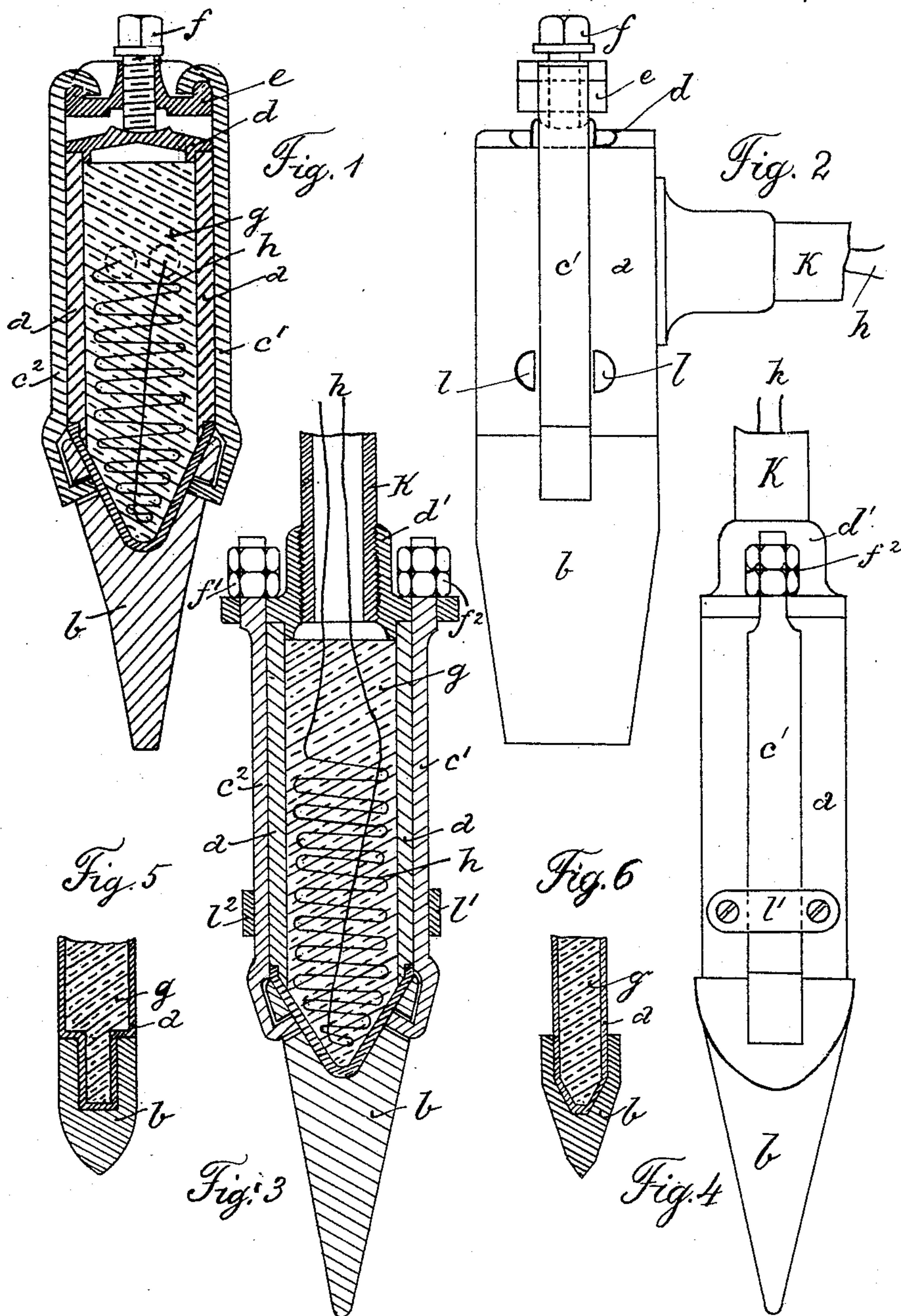


(No Model.)

P. STOTZ & F. W. SCHINDLER-JENNY.  
ELECTRIC SOLDERING CLUB.

No. 573,245.

Patented Dec. 15, 1896.



Witnesses,  
Alfred T. Stager,  
J. H. Schindler.

Inventors,  
Paul Stotz, and  
Friedrich Wilhelm Schindler-Jenny,  
by H. E. Henderson, Atty.



# UNITED STATES PATENT OFFICE.

PAUL STOTZ, OF STUTTGART, GERMANY, AND FRIEDRICH WILHELM SCHINDLER-JENNY, OF KENNELBACH, AUSTRIA-HUNGARY.

## ELECTRIC SOLDERING-CLUB.

SPECIFICATION forming part of Letters Patent No. 573,245, dated December 15, 1896.

Application filed January 14, 1895. Serial No. 534,923. (No model.) Patented in England September 8, 1894, No. 17,129; in France October 10, 1894, No. 241,981; in Sweden October 12, 1894, No. 6,167; in Belgium October 15, 1894, No. 112,249; in Switzerland October 17, 1894, No. 9,352; in Hungary November 9, 1894, No. 1,554; in Austria November 23, 1894, No. 44/6,069; in Germany November 28, 1894, No. 83,405, and in Italy December 31, 1894, CCLII, 37,426.

