

MEDICINE

New Poison Ivy Remedy

Zirconium used in a vanishing cream type of ointment stopped itching and burning for 39 out of 47 patients. It combines with other substances to neutralize them.

➤ A NEW and speedy remedy for poison ivy has been found in zirconium, metal used to build atom bomb furnaces among other industrial uses.

The zirconium is used in a vanishing cream type of ointment. When tried on 47 patients, the itching and burning stopped and the rash began to get better with blisters drying up within 24 hours in 39 patients.

These good results are reported by Drs. G. Arnold Cronk and Dorothy E. Naumann of the Student Health Service at Syracuse University. (JOURNAL OF LABORATORY AND CLINICAL MEDICINE, June).

There is some suggestion that the ointment might even be a preventive. Before it was used on patients, it was tried on two volunteers, a girl and a woman who had previously had several attacks of poison ivy. A poison ivy extract was dropped on three places on the forearm of each volun-

teer. As soon as this had dried, the zirconium ointment was put on one of the three places while the other two on each arm were left untreated. Typical bumps and blisters appeared on the untreated spots but none on the treated ones.

The idea for using zirconium came from Dr. E. Wainger of the Titanium Alloy Corporation. He knew that the metal can combine with other substances in a way that makes possible their neutralization as poisons. This property makes it a potential antidote for plutonium poisoning. He found that when he added zirconium salts to urishiol, the poison of poison ivy, an inactive precipitate was formed. Fluid filtered from this did not cause ivy poisoning symptoms when tested on susceptible volunteers.

So far as is known, zirconium itself is not poisonous. The patients treated by the

Syracuse doctors did not show any signs of poisoning or harm from the zirconium.

The zirconium ointment is made from zirconium oxide, stearic acid, potassium hydroxide, glycerine, water and carbon dioxide.

Science News Letter, August 25, 1951

PLANT PATHOLOGY

Two New Chemicals May Protect Apples and Peaches

➤ TWO NEW chemicals now being orchard-tested in Beltsville, Md., show promise of controlling some of the diseases that attack and spoil apples and peaches.

The two compounds are so new that U. S. Department of Agriculture scientists do not yet know whether they are harmful to man or animals. If present, small-scale orchard tests prove the compounds as successful as expected, their effects on man and other warm-blooded creatures will then be investigated.

Some of the diseases controlled by the two chemicals, 2,2'-thiobis(4-chlorophenol) and bis(p-nitrophenyl) ester of carbonic acid, include: apple scab, Brooks' spot, bitter rot and sooty blotch on apples; and peach scab, brown rot and bacterial spot on peaches.

Studies to find some way of predicting what compounds will make good insect killers and disease controllers brought to light the two chemicals, as well as three other promising ones available only in very limited amounts. Exactly 412 synthetic organic chemicals have been tested in the last three years, Drs. M. C. Goldsworthy, senior pathologist at the Department of Agriculture's Plant Industry Station, and S. I. Gertler, chemist with the Bureau of Entomology and Plant Quarantine, report.

