

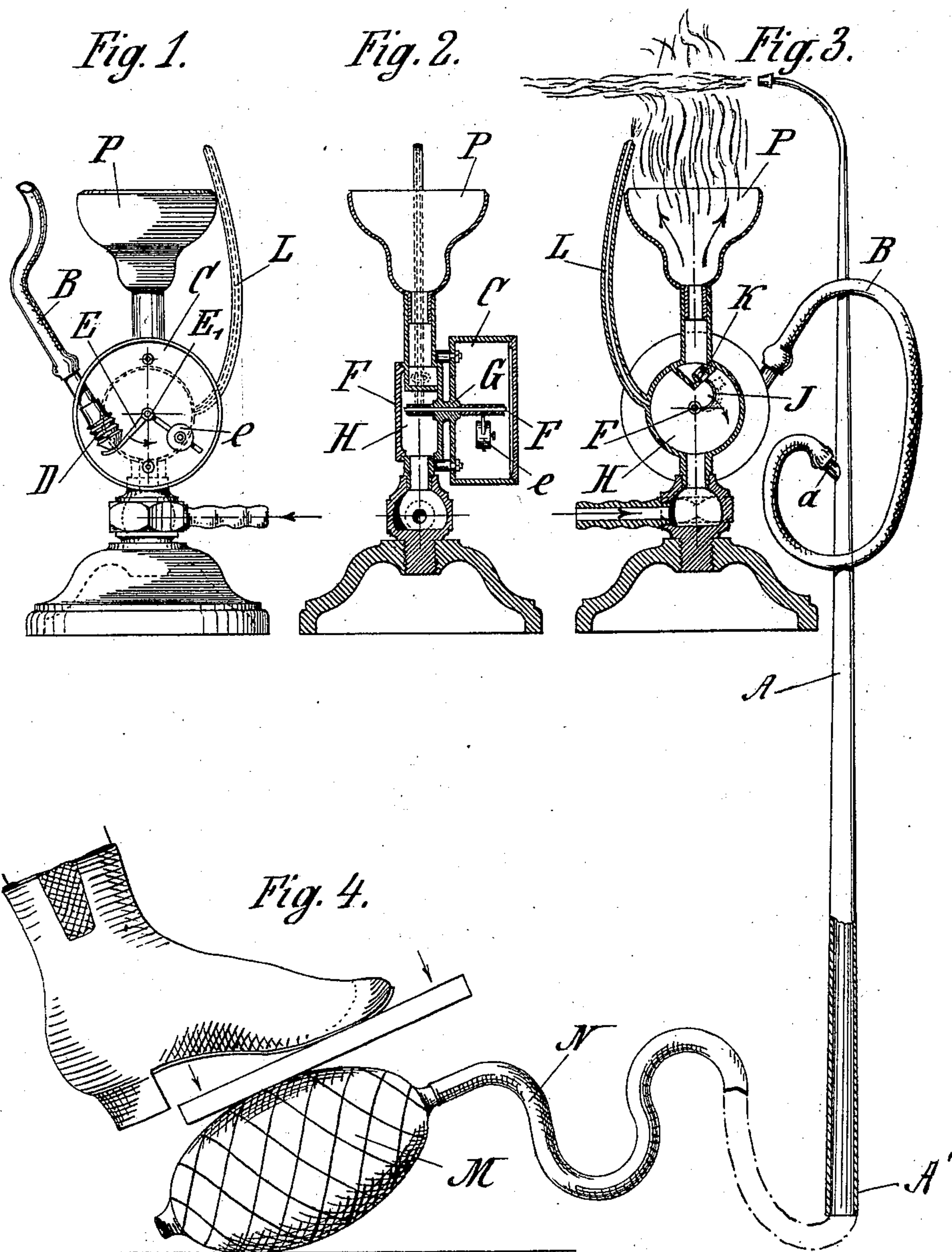
No. 620,127.

Patented Feb. 28, 1899.

P. & J. HEINZ.
SOLDERING LAMP.

(Application filed May 3, 1898.)

(No Model.)



Witnesses:
Ludwig Kumburg
Jacob Adrian.

