

No. 677,595.

Patented July 2, 1901.

F. G. PROCUNIER.

CEILING PLATE FOR COMBINATION LIGHT FIXTURES.

(Application filed Nov. 30, 1900.)

(No Model.)

Fig. 1.

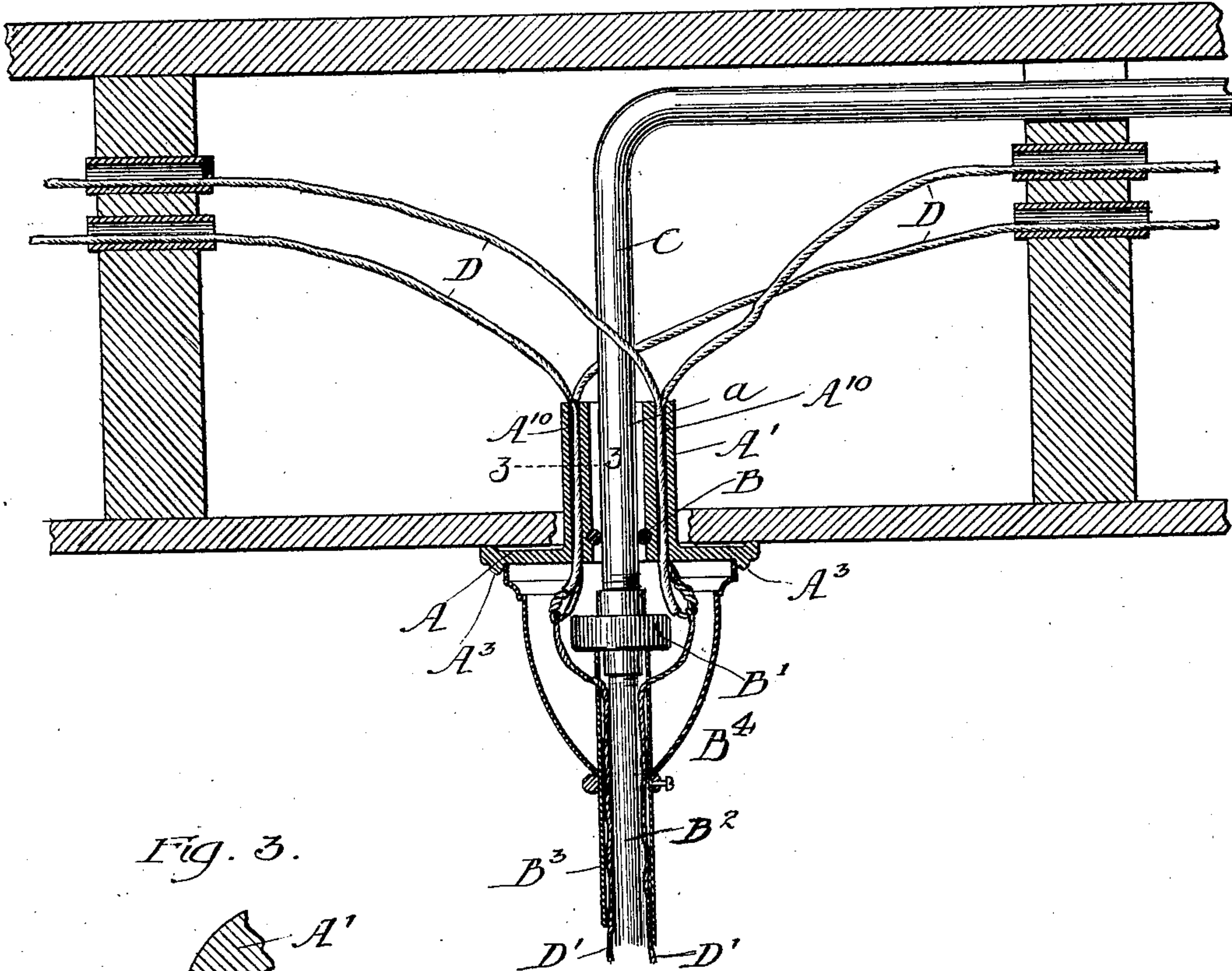


Fig. 3.

