(No Model.)

A. G. BORRY.

GLOBE OR CHIMNEY.

No. 556,083. Patented Mar. 10, 1896.

Fig. 1

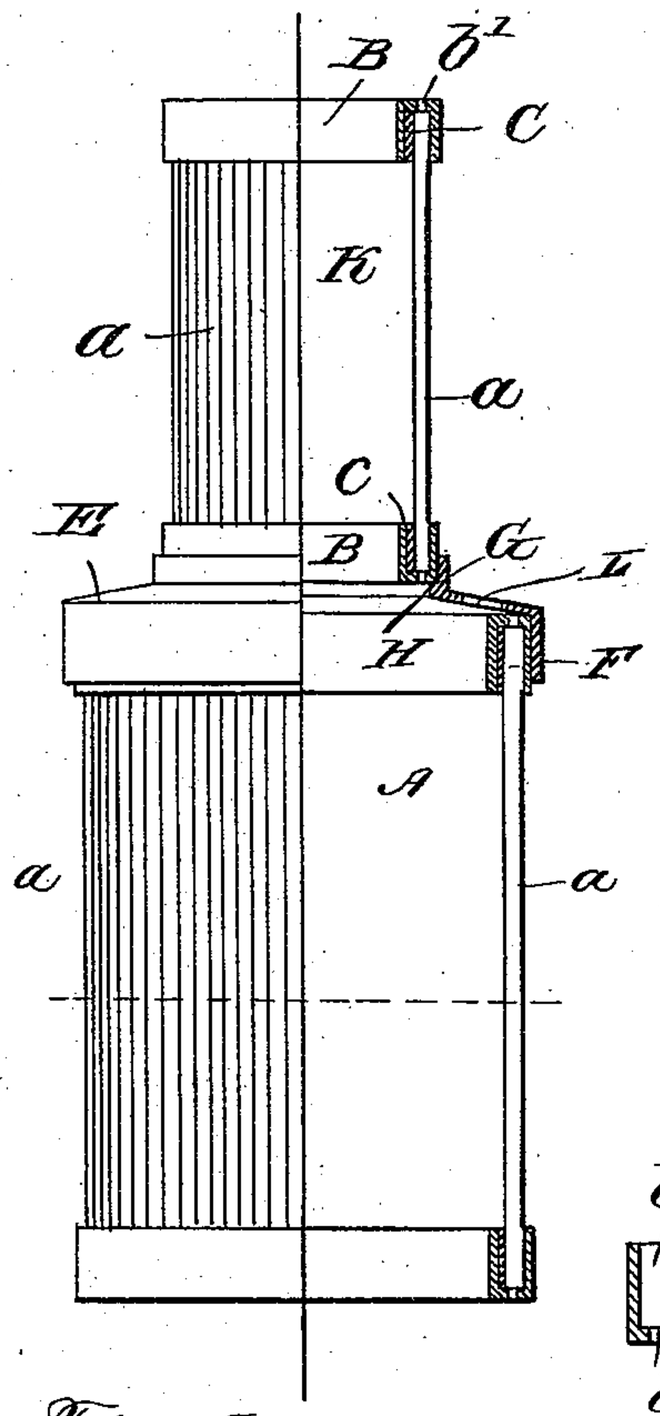


Fig. 2

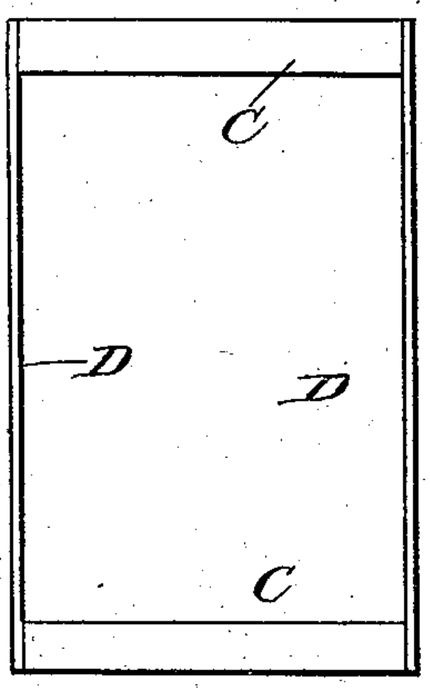


Fig. 3

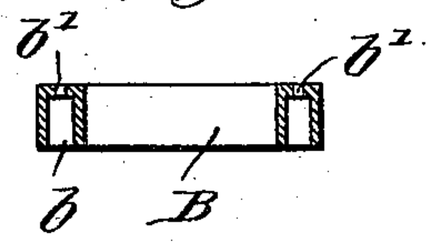


Fig. 4

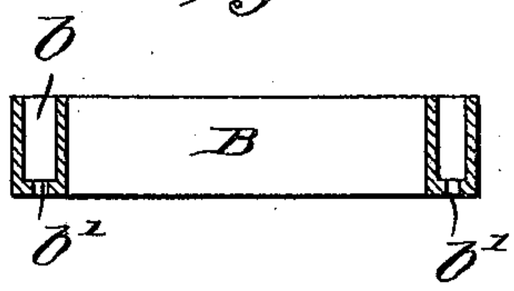


Fig. 5

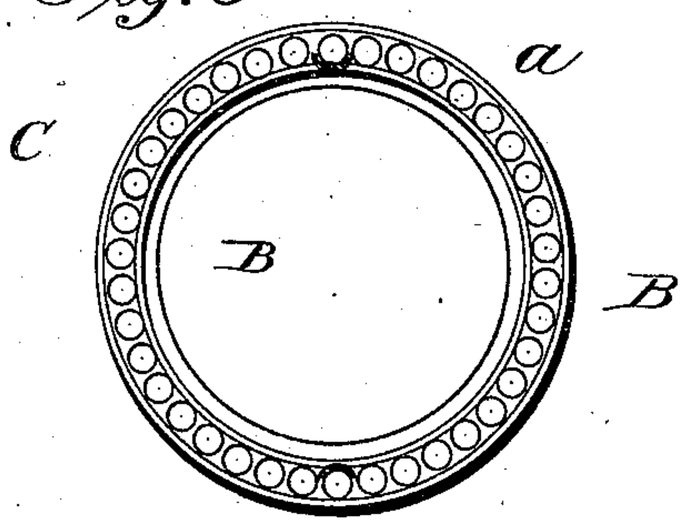
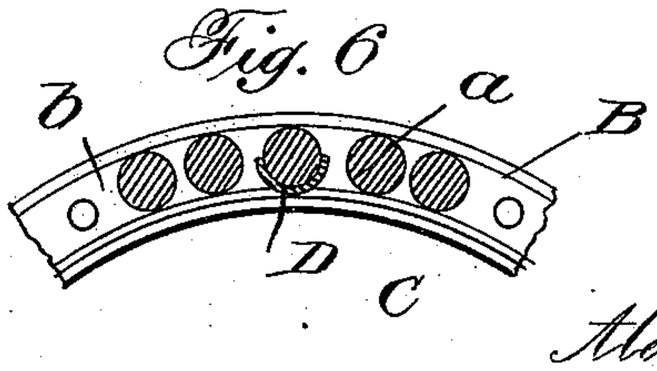


Fig. 6



WITNESSES:

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ALEXANDER G. BORRY, OF NEW YORK, N. Y.

GLOBE OR CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 556,083, dated March 10, 1896.

Application filed September 19, 1895. Serial No. 562,959. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER G. BORRY, a citizen of Germany, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Globes or Chimneys, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to globes and chimneys for gas and other burners, and the object thereof is to provide an improved combined globe and chimney for Argand burners of either gas or oil, and especially for such as are known to produce a high degree of light—such, for instance, as that class of Argand burners which mingle air with the gas and are provided with a hood or cone of refractory earths, and are known as "incandescent" gas-burners.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side elevation, partly in section, of my improved combined globe and chimney; Fig. 2, a side elevation of a frame which I employ, and Figs. 3, 4, 5, and 6 represent details of the construction.

My improved globe A is cylindrical in form and comprises a cylinder composed of glass rods *a*, which are held in proper form by means of annular heads B, which are U-shaped in cross-section, whereby an annular cavity or chamber *b* is formed in each head in which the glass rods *a* are placed. I also provide a frame consisting of two thin metal bands, C, which are united by means of metal strips D, which are semicircular in cross-section and the concave sides of which are directed outward, as shown in Fig. 6, and in practice I prefer to arrange the glass rods *a* in the form of a tubular cylinder around the bands C, one of the rods being placed in the longitudinal groove in each of the strips or side pieces C, as clearly shown in Figs. 5 and 6, and in this arrangement it will be seen that only the glass rods are shown on the outer side, the metal strips or side pieces D being concealed by the rods which are located in the outer concave surfaces thereof.

