

July 17, 1928.

1,677,280

A. C. GILBERT

TOWEL BAR

Filed Jan. 14, 1924

2 Sheets-Sheet 1

Fig. 1.

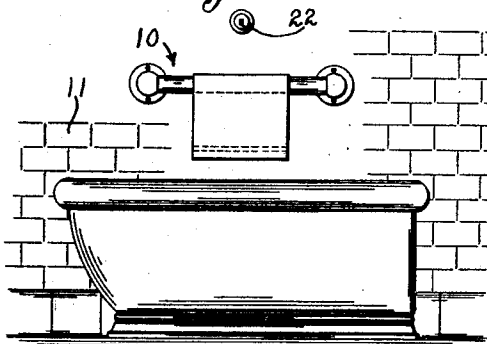


Fig. 2.

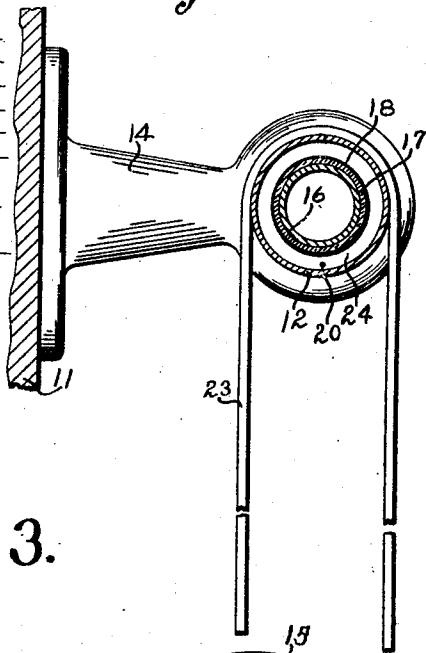


Fig. 3.

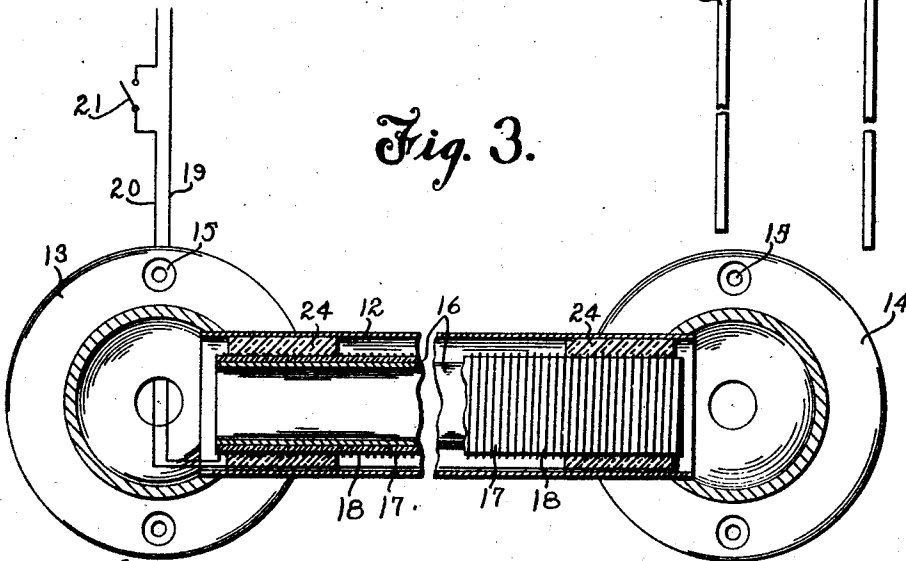
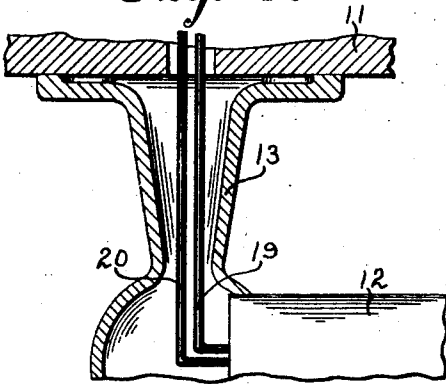


Fig. 4.



