

GENETICS

Lysenko's Claims Are "All Greek"

► THE CLAIMS of Lysenko, Russian geneticist reportedly falling into disfavor in the USSR, "are really all Greek to us," Dr. L. P. Coonen of the University of Detroit has concluded after a bit of historical research.

The great thinkers of Athens in 350 B.C. were testing the very ideas now called Lysenko's. Lysenko insists he can "shatter" the heredity of a plant by placing it in a radically changed environment, thus changing wheat into barley.

Dr. Coonen has found that both Aristotle and Theophrastus suggested this about 2,300 years ago. Lysenko's other claims, as of pretreating seeds to alter their kind or of switching one type of animal into another kind by a change in environment, were also suggested by the Greeks.

The ancient Greeks may be excused, perhaps even admired, Dr. Coonen believes, for "probing and postulating among the riddles of genetics," since their reference libraries had no information to guide them. Lysenko, however, "has mountains of valid data, which he ignores. His claims are really all Greek to us," Dr. Coonen reports in *Science* (May 14).

Science News Letter, May 29, 1954

PUBLIC SAFETY

Night Glowing Clothing Saves Children's Lives

► CLOTHING THAT glows in the dark is "one of the finest developments for pedestrian safety in recent years," the Iowa State College Driving Laboratory has determined. "Every parent should investigate night glowing materials for their children's protection," Dr. A. R. Lauer, professor of psychology and director of the Laboratory, has said. Materials are now available for clothing use that reflect 150 times as much light as a white painted surface.

"Visibility is the one factor that stands out above everything else in pedestrian deaths," Dr. Lauer said. "No driver with his car under control will hit a person on the road he sees clearly and in sufficient time to stop or dodge him."

Collars, yokes, cuffs, glove backs, badges, monograms and other markers can be woven into, sewn on or attached by adhesive to clothing, thus making a pedestrian very conspicuous to a driver at night if any light at all falls on him from the headlight beam.

In daylight, colors of the materials vary in shades from navy blue to yellow. The reflectorized material as such is hardly visible in daytime, but at night shows up with dazzling brilliancy. One manufacturer is making stocking caps that shine like reflectorized signs and can be seen at a much greater distance than even white clothing.

Even during the lessened hours of dark-

ness in spring and summer, approximately one-third of pedestrian fatalities occur in darkness.

It has long been known that pedestrian deaths increase sharply as hours of darkness increase in the fall. In 1953, 53% of urban fatal accidents involved pedestrians. Even in rural areas, 13% of fatal accidents involved pedestrians. For November, January and February about two-thirds of pedestrian deaths occurred at night.

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PSYCHOLOGY

Do Not Worry—World Not Getting More Stupid

► IF YOU have been worrying that the world's people are getting more stupid with every generation, you can stop.

A group of UNESCO scientists has reviewed the evidence and concluded "that at the present time there is no basis for pessimism." The group has advised the World Population Conference which will meet in Rome next September that "there need be no great concern over an impending decline in intelligence."

Fears of a generally declining level of intelligence have been based on finding, in all countries where tests have been made, that the more children in a family, the lower the intelligence level. But the studies have not taken all factors into account, the UNESCO group believes. They point, also, to surveys in Scotland of the intelligence of all 11-year-old children. No decline was found in the 1947 survey from the average in a comparable survey 15 years earlier.

The UNESCO group's findings are reported by the American representative, Dr. Dael Wolfe, of the American Association for the Advancement of Science, in *Science*, (May 14).

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GENERAL SCIENCE

Indians Campaign for International Language

► INTEREST IN Interlingua as a means of scientific communication has resulted in students at Christ Church College in Kanpur, India, organizing a campaign for the support of this international language.

Information has reached Dr. Forrest F. Cleveland, Illinois Institute of Technology professor of physics, from Dr. L. Singh, professor of physics at Kanpur, that more than one-fifth of the 1,500 students of the college have contributed to a fund to help finance the introduction of this relatively new international language. No student was allowed to contribute more than the equivalent of five cents in American money.

