



LATER STAGES

Late summer brings changes to the antlers. During the growth, the antler is covered with a soft, hairy skin, known as the velvet, through which run a number of blood vessels. Near the end of the antler's growth (right) a bony ring is deposited near the base which tends to cut off the blood supply. When the blood supply ceases, the deer loses or rubs off the velvet, exposing the antler, whose wrinkled, corrugated surface marks the grooves in which the blood vessels occurred. These pictures were taken on June 24, July 14, and August 25.

CHEMISTRY—MEDICINE

Difference in Cancer Cells Confirmed by Americans

Discovery Originally Made at University of Utrecht Is Now Confirmed at Yale and Franklin Institute

volume of work turned out by this laboratory, he was required to polish as many as 50 sets of false teeth in an eight-hour day. He worked in an alcove 30 feet from the nearest window, and there was no suction device or other means of drawing off the rising dust. His nose and throat were constantly irritated by it although he took "crude" precautions to protect himself, such as wrapping a wet towel over his nose and mouth or trying to wear a primitive rubber mask. He died of silico-tuberculosis.

Only one other report of danger of silicosis from working with pumice has appeared, Dr. Siltzbach found. This was a report of silicosis among pumice mill workers on the Lipari Islands, source of 90% of the pumice imported into the United States.

The New York State Department of Labor is planning to survey conditions in mechanical dentistry to find how widespread the danger of silicosis may be among workers in that industry. For the present, substitution of some harmless polishing material is recommended, together with use of exhaust hoods.

Science News Letter, September 30, 1939

DISCOVERY of an important chemical difference between cancer cells and normal ones, hailed at its first announcement in the typically cautious scientific "important if true" attitude, has just been confirmed by a member of the National Cancer Institute staff, Dr. Julius White. (See SNL, July 29.)

The original discovery, made by Prof. F. Kögl and Dr. H. Erxleben, of the University of Utrecht, was that one of the protein building blocks of cancer cells is slightly but significantly different from those in normal cells. These building blocks, known as amino acids, occur naturally in what might be called a left-handed form, because when a beam of polarized light is passed through them, they turn it to the left. In cancer cells, it was discovered, one of these building blocks, glutamic acid, occurs both as the natural left-handed acid and in an unnatural right-handed form that turns polarized light to the right.

The discovery may speed the fight against cancer by giving a possible chemical approach to better understanding and treatment of this malignant disease. Before its possibilities in this

direction could be explored, however, the original discovery had to be checked by independent groups of scientists to make sure there was no mistake about it.

Dr. White, working with Florence White, his wife, at Yale University, is the third American to report that he has confirmed the Kögl-Erxleben discovery. The Whites' report has just appeared (*Journal of Biological Chemistry*).

First confirmation of the discovery, so far as is known, was made by Dr. E. Schroeder, working at the Biochemical Research Foundation of the Franklin Institute.

Second confirmation, (*Science*, Sept. 15) the day before the Whites' report appeared, was made by Drs. L. Earle Arnow and Jeanette C. Opsahl at the University of Minnesota Medical School.

Failure to confirm the discovery, reported by Dr. A. C. Chibnall and associates in London, has been explained by Prof. Kögl as due to a difference in chemical methods.

Science News Letter, September 30, 1939

Magnesium, lighter than aluminum, is obtained from brine wells and sea water.