

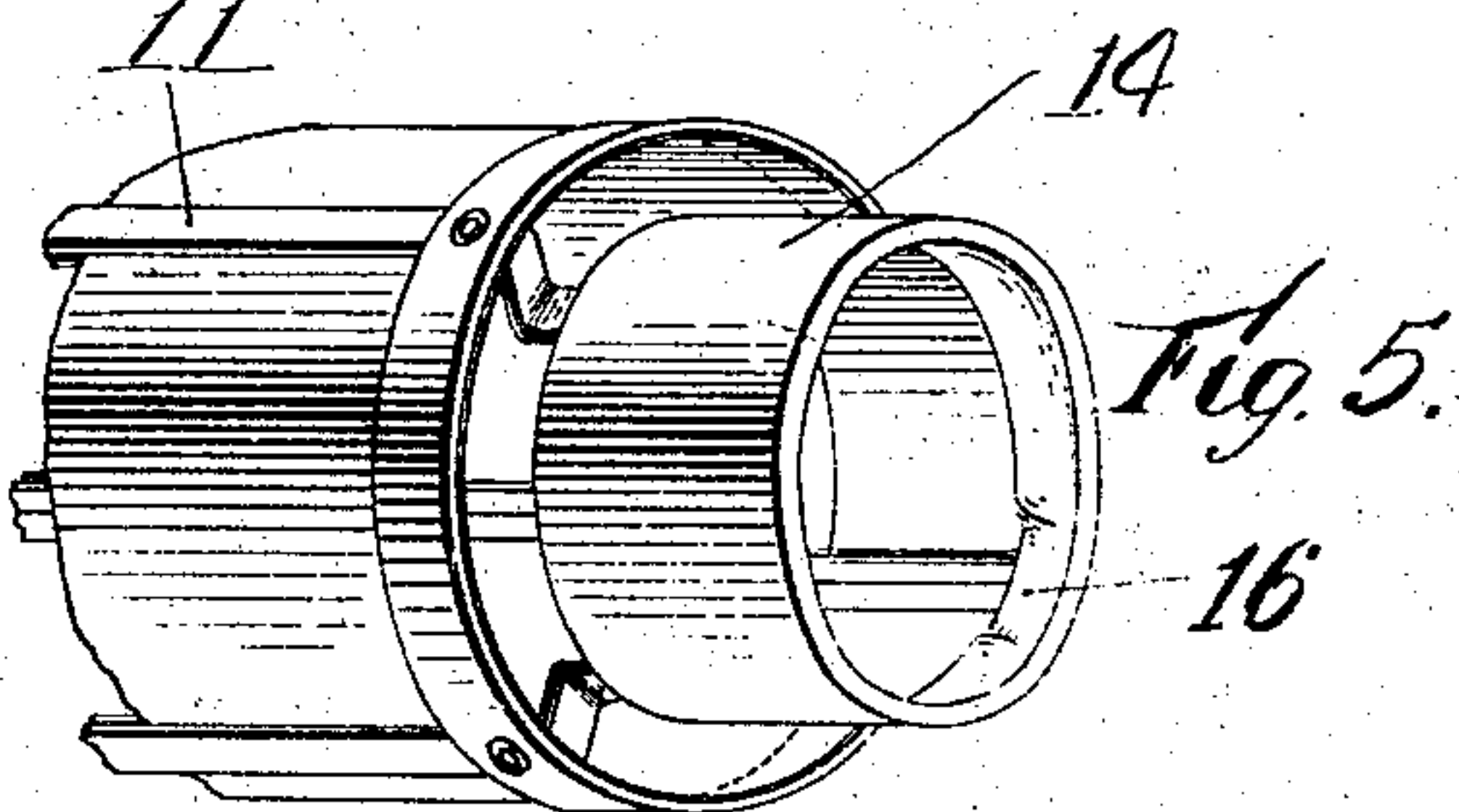