Interlingua came to the attention of the college in India through the receipt of *Spectroscopia Molecular*, the first scientific journal to be published in Interlingua, of which Dr. Cleveland is editor.

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IN SCIEN

ECOLOGY

Parachute Beavers in Remote Mountain Areas

► PARACHUTING BEAVERS into remote mountain areas is the latest method of locating these helpful animals.

As soon as the parachute spreads out on the ground, the beavers are out of the box in which they drifted to earth and off on an eager search for homes in suitable streams. Idaho has used the method with success.

The beavers are taken from over-populated areas or from regions with too many dams. Planted in inaccessible areas by air, they can build all the dams they want. Their activity is very useful to man, since water storage reservoirs built in the mountains aid inhabited territories below.

Beavers were formerly transported into the wilderness by pack horse. This was hard on the animals, since they overheat and die easily. Transported quickly by air, the beavers seem to thrive on parachute jumps. The method is described by Dan Brogan in *Frontiers* (April).

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INVENTION

Soil Bacteria Aid to Oil Deposit Location

► LOWLY SOIL bacteria can be used as a tool to locate oil deposits.

Dr. Raymond J. Strawinski, a bacteriologist at Louisiana State University, has patented a method of determining the presence of gas in the soil by examining microorganisms.

Geologists have long supposed that the gas found with underground oil deposits seeps through the earth to the surface in small amounts. Dr. Strawinski reasoned that bacteria in the soil might feed on this gas.

Soil samples taken at a two-foot depth are incubated in a mixture of oxygen, carbon dioxide and any of the hydrocarbon gases such as methane, ethane, propane or butane. The rate of hydrocarbon gas consumption in the soil sample is then measured. The test is completed in a week or two.

The method cannot point out the exact location of the oil deposit, since the escaping gas does not necessarily rise directly to the surface. Experience has confirmed, however, that oil is in the immediate vicinity of hydrocarbon-consuming organisms, Dr. Strawinski said.

Primary advantages of the method are its simplicity, lack of expense and the quickness with which the test can be completed.

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CE FIELDS

PHYSICS

Heavier Particles May Create New Elements

➤ HEAVIER AMMUNITION used against atomic nuclei in new reactors will produce new forms of the elements, and possibly new elements now unknown, in the linear accelerators just authorized for Yale University and the University of California.

Hydrogen and helium, today's lightest elements, will be replaced as atomic bullets in the new machines by heavier particles ranging from beryllium to neon. These heavier bombarding particles will do more damage to the hearts of heavier elements like uranium, and a variety of new element forms should result.

Preliminary experiments with atomic ammunition of this caliber have already produced the new chemical elements, numbers 99 and 100. (See SNL, Feb. 20, p. 115, and March 6, p. 147.)

Heavier bombarding particles have a better chance of being added to the nucleus of an atom like uranium, thus adding considerable weight to the nucleus, than have repeated additions of light particles like hydrogen.

New isotopes of chemical elements produced by the machines just authorized by the Atomic Energy Commission will be used principally for chemical studies of the novel forms of elements that will result.

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ORNITHOLOGY

Wax-Eating Bird From Africa May Fight TB

➤ WAX-EATING BIRDS of Africa, known as honeyguides, are being enlisted in the fight against tuberculosis.

Dr. Herbert Friedmann, curator of birds of the Smithsonian Institution, Washington, is arranging for live honeyguides to be flown to the Army Medical Center in Washington for study.

The African greater honeyguide is distantly related to the North American woodpeckers.

It is one of two known living creatures that can digest wax, the principal food that it obtains from bees' nests. Studying it may provide clues for cracking the wax armor of the tubercle bacillus which makes the white-plague germ immune to most chemical treatments.

Scientists at the Army Medical Center hope to learn what makes this digestion possible. Either intestinal microorganisms, possibly of some unknown species, or hitherto unknown enzymes are suspected, and if they can be identified, they may have

a role aiding medication aspects of the treatment of tuberculosis.

