

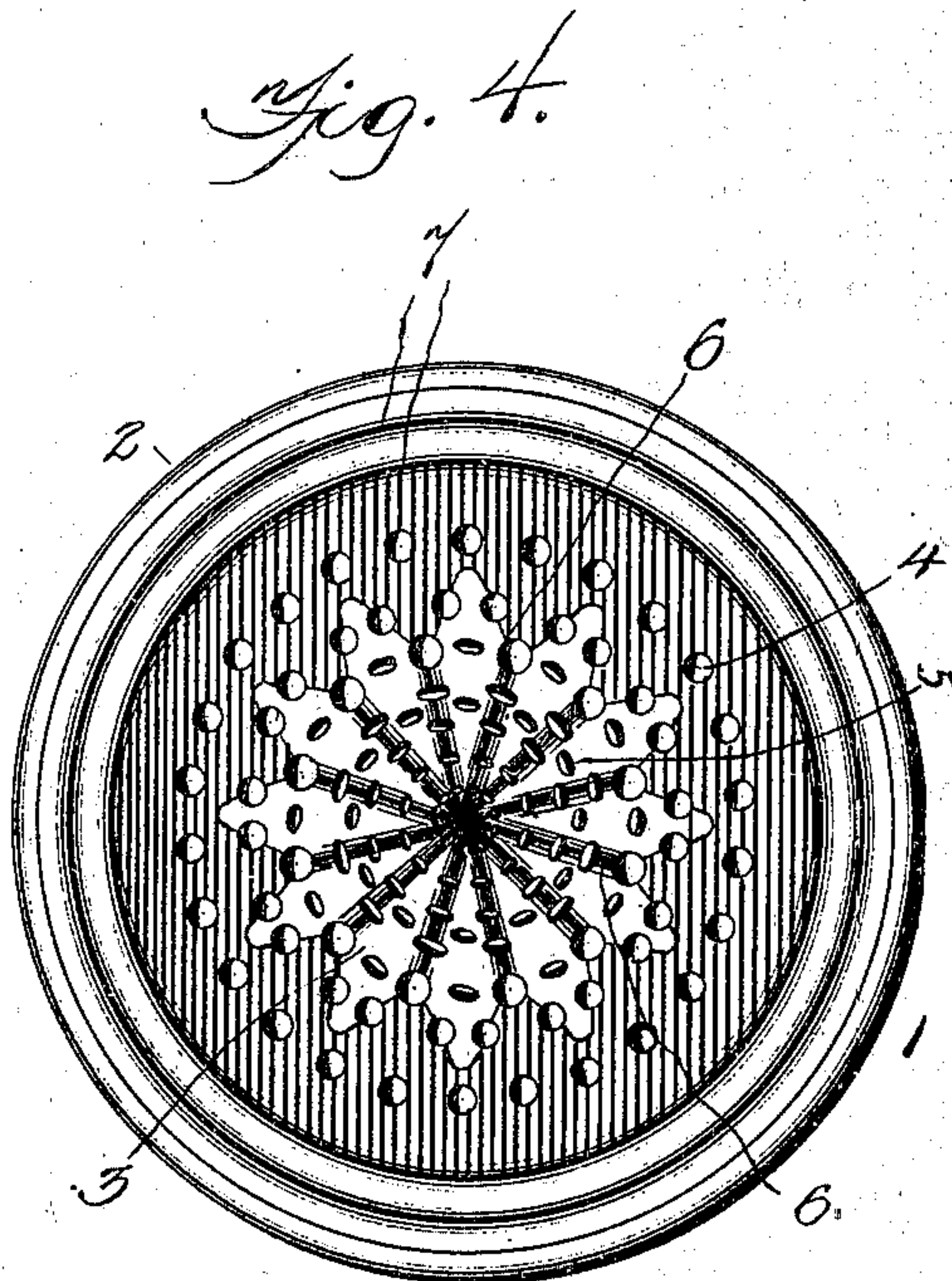
