

No. 692,075.

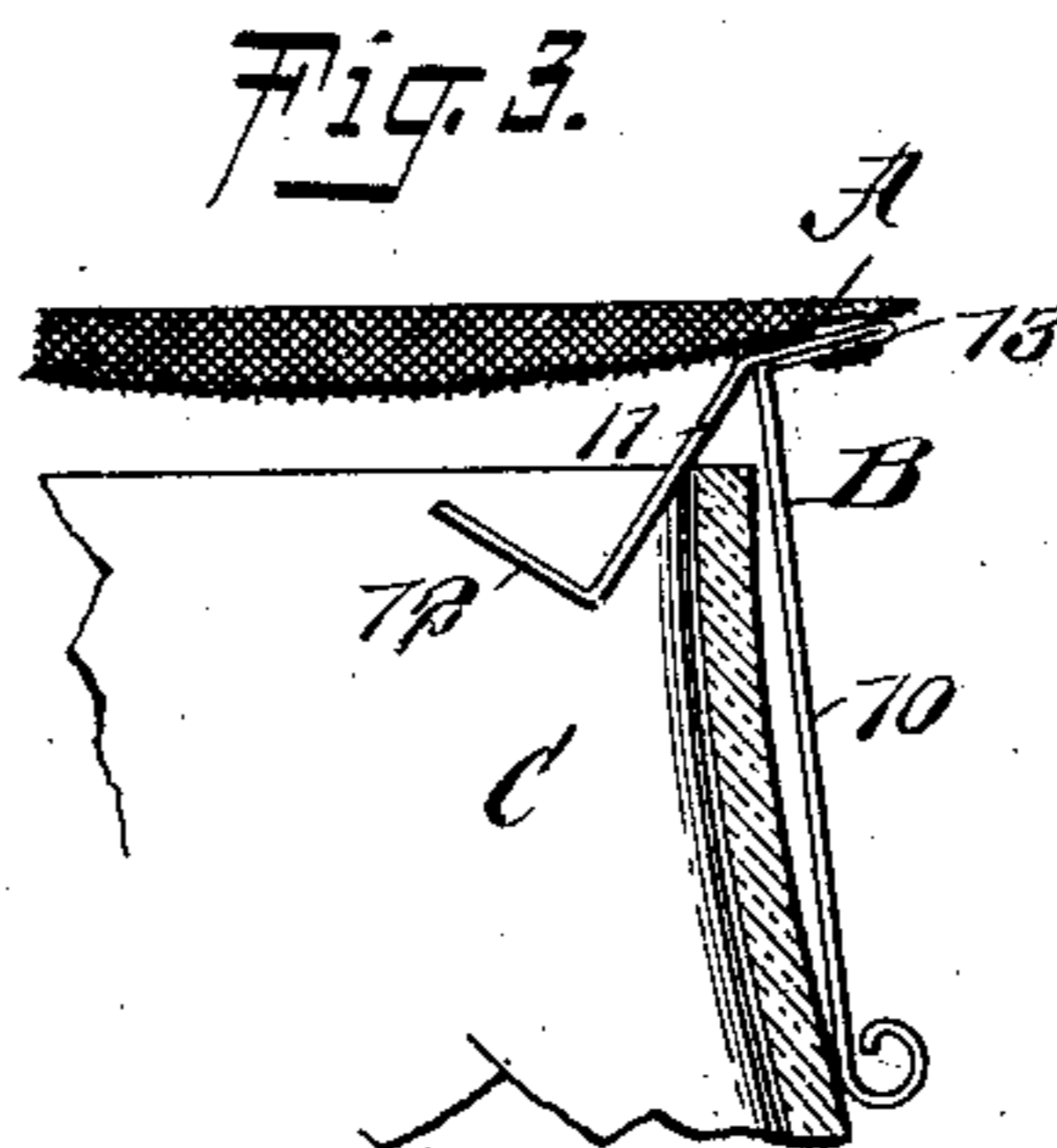
