(No Model.)

S. W. BURTCHAELL.

INSULATING JOINT.

No. 506,034. Patented Oct. 3, 1893.

Fig. 1.

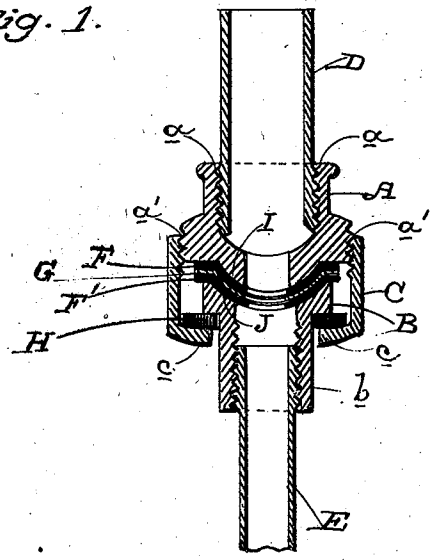
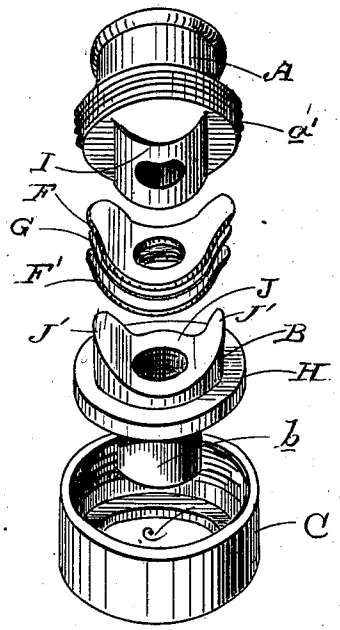


Fig. 2



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UNITED STATES PATENT OFFICE.

SAMUEL W. BURTCHAELL, OF SAN FRANCISCO, CALIFORNIA.

INSULATING-JOINT.

SPECIFICATION forming part of Letters Patent No. 506,084, dated October 3, 1893.

Application filed June 20, 1892. Serial No. 437,384. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL W. BURTCHAELL, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Insulating-Joints; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of insulating joints especially adapted for connecting gas fixtures with the house pipes, and at the same time insulating them to provide for the attachment to said fixtures of electric lighting apparatus.

My invention consists in the novel joint hereinafter fully described and specifically claimed.

The object of my invention is to provide a simple and effective insulating joint, the essential advantage of which lies in its non-rotatability.

Referring to the accompanying drawings for a more complete explanation of my invention,—Figure 1 is a vertical section of my insulating joint. Fig. 2 is a perspective view showing the several parts separated and about to be put together.

The joint consists of four parts, to wit, the section A adapted to be secured to the projecting end of the house pipe; the section B to which the gas fixture is secured; the connecting nut C and suitable insulating material to be more fully described. The section A is a tubular piece of metal provided at its upper end with internal threads *a* and at its lower end with the enlarged externally threaded portion *a'*. Section B consists of a tubular metallic piece having projecting from its head a reduced internally threaded neck *b*. The connecting nut C is an annular piece of metal internally threaded at its upper end, and having an inwardly projecting flange *c* at its lower end. The section A is secured to the house pipe D by screwing its upper end thereon. The section B has the chandelier pipe E secured to it by screwing into its internally threaded neck. The sections A and B are united by having the connecting nut fitting over section B, its flange *c* being limited by the head of said section, and its internally threaded upper end screwing on to the enlarged externally threaded lower end of section A. These parts are to be suitably insulated from each other. This may be done in any suitable manner. I have here shown an apertured disk F of leather or other suitable material fitted against the lower end of section A, a similar disk F' fitted against the upper end of section B, and an intervening apertured disk G of mica. A washer H of insulating material is seated between the back of the head of section B and the inwardly extending flange *c* on the lower end of the connecting nut C. Thus the two sections are insulated from each other, and the connecting nut which is in contact with the upper section A is insulated from the lower section B.

In practice it is a difficult matter with such a coupling or joint to prevent the lower section from turning on the upper section. This is a serious disadvantage requiring constant attention to set them up closely, and the joint is not perfect without some means of remedying this difficulty. I have accordingly provided for such an engagement between the adjacent ends of sections A and B as will prevent section B from turning on section A as it would do if the adjacent ends were simple plain surfaced ones. This connection between the two sections may be of any suitable form of projection on one section, entering a corresponding groove or socket on the other section. The form of these projections and grooves is immaterial, and it is likewise immaterial upon which section the projection may be, or on which the groove may be.

I have here shown as the best form the upper section A as having formed with or provided on its lower end a convex projection I, which traverses the central portion of the lower end of the section so as to leave a space upon each of its longitudinal sides, said projection having the usual passage through it, and upon the upper end or head of the lower section B is formed or provided a corresponding concave or socket J, the depressed portion or socket traversing the central portion of the piece so as to leave upwardly projecting side wings or walls J' adapted to enter the spaces at the sides of the convex projection of the piece or section A, when the two parts are fitted together, thereby causing an interlocking of said sections A and B, and providing an effective means for preventing

the turning of one section on the other. The insulating material conforms to these shapes and when the securing nut is tightened up, the convex projection on the one part fits down into the concave socket on the other part (the insulating material bending between them) and forming such an engagement as will effectually prevent the lower section from turning on the upper section.

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

An improved insulating joint consisting of an upper and lower section adapted to be fitted together, one of said sections having a convex projection traversing the central portion of its end so as to leave a space at each side of it, and the other section having the central portion of its adjacent end depressed and bounded by projecting wings or walls adapted to enter the spaces provided at the sides of the convex projection of the other section, to prevent the turning of one section on the other, a washer interposed and adapted to conform to the interlocking meeting surfaces of the opposing sections, and means insulated from one of said sections for connecting them, substantially as herein described.

In witness whereof I have hereunto set my hand.

SAMUEL W. BURTCHAELL.

Witnesses:
J. W. KEYS,
WALTER A. CLARK.