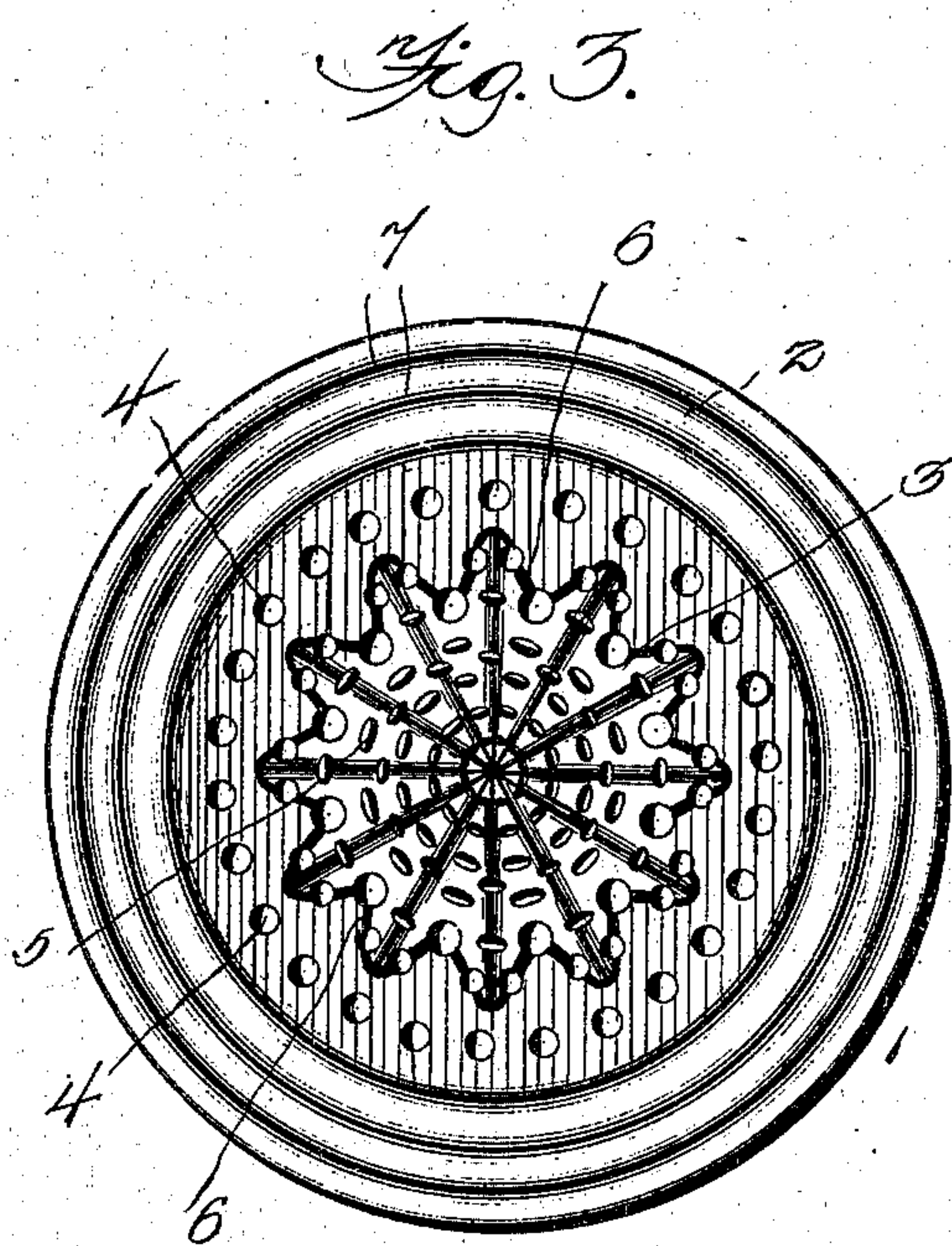
