

GENETICS

Marriage Barriers Produce Genetic Differences

➤ RELIGIOUS barriers to marriage have apparently helped produce hereditary differences in the population in things quite unconnected with religion, such as left-handedness, blood groupings, and ability to taste certain chemicals. A statistical study bringing out this point, made by Prof. David C. Rife of Ohio State University, Columbus, Ohio, is reported in the *American Journal of Physical Anthropology* (March).

The study was made on 1,850 students who registered for courses in genetics, over a period of four years. They were listed as Jews, Protestants and Catholics. A fourth group, racial rather than religious, was also included: there were 43 Negroes, all Protestants.

The marriage barrier between Jew and Gentile seems to be more nearly insurmountable than that between Catholic and Protestant, Prof. Rife states. In certain blood groupings, Jews stood out alone, while Catholics and Protestants were quite similar. Likewise, the percentage of left-handedness was much higher among the Jews: 15 for them as against only ten in both Protestants and Catholics. Fewest southpaws were found among the Negroes.

In reaction to the compound known as phenyl thiocarbamide, which is intensely bitter to some and tasteless to others, Catholics held low score for number of tasters and Negroes high, with Protestants and Jews in intermediate position.

Science News Letter, April 24, 1948

BOTANY

Water Hyacinth Seen as Possible Power Source

➤ GAS for power and fuel, in the world's warmer and wetter lands, may some day come from a plant that is now rated as about the world's worst floating weed—the water hyacinth.

This South American plant that now forms vast floating mats on rivers and lakes all the way from the Gulf coast of the U. S. A. to southern Asia, often hindering navigation, has been used by three scientists in England, D. G. Arbott, M. Ruhemann and V. A. Immerwahr, as basis for a fermentation process that produces a gas rich in methane and containing also some hydrogen.

They figure that to keep a hundred-kilowatt power plant going would re-

quire four tons of water hyacinth a day, chopped, boiled and inoculated with the right kind of bacteria. As anyone who has ever seen water hyacinth growing can easily testify, that would not be a particularly difficult job.

Cost of such a hundred-kilowatt plant, they calculate would be about \$100,000, and running expenses would amount to about \$40,000 a year. To meet these and amortize the cost of the plant, 8,000 hours' operation a year would be needed, with the current selling at the fairly high figure of five cents a kilowatt hour. This may not be economic at present, but if oil and other easily transportable fuels become scarce enough, we may yet see towns and plantations on tropical rivers lighted with current from water-hyacinth plants.

Science News Letter, April 24, 1948

GENERAL SCIENCE

STS Winners Pull Ahead Of Other Contestants

➤ FOLLOW-UP of the Science Talent Search contestants after six years shows that the winners of Westinghouse scholarships are pulling ahead of other contestants on the road to scientific achievement.

Winners of the 1942 contest and those receiving honorable mentions were compared with the others on ten points of achievement, Drs. Harold A. Edgerton and Stuart Henderson Britt, New York psychologists, and Dr. Ralph D. Norman of Princeton University reported to the Eastern Psychological Association meeting in Philadelphia.

Results showed that those who gained recognition, particularly the winners, are better on the following points: majoring in science in college; extent of education beyond high school; college grades; election to honorary societies; awards of scholarships and fellowships; and choice of future professional field.

Winners did not stand out as better, however, on the following points: things learned about science; proficiency in the use of special scientific apparatus; principal contributions to science; and election to professional societies.

The reason the winners did not excel on these last points also, the investigators believe, is because the war and war service delayed their progress, because of the difficulty in getting the information and because the winners as well as the others are still very young, it being only six years after their high school graduation.

Science News Letter, April 24, 1948

IN SCIENCE

INVENTION

New Antiseptic Cement Keeps Floors Germ-Free

➤ CONCRETE floors and walls are recognized as possible lurking-places for germs of trouble: athlete's foot and boils in gymnasiums, various diseases in hospitals, souring and spoilage in dairies and other food-handling places. To minimize these risks without the heavy expense and ceaseless trouble of waterproofing and disinfectant moppings, C. R. Amberg and W. J. Knapp of Alfred, N. Y., have developed a cement into which about one per cent of pentachlorophenol or some related antiseptic compound is mixed.

Concrete made with this cement, they state, has been proven virtually germ-free under actual working conditions, when other sections of the same floors, in which untreated cement was used, were swarming with germs. U. S. patent 2,439,440, just issued on this invention, has been assigned to the North American Cement Corporation.

Science News Letter, April 24, 1948

CHEMISTRY

Fungicidal Dressings Make Leather Safe from Mildew

➤ LEATHER goods, treated with a new dressing developed by the National Bureau of Standards, is safe from mildew and other fungi even under tropical conditions.

The important ingredients of the new dressing are 20% of a mixture of equal parts of neatsfoot oil and mineral oil, 2% paranitrophenol, 10% cyclohexanone, and 68% either perchloroethylene or Stoddard's solvent. The first preserves flexibility, and the second is the fungicide. The perchloroethylene is preferred over Stoddard's solvent because it is non-inflammable.

This formula is now being used by the Office of the Quartermaster General of the Army for the treatment of shoes and other leather items which are to be placed in storage. It is also being used for reconditioning combat boots that have become mildewed and stiffened in storage.

