

(No Model.)

2 Sheets—Sheet 1.

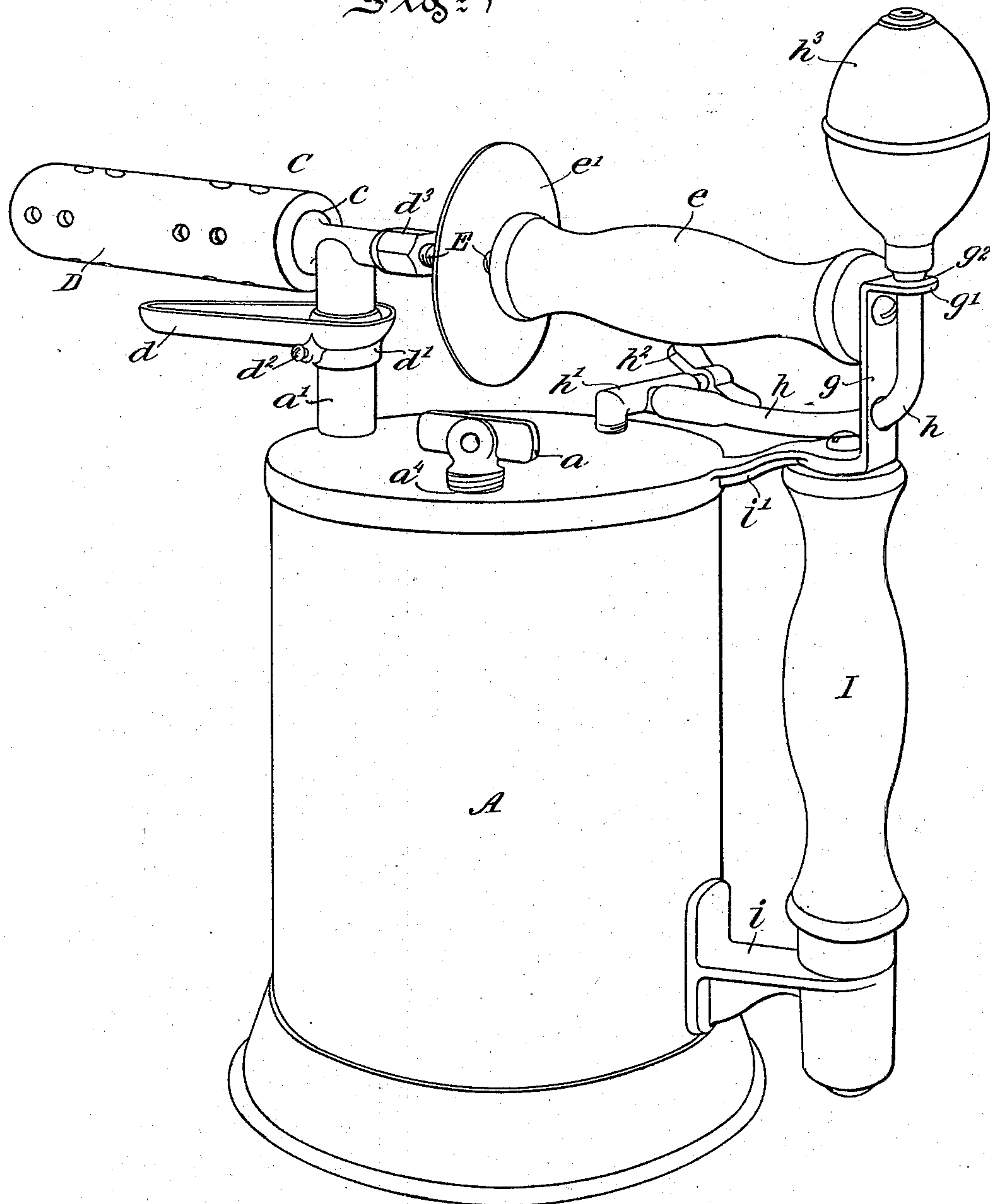
J. P. HAYES.

OIL TORCH OR BREMER FOR PAINTERS' OR OTHER PURPOSES.

No. 558,948.

Patented Apr. 28, 1896.

Fig: 1



Witnesses:
Thomas M. Smith.
Richard C. Maxwell.

Inventor:
John P. Hayes
By J. Walter Douglass
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2 Sheets—Sheet 2.

