



If you browse through a history museum, you may see ancient objects made of bronze. Bronze was the first widely used alloy, or mixture of metals. It is a blend of copper and tin.

Bronze was invented more than 3,000 years ago. Back then, people discovered something important about metals. They learned that many metals can be improved



This ancient Chinese bronze vessel held warm wine.

by mixing them with other metals or nonmetallic substances—or both. This makes an alloy. An alloy may have greater strength or resistance to corrosion than the pure metals it is made from.

Steel is one of the best-known alloys. It is made by mixing molten iron with a small amount of carbon. The carbon makes steel much stronger than pure iron.

Perhaps you have stainless-steel cookware at home. That kind of steel is made by combining iron with carbon, chromium, nickel, and several other ingredients.



Stainless steel was invented between 1900 and 1915.

Word Wise

A special type of alloy is called an *amalgam* (uh-MAL-gum). It is a metal mixed with mercury. You may have gotten a filling of silver-and-mercury amalgam at a dentist's office.

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Brass instruments and aluminum cans are both made of alloys.

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Most of the metals we use are alloys. Brass, for example, is a mixture of copper and zinc. The gold and silver used in jewelry are alloys containing small amounts of other metals, such as copper or nickel. Even the aluminum used for beverage cans isn't pure aluminum. It's an alloy containing a small percentage of magnesium and manganese.

Alloys strengthen the bonds between different materials to make a new metal with improved properties.

Brain Check

- What is bronze?
- What element added to iron turns it into steel?
- What is an amalgam?