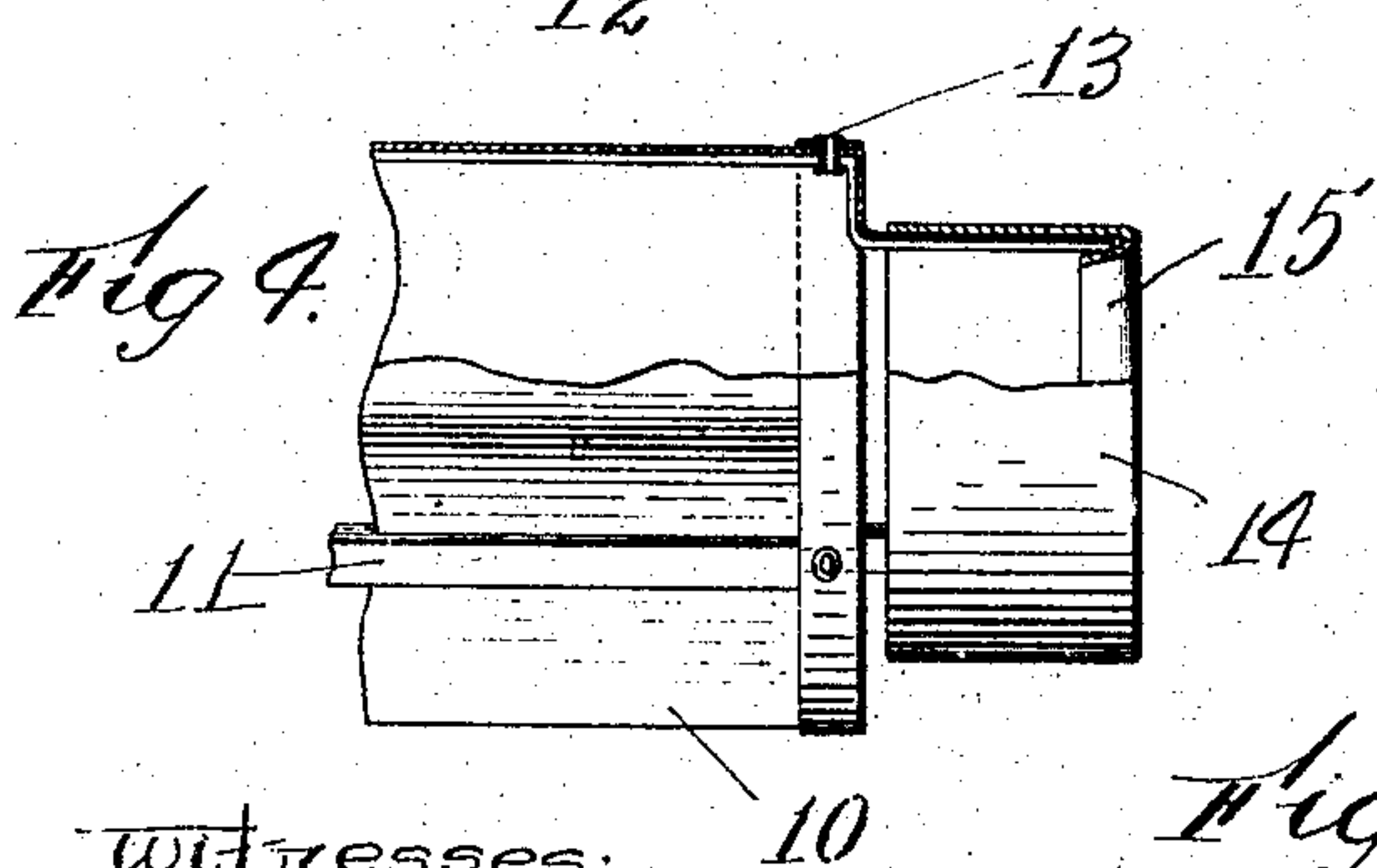
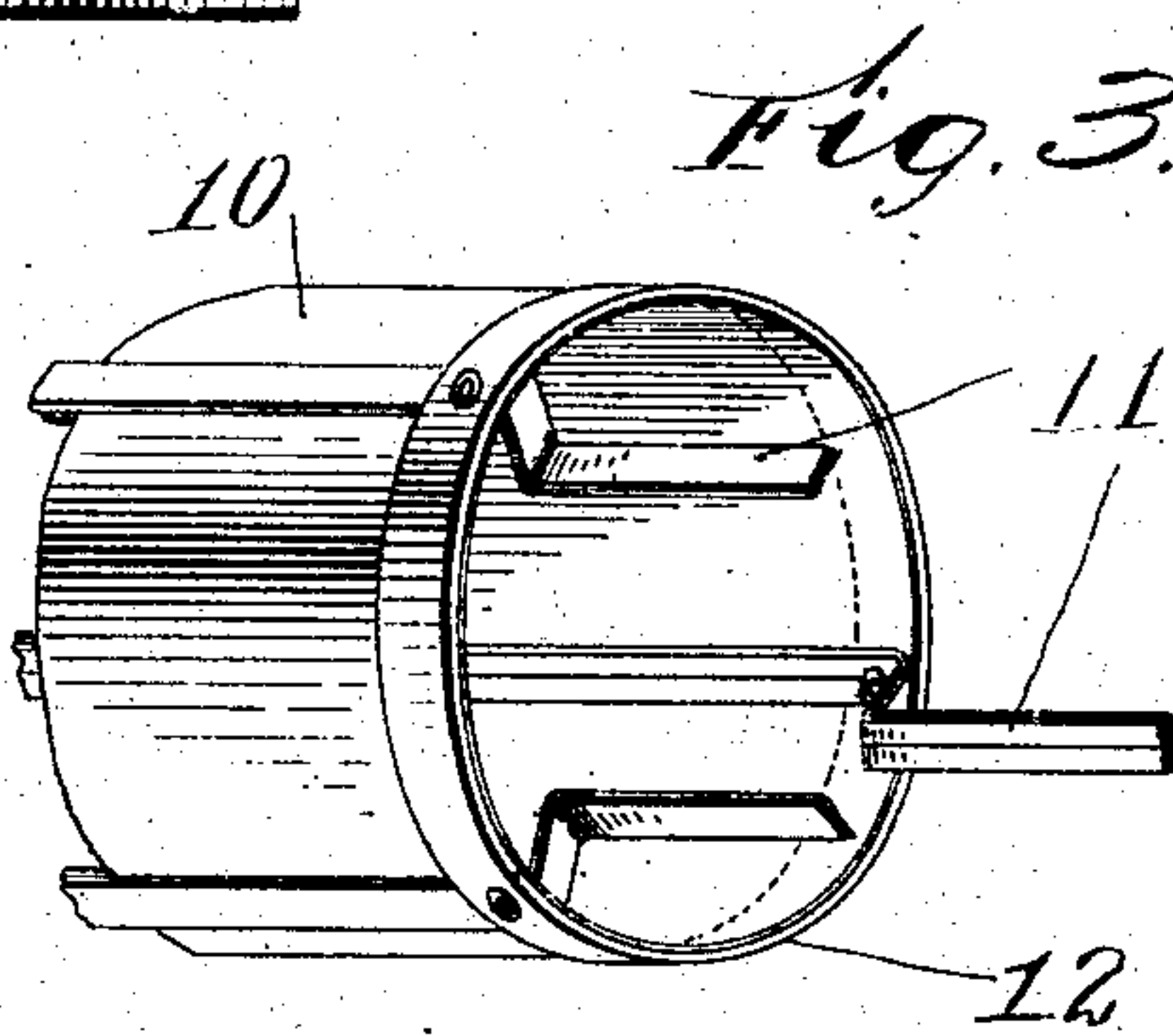
