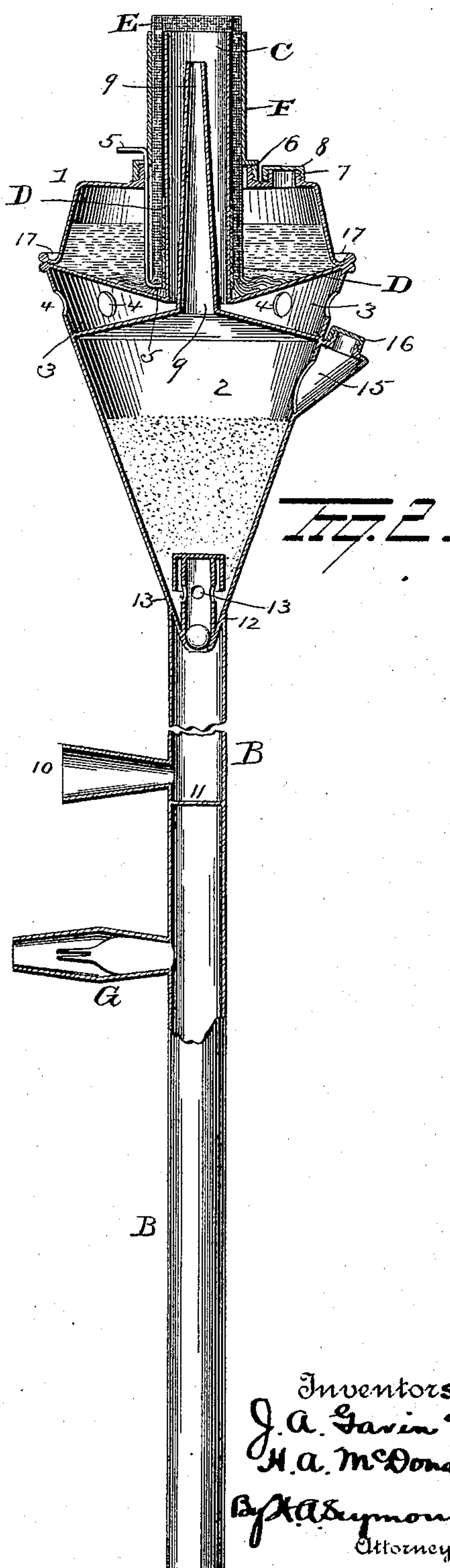
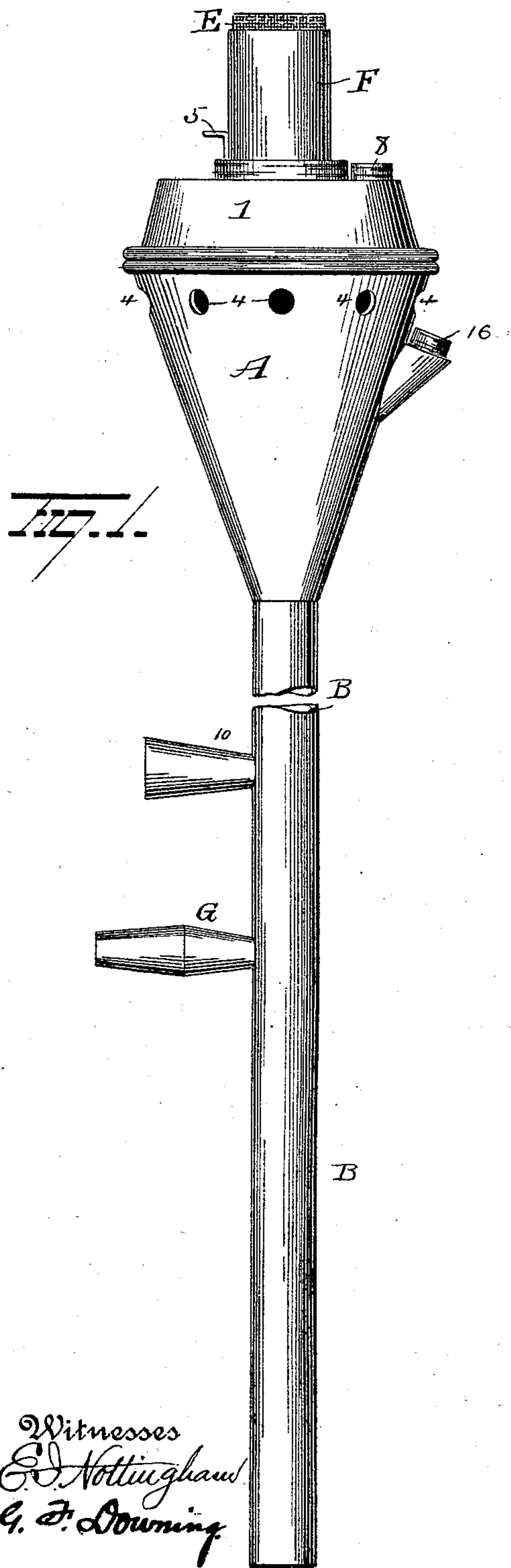


(No Model.)

