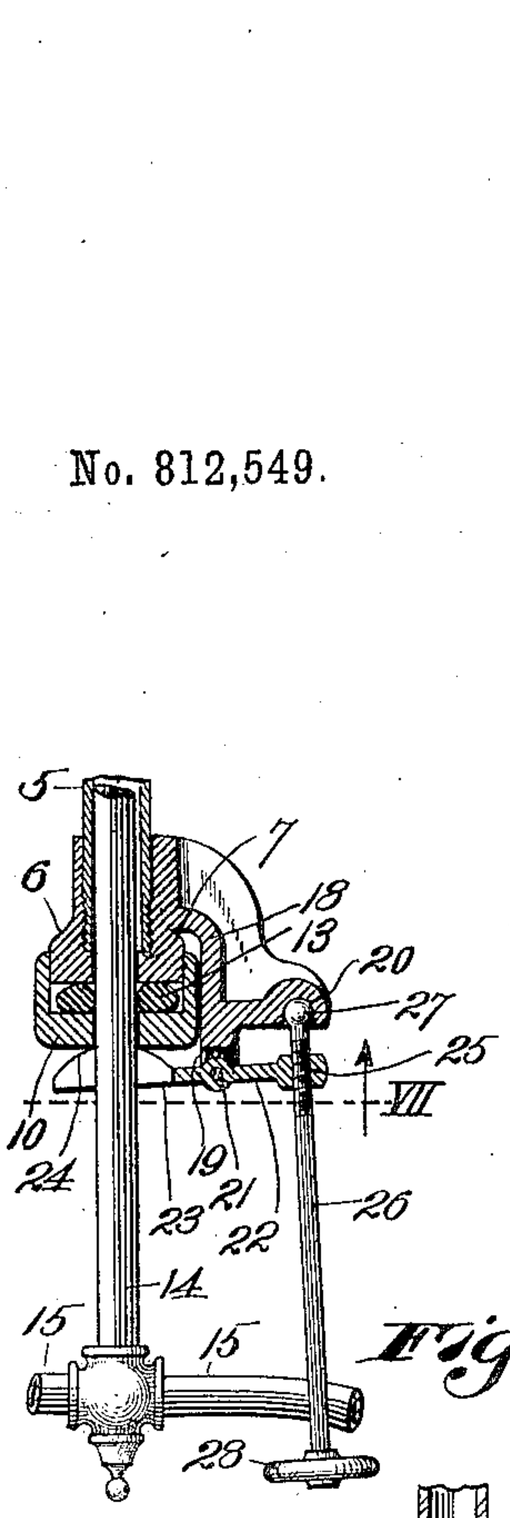

Fig. 6.

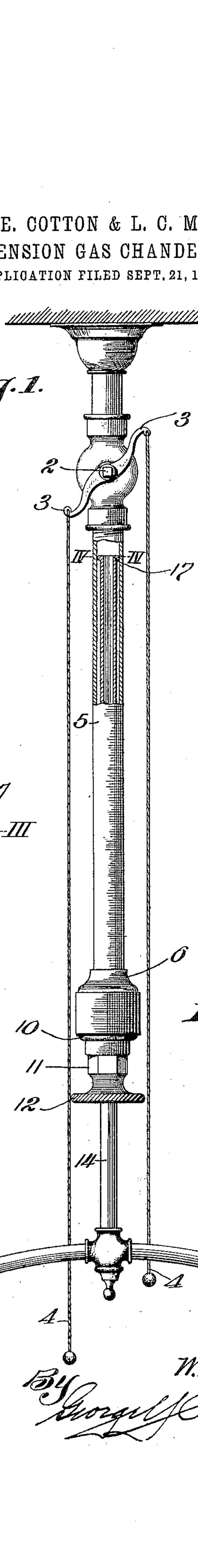

Fig. 1.

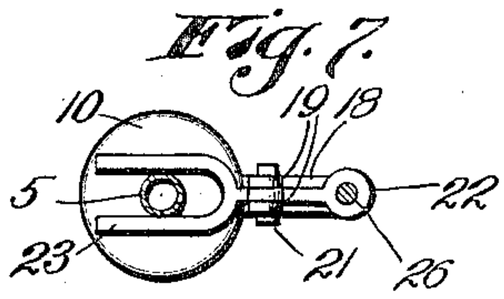

Fig. 7.

