

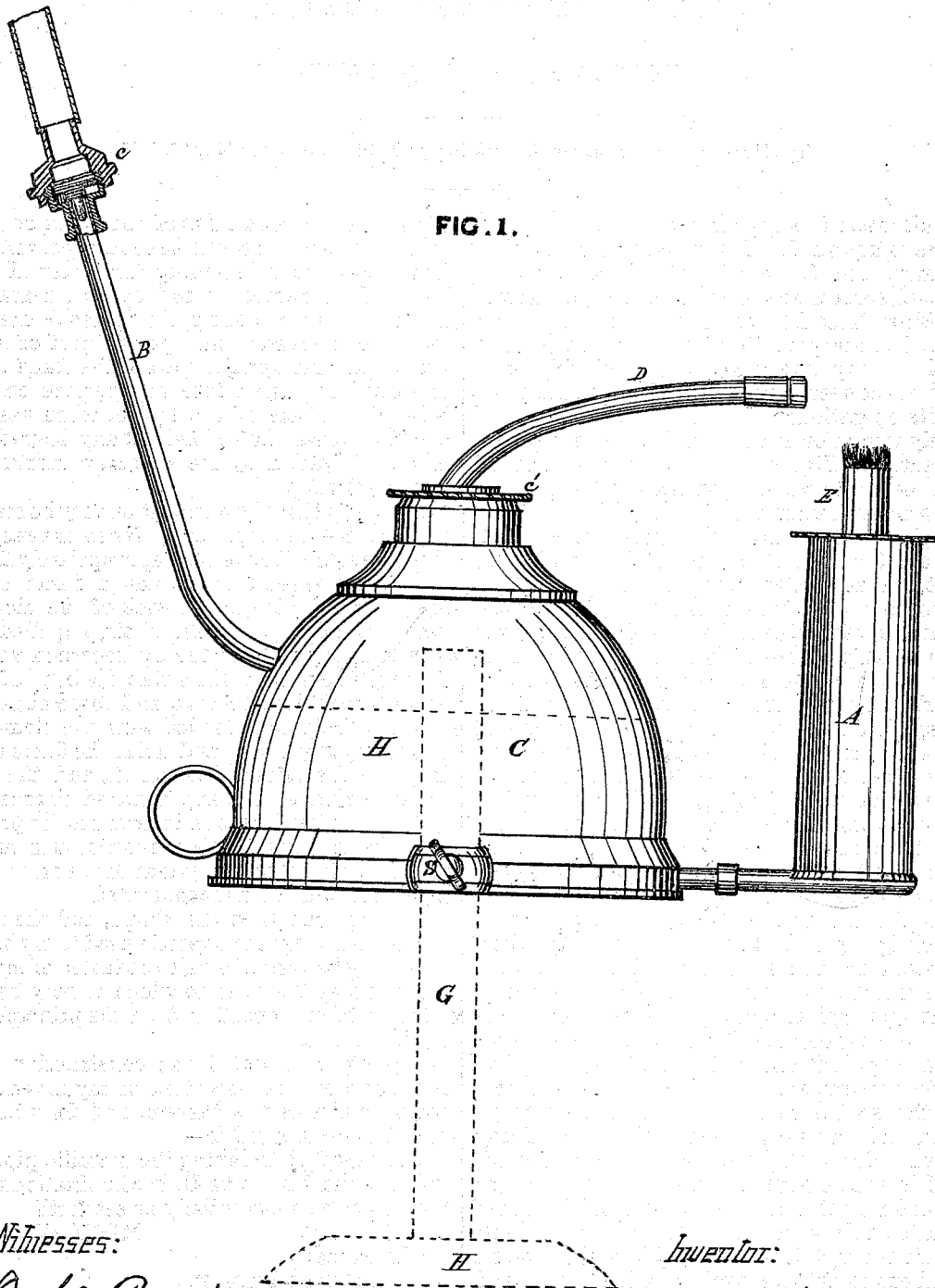
JOHN COOK.

Blow-Pipe.

No. 127,151.

Patented May 28, 1872.

FIG. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN COOK, OF NEW YORK, N. Y.

IMPROVEMENT IN BLOW-PIPES.

Specification forming part of Letters Patent No. 127,151, dated May 28, 1872.

To all whom it may concern:

Be it known that I, JOHN COOK, of the city, county, and State of New York, have invented certain new and useful Improvements in Blow-Pipes for use in the industrial arts; and that others skilled in the art may make and use my invention, I make this full, true, and exact description thereof, and of the mode of its operation.

My invention is contained in the object represented in Figure No. 1. It is constructed in two separate vessels, annexed together, one of which is marked H C, and is to be filled up to the dotted line with hydrocarbon fluid. A metallic pipe, B, is inserted into and made fast to it at a point above the level of the hydrocarbon fluid in it; and said pipe has a metallic valve in it, near the opposite end thereof; and said opposite end is inserted into a flexible rubber tube or pipe; and said valve is marked by the letter *c*; and said hydrocarbon vessel has a screw cover marked *c'*, and a bent pipe, D, is passed through this cover and made fast therein, and is bent down so that a current or blast of air blown into the hydrocarbon vessel through the pipe B would pass out through the pipe D and strike the flame from the top of the vessel annexed to the one just described. The annexed vessel is marked A in the drawing, and is filled, in part, with alcohol; is provided with a screw-cover, a burner-tube marked E in the drawing, and a wick. The metallic valve in the pipe B is held in its seat by a spiral spring, so that when air is blown into the pipe this valve is forced down so as to permit the air to pass into the hydrocarbon vessel, and as it ceases to pass the force of the spring carries the valve back to its seat, and thus prevents the inhalation of any of the odor or vapor of the hydrocarbon fluid; and it will be obvious that the metallic pipe B and its valve may be substituted by one of flexible rubber, as when the current or blast of air through it into the hydrocarbon vessel is about to cease, by pressing the thumb and finger of the hand holding it together against

such tube the inhalation of the vapor or odor of the hydrocarbon would be equally prevented. The dotted lines including the letter H are intended to represent the base of a stand; and the lines including the latter G are intended to represent the upright part of such stand; and the upright part of the stand is intended to be passed into an aperture on the side of the base of the hydrocarbon vessel; and said vessel may be held at any desired degree of elevation by the set-screw marked S in the drawing.

The operation of my invention may be stated as follows—that is to say: When the respective vessels shall have been appropriately filled with their several fluids, and a flame shall have been lighted at the wick of the alcohol vessel, a current or blast of air, impelled by whatever means, into the hydrocarbon vessel through the pipe B will strike the body of the hydrocarbon fluid therein, and issue out of it through the pipe D loaded with the elements of such hydrocarbon, and strike the flame arising from the annexed vessel A, and thereby produce a flame of many hundred degrees of heat, which renders it an instrument for profitable use in many of the industrial arts much exceeding in value and extent of use any blow-pipe with which I am acquainted.

It is obvious that the shape, and the relations of the respective vessels used in my blow-pipe, may be varied to suit the tastes of manufacturers, or the uses to which it may be applied, without departing from the principle of my invention.

Having thus stated the construction and the mode of the operation of my invention, what I claim as new therein, and for which I seek Letters Patent, is—

The vessel H C having the metallic pipe B, valve *c*, and bent tube D, in combination with the vessel A, substantially as set forth.

JOHN COOK.

Witnesses:

THOMAS SIMMONS,
O. S. X. PECK.