(No Model.)

L. LANE.

ELECTRICAL HEAD CLAMP FOR RELIEVING PAIN.

No. 506,516. Patented Oct. 10, 1893.

Fig. 1.

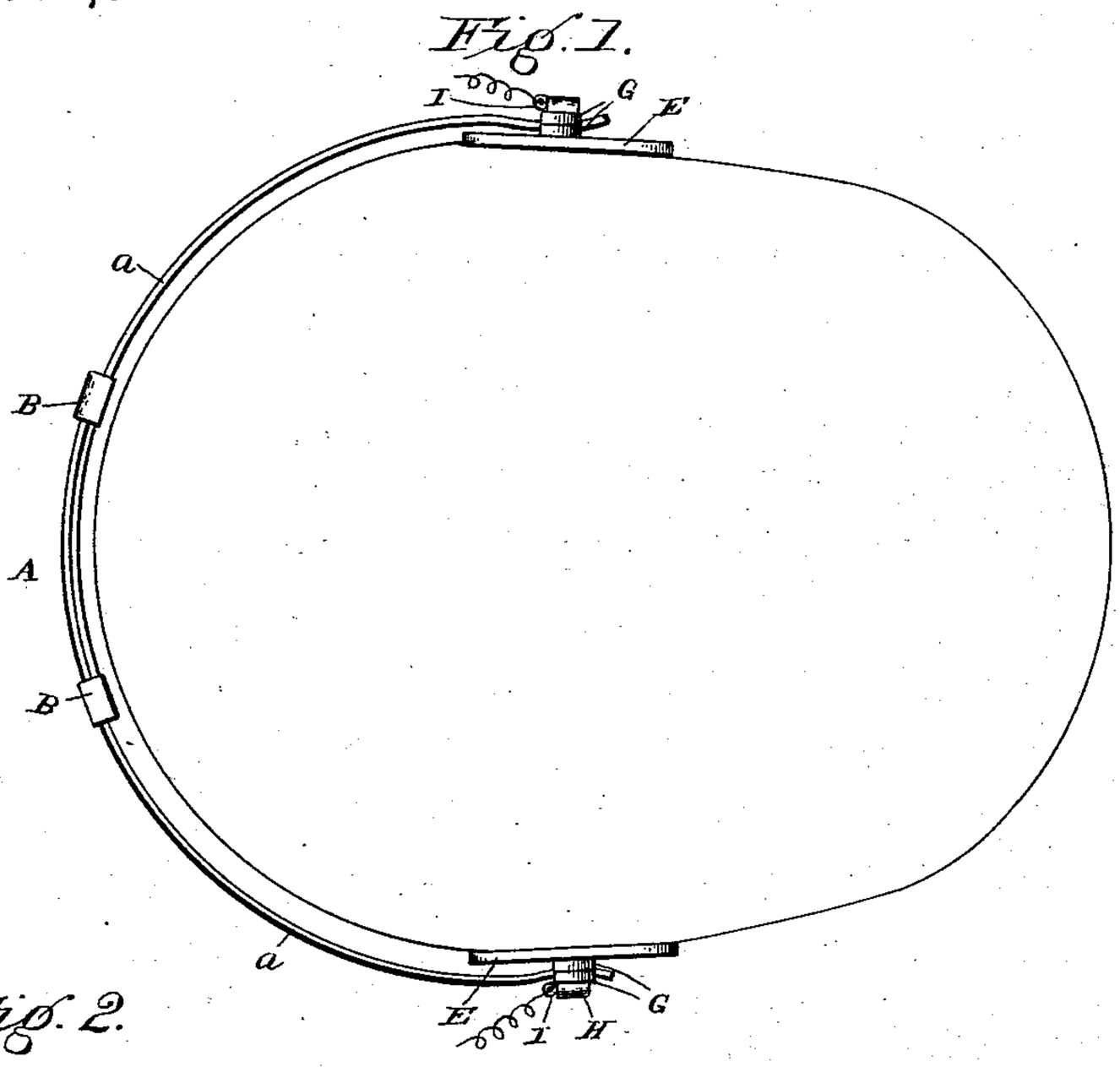

Fig. 2.

