

I. HAYES.

Breamer for Painters' Use.

No. 164,996.

Patented June 29, 1875.

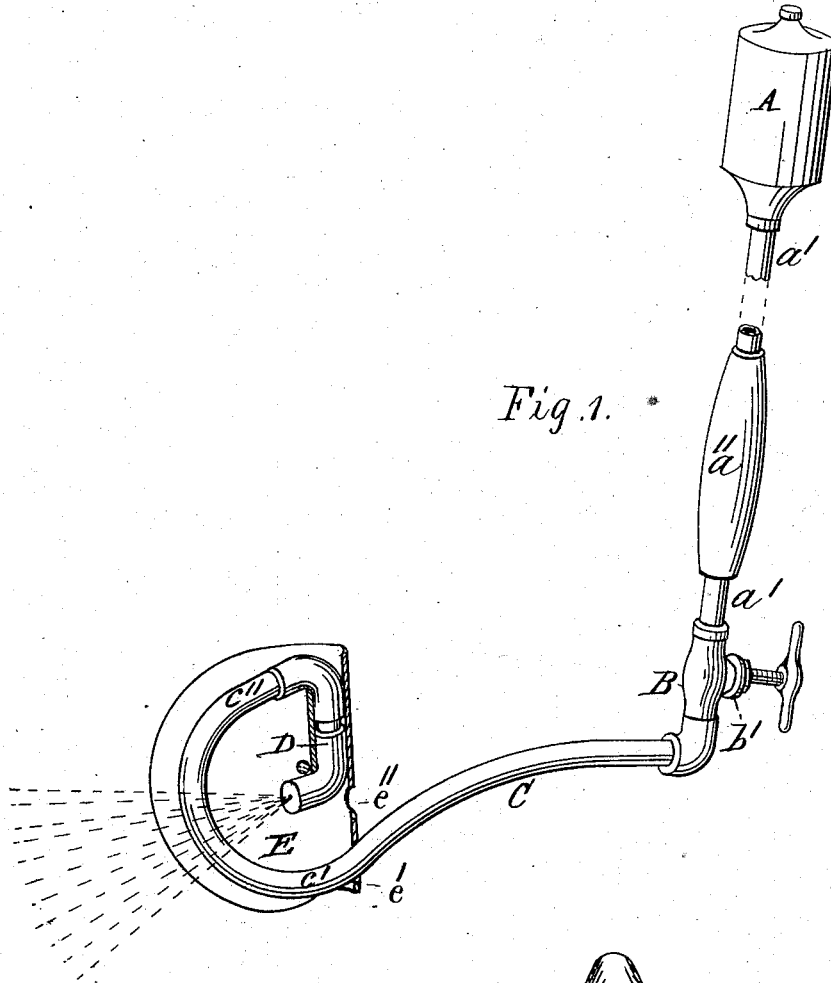


Fig. 1.

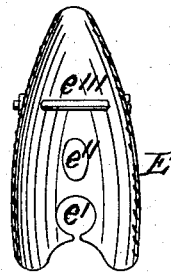


Fig. 2.

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IMPROVEMENT IN BREAMERS FOR PAINTERS' USE.

Specification forming part of Letters Patent No. **164,996**, dated June 29, 1875; application filed May 15, 1875.

To all whom it may concern:

Be it known that I, IVORY HAYES, of the city of Philadelphia, in the State of Pennsylvania, have invented an Improvement in Breamers for Painters' Use, of which the following is a specification:

The object of my invention is to prevent the flame-jet from being blown aside or extinguished by a blast or strong current of atmospheric air during the operation of breaming off paint by means of the breamer.

The implement provided with the flame-protector will be more clearly and fully described herein with reference to the accompanying drawing, in which—

Figure 1 is a side elevation of the implement with the flame-protector in vertical section, showing the position in which the whole implement is to be held by the operator while the flame-jet (shown by dotted lines) is ejected therefrom; and Fig. 2, a vertical transverse section of the flame-protector detached, showing the inner side of the rear half of the same.

The breaming implement consists of a reservoir, A, for holding coal-oil, fixed upon a straight tube, *a'*, communicating through the bottom of A, and extending downward about two feet into a tubular socket, B, provided with a stop-cock, *b'*, and the lower end of B extended a short distance laterally, and communicating with an extension-tube, C, which is bent downward slightly, then upward in a semicircular form, *c'* to *c''*, substantially as shown in Fig. 1.

To the upper open end of tube C a burner, D, is attached, so as to project downward and forward in such a manner as to cause the oil (passing from the elevated reservoir A through the pipe or tube *a' a'*, the opened cock-socket B, the curved tube C, and the burner D) to be ejected through a minute jet-hole in the end of the burner D, against the inner side of the semicircular portion of the tube C, for the purpose of heating said portion from *c'* to *c''*, (when the said oil-jet is ignited,) and thus vaporizing the oil therein to increase and intensify the heat of the flame, substantially as indicated in Fig. 1.

For the purpose of affording a more secure

and commanding hold of the implement, the midlength of the tube *a' a'* is surrounded by wood in the form of a spindle, *a''*, or otherwise enlarged in its diameter.

The flame-protector E consists of an oval plate of sheet-iron, or other suitable sheet metal, bent across its midlength, or in the line of its shorter diameter, so as to bring the parts at each side of the bend nearly parallel to each other; and the said bent plate of sheet metal E is also provided with an open hole, *e'*, at the lower end of the bend, to admit the tube C, and a hole, *e''*, for the entrance of air in a current flowing in the line of the flame-jet when the implement is in use. This flame-protector E is secured to the burner D by means of a bolt and screw-nut, *e'''*, which passes transversely through the two sides of the protector, and directly across the front side of the burner D, as shown in the drawing; and by operating the nut the sides of the protector can be readily adjusted to suit the requirements of the flame in respect to the commotions of the atmosphere.

For using the implement in burning off paint, the operator grasps the handle *a''*, and holds the same upright, with its jet end opposite to the painted surface to be removed, opens the cock *b'*, and ignites the vapor, which will, in a minute or two, be projected as a hot flame against the painted surface, while the protector E prevents the currents of external air, during the variations and force thereof, from extinguishing said flame in the most effectual and continuous manner, thus overcoming a difficulty which has heretofore accompanied the use of hand-breamers operating a flame of ignited gas or combustible vapor.

I claim as my invention—

The combination, in a breaming implement, burning gas or vapor, substantially as described, of the flame-protector E, with the jet-burner D, substantially constructed as and for the purpose hereinbefore set forth.

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Witnesses:

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