F. KOESEWITZ.

Flame-Regulating Device.

No. 223,678. Patented Jan. 20, 1880.

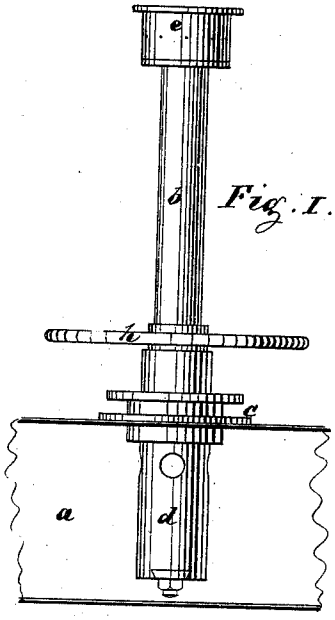


Fig. I.

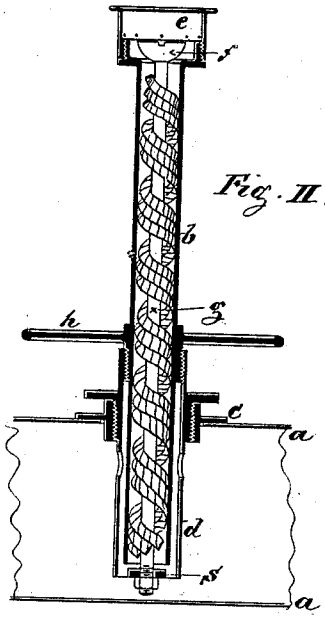


Fig. II.

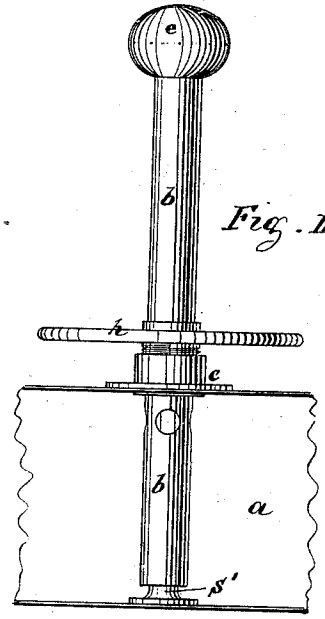


Fig. III.

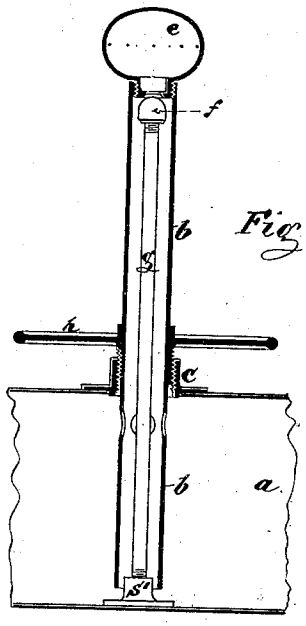


Fig. IV.

Witnesses:

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UNITED STATES PATENT OFFICE.

FRANZ KOESEWITZ, OF HAMBURG, GERMANY.

FLAME-REGULATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 223,678, dated January 20, 1880.

Application filed June 24, 1879.

To all whom it may concern:

Be it known that I, FRANZ KOESEWITZ, of Hamburg, Germany, have invented a new and useful Improvement in Flame-Regulating Devices, of which the following is a specification.

The object of my invention is to provide a regulating contrivance by means of which the flame of a burner for liquid hydrocarbon is regulated in an easy and handy way, and which provides a perfect security against explosion and evaporation, as all parts containing the volatile oil are almost hermetically closed.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figures I and III show the general view of the flame-regulating contrivance carried on in two different ways. Figs. II and IV are the respective sections.

Referring to Fig. II, the tube *d* is screwed tight into the nut *c*, which is fastened hermetically to the oil-basin *a*. This tube is provided at its top with inside thread, in which the tube *b*, carrying the hand-wheel *h*, is guided by corresponding thread, allowing the tube *b* to be moved up and down. In Fig. IV the tube *d* is omitted, and the tube *b* is directly guided in the thread of the nut *c*, fastened to the oil-basin *a*.

The tube *b*, carrying at its top the burner *e*, contains the valve *f*, which has its seat either at the edge of the tube *b*, Fig. II, or in the burner *e*, Fig. IV. This valve is attached to a rod, *g*, which is fastened in Fig. II to the cross-piece *s* of tube *d*, and in Fig. IV to a standard, *s'*, in the oil-basin.

The operation of the apparatus is as follows: The tube *b*, made of very thin metal, after being heated, effects the evaporation of the volatile oil, such as benzoin, turpentine, &c., which is sucked up from the oil-basin by means of a wick wrapped round the rod *g*. The hydrocarbon gases, produced in barely fifteen seconds by the effect of heat, pass through the valve *f* to the burner *e*, escaping through little holes, and produce, when lighted, a bright, white, and sootless flame.

The regulating of the flame is effected by turning the hand-wheel *h*, by means of which the valve *f* may be adjusted to any position required, to allow more or less gases to enter the burner *e*. This valve can also entirely close the communication between the tube *b* and the burner *e* and extinguish the flame.

What I claim is—

In a flame-regulating device, the combination of the nut *c*, tube *b*, with hand-wheel *h*, rod *g*, and valve *f*, substantially in the manner and for the purpose herein described.

FRANZ KOESEWITZ.

Witnesses:

ROBERT POHL,

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