W. L. JUKES.

Gas Burner.

No. 93,310. Patented Aug. 3, 1869.

Fig. 1

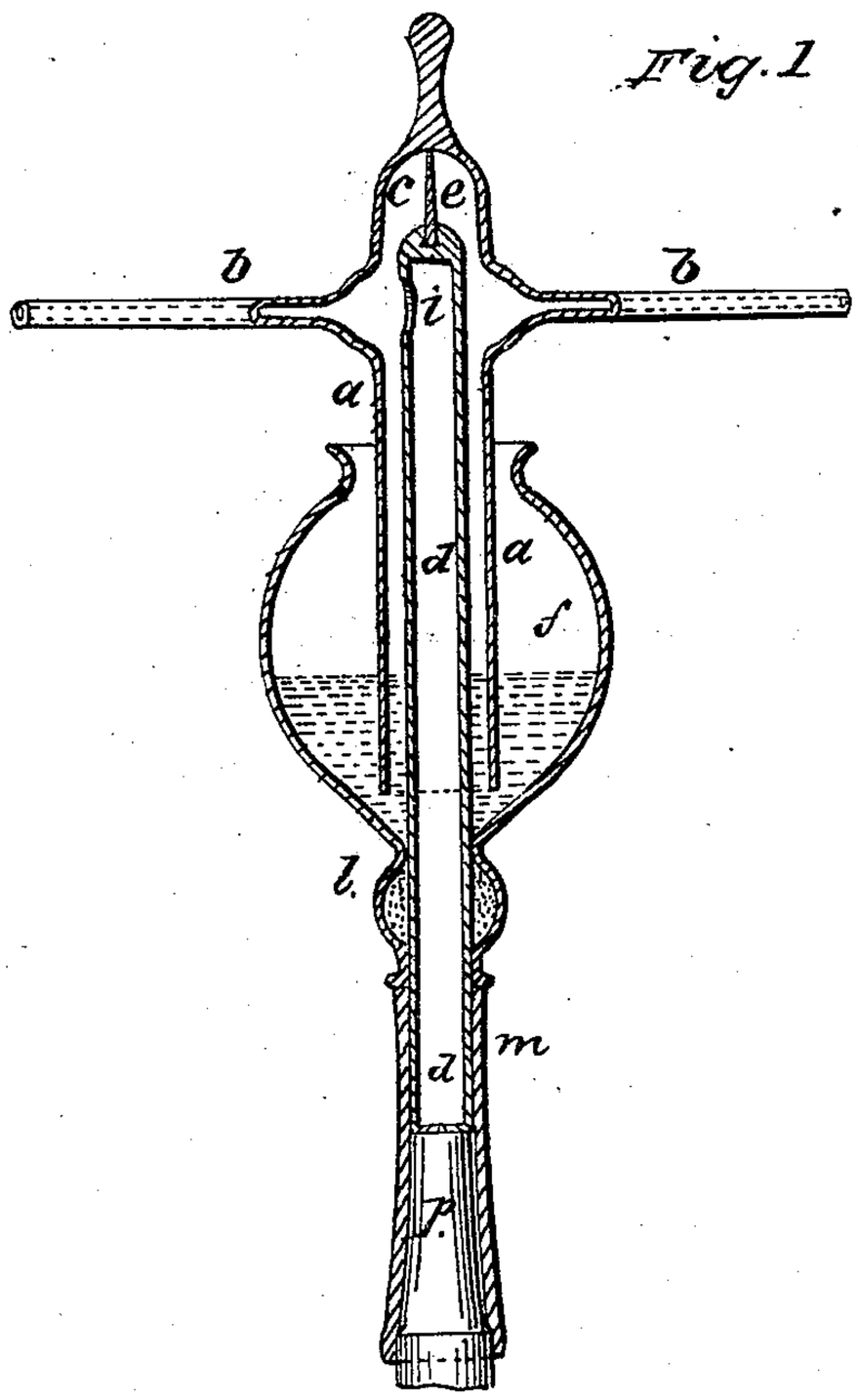
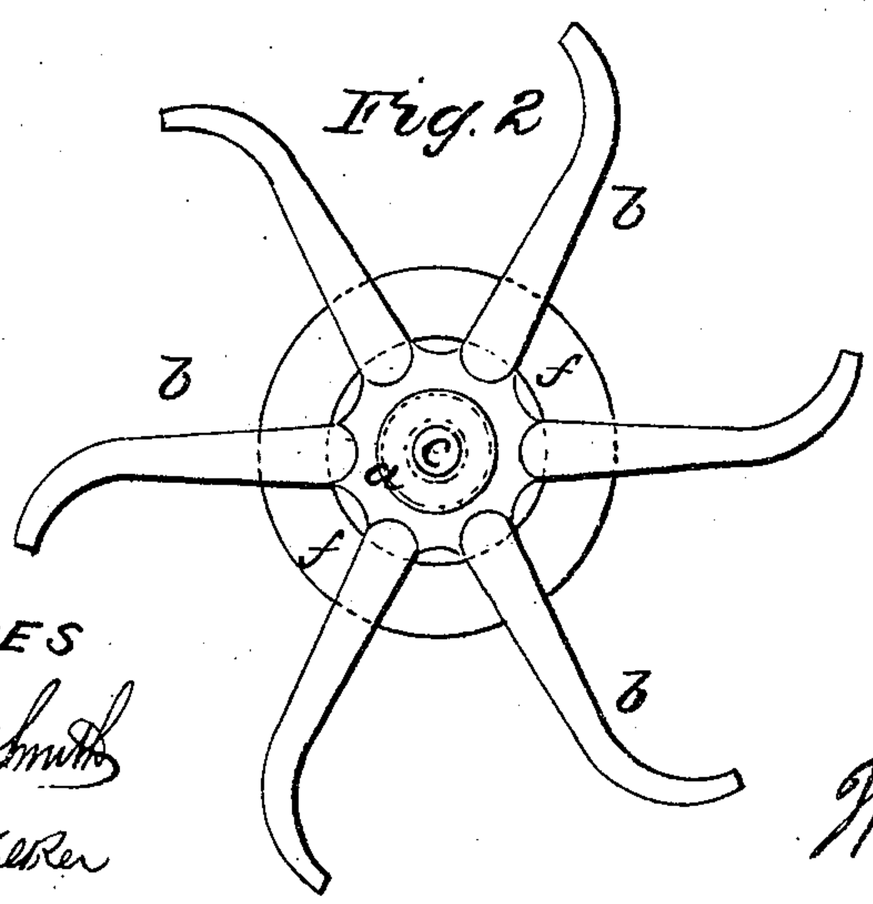


