

(No Model.)

F. VON KREMPELHUBER & J. VON SCHMAEDEL.
BLOWPIPE SOLDERING DEVICE.

No. 485,766.

Patented Nov. 8, 1892.

Fig. 1.

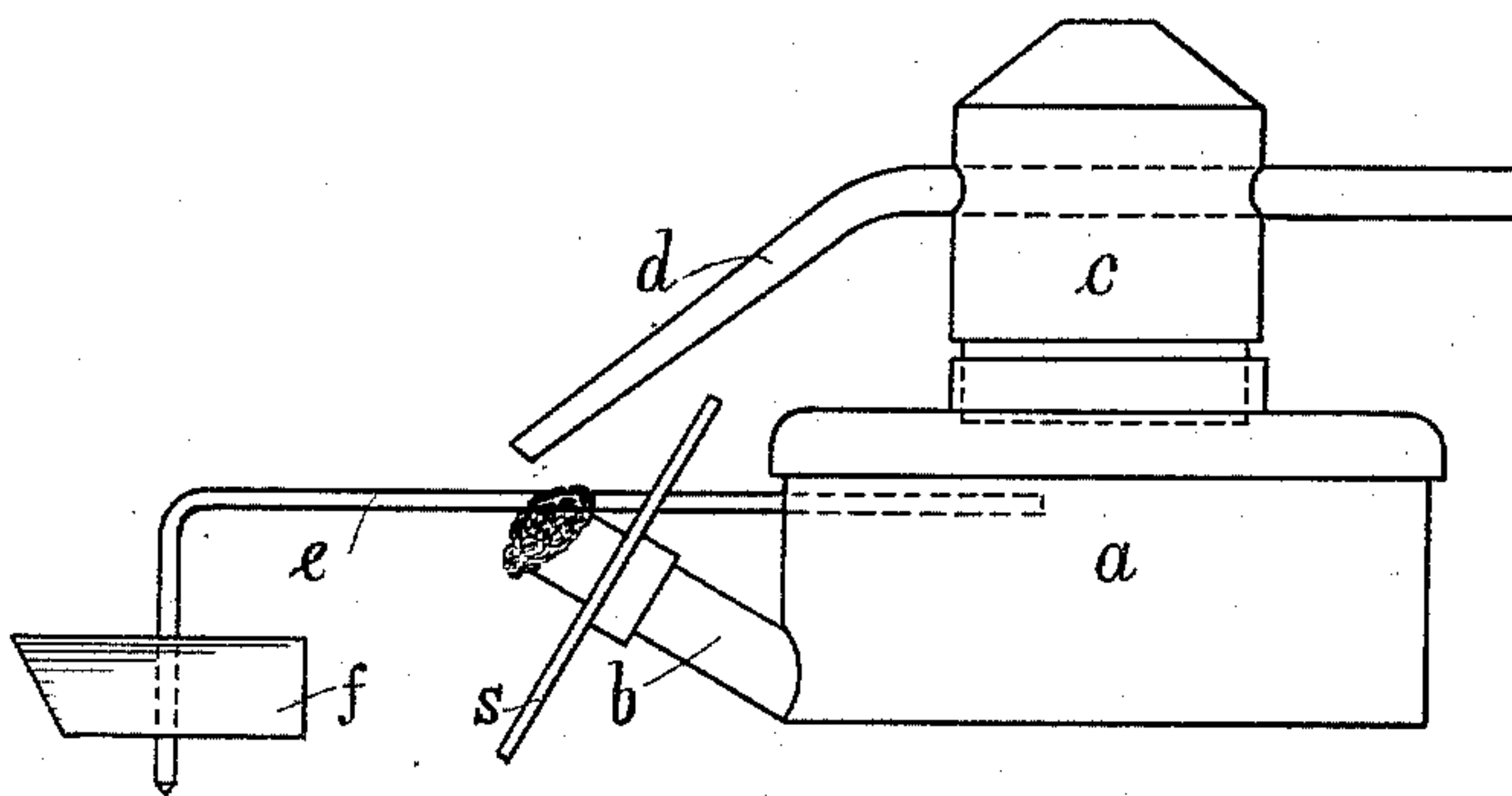
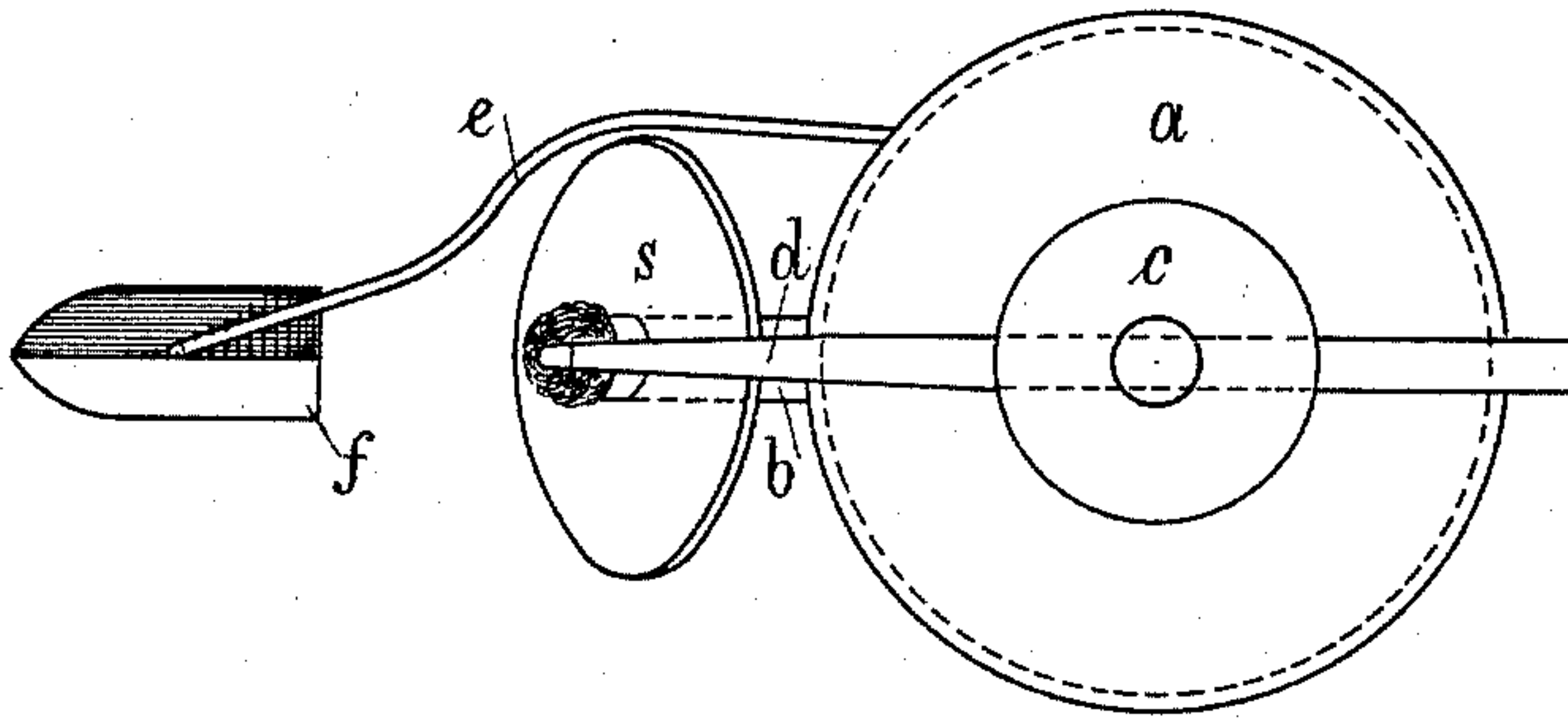


