

No. 657,413.

Patented Sept. 4, 1900.

J. L. HAYES.

HANGER FOR BATTERY ELEMENTS.

(Application filed Apr. 30, 1900.)

(No Model.)

Fig. 1.

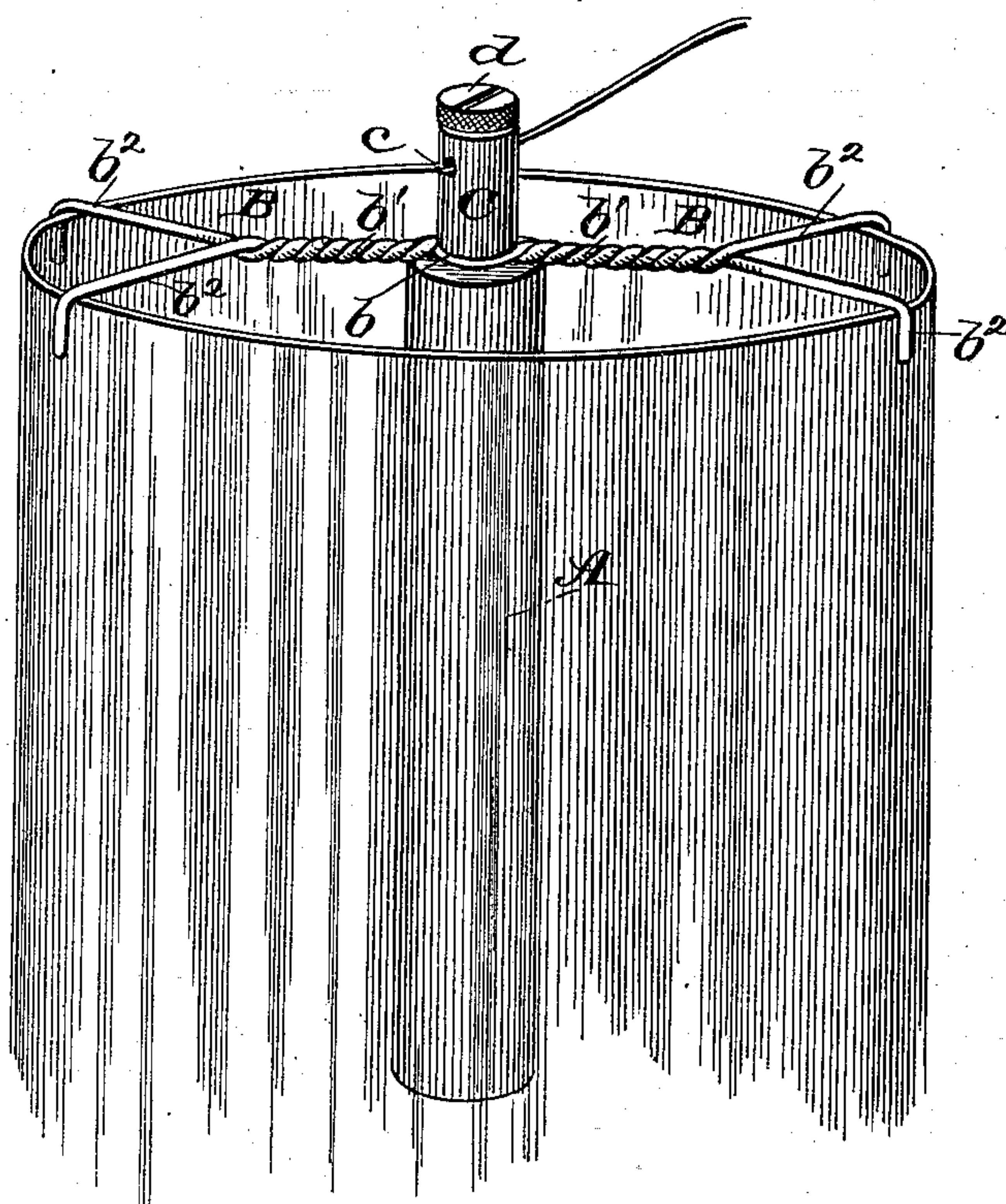
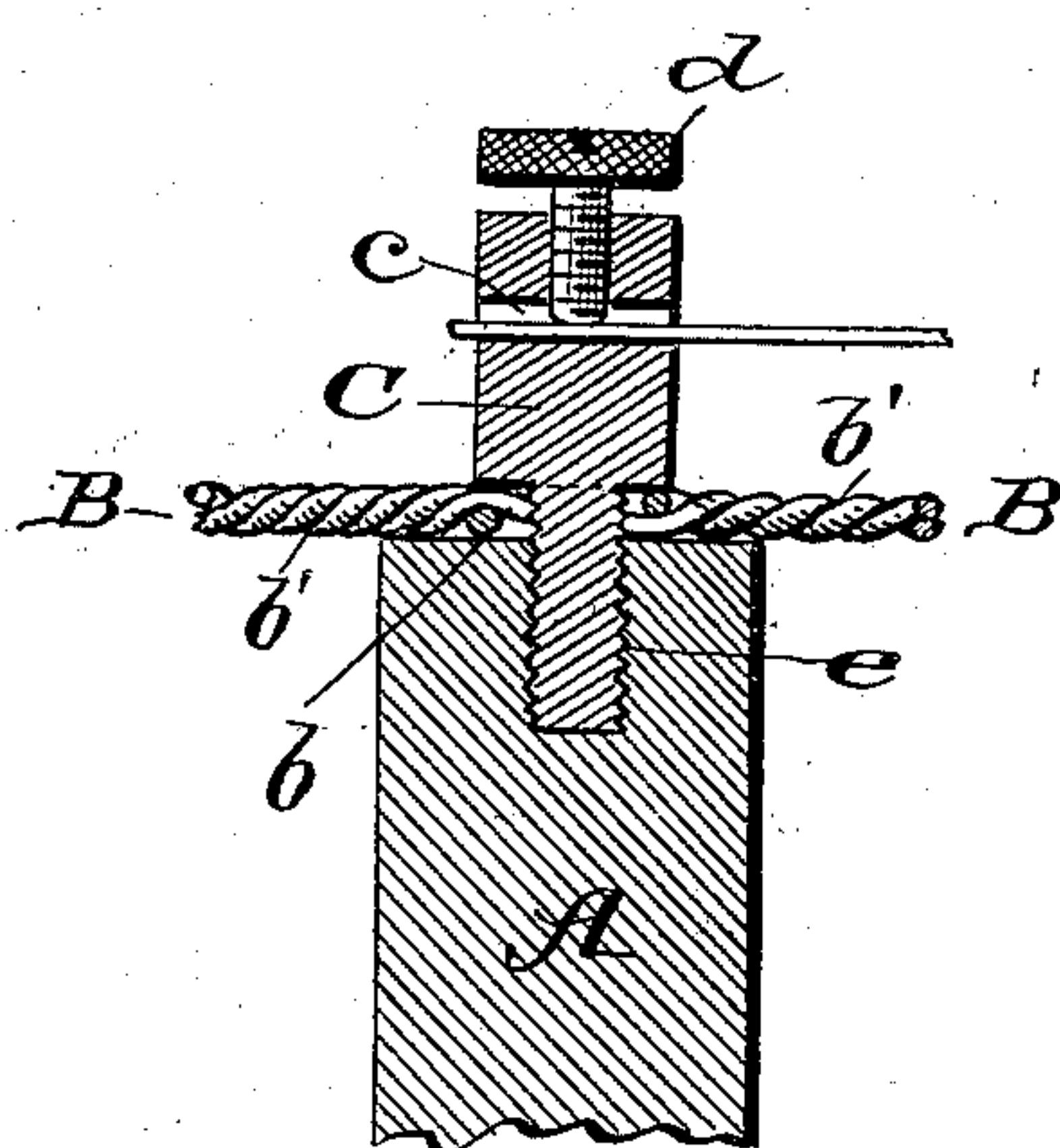


Fig. 2.



