

No. 647,536.

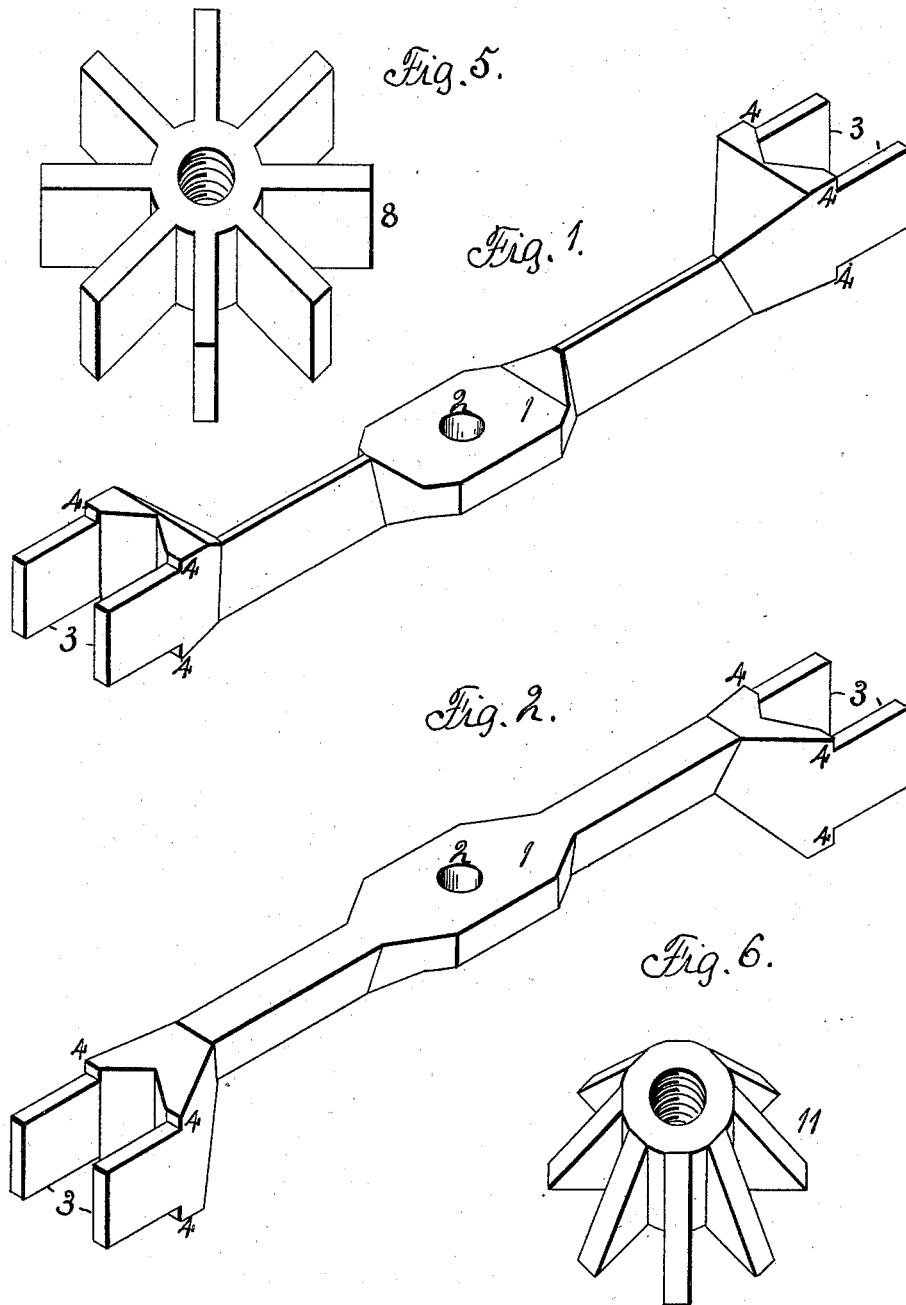
Patented Apr. 17, 1900.