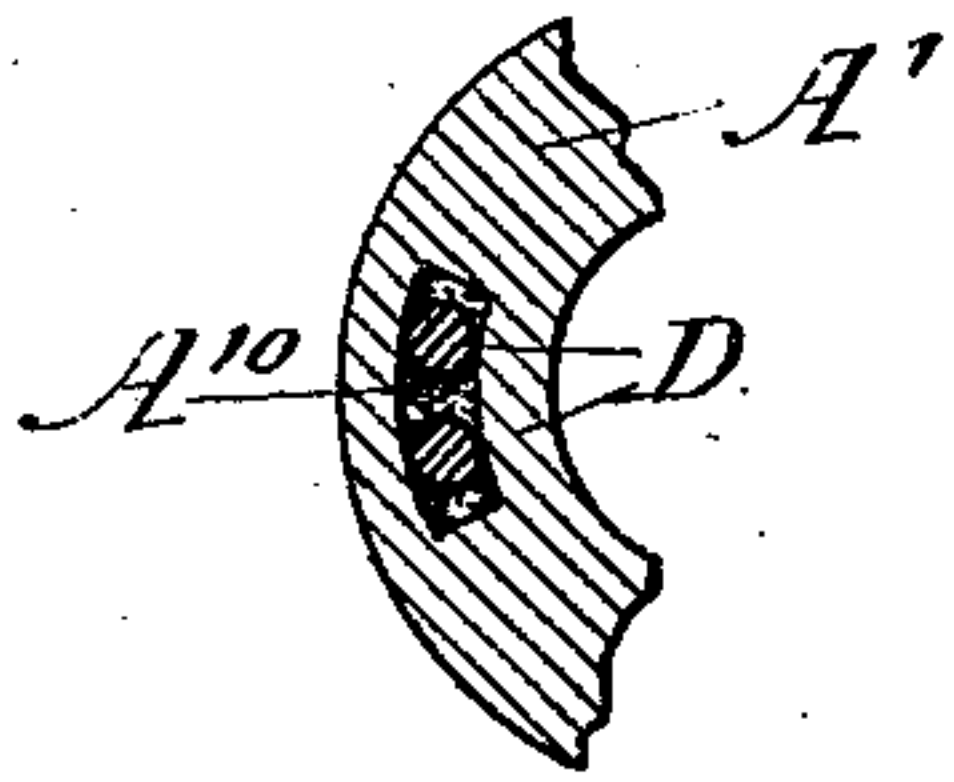
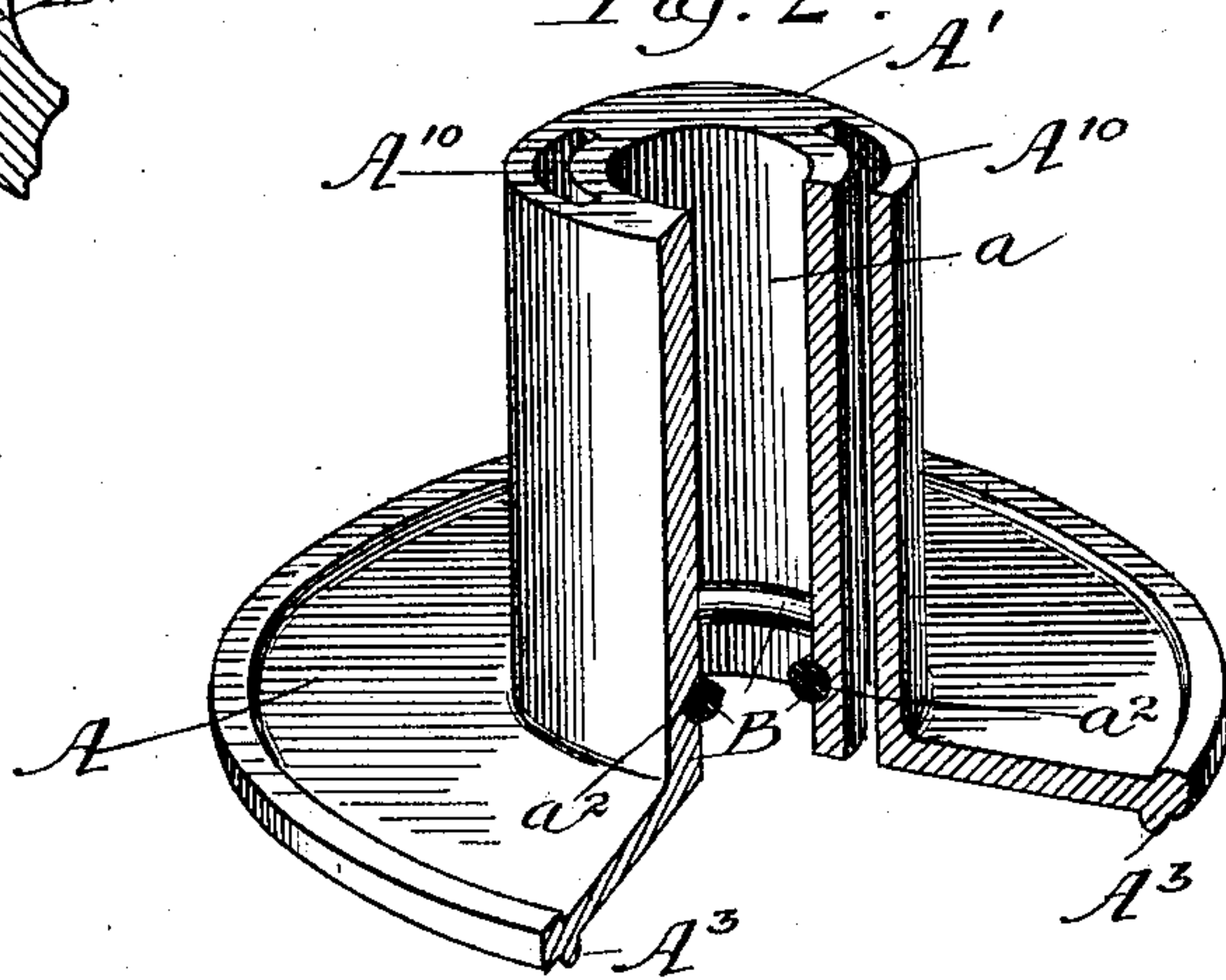


