Have you ever been to the beach? Did you see a man with a headset pointing a long pole at the ground? If so you might have seen a person using a metal detector. People use these devices to find metal.

Metal detectors make magnetic waves. These waves go through the ground. The waves change when they hit metal. Then the device beeps. This lets the person with the device know that metal is close.

The first metal detectors were meant to help miners. They were big. They cost a lot of money. They used a lot of power. And worst of all, they didn't work well. People kept trying to make them better.

Metal detectors got smaller. Now they are light and cheap. They also work better. That is why people bring them to the beach. They can look for rings in the water. They can look for phones in the sand. Metal detectors help them find these things. They usually just find junk though.

Metal detectors also protect people. They help to keep guns out of some places. They are in airports. They are in courthouses. Some schools use them. They help guards look for weapons. Guards use special wands to find metal on a person.

These devices save lives in other ways too. During wars, people plant bombs in the ground. When the war ends, they don't clean up their messes. This is unsafe for the people who live in those places. Others use metal detectors to find bombs. They remove them and help the people.

These devices also make clothes safer. It sounds funny, but it's true. Most clothes are made in big factories. There are lots of needles in these places. Needles break from time to time. They get stuck in the clothes. They would poke people trying them on. They don't though. That's because our clothes are scanned for metal. Isn't that nice? Let's hear it for metal detectors. They make the world a safer place.