S. E. SMITH.
ZINC SUPPORT FOR BATTERIES.

(Application filed Apr. 17, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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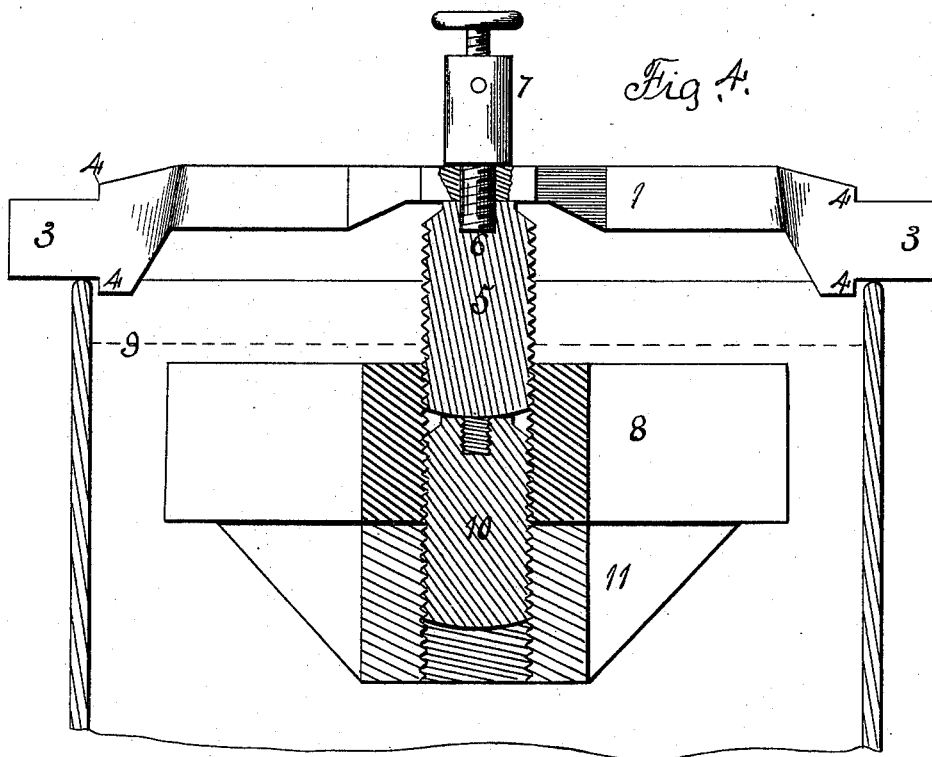
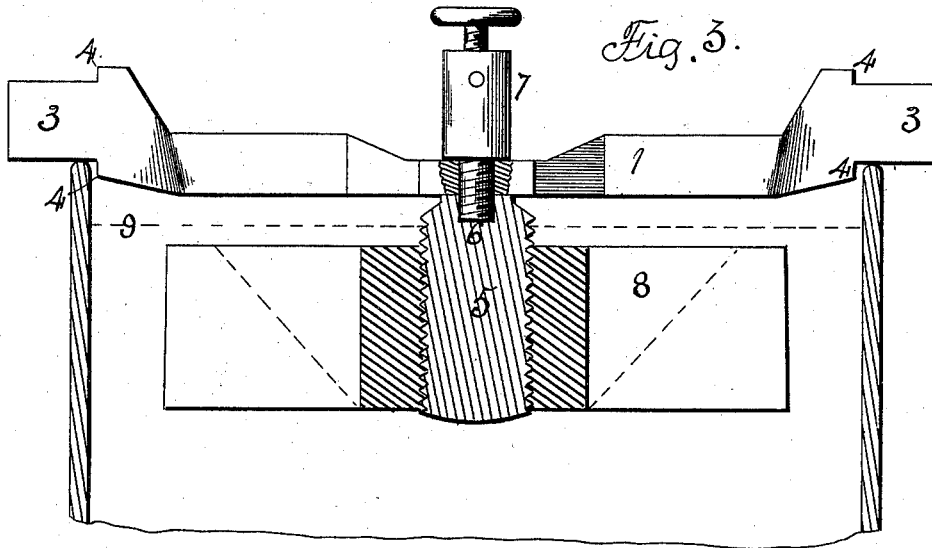
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2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

SAMUEL E. SMITH, OF BELOIT, WISCONSIN.

