

(No Model.)

H. N. ROWELL.

GALVANIC RING.

No. 371,521.

Patented Oct. 11, 1887.

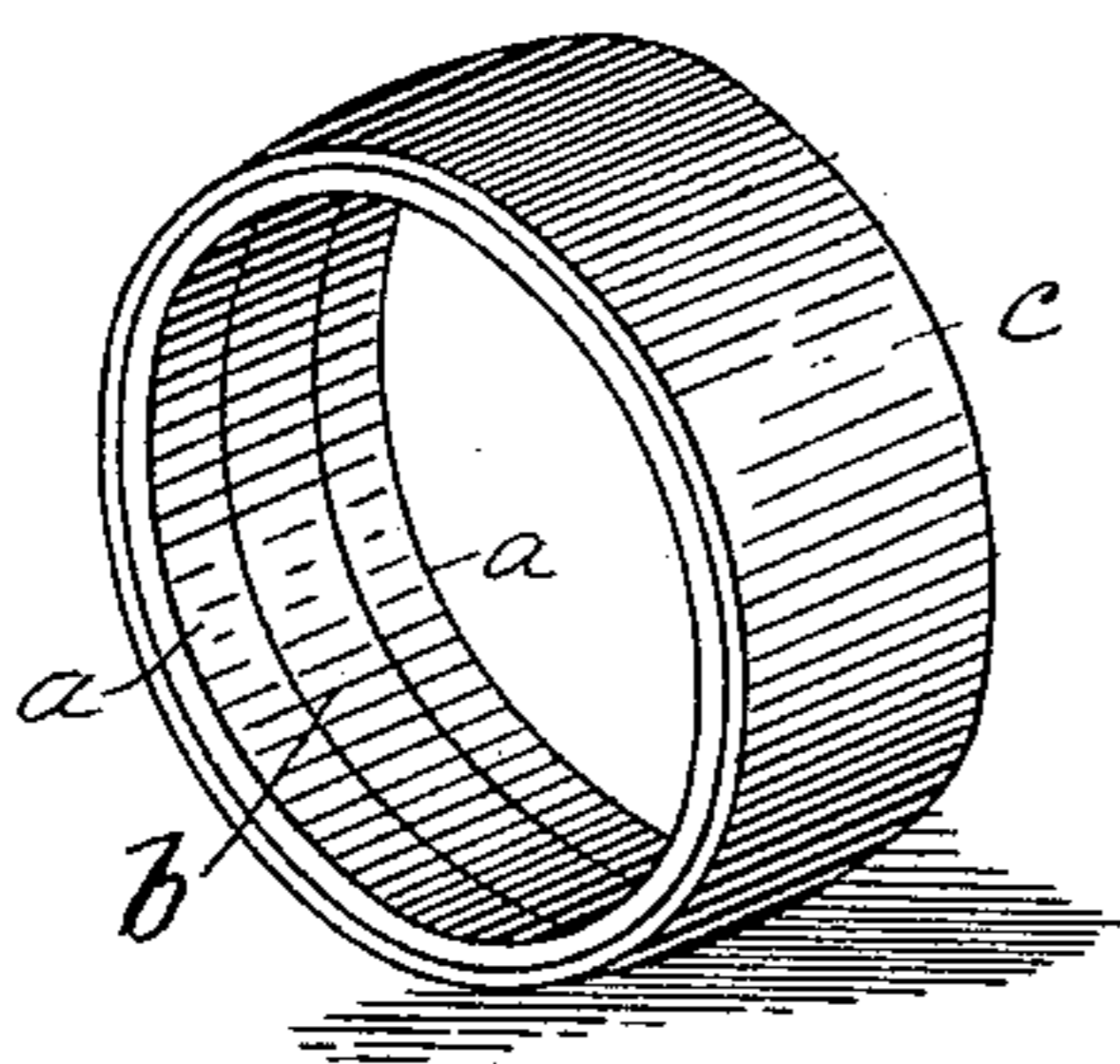


FIG. 1.

