

T.L. Reed,

Pipe Coupling.

Nº 56,448,

Patented July 17, 1866.

Fig. 1

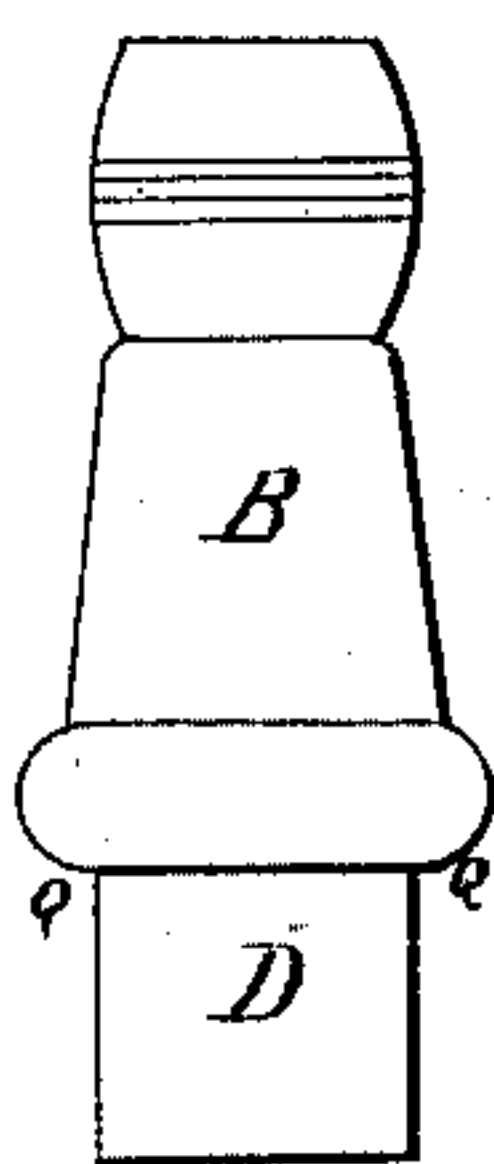


Fig. 2

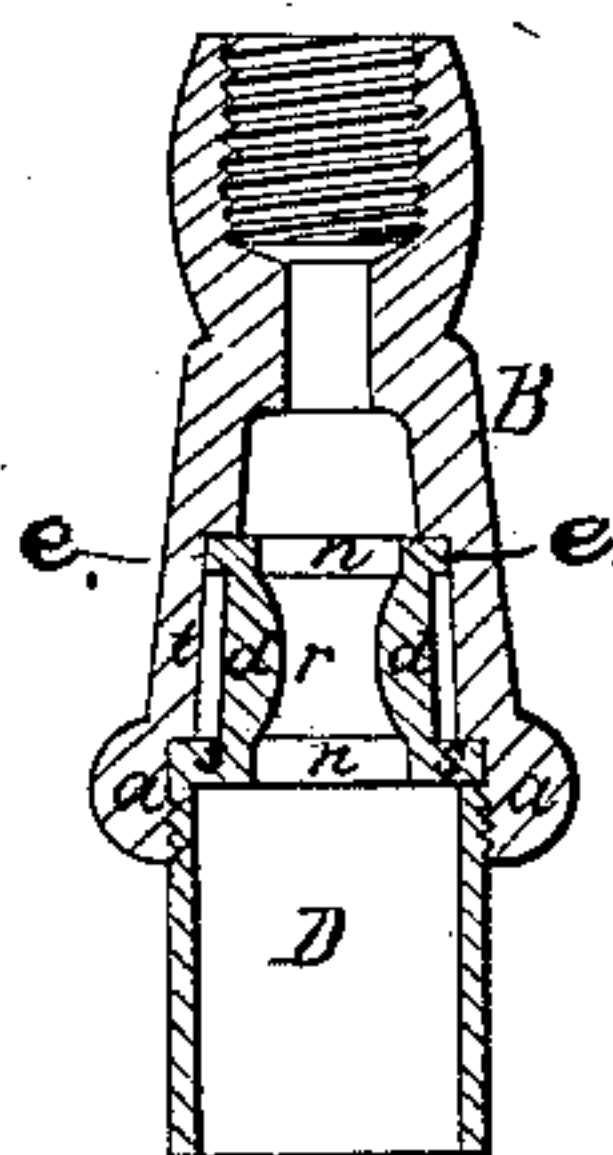


Fig. 4

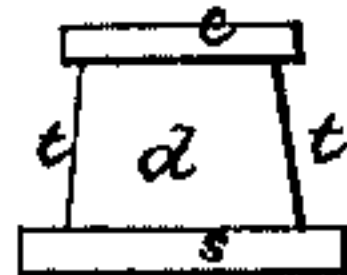


Fig. 5

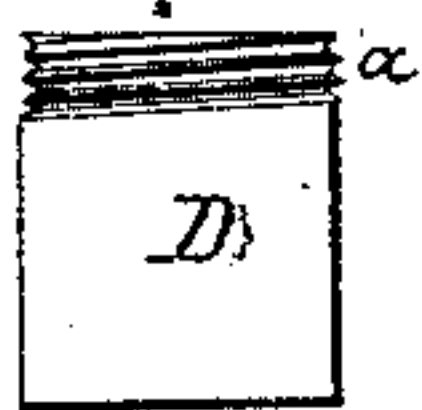
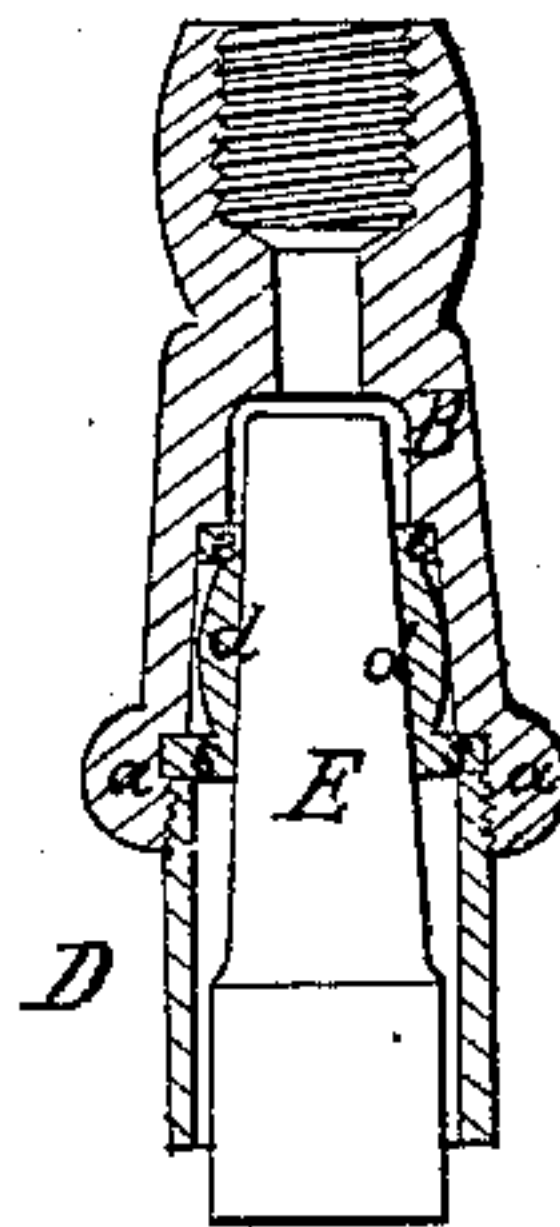


Fig. 3



Witnesses

Isaac A. Fennell,
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Inventor

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UNITED STATES PATENT OFFICE.

THOMAS L. REED, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SOCKET-COUPPLINGS FOR GAS-FIXTURES.

Specification forming part of Letters Patent No. 56,448, dated July 17, 1866; antedated July 13, 1866.

To all whom it may concern:

Be it known that I, THOMAS L. REED, of Providence, in the county of Providence and State of Rhode Island, have invented an Improvement in Socket-Couplings for Gas-Fixtures; 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, making part of this specification, in which—

Figure 1 is a view of the exterior of the shell of the said socket-coupling. Fig. 2 is a vertical section of the same, showing the internal construction. Fig. 3 is a similar view of the coupling with a gas-burner inserted in the way of its use, and showing the effect of its insertion upon the packing *d* of the coupling.

Similar letters indicate corresponding parts in all the figures.

The socket-coupling is designed to be placed over a gas-burner so as to form a gas-tight joint and to convey the gas from the burner, through a tube connecting with the top of the coupling, to a gas-burning fixture in some more convenient locality, and said coupling is generally composed of a metallic shell with an interior packing of india-rubber, cork, or some other yielding material confined therein.

I have heretofore invented and applied for Letters Patent of the United States for an improved construction of the socket-coupling in which the shell is formed in two pieces united by screw-threads, and the packing is a hollow cone of india-rubber with a flange which is confined between the two parts of the shell, so that the packing can be readily removed and replaced when from any cause its usefulness becomes impaired, and the invention in this case is an improvement in the construction of the removable