

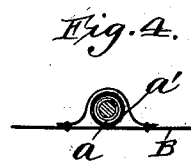
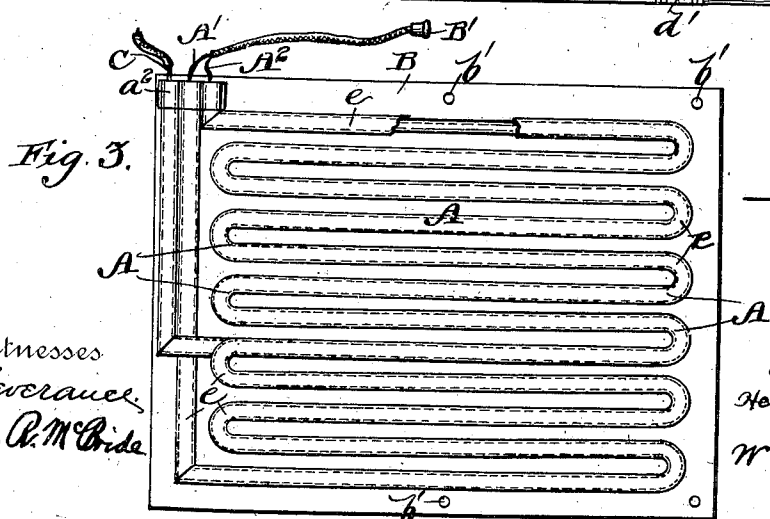
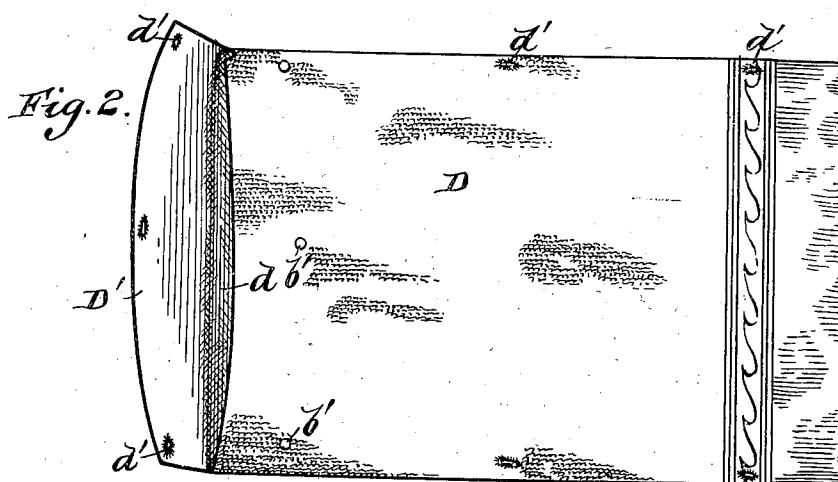
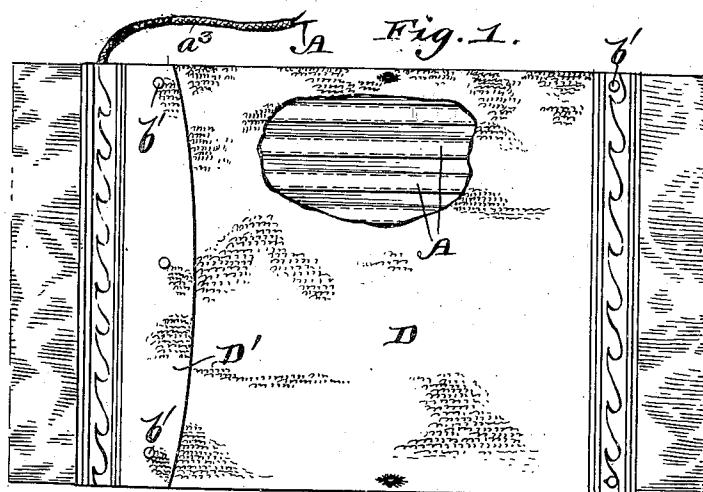
(No Model.)

H. G. O'NEILL.

ELECTRIC ROBE, TOWEL, &c., FOR HEATING.

No. 530,053.

Patented Nov. 27, 1894.



Witnesses
 Severance
 Park A. McBride

Inventor
Henry G O'Neil
By
Wm H Babcock
Attorney

UNITED STATES PATENT OFFICE.

HENRY G. O'NEILL, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF
TO EDWARD JEWELL, OF SAME PLACE.

ELECTRIC ROBE, TOWEL, &c., FOR HEATING.

SPECIFICATION forming part of Letters Patent No. 530,053, dated November 27, 1894.