The glass rods *a*, arranged as described, are held in position by means of elastic bands or in any desired manner, and the heads B are then connected therewith, being slipped on at each end, as will be readily understood, and said heads may be secured in position in any desired manner, or be held in position simply by friction. I also provide small perforations or openings *b'*, through which any condensation of moisture upon the glass rods may pass, and also any water or fluids that may collect in the heads B during the operation of cleaning the globes or chimneys.

Connected with the upper end of the globe A is a cap E, which is provided with a downwardly-directed rim F, which is adapted to be slipped over and to inclose one of the heads B, and said cap is also provided centrally thereof with an annular upwardly-directed flange G, at the inner lower portion of which is formed an annular inwardly-directed shoulder H, and this shoulder is adapted to serve as a support for the chimney K, which is constructed precisely in the same manner as the globe A, the only difference being that said chimney is of less diameter than the globe A. The cap E may also be provided with an annular row of perforations L, if desired; but this element of construction is not absolutely essential, and may or may not be employed. It will be understood, of course, that the heads B are removable, and if at any time one or more of the rods A should be broken new ones may be inserted by simply removing one of the heads B, and this, of course, applies to either the globe or the chimney. In this form of construction the glass rods *a* may be either tubular or solid, but I prefer the solid form, and it is evident that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention, and I therefore reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention.

I prefer in practice to secure the chimney K to the globe A simply by friction, and to have the flange G on the cap E long enough or high enough to accomplish this result; but any preferred means for connecting the chimney and the globe may be employed.

My improved globe and chimney may be of any desired diameter in cross-section and also of any desired length, and it will thus be seen that I provide a chimney composed of glass rods, which are loosely held in the frame, and also means by which new rods may be inserted if any of the old ones should be broken.

With the form of globes and chimneys usually employed in connection with the class of burners hereinbefore referred to the heat produced by said burners in a short time dims or colors the chimney or gives it a whitish or sanded appearance, which is very objectionable and which obstructs the proper diffusion of the light. It is also a well-known fact that in Argand burners of the class named the lighting of the same after the gas is turned on frequently and almost always causes a slight explosion, which is frequently fatal to the chimney. Each of the foregoing objections is obviated by the construction herein shown and described. My improved chimney being composed of separate movable glass rods admits readily of the escape of the gases in the chimney or globe at the time of the ignition of the light and which causes the explosion hereinbefore referred to, and should said explosion take place the force thereof would pass off between the separate rods, whereby the breaking of the chimney or globe is avoided and the overheating thereof is also obviated by reason of the circulation of the air around the rods of which the globe and chimney are composed.

Another effect of my improvement is the complete general diffusion of the light produced by the high-grade burners referred to, and especially those using refractory earths and known as "incandescent" burners. The light produced by these burners is very injurious to the eyes under ordinary circumstances, but with the use of my improved globe or chimney this object is entirely avoided, the refractory power of the glass rods which compose the same acting to cause the general diffusion of the light and to prevent its concentration and the injurious effects produced upon the eyes.

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

1. A globe or chimney, for gas or other burners, composed of a frame, comprising thin metal bands, united by side strips or pieces on which are placed glass rods in the form of a cylinder, said rods being held, in position by means of heads which are U-shaped in cross-section, substantially as shown and described.

2. A globe or chimney, for gas or other burners, composed of a frame, comprising thin metal bands, united by side strips or pieces on which are placed glass rods in the form of a cylinder, said rods being held in position by means of heads which are U-shaped in cross-section, said side strips or pieces being segmental in cross-section, and the concave surface thereof, being directed outward in such manner that one of the glass rods may be placed therein, substantially as shown and described.

3. A globe for gas-burners, comprising a frame, consisting of thin metal rings or bands which are united by side strips or pieces, and glass rods arranged around said frame, and held in position by heads which are U-shaped in cross-section, a cap mounted on said globe provided with an outwardly-depending rim, and a central opening around which is formed a vertical flange at the bottom of which is formed an annular inwardly-directed shoulder, and a chimney mounted on said cap, and held in place by said flange, and said shoulder, said chimney being also composed of an inner frame, comprising circular bands, which are held in place by side strips or pieces and glass rods mounted thereon, which are held in position by annular heads which are U-shaped in cross-section, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 14th day of September, 1895.

ALEXANDER G. BORRY.

Witnesses:

C. GERST,

K. ENSLIE.