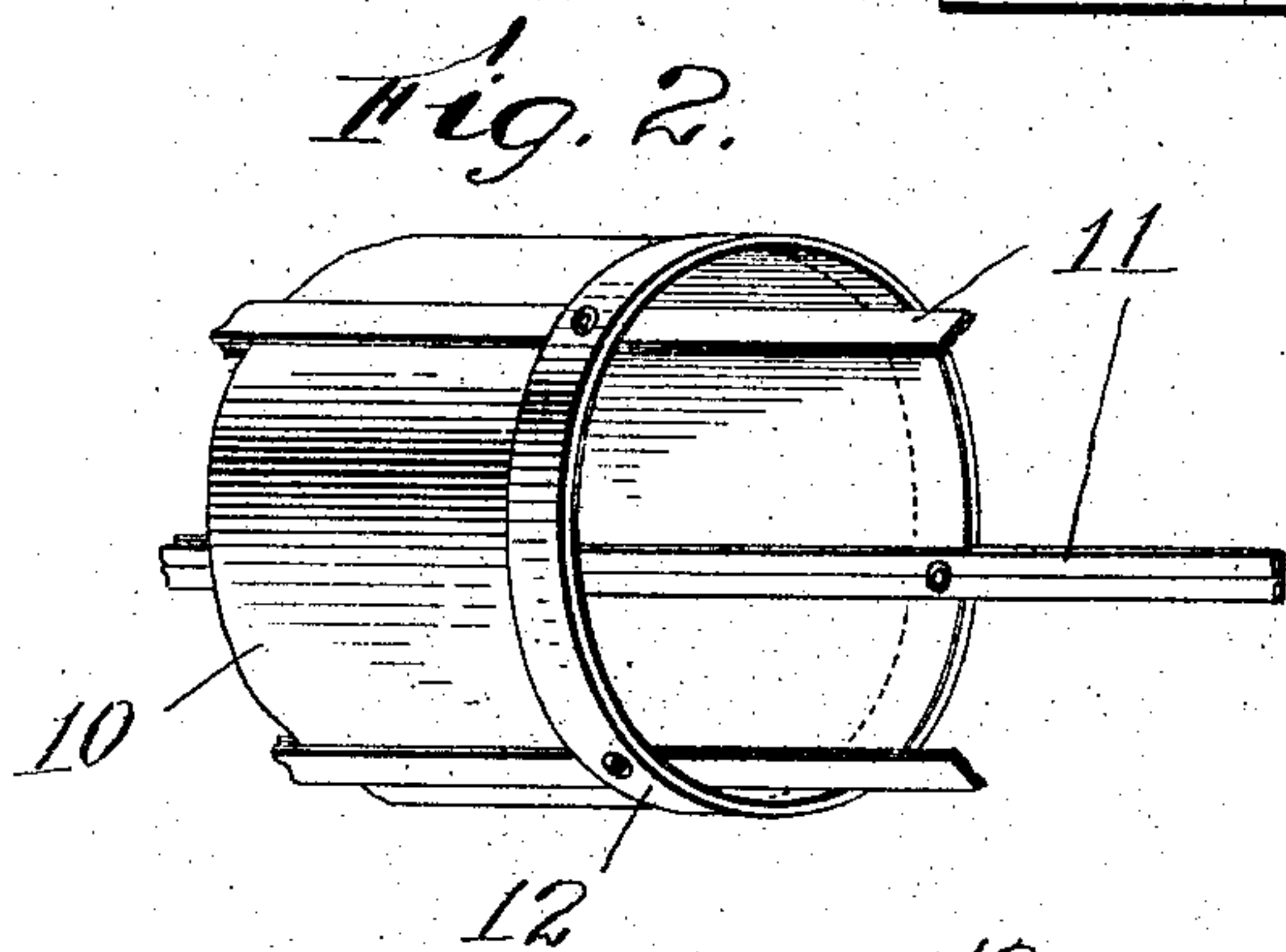