Science News Letter, August 25, 1951

ANTHROPOLOGY

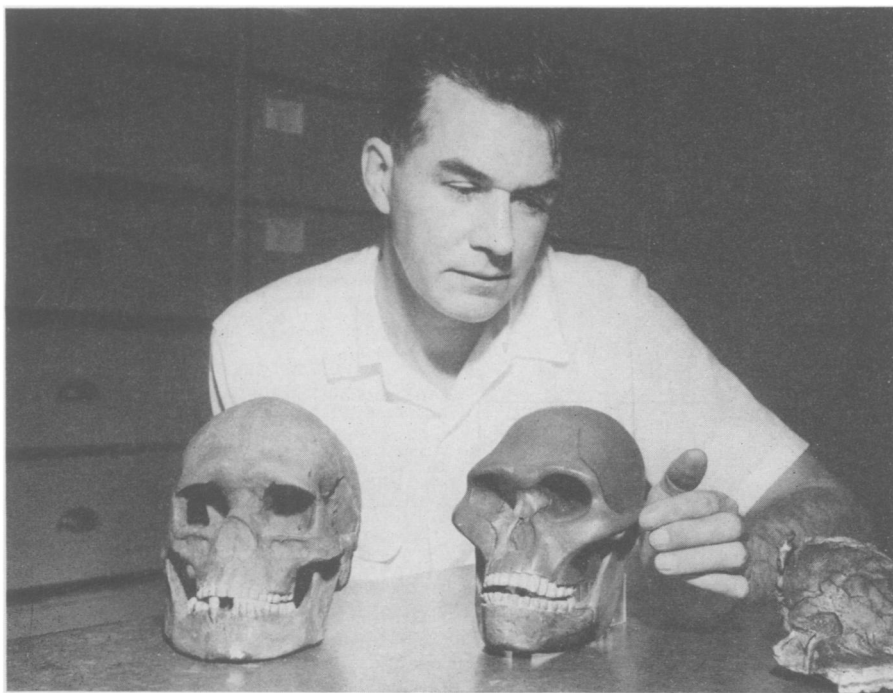
Ancient Ape-Man Walked Like a Man

➤ AN ANCIENT creature with the face and brain of an ape walked like a man. He is Washington's latest VIP.

He is represented at the Smithsonian Institution by the exact casts of a few fragments of his bones which have been preserved as fossils in the limestone of South Africa for from 750,000 to 2,000,000 years.

The original ancient bones of this ape-man were found by Dr. Raymond A. Dart, of the University of Witwatersrand, Johannesburg, in ancient caves at Makapans in the Central Transvaal.

The South African Ape-man may have been intelligent enough to use fire to cook his dinner. This was indicated by fire-charred bones found near the site where some of the bones were located and believed to be of the same antiquity. Dr.



APE-MAN SKULL—Dr. M. T. Newman, anthropologist of the Smithsonian Institution, points to the prominent cheek bones, ape characteristic of this very ancient skull. The skull cast, recently received, is a restoration made by Dr. Raymond A. Dart, of South Africa, on the basis of fossil bone fragments he found in the Transvaal. The cheek bones, eyebrow ridges and prominent upper jaw mark the animal as an ape, yet the way the skull was balanced, the pelvis, and leg bones show that it walked erect like a man. At the left is shown a skull of modern man for comparison.

Dart has therefore named him *Australopithecus prometheus*, which means "southern ape that used fire."

Dr. Dart also found evidence that the ape-man used weapons to kill game by bashing in their skulls. They also killed one another in this violent way.

The important bone casts received include parts of the jaw and skull and also a very human-like pelvis bone. The form of the pelvis and the way the skull was balanced show that the animal stood erect.

Science News Letter, August 25, 1951

GENETICS

He-Men Have More Sons

Theory advanced that ratio of boy to girl babies is controlled by genes acting through endocrine glands, especially sex hormones.

► THE MORE he-man Daddy is, the more likely that he will father boy babies. And the reverse.

This theory is advanced by Dr. Marianne E. Bernstein, Fulbright fellow at the Institute of Statistics in Rome, Italy. (SCIENCE, Aug. 17).

Dr. Bernstein believes that the ratio of boy to girl babies is controlled by the genes acting through the endocrine gland system, especially the sex hormones.

Fathers suffering from gland disturbances, such as gout and Graves' disease which is a thyroid gland disorder, had more than the average number of female offspring, she found.

Bald men, Dr. Bernstein found, had 40% more male offspring than men with full hair or with receding hairline that had not developed into full baldness. And male hormones, she points out, play a role in the development of baldness.

Dr. Bernstein believes that men engaged in aggressive occupations in which few or no women have been outstanding are

more masculine than men engaged in introvert, retiring occupations.

Dr. Bernstein's statistical studies showed that in families where the fathers were in such occupations as members of the armed forces, business executives, politicians, lawyers, farmers and abstract scientists such as astronomers and mathematicians, the sex ratio of 5,400 children was 120 boys for every 100 girls.

In families where the fathers followed professions in which many women have become famous, such as actors, social workers, child educators, fiction writers and artists of all kinds, the sex ratio for 1,800 children was 85 boys for every 100 girls born.

Dr. Bernstein theorizes that the X-bearing sperms, because of their female chromosomal balance, form a foreign entity in the male reproductive organs. They are therefore destroyed in smaller or larger numbers inside the male, depending on his degree of maleness.

Science News Letter, August 25, 1951

WILDLIFE

Rise and Fall of Animals Is Chance

► CHANCE APPEARS to dictate yearly variations in the number of wild animals—whether lemmings, snowshoe rabbits or lynx.

There probably is no "mysterious" cause for the observed regularity of population cycles in animals, concludes Dr. LaMont C. Cole, zoologist at Cornell University, Ithaca, N. Y.

Yearly changes in the numbers of various animals could be brought about through

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MEDICINE

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