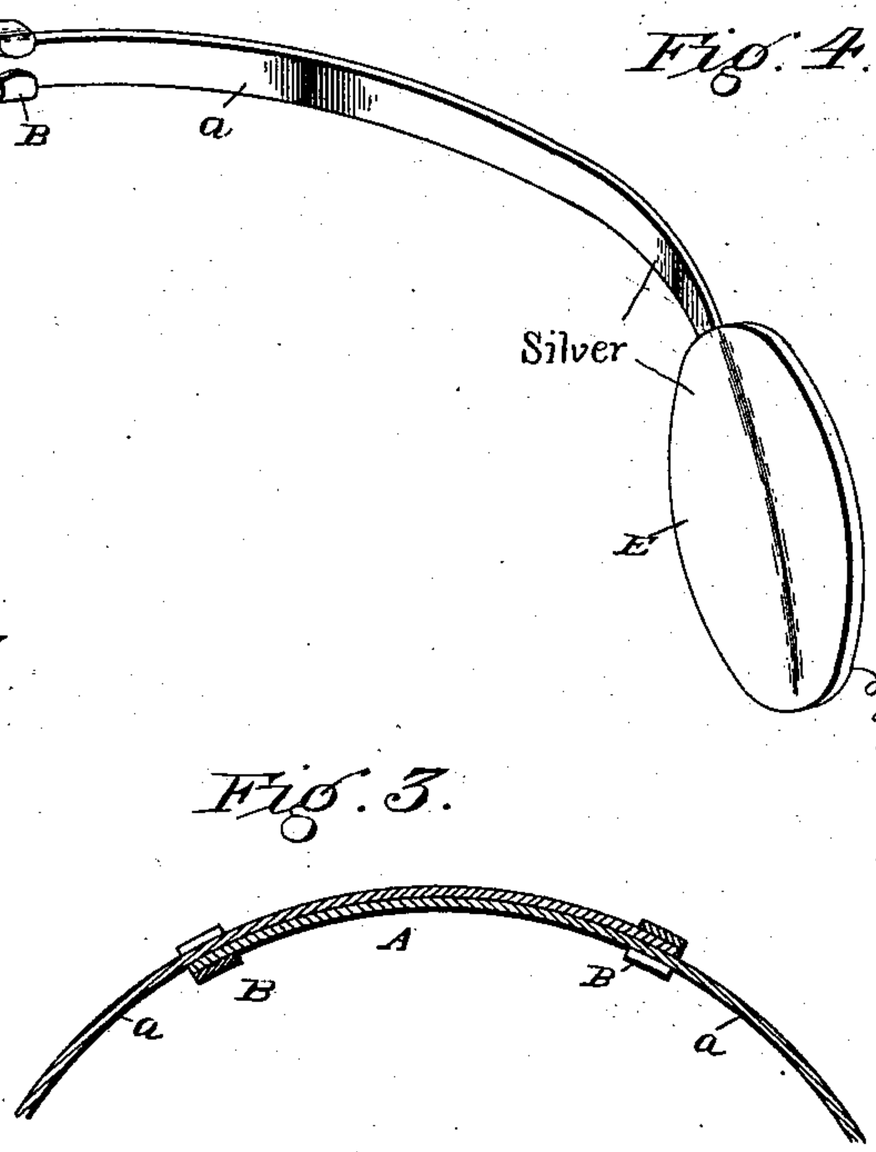

Fig. 4.

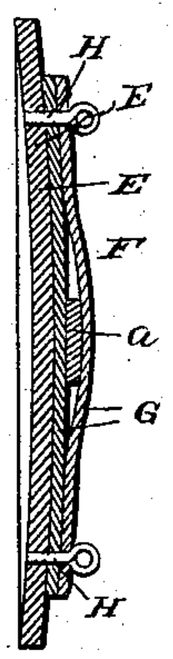

Fig. 5.

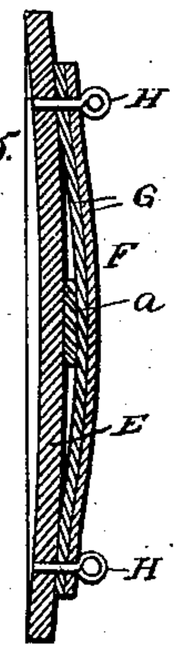

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

LIZZIE LANE, OF DUNELLEN, NEW JERSEY.