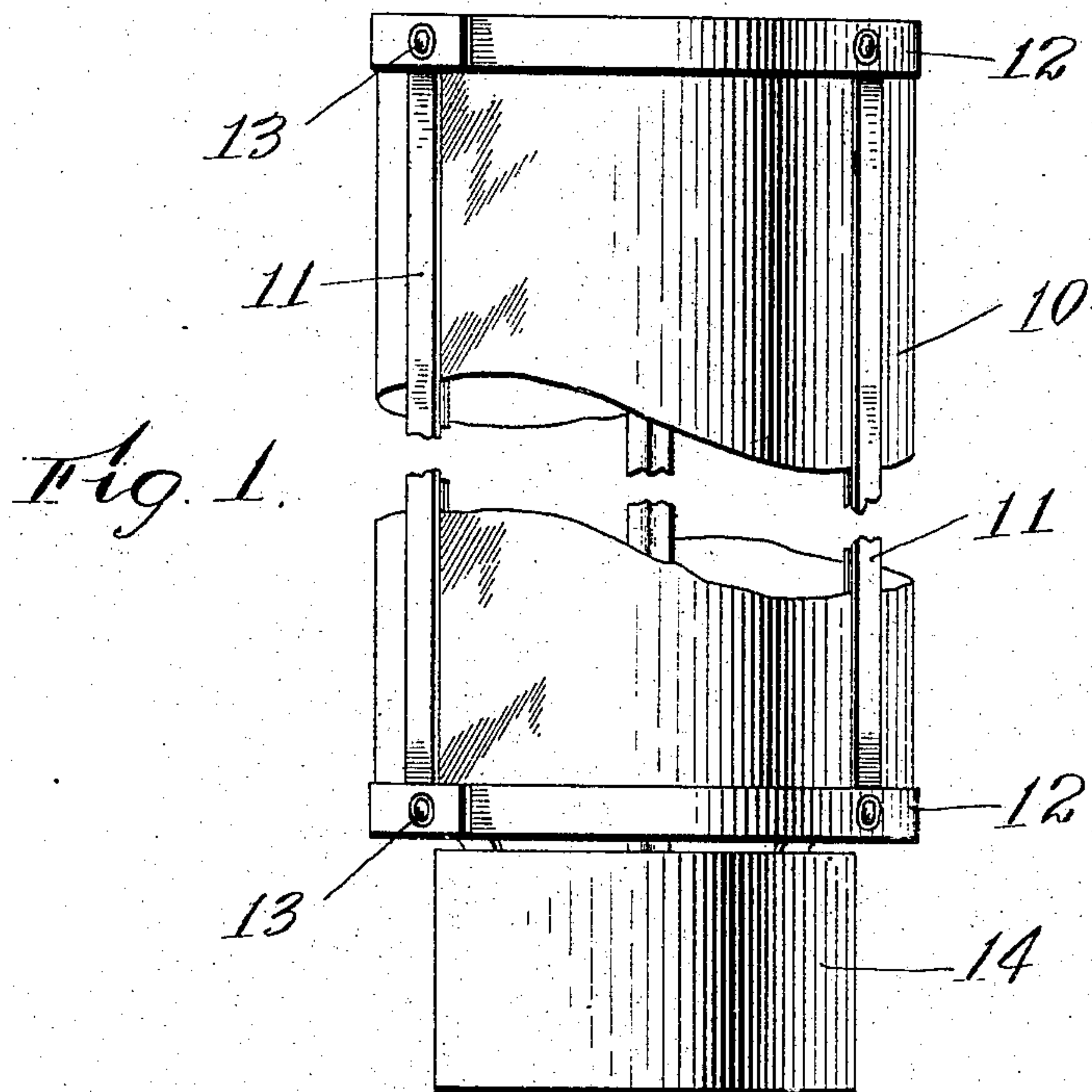
No. 765,528.