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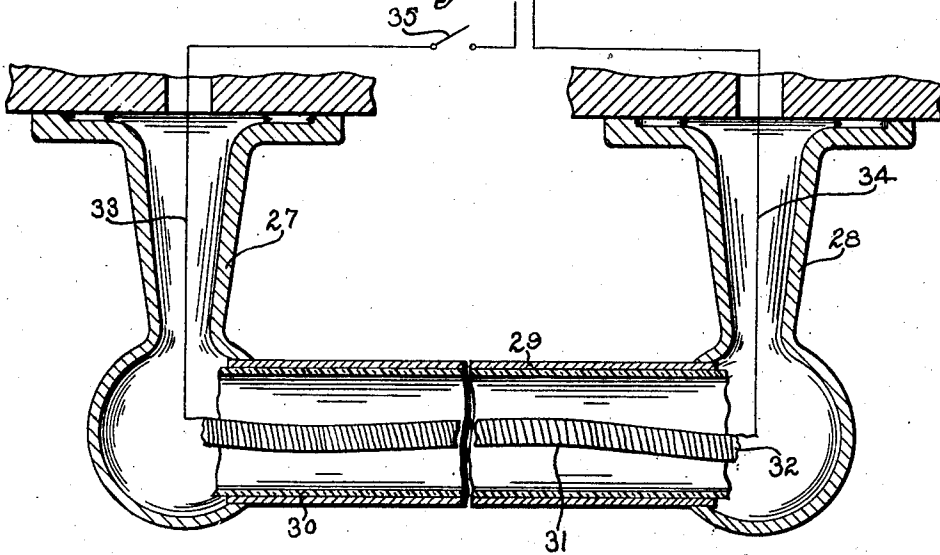
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2 Sheets-Sheet 2

Fig. 5.



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UNITED STATES PATENT OFFICE.

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TOWEL BAR.

Application filed January 14, 1924. Serial No. 686,074.

This invention relates to a towel bar, and more particularly to a towel bar or rack over which a cloth is adapted to be looped or folded, the bar being provided with an enclosed resistance or heat element to heat the surface of the bar and thereby cause a rapid and effectual drying of the cloth.

When towels have been used and are somewhat wet or damp, it is very desirable to have some means of quickly drying them. This is especially true in damp climates, such as places near the seashore, for example, where if damp or wet cloths are merely hung up they dry very slowly, in fact, it is sometimes difficult to dry them at all indoors. It will, of course, be understood that the method and apparatus herein disclosed is capable of use with other articles which it is desired to heat or dry, as well as those specifically mentioned.

One object of my invention is to provide an improved method for drying cloths, such as towels or the like.

Another object of my invention is to provide a method of drying damp or wet cloths which makes use of a self heated supporting element for the article to be dried, and which will be rapid and effective in its operation.

A still further object of my invention is to provide an improved form of towel bar by which a towel may be effectually dried when hung thereover.

Still another object of my invention is to provide a towel bar with a supporting rod having an interiorly disposed heating element, such that the surface of the rod will be heated and the towel rapidly and effectually dried when hung thereover.

A still further object of my invention is to provide an electrically heated towel drier which may be installed in a bath-room or the like, and which will be ornamental in appearance and will be similar in all apparent respects to the ordinary towel bar, provision being made for controlling the heating current at will.

To these and other ends, the invention consists in the novel method and combination of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is an elevational view of a towel bar embodying my invention, secured in position on the wall;

Fig. 2 is a transverse sectional view through the supporting bar;

Fig. 3 is a longitudinal sectional view, while

Fig. 4 is a sectional view through one of the supporting brackets, showing the lead wires passing into the wall.

Fig. 5 is a sectional view of a modification.

While I have shown my invention as applied to the supporting and drying of towels upon a so-called towel bar, it will be understood that it is capable of use in other relations and may be used generally in the heating and drying of cloths of all kinds. I prefer to so construct the cloth or towel supporting element so that the article to be dried may be supported by being looped or folded thereover at a point intermediate its ends. It might be supposed that, when the supporting element was heated, only that part of the article would be dried which lies adjacent the heated support, but I have discovered that this is not the case, but on the contrary the cloth or towel will be dried in its entirety in a relatively short time. This is perhaps due to the fact that when that part of the article, such as a towel, is dried adjacent the heated bar, moisture will rise from the depending ends by capillary action, and, in addition, to the fact that the heat radiated from the lower half of the supporting element, which is not directly engaged by the towel, will be confined to some extent between the depending ends of the towel and will, therefore, be effectual in drying out this portion also.

In the embodiment of my invention which I have selected to illustrate, I have shown a towel bar or rack designated generally by the numeral 10, supported in the usual manner upon a wall 11. The towel rack comprises a hollow or tubular supporting element or rod 12, which may be somewhat larger than the corresponding part of the usual towel rack, and which at its ends is received in, and supported by hollow brackets 13 and 14, provided with openings 15 for the reception of fastening members by which it may be secured to the wall.

Within the rod 12 is mounted a heat element which may be, and in this instance is, substantially co-extensive in length with the rod itself. This heat element consists of a supporting tube 16 which may be made of

any convenient substance, such as brass, the tube being covered by a sheet of asbestos or other refractory material 17, about which is coiled the resistance wire 18. It will be understood, of course, that the invention is not limited to a heat element of any particular construction, the particular form described being merely by way of illustrating one embodiment of the invention and is susceptible of changes which lie within the spirit of the invention.

The heat element may be spaced from the supporting element 12 in any preferred way, such as being provided adjacent the ends thereof with sleeves or collars 24 of insulating material which substantially fill the space between the periphery of this element and the towel supporting rod 12. In the form shown, these sleeves consist of a wrapping of asbestos which has been found to be suitable and desirable for this purpose.