packing alluded to—that is to say, my invention consists in forming the packing-piece with two flanges and an intervening inclosed space next to the shell, and with a swelling ridge in the interior orifice of the packing, opposite to the said space, for the purpose of giving to the packing a greater range of expansion than could be derived from its elasticity alone; also, in making that flange on the packing by which

it is confined to the shell of some comparatively inelastic material, by means of which the packing is held more firmly and securely in the shell.

In the drawings, B and D are the two parts of the shell, which are united by screw-threads at *a*. *d* is the packing, of molded vulcanized india-rubber, formed externally with two flanges, *e* and *s*, and an intervening space, *t*, inclosed around the packing and next to the shell, as shown in Fig. 2.

The orifice *n* through the center of the packing is formed with a swelling ridge, *r*, which is directly opposite the space *t* on the outside. By means of this construction the packing expands into the space when placed on the burner, as shown in Fig. 3, which admits of a greater degree of expansion than is derived from the elasticity of the material alone, and therefore affords a better means of securing a gas-tight joint with the burner E.

The packing *d* is confined in the shell by its flange *s*, which is pinched and held between a square shoulder in the shell B and the end of the tubular piece D, and in order to hold the packing more securely in the shell I form the flange *s* of stiff india-rubber cloth or steam-packing united to or made to form part of the packing-cone *d*, so that this flange shall be comparatively inelastic and unyielding, and consequently not liable to be displaced by any force which might be applied to it in the way of its use.

Having described my invention, what I claim is—

1. Forming the packing of the coupling with two flanges and an intervening space externally and a swelling ridge internally, substantially as described, for the purpose specified.

2. Making that flange of the packing by which it is confined in the shell of some comparatively inelastic material, substantially as and for the purpose specified.

THOMAS L. REED.

Witnesses:

ISAAC A. BROWNELL,
CYRUS B. MANCHESTER.