PATENTED JULY 19, 1904.

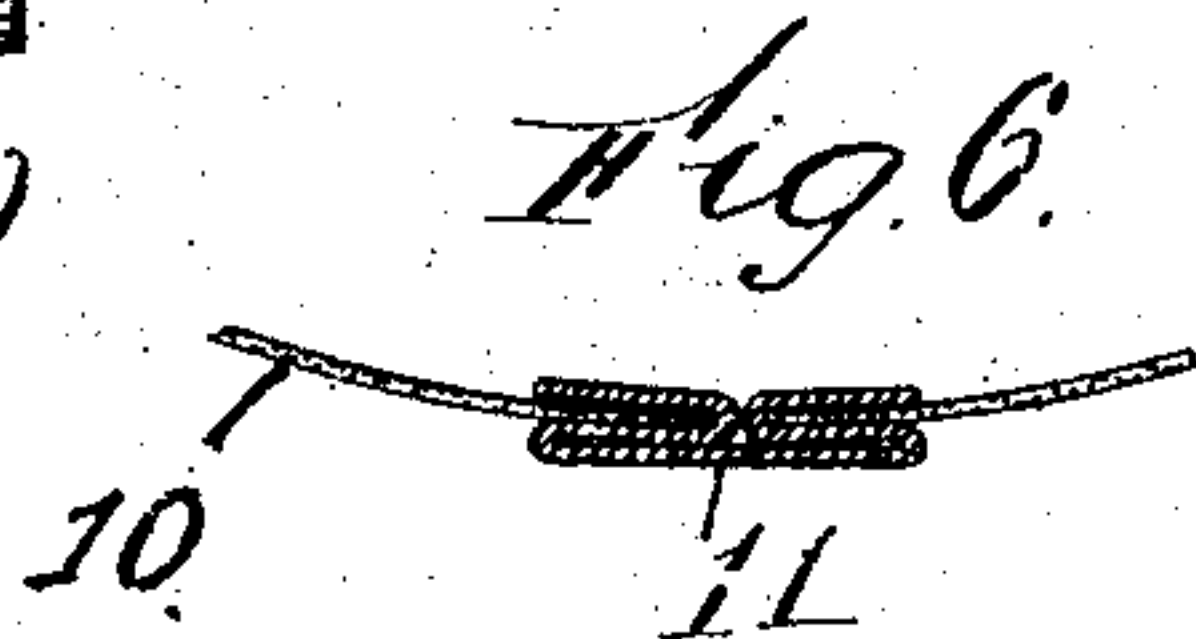
J. D. WARREN.  
MICA CHIMNEY.

