

No. 704,425.

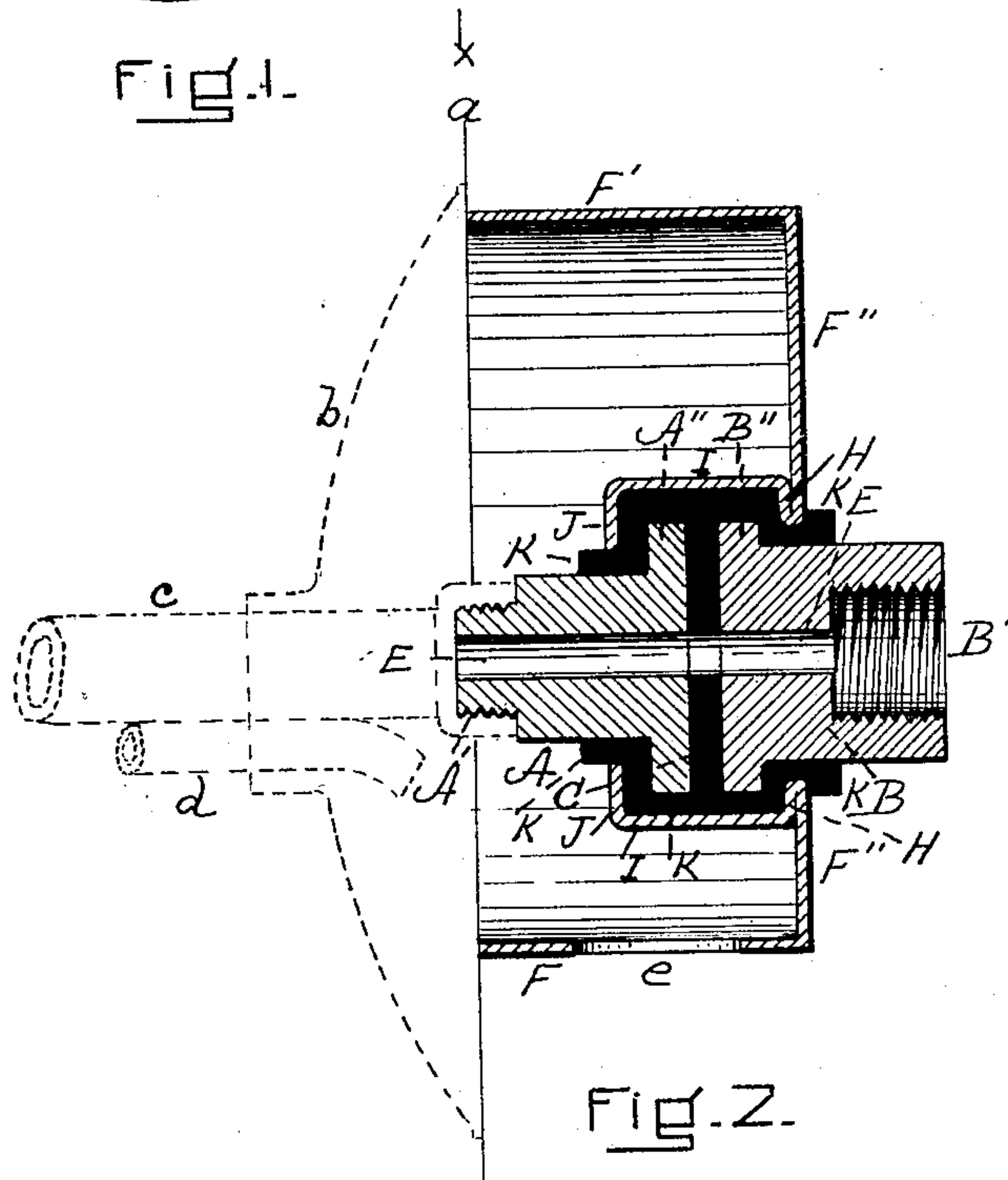