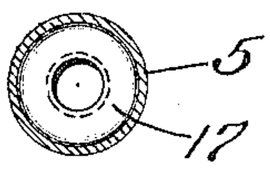

Fig. 4.

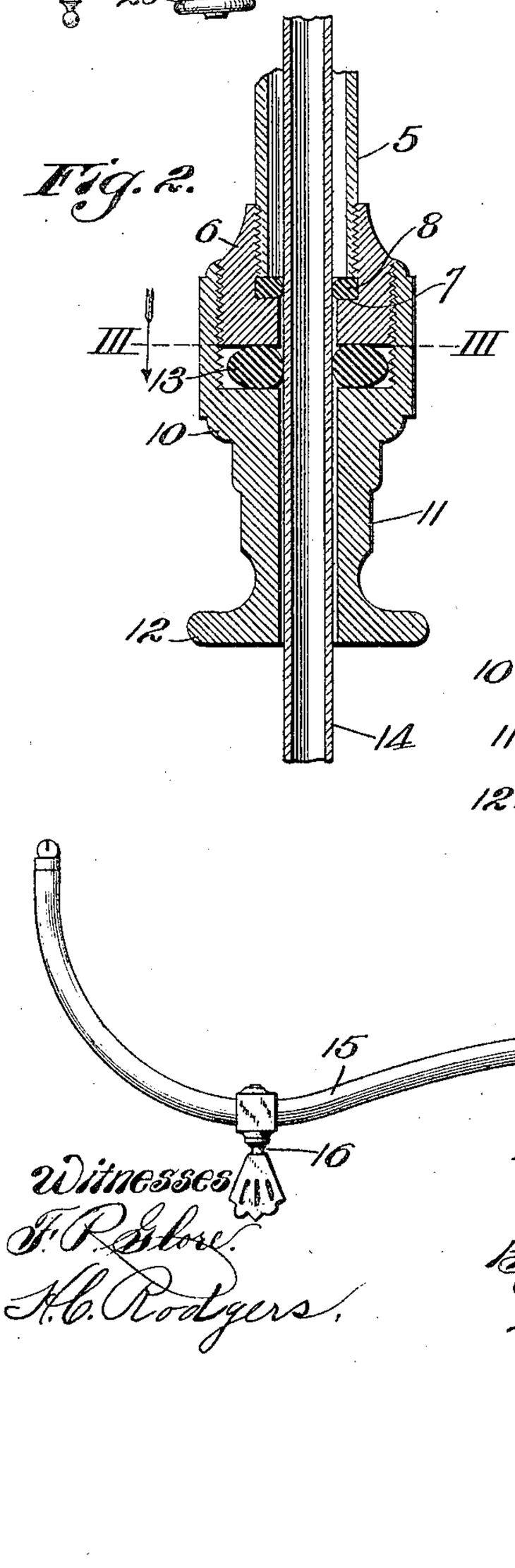

Fig. 2.

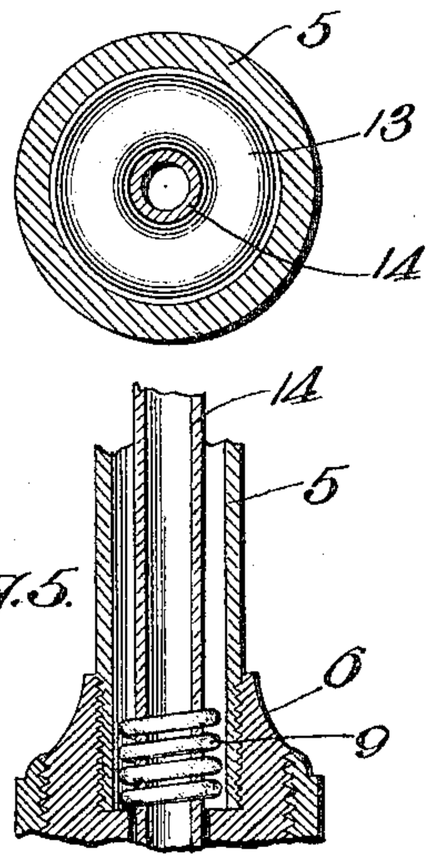

Fig. 3.

Fig. 5.

Witnesses
F. P. Stone.
H. C. Rodgers.

Inventors:
W. E. Cotton and
L. C. Moor.
By George L. Thorpe
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM E. COTTON AND LEVI C. MOOR, OF KANSAS CITY, MISSOURI.