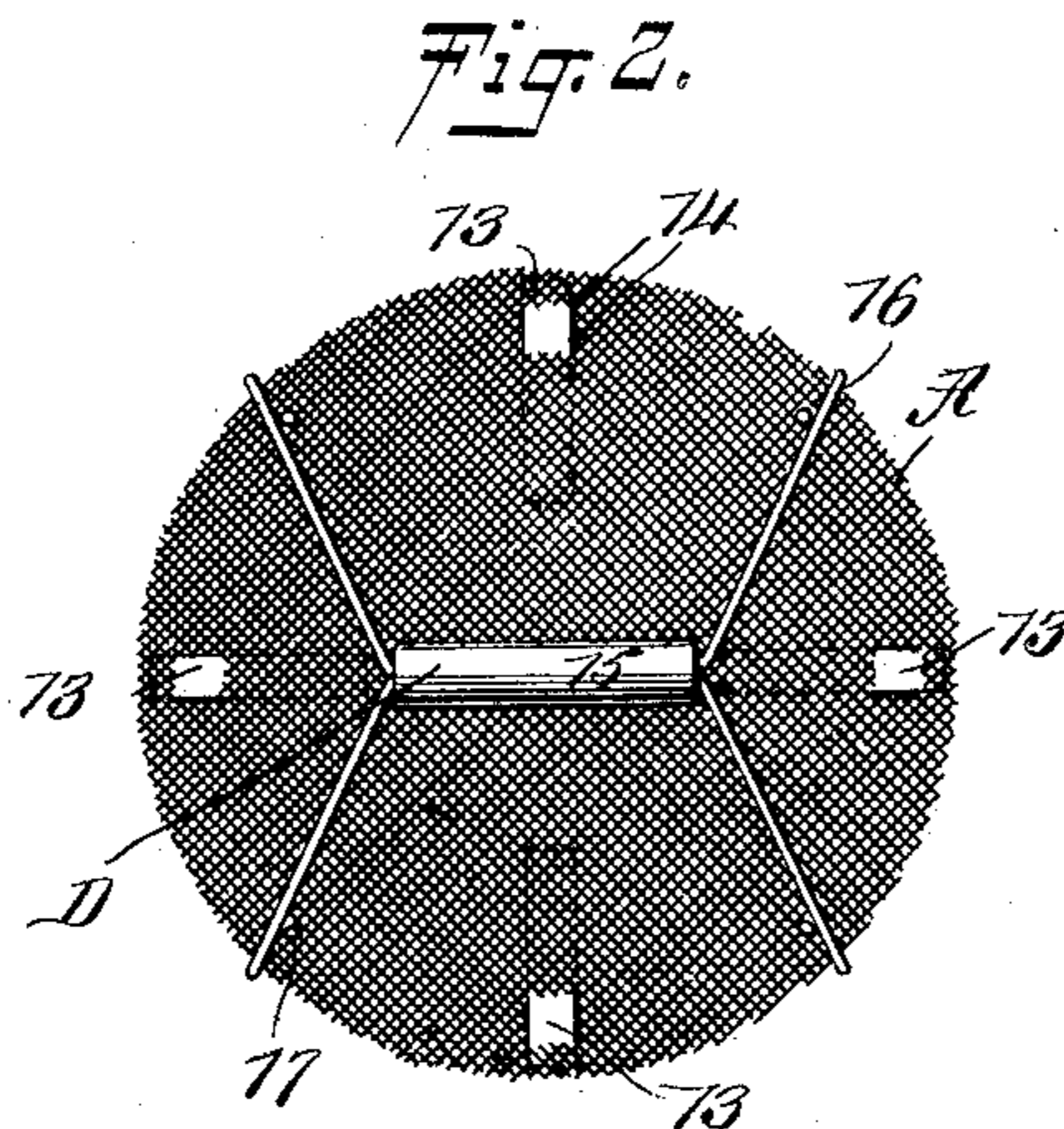
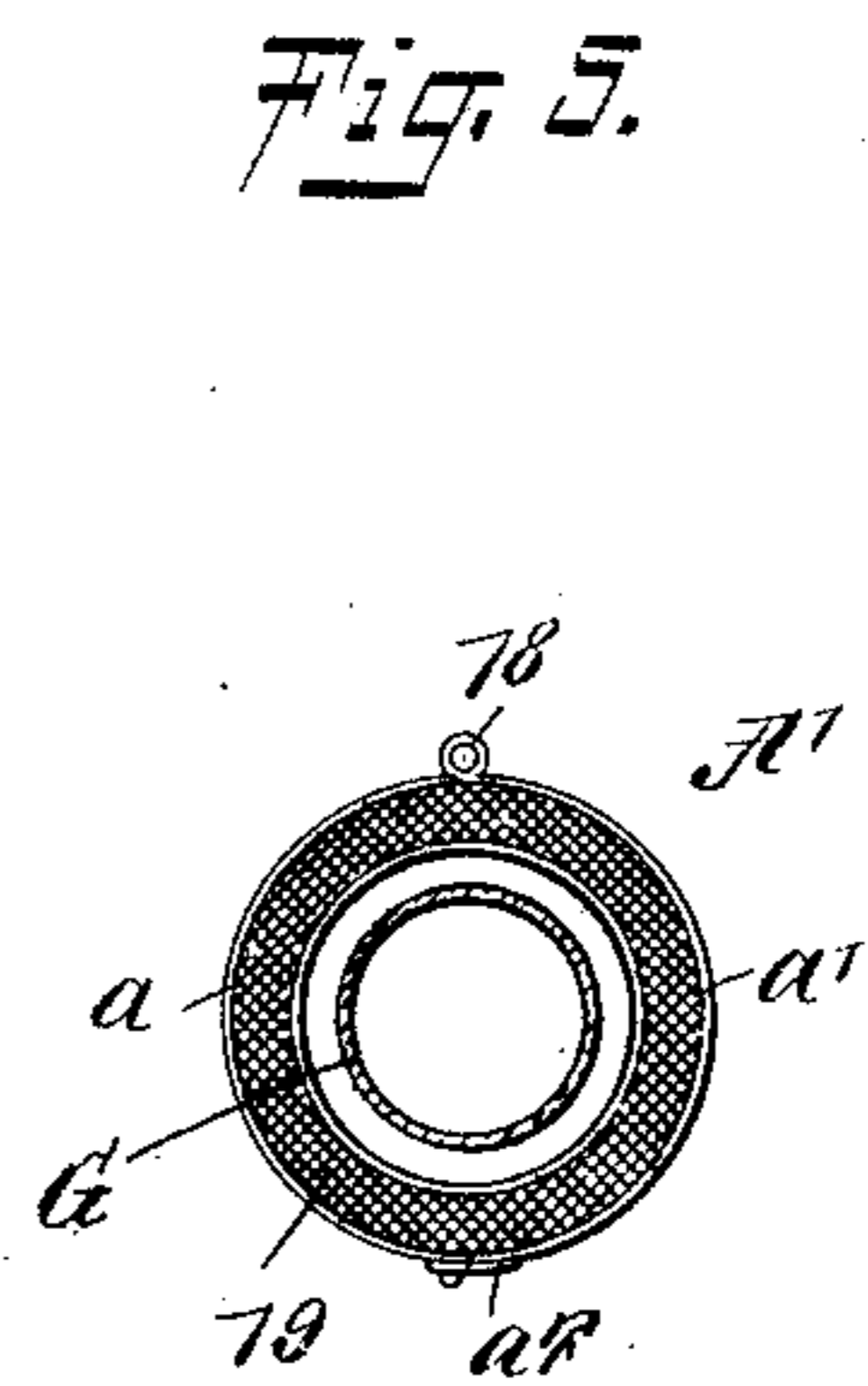