The lead wires 19 and 20 which convey the electrical current to the heat element are brought out at one end of the rod 12 and pass through the hollow portion of one of the end brackets 13, so that they may be obscured from view and pass into the wall 11. The current through these wires may be controlled at 21 by any preferred form of switch, such as a tumbler switch mounted upon the wall adjacent the towel rack, as shown at 22 in Fig. 1.

It will be obvious that I have provided a towel support which may be made very ornamental in appearance as the metallic rod 12, as well as the end brackets 13 and 14, may be covered with a coating of white enamel without destroying the effectiveness of the heating element, and as the wires pass into the wall through the end brackets the article cannot be distinguished from the ordinary towel rack or bar, which is not provided with a heat element. Not only will my improved device be ornamental but it will also be found very convenient in drying towels or other cloths, which function will be accomplished in a rapid and effectual manner.

Contrary perhaps to expectation, the towel or cloth when hung over the bar, as shown at 23, in Fig. 2, will not only be dried at portions adjacent the supporting rod 12, but will be dried very quickly throughout its entire extent.

In the modified form of my invention, which I have shown in Fig. 5, I employ two end brackets 27 and 28, similar to those shown in connection with the towel bar previously described. Between these end brackets is supported in horizontal position a tube or rod 29 of heat conducting material within which is a lining or sleeve 30 of asbestos, or other refractory and insulating material. Within the asbestos lining is a resistance heat element comprising a coil of wire 31

wound about a core 32, which may also be conveniently made of asbestos.

As shown, the resistance element may simply lie upon the asbestos lining at the bottom of the tube 29, or if desired, it may of course be suitably supported at the axis of the rod. The asbestos lining 30 may project slightly beyond the ends of the rod 29 in order to insulate the wire on the resistance element from the rod at this point if it is necessary.

Lead wires 33 and 34 may be passed into the wall through the hollow end brackets 27 and 28, and may there be controlled by a suitable switch, diagrammatically shown at 35. The particular manner in which the lead wires pass from the resistance element to the switch is not of importance, however, in all aspects of the invention, as in this modification, as well as in the form of my invention shown in Figs. 1 to 4, both wires may be caused to pass through a single bracket if desired.

While I have shown and described preferred embodiments of my invention, it will be understood that it is not to be limited to all of the details shown, nor to the precise manner of carrying out the improved method described herein, but on the contrary both apparatus and method are capable of modification and change without departing from the spirit of the invention or from the scope of the appended claims.

What I claim is:

1. In an apparatus of the character described, a hollow cylindrical towel supporting rod of heat conducting material, said rod being provided with imperforate walls, a resistance heater in the interior of said rod, a sleeve of insulating material interposed between said heater and rod, hollow end brackets within which the ends of the rod are received, said brackets being provided with flange-like bases whereby they may be attached to a wall, said bases being open on their sides adjacent the wall, wires for furnishing electric power to said heater passing through at least one of said brackets and to said heater, said wires being insulated from said brackets, said brackets and rod presenting exteriorly a completely closed structure when secured on a wall, and there being no exposed electrically charged parts.

2. The combination with a bathroom wall, of a towel bar structure comprising a horizontal towel rod, brackets supporting the ends of said rod, said brackets extending towards and being secured against the wall face, said rod being hollow to present an interior heater cavity, an electrical heater located in said cavity and adapted to heat the rod wall to a proper degree to dry towels supported upon said rod while they are so supported, and internal concealed electrical connections associated with at least one of

said end brackets and connected to said heater to supply heating current thereto.

3. The combination with a bathroom wall, of a towel bar structure applied thereto in substantial parallelism therewith, and comprising a hollow rod of substantial internal diameter provided with imperforate walls, end brackets applied to the face of the room wall and having sockets in which the ends of said rods are received for holding it in place, and means within the rod for heating the body thereof and thereby drying towels supported thereon, said heating means comprising a resistance heater mounted in the interior of said rod, and concealed electrical connections to said heater passing through at least one of said end brackets, said brackets and rod being suitably insulated.

4. The combination with a bathroom wall, of a towel bar structure applied thereto and extending in substantial parallelism therewith, and comprising a hollow towel supporting rod of substantial internal diameter

open at the ends only, hollow end brackets having flanges secured to said wall and provided with hollow interior portions in which the ends of said rod are received for holding it in place on the wall, a resistance heater in the form of a coil located within the interior of said rod and extending lengthwise thereof for heating said rod throughout a substantial portion of its length to thereby dry a towel supported thereon, means for insulating the heater coil from said rod, concealed electrical connections passing to said heater coil through at least one of said hollow end brackets, and means for insulating the electrical connections from the structure consisting of the hollow rod and the end brackets, so that the said structure is prevented from being electrically charged by the current passing to said heater coil.

In witness whereof, I have hereunto set my hand this 11th day of January, 1924.

ALFRED C. GILBERT.