(No Model.)

# J. IRVING.

## PAINT BURNER.

No. 255,789. Patented Apr. 4, 1882.

Fig. 1.

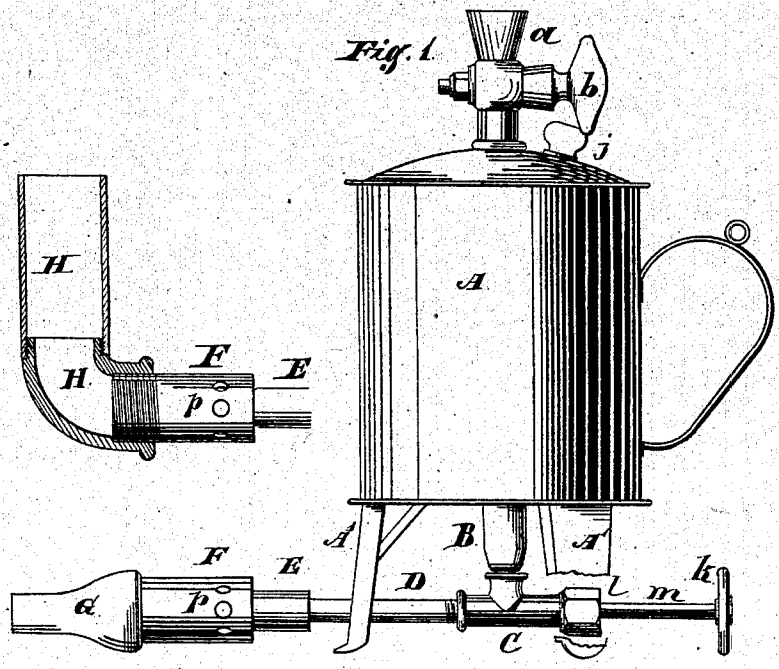



Fig. 4.




Fig. 2.

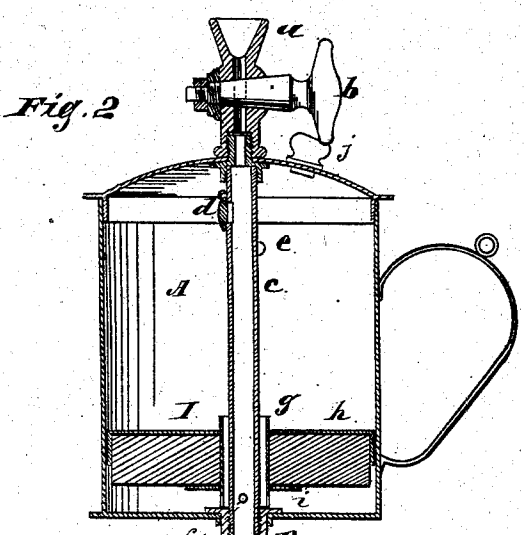



Fig. 3.

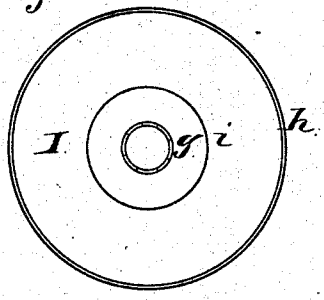
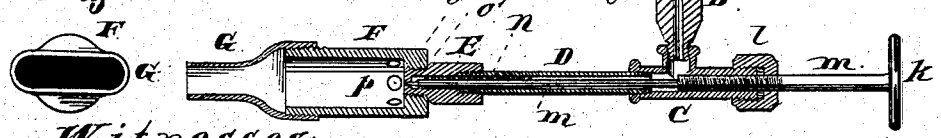



Fig. 5.




Witnesses:

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# UNITED STATES PATENT OFFICE.

JOSEPH IRVING, OF CHICAGO, ILLINOIS.

## PAINT-BURNER.

SPECIFICATION forming part of Letters Patent No. 255,789, dated April 4, 1882.

Application filed October 14, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH IRVING, residing in the city of Chicago, in the county of Cook and State of Illinois, and a subject of the Queen of Great Britain, have invented new and useful Improvements in Paint-Burners, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation; Fig. 2, a vertical section of my device; Fig. 3, an under side view of the float hereinafter described; Fig. 4, a section of a vertical burner, and Fig. 5 a front view of the burner.

The object of this invention is to provide a compact and efficient implement for burning paint from doors, casings, and other places where it is desired to remove old paint for the purpose of changing the color, getting rid of checks, or renewing the color, or for other purpose, and also to adapt the same implement to heating purposes; and its nature consists in the novel combinations of the parts hereinafter set forth and claimed as new.