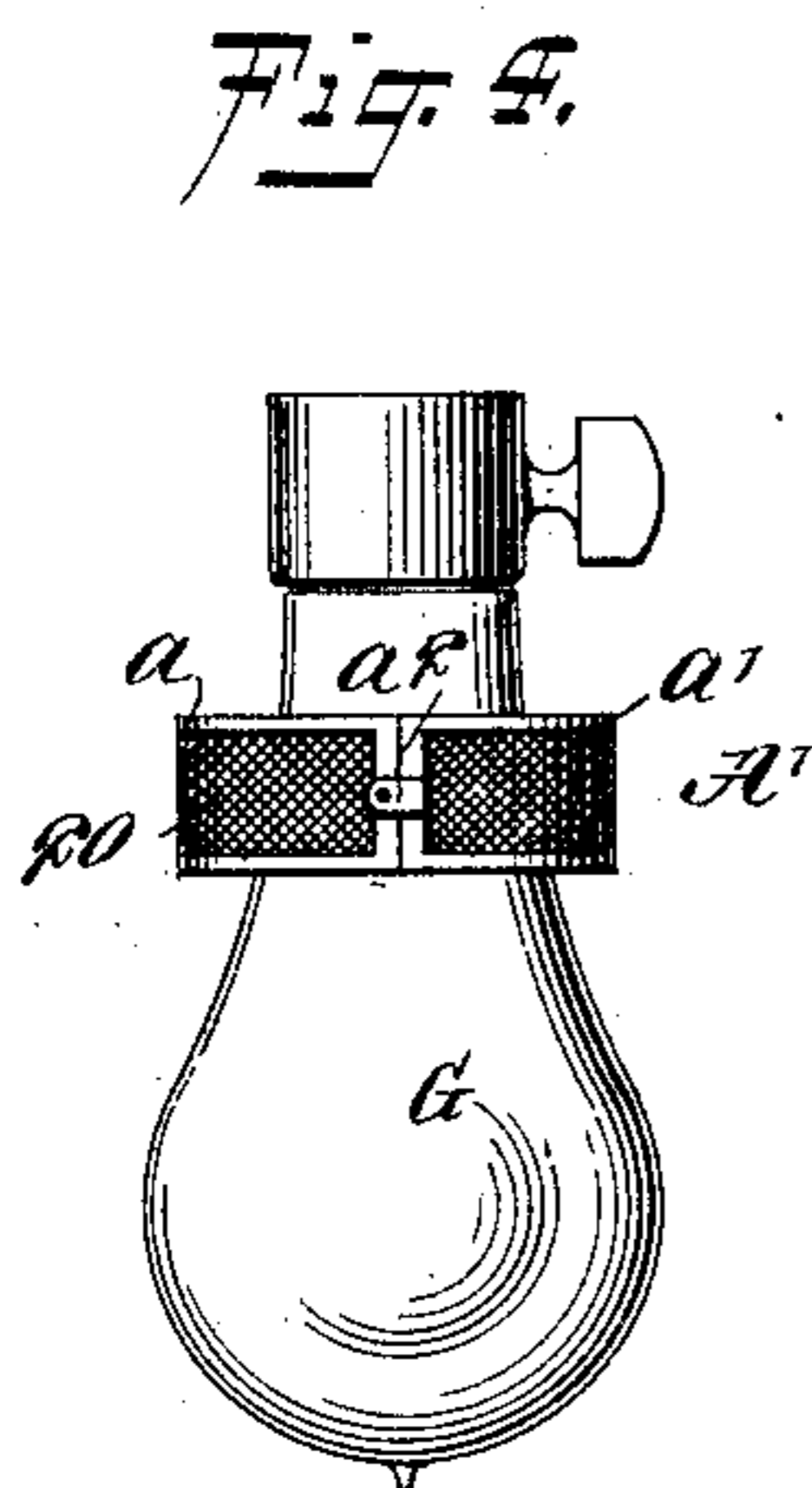
