

No. 868,123.

PATENTED OCT. 15, 1907.

T. J. RANDALL.
CATAPHORIC APPARATUS.
APPLICATION FILED NOV. 30, 1906

2 SHEETS—SHEET 1.

Fig. 1.

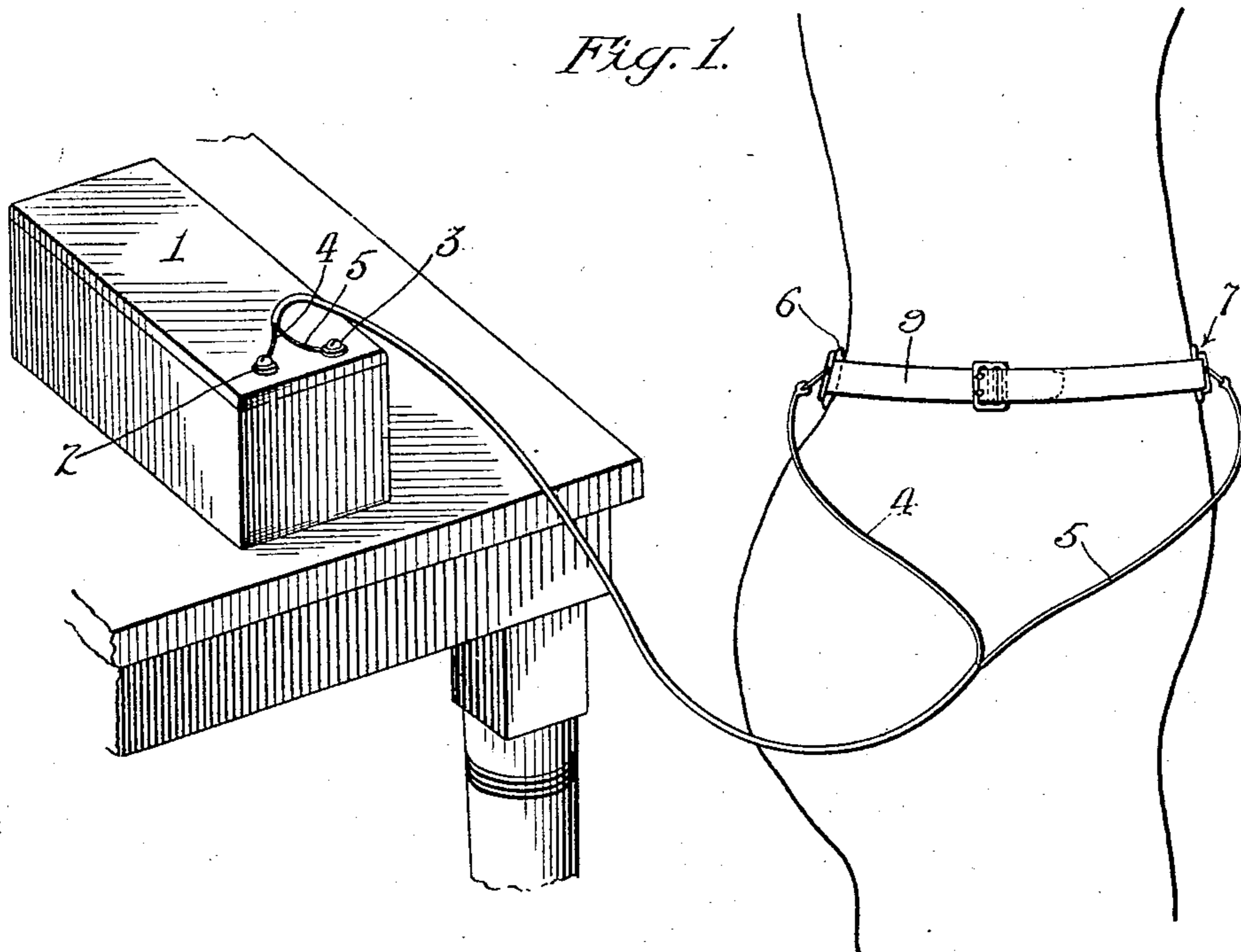


Fig. 2.

