

PROJECT - PHYSICAL SCIENCE

WORKING OF HAIR DRYER

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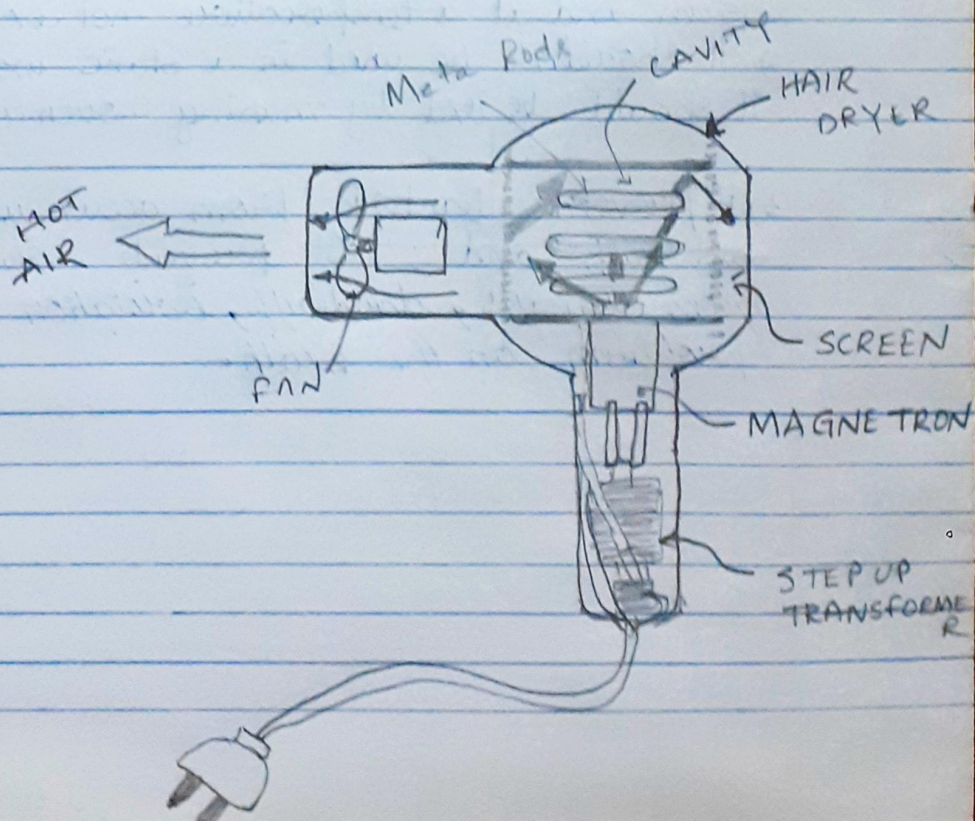
HAIR DRYER

A hair dryer is an electromechanical device that blows ambient or hot air over damp hair to speed the evaporation of water to dry the hair.

INVENTION:-

Hand hair dryers were invented in the late 19th century. The first, stationary model was created by Alexander F. Godefray in his salon in France. The hand-held, household hair dryer first appeared in 1920.

WORKING PRINCIPLE:-



In hair dryer evaporation is controlled by relative humidity - the ratio of the amount of water the air holds to the amount it could hold. When air is heated its relative humidity decreases. It still has the same amount of water, but it can hold more. The lower the relative humidity, the more easily water evaporates. Therefore, hot air will dry your hair faster, since the water in our hair will evaporate more quickly.

The two components of a hair dryer are the ~~motor~~ electric fan and the heating elements. The heating elements are made out of nichrome wire which is a resistor. A resistor resists the flow of electric energy, turning it into heat energy. In a hair dryer, the air blows past the resistor, absorbing heat as it passes. The air then passes over nichrome wire coils that heat it, making it able to blow the hair dry with hot air. The process of air blowing on the hair speeds up water evaporation. Applying power to the hair dryer allows the motor to start spinning the fan inside and that is what draws air. The air is drawn in through small air holes on the side of the hair dryer.

DISADVANTAGE:-

There are some negative aspects by using hair dryer.

- 1) Burns and dehydrates hair.
- 2) It removes brightness, that is, the opaque
- 3) weakens the thread
- 4) It ruins its texture
- 5) leaves hair matted

ADVANTAGES:-

Hair dryer is good if we use it well to dry our hair by following some guidelines

- 1) It should be used at a minimum distance of 15 cm and at a temperature not exceeding 45°C
- 2) It shouldn't be used in a static way that is it should be used by making movement.
- 3) It prevents bacteria from accumulating on ^{the} ~~the~~ scalp and it prevents suffering from fungus, dandruff, irritation or other problems on the scalp.