

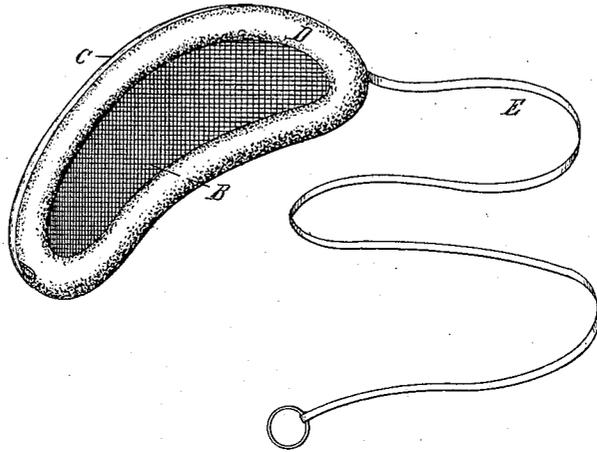
(No Model.)

A. L. OLSEN.  
RESPIRATOR.

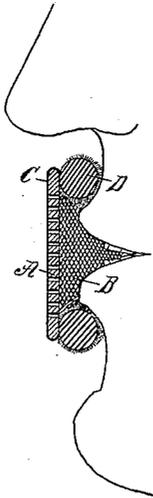
No. 306,946.

Patented Oct. 21, 1884.

*Fig. 1.*



*Fig. 2.*



*Attest:*

*John A. Ellis.*  
*[Signature]*

*Inventor:*

*Anna L. Olsen*  
*By David A. Burr*

*Atty.*

# UNITED STATES PATENT OFFICE.

ANNA L. OLSEN, OF BROOKLYN, NEW YORK.

## RESPIRATOR.

SPECIFICATION forming part of Letters Patent No. 306,946, dated October 21, 1884.

Application filed July 12, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, ANNA L. OLSEN, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Respirators; and I do hereby declare that the following is a full 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.

The object of my invention is to provide a simple, effective device for protecting the lungs and throat of a person exposed to a sharp, cold wind, or a raw, chilly, or frosty atmosphere.

It consists in uniting, in a convenient device adapted to be readily carried in the pocket and as readily secured over the mouth, a layer of perforated cork lined upon one side with a layer of fine hair-cloth, and upon the other with silk or other suitable textile fabric, the whole arranged to serve not only as a filtering medium, but also as a check to the rapid inflow of the air, and as a regenerative device by which the heat from the breath in the act of expiration is taken up and made to warm to a certain extent the air drawn in by inspiration.

In the accompanying drawings, Figure 1 represents in perspective my improved respirator, showing its inner side; and Fig. 2, a central transverse section thereof.

A represents the central layer of thin cork, which is finely perforated to admit a free passage of air through the same in a minutely-divided state. This layer of foraminated cork is lined upon its inner side with a covering, B, of fine hair-cloth, preferably horse hair, and upon its outer side with a silk facing, C. The whole is then fashioned to cover the mouth,

and is bound with an edging, D, of any suitable material, forming a raised border, and which is made to draw the lined cork into a slightly concavo-convex form, so as to adapt it the better to fit over the mouth without pressing too closely thereon. The device is provided with an elastic cord, E, or with strings to be led around the head, so as to hold it in place. The materials thus combined will not absorb the moisture from the breath, and may be readily cleansed and purified, as occasion may require, and will, without affecting entire freedom of respiration, shield and protect the lungs from the effects of a keen, sharp, cold, or raw atmosphere.

Although specially designed as a mouth-covering, I contemplate enlarging the device and adapting it to cover, also, the nostrils, for use by persons whose condition of lungs require such complete protection.

I am aware that loose cotton inclosed in a covering of gauze has been heretofore employed in the construction of apparatus for filtering the air inhaled in breathing.

I claim as my invention—

A respirator constructed of foraminated cork, faced upon one side with hair-cloth and upon the other with a suitable protecting-lining pervious to the air, substantially in the manner and for the purpose herein set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANNA L. OLSEN.

Witnesses:

WM. H. DRAKE,  
G. H. SPENCER.