

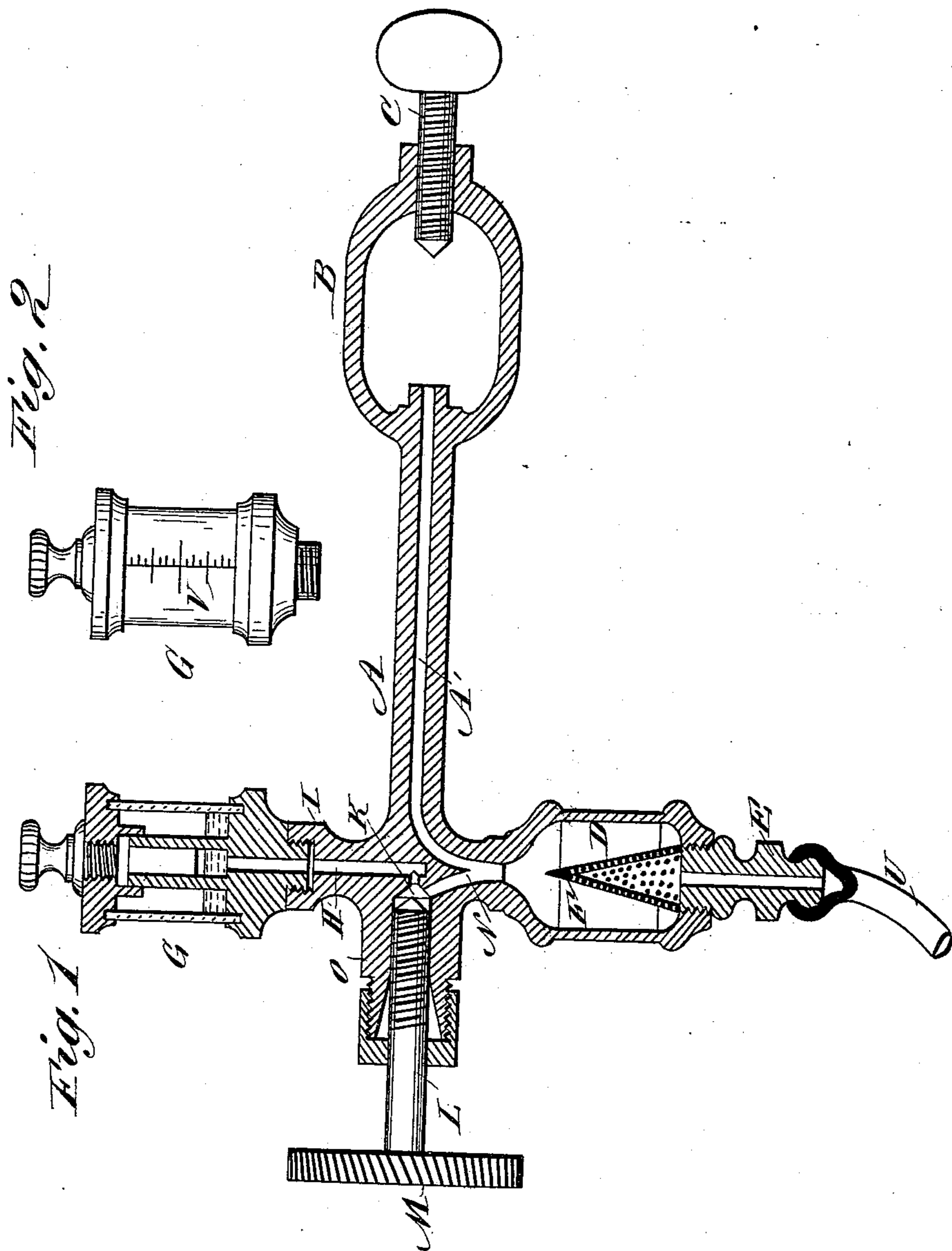
(No Model.)

G. E. JOHNSON.

MIXING AND VAPORIZING DEVICE FOR INHALERS.

No. 337,066.

Patented Mar. 2, 1886.



WITNESSES:

C. Neveu
C. Bedgwick

INVENTOR:

G. E. Johnson

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GEORGE E. JOHNSON, OF ALBION, INDIANA.

MIXING AND VAPORIZING DEVICE FOR INHALERS.

SPECIFICATION forming part of Letters Patent No. 337,066, dated March 2, 1886.

Application filed November 3, 1885. Serial No. 181,756. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. JOHNSON, of Albion, in the county of Noble and State of Indiana, have invented a new and Improved Mixing and Vaporizing Device for Inhalers, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for thoroughly mixing anæsthetics—for example, nitrous oxide or laughing-gas and ether—at the time that such anæsthetics are being used.

The invention consists in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of my improved device for mixing and vaporizing anæsthetics. Fig. 2 is a side view of the gage-glass.

The tube A is provided at one end with the yoke B, in which the clamping or binding screw C is held. The neck of a cylinder containing compressed nitrous oxide is passed through the yoke B, which is clamped on said neck in such a manner that the gas can pass from the cylinder into the bore A' of the tube A. The inner end of the bore A' is curved downward and leads into a chamber, D, projecting downward from the end of the tube A.

A coupling-piece, E, is screwed in the lower end of the chamber D, and to the said piece E the flexible tube U is coupled, which conducts the gases into a gasometer.

A wire-gauze cone, F, projects upward from the bottom of the chamber D, and insures a perfect mixing of the gases, as they must pass through the several apertures of the cone.

On the top of the tube A, a neck, I, is formed, on which the glass vessel G is held, the same having a screw-cover and a gage, V. From the vessel G the bore H extends down to the bore K in the neck O on the end of the tube, and in the said neck the screw-valve L is screwed, which has the hand-wheel M. The bore N connects the bore K with the chamber D.

The anæsthetic liquid—for instance, ether—is contained in the chamber G.

The liberated nitrous-oxide gas passes from the gas-cylinder through the tube A into the chamber D.

The screw L is screwed outward more or less, and a small quantity of the liquid anæsthetic—for example, ether—is permitted to flow from the chamber G through the bores H and N into the chamber D, where it thoroughly mixes with the gas and then passes through the tube U into the gasometer.

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

1. The combination, with the tube A, of the chambers D and G, connected to the bottom and top of said tube by the bores H K N, arranged in a zigzag form, and of the regulating-screw L, with its inner end intersecting said bores, substantially as herein shown and described.

2. The combination, with the tube A, of the chamber G, having the gage V, the chamber D, connected by bores with the chamber G, and of the regulating screw or valve L, substantially as herein shown and described.

GEORGE E. JOHNSON.

Witnesses:

LUKE H. WRIGLEY,
FIELDING RICKETT.