APPLICATION FILED JAN. 8, 1904.

NO MODEL.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

JOHN D. WARREN, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO  
EUGENE MUNSELL & CO., OF NEW YORK, N. Y., A PARTNERSHIP.

## MICA CHIMNEY.

SPECIFICATION forming part of Letters Patent No. 765,528, dated July 19, 1904.

Application filed January 8, 1904. Serial No. 188,234. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. WARREN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Mica Chimney, of which the following is a specification.

This invention relates to a lamp-chimney which is constructed to secure a free circulation of air therein.

The especial object of this invention is to provide a strong, simple, and efficient construction which may be made of mica or similar transparent material.

To this end this invention consists of the chimney as an article of manufacture and of the combinations of parts therein, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view, partly broken away, of a chimney constructed according to this invention. Fig. 2 is a perspective view of one end of a partly-completed chimney. Fig. 3 is a similar view showing the ends of the joint-strips bent in toward each other to receive the end ring. Fig. 4 is a fragmentary view showing the base-ring slipped onto the ends of the joint-strips. Fig. 5 is a perspective view of one end of the completed chimney, and Fig. 6 is an enlarged detail view showing a joint-strip and part of a mica section at each side thereof.

In the use of a larger and more powerful incandescent gas-burner it is essential that a free circulation of air should be secured inside of the chimneys. This is due to the excessive heat which is generated by the large Bunsen burners required for use in connection with the larger and more closely-woven incandescent mantles.

In practice when it is attempted to use the ordinary lamp-chimney in connection with these large incandescent gas-burners it has been found that the heat of the burner when confined within the lamp-chimney will be sufficient to fuse the metal supports of the incandescent gas-mantles and to overheat all parts of the burner. To overcome this ob-

jection, it is necessary to employ lamp-chimneys having draft-openings near their bottom. Heretofore in the use of the large incandescent gas-burners these ventilated chimneys have been made of glass, the ventilating-openings being left through the sides of the chimney when the glass is blown or molded into shape.

Perforated bottom glass chimneys are comparatively expensive, and as such chimneys are frequently broken the cost of chimneys is one of the largest, if not the largest, item in the expense of maintaining large-sized incandescent gas-burners.

A lamp-chimney constructed according to this invention has been designed to overcome these objections by providing an open-bottom lamp-chimney having a body portion of mica and which may be manufactured in a simple, inexpensive, and efficient manner.

A lamp-chimney constructed according to this invention, as herein illustrated, comprises a body portion of transparent pieces of mica, which are connected by sheet-metal joint-strips. The joint-strips project beyond one end of the body portion of the chimney and are connected laterally to a base-ring or support. The base-ring is preferably of smaller diameter than the body portion of the chimney, so that a substantially unobstructed annular opening is left between the base-ring and the body part.

Referring to the accompanying drawings for a detail description of a chimney constructed according to this invention the body part of the chimney comprises the pieces of transparent mica.

I have illustrated the body part of the chimney as comprising three pieces of transparent mica; but it is to be understood that a greater or less number of mica pieces may be employed for the body part of the chimney, if desired.