ZINC-SUPPORT FOR BATTERIES.

SPECIFICATION forming part of Letters Patent No. 647,536, dated April 17, 1900.

Application filed April 17, 1899. Serial No. 713,315. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. SMITH, a citizen of the United States, residing at Beloit, in the county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Zinc-Supports for Batteries, of which the following is a specification.

The object of this invention is to construct a support for the zinc of a battery which is made reversible, so that a single zinc or two zincs can be supported, and in which the binding-posts form the connection between the support and zinc.

In the accompanying drawings, Figure 1 is an isometrical representation of my improved zinc-support in the position it occupies when a single zinc is used. Fig. 2 is a view of the zinc-support in the position it occupies when two zincs are used. Fig. 3 is a section of a jar, showing my holders in connection therewith and in which a single zinc is used. Fig. 4 is a similar view in which two zincs are used. Fig. 5 is an isometrical representation of a new zinc. Fig. 6 is an isometrical representation of a partially-consumed zinc.

My improved holder consists of a bar portion 1, having a central opening 2 and end extensions 3, which are preferably bifurcated or forked in order to lend lightness to the bar and also to provide a broad supporting-surface. The said extensions 3 are each provided with two supporting-surfaces, those on one face or edge being offset, so that such offset faces or edges will provide a supporting-surface and hold the bar 1 on a different horizontal plane from those on the opposite edge. Near the extreme end of each extension, directly in rear of such supporting-surfaces, I provide upper and lower shoulders 4 4, for a purpose presently to appear.

When a single zinc is employed, the parts will appear as shown at Fig. 3. A zinc connection 5, having a screw-thread extending throughout its length and a central screw-threaded opening in one end, is clamped to the bar portion of the support by the screw-threaded extension 6 of the binding-post 7, which latter passes through the opening 2 in the bar portion of the support into the screw-threaded end of the connection.

A new zinc 8, such as is shown at Fig 5, having a screw-threaded central opening, is turned in connection with the connector until the lower end of the connector is flush with the under side of the zinc, which will hold the zinc the proper distance below the fluid-level in the jar, as shown by the dotted line 9.

When the battery is placed in circuit, the zinc will be consumed until it appears as shown at Fig. 6 or the dotted lines in Fig. 3.

When a single zinc is used, the bar portion 1 is on a lower horizontal plane than the ends 3, and the shoulders 4 prevent the holder from becoming displaced in its connection with the jar.

When two zincs are used, the holder is turned over, so that the bar portion will be in a higher horizontal plane than the end portions, as shown at Fig. 4. In order to support the top zinc the same level below the fluid, it will be necessary to lower the zinc in its connection with the connector 5, and a second connector 10 is turned into the lower portion of the new zinc, so that a portion of its length will extend below the zinc onto this protruding portion. The old or partly-consumed zinc 11 is turned, when the parts will appear as shown at Fig. 4, and when this battery is in use the lower zinc will be entirely consumed and the top zinc will be partly consumed, until it appears as shown at Fig. 6.

I claim as my invention—

1. A reversible battery-zinc support comprising a bar portion having end extensions provided with shoulders upon the upper and lower edges thereof near the extremities of the bar, said extensions providing two pairs of supporting-surfaces for the bar, one pair of such supporting-surfaces being on a plane substantially in line with the bar and the other pair being on a different horizontal plane, for the purpose specified, and means for attaching the battery-zinc to the bar.

2. A reversible battery-zinc support comprising a bar portion having bifurcated end extensions provided with shoulders upon the upper and lower edges thereof near the extremities of the bar, said end extensions providing two pairs of supporting-surfaces for the bar, one pair being on a different horizontal plane than the other pair, for the purpose specified, and means for attaching the battery-zinc to the bar.

zontal plane from the other pair, and means for attaching the battery-zinc to the bar, substantially as described.

3. A reversible battery-zinc support comprising a bar portion the extreme ends of which are arranged to provide two pairs of supporting-surfaces for the bar, one pair of such surfaces being on a plane substantially

in line with the bar and the other pair being on a different plane from the bar, and means for attaching the zinc to the bar, substantially as described.

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Witnesses:

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