

No. 834,774.

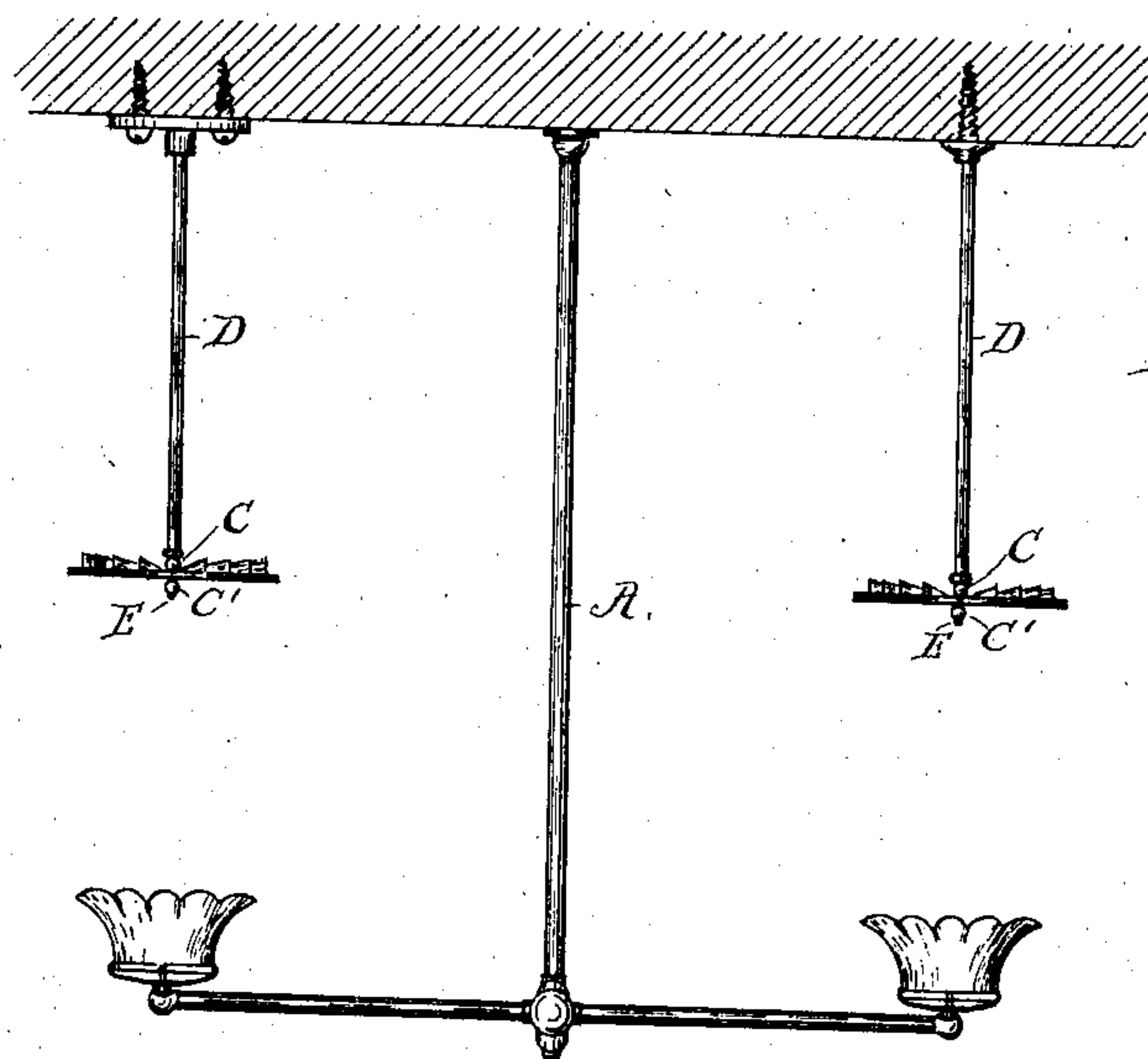