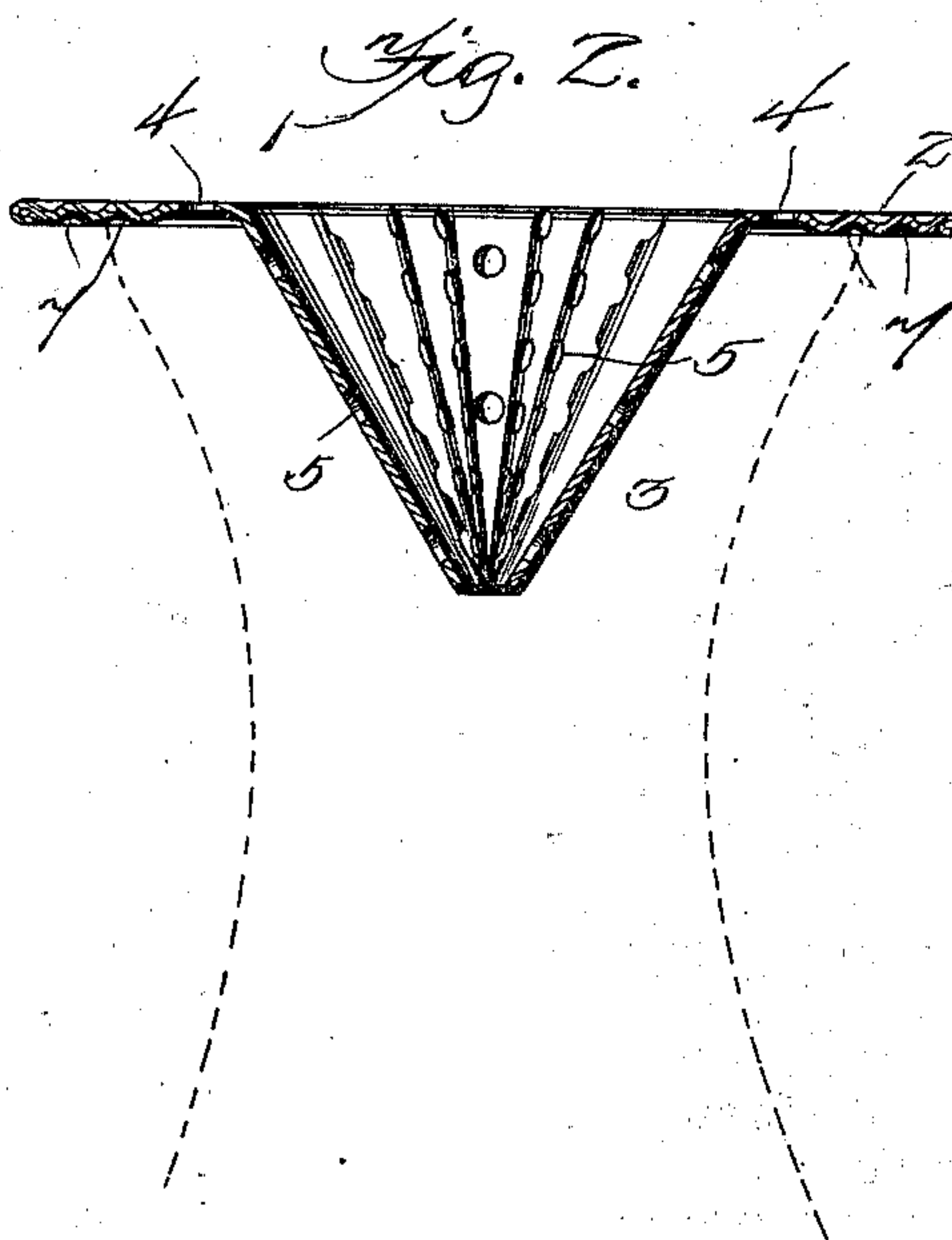