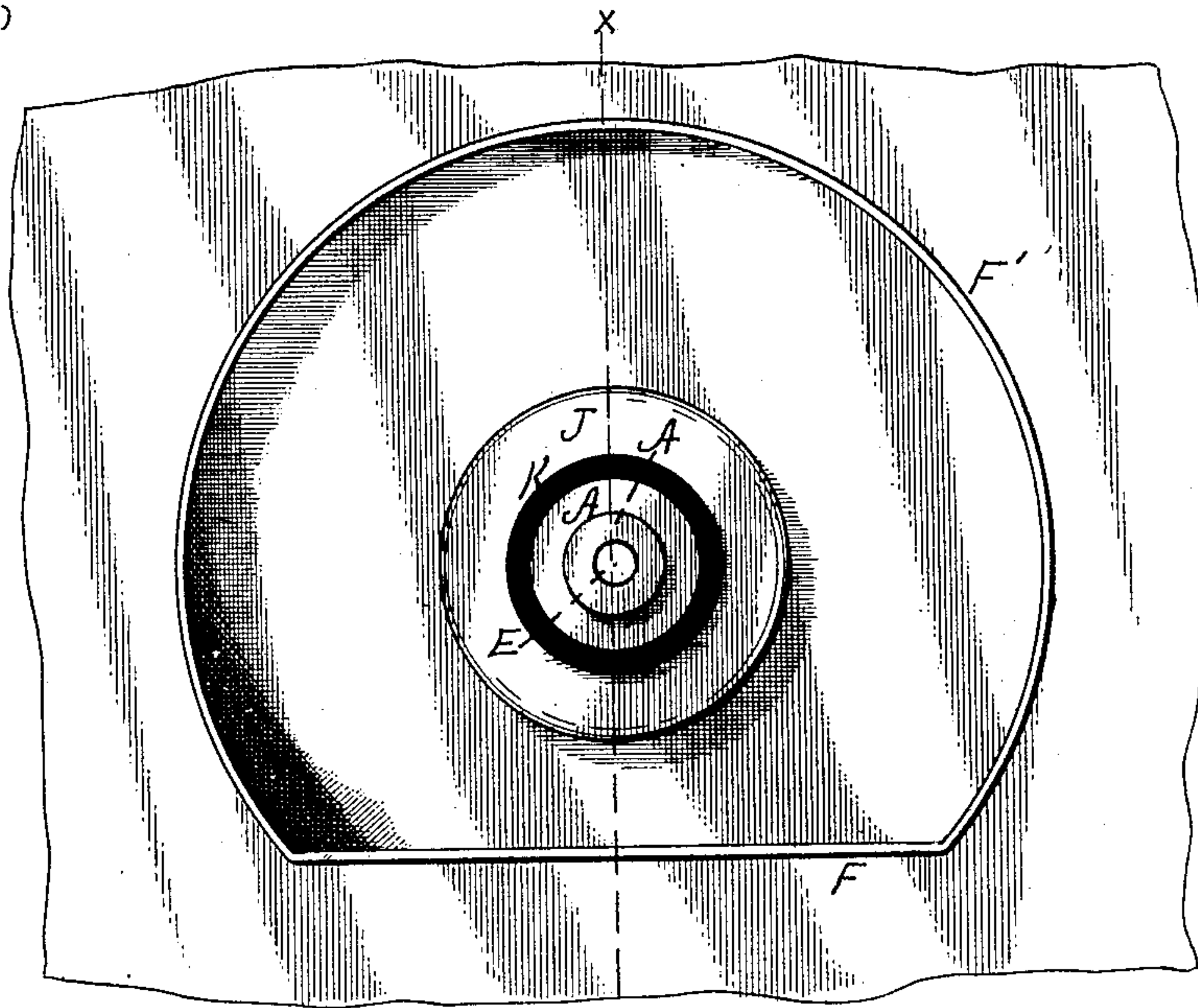
Patented July 8, 1902.

