

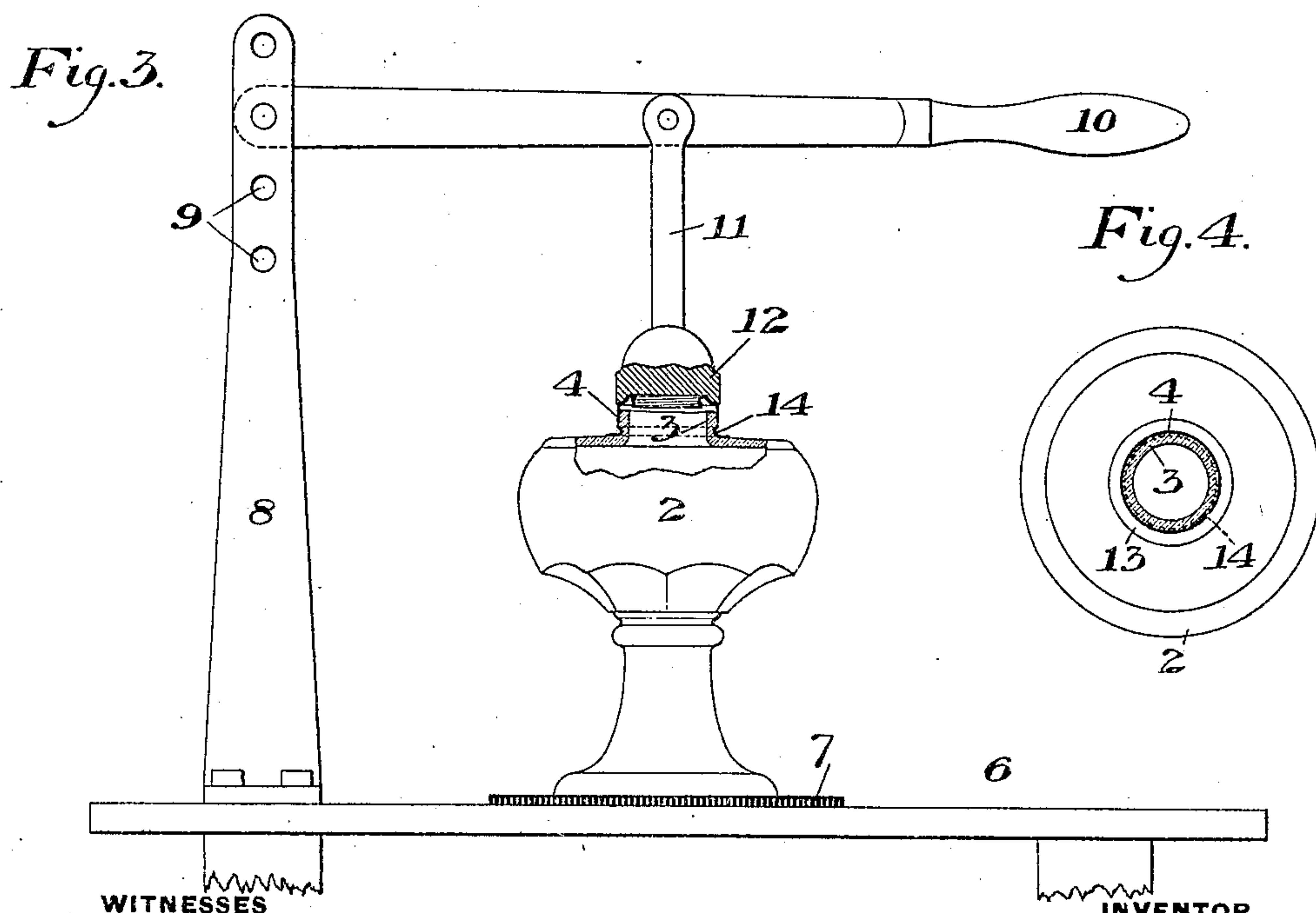
