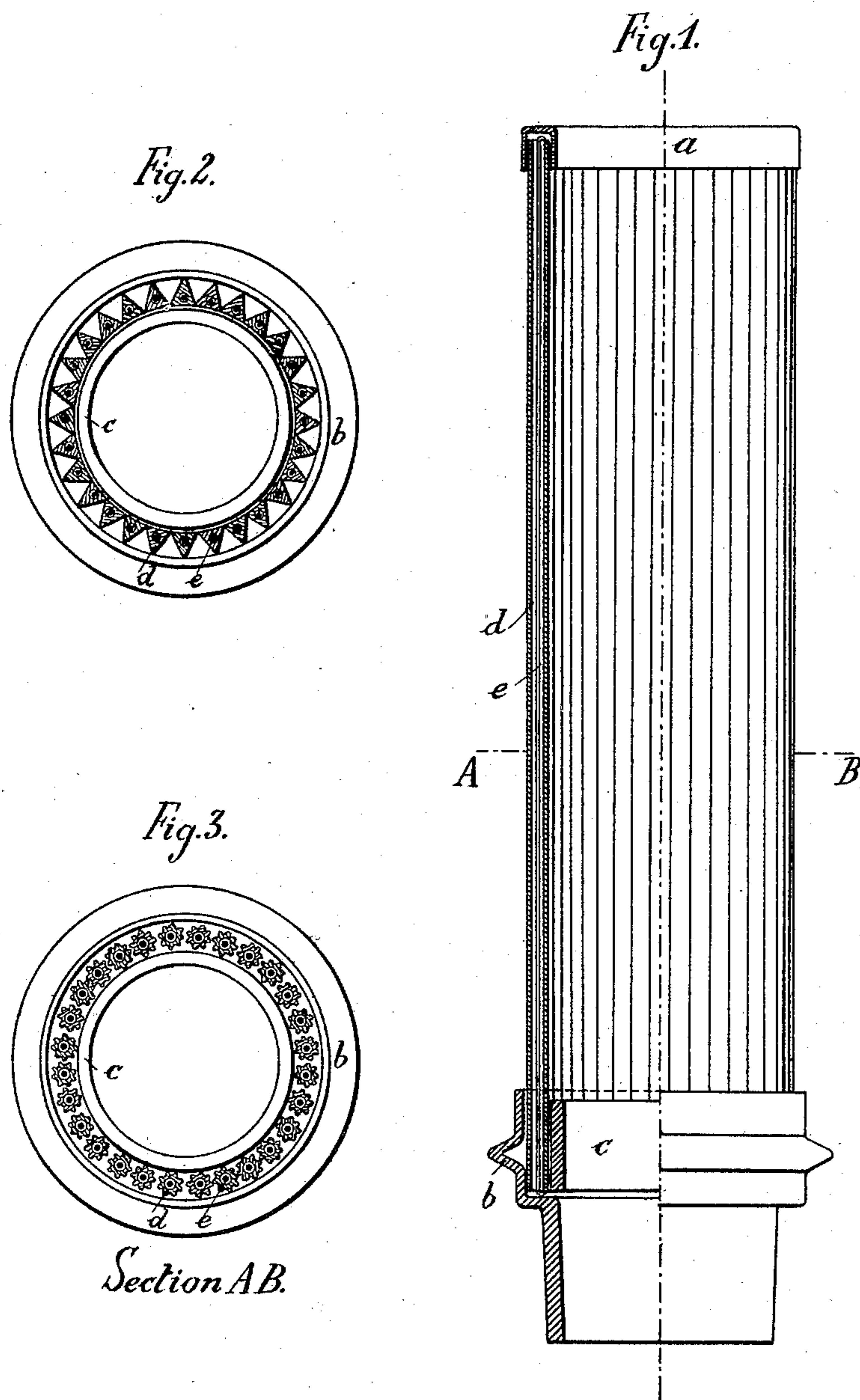


(No Model.)

