

INNOVATION: HEADPHONES



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WHO INVENTED THE FIRST HEADPHONES?

Although the history of these devices began much earlier, however, the father of the device is considered to be Nathaniel Baldwin. **He invented headphones in 1910** while sitting in his kitchen. But until 1952, the invention was used exclusively for radio communication

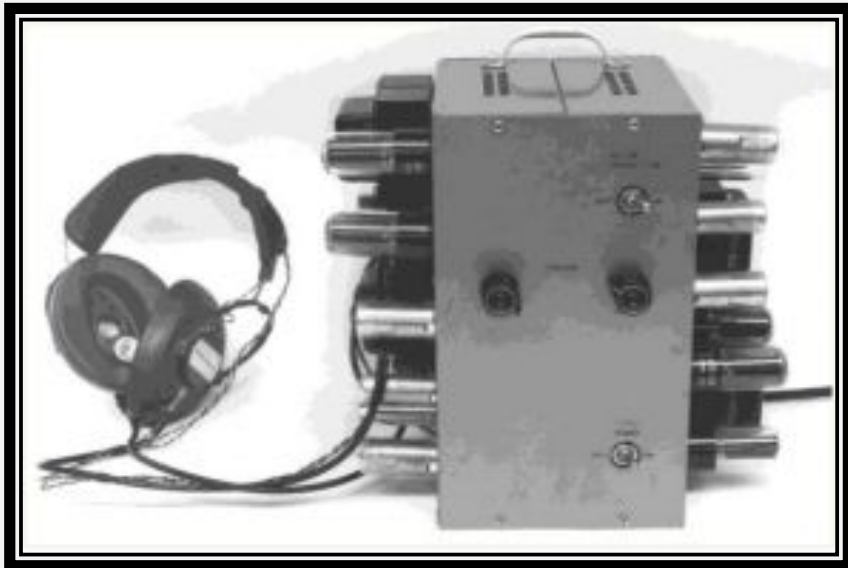


FIRST PROTOTYPE

The first prototypes of this gadget vaguely resembled modern accessories. They were completely made of metal, had no ear pads, the speakers were fastened together from the bottom.

THE EVOLUTION OF HEADPHONES

Noise cancelling
headphones
Willard Meeke (1957)



Commercial stereo
headphones
John Koss(1958)



Walkman TPS-L2
SONY (1979)



MODERN HEADPHONES



In recent years,
wireless
headphones are
gaining
popularity

HOW DO HEADPHONES WORK?

Principally the headphones work the same as speakers. They convert electrical energy into sound by vibrating magnets. These magnets then vibrate the air around them creating sound.

Furthermore, in simple terms, audio is stored in your device in a digital format. When you hit the play button, it sends the 0's and 1's to the converter. This converter converts digital signals into electrical signals and sends it to the headphone.

Then headphones receive these electrical signals via wires and process them in the driver unit. The driver unit has three types first is the dynamic driver, second is the planer magnetic driver and third is the electrostatic driver. Most of the headphones use a dynamic driver.

These driver units consist of a permanent magnet, electromagnetic coils, and diaphragm. So, when electrical current hits electromagnet, it rapidly changes its polarity depending upon incoming electrical signals. Thus, it attracts and repels itself from the permanent magnet. Thus, this rapid attraction and repulsion create vibrations.

In addition, different frequencies vibrate at different rates. The electromagnet vibrates faster to produce high tones and slower to produce low tones.



ADVANTAGES

- 1.Noise Cancellation**
- 2.Mobility with High-Quality Audio**
- 3.Comfort, And Health**
- 4.Greater Productivity**
- 5.Always in Style**

These were the five primary benefits because of which you should prefer using headphones over earphones in your daily life. It will count as an upgrade and will let you feel better about yourself, besides maximizing your performance. Take them for a spin, and you will start noticing the difference.



**THANK YOU FOR
ATTENTION!**