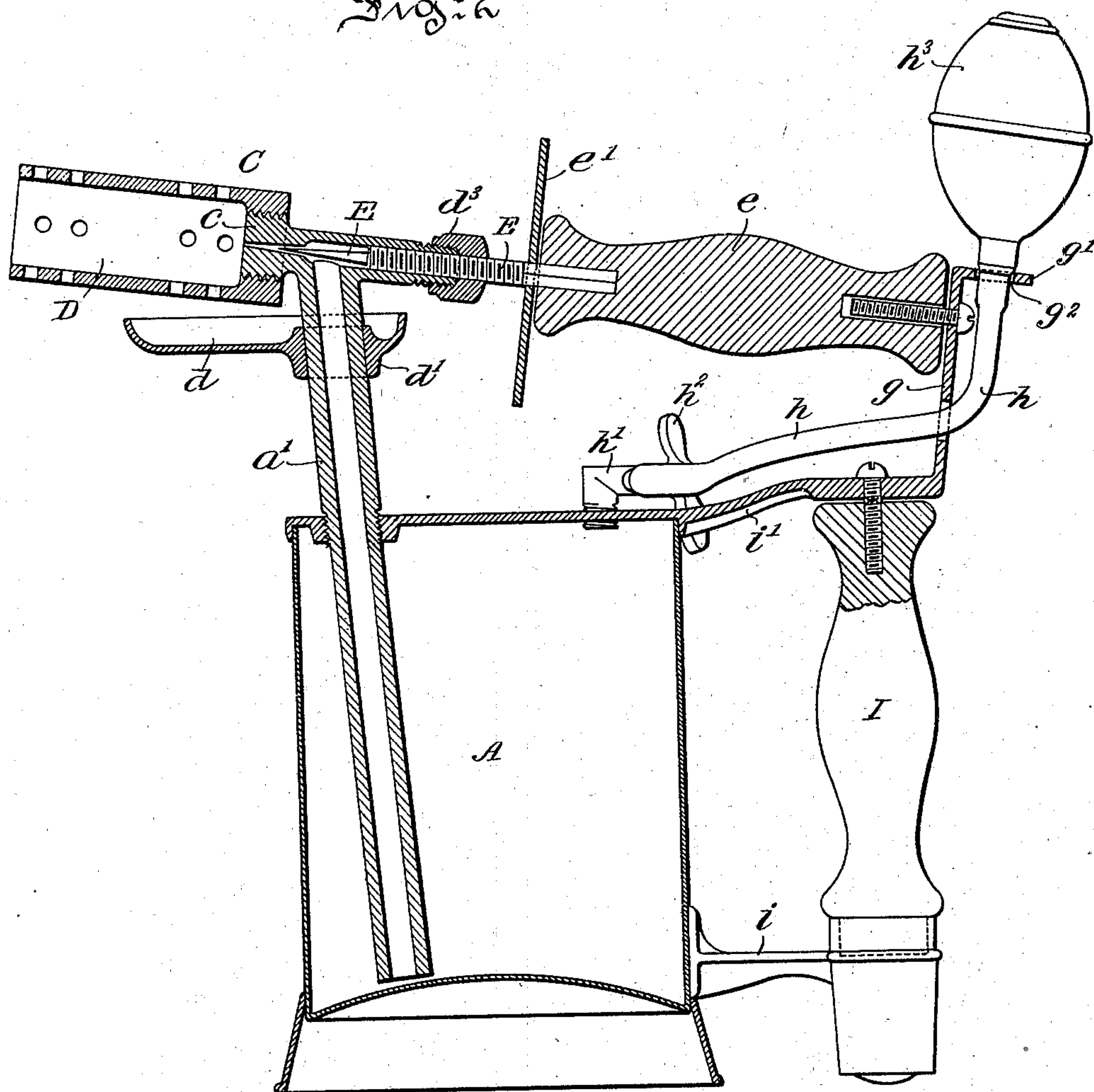
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Fig: 2



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Richard C. Maxwell.

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN P. HAYES, OF PHILADELPHIA, PENNSYLVANIA.

OIL-TORCH OR BREAMER FOR PAINTERS' OR OTHER PURPOSES.

SPECIFICATION forming part of Letters Patent No. 558,948, dated April 28, 1896.

Application filed May 21, 1895. Serial No. 550,077. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. HAYES, a citizen of the United States, residing in the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Oil-Torches or Breamers for Painters' or other Purposes, of which the following is a specification.

My invention has relation to breamers or oil-torches for painters' purposes, and in such connection it relates particularly to the construction and arrangement of such a device or appliance for such purposes, among others, to which the same may be employed with good results.

The principal objects of my invention are, first, to provide a breamer or oil-torch for painters' use which is simple in construction and durable and effective in action; second, to provide such a device that can be readily handled without unnecessarily tiring the wrist or arm of the person employing the device in its application, among others, to burning off paint; third, to provide a breamer or oil-torch in which the flame is readily regulated by means of a revoluble projecting needle-cock engaging a perforated disk and said cock controlled as to its range of movement by one of the handles of the appliance, and, fourth, to provide a device of the character described having the parts thereof simplified and lessened, resulting in far better results being obtained in the application of a flame to paint or the like for effecting the removal thereof, as well as pressure of air upon the fluid to be forced through the supply to the burner for vaporization and ignition of the same and controllable with the least possible trouble and time incident thereto.

My invention, stated in general terms, consists of a breamer or oil-torch constructed and arranged for operation in substantially the manner hereinafter described and claimed.

The nature and characteristic features of my present invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a perspective view of a breamer

or oil-torch embodying the features of my invention, and Fig. 2 is a vertical longitudinal section through the appliance.