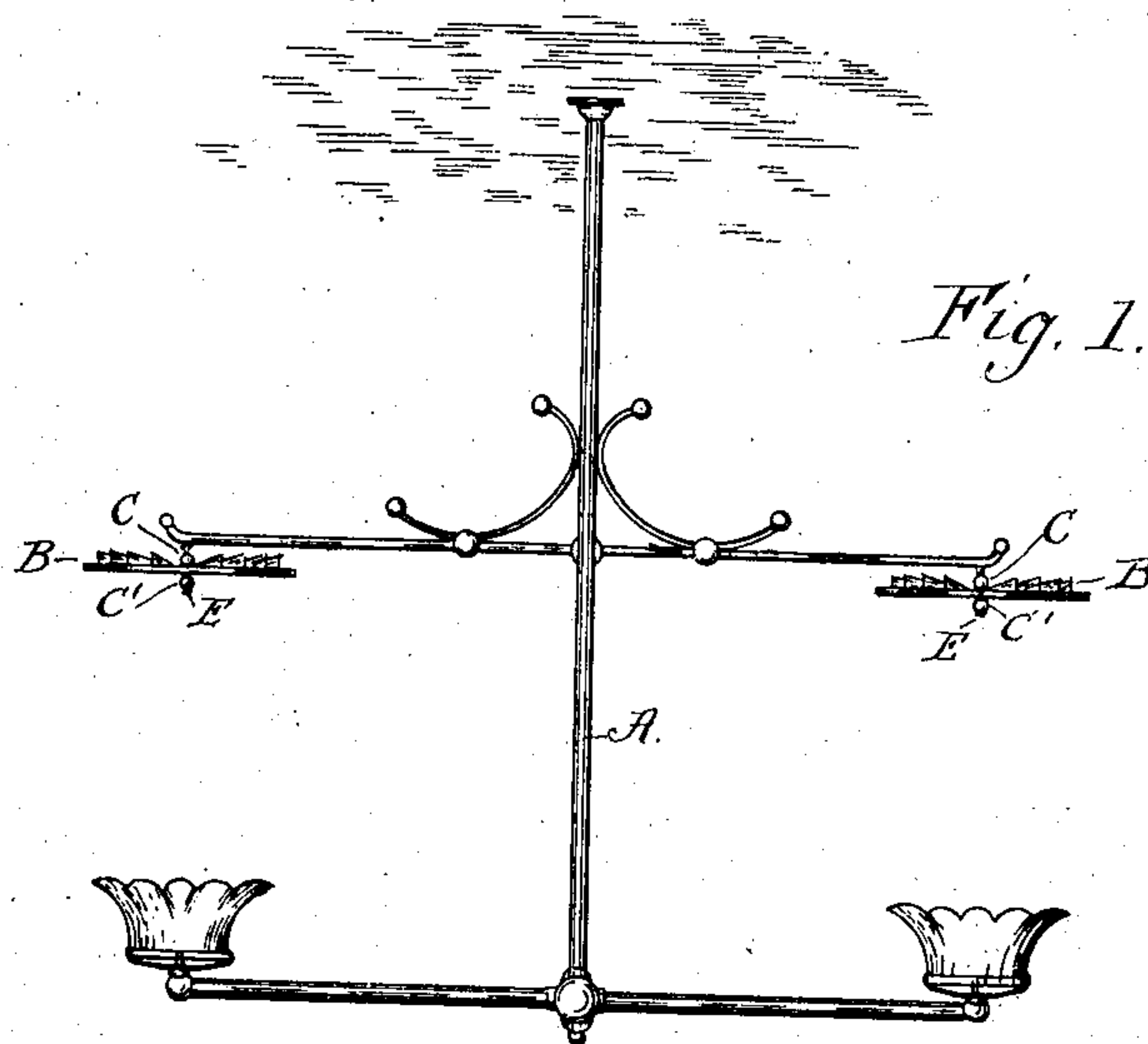
PATENTED OCT. 30, 1906.