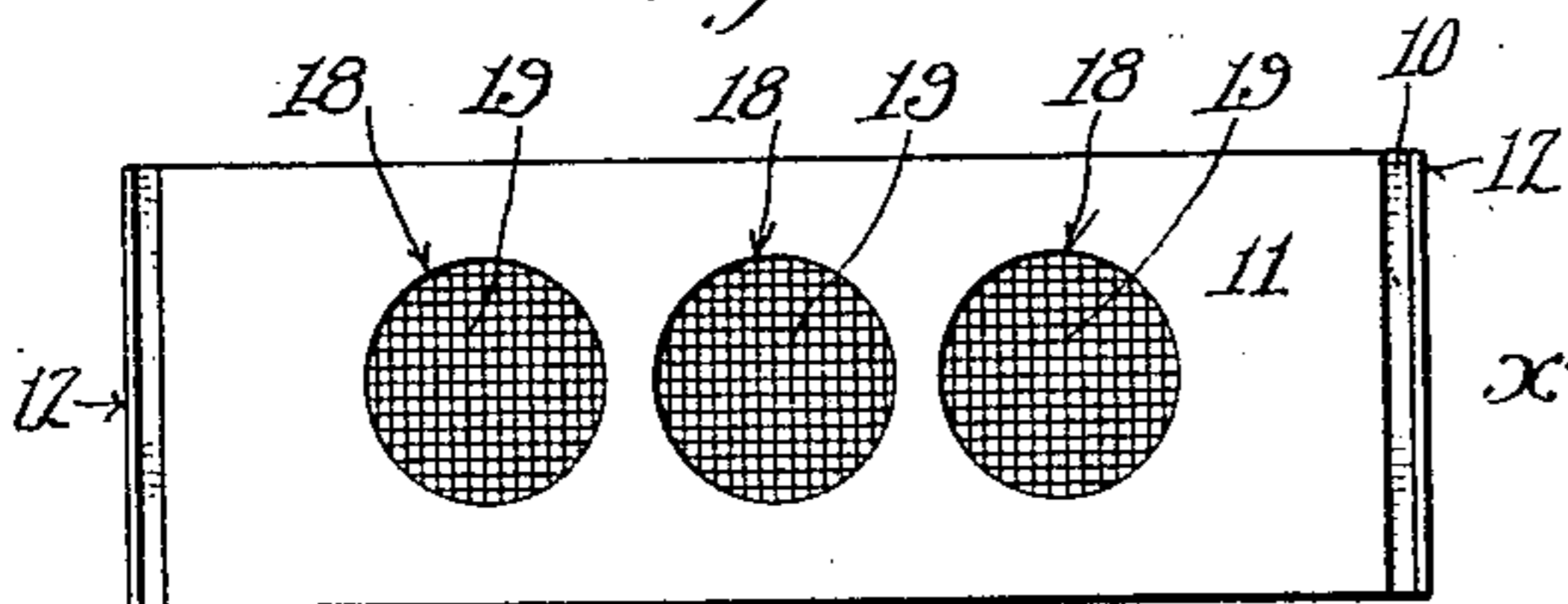


Fig. 3.

