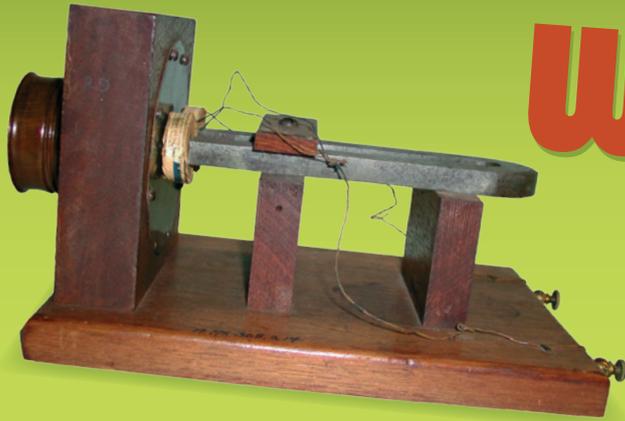


WHAT IS THIS THING?



The invention is the telephone.
The inventor was Alexander Graham Bell.

The phone in these pictures was an improvement on the very first phone, through which Bell placed a call to Watson in another room. Bell used the phone in these pictures a few months later for a call between Cambridge and Salem, Massachusetts, a distance of sixteen miles.

How did it work? Words spoken into the mouthpiece (on the left side of the big upright wooden block) caused the black metal disc (on the other side of the block) to vibrate. Magnets attached to the disc changed these vibrations, or sound waves, into pulses of electricity. The electricity moved through the wires to the receiving phone. The disc on the receiving phone vibrated in the same way, reproducing the sounds of the words.

Some things haven't changed. When you talk into a phone, your words vibrate a disc in the mouthpiece. If it is a local call on a landline, wires carry the electrical pulses to the receiving phone.

Today, however, some long-distance calls travel in a different way. They are *really* long in distance—the electrical pulses bounce off a satellite in space before they reach the other phone. Cell-phone calls are connected by cellular antennas. Your words travel as radio waves.

There were only two telephones in the world in March 1876. Four years later, there were 60,000. Fourteen years later, there were 6 million. The earliest phone users had to arrange for their own connections between phones and had to invent their own methods of announcing calls. A person might whistle into the phone to let the other person know that someone was calling. But the popularity of the telephone led to the quick growth of a telephone network. Operators at central "exchanges" would connect calls, and phones were soon equipped with a bell that would ring to announce a call.

As someone once said, "Aren't you glad his name wasn't Alexander Graham Siren?"