Application filed April 9, 1894. Serial No. 506,878. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. O'NEILL, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Electric Robes, Towels, and other Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The chief object of this invention is to provide simple, cheap and effective means for creating local heat in the human body, through the medium of electrically heated fabrics, for the treatment of cases in hospitals and sick rooms, especially when congestive symptoms or others requiring heat become apparent, or when defective circulation makes such application of a heat-producing agency desirable.

To this end, and for toilet and other uses requiring heat, my invention consists chiefly in a flexible robe, towel, bandage or other article of fabric provided with electrical heating devices and adapted to be applied to the human body.

The said invention further consists more particularly in the particular construction and combination of parts constituting the said electrically heated articles substantially as set forth.

In the accompanying drawings, Figure 1 represents a view partly broken away of a bag of toweling containing my electrical heating device. Fig. 2 represents a similar view of the bag open, not broken away, and without the said device. Fig. 3 represents a detail view of the electric heating device and of the sheet of fabric to which it is attached; and Fig. 4 represents a section through the resistance wire and its wrappings.

A designates an electrical conductor preferably of wire and forming part of a circuit, but affording sufficient resistance to develop the required degree of heat, a sufficiently strong current being employed. This resistance A is provided with an insulated coating *a* preferably of asbestos braided thereon and may have an exterior water proof insulating covering *a'*. If combustible material, such

as silk or cotton, be used for the coating *a*, it should be treated with some fire proof composition. Any other suitable water-proof material may be substituted for the rubber in the coating *a'*, for example oxidized linseed oil when the temperature does not exceed 200° Fahrenheit; and this water proof material, whether rubber or anything else, may be applied in any known and convenient way or any way that may yet be discovered, and either in liquid or solid form. Extra covering of silk or other material may of course be added. The resistance thus insulated and practically fire and water proof, so far as the circumstances of its purpose and use are concerned, is attached to a body B of cotton, silk or other flexible material adapted in size and form to its specific end, that is to say for use as a robe, towel, bandage or whatever else it may be. When it is meant for a towel, I use a body of light duck or other suitable woven fabric, and secure the resistance thereto, preferably in undulating or zigzag lines as shown by incasing the resistance and wrappings in a piping or their jacket *e*, which is stitched to the said flexible body B; or this piping may be dispensed with and the said conductor A may be attached to the said flexible body B by cross-stitching or in any other convenient way.

The terminals *A'* *A'* of the resistance pass out near the same point for convenience sake and are at that point firmly secured to the body B, being reinforced by additional coverings *a'*. These terminals, outside of the said coverings are provided with a common jacket *a'* and terminate in a plug B', which is used to close the circuit. To regulate the heating effect, a rheostat may of course be employed, but I prefer to use for the same purpose a branch conductor C, extending from a point on the resistance wire A, which allows a good part of the said resistance to be cut out of circuit at will, thus proportionately reducing the heating effect. Of course the plug B' is not at all essential. Any suitable circuit-closing means may be employed.

The body B and resistance A are inclosed in a bag D of soft toweling which is open at one end *d* to receive them, said end closing at will by buttoning a flap D', the body be-

ing then secured to said bag or case D by buttons *b'* and button-holes *d'* on these respective parts; or any other convenient method of fastening may be adopted. These fastenings hold the body B and heating resistance in place, but allow them to be readily withdrawn and changed when occasion arises; and the exterior bag or case D as soiled may also be removed, leaving the said body neat and clean. Both of these parts B and D being flexible make up a towel which is capable of use like any other; and the current of electricity in passing through the said resistance will endow the said towel with a pleasing and beneficial warmth as it is applied to the skin.

Of course when a robe, bandage, or other article is made in accordance with this invention, the form of the interior body and outside case, as well as the materials of both, must be varied accordingly.

No electro-therapeutic agency is claimed, the invention being intended only as a heat applying device especially available for surgical and toilet purposes, though capable of use with flexible articles generally.

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

1. A towel, robe, or other article of flexible fabric provided with a flexible resistance contained within the same, the said resistance having water-proof and fire-proof coatings and being adapted to connect with the conductors of an electrical circuit substantially as set forth.

2. In a towel, robe, or other article of flexible fabric an exterior bag or casing in combination with a sheet adapted to be inserted within and removed from the same and a flexible resistance attached to the said sheet and removable therewith, the said resistance being provided with water-proof and fire-proof coatings and adapted to connect with the conductors of an electric circuit substantially as set forth.

3. In combination with the resistance and flexible fabric of an electrically heated towel or other article adapted to be applied to the human form, a branch conductor by which more or less of the said resistance may be cut out of circuit at will substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY G. O'NEILL. [L. S.]

Witnesses:

PELATIAH R. TRIPP,
CARL F. O. PIEDHOF.