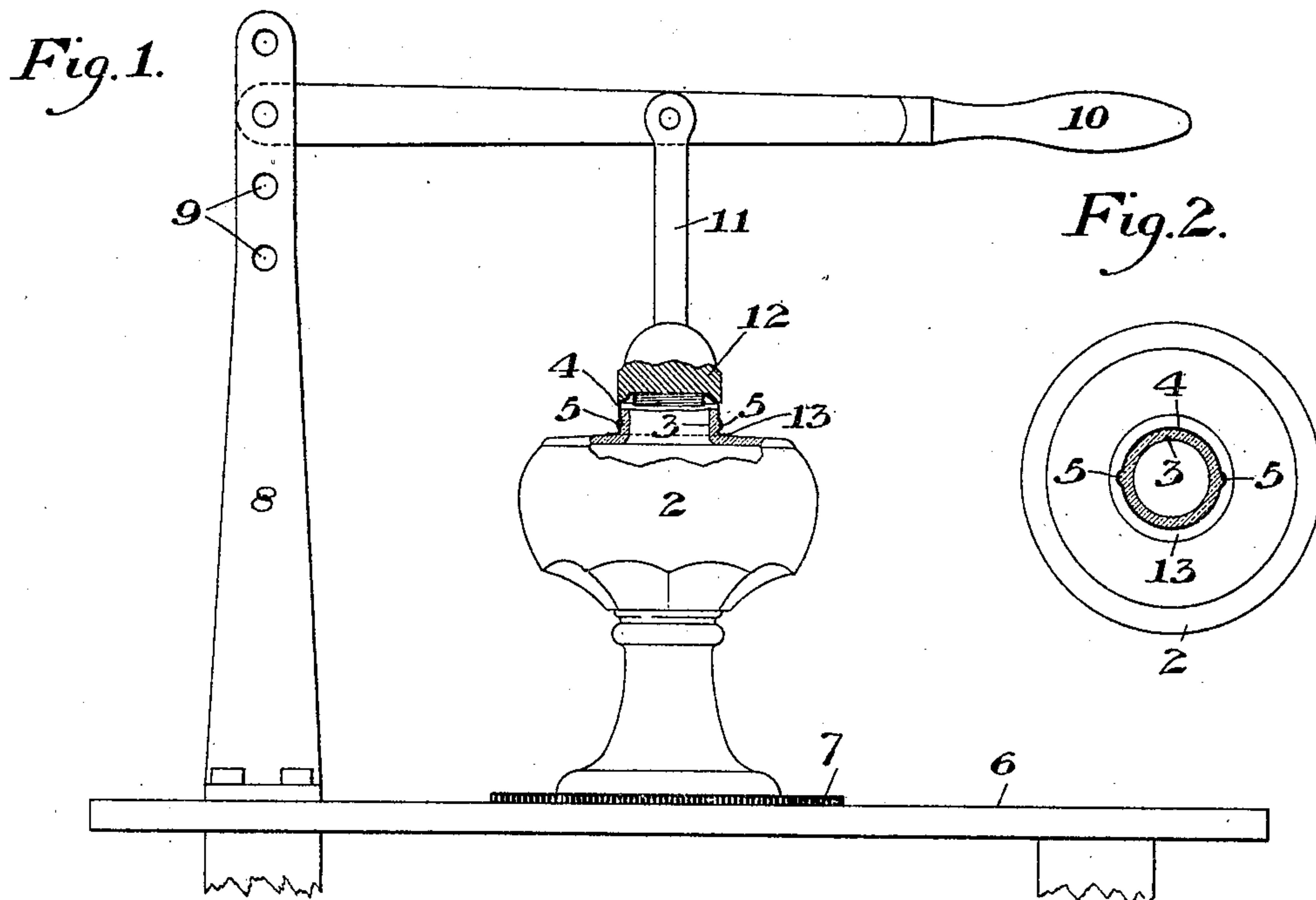
No. 814,432.