*To all whom it may concern:*

Be it known that we, PAUL STOTZ, manufacturer, residing at Stuttgart, Germany, and FRIEDRICH WILHELM SCHINDLER-JENNY, manufacturer, residing at Kennelbach, near Bregenz, Austria-Hungary, have invented new and useful Improvements in Electric Soldering Clubs, (for which we have obtained patents in Germany, No. 83,405, dated November 28, 1894; in Great Britain, No. 17,129, dated September 8, 1894; in Switzerland, No. 9,352, dated October 17, 1894; in France, No. 241,981, dated October 10, 1894; in Belgium, No. 112,249, dated October 15, 1894; in Austria, No. 44/6,069, dated November 23, 1894; in Hungary, No. 1,554, dated November 9, 1894; in Italy, No. 37,426/252, dated December 31, 1894, and in Sweden, No. 6,167, dated October 12, 1894,) of which the following is a specification.

This invention relates to improvements in electric-heated soldering-clubs, and has for its objects to provide an improved construction wherein the soldering member or head is detachable from the heat-body casing and has a broad surface contact therewith throughout the entire points of contact, and can also be adjusted one upon the other, so as to insure close contact at all points.

It has further for its object to provide improved means for adjusting and securing the soldering member or head to the heat-body casing, and also for securing a cover to the heat-body casing.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the features of construction hereinafter described and then sought to be specifically defined by the claims, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a longitudinal section, and Fig. 2 a side view, of a soldering-hammer according to the invention. Figs. 3 and 4 are respectively a section and a side view of a pointed soldering-club embodying the same invention. Figs. 5 and 6 show modifications

hereinafter described of the form of the casing and the working piece.

In the several figures the same parts are designated by the same letters of reference.

*a* is a casing made of copper or other metal, provided with a handle *K* and closed at its top by a cover *d*, Figs. 1 and 2, or *d'*, Figs. 3 and 4.

The bottom of the casing *a* is formed by a hollow rib, a blunt blade, or an obtuse edge in the soldering-hammer, Figs. 1, 2, and 5, or by a similar cone or pyramid in the pointed soldering-club, Figs. 3, 4, and 6.

The casing *a* is filled with a heating body *g*, of clay, chamotte, or other refractory insulating material, through which runs a conducting-wire *h*. Both ends of the wire *h* pass through the handle *K*, where they are insulated from one another and the wall of the handle in any well-known manner, and are connected to the main wires by suitable means.

The proper soldering piece, member, or head *b* consists of a blade-shaped body, Figs. 1 and 2, or a conical body, Figs. 3 and 4, of copper, provided at its base with a recess of a form corresponding to the form of the casing-bottom, thus allowing of a tight and close contact between the parts *a* and *b* when connected together.

Parts *a* and *b* may be detachably connected in any convenient manner, and the invention is not confined to the means shown in the drawings, these latter, however, being preferable by reason of simplicity and efficiency; but they may be modified at will.

Referring to the drawings, Figs. 1 and 2, clamps *c' c''* are attached to the casing, which clamps hook over a nut *e*, provided with projections for this purpose, and supported by a screw *f*, bearing against or resting upon the cover *d* of the casing, the lower intumed ends of said clamps entering recesses provided at the upper end of the working piece *b*. By these means it will be obvious that by actuating screw *f* either in one or another direction the parts *a b* may be fastened or loosened.

Referring to Figs. 3 and 4, the clamps *c' c''*



are held in place by nuts  $f' f^2$ , screwed to the upper ends of the clamps, which will be straight or threaded for the purpose, said nuts resting on a flange of the cover  $d'$ .

5 Clamps  $c' c^2$  are guided between lugs  $l$ , Figs. 1 and 2, or straps  $l' l^2$ , Figs. 3 and 4.

The above-described blade-shaped or conic form of the casing-bottom and the corresponding recess provided in the base of the working pieces  $b$  are intended for providing a large  
10 contact-surface between both parts in order to accelerate the passage of the heat from the part  $a$  to the part  $b$ . Figs. 5 and 6 show on a reduced scale modifications of the casing-bot-  
15 tom which serve the same purpose. The invention, however, will not be confined to the special features represented in the drawings. For instance, it is obvious that the effect intended is likewise performed by turning the  
20 hollow edge or rib or point of the bottom inwardly to the casing instead of outwardly, the working piece being then provided with a corresponding projection instead of a recess.

Having described our invention and set  
25 forth its merits, what we claim is—

1. An electrically-heated soldering-iron, consisting of the casing, an insulating heat body contained within said casing, a conducting-wire located in said heat body, a solder-  
30 ing member or head separable from the casing, said casing and head fitting one partially within the other and sliding one upon the other, a clamp carried by said iron and connected to said head so as to be detached there-

from, and means for drawing said clamp lon- 35 gitudinally to effect close contact between the meeting surfaces of the casing and head, substantially as and for the purposes described.

2. An electrically-heated soldering-iron consisting of the casing containing an insu- 40 lating heat body and conducting-wire, a soldering member or head separable from the casing, said casing and head fitting one partially within the other, a cover to the casing, and clamps adapted to draw the cover and 45 head to their respective places and secure them therein, substantially as and for the purposes described.

3. An electrically-heated soldering-iron, consisting of the casing containing an insu- 50 lating heat body and conducting-wire, a soldering member or head separable from the casing, said casing and head fitting one partially within the other, a cover to the casing, clamps connected at their lower ends to said 55 soldering member or head, and adjusting means forming a connection between said clamps and cover and adapted to draw the cover and head to their respective places and secure them therein, substantially as and for 60 the purposes described.

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

PAUL STOTZ.

FRIEDRICH WILHELM SCHINDLER-JENNY.

Witnesses:

H. WINTSCH,

CR. AEBERLI.