J. F. TROEGER.

HEAT AND SMOKE DEFLECTOR.

APPLICATION FILED OCT. 14, 1905. RENEWED SEPT. 26, 1906.

2 SHEETS—SHEET 1.



Witnesses  
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Frank L. Seaver.

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By his Attorney  
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2 SHEETS—SHEET 2.

Fig. 3.

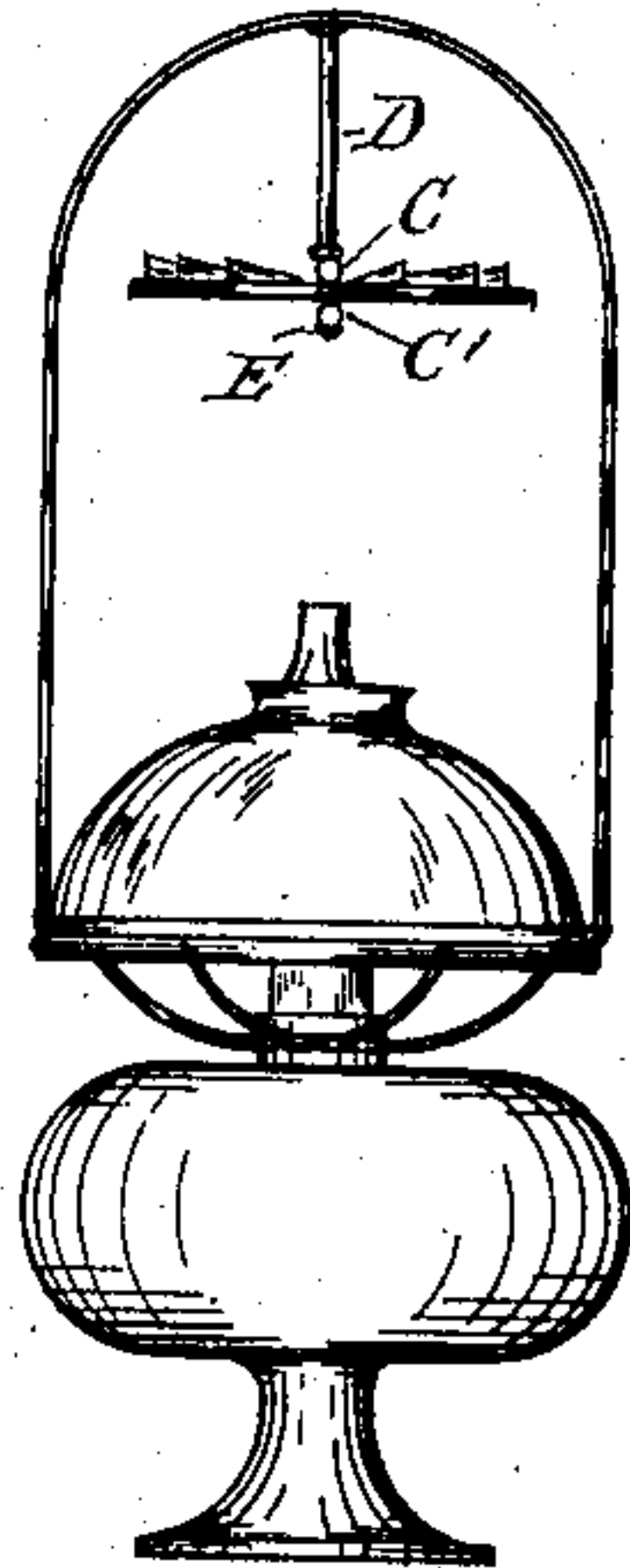


Fig. 4.