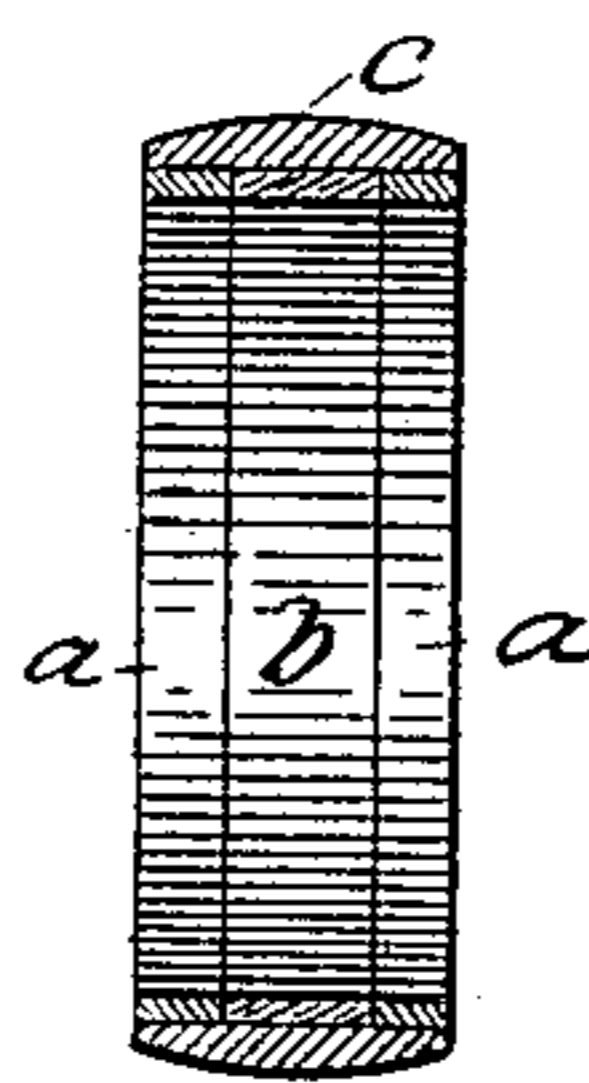


FIG. 2.