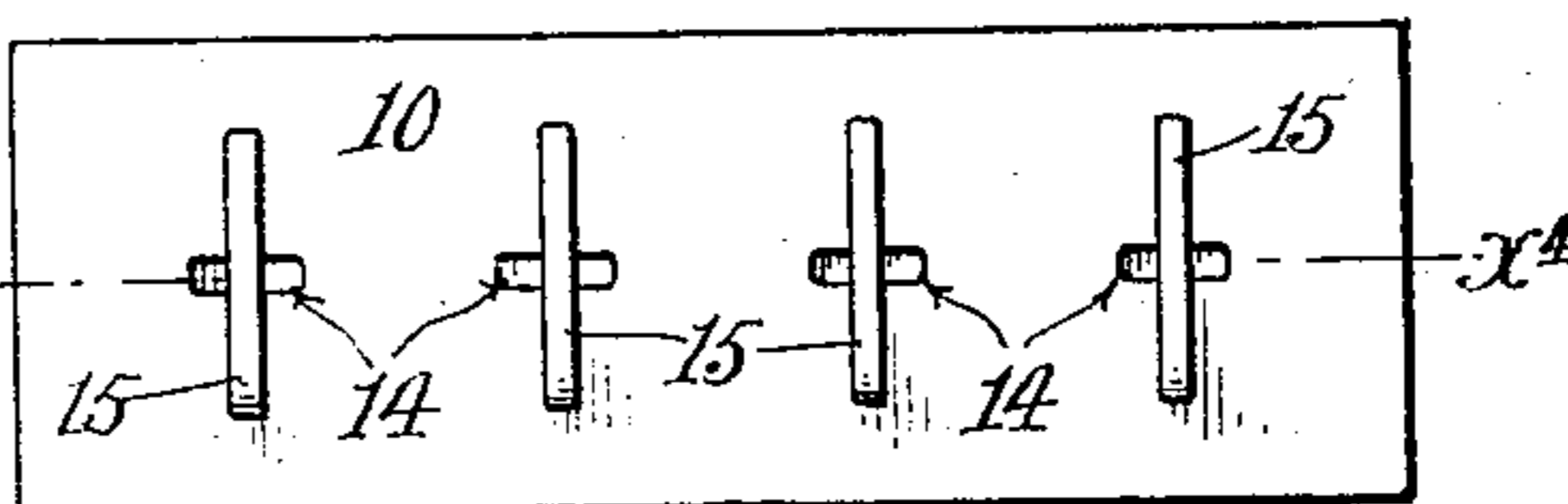


Fig. 4.

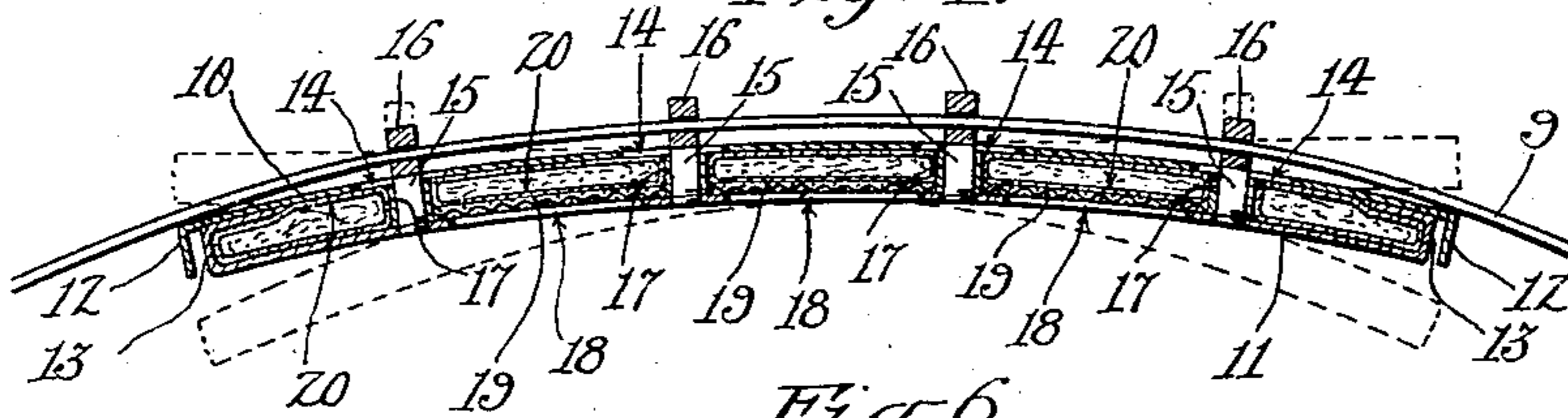


Fig. 6.