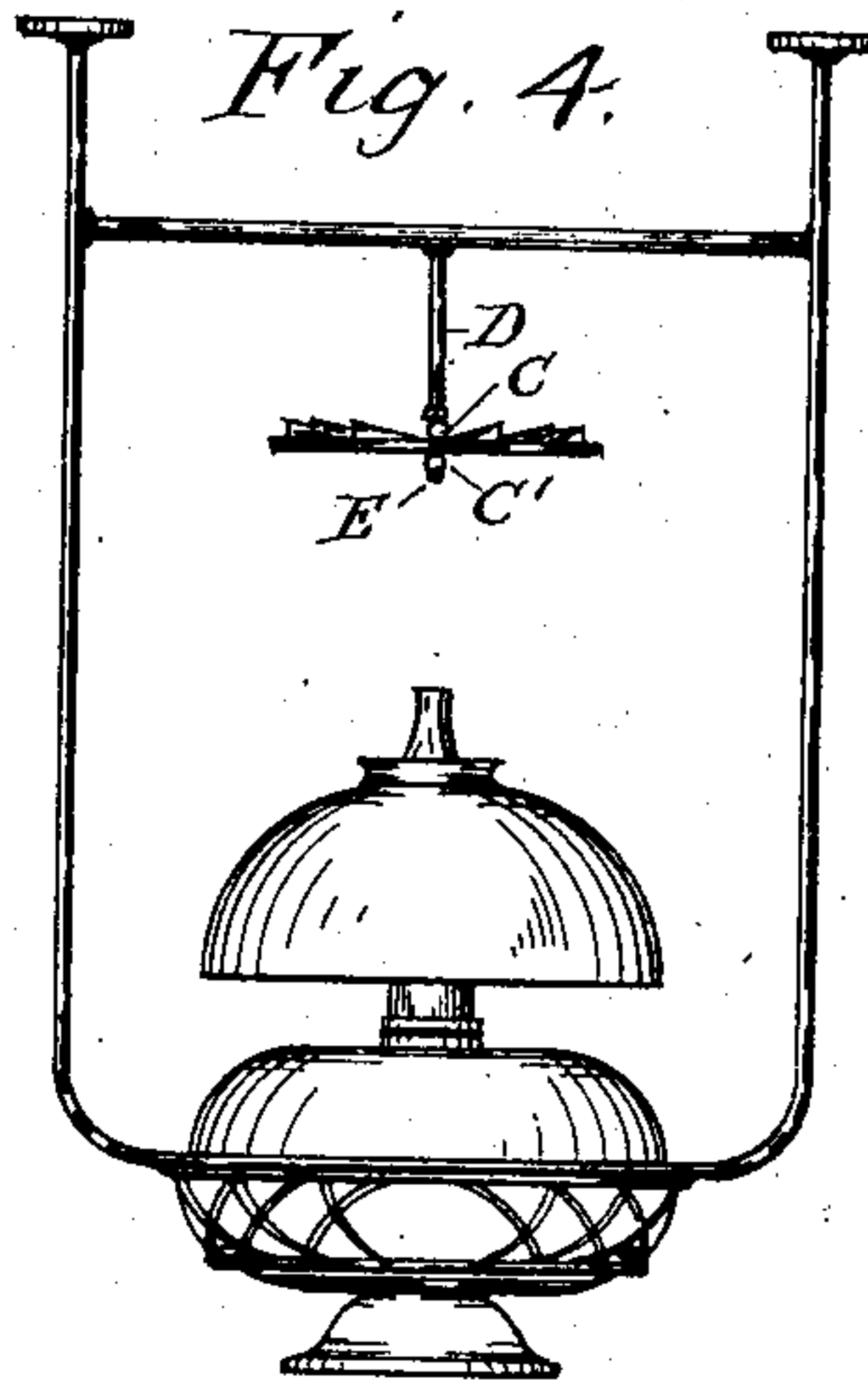


Fig. 6.

