Hand Fan

...a modern twist on classical and elegant personal cooling

Hand Fans

The purpose of this document is to redefine the hand fan as a classical personal cooling tool for the modern world.

What is it?

The hand fan is a personal cooling device. It is wireless, lightweight, compact and does not require a power supply.

In its most classical view, it is a semi-circular surface created by attaching a thin material between slats that revolve around a pivot so that it can be closed when not in use.

Where Does It Come From?

The hand fan dates back over 3000 years. According to the United Kingdom's Fan Museum website, archeological evidence suggests that ancient civilizations like the Etruscans and Romans used hand fans. However, the first folding fans were European adaptations of fans brought west from ancient China and Japan. Over the centuries the fans have evolved in appearance with some of them considered veritable works of art.

(http://fashionbombdaily.com/wp-content/uploads/2009/07/Paper-Hand-Fan.jpg

(http://www.turbosquid.com/3d-models/chinese-fan-3d-model/754257)

How it works

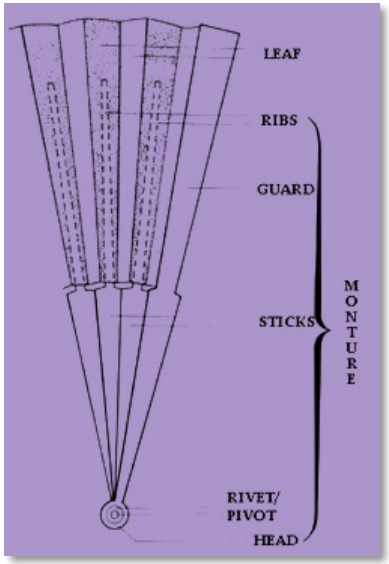
When fully extended, the fan becomes a quasi-flat surface that increases the airflow over a person's skin as it is waved back and forth by hand. This increased airflow, according to E. Sterl Phinney, a professor of astrophysics at the California Institute of Technology, in turn increases the evaporation rate of sweat on the skin and as the evaporation occurs it provides a noticeable cooling effect to the user.

Effective Low Tech in a High Tech World

Different from the motorized fan, the hand fan is not burdened by some of the more inconvenient characteristics of modern technology. The hand fan doesn't require a motor or a power supply, be it batteries or corded power, which makes the fan a lightweight, wireless and incredibly portable accessory that easily fits inside a purse, backpack or back pocket.

Versatility in an Eco-Friendly World

Without the need for wires or heavy power supplies, a hand fan is made of 100% recyclable materials. Built primarily from recycled paper and wood, it can be recycled again when disposal is necessary. This minimizes the device's impact on our planet, while providing for our basic need to stay cool. Still, the construction is tough enough to handle day-to-day use.



(http://www.thefanmuseum.org.uk)

Hardware

Fans primarily have 5 parts. The sticks are wide on one end and tailor off on the other end to form the ribs. The sticks and ribs form the skeleton of the fan and are the support for the leaves, which traditionally have been made of some soft material such as paper or feathers and form the actual surface area needed to create airflow. The sticks at the end are called guards as they provide solid end caps to keep the fan from easily falling apart and protect the leaves when the fan is closed.

The Bottom Line

Staying cool is a basic physiological necessity. Heatstroke, heat cramps and heat stress can have serious consequences and even be fatal. However, as WebMD.com indicates, using a fan may prevent heat illnesses. Thus, whether going for a hike, waiting for the metro rail, or watching the game at the stadium, a hand fan provides an eco-friendly, portable and practical solution to a person's cooling needs.