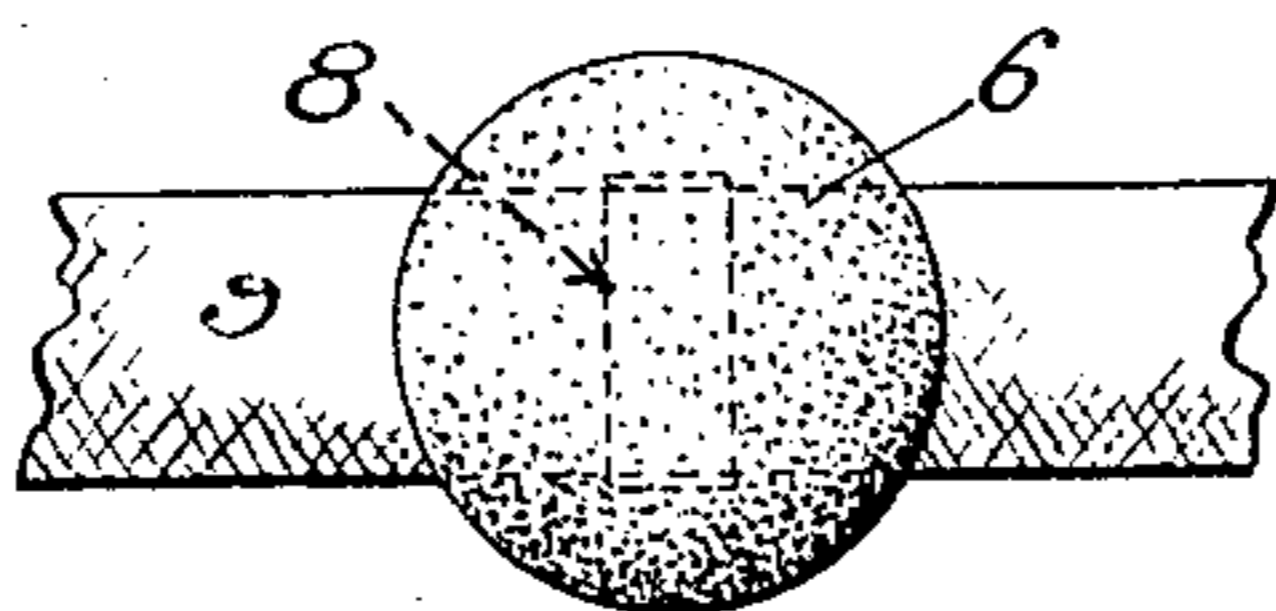
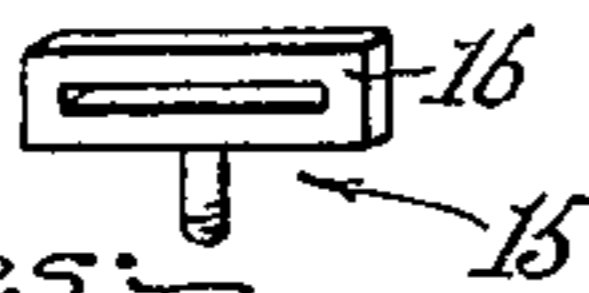


Fig. 5.