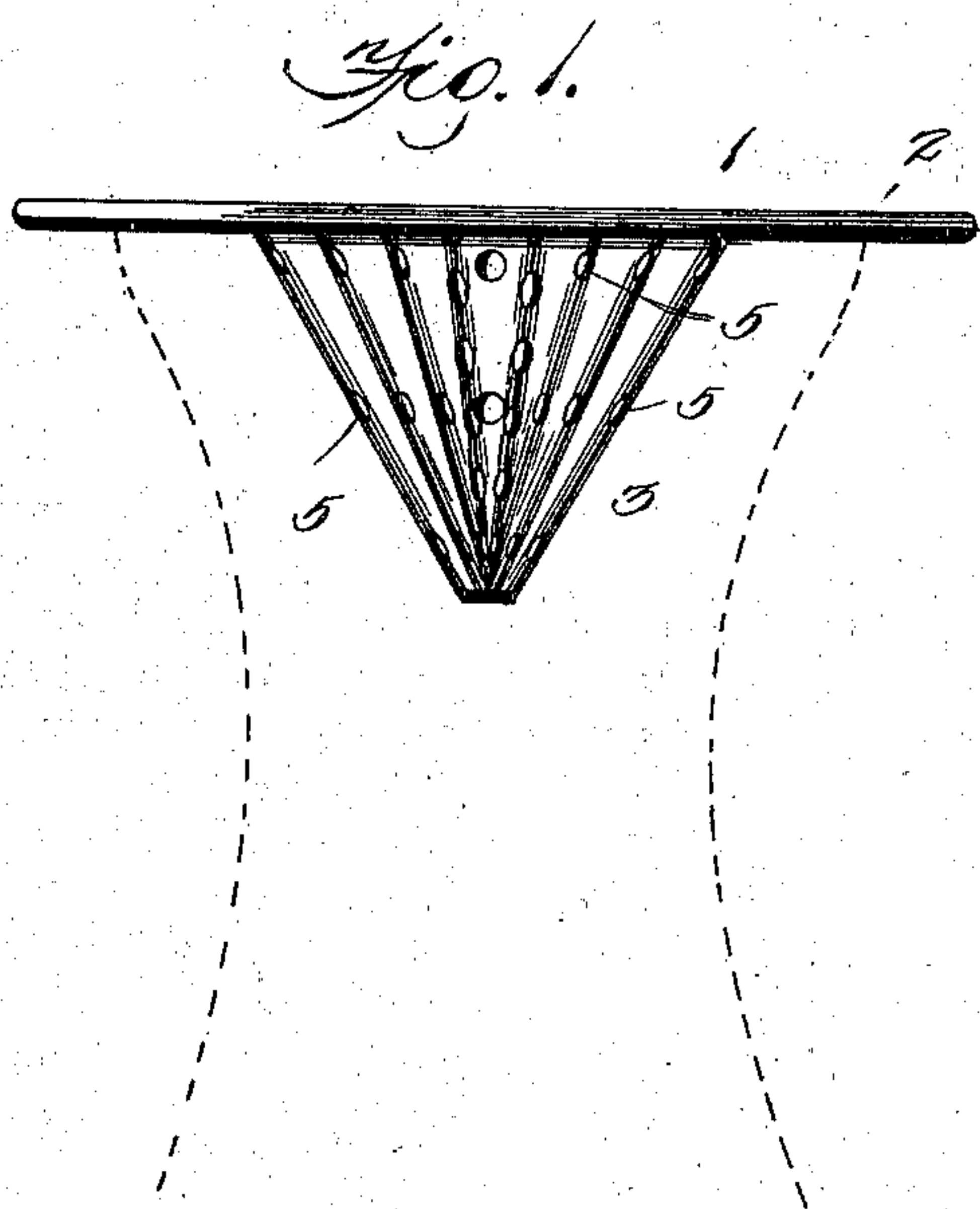
No. 709,393.

