May 6, 1969 B. D. MORGAN 3,443,067

ELECTRIC TOWEL ASSEMBLY

Filed Dec. 7, 1966

FIG. 1

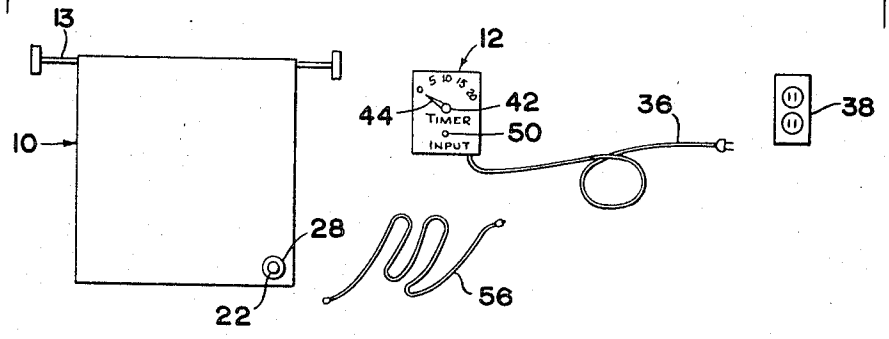
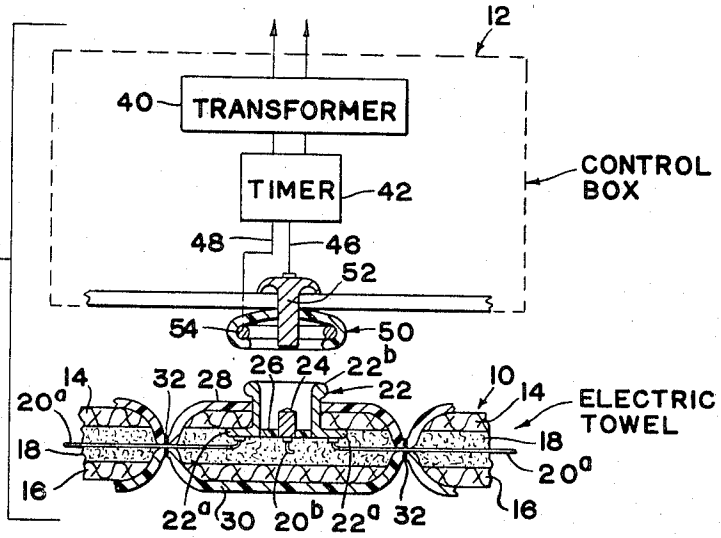


FIG. 2



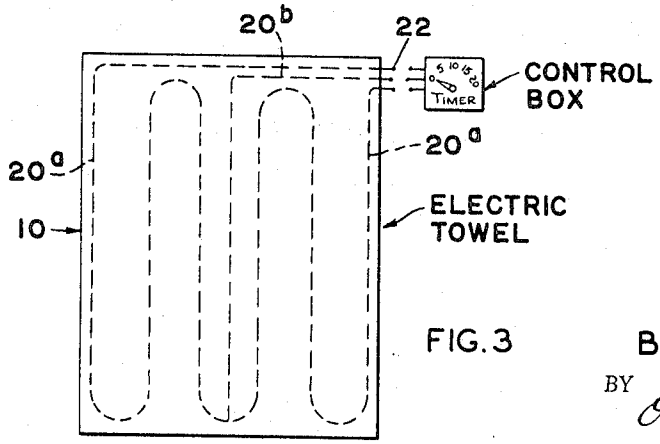


FIG. 3

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ELECTRIC TOWEL ASSEMBLY

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U.S. Cl. 219—529 2 Claims

ABSTRACT OF THE DISCLOSURE

Apparatus for safely heating a towel which has a flexible heating element contained therein which can be connected to a suitable time and current control box in order to selectively heat the towel.

The electric towel assembly of the invention is basically comprised from a towel-like body which has a flexible heating element contained in the body of the towel in insulated relation thereto and covering substantially the entire area of the towel. A connector, for example, input jack mounted to the body of the towel is electrically connected to the flexible heating element so that the towel can be removably connected by means of the connector to a suitable control box whereby the towel can be heated.

For a better understanding of the electric towel assembly of the invention, reference should be had to the accompanying drawing wherein:

FIG. 1 is a schematic illustration of the electric towel assembly of the invention, particularly illustrating the separate elements thereof and their relationship to each other;

FIG. 2 is a broken away, partial diagrammatic and partial cross sectional showing of the control box of the electric towel assembly, and in exaggerated, enlarged detail the connector jack of the control box and of the electric towel; and

FIG. 3 is a schematic view of the wiring system of the electric towel.

Referring to the drawing in greater detail, the electric towel assembly of the invention is comprised of a towel generally indicated by the numeral **10**, and a control box generally indicated by the numeral **12**. The towel **10**, shown in FIG. 1 as being draped over a suitable towel rack **13**, is formed from two similar lengths of towel forming material **14** and **16**, such as terry cloth, which are positioned on top of each other and secured together in a suitable manner, for example, as by stitching, to form the actual body of the towel **10**.