Referring to the drawings, A is the oil-reservoir, provided with an opening closed by a T-plug *a* for permitting of the filling of the said reservoir.

a' is the vapor and oil supply pipe or conduit to the burner C, having integral therewith at the upper end a hollow T-shaped projecting section terminating in a perforated disk *c*. Formed integral therewith or secured thereto is a perforated tube D, through the apertures of which the surrounding atmosphere is brought into the path of the flame of the burner to effect the combustion and to insure the required character of flame being conveyed from the mouth of said tube at the forward end thereof directly onto the article to be subjected to the influence of such a flame—that is to say, for the ready removal of paint or the like therefrom.

To the vertical oil and vapor supply pipe or conduit *a'* is adjustably mounted an oblong tapering cup *d*, provided with an integral collar *d'* and with a tightening-screw *d*² for adjusting said oil-cup in up and down directions on said pipe or conduit *a'*, as clearly illustrated in Fig. 1 of the drawings. The rear extremity of the T-shaped projection of the pipe or conduit *a'* is externally threaded, and mounted thereon is a nut *d*³ for removing, as required, the needle-cock E therefrom by the turning of the handle *e* thereof. Interposed between the forward portion of the needle-cock and the handle of the same is mounted a plate or disk *e'*, forming a shield or guard for the hand in its application to the handle *e* to prevent burning of the hand during use of the burner. The handle *e* is pivotally connected with a bracket *g*, having a perforated projection *g'*, extending at a right angle to the body thereof, and an opening *g*² in the lower portion thereof.

h is a rubber tube inserted through the opening *g*² and detachably connected with a curved pipe *h'*, extending through the top of the reservoir A, and which pipe is provided with a screw-cock *h*². The outer extremity of the tube *h* is provided with a bulb *h*³ to

serve as a means for forcing air into the reservoir A, as clearly illustrated in Fig. 1 of the drawings.

I is a handle for supporting the device in the hand, which is secured to brackets or arms *i* and *i'*, projecting from the reservoir A. The bracket *g* is preferably formed integral with the upper bracket-arm *i'*, supporting in position at one end the needle-cock handle *e* of the device, as hereinbefore fully explained.

The operation of the breamer or oil-torch hereinbefore described is as follows: Oil is poured into the reservoir through the opening in the top *a*⁴ thereof by removing the T-plug *a*, and when partially or wholly filled the plug *a* is inserted and secured in said opening in the top of the reservoir A. The threaded cock *h*² is released in the curved air tube or pipe *h'*, leading to the reservoir A, in order to permit by manipulations of the bulb *h*³ the pumping of air into the reservoir through the flexible tube *h*, connected therewith, and the pipe *h'*, and when a sufficient supply of air has been admitted into said reservoir the cock *h*² is shut off by the screwing of the same into said tube or pipe *h'*. The handle C is then operated in order to release from the internal socket and disk *c* of the burner C the needle-cock E thereof to afford the oil from the reservoir A an opportunity to flow upward through the pipe *a'* and outward through the burner into the cup *d*, adjustably supported on the pipe or conduit *a'*, when by applying a match to the cup the oil is readily ignited to vaporize the oil flowing upward through the supply-pipe *b* to the burner, and after the first ignition and during the inflaming of the burner by means of oil supplied thereto from the interior of the reservoir a good flame action is insured and the extent of flame issuing from the burner is under absolute control of the needle-cock E by manipulating the handle *e* in rear of the plate or disk *e'*, interposed between the burner and handle, whereby effective action in the employment of the device as a breamer for painters' and other uses is insured. The flame is extinguished by turning the handle *e* to cause thereby the needle-cock E to penetrate completely the central opening of the burner and so as to close the inlet to the

burner through the pipe or conduit *a'* from the reservoir A. As required, to increase the pressure upon the oil and free flow of the same to the burner C at intervals by the opening of the screw-cock *h*² and the application of the hand to the bulb *h*³, the reservoir may be readily charged with the required quantity of air to maintain the pressure in the reservoir and the flow of oil therefrom to the burner uniform, and thus to insure effective action of the device for the purposes hereinbefore explained.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a breamer or oil-torch, consisting of an oil-reservoir, a burner controlled by a needle-cock and a pneumatic device for forcing air into said reservoir, the combination of the vertical handle and brackets securing said handle to said reservoir, the upper bracket of said vertical handle being bent to form an upward extension of said vertical handle with a second horizontal rotatable handle having a bearing at one end in said bracket extension and secured at the other end to the needle-cock of the burner and adapted when rotated to control the same, substantially as and for the purposes set forth.

2. In a breamer or oil-torch, consisting of an oil-reservoir, a burner controlled by a needle-cock and a pneumatic device for forcing air into said reservoir, the combination of the vertical handle, brackets securing said handle to said reservoir, the upper bracket being bent to form an upward extension of said vertical handle and a support for said pneumatic device, with a second rotatable horizontal handle having a bearing at one end in said bracket extension and secured at the other end to the needle-cock of the burner and adapted when rotated to control the same, substantially as and for the purposes set forth.

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

JOHN P. HAYES.

Witnesses:

THOMAS M. SMITH,
RICHARD C. MAXWELL.