B. W. ALLEN.

JUNCTION BOX FOR ELECTRIC WIRES IN BUILDINGS.

(Application filed Mar. 8, 1902.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

BOYD W. ALLEN, OF BOSTON, MASSACHUSETTS.

JUNCTION-BOX FOR ELECTRIC WIRES IN BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 704,425, dated July 8, 1902.

Application filed March 8, 1902. Serial No. 97,288. (No model.)

To all whom it may concern:

Be it known that I, BOYD W. ALLEN, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Junction-Boxes for Electric Wires in Buildings, of which the following is a specification.

This invention relates to junction-boxes for introducing electric-light wires to brackets adapted to supply light from both gas and electricity. These junction-boxes or conduit-boxes are set in the walls of buildings and connect with gas-fixtures within the building, and electric wires extend through them to connect with the fixture in order that electric light may be supplied to the fixture as well as gas-light, and the box being metallic the wires must be properly insulated therefrom.

In this invention I provide a junction-box made of sheet metal, preferably steel, drawn practically by hydraulic pressure into the shape shown and described, and combine it with a split nipple and with insulation between the two parts of the nipple and between the nipple and the box, the construction and shape of the box in connection with the other parts being such that the insulation is held in position and the nipple not only insulated, but rendered gas-tight by the shape alone of the box and without the employment of screws, bolts, or other clamping contrivances.

The nature of the invention is fully described in detail below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation—that is, an elevation looking from within the building—of my device. Fig. 2 is a section taken on line X, Fig. 1.

Similar letters of reference indicate corresponding parts.

The line at *a* indicates the inner surface of the wall of the building. The dotted line at *b* represents the shield or wall-plate. The dotted lines at *c* represent the gas-pipe leading to the fixture, and the dotted lines at *d* show the position of the electric wires which lead to the fixture through the holes *e* in the junction-box in the ordinary manner.

A B represent a split nipple or a pair of nipples set reversely with relation to each other and separated by the wall of insulating ma-

terial C. The two portions of this nipple and the insulation C are provided with coincident passages E. The portion A is screw-threaded at A' to receive a gas-pipe leading to the fixture, and the portion B is screw-threaded at B' in order to connect it with the gas-supply pipe. The adjacent portions A'' and B'' of the nipple are of equal diameter and are larger in diameter than the main or outer portions thereof. The whole nipple is preferably circular in shape.

The junction-box is made of sheet-steel, and its general shape conforms to that of the junction-boxes now commonly in use, it having the flat bottom F, semicircular inwardly-projecting flange F', and vertical wall F''. The box is in one integral piece, and its wall F'' is ring-shaped and circular in order to receive and surround the nipple and bends back upon itself, as shown at H, thence horizontally rearward into tubular shape at I, and thence at right angles inward, as indicated at J. Thus the portions H I J follow substantially the shape of and box in the portions A'' and B'' of the nipple. A ring of insulating material K surrounds the nipple and lies between it and the portions H I J of the box and extends for a short distance forward and rearward beyond the adjacent portions of the box along and around the portions B and A of the split nipple. This insulation K is in contact with the disk of insulation C, and hence the two portions of the split nipple are not only insulated from each other, but they are completely insulated from the box.

It will readily be seen that the two portions of the split nipple or the reversed nipples are held in position and together as nearly as the insulation C will allow entirely by means of the shape of the junction-box and particularly by means of the shape of the portions H, I, and J. These portions act as a clamp and hold the nipple in place firmly without any necessity whatever for bolts, screws, or other connecting, securing, or clamping devices. Hence the nipple containing the gas-passage is securely insulated and firmly held with economy and simplicity and solely by means of the shape of the box, which is made of an integral piece of sheet metal.

Having thus fully described my invention,

what I claim, and desire to secure by Letters Patent, is—

1. In a junction-box of the character described, a split nipple or pair of nipples set
5 reversely with each other, and provided with a gas-passage; the case of the junction-box inclosing said nipple and retaining in position and holding together the two parts thereof by means of its shape alone; a layer of insulating material between the two portions of
10 the split nipple; and a layer of insulating material between the split nipple and that portion of the box which surrounds the nipple and holds its parts together, substantially as
15 described.

2. In a junction-box of the character described, the split nipple comprising the two parts A, B provided with the adjacent por-

tions A'' and B'' larger in diameter than the portions A and B; the case F', F'' formed with
20 the annular shoulder H, tubular portion I and inwardly-bent portion J, corresponding substantially with the shape of, and inclosing the adjacent portions of the split nipple; a layer of insulating material between adja-
25 cent portions of the nipple, and a layer of insulating material between the nipple and said portions H, I and J, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of
30 two subscribing witnesses.

BOYD W. ALLEN.

Witnesses:

HENRY W. WILLIAMS,
A. N. BONNEY.