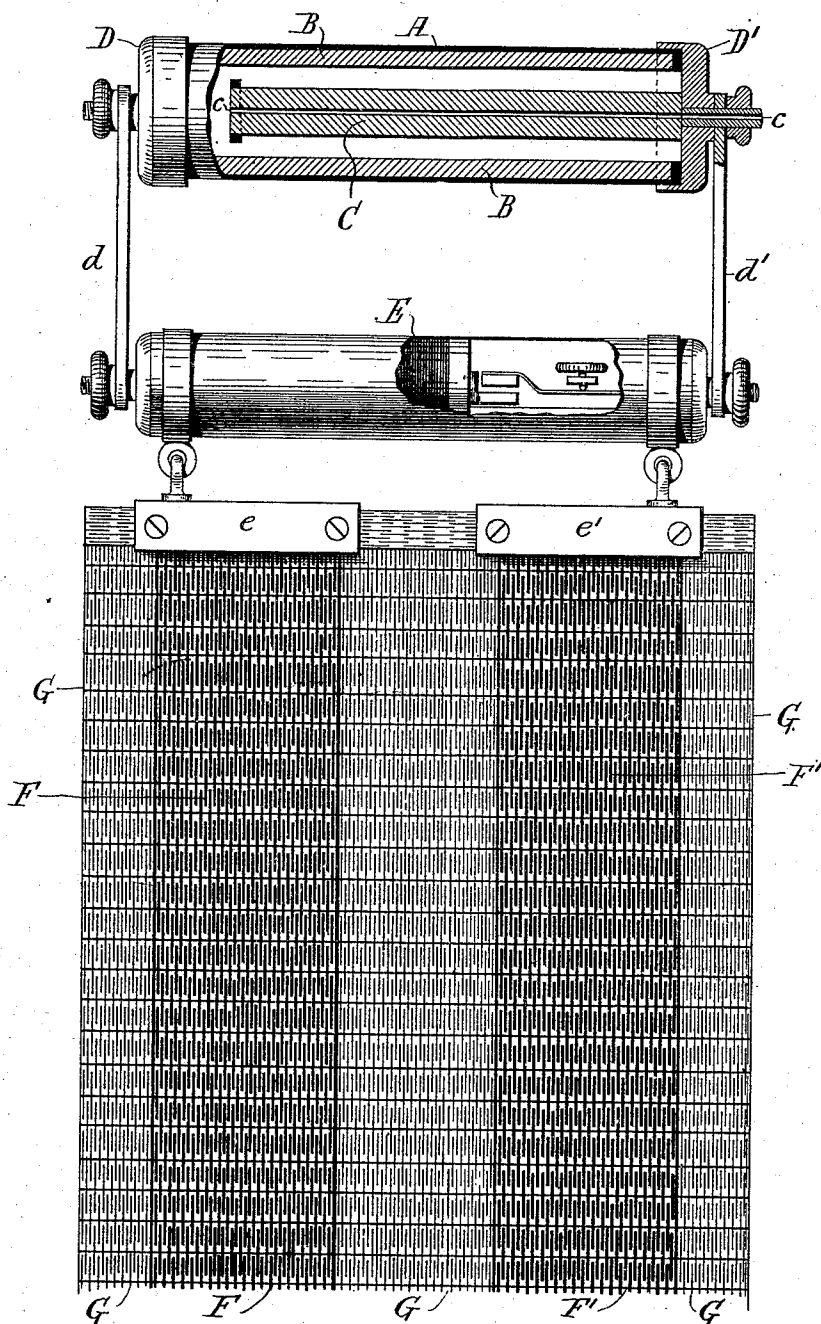


(No Model.)

S. HETHERINGTON-CARRUTHERS.
ELECTRO MEDICAL APPLIANCE.

No. 500,767.

Patented July 4, 1893.



Witnesses:-
E. H. Sturtevant.
M. M. Wood

Inventor:-
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UNITED STATES PATENT OFFICE.

SOPHIA HETHERINGTON-CARRUTHERS, OF SYDNEY, NEW SOUTH WALES.

ELECTRO-MEDICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 500,767, dated July 4, 1893.

Application filed October 6, 1892. Serial No. 448,017. (No model.)

To all whom it may concern:

Be it known that I, SOPHIA HETHERINGTON-CARRUTHERS, a subject of the Queen of Great Britain and Ireland, and a resident of Sydney, in the Colony of New South Wales, Australia, have invented certain Improvements in Electro-Medical Appliances, of which the following is a specification.

This invention is for the purpose of utilizing an induced current for electro-medical purposes, and includes essentially three parts:—first, a single cell or a battery, of any suitable design or construction; second, an induction or intensity coil; third, any suitable textile fabric into which strips or bands consisting of any suitable number of metallic fibers or filaments that would act as electrical conductors have been previously placed or woven. The fabric used may be made into towels, belts, knee-caps, corsets, stockings, bandages, sheets, or other articles that are brought into immediate contact with the flesh of the wearer or patient.

In the accompanying drawings, the form into which the fabric is made up is that of a narrow friction towel.

A, is the electric or voltaic cell, which may be of any suitable design or construction. The one shown in the drawings consists of a carbon containing vessel or element B, and the zinc element C, perforated longitudinally at c, to allow of the escape of any gas that may be formed in the cell, owing to the action of the oxidizing agent that may be employed.

D D', are metallic caps on the cell, and are connected with the primary wire of the induction coil E, by links d d'. Plates e e', form the terminals of the secondary wire of the induction coil E, and are in metallic contact with the metallic fibers or filaments that are placed on or woven into the towel G. These metallic fibers or filaments are arranged in strips or bands shown at F F', in the drawings. The metallic strips or bands are insulated from one another by the ordinary textile fabric of which the article is composed. Each strip or band will therefore consist of a number of electrical conductors. When the towel is brought into contact with the flesh of the patient the secondary circuit will be closed between the strips or bands through the body of the patient. In the drawings two strips or bands only are shown but a number of sets of two strips or bands may be em-

ployed. One end of a friction towel only is shown in the drawings, the cell and induction coil being made up in a convenient form of handle, the other end of the towel (not shown in the drawings) being provided with a dummy handle. It is obvious that the induction coil, and cell or battery, may be placed in any convenient position, apart from the towel, and communication established by means of suitable conductors.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim, is—

1. In an electro medical appliance, the textile fabric or towel having metallic conducting strips or bands and the battery electrically connected with said strips said battery being also mechanically connected with the towel and adapted to be portable therewith.

2. In an electro medical appliance, the textile fabric or towel having the conducting strips or bands, the portable battery A, at the edge of said towel and the connections d, d' between said battery and the towel, substantially as described.

3. In combination, the textile towel having the metallic conducting means, the battery A, the induction coil E, connected to the metallic bands and the connections d, d' between the battery and the induction coil, substantially as described.

4. In combination, the towel having the metallic bands, the plates e, e', at the edge of the towel, the battery and the connections therefrom to the plates, substantially as described.

5. In combination, the towel having the metallic conducting bands, the battery A, connected therewith comprising the carbon and zinc elements, one of said elements being arranged within the other and having a channel leading through it for the escape of gas from the interior, substantially as described.

6. In combination, the towel having the metallic conducting strips and the battery A, of elongated form having its ends connected electrically and mechanically with the towel and portable therewith.

In witness whereof I have hereunto set my hand in presence of two witnesses.

SOPHIA HETHERINGTON-CARRUTHERS.

Witnesses:

J. S. WHITELOCKE,

JAS. T. HUNTER.