

MEDICINE

Phosphorus Linked to One of World's Deadliest Diseases

A HINT has been obtained that too great accumulation of phosphorus has something to do with leukemia, which is an overgrowth of the white blood cells and one of the deadliest diseases known.

Dr. John H. Lawrence, University of California assistant professor of medicine, has found that bones, liver and spleen, in which leukemia cells concentrate, exchange a much higher percentage of radioactive phosphorus than do normal cells.

The radioactive phosphorus was artificially manufactured in the University's giant atom-smashing cyclotron. In effect, this radioactive phosphorus is "tagged"

by its radioactivity and the increase of radioactivity in the various parts of the body gives a method of determining how much phosphorus they absorb and a new method of studying the abnormal metabolism in this disease. Mice were used as experimental animals.

The selective concentration of phosphorus in the leukemic mice may make possible treatment of the disease by artificial irradiation taken into the body by the phosphorus. At present, however, the experiments will be confined to mice. No successful treatment for leukemia is known, but success in producing the disease in mice, recently achieved, opens the door to experimentation.

Science News Letter, August 6, 1938

ZOOLOGY

Fair Deal for Sharks Demanded by Editor

S T. FRANCIS of Assisi, we learn from the *Fioretti*, once converted a wolf into a watchdog, partly by reasoning with the animal, but perhaps even more by persuading the scared townsmen to suspend their prejudices and give the poor beast a break.

The world has had to wait for seven centuries for some one to perform a like office of charity on behalf of those dreaded wolves of the sea, the sharks. But at last the thing is being done, and that not by a saint but by a newspaperman, Virginius Dabney, editor of the Richmond, Va., Times-Dispatch.

Persuasive conversation with a shark is beset with difficulties that for the pres-

ent seem insuperable. However, persuasive arguments addressed to scared vacationers on beaches are entirely possible, and this is what Editor Dabney is doing, through the medium of an organization of his own founding, The Society for the Propagation of Truth About Sharks.

No blanket defense of sharks is attempted by the Society. It is freely admitted that sharks sometimes bite people. But their homicidal record is far below that of our fellow-men. We have far greater chances of being bumped off by a gangster, infinitely greater chances of being sent spinning into eternity by an automobile, than of getting a one-way Jonah ticket into a shark's interior. Eminent biological authorities back up Editor Dabney in this contention.

The ill reputation of sharks is based, he holds, largely on the hungrily hideous appearance of these restless fish, plus the universal human readiness to listen indiscriminatingly to gossip. A few species of tropical sharks, especially those off the Australian coast, have earned their bad reputations. We transfer their reputation to sharks of every description, including the harmless scavengers of our

own coastal waters. And as too often in criminal cases, we convict the accused before the trial.

Something ought to be done about it, thinks Editor Dabney. And he is doing it.

Science News Letter, August 6, 1938

AGRICULTURE

Machine Cotton Pickers Demand Rebuilt Fields

F IELDS rebuilt into terraces by powerful earth-moving machinery, will yield the better crops of cotton demanded by the steel-fingered pickers of the future. Eugene C. Buie of the U. S. Soil Conservation Service described solid profits obtained by terracing farm lands on the Southern High Plains in a report to the American Society of Agricultural Engineers.

"Experimental data indicate that the available soil moisture which can be utilized for plant growth may be increased as much as 50 per cent. as a result of level terracing with contour tillage," he said. "This increased available moisture has shown an average increased production of lint cotton for an eleven year period sufficient to pay the initial cost of the land at \$50 an acre, the cost of the terracing, and still have money left over for dividends.

"Level terraces on wheat land with less than a one per cent. slope have shown an increased net income above the cost of terrace construction of \$1.75 per acre for a ten-year period and on grain sorghums an average of \$838.40 per section increased income as a result of one year's observation over approximately 5,000 acres."

Science News Letter, August 6, 1938

JUST PUBLISHED

The absorbing life story of the man whose inventions have made possible the modern submarine.

SUBMARINE

THE AUTOBIOGRAPHY OF SIMON LAKE

As told to Herbert Corey. Simon Lake's 111 submarine patents made modern, intricate undersea craft possible. The inventor's own story is a true narrative of the most absorbing kind. A Scientific Book Club choice. Illustrated.

D. Appleton-Century Co., 35 W. 32nd St., N. Y.

\$3.00 At All Booksellers

● Earth Trembles

Information collected by Science Service from seismological observatories and related to the U. S. Coast and Geodetic Survey resulted in the location of the following preliminary epicenters:

Friday, July 22, 2:48 a. m., E.S.T.
Off the west coast of Jalisco, Mexico. Latitude 12.5 degrees north, longitude 107 degrees west.

Sunday, July 24, 8:12.2 a. m., E.S.T.
Off Alaskan coast. Latitude 53 degrees north, longitude 167 degrees west.

For stations cooperating with Science Service in reporting earthquakes recorded on their seismographs see SNL May 21.