WITNESSES:

Jos. A. Ryan  
Edw. W. Ryan.

INVENTOR

James L. Hayes

BY Munn & Co.

ATTORNEYS



# UNITED STATES PATENT OFFICE.

JAMES L. HAYES, OF SALIDA, COLORADO, ASSIGNOR OF ONE-HALF TO  
GEORGE F. STODGHILL, OF SAME PLACE.

## HANGER FOR BATTERY ELEMENTS.

SPECIFICATION forming part of Letters Patent No. 657,413, dated September 4, 1900.

Application filed April 30, 1900. Serial No. 14,874. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES L. HAYES, of Salida, in the county of Chaffee and State of Colorado, have invented a new and useful  
5 Improvement in Hangers for Galvanic Batteries, of which the following is a specification.

My invention is in the nature of a simple, cheap, and practical hanger for supporting  
10 the zinc or other element of a galvanic battery upon the upper edge of the jar. Wooden hangers used for this purpose absorb and become saturated with the oil that is placed over the top of the solution in a battery-jar,  
15 and the bulky or clumsy nature of such wooden hangers interferes with free access to the jar when replacing the blue-stone or other chemicals.

My invention provides a simple and convenient metal hanger of peculiar construction which is not subject to the above objections and which I will now proceed to describe with reference to the drawings, in which—

25 Figure 1 is a perspective view of the hanger applied to the battery-jar, and Fig. 2 a sectional detail of its connection with the zinc.

A represents the zinc or other element to be suspended in the electrolyte.

30 The hanger is composed of two intertwisted wires B B, which have a central eye *b* in the middle, tightly-twisted sections *b' b'* on each side of the central eye, and two divergent end prongs *b<sup>2</sup> b<sup>2</sup>* at each end, which end prongs  
35 are turned downwardly to form hooks that extend over and down below the rim of the jar, so that the horizontal portion of the hanger cannot accidentally slip endwise and fall into the solution nor yet move sidewise.

40 C is an electrode of the ordinary form, which has at its upper end a transverse hole *c* to receive the circuit-wire and a binding-screw *d* tapped through the end and arranged to bear upon the wire in the hole *c*. On the lower end  
45 of this electrode is a screw-threaded stem *e*, which passes through the central eye *b* of the horizontal wires and enters a screw-threaded socket in the top of the zinc or other battery

element. When the electrode is screwed down, its shoulder next to the screw-threaded stem  
50 clamps the eye *b* of the horizontal wires tightly between it and the upper end of the zinc, and thus firmly connects the zinc, the hanger, and the electrode tightly together.

The wire sections B B are to be made non-corrosive either by the employment of a metal  
55 that resists the action of the fumes of the battery, or they are covered with some resisting coating by galvanizing, plating, or by covering with insulation.

The hanger thus constructed is simple, cheap, light of construction, is non-absorbent, clean, and gives the maximum area of access  
60 to the jar on either side of the same. An advantage of the divergent ends is that it keeps the hanger from slipping sidewise by hugging closely the rim of the jar.

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

70 1. A hanger for a galvanic-battery element, consisting of two intertwisted pieces of wire having a central eye and divergent ends, and means for clamping the battery element to the central eye substantially as described.

2. A hanger for a galvanic-battery element, consisting of two intertwisted pieces of wire having a central eye, and divergent ends, and a binding-post having a screw-stem adapted  
80 to pass through the central eye, substantially as and for the purpose described.

3. The combination with a battery element having a screw-socket in its upper end; of a binding-post having a screw-stem at its lower end, and a horizontal hanger composed of two  
85 intertwisted wires having divergent ends and a central eye clamped between the binding-post and the battery element substantially as described.

In testimony whereof I have signed my  
90 name to this specification in the presence of two subscribing witnesses.

JAMES L. HAYES.

Witnesses:

C. E. EGGLESTON,  
R. T. RIVES.