J. A. GAVIN & H. A. McDONALD.
FLAMBEAU.

No. 539,989.

Patented May 28, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. GAVIN AND HUGH A. McDONALD, OF ROCK ISLAND, ILLINOIS.

FLAMBEAU.

SPECIFICATION forming part of Letters Patent No. 539,989, dated May 28, 1895.

Application filed December 6, 1894. Serial No. 531,024. (No model.)

To all whom it may concern:

Be it known that we, JOHN A. GAVIN and HUGH A. McDONALD, of Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Flambeaux; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in flambeaux, the object being to provide a simple, light and inexpensive device which can be carried with safety and without danger of soiling the bearer's clothing, and it consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation. Fig. 2 is a vertical sectional view of our improved flambeau.

A, represents the torch portion and B the handle of our flambeau. The general shape of the former is of inverted cone shape and it is divided into two chambers 1 and 2 the upper of which is for oil and the lower for lycopodium powder, the two being separated by air space 3. Openings 4, 4, in the sides lead into this space to supply it with air and create a full circulation and not only is the burner supplied with air from this source but also the oil chamber is kept cool.

C is the central air tube of the burner communicating at its lower end with this air space from which it receives a constant supply and opening at its upper end at the burning end of the wick thus supplying a column of air thereto at all times to support ignition.

A wick raiser is employed for controlling the wick E. This raiser comprises a tube D which carries the circular wick E and a handle 5 secured thereto outside of the wick, thereby helping to sustain and raise the lower end of the wick, its upper end extending upward in convenient position to be manipulated for raising and lowering the wick. Tube D is preferably perforated to lessen the friction on tube C and also lessen the tendency of the wick to slip upon it.

An outside tube F surrounds the central tube C leaving an annular space between the two for the wick to occupy and the tube F is

conveniently screwed to the threads 6 at the top of the flambeau, so that it may be removed at any time occasion may require it to clean the oil front, repair it, or renew the wick as it will be observed that the wick raising tube comes out with it as the handle of the latter passes loosely through the flaring lower threaded end of the outer tube F. The fount is filled through the opening 7 at the top and the opening is covered by removable screw cap 8 in the usual manner.

The lycopodium chamber 2 is at the bottom and a tapering pipe 9 extends from the latter up through the center of central tube C terminating at or near the upper end of the latter so that the powder as it is forced out discharges right into the middle of the flame on the circular wick and in this way it is equally distributed throughout the interior of the flame and instantly ignited causing a quick bright flash. The discharge of the powder into the flame is caused in the following manner: The handle B is hollow and constitutes an air tube and it is provided with a mouth piece 10 in communication therewith. Beneath said mouthpiece is a partition or diaphragm 11 so as to direct the air discharging from the mouth piece upward into the powder chamber to cause a displacement of powder. To prevent the powder from getting into the tube or handle and consequently into the mouth of the bearer when he blows into the mouth piece, a check valve is formed at the juncture of the powder chamber and handle. This may be variously constructed but preferably consists of a short tube 12 having perforations 13, 13, a short distance from its upper end, and a ball valve fitted to the tube and adapted to be forced above the perforations when the operator blows into the mouth piece, after which the ball drops by its own gravity below the perforations when the air pressure is removed, the lower end of the tube being restricted to prevent the ball from dropping out, thus closing the tube. Over the top of the tube a hood is secured, its edges overhanging the sides of the tube, its function being to prevent the powder from dropping into the perforations. The powder chamber is filled through the hole 15 at the top. This opening is closed in the usual way by means of a removable cap 16.

The top of the powder chamber is sufficiently below the air openings, into the chamber between the oil and powder chambers so that in case any oil should escape in filling or otherwise it will not flow out through these holes; also in joining the parts together a small trough 17 may be formed to catch any oil finding its way over the top of the oil chamber.

10 Beneath the partition or diaphragm in the handle the campaign horn or whistle G is located the air from it passing down and out through the lower portion of the handle, the partition thus forming a dividing point between the two air chambers formed in the handle.

15 It will be observed that the mouth piece and horn are in proximity to each other so that the torch bearer may blow into either with facility; also they may be utilized as handles if desired.

20 It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of our invention and hence we do not wish to limit ourselves to the exact construction herein set forth, but,

Having fully described our invention, what

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

1. In a flambeau, the combination with a powder chamber, and a tubular handle in communication therewith, of a check valve at the juncture between the powder chamber and the tubular handle, said valve comprising a tube perforated at or near its center and restricted at its lower end, a ball operating therein, and a hood over the top of the tube, the edges of the hood projecting over the perforations, substantially as set forth.

2. In a flambeau, the combination with a tubular handle, and a powder chamber at the upper end of the latter with which it communicates, of a partition or diaphragm in the handle dividing the latter into two air chambers, a mouth piece above the partition and a horn or whistle below it, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

JOHN A. GAVIN.
HUGH A. McDONALD.

Witnesses:

JOHN BENGSTON,
JOHN J. INGRAM.