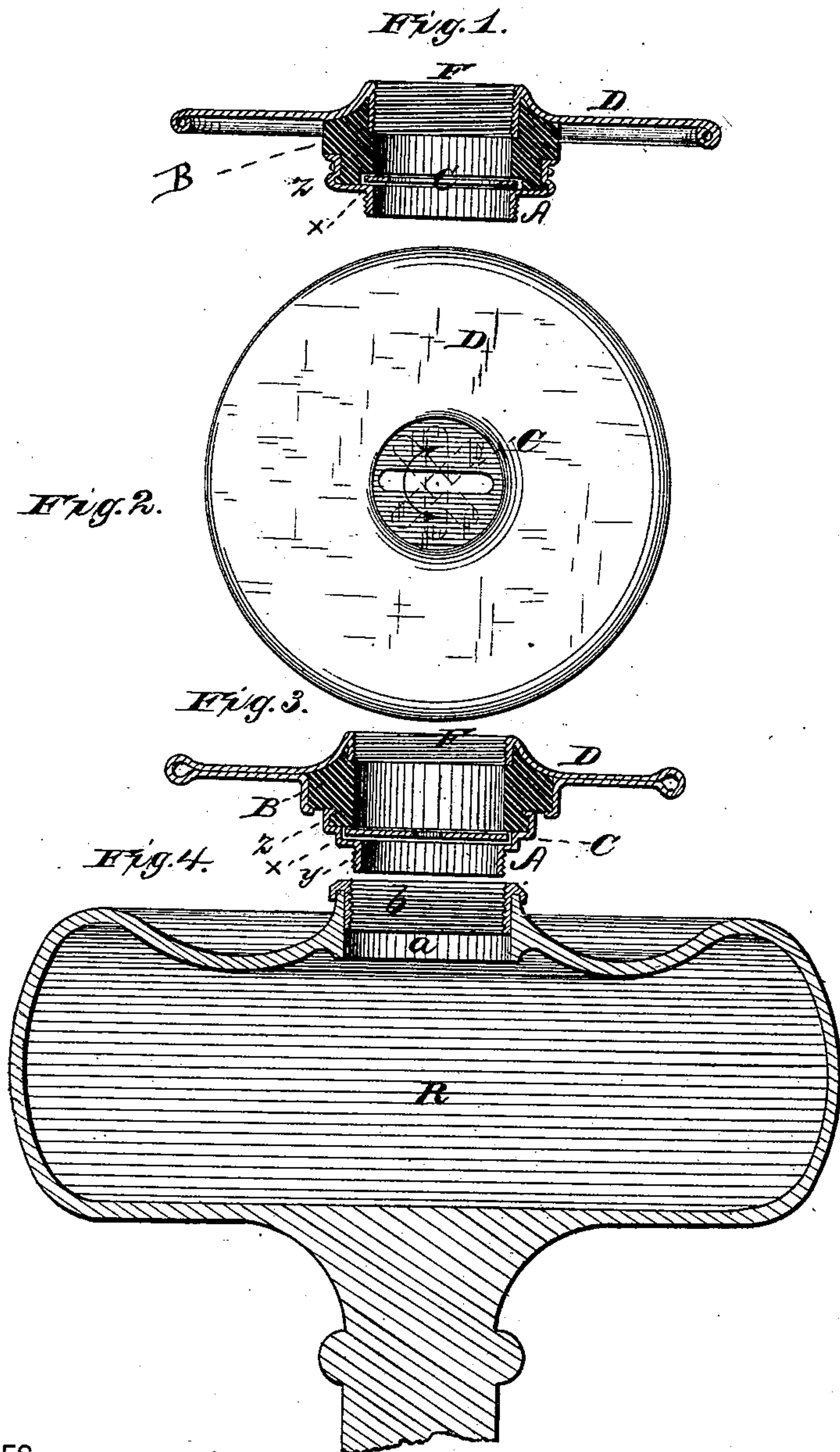


T. M. BRINTNALL.  
Lamp-Burner.

No. 201,221.

Patented March 12, 1878.



WITNESSES  
Francis L. Oursand  
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# UNITED STATES PATENT OFFICE.

THOMAS M. BRINTNALL, OF MEDINA, OHIO.

## IMPROVEMENT IN LAMP-BURNERS.

Specification forming part of Letters Patent No. **201,221**, dated March 12, 1878; application filed February 16, 1878.