Science News Letter, April 24, 1948

E FIELDS

ZOOLOGY

Bushy-Tailed Cloud Rat Is First Born in Captivity

See Front Cover

➤ THE birth of what is believed to be the first bushy-tailed cloud rat ever to be born in captivity was recently announced by the Philadelphia Zoo.

It is almost a libel to call *Crateromys schadenbergi* a rat. True, it does belong to the rodent tribe, but it is as large as an opossum and its fur is soft and lovely. The animal is indeed bushy-tailed and the "cloud" part of its name comes from the fact that it inhabits damp, misty mountains.

The species is found nowhere except at high elevations in the northern part of Luzon, Philippine Islands. Several specimens were captured there last year by Charles H. Wharton, returning G. I., and they were the first ever to be exhibited in zoos.

The father has buffy gray fur with a white collar and feet, but the mother is jet black above and dark gray below. The baby favors both, for it is black but also shows the light markings of its father, as shown on the cover of this week's SCIENCE NEWS LETTER.

Science News Letter, April 24, 1948

BOTANY

Guggenheim Fellows Seek Abroad for Useful Plants

➤ FOREIGN lands will be combed for plants, seeds and botanical facts that will benefit American agriculture by several of the newly-appointed Guggenheim Fellows.

Dr. Harold P. Olmo of the University of California will study native fruits and nuts of Iran and Afghanistan, to find new varieties suitable for use on our Pacific coast. His colleague, Dr. Charles M. Rick, Jr., will go to the Andes in search of tomato species that can be crossed with American tomatoes to increase their yield. A third California scientist, Dr. Adriance S. Foster, will work in the Amazon basin on the anatomy and development of certain tropical plants.

Roy Wesley Nixon, associate horticulturist of the U. S. Date Garden at Indio,

Calif., will go to North Africa to study date varieties cultivated there, with a view to improving date growing in the United States. Several other newly-appointed Fellows will carry on botanical research "at home" in North America.

The Guggenheim Fellowship Fund, now amounting to more than \$29,000,000, was founded in 1925 by the late U. S. Senator Simon Guggenheim and his wife as a memorial to their son, John Simon Guggenheim, who died as a young man in 1922. The fellowships are distributed without distinction of race, color or creed, to scholars and artists judged, on the basis of past work, to be most likely to use them productively in scientific research or creative work in literature and the arts.

Science News Letter, April 24, 1948

AERONAUTICS

British Helicopter Sells For "Well Below" \$10,000

➤ A TWO-SEAT helicopter, which will sell for "well below" \$10,000, is near completion by the British Cierva company. It is designed both as a trainer and for private flying.

This aircraft, which weighs only 1,200 pounds with "two-up," will be known as the W.14 Skeeter. The simplicity of its design and the ease with which it can be flown will appeal strongly to private flyers, the manufacturers believe. The same company will soon have in the air its new 24-seat helicopter, the W.11 Air Horse, which is believed to be the world's largest helicopter. America has at least two types of 10-passenger helicopters.

Science News Letter, April 24, 1948

PUBLIC HEALTH

Atomic Bombing Effects On Food Need Studying

➤ THE need for more knowledge of the effects of an atomic bomb explosion on meat, milk and forage crops is stressed in a report from the American Veterinary Medical Association.

A population could "conceivably" survive an atomic bomb attack only to face slow starvation because so much of its food supply had become contaminated with dangerous radiation, the association stated.

Veterinary Corps personnel and civilian veterinarians must become the nation's first line of defense against this danger, Brig. Gen. James A. McCallam, chief of the Army Veterinary Corps, said.

Science News Letter, April 24, 1948

ANTHROPOLOGY

Skeleton Found in Mexico Is Not as Old as Hoped

➤ THERE were high hopes for a few days that another "old man of Mexico" had been unearthed, along with a mastodon tusk, this time in the Oaxaca region of Mexico, famed for the extraordinary Monte Alban tombs.

But this known skeleton, unlike the 10,000-year-old Tepexpan man discovered last year, has proved to be much more recent, probably one of the Mixteca people who built the tombs.

When the skeleton was found, it seemed to be in a geological level that would make it very old, but later there were found in the same deposits pottery of the Mixtecan sort and also jade which would date it in the relatively recent prehistoric era.

Science News Letter, April 24, 1948

PSYCHOLOGY

Women Poorer "Gossips" Than Men, Study Shows

➤ WOMEN make poorer gossips than men, at least when the gossip reflects on women. A modification of the old game of gossip gave this result. The experimental game was conducted by Dr. Thelma G. Alper, of Harvard University, Dr. Leo Postman, of the University of Indiana, and Dr. Sheldon J. Korchin, of the Philadelphia Veterans Administration Clinic.

In the psychological gossip game, one man read a passage of about 350 words. Ten minutes later he wrote down what he had read. Then the next man read the first man's written report and after ten minutes wrote his version. Thus it passed through the group of six men. The same process was gone through with six women.

The material dealt with co-education and the relative merits of men and women students. It was intentionally provocative in language. Although it included statements both for and against men and for and against women, the general tone was derogatory to women students.

The girls showed, in general, poorer retention than the men students. But what surprised the investigators was that the girls had a tendency to emphasize the parts that were derogatory to their own sex.

These findings were reported before the Eastern Psychological Association meeting in Philadelphia.

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