Fig. 2.



Witnesses:

Frank Blanchard
Edgar L. Conant

Inventor:
Frank G. Procunier
By Burton Burton
for Attorneys.

UNITED STATES PATENT OFFICE.

FRANK G. PROCUNIER, OF CHICAGO, ILLINOIS.

CEILING-PLATE FOR COMBINATION LIGHT-FIXTURES.

SPECIFICATION forming part of Letters Patent No. 677,595, dated July 2, 1901.

Application filed November 30, 1900. Serial No. 38,104. (No model.)

To all whom it may concern:

Be it known that I, FRANK G. PROCUNIER, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Ceiling-Plates for Combination Light-Fixtures, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

The purpose of this invention is to provide a ceiling-plate for combination light-fixtures which shall overcome certain of the difficulties and defects in construction hitherto common, these defects being such as to cause liability to fires due to short-circuiting the conducting-wires and to spread of fire from one floor to another of a building by reason of the draft which can occur around the apertures through which the gas-pipe and conducting-wires penetrate the ceiling and to the disfigurement of the ceiling by reason of the continuous air-currents which pass through the same apertures, leaving deposits of soot on the ceiling around the fixture. These defects arise from the fact, first, that the plaster of the ceiling is necessarily broken away somewhat around the gas-pipe in order to pass the conducting-wires through from above down into the fixture, and in dragging the wires through the plaster is more or less broken around the edge of the opening thus made, and in the ordinary jarring of the building the plaster continues to fall from the margin of the aperture, which thus continually widens, the plaster being caught in the canopy which is applied to the pipe to conceal the wires and the aperture, and besides the inconvenience of constant sifting down of plaster onto the fixture and the floor below the accumulation frequently continues until the canopy is filled, and in some cases of loose construction the plaster and other fragments of dirt may pass over into the sheath around the gas-pipe and, accumulating in the space intended for the conducting-wires therein, operate to chafe the covering from the wires. A more serious danger, however, arises from the fact that in case of any leakage from water-fixtures or otherwise admitting water between the floors and ceilings such water finds its escape most readily and commonly at the

apertures around the pipe leading to the light-fixtures below, and in case of the ordinary construction it thus pours into the canopy 55 and follows down along the fixture if the canopy does not fit tightly onto the same, entering any joints which may be sufficiently open, and thus reaching the conducting-wires, penetrating their covering, and short-circuiting the current; but in case the canopy has become filled at the lower part with accumulated plaster and the escape of water at the bottom which would ordinarily exist thereby cut off the canopy itself will become filled 65 with the water pouring into it until it flows over the joint in the sheathing which the canopy conceals and pours down in volume into the space between the sheath and the pipes wherein the conducting-wires are contained 70 with the certainty in such instance of short-circuiting the wires from the saturation of the covering of the wires. Besides these difficulties and defects the openness of the aperture around the pipe and wires causes a constant draft or circulation of air from the space in the floor above to the room below, with the well-understood effect of marking the ceiling with filth deposits, and in case of fire in the building arising from any cause 80 these apertures become a serious source of danger by reason of the facility which they afford for transmitting fire from floor to floor, because tongues of flame will be sucked through such narrow apertures, and besides 85 the direct transmission of fire in this way the covering of conducting-wires being burned off a new cause of fire is immediately created.

My invention consists of the specific construction which I have set out in the claims. 90

The structure is shown in the drawings, in which—

Figure 1 is an axial section through one of my improved ceiling-plates, shown in position in the ceiling and with the light-fixture 95 pipe and wires in position therein. Fig. 2 is a sectional perspective section, being made in two radial planes. Fig. 3 is a detail section at the line 3 3 on Fig. 1.