EXTENSION GAS-CHANDELIER.

No. 812,549. Specification of Letters Patent. Patented Feb. 13, 1906.

Application filed September 21, 1904. Serial No. 225,384.

To all whom it may concern:

Be it known that we, WILLIAM E. COTTON and LEVI C. MOOR, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Extension Gas-Chandeliers, of which the following is a specification.

Our invention relates to illuminating-fixtures, and more especially to that class adjustable vertically to vary the elevation of the burner; and our object is to produce an extension-chandelier having a burner-fixture which can be adjusted vertically and rotatably to dispose the jet-orifice at the desired point.

A further object is to produce a device of this character which is perfectly safe and reliable as regards the leakage of gas or accidental movement of the movable or burner element.

With these ends in view the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a side elevation of a gas-chandelier embodying our invention, the same being shown partly in longitudinal section. Fig. 2 is a vertical section of a part of the same, said figure being on an enlarged scale. Fig. 3 is a horizontal section taken on the line III III of Fig. 2. Fig. 4 is a horizontal section taken on the line IV IV of Fig. 1. Fig. 5 is a longitudinal section of a part of the fixture and showing a modified type of cushion therein. Fig. 6 is a central vertical section of a modified construction, and Fig. 7 a section on the dotted line VII of Fig. 6.

In the said drawings, 1 designates the usual gas-pipe depending from the ceiling of a room, which pipe in this instance is provided with an ordinary gas-valve 2, (shown only in elevation,) having a handle in the form of oppositely-projecting arms 3 and pendent cords or chains 4.

5 is the chandelier-pipe, screwed in and depending vertically from the lower end of the valve-casing, and 6 a nut screwed upon the lower end of pipe 5 and having its passage of reduced diameter at its lower end, so as to provide an annular upwardly-projecting shoulder 7 as a seat for a suitable cushion 8, which cushion may be in the form of a gasket, as shown, or may be in the form of a coil-spring, as shown at 9 in Fig. 5. If the gasket-cushion be employed, it will be clamped rigidly in place and between the nut and the lower end of pipe 5 and projects inward of the latter for a purpose hereinafter explained. If the coil-spring type of cushion be employed, it will rest upon said shoulder and project into the pipe for a suitable distance. While a detachable part, such as the nut described, is preferred, it is of course obvious that said nut may simply be an enlargement of the lower end of pipe 5

10 designates an internally-threaded cup to be screwed upon the lower end of the nut, said cup by preference being angular or hexagonal, as at 11, in order that it may be manipulated conveniently by a wrench, (not shown,) or it may be provided with an enlargement or flange 12 for convenience of manipulation by hand. Fitting snugly within the cup is a circular ring 13 of compressible and preferably elastic material, said ring performing the dual function of a gasket and clamp.

The burner-fixture comprises a pipe 14 and the communicating jet or burner pipe 15, each controlled by the usual or any preferred cock 16, the pipe 14 of the burner-fixture extending through the cup, the ring, and the nut and into pipe 5 and by preference is externally flanged or projected at its upper end, as at 17, for the purpose of preventing the withdrawal of said pipe 14 from pipe 5 without first removing nut 6 or disconnecting pipe 14 from pipes 15 and then unscrewing pipe 5 from the valve-casing.

The burner-fixture is secured at the desired elevation by screwing the cup upwardly on the nut, and thereby compressing the combined gasket and clamp-ring, this compression of said gasket and clamp causing the latter to embrace pipe 14 so tightly that it will be impossible under any ordinary application of force for the latter to be moved or for gas to pass beween it and said ring, it being understood, of course, that ordinarily the gas is cut off by the valve 2. When it is desired to vary the elevation of the burner-fixture, the cup is unscrewed sufficiently to permit the combined gasket and clamp-ring to expand, and thus permit said fixture to be raised or lowered, and during such adjustment the

valve 2 may remain open, the cup being rescrewed upward on the nut to clamp the burner-fixture in the position to which it has been adjusted, it being understood, of course, that the combined gasket and clamp-ring need not be very heavily compressed unless it is the intention of the operator to immediately light the gas, as it is desired to maintain the heaviest pressure on said combined gasket and clamp-ring only when gas is flowing through the burner-fixture. When the gas is to be turned on, the operator first manipulates the cup to apply heavy pressure on the combined gasket and clamp-ring and then opens valve 2 and the jet valve or valves, the gas being prevented from escaping externally of pipe 14 by reason of the tight joint between the latter and the combined gasket and clamp and between the latter and the nut.

