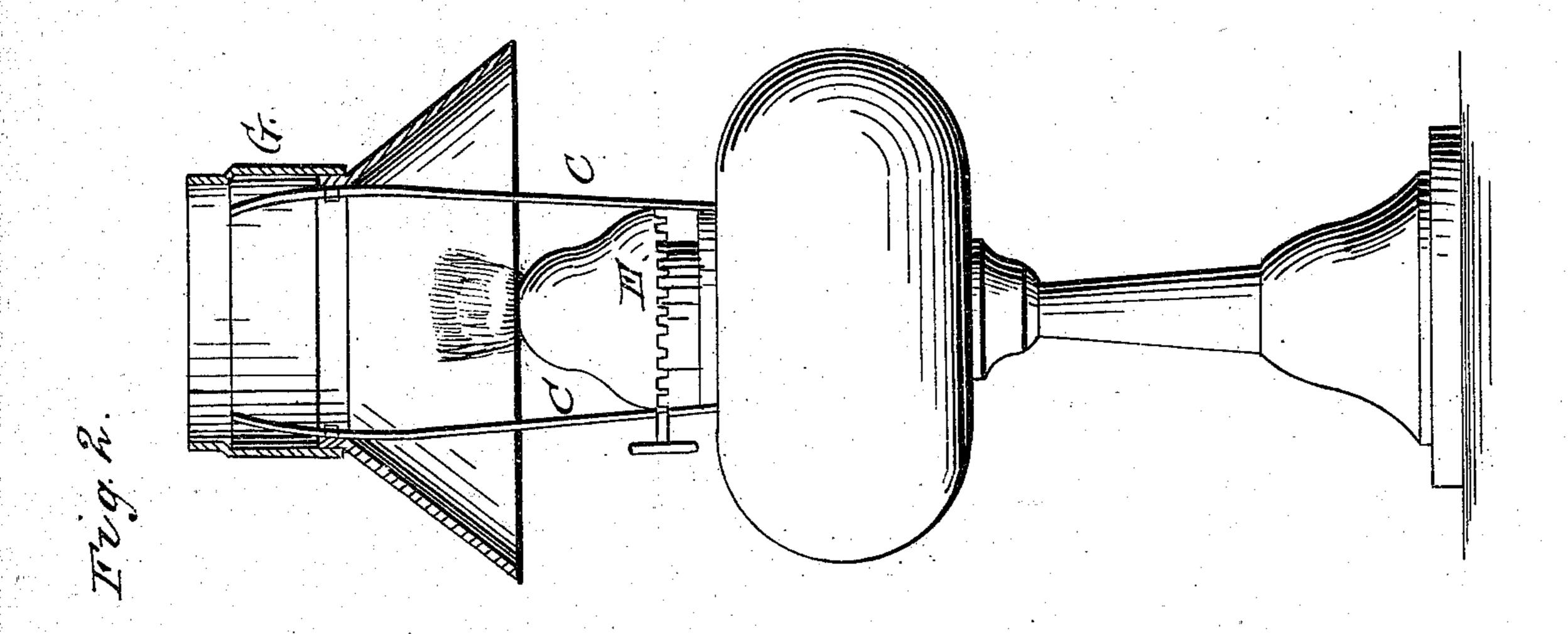
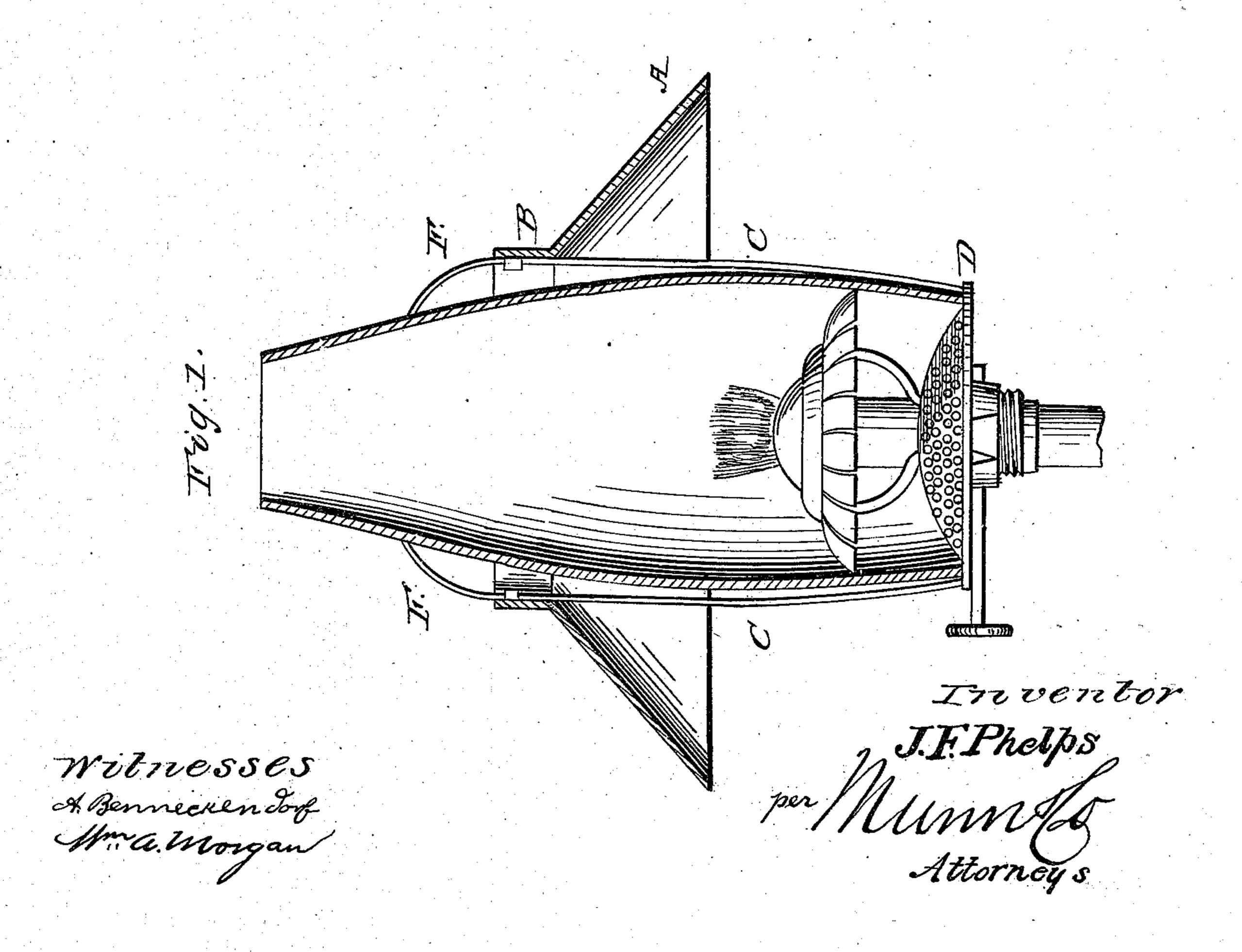
J. F. PHELPS.