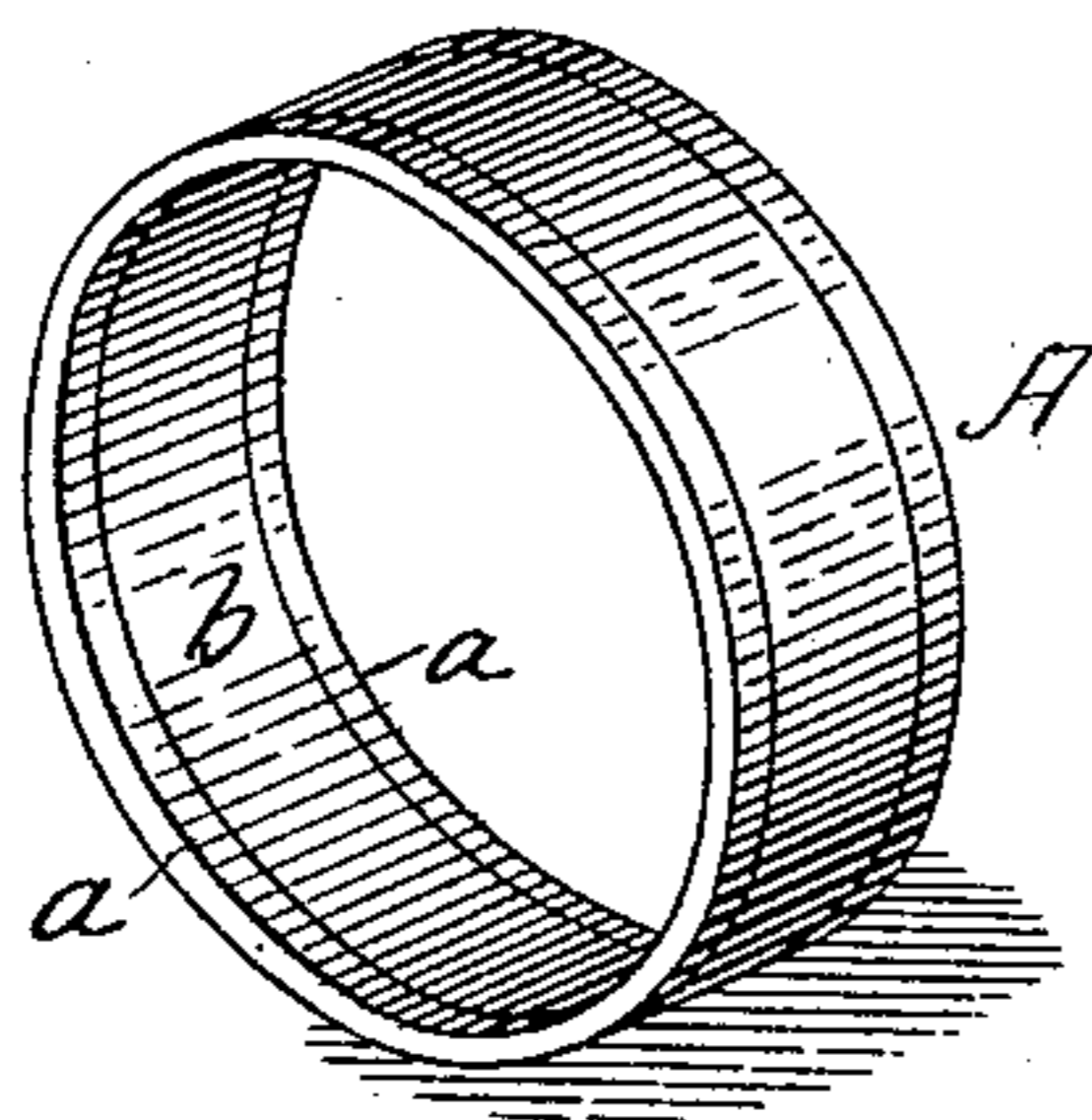


FIG. 3.

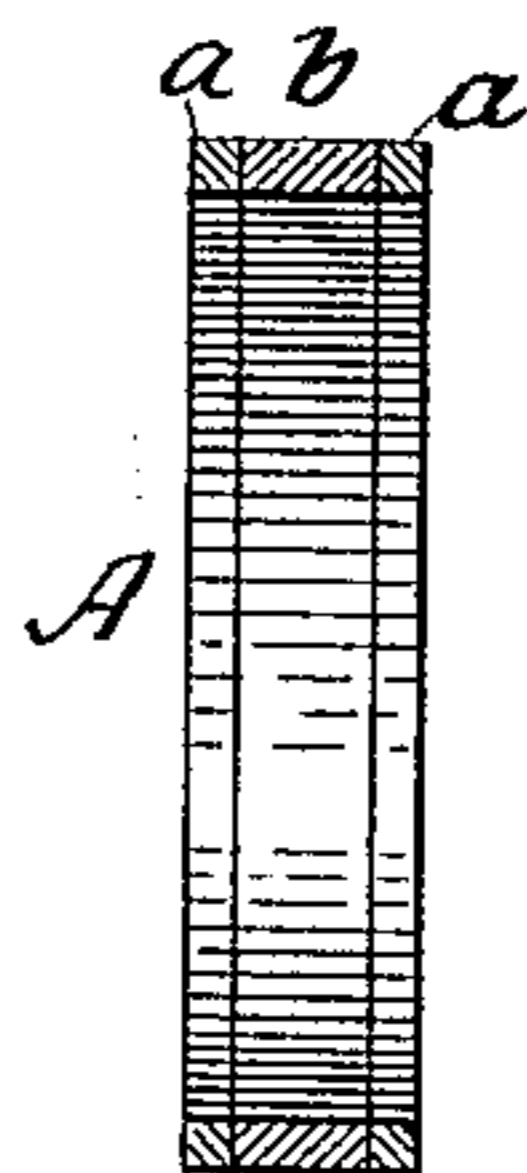


FIG. 4.