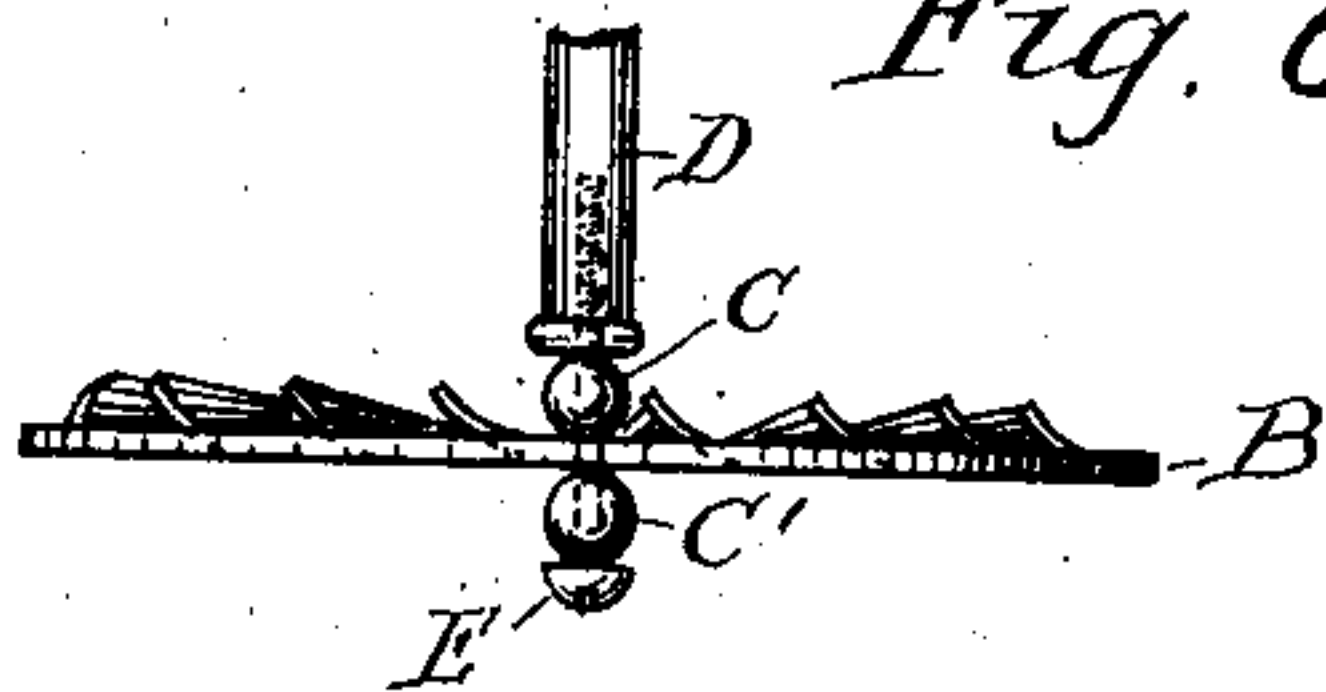


Fig. 5.

