

PUBLIC HEALTH

South America Has Horse "Sleeping Sickness"

HORSE "sleeping sickness," which has been epidemic among horses in the United States and Canada and has even attacked the human population, killing several children, has now broken out among horses in northern South America. (*Science*, Dec. 2)

Brains of horses dying of the disease, sent by the Ministry of Agriculture of the Venezuelan government and Dr. Gunnar Tryde of Caracas, Venezuela, have been examined by Drs. C. E. Beck and Ralph W. G. Wyckoff of the Lederle Laboratories at Pearl River, N. Y. The virus of the Venezuelan horse epidemic, they report, is different from the viruses of both Eastern and Western types of the North American horse disease. A remote relationship may exist between the Eastern and the Venezuelan virus strains, but more study will be needed to settle this point.

Inquiry at the U. S. Public Health Service in Washington indicates that no human cases of the disease have been reported from South America, but that horses in the Argentine have been attacked by the Western type of the disease.

Science News Letter, December 17, 1938

ARCHAEOLOGY

Finds at Olynthus Upset Old Ideas of Greece

ONE of the neat landmarks in Greek art and archaeology has been wiped out.

The landmark was as familiar to classical students as the year 1776 would be in American history. It was briefly this: That the year Alexander the Great died, 323 B. C., marked the end of the Greek Hellenic era and what it stood for, and the beginning of all things Hellenistic.

Actually, it now appears that Greeks were going Hellenistic for generations before that boundary-line date. It is, to use another historic comparison, as though Victorian customs had come in years before Queen Victoria.

Excavations at Olynthus by Prof. David M. Robinson of the Johns Hopkins University and Prof. George E. Mylonas of Washington University, St. Louis, have revealed realistic statues and mosaics, such as supposedly only the Hellenistic Greek world introduced. The Hellenic era had been idealistic in its art and attitudes. The Hellenistic era,

when Greeks were sharing their civilization throughout the ancient world, was a time of realism.

Olynthus was Hellenistic before its time, even in the plan of its streets.

And yet—Olynthus was wiped off the earth in one terrific day of destruction by Alexander the Great's father, Philip of Macedon. The year was 348 B. C., Alexander was a small boy.

In many ways, Olynthus has proved a revelation for archaeologists who are unearthing its foundations. For the first time, Greek city life of the fifth and fourth centuries B. C. can be studied, as entire residential blocks are unearthed.

Thirty houses have been cleared this year. All are mere floor plans, bordered by wall stumps. The irate Philip left nothing more. But these are enough to show the spacious style of classic Greek homes, the mosaic floorings, modern drainage, colors of paint, relief-paintings that decorated the walls. And in the wreckage have been found quantities of broken lamps, vases, keys, knives, and other household furnishings of the Olynthians who were Hellenistic in the Hellenic age.

Science News Letter, December 17, 1938

PHYSIOLOGY

College Athletics Do Not Increase Size of Heart

X-RAY studies showing that college athletics do not increase the size of the heart are reported by Drs. Ancel Keys and H. L. Friedell of the University of Minnesota Medical School. (*Science*, Nov. 11)

The studies, made by X-ray kymograms, were of three groups of college students: athletes, non-athletes and intermediates, consisting of moderately successful competitors in one major sport.

Pointing out that the number of persons compared was "somewhat small," the investigators conclude tentatively:

"Continued successful participation in strenuous sports through the college years does not lead to any significant increase in the size of the contracted heart in rest. If we may assume, as seems reasonable, that there is no great difference in the degree of emptying of the ventricles at contraction, this would mean that the relative muscle mass of the heart is also practically unaffected.

"The degree of relaxation and filling of the heart in diastole is very much greater in the athletes than in the non-athletes, the moderate athletes being intermediate but closer to the non-athletes."

Science News Letter, December 17, 1938

IN SCIENCE

PSYCHOLOGY

Science Service Receives Dollar Bill Clipped To Postal

JIM FARLEY can be proud of his boys today. They're honest.

A dollar bill clipped to an ordinary business reply post card was received intact and in place by the SCIENCE NEWS LETTER, from a subscriber in Glendale, Md. Sent by Frank D. Roys, the card was one day in transit.

It bore on one side, with an arrow calling attention to it, the writing, "One dollar attached."

"It proves the integrity and honesty of the men who handle the mail," J. M. Donaldson, deputy first assistant postmaster general, declared. "It certainly doesn't happen often; such occurrences have happened only half a dozen times to my knowledge."

"I've never run into anything like it in 21 years of direct mail advertising work," Troy M. Rodlun, the magazine's circulation consultant, remarked.

Science News Letter, December 17, 1938

MEDICINE

New Drug Cures Gonorrhea By Acting As Antitoxin

NEW light on how sulfanilamide works a cure in gonorrhea, one of the many ailments that are apparently being conquered by this chemical remedy, has been reported by Drs. C. M. Carpenter, P. L. Hawley and G. M. Barbour, of the University of Rochester, N. Y., School of Medicine and Dentistry. (*Science*, Dec. 2)

The chemical acts like an antitoxin, it appears from studies made with mice and reported by the Rochester scientists.

Going on the theory that the germ of gonorrhea produces a "toxin" or poison in the body, these scientists prepared a very potent batch of this gonorrhea "toxin" and gave it to mice. All the mice died within 24 hours. The same lethal amounts of the "toxin" was given to another group of mice which also got sulfanilamide. All but four of these 94 sulfanilamide-treated mice survived.