In the drawings, A indicates the body, can, or oil-reservoir, which is provided with legs or supports A′ to keep it in position and to protect the burner-connections; B, a tubular connection at the bottom of the can; C, a branch coupling; D, a horizontal tube; E, an enlarged extension of the tube D; F, the heating or vapor-forming chamber; G, the paint-burner; H, a heating-burner provided with a curved coupling, H′; I, a float; *a*, the upper section of the central tube of the can, having an enlarged or funnel-shaped opening; *b*, a stop-cock; *c*, the middle section of the central tube; *d*, a valve; *e*, a stop to prevent the rising of the float from interfering with the valve *d*; *f*, holes in the tube *c* near the bottom of the can; *g*, a metal tube in the center of the float, forming an elongated bearing around the central tube to prevent the sticking of the float in case the can is tipped; *h i*, metal linings for the float; *j*, an air-vent to be used in filling; *k*, a hand-wheel for operating the valve-stem; *l*, stuffing-box or packing-nut; *m*, the valve-stem; *n*, a wire-cloth packing around the stem, near its front end; *o*, a sharp or needle point on the front end of the stem, and *p* air or vent holes in the gas-chamber.

The can A is made of tin, brass, or other suitable material. It is provided with a suitable handle, and is made air-tight. A central tube, composed of the sections or parts *a c* B, passes through the can, which tube is provided with the stop-cock *b*, valve *d*, stop or stops *e*, and holes *f*, as shown, and the parts are screwed together, so as to be easily taken apart for cleaning or repairs. The can is provided with a float, I, which tends to prevent the formation of explosive gases within the can and adds somewhat to the pressure on the contained oil. This float is usually made of cork, and is covered at the top and a part or all of its periphery with a thin metal casing or lining, *h*, and at the bottom with a disk, *i*. The casing *h* prevents the float from sticking by reason of any swelling, and the disk *i* aids in keeping the tube *g* in place.

The coupling C is screwed to the part B, and at its rear end is provided with an interior screw; or it may be left plain and the screw may be in the packing-nut *l*, and the tube D is screwed into its front end, as shown. The front end of the tube D is provided with an extension, E, which is screwed onto it. The opening at the front end of this extension E is reduced to a very small hole.

The tube formed of the parts C, D, and E has a stem, *m*, running its entire length and projecting back far enough to be operated by the wheel *k*, and is provided with a screw-thread at its junction with the coupling, so that it may be thereby advanced or receded. The front end of the stem is brought to a sharp or needle point, which point enters the reduced opening at the front end of the part E, whereby the flow of oil, benzine, or other burning fluid is regulated or stopped, and the stoppage of the small opening by graining or hardening of the oil is prevented. The space around the stem in the extension F is filled with fine wire-cloth wound in sufficient thickness; and if the extension is short, the wire-cloth may be extended back into the tube D. This wire-cloth assists in the formation of gas or vapor and in preventing the hardening of the oil in the tube by the heat. The heating or vapor-forming tube F is enlarged and is provided with air-holes *p*, through which air passes into the vapor-chamber for admixture with the vapor.

The burner G is flattened in order to spread

the main frame over a large space in burning off old paint, which, owing to its great heat, it burns away rapidly.

In order to make the device operative in all sorts of places and for different conditions of work, the form of burner shown in Fig. 4 can be used, which burner stands vertical instead of horizontal, and can be used for reaching portions of a painted surface inaccessible to a horizontal burner. This form of burner, H, will also be found useful for other purposes, such as heating glue-pots, warming lunches, &c. I have provided the burner H to take the place of the burner G, which gives the flame a vertical movement. These burners are readily changed one for the other, and all that is required to make the change is to unscrew one and screw on the other, the coupling H′ for the burner H being properly curved or formed, so as to cause the burner to stand vertical.

The needle-point *o* can be forced through the opening in the extension E, keeping it clear and free from sediment or other obstructing matter, so that the point serves as a cleaner as well as a regulating-valve.

In filling the vent-stop *j* is removed, the stop-cock *b* turned, when the kerosene-oil, benzine, or other burning-fluid is turned in at the mouth-piece *a*. The vent-plug is replaced, and then, by the aid of the mouth, air is blown in until as heavy pressure as can be produced in that way is brought to bear upon the float and oil. The stop-cock *b* is then turned back, and the device is ready for use. As the pressure is relieved it is again applied in the same way, and the valve *d* prevents the escape of the confined air or vapor. The operation of the device as a burner will be readily understood from the description.

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

1. An apparatus for burning paint, combining in its structure the can A, provided at its bottom with the projecting tube B, the tube *c*, extending through said can and connecting with the tube at the bottom of the can, and the mouth or extension *a* at the top of the can, connecting with the upper end of the tube *c*, and provided with a stop-cock, *b*, all substantially as and for the purpose described.

2. The combination of the case A and float I, having the tube *g*, with the tube *c*, having the stop *e*, substantially as described.

3. The combination, with the can A, of the tube *c*, having the holes *f*, the valve *d*, mouth-extension *a*, and stop-cock *b*, substantially as and for the purpose set forth.

4. The combination of the can A, having the vent *j*, with the tube *a c* B and float I, all constructed and operating substantially as specified.

JOSEPH IRVING.

Witnesses:
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