# O. M. Fuller,

## Apparatus for Cooling the Head.

No. 43,679. Patented Aug. 2, 1864.

Fig. 1

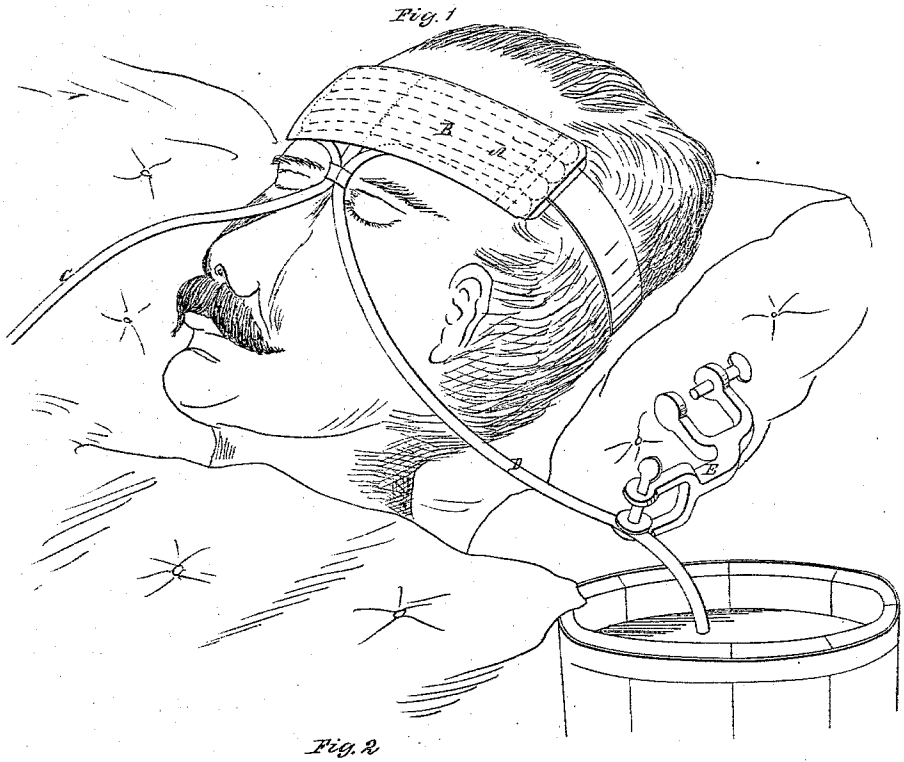
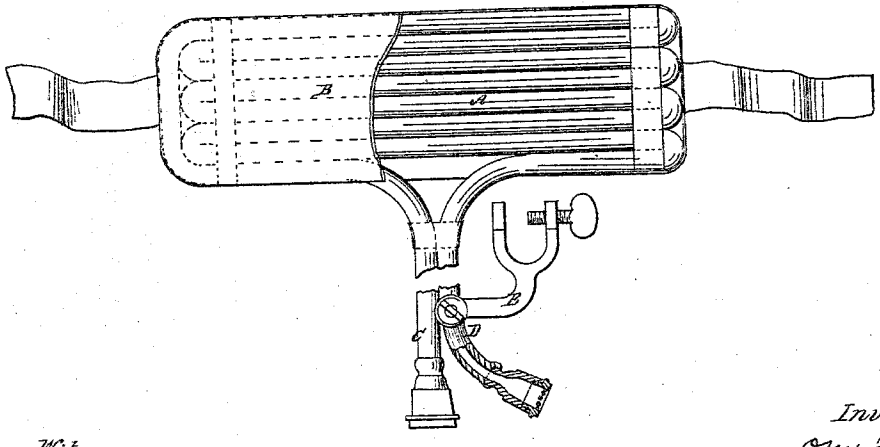



Fig. 2




Witnesses;
J. W. Coombs
G. W. Reed

Inventor;
O. M. Fuller
per Munn & Co
attorneys.

AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS.)

# UNITED STATES PATENT OFFICE.

ORANGE M. FULLER, OF CATASAUQUA, PENNSYLVANIA.

## IMPROVEMENT IN APPARATUS FOR COOLING PARTS OF THE BODY.

Specification forming part of Letters Patent No. **43,679**, dated August 2, 1864.

*To all whom it may concern:*

Be it known that I, ORANGE M. FULLER, of Catasauqua, in the county of Lehigh and State of Pennsylvania, have invented a new and Improved Apparatus for Cooling the Head or other Parts of the Body; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of my invention, showing the application to the head of a sick person. Fig. 2 is a face view or plan of the same when spread out flat.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in the combination of a siphon with a series of serpentine tubes, made of india-rubber or other flexible material impervious to water, in such a manner that by placing two buckets at different levels—one on either side of a patient—and applying the serpentine tubes to the head or other parts of the body to be cooled a continuous current of cold water can be passed through the siphon and serpentine tubes from the higher bucket to the lower one, and by changing the position of the buckets the current can be reversed, and the head or other part of the body is thus cooled without requiring any special attendance. The current of the water passing through the siphon and serpentine tubes is regulated by a clamp secured to the receiving-bucket and made to compress the discharging end of the siphon, more or less, according to the greater or smaller quantity of water to be passed through the tubes.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A represents a series of serpentine tubes, made of india-rubber or other suitable flexible material impervious to water, and of any suitable size and number of bends, the whole series being inclosed in a case, B, of oil, silk, or other suitable material, to prevent them from becoming dislodged. The ends C D of the serpentine tubes form a siphon, and by placing two buckets, one on each side of the bed of a patient at different levels, the water or other liquid contained in the higher bucket can be made to flow to the lower bucket after the siphon is once started without any further attendance. It is obvious that the lower bucket must contain a sufficient quantity of water to cover the mouth of the discharging end of the siphon, and the siphon is started by means of a suction-pump, syringe, or in any other suitable manner.

In order to regulate the flow of the water, a clamp, E, is secured to the receiving-bucket, and this clamp is so arranged that the discharging end of the siphon can be compressed, more or less, and the current of the water passing through the tubes can be reduced as much as may be desired.

By filling the discharging-bucket with ice-water a current of cold water can be passed through the serpentine tubes, and the head or other part of the body is cooled without further attendance. If the discharging bucket is nearly empty, the level of the two buckets is changed, and the current of the liquid is thereby reversed.

The ends of the tubes and their bends may be kept open by inserting therein spiral springs of any suitable description, which will prevent them from collapsing spontaneously.

I am aware that a bandage with water circulating through it has before been employed for cooling the head; but

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

The combination of the siphon C D, series of serpentine tubes A, and clamp E, when all are constructed, arranged, and employed in the manner and for the purposes specified.

ORANGE M. FULLER.

Witnesses:

F. F. GIERING,

R. CLAY HAMMSLY.