

A. S. WADLEIGH  
Socket-Coupling.

No. 169,208.

Patented Oct. 26, 1875.

Fig. 1.

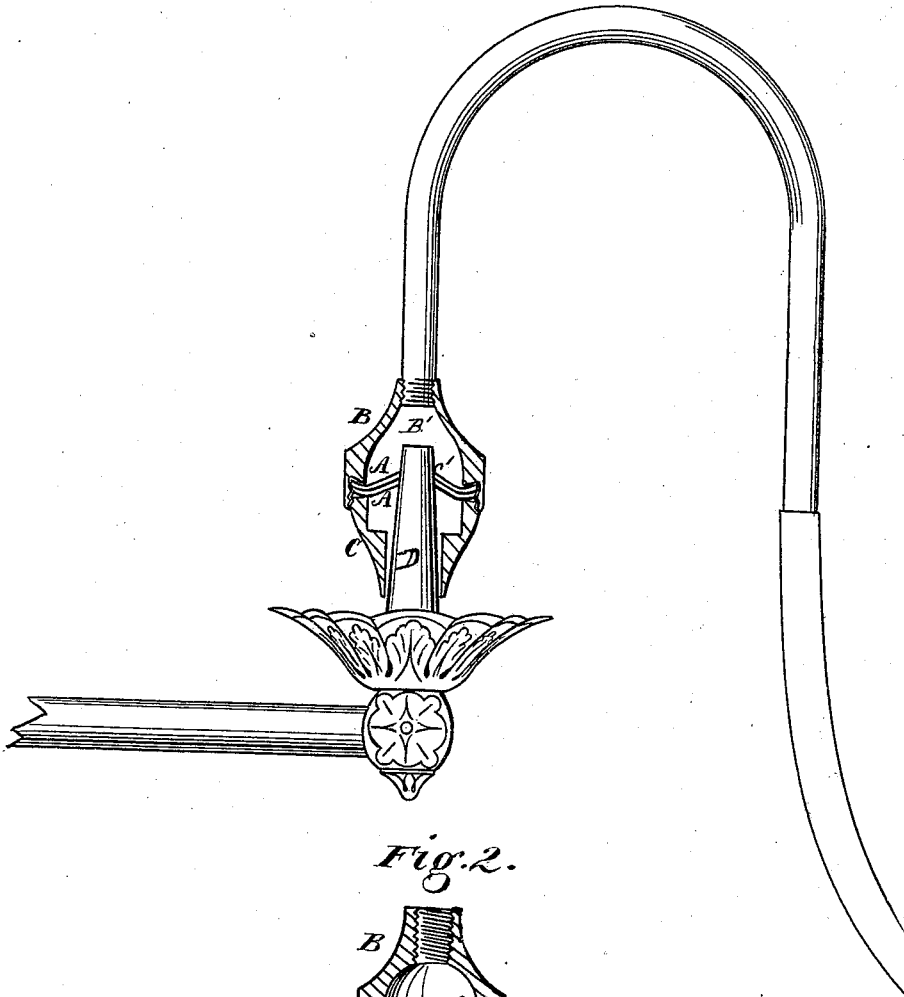
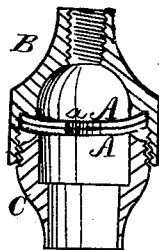


Fig. 2.



Witnesses

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# UNITED STATES PATENT OFFICE.

ANDREW S. WADLEIGH, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN SOCKET-COUPINGS.

Specification forming part of Letters Patent No. **169,208**, dated October 26, 1875; application filed January 23, 1875.

### *To all whom it may concern:*

Be it known that I, ANDREW S. WADLEIGH, of San Francisco city and county, State of California, have invented a Socket-Coupling; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention without further invention or experiment.

My invention relates to an improved socket-coupling, which is principally useful in making a tight connection between stationary gas-jets and drop-lights which are supplied therefrom; and it consists in the employment, in a suitably-constructed chamber, B', of an elastic disk sufficiently thin and large to assume a conical shape when the tube of the gas-burner is placed in position for use.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a vertical section of my coupling, showing its application to a gas-fixture. Fig. 2 is a sectional view of my coupling.

A A are disks, which are made of any elastic material; but I find that rubber, in some of its prepared forms, is very suitable for the purpose. These disks, of which I use one or more, are flat, stamped or molded with a circular central opening, *a*, somewhat smaller than the tube of a gas-burner. These disks are placed within a case large enough to receive them, and have the distance from the sides of the case to the central opening *a* about the diameter of said central opening, and made in two parts, B C, and united by a screw-coupling near the center. The burner D must be made of a gradually-tapering form, and without any inequalities. One of these parts has the drop-light tube secured to it, while the other has an opening made in it sufficiently large to allow the tube of the stationary burner to enter it and pass through the disk or disks. As the opening in the disk

is somewhat smaller than the tube, the latter will be tightly inclosed, and the disks will assume the form of a flat cone, so that there will be no possibility of any leakage. In practice I prefer to so place the disks in the chamber that the larger space will lie above the disk, thus insuring the tube passing well through the disk, which not only makes a tight fit, but prevents the destruction of the rubber by the heat of a tube from which the gas has been burning at a recent period. As the opening *a* is only cut to fit the burner at about the point *a'* it there holds, and the burner forces it up into the cone shape shown in Fig. 1. As the opening wears larger the height of the cone decreases, but the disks still maintain a tight joint.

It will be manifest that the disks will be very cheap, easily removed when worn out, and will make a tight joint, not to be disturbed by any accidental swinging of the drop-tube.

I am aware that it is not new to use elastic diaphragms or packings in drop-light couplings, but I am not aware that they have ever been so constructed as to form cones when pressed up by the tube of the burner, and thus form a packing automatically adjustable to take up the wear by sliding down on the tube as the central opening enlarges from continued use.

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

The perforated elastic disk A, constructed to form a cone-shaped packing in the chamber B' when pressed up by the tube of a burner, substantially as and for the purpose specified.

In witness whereof I hereunto set my hand and seal.

ANDREW S. WADLEIGH. [L. s.]

Witnesses:

GEO. H. STRONG,  
C. M. RICHARDSON.