ELECTRICAL HEAD-CLAMP FOR RELIEVING PAIN.

SPECIFICATION forming part of Letters Patent No. 506,516, dated October 10, 1893.

Application filed May 27, 1893. Serial No. 475,711. (No model.)

To all whom it may concern:

Be it known that I, LIZZIE LANE, a citizen of the United States, residing at Dunellen, in the county of Middlesex and State of New Jersey, have invented a new and useful Head-Clamp for Relieving Pain, of which the following is a specification.

This invention relates to head clamps for the relief of pain; and it has for its object to provide an improved device of this character, which while specially adapted for attachment to the head to secure relief from headache and to induce sleep, at the same time may be adapted, in the relief of neuralgia, to be fastened to the shoulder or side.

To this end the main and primary object of the invention is to provide an improved pressure clamp which of itself will press sufficiently on the affected nerves to relieve the same of their sensitiveness, and thereby reduce the pain resulting from their affectation.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a top view of a head showing my improved clamp in position thereon. Fig. 2 is a detail in perspective of the clamp. Fig. 3 is a detail sectional view of the adjustable or slip joints between the spring band members. Fig. 4 is an enlarged detail sectional view showing the clamp at one side of one of the circular contact plates. Fig. 5 is a view similar to Fig. 4 showing the clamp ends in contact with the plates.

Referring to the accompanying drawings, A represents a sectional spring metal band of a size adapting it for use on all sizes of heads as well as permitting the clamping of the device to the shoulder or side in cases of neuralgia. The sectional spring band A, comprises the separate adjustable members *a*, carrying at one end the loops B, which loosely embrace the corresponding end of the other section so that the sections can be adjusted to enlarge or diminish the size of the clamp.

The outer free ends of the spring metal band A, are clamped in position onto the separate metallic contact plates E. The separate metallic contact plates at each extremity of the bands A, are preferably circular to fit the temples of the head, and are slightly concaved on their inner faces to make a better contact with the body. One of said plates is made of zinc and the other of silver in order to increase the efficiency of the device when the electric current is applied thereto, and on their outer faces carry the insulator clamps F. The insulator clamps F, upon the outer face of each of the contact plates, comprise separate parallel strips G, of ivory, rubber or other suitable material, clamped tightly to each other and to the contact plate by means of the eye rivets H, passing through their extremities and said contact plates.

In ordinary cases the ends of the sectional spring clamp are inserted between the plates E and the clamps thereon, so as to make contact with such plates, and it has been found useful to form the clamp members of the same material as the plates to which they are attached, so that the device will be readily susceptible to the establishment of thermo-electrical influences, by reason of the juncture of the different metals composing the clamp members and will also sustain sufficient pressure on the affected parts as to relieve the same from pain.

In certain cases it is necessary to secure the appreciable effects of the electric current in connection with the pressure created by the head clamp, and in such cases the flattened ends of the clamp members are inserted between the clamp strips G, so as to be held out of contact with the metallic contact plates. The terminals I, of an electric battery are then inserted in the eye rivets H, to close a circuit with said plates, and thereby secure a direct application of the electricity to the parts of the body on which the clamp may be placed.

From the foregoing, it is thought that the construction, operation and many advantages of the herein-described clamp will be apparent without further description, and I will have it understood that changes in the form, proportion and the minor details of construction as embraced within the scope of the appended claims, may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

1. In a clamp of the class described, a sectional adjustable spring band, and metallic contact plates having clamps removably attached to the free ends of said band, substantially as set forth.

2. In a clamp of the class described, a sectional adjustable metallic spring band comprising opposite members of different metals, and contact plates removably clamped to the extremities of said members and of the same metal as the members to which they are attached, substantially as set forth.

3. In a clamp of the class described, a spring clamp, metallic contact plates having insulator clamps adapted to receive the extremities of said spring clamp, and electrical connections for said plates, substantially as set forth.

4. In a clamp of the class described, a sectional spring band, concaved metallic contact plates, insulator clamps comprising parallel strips, and eye rivets binding the insulator clamps to the contact plates and adapted to receive electric circuit wires, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LIZZIE LANE.

Witnesses:
WILLIAM WYCKOFF,
JOHN H. HUFF.