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

FRITZ VON KREMPELHUBER AND JOSEPH VON SCHMAEDEL, OF MUNICH,
GERMANY.

BLOWPIPE SOLDERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 485,766, dated November 8, 1892.

Application filed April 20, 1892. Serial No. 429,920. (No model.) Patented in England April 23, 1891, No. 7,020; in Belgium May 15, 1891, No. 94,629; in Switzerland August 7, 1891, No. 3,830; in France August 14, 1891, No. 212,948; in Austria-Hungary September 16, 1891, No. 19,806 and No. 37,878, and in Germany October 12, 1891, No. 59,209.

To all whom it may concern:

Be it known that we, FRITZ VON KREMPELHUBER and JOSEPH VON SCHMAEDEL, citizens of the Kingdom of Bavaria, residing at Munich, Bavaria, in the German Empire, have invented certain new and useful Improvements in Blowpipe Soldering Devices, (for which we have obtained patents in Germany, October 12, 1891, No. 59,209; in Austria-Hungary, September 16, 1891, No. 19,806 and No. 37,878; in France, August 14, 1891, No. 212,948; in Belgium, May 15, 1891, No. 94,629; in England, April 23, 1891, No. 7,020, and in Switzerland, August 7, 1891, No. 3,830,) of which the following is a specification.

In the drawings, Figure 1 is a vertical elevation, and Fig. 2 a plan, of our soldering device.

The apparatus involving our invention consists in a heating-vessel or lamp *a*, (for alcohol or the like,) provided with a wick-tube *b*. Upon the first is mounted a vessel *c*, having a blowpipe *d*. A bent wire *e* is, moreover, secured to the heating-vessel, which is rendered incandescent by the action of the lamp and blowpipe and which at its end is provided with a small shield *f*, formed of suitable material. The wick *b* of the lamp after the same is filled being lighted and air being blown through the tube *d* into the flame by any suitable blowing device a blowpipe flame is produced whose point strikes the wire *e* and renders the same incandescent at its lower end. The shield *f* serves to concentrate the blowpipe flame and to confine it to the point of the wire. This heated point, which may be of any suitable form, may then be used as a sol-

dering-tool; but we do not limit ourselves to this use, since it may also be used for engraving purposes, burning patterns into wood, or for operating upon all materials subject to the action of heat. A disk or shield *s* is detachably secured to the wick-tube *d* and serves the purpose of insulating the alcohol-receptacle from the flame.

The air for the blowpipe flame may be introduced by the mouth or by any suitable blower, (for instance, a rubber ball and tube.) The blowpipe-flame might also be produced by the pressure of the evaporated material or fluid itself similarly to the well-known blowpipe flame. The lamp body or receptacle may, moreover, be filled with sponge, cotton, asbestos, or the like for the purpose of absorbing the liquid fuel and retaining the same and preventing the spilling thereof.

What we claim, and desire to secure by Letters Patent, is—

In a blowpipe-lamp, a burner and blowpipe, in combination with a heating-wire provided near its end with a shield for concentrating the blowpipe-flame, said blowpipe being arranged to direct the blast through the flame onto the shield, substantially as set forth.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FRITZ VON KREMPELHUBER.
JOSEPH VON SCHMAEDEL.

Witnesses:

ALBERT WEICKMANN,
CARL MAYER.