Patented Sept. 16, 1902.

W. C. BURRUSS.
LAMP CHIMNEY PROTECTOR.

(Application filed June 5, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM CICERO BURRUSS, OF NORFOLK, VIRGINIA.

LAMP-CHIMNEY PROTECTOR.

SPECIFICATION forming part of Letters Patent No. 709,393, dated September 16, 1902.

Application filed June 5, 1901. Serial No. 63,297. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM CICERO BURRUSS, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented certain new and useful Improvements in Lamp-Chimney Protectors, of which the following is a specification.

This invention relates to improvements in lamp-chimney protectors.

The object of the present invention is the provision of a protector of the class described, whereby liability of cracking and breakage of lamp-chimneys incident to excessive high temperature is reduced to a minimum.

A further object of the invention is to provide a chimney-protector constructed in such manner as to be capable of use with chimneys of various sizes without the necessity of altering the shape or dimensions of the protector.

With these general objects in view and others which will appear as the nature of the improvements is better understood, the invention consists, substantially, in the novel construction, combination, and arrangement of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

In the drawings, Figure 1 is a side elevation of a chimney-protector constructed in accordance with the present invention and illustrated in applied position, the chimney being shown in dotted lines. Fig. 2 is a transverse sectional view thereof. Fig. 3 is a top plan view of the protector. Fig. 4 is an inverted plan view thereof.

Referring to the drawings, the numeral 1 designates an annular plate, which plate is provided with a flared rim 2, and depending from the central portion of the plate 1 is a hollow conical projection 3. The rim 2 at its inner edge is provided with a series of apertures 4, and it will also be observed that the projection 3 is likewise provided throughout its entire length and area with a series of apertures 5. The projection 3, however, is crimped or corrugated throughout its entire length, so that a series of grooves 6 are formed in its outer surface, and said grooves converge from the upper end to the lower end, so that the same meet at a common center. It will

thus be seen that when the protector is in applied position, the conical projection 3 entering the lamp-chimney, the rising currents of heat are thrown out against the top of the chimney, thus keeping the same at a more nearly uniform temperature throughout its length, and thereby preventing cracking due to unequal expansion. The crimped or corrugated surface of the projection 3 provides a large surface for the absorption of the heat; but by reason of the projection being hollow and perforated the rising currents pass through the perforations thereof.

The rim 2 is provided with a series of concentric grooves 7, which grooves extend from the inner edge of said rim to its outer edge, and by reason of the same a single protector is applicable to various sizes of chimneys, each groove being spaced a sufficient distance from the contiguous grooves to correspond with the various sizes of the chimneys.

In applying the herein-described protector the same is placed in the upper end of a chimney, the groove in the rim 2, corresponding to the size of the chimney, receiving the upper edge of the latter. As the currents of heat ascend the same are concentrated at the lower end of the projection 3, whence they pass into the grooves 6 and issue through the perforations 4 and 5. As the currents pass through the perforations 4 and 5 and into the atmosphere this form of device forms an obstruction to the heat-currents and causes them to take a different direction with relation to the chimney than they otherwise would and the chimney is kept at a more uniform temperature throughout its length. The chimney is not liable to cracking and breakage incident to the excessive high temperature created by the flame. The device described also aids combustion and does away entirely with all smell or odor which usually arises from an oil-lamp.

While the form of the invention herein shown and described is what is believed to be a preferable embodiment thereof, it will be understood that the same is susceptible of various changes in the form, proportion, and minor details of construction, and the right is therefore reserved to modify or vary the invention as falls within the spirit and scope thereof.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A lamp-chimney protector provided with
5 a hollow conical perforate projection adapted to lie in the path of the rising heat-currents, and a supporting-rim carried by said projection for maintaining the protector in applied position, said rim being provided with a series
10 of concentric grooves to adapt the protector for application to chimneys of varying sizes.
2. A lamp-chimney protector provided with a hollow conical perforate projection adapted to lie in the path of the rising heat-currents,
15 said projection being corrugated to form a series of converging grooves on its exterior surface, and a supporting-rim carried by said projection for maintaining the protector in applied position, said rim being provided with
20 means to adapt the protector for application to chimneys of various sizes.
3. A lamp chimney protector provided with

a hollow conical perforate projection adapted to lie in the path of the rising heat-currents, said projection being corrugated to form a series of converging grooves on its exterior surface, and a supporting-rim carried by said projection for maintaining the protector in applied position, said rim being provided with a series of concentric grooves to adapt the
25 protector for application to chimneys of various sizes.

4. A lamp-chimney protector comprising a hollow perforated exteriorly-corrugated inverted conical body having a support and
35 adapted to be arranged in position within the upper end of the chimney.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM CICERO BURRUSS.

Witnesses:

HOWARD SHEILD,
GEO. M. WONYCOTT,