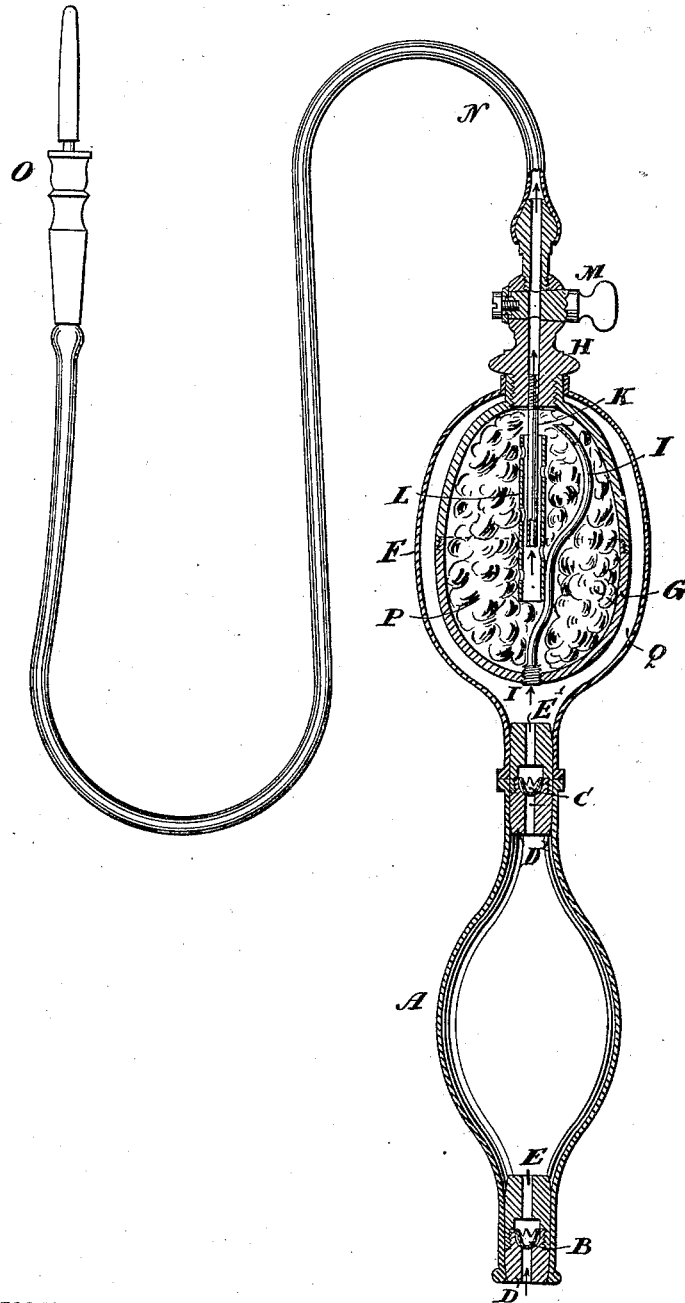


(No Model.)

F. M. ST. O. ROY.
CAUTERIZING APPARATUS.

No. 423,393.

Patented Mar. 11, 1890.



WITNESSES.

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FERNAND M. ST. OMER ROY, OF FLUSHING, NEW YORK.

CAUTERIZING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 423,393, dated March 11, 1890.

Application filed January 9, 1890. Serial No. 336,387. (No model.)

To all whom it may concern:

Be it known that I, FERNAND M. ST. OMER ROY, a citizen of the Republic of France, residing at Flushing, in the county of Queens and State of New York, have invented new and useful Improvements in Cauterizing Apparatus, of which the following is a specification.

This invention relates to a cauterizing apparatus in which a suitable hollow cauterizing iron or tip is heated to the temperature required for cauterizing by means of the combustion of carbureted air or similar fuel; and it consists in certain new features and combinations hereinafter described in this specification, reference being had to the accompanying drawing, forming part thereof, being an elevation, partly in section, of an apparatus embodying my invention.

In the drawing, the letter A designates an elastic bulb provided at its ends with valves B C, whose seats are formed in plugs D D', arranged in the ends of the bulb. Air-passages E E' are made through the plugs to permit air to be introduced into the bulb and to be forced thence through the passage E' into a chamber F, whose lower end is connected with the upper end of the bulb. The chamber F incloses an inner vessel G, whose upper end is closed by a head H, which also closes the upper end of chamber F. The lower end of the inner vessel G is perforated to receive a pipe I, which extends upward through said vessel nearly to its top. Both ends of the pipe I are open.

The head H is perforated throughout its length, and in its lower end is fitted the upper end of a pipe K, which extends downward in the vessel G nearly to the middle of the vessel, and is surrounded by a tubular casing L, whose sides have numerous perforations through them. The casing L and pipe K are both open at their ends.

The head H is provided with a stop-cock M, located above the upper end of the pipe K, and above the stop-cock the head is secured in one end of a flexible tube N, whose other end is provided with a cauterizing-tip O.

The vessel G is charged with hydrocarbon, in either a semi-solid, liquid, or gaseous form,

through its upper end, the head H being unscrewed from it for that purpose, or in any convenient manner. When the hydrocarbon is employed in a liquid form, the vessel G is filled with sponge P or other porous and absorbent material. The hydrocarbon liquid is absorbed by the sponge.

The outer vessel or chamber F and the inner vessel G are by preference made of hard rubber; but they may be made of sheet metal or any other suitable material.

Air having been introduced into the elastic bulb, the air is forced thence into the space Q in the outer chamber, and from thence passes through pipe I into the carbureting-vessel G, where it comes in contact with the hydrocarbon and becomes carbureted, and is thence conducted through the tubular casing L into the pipe K, and, if the stop-cock M is open, through the flexible tube N to the metallic tip O, where it is consumed, and the tip thereby heated to the temperature required for cauterization. When the cock is closed, the escape of the hydrocarbon vapors from the vessel G is effectually prevented, and the apparatus can be carried in the pocket without danger of losing or spilling any portion of its contents, and when the apparatus is set in operation the supply of carbureted air to the cauterizing-tip can be regulated by the proper manipulation of the cock, so that the temperature to which the tip is heated can be maintained at the required point, which is of great importance for the successful use of the cauterizing apparatus.

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

1. In cauterizing apparatus, the carbureting-vessel G, inclosed in an air-chamber into which the air to be carbureted is forced, in combination with a pipe leading from the air-chamber to the carbureting-vessel for conducting air from the former into the latter, a pipe leading from the carbureting-vessel to the discharge-tube for conducting the carbureted air out of said vessel to the said discharge-tube, and a metallic cauterizing-tip at the end of the discharge-tube, substantially as shown and described.

2. The carbureting-vessel G, provided with sponge or other porous absorbent material,

and with a pipe for conducting air from the vessel after it is carbureted to the discharge-tube, in combination with an inclosing air-chamber and apparatus for forcing a supply of
5 air into said air-chamber, and thence through the carbureting-vessel to the cauterizing-tip, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FERNAND M. ST. OMER ROY.

Witnesses:

J. VAN SANTVOORD,
E. F. KASTENHUBER.