Fig. 2



WITNESSES

Chas. H. Smith

Geo. D. Walker

INVENTOR

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WESLEY L. JUKES, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, FREDERICK McLEWEE, PRENTICE H. PUTNAM, AND JOHNSON MURRAY, OF SAME PLACE.

Letters Patent No. 93,310, *dated August* 3, 1869.

IMPROVEMENT IN GAS-BURNERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WESLEY L. JUKES, of the city and State of New York, have invented and made a new and useful Improvement in Revolving Gas-Burners; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is a vertical section of the said gas-burner, and

Figure 2 is a plan of the same.

Similar letters denote the same parts.

Revolving gas-burners have heretofore been made of a series of metal tubes passing out from a central vertical tube that revolved upon a pivot, the jets of gas standing as tangents to the tubular arms, and causing the revolution of the burner.

Gas-burners of this kind are costly, because the separate parts have to be united together by joints that are expensive to construct, and the burner becomes so heavy as to produce considerable friction upon the pivot, and prevent the burner revolving freely; besides this, the pivot is very liable to wear a hole in the burner, or itself become blunt, thus increasing the friction.

Bearings of stone, and of glass set in metal, have also been used for the pivot.

My invention consists in forming the revolving portion of the burner, including the jet-arms, the vertical cylinder, and the bearing for the pivot, of one piece in glass, whereby a very light revolving burner is obtained. The pivot-bearing is very smooth, hard, and frictionless, there are no joints to become leaky, and the holes in the jet-arms do not become corroded and stopped by the action of the gas and flame, as is the case with metal burners.

I also attach the base of the revolving burner to the gas-pipe by a rubber tube, so as to prevent injury to the glass, and to facilitate the application of the revolving burner to any ordinary gas-burner.

In the drawings—

a is the vertical tube of the revolving gas-burner; *b b*, the jet-arms; and *c*, the pivot-bearing; all formed in one piece of glass.

d is the vertical supply-tube, with the pivot *e* at its end, and the side opening *i*, for the gas to pass out of.

f is the cup to contain mercury, glycerine, petroleum, water, or other liquid, in which the lower end of the tube *a* revolves, said material forming a packing to said tube *a*.

The cup *f* and tube *d* are united at the point *l* by cement, such as shellac, to render the parts perfectly tight.

The construction of these parts is facilitated in consequence of their being made separately, especially when of glass.

From the lower end of the tube *d*, an India-rubber tube *m* extends, so as to be slipped upon the gas-burner *p*, or other tube from which the gas is supplied. This forms an easy and reliable means of connection, and avoids all risk of injury to the glass in attaching the burner.

What I claim, and desire to secure by Letters Patent, is—

1. The revolving gas-burner, with the tube *a*, arms *b b*, and pivot-bearing *c*, all made in one piece of glass, as and for the purposes specified.

2. The tube *d*, with the pivot *e* at its end and the opening *i*, in combination with the cup *f* and revolving burner, when the cup *f* and tube *d* are of glass, and united by cement, as set forth.

3. The rubber tube *m*, in combination with the glass tube *d*, cup *f*, and revolving gas-burner, for connecting the parts with facility, and without risk of injuring the glass, as set forth.

In witness whereof, I have hereunto set my signature, this 28th day of June, A. D. 1869.

WESLEY L. JUKES.

Witnesses:

GEO. D. WALKER,

CHAS. H. SMITH.