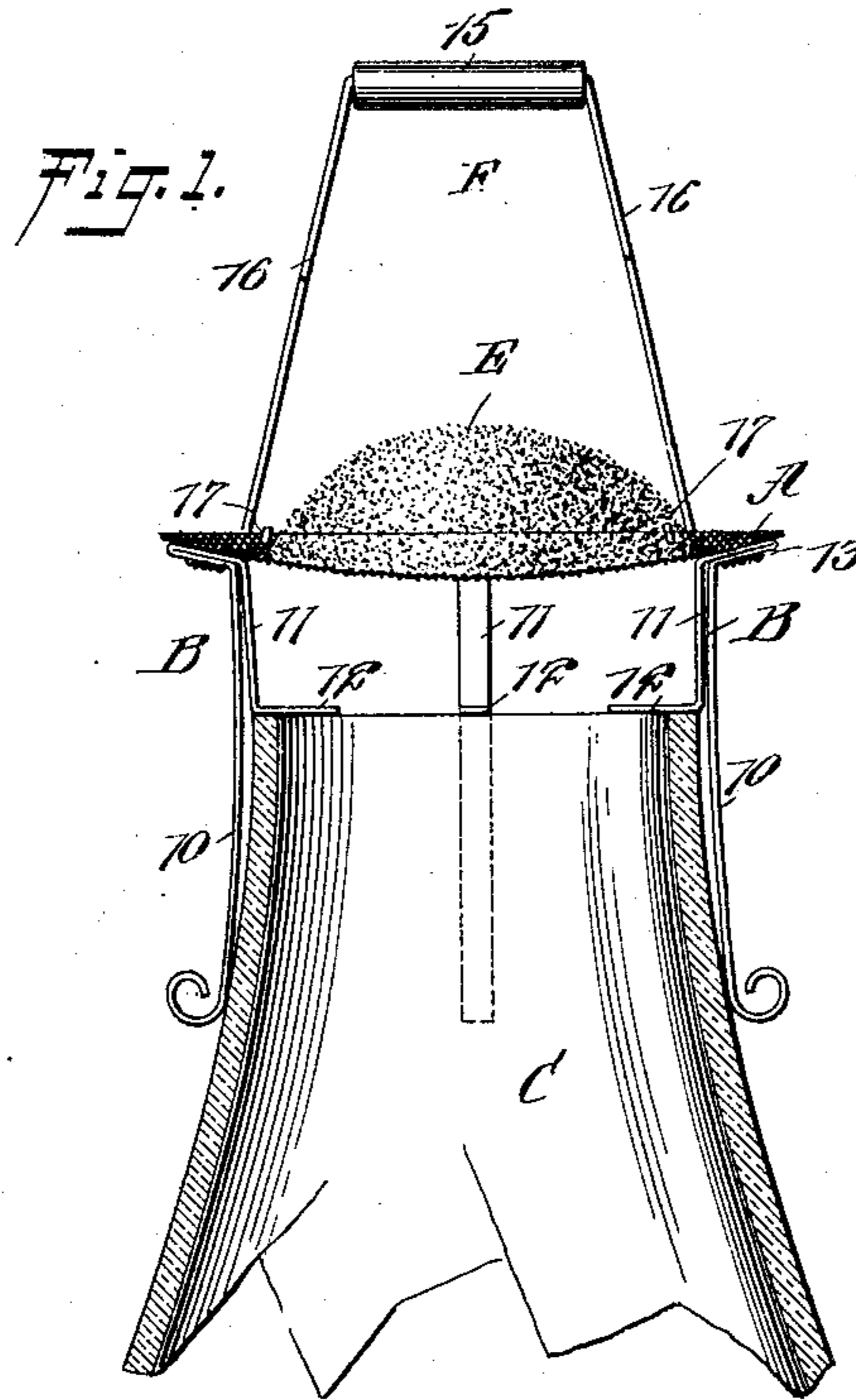
Patented Jan. 28, 1902.