Witnesses: — 15
Frank A. Drake
Geneva L. Smith

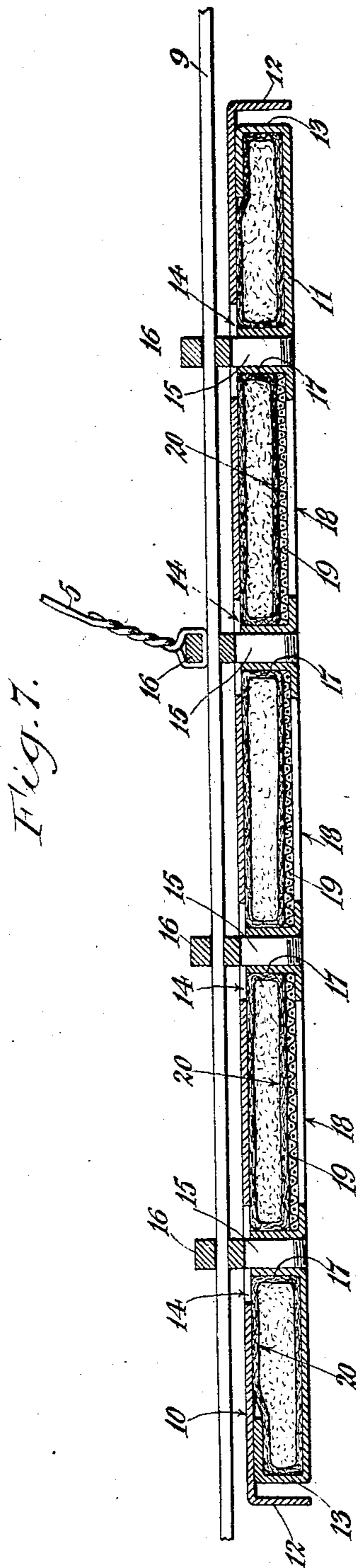
Inventor,
Thomas J. Randall.
Witnessed by our Hackley Knight
His attys.

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2 SHEETS—SHEET 2.



Witnesses:
Louis W. Gratz.
Frank S. Mahan

Inventor,
Thomas J. Randall
by
Townsend & Haenley & Knight
His Atty.

UNITED STATES PATENT OFFICE.

THOMAS J. RANDALL, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO SUNSET HOSPITAL, OF
LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

CATAPHORIC APPARATUS.

No. 868,123.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed November 30, 1906. Serial No. 345,849.

To all whom it may concern:

Be it known that I, THOMAS J. RANDALL, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Cataphoric Apparatus, of which the following is a specification.

This invention relates to an apparatus whereby cataphoresis can be availed of by patients who live in localities remote from the elaborate and costly apparatus usually required for such treatment.

The objects of the invention are to provide an apparatus which is simple in construction, effective in operation and durable in use.

A further object is to provide a metallic medicine receiver which may be flexed into various curves and rigidly maintained in the desired curved form to adapt the receiver to conform to the body.

The accompanying drawings illustrate the invention, and referring thereto:—Figure 1 is a general view illustrating the apparatus and showing the manner in which the medicine receiver and electrode are held in contact with the body and connected with the body. Fig. 2 is a rear elevation of the medicine receiver. Fig. 3 is a front elevation of the medicine receiver. Fig. 4 is an enlarged view, in section, on line x^4-x^4 Fig. 3, the belt having been shown in place. Fig. 5 is a perspective, in detail, of a clamping screw. Fig. 6 is a plan view of the electrode and part of the belt. Fig. 7 is an enlarged view similar to Fig. 4.

1 designates the battery, which may be of any desired construction, having terminals 2 and 3 which are connected by wires 4 and 5 with an electrode 6 and medicine receiver 7. The electrode 6 may comprise a metallic button which has a loop 8 through which may be threaded the belt 9.

