

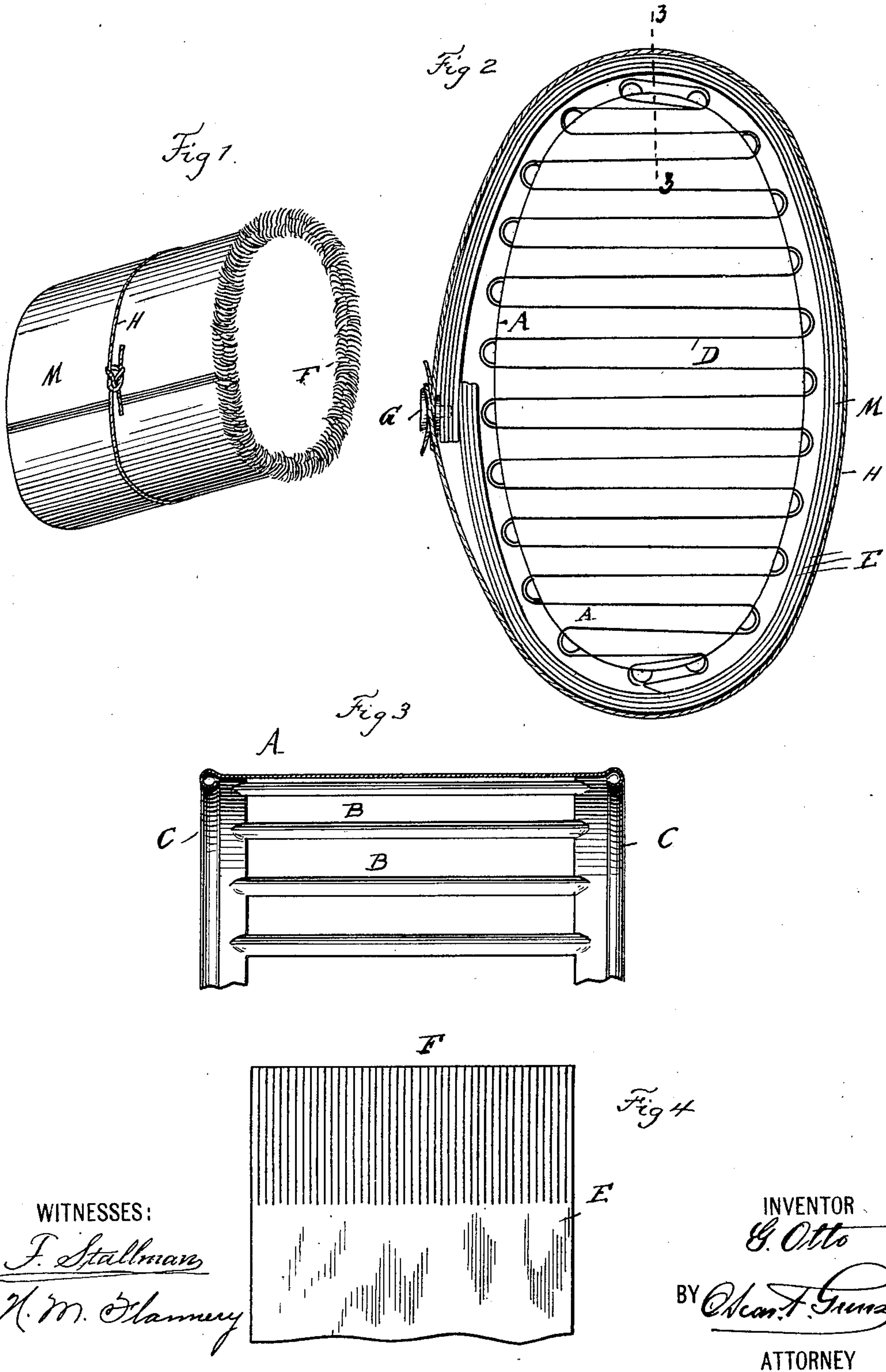
No. 681,338.

Patented Aug. 27, 1901.

G. OTTO.
ETHER INHALER.

(Application filed Nov. 3, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

GUSTAV OTTO, OF JERSEY CITY, NEW JERSEY.

ETHER-INHALER.

SPECIFICATION forming part of Letters Patent No. 681,338, dated August 27, 1901.

Application filed November 3, 1900. Serial No. 35,307. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV OTTO, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Ether-Inhalers, of which the following is a specification.

The object of my invention is to provide a new and improved ether-inhaler which is simple in construction, strong and durable, and very effective in use.

In the accompanying drawings, in which like letters of reference indicate like parts in all the views, Figure 1 is a perspective view of my improved ether-inhaler. Fig. 2 is a vertical transverse sectional view of the same on an enlarged scale. Fig. 3 is a longitudinal sectional view of the frame on the line 3 3 of Fig. 2, parts being broken away. Fig. 4 is a face view of one of the sheets of paper forming the inhaler-tube.

The sheet-metal tubular frame A, preferably oval in transverse section, is provided with a series of longitudinal slots extending nearly from end to end and forming between them a series of bars B, each curved outward transversely to its length for the purpose of greater stability and strength. The end edges of the frame A are doubled or bent over inward to form a peripheral bead C for the purpose of stiffening and strengthening the ends of the frame. A strip D of flannel or other fabric is attached at one end to the top of the frame and passed successively over the several bars B and to and fro across the frame, the other end being attached to the bottom of the frame A. A tube M is formed around this frame of a number, say, about twelve, more or less, superimposed sheets of paper E, having one edge fringed, as at F, Fig. 4, by means of parallel cuts extending inward from one edge. The sheets of paper are placed around the frame A and lapped, as shown in Fig. 2, and held in place by means of a tape H, attached to the sheets by a button or clasp G, passed through the sheets, or the sheets may be held in place by means of any other suitable retaining or fastening device.

In using the inhaler the fabric in the frame A is saturated to a greater or less extent, as

circumstances may require, with ether, the sheets E are placed around the frame and secured in place to form the tube M, and the fringed edge is placed against the face of the person to be etherized in such a manner that the nose and mouth of this person are within the fringed end of the tube. This fringed edge forms a close joint on any face, so that all air inhaled by the person must pass through the frame and take up the ether in its passage through the tube into the mouth, nose, and lungs of the patient. After use the paper sheets E are detached and destroyed, preferably by fire, and for the next use of the inhaler a fresh tube M is made from a new set of paper sheets placed around the frame A in the manner described.

I am acquainted with the Allis inhaler, described on page 43 of *Tiemann's Armamentarium Chirurgicum*, on which my present device is an improvement.

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

1. In an ether-inhaler tube, the combination with a number of superimposed sheets of paper, having the coinciding edges fringed at one end, means for holding the sheets together and a tape secured to said united sheets for holding them on an inhaling-frame, substantially as herein shown and described.

2. In an ether-inhaler, the combination with a tubular frame having alternate longitudinal slots and bars, of a strip of fabric passed successively over the several bars and through the frame and an inhaler-tube surrounding the frame, which tube is composed of a number of superimposed sheets of paper having fringed edges at one end and a fastening means passed around the tube to hold it in place on the frame, substantially as herein shown and described.

Signed at New York city, in the county of New York and State of New York, this 15th day of October, A. D. 1900.

GUSTAV OTTO.

Witnesses:

N. M. FLANNERY,
OSCAR F. GUNZ.