Sewed into the body of the towel **10**, and insulated from the lengths **14** and **16** of terry cloth material by suitable insulative material **18** such as light weight and flexible asbestos, is a flexible heating element **20** which is bent around in back and forth fashion to cover substantially the entire area of the towel, as is best illustrated by FIG. 3. The heating element **20** may for the sake of more uniform distribution of heat be comprised of two input portions **20***a* and a single output portion **20***b*. The input portions **20***a* of heating element **20** are electrically connected to the outside walls **22***a* of a cylindrical jack **22** which is secured to the towel. The output portion **20***b* of heating element **20** is electrically connected to a center post or contact member **24** of connector jack **22**. Center contact member **24** is suitably insulated from walls **22***a* of the jack **22** as by a suitable ring or annular shaped plastic insulator plug **26** which resiliently mounts the center contact member **24** to jack **22**. Jack **22** is secured to the length of terry cloth material **14** by riveting a bottom flange of the wall **22***a* into firm non-releasable contact with the terry cloth material **14**. Of course, a small hole has to be cut into the adjacent layer of the terry cloth material **14** in order to allow the connector jack **22** to be secured in riveted relation thereto.

To provide additional support to the connector jack **22** as it is secured to the towel **10** and to achieve a positive insulation thereof, a pair of dielectric plastic mounts **28** and **30** are positioned on opposite faces of the towel and then are heat sealed together around their circumference through the towel as at **32** in order to firmly secure jack **22** to the towel **10**. The upper mount **28** fits snugly around jack **22** between bottom flange **22***a* and a top outward curled lip **22***b*.

In order to heat the towel **10**, a low amperage, low voltage current source is connected to jack **22** whereby the heating element **20** heats the towel. Control box **12** is of known construction to supply such a current source to the heating element **20**. For example, the control box **12** is adapted to be connected as by cord **36** to a suitable electrical input source indicated diagrammatically by wall outlet **38**. Typically, the control box **12** may consist of a transformer **40** connected to the input source and a manually operated timer switch **42** which is adapted to turn the control box and thereby the electric towel on and off. The timer switch **42**, as illustrated by FIGS. 1. and 3 includes a manually positioned arm or arrow **44** which allows the length of time the heating element is actuated or "turned on" to be selectively controlled. Referring to FIGS. 1 and 3, it can be seen that positioning arm **44** of the timer **42** so it points at the numeral **10**, for example, causes the electrical blanket to be heated for ten minutes when the heating element is connected to the control box **42**.

In order to effect such a connection of the heating element **20** of the electric blanket **10** to the control box **34**, wires **46** and **48** from the timer **42** connect to a button jack **50** which is mounted to the outside face of the control box **34** and which snaps over to mate with jack **22** of the towel **10**. As illustrated by FIG. 2, wire **46** connects to a center contact member **52** of jack **50** while wire **48** connects to a ring **54** seated in the jack **50** and insulated from center contact member **52**. Jack **50**, like jack **22**, is substantially circular in shape, and normally made from a suitable dielectric plastic, but the diameter of jack **50** is slightly greater than the diameter of jack **22** wherein jack **22** may be simply plugged or snapped with a temporary locking action into jack **50** wherein the cylindrical wall **22***a* of the jack **22** will engage with ring **54** while the two center contact members **52** and **24** of jacks **50** and **22**, respectively, will contact with each other wherein a complete circuit is effected between the electrical heating element **20** and the control box **34**.

In the actual operation of the electric towel assembly of the invention, jack **22** of the towel **10** can be simply plugged into jack **50** with the timer **42** then being actuated wherein the electric towel **10** will be heated for a designated period of time. The towel **10** simply drapes out below the control box **34** with the connection between the jacks **50** and **22** being sufficiently strong because of the snap type locking action to hold the weight of the towel hanging below. Use of the towel in this manner is contemplated wherein after the towel has been used and is wet, it simply plugged into the control box **12** with the timer **42** being actuated wherein the towel is heated for a designated period of time in order to dry it out for the next use and prevent it from mildewing. Also, the user can simply actuate the timer of the control box **34** with the towel being plugged therein before taking a bath or shower so that when the towel is used it will be warm and quite comfortable.

If it is desirable to heat the towel while it is actually wrapped around a portion of the body, an auxiliary cord means **56** can be utilized, the flexible cord **56** having one

end being adapted to be plugged into jack **50**, for example, with the other end being adapted to be plugged into jack **22** whereby the heating element is again connected to the control box **34**. Since the cord **56** is flexible, the person having the towel wrapped around a portion of his body can freely move about with no fear that the connection of the heating element **20** with the control box **34** will be broken, and further because of the excellent insulation characteristics, there is no fear of an electrical shock when the towel is used in this manner.

While in accordance with the patent statutes only one best known embodiment of the invention has been illustrated and described in detail, it is to be particularly understood that the invention is not limited thereto or thereby, but that the inventive scope is defined in the appended claims.

What is claimed is:

1. An electric towel assembly, including a fabric material means forming a two-layer towel-like body, a flexible heating element contained within the towel and covering substantially the entire area of the towel, a control box means adapted to be connected to an electrical input source, a first jack mounted directly to the control box, and a second jack designed to mate with said first jack mounted on said towel and electrically connected to said flexible heating element which is characterized by

the control box being comprised of a transformer connected to an input source, and a manually operated timer and switch assembly electrically connected to the transformer and to said first named jack, and

said first jack and said second formed from substantially cylindrical cups, the diameter of said second jack being of a slightly less diameter than said first jack whereby said second jack can be inserted with a snap locking action in said first jack to electrically connect therewith, and where locking of the second jack in the first jack will support the weight of the towel heating element hanging therefrom even when the towel is wet.

2. An assembly according to claim **1** which includes flexible cord means that provide an electrical connection between the first jack and the second jack.

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U.S. Cl. X.R.

21—81; 219—212