Should the burner-fixture through accident or otherwise slip downward while valve 2 is open, it will be checked in its downward movement by the impingement of its projection or flange 17 on cushion 8 or 9, as the case may be, a cushion being preferably employed for this purpose in order to prevent any possibility of injury to any part of the chandelier or its appurtenances, such as globes, (not shown,) and in this connection it will be apparent that the projection not only guards against accidental dislocation of the burner-fixture and cushions in its fall, but also in conjunction with the gasket and clamp-ring prevents any vibratory or lateral movement of the burner-tube, it being apparent that the cushion also tends to prevent such movement.

As it will be inconvenient for many people to reach and turn the cup by hand or through the instrumentality of a wrench, we have provided a modified construction whereby a person of ordinary height can easily raise or lower the cup, and in order that such construction may be fully understood reference is made to Figs. 6 and 7. In detail 6 designates the enlargement or nut secured on the lower end of pipe 5 and provided with a depending arm 18, terminating in parallel ears 19, and with a socket 20, and said nut is smooth externally instead of being threaded, so as to receive the cup 10, which likewise is not threaded internally, so that it may move up and down upon the nut without rotary movement, the combined clamp-ring and washer being arranged in the same relation as in the construction shown clearly in Fig. 2. Pivoted, as at 21, to and between the ears 19 is a lever 22, having one end underlying the cup and forked, as at 23, to fit on opposite sides of pipe 14, the upper sides of the fork-tines being rounded, as at 24, in order that they may engage the cup at opposite sides of the center and lift without tending to tilt it. The opposite end of the lever is provided with a threaded passage 25, engaged by the threaded portion of rod 26, the upper end of the rod terminating in a rounded head 27, fitting in socket 20, and the lower end in a handle 28, so that by turning said handle the lever may be caused to operate vertically, and thus force the cup upward or permit it to slide downward on the nut, and in this connection it will be seen that the pivotal relation between the screw-rod 26 and the arm of nut or enlargement 6 permits said screw-rod to swing sufficiently to accommodate the movement of the lever.

In lowering the burner-fixture where the slide-cup is employed pipe 14 is turned slightly, so that the pipes 15 may pass the handle of the screw-rod, it being understood in either construction that the burner-fixture may not only be raised or lowered, but may also be rotated so as to project the jet-pipes in any desired direction.

From the above description it will be apparent that we have produced an extensible fixture which possesses the features of advantage enumerated as desirable in the statement of the object of the invention and that the invention is susceptible of modification in various particulars without departing from its essential spirit and scope or sacrificing any of its advantages, and it is obvious that the means for clamping the telescopic pipes in the desired relation may be used on what are known as "piano-lamps" or on other devices or fixtures.

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In an extension gas-chandelier, the combination of an outer fixed pipe having an internal annular shoulder near its lower end, an inner pipe slidably fitted in the outer pipe and having an external annular shoulder extending to the wall of the outer pipe, a cushion on the internal annular shoulder of the inner pipe arranged to receive the impact of the external shoulder on the inner pipe, a longitudinally-movable cup mounted on the end of the outer pipe and encircling the inner pipe, means for moving said cup longitudinally of the pipes, and an elastic ring inclosed within said cup bearing against the end of the outer pipe and arranged to frictionally embrace the inner pipe and hold the two pipes in their relative adjustment.

2. A pair of pipes fitting telescopically together, a cup fitting upon and having a sliding relation with the inner one and longitudinally adjustable on one end of the outer one, a combined gasket and clamp-ring fitting between the cup and the outer pipe and externally embracing the inner pipe, a lever suitably supported to prevent downward movement of the cup, and means for imparting vertical

movement to said lever to press the cup upward or leave it free to move downward.

3. An extension gas-chandelier, comprising a pair of pipes fitting telescopically together, a cup adjustable longitudinally of the outer pipe, a combined gasket and clamp-ring fitting between the cup and the outer pipe and externally embracing the inner pipe, a lever supported from the outer pipe and pivotally movable only and having one end underlying the cup and its opposite end provided with a threaded passage, a rod having threads engaging said threaded passage, and means rigid with said outer pipe affording a bearing for the upper end of said rod.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM E. COTTON.
LEVI C. MOOR.

Witnesses:
F. R. GLORE,
G. Y. THORPE.