WITNESSES.

Albert D. Grover
A. D. Harrison.

INVENTOR.

Horace N. Rowell.
By Wm. Brown & Crossley.
attys.

UNITED STATES PATENT OFFICE.

HORACE N. ROWELL, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO JOHN W. DUXBURY, OF SAME PLACE.

GALVANIC RING.

SPECIFICATION forming part of Letters Patent No. 371,521, dated October 11, 1887

Application filed April 5, 1887. Serial No. 233,752. (No model.)

To all whom it may concern:

Be it known that I, HORACE N. ROWELL, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Galvanic or Electric Rings, of which the following is a specification.

My invention relates to electric rings, bracelets, belts, &c., for medicinal or health purposes, and has for its object to produce improvements in such devices whereby better electrical effects can be secured than in such devices as heretofore constructed.

To these ends my invention consists in an electric ring formed of electro positive and electro-negative metals—such as silver, copper, zinc, iron, &c.—with an insulating or electrically different substance between them, the complete ring so formed being preferably inserted in a band of any suitable material.

Reference is to be had to the accompanying drawings and to the letters of reference marked thereon, forming a part of this specification, the same letters indicating the same parts wherever they occur.

Of the drawings, Figure 1 represents a galvanic or electric ring constructed in accordance with my invention. Fig. 2 represents a sectional view of the same. Fig. 3 represents a view of the ring before being secured in the outside band. Fig. 4 is a cross-section of the structure shown in Fig. 3.

In carrying out my invention, I form a ring, A, of two rings, *a a*, of relatively electro-positive and electro-negative metals—such as zinc, copper, silver, iron, or the like—and a single ring, *b*, preferably of some insulating material, which rings are soldered or otherwise secured together, with the rings *a a* on the outside of the circle and the ring *b* between them, and cover the entire ring so formed with a band, *c*, formed of any substance having good electric conducting properties—that is, I may form the outside rings, *a a*, of zinc and silver, the intermediate ring, *b*, of vulcanized rubber, and the band *c* of copper or iron. With a ring so formed, when any portion of the human body—

as a finger, for instance—is placed inside of the ring, so as to connect one of the outside rings with the other, an electric current is caused to flow across the flesh or moist skin from one such ring to the other.

By using various combinations of metals and insulating substances a greater or smaller amount of current may be set up in different rings to suit different circumstances.

While the ring constructed as shown and described is formed to give the best results, so far as my experience has extended, it is obvious that the intermediate ring, *b*, need not be formed of insulating material, as a substance electrically different from rings *a a* would serve some purposes. Again, a greater number than three rings, *a a b*, may be formed for the inside of the complete ring, as though, for example, two rings like that shown in Fig. 3 were placed side by side and secured together. So, also, the ring shown in Fig. 3 may be used without the outside covering band, *c*.

By my invention a galvanic or electric ring may be easily and cheaply manufactured, and is much more effective than rings as heretofore made, which consist of a metallic body constituting the outer face, with bands or threads of another metal inserted in the body, and with the latter forming alternate zones of electro-positive and electro-negative metal.

Having thus described my invention, what I claim is—

A galvanic or electric ring, A, formed of electro-positive and electro-negative metals—such as silver, copper, zinc, or iron—with an intermediate ring of an electrically different substance, the complete ring so formed being inserted in a band, *c*, of any suitable material, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 1st day of April, 1887.

HORACE N. ROWELL.

Witnesses:

ARTHUR W. CROSSLEY,
A. D. HARRISON.