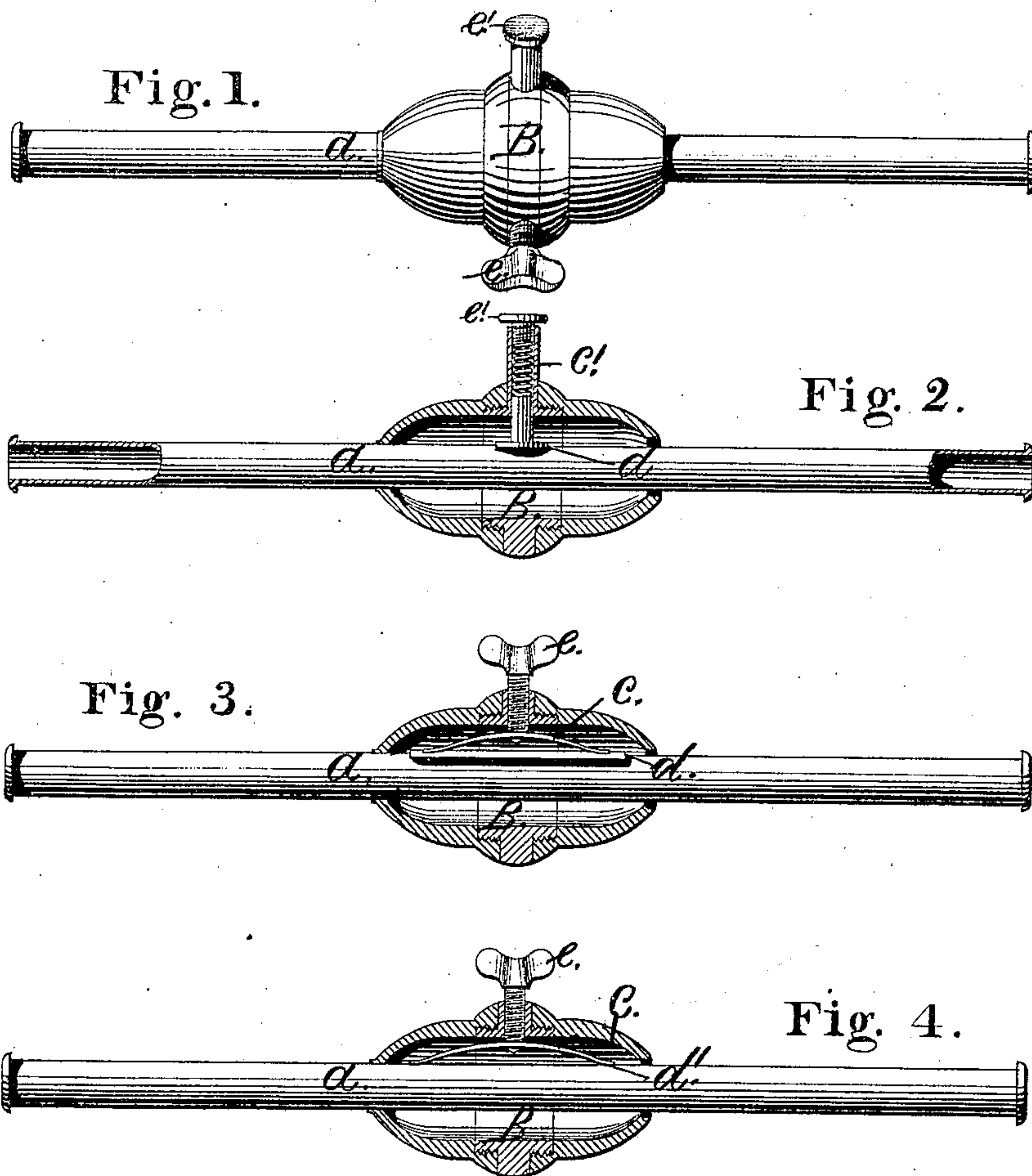


J. R. SHIRLEY.

DEVICE FOR SUSPENDING GASALIERS, &c.

No. 174,582.

Patented March 7, 1876.



WITNESSES.

L. D. Langworthy
Stephen Greene

INVENTOR.

John R. Shirley
by Joseph A. Miller
his Attorney.

UNITED STATES PATENT OFFICE.

JOHN R. SHIRLEY, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN DEVICES FOR SUSPENDING GASALIERS, &c.

