(No Model.)

S. BERGMANN.

INSULATING PIPE COUPLING.

No. 397,218. Patented Feb. 5, 1889.

Fig. 1

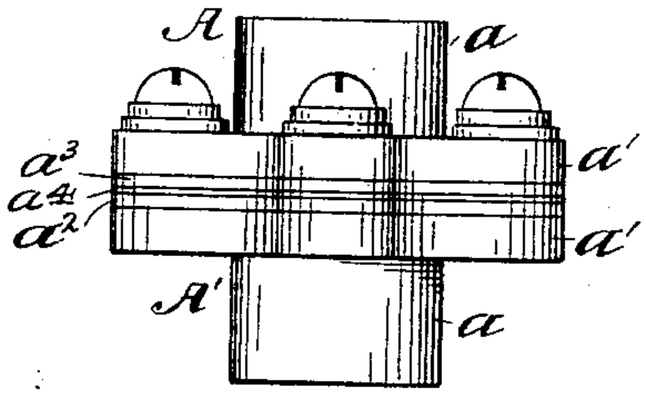


Fig. 2

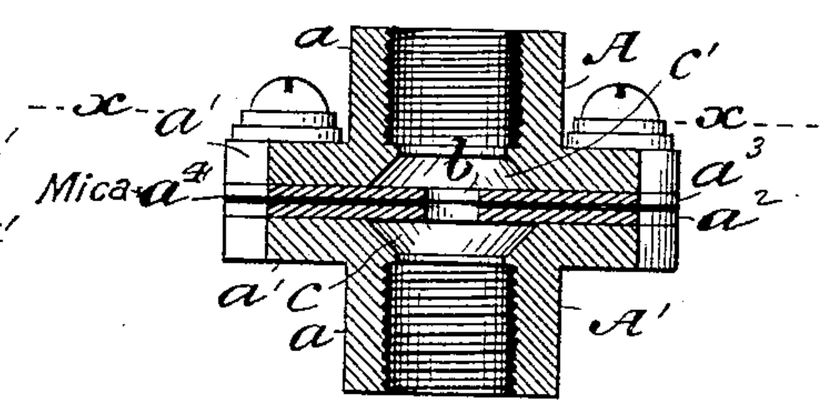
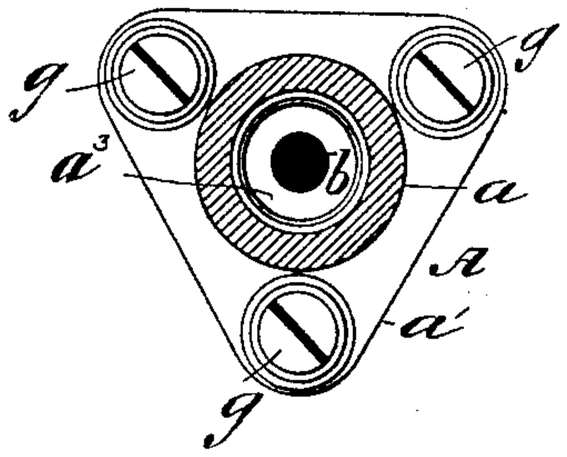


Fig. 3.



Witnesses
James D. Griswold
Maurice J. Roach.

Inventor
Sigmund Bergmann
By his attorneys
Gifford & Brown

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

SIGMUND BERGMANN, OF NEW YORK, N. Y.

INSULATING PIPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 397,218, dated February 5, 1889.

Application filed June 12, 1888. Serial No. 276,835. (No model.)

To all whom it may concern:

Be it known that I, SIGMUND BERGMANN, of New York, in the county and State of New York, have invented an Improvement in Coupling-Pieces, of which the following is a specification.

My improvement relates to coupling-pieces employed to connect a gas-supply pipe with a chandelier or fixture used for both gas and electric lights. In such chandeliers or fixtures it is desirable to so insulate the joint that the electric current will not ground through the gas-supply pipe.

In the accompanying drawings, Figure 1 is a side elevation of a coupling-piece embodying my improvement. Fig. 2 is a vertical section thereof, taken through the axis of the gas-passage. Fig. 3 is a horizontal section of the same, taken on the plane of the line $x\ x$, Fig. 2.

A A′ designate two halves or portions of the coupling-piece. These may be made of metal—as, for instance, brass. Each is provided with a shank portion, a, and flanges a'. The shank portions a are hollow and screw-threaded internally to receive within one the gas-supply pipe and within the other the stem of the chandelier or fixture. Between the flanges a' are pieces of insulating material, $a^2\ a^3\ a^4$. The pieces $a^2\ a^3$ may be made of leather. The piece a^4 is made of mica and is placed between the pieces $a^2\ a^3$.

Coupling-pieces for the purpose specified have previously been made comprising the pieces A A′ and a piece of insulating material between them; but the insulating material has been so formed or cut away as to be flush with the bore of the coupling-piece, and being comparatively thin, the passage of gas through the coupling-piece has caused a deposit of carbon or other conducting material across the insulating material and between the portions A A′, occasioning a short circuit resulting in a ground, or the short circuit has been occasioned by the impregnation of the insulating material with tarry matters or other substances from the gas.

In the example of my improvement illustrated in Figs. 1, 2, and 3, it will be seen that the pieces of insulating material $a^2\ a^3$ extend inwardly beyond the wall of the gas duct or passage of the coupling-piece, so that a comparatively-restricted opening, b, is left through the insulating material for the passage of the gas. It will be seen, also, that the metal adjacent to the insulating material is circumferentially chamfered, as at $c\ c'$, providing an enlarged cavity, whereby a large surface of insulating material is exposed. By these means the carbonaceous or other material through which a short circuit is effected has a much greater surface to form over than is the case in the old form of coupling-piece, to which I have referred, whereby a very much longer time is required to effect a short circuit, and the life of the coupling-piece is materially prolonged. By placing a sheet of mica between the portions of insulating material $a^2\ a^3$ the complete impregnation of the portions $a^2\ a^3$ with tarry or other conducting matters is avoided and the tendency to short circuit from this cause overcome.

The portions A A′ may be secured together by screws g, passing through insulators in the flanges a' and the insulating material.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A coupling-piece comprising metallic portions provided with communicating gas-passages, and insulating material between said metallic portions extending inwardly beyond the walls of the gas-passages, said gas-passages comprising an enlarged cavity adjacent to the insulating material, substantially as specified.

2. A coupling-piece comprising metallic portions provided with communicating gas-passages, and insulating material between the metallic portions extending inwardly beyond the walls of the gas-passages, the walls of the gas-passages adjacent to the insulating material being chamfered off, substantially as specified.

3. A coupling-piece comprising metallic portions provided with communicating gas-passages, pieces of insulating material between said metallic portions, and mica between said pieces of insulating material, substantially as specified.

4. A coupling-piece comprising metallic portions having communicating gas-passages enlarged at their inner ends, and insulating material between said metallic portions, substantially as specified.

SIGMUND BERGMANN.

Witnesses:
P. H. KLEM, Jr.,
JNO. F. GEIDEL.