The mica pieces 10 are connected together by sheet-metal joint-strips 11. Each of the sheet-metal joint-strips 11, as shown in Fig. 1, has outwardly-facing V-shaped jaws, which are back to back, so that the edges of the adjacent mica sections are fastened together



without overlapping or unnecessary waste of mica. It is to be understood, however, that I do not claim in this application for patent any particular form of sheet-metal joint-strip for  
5 connecting the pieces of mica.

The body part of the chimney may be finished by the ordinary end rings or bindings 12, which are fastened in place by the small eyelets 13. The joint-strips 11 extend beyond  
10 one end of the body part of the chimney, and the ends of these joint-strips are first bent in toward each other, as illustrated in Fig. 3. An end ring or base-section 14 is then slipped onto the joint-strip. As shown in Fig. 4, the  
15 base-ring 14 is provided with a flange or bent-in section 15, and the ends of the joint-strips extend into the annular space between the base-ring 14 and flange 15. The parts are secured together by pinching or bending back  
20 the flange 15 to grip the ends of the joint-strips, as shown in Fig. 5 at 16. By means of this construction a ventilated mica chimney is provided which consists of comparatively few parts, which are assembled and secured  
25 together without the use of solder or other fusible material. In the use of the lamp-chimneys as thus constructed the substantially unobstructed annular space between the base-ring and body portion of the chimney will  
30 permit a free circulation of air up inside the chimney, and the excessive heat of a Bunsen burner will not be confined within the lamp-chimney. In the use of this construction the air will rise up through the body part of the  
35 chimney in substantially an uninterrupted annular column, giving equal drafts upon all sides of the incandescent mantle of the burner, and I regard this as of advantage, as uniform effects will be produced on all parts of the  
40 mantle, whereas where the lamp-chimneys are provided with a series of ventilating-holes these holes will tend to concentrate the air-currents at different points on the mantle.

I am aware that numerous changes may be  
45 made in manufacturing chimneys according to my present invention without departing from the scope thereof as expressed in the claims. I do not wish, therefore, to be limited to the construction I have herein shown and de-  
50 scribed; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. As a unitary article of manufacture, a mica chimney and a base-ring of smaller di-  
55 ameter than the chimney connected laterally thereto and leaving a substantially open annular space between the base-ring and bottom of the chimney.

2. As a unitary article of manufacture, a chimney comprising a number of sections of  
60 mica connected to form a body part, a sheet-metal base-ring of smaller diameter than the body part, and laterally-extending metallic supporting-arms permanently connecting the base-ring and body part of the chimney and  
65 leaving a substantially open annular space between the bottom of the body part and the base-ring.

3. As an article of manufacture, a chimney comprising pieces of transparent material,  
70 joint-strips connecting said pieces to form the body part of the chimney, said joint-strips extending beyond the end of the body part and a base-ring fastened to the joint-strips.

4. As an article of manufacture, a chimney  
75 comprising transparent mica pieces, joint-strips connecting the pieces to form the body part of the chimney, said joint-strips extending beyond the end of the body part of the chimney, and being bent in toward each other,  
80 and a base-ring of smaller diameter than the body part connected to the ends of the joint-strips, a substantially unobstructed annular space being left between the base-ring and body part of the chimney.  
85

5. As an article of manufacture, a chimney comprising transparent pieces of mica, joint-strips connecting the pieces of mica to form the body part of the chimney the ends of the joint-strips extending beyond the end of the  
90 body part of the chimney, and a sheet-metal base-ring having a turned-in flange bent into engagement with the ends of the joint-strips to fasten the base-ring thereon.

6. As an article of manufacture, a chimney  
95 comprising transparent pieces of mica, sheet-metal joint-strips connecting the pieces of mica to form the body part of the chimney, end rings connected by eyelets to the joint-strips, the joint-strips projecting from one  
100 end of the body portion of the chimney, and said joint-strips being bent in toward each other, and a base-ring having a bent-in flange compressed into engagement with the joint-strips to hold the base-ring in place, and form-  
105 ing a chimney having a substantially unobstructed annular space between its body portion and base-ring.

In testimony whereof I have hereunto set my hand in the presence of two subscribing  
110 witnesses.

JOHN D. WARREN.

Witnesses:

EDWARD C. WOOD,  
E. G. HEALD.