My improved ceiling-plate comprises an extended flange A, adapted to be applied to the ceiling, having a hub A' of sufficient length to extend up through the lath and plaster or other covering of the ceiling into the space 100

between the ceiling and floor to a sufficient distance above the lath or other material at the upper surface of the ceiling to stand above any water which may be liable to be flowing along the ceiling from a leak. In practice in case of a ceiling which, including lath and plaster, has a thickness of one-half to three-quarters of an inch the hub A' of my ceiling-plate would be about three inches in length. Of course any suitable length may be given it, according to the situation in which it is to be used. The central aperture of the hub a is adapted to permit the gas-pipe C leading to the fixture to pass through it, and in order to completely close the aperture around the pipe and grip the plate to the latter I provide a compressible ring B , seated in a groove a^2 in the inner wall of the pipe-aperture a , to serve as a packing around the gas-pipe, such ring being preferably of rubber, so that while it will fit closely around a three-eighths-inch pipe it will be readily compressed so as to admit a half-inch pipe, these two sizes being the customary sizes of gas-pipe leading to chandeliers. All ventilation through this aperture is thus cut off, and the plate-flange is held snugly against the ceiling, excluding air-currents outside the device. The flange A of the ceiling-plate is suitably recessed at its upper face, leaving a marginal bead to adapt it to seat closely against the ceiling, and the space left by the recess within the flange may be packed, if desired, to further insure a closer fit, and the exclusion of the possibility of air-currents.

A^{10} A^{10} are apertures extending longitudinally through the hub laterally with respect to the central aperture a , such lateral apertures being designed for the conducting-wires which thus are entered at the upper end of the hub, and are therefore kept above any water which may accumulate above the ceiling. The space in these apertures around the wires may be packed with asbestos to prevent air-currents in case the canopy becomes detached. In order to prevent the possibility of water reaching the fixture and moistening the wire covering by following down alongside the hub and over the upper surface of the flange and then creeping by capillary attraction along the under surface of the flange, I provide near the margin of the flange, on the lower face, a drip-bead A^3 of suitable form to cause the water to be certainly delivered from its lower edge and prevented from creeping up to any dangerous extent upon the inner side. It will be understood that the flange A must for this purpose be of sufficient diameter to have this drip-bead located far enough from the pipe so that the water dripping from it shall not be delivered upon any ornamental expansions of the sheath which sometimes exist near the chandelier branches, by which, if it should be thus received, it might be led back to joints by which it might pass within the sheath to weaken the wires. A diameter of from six to ten inches will ordinarily be

sufficient for this purpose. Preferably my improved ceiling-plate may be made of earthenware, porcelain, tile, or like material, desirably non-conducting in quality, in order to thoroughly insulate the canopy and the fixture from the ceiling. The drawings show the customary parts and features of customary light-fixtures—to wit, C , the gas-pipe extended through the ceiling; B' , the insulating-coupling for connection with the gas-pipe of the fixture; B^2 , the latter gas-pipe; B^3 , the outer sheath around the gas-pipe, between which and the latter the fixture-wires D' D' are extended; B^4 , the canopy; D D , the circuit or supply wire.

I claim—

1. A ceiling-plate for combination light-fixtures, comprising an axially-apertured hub and an extended flange at one end thereof, the hub having the longitudinal apertures A^{10} for electric conducting-wires.
2. A ceiling-plate for combination light-fixtures, comprising an axially-apertured hub and an extended flange at one end thereof, provided at the end opposite that from which the hub extends, with the drip-bead, A^3 .
3. A ceiling-plate for combination light-fixtures, comprising an axially-apertured hub and an extended flange at one end of the hub, the hub having longitudinal apertures for the electric conducting-wires, and the flange having on a face opposite that from which the hub extends a drip-bead A^3 , near the periphery.
4. A ceiling-plate for a combination light-fixture, comprising a hub having an axial aperture for the gas-pipe of the fixture provided with lateral apertures extending longitudinally through it for the conducting-wires, and having a widely-extended flange at one end, the gas-pipe aperture having its wall provided with an annular groove a^2 , and a compressible ring, B , lodged in such groove, and adapted to grip the pipe.
5. A ceiling-plate for a combination light-fixture, having an aperture for a gas-pipe and a guard for the conducting-wires extending upwardly from the plate and protruding through the ceiling; and a packing in the gas-pipe aperture around said pipe.
6. A ceiling-plate for a combination light-fixture, comprising a flange adapted to seat upward against the ceiling, and having an extension from its upper side of the plate apertured to the top of such extension to admit the gas-pipe and the conducting-wires, and inclose the same to a point well above the upper surface of the ceiling.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, in the presence of two witnesses, this 26th day of November, A. D. 1900.

FRANK G. PROCUNIER.

In presence of—

CHAS. S. BURTON,
EDGAR L. CONANT.