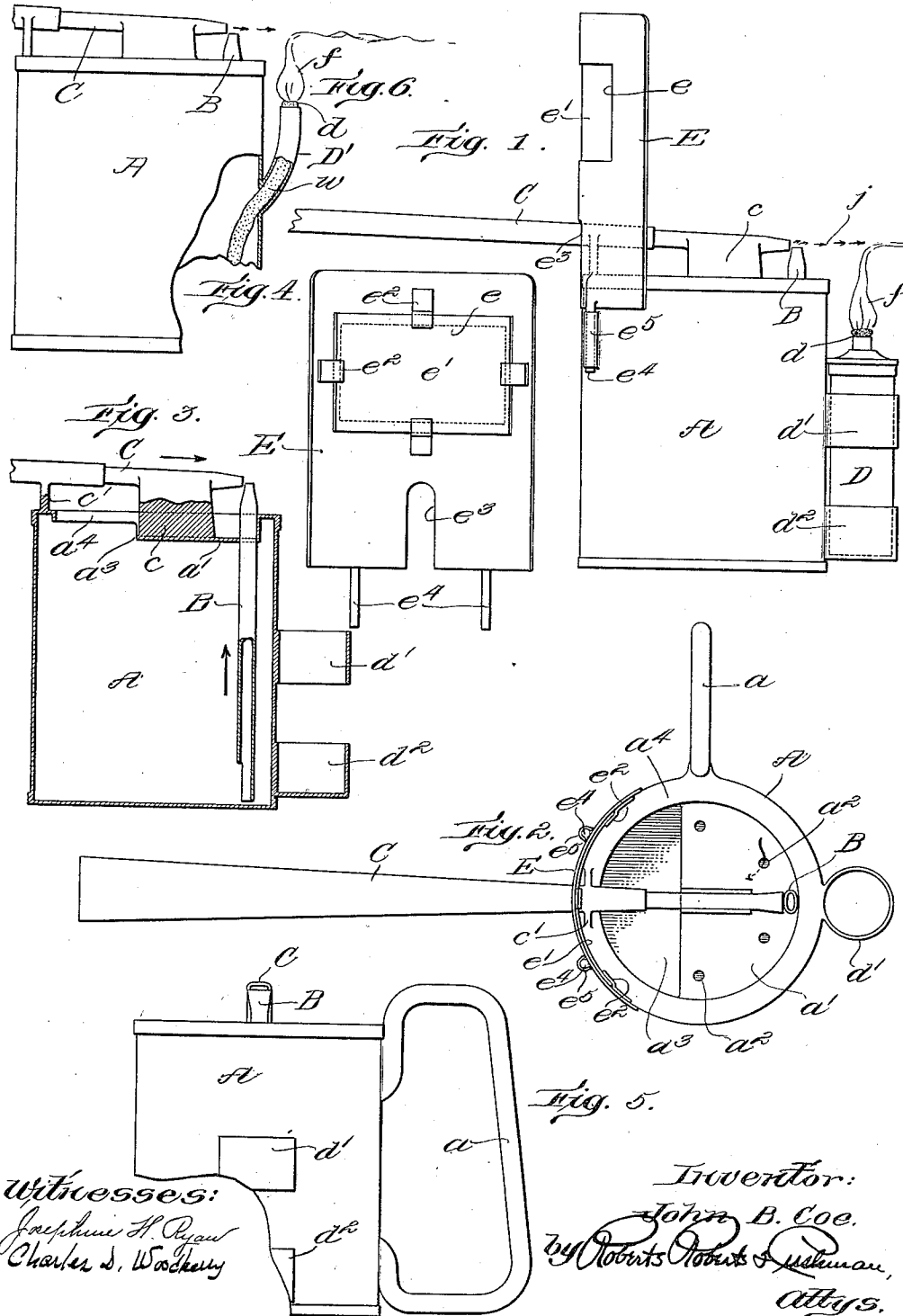


J. B. COE.
BLOW LAMP.

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1,009,132.

Patented Nov. 21, 1911.



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UNITED STATES PATENT OFFICE.

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BLOW-LAMP.

1,009,132.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN B. COE, a citizen of the United States, and resident of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Blow-Lamps, of which the following is a specification.

This invention relates to blow-lamps, and particularly to blow-lamps for use in foundries for the drying of molds for castings. It will be understood that the invention is also adapted for use by painters for removing paint, by plumbers, and by other artisans, as well as by molders, but as one of the chief uses is for drying molds, I will address my description to a molder's blow-lamp, which admirably illustrates the invention.

In molders' blow-lamps heretofore used, the flaming spray jet of kerosene, which is the fuel generally used, is three feet and even three and a half feet long, and is necessarily so near the face of the user when his mouth is applied to the blow pipe, that he is subjected to injury as well as discomfort. As heretofore constructed such blow-lamps have also been without any attached lighter to ignite the spray jet, and the user has been obliged to hold the lamp in one hand and a torch or lighter in the other hand to ignite the spray. Furthermore, the lamp vessel has been so constructed that any kerosene dripping from the nozzle of the lifting tube, runs down on the outside of the lamp, and if sufficient in quantity drops to the floor.

It is principally to overcome these objections that my invention is designed.

In the accompanying drawings illustrating one embodiment of my improved blow-lamp,—Figure 1 is a side view of a blow-lamp containing my invention; Fig. 2 is a top view of said blow-lamp, without the lighter; Fig. 3 is a vertical, longitudinal, central section of said lamp, parts being broken away and the lighter removed; Fig. 4 is an elevation of the detachable shield; Fig. 5 is an end view of said lamp, without the lighter; and Fig. 6 is a side view, partly in section and partly broken away, showing a modification of the invention.

