

DESCRIPTION

1. Field of Invention

05 This invention relates to mirrors, particularly bathroom mirrors, and to a mirror heater assembly which can heat a mirror up such that the precipitation of fog or mist on the bathroom mirror surface, as is conventionally observed when bathing facilities involving hot water are employed in the bathroom premises, is prevented.

2. Background of Invention

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Known mirrors equipped with anti-fogging or anti-misting capabilities usually require electrically conductive elements mounted in contact with the mirror, which are subsequently heated by an electrical current passing through them. Such methods of heating mirrors are efficient, but involve the consumption of electric power and the heating apparatus are relatively costly to purchase and require regular maintenance with difficulties.

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Thus, there is a prospect for an anti-fog mirror which does not consume electrical power and is inexpensive to obtain and free of maintenance.

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3. Summary of Invention

The invention offers a mirror heating method, in accordance with an anti-fog mirror, which addresses the aforementioned issues of electrical power consumption as well as the costs of utilization and maintenance without compromising the functionality of fog prevention present in other known anti-fog devices.

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According to the invention, non-consumption of electrical power will be a characteristic of the mirror heating method. The thermal energy essential for the heating of the mirror is tapped off the main water conduits channeling water to the consumer during any and all operations relating to the bathing facility, thereby constituting no need for electrical apparatus in the supply of thermal energy to the mirror.

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Yet further, according to the invention, the mirror heating method presented is an inexpensive product. The product comprises a rudimentary extension of the main water pipes into an extended piping route mechanically attached to a copper plate, which is positioned behind the central area of the mirror, after which this assembly assumes the role of a heater when hot water is passed through it, forming an anti-fogging feature. The copper plate ensures that the thermal energy is evenly distributed across the mirror, creating a wide zone where fog would not form.

Also important, according to the invention, the mirror heating method presented incurs minimal operational and maintenance costs. The wholly mechanical nature of the invention is exemplified by no moving electrical or mechanical components that can compromise the function of the invention via wear and tear.

Features of the present invention as well as its overall advantages are clearly perceptible from the following descriptions when taken in connection with the appended diagram and details.

4. Drawing(s)

Figure 1 depicts the cross-sectional top view of the invention.

5. Preferred Embodiment(s)

In a first preferred embodiment of the mirror heating method of the invention, the main water pipes are extended from their conventional route to form a vertical, wide and tall piping route structure 01. This tall piping route structure 01 is mechanically attached to a flat copper plate 02. The flat copper plate 02, rectangular in size and designed to fit the central zone of the mounted mirror, has two 'U' shaped clips 03 of circular cross-section forged vertically along the length of the surface of the flat copper plate 02, as is reflected in Figure 1. With reference to Figure 1, the 'U' shaped cross sections of the 'U' shaped clips 03 receive the extended water pipes of the piping route structure 01 with tight-fitting mechanisms at the clip mouth. The flat copper plate 02 is in direct contact with a mirror's rear.

This comprises the heating element of the invention. In one example, when a user is operating the bathing facility with hot water, the pipes transporting hot water in the piping route structure 01, and hence the flat copper plate 02 and the mirror, would be heated up in view of the transfer of thermal energy from the hot water to the combined assembly. The consequent increase in the temperature of the mirror via conduction of thermal energy from the copper plate 02 prevents the precipitation of fog or mist on its surface. In the embodiment shown in Figure 1, the copper plate has a large surface area and hence the thermal energy is evenly distributed across a wide mirror area, forming a large zone where fog formation is prevented.

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As is discernable from the preceding description, the present invention essentially provides a new and innovative approach towards a mirror heating method. The present invention bests conventional approaches in the removal of electrical dependency for functionality, low procurement cost and maintenance-free characteristics.

CLAIM(S)

What is claimed is:

- 05 1. A mirror heater assembly comprising:
- a mirror;
- a copper piping route, attached to a copper plate, set up behind said
- mirror;
- 10 wherein the copper piping route transfers thermal energy from the hot water passing through the piping route located behind the mirror to the copper plate positioned along this copper piping route, and the thermal energy provided is then exchanged with the surface mounted mirror attached in front of the copper plate.
- 15 2. A mirror heater assembly stated in claim 1 wherein the copper pipes carrying hot water make a loop between the water heater outlet and the hot water tap outlet.
3. A mirror heater assembly stated in claim 1 wherein the copper plate behind the mirror is clipped onto the copper pipes and the copper plate is embraced firmly.
- 20 4. A mirror heater assembly stated in claim 1 wherein the thermal energy is transferred from the hot water in the copper pipes to the copper plate and afterward is transferred to the mirror's rear surface, henceforth making the mirror's front surface heated.
- 25 5. A mirror heater assembly stated in claim 3 wherein the copper plate behind the mirror is presented to have two 'U' shaped clips forged in the copper plate running along in parallel with the copper piping route which receive the copper piping route with a tight-fit mechanism.
- 30 6. A mirror heater assembly stated in claim 4 wherein the copper plate surface will be in full contact with the mirror's rear surface at all times.