*To all whom it may concern:*

Be it known that I, THOMAS M. BRINTNALL, of Medina, in the county of Medina, and in the State of Ohio, have invented certain new and useful Improvements in Lamp Burner and Reservoir; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to lamps; and it consists in the application of compressed paper or paper-pulp, introduced between the burner and reservoir, as a non-conductor, to prevent the transmission of heat from the flame to the oil in the reservoir, and in the construction and combination of parts, as will be hereinafter more fully set forth, and pointed out in the claims.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a central vertical section of a nut with non-conductor and shield, to be interposed between the burner and the reservoir. Fig. 2 is a plan view of the same. Fig. 3 is a central vertical section, showing a modification thereof. Fig. 4 is a central vertical section of the lamp-reservoir.

R represents the lamp-reservoir, made of glass, in any desired form, and provided in the top with the usual round opening *a*, which may have female screw-threads cast in it, or a metallic collar, *b*, fastened therein, said collar having the female screw-threads, as shown. Around the opening *a* in the upper surface of the reservoir R is formed an annular depression or recess, *y*, which is for the purpose of catching all drippings while filling the lamp, and prevent the same from passing down the outside of the lamp and soiling the table, table-cloth, &c. Any oil collected in said depression or recess *y* can easily be wiped up as soon as the lamp is filled.

Between the reservoir R and the burner I interpose a nut, constructed in the following manner: A is a ferrule, provided at its lower end with exterior screw-threads to fit in the

screw-threads *b* of the lamp-reservoir. The upper portion of the ferrule A is constructed in the manner shown, so as to form interior circumferential shoulders *x* and *z*. Upon the lower shoulder *x* rests a loose flat plate, C, having a central slot for the passage of the lamp-wick, said plate being entirely free to turn on said shoulder *x*. On the shoulder *z* of the ferrule, above the plate C, rests an annular ring or collar, B, held firmly to the ferrule by having the edge of the ferrule surrounding and clamping the same, or turned into it, or in any other suitable manner. The ring or collar B is made of compressed paper or paper-pulp, to prevent the conduction of heat to the reservoir.

By experiments I have found that paper or paper-pulp is not only a perfect non-conductor, but is superior in the uses I design to any known non-conductor. It will not crack; it is light in weight and cheap; is not liable to expand or contract; can be formed into the shape required, and will retain its shape, and has great strength.

On the top of the non-conductor B is secured a metallic collar, F, provided with interior screw-threads, and this collar is formed or provided with a circular disk, D, extending around the same. The outer edge of this disk may be turned under, as shown in Fig. 1, or it may be extended under to form a connection with the non-conductor, as shown in Fig. 3. In all cases, however, there must be no metallic connection between the ferrule A and the collar for disk D; but the non-conductor B must come in between them, to prevent the transmission of the heat from the burner to the reservoir.

The burner is screwed into the collar F, the wick passing down through the slotted plate C, which, being loose, prevents the wick from becoming twisted. This plate C also answers another very important purpose—viz., it cuts off the oil, so that the oil cannot come in contact with the non-conductor, which would soon change the non-conductor to a conductor of heat.

The shield or deflector D, as shown and described, forms part of the collar F; but it may equally as well form a part of the ferrule A; or it may, in any other suitable manner, be interposed between the burner and the reservoir.



The object of this shield or deflector is to prevent the rays of light from the flame from striking the top of the reservoir, which would heat the oil therein and generate gas.

The shield or deflector D may be made of porcelain, marbleized iron, or other metal, or of any material suitable for the purpose.

I do not broadly claim a non-conductor in a lamp-burner to prevent the conduction of the heat to the lamp-reservoir. Nor do I broadly claim a plate as a deflector in lamps, as I am aware that such have been known. Nor do I claim an angular plate interposed between a non-conductor and the screw-collar of the lamp, said plate being connected to and moving with the lower section of a divided wick-tube. I am not aware, however, that the devices shown and described by me have ever before been known, or that any approximate devices have been known, which will perform the desired functions as fully and economically as the one herein set forth.

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

1. In a lamp, a non-conductor formed of compressed paper or paper-pulp, and interposed between the burner and reservoir, substantially as herein set forth.

2. The ferrule A, having annular interior shoulders *x* and *z*, in combination with the non-conductor B and the loose flat and slotted plate C interposed between the non-conductor and shoulder *x*, and capable of freely rotating on its seat, substantially as herein set forth.

3. The deflector D, formed as a part of the screw-collar, in combination with and connected to the non-conductor B, and in combination with the ferrule A, also connected to the non-conductor, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of February, 1878.

THOMAS M. BRINTNALL.

Witnesses:

FRANK GALT,  
J. J. MCCARTHY.