PATENTED MAR. 6, 1906.

J. W. COLLINS.

METHOD OF FASTENING METAL COLLARS TO GLASS LAMPS.

APPLICATION FILED JULY 22, 1905.



WITNESSES

Warren W. Swartz
J. W. Collins

INVENTOR

James W. Collins
by Bertram H. Hayes
his atty

UNITED STATES PATENT OFFICE.

JAMES W. COLLINS, OF NEW MARTINSVILLE, WEST VIRGINIA.

METHOD OF FASTENING METAL COLLARS TO GLASS LAMPS.

No. 814,432.

Specification of Letters Patent.

Patented March 6, 1906.

Application filed July 22, 1905. Serial No. 270,887.

To all whom it may concern:

Be it known that I, JAMES W. COLLINS, of New Martinsville, in the county of Wetzel and State of West Virginia, have invented a new and useful Method of Fastening Metal Collars to Glass Lamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a sectional side elevation showing one form of apparatus for forcing the collar on the lamp-neck. Fig. 2 is a cross-section of the lamp-neck with the collar in place; and Figs. 3 and 4 are views similar to Figs. 1 and 2, respectively, showing another form of the neck and collar.

My invention relates to the securing of collars to glass lamps. The methods heretofore employed for this purpose have been defective in that cement has usually been necessary, which softens and allows the collar to become loose, or if the frictional resistance between a plain neck and a plain collar are utilized the slight differences in diameter between the necks of successive lamps prevent the proper holding in a large majority of cases.

My invention overcomes these difficulties; and it consists in providing the glass neck of a lamp with one or more protuberances which may be either separated or may be in the form of a continuous protuberance, giving an annular recess around the neck, and then forcing a plain thin metal collar endwise over the glass neck, the collar being normally smaller than the greatest diameter of the neck and locking the metal of the collar by contracting under the protuberance or in the recess.

In the drawings, 2 represents the lamp-bowl, 3 the neck, and 4 the annular brass or sheet-metal collar. In the form of Figs. 1 and 2 the exterior of the glass neck is formed with one or more small protuberances 5. I show two of these opposite to each other, though their number may be changed or they may form a continuous ridge around the neck. The external diameter of the glass neck, plus the protuberance or protuberances, is greater than the internal diameter of the collar which is forced thereon.

In forcing the plain collar on the neck I may use any desirable form of apparatus.

Thus in the figures I show a table 6, having a rubber pad 7, on which the lamp is set. A standard 8 has a series of holes 9 to adjust the height of the fulcrum-point of the hand-lever 10, having depending link 11, provided with a cup 12, which is preferably shaped to fit the top portion of the metal collar. By forcing down on the cup the collar is forced over the lamp-neck, and its lower portion will contract under the protuberances, thus locking it firmly in place. This action is assisted by the flange 13 at the lower edge of the collar, since as the collar passes over the protuberances the flange will naturally assume an inclined position, and as this flange strikes the top of the lamp-bowl it will be bent back and will thereby crimp in the corner under the protuberance.

In Figs. 3 and 4 I show a form similar to that of Figs. 1 and 2 except that the protuberance takes the form of an annular ridge, thus forming an annular recess 14 around the lower outer portion of the glass neck. The collar being of slightly less diameter than that of the ridge portion of the neck, when it is forced into place it will contract within the recess, and thus lock the collar in place. In this case, again, the action of the lamp-bowl on the flange will pinch or crimp the corner of the collar at the flange juncture back within the recess.

The advantages of my invention are apparent. The use of cement is done away with and the collar is securely locked in place. The slight variation in the size of the neck incident to the manufacture of the bowl and neck does not affect the proper clamping or locking of the collar. The natural contraction of the metal under the ridge or protuberance securely locks the collar, and the flange action assists in the gripping operation.

Many variations may be made in the form and arrangement of the apparatus and the form and size of the protuberance or ridge without departing from my invention.

I claim—

1. The method of fastening lamp-collars to glass necks, consisting in providing a glass neck with a lateral protuberance or ridge, and then forcing thereover by circumferential or radial expansion under direct endwise pressure a metal collar normally smaller than the neck plus the protuberance or ridge,

whereby the collar is locked by contraction under the protuberance or ridge; substantially as described.

2. The method of fastening lamp-collars to
5 glass necks, consisting in providing a lamp-
bowl with a glass neck having a side protu-
berance or ridge, and forcing thereover by cir-
cumferential or radial expansion a thin metal
collar of less diameter than the greatest di-
10 ameter of the neck, and having a lower flange

or lateral extension, and thereby locking the metal of the collar under the protuberance or ridge; substantially as described.

In testimony whereof I have hereunto set my hand.

JAMES W. COLLINS.

Witnesses:

L. M. STEPHENS,
F. C. HELMICK.