Specification forming part of Letters Patent No. 174,582, dated March 7, 1876; application filed February 19, 1876.

To all whom it may concern :

Be it known that I, JOHN R. SHIRLEY, of the city and county of Providence, State of Rhode Island, have invented new and useful Improvements in Devices for Suspending Gasaliers and Lamps; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification.

Figure 1 is a view of my improved device for suspending gasaliers, drop-lights, or lamps. Fig. 2 is a section of my suspending device, showing an adjustable spring-pressed friction-bolster, two or more of which are made to press against the central tube, which tube may be of any shape desired, not being necessarily cylindrical, as here represented. Fig. 3 is a section, showing also an adjustable spring-pressed bolster, the spring being a curved semi-elliptic spring, and the bolster of sufficient length to receive the ends of the spring. Fig. 4 is a section, showing an adjustable spring acting directly on the tube, the ends of the spring being arranged to conform to a portion of the tube, and the adjusting-screw provided with a point to enter an indenture made in the center of the spring; by these arrangements the spring is held in its proper position.

Similar letters of reference indicate corresponding parts.

This invention relates to that class of devices by which a chandelier or gasalier, a drop-light, or a lamp is supported so that the same may be raised or lowered within certain limits, and held at any desired point; and consists in the peculiar and novel arrangement by which any desired amount of frictional resistance is exerted by means of adjustable springs on a central tube or rod, as is more fully described hereinafter.

In the drawings, *a* is a tube which may be of any desired shape; when used for a gasalier, one end of the tube is connected with the device to which the gas-burners are connected; when other lamps are to be supported, a rod may be used instead of the tube. *B* is a boss surrounding the tube *a*, one end of which is secured to a chandelier

or bracket, or any other suitable device, from which the gasalier or lamp is to be suspended. *C'* is a coiled spring, and *CC* are curved springs. *d'* is the surface on the ends of the spring *c* where the same bears against the tube *a*, to the shape of which the end of the spring conforms. *d d* are bolsters interposed between the spring *c* and the tube *a*; these bolsters are made to conform to, or nearly to, the shape of the tube, so as to present sufficient surface in contact with the tube to prevent local wear.

The bolsters *d d* may be made of any suitable material, so as to insure more or less friction with a given pressure, as may be required for gasaliers of different sizes; or the bolsters may be covered with any suitable material to prevent longitudinal scratches on the tube. The springs *CC* are provided with an indented central cavity or a hole, into which a point at the end of the adjusting-screw enters, so as to prevent the spring from leaving the screw and slide with the tube; and when a bolster is placed between the spring and the tube the ends of the bolster are provided with suitable projections, so that the bolster is held in place by the spring, and the tube is allowed to slide between the bolsters.

When the device is used to suspend a gasalier or a drop-light in which gas is burned, the boss *B* is secured to a suitable device provided with a tube sufficiently larger than the tube *a* to allow the latter to slide freely within the former, and the gasalier or the drop-light is secured to the other end of the tube *a*.

The boss *B* is provided with two or more of the friction devices shown in Figs. 2, 3, and 4, and the pressure against the tube is adjusted by the screws *e'* or *e*, so that the friction on the tube will support the weight of the gasalier or the drop-light, and still allow the same to be raised or lowered without too much exertion.

By means of the screws *e'* and *e* the pressure of the springs against the bolsters *d d*, or the tube or rod, may be accurately adjusted, so as to be sufficient to support the weight of the gasalier or lamp, and still allow the tube or rod to slide up or down with ease. All the wear can be taken up by thus adjust-

ing the springs, and as the thumb-pieces of the screws are all in sight the frictional contact with the tube is easily adjusted.

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

1. The combination, with the springs C C, their ends arranged to conform to the tube and provided with an indented center, of the adjusting-screws *e e*, the whole arranged and operating substantially as and for the purpose described.

2. The combination, with the boss B and tube *a*, of the bolsters *d d*, springs C C, and

adjusting-screws *e e*, the whole forming an adjustable friction device for suspending gas-aliers, substantially as and for the purpose set forth.

3. The combination, of the spring-pressed bolsters *d d*, arranged to conform to a portion of the section of a tube, with the adjusting-screws *e e*, arranged to regulate the pressure and adjust the frictional resistance, as and for the purpose set forth.

JOHN R. SHIRLEY.

Witnesses:

JOSEPH A. MILLER,
HORACE F. HORTON.