The medicine receiver comprises a flexible metallic box which consists of thin metal plates 10 and 11. The metal plate 10 has its ends 12 bent down while the plate 11 has ends 13 bent upwardly and inwardly, as shown in Fig. 4, which ends form a support for the upper plate 10. The length of the lower plate 11 is a trifle less than that of the upper plate, which allows of the necessary slight sliding movement between the two plates when the box is flexed. The upper plate 10 has a series of slots 14 and clamping screws 15 pass there-through and are screwed into the bottom plate 11, as shown in Figs. 3 and 4. Each clamping screw, as shown in Fig. 5, has an elongated slotted head 16 which serves the double function of acting as a clamp against the outer surface of the plate 10 and also as a loop for the belt 9, the latter being extended through the series of slotted heads 16, as shown in Fig. 4. The wire 5 may be connected to one of the slotted heads 16 of the medicine receiver 7 as shown in Fig. 1, while wire 4

may be connected to a loop 8 of electrode 6. Around each screw 15, between the two plates 10 and 11, is a spacing sleeve 17 which prevents the two plates from being drawn together too close when the screws 15 are tightened. The plate 11 is provided with a series of orifices 18, back of which orifices is arranged a wire netting 19, which netting serves to confine the cotton which is positioned between the two plates 10 and 11 and the cotton is incased in a water proof sack 20, which sack is provided with orifices which register with the orifices 18. The sack is perforated at intervals to permit the passage therethrough of the screws 15 and sleeves 17.

As indicated in Fig. 4, the medicine receiver may be bent into different curves or it may be extended in a straight line. By loosening screws 15 the medicine receiver may readily be flexed by the fingers into the desired curve and after having been thus bent the screws 15 are tightened, which holds the plates in the relative positions into which they are bent and thus the curved form of the receiver is positively maintained. The slots 14 permit the necessary sliding movement of the screws 15 when flexing the receiver. In this manner the receiver may be bent or shaped to the form of any part of the body which is being treated with the apparatus.

The medicine receiver having been curved to the desired shape it is strung on the belt 9 and applied to the body as illustrated in Fig. 1, and the cotton 20 having been saturated with the desired medicine, as the electric current flows, it causes anodal diffusion of the medicament to the tissue, the medicine passing out through the wire screen 19 through the orifices 18 to the body.

What I claim is:—

1. In a cataphoric apparatus, an electric circuit, two electrodes connected thereto, one of the electrodes being a medicine receiver comprising a plurality of plates spaced apart to receive the medicament, and means for adjusting said plates to various rigid forms and for maintaining the plates rigidly in the form set.

2. In a cataphoric apparatus, an electrode comprising a medicine receiver consisting of a plurality of flexible plates, one of which is provided with series of slots, and clamping screws passing through the slotted plate and engaging the other plate, another electrode, and an electric circuit connected to both electrodes.

3. In a cataphoric apparatus, an electrode comprising a medicine receiver consisting of a plurality of flexible plates, one of which is provided with series of slots, clamping screws passing through the slotted plate and engaging the other plate, said clamping screws having elongated slotted heads which bear against the slotted plate, and a belt passing through said slotted heads, another electrode, and an electric circuit connected to both electrodes.

4. In a cataphoric apparatus, an electrode comprising a medicine receiver consisting of a plurality of flexible plates, one of which is provided with series of slots, clamping screws passing through the slotted plate and engaging

the other plate, said clamping screws having elongated slotted heads which bear against the slotted plate, a belt passing through said slotted heads, and spacing sleeves around the respective screws between the two plates, another electrode, and an electric circuit connected to both electrodes.

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5. In a cataphoric apparatus, an electrode comprising a medicine receiver consisting of a plurality of flexible plates, one of which is provided with series of slots, clamping screws passing through the slotted plate and engaging the other plate, said clamping screws having elongated slotted heads which bear against the slotted plate, a belt

passing through said slotted heads, spacing sleeves around the respective screws between the two plates, one of the plates having orifices for the passage of medicament, a screen over said orifices, and a bag between said plates for holding the medicament, another electrode, and an electric circuit connected to both electrodes. 15

In testimony whereof, I have hereunto set my hand at Los Angeles California this 23d day of November 1906.

THOMAS J. RANDALL.

In presence of—

GEORGE T. HACKLEY,

FRANK L. A. GRAHAM.