Dr. Friedmann has made an intensive study of the extremely curious behavior of the honeyguide in its native haunts. It long has been asserted that when this bird locates a bees' nest, which must be broken open before it can feast on the wax, it deliberately seeks out a human being, attracts his attention by some sort of demonstration, and then "guides" him to the treasure. The man, the bird was thought to assume, will break open the nest to get the honey. The honeyguide itself is not a honey eater.

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PSYCHOLOGY

Neurotics Need Not Take to Drinking

➤ NEUROTICS AND others with psychological difficulties do not have to take to drink, as witness the Jewish people who are noted both for their sobriety and for a high incidence of neurosis and psychological problems, Charles R. Snyder of the Yale University Center of Alcohol Studies, New Haven, Conn., declared at a meeting of the Harvard department of health, Cambridge, Mass.

Jewish people rarely become alcoholic because drinking is part of their religious ritual, and because the pressures operating on them as a minority group make for sobriety, Mr. Snyder explained.

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GENERAL SCIENCE

Loyalty Suspects Barred From Science Grants

➤ VERY QUIETLY but effectively, scientists who have been liberals and subject to political gossip are being cut off from subsidies for scientific research.

These are not just Communist Party members or Fifth Amendment "communists."

In the red-hunting atmosphere of today, government agencies, colleges and research institutions are inclined to take no chances with investigations. Information reflecting on the loyalty of the individual, even though uninvestigated, is enough to prevent a renewal of a grant under which the individual has been working.

Since much of America's scientific and technical research and development is done under government grants today, this is equivalent to firing the scientists.

The researches thus stopped are non-secret or "unclassified" projects usually of a fundamental or basic nature. They may be in physics, chemistry, biology or medicine.

Secret research for defense and other agencies in the years since World War II has been done only by those who have had rigorous security clearances. Fellowship grantees undergo security checks, even on non-secret work in some cases.

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GENERAL SCIENCE

23 Teen Age Scientists Win Summer Training

➤ FROM AS far away as Arizona, Nebraska and Alabama, 23 scientifically gifted high school boys and girls will come to Bar Harbor, Me., in June for 10 weeks of tuition-free training in research at the Roscoe B. Jackson Memorial Laboratory.

Competitively chosen, the 15 boys and 12 girls will have an opportunity to test their aptitude for a scientific research career.

Since the Jackson Laboratory is the world's "Bureau of Standards" for originating, producing and maintaining uniform animal material, the students will also have unique experience in working with and studying the laboratory's huge stocks of pure-bred strains of mice and other animals.

Student expenses consist only of a modest fee of \$150 for ten weeks' board and room, and travel expenses to and from Bar Harbor. The total cost of the training program, however, which is five times this amount for each student, is included in the annual operating budget for which the Laboratory must seek public support.

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TECHNOLOGY

"Canned" Pump For A-Plants

➤ THE COMPLETE information needed to build a "canned" pump such as used in atom-powered submarines is now available from the Atomic Energy Commission's Pittsburgh office, the AEC has announced.

The canned motor pump is absolutely leak proof. It was so designed to protect crewmen aboard the USS Nautilus. Contained in the can is the motor that circulates hot water or liquid metal from the reactor to the boilers and back again. The fluid being pumped lubricates the bearings.

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NUTRITION

Scientists Go on Milk Diet for Month

➤ YOU CAN stay healthy and active on a diet of nothing but pasteurized cow's milk, but a month of it becomes monotonous, Drs. R. Hecker and W. H. H. Andrews of the School of Tropical Medicine, Liverpool, England, found.

Dr. Andrews drank 12 pints of milk daily and gained five pounds. Dr. Hecker drank 10 pints daily.

One of them played competitive tennis throughout the whole period and even traveled to London for the Coronation, having to sit all day in Hyde Park drinking milk.

Adults living on a high fat diet consisting of cow's milk absorb a normal proportion of their fat intake, the scientists report in the *British Medical Journal* (May 15).

Science News Letter, May 29, 1954