J. C. SEARLE.

DEVICE FOR SMOKELESSLY HEATING INSECT POWDER.

(Application filed July 11, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN C. SEARLE, OF HILEA KAU, TERRITORY OF HAWAII.

DEVICE FOR SMOKELESSLY HEATING INSECT-POWDER.

SPECIFICATION forming part of Letters Patent No. 692,075, dated January 28, 1902.

Application filed July 11, 1901. Serial No. 87,856. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. SEARLE, a citizen of the United States, and a resident of Hilea Kau, Territory of Hawaii, have invented a new and Improved Device for Smokelessly Heating Insect-Powder, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a device so constructed that it may be applied to a lamp-chimney, gas-globe, electric light, or the like, which device is adapted to contain a powder the fumes whereof have a killing effect upon such insects as mosquitos, and to so apply the device to a lamp or its equivalent that the powder will be roasted and not consumed by fire, thereby obtaining fumes obnoxious to insects and yet free from the accompanying smoke consequent upon firing or burning the powder.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through the upper portion of a lamp-chimney and a vertical section through the improved device applied thereto. Fig. 2 is a plan view of the improved device. Fig. 3 is a partial vertical section through the device, illustrating the manner in which the device may be adjusted to or from the top of a chimney. Fig. 4 is a side elevation of an electric lamp and a slightly-modified form of the device applied thereto, and Fig. 5 is a plan view of the device shown in Fig. 4 and a horizontal section through the electric lamp.

