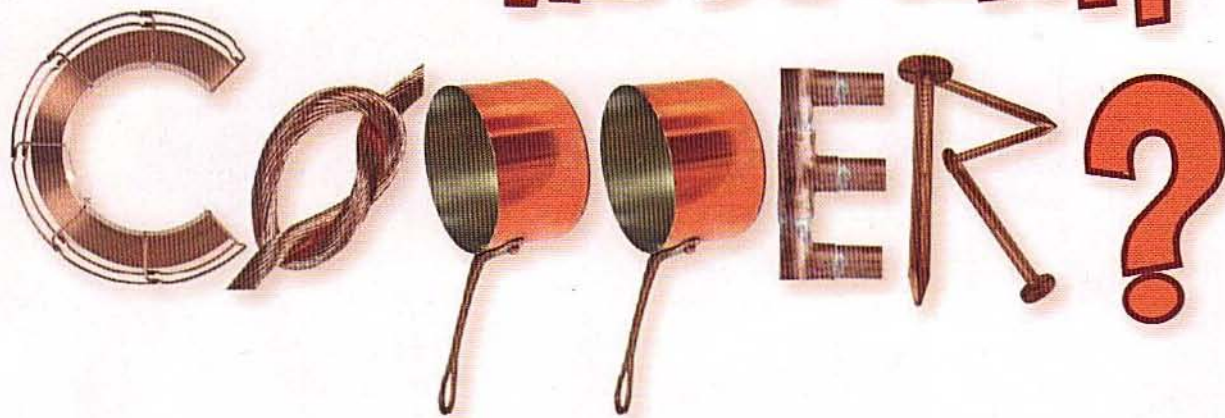


# WHAT CAN WE DO WITH



**C**opper can be used in so many ways that it is one of the most popular metals in the world. Early people used copper to make tools, weapons, coins, pots and pans, jewelry, and works of art. When machines came into use, brass, which is a mixture of zinc and copper, was useful for making screws, clock gears, and steam engines.