Science News Letter, December 17, 1938

E FIELDS

MEDICINE—BIOLOGY

Cancer Cells Survive Long Freeze at 70 Below

CANCER cells can be kept for more than a year at the very low temperature of 70 degrees Centigrade below the freezing point of water, and when thawed out and implanted in mice still prove themselves fully virulent and able to cause the disease.

This discovery, of much interest to researchers on the cancer problem, is reported (*Science*, Dec. 2) by Drs. C. Breedis and J. Furth of Cornell University Medical College.

Drs. Breedis and Furth experimented with many different kinds of cancer cells, taking an hour to get them frozen to the low temperature, at which they were then kept for periods of from one to 440 days. The thawing out was done rapidly, for it was found that slow thawing was more apt to injure the tissue.

Science News Letter, December 17, 1938

PSYCHIATRY

"Emotional Divorce" Is Recognized Mental Disease

DIVORCE is a disease and not just a legal concern in the opinion of Dr. Philip R. Lehrman, New York psychiatrist.

Attempting to deal with unhappy marriages in the courtroom without any endeavor to look into or treat the state of mind that causes such marital upsets is all wrong, he believes.

"Legal divorce is a pseudo-remedy for a self-diagnosed condition," Dr. Lehrman said in a report to the *Psychoanalytic Review*. The middle-aged woman who runs to a lawyer and asks him to get her a divorce is just like the person who, because of a pain in her back, decides that she has kidney trouble and asks a surgeon to remove the kidney.

If a lawyer goes about the routine of securing the divorce without discovering what really is wrong with his client, he is like a surgeon would be who accepted the self-diagnosis of his patient and, without physical examination, went ahead and took out the kidney.

"Emotional divorce," is the name Dr.

Lehrman has applied to the mental disease which causes women to rush to the divorce court. He has found certain symptoms so characteristic of the sufferers that he has been able to draw a composite portrait of the woman with this ill.

She is in her fourth decade of life. Her children require little physical care and, in fact protest any continuation of the role of dependency which the mother, out of her own needs, tries to maintain.

If childless, she makes the husband the recipient of attentions which are more suitable to a child than to a man.

She has recently lost her father either by death or distance and has showed lack or inadequacy of mourning.

She shows pathological character changes, is hostile and feels deprived of something fundamental by her husband.

Paranoid trends take the form of acute jealousy and symptoms of melancholia with garrulity are evident.

Attempts to ease her conscience are made by being easily drawn into idealistic social movements.

Science News Letter, December 17, 1938

MEDICINE

New Trichinosis Test Developed by Health Service

A NEW and improved material for more reliable diagnosis of trichinosis, serious and sometimes fatal disease that comes from eating underdone infected pork, has been developed by John Bozicevich of the National Institute of Health, the U. S. Public Health Service has announced.

Approximately one-sixth of all persons in a large group examined by the National Institute of Health are estimated to have in their bodies the tiny parasitic worms that cause the disease. Federal health authorities believe that the disease occurs far more frequently than is indicated by the total of 5,000 to 6,000 cases that have been reported in the United States since the disease was first recognized.

Use of the new test material is expected to result in increased numbers of cases being diagnosed by physicians. The new material can be used in either of two tests. One of these is a skin test similar to the Schick test for diphtheria. The other is a blood test.

Thorough cooking of pork before eating it is the simple method of avoiding trichinosis recommended by health authorities.

Science News Letter, December 17, 1938

ZOOLOGY

Eel So Thin It Looks Like Piece of String

AN EEL so thin that it could be put through the eye of a darning-needle, captured by Dr. Paul Bartsch off the coast of Cuba, has been added to the collections of the Smithsonian Institution. It is about the size of ordinary wrapping twine at its head end, and tapers to tail of silk-thread-like diameter.

Only two similar specimens are known in all the world's museums. A second specimen is in the Smithsonian collections, taken in a brook in New Guinea several years ago. The third was found at the South Sea island of Tahiti by H. W. Fowler of the Academy of Natural Sciences of Philadelphia.

Science News Letter, December 17, 1938

PUBLIC HEALTH

Chemistry and Physics In Aid of Our Health

ONE of the brightest spots on the picture of tomorrow's health is being painted in today by chemists and physicists working with physicians and other medical scientists.

The X-ray was an early important contribution of physics to the healing art and science. The tagged atom of artificially radioactive material, made in the atom-smashing cyclotron, is the latest such contribution. X-rays enable physicians to see inside the body, to see broken bones, ulcers and even cancers of internal structures. Tagged atoms are helping scientists to trace the distribution of various chemicals in the body tissues.

On the chemical side, advances lately have also been very rapid. Sulfanilamide was for a long time just a waste product in the dye industry. Then suddenly, under the guise of Prontosil, it burst upon the medical world as a remedy for child-bed fever. That was only yesterday. Today sulfanilamide is on every one's tongue because it has become an effective weapon against many diseases.

It is not only by the discovery of new remedies that chemists are helping physicians to improve the health picture. Speaking on this point, Dr. Stuart Mudd of the University of Pennsylvania recently said:

"A striking aspect of recent medical progress is that both normal physiological processes and the abnormal process of disease are finding explanation in terms of the chemical substances responsible for them."

Science News Letter, December 17, 1938