

nipples until use. Price of the entire outfit has not yet been set.

Saving in storage space is an added advantage pointed out by the manufacturers.

One hundred empty Shellies take up less space than one four-ounce glass bottle. And they will not break or burst even when dropped on a hard surface.

Science News Letter, October 30, 1948

PALEONTOLOGY

## Near-Human Pygmy Race

► AFRICA once had a pre-human race of pygmies—or near-pygmies—who lived in caves, knew the use of fire, and used big bones of game animals as clubs in hunting and fighting. Their average weight was probably under 100 pounds, yet they had brains as big as modern gorillas weighing four or five times that figure.

This description of a "new," although long-extinct, race of human (or near-human) beings sums up three years' work by scholarly pick-and-shovel men under the direction of Prof. Raymond A. Dart of the University of the Witwatersrand, Johannesburg, South Africa. He presents his findings in detail for the first time in the AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY (Sept.).

Crucial find in establishing the identity of this race of little near-men was a broken piece of skull, representing a considerable section of the bulging back portion of the cranium. It has definite human characteristics, Prof. Dart declares.

In the same cave were many bits of charcoal embedded in the solidified debris, together with some bones that were also charred—strong evidence of the use of fire. Baboon skulls, always broken as by a heavy

blow, he takes as evidence that the cave-dwellers were meat-eaters and hunters. Ends of long bones of animals are battered, as if used for clubs.

The new find belongs in the same general group to which the name Australopithecus was given some 25 years ago. The long word translates into English as "southern ape," because when the first fossils were discovered, and for a considerable time after that, it was thought that they were apes with some human characters, rather than small, highly primitive men. However, declares Prof. Dart, every find of Australopithecus that has been made since has tended to push him further away from the apes and closer to human status. In this, he adds, several other researchers on ancient man agree with him.

Because the newly found skull fragment appears to be quite distinct from the Australopithecus types hitherto known, Prof. Dart considers it to represent a distinct species, and he has accordingly given it a new name: *Australopithecus prometheus*. The second or specific name is that of the hero of ancient Greek mythology who first taught men the use of fire, and is a reference to the traces of fire found in the cave.

Science News Letter, October 30, 1948



**CELLS IN THE MOUTH**—Here is the way the cells which form the skin of your mouth would look in a photograph taken with the ultraviolet phase microscope. These epithelial cells are greatly magnified.

PHYSICS

## Phase Microscope and Ultraviolet Spy on Cells

► LIVING CELLS will be spied upon in more detail than ever before through the extension of phase microscopy into the ultraviolet.

Ultraviolet photographs made with a phase microscope, which takes advantage of the fact that light travels in waves to bring out details without preliminary staining, were sharper than those made with visible light.

More details show up in the ultraviolet photographs of cells from the skin in the mouth than were visible in previous pictures, report A. H. Bennett, D. L. Woernley and A. J. Kavanagh of the Scientific Instruments Division, American Optical Company, Buffalo, N. Y. This instrument shows great promise, they state in the JOURNAL OF THE OPTICAL SOCIETY OF AMERICA (Aug.).

The ultraviolet phase microscope, first of its kind to be reported, incorporated a filter that produced a rather broad band of ultraviolet radiation and another band extending into the near infra-red. The photographic film was such that it picked up only the ultraviolet radiation.

Science News Letter, October 30, 1948

Man is not the only animal that makes hay in the summer; the rabbit-like *cony* of the Rocky Mountains cuts grass and other plants and, after they have dried in the hot sun, carries the hay by mouthfuls to his den for winter food.

MEDICINE

## Diet Is Aid in Liver Ill

► A DIET rich in protein, supplemented with vitamin B complex, improved the health and prolonged the life of patients with cirrhosis of the liver, which is often the result of overindulgence in alcohol.

Traditionally, the diet prescribed for liver disease is one that is high in carbohydrate but low in protein and fat. This study was made to contrast the results between 124 patients treated with the new diet and 386 patients treated with the traditional diet, and appears in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Oct. 23).

The work is reported by Drs. Arthur J. Patek, Jr., Joseph Post, Oscar D. Ratnoff and Harold Mankin, and Robert W. Hillman, of the Goldwater Memorial Hospital and the College of Physicians and Surgeons, Columbia University.

In 61 patients of 115 (nine not having been followed long enough) the unsightly accumulation of fluid in the abdomen disappeared, as did the jaundice and swelling, there was a gain in weight and strength and improvement in liver function.

At the end of one year, 65% of the

patients treated with the new diet were alive and only 39% of the control group studied for contrast; at the end of two years, 50% of the treated patients and 21% of the controls were alive, and at the end of five years 30% of the treated patients and 7% of the controls were alive.

The scientists chose a diet rich in protein and ample in carbohydrate and fat for these patients because there were signs of malnutrition. Ninety-one patients, they found, had lived on poor diets mainly deficient in meat and dairy products.

Twelve patients furnished further proof that this dietary treatment was effective. After recovery following treatment, they fell into their former drinking and poor eating habits. Relapse of their former condition followed. "In effect, they reproduced the conditions of the experiment," the scientists point out. "The fact that these 12 patients responded well to the same treatment on two or more occasions suggests that improvement resulted from treatment and that it was not 'spontaneous.'"

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