Under the form of construction shown in Figs. 1, 2, and 3 a tray A constitutes the body of the device. This tray is more or less dished, being concaved at its upper and convexed at its lower surface. The said tray is preferably circular in form and is of such dimensions that it will extend beyond the sides of the lamp-chimney C at the top, to which it may be applied. This tray is constructed of wire-gauze or may be made of perforated metal, if desired, and said tray is provided

with a series of legs B. These legs are constructed of a pliable metal, ordinarily from strips of soft metal, and each leg comprises a main outer section 10 and an inner shorter section 11, the shorter section 11 of a leg having a foot 12 at its lower end. Where the two sections of a leg are brought together or where the material of the leg is bent upon itself, a head 13 is formed, and said head is usually given an upward and outward direction or inclination. The legs B are attached to the tray A, usually by producing parallel slots 14 in the tray near its margin, as is shown in Fig. 2, through which slots the heads of the legs B are passed.

When the device is to be placed upon a lamp-chimney, ordinarily the foot-sections 12 of the legs rest upon the top edge of the chimney C, as is shown in Fig. 1, while the longer and outer members 10 of the leg extend down at the exterior of the chimney and have bearing against such surface. The powder E is placed, in suitable quantities, upon the upper surface of the tray, and the heat from the flame of the lamp will slowly roast the powder, thus causing it to give off fumes. By roasting the powder instead of consuming it by a flame all of the properties of the powder will be retained and rendered of service, while the fumes are unaccompanied by obnoxious smoke so common to devices employed for similar purposes.

Should the tray be too far above the upper portion of the chimney, the distance between the top of the chimney and the tray may be regulated by bending inward the shorter section 11 of the leg, so that the said sections will engage with the inner face of the chimney at the top, as is shown in Fig. 3.

In order that the device may be readily applied to a chimney or removed therefrom, a handle F is employed, which handle consists usually of a central section 15 and legs 16, which extend two in number from the ends of the central section and terminate at their lower ends in hooks 17, passed upward through the tray A, near its margin.

In Figs. 4 and 5 I have illustrated the adaptation of the device to an electric lamp G. In such adaptation a circular frame A' is employed, made in two sections α and α' , connected by a hinge 18 at one end, the other

ends of the sections being adapted to be closed around the neck of the globe of the electric lamp by a fastening device a^2 of any approved description. This frame A' is provided with
5 a perforated or reticulated bottom 19 and with corresponding sides 20, and the powder is placed between the members of the frame, resting on the bottom and against the sides thereof.

10 When the device is to be applied to a gas-globe, it is simply necessary to carry the legs B to a horizontal position, so that the longer members 10 of the legs may rest upon the upper edge of the gas-globe.

15 It will be observed that when a device of this description is employed a room may be fumigated and insects destroyed without inconvenience to the occupants of said room, since the operation of roasting the powder
20 renders it smokeless.

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

25 1. A device for smokelessly heating insect-powder, comprising a web for holding the powder, said web being substantially circular in outline and composed of wire meshes fine enough to prevent the passage of said pow-

der through the same, and means for holding said web in form and for securing the same
30 upon a lamp-fixture.

2. A device for smokelessly treating insect-powder, which consists of a reticulated tray, legs attached to the said tray, which legs are
35 pliable and are in two sections, a long and a short section, the said legs being adapted for engagement with the chimney of a lamp or the globe of a gas or electric fixture, the legs being adjustable to bring the tray closer to
40 or carry it farther away from the globe or chimney as required.

3. A device for smokelessly treating powder, which consists of a reticulated tray, having legs of a pliable material, each of the said
45 legs comprising two members, a long and a short member, and a handle connected with the upper portion of the tray, the legs extending downward from said tray, for the purposes set forth.

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

JOHN C. SEARLE.

Witnesses:

J. FRED. ACKER,
JNO. M. RITTER.