

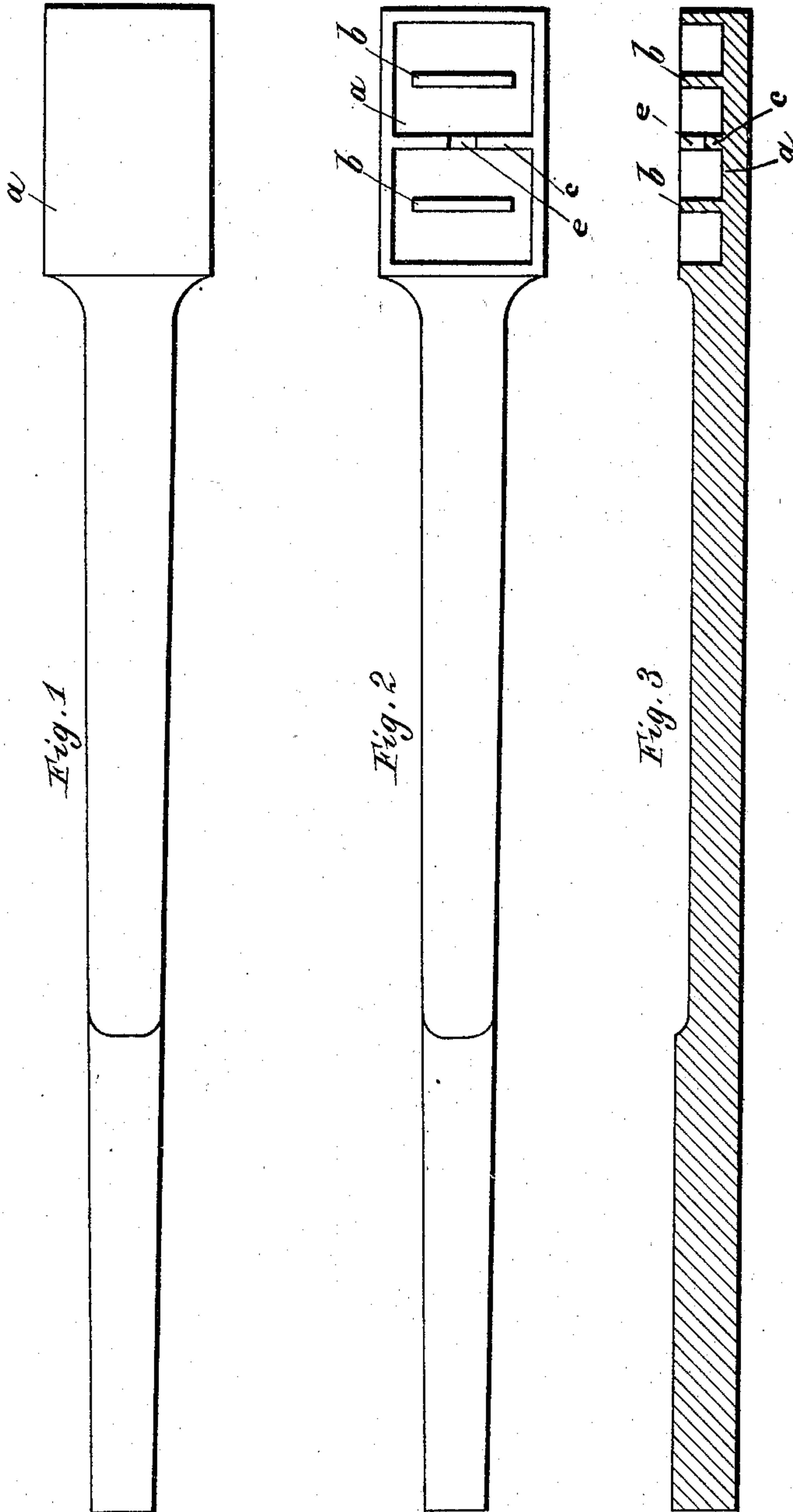
No. 608,015.

Patented July 26, 1898.

G. WALTER.
SECONDARY BATTERY.

(Application filed Aug. 19, 1897.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

GEORG WALTER, OF STRASBURG, GERMANY.

SECONDARY BATTERY.

SPECIFICATION forming part of Letters Patent No. 608,015, dated July 26, 1898.

Application filed August 19, 1897. Serial No. 648,829. (No model.)

To all whom it may concern:

Be it known that I, GEORG WALTER, residing at Strasburg, Alsace, Empire of Germany, have invented certain new and useful Improvements in Secondary Batteries, of which the following is a specification.

This invention relates to improvements in battery-cleaners; and it consists in an instrument for removing from the battery, without taking the same apart or otherwise disturbing it, detached pieces which have fallen down between the plates. The pieces falling from the plates lie in the bottom of the cell and accumulate in time so as to cause short circuits. The removal of these pieces has hitherto only been possible by taking the elements apart, and thereby putting them out of operation during the time of cleaning.

The instrument forming the object of my invention is represented in the accompanying drawings, wherein—

Figure 1 is a rear elevation of one form of my invention. Figs. 2 and 3 are respectively a front elevation and a longitudinal section of a modified form of instrument.

The device consists of a box-shaped spatula having a handle and having ridges or projections *b c*, extending crosswise of the instrument. The two ridges *b* project up from the bottom of the box and do not quite reach across from side to side, so that a free space is left at each side. The central ridge *c* extends across the box from side to side and has a central notch *e*. The object of so forming the ridges *b c* is to present a more broken

surface, which will more readily be introduced into or between the broken masses, and the notch and free spaces also allow of more complete drawing of the liquid from the box by tilting it to one side. The bottom or rear side of the box is closed, as shown. The larger lumps having been removed by any suitable means, the tool is thrust down between the plates and pushed into and against the accumulations of smaller particles, which are received on the ridges *b*, and may then be lifted out, the operation being repeated as often as necessary. The lower end of the box-shaped spatula is in the form of a flat thin wall, as shown, so that the upper side thereof can be brought close to the bottom of the cell and can thus pick up particles therefrom.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

An instrument for removing detached material from storage batteries, consisting of a box-shaped spatula with a handle, and with ridges extending crosswise of the box, the rear side of the box being closed and the lower end thereof being in the form of a thin flat wall, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

GEORG WALTER.

Witnesses:

SOPHIE KLINK,
ERNEST THEORON.