Lamp Shade.

No. 87,428.

Patented March 2, 1869.





N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.



## JOHN F. PHELPS, OF HAVANA, NEW YORK.

Letters Patent No. 87,428, dated March 2, 1869.

## IMPROVEMENT IN LAMP-SHADES.

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, John F. Phelps, of Havana, in the county of Schuyler and State of New York. have invented a new and useful Improvement in Lamp-Shades; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in lamp-shades, the object of which is to adapt them to be used with equal facility upon lamps, either with chimneys or without, and to provide a detachable vertical extension for the same.

Figure 1 represents a sectional elevation of a part of a lamp and chimney with my improved shade applied thereto.

Figure 2 represents a sectional elevation of the same, with a detachable vertical extension, and applied to a lamp without a chimney.

Similar letters of reference indicate corresponding parts.

A represents the body of the shade, made in the usual form, and preferably of sheet-metal. It is provided with a short tubular extension, B, at the top, to which the supporting-spring wires C are secured.

These wires are intended to be of the proper length to rest on the rim D, which supports the chimney, and support the shade at the proper height. They have a tendency to spring inward, sufficient to insure their contact with the base of the chimney, and the projecting edge of the rim D, no matter what size they may be. They do not, however, spring so close together, that, when detached from the chimney, the small ends thereof will be prevented from entering the space between them when the shade is to be applied.

This construction adapts the shade for application

to such lamps as are used without chimneys, as represented in fig. 2.

The ends of the spring-supports C are separated, and pass by the projecting rim E, of the burner, but spring snugly against it, and rest, at their lower ends, upon the upper portion of the lamp.

The said projecting rim E affords a reliable lateral support to the springs C, and the shade is thereby sustained in the absence of a chimney for its support.

To prevent any rattling of the shade against the chimneys, when employed with them, I continue the spring-supports above the point of connection with the vertical projection B, and arrange them to spring against the chimney, as represented at F.

It is desirable that these shades may be made as small as possible, as an economy of construction, and to save burdening the lamp with too much weight, especially when employed on lamps without chimneys; and when made small, it is sometimes desirable to attach an additional tube, G, to the top thereof, to extend their capacity.

The said tubular extension is so constructed as to be readily attached and removed, as is clearly represented.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The combination, with the shade A B, of the spring-supports C, when arranged as specified.

2. The combination, with the part A B, of the detachable tubular extension G, substantially as specified.

The above specification of my invention signed by me, this 18th day of November, 1868.

Witnesses: JOHN F. PHELPS. FRANK BLOCKLEY.

FRANK BLOCKLEY, ALEX. F. ROBERTS.