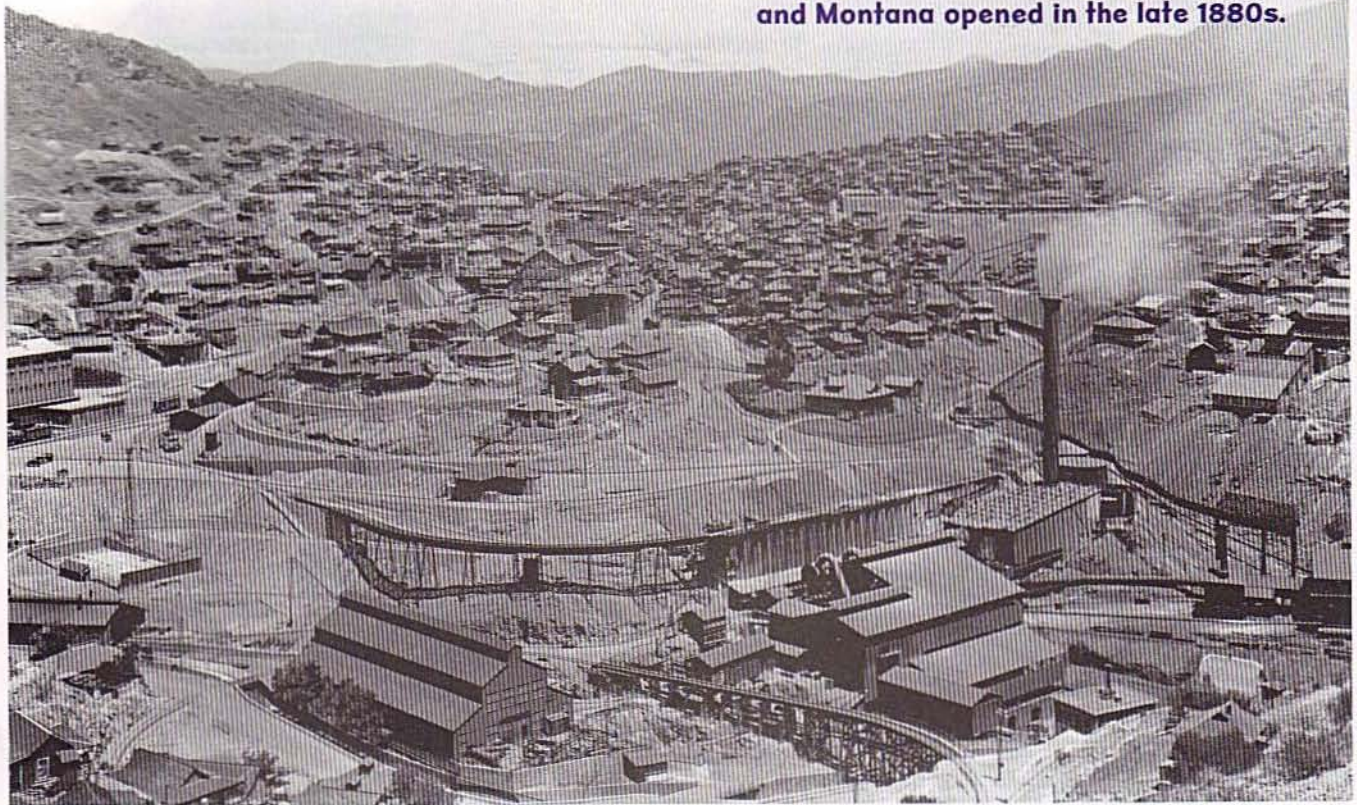
Copper has many good properties. It is the best metal for conducting energy. It is flexible. It can be hammered or stretched or rolled into various shapes and it has an attractive appearance, making it useful for decorations on homes and in artwork. It can be combined with other metals to make new substances called alloys. There are more than 400 copper alloys in use today. A penny is an alloy because it is a mixture of copper and zinc.

In the late 1800s, the United States needed a lot of copper. Homes were getting electricity for the first time, and the electrical wires were made of copper. During a ten-year span, the use of copper in the U.S. nearly quadrupled (from 27,000 tons in 1880 to 95,000 tons in 1890). Much of the demand for copper was due to the number of homes using electricity and the need for copper wire.

Michigan provided much of the nation's copper from 1847 to 1887. Total production in Michigan's copper mines came to more than 10 billion pounds, or enough to make a two-lane highway from Houghton to Lansing. After that, Michigan's place in the United States as a chief copper producer began to slip.

Copper was discovered in Montana and Arizona in the late 1880s. By 1920, Arizona

Copper mines in Arizona (shown here) and Montana opened in the late 1880s.




Corbis

was producing 46 percent of the nation's copper. Montana produced 15 percent and Michigan just 13 percent.

Unlike the mine shafts in Michigan and Montana, the mines in Arizona are open pits making it cheaper and easier to produce copper. Underground mines are used when ore deposits are deep in the earth. Open pit mining is used when the ore deposits are closer to the earth's surface.

Building construction accounts for about 46 percent of all copper use in the United States. An average home uses about 440 pounds of copper. Electricity makes its way through homes carried along copper wires. Copper pipes carried water for drinking, cooking, and bathing beginning in the early 1900s, but did not gain popularity until the 1950s. One billion feet of copper pipe is installed every year in the United States. Since 1963, more

than 5.3 million miles of copper pipe have been installed in the United States. 

by Cyndi Lieske



## Are Pennies Really Made of Copper?

From 1793 to 1837 the penny, sometimes known as a "copper," was made entirely of copper. The amount of copper in a penny changed over the years. From 1864 to 1962, the penny was 95 percent copper and 5 percent was a mixture of tin and zinc. Today, pennies only have about 2.5 percent copper and the other 97.5 percent is zinc.