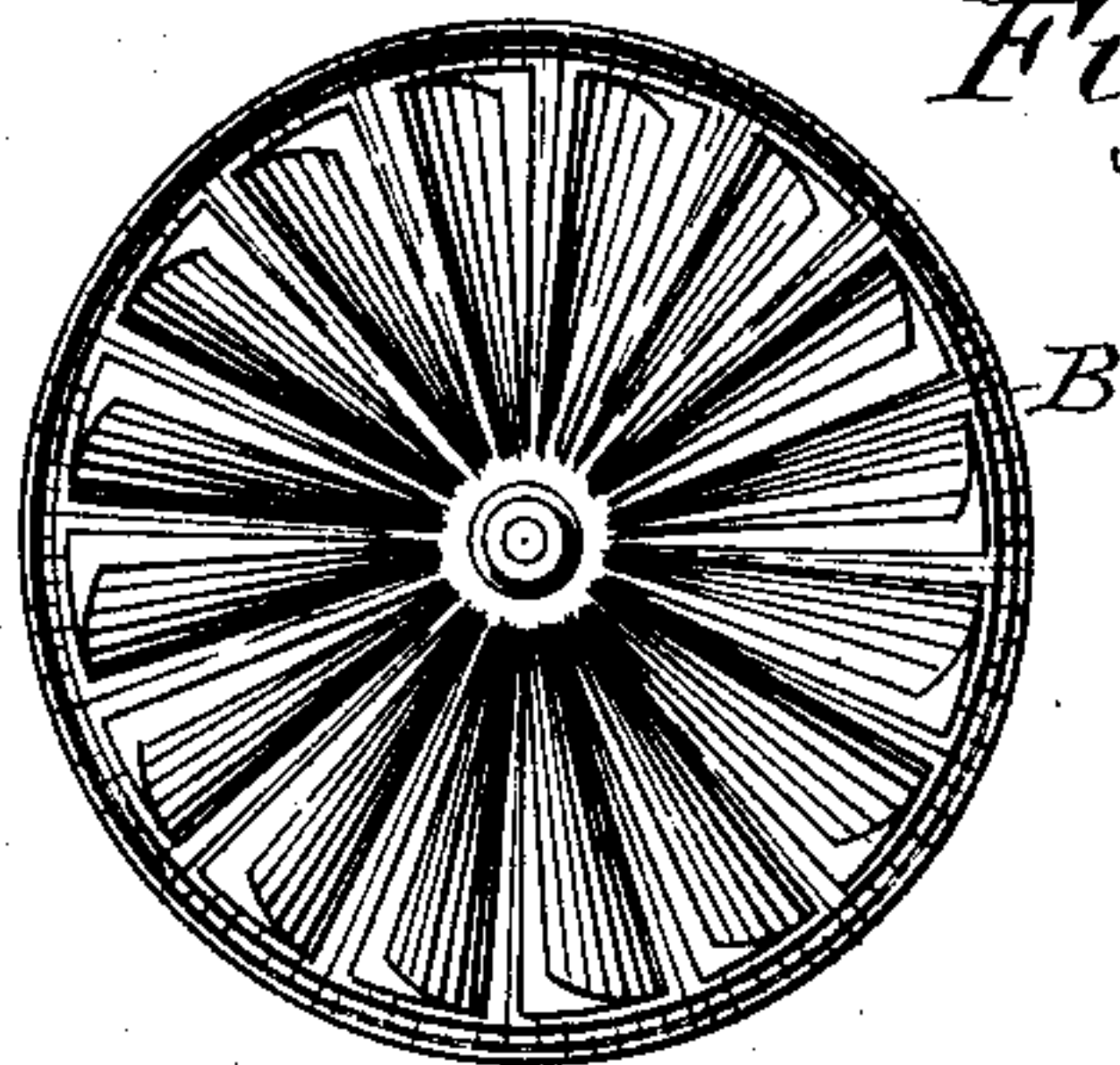
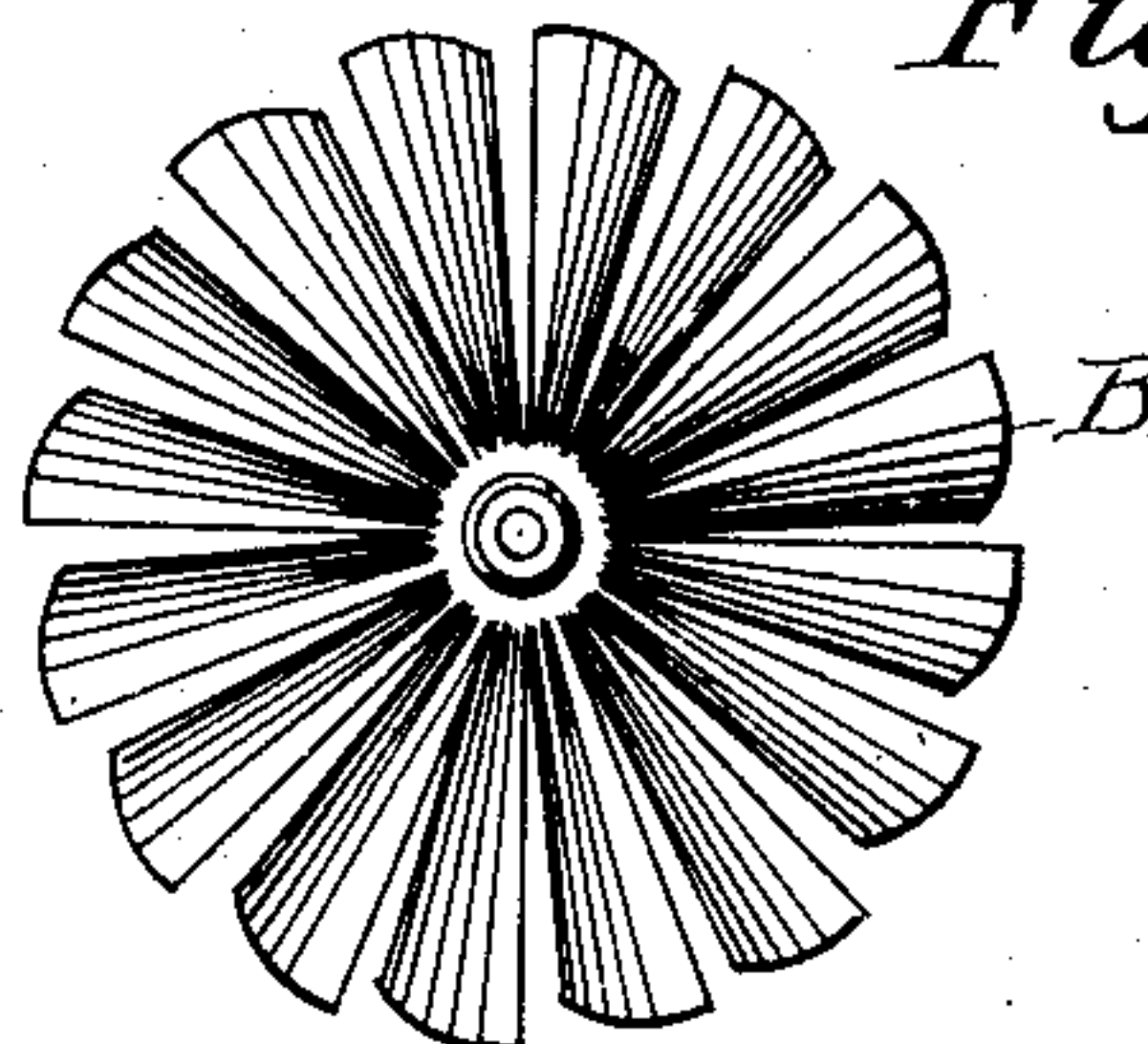


Fig. 7.



