



**HEART MODEL**—To demonstrate how a heart works, doctors can use this teaching model of a heart.

Finally, or earlier in the examination, there may be laboratory tests of blood and urine and investigation of the condition of liver, lungs and kidneys, since heart trouble may often be accompanied by disorders of other parts of the blood circulation system.

Science News Letter, February 6, 1954

**GEOCHEMISTRY**

**Scientists Find How Mercury Ore Deposited**

► EXACTLY HOW nature deposits mercury ores has been discovered by two geologists at the University of California at Los Angeles. This promises to aid in discovering new sources of this strategic mineral.

Frank Dickson and Dr. George Tunnel have established that cinnabar, which is mercuric sulfide and the chief mineral source of mercury, is precipitated when solutions containing mercury sulfide and sodium sulfide are neutralized or diluted with water.

Evaporation actually increased the amount of dissolved cinnabar, although continued evaporation eventually precipitated the mercury. This was not in the form of cinnabar, however, but in that of an easily redissolved double salt.

This work is the first to definitely establish the precipitation curve of cinnabar at a fixed temperature. The study is one step in a series tracing the course of mercury compounds in naturally occurring solutions to their final ore deposit form.

Further improvements in the understanding of the origin of mercury deposits are expected to result from the combined field and laboratory studies of economic geologists and geochemists. The study is being performed under a contract with the Office of Naval Research.

Science News Letter, February 6, 1954

**CHEMISTRY**

**Largest Artificial Quartz Crystal Weighs 2 Pounds**

**See Front Cover**

► THE LARGEST man-made quartz crystal, shown on the cover of this week's SCIENCE NEWS LETTER, is unusually clear and weighs over two pounds.

The record-breaking crystal was grown by Brush Laboratories, Cleveland, Ohio, on a natural quartz seed plate less than one-twentieth its size, and took 78 days to reach its final dimensions.

Pure quartz crystals grown under exact conditions will, it is hoped, give even more perfect control of radio and TV circuits and astronomical clocks than scarce imported natural crystals.

Very fine natural quartz imported from Brazil furnishes the crystals now depended upon for high precision instruments.

The largest synthetic crystal was grown at 660° Fahrenheit, with the material compressed in an autoclave at a pressure of 5,000 pounds per square inch. Water containing 18% sodium carbonate (common washing soda) was the medium for growing the crystal.

Science News Letter, February 6, 1954

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