Inventors:
Marlapp Henry
Johann Heinz.

UNITED STATES PATENT OFFICE.

PHILIPP HEINZ AND JOHANN HEINZ, OF PFORZHEIM, GERMANY.

SOLDERING-LAMP.

SPECIFICATION forming part of Letters Patent No. 620,127, dated February 28, 1899.

Application filed May 3, 1898. Serial No. 679,599. (No model.)

To all whom it may concern:

Be it known that we, PHILIPP HEINZ and JOHANN HEINZ, factory proprietors, citizens of the German Empire, residing at Pforzheim, in the Grand Duchy of Baden, Germany, have invented certain new and useful Improvements in Soldering-Lamps, of which the following is a specification.

Heretofore such soldering-lamps have only been so constructed that during the soldering process a cock which conducts the gas being used stands open until all the soldering-work is done; but such soldering-lamps have the disadvantage that through their employment very much gas is irremediably wasted.

The subject of our invention is a contrivance for soldering-lamps which not only exactly regulates the supply of gas according to the need during soldering-work, but self-acting, also shuts it entirely off so soon as the solderer from any cause no longer serves the blowpipe with air.

The invention consists in the arrangement of a contrivance for shutting off gas regulated by the atmospheric pressure of the blowpipe.

In the accompanying drawings, wherein the same letters denote the same parts, Figures 1 to 3 show one view and two longitudinal sections of the contrivance which forms our invention. Fig. 4 shows a treadle-bellows such as can be brought into connection with a blowpipe in the case of larger soldering-lamps.

The main point of our invention consists in this, that we provide a blowpipe A, Fig. 3, which blowpipe may have a mouthpiece A' with a branch *a* and bring this branch into connection with a receptacle C of the soldering-lamp by means of an elastic tube or hose B. In this receptacle is an india-rubber body D, which can be lengthened out like a concertina by the letting in of air-pressure. Through its expansibility this body can act on an angle-lever E, whose top E' is rotary. The attachment of a spring or of a weight *e*, which moves radially on its shank, causes the second joint of this lever to continually compress the rubber body D.

Concerning other points of our invention, the angle-lever E is fixed with its top E' on an axle F, Fig. 2, which last, having its bearings at G on the opposite side of the apparatus within a casing H by means of a lever I, fixed on the axle F, opens a valve K, which shuts

off the gas being used according to the measure of the expansion of the body D, or, in other words, according to the pressure of air which takes place, and also wholly shuts off the gas being used when this air-pressure ceases, so that the small pipe L, which feeds the flame, only remains as long in action as the soldering-work lasts. As well by turning the gas-cock at the joining-pipe of the soldering-lamp this flame is extinguished. The small feed-pipe of the flame is thus in open connection with the gas-holder H.

In the case of larger soldering-lamps the use of a treadle-bellows M, Fig. 4, is recommended. Such a bellows sends through its hose N to the blowpipe, which can then be freely handled, the requisite quantity of air, while always in the same way regulating for the consumption of gas.

From Figs. 1 to 3 it can be easily also seen that with the increase of air-pressure in the blowpipe A, which assures the accomplishment of a greater amount of soldering-work, the valve K is opened wider, whereby more gas can issue from the bulb P than when in fine soldering-work only a small current of air is needed and the valve K is only a little opened by I. The use of this soldering-lamp is exactly similar to that with lamps of such a class as have been hitherto employed.

What we claim as our invention, and desire to secure by Letters Patent of the United States, is—

The combination of a soldering-lamp working with a blowpipe A having a branch B and tube *a* fixed to the soldering-lamp and connected with a rubber extensible hollow sack or drum D resembling the bellows of a concertina, a counterweighted angle-lever E having an arm in front of said drum D and an axle F, bearing a valve K which regulates or shuts off the egression of the gas to the soldering-flame according as the pressure of air blown into the blowpipe varies, or ceases altogether, substantially as described.

In witness whereof we have hereunto set our hands in presence of two witnesses.

PHILIPP HEINZ.
JOHANN HEINZ.

Witnesses:

FERDINAND NEUMBURG,
JACOB ADRIAN.