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# UNITED STATES PATENT OFFICE.

JOHN F. TROEGER, OF BAYONNE, NEW JERSEY, ASSIGNOR OF ONE-HALF  
TO EDWARD BINDHARDT, OF ELIZABETH, NEW JERSEY.

## HEAT AND SMOKE DEFLECTOR.

No. 834,774.

Specification of Letters Patent.

Patented Oct. 30, 1906.

Application filed October 14, 1905. Renewed September 26, 1906. Serial No. 336,324.

*To all whom it may concern:*

Be it known that I, JOHN F. TROEGER, a citizen of the United States, and a resident of Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Heat and Smoke Deflectors, of which the following is a specification.

My invention relates to smoke and heat deflectors; and the object of the invention is to provide a deflector which will serve as a radiator of heat and light and prevent the carbon from a gas-jet or lamp from being deposited on the ceiling above the same.

A further object is to provide a deflector which will rotate and present an ornamental appearance.

Referring to the drawings, which form part of this specification, Figure 1 is a perspective view of two of my deflectors located above the gas-jets of a chandelier. Fig. 2 is a similar view showing means of attaching the deflectors to the ceiling. Fig. 3 shows the application to a portable lamp. Fig. 4 shows its application to a hanging lamp. Fig. 5 is a plan view of my preferred form of deflector or fan. Fig. 6 is a side view of the deflector and the means used to support it, and Fig. 7 is a plan view of a modified form of deflector.

In Fig. 1, A indicates a chandelier supported from a ceiling and provided with gas-burners, as shown.

Above the burners are suspended my new deflectors B, which are preferably disk-shaped and are provided with vanes similar in shape to those used in windmill construction and clearly set forth in Figs. 5, 6, 7. These deflectors are stamped from any suitable metal; but I prefer aluminium on account of its reflecting qualities and also its light weight, as it is necessary in order to get good results to make the deflectors as light in weight as possible.

In Fig. 1 the deflector is shown suspended from the horizontal branches of the chandelier.

In Fig. 2 I show them suspended by straight rods, one of which is provided with a screw formed directly on its end, and the other being screwed or otherwise fastened into a flange which is screwed to the ceiling.

Referring to Fig. 5, I show the deflector

stamped from a sheet of metal having the vanes formed in such a manner that their ends are all united in a continuous ring at the outer edge and also at the inner ends of the vanes and a small hole at the center of the deflector. This construction is stronger than that shown in Fig. 7, as the vanes are not so easily bent out of their proper form.

The deflector is preferably held between two small balls or beads C and C', (see Fig. 6,) which are perforated, as indicated by dotted lines, and a screw or pin passes through them and the deflector, as shown, and is secured in the end of the rod D, the head of the screw E serving to prevent the parts from separating. The balls C and C' are free to turn on the screw E, and the deflector is supported loosely between them, so that the friction of the deflector in turning is reduced to a minimum.

The operation of the device is as follows: Upon lighting the gas-jet or lamp the heated air and gases rapidly rise and carry with them the free carbon liberated from the gas. This current of hot gases impinges upon the blades of the deflector, and on account of the angularity of the blades or vanes causes the deflector to rapidly turn on its axis, and thereby deflect the gases. The deflector also deflects the heat and light rays and serves as a very efficient radiator, in fact making, in effect, a small stove and where several of them are used serving to materially assist in heating the room.

Many modifications may be made in form, size, &c., without departing from the main features of importance in my invention.

I prefer to make my deflectors complete—that is to say, with the rods attached and means whereby the same may be quickly attached to a chandelier or lamp—so that they may be marketed as a complete article of manufacture.

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

1. As a new article of manufacture, a rod having a screw formed on the rod at its upper end for the purpose set forth, a vane at an angle to the plain surface of the disk on which a current of air is adapted to act to rotate the same, balls located one on each side of said disk between which said disk turns,

and means for holding said disk and balls to one end of said rod for the purpose set forth.

2. An improved article of manufacture comprising a rod having a disk suspended from its end, said disk being provided with 5 vanes on which a current of air is adapted to act to rotate the same, balls located one on each side of said disk between which said disk turns, and means for holding said disk,

balls and rod together, for the purpose set forth.

Signed at New York, in the county of New York and State of New York, this 13th day of October, A. D. 1905.

JOHN F. TROEGER.

Witnesses:

F. M. ASHLEY,  
FRANK DOEBLER.