Referring to the drawings, A represents the reservoir or vessel for containing the kerosene or whatever combustible fluid is to be used, and a the handle by which the lamp

is carried and manipulated. The vessel A is provided with a top wall a' located below the upper rim of the vessel, preferably extending only part way across the mouth of the vessel, as best shown in Fig. 2, and having a number of drain apertures a^2 . The space a^3 between the edge of the top wall a' and the side walls of the vessel, affords an opening for filling the vessel and also serves as an additional drain aperture. An inverted flange a^4 is provided about the rim of the vessel and enables the vessel to be tipped or agitated without spilling the contents. And that part of the cylindrical wall of the vessel which extends above and around the sunken top wall a' , forms a lip preventing any fluid, dripping from tube B, from running over on to the outside of the vessel.

B represents the lifting tube and extends downward into the vessel nearly to the bottom, and upward through the top wall a' . Mounted on a standard c , which is soldered or otherwise fixed to the top wall a' , is the blow pipe C, the delivery end of which co-operates with the lifting tube in the usual way to form a spray jet, and the intake end of which is preferably broadened and flattened somewhat to serve as a mouth-piece. The attachment of the blow tube to the top of the vessel, may be strengthened by an additional bracket or brace c' connecting the blow tube with the rim of the vessel.

On the outer side of the vessel A is mounted a lighter in the form of a small kerosene or alcohol lamp, D. The burner d of the lighter is directly underneath the path of the spray jet, j , represented in Fig. 1 by the arrows, and far enough below said jet to be wholly out of the path of the blast from the blow pipe, so that the flame of the burner can by no possibility be blown out by the blast from the blow pipe. The tip of the flame f however, reaches the path of the jet, or comes sufficiently near it to ignite the spray. It will also be observed that the burner d is far enough below the rim of the vessel, and the delivery ends of the tubes are located at a place far enough removed from the rim of the vessel, so that the burner d is screened from the blow pipe by the rim of the vessel; and no matter how strong may be the blast of the jet from the pipes, the flame f will not be blown out. The lighter D is removably mounted on the vessel A by

means of a pair of brackets d' and d^2 . The upper bracket d' is in the form of a ring or strap, secured to the walls of the vessel, and the lower bracket d^2 consists of a cup or socket-rest for the bottom of the lighter. The lighter is slipped into the brackets from the top, and may be removed for filling, or when the device is to be used for spraying instead of for drying or heating.

Mounted on the side of the vessel opposite to the lighter, and between the intake end and the delivery end of the blow pipe, is an upwardly extending shield for protecting the face of the user from the heat of the flame. The shield consists of a frame E of sheet metal or other suitable material, having a sight aperture, e , closed by a pane e' of some transparent material such as mica, through which the user may observe the work while blowing through tube C . The pane e' is fastened to the frame by flexible metal tabs e^2 which may be bent open to release the pane e' in case the pane becomes broken and has to be replaced. The lower edge of the shield is made with a slot e^3 to admit the blow tube C when the shield is placed in position as shown in Fig. 1. Extending downwardly from the lower edge of the shield are the two fingers e^4 , which fit into sockets e^5 secured to the walls of vessel A , and support the shield in upright position. The shield is thus readily removable if the device is to be used for spraying without a flame.

Instead of the removable lighter D , a permanently attached lighter may be used, as shown in Fig. 6, consisting of a tube or nozzle D' , secured to the outside of the vessel A and leading upward from an aperture in the side walls of the vessel. The burner d is located in the same position relatively to the blow tubes and the rim of the vessel, as the burner of the removable lighter D . A wick w extends through the tube D' and depends into the kerosene or other fluid in the vessel A , by which the lighter is fed.

I claim:

1. A blow-pipe comprising a vessel, a lifting tube extending downward into said vessel, a blow tube mounted transversely of said vessel adapted to cooperate with said lifting tube to form a spray jet, a lighter mounted on said vessel underneath the path of said jet, and a shield mounted on said

vessel between the intake and delivery ends of said blow tube, adapted to protect the face of the user against the heat of the ignited jet, said shield comprising a frame having a sight aperture closed by suitable transparent material.

2. A blow-lamp comprising a vessel, a lifting tube extending downward into said vessel, a blow tube mounted transversely of said vessel adapted to cooperate with said lifting tube to form a spray jet, a lighter mounted on said vessel underneath the path of said jet, and a shield mounted on said vessel between the intake and delivery ends of said blow tube, adapted to protect the face of the user against the heat of the ignited jet, said shield having downwardly extending fingers, and the vessel having sockets in which said fingers are removably held.

3. A blow-lamp comprising a vessel, a lifting tube extending downward into said vessel, a blow tube mounted transversely of said vessel adapted to cooperate with said lifting tube to form a spray jet, a lighter mounted on said vessel underneath the path of said jet, and a shield mounted on said vessel between the intake and delivery ends of said blow tube adapted to protect the face of the user against the heat of the ignited jet, said shield comprising a sheet metal frame having a slot in the lower edge thereof to admit the blow pipe and downwardly extending fingers, and the vessel having sockets in which said fingers are removably held.

4. A blow-lamp comprising a vessel having a top wall located below the upper rim of the vessel, a lifting tube extending from the interior of the vessel upward through said top wall, and a blow tube mounted transversely of said vessel and cooperating with said lifting tube to form a spray jet, said top wall having drain apertures, and the rim of the vessel forming a lip around said top wall, whereby any fluid dripping from said lifting tube will be returned to the interior of the vessel.

Signed by me at Boston, Massachusetts, this 6th day of February, 1911.

JOHN B. COE.

Witnesses:

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