

northwest. The brass arm bands, brass thimbles, and brass balls bored for stringing are goods of early traders. As many as forty to fifty brass balls were found upon one skeleton.

Evidence was unearthed that at some distant time either war or pestilence visited the northwest tribes and took great toll. This was indicated by forty skeletons found in one grave.

Increased efforts are to be made late this year to recover enough of the rare specimens of aboriginal culture to enable scientists to identify the origin of the first inhabitants of the heavily timbered northwest regions.

TOMATOES POSSESS RADIO-ACTIVITY

Radium, the valuable element used in the treatment of cancer, and our humble red, ripe, tomatoes have one property in common. They are both radio-active.

Experiments conducted by Dr. C. F. Langworthy of the U. S. Department of Agriculture, who has been investigating the problem for some time, and W. H. Wadleigh, of the Bureau of Standards, have proved for the first time that a food stuff has the distinguishing property of the chemical element that produces the world's shortest rays. Tomatoes will not, however, be used in the treatment of disease for their radio-activity is very slight.

Tomatoes, used for convenience in this experiment rather than some other food, were purchased in the open market. They were washed with distilled water to remove any trace of radio-activity they might have absorbed from the air. Then they were put through a food chopper and the pulped fruit and juice, about 900 centimeters, was poured into a flask, hermetically sealed.

Six days later, to give the tomatoes a sporting chance to give off as much of the emanation as possible, the test for radio-activity was made. This was found to be present at a rate of three millimicrocuries per liter. A curies is a measure of the amount of radium emanation, a gas, found in equilibrium with one gram of radium that has been kept hermetically sealed for thirty days. A millimicrocurie is one billionth of this amount.

As Mr. Wadleigh had worked with radium a great deal and as his hands were radio-active, Dr. Langworthy prepared the tomatoes for the test to prevent any contamination of the tomatoes. For the experiment a modification of Boltwood's well known test for radio-activity was used. The gas was collected over mercury instead of water, to prevent any absorption of the radioactive gas, and fresh, outdoor air was bubbled through the apparatus, during the test.

After boiling the tomato juice and pulp, in an apparatus very like a double boiler, for one hour the gas collected over the mercury was introduced to the ionization chamber of a gold leaf electroscope. By the falling of the gold leaves it was seen that radio-activity was present. The rate of the falling was compared with the action produced in the same instrument when using a known amount of radium emanation. In this way they computed the amount of radio-activity of the tomatoes.

"Of course," said Dr. Langworthy in regard to the experiment, "no generalization can be drawn from one vegetable. It does, however, open up a field for scientific investigation."