M. EPSTEIN.  
LAMP CHIMNEY.

No. 545,061.

Patented Aug. 27, 1895.



Witnesses:  
Frédéric Müller.  
Hugo Hamann.

Inventor:  
Moritz Epstein  
per Martin Schmetz  
Attorney.

# UNITED STATES PATENT OFFICE.

MORITZ EPSTEIN, OF STOLBERG, GERMANY.

## LAMP-CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 545,061, dated August 27, 1895.

Application filed September 8, 1894. Serial No. 522,553. (No model.) Patented in Belgium April 30, 1894, No. 109,477; in Austria June 23, 1894, No. 44/2,667, and in France July 2, 1894, No. 237,783.

*To all whom it may concern:*

Be it known that I, MORITZ EPSTEIN, director of a glass manufactory, a citizen of the Empire of Germany, and a resident of Stolberg, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Lamp-Chimneys, of which the following is a specification.

My invention (patented in France July 2, 1894, No. 237,783; in Belgium, April 30, 1894, No. 109,477, and in Austria June 23, 1894, No. 44/2,667) relates to improvements in the construction of chimneys for incandescent gas lamps, to prevent in all cases the spoiling of the incandescent caps or socks used in this kind of lamps, spoiling due to the bursting of the mentioned chimneys. I attain these objects through the arrangement illustrated in the accompanying drawings, in which—

Figure 1 shows a view, partly in front and partly in section, of my improved lamp-chimney; Fig. 2, a plan section through the same, the body or casing of the chimney being composed of prismatic tubes; Fig. 3, a plan section showing a body or casing composed of fluted tubes.

Similar letters of reference indicate corresponding parts throughout the several views.

A certain number of glass tubes *d* are set at one end in a grooved ring *a* and at the other end between the two rings *b* and *c* and cemented therein. These tubes may have a triangular or prismatic section, as shown in Fig. 2, or a fluted one, Fig. 3. The same form the outer casing of the lamp-chimney.

The upper ring *a*, into which the tubes *d* are let, may be a metallic one; but the lower rings *b* and *c* are made of glass or similar material, because by using as until now metallic garnitures for the lamp-chimneys, which are composed of glass rods or tubes, the latter, owing to the different coefficients of dilatation of metal and glass, were getting loose, or else, if the cement was unyielding, were brought to splitting. To prevent the falling down of accidentally-broken tube parts and the subsequent spoiling of the incandescent caps or socks, thin aluminium wires *e* are fixed

at their ends and go through the tubes. At the same time these aluminium wires prevent any overheating of a part of the chimney, for the following reason: While metals are better conductors of heat than glass the wires are consequently leading the heat away from the endangered parts and are spreading it equally over the whole chimney. Owing to the prismatic or fluted section of the tubes, the illuminating effect is raised. Further, through tarnishing of the glass ring *b* not only a pleasant appearance is given to the chimney, but the light by reading or drawing becomes milder without losing anything of its brilliancy. Consequently the lamp-shades, which otherwise are disposed under the flame to protect the eyes, are made unnecessary. Of course this ring may also consist of differently-colored glass, and by that means any desired shade be given to the light. This ring may also be decorated by painting, gilding, grinding, &c. Through glowing of the aluminium wires the illuminating power is still more increased, and the light, otherwise disagreeable and pale, changed to a pleasant light, which does not alter the color of the face.

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

1. A lamp chimney comprising juxtaposed prismatic or fluted glass tubes *d* and aluminium wires *e* contained in said tubes, substantially as described and for the purpose specified.

2. In a lamp chimney the combination of juxtaposed prismatic or fluted glass tubes, the aluminium wires contained in said tubes, an upper metallic ring and a lower glass garniture composed of two rings, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

MORITZ EPSTEIN.

Witnesses:

JOHN HECKMANNS,  
W. C. EMMET.